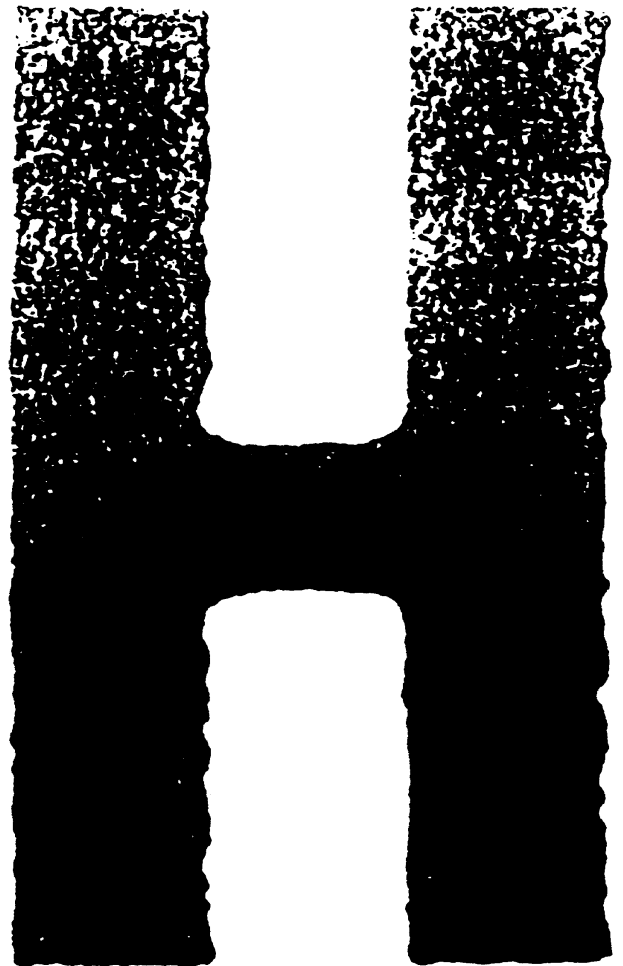


SERVICE HANDBOOK

MULTIFUNCTIONAL DIGITAL SYSTEMS
e-STUDIO0555/655/755/855



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GENERAL PRECAUTIONS REGARDING THE SERVICE FOR e-STUDIO555/655/755/855

The installation and service should be done by a qualified service technician.

1. Transportation/Installation

- When transporting/installing the equipment, employ four persons and be sure to move it by the casters while lifting the stoppers.
The equipment is quite heavy and weighs approximately 202 kg (445 lb.), therefore pay full attention when handling it.
- Be sure not to hold the movable parts or units (e.g. the RADF) when transporting the equipment.
- Be sure to use a dedicated outlet with AC 115 V / 16 A, 127 V / 16 A, 220 V or 220-240 V / 9 A for its power source.
- The equipment must be grounded for safety.
- Select a suitable place for installation. Avoid excessive heat, high humidity, dust, vibration and direct sunlight.
- Provide proper ventilation since the equipment emits a slight amount of ozone.
- To insure adequate working space for the copying operation, keep a minimum clearance of 80 cm (32") on the left, 80 cm (32") on the right and 10 cm (4") on the rear.
- The equipment shall be installed near the socket outlet and shall be accessible.
- Be sure to fix and plug in the power cable securely after the installation so that no one trips over it.

2. General Precautions at Service

- Be sure to turn the power OFF and unplug the power cable during service (except for the service should be done with the power turned ON).
- Unplug the power cable and clean the area around the prongs of the plug and socket outlet once a year or more. A fire may occur when dust lies on this area.
- When the parts are disassembled, reassembly is the reverse of disassembly unless otherwise noted in this manual or other related documents. Be careful not to install small parts such as screws, washers, pins, E-rings, star washers in the wrong places.
- Basically, the equipment should not be operated with any parts removed or disassembled.
- The PC board must be stored in an anti-electrostatic bag and handled carefully using a wristband since the ICs on it may be damaged due to static electricity.

Caution: Before using the wristband, unplug the power cable of the equipment and make sure that there are no charged objects which are not insulated in the vicinity.

- Avoid expose to laser beam during service. This equipment uses a laser diode. Be sure not to expose your eyes to the laser beam. Do not insert reflecting parts or tools such as a screwdriver on the laser beam path. Remove all reflecting metals such as watches, rings, etc. before starting service.
- Be sure not to touch high-temperature sections such as the exposure lamp, fuser unit, damp heater and areas around them.
- Be sure not to touch high-voltage sections such as the chargers, transfer belt, IH control circuit, developer, high-voltage transformer, exposure lamp control inverter, inverter for the LCD backlight and power supply unit. Especially, the board of these components should not be touched since the electric charge may remain in the capacitors, etc. on them even after the power is turned OFF.
- Make sure that the equipment will not operate before touching potentially dangerous places (e.g. rotating/operating sections such as gears, belts pulleys, fans and laser beam exit of the laser optical unit).
- Be careful when removing the covers since there might be the parts with very sharp edges underneath.
- When servicing the equipment with the power turned ON, be sure not to touch live sections and rotating/operating sections. Avoid exposing your eyes to laser beam.

- Use designated jigs and tools.
- Use recommended measuring instruments or equivalents.
- Return the equipment to the original state and check the operation when the service is finished.
- Be very careful to treat the touch panel gently and never hit it. Breaking the surface could cause malfunctions.

3. Important Service Parts for Safety

- The breaker, door switch, fuse, thermostat, thermofuse, thermistor, batteries, IC-RAMs including lithium batteries, etc. are particularly important for safety. Be sure to handle/install them properly. If these parts are short-circuited and their functions become ineffective, they may result in fatal accidents such as burnout. Do not allow a short-circuit or do not use the parts not recommended by Toshiba TEC Corporation.

4. Cautionary Labels

- During servicing, be sure to check the rating plate and cautionary labels such as “Unplug the power cable during service”, “CAUTION. HOT”, “CAUTION. HIGH VOLTAGE”, “CAUTION. LASER BEAM”, etc. to see if there is any dirt on their surface and if they are properly stuck to the equipment.

5. Disposal of the Equipment, Supplies, Packing Materials, Used Batteries and IC-RAMs

- Regarding the recovery and disposal of the equipment, supplies, packing materials, used batteries and IC-RAMs including lithium batteries, follow the relevant local regulations or rules.

Caution:

Dispose of used batteries and IC-RAMs including lithium batteries according to this manual.

Attention:

Se débarrasser de batteries et IC-RAMs usés y compris les batteries en lithium selon ce manuel.

Vorsicht:

Entsorgung des gebrauchten Batterien und IC-RAMs (inclusive der Lithium-Batterie) nach diesem Handbuch.

ALLEGEMEINE SICHERHEITSMASSNAHMEN IN BEZUG AUF DIE WARTUNG FÜR e-STUDIO555/655/755/855

Die Installation und die Wartung sind von einem qualifizierten Service-Techniker durchzuführen.

1. Transport/Installation

- Zum Transportieren/Installieren des Gerätes werden 4 Personen benötigt. Nur an den in der Abbildung gezeigten Stellen tragen.
Das Gerät ist sehr schwer und wiegt etwa 202 kg (445 lb.); deshalb muss bei der Handhabung des Geräts besonders aufgepasst werden.
- Beim Transportieren des Geräts nicht an den beweglichen Teilen oder Einheiten (z.B. das Bedienungsfeld, die Duplexeinheit oder die automatische Dokumentenzuführung) halten.
- Eine spezielle Steckdose mit Stromversorgung von AC 115 V / 16 A, 127 V / 16 A, 220 V oder 220-240 V / 9 A als Stromquelle verwenden.
- Das Gerät ist aus Sicherheitsgründen zu erden.
- Einen geeigneten Standort für die Installation wählen. Standorte mit zuviel Hitze, hoher Luftfeuchtigkeit, Staub, Vibrieren und direkter Sonneneinstrahlung sind zu vermeiden.
- Für ausreichende Belüftung sorgen, da das Gerät etwas Ozon abgibt.
- Um einen optimalen Kopierbetrieb zu gewährleisten, muss ein Abstand von mindestens 80 cm links, 80 cm rechts und 10 cm dahinter eingehalten werden.
- Das Gerät ist in der Nähe der Steckdose zu installieren; diese muss leicht zu erreichen sein.
- Nach der Installation muss das Netzkabel richtig hineingesteckt und befestigt werden, damit niemand darüber stolpern kann.
- Falls der Auspackungsstandort und der Installationsstandort des Geräts verschieden sind, die Bildqualitätsjustierung (automatische Gammajustierung) je nach der Temperatur und Luftfeuchtigkeit des Installationsstandorts und der Papiersorte, die verwendet wird, durchführen.

2. Allgemeine Sicherheitsmassnahmen in bezug auf die Wartung

- Während der Wartung das Gerät ausschalten und das Netzkabel herausziehen (ausser Wartung, die bei einem eingeschalteten Gerät, durchgeführt werden muss).
- Das Netzkabel herausziehen und den Bereich um die Steckerpole und die Steckdose die Umgebung in der Nähe von den Steckerzacken und der Steckdose wenigstens einmal im Jahr reinigen. Wenn Staub sich in dieser Gegend ansammelt, kann dies ein Feuer verursachen.
- Wenn die Teile auseinandergenommen werden, wenn nicht anders in diesem Handbuch usw erklärt, ist das Zusammenbauen in umgekehrter Reihenfolge durchzuführen. Aufpassen, dass kleine Teile wie Schrauben, Dichtungsringe, Bolzen, E-Ringe, Stern-Dichtungsringe, Kabelbäume nicht an den verkehrten Stellen eingebaut werden.
- Grundsätzlich darf das Gerät mit entfernten oder auseinandergenommenen Teilen nicht in Betrieb genommen werden.
- Das PC-Board muss in einer Anti-elektrostatischen Hülle gelagert werden. Nur Mit einer Manschette bei Betätigung eines Armbandes anfassen, sonst könnte es sein, dass die integrierten Schaltkreise durch statische Elektrizität beschädigt werden.

Vorsicht: Vor Benutzung der Manschette der Betätigung des Armbandes, das Netzkabel des Gerätes herausziehen und prüfen, dass es in der Nähe keine geladenen Gegenstände, die nicht isoliert sind, gibt.

- Setzen Sie sich während der Wartungsarbeiten nicht dem Laserstrahl aus. Dieses Gerät ist mit einer Laserdiode ausgestattet. Es ist unbedingt zu vermeiden, direkt in den Laserstrahl zu blicken. Keine reflektierenden Teile oder Werkzeuge, wie z. B. Schraubendreher, in den Pfad des Laserstrahls halten. Vor den Wartungsarbeiten sämtliche reflektierenden Metallgegenstände, wie Uhren, Ringe usw., entfernen.
- Auf keinen Fall Hochtemperaturbereiche, wie die Belichtungslampe, die Fixiereinheit, die Heizquelle und die umliegenden Bereiche, berühren.

- Auf keinen Fall Hochspannungsbereiche, wie die Ladeeinheiten, das Transferband, IH-Kontrollstrom, die Entwicklereinheit, den Hochspannungstransformator, den Steuerumrichter für die Belichtungslampe, den Umrichter für die LCD-Hintergrundbeleuchtung und das Netzgerät, berühren. Insbesondere sollten die Platinen dieser Komponenten nicht berührt werden, da die Kondensatoren usw. auch nach dem Ausschalten des Geräts noch elektrisch geladen sein können.
- Vor dem Berühren potenziell gefährlicher Bereiche (z. B. drehbare oder betriebsrelevante Bereiche, wie Zahnräder, Riemen, Riemenscheiben, Lüfter und die Laseraustrittsöffnung der optischen Lasereinheit) sicherstellen, dass das Gerät sich nicht bedienen lässt.
- Beim Entfernen von Abdeckungen vorsichtig vorgehen, da sich darunter scharfkantige Komponenten befinden können.
- Bei Wartungsarbeiten am eingeschalteten Gerät dürfen keine unter Strom stehenden, drehbaren oder betriebsrelevanten Bereiche berührt werden. Nicht direkt in den Laserstrahl blicken.
- Ausschließlich vorgesehene Werkzeuge und Hilfsmittel verwenden.
- Empfohlene oder gleichwertige Messgeräte verwenden.
- Nach Abschluss der Wartungsarbeiten das Gerät in den ursprünglichen Zustand zurück versetzen und den einwandfreien Betrieb überprüfen.
- Das berührungsempfindliche Bedienungsfeld stets vorsichtig handhaben und keinen Stößen aussetzen. Wenn die Oberfläche beschädigt wird, kann dies zu Funktionsstörungen führen.

3. Sicherheitsrelevante Wartungsteile

- Der Leistungsschutzschalter, der Türschalter, die Sicherung, der Thermostat, die Thermosicherung, der Thermistor, die IC-RAMs einschließlich der Lithiumakkus usw. sind besonders sicherheitsrelevant. Sie müssen unbedingt korrekt gehandhabt und installiert werden. Wenn diese Teile kurzgeschlossen und funktionsunfähig werden, kann dies zu schwerwiegenden Schäden, wie einem Abbrand, führen. Kurzschlüsse sind zu vermeiden, und es sind ausschließlich Teile zu verwenden, die von der Toshiba TEC Corporation empfohlen sind.

4. Warnetiketten

- Im Rahmen der Wartung unbedingt das Leistungsschild und die Etiketten mit Warnhinweisen überprüfen [z. B. „Unplug the power cable during service“ („Netzkabel vor Beginn der Wartungsarbeiten abziehen“), „CAUTION. HOT“ („VORSICHT, HEISS“), „CAUTION. HIGH VOLTAGE“ („VORSICHT, HOCHSPANNUNG“), „CAUTION. LASER BEAM“ („VORSICHT, LASER“) usw.], um sicherzustellen, dass sie nicht verschmutzt sind und korrekt am Gerät angebracht sind.

5. Entsorgung des Geräts, der Verbrauchs- und Verpackungsmaterialien, alter Akkus und IC-RAMs

- In Bezug auf die Entsorgung und Wiederverwertung des Geräts, der Verbrauchs- und Verpackungsmaterialien, alter Akkus und IC-RAMs, einschließlich Lithiumakkus, sind die einschlägigen nationalen oder regionalen Vorschriften zu befolgen.

Caution:

Dispose of used batteries and IC-RAMs including lithium batteries according to this manual.

Attention:

Se débarrasser de batteries et IC-RAMs usés y compris les batteries en lithium selon ce manuel.

Vorsicht:

Entsorgung des gebrauchten Batterien und IC-RAMs (inclusive der Lithium-Batterie) nach diesem Handbuch.

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1. SPECIFICATIONS/ACCESSORIES/OPTIONS/SUPPLIES

Notes:

Destinations (machine versions) of e-STUDIO555/655/755/855

- The machine versions are as follows:
 - NAD: North America / Central and South America
 - TWD: Taiwan
 - SAD: Saudi Arabia
 - ASD: Asia / Other
 - ARD: Argentina / Central and South America
 - AUD: Australia
 - MJD: Europe
 - CND: China
- The drawer configuration of each model differs depending on its destination (machine version).

Destination (Machine version)	e-STUDIO555	e-STUDIO655	e-STUDIO755	e-STUDIO855
NAD	Tandem LCF	Tandem LCF	Tandem LCF	Tandem LCF
TWD	-	-	Tandem LCF	Tandem LCF
SAD	Tandem LCF	Tandem LCF	Tandem LCF	Tandem LCF
ASD	Tandem LCF	Tandem LCF	Tandem LCF	Tandem LCF
ARD	Tandem LCF	Tandem LCF	Tandem LCF	Tandem LCF
AUD	Tandem LCF	Tandem LCF	Tandem LCF	Tandem LCF
MJD	Tandem LCF	Tandem LCF	Tandem LCF	Tandem LCF
CND	Tandem LCF	Tandem LCF	Tandem LCF	Tandem LCF

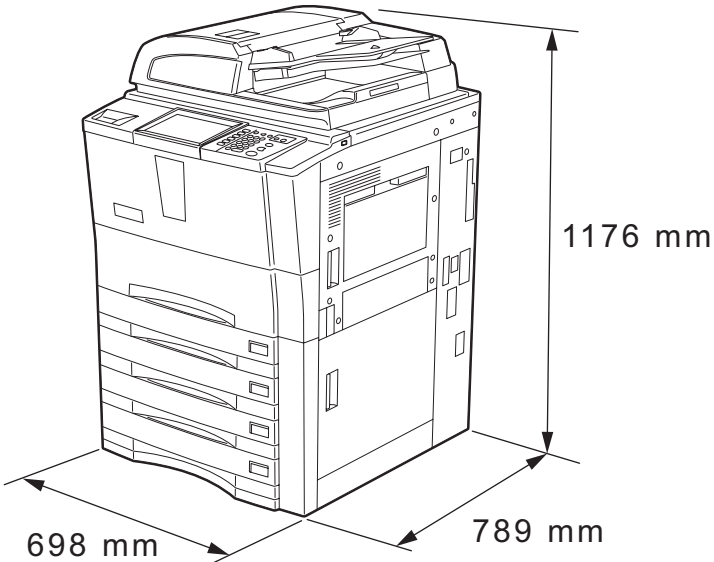
* Tandem LCF: This means 2 drawers and a tandem LCF.

1.1 Specifications

1.1.1 General

Type	Console	
Original glass	Fixed	
Copy process	Indirect electrophotographic process	
Developing system	2-component magnetic brush developing	
Fixing method	Heat roller system	
Photosensor type	OPC	
Original scanning sensor	Linear CCD sensor	
Scanning light source	Xenon lamp	
Resolution	Scanning	600 dpi × 600 dpi
	Writing	2400 dpi × 600 dpi
Gradation	256	
Paper feeding	2 drawers + Bypass feeding + Tandem LCF + LCF (optional)	

Paper supply	Drawers	Stack height 55 mm, equivalent to 500 sheets; 80 g/m ² (23 lb. Bond)
	Bypass feeding	Stack height 11 mm, equivalent to 100 sheets; 80 g/m ² (23 lb. Bond)
	LCF (optional)	Stack height 428 mm, equivalent to 4000 sheets; 80 g/m ² (23 lb. Bond)
	Tandem LCF	Stack height 137 mm, equivalent to 2500 sheets; 80 g/m ² (23 lb. Bond)
Paper size	Drawers	A3, A4, A4-R, A5-R, B4, B5, B5-R, FOLIO, 8K, 16K, 16K-R, LD, LG, LT, LT-R, ST-R, COMPUTER, 13"LG, 8.5" x 8.5", Full Bleed (12" x 18")
	Bypass feeding	A3, A4, A4-R, A5-R, B4, B5, B5-R, FOLIO, 8K, 16K, 16K-R, LD, LG, LT, LT-R, ST-R, COMPUTER, 13"LG, 8.5" x 8.5" Non-standard: Width 100 - 297 mm (3.9 - 11.7"), Length 148 - 500 mm (5.8 - 19.7")
	LCF (optional)	A4, LT
	Tandem LCF	A4, LT
Paper type	Drawers	Plain paper, Thick 1, Thick 2, Thick 3, Tab paper* * The 2nd drawer is recommended to be used for tab paper.
	Bypass feeding	Plain paper, Thick 1, Thick 2, Thick 3, OHP film, Sticker labels, Tab paper
	LCF (optional)	Plain paper, Thick 1, Thick 2, Thick 3
	Tandem LCF	Plain paper, Thick 1, Thick 2, Thick 3
Paper weight	Drawers	64 g/m ² to 209 g/m ² (17 lb. Bond to 115.7 lb. Index)
	Bypass feeding	64 g/m ² to 209 g/m ² (17 lb. Bond to 115.7 lb. Index)
	LCF (optional)	64 g/m ² to 209 g/m ² (17 lb. Bond to 115.7 lb. Index)
	Tandem LCF	64 g/m ² to 209 g/m ² (17 lb. Bond to 115.7 lb. Index)
Automatic duplexing unit	Type	Stackless, Switchback type
	Acceptable paper size	A3, A4, A4-R, A5-R, B4, B5, B5-R, FOLIO, 8K, 16K, 16K-R, LD, LG, LT, LT-R, ST-R, COMPUTER, 13"LG, 8.5" x 8.5"
	Acceptable paper weight	64 g/m ² to 209 g/m ² (17 lb. Bond to 115.7 lb. Index)
Toner supply		Toner supplyAutomatic toner density detection/supply Toner cartridge replacing method (There is a recycle toner supplying mechanism.)
Toner density adjustment		Magnetic auto-toner system
Total counter		Electronical counter
Memory (RAM)	Main memory (Incl. page memory)	1 GB
HDD		60 GB
Account Codes		10,000 codes
Department Codes		1,000 codes
Warm-up time		Approx. 130 sec. (Stand-alone, temperature: 20 °C)

Power requirements	AC 110 V / 16 A (50/60 Hz) AC 115 V / 16 A (50/60 Hz) AC 127 V / 16 A (50/60 Hz) AC 220-240 V / 9 A (50/60 Hz) * The acceptable value of each voltage is $\pm 10\%$.
Power consumption	2.0 kW or less * 1.5 kW or less: TWD version of e-STUDIO655. * The electric power is supplied to the Finisher, Inserter, Hole punch unit and LCF through the equipment
Dimensions of the equipment	W 698 x D 789 x H 1176 (mm) 
Weight	Approx. 202 kg (445 lb.) (equipment only)

1.1.2 Copy

[1] Copy specifications

Storage capacity		Max. 2000 sheets or until the memory is full
Original glass	Original scanning system	Flat surface scanning system (the left rear corner used as guide to place originals)
	Original type	Sheets, books and 3-dimensional objects
	Original size	Max. A3/LD
Reversing Automatic Document Feeder	Original scanning system	Fixed scanning system by feeding the original (the center used as guide to place originals)
	Original type	Sheets (carbon, bounded or stapled originals cannot be accepted)
	Original size	A3, A4, A4-R, A5-R, B4, B5, B5-R LD, LG, LT, LT-R, ST-R
	Original paper weight	Single-sided copy: 35-209 g/m ² (9.3 lb. Bond -110 lb. Index)* Double-sided copy: 50-157 g/m ² (13.3 lb. Bond -40 lb. Bond)
	Original capacity	Max. 100 sheets (80 g/m ²) (Stack height 16 mm)
Eliminated portion		Leading edges: 3.0 (±2.0) mm, Trailing edges/Side edges: 2.0 (±2.0) mm,
Multiple copying		Up to 9999 copies; Key in set numbers
Density control		Automatic density mode and manual density mode selectable in 11 steps

[2] First copy time

e-STUDIO555/655	Approx. 4.0 sec.
e-STUDIO755/855	Approx. 3.5 sec.

[3] Copy speed (Copies/min.)

The measuring conditions of the copy speed are as follows.

- Continuous copying by placing a single-sided original on the original glass.
- “-” indicates “Not acceptable”.
- The LCF (optional) is available only for A4 and LT.
- The Tandem LCF is available only for A4 and LT.

[3-1] Plain paper

- Plain paper: 64 g/m² to 80 g/m² / 17 lb. Bond to 21.3 lb. Bond
- * Accuracy: Within ±2 sheets (Bypass feed) / Within ±1 sheet (Other paper sources)
- * Values may vary depending on its use condition and environment.
- * When the RADF is used, each copy speed per minute of e-STUDIO555/655/755/855 has reached 55/65/75/85 sheets. These copy speeds can be realized only in the following conditions.
 - Original: A4/LT / 1 sheet
 - Copy mode: A4/LT / Plain paper / Automatic Paper Selection - OFF / Automatic Copy Density - OFF
 - Number of copy set: 55 or more / 65 or more / 75 or more / 85 or more
 - Reproduction ratio: 100%

e-STUDIO555

Paper size	Paper supply	Drawer	Bypass feed		Option LCF	Tandem LCF
			Size specified	Size not specified		
A4, LT, B5	Top side discharging	55	45	28	55	55
	Back side discharging	55	45	28	55	55
A5-R, ST-R	Top side discharging	55	45	28	-	-
	Back side discharging	55	45	28	-	-
A4-R, B5-R, LT-R	Top side discharging	44	37	28	-	-
	Back side discharging	44	37	28	-	-
B4, LG, FOLIO, COMPUTER	Top side discharging	38	32	28	-	-
	Back side discharging	38	32	28	-	-
A3, LD	Top side discharging	34	28	28	-	-
	Back side discharging	32	28	28	-	-

e-STUDIO655

Paper size		Paper supply	Drawer	Bypass feed		Option LCF	Tandem LCF
				Size specified	Size not specified		
A4, LT, B5	Top side discharging		65	46	30	65	65
	Back side discharging		65	46	30	65	65
A5-R, ST-R	Top side discharging		65	46	30	-	-
	Back side discharging		65	46	30	-	-
A4-R, B5-R, LT-R	Top side discharging		48	38	30	-	-
	Back side discharging		48	38	30	-	-
B4, LG, FOLIO, COMPUTER	Top side discharging		42	34	30	-	-
	Back side discharging		40	34	30	-	-
A3, LD	Top side discharging		37	30	30	-	-
	Back side discharging		37	30	30	-	-

e-STUDIO755

Paper size		Paper supply	Drawer	Bypass feed		Option LCF	Tandem LCF
				Size specified	Size not specified		
A4, LT, B5	Top side discharging		75	46	30	75	75
	Back side discharging		75	46	30	75	75
A5-R, ST-R	Top side discharging		75	46	30	-	-
	Back side discharging		75	46	30	-	-
A4-R, B5-R, LT-R	Top side discharging		55	38	30	-	-
	Back side discharging		52	38	30	-	-
B4, LG, FOLIO, COMPUTER	Top side discharging		47	34	30	-	-
	Back side discharging		43	34	30	-	-
A3, LD	Top side discharging		40	30	30	-	-
	Back side discharging		35	30	30	-	-

e-STUDIO855

Paper size		Paper supply	Drawer	Bypass feed		Option LCF	Tandem LCF
				Size specified	Size not specified		
A4, LT, B5	Top side discharging		85	50	34	85	85
	Back side discharging		85	50	34	85	85
A5-R, ST-R	Top side discharging		85	50	34	-	-
	Back side discharging		85	50	34	-	-
A4-R, B5-R, LT-R	Top side discharging		61	42	34	-	-
	Back side discharging		56	42	34	-	-
B4, LG, FOLIO, COMPUTER	Top side discharging		52	38	34	-	-
	Back side discharging		45	38	34	-	-
A3, LD	Top side discharging		43	34	34	-	-
	Back side discharging		37	34	34	-	-

[3-2] Thick 1 / Thick 2

- Thick 1: 81 g/m² to 105 g/m² / 28 lb. Bond to 60 lb. Cover (90 lb. Index)
- Thick 2: 106 g/m² to 163 g/m² / 61 lb. Cover to 77.3 lb. Cover (115.7 lb. Index)

* Tolerance: Within -0.5 from +1

e-STUDIO555

Paper size	Paper supply	Drawer	Bypass feed		Option LCF	Tandem LCF
			Size specified	Size not specified		
A4, LT, B5	Top side discharging	55	45	28	55	55
	Back side discharging	55	45	-	55	55
A5-R, ST-R	Top side discharging	55	45	28	-	-
	Back side discharging	55	45	-	-	-
A4-R, B5-R, LT-R	Top side discharging	44	37	28	-	-
	Back side discharging	44	37	-	-	-
B4, LG, FOLIO, COMPUTER	Top side discharging	38	32	28	-	-
	Back side discharging	38	32	-	-	-
A3, LD	Top side discharging	34	28	28	-	-
	Back side discharging	32	28	-	-	-

e-STUDIO655

Paper size	Paper supply	Drawer	Bypass feed		Option LCF	Tandem LCF
			Size specified	Size not specified		
A4, LT, B5	Top side discharging	65	46	30	65	65
	Back side discharging	65	46	-	65	65
A5-R, ST-R	Top side discharging	65	46	30	-	-
	Back side discharging	65	46	-	-	-
A4-R, B5-R, LT-R	Top side discharging	48	38	30	-	-
	Back side discharging	48	38	-	-	-
B4, LG, FOLIO, COMPUTER	Top side discharging	42	34	30	-	-
	Back side discharging	40	34	-	-	-
A3, LD	Top side discharging	37	30	30	-	-
	Back side discharging	33	30	-	-	-

e-STUDIO755

Paper size	Paper supply	Drawer	Bypass feed		Option LCF	Tandem LCF
			Size specified	Size not specified		
A4, LT, B5	Top side discharging	75	46	30	75	75
	Back side discharging	75	46	-	75	75
A5-R, ST-R	Top side discharging	75	46	30	-	-
	Back side discharging	75	46	-	-	-
A4-R, B5-R, LT-R	Top side discharging	55	38	30	-	-
	Back side discharging	52	38	-	-	-
B4, LG, FOLIO, COMPUTER	Top side discharging	47	34	30	-	-
	Back side discharging	43	34	-	-	-
A3, LD	Top side discharging	40	30	30	-	-
	Back side discharging	35	30	-	-	-

e-STUDIO855

Paper size	Paper supply	Drawer	Bypass feed		Option LCF	Tandem LCF
			Size specified	Size not specified		
A4, LT, B5	Top side discharging	85	50	34	85	85
	Back side discharging	85	50	-	85	85
A5-R, ST-R	Top side discharging	85	50	34	-	-
	Back side discharging	85	50	-	-	-
A4-R, B5-R, LT-R	Top side discharging	61	42	34	-	-
	Back side discharging	56	42	-	-	-
B4, LG, FOLIO, COMPUTER	Top side discharging	52	38	34	-	-
	Back side discharging	45	38	-	-	-
A3, LD	Top side discharging	43	34	34	-	-
	Back side discharging	37	34	-	-	-

[3-3] Thick 3

- Thick 3: 210 g/m² to 256 g/m² / 77.3 lb. Cover to 94.5 lb. Cover (141.4 lb. Index)

* Tolerance: Within -0.5 from +1

e-STUDIO555

Paper size		Paper supply	Drawer	Bypass feed		Option LCF	Tandem LCF
				Size specified	Size not specified		
A4, LT, B5	Top side discharging		52	45	28	52	52
	Back side discharging		52	45	-	52	52
A5-R, ST-R	Top side discharging		52	45	28	-	-
	Back side discharging		52	45	-	-	-
A4-R, B5-R, LT-R	Top side discharging		42	37	28	-	-
	Back side discharging		42	37	-	-	-
B4, LG, FOLIO, COMPUTER	Top side discharging		37	32	28	-	-
	Back side discharging		37	32	-	-	-
A3, LD	Top side discharging		33	28	28	-	-
	Back side discharging		31	28	-	-	-

e-STUDIO655

Paper size		Paper supply	Drawer	Bypass feed		Option LCF	Tandem LCF
				Size specified	Size not specified		
A4, LT, B5	Top side discharging		60	46	30	60	60
	Back side discharging		60	46	-	60	60
A5-R, ST-R	Top side discharging		60	46	30	-	-
	Back side discharging		60	46	-	-	-
A4-R, B5-R, LT-R	Top side discharging		46	38	30	-	-
	Back side discharging		46	38	-	-	-
B4, LG, FOLIO, COMPUTER	Top side discharging		41	34	30	-	-
	Back side discharging		38	34	-	-	-
A3, LD	Top side discharging		36	30	30	-	-
	Back side discharging		32	30	-	-	-

e-STUDIO755

Paper size	Paper supply	Drawer	Bypass feed		Option LCF	Tandem LCF
			Size specified	Size not specified		
A4, LT, B5	Top side discharging	65	46	30	65	65
	Back side discharging	65	46	-	65	65
A5-R, ST-R	Top side discharging	65	46	30	-	-
	Back side discharging	65	46	-	-	-
A4-R, B5-R, LT-R	Top side discharging	50	38	30	-	-
	Back side discharging	48	38	-	-	-
B4, LG, FOLIO, COMPUTER	Top side discharging	43	34	30	-	-
	Back side discharging	40	34	-	-	-
A3, LD	Top side discharging	37	30	30	-	-
	Back side discharging	34	30	-	-	-

e-STUDIO855

Paper size	Paper supply	Drawer	Bypass feed		Option LCF	Tandem LCF
			Size specified	Size not specified		
A4, LT, B5	Top side discharging	72	46	30	72	72
	Back side discharging	72	46	-	72	72
A5-R, ST-R	Top side discharging	72	46	30	-	-
	Back side discharging	72	46	-	-	-
A4-R, B5-R, LT-R	Top side discharging	52	38	30	-	-
	Back side discharging	50	38	-	-	-
B4, LG, FOLIO, COMPUTER	Top side discharging	44	34	30	-	-
	Back side discharging	41	34	-	-	-
A3, LD	Top side discharging	37	30	30	-	-
	Back side discharging	34	30	-	-	-

[4] System copy speed

Model	Copy mode	A4 (%)			
		1 sheet	5 sheets	10 sheets	20 sheets
e-STUDIO555	Single-sided originals ↓ Single-sided copies	74	89	94	96
	Single-sided originals ↓ Double-sided copies	53	82	89	93
	Double-sided originals ↓ Double-sided copies	61	87	92	95
	Double-sided originals ↓ Single-sided copies	68	92	95	97
	Single-sided originals ↓ Single-sided copies	72	88	93	96
	Single-sided originals ↓ Double-sided copies	49	79	87	93
e-STUDIO655	Double-sided originals ↓ Double-sided copies	52	82	89	94
	Double-sided originals ↓ Single-sided copies	58	87	92	95
	Single-sided originals ↓ Single-sided copies	66	87	93	96
	Single-sided originals ↓ Double-sided copies	47	77	86	93
	Double-sided originals ↓ Double-sided copies	46	78	87	93
	Double-sided originals ↓ Single-sided copies	51	83	90	94
e-STUDIO755	Single-sided originals ↓ Single-sided copies	58	84	90	94
	Single-sided originals ↓ Double-sided copies	43	74	86	93
	Double-sided originals ↓ Double-sided copies	42	76	85	91
	Double-sided originals ↓ Single-sided copies	45	81	88	93
	Single-sided originals ↓ Single-sided copies	58	84	90	94
	Single-sided originals ↓ Double-sided copies	43	74	86	93
e-STUDIO855	Double-sided originals ↓ Double-sided copies	42	76	85	91
	Double-sided originals ↓ Single-sided copies	45	81	88	93
	Single-sided originals ↓ Single-sided copies	58	84	90	94
	Single-sided originals ↓ Double-sided copies	43	74	86	93
	Double-sided originals ↓ Double-sided copies	42	76	85	91
	Double-sided originals ↓ Single-sided copies	45	81	88	93

* Shows the period of time from when the [START] button is pressed until the message "Ready" is displayed. (10 sheets of A4/LT size original are set on the RADF and one of the copy modes above is selected.)

* Setting: when in the Text/Photo mode with Automatic density and APS/AMS set to OFF, or when in the sort mode with paper fed from the 1st drawer.

* The Finisher, Hole punch unit and Inserter are not installed.

1.1.3 Print

Page Description Language		PCL6 emulation (PCL), PostScript 3 emulation (PS), XPS
Supported Client OS		Windows 2000 / XP / Server 2003 / Vista / Server 2008, Mac OS X (Ver.10.2 or higher) Solaris (SUN) / HP-UX / AIX (IBM) / Linux / SCO
Resolution		600 x 600 dpi
Eliminated portion		Leading edges / Trailing edges / Side edges: 4.2 (±2.0) mm
Interface	Standard	USB 2.0 (High Speed), Ethernet (10BASE-T/100BASE-TX)
	Optional	Wireless LAN (IEEE 802.11b/g), Bluetooth

1.1.4 Scan

Scanning speed	66 sheets/min
Resolution	600 x 600 dpi
Original mode	[TEXT], [TEXT/PHOTO], [PHOTO], [Gray scale]
File formats	JPEG (Gray scale mode only), Multi/Single page TIFF, Multi/Single page PDF, Multi/Single page XPS

* Measuring condition of the scanning speed: Scanning single-sided A4/LT originals in the Text/Photo mode with 100% reproduction ratio using the RADF

1.1.5 e-Filing

Number of Boxes	Public Box	1
	User Box	200
Number of Folder		100 folders per box
Number of Document		400 documents per box/folder
Number of Page		200 pages per document
Capacity of HDD	e-Filing	7 GB

1.1.6 Internet Fax

[1] Internet FAX transmission

Resolution	TX Resolution < dots/mm >	Standard (8 x 3.85), Fine (8 x 7.7), U-Fine (16 x 15.4)* * If U-Fine is selected in TX resolution, data is converted to Fine resolution in RX.
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Scanning	Original Document Size	A3, B4, A4, A4-R, A5, B5, B5-R, A5-R, LT, LT-R, LG, LD, ST, ST-R, Computer, Folio
	Speed	0.7sec. (per page/A4) Max.50 spm (ITU-T No.1, A4, 8 x 3.85,Text mode)
	Gray scale	256 levels (Error Diffusion)
Address book	Address Book	1000 stations
	Group	Max. 200 stations
Transmission Features	Broadcast transmission	Max. 400 destinations/job. (Fax number and E-mail address are available to registered in same job.)
	Message size limitation	Max. 30M Byte
	Message division	Page by page

[2] Internet FAX receiving

Format of receive attachment	TIFF-FX (Profile S, F, J)
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1.1.7 Network Fax

1

Compatibility		Super G3, G3 (ITU-T.30) Internet Fax (Simple mode) (ITU-T.37)
TX Resolution	PSTN	Standard: 200 x 100 dpi, Fine: 200 x 200 dpi, Super Fine: 200 x 400 dpi, Ultra Fine: 400 x 400 dpi
	Internet Fax	200 dpi x 200 dpi
Original Document Size		A3, B4, A4, B5, A5, LT, LG, LD, ST, Folio, Computer
Mail Box	User defined	Max. 300 boxes
Routed document format	Send to e-Filing	MMR
	Send to File (SMB)	Single TIFF, Multi-TIFF, Single PDF, Multi PDF
	Send to FTP	Single TIFF, Multi-TIFF, Single PDF, Multi PDF
	Send to E-mail	Single TIFF, Multi-TIFF, Single PDF, Multi PDF
	Send to I-Fax	TIFF-S
	Send to PSTN-FAX	MMR

1.2 Accessories

Unpacking/setup instruction	1 pc.
CD-ROM	1 pc.
Drum	1 pc.
Toner bag (Installed inside of the equipment)	1 pc.
Operator's manual pocket	1 pc.
Original feeding tray spacer	1 pc.
Tab paper end guide	1 pc.
Cleaning cloth	1 pc.
Cloth case	1 pc.
Power cable	1 pc. (for TWD, ASD, ARD, AUD, MJD, CND)
Setup report	1 set (for NAD, MJD, CND)
Approval sheet	1 pc. (for CND)
Envelope	1 pc. (for CND)
Packing list	1 pc. (for CND)
Developer material	1 pc. (for CND)
Toner bottle	1 pc. (for CND)

1.3 Options

Large Capacity Feeder (LCF)	MP-4004L/A
Finisher	MJ-1027
Saddle stitch finisher	MJ-1028
Saddle stitch finisher (100 sheets stapling)	MJ-1029
Staple cartridge	STAPLE-700 (for MJ-1027/1028) STAPLE-1700 (for MJ-1029) STAPLE-1800 (for MJ-1029) STAPLE-1900 (for MJ-1029) STAPLE-600 (for saddle stitch)
Finisher guide rail	KN-1017
Hole punch unit	MJ-6003N/E/F/S
Insertor	MJ-7001
Damp heater kit	MF-6000U/E
Fax unit	GD-1250NA/EU/AU/AS/C
2nd line for Fax unit	GD-1260NA/EU-N/AU/C
Printer kit	GM-1180
Printer/Scanner kit	GM-2180
Scanner kit	GM-4180
Wireless LAN module	GN-1050
Bluetooth module	GN-2010
Antenna	GN-3010
Data overwrite enabler	GP-1070
e-BRIDGE ID Gate (HID iClass)	KP-2004
e-BRIDGE ID Gate (MIFARE)	KP-2005
Meta scan enabler	GS-1010
External interface enabler	GS-1020
IPsec enabler	GP-1080
Harness kit	GQ-1240 (for coin controller) GQ-1050 (for card controller) GQ-1060 (for card controller)

- * The finisher (MJ-1027/1028) is necessary for the installation of the hole punch unit (MJ-6003N/E/F/S) and the inserter (MJ-7001).
- * The Printer kit (GM-1180), Printer/Scanner kit (GM-2180) and Scanner kit (GM-4180) are optional for TWD/SAD/ASD/AUD model.
- * The antenna (GN-3010) is necessary to enable the wireless LAN module (GN-1050) and the bluetooth module (GN-2010).
- * Up to 2 antennas (GN-3010) can be connected to the wireless LAN module (GN-1050).
- * When the wireless LAN module (GN-1050) and the bluetooth module (GN-2010) are installed together, only 1 antenna (GN-3010) can be connected to each.
- * STAPLE-1700 (100 sheets stapling): 3 cases of 5000 staples in a package
STAPLE-1800 (50 sheets stapling): 3 cases of 5000 staples and one exclusive cartridge in a package
STAPLE-1900 (50 sheets stapling): 3 cases of 5000 staples in a package

1.4 Supplies

Drum	OD-6510
Developer	D-6000
Toner cartridge	PS-ZT8550 (for NAD, ARD) PS-ZT8550E (for MJD) PS-ZT6000C (for CND) PS-ZT6000D (for other)
Toner bag	PS-TB6510E (for MJD,) PS-TB6510 (for other)

1.5 System List

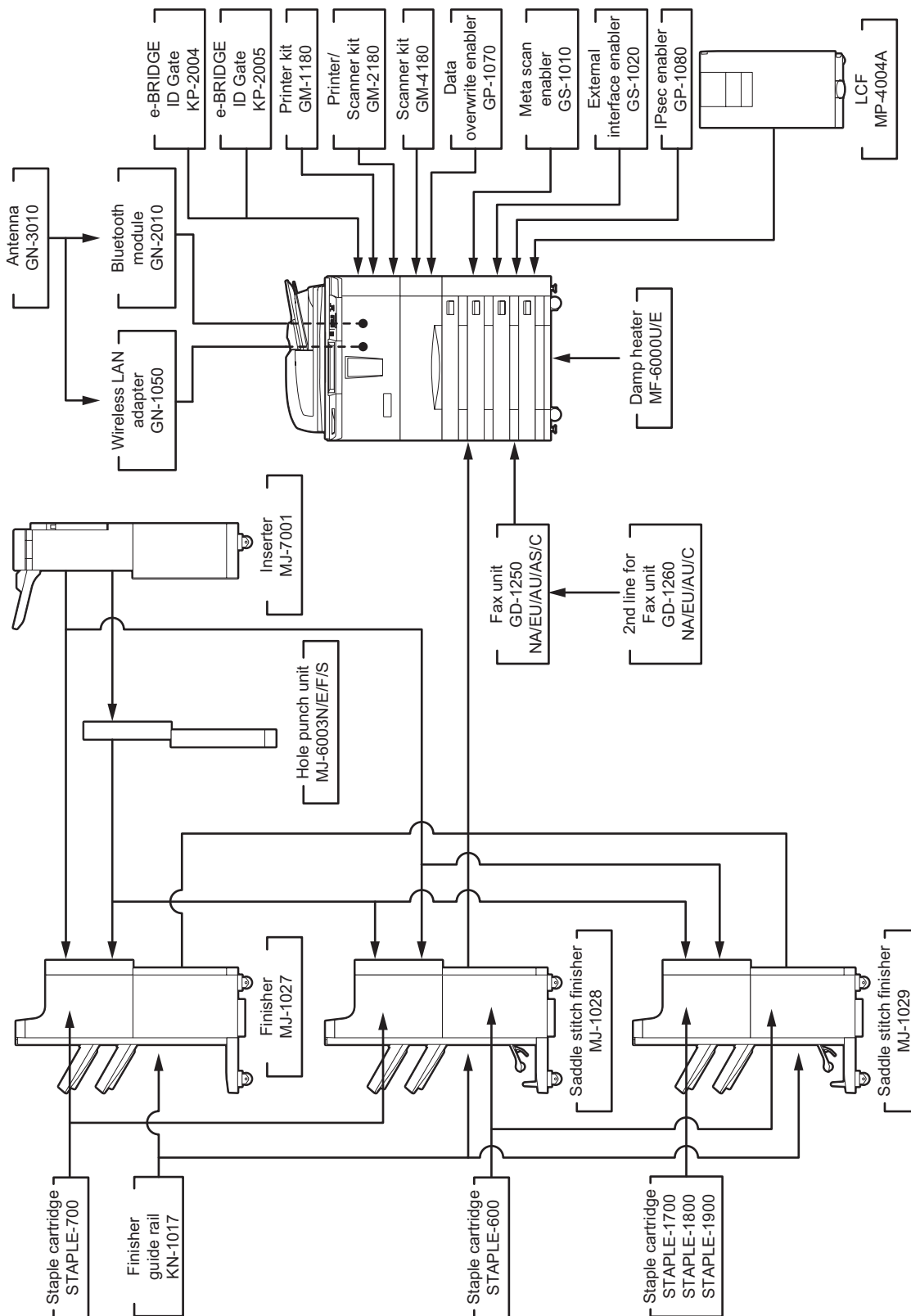


Fig. 1-1

2. ERROR CODE AND SELF-DIAGNOSTIC MODE

2.1 Error Code List

The following error codes are displayed at the upper right of the screen when the “CLEAR PAPER” or “CALL SERVICE” symbol is blinking.

2.1.1 Jam

Error code	Classification	Contents	Troubleshooting
E010	Paper exit jam	Paper not reaching fuser transport sensor: Paper which has passed the fuser unit does not reach the fuser transport sensor.	P. 5-2
E020		Paper stopping at fuser transport sensor: The trailing edge of paper does not pass the fuser transport sensor after its leading edge has reached the fuser transport sensor.	P. 5-4
E030	Other paper jam	Power-ON jam: Paper is remaining on the paper transport path of the equipment when the power is turned ON.	P. 5-4
E061		Incorrect paper size setting for 1st drawer: The size of paper in the 1st drawer differs from size setting of the equipment.	P. 5-5
E062		Incorrect paper size setting for 2nd drawer: The size of paper in the 2nd drawer differs from size setting of the equipment.	P. 5-5
E063		Incorrect paper size setting for 3rd drawer: The size of paper in the 3rd drawer differs from size setting of the equipment.	P. 5-5
E064		Incorrect paper size setting for 4th drawer: The size of paper in the 4th drawer differs from size setting of the equipment.	P. 5-5
E065		Incorrect paper size setting for bypass tray: The size of paper in the bypass tray differs from size setting of the equipment.	P. 5-5
E090		Image data delay jam: Image data to be printed cannot be prepared.	P. 5-5
E091		Other time-out jam: The equipment does not operate normally because abnormality occurred on an interface between the SYS board and engine firmware.	P. 5-6
E0A0		Image transport ready time-out jam: Image data to be printed cannot be sent.	P. 5-6
E110	Paper misfeeding	Transport jam during duplex printing (paper not reaching registration sensor): Paper which passed the reverse transport section does not reach the registration sensor during duplex printing.	P. 5-25
E120		Bypass misfeeding (paper not reaching registration sensor): Paper fed out of the bypass tray does not reach the registration sensor.	P. 5-27
E130		1st drawer misfeeding (paper not reaching 1st drawer feed sensor): Paper does not reach the 1st drawer feed sensor during the feeding at the 1st drawer.	P. 5-28

Error code	Classification	Contents	Troubleshooting
E140	Paper misfeeding	2nd drawer misfeeding (paper not reaching 2nd drawer feed sensor): Paper does not reach the 2nd drawer feed sensor during the feeding at the 2nd drawer.	P. 5-29
E150		3rd drawer misfeeding (paper not reaching 3rd drawer / Tandem LCF feed sensor): Paper does not reach the 3rd drawer / Tandem LCF feed sensor during the feeding at the 3rd drawer.	P. 5-30
E160		4th drawer misfeeding (paper not reaching 4th drawer feed sensor): Paper does not reach the 4th drawer feed sensor during the feeding at the 4th drawer.	P. 5-31
E180		Option LCF misfeeding (paper not reaching Option LCF feed sensor): Paper does not reach the Option LCF feed sensor during the feeding at the Option LCF.	P. 5-32
E190		Tandem LCF misfeeding (paper not reaching 3rd drawer / Tandem LCF feed sensor): Paper does not reach the 3rd drawer / Tandem LCF feed sensor during the feeding at the Tandem LCF.	P. 5-30
E200	Paper transport jam	1st drawer transport jam (paper not reaching registration sensor): Paper which has passed the 1st drawer transport sensor does not reach the registration sensor during the feeding at the 1st drawer.	P. 5-6
E201		1st drawer transport jam (paper not reaching intermediate transport sensor): Paper which has passed the 1st drawer transport sensor does not reach the intermediate transport sensor during the feeding at the 1st drawer.	P. 5-9
E210		2nd drawer transport jam (paper not reaching registration sensor): Paper which has passed the 1st drawer transport sensor does not reach the registration sensor during the feeding at the 2nd drawer.	P. 5-6
E211		2nd drawer transport jam (paper not reaching intermediate transport sensor): Paper which has passed the 1st drawer transport sensor does not reach the intermediate transport sensor during the feeding at the 2nd drawer.	P. 5-9
E220		2nd drawer transport jam (paper not reaching 1st drawer transport sensor): Paper which has passed the 2nd drawer transport sensor does not reach the 1st drawer transport sensor during the feeding at the 2nd drawer.	P. 5-8
E230		1st drawer transport jam (paper not reaching 1st drawer transport sensor): Paper which has passed the 1st drawer feed sensor does not reach the 1st drawer transport sensor during the feeding at the 1st drawer.	P. 5-11
E240		2nd drawer transport jam (paper not reaching 2nd drawer transport sensor): Paper which has passed the 2nd drawer feed sensor does not reach the 2nd drawer transport sensor during the feeding at the 2nd drawer.	P. 5-11
E250		Option LCF transport jam (paper not reaching Option LCF transport sensor): Paper does not reach the Option LCF transport sensor during the feeding at the Option LCF.	P. 5-11

Error code	Classification	Contents	Troubleshooting
E260	Paper transport jam	Option LCF transport jam (paper not reaching registration sensor): Paper which has passed the 1st drawer transport sensor does not reach the registration sensor during the feeding at the Option LCF.	P. 5-12
E261		Option LCF transport jam (paper not reaching intermediate transport sensor): Paper which has passed the 1st drawer transport sensor does not reach the intermediate transport sensor during the feeding at the Option LCF.	P. 5-9
E2A1		Transport jam during duplex printing (paper not reaching intermediate transport sensor): Paper which has passed the reverse section and horizontal transport section does not reach the intermediate transport sensor during duplex printing.	P. 5-9
E300		3rd drawer transport jam (paper not reaching registration sensor): Paper which has passed the 1st drawer transport sensor does not reach the registration sensor during the feeding at the 3rd drawer.	P. 5-6
E301		3rd drawer transport jam (paper not reaching intermediate transport sensor): Paper which has passed the 1st drawer transport sensor does not reach the intermediate transport sensor during the feeding at the 3rd drawer.	P. 5-9
E310		3rd drawer transport jam (paper not reaching 1st drawer transport sensor): Paper which has passed the 2nd transport sensor does not reach the 1st drawer transport sensor during the feeding at the 3rd drawer.	P. 5-8
E320		3rd drawer transport jam (paper not reaching 2nd drawer transport sensor): Paper which has passed the 3rd drawer / Tandem LCF transport sensor does not reach the 2nd drawer transport sensor during the feeding at the 3rd drawer.	P. 5-14
E330		4th drawer transport jam (paper not reaching registration sensor): Paper which has passed the 1st drawer transport sensor does not reach the registration sensor during the feeding at the 4th drawer.	P. 5-6
E331		4th drawer transport jam (paper not reaching intermediate transport sensor): Paper which has passed the 1st drawer transport sensor does not reach the intermediate transport sensor during the feeding at the 4th drawer.	P. 5-9
E340		4th drawer transport jam (paper not reaching 1st transport sensor): Paper which has passed the 2nd drawer transport sensor does not reach the 1st drawer transport sensor during the feeding at the 4th drawer.	P. 5-8
E350		4th drawer transport jam (paper not reaching 2nd drawer transport sensor): Paper which has passed the 3rd drawer / Tandem LCF transport sensor does not reach the 2nd drawer transport sensor during the feeding at the 4th drawer.	P. 5-14
E360		4th drawer transport jam (paper not reaching 3rd drawer / Tandem LCF transport sensor): Paper which has passed the 4th drawer transport sensor does not reach the 3rd drawer / Tandem LCF transport sensor during the feeding at the 4th drawer.	P. 5-15

Error code	Classification	Contents	Troubleshooting
E370	Paper transport jam	3rd drawer transport jam (paper not reaching 3rd drawer / Tandem LCF transport sensor): Paper which has passed the 3rd drawer / Tandem LCF feed sensor does not reach the 3rd drawer / Tandem LCF transport sensor during the feeding at the 3rd drawer.	P. 5-11
E380		4th drawer transport jam (paper not reaching 4th drawer transport sensor): Paper which passed the 4th drawer feed sensor does not reach the 4th drawer transport sensor during the feeding at the 4th drawer.	P. 5-11
E3C0		Tandem LCF transport jam (paper not reaching registration sensor): Paper which has passed the 1st transport sensor does not reach the registration sensor during the feeding at the Tandem LCF.	P. 5-6
E3C1		Tandem LCF transport jam (paper not reaching intermediate transport sensor): Paper which has passed the 1st transport sensor does not reach the intermediate transport sensor during the feeding at the Tandem LCF.	P. 5-9
E3D0		Tandem LCF transport jam (paper not reaching 1st drawer transport sensor): Paper which has passed the 2nd drawer transport sensor does not reach the 1st drawer transport sensor during the feeding at the Tandem LCF.	P. 5-8
E3E0		Tandem LCF transport jam (paper not reaching 2nd transport sensor): Paper which has passed the 3rd drawer / Tandem LCF transport sensor does not reach the 2nd drawer transport sensor during the feeding at the Tandem LCF.	P. 5-14
E3F0		Tandem LCF transport jam (paper not reaching 3rd drawer / Tandem LCF transport sensor): Paper which has passed the 3rd drawer / Tandem LCF feed sensor does not reach the 3rd drawer / Tandem LCF transport sensor during the feeding at the Tandem LCF.	P. 5-11
E410	Cover open jam	Front cover open jam: The front cover has opened during printing.	P. 5-33
E440		Right lower cover (feed cover) open jam: The feed cover has opened during printing.	P. 5-33
E450		Option LCF side cover open jam: The side cover of the Option LCF has opened during printing.	P. 5-34
E460		Right center cover (bypass feed unit cover) open jam: The bypass feed unit cover has opened during printing.	P. 5-34
E470		Left lower cover (exit cover) open jam: The exit cover has opened during printing.	P. 5-35

Error code	Classification	Contents	Troubleshooting
E510	Paper transport jam (Exit/Reverse section or other sections)	Transport jam during duplex printing (paper not reaching reverse sensor-2): Paper which has passed the reverse sensor-1 does not reach the reverse sensor-2 during duplex printing.	P. 5-16
E511		Transport jam during duplex printing (paper not reaching horizontal transport sensor-1): Paper which has passed the reverse sensor-2 does not reach the horizontal transport sensor-1 during duplex printing.	P. 5-17
E512		Transport jam during duplex printing (paper not reaching horizontal transport sensor-2): Paper which has passed the horizontal transport sensor-1 does not reach the horizontal transport sensor-2 during duplex printing.	P. 5-18
E540		Transport jam during duplex printing (paper not reaching horizontal transport sensor-3): Paper which has passed the horizontal transport sensor-2 does not reach the horizontal transport sensor-3 during duplex printing.	P. 5-19
E550		Paper remaining jam at paper transport path: Paper is remaining on the paper transport path when the printing has finished. (Jam caused by a multiple paper feeding)	P. 5-19
E570		Transport jam during duplex printing (paper not reaching reverse sensor-1): Paper which has passed the fuser unit transport sensor does not reach the reverse sensor-1 during duplex printing.	P. 5-20
E580	Paper transport jam (Exit/Reverse section or other sections)	Paper stopping at reverse section: The trailing edge of paper does not pass the reverse sensor-1 or reverse sensor-2 after its leading edge has reached the reverse sensor-1 or reverse sensor-2.	P. 5-21
E590		Paper stopping at exit section: The trailing edge of paper does not pass the exit sensor after its leading edge has reached the exit sensor.	P. 5-22
E5A0		Paper not reaching exit sensor: The leading edge of paper does not reach the exit sensor.	P. 5-22

Error code	Classification	Contents	Troubleshooting
E712	RADF jam	Jam not reaching the original registration sensor: The original fed from the original feeding tray does not reach the original registration sensor.	P. 5-35
E714		Feed signal reception jam: The feed signal is received even no original exists on the original feeding tray.	P. 5-36
E721		Jam not reaching the original reading start sensor: The original does not reach the original reading start sensor after it has passed the original registration sensor (when scanning obverse side) or the reverse sensor (when scanning reverse side).	P. 5-36
E722		Jam not reaching the original exit sensor (during scanning): The original which passed the read sensor does not reach the original exit sensor when it is transported from the scanning section to exit section.	P. 5-36
E724		Stop jam at the original registration sensor: The trailing edge of the original does not pass the original registration sensor after its leading edge has reached this sensor.	P. 5-37
E725		Stop jam at the reading start sensor: The trailing edge of the original does not pass the read sensor after its leading edge has reached this sensor.	P. 5-36
E726		Transport/exit signal reception jam during ADF standby status	P. 5-37
E727		Jam not reaching the original reading end sensor	P. 5-37
E729		Original reading end sensor paper remaining jam	P. 5-37
E731		Stop jam at the original exit sensor: The trailing edge of the original does not pass the original exit sensor after its leading edge has reached this sensor.	P. 5-37
E744		Stop jam at the original exit/reverse sensor	P. 5-38
E745		Jam not reaching the original exit/reverse sensor	P. 5-38
E746		Original exit/reverse sensor paper remaining jam	P. 5-38
E762		Original registration sensor paper remaining jam	P. 5-38
E770		Original width detection sensor-1 paper remaining jam	P. 5-38
E771		Original width detection sensor-2 paper remaining jam	P. 5-38
E772		Original width detection sensor-3 paper remaining jam	P. 5-38
E773		Original Intermediate transport sensor paper remaining jam	P. 5-38
E774		Original reading start sensor paper remaining jam	P. 5-38
E775		Original reading end sensor paper remaining jam	P. 5-38
E777		Original exit sensor paper remaining jam	P. 5-38
E860		Original jam access cover open: The Original jam access cover has opened during RADF operation.	P. 5-39
E870		RADF open jam: RADF has opened during RADF operation.	P. 5-39
E871		Cover open jam in the read ready status: Jam caused by opening of the Original jam access cover or front cover while the RADF is waiting for the scanning start signal from the equipment.	P. 5-39
E890		ADF time out jam	P. 5-39
E9F0	Finisher jam (Puncher section)	Hole punch jam: Hole punching is not performed properly.	P. 5-40

Error code	Classification	Contents	Troubleshooting
EA10	Finisher jam (Finisher section)	Paper transport delay jam: Paper which has passed the exit sensor does not reach the inlet sensor.	P. 5-40
EA20		Paper transport stop jam: Paper which has reached the inlet sensor does not pass the inlet sensor.	P. 5-41
EA30		Power-ON jam: Paper is remaining at the inlet sensor when the power is turned ON.	P. 5-42
EA40		Door open jam: The upper cover or the front cover of the Finisher has opened, or the upper door or the front door of the Hole Punch Unit has opened during printing.	P. 5-43
EA50		Stapling jam: Stapling is not performed properly.	P. 5-44
EA60		Early arrival jam: The inlet sensor detects paper earlier than the specified timing.	P. 5-44
EA80	Finisher jam (Saddle Stitcher section)	Stapling jam: Stapling is not performed properly.	P. 5-45
EA90		Door open jam: The delivery cover or the inlet cover has opened during printing.	P. 5-46
EEA0		Power-ON jam: Paper is remaining at the No. 1 paper sensor, No. 2 paper sensor, No. 3 paper sensor, vertical path paper sensor or delivery sensor when the power is turned ON.	P. 5-47
EAB0		Paper transport stop jam: Paper which has passed the inlet sensor does not reach or pass the No. 1 paper sensor, No. 2 paper sensor, No. 3 paper sensor or delivery sensor.	P. 5-48
EAC0		Transport delay jam: Paper which has reached the inlet sensor does not pass the inlet sensor.	P. 5-49
EAD0	Other paper jam	Print end command time-out jam: The printing has not finished normally due to the communication error between the SYS board and LGC board at the end of the printing.	P. 5-53
EAE0	Finisher jam	Receiving period time-out jam: The printing cannot be finished normally due to the communication error between the equipment and the Finisher when the paper is transported from the equipment to the Finisher.	P. 5-53
EB30		Ready period time-out jam: The equipment judges that the paper transport to the Finisher is disabled due to the communication error between the equipment and the Finisher at the start of the printing.	P. 5-54
EB50	Paper transport jam	Paper remaining on the transport path: The multiple feeding of the preceding paper caused the misfeeding of the upcoming paper.	P. 5-23
EB60		Paper remaining on the transport path: The multiple feeding of the preceding paper caused the misfeeding of the upcoming paper (= redetection after no jam is detected at [EB50]).	P. 5-24

Error code	Classification	Contents	Troubleshooting
EC00	Finisher jam (Inserter section)	Inserter feeding delay jam	P. 5-50
EC10		Inserter feeding stop jam	P. 5-50
EC20		Inserter reverse path delay jam-1	P. 5-51
EC30		Inserter reverse path stop jam-1	P. 5-51
EC40		Inserter reverse path delay jam-2	P. 5-51
EC50		Inserter reverse path stop jam-2	P. 5-51
EC60		Inserter transport delay jam-1	P. 5-51
EC70		Inserter transport stop jam-1	P. 5-51
EC80		Inserter transport delay jam-2	P. 5-51
EC90		Inserter transport stop jam-2	P. 5-51
ECA0		Paper remaining in Inserter Unit at power-ON	P. 5-52
ECB0		Incorrect setting of paper size for Inserter Unit	P. 5-52
ECC0		Inserter Unit misfeeding	P. 5-52
ECD0		Inserter Unit door open jam	P. 5-52

2.1.2 Service call

Error code	Classification	Contents	Troubleshooting
C130	Paper feeding system related service call	1st drawer tray abnormality: The tray-up motor-1 does not run normally or the 1st drawer tray does not move normally. (Feeding of any other drawer than the 1st drawer is possible.)	P. 5-55
C140		2nd drawer tray abnormality: The tray-up motor-1 does not run normally or the 2nd drawer tray does not move normally. (Feeding of any other drawer than the 2nd drawer is possible.)	P. 5-55
C150		3rd drawer tray abnormality: The tray-up motor-2 does not run normally or the 3rd drawer tray does not move normally. (Feeding of any other drawer than the 3rd drawer is possible.)	P. 5-55
C160		4th drawer tray abnormality: The tray-up motor-2 does not run normally or the 4th drawer tray does not move normally. (Feeding of any other drawer than the 4th drawer is possible.)	P. 5-55
C180		Tandem LCF tray-up motor abnormality: The Tandem LCF tray-up motor does not run normally or the Tandem LCF tray does not move normally. (Feeding of any other drawer than the Tandem LCF is possible.)	P. 5-56
C1A0		Tandem LCF end fence motor abnormality: The Tandem LCF end fence motor does not run normally or the Tandem LCF end fence does not move normally. (Feeding of any other drawer than the Tandem LCF is possible.)	P. 5-57
C1C0		Option LCF tray-up motor abnormality: The Option LCF tray-up motor does not run normally or the Option LCF tray does not move normally. (Feeding of any other drawer than the Option LCF is possible.)	P. 5-58
C260	Scanning system related service call	Peak detection error: Lighting of the exposure lamp (white reference) is not detected when the power is turned ON.	P. 5-59
C270		Carriage home position sensor not turning OFF within a specified period of time: The carriages do not shift from their home position within a specified period of time.	P. 5-59
C280		Carriage home position sensor not turning ON within a specified period of time: The carriages do not reach their home position within a specified period of time.	P. 5-60
C360	Process related service call	Wire cleaner drive motor abnormality: The wire cleaner drive motor does not run normally or the charger wire cleaner does not move normally.	P. 5-93
C370		Transfer belt cam motor abnormality: The transfer belt cam motor does not run normally when the power is turned ON or the copying is started.	P. 5-93

Error code	Classification	Contents	Troubleshooting
C411	Fuser unit related service call	Thermistor/heater abnormality at power-ON: Thermistor abnormality is detected at power-ON or the fuser roller temperature does not rise within a specified period of time after power-ON.	P. 5-61
C412		Thermistor/heater abnormality at power-ON: Thermistor abnormality is detected at power-ON or the fuser roller temperature does not rise within a specified period of time after power-ON.	P. 5-61
C443		Heater abnormality after abnormality judgment (not reaching to intermediate temperature)	P. 5-62
C445		Heater abnormality after abnormality judgment (pre-running end temperature abnormality)	P. 5-62
C446		Heater abnormality after abnormality judgment (pre-running end temperature abnormality)	P. 5-62
C447		Heater abnormality after abnormality judgment (temperature abnormality at ready status)	P. 5-62
C449		Heater abnormality after abnormality judgment (overheating)	P. 5-62
C465		Pressure roller thermistor abnormality after entering ready status (pre-running end temperature abnormality)	P. 5-62
C466		Pressure roller thermistor abnormality after entering ready status (pre-running end temperature abnormality)	P. 5-62
C467		Pressure roller thermistor abnormality after entering ready status (temperature abnormality at ready status)	P. 5-62
C468		Pressure roller thermistor abnormality after entering ready status (overheating)	P. 5-62
C471		IH power voltage abnormality or IH initial abnormality (IH board initial abnormality)	P. 5-62
C472		IH power voltage abnormality (power supply abnormality)	P. 5-62
C473		IH power voltage abnormality (power voltage upper limit abnormality)	P. 5-62
C474		IH power voltage abnormality (power voltage lower limit abnormality)	P. 5-62
C475		IH power voltage abnormality (power supply abnormality when door is opened)	P. 5-62
C480		IGBT abnormality	P. 5-63
C481		IH abnormality	P. 5-63
C490		IH control circuit abnormality or IH coil abnormality: The IH control circuit is under abnormal conditions, or the IH coil is broken or has a short-circuit.	P. 5-63
C4A0		End of cleaning web	P. 5-64
C4B0		Fuser unit counter abnormality	P. 5-64
C550	Optional communication related service call	RADF interface error: Communication error has occurred between the RADF and the scanner.	P. 5-65
C560		Communication error between Engine-CPU and PFC	P. 5-65
C570		Communication error between Engine-CPU and IPC board	P. 5-65
C580		Communication error between IPC board and Finisher	P. 5-65
C590		Communication error between Engine-CPU and Laser-CPU	P. 5-65
C5A1	Circuit related service call	NVRAM data abnormality (LGC board)	P. 5-93

Error code	Classification	Contents	Troubleshooting
C730	RADF related service call	RADF EEPROM error: Data abnormality occurs during the EEPROM writing of the RADF is performed.	P. 5-67
C880		RADF original feed motor abnormality: An error signal has been detected when the motor is rotating.	P. 5-67
C890		RADF read motor abnormality: An error signal has been detected when the motor is rotating.	P. 5-67
C8A0		RADF original reverse motor abnormality: An error signal has been detected when the motor is rotating.	P. 5-67
C8B0		RADF original exit motor abnormality: An error signal has been detected when the motor is rotating.	P. 5-67
C8C0		RADF original reading start sensor abnormality: The automatic adjustment for the original reading start sensor has been performed, but is ended unsuccessfully.	-
C8E0		RADF communication protocol abnormality: The system has to be stopped because the control abnormality occurred.	P. 5-67
C940	Circuit related service call	Engine-CPU abnormality	P. 5-93
C970	Process related service call	High-voltage transformer leakage abnormality: The high-voltage leakage of the main charger is detected.	P. 5-93
CA10	Laser optical unit related service call	Polygonal motor abnormality: The polygonal motor does not run normally.	P. 5-68
CA20		H-sync detection error: Laser beam cannot be detected at the SNS board.	P. 5-70
CA30		Secondary scanning coarse adjustment error [e-STUDIO755/855]	P. 5-71
CA41		Window comparator abnormality (error during secondary scanning control) [e-STUDIO755/855]	P. 5-71
CA42		Sensor signal busy error (error during secondary scanning control) [e-STUDIO755/855]	P. 5-71
CA43		Comparator abnormality [e-STUDIO755/855]	P. 5-71
CA50		Laser power adjustment error [e-STUDIO755/855]	P. 5-71
CA90		Image data transmission error of SYS board: Communication error has occurred between the PLG board and the SYS board.	P. 5-71
CAA0		Secondary scanning fine adjustment error: Secondary scanning control by the galvanometer mirror does not end normally. [e-STUDIO755/855]	P. 5-71
CAB0		Inter-page correction error of secondary scanning: Inter-page secondary scanning control by the galvanometer mirror does not end normally. [e-STUDIO755/855]	P. 5-71
CAC0		Primary scanning dot adjustment error: Primary scanning control does not end normally. [e-STUDIO755/855]	P. 5-71
CAF0		Inter-page correction error of primary scanning: Inter-page primary scanning control does not end normally. [e-STUDIO755/855]	P. 5-71
CB10	Finisher related service call	Feed motor abnormality: The feed motor does not run normally or the stack feed roller does not move normally.	P. 5-72
CB20		Delivery motor abnormality: The delivery motor does not run normally or the delivery roller does not move normally.	P. 5-73
CB30		Tray lift motor abnormality	P. 5-74
CB40		Alignment motor (rear) abnormality: The alignment motor (rear) does not run normally or the alignment plate does not move normally.	P. 5-76

Error code	Classification	Contents	Troubleshooting
CB50		Staple motor abnormality: The staple motor does not run normally or the stapler does not move normally.	P. 5-76
CB60		Stapler shift motor abnormality: The stapler shift motor does not run normally or the Staple Unit does not move normally.	P. 5-77
CB70		Stack amount detection sensor abnormality	P. 5-77
CB80		Backup RAM data abnormality: 1. Abnormality of checksum value on the finisher controller PC board is detected when the power is turned ON. 2. Abnormality of checksum value on the punch controller PC board is detected when the power is turned ON.	P. 5-78
CB90		Paper pushing plate motor abnormality: The paper pushing plate motor does not run normally or the paper pushing plate does not move normally.	P. 5-79
CBA0		Stitch motor (front) abnormality: The stitch motor (front) does not run normally or the rotational cam does not move normally.	P. 5-80
CBB0		Stitch motor (rear) abnormality: The stitch motor (rear) does not run normally or the rotational cam does not move normally.	P. 5-80
CBC0		Alignment motor abnormality: The alignment motor does not run normally or the alignment plate does not move normally.	P. 5-81
CBD0		Guide motor abnormality: The guide motor does not run normally or the guide does not move normally.	P. 5-81
CBE0		Paper folding motor abnormality: The paper folding motor does not run normally or the paper folding roller does not move normally.	P. 5-82
CBF0		Paper positioning plate motor abnormality: The paper positioning plate motor does not run normally or the paper positioning plate does not move normally.	P. 5-82
CC00		Sensor connector abnormality: Disconnection of each connector of the guide home position sensor, paper pushing plate home position sensor and paper pushing plate leading position sensor is detected.	P. 5-83
CC10		Microswitch abnormality: Any of the inlet door switch, delivery door switch and front cover closing detection switch is opened while all the covers are closed.	P. 5-84
CC20		Communication error between Finisher and Saddle Stitch section: Communication error has occurred between the finisher controller PC board and the saddle stitcher controller PC board.	P. 5-86
CC40		Swing motor abnormality: The swing motor does not run normally or the swing unit does not move normally.	P. 5-86
CC50	Finisher related service call	Horizontal registration motor abnormality: The horizontal registration motor does not run normally or the puncher does not move normally.	P. 5-88
CC60		Punch motor abnormality: The punch motor does not run normally or the puncher does not move normally.	P. 5-89
CC80		Rear alignment motor abnormality: The rear alignment motor is not rotating or the rear alignment plate is not moving normally. [MJ-1029]	P. 5-90
CCC1		Communication error between Inserter Unit and Finisher	P. 5-90
CCD1		Inserter EEPROM abnormality	P. 5-90
CCE1		Inserter fan motor abnormality	P. 5-91
CD00	Laser optical unit related service call	Laser initialization time-out: Laser control does not end within the initialization period. [e-STUDIO755/855]	P. 5-71

Error code	Classification	Contents	Troubleshooting
CD10	Process related service call	Cleaning brush drive motor abnormality: The cleaning brush drive motor does not run normally when the power is turned ON or the copying is started.	P. 5-94
CD20		Used toner transport motor abnormality: The used toner transport motor does not run normally when the power is turned ON or the copying is started.	P. 5-94
CD30		Recycle toner transport motor abnormality: The recycle toner transport motor does not run normally when the power is turned ON or the copying is started.	P. 5-94
CD40		Toner bag full	P. 5-94
CD50	Fuser unit related service call	Web motor signal path abnormality	P. 5-64
CDE0	Finisher related service call	Paddle motor abnormality: The paddle motor is not rotating or the paddle is not rotating normally. [MJ-1029]	P. 5-91
CE50	Image quality control related service call	Temperature/humidity sensor abnormality: The output value of the temperature/humidity sensor is out of the specified range.	P. 5-95
CE90		Drum thermistor abnormality: The output value of the drum thermistor is out of the specified range.	P. 5-95
CF00	Finisher related service call	Belt escape unit home position error detection: The belt escape unit does not leave the home position when the Knurled belt motor has been driven for specified time. [MJ-1029]	P. 5-92
CF10		Undefined error code processing: If the engine of the equipment judges that a code (command) other than the defined error codes is sent from the finisher, it regards this as a CF10 error.	P. 5-92
CF70	Process related service call	New toner transport motor abnormality: The new toner transport motor does not run normally when new toner is supplied.	P. 5-95
CF80		Hopper motor lockup: The hopper motor does not run normally when the power is ON or the copying is started.	P. 5-95
F070	Communication related service call	Communication error between System-CPU and Engine-CPU	P. 5-66
F090	Circuit related service call	SRAM abnormality on SYS board	P. 5-95
F100	Other service call	HDD format error: The HDD cannot be formatted normally.	P. 5-96
F101		HDD unmounted: Connection of the HDD is not detected.	P. 5-96
F102		HDD boot error: HDD does not become ready for booting.	P. 5-96
F103		HDD data transfer time-out: Data reading or writing is not executed in a specified period of time.	P. 5-96
F104		HDD data error: Abnormality is detected in the data of the HDD.	P. 5-96
F105		Other HDD errors	P. 5-96
F106		Point and Print partition damage	P. 5-96
F107		/BOX partition damage	P. 5-96
F108		/SHA partition damage	P. 5-96
F110		Communication error between System-CPU and Scanner-CPU	P. 5-66
F111	Communication related service call	Scanner response abnormality	P. 5-66
F120		Database abnormality: Databases do not run normally.	P. 5-97
F130		Invalid MAC address	P. 5-97
F200	Other service call	Data overwrite option (GP-1070) disabled	P. 5-97
F350		SLG board abnormality	P. 5-97
F400		SYS board cooling fan abnormality	P. 5-97

2.1.3 Error in Internet FAX / Scanning Function

1. Internet FAX related error

(When GM-1180/4180 or GM-2180 is installed)

Error code	Contents	Troubleshooting
1C10	System access abnormality	P. 5-98
1C11	Insufficient memory	P. 5-98
1C12	Message reception error	P. 5-98
1C13	Message transmission error	P. 5-98
1C14	Invalid parameter	P. 5-98
1C15	Exceeding file capacity	P. 5-98
1C20	System management module access abnormality	P. 5-98
1C21	Job control module access abnormality	P. 5-98
1C22	Job control module access abnormality	P. 5-98
1C30	Directory creation failure	P. 5-99
1C31	File creation failure	P. 5-98
1C32	File deletion failure	P. 5-98
1C33	File access failure	P. 5-99
1C40	Image conversion abnormality	P. 5-99
1C60	HDD full failure during processing	P. 5-99
1C61	Address Book reading failure	P. 5-99
1C62	Memory acquiring failure	P. 5-99
1C63	Terminal IP address unset	P. 5-99
1C64	Terminal mail address unset	P. 5-99
1C65	SMTP address unset	P. 5-99
1C66	Server time-out error	P. 5-99
1C69	SMTP server connection error	P. 5-100
1C6A	HOST NAME error	P. 5-100
1C6B	Terminal mail address error	P. 5-100
1C6C	Destination mail address error	P. 5-100
1C6D	System error	P. 5-100
1C70	SMTP client OFF	P. 5-100
1C71	SMTP authentication error	P. 5-100
1C72	POP before SMTP error	P. 5-100
1C80	Internet FAX transmission failure when processing E-mail job received	P. 5-100
1C81	Onramp Gateway transmission failure	P. 5-100
1C82	Internet FAX transmission failure when processing FAX job received	P. 5-101
1CC0	Job canceling	-
1CC1	Power failure	P. 5-101

2. RFC related error

(When GM-1180/4180 or GM-2180 is installed)

Error code	Message displayed in the TopAccess screen	Contents	Troubleshooting
2500	Syntax error, command unrecognized	HOST NAME error (RFC: 500) Destination mail address error (RFC: 500) Terminal mail address error (RFC: 500)	P. 5-102
2501	Syntax error in parameters or arguments	HOST NAME error (RFC: 501) Destination mail address error (RFC: 501) Terminal mail address error (RFC: 501)	P. 5-102
2503	Bad sequence of commands	Destination mail address error (RFC: 503)	P. 5-102
2504	Command parameter not implemented	HOST NAME error (RFC: 504)	P. 5-102
2550	Mailbox unavailable	Destination mail address error (RFC: 550)	P. 5-102
2551	User not local	Destination mail address error (RFC: 551)	P. 5-102
2552	Insufficient system storage	Terminal/Destination mail address error (RFC: 552)	P. 5-102
2553	Mailbox name not allowed	Destination mail address error (RFC: 553)	P. 5-102

3. Electronic Filing related error

Error code	Message displayed in the TopAccess screen	Contents	Troubleshooting
2B10	There was no applicable job.	No applicable job error in job control module	P. 5-103
2B11	Job status failed.	JOB status abnormality	P. 5-103
2B20	Failed to access file.	File library function error	P. 5-103
2B21	Message size exceeded limit or maximum size	Exceeding file capacity	P. 5-103
2B30	Insufficient disk space.	Insufficient disk space in /BOX partition	P. 5-103
2B31	Failed to access Electronic Filing.	Status of specified Electronic Filing or folder is undefined or being created/deleted	P. 5-103
2B32	Failed to print Electronic Filing document.	Electronic Filing printing failure: Specified document can not be printed because of client's access (being edited, etc.).	P. 5-103
2B50	Failed to process image.	Image library error	P. 5-103
2B51	Failed to process print image.	List library error	P. 5-103
2B60	The folder was renamed. A folder of the same name already existed.	A folder with the same name exists in the box.	-
2B70	The document was renamed. A document of the same name already existed.	A document with the same name exists in the box or folder.	-
2B71	Document(s) expire(s) in a few days	Documents expiring in a few days exist	-
2B80	Hard Disk space for Electronic Filing nearly full.	Hard disk space in /BOX partition is nearly full (90%).	-
2B90	Insufficient Memory.	Insufficient memory capacity	P. 5-103
2BA0	Invalid Box password specified.	Invalid Box password	P. 5-104

Error code	Message displayed in the TopAccess screen	Contents	Troubleshooting
2BA1	Incorrect paper size	A Paper size not supported in the Electronic Filing function is being selected.	P. 5-104
2BB0	Job canceled	Job canceling	-
2BB1	Power failure occurred	Power failure	P. 5-104
2BC0	System fatal error.	Fatal failure occurred.	P. 5-103
2BC1	Failed to acquire resource.	System management module resource acquiring failure	P. 5-103
2BD0	Power failure occurred during e-Filing restoring.	Power failure occurred during restoring of Electronic Filing	P. 5-104
2BE0	Failed to get machine parameter.	Machine parameter reading failure	P. 5-104
2BF0	Maximum number of pages has been exceeded (list Maximum)	Exceeding maximum number of pages	P. 5-104
2BF1	Maximum number of documents has been exceeded (list Maximum)	Exceeding maximum number of documents	P. 5-104
2BF2	Maximum number of folders has been exceeded (list Maximum)	Exceeding maximum number of folders	P. 5-104

4. E-mail related error

(When GM-1180/4180 or GM-2180 is installed)

Error code	Message displayed in the TopAccess screen	Contents	Troubleshooting
2C10	Illegal Job status	System access abnormality	P. 5-105
2C11	Not enough memory	Insufficient memory	P. 5-105
2C12	Illegal Job status	Message reception error	P. 5-105
2C13	Illegal Job status	Message transmission error	P. 5-105
2C14	Invalid parameter specified	Invalid parameter	P. 5-105
2C15	Message size exceeded limit or maximum size	Exceeding file capacity	P. 5-105
2C20	Illegal Job status	System management module access abnormality	P. 5-105
2C21	Illegal Job status	Job control module access abnormality	P. 5-105
2C22	Illegal Job status	Job control module access abnormality	P. 5-105
2C30	Failed to create directory	Directory creation failure	P. 5-105
2C31	Failed to create file	File creation failure	P. 5-105
2C32	Failed to delete file	File deletion failure	P. 5-105
2C33	Failed to create file	File access failure	P. 5-105
2C40	Failed to convert image file format	Image conversion abnormality	P. 5-105
2C43	Failed to process your Job. Insufficient disk space.	Encryption error. Failed to create file.	P. 5-106
2C44	Failed to convert image file format	Encryption PDF enforced mode error	P. 5-106
2C60	Failed to process your Job. Insufficient disk space.	HDD full failure during processing	P. 5-106
2C61	Failed to read AddressBook	Address Book reading failure	P. 5-106
2C62	Not enough memory	Memory acquiring failure	P. 5-105
2C63	Invalid Domain Address	Terminal IP address unset	P. 5-106
2C64	Invalid Domain Address	Terminal mail address unset	P. 5-106
2C65	Failed to connect to SMTP server	SMTP address unset	P. 5-106
2C66	Failed to connect to SMTP server	Server time-out error	P. 5-106
2C69	Failed to connect to SMTP server	SMTP server connection error	P. 5-107

Error code	Message displayed in the TopAccess screen	Contents	Troubleshooting
2C6A	Failed to send E-Mail message	HOST NAME error (No RFC error)	P. 5-107
2C6B	Invalid address specified in From: field	Terminal mail address error	P. 5-107
2C6C	Invalid address specified in To: field	Destination mail address error (No RFC error)	P. 5-107
2C6D	NIC system error	System error	P. 5-106
2C70	SMTP service is not available	SMTP client OFF	P. 5-107
2C71	Failed SMTP Authentication	SMTP authentication error	P. 5-107
2C72	POP Before SMTP Authentication Failed	POP before SMTP error	P. 5-107
2C80	Failed to process received E-mail job	E-mail transmission failure when processing E-mail job received	P. 5-107
2C81	Failed to process received Fax job	Process failure of FAX job received	P. 5-107
2CC0	Job canceled	Job canceling	-
2CC1	Power failure occurred	Power failure	P. 5-107

5. File sharing related error

(When GM-1180/4180 or GM-2180 is installed)

Error code	Message displayed in the TopAccess screen	Contents	Troubleshooting
2D10	Illegal Job status	System access abnormality	P. 5-108
2D11	Not enough memory	Insufficient memory	P. 5-108
2D12	Illegal Job status	Message reception error	P. 5-108
2D13	Illegal Job status	Message transmission error	P. 5-108
2D14	Invalid parameter specified	Invalid parameter	P. 5-108
2D15	There are too many documents in the folder. Failed in creating new document.	Exceeding document number	P. 5-108
2D20	Illegal Job status	System management module access abnormality	P. 5-108
2D21	Illegal Job status	Job control module access abnormality	P. 5-108
2D22	Illegal Job status	Job control module access abnormality	P. 5-108
2D30	Failed to create directory	Directory creation failure	P. 5-108
2D31	Failed to create file	File creation failure	P. 5-108
2D32	Failed to delete file	File deletion failure	P. 5-108
2D33	Failed to create file	File access failure	P. 5-108
2D40	Failed to convert image file format	Image conversion abnormality	P. 5-109
2D43	Encryption error. Failed to create file.	Encryption error	P. 5-109
2D44	Creating the image file was not permitted.	Encryption PDF enforced mode error	P. 5-109
2D60	Failed to copy file	File library access abnormality	P. 5-108
2D61	Invalid parameter specified	Invalid parameter	P. 5-108
2D62	Failed to connect to network destination. Check destination path	File server connection error	P. 5-109
2D63	Specified network path is invalid. Check destination path	Invalid network path	P. 5-109
2D64	Logon to file server failed. Check username and password	Login failure	P. 5-109

Error code	Message displayed in the TopAccess screen	Contents	Troubleshooting
2D65	There are too many documents in the folder. Failed in creating new document.	Exceeding documents in folder: Creating new document is failed.	P. 5-109
2D66	Failed to process your Job. Insufficient disk space.	HDD full failure during processing	P. 5-109
2D67	FTP service is not available	FTP service not available	P. 5-109
2D68	File Sharing service is not available	File sharing service not available	P. 5-109
2DA0	Expired scan documents deleted from share folder.	Periodical deletion of scanned documents completed properly.	-
2DA1	Expired Sent Fax documents deleted from shared folder.	Periodical deletion of transmitted FAX documents completed properly.	-
2DA2	Expired Received Fax documents deleted from shared folder.	Periodical deletion of received FAX documents completed properly.	-
2DA3	Scanned documents in shared folder deleted upon user's request.	Manual deletion of scanned documents completed properly.	-
2DA4	Sent Fax Documents in shared folder deleted upon user's request.	Manual deletion of transmitted FAX documents completed properly.	-
2DA5	Received Fax Documents in shared folder deleted upon user's request.	Manual deletion of received FAX documents completed properly.	-
2DA6	Failed to delete file.	File deletion failure	P. 5-108
2DA7	Failed to acquire resource.	Resource acquiring failure	P. 5-108
2DA8	The HDD is running out of capacity for the shared folder.	Hard disk space in /SHA partition is nearly full (90%).	-
2DC0	Job canceled	Job canceling	-
2DC1	Power failure occurred	Power failure	P. 5-110

6. E-mail reception related error
(When GM-1180/4180 or GM-2180 is installed)

Error code	Message displayed in the TopAccess screen	Contents	Troubleshooting
3A10	MIME Error has been detected in the received mail.	E-mail MIME error	P. 5-111
3A11	MIME Error has been detected in the received mail. This mail has been transferred to the administrator.		P. 5-111
3A12	MIME Error has been detected in the received mail. This mail could not be transferred to the administrator.		P. 5-111
3A20	Analyze Error has been detected in the received mail.	E-mail analysis error	P. 5-111
3A21	Analyze Error has been detected in the received mail. This mail has been transferred to the administrator.		P. 5-111
3A22	Analyze Error has been detected in the received mail. This mail could not be transferred to the administrator.		P. 5-111
3A30	Whole partial mails were not reached by timeout.	Partial mail time-out error	P. 5-111

Error code	Message displayed in the TopAccess screen	Contents	Troubleshooting
3A40	Partial Mail Error has been detected in the received mail.	Partial mail related error	P. 5-111
3A50	HDD Full Error has been occurred in this mail.	Insufficient HDD capacity error	P. 5-111
3A51	HDD Full Error has been occurred in this mail. This mail has been transferred to the administrator.		P. 5-111
3A52	HDD Full Error has been occurred in this mail. This mail could not be transferred to the administrator.		P. 5-111
3A60	HDD Full Warning has been occurred in this mail.	Warning of insufficient HDD capacity	P. 5-111
3A61	HDD Full Warning has been occurred in this mail. This mail could not be transferred to the administrator.		P. 5-111
3A62	HDD Full Warning has been occurred in this mail. This mail could not be transferred to the administrator.		P. 5-111
3A70	Receiving partial mail was aborted since the partial mail setting has been changed to Disable.	Warning of partial mail interruption	P. 5-111
3A80	Partial mail was received during the partial mail setting is disabled.	Partial mail reception setting OFF	P. 5-111
3A81	Partial mail was received during the partial mail setting is disabled. This mail has been transferred to the administrator.		P. 5-111
3A82	Partial mail was received during the partial mail setting is disabled. This mail could not be transferred to the administrator.		P. 5-111
3B10	Format Error has been detected in the received mail.	E-mail format error	P. 5-111
3B11	Format Error has been detected in the received mail. This mail has been transferred to the administrator.		P. 5-111
3B12	Format Error has been detected in the received mail. This mail could not be transferred to the administrator.		P. 5-111
3B20	Content-Type Error has been detected in the received mail.	Content-Type error	P. 5-111
3B21	Content-Type Error has been detected in the received mail. This mail has been transferred to the administrator.		P. 5-111
3B22	Content-Type Error has been detected in the received mail. This mail could not be transferred to the administrator.		P. 5-111

Error code	Message displayed in the TopAccess screen	Contents	Troubleshooting
3B30	Charset Error has been detected in the received mail.	Charset error	P. 5-112
3B31	Charset Error has been detected in the received mail. This mail has been transferred to the administrator.		P. 5-112
3B32	Charset Error has been detected in the received mail. This mail could not be transferred to the administrator.		P. 5-112
3B40	Decode Error has been detected in the received mail.	E-mail decode error	P. 5-111
3B41	Decode Error has been detected in the received mail. This mail has been transferred to the administrator.		P. 5-111
3B42	Decode Error has been detected in the received mail. This mail could not be transferred to the administrator.		P. 5-111
3C10	Tiff Analyze Error has been detected in the received mail.	TIFF analysis error	P. 5-112
3C11	Tiff Analyze Error has been detected in the received mail. This mail has been transferred to the administrator.		P. 5-112
3C12	Tiff Analyze Error has been detected in the received mail. This mail could not be transferred to the administrator.		P. 5-112
3C13	Tiff Analyze Error has been detected in the received mail.		P. 5-112
3C20	Tiff Compression Error has been detected in the received mail.	TIFF compression error	P. 5-112
3C21	Tiff Compression Error has been detected in the received mail. This mail has been transferred to the administrator.		P. 5-112
3C22	Tiff Compression Error has been detected in the received mail. This mail could not be transferred to the administrator.		P. 5-112
3C30	Tiff Resolution Error has been detected in the received mail.	TIFF resolution error	P. 5-112
3C31	Tiff Resolution Error has been detected in the received mail. This mail has been transferred to the administrator.		P. 5-112
3C32	Tiff Resolution Error has been detected in the received mail. This mail could not be transferred to the administrator.		P. 5-112

Error code	Message displayed in the TopAccess screen	Contents	Troubleshooting
3C40	Tiff Paper Size Error has been detected in the received mail.	TIFF paper size error	P. 5-112
3C41	Tiff Paper Size Error has been detected in the received mail. This mail has been transferred to the administrator.		P. 5-112
3C42	Tiff Paper Size Error has been detected in the received mail. This mail could not be transferred to the administrator.		P. 5-112
3C50	Offramp Destination Error has been detected in the received mail.	Offramp destination error	P. 5-112
3C51	Offramp Destination Error has been detected in the received mail. This mail has been transferred to the administrator.		P. 5-112
3C52	Offramp Destination Error has been detected in the received mail. This mail could not be transferred to the administrator.		P. 5-112
3C60	Offramp Security Error has been detected in the received mail.	Offramp security error	P. 5-112
3C61	Offramp Security Error has been detected in the received mail. This mail has been transferred to the administrator.		P. 5-112
3C62	Offramp Security Error has been detected in the received mail. This mail could not be transferred to the administrator.		P. 5-112
3C70	Power Failure has been occurred in E-mail receiving.	Power failure error	P. 5-112
3D10	SMTP Destination Error has been detected in the received mail. This mail was deleted.	Destination address error	P. 5-112
3D20	Offramp Destination limitation Error has been detected in the received mail.	Offramp destination limitation error	P. 5-113
3D30	Fax Board Error has been occurred in the received mail.	FAX board error	P. 5-113
3E10	POP3 Connection Error has been occurred in the received mail.	POP3 server connection error	P. 5-113
3E20	POP3 Connection Timeout Error has been occurred in the received mail.	POP3 server connection time-out error	P. 5-113
3E30	POP3 Login Error has been occurred in the received mail.	POP3 login error	P. 5-113
3E40	POP3 Login Error occurred in the received mail.	POP3 login method error	P. 5-113
3F00	File I/O Error has been occurred in this mail. The mail could not be received until File I/O is recovered.	File I/O error	P. 5-113
3F10			P. 5-113
3F20			P. 5-113
3F30			P. 5-113
3F40			P. 5-113

2.1.4 Printer function error

Following codes are displayed at the end of the user name on the print job log screen
(When GM-1180/4180 or GM-2180 is installed)

Error code	Contents	Troubleshooting
4030	No Printer Kit / Printer Kit function disabled: The Printer Kit (GM-1180) or the Printer/Scanner Kit (GM-2180) is not installed. Or network printing is performed after the termination of a trial period.	P. 5-114
4031	HDD full during print: Large quantity image data by private print or invalid network print are saved in HDD.	P. 5-114
4032	Private-print-only error: Jobs other than Private print jobs cannot be performed.	P. 5-114
4033	Printing data storing limitation error: Printing with its data being stored to the HDD temporarily (Proof print, Private print, Scheduled print, etc.) cannot be performed.	P. 5-114
4034	e-Filing storing limitation error: Printing with its data being stored to the HDD (print and e-Filing, print to e-Filing, etc.) cannot be performed.	P. 5-114
4035	Local file storing limitation error: Network FAX or Internet FAX cannot be sent when "Local" is selected for the destination of the file to save.	P. 5-114
4036	User authentication error: The user who intended to print a document is not registered as a user.	P. 5-114
4037	Hardcopy security printing error: hardcopy security printing job is performed when the function is restricted.	P. 5-114
4038	Hold-print-only error: Jobs other than Hold print jobs cannot be performed.	P. 5-114
4039	Private/Hold-Print only error: Jobs other than Private print or Hold print jobs cannot be performed.	P. 5-114
4040	Not being authorized to perform JOB.	P. 5-115
4050	Problem in LDAP server connection or LDAP server authorization settings.	P. 5-115
4300	USB direct printing: Job execution error due to functional restrictions - Printing with the USB direct printing function restricted.	P. 5-115
4301	USB direct printing: File conversion error - Printing a file whose format is not supported, or an invalid file.	P. 5-115
4310	Double-sign encoding error: A double-sign encoding error occurred because the PDF file is encrypted in a forbidden language or in a language not supported.	P. 5-115
4311	Printing not permitted: Printing is not permitted or only printing in a low resolution level is permitted due to the encryption language of the encrypted PDF file. * Permitted only when a user password is entered.	P. 5-115
4312	Password mismatching: The entered password is neither matched with a user password nor an owner password.	P. 5-115
A221	Print job cancellation: Print job (copy, list print, network print) is deleted from the print job screen.	P. 5-115
A222	Print job power failure: The power of the equipment is turned OFF during print job (copy, list print, network print).	P. 5-115
A290	Limit over error: The numbers of output pages have exceeded those specified with both of the department code and the user code at the same time.	P. 5-115
A291	Limit over error: The number of output pages has exceeded the one specified with the user code.	P. 5-115
A292	Limit over error: The number of output pages has exceeded the one specified with the department code.	P. 5-115

<<Error history>>

In the setting mode (08-253), the latest twenty groups of error data will be displayed.

Display example

<u>EA10</u>	<u>99999999</u>	<u>05 03 10 17 57 32</u>	<u>064</u>	<u>064</u>	<u>23621000000</u>
Error code	Total counter	YY MM DD HH MM SS	MMM	NNN	ABCDEFGHIJLOPQ
4 digits	8 digits	12 digits (Year is indicated with its last two digits.)	3 digits	3 digits	13digits

A	Paper source
	0: Not selected 1: Bypass feed 2: Tandem LCF 3: 1st drawer 4: 2nd drawer 5: 3rd drawer 6: 4th drawer 7: Option LCF 8: Inserter
B	Paper size code
	0: A5/ST 1: A5-R 2: ST-R 3: LT 4: A4 5: B5-R 6: LT-R 7: A4-R 8: OTHER/UNIV 9: B5 A: FOLIO/COMP B: LG C: B4 D: LD E: A3 F: 13" LG G: Unused H: A6-R I: Postcard J: 8.5SQ K: Unused L: Unused M: 8K N: 16K-R O: 16K P: Unused Q: Unused R: Unused S: Unused T: Unused U: Unused V: Unused Z: Not selected
C	Sort mode/staple mode
	0: Non-sort/Non-staple 1: Group 2: Sort 7: Front staple 8: Double staple 9: Rear staple A: Saddle stitch
D	ADF mode
	0: Unused 1: AUTO FEED (SADF) 2: STACK FEED
E	APS/AMS mode
	0: Not selected 1: APS 2: AMS
F	Duplex mode
	Copy: 0: Single-sided/Single-sided 1: Book 2: Double-sided/Single-sided 4: Double-sided/Duplex copying 8: Single-sided/Duplex copying
	Printer: 0: Single-sided/Single-sided 8: Single-sided/Duplex printing
	FAX: 0: Single-sided/Single-sided 8: Single-sided/Duplex printing
	e-Filing Box: 0: Single-sided/Single-sided 8: Single-sided/Duplex printing
	List printing: 0: Single-sided/Single-sided printing
G	Unused
H	Image shift
	0: Unused 1: Book 2: Left 3: Right 4: Top 5: Bottom 6: Book+Top 7: Book+Bottom 8: Left+Top 9: Left+Bottom A: Right+Top B: Right+Bottom
I	Editing
	0: Unused 1: Masking 2: Trimming 3: Mirror image 4: Negative/Positive Reversal 5: Unused
J	Edge erase/Dual-page
	0: Unused 1: Edge erase 2: Dual-page 3: Edge erase & Dual-page
K	Unused
L	Function
	0: Unused 1: Copying 2: FAX/Internet FAX transmission
	3: FAX/Internet FAX/E-mail reception printing 4: Unused 5: Printing/List print
	6: Scan/E-mail transmission
MMM	Primary scanning reproduction ratio (Display in hexadecimal)
	(Mx256)+(Mx16)+M
NNN	Secondary scanning reproduction ratio (Display in hexadecimal)
	(Nx256)+(Nx16)+N
O	Mode
	0: Unused 1: Unused 2: Black 3: Unused 4: Unused 5: Gray scale (Scan) 6: Unused 7: Unused

P	Paper type
	0: Plain paper 1: Thick1 2: Thick2 3: Thick3 4: Thick4 5: Special1 6: Special2 7: Recycled paper 8: Plain paper1 9: Plain paper2 A: Thin paper B: OHP film C: Thick1 (Back) D: Thick2 (Back) E: Thick3 (Back) F: Thick4 (Back) G: Special1 (Back) H: Special2 (Back) I: Envelopes J: Tab paper Z: Not selected
Q	RADF size mixed
	0: Unused 1: Size not mixed 2: Size mixed

2.2 Self-diagnosis Modes

Mode	For start	Contents	For exit	Display
Control panel check mode	[0]+[1]+ [POWER]	All LEDs on the control panel are lit, and all the LCD pixels blink.	[POWER] OFF/ON	-
Test mode	[0]+[3]+ [POWER]	Checks the status of input/output signals.	[POWER] OFF/ON	100% C A4 TEST MODE
Test print mode	[0]+[4]+ [POWER]	Outputs the test patterns.	[POWER] OFF/ON	100% P A4 TEST PRINT
Adjustment mode	[0]+[5]+ [POWER]	Adjusts various items.	[POWER] OFF/ON	100% A A4 TEST MODE
Setting mode	[0]+[8]+ [POWER]	Sets various items.	[POWER] OFF/ON	100% D TEST MOD
List print mode	[9]+[START] +[POWER]	Prints out the data lists of the codes 05 and 08, PM support mode and pixel counter.	[POWER] OFF/ON	100% L A4 LIST PRINT
PM support mode	[6]+[START] +[POWER]	Clears each counter.	[POWER] OFF/ON	100% K TEST MODE
Firmware update mode	[4]+[9]+ [POWER] or [8]+[9]+ [POWER]	Performs updating of the system firmware.	[POWER] OFF/ON	-

Notes:

1. Turn OFF the power using the main switch. To enter the desired mode, turn ON the power using the main switch while two digital keys designated to each mode (e.g. [0] and [5]) are pressed simultaneously. Hold the two keys until the [COPY] [e-FILING] [SCAN] [PRINT] [FAX] buttons is lit.
2. If the normal mode is started instead of self-diagnosis mode, start the equipment in the selfdiagnosis mode again.
3. When the optional FAX unit is installed, Faxes received automatically during the self-diagnosis mode may not be printed out. Be sure to disconnect the modular code from the line connectors (LINE1, LINE2) of the equipment before starting the self-diagnosis mode. Also, be sure to finish the self-diagnosis mode by turning the power OFF and back ON before connecting the modular code.

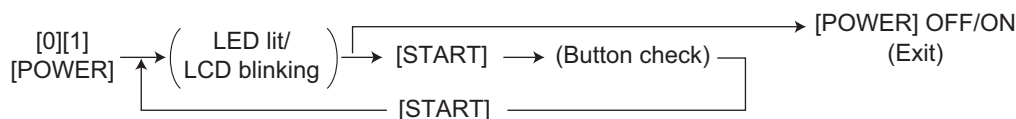
To exit from Self-diagnosis modes:

Shut down the equipment by pressing the [ON/OFF] button for a few seconds except for the control panel check mode and the firmware update mode.

<Operation procedure>

- Control panel check mode (01):

<Operation procedure>

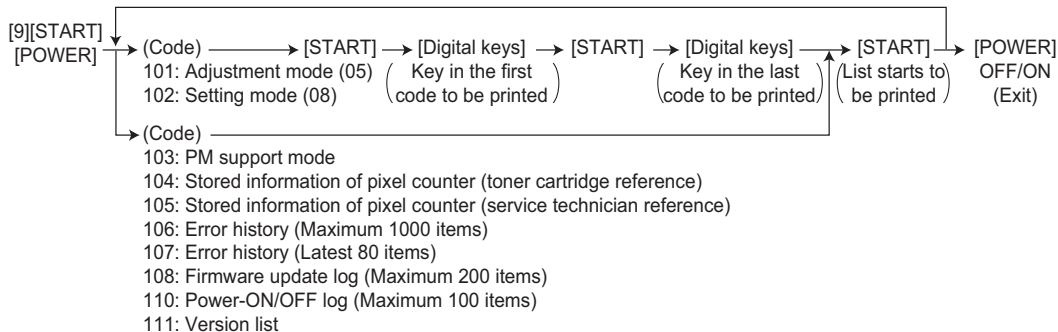


Notes:

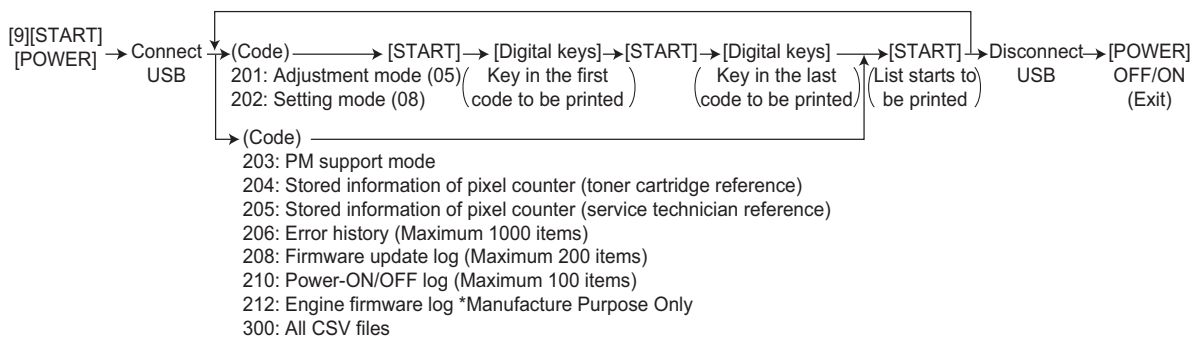
1. A mode can be canceled by [POWER] OFF/ON when the LED is lit and the LCD is blinking.
2. Button Check
 - Buttons with LED (Press to turn OFF the LED.)
 - Buttons without LED (Press to display the message on the control panel.)
 - Button on touch panel (Press to display the initial screen displayed at power-ON. Press [execution] on the touch panel and then the [CLEAR] button on the control panel. The screen then returns to the Button Check menu.)

- Test mode (03): Refer to P.2-28 "2.2.1 Input check (Test mode 03)" and P.2-35 "2.2.2 Output check (test mode 03)".
- Test print mode (04): Refer to P.2-39 "2.2.3 Test print mode (test mode 04)".
- Adjustment mode (05): Refer to P.2-40 "2.2.4 Adjustment mode (05)".
- Setting mode (08): Refer to P.2-73 "2.2.5 Setting mode (08)".
- List print mode (9S): The procedure varies depending on the code.
<Operation procedure>

PRINT



USB



Notes:

Precautions when storing information into USB media

- When storing the setting information of the equipment into a USB media, be sure to obtain permission from a user in advance.
- When storing the setting information of the equipment into a USB media, the information is printed out in a CSV format. Handle and manage the information with extra care.
- Do not lose or leak the setting information of the equipment.
- Do not use the setting information of the equipment for purposes other than maintenance or product services.
- Provide the information promptly if a user requires so.

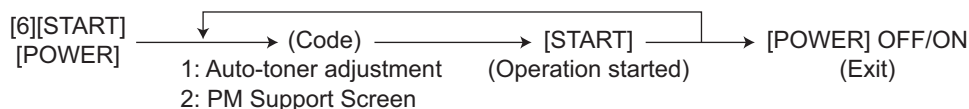
Remarks:

- The [COPY] [e-FILING] [SCAN] [PRINT] [FAX] buttons on the control panel keep blinking while data are being stored in the USB media.
- Do not disconnect the USB media while data are being stored.
- When the data of a code are printed again on the same equipment, the CSV file will be overwritten because the names of these files contain the same serial number.
- In the USB storage procedure above, lists are stored in a CSV format. The names of the CSV files are shown below (the numbers represent the serial number of the machine:

“0123456789”).

- 201:ADJUSTMENT_LIST_0123456789.csv
- 202:SETTING_LIST_0123456789.csv
- 203:PM_LIST_0123456789.csv
- 204:PIXEL_TONER_LIST_0123456789.csv
- 205:PIXEL_SERVICE_LIST_0123456789.csv
- 206:ERROR_LOG_0123456789.csv
- 208:FW_UPGRADE_LOG0123456789.csv
- 210:POWER_ONOFF_LOG_0123456789.csv
- 212:ENG_FW_LOG_0123456789.csv

- PM support mode (6S):
<Operation procedure>



- Firmware update mode (49 or 89): Refer to “6. FIRMWARE UPDATING”.

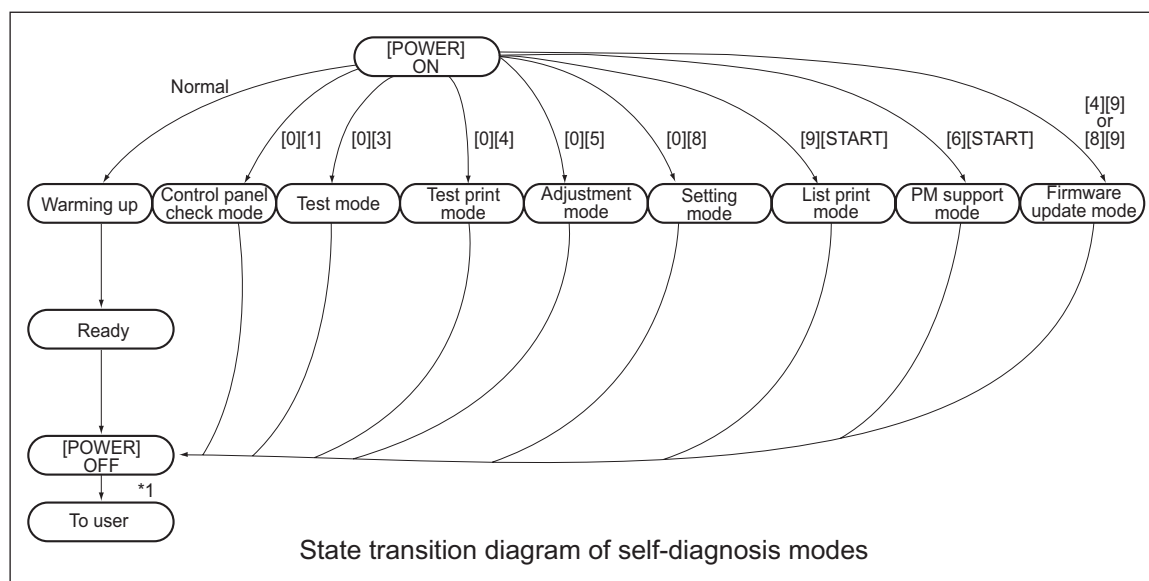


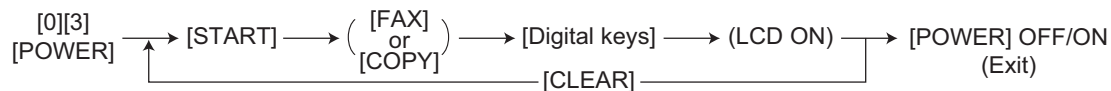
Fig. 2-1

*1 Turn OFF the power after using the self-diagnosis modes, and leave the equipment to the user.

2.2.1 Input check (Test mode 03)

The status of each input signal can be checked by pressing the [FAX] button, [COPY] button and the digital keys in the test mode (03).

<Operation procedure>



Note:

Initialization is performed before the equipment enters the test mode.

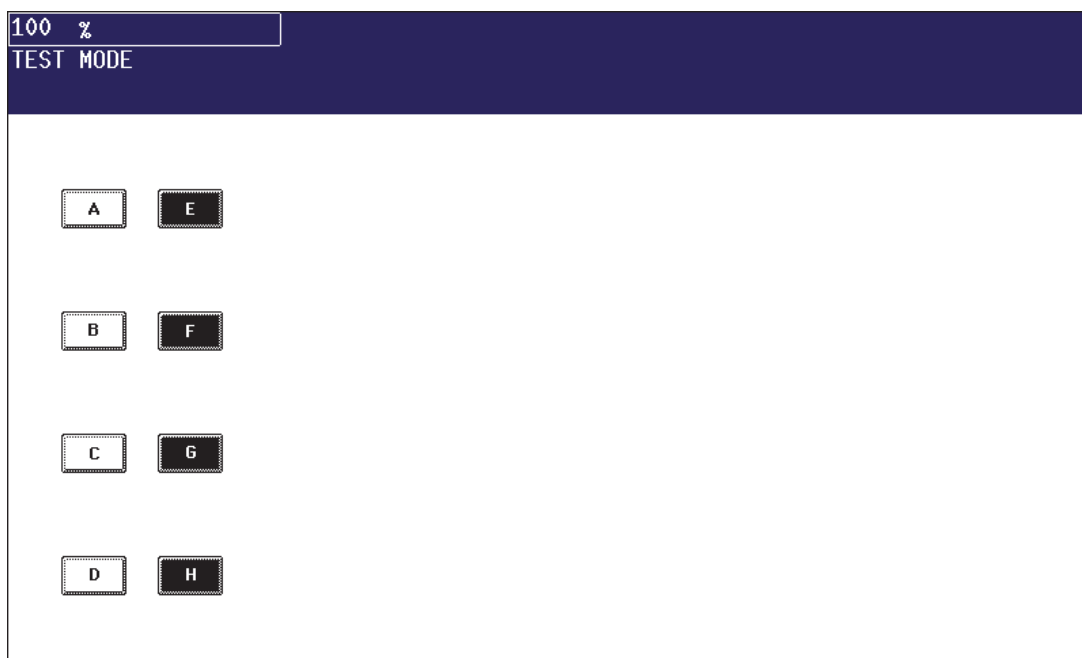




Fig. 2-2 Example of display during input check

Items to be checked and the condition of the equipment when the buttons [A] to [H] are highlighted are listed in the following pages.

[FAX] button: OFF / [COPY] button: OFF ([FAX] LED: OFF / [COPY] LED: OFF)

Digital key	Button	Items to check	Contents	
			Highlighted display e.g. 	Normal display e.g. 
[1]	A	Intermediate transport sensor	No paper	Paper present
	B	-	-	-
	C	1st drawer transport sensor	No paper	Paper present
	D	1st drawer feed sensor	No paper	Paper present
	E	1st drawer tray-up sensor	Upper limit position	than upper limit position
	F	1st drawer bottom sensor	Bottom position	Other than bottom position
	G	1st drawer empty sensor	No paper	Paper present
	H	1st drawer detection sensor	Drawer present	No drawer
[2]	A	Feed cover sensor	Cover closed	Cover opened
	B	-	-	-
	C	2nd drawer transport sensor	No paper	Paper present
	D	2nd drawer feed sensor	No paper	Paper present
	E	2nd drawer tray-up sensor	Upper limit position	Other than upper limit position
	F	2nd drawer bottom sensor	Bottom position	Other than bottom position
	G	2nd drawer empty sensor	No paper	Paper present
	H	2nd drawer detection sensor	Drawer present	No drawer
[3]	A	-	-	-
	B	-	-	-
	C	3rd drawer transport sensor / Tandem LCF drawer transport sensor	No paper	Paper present
	D	3rd drawer feed sensor / Tandem LCF drawer feed sensor	No paper	Paper present
	E	3rd drawer tray-up sensor / Tandem LCF drawer tray-up sensor	Upper limit position	Other than upper limit position
	F	3rd drawer / Tandem LCF drawer bottom sensor	Bottom position	Other than bottom position
	G	3rd drawer empty sensor / Tandem LCF drawer empty sensor	No paper	Paper present
	H	3rd drawer detection sensor / Tandem LCF detection sensor	Drawer present	No drawer
[4]	A	-	-	-
	B	-	-	-
	C	4th drawer transport sensor	No paper	Paper present
	D	4th drawer feed sensor	No paper	Paper present
	E	4th drawer tray-up sensor	Upper limit position	Other than upper limit position
	F	4th drawer bottom sensor	Bottom position	Other than bottom position
	G	4th drawer empty sensor	No paper	Paper present
	H	4th drawer detection sensor	Drawer present	No drawer
[5]	A	LCF connection	Not connected	Connected
	B	LCF set sensor	Unit opened	Unit closed
	C	-	-	-
	D	LCF feed sensor	No paper	Paper present
	E	LCF tray-up sensor	Upper limit position	Other than upper limit position
	F	LCF bottom sensor	Bottom position	Other than bottom position
	G	LCF empty sensor	No paper	Paper present
	H	LCF tray sensor	Tray opened	Tray closed







Digital key	Button	Items to check	Contents	
			Highlighted display e.g. 	Normal display e.g. 
[6]	A	Bypass paper size detection sensor-3 (Refer to Table 1)	Other than A3/LD	A3/LD
	B	Bypass paper size detection sensor-2 (Refer to Table 1)	Other than A4-R/LT-R	A4-R/LT-R
	C	Bypass paper size detection sensor-1 (Refer to Table 1)	Other than A5-R/ST-R	A5-R/ST-R
	D	Bypass paper size detection sensor-0 (Refer to Table 1)	Other than Card size	Card size
	E	-	-	-
	F	-	-	-
	G	Bypass feed sensor	No paper	Paper present
	H	Bypass feed unit cover sensor	Cover closed	Cover opened
[7]	A	Exit cover sensor	Cove opened	Cover closed
	B	Exit sensor	Paper present	No paper
	C	Fuser transport sensor	No paper	Paper present
	D	Reverse sensor-2	No paper	Paper present
	E	Reverse sensor-1	No paper	Paper present
	F	-	-	-
	G	-	-	-
	H	-	-	-
[8]	A	Tandem LCF connection switch	Connected	Not connected
	B	-	-	-
	C	Tandem LCF Standby side mis-stacking sensor	Correct stacking	Incorrect stacking
	D	Tandem LCF Standby side empty sensor	No paper	Paper present
	E	-	-	-
	F	Tandem LCF bottom sensor	Bottom position	Other than bottom position
	G	Tandem LCF end fence home position sensor	Home position	Other than home position
	H	Tandem LCF end fence stop position sensor	Stop position	Other than stop position
[9]	A	-	-	-
	B	-	-	-
	C	-	-	-
	D	-	-	-
	E	Exit/Reverse section connection	Not connected	Connected
	F	Horizontal transport sensor-1	Paper present	No paper
	G	Horizontal transport sensor-2	Paper present	No paper
	H	Horizontal transport sensor-3	Paper present	No paper
[0]	A	-	-	-
	B	-	-	-
	C	-	-	-
	D	Finisher connection (IPC connection)	Not connected	Connected
	E	Fuser unit switch	Connected	Not connected
	F	Web motor connection signal	Not connected	Connected
	G	-	-	-
	H	Developer unit switch	Not installed	Installed

Table 1. Relation between the status of the bypass paper size detection sensor and the paper width



Bypass paper-width sensor				Paper-width size
3	2	1	0	
0	1	1	1	A3/LD
1	0	1	1	A4-R/LT-R
1	1	0	1	A5-R/ST-R
1	1	1	0	Card size
0	0	1	1	B4/LG
1	0	0	1	B5-R



[FAX] button: ON / [COPY] button: OFF ([FAX] LED: ON / [COPY] LED: OFF)

Digital key	Button	Items to check	Contents	
			Highlighted display e.g. 	Normal display e.g. 
[1]	A	-	-	-
	B	-	-	-
	C	Exit sensor	Paper present	No paper
	D	-	-	-
	E	Cover interlock switch (front cover (lower))	Door closed	Door opened
	F	Toner bag full detection sensor	Full	Not full
	G	Fuser exit sensor	No paper	Paper present
	H	Front cover switch (front cover (upper))	Cover opened	Cover closed
[2]	A	-	-	-
	B	-	-	-
	C	-	-	-
	D	Auto-toner sensor	Not connected	Connected
	E	-	-	-
	F	Cleaner unit connection	Not connected	Connected
	G	Wire cleaner position detection switch	Other than stop position	Stop position
	H	Exit cover sensor	Cover opened	Cover closed
[3]	A	Destination detection-1	-	SAD
	B	Destination detection-2	-	TWD
	C	-	-	-
	D	Counter connection signal-2	Not connected	Connected
	E	-	-	-
	F	Key copy counter connection	Not connected	Connected
	G	Toner cartridge detection switch	No cartridge	Cartridge present
	H	Toner cartridge empty sensor	Toner present	No drawer
[4]	A	High-voltage transformer charging error	Cover closed	Error
	B	Web detection sensor	End of web	Web remaining
	C	-	-	-
	D	-	-	-
	E	Registration sensor	No paper	Paper present
	F	-	-	-
	G	Transfer belt release detection sensor	Other than release position	Release position
	H	Transfer belt contact detection sensor	Other than contact position	Contact position

Digital key	Button	Items to check	Contents	
			Highlighted display e.g. 	Normal display e.g. 
[5]	A	-	-	-
	B	Original exit/reverse sensor	Paper present	No paper
	C	Original reverse unit opening/closing sensor	Opened	Closed
	D	Original reading end sensor	Paper present	No paper
	E	-	-	-
	F	RADF connection	RADF connected	Not connected
	G	RADF opening/closing switch	RADF opened	RADF closed
	H	Carriage home position sensor	Home position	Other than home position
[6]	A	-	-	-
	B	-	-	-
	C	-	-	-
	D	Automatic original detection sensor (APS-R)	No original	Original present
	E	Automatic original detection sensor (APS-C)	No original	Original present
	F	Automatic original detection sensor (APS-3)	No original	Original present
	G	Automatic original detection sensor (APS-2)	No original	Original present
	H	Automatic original detection sensor (APS-1)	No original	Original present
[7]	A	Original tray sensor	Original present	No original
	B	Original empty sensor	Original present	No original
	C	Jam access cover opening/closing switch	Cover opened	Cover closed
	D	RADF opening/closing switch	RADF opened	RADF closed
	E	Large original exit sensor	Original present	No original
	F	Original intermediate transport sensor	Original present	No original
	G	Original reading start sensor	Original present	No original
	H	Original registration sensor	Original present	No original
[8]	A	Original tray width sensor-1	OFF	ON
	B	Original tray width sensor-2	OFF	ON
	C	Original tray width sensor-3	OFF	ON
	D	-	-	-
	E	-	-	-
	F	Original width detection sensor-1	Original present	No original
	G	Original width detection sensor-2	Original present	No original
	H	Original width detection sensor-3	Original present	No original
[9]	A	-	-	-
	B	-	-	-
	C	-	-	-
	D	-	-	-
	E	-	-	-
	F	-	-	-
	G	-	-	-
	H	-	-	-
[0]	A	-	-	-
	B	-	-	-
	C	-	-	-
	D	-	-	-
	E	-	-	-
	F	-	-	-
	G	-	-	-
	H	-	-	-

[FAX] button: OFF / [COPY] button: ON ([FAX] LED: OFF / [COPY] LED: ON)

Digital key	Button	Items to check	Contents	
			Highlighted display e.g. 	Normal display e.g. 
[1]	-	Temperature/humidity sensor (displays temperature inside of the equipment)	-	Temperature [°C]
[2]	-	Temperature/humidity sensor (displays humidity inside of the equipment)	-	Humidity [%RH]
[3]	-	Drum thermistor (displays drum surface temperature)	-	Temperature [°C]
[4]	A	-	-	-
	B	-	-	-
	C	-	-	-
	D	-	-	-
	E	-	-	-
	F	-	-	-
	G	-	-	-
	H	-	-	-
[5]	A	-	-	-
	B	-	-	-
	C	-	-	-
	D	-	-	-
	E	-	-	-
	F	-	-	-
	G	-	-	-
	H	-	-	-
[6]	A	-	-	-
	B	-	-	-
	C	-	-	-
	D	-	-	-
	E	-	-	-
	F	-	-	-
	G	-	-	-
	H	-	-	-
[7]	A	-	-	-
	B	-	-	-
	C	-	-	-
	D	-	-	-
	E	-	-	-
	F	-	-	-
	G	-	-	-
	H	-	-	-
[8]	A	-	-	-
	B	-	-	-
	C	-	-	-
	D	-	-	-
	E	-	-	-
	F	-	-	-
	G	-	-	-
	H	-	-	-
[9]	A	-	-	-
	B	-	-	-
	C	-	-	-
	D	-	-	-
	E	-	-	-
	F	-	-	-
	G	-	-	-
	H	-	-	-

Digital key	Button	Items to check	Contents	
			Highlighted display e.g. 	Normal display e.g. 
[0]	A	USB Dongle for Printer/Scanner Kit (GM-2180)	Connectable (*2)	Not connectable
	B	USB Dongle for Printer Kit (GM-1180)	Connectable	Not connectable
	C	USB Dongle for Scanner Kit (GM-4180)	Connectable	Not connectable
	D	Dongles for other equipments / Other USB devices	Connectable	Not connectable
	E	Judgement for acceptable USB storage device (*1)	Acceptable	Not acceptable
	F	-	-	-
	G	-	-	-
	H	-	-	-

*1

- Be sure to install the USB storage device to the equipment and check if the device can be used with this code.
- Be sure to turn OFF the write protection (the function to prevent data from erasure by the accidental recording or deleting) of the USB storage device before performing the check, otherwise this code cannot be used.
- It may take some time (2 sec. to 10 sec.) before this check is completed depending on the USB storage device.

*2

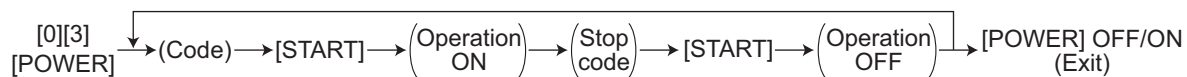
Since the NAD, MJD, ARD and CND models normally have printer and scanner functions, button A for [0] is displayed highlighted even when no USB dongle is connected.

2.2.2 Output check (test mode 03)

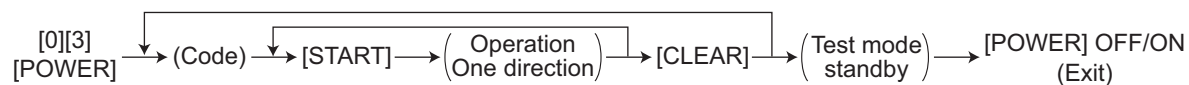
Status of the output signals can be checked by keying in the following codes in the test mode 03.

<Operation procedure>

Procedure 1



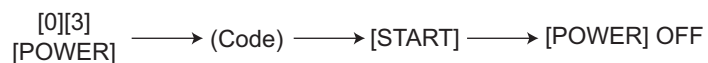
Procedure 2



Procedure 3



Procedure 4



Code	Function	Code	Function	Procedure
101	Drum motor ON (operational without developer unit)	151	Code No. 101 function OFF	1
102	New toner supply motor ON (operational with developer unit)	152	Code No. 102 function OFF	1
103	Polygonal motor (600 dpi) ON	153	Code No. 103 function OFF	1
108	Registration motor ON	158	Code No. 108 function OFF	1
110	Horizontal transport section driving clutch-1 ON	160	Code No. 110 function OFF	1
111	Drum separation finger solenoid ON	161	Code No. 111 function OFF	1
112	Developer unit motor ON (operational without developer unit)	162	Code No. 112 function OFF	1
113	Fuser motor ON	163	Code No. 113 function OFF	1
114	Transfer belt motor ON	164	Code No. 114 function OFF	1
115	Cleaning brush drive motor ON	165	Code No. 115 function OFF	1
116	Used toner transport motor ON	166	Code No. 116 function OFF	1
118	Laser ON	168	Code No. 118 function OFF	1
120	Exit motor (normal) ON	170	Code No. 120 function OFF	1
121	Exit motor (increased speed) ON	171	Code No. 121 function OFF	1
122	LCF feed motor ON	172	Code No. 122 function OFF	1
123	Hopper motor ON	173	Code No. 123 function OFF	1
124	Web motor ON	174	Code No. 124 function OFF	1
125	Feed motor ON	175	Code No. 125 function OFF	1
126	Reverse motor (normal / forward rotation) ON	176	Code No. 126 function OFF	1
127	Reverse motor (increased speed / forward rotation) ON	177	Code No. 127 function OFF	1
128	Reverse motor (normal / reverse rotation) ON	178	Code No. 128 function OFF	1
129	Reverse motor (increased speed / reverse rotation) ON	179	Code No. 129 function OFF	1
131	Recycle toner transport motor ON	181	Code No. 131 function OFF	1
132	New toner transport motor ON	182	Code No. 132 function OFF	1
133	Transport motor ON (processing speed)	183	Code No. 133 function OFF	1
134	Transport motor ON (feeding speed)	184	Code No. 134 function OFF	1
135	Transport motor ON (ADU feeding speed)	185	Code No. 135 function OFF	1

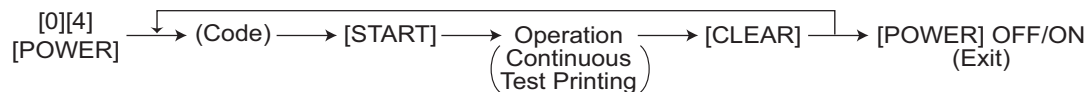
Code	Function	Procedure
201	1st drawer feed clutch ON/OFF	3
202	2nd drawer feed clutch ON/OFF	3
204	Bypass feed clutch ON/OFF	3
206	Tandem LCF pickup solenoid ON/OFF	3
207	Tandem LCF end fence reciprocating movement	2
208	Tandem LCF end fence motor ON/OFF	3
209	3rd drawer / Tandem LCF feed clutch ON/OFF	3
210	3rd drawer / Tandem LCF transport clutch ON/OFF	3
218	Key copy counter count-up	3
220	Horizontal transport section drive clutch-2 ON/OFF	3
221	Horizontal transport section drive clutch-3 ON/OFF	3
225	4th drawer transport clutch ON/OFF	3
226	3rd drawer / Tandem LCF feed clutch ON/OFF	3
228	4th drawer feed clutch ON/OFF	3
229	1st drawer transport clutch ON/OFF	3
230	2nd drawer transport clutch ON/OFF	3
231	3rd drawer / Tandem LCF transport clutch ON/OFF	3
234	Bypass pickup solenoid ON/OFF	3
235	Discharge LED ON/OFF	3
236	Exit section cooling fan (high speed) ON/OFF	3
237	Exit section cooling fan (low speed) ON/OFF	3
240	Developer unit fan ON/OFF	3
243	Wire cleaner drive motor ON	2
244	Transfer belt cam motor up/down	3
245	Transfer belt power supply roller bias TR1 ON/OFF	3
246	Transfer belt power supply roller bias TR2 ON/OFF	3
247	Transfer belt power supply roller bias TR3 ON/OFF	3
248	Developer bias +DC ON/OFF	3
249	Developer bias -DC1 ON/OFF	3
252	Main charger ON/OFF	3
254	Duct in fan ON/OFF	3
255	Transfer belt cleaning brush bias ON/OFF	3
257	Duct out fan (high speed) ON/OFF	3
258	Duct out fan (low speed) ON/OFF	3
259	Fuser cooling fan (high speed) ON/OFF	3
260	Fuser cooling fan (low speed) ON/OFF	3
261	Scan motor ON (automatically stops at limit position; speed can be changed with the [ZOOM] button)	2
264	SLG board cooling fan ON/OFF	3
267	Exposure lamp ON/OFF	3
270	Tandem LCF tray-up motor up/down	2
271	LCF tray motor tray-up	2
272	LCF feed clutch ON/OFF	3
273	LCF transport clutch ON/OFF	3
274	Gate solenoid ON/OFF	3
276	Tray-up motor-1 ON (1st drawer tray goes up)	2
278	Tray-up motor-1 ON (2nd drawer tray goes up)	2
279	Tray-up motor-2 ON (3rd drawer tray goes up)	2
280	Tray-up motor-2 ON (4th drawer tray goes up)	2
281	RADF original feed motor ON/OFF (normal rotation)	3

Code	Function	Procedure
282	RADF original feed motor ON/OFF (reverse rotation)	3
283	RADF read motor ON/OFF	3
284	RADF original exit motor ON/OFF (normal rotation)	3
285	RADF original exit motor ON/OFF (reverse rotation)	3
286	RADF original reverse motor (normal rotation) ON/OFF	3
287	RADF original reverse motor (reverse rotation) ON/OFF	3
288	RADF original reverse solenoid ON/OFF	3
292	Laser unit cooling fan (high speed) ON/OFF	3
293	Laser unit cooling fan (low speed) ON/OFF	3
294	RADF original exit solenoid ON/OFF	3
295	Power OFF mode	4
297	RADF cooling fan ON/OFF	3
301	Modem test 2100 Hz	2
302	Modem test 14.4 KBPS(V17)	2
303	Modem test 9.6 KBPS(V29)	2
304	Modem test 4.8 KBPS(V27)	2
305	Modem test 300 BPS	2
306	Modem test 1850 Hz	2
307	Modem test 1650 Hz	2
308	Modem test 1100 Hz	2
309	Modem test 462 Hz	2
310	Modem test 1300 Hz	2
311	Modem test 33.6 KBPS(V.34)	2
312	Modem test 28.8 KBPS(V.34)	2
313	Modem test 24.0 KBPS(V.34)	2
314	Modem test 16.8 KBPS(V.34)	2
315	Dial test 10 PPS (A telephone number registered in a key pressed is dialed to a telephone line continuously. The pressed key is displayed.)	5
316	Dial test 20 PPS (A telephone number registered in a key pressed is dialed to a telephone line continuously. The pressed key is displayed.)	5
317	Dial test PB (A telephone number registered in a key pressed is dialed to a telephone line continuously. The pressed key is displayed.)	5
318	Modem test 12.0 KBPS(V.17)	2
319	Modem test 7.2 KBPS(V.29)	2
320	Modem test 2.4 KBPS(V.27ter)	2
321	Fax image memory test (Read or write the image memory in the FAX board) All of the fax image memory mounted is checked. (The installation of the expansion memory for the FAX board is automatically detected.) When completed: Status display	2
322	CML relay ON	2
450	IH board cooling fan (high speed) ON/OFF	3
451	IH board cooling fan (low speed) ON/OFF	3
452	Reverse section cooling fan-1 (front side) ON/OFF	3
454	Reverse section cooling fan-2 (front side) ON/OFF	3

2.2.3 Test print mode (test mode 04)

The embedded test pattern can be printed out by keying in the following codes in the test print mode (04).

<Operation procedure>



Notes:

1. When an error occurs, it is indicated on the panel, but the recovery operation is not performed. Turn OFF the power and then back ON to clear the error.
2. During test printing, the [CLEAR] button is disabled when "Wait adding toner" is displayed.

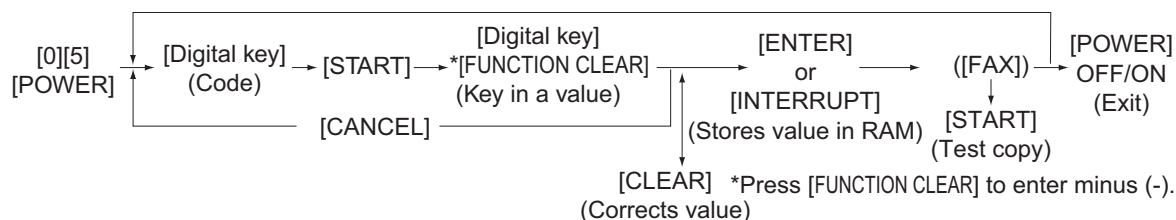
Code	Types of test pattern	Remarks	Output for
111	Primary scanning direction 33 gradation steps	Error diffusion	SLG
113	Secondary scanning direction 33 gradation steps	Error diffusion / gamma adjustment pattern	SLG
142	Grid pattern	Pattern width: 2 dots, Pitch: 10 mm	LGC
182	Secondary scanning direction 33 gradation steps (dither)	Gamma adjustment pattern	SLG
184	Secondary scanning direction 33 gradation steps and dither process check pattern	Gamma adjustment check pattern	SLG

2.2.4 Adjustment mode (05)

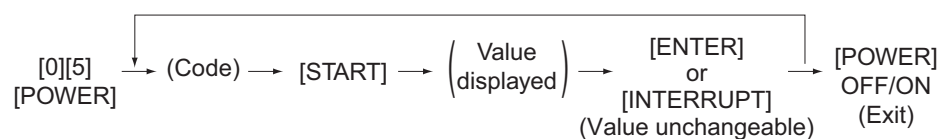
Items in the adjustment mode list in the following pages can be corrected or changed in the adjustment mode (05). Turn ON the power with pressing the digital keys [0] and [5] simultaneously in order to enter this mode.

When the power should be turned OFF, be sure to shut down the equipment by pressing the [ON/OFF] button for a few seconds.

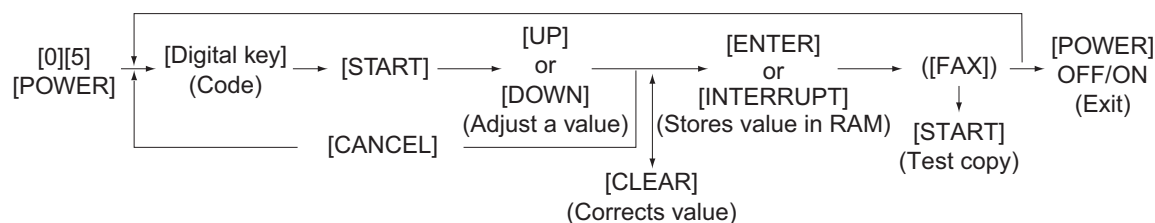
Procedure 1



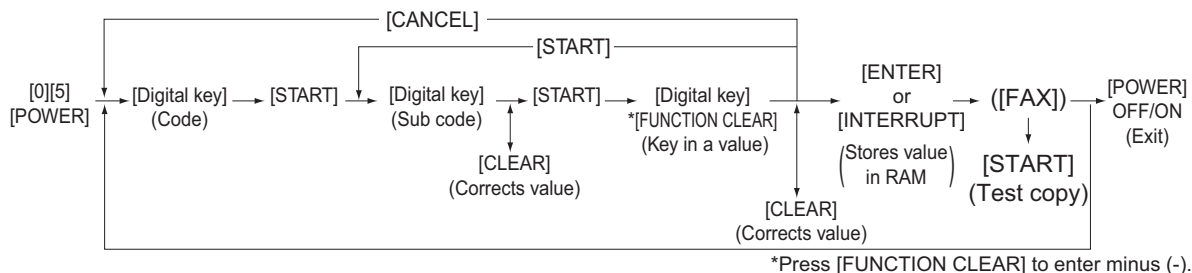
Procedure 2



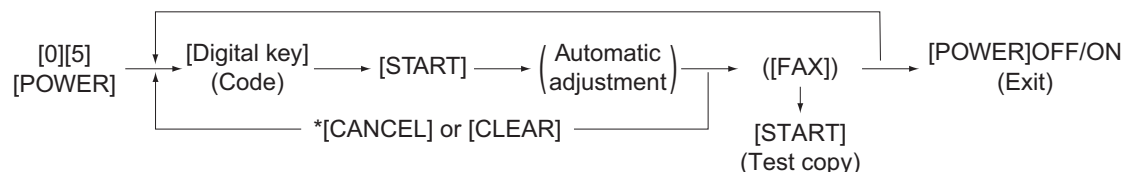
Procedure 3



Procedure 4

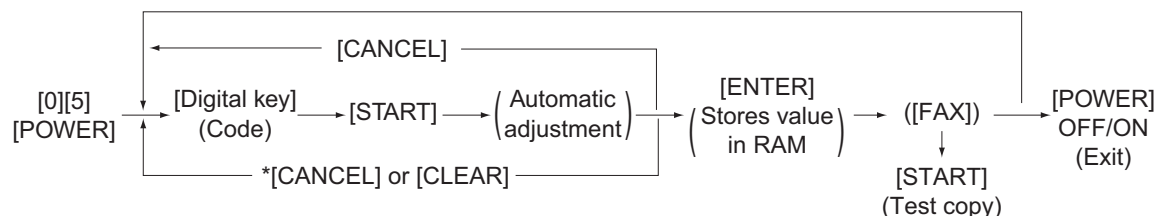


Procedure 6



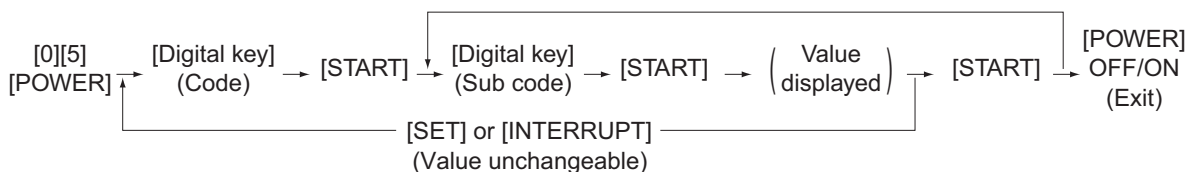
* When the automatic adjustment ends abnormally, error message is displayed.

Procedure 7

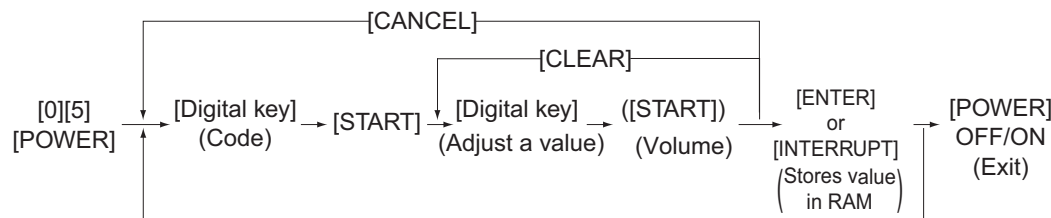


* When the automatic adjustment ends abnormally, error message is displayed.

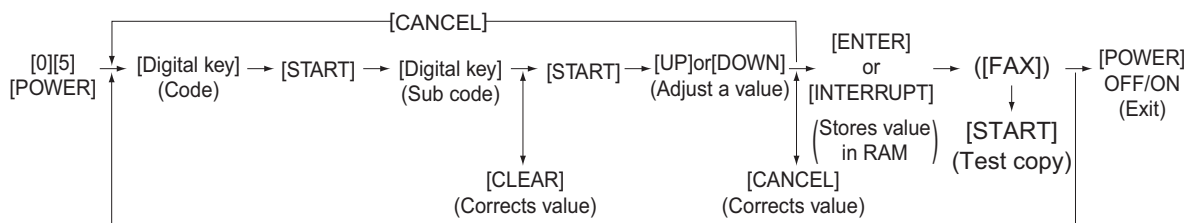
Procedure 10



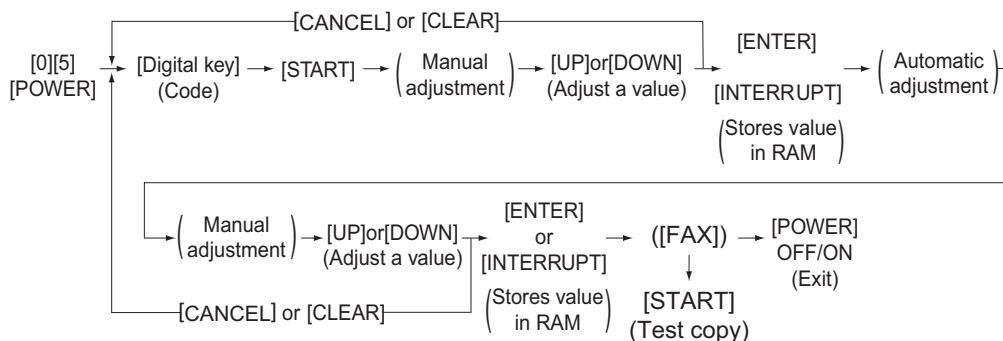
Procedure 12



Procedure 14



Procedure 17

**Note:**

The fuser roller temperature control at the adjustment mode is different from that at the normal state.

Therefore, the problem of fusing efficiency may be occurred in the test copy at the adjustment mode. In that case, turn ON the power normally, leave the equipment for approx. 3 minutes after it has become ready state and then start up the adjustment mode again.

Test print pattern in Adjustment Mode (05)

Operation: One test print is printed out when the [FAX] button is pressed after the code is keyed in at Standby Screen.

Code	Types of test pattern	Remarks
1	Grid pattern (same as 04-142)	Refer to 3.2.3 Printer related adjustment
3	Grid pattern 04-142 (Duplex printing)	Thick paper not available Refer to 3.2.3 Printer related adjustment
9	Gamma adjustment pattern (dither) (same as 04-182)	Refer to 3.2.2 Paper alignment at registration roller
10	Gamma adjustment pattern (error diffusion) (same as 04-113)	Refer to 3.2.2 Paper alignment at registration roller
58	Leading edge position adjustment 04-142 (Thick paper 2 mode)	For Thick paper 2
59	Leading edge position adjustment 04-142 (Thick paper 3 mode)	For Thick paper 3
60	Leading edge position adjustment 04-142 (OHP film mode)	For OHP films
101	Grid pattern – 1 (Black / Thick paper 1)	For Thick paper 1(same as 04-113, THICK1)

Notes:

- The digit after the hyphen in “Code” of the following table is a sub code.
- In “RAM”, the NVRAM or SRAM of the board in which the data of each code is stored is indicated. “M” stands for the LGC board and “SYS” stands for the SYS board.

Adjustment mode (05)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
200	Developer	Automatic adjustment of auto-toner sensor (Fuser heater ON)	ALL	-	-	The adjustment starts approx. 3 minutes after this mode has been selected, and then the value is automatically adjusted. The adjustment value is fixed by pressing the [ENTER] button. * This selection is disabled when the developer unit is not installed. (Ch.3.1)	17
201	Developer	Correction of auto-toner sensor (Fuser heater ON)	ALL	128 <0-255>	M	The adjustment value of the auto-toner sensor set in the code 05-200 is verified. * This selection is disabled when the developer unit is not installed.	3
205	Developer	Developer bias output adjustment (Developer bias ON)	ALL	113 <0-255>	M	The developer bias is output. Use this code to verify the output value of the high-voltage transformer. * The value is output while the developer unit is taken off from the drum. (Ch.3.6)	3

Adjustment mode (05)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
210	Charger	Main charger grid bias output adjustment		ALL	102 <0-255>	M	The main charger grid bias is output. Use this code to verify the output value of the high-voltage transformer. * Take off the developer unit to enable this code. (Ch.3.6)	3
221	Transfer	Transfer transformer DC output adjustment (C)		ALL	138 <0-255>	M	When the value increases, the transfer transformer output increases. The output value of the transfer belt power supply roller is unmeasurable since its voltage is extremely high. * Make sure to close the front cover when this code is used. Never touch the high-voltage section. * This selection is disabled when the developer unit is not installed.	3
241	Image quality control	Relative humidity display at image quality closed-loop control		ALL	55 <0-99>	M	A relative humidity detected at the image quality closed-loop control is displayed.	2
242		Drum surface potential sensor control status		ALL	0 <0-16>	M	0: Normal 1: Error (control stopped) 2: Error (sensor abnormality)	2
244		Drum surface potential sensor output (Latest value) (Center voltage)		ALL	0 <0-999>	M	The drum surface potential of the main charger center bias measured by the sensor is displayed.	2
247	Transfer	Temperature/humidity sensor Humidity display		ALL	60 <0-100>	M	The humidity of the inside of the equipment is displayed. [Unit: RH%]	2
248	Image quality control	Latest value of drum temperature		ALL	22 <0-100>	M	A drum surface temperature detected at the drum surface potential sensor control is displayed.	2
249		Drum surface potential sensor / Residual voltage sensor output (Latest value)		ALL	0 <0-999>	M	The measured value of the residual voltage after discharging is displayed.	2
251-0	Charger	Main charger grid calibration reference value adjustment	Lower limit	ALL	50 <0-255>	M	The lower limit bit value of the main charger grid control voltage is output.	4
251-1			Upper limit	ALL	207 <0-255>	M	The upper limit bit value of the main charger grid control voltage is output.	4

Adjustment mode (05)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
253-0	Development	Developer bias calibration reference value adjustment	Lower limit	ALL	59 <0-255>	M	The lower limit bit value of the developer bias control voltage is output.	4
253-1			Upper limit	ALL	227 <0-255>	M	The upper limit bit value of the developer bias control voltage is output.	4
260	Image quality control	Contrast voltage open-loop control RMS value display		ALL	250 <0-999>	M	The default value of development contrast potential is displayed.	2
261		RMS value display of development contrast voltage		ALL	300 <0-999>	M	The RMS value of development contrast potential is displayed.	2
262	Image quality control	Background potential RMS value display		ALL	100 <0-999>	M	The RMS value of the background potential is displayed. [Unit: V]	2
263-0	Image quality control	RMS value display of open-loop control (Laser power initial value)	1st laser	ALL	Refer to contents <0-1500>	M	The RMS value of the laser power calculated in the open-loop control is displayed. [Unit: μW] <Default value> e-STUDIO555/655:665 755/855: 304	10
263-1			2nd laser	ALL	304 <0-1500>	M	The RMS value of the laser power calculated in the open-loop control is displayed. [Unit: μW] * Valid only for e-STUDIO755/855	10
264-0	Image quality control	Laser power RMS value display	1st laser	ALL	Refer to contents <0-1500>	M	The RMS value at the regular operation is displayed. [Unit: μW] <Default value> e-STUDIO555/655: 665 e-STUDIO755/855: 304	10
264-1			2nd laser	ALL	304 <0-1500>	M	The RMS value at the regular operation is displayed. [Unit: μW] * Valid only for e-STUDIO755/855	10
265-0	Image quality control	Number of times of image quality closed-loop control correction	Development contrast voltage correction	ALL	0 <0-99>	M	The number of times of the development contrast voltage correction performed is displayed.	10
265-1			Laser power correction	ALL	0 <0-99>	M	The number of times of laser power correction performed is displayed.	10
268	Image quality control	Drum surface potential sensor output (Latest value) (Low voltage)		ALL	0 <0-999>	M	The value of the main charger grid bias measured with the drum surface potential sensor is displayed.	2
269		Drum surface potential sensor output (Latest value) (High voltage)		ALL	0 <0-999>	M		2

Adjustment mode (05)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
270	Transfer	Temperature/humidity sensor Temperature display		ALL	22 <0-50>	M	The temperature of the inside of the equipment is displayed. [Unit: °C]	2
286-0	Laser	Laser power adjustment	1st laser	ALL	Refer to contents <0-255>	M	When the value increases, the laser power output increases. <Default value> e-STUDIO555/655: 132 e-STUDIO755/855: 101	14
286-1			2nd laser	ALL	101 <0-255>	M	When the value increases, the laser power output increases. * Valid only for e-STUDIO755/855	14
290	Image quality control	Image quality control enforcement		ALL	-	M	Image quality control is performed forcibly when the density correction of the image is required.	6
291	Image quality control	Control status display of image quality control		ALL	0 <0-16>	M	The control status of image quality control is displayed. 0: Default 1: Error (control stopped) 2: Error (abnormal pattern density) 4: Sensor LED off-level abnormality or sensor LED light amount abnormality	2
292	Image quality control	Sensor output value when LED light source is OFF		ALL	0 <0-1023>	M	Displays a sensor output value when the light source of the LED is OFF.	2
293	Image quality control	Sensor output value on drum surface		ALL	0 <0-1023>	M	Displays a sensor output value on the drum surface (with no test pattern) when the light source of the LED is ON.	2
294	Image quality control	Low density pattern sensor output value		ALL	0 <0-1023>	M	The value of the low density pattern detected at the image quality closed-loop control is displayed.	2
295		High density pattern sensor output value		ALL	0 <0-1023>	M	The value of the high density pattern detected at the image quality closed-loop control is displayed.	2
296	Image quality control	Result display of image quality sensor light amount adjustment		ALL	0 <0-255>	M	The result of the sensor LED light amount adjustment (to use the reflection amount from the drum surface as a reference) is displayed.	2

Adjustment mode (05)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
299	Image quality control	Image quality open-loop control enforcement		ALL	-	M	When a service call has occurred or a warning message (IQC/SPC) has appeared, "Image quality control enforcement (05-290)" should be performed after the equipment is repaired or the cause of the error is evaluated. In case the service call occurred or the warning message (IQC/SPC) appeared again after the performance of the code 05-290, a test chart can be printed out by temporarily using this code (05-299) if an image check is urgently needed.	6
305	Scanner	Image location adjustment of secondary scanning direction (scanner section)		ALL	140 <92-164>	SYS	When the value increases by "1", the image shifts by approx. 0.143 mm toward the trailing edge of the paper.	1
306	Scanner	Image location adjustment of primary scanning direction (scanner section)		ALL	135 <63-193>	SYS	When the value increases by "1", the image shifts by approx. 0.169 mm toward the front side of the paper.	1
308	Scanner	Distortion mode		ALL	-	-	Moves carriages to the adjusting position. (Ch.3.2.4)	6
310	Scanner	Shading position adjustment	Original glass	ALL	0 <0-11>	SYS	0.1433 mm/step	1
311			RADF	ALL	0 <0-5>	SYS	0.1433 mm/step	1
340	Scanner	Reproduction ratio adjustment of secondary scanning direction (scanner section)		ALL	128 <0-255>	SYS	When the value increases by "1", the reproduction ratio in the secondary scanning direction (vertical to paper feeding direction) increases by approx. 0.223%.	1
352	RADF	EEPROM initialization		ALL	-	SYS	EEPROM is initialized.	6
353	RADF	RADF original reading start sensor Manual adjustment		ALL	-	-	Adjusts the RADF original reading start sensor of the RADF manually.	6
354	RADF	Adjustment of RADF paper alignment	for single-sided original	ALL	10 <0-20>	SYS	When the value increases by "1", the aligning amount increases by approx. 0.5 mm.	1
355			for double-sided original	ALL	10 <0-20>	SYS		1

Adjustment mode (05)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
356	RADF	Automatic adjustment of RADF sensor		ALL	-	SYS	Performs the adjustment and initialization when the RADF board or RADF sensor is replaced.	6
357	RADF	Fine adjustment of RADF transport speed		ALL	50 <0-100>	SYS	When the value increases by "1", the reproduction ratio of the secondary scanning direction when using the RADF increases by approx. 0.1%.	1
358	RADF	RADF sideways deviation adjustment		ALL	120 <63-193>	SYS	When the value increases by "1", the image of original fed from the RADF shifts toward the rear side of paper by approx. 0.0846 mm.	1
359	Scanner	Carriage position adjustment during scanning from RADF		ALL	128 <0-255>	SYS	When the value increases by "1", the carriage position when using the RADF shifts by approx. 0.1 mm toward the original feeding side.	1
365	RADF	RADF leading edge position adjustment	for single -sided original	ALL	50 <0-100>	SYS	When the value increases by "1", the copied image of original fed from the RADF shifts toward the trailing edge of paper by approx. 0.1 mm.	1
366			for double sided original	ALL	50 <0-100>	SYS		1
401	Laser	Fine adjustment of polygonal motor rotation speed (adjustment of primary scanning direction reproduction ratio)		PRT	128 <0-255>	M	When the value increases in increments of "1", the reproduction ratio of the primary scanning direction increases as follows: e-STUDIO555/655: 0.3 mm/step e-STUDIO755/855: 0.1 mm/step	1
405				PPC	128 <0-255>	M		1
408	Laser	Secondary scanning laser writing start position adjustment (All)		ALL	45 <0-80>	M	When the value increases by "1", the image shifts approx. 0.4 mm to the trailing edge side of the paper.	1
409	Drive	Fine adjustment of drum motor rotation speed		FAX	128 <0-255>	M		1
410	Laser	Adjustment of primary scanning laser writing start position.		PPC	128 <0-255>	M	When the value increases by "1", the writing start position shifts to the front side by approx. 0.0423 mm. e-STUDIO555/655: 113 e-STUDIO755/855: 123	1
411				PRT	Refer to contents <0-255>	M		1
412	Drive	Fine adjustment of registration motor rotation speed		FAX	128 <0-255>	M		1
426	Drive	Fine adjustment of transfer belt motor rotation speed		FAX	128 <0-255>	M		1

Adjustment mode (05)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
427	Drive	Fine adjustment of fuser roller rotation speed		FAX	128 <0-255>	M		1
428	Laser	Secondary scanning laser writing start position adjustment	4th drawer	ALL	20 <0-40>	M	When the value increases by "1", the image shifts approx. 0.4 mm to the trailing edge side of the paper.	1
429			Tandem LCF	ALL	20 <0-40>	M		1
430	Image	Top margin adjustment (blank area at the leading edge of the paper)		PPC	24 <0-255>	M	When the value increases by "1", the blank area becomes wider by approx. 0.0423 mm.	1
431	Image	Left margin adjustment (blank area at the left of the paper along the paper feeding direction)		PPC	0 <0-255>	M		1
432	Image	Right margin adjustment (blank area at the right of the paper along the paper feeding direction)		PPC	0 <0-255>	M		1
433	Image	Bottom margin adjustment (blank area at the trailing edge of the paper)		PPC	0 <0-255>	M		1
434-0	Image	Void adjustment in duplex copying	Bottom margin	PPC/ PRT	JPC: 16 UC: 10 EUR: 24 <0-255>	M		4
434-1			Left margin	PPC/ PRT	JPC: 10 UC: 10 EUR: 24 <0-255>	M		4
435	Image	Top margin adjustment (blank area at the leading edge of the paper)		PRT	24 <0-255>	M		1
436	Image	Left margin adjustment (blank area at the left of the paper along the paper feeding direction)		PRT	0 <0-255>	M	1	
437	Image	Right margin adjustment (blank area at the right of the paper along the paper feeding direction)		PRT	0 <0-255>	M	1	
438	Image	Bottom margin adjustment (blank area at the trailing edge of the paper)		PRT	0 <0-255>	M	1	
439	Drive	Fine adjustment of feed motor rotation speed		FAX	128 <0-255>	M		1
440	Laser	Adjustment of secondary scanning laser writing start position	1st drawer	ALL	20 <0-40>	M	When the value increases by "1", the image shifts toward the trailing edge of the paper by approx. 0.4 mm.	1
441			2nd drawer	ALL	20 <0-40>	M		1
442			Bypass feeding	ALL	20 <0-40>	M		1
443			Option LCF	ALL	20 <0-40>	M		1
444			3rd drawer	ALL	20 <0-40>	M		1
445			Duplex feeding	ALL	20 <0-40>	M		1

Adjustment mode (05)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
446-0	Drive	Fine adjustment of drum motor rotation speed	Normal speed	PPC	128 <0-255>	M		4
446-1			Increased speed	PPC	130 <0-255>	M		4
447-0	Drive	Fine adjustment of drum motor rotation speed	Normal speed	PRT	128 <0-255>	M		4
447-1			Increased speed	PRT	130 <0-255>	M		4
448-0	Paper feeding	Paper aligning amount adjustment at the registration section (3rd drawer / Tandem LCF) (Plain paper)	Long size	ALL	10 <0-63>	M	When the value increases by "1", the aligning amount increases by approx. 0.8 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size-1: 205 mm to 219 mm Short size-2: 160 mm to 204 mm Postcard: 159 mm or shorter	4
448-1			Middle size	ALL	10 <0-63>	M		4
448-2			Short size-1	ALL	12 <0-63>	M		4
448-3			Short size-2	ALL	12 <0-63>	M		4
448-4			Postcard	ALL	12 <0-63>	M		4
449-0	Paper feeding	Paper aligning amount adjustment at the registration section (4th drawer/ Plain paper)	Long size	ALL	10 <0-63>	M		4
449-1			Middle size	ALL	10 <0-63>	M		4
449-2			Short size-1	ALL	12 <0-63>	M		4
449-3			Short size-2	ALL	12 <0-63>	M		4
449-4			Postcard	ALL	12 <0-63>	M		4
450-0	Paper feeding	Paper aligning amount adjustment at the registration section (1st drawer/ Plain paper)	Long size	ALL	10 <0-63>	M		4
450-1			Middle size	ALL	10 <0-63>	M		4
450-2			Short size-1	ALL	12 <0-63>	M		4
450-3			Short size-2	ALL	12 <0-63>	M		4
450-4			Postcard	ALL	12 <0-63>	M		4
451-0	Drive	Fine adjustment of exit motor rotation speed	Normal speed	FAX	128 <0-255>	M		4
451-1			Increased speed	FAX	130 <0-255>	M		4
452-0	Paper feeding	Paper aligning amount adjustment at the registration section (2nd drawer/ Plain paper)	Long size	ALL	10 <0-63>	M	When the value increases by "1", the aligning amount increases by approx. 0.8 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size-1: 205 mm to 219 mm Short size-2: 160 mm to 204 mm Postcard: 159 mm or shorter	4
452-1			Middle size	ALL	10 <0-63>	M		4
452-2			Short size-1	ALL	12 <0-63>	M		4
452-3			Short size-2	ALL	12 <0-63>	M		4
452-4			Postcard	ALL	12 <0-63>	M		4

Adjustment mode (05)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
453-0	Drive	Fine adjustment of reverse motor rotation speed	Normal speed	PPC	Refer to contents <0-255>	M	<Default Value> e-STUDIO555/655: 137 e-STUDIO755/855: 135	4
453-1			Increased speed	PPC	128 <0-255>	M		4
454-0	Drive	Fine adjustment of reverse motor rotation speed	Normal speed	PRT	Refer to contents <0-255>	M	<Default Value> e-STUDIO555/655: 137 e-STUDIO755/855: 135	4
454-1			Increased speed	PRT	128 <0-255>	M		4
455-0	Paper feeding	Paper aligning amount adjustment at the registration section (Duplex feeding/Plain paper)	Long size	ALL	12 <0-63>	M	When the value increases by "1", the aligning amount increases by approx. 0.8 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size-1: 205 mm to 219 mm Short size-2: 160 mm to 204 mm Postcard: 159 mm or shorter	4
455-1			Middle size	ALL	12 <0-63>	M		4
455-2			Short size-1	ALL	12 <0-63>	M		4
455-3			Short size-2	ALL	12 <0-63>	M		4
455-4			Postcard	ALL	12 <0-63>	M		4
456-0	Drive	Fine adjustment of reverse motor rotation speed	Normal speed	FAX	Refer to contents <0-255>	M	<Default Value> e-STUDIO555/655: 137 e-STUDIO755/855: 135	4
456-1			Increased speed	FAX	128 <0-255>	M		4
457	Paper feeding	Paper aligning amount adjustment at the registration section (Tandem LCF/Plain paper)		ALL	12 <0-63>	M	When the value increases by "1", the aligning amount increases by approx. 0.8 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size-1: 205 mm to 219 mm Short size-2: 160 mm to 204 mm Postcard: 159 mm or shorter	1
458-0	Paper feeding	Paper aligning amount adjustment at the registration section (Bypass feeding/Plain paper)	Long size	ALL	15 <0-63>	M		4
458-1			Middle size	ALL	15 <0-63>	M		4
458-2			Short size-1	ALL	15 <0-63>	M		4
458-3			Short size-2	ALL	15 <0-63>	M		4
458-4			Postcard	ALL	15 <0-63>	M		4

Adjustment mode (05)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
460-0	Paper feeding	Paper aligning amount adjustment at the registration section (Bypass feeding/Thick paper 1)	Long size	ALL	15 <0-63>	M	When the value increases by "1", the aligning amount increases by approx. 0.8 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size-1: 205 mm to 219 mm Short size-2: 160 mm to 204 mm Postcard: 159 mm or shorter	4
460-1			Middle size	ALL	15 <0-63>	M		4
460-2			Short size-1	ALL	15 <0-63>	M		4
460-3			Short size-2	ALL	15 <0-63>	M		4
460-4			Postcard	ALL	15 <0-63>	M		4
461-0	Paper feeding	Paper aligning amount adjustment at the registration section (Bypass feeding/Thick paper 2)	Long size	ALL	15 <0-63>	M		4
461-1			Middle size	ALL	15 <0-63>	M		4
461-2			Short size-1	ALL	15 <0-63>	M		4
461-3			Short size-2	ALL	15 <0-63>	M		4
461-4			Postcard	ALL	15 <0-63>	M		4
462-0	Paper feeding	Paper aligning amount adjustment at the registration section (Bypass feeding/Thick paper 3)	Long size	ALL	15 <0-63>	M		4
462-1			Middle size	ALL	15 <0-63>	M		4
462-2			Short size-1	ALL	15 <0-63>	M		4
462-3			Short size-2	ALL	15 <0-63>	M		4
462-4			Postcard	ALL	15 <0-63>	M		4
463-0	Paper feeding	Paper aligning amount adjustment at the registration section (Bypass feeding/OHP film)	Long size	ALL	15 <0-63>	M		4
463-1			Middle size	ALL	15 <0-63>	M		4
463-2			Short size-1	ALL	15 <0-63>	M		4
463-3			Short size-2	ALL	15 <0-63>	M		4
463-4			Postcard	ALL	15 <0-63>	M		4
466-0	Paper feeding	Paper pushing amount adjustment	Plain paper	ALL	20 <0-63>	M	When the value increases by "1", the drive count of the bypass feed roller (at the start of the paper transport from the registration section) increases approx. 2 ms.	4
466-1			Thick 1	ALL	20 <0-63>	M		4
466-2			Thick 2	ALL	20 <0-63>	M		4
466-3			Thick 3	ALL	20 <0-63>	M		4
466-4			OHP film	ALL	20 <0-63>	M		4
468-0	Finisher	Fine adjustment of binding position/folding position	A4-R/LT-R	ALL	0 <-14-14>	M	When the value increases by "1", the binding/folding position shifts toward the right page by 0.25 mm.	4
468-1			B4	ALL	0 <-14-14>	M		4
468-2			A3/LD	ALL	0 <-14-14>	M		4

Adjustment mode (05)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
469-0	Paper feeding	Paper aligning amount adjustment at registration section (1st drawer) (Thick paper 1)	Long size	ALL	10 <0-63>	M	When the value increases by “1”, the aligning amount increases by approx. 0.8 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size-1: 205 mm to 219 mm Short size-2: 160 mm to 204 mm Postcard: 159 mm or shorter	4
469-1			Middle size	ALL	10 <0-63>	M		4
469-2			Short size-1	ALL	12 <0-63>	M		4
469-3			Short size-2	ALL	12 <0-63>	M		4
469-4			Postcard	ALL	12 <0-63>	M		4
470-0	Paper feeding	Paper aligning amount adjustment at the registration section (2nd drawer/ Thick paper 1)	Long size	ALL	12 <0-63>	M		4
470-1			Middle size	ALL	12 <0-63>	M		4
470-2			Short size-1	ALL	12 <0-63>	M		4
470-3			Short size-2	ALL	12 <0-63>	M		4
470-4			Postcard	ALL	12 <0-63>	M		4
471-0	Paper feeding	Paper aligning amount adjustment at the registration section (3rd drawer / Tandem LCF) (Thick paper 1)	Long size	ALL	10 <0-63>	M		4
471-1			Middle size	ALL	10 <0-63>	M		4
471-2			Short size-1	ALL	12 <0-63>	M		4
471-3			Short size-2	ALL	12 <0-63>	M		4
471-4			Postcard	ALL	12 <0-63>	M		4
472-0	Paper feeding	Paper aligning amount adjustment at the registration section (4th drawer/ Thick paper 1)	Long size	ALL	10 <0-63>	M	When the value increases by “1”, the aligning amount increases by approx. 0.8 mm. <Paper length> Long size: 330 mm or longer Middle size: 220 mm to 329 mm Short size-1: 205 mm to 219 mm Short size-2: 160 mm to 204 mm Postcard: 159 mm or shorter	4
472-1			Middle size	ALL	10 <0-63>	M		4
472-2			Short size-1	ALL	12 <0-63>	M		4
472-3			Short size-2	ALL	12 <0-63>	M		4
472-4			Postcard	ALL	12 <0-63>	M		4
473-0	Paper feeding	Paper aligning amount adjustment at registration section (3rd drawer / Tandem LCF)	Thick paper 1	ALL	12 <0-63>	M		4
473-1			Thick paper 2	ALL	12 <0-63>	M		4
473-2			Thick paper 3	ALL	12 <0-63>	M		4
473-3			OHP film	ALL	12 <0-63>	M		4
474-0	Paper feeding	Paper aligning amount adjustment at the registration section (Duplex feeding/Thick paper 1)	Long size	ALL	12 <0-63>	M		4
474-1			Middle size	ALL	12 <0-63>	M		4
474-2			Short size-1	ALL	12 <0-63>	M		4
474-3			Short size-2	ALL	12 <0-63>	M		4
474-4			Postcard	ALL	12 <0-63>	M		4

Adjustment mode (05)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
475-0	Drive	Fine adjustment of transport motor rotation speed	Normal speed	PRT	128 <0-255>	M		4
475-1			Drawer feeding speed	PRT	128 <0-255>	M		4
475-2			ADU feeding speed	PRT	128 <0-255>	M		4
475-3			Option LCF feeding speed	PRT	128 <0-255>	M		4
476-0	Paper feeding	Adjustment of remained paper amount (paper remained)	1st drawer	ALL	JPC: 8 UC: 10 Others: 6 <0-31>	M		4
476-1			2nd drawer	ALL	JPC: 8 UC: 10 Others: 6 <0-31>	M		4
476-2			3rd drawer	ALL	JPC: 8 UC: 10 Others: 6 <0-31>	M		4
476-3			4th drawer	ALL	JPC: 8 UC: 10 Others: 6 <0-31>	M		4
476-4			Option LCF	ALL	JPC: 4 UC: 3 Others: 3 <0-31>	M		4
476-5			Tandem LCF	ALL	14 <0-31>	M		4
477-0	Paper feeding	Adjustment of remained paper amount (no paper remained)	1st drawer	ALL	JPC: 20 UC: 18 Others:20 <0-31>	M		4
477-1			2nd drawer	ALL	JPC: 20 UC: 18 Others:20 <0-31>	M		4
477-2			3rd drawer	ALL	JPC: 20 UC: 18 Others:20 <0-31>	M		4
477-3			4th drawer	ALL	JPC: 20 UC: 18 Others:20 <0-31>	M		4
477-4			Option LCF	ALL	6 <0-31>	M		4
477-5			Tandem LCF	ALL	8 <0-31>	M		4

Adjustment mode (05)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
478-0	Drive	Fine adjustment of transport motor rotation speed	Normal speed	FAX	128 <0-255>	M		4
478-1			Drawer feeding speed	FAX	128 <0-255>	M		4
478-2			ADU feeding speed	FAX	128 <0-255>	M		4
478-3			Option LCF feeding speed	FAX	128 <0-255>	M		4
479	Drive	Fine adjustment of developer unit motor rotation speed		FAX	8 <0-15>	M	[bit: TSR] 0;1.00, 1;1.05, 2;1.10, 3;1.15, 4;1.20, 5;1.25, 6;1.30, 7;1.35, 8;1.40, 9;1.45, 10;1.50, 11;1.55, 12;1.60, 13;1.65, 14;1.70, 15;1.75	1
480	Paper feeding	Adjustment of paper feeding aligning amount		ALL	-	M	The paper feeding aligning amount is adjusted by pressing buttons on the LCD.	4
481	Drive	Fine adjustment of drum motor rotation speed		PPC	128 <0-255>	M		1
482	Drive	Fine adjustment of drum motor rotation speed		PRT	131 <0-255>	M		1
483	Drive	Fine adjustment of registration motor rotation speed		PPC	128 <0-255>	M		1
484	Drive	Fine adjustment of registration motor rotation speed		PRT	128 <0-255>	M		1
485	Drive	Fine adjustment of fuser roller rotation speed		PPC	128 <0-255>	M		1
486	Drive	Fine adjustment of fuser roller rotation speed		PRT	128 <0-255>	M		1
487	Drive	Fine adjustment of transfer belt motor rotation speed		PPC	132 <0-255>	M		1
488	Drive	Fine adjustment of transfer belt motor rotation speed		PRT	130 <0-255>	M	When the value increases by "1", the rotation speed increases for approx. 0.127%.	1
489	Drive	Fine adjustment of feed motor rotation speed		PPC	128 <0-255>	M		1
490	Drive	Fine adjustment of feed motor rotation speed		PRT	128 <0-255>	M		1
493	Drive	Fine adjustment of developer unit motor rotation speed		PPC	8 <0-15>	M	[bit: TSR] 0;1.00, 1;1.00;1.00, 1;1.05, 2;1.10, 3;1.15, 4;1.20, 5;1.25, 6;1.30, 7;1.35, 8;1.40, 9;1.45, 10;1.50, 11;1.55, 12;1.60, 13;1.65, 14;1.70, 15;1.75 5, 2;1.10, 3;1.15, 4;1.20, 5;1.25, 6;1.30, 7;1.35, 8;1.40, 9;1.45, 10;1.50, 11;1.55, 12;1.60, 13;1.65, 14;1.70, 15;1.75	1

Adjustment mode (05)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
495	Drive	Fine adjustment of developer unit motor rotation speed		PRT	8 <0-15>	M	[bit: TSR] 0;1.00, 1;1.05, 2;1.10, 3;1.15, 4;1.20, 5;1.25, 6;1.30, 7;1.35, 8;1.40, 9;1.45, 10;1.50, 11;1.55, 12;1.60, 13;1.65, 14;1.70, 15;1.75	1
497-0	Laser	Adjustment of drawer sideways deviation	1st drawer	ALL	128 <0-255>	M	When the value increases by “1”, the image shifts toward the front side by 0.0423 mm.	4
497-1			2nd drawer	ALL	128 <0-255>	M		4
497-2			3rd drawer	ALL	128 <0-255>	M		4
497-3			4th drawer	ALL	128 <0-255>	M		4
497-4			Tandem LCF	ALL	128 <0-255>	M		4
497-5			Bypass feeding	ALL	128 <0-255>	M		4
497-6			Option LCF	ALL	128 <0-255>	M		4
498-0	Laser	Adjustment of primary scanning laser writing start position at duplex feeding	Long size	ALL	148 <0-255>	M	When the value increases by “1”, the image shifts toward the front side by 0.0423 mm.	4
498-1			Short size (A4/LT or smaller)	ALL	148 <0-255>	M		4
498-2			Middle size	ALL	128 <0-255>	M		4
501	Image	Density adjustment Fine adjustment of “manual density”/Center value	Photo	PPC	JPC: 128 Other: 118 <0-255>	SYS	When the value increases, the image at the center step becomes darker.	1
503			Text/Photo	PPC	JPC: 128 Other: 100 <0-255>	SYS	When the value increases, the image at the center step becomes darker.	1
504			Text	PPC	JPC: 119 Other: 113 <0-255>	SYS	When the value increases, the image at the center step becomes darker.	1
505	Image	Density adjustment Fine adjustment of “manual density”/Light step value	Text/Photo	PPC	20 <0-255>	SYS	When the value increases, the image of the “light” steps becomes lighter.	1
506			Photo	PPC	20 <0-255>	SYS		1
507			Text	PPC	20 <0-255>	SYS		1
508	Image	Density adjustment Fine adjustment of “manual density”/Dark step value	Text/Photo	PPC	20 <0-255>	SYS	When the value increases, the image of the “dark” steps becomes darker.	1
509			Photo	PPC	20 <0-255>	SYS		1
510			Text	PPC	20 <0-255>	SYS		1

Adjustment mode (05)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
512	Image	Density adjustment	Photo	PPC	128 <0-255>	SYS	When the value increases, the image becomes darker.	1
514		Fine adjustment of “automatic density”	Text/Photo	PPC	JPC: 128 Other: 100 <0-255>	SYS		1
515			Text	PPC	JPC: 119 Other: 113 <0-255>	SYS		1
532	Image	Range correction/ Background peak adjustment	Text/Photo	PPC	40 <0-255>	SYS	When the value increases, the background becomes more brightened.	1
533			Photo	PPC	16 <0-255>	SYS		1
534			Text	PPC	64 <0-255>	SYS		1

Adjustment mode (05)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
570	Image	Range correction on original manually set on the original glass	Text/Photo	PPC	JPC: 22 Other: 12 <11-14, 21-24, 31-34, 41-44>	SYS	Sets whether the values of the background peak and text peak are fixed or not. One's place is an adjustment for "automatic density" and ten's place is for "manual density". Once they are fixed, the range correction is performed with standard values. The values of the background peak and text peak affect the reproduction of the background density and text density respectively. 1: fixed/fixed 2: varied/fixed 3: fixed/varied 4: varied/varied * Background peak/ Text peak	1
571			Photo	PPC	12 <11-14, 21-24, 31-34, 41-44>	SYS	Sets whether the values of the background peak and text peak are fixed or not. One's place is an adjustment for	1
572			Text	PPC	22 <11-14, 21-24, 31-34, 41-44>	SYS	"automatic density" and ten's place is for "manual density". Once they are fixed, the range correction is performed with standard values. The values of the background peak and text peak affect the reproduction of the background density and text density respectively. 1: fixed/fixed 2: varied/fixed 3: fixed/varied 4: varied/varied * Background peak/ Text peak	1
593	Image	Gamma data slope adjustment	Text/Photo	PPC	5 <0-9>	SYS	Select the slope of Gamma curve (The larger the value is, the larger the slope becomes.)	1
594	Image		Photo	PPC	5 <0-9>	SYS		1
595	Image		Text	PPC	5 <0-9>	SYS		1

Adjustment mode (05)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
600	Image	Background adjustment	Text/Photo	PPC	5 <1-9>	SYS	When the value decreases, the background becomes darker.	1
601			Text	PPC	JPC: 6 Other: 5 <1-9>	SYS	When the value decreases, the background becomes darker.	1
602			Photo	PPC	4 <1-9>	SYS	When the value decreases, the background becomes darker.	1
620	Image	Sharpness adjustment	Text/Photo	PPC	51 <11-99>	SYS	When the value increases, the image becomes sharper. When the value decreases, the image becomes softer. The smaller the value is, the more the moire is suppressed. One's place: Fixed value (Leave it at default.) Ten's place: Adjustable from 1 to 9 (The larger the value is, the sharper the image becomes.)	1
621-0			Photo (error diffusion)	PPC	23 <11-99>	SYS		4
621-1			Photo (Dither)	PPC	13 <11-99>	SYS		4
622			Text	PPC	61 <11-99>	SYS		1
653	Image	Adjustment of smudged/faint text	Text/Photo	PPC	192 <0-255>	SYS	Adjusts the level of the smudged/faint text. With increasing the value, the faint text is suppressed, and with decreasing it, the smudged text is suppressed.	1
654	Image	Adjustment of smudged/faint text	PS	PRT	5 <0-9>	M	Adjustment of the smudged/faint text.	1
655			PCL	PRT	5 <0-9>	M	With decreasing the value, the faint text is suppressed, and with increasing it, the smudged text is suppressed.	1
663	Image	Dot size adjustment during printing		PRT	255 <0-255>	M	The dot size in the primary scanning direction during printing is adjusted. When the value decreases, the dots become smaller.	1
664	Image	Upper limit value in toner-saving period	PS	PRT	176 <0-255>	M	When the value decreases, the density of the printed text becomes lower.	1
665			PCL	PRT	176 <0-255>	M		1

Adjustment mode (05)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
693	Image	Range correction on original set on the RADF	Text/Photo	PPC	JPC: 22 Other: 12 <11-14, 21-24, 31-34, 41-44>	SYS	Sets whether the values of the background peak and text peak are fixed or not. One's place is an adjustment for "automatic density" and ten's place is for "manual density". Once they are fixed, the range correction is performed with standard values. The values of the background peak and text peak affect the reproduction of the background density and text density respectively. 1: fixed/fixed 2: varied/fixed 3: fixed/varied 4: varied/varied * Background peak/Text peak	1
694			Photo	PPC	12 <11-14, 21-24, 31-34, 41-44>	SYS	Sets whether the values of the background peak and text peak are fixed or not. One's place is an adjustment for	1
695			Text	PPC	22 <11-14, 21-24, 31-34, 41-44>	SYS	"automatic density" and ten's place is for "manual density". Once they are fixed, the range correction is performed with standard values. The values of the background peak and text peak affect the reproduction of the background density and text density respectively. 1: fixed/fixed 2: varied/fixed 3: fixed/varied 4: varied/varied * Background peak/Text peak	1
700	Image	Adjustment of binarized threshold (Text)	Center value	FAX	120 <0-255>	SYS	When the value increases, the image at the center step becomes darker.	1
701			Light step value	FAX	20 <0-255>	SYS	When the value increases, the image of "light" side becomes lighter.	1
702			Dark step value	FAX	20 <0-255>	SYS	When the value increases, the image of "dark" side becomes darker.	1

Adjustment mode (05)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
710	Image	Density adjustment Fine adjustment of “manual density”/ Center value	Photo	FAX	128 <0-255>	SYS	When the value increases, the image at the center step becomes darker.	1
714			General	FAX	128 <0-255>	SYS		1
715	Image	Density adjustment Fine adjustment of “manual density”/Light step value	Photo	FAX	20 <0-255>	SYS	When the value increases, the image of the “light” steps becomes lighter.	1
719			General	FAX	20 <0-255>	SYS		1
720	Image	Density adjustment Fine adjustment of “manual density”/Dark step value	Photo	FAX	20 <0-255>	SYS	When the value increases, the image of the “dark” steps becomes darker.	1
724			General	FAX	20 <0-255>	SYS		1
725	Image	Density adjustment Fine adjustment of “automatic density”	Photo	FAX	128 <0-255>	SYS	When the value increases, the image becomes darker.	1
729			General	FAX	128 <0-255>	SYS		1
802	FAX	Volume adjustment for telephone/fax ringtone		FAX	4 <0-7>	SYS	When the value is entered for this code the ring tone comes from the speaker at the set volume. The set value is stored when the [INTERRUPT] button is pressed.	12
825	Image	Range correction on original manually set on the original glass	Text/Photo	SCN	12 <11-14, 21-24, 31-34, 41-44>	SYS	Sets whether the values of the background peak and text peak are fixed or not. One's place is an adjustment for “automatic density” and ten's place is for “manual density”. Once they are fixed, the range correction is performed with standard values. The values of the background peak and text peak affect the reproduction of the background density and text density respectively. 1: fixed/fixed 2: varied/fixed 3: fixed/varied 4: varied/varied * Background peak/ Text peak	1
826			Text	SCN	12 <11-14, 21-24, 31-34, 41-44>	SYS		1
827			Photo	SCN	12 <11-14, 21-24, 31-34, 41-44>	SYS		1
828			Gray scale	SCN	12 <11-14, 21-24, 31-34, 41-44>	SYS		1

Adjustment mode (05)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
830	Image	Range correction on original set on the RADF	Text/Photo	SCN	12 <11-14, 21-24, 31-34, 41-44>	SYS	Sets whether the value of the background peak and text peak are fixed or not. One's place is an adjustment for "automatic density" and ten's place is for "manual density". Once they are fixed, the range correction is performed with standard values. The values of the background peak and text peak affect the reproduction of the background density and text density respectively. 1: fixed/fixed 2: varied/fixed 3: fixed/varied 4: varied/varied * Background peak/ Text peak	1
831			Text	SCN	12 <11-14, 21-24, 31-34, 41-44>	SYS		1
832			Photo	SCN	12 <11-14, 21-24, 31-34, 41-44>	SYS		1
833			Gray scale	SCN	12 <11-14, 21-24, 31-34, 41-44>	SYS		1
835	Image	Range correction/ Background peak adjustment	Text/Photo	SCN	40 <0-255>	SYS	When the value increases, the background becomes more brightened.	1
836			Text	SCN	48 <0-255>	SYS		1
837			Photo	SCN	16 <0-255>	SYS		1
838			Gray scale	SCN	16 <0-255>	SYS		1
845	Image	Density adjustment Fine adjustment of "manual density" / Center value	Text/Photo	SCN	128 <0-255>	SYS	When the value increases, the image at the center step becomes darker.	1
846			Text	SCN	128 <0-255>	SYS		1
847			Photo	SCN	128 <0-255>	SYS		1
848			Gray scale	SCN	128 <0-255>	SYS		1
850	Image	Fine density adjustment Fine adjustment of "manual density" / Light step value	Text/Photo	SCN	20 <0-255>	SYS	When the value increases, the image of the "light" steps becomes lighter.	1
851			Text	SCN	20 <0-255>	SYS		1
852			Photo	SCN	20 <0-255>	SYS		1
853			Gray scale	SCN	20 <0-255>	SYS		1
855	Image	Density adjustment Fine adjustment of "manual density" / Dark step value	Text/Photo	SCN	20 <0-255>	SYS	When the value increases, the image of the "dark" steps becomes darker.	1
856			Text	SCN	20 <0-255>	SYS		1
857			Photo	SCN	20 <0-255>	SYS		1
858			Gray scale	SCN	20 <0-255>	SYS		1

Adjustment mode (05)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
860	Image	Density adjustment Fine adjustment of “automatic density”	Text/Photo	SCN	128 <0-255>	SYS	When the value increases, the image becomes darker.	1
861			Text	SCN	128 <0-255>	SYS		1
862			Photo	SCN	128 <0-255>	SYS		1
863			Gray scale	SCN	128 <0-255>	SYS		1
865-0	Image	Sharpness adjustment (Text/Photo)	150-200 dpi	SCN	85 <11-99>	SYS	When the value increases, the image becomes sharper. When the value decreases, the image becomes softer. The smaller the value is, the more the moire is suppressed. One's place: Fixed value (Leave it at default.) Ten's place: Sharpness intensity (1-9: Filter intensity)	4
865-1			300-400 dpi	SCN	51 <11-99>	SYS		4
865-2			600 dpi	SCN	51 <11-99>	SYS		4
866-0	Image	Sharpness adjustment (Text)	150-200 dpi	SCN	96 <11-99>	SYS		4
866-1			300-400 dpi	SCN	62 <11-99>	SYS		4
866-2			600 dpi	SCN	62 <11-99>	SYS		4
867-0	Image	Sharpness adjustment (Photo)	150-200 dpi	SCN	23 <11-99>	SYS		4
867-1			300-400 dpi	SCN	23 <11-99>	SYS		4
867-2			600 dpi	SCN	23 <11-99>	SYS		4
868-0	Image	Sharpness adjustment (Gray scale)	150-200 dpi	SCN	41 <11-99>	SYS		4
868-1			300-600 dpi	SCN	41 <11-99>	SYS		4
869	Image	Background adjustment	Text/Photo	SCN	5 <1-9>	SYS	When the value decreases, the background becomes darker.	1
870			Text	SCN	6 <1-9>	SYS		1
871			Photo	SCN	4 <1-9>	SYS		1
872			Gray scale	SCN	3 <1-9>	SYS		1

Adjustment mode (05)								
Code	Classifi- cation	Items		Funct- ion	Default <Accept- able value>	RAM	Contents	Proce- dure
913	Image	Range correction on original manually set on the original glass	Custom Mode 1	PPC	JPC: 22 Other: 12 <11-14, 21-24, 31-34, 41-44>	SYS	Set whether the values of the background peak and text peak are fixed or not. One's place is an adjustment for “automatic density” and ten's place is for “manual density”. Once they are fixed, the range correction is performed with standard values. The values of the background peak and text peak affect the reproduction of the background density and text density respectively. 1: fixed/fixed 2: varied/fixed 3: fixed/varied 4: varied/varied * Background peak/ Text peak	1
914			Custom Mode 2	PPC	22 <11-14, 21-24, 31-34, 41-44>	SYS	Set whether the values of the background peak and text peak are fixed or not. One's place is an adjustment for	1
915			Custom Mode 3	PPC	12 <11-14, 21-24, 31-34, 41-44>	SYS	“automatic density” and ten's place is for “manual density”. Once they are fixed, the range correction is performed with standard values. The values of the background peak and text peak affect the reproduction of the background density and text density respectively. 1: fixed/fixed 2: varied/fixed 3: fixed/varied 4: varied/varied * Background peak/ Text peak	1

Adjustment mode (05)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
916	Image	Range correction on original set on the RADF	Custom Mode 1	PPC	JPC: 22 Other: 12 <11-14, 21-24, 31-34, 41-44>	SYS	Set whether the values of the background peak and text peak are fixed or not. One's place is an adjustment for "automatic density" and ten's place is for "manual density". Once they are fixed, the range correction is performed with standard values. The values of the background peak and text peak affect the reproduction of the background density and text density respectively. 1: fixed/fixed 2: varied/fixed 3: fixed/varied 4: varied/varied * Background peak/Text peak	1
917			Custom Mode 2	PPC	22 <11-14, 21-24, 31-34, 41-44>	SYS	Set whether the values of the background peak and text peak are fixed or not. One's place is an adjustment for	1
918			Custom Mode 3	PPC	12 <11-14, 21-24, 31-34, 41-44>	SYS	"automatic density" and ten's place is for "manual density". Once they are fixed, the range correction is performed with standard values. The values of the background peak and text peak affect the reproduction of the background density and text density respectively. 1: fixed/fixed 2: varied/fixed 3: fixed/varied 4: varied/varied * Background peak/Text peak	1
919	Image	Range correction Background peak adjustment	Custom Mode 1	PPC	40 <0-255>	SYS	When the value increases, the background becomes more brightened.	1
920			Custom Mode 2	PPC	64 <0-255>	SYS		1
921			Custom Mode 3	PPC	16 <0-255>	SYS		1

Adjustment mode (05)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
922	Image	Sharpness adjustment	Custom Mode 1	PPC	51 <11-99>	SYS	When the value increases, the image becomes sharper. When the value decreases, the image becomes softer. The smaller the value is, the more the moire is suppressed. One's place: Fixed value (Leave it at default.) Ten's place: Adjustable from 1 to 9 (The larger the value is, the sharper the image becomes.)	1
923			Custom Mode 2	PPC	61 <11-99>	SYS		1
924-0			Custom Mode 3 (error diffusion)	PPC	23 <11-99>	SYS		4
924-1			Custom Mode 3 (Dither)	PPC	13 <11-99>	SYS		4
928	Image	Adjustment of smudged/faint text	Custom Mode 1	PPC	192 <0-255>	SYS	Adjustment of the smudged/faint text. With increasing the value, the faint text is suppressed, and with decreasing it, the smudged text is suppressed.	1
931	Image	Density adjustment	Custom Mode 1	PPC	128 <0-255>	SYS	When the value increases, the image of the center step becomes darker.	1
932		Fine adjustment of "manual density"/ Center value	Custom Mode 2	PPC	128 <0-255>	SYS		1
933		Custom Mode 3	PPC	128 <0-255>	SYS	1		
934	Image	Density adjustment	Custom Mode 1	PPC	20 <0-255>	SYS	When the value increases, the image of the "light" step density becomes lighter.	1
935		Fine adjustment of "manual density"/Light step value	Custom Mode 2	PPC	20 <0-255>	SYS		1
936		Custom Mode 3	PPC	20 <0-255>	SYS	1		
937	Image	Density adjustment	Custom Mode 1	PPC	20 <0-255>	SYS	When the value increases, the image of the "dark" step density becomes darker.	1
938		Fine adjustment of "manual density"/Dark step value	Custom Mode 2	PPC	20 <0-255>	SYS		1
939		Custom Mode 3	PPC	20 <0-255>	SYS	1		
940	Image	Density adjustment	Custom Mode 1	PPC	128 <0-255>	SYS	When the value increases, the image becomes darker.	1
941		Fine adjustment of "automatic density"	Custom Mode 2	PPC	128 <0-255>	SYS		1
942		Custom Mode 3	PPC	128 <0-255>	SYS	1		
943	Image	Gamma data slope adjustment	Custom Mode 1	PPC	5 <0-9>	SYS	Select the slope of Gamma curve (The larger the value is, the larger the slope becomes.)	1
944			Custom Mode 2	PPC	5 <0-9>	SYS		1
945			Custom Mode 3	PPC	5 <0-9>	SYS		1
946	Image	Background adjustment	Custom Mode 1	PPC	5 <1-9>	SYS	When the value decreases, the background becomes darker.	1
947			Custom Mode 2	PPC	6 <1-9>	SYS		1
948			Custom Mode 3	PPC	4 <1-9>	SYS		1

Adjustment mode (05)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
976	Maintenance	Equipment number (serial number) entry		ALL	-	SYS	When this adjustment is performed with this code, the setting code (08-995) is also performed automatically (10 digits).	1
4541-0	Driver	Fine adjustment of transport motor rotation speed	Normal speed	PPC	128 <0-255>	M		4
4541-1			Drawer feeding speed	PPC	128 <0-255>	M		4
4541-2			ADU feeding speed	PPC	128 <0-255>	M		4
4541-3			Option LCF feeding speed	PPC	128 <0-255>	M		4
4562-0	Paper feeding	Leading edge position adjustment correction item on each media type (1st drawer)	Thick paper 1	ALL	20 <0-40>	M		4
4562-1			Thick paper 2	ALL	20 <0-40>	M		4
4562-2			Thick paper 3	ALL	20 <0-40>	M		4
4562-3			OHP film	ALL	20 <0-40>	M		4
4563-0	Paper feeding	Leading edge position adjustment correction item on each media type (2nd drawer)	Thick paper 1	ALL	20 <0-40>	M		4
4563-1			Thick paper 2	ALL	20 <0-40>	M		4
4563-2			Thick paper 3	ALL	20 <0-40>	M		4
4563-3			OHP film	ALL	20 <0-40>	M		4
4564-0	Paper feeding	Leading edge position adjustment correction item on each media type (3rd drawer)	Thick paper 1	ALL	20 <0-40>	M		4
4564-1			Thick paper 2	ALL	20 <0-40>	M		4
4564-2			Thick paper 3	ALL	20 <0-40>	M		4
4564-3			OHP film	ALL	20 <0-40>	M		4
4565-0	Paper feeding	Leading edge position adjustment correction item on each media type (4th drawer)	Thick paper 1	ALL	20 <0-40>	M		4
4565-1			Thick paper 2	ALL	20 <0-40>	M		4
4565-2			Thick paper 3	ALL	20 <0-40>	M		4
4565-3			OHP film	ALL	20 <0-40>	M		4
4566-0	Paper feeding	Leading edge position adjustment correction item on each media type (Tandem LCF)	Thick paper 1	ALL	20 <0-40>	M		4
4566-1			Thick paper 2	ALL	20 <0-40>	M		4
4566-2			Thick paper 3	ALL	20 <0-40>	M		4
4566-3			OHP film	ALL	20 <0-40>	M		4

Adjustment mode (05)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
4567-0	Paper feeding	Leading edge position adjustment correction item on each media type (Bypass feeding)	Thick paper 1	ALL	20 <0-40>	M		4
4567-1			Thick paper 2	ALL	20 <0-40>	M		4
4567-2			Thick paper 3	ALL	21 <0-40>	M		4
4567-3			OHP film	ALL	20 <0-40>	M		4
4568-0	Paper feeding	Leading edge position adjustment correction item on each media type (ADU)	Thick paper 1	ALL	20 <0-40>	M		4
4568-1			Thick paper 2	ALL	20 <0-40>	M		4
4568-2			Thick paper 3	ALL	20 <0-40>	M		4
4568-3			OHP film	ALL	20 <0-40>	M		4
4569-0	Paper feeding	Leading edge position adjustment correction item on each media type (Option LCF)	Thick paper 1	ALL	20 <0-40>	M		4
4569-1			Thick paper 2	ALL	20 <0-40>	M		4
4569-2			Thick paper 3	ALL	20 <0-40>	M		4
4569-3			OHP film	ALL	20 <0-40>	M		4
4580-0	Paper feeding	Paper aligning amount adjustment at the registration section (Option LCF / Plain paper)	Short size 1	ALL	12 <0-63>	M	When the value increases by " 1 ", the aligning amount increases by approx. 0.8 mm. <Paper length> Short size 1 : 205 mm to 219 mm Short size 2 : 204 mm or shorter	4
4580-1			Short size 2	ALL	12 <0-63>	M		4
4581-0	Paper feeding	Paper aligning amount adjustment at the registration section (Option LCF / Thick paper 1)	Short size 1	ALL	12 <0-63>	M		4
4581-1			Short size 2	ALL	12 <0-63>	M		4

Adjustment mode (05)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
4582-0	Paper feeding	Paper aligning amount adjustment at the registration section (1st drawer / Thick paper 2)	Long size	ALL	10 <0-63>	M	When the value increases by " 1 ", the aligning amount increases by approx. 0.8 mm. <Paper length> Long size : 330 mm or longer Middle size : 220 mm to 329 mm Short size 1 : 205 mm to 219 mm Short size 2 : 160 mm to 204 mm Post Card : 159 mm or shorter	4
4582-1			Middle size	ALL	10 <0-63>	M		4
4582-2			Short size 1	ALL	12 <0-63>	M		4
4582-3			Short size 2	ALL	12 <0-63>	M		4
4582-4			Post card	ALL	12 <0-63>	M		4
4583-0	Paper feeding	Paper aligning amount adjustment at the registration section (2nd drawer / Thick paper 2)	Long size	ALL	12 <0-63>	M		4
4583-1			Middle size	ALL	12 <0-63>	M		4
4583-2			Short size 1	ALL	12 <0-63>	M		4
4583-3			Short size 2	ALL	12 <0-63>	M		4
4583-4			Post card	ALL	12 <0-63>	M		4
4584-0	Paper feeding	Paper aligning amount adjustment at the registration section (3rd drawer / Thick paper 2)	Long size	ALL	10 <0-63>	M		4
4584-1			Middle size	ALL	10 <0-63>	M		4
4584-2			Short size 1	ALL	10 <0-63>	M		4
4584-3			Short size 2	ALL	12 <0-63>	M		4
4584-4			Post card	ALL	12 <0-63>	M		4
4585-0	Paper feeding	Paper aligning amount adjustment at the registration section (4th drawer / Thick paper 2)	Long size	ALL	10 <0-63>	M		4
4585-1			Middle size	ALL	10 <0-63>	M		4
4585-2			Short size 1	ALL	12 <0-63>	M		4
4585-3			Short size 2	ALL	12 <0-63>	M		4
4585-4			Post card	ALL	12 <0-63>	M		4
4586-0	Paper feeding	Paper aligning amount adjustment at the registration section (Option LCF / Thick paper 2)	Short size 1	ALL	12 <0-63>	M	When the value increases by " 1 ", the aligning amount increases by approx. 0.8 mm. <Paper length> Short size 1 : 205 mm to 219 mm Short size 2 : 204 mm or shorter	4
4586-1			Short size 2	ALL	12 <0-63>	M		4

Adjustment mode (05)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
4587-0	Paper feeding	Paper aligning amount adjustment at the registration section (ADU / Thick paper 2)	Long size	ALL	12 <0-63>	M	When the value increases by " 1 ", the aligning amount increases by approx. 0.8 mm. <Paper length> Long size : 330 mm or longer Middle size : 220 mm to 329 mm Short size 1 : 205 mm to 219 mm Short size 2 : 160 mm to 204 mm Post Card : 159 mm for shorter	4
4587-1			Middle size	ALL	12 <0-63>	M		4
4587-2			Short size 1	ALL	12 <0-63>	M		4
4587-3			Short size 2	ALL	12 <0-63>	M		4
4587-4			Post card	ALL	12 <0-63>	M		4
4588-0	Paper feeding	Paper aligning amount adjustment at the registration section (1st drawer / Thick paper 3)	Long size	ALL	12 <0-63>	M		4
4588-1			Middle size	ALL	12 <0-63>	M		4
4588-2			Short size 1	ALL	12 <0-63>	M		4
4588-3			Short size 2	ALL	12 <0-63>	M		4
4588-4			Post card	ALL	12 <0-63>	M		4
4589-0	Paper feeding	Paper aligning amount adjustment at the registration section (2nd drawer / Thick paper 3)	Long size	ALL	10 <0-63>	M		4
4589-1			Middle size	ALL	10 <0-63>	M		4
4589-2			Short size 1	ALL	12 <0-63>	M		4
4589-3			Short size 2	ALL	12 <0-63>	M		4
4589-4			Post card	ALL	12 <0-63>	M		4
4590-0	Paper feeding	Paper aligning amount adjustment at the registration section (3rd drawer / Thick paper 3)	Long size	ALL	10 <0-63>	M		4
4590-1			Middle size	ALL	10 <0-63>	M		4
4590-2			Short size 1	ALL	12 <0-63>	M		4
4590-3			Short size 2	ALL	12 <0-63>	M		4
4590-4			Post card	ALL	12 <0-63>	M		4
4591-0	Paper feeding	Paper aligning amount adjustment at the registration section (4th drawer / Thick paper 3)	Long size	ALL	10 <0-63>	M		4
4591-1			Middle size	ALL	10 <0-63>	M		4
4591-2			Short size 1	ALL	12 <0-63>	M		4
4591-3			Short size 2	ALL	12 <0-63>	M		4
4591-4			Post card	ALL	12 <0-63>	M		4

Adjustment mode (05)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
4592-0	Paper feeding	Paper aligning amount adjustment at the registration section (Option LCF / Thick paper 3)	Short size 1	ALL	12 <0-63>	M	When the value increases by " 1 ", the aligning amount increases by approx. 0.8 mm. <Paper length> Short size 1 : 205 mm to 219 mm Short size 2 : 204 mm or shorter	4
4592-1			Short size 2	ALL	12 <0-63>	M		4

Adjustment mode (05)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
4593-0	Paper feeding	Paper aligning amount adjustment at the registration section (ADU / Thick paper 3)	Long size	ALL	12 <0-63>	M	When the value increases by " 1 ", the aligning amount increases by approx. 0.8 mm. <Paper length> Long size : 330 mm or longer Middle size : 220 mm to 329 mm Short size 1 : 205 mm to 219 mm Short size 2 : 160 mm to 204 mm Post Card : 159 mm for shorter	4
4593-1			Middle size	ALL	12 <0-63>	M		4
4593-2			Short size 1	ALL	12 <0-63>	M		4
4593-3			Short size 2	ALL	12 <0-63>	M		4
4593-4			Post card	ALL	12 <0-63>	M		4
4594-0	Paper feeding	Paper aligning amount adjustment at the registration section (1st drawer / OHP)	Long size	ALL	10 <0-63>	M		4
4594-1			Middle size	ALL	10 <0-63>	M		4
4594-2			Short size 1	ALL	12 <0-63>	M		4
4594-3			Short size 2	ALL	12 <0-63>	M		4
4594-4			Post card	ALL	12 <0-63>	M		4
4595-0	Paper feeding	Paper aligning amount adjustment at the registration section (2nd drawer / OHP)	Long size	ALL	12 <0-63>	M		4
4595-1			Middle size	ALL	12 <0-63>	M		4
4595-2			Short size 1	ALL	12 <0-63>	M		4
4595-3			Short size 2	ALL	12 <0-63>	M		4
4595-4			Post card	ALL	12 <0-63>	M		4
4596-0	Paper feeding	Paper aligning amount adjustment at the registration section (3rd drawer / OHP)	Long size	ALL	10 <0-63>	M		4
4596-1			Middle size	ALL	10 <0-63>	M		4
4596-2			Short size 1	ALL	12 <0-63>	M		4
4596-3			Short size 2	ALL	12 <0-63>	M		4
4596-4			Post card	ALL	12 <0-63>	M		4
4597-0	Paper feeding	Paper aligning amount adjustment at the registration section (4th drawer / OHP)	Long size	ALL	10 <0-63>	M		4
4597-1			Middle size	ALL	10 <0-63>	M		4
4597-2			Short size 1	ALL	12 <0-63>	M		4
4597-3			Short size 2	ALL	12 <0-63>	M		4
4597-4			Post card	ALL	12 <0-63>	M		4

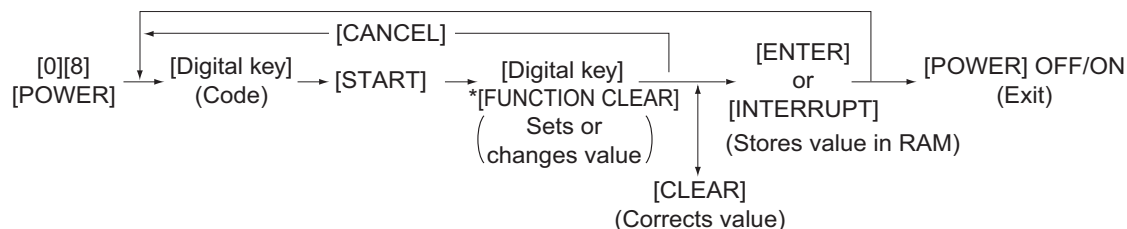
Adjustment mode (05)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
4598-0	Paper feeding	Paper aligning amount adjustment at the registration section (Option LCF / OHP)	Short size 1	ALL	12 <0-63>	M	When the value increases by " 1 ", the aligning amount increases by approx. 0.8 mm. <Paper length> Short size 1 : 205 mm to 219 mm Short size 2 : 204 mm or shorter	4
4598-1			Short size 2	ALL	12 <0-63>	M		4
4599-0	Paper feeding	Paper aligning amount adjustment at the registration section (ADU / OHP)	Long size	ALL	12 <0-63>	M	When the value increases by " 1 ", the aligning amount increases by approx. 0.8 mm. <Paper length> Long size : 330 mm or longer Middle size : 220 mm to 329 mm Short size 1 : 205 mm to 219 mm Short size 2 : 160 mm to 204 mm Post Card : 159 mm tor shorter	4
4599-1			Middle size	ALL	12 <0-63>	M		4
4599-2			Short size 1	ALL	12 <0-63>	M		4
4599-3			Short size 2	ALL	12 <0-63>	M		4
4599-4			Post card	ALL	12 <0-63>	M		4
7489	Scanner	Void amount in network scanning		SCN	0 <0-255>	SYS	When the value increases, the blank area around the scanned image becomes wider. (e.g.: In network scanning with 600 dpi, if the setting value is "1", the blank area increases by 1 dot.)	1
9096	Maintenance	Display of adjustment history in production line		ALL	-	SYS	The history of various adjustments performed in the production line are displayed in a list as shown below. Number: OK/NG/-	2
9104	Image	Compression quality of SLIM PDF background processing		SCN	5 <0-10>	SYS	0-10010 0: High compression, low image quality 10: Low compression, high image quality	1
9107	Image	Resolution adjustment of SLIM PDF background processing		SCN	1 <0-3>	SYS	0: 75dpi 1: 100dpi 2: 150dpi 3: 200dpi	1

2.2.5 Setting mode (08)

The items in the setting code list can be set or changed in this setting mode (08).
When the power should be turned OFF, be sure to shut down the equipment by pressing the [ON/OFF] button for a few seconds.

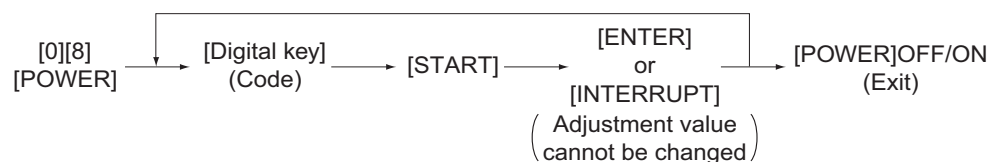
2

Procedure 1

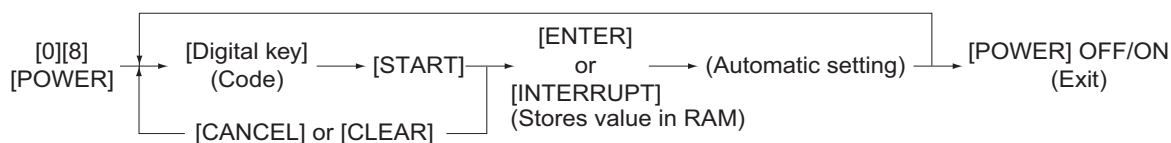


* Press [FUNCTION CLEAR] to enter minus (-).

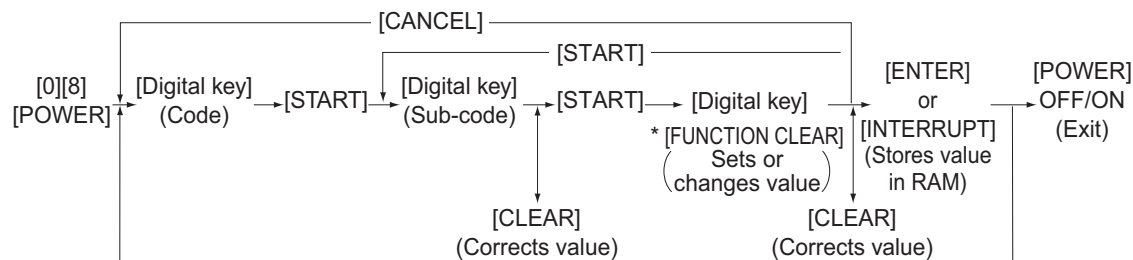
Procedure 2



Procedure 3

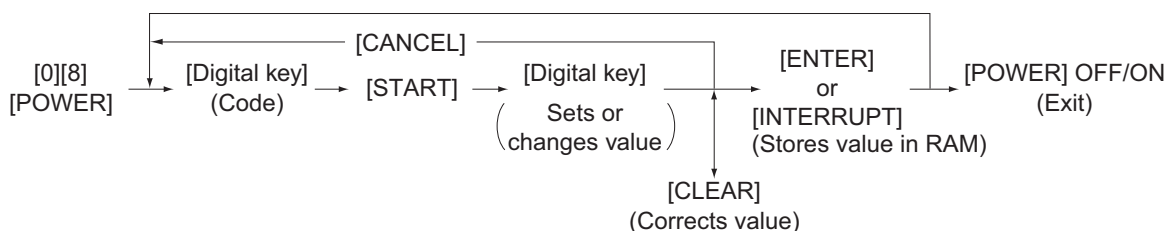


Procedure 4

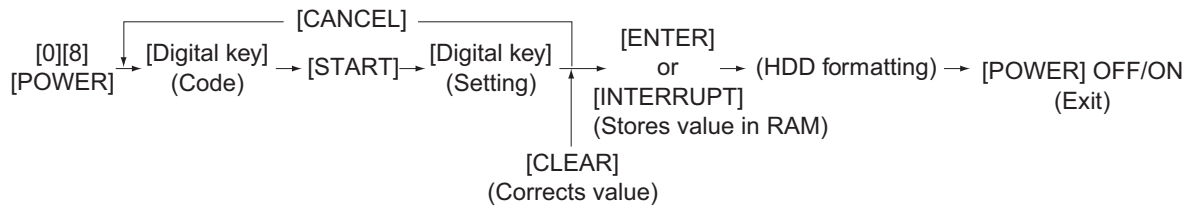


* Press [FUNCTION CLEAR] to enter minus (-).

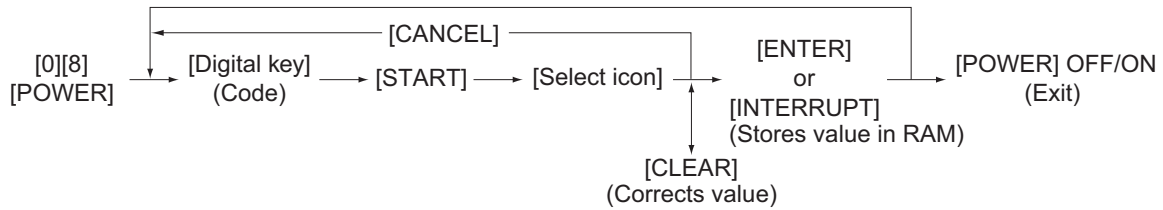
Procedure 5



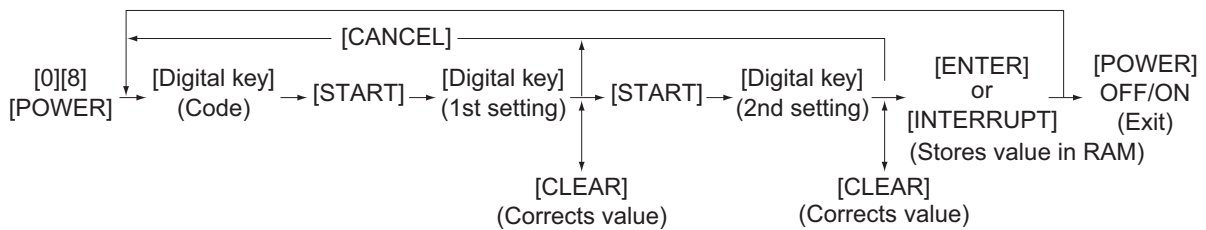
Procedure 7



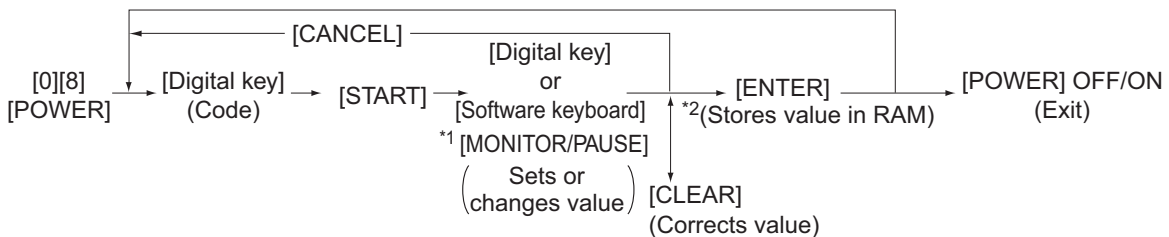
Procedure 9



Procedure 10



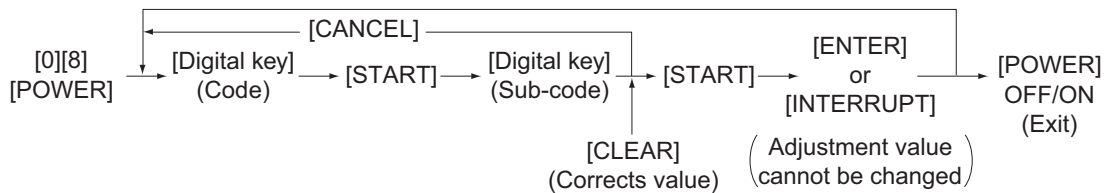
Procedure 11 and 12



*1. Press [PAUSE] to enter "-", when entering telephone number.

*2. The data are stored in SYS-RAM in procedure 11 and stored in NIC-RAM in procedure 12.

Procedure 14



Notes:

- The digit after the hyphen in “Code” of the following table is a sub code.
- In “RAM”, the NVRAM or SRAM of the board in which the data of each code is stored is indicated. “M” stands for the LGC board, “SYS” and “UTY” stands for the SYS board.

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
200	General	Date and time setting	ALL	- <13 digits>	-	Year/month/date/day/hour/minute/second Example: 03 07 0 13 13 27 48 “Day” - “0” is for “Sunday”. Proceeds Monday through Saturday from “1” to “6”.	5
201	General	Destination selection	ALL	EUR: 0 UC: 1 JPC: 2 <0-2>	M	0: EUR 1: UC 2: JPC	1
202	User interface	Counter installed externally	ALL	0 <0-3>	M	0: No external counter 1: Coin controller 2: Copy key card (This value is valid only when “2” is set to 08-201.) 3: Key copy counter	1
203	General	Line adjustment mode	ALL	0 <0-1>	M	0: For factory shipment 1: For line * Field: “0” must be selected	1
204	User interface	Auto-clear timer setting	ALL	3 <0-10>	SYS	Timer to return the equipment to the default settings when the [START] button is not pressed after the function and the mode are set 0: No limit (disabled) 1 to 10: Set number x 15 sec.	1
205	User interface	Auto power save mode timer setting	ALL	8 <0, 4-15>	SYS	Timer to automatically switch to the Auto power save mode when the equipment has not been used 0: Invalid 4: 1min. 5: 2min. (Reserved) 6: 3min. 7: 4min. 8: 5min. 9: 7min. 10: 10min. 11: 15min. 12: 20min. 13: 30min. 14: 45min. 15: 60min.	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
206	User interface	Auto Shut Off Mode timer setting (Sleep Mode)	ALL	2 <0-21>	SYS	Timer to enter the Sleep Mode automatically when the equipment has not been used 0: 3min. 1: 5min. 2: 10min. 3: 15min. 4: 20min. 5: 25min. 6: 30min. 7: 40min. 8: 50min. 9: 60min. 10: 70min. 11: 80min. 12: 90min. 13: 100min. 14: 110min. 15: 120min. 16: 150min. 17: 180min. 18: 210min. 19: 240min. 20: Not used 21: 1mini	1
207	User interface	Highlighting display on LCD	ALL	0 <0-1>	SYS	0: Black letter on white background 1: White letter on black background	1
209	User interface	Default setting of filing format when E-mailing	ALL	0 <0-6>	SYS	0: TIFF (Multi) 1: PDF (Multi) 2: Not used 3: TIFF (Single) 4: PDF (Single) 5: XPS (Multi) 6: XPS (Single)	1
210	Paper feeding	Paper size (A6-R) feeding/widthwise direction	PRT	148/105 <148-432/105-297>	M		10
211	Paper feeding	Insertor Unit Reversing operation at back cover insertion	PPC	0 <0-1>	SYS	This setting is whether only the back cover is reversed or no sheets are reversed at the back cover insertion using the Insertor Unit. 0: No sheets reversed 1: Only back cover reversed	1
213	User interface	Display of [REVERSE ORDER] button	ALL	0 <0-1>	SYS	0: Not displayed 1: Displayed	1
214	Paper feeding	Tab paper printing/ Tab width setting (Drawer)	PPC	130 <120-170>	SYS	The default value of the tab width can be set by increments of 0.1 mm in the Tab Print Mode.	1
215	Paper feeding	Tab paper printing/ Shift width setting (Drawer)	PPC	130 <0-300>	SYS	The default value of the shift width can be set by increments of 0.1 mm in the Tab Print Mode.	1
216	Paper feeding	Tab paper print Tab width setting (Bypass feeding)	PPC	130 <100-200>	SYS		1
217	Paper feeding	Tab paper print Shift width setting (Bypass feeding)	PPC	130 <0-300>	SYS		1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
219	User interface	Default setting of filing format when storing files	SCN	0 <0-6>	SYS	0: TIFF (Multi) 1: PDF (Multi) 2: Not used 3: TIFF (Single) 4: PDF (Single) 5: XPS (Multi) 6: XPS (Single)	1
220	User interface	Language displayed at power-ON	ALL	EUR: 0 UC: 0 JPC: 5 <0-13>	SYS	0: Language 1(UC) 1: Language 2(GER) 2: Language 3(FRA) 3: Language 4(SP) 4: Language 5(ITA) 5: Language 6(JPC/ CND/TWD) 6: Not used 7: Language 8 (Danish) 8: Language 9 (Finnish) 9: Language 10 (Norwegian) 10: Language 11 (Swedish) 11: Not used 12: Language 13 (Polish) 13: Language 14 (Russian)	1
221	User interface	Language selection in UI data at Web power ON	ALL	EUR: 0 UC: 0 JPC: 5 <0-13>	SYS	0: Language 1(UC) 1: Language 2(GER) 2: Language 3(FRA) 3: Language 4(SP) 4: Language 5(ITA) 5: Language 6(JPC/ CND/TWD) 6: Not used 7: Language 8(Danish) 8: Language 9 (Finnish) 9: Language 10 (Norwegian) 10: Language 11 (Swedish) 11: Not used 12: Language 13 (Polish) 13: Language 14 (Russian) * Values 6 and 11 (not used) above are not available.	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
223	Maintenance	Switching of PM timing display/ Output pages or drive counts	ALL	0 <0-2>	M	The PM timing can be displayed in these 2 methods. (Messages will appear on the LCD panel.) 0: PM counter (Number of output pages can be set in 08-251) 1: PM time counter (Drive counts can be set in 08-375) 2: Whenever either the PM counter or the PM time counter has exceeded the threshold	1
224	Paper feeding	Paper size for bypass feed	PPC	255 <0-255>	SYS	Press the button on the LCD to select the size.	9
225	Paper feeding	Paper size for 1st drawer	ALL	EUR: A4-R UC: LT-R JPC: A4	M	Press the button on the LCD to select the size.	9
226	Paper feeding	Paper size for 2nd drawer	ALL	EUR: A3 UC: LD JPC: A3	M	Press the button on the LCD to select the size.	9
227	Paper feeding	Paper size for 3rd drawer	ALL	JPC: A4-R	M	Press the button on the LCD to select the size.	9
228	Paper feeding	Paper size for 4th drawer	ALL	JPC: B4	M	Press the button on the LCD to select the size.	9
229	Paper feeding	Paper size (A3) feeding/ widthwise direction	ALL	420/297 <182-432/140-297>	M		10
230	Paper feeding	Paper size (A4-R) feeding/ widthwise direction	ALL	297/210 <182-432/140-297>	M		10
231	Paper feeding	Paper size (A5-R) feeding/ widthwise direction	ALL	210/148 <182-432/140-297>	M		10
232	Paper feeding	Paper size (B4) feeding/ widthwise direction	ALL	364/257 <182-432/140-297>	M		10
233	Paper feeding	Paper size (B5-R) feeding/ widthwise direction	ALL	257/182 <182-432/140-297>	M		10
234	Paper feeding	Paper size (LT-R) feeding/ widthwise direction	ALL	279/216 <182-432/140-297>	M		10
235	Paper feeding	Paper size (LD) feeding/ widthwise direction	ALL	432/279 <182-432/140-297>	M		10

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
236	Paper feeding	Paper size (LG) feeding/widthwise direction	ALL	356/216 <182-432/140-297>	M		10
237	Paper feeding	Paper size (ST-R) feeding/widthwise direction	ALL	216/140 <182-432/140-297>	M		10
238	Paper feeding	Paper size (COMPUTER) feeding/widthwise direction	ALL	356/257 <182-432/140-297>	M		10
239	Paper feeding	Paper size (FOLIO) feeding/widthwise direction	ALL	330/210 <182-432/140-297>	M		10
240	Paper feeding	Paper size (13" LG) feeding/widthwise direction	ALL	330/216 <182-432/140-297>	M		10
241	Paper feeding	Paper size (8.5"X8.5") feeding/widthwise direction	ALL	216/216 <182-432/140-297>	M		10
242	Paper feeding	Paper size (Non-standard) feeding/widthwise direction	ALL	432/279 <148-432/105-297>	SYS		10
243	Paper feeding	Memory 1 Paper size (bypass feeding/non-standard type) feeding/widthwise direction	ALL	148/100 <148-432/100-297>	SYS	Registers the paper size of bypass feed (non-standard type) into [MEMORY 1].	10
244	Paper feeding	Paper size (8K) feeding/widthwise direction	ALL	390/270 <182-432/140-297>	M		10
245	Paper feeding	Paper size (16K-R) feeding/widthwise direction	ALL	270/195 <182-432/140-297>	M		10
246	Paper feeding	Paper size (A3 wide) feeding/widthwise direction	ALL	457/305 <182-457/140-305>	M		10
247	Paper feeding	Memory 2 Paper size (bypass feeding/non-standard type) feeding/widthwise direction	ALL	148/100 <148-432/100-297>	SYS	Registers the paper size of bypass feed (non-standard type) into [MEMORY 2].	10
248	Paper feeding	Memory 3 Paper size (bypass feeding/non-standard type) feeding/widthwise direction	ALL	148/100 <148-432/100-297>	SYS	Registers the paper size of bypass feed (non-standard type) into [MEMORY 3].	10
249	Paper feeding	Memory 4 Paper size (bypass feeding/non-standard type) feeding/widthwise direction	ALL	148/100 <148-432/100-297>	SYS	Registers the paper size of bypass feed (non-standard type) into [MEMORY 4].	10
250	Maintenance	Service technician telephone number	ALL	0 <32 digits>	SYS	A telephone number can be entered up to 32 digits. Use the [Pause] button to enter a hyphen (-).	11

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
251	Maintenance	Setting value of PM counter	ALL	Refer to content <8 digits>	M	<Default value> e-STUDIO555 UC, EUR: 460,000 e-STUDIO655 JPC: 0 UC, EUR: 515,000 e-STUDIO755 JPC: 0 UC, EUR: 540,000 e-STUDIO855 JPC: 0 UC, EUR: 600,000	1
252	Maintenance	Current value of PM counter Display/0 clearing	ALL	0 <8 digits>	M	Counts up when the registration sensor is ON.	1
253	Maintenance	Error history display	ALL	-	SYS	Displaying of the latest 20 errors data	2
254	Paper feeding	LT <-> A4/LD <-> A3	PRT	0 <0-1>	SYS	Sets whether the data is printed on the different but similar size paper or not when the paper of corresponding size is not available. 0: Valid (The data is printed on A4/A3 when LT/LD is selected or vice versa.) 1: Invalid (The message to use the selected paper size is displayed.)	1
256	Paper feeding	Paper size setting /Tandem LCF	ALL	EUR: A4 UC: LT	M	Press the button on the LCD to select the size.	9
259	Network	Storage period trial and private	PRT	14 <0-35>	SYS	0: No limits 1 to 30: 1 to 30 days 31: 1 hour 32: 2 hours 33: 4 hours 34: 8 hours 35: 12 hours	1
260	Network	Web data retention period	SCN	10 <3 digits>	SYS	When a certain period of time has passed without operation after accessing TopAccess, the data being registered is automatically reset. This period is set at this code. (Unit: Minute)	1
263	User interface	Administrator's password (Maximum 10 digits)	ALL	123456 <10 digits>	-	The password can be entered in alphabets and figures (A-Z, a-z, 0-9) within 10 digits.	11
264	Network	File retention period	SCN	30 <0-999>	SYS	0: No limits 1 to 999: 1 to 999 days	1
265	Network	Maximum data capacity at E-mailing	SCN	30 <2-30>	SYS	2 to 30 M bytes	1
266	Network	Maximum data capacity at Internet FAX	ALL	30 <2-30>	SYS	2 to 30 M bytes	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
267	Electronic Filing	Full guarantee of documents in Electronic Filing when HDD is full	ALL	1 <0-1>	SYS	Sets the file retention level when editing the files in the Electronic Filing (at CutDoc/ SaveDoc command execution). 0: Not full retained 1: Fully retained - Retains the source file until CutDoc/ SaveDoc command is completed. * The file is not deleted even if the HDD has become full during the execution of command when "1" is set.	1
270	Electronic Filing	Default value for user box retention period	ALL	0 <0-999>	SYS	Sets the data retention period when creating a user box. 0: Not deleted 1 to 999: Retention period (Unit: Day)	1
271	General	Warning notification of the File Share and e-Filing partitions are filled	ALL	90 <0-100>	SYS	Sets the percentage of HDD partition filled when warning notification is sent. 0 to 100: 0 to 100% * Related code 08-288	1
272	Scanning	Notification setting of E-mail saving time limit	ALL	3 <0-99>	SYS	Sets the days left the notification of E-mail saving time limit appears 0 to 99: 0 to 99 days	1
273	Scanning	Default setting of partial size when transmitting E-mail	ALL	0 <0-6>	SYS	Sets the default value for the partial size of E-mail to be transmitted when creating a template. 0: Not divided 1: 64 2: 128 3: 256 4: 512 5: 1024 6: 2048 (Unit: KB)	1
274	FAX	Default setting of page by page when transmitting Internet FAX	FAX	0 <0-4>	SYS	Sets the default value for the page by page of Internet FAX to be transmitted when creating a template. 0: Not divide 1: 256 2: 512 3: 1024 4: 2048 (Unit: KB)	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
276	User interface	Default setting for density adjustment	SCN	0 <0-11>	SYS	0: Automatic density 1: Step -5 2: Step -4 3: Step -3 4: Step -2 5: Step -1 6: Step 0 (center) 7: Step +1 8: Step +2 9: Step +3 10: Step +4 11: Step +5 (1 to 11: Manual density)	1
280	User interface	Default setting of resolution (Gray Scale)	SCN	2 <0-5>	SYS	0: 100 dpi 1: 150 dpi 2: 200 dpi 3: 300 dpi 4: 400 dpi 5: 600 dpi	1
281	User interface	Default setting of resolution (Black)	SCN	1 <0-4>	SYS	0: 150 dpi 1: 200 dpi 2: 300 dpi 3: 400 dpi 4: 600 dpi	1
283	User interface	Default setting of original mode	SCN	0 <0-3>	SYS	0: Text 1: Text/Photo 2: Photo 3: Gray scale	1
284	User interface	Default setting of scanning mode	SCN	0 <0-2>	SYS	0: Single 1: Book 2: Tablet	1
285	User interface	Default setting of rotation angle of original	SCN	0 <0-3>	SYS	0: 0 degree 1: 90 degrees 2: 180 degrees 3: 270 degrees	1
286	User interface	Default setting of original paper size	SCN	0 <0-22>	SYS	0: Automatic 1: A3 2: A4 3: LD 4: LT 5: A4-R 6: A5-R 7: LT-R 8: LG 9: B4 10: B5 11: ST-R 12: COMP 13: B5-R 14: FOLIO 15: 13"LG 16: 8.5" x 8.5" 18: A6-R 19: Size mixed 20: 8K 21: 16K 22: 16K-R	1
288	General	Searching interval of deleting expired files and checking capacity of HDD partitions	ALL	12 <1-24>	SYS	Sets the search interval of deleting expired files and checking capacity of HDD partitions. (Unit: Hour) * Related code 08-271	1
290	Network	Raw printing job (Duplex)	PRT	1 <0-1>	SYS	0: Valid 1: Invalid	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
291	Network	Raw printing job (Paper size)	PRT	EUR: 6 UC: 2 JPC: 6 <0 -13>	SYS	0: LD 1: LG 2: LT 3: COMP 4: ST 5: A3 6: A4 7: A5 8: A6 9: B4 10: B5 11: FOLIO 12: 13"LG 13: 8.5" x 8.5"	1
292	Network	Raw printing job (Paper type)	PRT	0 <0-5>	SYS	0: Plain paper 1: Thick paper 1 2: Thick paper 2 3: Thick paper 3 4: OHP film 5: Thick paper 4 (Reserved) 5: Thin paper (Reserved)	1
293	Network	Raw printing job (Paper direction)	PRT	0 <0-1>	SYS	0: Portrait 1: Landscape	1
294	Network	Raw printing job (Staple)	PRT	1 <0-1>	SYS	0: Valid 1: Invalid	1
295	Network	Raw printing job (receiving tray)	PRT	0 <0-6>	SYS	0: Inner tray 1: Finisher tray 1 2: Finisher tray 2 3: Not used 4: Job Separator Upper 5: Job Separator Upper 6: Exit tray	1
296	Network	Raw printing job (Number of form lines)	PRT	1200 <500- 12800>	SYS	Sets the number of form lines from 5 to 128. (A hundredfold of the number of form lines is defined as the setting value.)	1
297	Network	Raw printing job (PCL font pitch)	PRT	1000 <44- 9999>	SYS	Sets the font pitch from 0.44 to 99.99. (A hundredfold of the font pitch is defined as the setting value.)	1
298	Network	Raw printing job (PCL font size)	PRT	1200 <400- 99975>	SYS	Sets the font size from 4 to 999.75. (A hundredfold of the font size is defined as the setting value.)	1
299	Network	Raw printing job (PCL font number)	PRT	0 <0-79>	SYS	Sets the PCL font number.	1
300	User interface	Maximum number of copy volume (MAX9)	PPC	0 <0-3>	SYS	0: 999 1: 99 2: 9	1
302	User interface	Original counter display	ALL	EUR: 2 UC: 0 JPC: 0 <0,2,4>	SYS	Sets whether the original counter is displayed or not. 0: Not displayed 2: Displayed 4: Displayed (Double- sized original is counted as 2.)	1

Setting mode (08)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
305-0	Counter	Number of output pages in copier function	A3	PPC	0 <8 digits>	SYS	Counts the output pages in the copier function for each paper size according to the setting for the count setting of large-sized paper (08-352) and the definition setting of large-sized paper (08-353). 305-18: SRA3(320x450 mm), 320x460 mm 305-21: Feeding direction: 460<n=800 mm 305-22: Feeding direction: 800<n=1200 mm 305-23: Feeding direction: 148<n=460 mm	4
305-1			A4					
305-2			A5					
305-3			A6					
305-4			B4					
305-5			B5					
305-6			FOLIO					
305-7			LD					
305-8			LG					
305-9			LT					
305-10			ST					
305-11			COMP					
305-12			13"LG					
305-13			8.5" x 8.5"					
305-14			16K					
305-15			8K					
305-16			A3Wide					
305-17			LDWide					
305-18			SRA3					
305-19			13x19"					
305-21			Extra long size paper a					
305-22			Extra long size paper b					
305-23			Others					
306-0	Counter	Number of output pages in printer function	A3	PRT	0 <8 digits>	SYS	Counts the output pages in the printer function for each paper size according to the setting for the count setting of large-sized paper (08-352) and the definition setting of large-sized paper (08-353). 305-18: SRA3(320x450 mm), 320x460 mm 305-21: Feeding direction: 460<n=800 mm 305-22: Feeding direction: 800<n=1200 mm 305-23: Feeding direction: 148<n=460 mm	4
306-1			A4					
306-2			A5					
306-3			A6					
306-4			B4					
306-5			B5					
306-6			FOLIO					
306-7			LD					
306-8			LG					
306-9			LT					
306-10			ST					
306-11			COMP					
306-12			13"LG					
306-13			8.5" x 8.5"					
306-14			16K					
306-15			8K					
306-16			A3Wide					
306-17			LDWide					
306-18			SRA3					
306-19			13x19"					
306-21			Extra long size paper a					
306-22			Extra long size paper b					
306-23			Others					

Setting mode (08)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
307-0	Counter	Number of output pages at list print mode	A3	PRT	0 <8 digits>	SYS	Counts the output pages at the list print mode for each paper size according to the setting for the count setting of large-sized paper (08-352) and the definition setting of large-sized paper (08-353). 305-18: SRA3(320x450 mm), 320x460 mm 305-21: Feeding direction: 460<n=800 mm 305-22: Feeding direction: 800<n=1200 mm 305-23: Feeding direction: 148<n=460 mm	4
307-1			A4					
307-2			A5					
307-3			A6					
307-4			B4					
307-5			B5					
307-6			FOLIO					
307-7			LD					
307-8			LG					
307-9			LT					
307-10			ST					
307-11			COMP					
307-12			13"LG					
307-13			8.5" x 8.5"					
307-14			16K					
307-15			8K					
307-16			A3Wide					
307-17			LDWide					
307-18			SRA3					
307-19			13x19"					
307-21			Extra long size paper a					
307-22			Extra long size paper b					
307-23			Others					
308-0	Counter	Number of output pages in FAX function	A3	FAX	0 <8 digits>	SYS	Counts the output pages in the FAX function for each paper size according to the setting for the count setting of large-sized paper (08-352) and the definition setting of large-sized paper (08-353). 305-18: SRA3(320x450 mm), 320x460 mm 305-21: Feeding direction: 460<n=800 mm 305-22: Feeding direction: 800<n=1200 mm 305-23: Feeding direction: 148<n=460 mm	4
308-1			A4					
308-2			A5					
308-3			A6					
308-4			B4					
308-5			B5					
308-6			FOLIO					
308-7			LD					
308-8			LG					
308-9			LT					
308-10			ST					
308-11			COMP					
308-12			13"LG					
308-13			8.5" x 8.5"					
308-14			16K					
308-15			8K					
308-16			A3Wide					
308-17			LDWide					
308-18			SRA3					
308-19			13x19"					
308-21			Extra long size paper a					
308-22			Extra long size paper b					
308-23			Others					

Setting mode (08)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
312-0	Counter	Number of scanning pages in copier function	A3	PPC	0 <8 digits>	SYS	Counts the scanning pages in the copier function for each paper size according to the setting for the count setting of large-sized paper (08-352) and the definition setting of large-sized paper (08-353). 305-18: SRA3(320x450 mm), 320x460 mm 305-21: Feeding direction: 460<n=800 mm 305-22: Feeding direction: 800<n=1200 mm 305-23: Feeding direction: 148<n=460 mm	4
312-1			A4					
312-2			A5					
312-3			A6					
312-4			B4					
312-5			B5					
312-6			FOLIO					
312-7			LD					
312-8			LG					
312-9			LT					
312-10			ST					
312-11			COMP					
312-12			13"LG					
312-13			8.5" x 8.5"					
312-14			16K					
312-15			8K					
312-16			A3Wide					
312-17			LDWide					
312-18			SRA3					
312-19			13x19"					
312-21			Extra long size paper a					
312-22			Extra long size paper b					
312-23			Others					
313-0	Counter	Number of scanning pages in scanning function	A3	SCN	0 <8 digits>	SYS	Counts the scanning pages in the scanning function for each paper size according to the setting for the count setting of large-sized paper (08-352) and the definition setting of large-sized paper (08-353). 305-18: SRA3(320x450 mm), 320x460 mm 305-21: Feeding direction: 460<n=800 mm 305-22: Feeding direction: 800<n=1200 mm 305-23: Feeding direction: 148<n=460 mm	4
313-1			A4					
313-2			A5					
313-3			A6					
313-4			B4					
313-5			B5					
313-6			FOLIO					
313-7			LD					
313-8			LG					
313-9			LT					
313-10			ST					
313-11			COMP					
313-12			13"LG					
313-13			8.5" x 8.5"					
313-14			16K					
313-15			8K					
313-16			A3Wide					
313-17			LDWide					
313-18			SRA3					
313-19			13x19"					
313-21			Extra long size paper a					
313-22			Extra long size paper b					
313-23			Others					

Setting mode (08)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
314-0	Counter	Number of scanning pages in FAX function	A3	FAX	0 <8 digits>	SYS	Counts the scanning pages in the FAX function for each paper size according to the setting for the count setting of large-sized paper (08-352) and the definition setting of large-sized paper (08-353). 305-18: SRA3(320x450 mm), 320x460 mm 305-21: Feeding direction: 460<n=800 mm 305-22: Feeding direction: 800<n=1200 mm 305-23: Feeding direction: 148<n=460 mm	4
314-1			A4					
314-2			A5					
314-3			A6					
314-4			B4					
314-5			B5					
314-6			FOLIO					
314-7			LD					
314-8			LG					
314-9			LT					
314-10			ST					
314-11			COMP					
314-12			13"LG					
314-13			8.5" x 8.5"					
314-14			16K					
314-15			8K					
314-16			A3Wide					
314-17			LDWide					
314-18			SRA3					
314-19			13x19"					
314-21			Extra long size paper a					
314-22			Extra long size paper b					
314-23			Others					
315-0	Counter	Number of transmitted pages in FAX function	A3	FAX	0 <8 digits>	SYS	Counts the transmitted pages in the FAX function for each paper size according to the setting for the count setting of large-sized paper (08-352) and the definition setting of large-sized paper (08-353). 305-18: SRA3(320x450 mm), 320x460 mm 305-21: Feeding direction: 460<n=800 mm 305-22: Feeding direction: 800<n=1200 mm 305-23: Feeding direction: 148<n=460 mm	4
315-1			A4					
315-2			A5					
315-3			A6					
315-4			B4					
315-5			B5					
315-6			FOLIO					
315-7			LD					
315-8			LG					
315-9			LT					
315-10			ST					
315-11			COMP					
315-12			13"LG					
315-13			8.5" x 8.5"					
315-14			16K					
315-15			8K					
315-16			A3Wide					
315-17			LDWide					
315-18			SRA3					
315-19			13x19"					
315-21			Extra long size paper a					
315-22			Extra long size paper b					
315-23			Others					

Setting mode (08)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
316-0	Counter	Number of received pages in FAX function	A3	FAX	0 <8 digits>	SYS	Counts the received pages in the FAX function for each paper size according to the setting for the count setting of large-sized paper (08-352) and the definition setting of large-sized paper (08-353). 305-18: SRA3(320x450 mm), 320x460 mm 305-21: Feeding direction: 460<n=800 mm 305-22: Feeding direction: 800<n=1200 mm 305-23: Feeding direction: 148<n=460 mm	4
316-1			A4					
316-2			A5					
316-3			A6					
316-4			B4					
316-5			B5					
316-6			FOLIO					
316-7			LD					
316-8			LG					
316-9			LT					
316-10			ST					
316-11			COMP					
316-12			13"LG					
316-13			8.5" x 8.5"					
316-14			16K					
316-15			8K					
316-16			A3Wide					
316-17			LDWide					
316-18			SRA3					
316-19			13x19"					
316-21			Extra long size paper a					
316-22			Extra long size paper b					
316-23			Others					
320-0	Counter	Display of number of output pages in copier function	Large	PPC	0 <8 digits>	SYS	Counts the number of output pages in the Copier Function according to its size (large/small). Large: Number of output pages of large-sized paper defined at 08-353 Small: Number of output pages other than set as large-sized paper Total: Total number output pages of all paper sizes.	14
320-1	Counter		Small	PPC	0 <8 digits>	SYS		14
320-2	Counter		Total	PPC	0 <8 digits>	SYS		14

Setting mode (08)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
321-0	Counter	Display of number of output pages in printer function	Large	PRT	0 <8 digits>	SYS	Counts the number of output pages in the Printer Function according to its size (large/small). Large:	14
321-1	Counter		Small	PRT	0 <8 digits>	SYS	Number of output pages of large-sized paper defined at 08-353 Small:	14
321-2	Counter		Total	PRT	0 <8 digits>	SYS	Number of output pages other than set as large-sized paper Total:	14
							Total number output pages of all paper sizes.	
322-0	Counter	Display of number of output pages at list print mode	Large	PRT	0 <8 digits>	SYS	Counts the number of output pages at the List Print Mode Function according to its size (large/small). Large:	14
322-1	Counter		Small	PRT	0 <8 digits>	SYS	Number of output pages of large-sized paper defined at 08-353 Small:	14
322-2	Counter		Total	PRT	0 <8 digits>	SYS	Number of output pages other than set as large-sized paper Total:	14
							Total number output pages of all paper sizes.	
323-0	Counter	Display of number of output pages in FAX function	Large	PRT	0 <8 digits>	SYS	Counts the number of output pages in the FAX Function according to its size (large/small). Large:	14
323-1	Counter		Small	PRT	0 <8 digits>	SYS	Number of output pages of large-sized paper defined at 08-353 Small:	14
323-2	Counter		Total	PRT	0 <8 digits>	SYS	Number of output pages other than set as large-sized paper Total:	14
							Total number output pages of all paper sizes.	

Setting mode (08)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
327-0	Counter	Display of number of scanning pages in copier function	Large	PPC	0 <8 digits>	SYS	Counts the number of scanning pages in the Copier Function according to its size (large/small). Large:	14
327-1	Counter		Small	PPC	0 <8 digits>	SYS	Number of output pages of large-sized paper defined at 08-353 Small:	14
327-2	Counter		Total	PPC	0 <8 digits>	SYS	Number of output pages other than set as large-sized paper Total:	14
							Total number output pages of all paper sizes.	
328-0	Counter	Display of number of scanning pages in FAX function	Large	FAX	0 <8 digits>	SYS	Counts the number of scanning pages in the FAX Function according to its size (large/small). Large:	14
328-1	Counter		Small	FAX	0 <8 digits>	SYS	Number of output pages of large-sized paper defined at 08-353 Small:	14
328-2	Counter		Total	FAX	0 <8 digits>	SYS	Number of output pages other than set as large-sized paper Total:	14
							Total number output pages of all paper sizes.	
329-0	Counter	Display of number of scanning pages in scanning function	Large	SCN	0 <8 digits>	SYS	Counts the number of scanning pages in the Scanning Function according to its size (large/small). Large:	14
329-1	Counter		Small	SCN	0 <8 digits>	SYS	Number of output pages of large-sized paper defined at 08-353 Small:	14
329-2	Counter		Total	SCN	0 <8 digits>	SYS	Number of output pages other than set as large-sized paper Total:	14
							Total number output pages of all paper sizes.	

Setting mode (08)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
330-0	Counter	Display of number of transmitted pages in FAX function	Large	FAX	0 <8 digits>	SYS	Counts the number of transmitted pages in the FAX Function according to its size (large/small). Large: Number of output pages of large-sized paper defined at 08-353 Small: Number of output pages other than set as large-sized paper Total: Total number output pages of all paper sizes.	14
330-1	Counter		Small	FAX	0 <8 digits>	SYS		14
330-2	Counter		Total	FAX	0 <8 digits>	SYS		14
331	User interface	Default setting of screen		ALL	0 <0-5>	SYS	Sets the screen to be displayed after the auto-clear time has passed or it has recovered from the energy saving mode or sleep mode. 0: Copier 1: Fax 2: Scan 3: Box 4: Print 5: Template	1
332-0	Counter	Display of number of received pages in FAX function	Large	FAX	0 <8 digits>	SYS	Counts the number of received pages in the FAX Function according to its size (large/small). Large: Number of output pages of large-sized paper defined at 08-353 Small: Number of output pages other than set as large-sized paper Total: Total number output pages of all paper sizes.	14
332-1	Counter		Small	FAX	0 <8 digits>	SYS		14
332-2	Counter		Total	FAX	0 <8 digits>	SYS		14
335-0	Counter	Display of total number of pages	Large	ALL	0 <8 digits>	SYS	Displays the total number of pages in the copier/printer/scanning/FAX functions.	14
335-1	Counter		Small	ALL	0 <8 digits>	SYS		14
335-2	Counter		Total	ALL	0 <8 digits>	SYS		14
342	User interface	Displaying number of original pages placed on original glass		PPC	0 <0-1>	SYS	This setting is whether the number of pages of originals placed on the original glass is displayed or not. 0: Not displayed 1: Displayed	1
344	Counter	Count setting of tab paper (PM)		ALL	1 <0-1>	M	0: Counted as 1 1: Counted as 2	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
346	Counter	Count setting of large-sized paper (PM)	ALL	1 <0-1>	M	0: Counted as 1 1: Counted as 2	1
347	Counter	Definition setting of large-sized paper (PM)	ALL	0 <0-1>	M	0: A3/LD 1: A3/LD/B4/LG/ FOLIO/COMP	1
348	Counter	Count setting of thick paper (PM)	ALL	1 <0-1>	M	0: Counted as 1 1: Counted as 2	1
349	Counter	Count setting of OHP film (PM)	ALL	1 <0-1>	M	0: Counted as 1 1: Counted as 2	1
352	Counter	Count setting of large-sized paper (Fee charging system counter)	ALL	JPC: 0 OTHER: 1 <0-2>	M	0: Counted as 1 1: Counted as 2 2: Counted as 1 (Mechanical counter is double counter)	1
353	Counter	Definition setting of large-sized paper (Fee charging system counter)	ALL	0 <0-1>	M	0: A3/LD 1: A3/LD/B4/LG/ FOLIO/COMP/8K	1
355	Counter	Counter for Option LCF feeding	ALL	0 <8 digits>	M	Counts the number of sheets fed from the Option LCF	2
356	Counter	Counter for 1st drawer feeding	ALL	0 <8 digits>	M	Counts the number of sheets fed from 1st drawer	2
357	Counter	Counter for 2nd drawer feeding	ALL	0 <8 digits>	M	Counts the number of sheets fed from 2nd drawer	2
358	Counter	Counter for bypass feeding	ALL	0 <8 digits>	M	Counts the number of sheets fed from bypass feed	2
359	Counter	Counter for Tandem LCF feeding	ALL	0 <8 digits>	M	Counts the number of sheets fed from Tandem LCF	2
360	Counter	Counter for 3rd drawer feeding	ALL	0 <8 digits>	M	Counts the number of sheets fed from 3rd drawer	2
370	Counter	Counter for 4th drawer feeding	ALL	0 <8 digits>	M	Counts the number of sheets fed from 4th drawer	2
372	Counter	Counter for ADU	ALL	0 <8 digits>	M	Counts the number of output pages of duplex printing.	2
374	Counter	Counter for RADF	ALL	0 <8 digits>	SYS	Counts the number of originals fed from RADF	2
375	Maintenance	PM time counter setting value display/ 0 clearing	ALL	Refer to contents <8 digits>	M	<Default value> e-STUDIO555/655: JPC: 0 Other: 495,000 e-STUDIO755/855: JPC: 0 Other: 410,000	1
376	Maintenance	Current value of PM time counter display	ALL	0 <8 digits>	M	The driving period of the drum (when the main motor is ON) is counted in the drive counts.	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
381	Counter	Setting for counter installed externally	ALL	1 <0-7>	M	Selects the job to count up for the external counter. 0: Not selected 1: Copier 2: FAX 3: Copier/FAX 4: Printer 5: Copier/Printer 6: Printer/FAX 7: Copier/Printer/FAX	1
390	Counter	Number of errors in HDD (Copier)	PPC	0 <8 digits>	SYS	The number of error is reset at HDD formatting.	2
391	Counter	Number of errors in HDD (FAX)	FAX	0 <8 digits>	SYS	The number of error is reset at HDD formatting.	2
392	Counter	Number of errors in HDD (Scanning)	SCN	0 <8 digits>	SYS	The number of error is reset at HDD formatting.	2
393	Counter	Number of errors in HDD (Printer)	PRT	0 <8 digits>	SYS	The number of error is reset at HDD formatting.	2
398	Laser	Number of polygonal motor rotation speed switching	ALL	0 <8 digits>	M	Counts the number of time the polygonal motor has switched its rotation speed between normal rotation and standby rotation	2
399	Laser	Accumulated time of polygonal motor at normal rotation	ALL	0 <8 digits>	M	Accumulates the time the polygonal motor has rotated at normal rotation.	2
400	Fuser	Fuser unit counter	ALL	0 <0-29>	M	0: No error 1: C411 2: C412 3: C443 4: - 5: C445/465 6: C446/466 7: C447/467 8: C468 9: C449 10: C475 11: C471 12: C472 13: C473 14: C481 15: C480 16: C474 17: C490 18: C468 19: C449 20: C468 21: C449 22: C449 23: C449 24: C447/C467 25: C449 26: C468 27: C449 28: C468 29: C449	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
401	Fuser	Display of remaining portion of cleaning web	ALL	0 <0-1>	M	0: Displayed 1: Not displayed	1
402	Fuser	Printing operation setting at the end of cleaning web	ALL	0 <0-1>	M	0: Stop operation 1: Continue operation	1
403	Fuser	Number of sheets to start reeling cleaning web	ALL	7 <0-255>	M	The equipment starts reeling the cleaning web every time the specified number of sheets have been printed. (= Setting value X 1 sheet)	1
404	Fuser	Setting value to display that the cleaning web is almost consumed	ALL	Refer to contents <8 digits>	M	<Default value> e-STUDIO555: 410,000 e-STUDIO655: 465,000 e-STUDIO755: 490,000 e-STUDIO855: 550,000 (Setting value X 1 sheet)	1
405	Fuser	Setting value to display that the cleaning web is consumed	ALL	Refer to contents <8 digits>	M	<Default value> e-STUDIO555: 460,000 e-STUDIO655: 515,000 e-STUDIO755: 540,000 e-STUDIO855: 600,000 (Setting value X 1 sheet)	1
406	Fuser	Pre-running period end temperature (Pressure roller) (Low temperature)	ALL	8 <0-16>	M	0: 100°C 1: 110°C 2: 120°C 3: 125°C 4: 130°C 5: 135°C 6: 140°C 7: 145°C 8: 150°C 9: 155°C 10: 160°C 11: 165°C 12: 170°C 13: 175°C 14: 180°C 15: 185°C 16: 190°C	1
407	Fuser	Pre-running period end temperature (Pressure roller) (Normal temperature / Option installed)	ALL	Refer to contents <0-16>	M	0: 100°C 1: 110°C 2: 120°C 3: 125°C 4: 130°C 5: 135°C 6: 140°C 7: 145°C 8: 150°C 9: 155°C 10: 160°C 11: 165°C 12: 170°C 13: 175°C 14: 180°C 15: 185°C 16: 190°C <Default value> e-STUDIO555/655/755 TWD: 7 e-STUDIO755/855 NAD,SAC,ARD: 7 Others:6	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
408	Fuser	Fuser unit pre-running period end temperature (Pressure roller) (Normal temperature / Option not installed)	ALL	Refer to contents <0-16>	M	0: 100°C 1: 110°C 2: 120°C 3: 125°C 4: 130°C 5: 135°C 6: 140°C 7: 145°C 8: 150°C 9: 155°C 10: 160°C 11: 165°C 12: 170°C 13: 175°C 14: 180°C 15: 185°C 16: 190°C <Default value> e-STUDIO555 UC, EUR: 4 e-STUDIO655/755/855 JPC: 2 UC, EUR: 4	1
409	Fuser	Fuser roller temperature at Energy Saving Mode	ALL	Refer to contents <0-27>	M	0: OFF 1: 50°C 2: 55°C 3: 60°C 4: 65°C 5: 70°C 6: 75°C 7: 80°C 8: 85°C 9: 90°C 10: 95°C 11: 100°C 12: 105°C 13: 110°C 14: 115°C 15: 120°C 16: 125°C 17: 130°C 18: 135°C 19: 140°C 20: 145°C 21: 150°C 22: 155°C 23: 160°C 24: 165°C 25: 170°C 26: 175°C 27: 180°C <Default value> e-STUDIO555 UC, EUR: 19 e-STUDIO655 JPC: 5 UC, EUR: 22 e-STUDIO755/855 JPC: 22 UC, EUR: 25	1
410	Fuser	Fuser roller temperature during printing (Plain paper)	ALL	12 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1
411	Fuser	Fuser roller temperature at ready status	ALL	Refer to contents <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C <Default value> e-STUDIO555 UC, EUR: 12 e-STUDIO655 JPC: 9 UC, EUR: 12 e-STUDIO755/855 JPC: 12 UC, EUR: 12	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
412	Fuser	Fuser roller temperature during printing (Thick paper 3)	ALL	12 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1
413	Fuser	Fuser roller temperature during printing (Thick paper 1)	ALL	12 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1
414	Developer	Toner density life correction switching	ALL	3 <0-7>	M	0: Approx. 0.75% lower than current status 1: Approx. 0.50% lower than current status 2: Approx. 0.25% lower than current status 3: Unchanged (Default) 4: Approx. 0.15% higher than current status 5: Approx. 0.25% higher than current status 6: Approx. 0.50% higher than current status 7: Approx. 0.75% higher than current status	1
417	Fuser	Pre-running time for first printing (Thick paper 3)	ALL	0 <0-15>	M	0: Invalid 1: 1 sec. 2: 2 sec. 3: 3 sec. 4: 4 sec. 5: 5 sec. 6: 6 sec. 7: 7 sec. 8: 8 sec. 9: 9 sec. 10: 10 sec. 11: 12 sec. 12: 14 sec. 13: 16 sec. 14: 18 sec. 15: 20 sec.	1
418	Charger	Wire cleaning operation cycle setting	ALL	4 <0-6>	M	0: Disabled 1: 500 sheets interval 2: 1,000 sheets interval 3: 1,500 sheets interval 4: 2,000 sheets interval 5: 2,500 sheets interval 6: 3,000 sheets interval	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
433	Fuser	High fusing mode (When thick paper 2 is used)	ALL	0 <0-1>	M	The fusing efficiency level goes up during a continuous printing (when Thick 3 is selected). 0: Disabled 1: Enabled	1
437	Fuser	Fuser roller temperature during printing (Thick paper 2)	ALL	12 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1
439	Fuser	Pre-running time for first printing (Thick paper 2)	ALL	0 <0-15>	M	0: Invalid 1: 1 sec. 2: 2 sec. 3: 3 sec. 4: 4 sec. 5: 5 sec. 6: 6 sec. 7: 7 sec. 8: 8 sec. 9: 9 sec. 10: 10 sec. 11: 12 sec. 12: 14 sec. 13: 16 sec. 14: 18 sec. 15: 20 sec.	1
440	Fuser	Pre-running time for first printing (Plain paper)	ALL	0 <0-15>	M	0: Invalid 1: 1 sec. 2: 2 sec. 3: 3 sec. 4: 4 sec. 5: 5 sec. 6: 6 sec. 7: 7 sec. 8: 8 sec. 9: 9 sec. 10: 10 sec. 11: 12 sec. 12: 14 sec. 13: 16 sec. 14: 18 sec. 15: 20 sec.	1
441	Fuser	Pre-running time for first printing (Thick paper 1)	ALL	0 <0-15>	M	0: Invalid 1: 1 sec. 2: 2 sec. 3: 3 sec. 4: 4 sec. 5: 5 sec. 6: 6 sec. 7: 7 sec. 8: 8 sec. 9: 9 sec. 10: 10 sec. 11: 12 sec. 12: 14 sec. 13: 16 sec. 14: 18 sec. 15: 20 sec.	1
449	Paper feeding	Incorrect paper size jam detection switching	ALL	0 <0-1>	M	0: Enabled 1: Disabled	1
455	Process	Toner supply amount correction/ New toner supply motor control	ALL	0 <0-8>	M	The supply amount of new toner to the developer unit (the drive counts of the new toner supply motor) is corrected. Smaller-Toner supply amount-Larger 5→4→3→1→0→2→6→7→8	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
456	Process	Toner supply amount correction/ Hopper motor control	ALL	0 <0-8>	M	The supply amount of recycle toner to the developer unit (the drive counts of the hopper motor) is corrected. Smaller-Toner supply amount-Larger 3→1→0→7→6→5→4→8→2	1
457	Process	Recycle toner supply control switching	ALL	1 <0-1>	M	This setting is whether the recycle toner is supplied or not when the toner cartridge is empty. 0: Supplied 1: Not supplied	1
460	Fuser	Threshold of low temperature environment control	ALL	7 <0-11>	M	The boundary temperature of the low and normal temperature control can be set. 0: 0°C 1: 5°C 2: 9°C 3: 10°C 4: 12°C 5: 14°C 6: 15°C 7: 16°C 8: 17°C 9: 18°C 10: 19°C 11: 20°C	1

Setting mode (08)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
462	RADF	Setting for switchback operation in mixed-size copying using RADF		ALL	0 <0-1>	M	This setting is whether the original length is detected or not by transporting without scanning in reverse when A4-R/FOLIO paper or LT-R/LG paper is detected in a mixed-size copying. 0: Disabled - AMS: A series - Judges as A4-R without transporting in reverse with no scanning. LT series - Judges whether it is LT-R or LG by its length without transporting in reverse with no scanning. APS: A series - Judges whether it is A4-R or FOLIO without transporting in reverse with no scanning. LT series - Judges whether it is LT-R or LG without transporting in reverse with no scanning. 1: Enable 1 AMS: A series - Judges whether it is A4-R or FOLIO by transporting without scanning in reverse to detect its length. LT series - Judges whether it is LT-R or LG by transporting without scanning in reverse to detect its length. APS: The same as that of APS in 0: Disabled.	1
463-0	Paper feeding	Feeding retry number setting (1st drawer)	Plain paper	ALL	5 <0-5>	M	Sets the number of times of the feeding retry from the 1st drawer.	4
463-1			Others	ALL	5 <0-5>	M		4
464-0	Paper feeding	Feeding retry number setting (2nd drawer)	Plain paper	ALL	5 <0-5>	M	Sets the number of times of the feeding retry from the 2nd drawer.	4
464-1			Others	ALL	5 <0-5>	M		4

Setting mode (08)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
465-0	Paper feeding	Feeding retry number setting (3rd drawer)	Plain paper	ALL	5 <0-5>	M	Sets the number of times of the feeding retry from the 3rd drawer.	4
465-1			Others	ALL	5 <0-5>	M		4
466-0	Paper feeding	Feeding retry number setting (4th drawer)	Plain paper	ALL	5 <0-5>	M	Sets the number of times of the feeding retry from the 4th drawer.	4
466-1			Others	ALL	5 <0-5>	M		4
467-0	Paper feeding	Feeding retry number setting (bypass feed)	Plain paper	ALL	5 <0-5>	M	Sets the number of times of the feeding retry from the bypass tray.	4
467-1			Others	ALL	5 <0-5>	M		4
468-0	Paper feeding	Feeding retry number setting (Tandem LCF)	Plain paper	ALL	5 <0-5>	M	Sets the number of times of the feeding retry from the Tandem LCF.	4
468-1			Others	ALL	5 <0-5>	M		4
470	Paper feeding	Paper size (LD wide) feeding/widthwise direction		ALL	457/305 <148-457/105-305>	M		10
471	Paper feeding	Paper size (Postcard) feeding/widthwise direction		ALL	148/100 <148-432/100-297>	M		10
476	Counter	Counter for used toner full status		ALL	0 <0-3>	M	Counts the number of times the Toner bag full status is detected. (The error [CD40] is displayed.) * Set this code to "0" when replacing the Toner bag.	1
478	Laser	Judged number of polygonal motor rotation error (Normal rotation)		ALL	0 <0-6>	M	Displays the error [CA10] when the set number of rotation error has been detected. 0: 10 times 1: 6 times 2: 8 times 3: 12 times 4: 14 times 5: 16 times 6: 20 times	1
480	Paper feeding	Default setting of paper source		PPC	0 <0-6>	M	0: A4/LT 1: Tandem LCF 2: 1st drawer 3: 2nd drawer 4: 3rd drawer 5: 4th drawer 6: Option LCF	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
481	Paper feeding	Automatic change of paper source	PPC	1 <1-2>	SYS	Sets whether or not changing the drawer automatically to the other drawer with the paper of the same size when paper in the selected drawer has run out. 1: ON (Changes to the drawer with the same paper direction and size: ex. A4 to A4) 2: ON (Changes to the drawer with the same paper size. Paper with the different direction is acceptable as long as the size is the same: ex., A4 to A4-R, LT-R to LT. "1" is applied when the staple/hole-punch is specified.)	1
482	Paper feeding	Feeding retry setting	ALL	0 <0-1>	M	0: ON 1: OFF	1
483	Laser	Pre-running rotation of polygonal motor	ALL	0 <0-2>	SYS	Sets whether or not switching the polygonal motor from the standby rotation to the normal rotation when the original is set on the RADF or the platen cover is opened. 0: Valid (when using RADF and the original is set manually) 1: Invalid 2: Valid (when using RADF only)	1
484	Laser	Polygonal motor rotational status switching at the Auto Clear Mode	ALL	0 <0-1>	SYS	Sets whether or not switching the polygonal motor from the normal rotation to the standby rotation at the Auto Clear Mode. 0: Valid 1: Invalid	1
485	Laser	Rotational status of polygonal motor on standby	ALL	0 <0-1>	SYS	Sets the rotational status of polygonal motor on standby. 0: Rotated (The rotation speed is set at 08-489.) 1: Stopped	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
486	Laser	Timing of auto-clearing of polygonal motor pre-running rotation	ALL	3 <0-6>	SYS	This setting to switch the polygonal motor to the standby rotation when a certain period of time has passed from the pre-running. In this code, the period of time to switch the motor status to the standby rotation is set. 0: 15 sec. 1: 20 sec. 2: 25 sec. 3: 30 sec. 4: 35 sec. 5: 40 sec. 6: 45 sec. * This setting is enabled when "0" or "2" is set in 08-483 and also "0" is set in 08-484. The rotational status in the ready status can be set in 08-485	1
489	Laser	Polygonal motor rotation speed at ready status	ALL	Refer to contents <0-5>	M	<e-STUDIO555/655> 0: 60,236.22 rpm 1: 44,500 rpm 2: 40,000 rpm 3: 35,000 rpm 4: Unused 5: Unused <e-STUDIO755/855> 0: 36,318.898 rpm 1: Unused 2: Unused 3: Unused 4: Unused 5: Unused <Default value> e-STUDIO555/655: 1 e-STUDIO755/855: 0	1
502	Image	Error diffusion and dither setting at photo mode	PPC	1 <0-1>	SYS	Sets the image reproduction method at photo mode. 0: Error diffusion 1: Dither	1
503	User interface	Default setting of density adjustment	PPC	0 <0-1>	SYS	0: Automatic 1: Manual (Center)	1
508	Image	Custom Mode setting	PPC	0 <0-3>	SYS	0: Not used 1: Custom Mode 1 when Text/Photo is set as a base 2: Custom Mode 2 when Text is set as a base 3: Custom Mode 3 when Photo is set as a base	1
509	Image	Error diffusion and dither setting at a photo mode (Custom Mode)	PPC	1 <0-1>	SYS	Switches the image processing method when Custom Mode 3 is set. 0: Error diffusion 1: Dither	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
526	Fuser	Pre-running time for first printing (OHP film)	ALL	5 <0-15>	M	0: Invalid 1: 0 sec. 2: 2 sec. 3: 3 sec. 4: 4 sec. 5: 5 sec. 6: 6 sec. 7: 7 sec. 8: 8 sec. 9: 9 sec. 10: 10 sec. 11: 12 sec. 12: 14 sec. 13: 16 sec. 14: 18 sec. 15: 20 sec.	1
550	Image	Default setting of original mode	PPC	0 <0-10>	SYS	0: Text/Photo 1: Photo2: Text 3: User mode	1
602	User interface	Screen setting for Auto power Save Mode and Auto Shut OFF Mode	ALL	EUR: 0 UC: 1 JPC: 1 <0-1>	SYS	0: OFF 1: ON	1
603	User interface	Setting for automatic duplexing mode	PPC	0 <0-3>	SYS	0: Invalid 1: Single-sided to duplex copying 2: Double-sided to duplex copying 3: User selection	1
604	User interface	Default setting for APS/AMS	PPC	0 <0-2>	SYS	0: APS (Automatic Paper Selection) 1: AMS (Automatic Magnification Selection) 2: Not selected	1
605	User interface	Centering printing of primary/secondary direction at AMS	PPC	1 <0-1>	SYS	0: Invalid 1: Valid	1
607	User interface	Default setting of RADF mode	PPC	0 <0-1>	SYS	0: Continuous feeding (by pressing the [START] button) 1: Single feeding (by setting original on the tray)	1
610	User interface	Key touch sound of control panel	ALL	1 <0-1>	SYS	0: OFF 1: ON	1
611	User interface	Book type original priority	PPC	0 <0-1>	SYS	0: Left page to right page 1: Right page to left page	1
613	User interface	Paper size selection for [OTHER] button	PPC	EUR: FOLIO UC: COMP JPC: A5-R	SYS	Press the button on the LCD to select the size.	9
614	Network	Local I/F time-out period	PRT	6 <1-50>	SYS	Sets the period of time when the job is judged as completed in local I/F printing (USB or parallel). 1: 1.0 sec. 2: 1.5 sec. -50: 25.5 sec. (in increments of 0.5 sec.)	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
617	User interface	Print setting when department code or registration number is not entered	ALL	1 <0-2>	SYS	0: Printed forcibly 1: Print impossible 2: Deleted forcibly	1
618	User interface	Default setting when mixed size originals are set on RADF	PPC	0 <0-1>	SYS	0: Scanned as all in same size 1: Scanned as each original size	1
619	Paper feeding	Time lag before Auto Job Start of bypass feeding	ALL	4 <0-10>	SYS	Sets the time taken to add paper feeding when paper in the bypass tray has run out during the bypass feed copying. 0: Paper is not drawn in unless the [START] button is pressed. 1-10: Setting value x 0.5 sec.	1
620	User interface	Department management setting (Copier)	PPC	1 <0-1>	SYS	0: Invalid 1: Valid	1
621	User interface	Department management setting (FAX)	FAX	1 <0-1>	SYS	0: Invalid 1: Valid	1
622	User interface	Department management setting (Printer)	PRT	1 <0-1>	SYS	0: Invalid 1: Valid	1
623	User interface	Department management setting (Scanner)	SCN	1 <0-1>	SYS	0: Invalid 1: Valid	1
624	User interface	Department management setting (List print)	PRT	1 <0-1>	SYS	0: Invalid 1: Valid	1
625	User interface	Blank copying prevention mode during RADF jamming	PPC	0 <0-1>	SYS	0: OFF 1: ON (Start printing when the scanning of each page is finished)	1
627	User interface	Rotation printing at the non-sorting	ALL	0 <0-1>	SYS	0: Not rotating 1: Rotating	1
628	User interface	Direction priority of original image	PPC	0 <0-1>	SYS	0: Automatic 1: Portrait	1
629	User interface	Department management setting	ALL	0 <0-1>	SYS	0: Invalid 1: Valid * When this code is set to "0" (Invalid), the user data department management setting (08-1482) will be set to "0" (Invalid).	1
630	Paper feeding	Paper size for Option LCF	ALL	JPC: A4 UC: LT EUR: A4	M	Press the button on the LCD to select the size.	9
634	User interface	Inner receiving tray priority at Non-sort Mode	ALL	0 <0-1>	SYS	0: Normal 1: Inner receiving tray	1
636	User interface	Width setting for image shift copying (linkage of front side and back side)	PPC	0 <0-1>	SYS	0: ON 1: OFF	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
638	General	Time differences	ALL	EUR: 24 UC: 40 JPC: 6 Other:0 <0-47>	SYS	0: +12.0h 1: +11.5h 2: +11.0h 3: +10.5h 4: +10.0h 5: +9.5h 6: +9.0h 7: +8.5h 8: +8.0h 9: +7.5h 10: +7.0h 11: +6.5h 12: +6.0h 13: +5.5h 14: +5.0h 15: +4.5h 16: +4.0h 17: +3.5h 18: +3.0h 19: +2.5h 20: +2.0h 21: +1.5h 22: +1.0h 23: +0.5h 24: 0.0h 25: -0.5h 26: -1.0h 27: -1.5h 28: -2.0h 29: -2.5h 30: -3.0h 31: -3.5h 32: -4.0h 33: -4.5h 34: -5.0h 35: -5.5h 36: -6.0h 37: -6.5h 38: -7.0h 39: -7.5h 40: -8.0h 41: -8.5h 42: -9.0h 43: -9.5h 44: -10.0h 45: -10.5h 46: -11.0h 47: -11.5h	1
640	User interface	Date display format	ALL	EUR: 1 UC: 2 JPC: 0 <0-2>	SYS	0: YYYY.MM.DD. 1: DD.MM.YYYY 2: MM.DD.YYYY	1
641	User interface	Automatic Sorting Mode setting (RADF)	PPC	2 <0-4>	SYS	0: Invalid 1: STAPLE 2: SORT 3: GROUP 4: ROTATE SORT	1
642	User interface	Default setting of Sorter Mode	PPC	0 <0-4>	SYS	0: NON-SORT 1: STAPLE 2: SORT 3: GROUP 4: ROTATE SORT	1
645	User interface	Correction of reproduction ratio in editing copy	PPC	10 <0-10>	SYS	Sets the reproduction ratio for the "X in 1" printing (including magazine sort) to the "Reproduction ratio x Correction ratio". 0: 90% 1: 91% 2: 92% 3: 93% 4: 94% 5: 95% 6: 96% 7: 97% 8: 98% 9: 99% 10: 100%	1
646	User interface	Image position in editing	PPC	2 <0-3>	SYS	Sets the page pasted position for "X in 1" to the upper left corner/center. 0: PPC: Cornering/ PRT: Cornering 1: PPC: Centering/ PRT: Cornering 2: PPC: Cornering/ PRT: Centering 3: PPC: Centering/ PRT: Centering	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
648	User interface	Returning finisher tray when printing is finished	ALL	0 <0-1>	SYS	Sets whether or not returning the finisher tray to the bin 1 when printing is finished. 0: Not returned 1: Returned	1
649	User interface	Magazine sort setting	PPC	0 <0-1>	SYS	0: Left page to right page 1: Right page to left page	1
650	User interface	2 in 1/4 in 1 page allocating order setting	PPC	0 <0-1>	SYS	0: Horizontal 1: Vertical	1
651	User interface	Printing format setting for Time stamp and Page Number	PPC	2 <0-3>	SYS	Hyphen (with page number) /Dropout (with date, time and page number) 0: OFF/OFF 1: ON/OFF 2: OFF/ON 3: ON/ON Note: Hyphen printing format ON: -1- OFF: 1	1
652	User interface	Cascade operation setting	PPC	0 <0-2>	SYS	0: OFF 1: ON (Stop) 2: ON (Circulation)	1
653	User interface	Cascade operation setting	PRT	0 <0-2>	SYS	0: OFF 1: ON (Stop) 2: ON (Circulation)	1
657	User interface	Direction priority for date and time stamp printing	PPC	0 <0-1>	SYS	0: Short edge 1: Long edge	1
658	User interface	Auto Job Start setting for bypass feed printing (Remote)	PRT	0 <0-1>	SYS	Sets whether or not feeding a paper automatically into the equipment when it is placed on the bypass tray. 0: OFF (Press the [START] button to start feeding.) 1: ON (Automatic feeding)	1
659	User interface	Auto Job start setting for bypass feed printing (Local)	PPC	1 <0-1>	SYS	Sets whether or not feeding a paper automatically into the equipment when it is placed on the bypass tray. 0: OFF (Press the [START] button to start feeding.) 1: ON (Automatic feeding)	1
660	Network	Auto-forwarding setting of received FAX	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
661	Network	Auto-forwarding setting of received E-mail	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
662	General	Clearing of SMS partition	ALL	-	SYS	Clears SMS partition. (Performs when the service call [F106] has occurred.)	3

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
666	General	/BOX partition clearing	ALL	-	SYS	Initializes the Electronic Filing.	3
667	General	/SHA partition clearing	ALL	-	SYS	Initializes the shared folder.	3
670	General	HDD diagnostic menu display	ALL	-	SYS	Display the HDD information (Ch.5.4.2)	2
671	User interface	Size indicator	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
672	General	Initialization of department management information	-	-	SYS	Initializing of the department management information * Key in the code and press the [INITIALIZE] button to perform the initialization. If the area storing the department management information is destroyed for some reason, "Enter Department Code" is displayed on the control panel even if the department management function is not set on. In this case, initialize the area with this code. This area is normally initialized at the factory.	3
673	General	Trial period setting	PRT/SCN	254 <1-60>	SYS	Sets the trial period from 1 to 60 days. This setting is effective only when the default value is "254". Once the default value is set, this value is only used for a reference.	1
678	General	Setting of banner advertising display	ALL	0 <0-1>	SYS	Sets whether or not displaying the banner advertising. The setting contents of 08-679 and 08-680 are displayed at the time display section on the right top of the screen. When both are set, each content is displayed alternately. 0: Not displayed 1: Displayed	1
679	General	Banner advertising display 1	ALL	-	SYS	Maximum 27 letters (one-byte character)	11
680	General	Banner advertising display 2	ALL	-	SYS	Maximum 27 letters (one-byte character)	11

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
681	General	Display of [BANNER MESSAGE] button	ALL	0 <0-1>	SYS	0: Not displayed 1: Displayed * This button enables the entry of "Banner advertising display 1 (08-679)" and "Banner advertising display 2 (08-680)" on the control panel.	1
683	General	Duplex printing setting when coin controller is used	ALL	1 <0-1>	SYS	When the duplex printing is short paid with a coin controller, reverse side of the original is not printed and is considered as a defect (printing job may be cleared). To solve this problem, the selection of printing method is enabled with this setting. 0: Invalid (Both sides printed) 1: Valid (Only one side printed)	1
684	General	Rebuilding all databases	ALL	-	SYS	Rebuilds all databases.	3
685	General	Rebuilding all databases related to address book	ALL	-	SYS	Rebuilds all databases related to the Address Book (e.g. destinations in the Address Book, templates, enhanced scan templates, Mailbox data, Fax/InternetFax received forward setting).	3
686	General	Rebuilding all databases related to log	ALL	-	SYS	Rebuilds all databases related to the log (e.g. print logs, scan logs, Fax transmission/reception logs, message logs).	3
689	FAX	Adaptation of paper source priority selection	FAX	0 <0-1>	SYS	0: Not subjected for APS judgment 1: Subjected for APS judgment	1
690	General	HDD formatting	ALL	2 <2>	SYS	2: Normal formatting	7
691	General	HDD type display	ALL	- <0-2>	SYS	0: Not formatted 1: Not used 2: DSI formatted	7
692	Maintenance	Performing panel calibration	ALL	-	SYS	Performs the calibration of the pressing position on the touch panel (LCD screen). The calibration is performed by pressing 2 reference positions after this code is started up.	1
693	General	Initialization of NIC information	ALL	-	SYS	Returns the value to the factory shipping default value.	3
694	General	Performing HDD testing	ALL	-	SYS	Checks the bad sector.	3

Setting mode (08)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
695	General	Notifying condition of trial period end		PRT/SCN	3 <0-255>	SYS	Sets when the end of trial period is notified. 0: On the day it ends 1 to 255: n days before	1
701	FAX	Destination setting for FAX		FAX	EUR: 5 UC: 4 JPC: 0 Other: 1 <0-25>	SYS	0: Japan 1: Asia 2: Australia 3: Hong Kong 4: U.S.A./Canada 5: Germany 6: U.K. 7: Italy 8: Belgium 9: Netherlands 10: Finland 11: Spain 12: Austria 13: Switzerland 14: Sweden 15: Denmark 16: Norway 17: Portugal 18: France 19: Greece 20: Poland 21: Hungary 22: Czech 23: Turkey 24: South Africa 25: Taiwan	1
702	Maintenance	Remote-controlled service function		ALL	2 <0-2>	SYS	0: Valid (Remote-controlled server) 1: Valid (L2) 2: Invalid	1
703	Maintenance	Remote-controlled service HTTP server URL setting		ALL	-	SYS	Maximum 256 Bytes	11
704-0	User interface	Interruption of stapling operation (no staple)	Copying	ALL	1 <0-1>	SYS	0: Continues printing by switching sort setting 1: Interrupts printing	11
704-1			Printing / BOX printing	ALL	1 <0-1>	SYS	0: Continues printing by switching sort setting 1: Interrupts printing	4
707	Maintenance	Remote-controlled service HTTP initially-registered server URL setting		ALL	https://device.mfp-support.com:443/device/firstregist.ashx	SYS	Maximum 256 letters	4
710	Maintenance (Remote)	Short time interval setting of recovery from Emergency Mode		ALL	24 <1-48>	SYS	Sets the time interval to recover from the Emergency Mode to the Normal Mode. (Unit: Hour)	1
711	Maintenance (Remote)	Short time interval setting of Emergency Mode		ALL	60 <30-360>	SYS	Unit: Minute	1
715	Maintenance	Remote-controlled service periodical polling timing (Hour/Hour/Minute/Minute)		ALL	1400	SYS	0 (0:00) to 2359 (23:59)	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
716	Maintenance	Remote-controlled service Writing data of self-diagnostic code	ALL	0 <0-1>	SYS	0: Prohibited 1: Accepted	1
717	Maintenance	Remote-controlled service response waiting time (Timeout)	ALL	3 <1-30>	SYS	Unit: Minute	1
718	Maintenance	Remote-controlled service initial registration	ALL	0 <0-3>	SYS	0: OFF 1: Start 2: Only certification is scanned 3: Satellite communication starts	1
719	Maintenance	Remote-controlled service tentative password	ALL	-	SYS	Maximum 10 letters	11
720	Maintenance	Status of remote-controlled service initial registration (Display only)	ALL	0 <0-1>	SYS	0: Not registered 1: Registered	2
721	Maintenance	Service center call function	ALL	2 <0-2>	SYS	0: OFF 1: Notifies all service calls 2: Notifies all but paper jams	1
723	Maintenance	Service center call HTTP server URL setting	ALL	-	SYS	Maximum 256 letters	11
726	Maintenance	HTTP proxy setting	ALL	1 <0-1>	SYS	0: Valid 1: Invalid	1
727	Maintenance	HTTP proxy IP address setting	ALL	-	SYS	000.000.000.000- 255.255.255.255 (Default value 000.000.000.000)	11
728	Maintenance	HTTP proxy port number setting	ALL	0 <0- 65535>	SYS		1
729	Maintenance	HTTP proxy ID setting	ALL	-	SYS	Maximum 30 letters	11
730	Maintenance	HTTP proxy password setting	ALL	-	SYS	Maximum 30 letters	11
731	Maintenance	HTTP proxy panel display	ALL	1 <0-1>	SYS	0: Valid 1: Invalid	1
732	Maintenance (Remote)	Automatic ordering function of supplies	ALL	3 <0-3>	SYS	0: Ordered by FAX 1: Ordered by E-mail 2: Ordered by HTTP 3: OFF	1
733	Maintenance (Remote)	Automatic ordering function of supplies FAX number	ALL	-	SYS	Maximum 32 digits Enter hyphen with the [Pause] button	11
734	Maintenance (Remote)	Automatic ordering function of supplies E-mail address	ALL	-	SYS	Maximum 192 letters	11
738	Maintenance (Remote)	Automatic ordering function of supplies User's name	ALL	-	SYS	Maximum 50 letters	11
739	Maintenance (Remote)	Automatic ordering function of supplies User's telephone number	ALL	-	SYS	Maximum 32 digits Enter hyphen with the [Pause] button	11
740	Maintenance (Remote)	Automatic ordering function of supplies User's E-mail address	ALL	-	SYS	Maximum 192 letters	11

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
741	Maintenance (Remote)	Automatic ordering function of supplies User's address	ALL	-	SYS	Maximum 100 letters	11
742	Maintenance (Remote)	Automatic ordering function of supplies Service number	ALL	0 <5 digits>	SYS	Maximum 5 digits	11
743	Maintenance (Remote)	Automatic ordering function of supplies Service technician's name	ALL	-	SYS	Maximum 50 letters	11
744	Maintenance (Remote)	Automatic ordering function of supplies Service technician's telephone number	ALL	-	SYS	Maximum 32 digits Enter hyphen with the [Pause] button	11
745	Maintenance (Remote)	Automatic ordering function of supplies Service technician's E-mail address	ALL	-	SYS	Maximum 192 letters	11
746	Maintenance (Remote)	Automatic ordering function of supplies Supplier's name	ALL	-	SYS	Maximum 50 letters	11
747	Maintenance (Remote)	Automatic ordering function of supplies Supplier's address	ALL	-	SYS	Maximum 100 letters	11
748	Maintenance (Remote)	Automatic ordering function of supplies Notes	ALL	-	SYS	Maximum 128 letters	11
758	Maintenance (Remote)	Information about supplies Part number of toner cartridge	ALL	-	SYS	Maximum 20 digits	11
759	Maintenance (Remote)	Information about supplies Order quantity of toner cartridge	ALL	1 <1-99>	SYS		1
760	Maintenance (Remote)	Information about supplies Condition number of toner cartridge	ALL	1 <1-99>	SYS		1
761	Maintenance (Remote)	Information about supplies Part number of used toner bag	ALL	-	SYS	Maximum 20 digits	11
762	Maintenance (Remote)	Information about supplies Order quantity of used toner bag	ALL	1 <1-99>	SYS		1
763	Maintenance (Remote)	Information about supplies Condition number of used toner bag	ALL	1 <1-99>	SYS		1
765	Maintenance (Remote)	Automatic ordering supplies Display	ALL	EUR: 2 UC: 0 JPC: 2 Other: 2 <0-2>	SYS	0: Valid (FAX/Internet FAX) 1: Valid (FAX/Internet FAX/HTTP) 2: Invalid	1
767	Maintenance (Remote)	Service Notification setting	ALL	0 <0-2>	SYS	Enables to set up to 3 E-mail addresses to be sent.(08-768, 777, 778) 0: Invalid 1: Valid (E-mail) 2: Valid (FAX)	1
768	Maintenance (Remote)	Destination E-mail address	ALL	-	SYS	Maximum 192 letters	11

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
769	Maintenance (Remote)	Total counter information transmission setting	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
770	Maintenance (Remote)	Total counter transmission date setting	ALL	0 <0-31>	SYS	0 to 31	1
771	Maintenance (Remote)	PM counter notification setting	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
772	Maintenance	Dealer's name	ALL	-	SYS	Maximum 100 letters Needed at initial registration	11
773	Maintenance	Login name	ALL	-	SYS	Maximum 20 letters Needed at initial registration	11
774	Maintenance (Remote)	Display setting of [Service Notification] button	ALL	EUR: 0 UC: 1 JPC: 0 Other: 0 <0-1>	SYS	0: Not displayed 1: displayed	1
775	Maintenance (Remote)	Sending error contents of equipment	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
776	Maintenance (Remote)	Setting total counter transmission interval (Hour/Hour/Minute/Minute)	ALL	-	SYS		1
777	Maintenance (Remote)	Destination E-mail address 2	ALL	-	SYS	Maximum 192 letters	11
778	Maintenance (Remote)	Destination E-mail address 3	ALL	-	SYS	Maximum 192 letters	11
780	Maintenance	Remote-controlled service polling day selection Day-1	ALL	0 <0-31>	SYS	0: OFF 1 to 31: 1st to 31st of a month	1
781	Maintenance	Remote-controlled service polling day selection Day-2	ALL	0 <0-31>	SYS	0: OFF 1 to 31: 1st to 31st of a month	1
782	Maintenance	Remote-controlled service polling day selection Day-3	ALL	0 <0-31>	SYS	0: OFF 1 to 31: 1st to 31st of a month	1
783	Maintenance	Remote-controlled service polling day selection Day-4	ALL	0 <0-31>	SYS	0: OFF 1 to 31: 1st to 31st of a month	1
784	Maintenance	Remote-controlled service polling day selection Sunday	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
785	Maintenance	Remote-controlled service polling day selection Monday	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
786	Maintenance	Remote-controlled service polling day selection Tuesday	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
787	Maintenance	Remote-controlled service polling day selection Wednesday	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
788	Maintenance	Remote-controlled service polling day selection Thursday	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
789	Maintenance	Remote-controlled service polling day selection Friday	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
790	Maintenance	Remote-controlled service polling day selection Saturday	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
794	Maintenance	Information of supplies setting of toner cartridge	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
795	Maintenance	Information about supplies Setting of used toner bag	ALL	0 <0-1>	SYS	0: Disabled 1: Enabled	1
796	Maintenance	Remote-controlled service lengthened interval polling (End of month)	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
798	General	Notifying address of trial period end	PRT/SCN	3 <0-3>	SYS	Sets where the end of the trial period is to be notified. 0: OFF 1: User 2: Service center 3: User and service center	1
799	General	Forcible end of trial period	PRT/SCN	-	SYS	[CANCEL]: Cancel [EXECUTION]: Forcible end When the "Forcible end of trial period" is performed, "0" is set in the code (08-673) to end up the trial period forcibly.	3
800	Image quality control	Number of times of sensor abnormality/ 0 clearing	ALL	0 <0-16>	M	The number of times the image quality closed-loop control error has occurred is displayed. When the equipment has been repaired and the cause of the error has been evaluated after the appearance of a warning message (IQC), reset the counter to switch off this message.	1
803	Image quality control	Image quality control / Auto-start print volume setting 1	ALL	20 <0-30>	M	The printing interval to perform the image quality closed-loop control is set. Default: 2000 sheets (Setting value X 100 sheets)	1
804	Image quality control	Condition setting of image quality control auto-start	ALL	4 <0-24>	M	When the equipment has been left in warming-up for more than the specified period of time, the image quality closed-loop control is performed. This period is set in this code. Default: 4 (Unit: hours)	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
810	Image quality control	Image quality control / Auto-start print volume setting 2	ALL	50 <1-99>	M	The image quality closed-loop control is performed in a shorter printing interval than the one set in 08-803 only when the equipment has been left inactive for a long time (including power-OFF). Default: 500 sheets (Setting value X 10 sheets)	1
830	Transfer	Transfer voltage transformer DC correction (C)	ALL	Refer to contents <0-255>	M	The output value of the transfer bias at the center of the paper is corrected. <Default value> e-STUDIO555/655: 105 e-STUDIO755/855: 139	4
841	Transfer	Transfer timing correction	ALL	2 <0-4>	M	The timing to turn on the transfer bias is corrected. <e-STUDIO555/655> 0: Approx. 1.4 mm passed from the reference position 1: Turns on at the reference position 2: Approx. 1.4 mm before the reference position (default) 3: Approx. 2.8 mm before the reference position 4: Approx. 7.1 mm before the reference position <e-STUDIO755/855> 0: Approx. 1.6 mm passed from the reference position 1: Turns on at the reference position 2: Approx. 1.6 mm before the reference position (default) 3: Approx. 3.3 mm before the reference position 4: Approx. 8.2 mm before the reference position	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
844	Fuser	Switching timing into low-speed pre-running from start of ready status (Pressure roller)	ALL	1 <0-12>	M	0: Switching disabled 1: 5 min. 2: 10 min. 3: 20 min. 4: 30 min. 5: 40 min. 6: 50 min. 7: 60 min. 8: 70 min. 9: 80 min. 10: 90 min. 11: 100 min. 12: 120 min.	1
845	Fuser	Low-speed pre-running starting temperature during ready status (Pressure roller) (Option not installed) (When setting 08-844 is enabled)	ALL	Refer to contents <0-16>	M	0: 50°C 1: 55°C 2: 60°C 3: 65°C 4: 70°C 5: 75°C 6: 80°C 7: 85°C 8: 90°C 9: 95°C 10: 100°C 11: 105°C 12: 110°C 13: 115°C 14: 120°C 15: 125°C 16: 130°C <Default value> e-STUDIO555 UC, EUR: 10 e-STUDIO655 JPC: 6 UC, EUR: 10 e-STUDIO755/855 JPC: 10 UC, EUR: 10	1
846	Fuser	Low-speed pre-running stopping temperature during ready status (Pressure roller) (Option not installed) (When setting 08-844 is enabled)	ALL	5 <0-9>	M	0: +5°C 1: +10°C 2: +15°C 3: +20°C 4: +25°C 5: +30°C 6: +35°C 7: +40°C 8: +45°C 9: +50°C	1
847	Fuser	Low-speed pre-running starting temperature during ready status (Pressure roller) (Option installed) (When setting 08-844 is enabled)	ALL	10 <0-16>	M	0: 50°C 1: 55°C 2: 60°C 3: 65°C 4: 70°C 5: 75°C 6: 80°C 7: 85°C 8: 90°C 9: 95°C 10: 100°C 11: 105°C 12: 110°C 13: 115°C 14: 120°C 15: 125°C 16: 130°C	1
848	Fuser	Low-speed pre-running stopping temperature during ready status (Pressure roller) (Option installed) (When setting 08-844 is enabled)	ALL	5 <0-9>	M	0: +5°C 1: +10°C 2: +15°C 3: +20°C 4: +25°C 5: +30°C 6: +35°C 7: +40°C 8: +45°C 9: +50°C	1

Setting mode (08)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
855	Fuser	Low-speed pre-running setting at recovery from Energy Saving Mode		ALL	Refer to contents <0-1>	M	0: Performs pre-running 1: No pre-running <Default value> e-STUDIO555 UC, EUR: 0 e-STUDIO655 JPC: 1 UC, EUR: 0 e-STUDIO755/855 JPC: 0 UC, EUR: 0	1
858	Fuser	Switching printing speed	Plain paper	ALL	0 <0-2>	M	0: Disabled 1: Enabled only for 5 minutes after warming-up 2: Always enabled	1
859			Thick paper 1	ALL	0 <0-2>	M		1
860			Thick paper 2	ALL	0 <0-2>	M		1
861			Thick paper 3	ALL	0 <0-2>	M		1
868	Transfer	Transfer transformer DC correction (H)		ALL	128 <0-255>	M	The output value of the transfer bias at the leading edge of paper is corrected.	4
869	Transfer	Transfer transformer DC correction (L)		ALL	128 <0-255>	M	The output value of the transfer bias at the trailing edge of paper is corrected.	4
890	Fuser	Low-speed pre-running starting temperature during ready status (Pressure roller) (Option not installed)		ALL	Refer to contents <0-16>	M	0: 50°C 1: 55°C 2: 60°C 3: 65°C 4: 70°C 5: 75°C 6: 80°C 7: 85°C 8: 90°C 9: 95°C 10: 100°C 11: 105°C 12: 110°C 13: 115°C 14: 120°C 15: 125°C 16: 130°C <Default value> e-STUDIO555 UC, EUR: 16 e-STUDIO655 JPC: 6 UC, EUR: 16 e-STUDIO755/855 JPC: 16 UC, EUR: 16	1
891	Fuser	Low-speed pre-running stopping temperature during ready status (Pressure roller) (Option not installed)		ALL	Refer to contents <0-9>	M	0: 5°C 1: 10°C 2: 15°C 3: 20°C 4: 25°C 5: 30°C 6: 35°C 7: 40°C 8: 45°C 9: 50°C <Default value> e-STUDIO555 UC, EUR: 2 e-STUDIO655 JPC: 5 UC, EUR: 2 e-STUDIO755/855 JPC: 2 UC, EUR: 2	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
897	Fuser	Low-speed pre-running starting temperature during ready status (Pressure roller) (When options are installed)	ALL	16 <0-16>	M	0: 50°C 1: 55°C 2: 60°C 3: 65°C 4: 70°C 5: 75°C 6: 80°C 7: 85°C 8: 90°C 9: 95°C 10: 100°C 11: 105°C 12: 110°C 13: 115°C 14: 120°C 15: 125°C 16: 130°C	1
898	Fuser	Low-speed pre-running stopping temperature during ready status (Pressure roller) (When options are installed)	ALL	2 <0-9>	M	0: 5°C 1: 10°C 2: 15°C 3: 20°C 4: 25°C 5: 30°C 6: 35°C 7: 40°C 8: 45°C 9: 50°C	1
900	Version	System firmware ROM version	ALL	-	-	JPC:T100SY0JXXX UC:T100SY0UXXX EUR: T100SY0EXXXr: Oters:T100SY0XXXX	2
903	Version	Engine ROM version	ALL	-	-	100M-XXX	2
904	Version	Laser ROM version	ALL	-	-	100L-XXX If the laser ROM version is displayed as "NGD" in this code, it denotes that the updating of the laser ROM failed. In this case, retry the firmware update. P.6-43 "6.5 When Firmware Updating Fails"	2
905	Version	Scanner ROM version	ALL	-	-	100S-XXX	2
906	Version	PFC ROM version	ALL	-	-	100F-XXX If the PFC ROM version is displayed as "NGD" in this code, it denotes that the updating of the PFC ROM failed. In this case, retry the firmware update. P.6-43 "6.5 When Firmware Updating Fails"	2
907	Version	RADF ROM version	ALL	-	-	DF-XXXX	2
908	Version	Finisher ROM version	ALL	-	-	SDL-XX FIN-XX	2
909	Version	Insertion ROM version	ALL	-	-	INS-XX	2
911	Version	Finisher punch ROM version	ALL	-	-	PUN-XX	2
915	Version	Fax board ROM version	FAX	-	-	F562-XXX	2
920	Version	FROM basic section software version	ALL	-	-	VX.XX/X.XX	2
921	Version	FROM internal program	ALL	-	-	VXXX.XXX X	2
922	Version	UI data fixed section version	ALL	-	-	VXXX.XXX X	2
923	Version	UI data common section version	ALL	-	-	VXXX.XXX X	2
924	Version	Version of UI data language 1 in HDD	ALL	-	-	VXXX.XXX X	2

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
925	Version	Version of UI data language 2 in HDD	ALL	-	-	VXXX.XXX X	2
926	Version	Version of UI data language 3 in HDD	ALL	-	-	VXXX.XXX X	2
927	Version	Version of UI data language 4 in HDD	ALL	-	-	VXXX.XXX X	2
928	Version	Version of UI data language 5 in HDD	ALL	-	-	VXXX.XXX X	2
929	Version	Version of UI data language 6 in HDD	ALL	-	-	VXXX.XXX X	2
930	Version	Version of UI data in FROM displayed at power-ON	ALL	-	-	VXXX.XXX X	2
931	Version	Version of UI data language 7 in HDD	ALL	-	-	VXXX.XXX X	2
933	Version	Web data whole version	ALL	-	-	VXXX.XXX X	2
934	Version	Web UI data in HDD Version: Language 1	ALL	-	-	VXXX.XXX X	2
935	Version	Web UI data in HDD Version: Language 2	ALL	-	-	VXXX.XXX X	2
936	Version	Web UI data in HDD Version: Language 3	ALL	-	-	VXXX.XXX X	2
937	Version	Web UI data in HDD Version: Language 4	ALL	-	-	VXXX.XXX X	2
938	Version	Web UI data in HDD Version: Language 5	ALL	-	-	VXXX.XXX X	2
939	Version	Web UI data in HDD Version: Language 6	ALL	-	-	VXXX.XXX X	2
944	Version	HDD version	ALL	-	-	T100HDXXXXXX	2
945	Network	Two-way setting of RawPort 9100	ALL	2 <1-2>	UTY	1: Valid 2: Invalid	12
947	General	Initialization after software version upgrade	ALL	-	-	Perform this code when the software in this equipment has been upgraded.	3
949	General	Automatic interruption page setting during black printing	ALL	0 <0-100>	SYS	Sets the number of pages to interrupt the printing automatically. 0-100: 0 to 100 pages	1
950	Electronic Filing	Start-up method of Electronic Filing	ALL	0 <0-2>	SYS	Sets the start-up method of the Electronic Filing. 0: Standard 1: Forced start-up (Not recovered) 2: Forced start-up (Recovered)	1
953	User interface	Access code entry for Electronic Filing printing	ALL	0 <0-1>	SYS	0: Renewed automatically 1: Enter every time	1
954	User interface	Clearing timing for files and Electronic Filing Agent	ALL	1 <0-1>	SYS	0: Immediately after the completion of scanning 1: Cleared by Auto Clear	1
969	User interface	Error sound	ALL	1 <0-1>	SYS	0: OFF 1: ON	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
970	User interface	Sound setting when switching to Energy Saving Mode	ALL	JPC: 0 Other: 1 <0-1>	SYS	0: OFF 1: ON	1
973	Network	PCL line feed code setting	PRT	0 <0-3>	SYS	Sets the PCL line feed code. 0: Automatic setting 1: CR=CR, LF=LF 2: CR=CR+LF, LF=LF 3: CR=CR, LF=CR+LF	1
975	General	Job handling when printing is short paid with coin controller	ALL	1 <0-1>	SYS	Sets whether pause or stop the printing job when it is short paid using a coin controller. 0: Pause the job 1: Stop the job	1
976	Electronic Filing	Equipment name setting to a folder when saving files	ALL	0 <0-2>	SYS	Sets whether or not adding the equipment name to the folder when saving files. 0: Not add 1: Add the equipment name 2: Add the user name	1
978	Network	Raw printing job (Paper feeding drawer)	PRT	0 <0-6>	SYS	0: AUTO 1: 1st drawer 2: 2nd drawer 3: 3rd drawer 4: 4th drawer 5: Tandem LCF 6: External LCF	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
979	Network	Raw printing job (PCL symbol set)	PRT	0 <0-39>	SYS	0: Roman-8 1: ISO 8859/1 Latin 1 2: ISO 8859/2 Latin 2 3: ISO 8859/9 Latin 5 4: PC-8,Code Page 437 5: PC-8 D/N, Danish/ Norwegian 6: PC-850,Multilingual 7: PC-852, Latin2 8: PC-8 Turkish 9: Windows 3.1 Latin 1 10: Windows 3.1 Latin 2 11: Windows 3.1 Latin 5 12: DeskTop 13: PS Text 14: Ventura International 15: Ventura US 16: Microsoft Publishing 17: Math-8 18: PS Math 19: Ventura Math 20: Pi Font 21: Legal 22: ISO 4: United Kingdom 23: ISO 6: ASCII 24: ISO 11 25: ISO 15: Italian 26: ISO 17 27: ISO 21: German 28: ISO 60: Danish/ Norwegian 29: ISO 69: French 30: Windows 3.0 Latin 1 31: MC Text 32: PC Cyrillic 33: ITC Zapf Dingbats 34: ISO 8859/10 Latin 6 35: PC-775 36: PC-1004 37: Symbol 38: Windows Baltic 39: Wingdings	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
983	User interface	JOB STATUS initial screen setting	ALL	0 <0-2>	SYS	0: Print 1: Private 2: Hold * When "1" (valid) is set for the code 08-1482 "User data department management", the setting value of this code is automatically set to "2". If you want to set a value other than "2" for this code while remaining the setting value "1" (valid) for the code 08-1482, reset this code.	1
986	General	Copy function setting	PPC	0 <0-1>	SYS	Sets the copy function to be invalid. 0: Valid 1: Invalid	1
988	Paper feeding	Setting of paper size switching to 13" LG	ALL	0 <0-2>	SYS	0: Not switched 1: LG → 13"LG 2: FOLIO → 13"LG	1
995	Version	Equipment number (serial number) display	ALL	- <10 digits>	SYS	This code can be also keyed in from the adjustment mode (05-976). 10 digits	11
999	Maintenance	FSMS total counter	ALL	0 <8 digits>	SYS	Refers to values of total counter	1
1002	Network	Selection of NIC status information	ALL	1 <1-2>	NIC	1: Not printed out when the equipment is restarted 2: Printed out when the equipment is restarted	12
1003	Network	Communication speed and settings of Ethernet	ALL	1 <1-5>	NIC	1: Auto 2: 10MBPS Half Duplex 3: 10MBPS Full Duplex 4: 100MBPS Half Duplex 5: 100MBPS Full Duplex	12
1006	Network	Method of IP addressing	ALL	1 <1-3>	NIC	1: Unchanging 2: Automatic addressing (DHCP) 3: No IP address applied to automatic addressing (DHCP)	12
1007	Network	Domain name	ALL	-	NIC	Maximum 96 letters	12
1008	Network	IP address	ALL	-	NIC	000.000.000.000-255.255.255.255 (Default value 000.000.000.000)	12

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1009	Network	Subnet mask	ALL	-	NIC	000.000.000.000-255.255.255.255 (Default value 000.000.000.000)	12
1010	Network	Gateway	ALL	-	NIC	000.000.000.000-255.255.255.255 (Default value 000.000.000.000)	12
1011	Network	Availability of IPX	ALL	2 <1-2>	NIC	1: Available 2: Not available	12
1012	Network	Network frame type	ALL	1 <1-5>	NIC	1: Automatic 2: IEEE802.3 3: Ethernet II 4: IEEE802.3SNAP 5: IEEE802.2	12
1014	Network	Availability of AppleTalk	ALL	2 <1-2>	NIC	1: Available 2: Not available	12
1015	Network	Zone setting of AppleTalk	ALL	*	NIC	Maximum 32 letters *: Wildcard character	12
1016	Network	Availability of LDAP	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1017	Network	Availability of DNS	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1018	Network	IP address to DNS server (Primary)	ALL	-	NIC	000.000.000.000-255.255.255.255 (Default value 000.000.000.000)	12
1019	Network	IP address to DNS server (Secondary)	ALL	-	NIC	000.000.000.000-255.255.255.255 (Default value 000.000.000.000)	12
1020	Network	DDNS Desired level	ALL	3 <1-5>	NIC	1: Invalid 2: Via DHCP 3: Insecure DDNS 4: Secure DDNS 5: Multi-secure DDNS	12
1021	Network	Availability of SLP	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1022	Network	From Name Creation setting in SMTP authentication	ALL	0 <0-1>	SYS	0: Not edited 1: Account name of From Address +Device name	1
1023	Network	NetBios name	ALL	MFP_serial	UTY	Maximum 15 letters The network - related serial number of the equipment appears at "serial"	12
1024	Network	Name of WINS server or IP address (Primary)	ALL	-	UTY	000.000.000.000-255.255.255.255 (Default value 000.000.000.000)	12
1025	Network	Name of WINS server or IP address (Secondary)	ALL	-	UTY	000.000.000.000-255.255.255.255 (Default value 000.000.000.000)	12
1026	Network	Availability of Bindery	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1027	Network	Availability of NDS	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1028	Network	Directory service context	ALL	-	NIC	Maximum 127 letters	12

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1029	Network	Directory service tree	ALL	-	NIC	Maximum 47 letters	12
1030	Network	Availability of HTTP server	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1031	Network	Port number to NIC HTTP server	ALL	80 <1-65535>	NIC		12
1032	Network	Port number to system HTTP server	ALL	8080 <1-65535>	NIC		1
1037	Network	Availability of SMTP client	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1038	Network	FQDN or IP address to SMTP server	ALL	-	NIC	Maximum 128 Bytes	12
1039	Network	TCP port number of SMTP client	ALL	25 <1-65535>	NIC		12
1040	Network	Availability of SMTP server	ALL	1 <1-2>	UTY	1: Available 2: Not available	12
1041	Network	TCP port number of SMTP server	ALL	25 <1-65535>	UTY		12
1042	Network	E-mail box name to SMTP server	ALL	-	UTY	Maximum 192 letters	12
1043	Network	Availability of Offramp	ALL	2 <1-2>	UTY	1: Available 2: Not available	12
1044	Network	Offramp security	ALL	1 <1-2>	UTY	1: Available 2: Not available	12
1045	Network	Printing at Offramp	ALL	1 <1-2>	UTY	1: Available 2: Not available	12
1046	Network	Availability of POP3 clients	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1047	Network	FQDN or IP address to POP3 server	ALL	-	NIC	Maximum 128 Bytes	12
1048	Network	Types of POP3 server	ALL	1 <1-3>	NIC	1: Automatic 2: POP3 3: APOP	12
1049	Network	Login name to POP3 server	ALL	-	NIC	Maximum 96 letters	12
1050	Network	Login password to POP3	ALL	-	NIC	Maximum 96 letters	12
1051	Network	E-mail reception interval (Unit: Minute)	ALL	0 <0-4096>	NIC		12
1052	Network	TCP port number of POP3 client	ALL	110 <1-65535>	NIC		12
1055	Network	TCP port number of FTP client	ALL	21 <1-65535>	UTY		12
1059	Network	Availability of FTP server	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1060	Network	TCP port number of FTP server	ALL	21 <1-65535>	NIC		12
1063	Network	MIB function	ALL	1 <1-2>	NIC	1: Valid 2: Invalid	12
1065	Network	Setting of read Community	ALL	public	NIC	Maximum 31 letters	12
1066	Network	Setting of read/Write Community	ALL	private	NIC	Maximum 31 letters	12

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1069	Network	TRAP destination IP address	ALL	-	UTY	000.000.000.000-255.255.255.255 (Default value 000.000.000.000)	12
1070	Network	Community setting of TRAP (via IP)	ALL	public	NIC	Maximum 31 letters	12
1073	Network	Availability of Raw/TCP	ALL	1 <1-2>	NIC	1: Valid 2: Invalid	12
1074	Network	TCP port number of Raw	ALL	9100 <1-65535>	NIC		12
1075	Network	Availability of LPD client	ALL	1 <1-2>	NIC	1: Valid 2: Invalid	12
1076	Network	TCP port number of LPD	ALL	515 <1-65535>	NIC		12
1077	Network	LPD queue name	ALL	-	NIC	Maximum 31 letters	12
1078	Network	Availability of IPP	ALL	1 <1-2>	NIC	1: Valid 2: Invalid	12
1079	Network	Availability of IPP port number "80"	ALL	1 <1-2>	NIC	1: Valid 2: Invalid	12
1080	Network	TCP port number of IPP	ALL	631 <1-65535>	NIC		12
1081	Network	IPP printer name	ALL	MFP_serial	NIC	Maximum 127 letters The network - related serial number of the equipment appears at "serial"	12
1082	Network	IPP printer location	ALL	-	NIC	Maximum 127 letters	12
1083	Network	IPP printer information	ALL	-	NIC	Maximum 127 letters	12
1084	Network	IPP printer information (more)	ALL	http://www.e-studioseries.com	NIC	Maximum 127 letters	12
1085	Network	Installer of IPP printer driver	ALL	http://www.e-studioseries.com	NIC	Maximum 127 letters	12
1086	Network	IPP printer "Make and Model"	ALL	-	NIC	Maximum 127 letters	12
1087	Network	IPP printer information (more) MFGR	ALL	-	NIC	Maximum 127 letters	12
1088	Network	IPP message from operator	ALL	-	NIC	Maximum 127 letters	12
1089	Network	Availability of FTP print	ALL	1 <1-2>	NIC	1: Available 2: Not available	12
1090	Network	Printer user name of FTP	ALL	print	NIC	Maximum 31 letters	12
1091	Network	Printer user password of FTP	ALL	-	NIC	Maximum 31 letters	12
1092	Network	TCP port number to FTP print server	ALL	21 <1-65535>	NIC		12
1093	Network	Login name to Novell print server	ALL	MFP_serial	NIC	Maximum 47 letters The network - related serial number of the equipment appears at "serial"	12

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1094	Network	Login password to Novell print server	ALL	-	NIC	Maximum 31 letters	12
1095	Network	Name of SearchRoot server	ALL	-	NIC	Maximum 31 letters	12
1096	Network	Scan rate setting of print queue	ALL	5 <1-255>	NIC	Unit: Second	12
1097	Network	Page number limitation for printing text of received E-mail	ALL	5 <1-99>	UTY		12
1098	Network	MDN return mail setting when receiving E-mail	ALL	2 <1-2>	UTY	1: Valid 2: Invalid	12
1099	Network	Trap destination of IPX	ALL	-	UTY	24 letters (Valid from 0 to 9 and from A to F)	12
1100	Network	Method of SMTP server authentication	ALL	1 <1-7,10>	NIC	1: Disable 2: Plain 3: Login 4: Cram-MD5 5: Digest MD5 6: Kerberos 7: NTLM 10: Auto	12
1101	Network	Login name for SMTP server authentication	ALL	-	NIC	Maximum 64 letters	12
1102	Network	Login password for SMTP server authentication	ALL	-	NIC	Maximum 64 letters	12
1103	Network	Rendezvous setting	ALL	1 <1-2>	NIC	1: Valid 2: Invalid	12
1104	Network	Link local host name	ALL	MFP_serial	NIC	Maximum 127 letters The network - related serial number of the equipment appears at "serial"	12
1105	Network	Service name setting	ALL	Refer to content	NIC	Maximum 63 letters The network - related serial number of the equipment appears at "serial" e-STUDIO555: TOSHIBA e-STUDIO555_serial e-STUDIO655: TOSHIBA e-STUDIO655_serial e-STUDIO755: TOSHIBA e-STUDIO755_serial e-STUDIO855: TOSHIBA e-STUDIO855_serial	12
1111	Network	POP Before SMTP setting	ALL	2 <1-2>	NIC	1: Enabled 2: Disabled	12
1112	Network	Host name	ALL	MFP_serial	NIC	Maximum 63 letters The network - related serial number of the equipment appears at "serial"	12
1113	Network	Windows domain No.1 of user authentication	ALL	-	UTY	Maximum 128 letters	12

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1114	Network	Sending mail text of InternetFAX	ALL	1 <0-1>	SYS	0: Invalid (Not sending the mail text) 1: Valid (Sending the mail text)	1
1117	Network	SMB time-out period	ALL	60 <1-9999>	SYS	Unit: Second	1
1118	General	Clearing of TAT partition	ALL	-	SYS		3
1119	Network	Initialization of NIC information (version upgrade)	ALL	-	-	Initializes only the information of the Network setting items.	3
1121	Network	PDC (Primary Domain Controller) name No.1 of authentication	ALL	-	UTY	Maximum 128 letters	12
1122	Network	BDC (Backup Domain Controller) name No.1 of authentication	ALL	-	UTY	Maximum 128 letters	12
1123	Network	Windows domain of device authentication	ALL	4 <3-4>	UTY	3: ON (Domain selected) 4: OFF (Work group selected)	12
1124	Network	Workgroup name	ALL	workgroup	UTY	Maximum 15 letters	12
1125	General	Data writing of address book data import (overwriting method)	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
1126	Counter	Validity of interrupt copying when external counters are installed	ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
1130	User interface	Job Build Function	ALL	1 <0-1>	SYS	Sets the Job Build Function. 0: Invalid 1: Valid	1
1131	User interface	Maximum number of time job build performed	ALL	1000 <5-1000>	SYS	Sets the maximum number of time a job build has been performed. 5-1000: 5 to 1000 times	1
1135	Paper feeding	Default setting of drawers (Printer/BOX)	PRT	6 <1-6>	SYS	1: Tandem LCF 2: 1st drawer 3: 2nd drawer 4: 3rd drawer 5: 4th drawer 6: External LCF	1
1138	Network	Setting of LDAP searching method	ALL	0 <0-3>	SYS	The method of LDAP searching is set. 0: Partial match 1: Prefix match 2: Backward match 3: Exact match	1
1140	User interface	Restriction on template function by administrator privilege	ALL	0 <0-1>	SYS	The use of templates can be restricted to the administrator. 0: No restriction 1: Permitted only under administrator's privilege	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1141	Network	Display of MAC address	ALL	-	SYS	(**.*.*.*.*.*.*.*) The address is displayed as above (6-byte data is divided by a colon at every 1 bytes).	2
1145	Maintenance (Remote)	Counter notification Remote FAX setting	ALL	-	SYS	Maximum 32 digits Enter hyphen with the [PAUSE] button.	11
1149	General	Enhanced bold for PCL6	ALL	0 <0-1>	SYS	0: OFF 1: ON (Enhanced bold for PCL6.)	1
1345	Image quality control	Counter for photoconductive drum at drum surface potential sensor control	ALL	0 <8 digits>	M	The drive counts of the photoconductive drum at the drum surface potential sensor control is displayed.	1
1371	Image quality control	Counter for accumulated number of sheets after image quality control	ALL	0 <0-9999>	M	The total number of output pages from the last image quality closed-loop control (excluding the one at "Image quality control enforcement (05-290)") is displayed.	2
1372	Counter	Heater and energizing time accumulating counter Display/0 clearing	ALL	0 <8 digits>	M	The total period of time the heater control has been performed (when the power is ON) is counted but it is not counted in the Sleep mode. When the counter value of the fuser unit is reset on the main unit screen in the PM Support mode, this counter value is also reset in sync.	1
1376	Counter	Counter for toner cartridge rotation	ALL	0 <8 digits>	M	The number of the toner cartridge rotation is counted.	1
1378	Counter	Counter for period of time fuser unit is at ready temperature	ALL	0 <8 digits>	M	The total period of time the heater control has been performed (when the power is in the ready status) is counted. When the counter value of the fuser unit is reset on the main unit screen in the PM Support mode, this counter value is also reset in sync.	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1380	Counter	Counter for period of time fuser unit is at printing temperature	ALL	0 <8 digits>	M	The total period of time the heater control has been performed (during printing) is counted. When the counter value of the fuser unit is reset on the main unit screen in the PM Support mode, this counter value is also reset in sync.	1
1382	Counter	Counter for period of time fuser unit is at energy saving temperature/ Counter reset	ALL	0 <8 digits>	M	The total period of time the heater control has been performed (when the equipment is in the Energy Saving mode) is counted. When the counter value of the fuser unit is reset on the main unit screen in the PM Support mode, this counter value is also reset in sync.	1
1385	Image processing	Number of output pages (Thick paper 1)	ALL	0 <8 digits>	M	The counter starts counting up when the registration sensor is turned ON in the Thick Paper 1 mode.	1
1386	Image processing	Number of output pages (Thick paper 2)	ALL	0 <8 digits>	M	The counter starts counting up when the registration sensor is turned ON in the Thick Paper 2 mode.	1
1387	Image processing	Number of output pages (Thick paper 3)	ALL	0 <8 digits>	M	The counter starts counting up when the registration sensor is turned ON in the Thick Paper 3 mode.	1
1388	Image processing	Number of output pages (OHP film)	ALL	0 <8 digits>	M	The counter starts counting up when the registration sensor is turned ON in the OHP mode.	1
1390	Paper feeding	Feeding retry counter (1st drawer)	ALL	0 <8 digits>	M	Counts the number of times of the feeding retry from the 1st drawer.	1
1391	Paper feeding	Feeding retry counter (2nd drawer)	ALL	0 <8 digits>	M	Counts the number of times of the feeding retry from the 2nd drawer.	1
1392	Paper feeding	Feeding retry counter (3rd drawer)	ALL	0 <8 digits>	M	Counts the number of times of the feeding retry from the 3rd drawer.	1
1393	Paper feeding	Feeding retry counter (4th drawer)	ALL	0 <8 digits>	M	Counts the number of times of the feeding retry from the 4th drawer.	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1394	Paper feeding	Feeding retry counter (bypass feed)	ALL	0 <8 digits>	M	Counts the number of times of the feeding retry from the bypass tray.	1
1395	Paper feeding	Feeding retry counter (Tandem LCF)	ALL	0 <8 digits>	M	Counts the number of times of the feeding retry from the Tandem LCF.	1
1396	Paper feeding	Feeding retry counter upper limit value (1st drawer)	ALL	0 <8 digits>	M	When the number of feeding retry (08-1390 to 08-1395) exceeds the setting value, the feeding retry will not be performed subsequently. In case "0" is set as a setting value, however, the feeding retry continues regardless of the counter setting value.	1
1397	Paper feeding	Feeding retry counter upper limit value (2nd drawer)	ALL	0 <8 digits>	M		1
1398	Paper feeding	Feeding retry counter upper limit value (3rd drawer)	ALL	0 <8 digits>	M		1
1399	Paper feeding	Feeding retry counter upper limit value (4th drawer)	ALL	0 <8 digits>	M		1
1400	Paper feeding	Feeding retry counter upper limit value (Bypass feed)	ALL	0 <8 digits>	M		1
1401	Paper feeding	Feeding retry counter upper limit value (Tandem LCF)	ALL	0 <8 digits>	M		1
1402	Paper feeding	Feeding retry counter (Option LCF)	ALL	0 <8 digits>	M	Counts the number of times of the feeding retry from the Option LCF.	1
1410	Counter	Counter for period of toner cartridge rotation time	ALL	0 <8 digits>	M	The period of rotation time of the toner cartridge is counted. (1 count = 12 ms)	1
1412	Counter	Counter for tab paper	ALL	0 <8 digits>	M	The counter starts counting up when the registration sensor is turned ON in the Tab Paper mode.	1
1415	Process	Detection and control of empty status of toner cartridge	ALL	EUR: 1 UC: 1 JPC: 0 <0-1>	M	The detection and control of the empty status of the toner cartridge is switched ON or OFF. 0: OFF 1: ON	1
1422	Data overwrite kit	HDD data overwriting type setting	ALL	0 <0-2>	SYS	Select the type of the overwriting level; LOW, MEDIUM, or HIGH for deleting HDD data. (This setting is enabled only when the GP-1070 is installed.) 0: LOW 1: MEDIUM 2: HIGH	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1424	Data overwrite kit	HDD data clearing type setting (forcible clearing)	ALL	0 <0-2>	SYS	Select the type of the overwriting level; LOW, MEDIUM, or HIGH for deleting HDD data. (This setting is enabled only when the GP-1070 is installed.) 0: LOW 1: MEDIUM 2: HIGH	1
1426	Data overwrite kit	Forcible HDD data clearing	ALL	-	-	HDD data is cleared in the procedure set in 08-1424. * This setting is enabled only when the GP-1070 is installed.	3
1428	Data overwrite kit	Forcible SRAM backup data all clearing	ALL	-	-		3
1429	User interface	Margin width (Top/Bottom, Left/Right)	ALL	Front: 7/ Back: 7 <2-100/-100-100>	SYS	This setting is not reflected in "Right", even if the value less than 2 is set for "Back".	10
1430	User interface	Margin width (Bookbinding margin)	ALL	14 <2-30>	SYS		1
1431	Network	AT_CASSETTE_CHANGE for Printer/Box printing	ALL	1 <1-2>	SYS	1: Only in the same paper direction 2: In both same direction and different directions	1
1432	Network	Mode only for Private Print	ALL	0 <0-3>	SYS	0: Normal mode 1: Mode for Private Print 2: Mode for Hold Print 3: Mode for Private / Hold Print * When "1" (valid) is set for the code 08-1482 "User data department management", the setting value of this code is automatically set to "2" except for the case "0" is set for this code. Only "0" and "2" are selectable for this code unless "0" (invalid) is set for the code 08-1482.	1
1435	Network	"Disable private and proof print save" function	ALL	0 <0-1>	SYS	0: Function OFF (no restriction on data saving or other operations) 1: Function ON (Data saving or other operations are restricted)	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1436	Network	"Disable fax save" function	ALL	0 <0-1>	SYS	0: Function OFF (no restriction on data saving or other operations) 1: Function ON (Data saving or other operations are restricted)	1
1437	Paper feeding	Hole punch on tab paper	ALL	0 <0-1>	SYS	0: No hole punch 1: Hole punch	1
1438	Paper feeding	Automatic feed setting of tab paper and insertion sheet (Remote)	ALL	1 <0-1>	SYS	0: Disabled 1: Enabled	1
1439	Paper feeding	Automatic feed setting of tab paper and insertion sheet (Local)	ALL	1<0-1>	SYS	0: Disabled 1: Enabled	1
1440	Network	IP Conflict Detect	ALL	1 <1-2>	-	OFF/ON 1: Valid 2: Invalid	12
1441	Network	SNTP Enable	ALL	2 <1-2>	-	OFF/ON 1: Valid 2: Invalid	12
1442	Network	SNTP Polling rate	ALL	24 <1-168>	-	Data obtaining interval (Unit: Hour)	12
1444	Network	Primary SNTP Address	ALL	-	-	SNTP server IP Address (Primary)	12
1445	Network	Secondary SNTP Address	ALL	-	-	SNTP server IP Address (Secondary)	12
1446	Network	Port number to SNTP	ALL	123 <1-65535>	-		12
1447	Network	IPP administrator name	ALL	-	-	This should be an account which can control all IPP jobs.	12
1448	Network	IPP administrator password	ALL	-	-	This should be the password of an account which can control all IPP jobs.	12
1449	Network	IPP authentication method	ALL	1 <1-4>	-	1: Disabled 2: Basic 3: Digest 4: Basic Digest	12
1450	Network	User name for IPP authentication	ALL	-	-	This should be the account at the time IPP authentication was performed.	12
1451	Network	Password for IPP authentication	ALL	-	-	This should be the password of the account at the time IPP authentication was performed.	12
1464	Network	Samba server ON/OFF setting	ALL	1 <1-4>	NIC	1: Samba enabled 2: Samba disabled 3: Print Share disabled 4: File Share disabled	12
1470	General	Device authentication function setting	ALL	0 <0-1>	SYS	0: OFF 1: ON	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1471	General	User authentication method	ALL	0 <0-2>	SYS	0: Local 1: NTLM (NT Domain) 2: LDAP	1
1472	General	User data management automatic registration function setting	ALL	0 <0-1>	SYS	0: Disabled 1: Enabled	1
1473	General	User data management limitation setting	ALL	0 <0-1>	SYS	0: Disabled 1: Enabled	1
1474	General	User data management limitation Setting by number of printouts	ALL	0 <7 digits>	SYS	0-9,999,999: 0-9,999,999 sheets	1
1476	Network	Restriction on Address book operation by administrator	ALL	0 <0-1>	SYS	Some restrictions can be given on the administrator for operating the Address book. 0: No restriction 1: Can be operated only under the administrator's authorization	1
1477	Network	Restriction on "To" ("cc") address	ALL	0 <0-3>	SYS	0: No restriction 1: Can be set from both of the Address book and LDAP server 2: Can be set only from the Address book 3: Can be set only from the LDAP server	1
1478	User interface	Display of paper size setting by installation operation of drawers	ALL	JPC: 0 UC: 1 <0-1>	SYS	0: Not displayed 1: Displayed	1
1481	General	User data management clearing	ALL	-	-	All the user data in the database and backup files can be deleted.	3
1482	General	User data department management	ALL	0 <0-1>	SYS	0: Invalid 1: Valid * When this code is set to "1" (Valid), the department management setting (08-629) should be "1" (Valid).	1
1483	General	User data recovery	ALL	-	-	The data in the database is overwritten with the data in the backup file.	3
1484	Network	Authentication method of "Scan to Email"	ALL	0 <0-2>	SYS	0: Disable 1: SMTP authentication 2: LDAP authentication	1
1485	Network	Setting whether use of Internet FAX is permitted or not when it is given an authentication	ALL	0 <0-1>	SYS	0: Not permitted 1: Permitted	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1487	Network	"From" address assignment method when it is given an authentication	ALL	0 <0-2>	SYS	0: "User name" + @ + "Domain name" 1: LDAP search 2: Use the address registered in "From" field of E-mail setting	1
1489	Network	Setting for "From" address edit at "Scan to Email"	ALL	0 <0-1>	SYS	0: Not permitted 1: Permitted	1
1491	Network	E-mail domain name	ALL		SYS	96+2 (delimiter) character ASCII sequence only	11
1492	Paper feeding	Detection method of 13" LG for single-size document	ALL	0 <0-1>	SYS	0: Disabled 1: Enabled	1
1493	Network	Role Base Access Function	ALL	0 <0-1>	SYS	0: Function off (No restriction on data saving and other operations) 1: Function on (Data saving and other operations have some restrictions)	1
1495	Maintenance	Service call checking period setting	ALL	6 <0-12>	-	0: No checking period specified (= Calls service technician immediately) 0: 10 minutes 1: 30 minutes 3: 1 hour 4: 6 hours 5: 12 hours 6: 24 hours 7: 48 hours 8: 7 days 9: 1 month 10: 1 year 11: 5 years 12: Not limited (= Calls service technician if such error has occurred in the past even once or more)	12
1496	General	Operation setting for User authentication/registration	ALL	1 <0-1>	SYS	0: Disables operation setting for User authentication/registration 1: Enables operation setting for User authentication/registration	1
1497	Network	e-Filing Access Mode (for Client)	ALL	0 <0-2>	SYS	0: Mode 1 1: Mode 2 2: Mode 3	1
1498	FAX	Inbound FAX function (Forwarding by TSI)	FAX	1 <0-1>	SYS	0: OFF (Function disabled) 1: ON (Function enabled)	1

Setting mode (08)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
1519	Counter	Counter for drive counts of toner transport motors		ALL	0 <8 digits>	SYS	The period of rotation time of the toner transport motor is counted. (1 count = 12 ms)	1
1520	General	Number of output pages available at toner cartridge replacement (during cover open)		ALL	2 <0-7>	SYS	0: 0 1: 100 2: 200 3: 500 4: 1000 5: 1500 6: 2000 7: No limitation (99999999) [Unit. page]	1
1530-0	Counter	Number of output pages	1-UP / Duplex printing	PPC	0 <8 digits>	SYS	Counts the number of output pages.	4
1530-1			2-UP / Duplex printing	PPC	0 <8 digits>	SYS	Counts the number of output pages using [2IN1] or [MAGAZINE SORT].	4
1530-2			2-UP / Simplex printing	PPC	0 <8 digits>	SYS	Counts the number of sheets using [2IN1] or [MAGAZINE SORT].	4
1530-3			4-UP / Duplex printing	PPC	0 <8 digits>	SYS	Counts the number of output pages using [4IN1].	4
1530-4			4-UP / Simplex printing	PPC	0 <8 digits>	SYS	Counts the number of sheets using [4IN1].	4
1530-7			1-UP / Simplex printing	PPC	0 <8 digits>	SYS	Counts the number of output pages.	4

Setting mode (08)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
1533-0	Counter	Number of output pages of the printer or BOX	1-UP / Duplex printing	PRT	0 <8 digits>	SYS	Counts the number of output pages.	4
1533-1			2-UP / Duplex printing	PRT	0 <8 digits>	SYS	Counts the number of output pages using [2IN1] or [MAGAZINE SORT]. * When printing is performed using a Windows driver, the 1-UP image will be output.	4
1533-2			2-UP / Simplex printing	PRT	0 <8 digits>	SYS	Counts the number of sheets using [2IN1] or [MAGAZINE SORT].	4
1533-3			4-UP / Duplex printing	PRT	0 <8 digits>	SYS	Counts the number of output pages using [4IN1].	4
1533-4			4-UP / Simplex printing	PRT	0 <8 digits>	SYS	Counts the number of sheets using [4IN1].	4
1533-5			N-UP / Duplex printing	PRT	0 <8 digits>	SYS	Counts the number of output pages using [N IN1].	4
1533-6			N-UP / Simplex printing	PRT	0 <8 digits>	SYS	Counts the number of sheets using [N IN1].	4
1533-7			1-UP / Simplex printing	PRT	0 <8 digits>	SYS	Counts the number of output pages.	4
1535-0	Counter	Number of output pages of the FAX printing (1-UP / Duplex printing)	1-UP / Duplex printing	FAX	0 <8 digits>	SYS	Counts the number of sheets in the default settings.	4
1535-7			1-UP / Simplex printing	FAX	0 <8 digits>	SYS		4
1661	Wireless LAN	Wireless LAN driver SSID		ALL	-	-	Maximum 32 letters	12
1662	Wireless LAN	Wireless LAN driver Network type		ALL	1 <1-2>	-	1: Infrastructure 2: Ad-Hoc	12
1663	Wireless LAN	Wireless LAN driver Security		ALL	4 <1-7>	-	1: 802.1x 2: WPA-PSK 3: WEP 4: NONE 5: WPA 6: WPA2 7: WPA2PSK	12
1664	Wireless LAN	Wireless LAN driver Encryption system		ALL	1 <1-3>	-	1: TKIP 2: AES 3: Dynamic WEP	12
1665	Wireless LAN	Wireless LAN driver Transmission output power		ALL	1 <1-5>	-	1: 100% 2: 50% 3: 25% 4: 12.5% 5: min	12
1666	Wireless LAN	Wireless LAN driver Transmission rate		ALL	1 <1-2>	-	1: Auto 2: Manual	12
1667	Wireless LAN	Wireless LAN driver Transmission rate value		ALL	1 <1-12>	-	1: 1 2: 2 3: 5.5 4: 11 5: 6 6: 9 7: 12 8: 18 9: 24 10: 36 11: 48 12: 54	12

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1668	Wireless LAN	Wireless LAN driver Operation channel	ALL	1 <1-2>	-	1: Auto 2: Manual	12
1669	Wireless LAN	Wireless LAN driver Operation channel value	ALL	1 <1-11>	-		12
1670	Wireless LAN	Wireless LAN driver WEP bit number	ALL	1 <1-3>	-	1: 64 2: 128 3: 152	12
1671	Wireless LAN	Wireless LAN driver WEP key entry system	ALL	2 <1-2>	-	1: Hex 2: ASCII	12
1672	Wireless LAN	Wireless LAN driver WEP key value	ALL	-	-	Maximum 32 letters	12
1673	Wireless LAN	Wireless LAN driver WPA-PSK passphrase	ALL	-	-	Maximum 64 letters	12
1674	Wireless LAN	Wireless LAN driver Sleep mode setting	ALL	1 <1-3>	-	1: Off 2: Max 3: Normal	12
1675	Wireless LAN	Wireless LAN driver Slot-time limitation	ALL	1 <1-2>	-	1: Long 2: Short	12
1676	Wireless LAN	Wireless LAN driver Number of times of software retry	ALL	5 <0-1000>	-	0-1000: 0-1000 times	12
1677	Wireless LAN	Wireless LAN driver Preamble	ALL	1 <1-2>	-	1: Long 2: Longshort	12
1678	Wireless LAN	Wireless LAN driver Operation mode	ALL	1 <1-3>	-	1: All 2: 11b 3: 11g	12
1679	Wireless LAN	Wireless LAN supplicant Wireless LAN setting	ALL	1 <1-3>	-	This setting is whether the wireless LAN connection is enabled or disabled. 1: Unset 2: Enabled 3: Disabled	12
1681	Wireless LAN	Wireless LAN supplicant Path name for client certificate	ALL	-	-	This should be the path name in full where the client certificate is located. (Maximum 255 letters)	12
1682	Wireless LAN	Wireless LAN supplicant Path name for secret key of client certificate	ALL	-	-	This should be the path name in full where the client certificate is located. (Maximum 255 letters)	12
1684	Wireless LAN	Wireless LAN supplicant Path name for CA self-certificate	ALL	-	-	This should be the path name in full where the CA self-certificate is located. (Maximum 255 letters)	12
1685	Wireless LAN	Wireless LAN supplicant EAP user name	ALL	-	-	This should be the user name when the EAP-TLS is used.	12
1686	Wireless LAN	Wireless LAN supplicant EAP user name	ALL	-	-	This should be the user name when the PEAP is used.	12
1689	Wireless LAN	Wireless LAN supplicant Authentication interval	ALL	30 <30-65535>	-	This should be the time-out interval between EAP responses. 30: 30 seconds	12
1690	Wireless LAN	Wireless LAN supplicant Holding interval	ALL	60 <60-65535>	M	The EAP authentication will start after having been waited in this period when an EAP failure was received. 60: 60 seconds	12

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1691	Wireless LAN	Wireless LAN supplicant EAPOL-Start Number of times of packet retry	ALL	3 <1-65535>	M	When an EAPOL-Start packet has been sent and the request ID cannot be received, this EAPOL-Start packet will be re-sent for the number of times set in this code. 3: 3 times	12
1692	Wireless LAN	Wireless LAN supplicant Session resume	ALL	2 <1-2>	-	This setting is whether the pre-master key should be updated or not upon a TLS re-negotiation. 1: Session is resumed 2: Session is not resumed	12
1693	Wireless LAN	Wireless LAN supplicant MAC Frame size	ALL	1398 <1-1398>	-	This is a MAC frame size used in the wireless LAN connection. The data is fragmented into this size. 1398: 1398 bytes	12
1696	Wireless LAN	Wireless LAN supplicant Device file setting for obtaining random number	ALL	/AGN/ dev/ random	-	This should be the device file name which can obtain a seed to initialize the WEP PRNG for xsupplicant. (Maximum 255 letters)	12
1697	Wireless LAN	Wireless LAN supplicant CRL directory designation	ALL	-	-	This should be the path name of the directory in full where the CRL file is located. (Maximum 255 letters)	12
1699	Wireless LAN	Wireless LAN supplicant EAP authentication type	ALL	1 <1-3>	-	This setting is for the EAP authentication type which xsupplicant can authenticate. 1: EAP-TLS 2: PEAP 3: EAP-TLS and PEAP	12
1700	Wireless LAN	Wireless LAN supplicant CN name	ALL	-	-	This should be an authentication server name (basically a domain name in full). (Maximum 255 letters)	12
1701	Wireless LAN	Wireless LAN supplicant CN name check	ALL	1 <1-2>	-	1: NO 2: YES	12
1704	Wireless LAN	Wireless LAN supplicant Update interval of PTK (Pairwise Transient Key)	ALL	0 <0-720>	-	The update interval of a secret key across AP (Access Point) and STA (Station) can be set. This interval is for updating the secret key from STA. 0: Not updated 1-720: 1-720 minutes of interval	12

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1705	Wireless LAN	Wireless LAN supplicant Strict packet check	ALL	1 <1-2>	-	The Ack bit and request bit of EAPOL-Key is checked. 1: Not checked 2: Checked	12
1706	Wireless LAN	Wireless LAN supplicant Priority change at 4-way handshake	ALL	1 <1-2>	-	A higher priority is given to the xsupplicant task when a 4-way handshake is started. 1: Priority not changed 2: Priority changed	12
1707	Wireless LAN	Wireless LAN supplicant Security level	ALL	1 <1-3>	-	The encryption capability output in TLS clientHello message can be selected. 1: LOW 2: MIDDLE 3: HIGH	12
1708	User interface	Selectable security level (EAP-TLS)	ALL	1 <1-3>	-	These are the security level which can be selected from the user interface. This setting is not applied in case of PEAP. ("LOW" and "MIDDLE" is mandatory for PEAP) 1: LOW + MIDDLE + HIGH 2: MIDDLE + HIGH 3: HIGH	12
1710	Bluetooth h	Bluetooth ON/OFF setting	ALL	1 <0-1>	SYS	0: OFF 1: ON	1
1711	Bluetooth h	Bluetooth Device name	ALL	MFP	SYS	Maximum 32 letters	11
1712	Bluetooth h	Bluetooth Discovery	ALL	1 <0-1>	SYS	0: Not allowed 1: Allowed	1
1713	Bluetooth h	Bluetooth Security	ALL	1 <0-1>	SYS	0: Security function OFF 1: Security function ON	1
1714	Bluetooth h	Bluetooth PIN	ALL	0000	SYS	Maximum 8 digits (8-digit sequence) This setting is valid only when the bluetooth security function is ON.	11
1715	Bluetooth h	Bluetooth Data encryption	ALL	1 <0-1>>	SYS	0: Not encrypted 1: Encrypted This setting is valid only when the bluetooth security function is ON.	1
1719	Bluetooth h	Bluetooth BIP Paper type	ALL	0 <0-3>	SYS	0: Fit page 1: 1/2 size 2: 1/4 size 3: 1/8 size	1
1720	Network	IP address range for IP filter (Minimum area 1)	ALL	-	-	IP filter minimum area 1 000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1721	Network	IP address range for IP filter (Maximum area 1)	ALL	-	-	IP filter maximum area 1 000.000.000.000- 255.255.255.255 (Default value: 000.000.000.000)	12
1722	Network	IP address range for IP filter I (Minimum area 2)	ALL	-	-	IP filter minimum area 2 000.000.000.000- 255.255.255.255 (Default value: 000.000.000.000)	12
1723	Network	IP address range for IP filter (Maximum area 2)	ALL	-	-	IP filter maximum area 2 000.000.000.000- 255.255.255.255 (Default value: 000.000.000.000)	12
1724	Network	IP address range for IP filter (Minimum area 3)	ALL	-	-	IP filter minimum area 3 000.000.000.000- 255.255.255.255 (Default value: 000.000.000.000)	12
1725	Network	IP address range for IP filter (Maximum area 3)	ALL	-	-	IP filter maximum area 3 000.000.000.000- 255.255.255.255 (Default value: 000.000.000.000)	12
1726	Network	IP address range for IP filter (Minimum area 4)	ALL	-	-	IP filter minimum area 4 000.000.000.000- 255.255.255.255 (Default value: 000.000.000.000)	12
1727	Network	IP address range for IP filter (Maximum area 4)	ALL	-	-	IP filter maximum area 4 000.000.000.000- 255.255.255.255 (Default value: 000.000.000.000)	12
1728	Network	IP address range for IP filter (Minimum area 5)	ALL	-	-	IP filter minimum area 5 000.000.000.000- 255.255.255.255 (Default value: 000.000.000.000)	12
1729	Network	IP address range for IP filter (Maximum area 5)	ALL	-	-	IP filter maximum area 5 000.000.000.000- 255.255.255.255 (Default value: 000.000.000.000)	12
1730	Network	IP address range for IP filter (Minimum area 6)	ALL	-	-	IP filter minimum area 6 000.000.000.000- 255.255.255.255 (Default value: 000.000.000.000)	12
1731	Network	IP address range for IP filter (Maximum area 6)	ALL	-	-	IP filter maximum area 6 000.000.000.000- 255.255.255.255 (Default value: 000.000.000.000)	12

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1732	Network	IP address range for IP filter (Minimum area 7)	ALL	-	-	IP filter minimum area 7 000.000.000.000- 255.255.255.255 (Default value: 000.000.000.000)	12
1733	Network	IP address range for IP filter (Maximum area 7)	ALL	-	-	IP filter maximum area 7 000.000.000.000- 255.255.255.255 (Default value: 000.000.000.000)	12
1734	Network	IP address range for IP filter (Minimum area 8)	ALL	-	-	IP filter minimum area 8 000.000.000.000- 255.255.255.255 (Default value: 000.000.000.000)	12
1735	Network	IP address range for IP filter (Maximum area 8)	ALL	-	-	IP filter maximum area 8 000.000.000.000- 255.255.255.255 (Default value: 000.000.000.000)	12
1736	Network	IP address range for IP filter (Minimum area 9)	ALL	-	-	IP filter minimum area 9 000.000.000.000- 255.255.255.255 (Default value: 000.000.000.000)	12
1737	Network	IP address range for IP filter (Maximum area 9)	ALL	-	-	IP filter maximum area 9 000.000.000.000- 255.255.255.255 (Default value: 000.000.000.000)	12
1738	Network	IP address range for IP filter (Minimum area 10)	ALL	-	-	IP filter minimum area 10 000.000.000.000- 255.255.255.255 (Default value: 000.000.000.000)	12
1739	Network	IP address range for IP filter (Maximum area 10)	ALL	-	-	IP filter maximum area 10 000.000.000.000- 255.255.255.255 (Default value: 000.000.000.000)	12
1740	Network	SSL setting HTTP server OFF/ON setting	ALL	2 <1-2>	-	1: Enabled 2: Disabled	12
1741	Network	SSL setting HTTP server port number	ALL	10443 <1- 65535>	-	SSL HTTP server port number	12
1742	Network	SSL setting IPP server OFF/ON setting	ALL	2 <1-2>	-	1: Enabled 2: Disabled	12
1743	Network	SSL setting IPP server port number	ALL	443 <1- 65535>	-	SSL IPP server port number	12
1744	Network	SSL setting SSL ftp server OFF/ON	ALL	2 <1-2>	-	OFF/ON 1: Valid 2: Invalid	12

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1745	Network	SSL setting SSL ftp server Port	ALL	990 <1-65535>	-	Port number to FTP Server	12
1746	Network	SSL setting SSL LDAP Client OFF/ON	ALL	2 <1-3>	-	OFF/ON 1: Valid 2: Invalid 3: Use imported certificate	12
1747	Network	SSL setting SSL LDAP Client Port	ALL	636 <1-65535>	-	Port number to LDAP Server	12
1748	Network	SSL setting SSL POP3 Client OFF/ON	ALL	2 <1-3>	-	OFF/ON 1: Valid 2: Invalid 3: Use imported certificate	12
1749	Network	SSL setting SSL POP3 Client Port	ALL	995 <1-65535>	-	Port number to POP3 Server	12
1750	Network	SSL setting SSL SMTP Client OFF/ON	ALL	2 <2-6>	-	2: Invalid 3: Accept all certificates of SMTP with TLS (STARTTLS) server 4: Accept all certificates of SMTPS (SMTP OverSSL) server 5: Use imported certificates of SMTP with TLS (STARTTLS) server 6: Use imported certificates of SMTPS (SMTP OverSSL) server	12
1755	Network	Enabling server's IP address acquired by DHCP	ALL	1 <1-2>	-	Domain Name Server option (6) 1: Enabled 2: Disabled * This value is used only when DHCP is enabled.	12
1756	Network	Enabling server's IP address acquired by DHCP	ALL	1 <1-2>	-	NetBIOS over TCP/IP Name Server option (44) = Primary and Secondary Wins NAME 1: Enabled 2: Disabled * This value is used only when DHCP is enabled.	12
1757	Network	Enabling server's IP address acquired by DHCP	ALL	2 <1-2>	-	The Host Name Vendor Extension option (12) 1: Enabled 2: Disabled * This value is used only when DHCP is enabled.	12

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1759	Network	Enabling server's IP address acquired by DHCP	ALL	2 <1-2>	-	SMTP Server Option (69) Simple Mail Server Address 1: Enabled 2: Disabled * This value is used only when DHCP is enabled.	12
1760	Network	Enabling server's IP address acquired by DHCP	ALL	2 <1-2>	-	POP3 Server Option (70) Post Office Server Address 1: Enabled 2: Disabled * This value is used only when DHCP is enabled.	12
1762	Network	Enabling server's IP address acquired by DHCP	ALL	2 <1-2>	-	SNTP Server Option (42) NTP Server Address 1: Enabled 2: Disabled * This value is used only when DHCP is enabled.	12
1764	Wireless LAN	Wireless LAN supplicant Control sequence setting of "Cipher Suite"	ALL	-	-	Maximum 255 letters	12
1765	Wireless LAN	Wireless LAN supplicant Path name for user certificate	ALL	-	-	Maximum 63 letters	12
1766	Wireless LAN	Wireless LAN supplicant Path name entered for CA self-certificate	ALL	-	-	Maximum 63 letters	12
1767	Network	Enabling server's IP address acquired by DHCP	ALL	1 <1-2>	-	DNS domain name Option (15) DNS domain name of the client 1: Enabled 2: Disabled * This value is used only when DHCP is enabled.	12
1768	Network	Previous IP address	ALL	-	-	000.000.000.000-255.255.255.255 (Default value: 000.000.000.000)	12

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1772	General	Card reading device setting	ALL	0 <8 digits>	SYS	<p>To enable the e-Bridge ID Gate, a card reading device should be set in the order of "ABYYZZZZ". (Enter the corresponding values to "A", "B", "YY" and "ZZZZ".)</p> <ul style="list-style-type: none"> - AB:Special setting - A :Debugging NIC <ul style="list-style-type: none"> 0: Not used 1: Used - B :Interface <ul style="list-style-type: none"> 0: No connection 1: Serial connection 2: (Reserved) 3: (Reserved) - YY: Authentication <ul style="list-style-type: none"> 00: No authentication using a noncontact IC card 02: Authentication using a noncontact IC card (KP-2003) 03: Authentication using a noncontact IC card (KP-2005) 04: Authentication using a noncontact IC card (KP-2004) - ZZZZ: Sub-code <ul style="list-style-type: none"> 0000: No authentication using a noncontact IC card 0001: Use IDm of a noncontact IC card (YY=02) 0002: Use the Data Area Address Information of a noncontact IC card (YY=02) 0001: Use CSN (Card Serial Number) of a noncontact IC card (In case of YY=03) (KP-2005) 0002: Use the Data Area Address Information of a noncontact IC card (In case of YY=03) (KP-2005) 0002: Use the CardID of a noncontact IC card (In case of YY=04) (KP-2004) 	5

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1773	General	Card reader format information -1	ALL	-	SYS	<p>To access the data in the noncontact IC card, the Key Information "LLLL" and the Sector Number "MMMM" should be set. The "LLLL" should be set first, and then "MMMM".</p> <p>KP-2003: LLLL: System code (hexadecimal number) MMMM: Service code (hexadecimal number)</p> <p>KP-2005: LLLL : Key information MMMM: Sector number (hexadecimal number)</p>	5
1774	General	Card reader format information -2	ALL	-	SYS	<p>The data of the block number in the noncontact IC is set.</p> <p>KP-2003: <PPQRSSTU (hexadecimal number)> PP: 1st block Q: 1st block beginning byte R: 1st block ending byte SS: 2nd block T: 2nd block beginning byte U: 2nd block ending byte</p> <p>KP-2005: <RRBSEbse (hexadecimal number)> RR: 00 (Fixed) B: 1st area block number S: 1st area beginning byte offset E: 1st area ending byte offset b: 2nd area block number s: 2nd area beginning byte offset e: 2nd area ending byte offset</p> <p>* If the 2nd block/area is not used, set the SSTU to "FFFF" (hexadecimal number), the bse to "FFF" (hexadecimal number).</p>	5

Setting mode (08)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
1775	General	Card reader format information -3		ALL	-	SYS	Security key "0000KKKKKKKKKKKKKKK" (16 digits) <hexadecimal number> in the [Key Information] of the [Sector Number] set in the code 08-1773 should be entered.	5
1776	General	Card authentication LDAP server		ALL	0 <0-100>	SYS	LDAP server number for the card authentication when a noncontact IC card is used should be set.	1
1778	General	Hang-up period of control panel at the 3rd misentry of administrator's password		ALL	1 <0-7>	SYS	0: No hang-up 1: 0.5 minutes (= 30 seconds) 2: 1 minute 3: 3 minutes 4: 5 minutes 5: 10 minutes 6: 15 minutes 7: 30 minutes	1
1779	Network	Default data saving directory of "Scan to File"		ALL	0 <0-2>	SYS	0: Local directory 1: REMOTE 1 2: REMOTE 2	1
1781-0	Network	Notification of scan job	When job completed	ALL	0 <0-1>	SYS	Sets the notification method of scan job completion. 0: Invalid 1: Valid	4
1781-1	Network		On error	ALL	0 <0-1>	SYS		4
1782	Network	File name format of "Save as file" and Email transmission		ALL	0 <0-6>	SYS	Sets the naming method of the file of "Save as file" and Email transmission. 0: [FileName]-[Data]- [Page] 1: [FileName]-[Page]- [Data] 2: [Data]-[FileName]- [Page] 3: [Data]-[Page]- [FileName] 4: [Page]-[FileName]- [Data] 5: [Page]-[Data]- [FileName] 6: [HostName]_[Data]- [Page]	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1783	Network	Date display format of the file name of "Save as file" and Email transmission	ALL	0 <0-5>	SYS	Sets the data display format of the file of "Save as file" and Email transmission. 0: [YYYY][MM][DD][HH][mm][SS] 1: [YY][MM][DD][HH][mm][SS] 2: [YYYY][MM][DD] 3: [YY][MM][DD] 4: [HH][mm][SS] 5: [YYYY][MM][DD][HH][mm][SS][mm0] The order of [YY], [MM] and [DD] varies depending on the setting of the code 08-640 (Data display format).	1
1784	Network	Single page data saving directory at "Save as file"	ALL	0 <0-1>	SYS	Sets the directory where the file of "Save as file" is saved. 0: Save it under a subfolder 1: Save it without creating a subfolder	1
1785	Network	Page number display format of the file of "Save as file" and Email transmission	ALL	4 <4-6>	SYS	Sets the digit of a page number attached on the file. 4-6: 4-6 digits	1
1786	Network	Extension (suffix) format of the file of "Save as file"	ALL	3 <3-6>	SYS	Sets the extension digits of the file to be saved. 3: Auto 4: 4 digits 5: 5 digits 6: 6 digits	1
1804	Fuser	Fuser roller temperature during printing (OHP film)	ALL	8 <0-14>	M	0: 140°C 1: 145°C 2: 150°C 3: 155°C 4: 160°C 5: 165°C 6: 170°C 7: 175°C 8: 180°C 9: 185°C 10: 190°C 11: 195°C 12: 200°C 13: 205°C 14: 210°C	1
1808	Image quality control	Developer unit prerunning period before image quality closed-loop control	ALL	10 <0-99>	M	Unit: Second	1
1809	Image quality control	Image quality closed-loop control (Contrast voltage)	ALL	0 <0-1>	M	0: Enabled 1: Disabled	4
1810	Image quality control	Image quality closed-loop control (Laser power)	ALL	0 <0-1>	M	0: Enabled 1: Disabled	4
1811	Image quality control	Image quality open-loop control	ALL	0 <0-1>	M	0: Enabled 1: Disabled	1
1812	Image quality control	Drum surface potential sensor Counter for number of control abnormality	ALL	0 <0-16>	M		1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1813	Image quality control	Drum surface potential sensor Control setting	ALL	0 <0-1>	M	0: Enabled 1: Disabled	1
1814	Image quality control	Maximum number of times of image quality closed-loop control correction (Contrast voltage)	ALL	5 <0-10>	M	The maximum number of correction which the image quality closed-loop control (contrast voltage) can be performed is set.	4
1815	Image quality control	Maximum number of times of image quality closed-loop control correction (Laser power)	ALL	4 <0-10>	M	The maximum number of correction which the image quality closed-loop control (laser power) can be performed is set.	4
1820	Image quality control	Contrast voltage upper limiter	ALL	535 <0-999>	M	The upper limit of the developer contrast voltage control is set. [Unit: V]	1
1821	Image quality control	Contrast voltage lower limiter	ALL	190 <0-999>	M	The lower limit of the developer contrast voltage control is set. [Unit: V]	1
1824	Image quality control	Exposure amount (laser power) upper limiter setting	ALL	Refer to contents <0-1500>	M	The upper limit of the laser power control is set. [Unit: μW] <Default value> e-STUDIO555/655: 1020 e-STUDIO755/855: 610	1
1825	Image quality control	Exposure amount (laser power) lower limiter setting	ALL	Refer to contents <0-1500>	M	The lower limit of the laser power control is set. [Unit: μW] <Default value> e-STUDIO555/655: 600 e-STUDIO755/855: 270	1
1826	Image quality control	Image quality control auto-start setting (When power is turned ON first in a day)	ALL	0 <0-1>	M	0: Enabled 1: Disabled	4
1827	Image quality control	Image quality control auto-start setting (Specified number of sheets for auto-start have been printed from the start of previous image quality control)	ALL	0 <0-1>	M	0: Enabled 1: Disabled	4
1828	Image quality control	Image quality control auto-start setting (Specified period of time for auto-start has passed)	ALL	0 <0-1>	M	0: Enabled 1: Disabled	4
1829	Image quality control	Image quality control auto-start setting (When recovered from toner-empty status)	ALL	0 <0-1>	M	0: Enabled 1: Disabled	4

Setting mode (08)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
1830	Image quality control	Image quality control auto-start setting (Specified number of sheets have been printed from first image quality control start in a day or warming-up recovery)		ALL	0 <0-1>	M	0: Enabled 1: Disabled	4
1831	Image quality control	Condition setting of image quality control auto-start (Fuser unit temperature at power-ON)		ALL	6 <0-20>	M	0: 30°C 1: 35°C 2: 40°C 3: 45°C 4: 50°C 5: 55°C 6: 60°C 7: 65°C 8: 70°C 9: 75°C 10: 80°C 11: 85°C 12: 90°C 13: 95°C 14: 100°C 15: 105°C 16: 110°C 17: 115°C 18: 120°C 19: 125°C 20: 130°C	1
1833	Image quality control	Contrast voltage offset correction setting		ALL	Refer to contents <0-10>	M	0: -100 1: -80 2: -60 3: -40 4: -20 5: ±0 6: +20 7: +40 8: +60 9: +80 10: +100 [Unit: V] <Default value> JPC: 5 UC, EUR: 6	1
1834	Image quality control	Background potential offset correction setting		ALL	5 <0-10>	M	0: -50 1: -40 2: -30 3: -20 4: -10 5: ±0 6: +10 7: +20 8: +30 9: +40 10: +50	1
1835	Image quality control	Laser power offset correction setting		ALL	Refer to contents <0-10>	M	0: -150 1: -120 2: -90 3: -60 4: -30 5: ±0 6: +30 7: +60 8: +90 9: +120 10: +150 <Default value> e-STUDIO555/655: 5 e-STUDIO755/855: 5 (6 for NAD only)	1
1836	Process	Drum pre-running period		ALL	0 <0-255>	M	0: Disabled 1-255: 1-255 sec.	1
1837	Image quality control	Transfer output correction control switching against surface potential		ALL	0 <0-2>	M	0: Control OFF 1: Table 1 applied 2: Table 2 applied	1
1900-0	Paper feeding	Feeding retry counter (Option LCF)	Plain paper	ALL	5 <0-5>	M		4
1900-1			Others	ALL	5 <0-5>	M		4
1901	Paper feeding	Reversing speed switching for thick paper		ALL	0 <0-1>	M	0: Accelerated 1: Low speed	1
1902	Fuser	Fusing error temperature (Temperature of the fuser roller center thermopiles)		ALL	0 <0-255>	M		1
1903	Fuser	Fusing error temperature (Temperature of the fuser roller rear thermopiles)		ALL	0 <0-255>	M		1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1904	Fuser	Fusing error temperature (Temperature of the fuser roller front thermopiles)	ALL	0 <0-255>	M		1
1905	Fuser	Fusing error temperature (Temperature of the pressure roller center thermopiles)	ALL	0 <0-255>	M		1
1906	Fuser	Power supply at fusing error	ALL	0 <0-63>	M	0: 0W, 1: 200W, 2: 240W, 3: 300W, 4: 320W, 5: 340W, 6: 360W, 7: 380W, 8: 400W, 9: 420W, 10: 440W, 11: 460W, 12: 480W, 13: 500W, 14: 520W, 15: 540W, 16: 560W, 17: 580W, 18: 600W, 19: 620W, 20: 640W, 21: 660W, 22: 680W, 23: 700W, 24: 720W, 25: 740W, 26: 760W, 27: 780W, 28: 800W, 29: 820W, 30: 840W, 31: 860W, 32: 880W, 33: 900W, 34: 920W, 35: 940W, 36: 960W, 37: 980W, 38: 1000W, 39: 1020W, 40: 1040W, 41: 1060W, 42: 1080W, 43: 1100W	1
1907	General	IH error data at occurrence of errors	ALL	0 <0-7>	M		1
1908	General	Function for Taiwan's Green Mark Program	ALL	0 <0-1>	M	0: Disabled 1: Enabled	1
1909	Paper feeding	Paper feeding timing correction setting	ALL	0 <0-3>	M	0-3: Setting value X 10msec	1
1910	Image quality control	Toner supply opening upward control	ALL	0 <0-2>	M	0: Always ON 1: Performs the toner supply opening upward control only when the available number of outputs using the remaining toner is between 2,000 and 5,000 sheets. (However, if the value "0" (OFF) is set at 08-1415, the operation will be the same as when the value "2" (Always OFF) is set in this setting.) 2: Always OFF * When in the toner empty status, the toner supply opening upward control is always performed regardless of this setting.	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1913	General	Page number addition on multipage file names of "File/Email"	ALL	0 <0-1>	SYS	0: Invalid (Page number not added) 1: Valid (Page number added)	1
1914	General	Maximum number of decimals in extension fields	ALL	2 <0-6>	SYS	0: 0 digit 1: 1 digit 2: 2 digits 3: 3 digits 4: 4 digits 5: 5 digits 6: 6 digits	1
1916	General	Default saving/attachment files of "File/Email"	ALL	0 <0-1>	SYS	0: DOCYYMMDD 1: NetBios name	1
1920	Network	Device domain name of device authentication	ALL	-	UTY	Maximum 128 letters	12
1921	Network	Windows domain No. 2 of user authentication	ALL	-	UTY	Maximum 128 letters	12
1922	Network	Windows domain No. 3 of user authentication	ALL	-	UTY	Maximum 128 letters	12
1923	Network	LDAP authentication Server type	ALL	1 <1-2>	NIC	1: Windows Server 2: Not Windows Server	12
1925	Network	Execution of user authentication when the user ID is not entered	ALL	2 <0-2>	SYS	0: Forcible execution 1: Execution impossible (pooled in the invalid queue) 2: Forcible deletion	1
1926	FAX	Tab/cover sheet printing at FAX reception Printing stop function	ALL	0 <0-1>	SYS	Sets on or off of the printing function of special sheets such as tab or cover sheet of FAX, Email or list print. 0: Function off 1: Function on	1
1927	Network	LDAP server attribute name setting for card authentication	ALL	eBMUser Card	SYS	Up to 32 letters	11
1928	Network	Role Based Access LDAP search index	ALL	0 <0-4294967295>	SYS		5
1929	User interface	Key arrangement for language 1	ALL	0 <0-2>	SYS	0: QWERTY layout (for EUR) 1: QWERTZ layout 2: AZERTY layout	1
1930	User interface	Key arrangement for language 2	ALL	1 <0-2>	SYS	0: QWERTY layout (for EUR) 1: QWERTZ layout 2: AZERTY layout	1
1931	User interface	Key arrangement for language 3	ALL	EUR: 2 UC: 0 JPC: 0 <0-2>	SYS	0: QWERTY layout (for EUR) 1: QWERTZ layout 2: AZERTY layout	1
1932	User interface	Key arrangement for language 4	ALL	0 <0-2>	SYS	0: QWERTY layout (for EUR) 1: QWERTZ layout 2: AZERTY layout	1
1933	User interface	Key arrangement for language 5	ALL	0 <0-2>	SYS	0: QWERTY layout (for EUR) 1: QWERTZ layout 2: AZERTY layout	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1935	User interface	Key arrangement for language 7	ALL	0 <0-2>	SYS	0: QWERTY layout (for EUR) 1: QWERTZ layout 2: AZERTY layout	1
1936	Network	AppleTalk Device Name	ALL	MFP_serial	UTY	Maximum 32 letters The Network-related serial number of the equipment appears at "Serial".	12
1937	Network	User name and password at user authentication or "Save as file"	ALL	0 <0-2>	SYS	0: User name and password of the device 1: User name and password at the user authentication (Template registration information comes first when a template is retrieved.) 2: User name and password at the user authentication (User information of the authentication comes first when a template is retrieved.)	1
1940	General	STAGE port number	SCN	20080 <0-65535>	SYS	Port number used for the remote scanning is set.	1
1941	Bluetooth	Bluetooth BIP Paper size	ALL	EUR: 6 UC: 2 JPC: 6 <0-13>	SYS	0: Ledger1: Legal 2: Letter 3: Computer 4: Statement 5: A3 6: A4 7: A5 8: A6 9: B4 10: B5 11: Folio 12: Legal13" 13: LetterSquare	1
1950	Network	SMB signature for SMB server	ALL	1 <1-3>	UTY	1: Auto 2: Valid 3: Invalid	12
1951	Network	SMB signature for SMB client	ALL	1 <1-3>	UTY	1: Auto 2: Valid 3: Invalid	12
1952	Network	Device name for device authentication	ALL	-	UTY	Maximum 128 letters	12
1953	Network	Password for the device name used for device authentication	ALL	-	UTY	Maximum 128 letters	12
1954	Network	PDC2 of user authentication	ALL	-	UTY	Maximum 128 letters	12
1955	Network	BDC2 of user authentication	ALL	-	UTY	Maximum 128 letters	12
1956	Network	PDC3 of user authentication	ALL	-	UTY	Maximum 128 letters	12
1957	Network	BDC3 of user authentication	ALL	-	UTY	Maximum 128 letters	12

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1958	Network	PDC of device authentication	ALL	-	UTY	Maximum 128 letters	12
1959	Network	BDC of device authentication	ALL	-	UTY	Maximum 128 letters	12
1960	General	KS Filter operation mode	ALL	0 <0-1>	SYS	0: Disabled 1: Enabled	1
1961	General	KS/KSSM setting all clearing	ALL	-	-	Does not reset the value of the code 08-1960 but resets those of the codes 08-1963 to 1994.	3
1963	General	KS Filter Emulation Mode	ALL	0 <0-2>	SYS	0: Auto 1: KS 2: KSSM	1
1964	General	KS Filter Paper Size	ALL	1 <0-5>	SYS	0: A3 1: A4 2: B4 3: B5 4: Letter 5: Legal	1
1965	General	KS Filter Orientation	ALL	0 <0-1>	SYS	0: Portrait 1: Landscape	1
1966	General	KS Filter Copies	ALL	1 <1-999>	SYS		1
1967	General	KS Paper Source	ALL	0 <0-1>	SYS		1
1968	General	KS Duplex Mode	ALL	0 <0-2>	SYS		1
1970	General	KS CPI (English CPI/ Hangle CPI)	ALL	1 <0-10>	SYS	0: (5/10) 1: (6/12) 2: (6.7/13.3) 3: (6.9/13.8) 4: (7.5/15) 5: (8.3/16.7) 6: (9/18) 7: (10/10) 8: (10/20) 9: (12/24) 10: (15/30)	1
1971	General	KS LPI	ALL	60 <30-160>	SYS	Key in the value 10 times as the desired font size. (e.g.: Key in "45" for a font size 4.5.)	1
1972	General	KS Type Face	ALL	0 <0-5>	SYS	0: MYUNGJO 1: GOTHIC 2: GUNGSEO 3: GULLIM 4: GRAPH 5: SAMMUL	1
1973	General	KS Font Size	ALL	96 <96-160>	SYS	Key in the value 10 times as the desired font size. (e.g.: Key in "100" for a font size 10.0.)	1
1974	General	KS Zoom	ALL	100 <20-400>	SYS		1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1975	General	KS CR/LF Mode	ALL	2 <0-3>	SYS	0: CR->CR, LF->LF 1: CR->CR+LF, LF->LF 2: CR->CR, LF->CR+LF 3: CR->CR+LF, LF->CR+LF	1
1976	General	KS Top Margin	ALL	0 <0-50>	SYS	Key in the value 10 times as the desired font size. (e.g.: Key in "40" for a font size 4.0.)	1
1977	General	KS Left Margin	ALL	0 <0-50>	SYS	Key in the value 10 times as the desired font size. (e.g.: Key in "40" for a font size 4.0.)	1
1978	General	KS Auto Wrap	ALL	0 <0-1>	SYS	0: OFF 1: ON	1
1979	General	KS Han Mode	ALL	1 <0-1>	SYS	0: OFF 1: ON	1
1980	General	KS Han Code	ALL	0 <0-1>	SYS	0: Wansung 1: Johap	1
1984	General	KSSM CPI (English CPI/ Hangle CPI)	ALL	1 <0-10>	SYS	0: (5/10) 1: (6/12) 2: (6.7/13.3) 3: (6.9/13.8) 4: (7.5/15) 5: (8.3/16.7) 6: (9/18) 7: (10/10) 8: (10/20) 9: (12/24) 10: (15/30)	1
1985	General	KSSM LPI	ALL	60 <30-160>	SYS	Key in the value 10 times as the desired font size. (e.g.: Key in "45" for a font size 4.5.)	1
1986	General	KSSM Type Face	ALL	0 <0-5>	SYS	0: MYUNGJO 1: GOTHIC 2: GUNGSEO 3: GULLIM 4: GRAPH 5: SAMMUL	1
1987	General	KSSM Font Size	ALL	96 <96-160>	SYS	Key in the value 10 times as the desired font size. (e.g.: Key in "100" for a font size 10.0.)	1
1988	General	KSSM Zoom	ALL	100 <20-400>	SYS		1
1989	General	KSSM CR/LF Mode	ALL	2 <0-3>	SYS	0: CR->CR, LF->LF 1: CR->CR+LF, LF->LF 2: CR->CR, LF->CR+LF 3: CR->CR+LF, LF->CR+LF	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1990	General	KSSM Top Margin	ALL	0 <0-50>	SYS	Key in the value 10 times as the desired font size. (e.g.: Key in "40" for a font size 4.0.)	1
1991	General	KSSM Left Margin	ALL	0 <0-50>	SYS	Key in the value 10 times as the desired font size. (e.g.: Key in "40" for a font size 4.0.)	1
1992	General	KSSM Auto Wrap	ALL	0 <0-1>	SYS	0: OFF 1: ON	1
1993	General	KSSM Han Mode	ALL	1 <0-1>	SYS	0: OFF 1: ON	1
1994	General	KSSM Han Code	ALL	0 <0-1>	SYS	0: Wansung 1: Johap	1
1994	General	KSSM Han Code	ALL	0 <0-1>	SYS	0: Wansung 1: Johap	1
3015	Scanner	Pre-scan setting switchover	ALL	0 <0-1>	SYS	0: Not performing pre-scanning 1: Performing pre-scanning	11
3017	RADF	DF (A4/LT) automatic detection setting	ALL	0 <0-1>	SYS	0: Detects A4/LT 1: Does not detect A4/LT	11
3612	General	Date of unpacking	ALL	- <13 digits>	SYS	Year/month/date/day/hour/minute/second Example: 03 07 0 13 13 27 48 "Day" - "0" is for "Sunday". Proceeds Monday through Saturday from "1" to "6".	1
3615	General	List print USB storage setting	ALL	0 <0-1>	SYS	0: Enable (USB storage available) 1: Disable (USB storage not available)	1
3619	General	Clearing of service history list file	ALL	-	SYS	Initializes the service history list file.	3
3630	Maintenance	Default setting automation after remote update	ALL	0 <0-6>	SYS	1: Remote update in process 2: Remote update failed 3: Remote update completed 4: Self-diagnostic mode initialization completed (initialization performed) 5: Self-diagnostic mode initialization completed (initialization not performed) 6: Self-diagnostic mode initialization completed (initialization failed)	2

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
3635	General	Proof print function	PPC	1 <0-1>	SYS	0: Invalid 1: Valid	1
3722	Network	Device authentication PDC/BDC time-out period (Unit: Seconds)	ALL	60 <1-180>	NIC	Applied to the device authentication	12
3723	Network	User authentication PDC/ BDC time-out period (Unit: Seconds)	ALL	30 <1-180>	NIC	Applied to the user authentication	12
3724	Network	Windows domain authentication of device/ user authentication	ALL	1 <1-3>	NIC	1: Auto 2: Kerberos 3: NTLMv2	12
3725	Network	IPP max connection	ALL	16 <1-16>	NIC		12
3726	Network	IPP active connection	ALL	10 <1-16>	NIC		12
3727	Network	LPD max connection	ALL	10 <1-16>	NIC		12
3728	Network	LPD active connection	ALL	10 <1-16>	NIC		12
3729	Network	ATalk PS max Connection	ALL	10 <1-16>	NIC		12
3730	Network	ATalk PS active Connection	ALL	10 <1-16>	NIC		12
3731	Network	Raw TCP max connection	ALL	10 <1-16>	NIC		12
3732	Network	Raw TCP active connection	ALL	10 <1-16>	NIC		12
3736	Network	DNS Client Time Out	ALL	60 <1-180>	NIC	Use when a timeout occurred at DNS client connection	12
3737	Network	DDNS Client Time Out	ALL	60 <1-180>	NIC	Use when a timeout occurred at DDNS client connection	12
3738	Network	HTTP Client Time Out	ALL	60 <1-180>	NIC	Use when a timeout occurred at HTTP client connection	12
3739	Network	FTP Client Time Out (SCAN)	ALL	30 <1-180>	NIC	Use when a timeout occurred at FTP client connection	12
3740	Network	SNTP Client Time Out	ALL	30 <1-180>	NIC	Use when a timeout occurred at SNTP client connection	12
3741	Network	SMTP Client Time Out	ALL	30 <1-180>	NIC	Use when a timeout occurred at SMTP client connection	12
3742	Network	POP3 Client Time Out	ALL	30 <1-180>	NIC	Use when a timeout occurred at POP3 client connection	12
3743	Network	LDAP Client Time Out	ALL	30 <1-180>	NIC	Use when a timeout occurred at LDAP client connection	12
3744	Network	POP3 Authentication method	ALL	1 <1-3>	NIC	POP3 authentication method setting 1: Disable (Default) 2: NTLM 3: Kerberos	12
3745	General	Secure DDNS Primary Login Name	ALL	- <1-128>	NIC	Login name for login with the Primary DDNS	12

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
3746	General	Secure DDNS Primary Login Password	ALL	- <1-128>	NIC	Login password for login with the Primary DDNS	12
3747	General	Secure DDNS Secondary Login Name	ALL	- <1-128>	NIC	Login name for login with the Secondary DDNS	12
3748	General	Secure DDNS Secondary Login Password	ALL	- <1-128>	NIC	Login password for login with the Secondary DDNS	12
3749	General	DPWS Friendly Name	ALL	-	NIC	MFP name indicated in DPWS search result Maximum 127 letters Minimum 1 letter <Default value> TOSHIBA e-STUDIOxxx [NIC serial number]	12
3750	General	DPWS Printer Name	ALL	-	NIC	Printer name used for installing the printer with DPWS Maximum 127 letters Minimum 1 letter <Default value> TOSHIBA e-STUDIOxxx Printer- [NIC serial number]	12
3751	General	DPWS Scanner Name	ALL	-	NIC	Scanner name used for installing the printer with DPWS Maximum 127 letters Minimum 1 letter <Default value> TOSHIBA e-STUDIOxxx Scanner- [NIC serial number]	12
3752	General	DPWS Printer Information	ALL	-	NIC	Information regarding DPWS printer Maximum 127 letters <Default value> NULL	12
3753	General	DPWS Scanner Information	ALL	-	NIC	Information regarding DPWS scanner Maximum 127 letters <Default value> NULL	12
3754	Network	Switching DPWS Printer setting	ALL	1 <1-3>	NIC	DPWS printer /DPWS secure printer function is switched. 1: Enabled 2: Disabled 3: Security enabled	12
3755	Network	Switching DPWS Scanner setting	ALL	1 <1-2>	NIC	DPWS scanner function is switched. 1: Enabled 2: Disabled	12
3757	Network	DPWS Discovery Port Number	ALL	3702 <1-65535>	NIC	Port number used for DPWS Discovery	12
3758	Network	DPWS Metadata Exchange Port Number	ALL	50081 <1-65535>	NIC	Port number used for DPWS Metadata Exchange	12

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
3759	Network	DPWS Print Port Number	ALL	50082 <1-65535>	NIC	Port number used for DPWS Print	12
3760	Network	DPWS Scan Port Number	ALL	50083 <1-65535>	NIC	Port number used for DPWS Scan	12
3765	Network	DPWS Print Max numbers of connection	ALL	10 <1-20>	NIC	Maximum numbers received from more than one connection request in the DPWS print	12
3766	Network	DPWS Print Max numbers of reception	ALL	10 <1-20>	NIC	Maximum numbers of data received from more than one clients in the DPWS print	12
3767	Network	Switching IPv6 setting	ALL	2 <1-2>	NIC	IPv6 function is switched. 1: Enabled 2: Disabled	12
3768	Network	Switching IP(IPv6) Address Acquisition	ALL	2 <1-2>	NIC	IP(IPv6) Address Acquisition setting is switched. 1: Manual 2: Auto configuration	12
3770	Network	IPv6 Address	ALL	0 <16 digits>	NIC	DHCPv6 Address in Manual/Auto configuration is displayed.	12
3771	Network	Prefix display setting	ALL	0 <0-128>	NIC	The range of Prefix display is set.	12
3772	Network	Default Gateway setting	ALL	0 <16 digits>	NIC	Default Gateway of DHCPv6 Address in Manual/Auto configuration is set.	12
3773	Network	Displaying previous DHCPv6 Address	ALL	0 <16 digits>	NIC	The previous DHCPv6 Address is displayed.	12
3774	Network	DHCPv6 Option setting	ALL	2 <1-2>	NIC	DHCPv6 Option is switched when the Manual is set. 1: Enabled 2: Disabled	12
3775	Network	Stateless Address Auto Configuration	ALL	1 <1-2>	NIC	Stateless Address Auto Configuration is switched. 1: Enabled 2: Disabled	12
3776	Network	Stateless Address setting continuation	ALL	2 <1-2>	NIC	When Prefix sent from router is changed, Stateless Address is continued to be set. 1: Enabled 2: Disabled	12
3777	Network	Stateless Address setting	ALL	2 <1-2>	NIC	IP Address is acquired by both Stateless and State full Address. 1: Enabled 2: Disabled	12

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
3778	Network	Acquiring DHCPv6 Option	ALL	2 <1-2>	NIC	When Stateless Address is selected, an option is acquired from DHCPv6 server. 1: Enabled 2: Disabled	12
3779	Network	State full Address setting	ALL	2 <1-2>	NIC	IP Address is acquired from DHCPv6 server. 1: Enabled 2: Disabled	12
3780	Network	State full Option setting	ALL	2 <1-2>	NIC	An option is acquired from DHCPv6 server. 1: Enabled 2: Disabled	12
3781	Network	Primary DNS Server Address Registration	ALL	0 <16 digits>	NIC	Registration of Primary DNS Server Address	12
3782	Network	Secondary DNS Server Address Registration	ALL	0 <16 digits>	NIC	Registration of Secondary DNS Server Address	12
3783	Network	Selecting SAMBA Protocol	ALL	2 <2-3>	NIC	Either IPv6 or IPv4 is selected to use SAMBA. 2: IPv4 3: IPv6	12
3785	Network	DPWS IPv4 or IPv6 with IPv6	ALL	2 <1-2>	NIC	Either IPv4 only or IPv6 together with it is selected to operate Print, Scan and Security related with DPWS. 1: Multi (IPv4 and IPv6) 2: IPv4	12
3793	Network	Switching LLTD setting	ALL	1 <1-2>	NIC	LLTD function is switched. 1: Enabled 2: Disabled	12
3796	Network	DPWS event rate	ALL	5 <1-600>	NIC	Sets the value of DPWS event rate from 1 to 600 sec.	12
3797	General	Response to PJL job commands	ALL	1 <0-1>	SYS	During bidirectional communication, the next job will not be accepted until the printing of the sent data (all pages) is finished. If the next job must be accepted during bidirectional communication, set the value at "0: (Solicited)". 0: (Solicited) - Immediately responds to the host side after the completion of RIP. 1: (Unsolicited) - Responds to the host side after the printing is finished.	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
3802	General	USB media direct printing Paper size	ALL	EUR: 6 UC: 2 JPC: 6 <0-13>	SYS	0: ledger 1: legal 2: letter 3: computer 4: statement 5: A3 6: A4 7: A5 8: A6 9: B4 10: B5 11: Folio 12: Legal13" 13: LetterSquare	1
3803	General	USB media direct printing function setting	ALL	1 <0-1>	SYS	Sets the USB media direct printing function. 0: Disabled 1: Enabled	1
3804	Scanner	List Analysis Logic of Scan to File (FTP)	ALL	0 <0-1>	SYS	Acquisition of Contents in Host side is switched by Scan to File (FTP). 0: NLST 1: LIST	1
3805	Scanner	Department Management setting by Remote Scan	ALL	3 <0-3>	SYS	Department Management is set when Remote Scan is performed. 0: w/o GUI OFF, w/ GUI OFF 1: w/o GUI ON, w/ GUI OFF 2: w/o GUI OFF, w/ GUI ON 3: w/o GUI ON, w/ GUI ON	1
3810	Network	Direct SMTP communication setting	ALL	0 <0-1>	SYS	When an Internet Fax is sent, Direct SMTP communication is set. 0: Disabled 1: Enabled When "0: Disabled" is set, an Internet Fax is sent using an SMTP server. When "1: Enabled" is set, direct SMTP communication is enabled and an Internet Fax is sent to MFPs on the intranet without using an SMTP server. Since no SMTP server is used, the SSL encryption and SMTP- AUTH function cannot be used for internet Fax transmission. If "1: Enabled" is set in 08-3810, set "1: Enabled" in 08-3812 as well.	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
3811	Network	Image encrypting at the Direct SMTP communication	ALL	0 <0-1>	SYS	When Direct SMTP communication is performed, an attached image is encrypted. 0: Disabled 1: Enabled	1
3812	Scanner	Dummy full mode at the Internet Fax transmission	ALL	0 <0-1>	SYS	When an Internet Fax is sent, the resolution ratio and the paper size of an attached image are set to the full mode. 0: Disabled 1: Enabled If "1: Enabled" is set in 08-3810, set "1: Enabled" in 08-3812 as well.	1
3815	Scanner	XPS file thumbnail addition	ALL	1 <0-1>	SYS	Thumbnail is added to the XPS file produced by the Scan function. 0: Not added 1: Only the top page added	1
3816	Scanner	XPS file paper size setting	ALL	1 <0-1>	SYS	The paper size of the XPS file produced by the Scan function is set. 0: Scanned image size 1: Standard size	1
3817	Scanner	PDF file version setting	ALL	4 <0-1, 4>	SYS	The version of PDF file produced by the Scan function is set. 0: PDF V1.3 1: PDF V1.4 4: PDF V1.7	1
3818	Scanner	DPWS Scan operation mode	ALL	1 <0-1>	SYS	The operation mode in the DPWS Scan function is switched. 0: Batch type 1: Serial type	1
3833	General	Home directory function	ALL	0 <0-1>	SYS	Function to store a file in the user's home directory 0: Disabled 1: Enabled	1
3837	General	Display switching for the machine name/computer name shown in the notification	ALL	0 <0-1>	SYS	The display method of the machine name/computer name shown in the event-related notification is switched. 0: IP address 1: NetBIOS name/FGDN	1
3840	General	Electronic License Key Registration	ALL	-	-	Licenses for Electronic License Key are registered.	3
3841	General	Electronic License Key Deletion	ALL	-	-	Registered licenses for Electronic License Key are deleted.	3

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
3842	General	Display of electronic keys in USB media	ALL	-	-	Displays all the electronic keys stored in a USB media connected to the equipment in a list.	3
3845	Network	SNMP Trap Enterprise OID mode setting	ALL	0 <0-1>	SYS	Trap Enterprise OID is enabled for existing models. 0: Normal (Not enabling for existing models) 1: Enabled for existing models	1
3846	FAX	Setting for receiving confidential data on each line	FAX	0 <0-1>	SYS	Remotely registers the received confidential fax data into a confidential box provided for each line. 0: OFF 1: ON	1
3847	FAX	FAX mistransmission prevention	FAX	0 <0-1>	SYS	FAX mistransmission prevention function is switched. 0: OFF (Disabled) 1: ON (Enabled)	1
3848	FAX	Restriction on Address Book destination setting	FAX	0 <0-1>	SYS	Availability of destination selection from the Address Book is switched as one of FAX mistransmission prevention functions when setting FAX destinations. 0: OFF (Disabled) 1: ON (Enabled)	1
3849	FAX	Restriction on destination direct entry	FAX	0 <0-1>	SYS	Availability of direct entry is switched as one of FAX mistransmission prevention functions when setting FAX destinations. 0: OFF (Disabled) 1: ON (Enabled)	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
3850	General	Remote Scan User authentication	ALL	3 <0-3>	SYS	Sets the user authentication with remote scanning as follows: 0: w/o GUI OFF, w/ GUI OFF 1: w/o GUI ON, w/ GUI OFF 2: w/o GUI OFF, w/ GUI ON 3: w/o GUI ON, w/ GUI ON w/o GUI: Remote scanning is operated on SSOP application of eCOPY Inc. w/ GUI: Remote scanning is operated on TTECspecific GUI. This setting is only for user authentication with remote scanning. When GUI is set ON, a dialog for user ID and password is displayed at the start-up of remote scanning. This code is valid only when the code 08-1482 is set "1 (Enabled)".	1
3851	User interface	Template display	ALL	0 <0-1>	SYS	The order of displaying templates on the LCD screen is switched. 0: Order of IDs 1: Alphabetical order	1
3852	General	Automatic summer time change	ALL	0 <0-1>	SYS	Automatic summer time change on the day previously set is switched. 0: Disabled 1: Enabled	1
3853	General	Summer time mode Offset value	ALL	2 <0-7>	SYS	Summer time is started as follows when 08-3852 is enabled. 0: +2:00 1: +1:30 2: +1:00 3: +0:30 4: -0:30 5: -1:00 6: -1:30 7: -2:00	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
3854	General	Summer time mode Starting month	ALL	0 <1-12>	SYS	The month in which summer time is started is set. 1: January 2: February 3: March 4: April 5: May 6: June 7: July 8: August 9: September 10: October 11: November 12: December	1
3855	General	Summer time mode Starting week	ALL	1 <1-5>	SYS	The week in which summer time is started is set. 1: 1st 2: 2nd 3: 3rd 4: 4th 5: Last	1
3856	General	Summer time mode Starting day	ALL	0 <0-6>	SYS	The day on which summer time is started is set. 0: Sunday 1: Monday 2: Tuesday 3: Wednesday 4: Thursday 5: Friday 6: Saturday	1
3857	General	Summer time mode Starting time	ALL	0 <00-23>	SYS	The time at which summer time is started is set. 00-23	1
3858	General	Summer time mode Starting minute	ALL	0 <00-59>	SYS	The minute at which summer time is started is set. 00-59	1
3859	General	Summer time mode Ending month	ALL	1 <1-12>	SYS	The month in which summer time is ended is set. 1: January 2: February 3: March 4: April 5: May 6: June 7: July 8: August 9: September 10: October 11: November 12: December	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
3860	General	Summer time mode Ending week	ALL	1 <1-5>	SYS	The week in which summer time is ended is set. 1: 1st 2: 2nd 3: 3rd 4: 4th 5: Last	1
3861	General	Summer time mode Ending day	ALL	0 <0-6>	SYS	The day on which summer time is ended is set. 0: Sunday 1: Monday 2: Tuesday 3: Wednesday 4: Thursday 5: Friday 6: Saturday	1
3862	General	Summer time mode Ending time	ALL	0 <00-23>	SYS	The time at which summer time is ended is set. 00-23	1
3863	General	Summer time mode Ending minute	ALL	0 <00-59>	SYS	The minute at which summer time is ended is set. 00-59	1
3864	Network	Disclosing Telnet Server function	ALL	0 <0-1>	SYS	Disclosure of Telnet Server function is switched. 0: Not disclosed 1: Disclosed	1
3865	Network	Availability of Telnet Server	ALL	2 <1-2>	NIC	Availability of Telnet Server is switched. 1: Enabled 2: Disabled	12
3866	Network	Telnet Server TCP port number	ALL	23 <1-65535>	NIC	A port number for Telnet Server is set.	12
3867	Network	Telnet Server Server administrator's user name	ALL	Admin <Maximum 15 letters>	NIC	A user name for the Telnet Server administrator is confirmed.	12
3868	Network	Telnet Server Server administrator's password	ALL	System <Maximum 15 letters>	NIC	A password for the Telnet Server administrator is set.	12

Setting mode (08)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
3869	General	Number of times of EWB display for its restart		ALL	20 <0-256>	SYS	EWB is restarted when the EWB is displayed for the preset number of times. Perform this code when you change the number of times of display for resetting the EWB. EWB: (Embedded Web Browser) - Displays a web page on the control panel. For displaying EWB, the External Interface Enabler (GS-1020, optional) is required.	1
3870	General	Display of electronic keys registered in equipment		ALL	-	-		3
3871	General	Setting for RBAC guest user privilege		ALL	0 <0-1>	SYS	0: Does not provide any user with guest user privilege 1: Provides all users with guest user privilege	1
4016-0	Paper feeding	AutoCassette Change	Copying	ALL	0 <0-1>	SYS	Sets whether the ACC function is enabled only for automatic drawer selection or enabled when a particular drawer is specified as well. 0: Enabled only for automatic drawer selection 1: Enabled when a drawer is specified	4
4016-1			Printing / BOX printing	ALL	0 <0-1>	SYS		4
4586	General	Checking of NVRAM board data on LGC board No. 1 (Models)		ALL	Refer to content <100-103>	M	<Default value> 100: e-STUDIO 555 101: e-STUDIO 655 102: e-STUDIO 755 103: e-STUDIO 855	2

Setting mode (08)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
4587-0	General	Checking of NVRAM board data on LGC board No. 2 (0 x 00)	Check data 1	ALL	0 <0-255>	M	Hexadecimal number (0 x 00)	14
4587-1			Check data 2	ALL	0 <0-255>	M		14
4587-2			Check data 3	ALL	0 <0-255>	M		14
4587-3			Check data 4	ALL	0 <0-255>	M		14
4587-4			Check data 5	ALL	0 <0-255>	M		14
4587-5			Check data 6	ALL	0 <0-255>	M		14
4587-6			Check data 7	ALL	0 <0-255>	M		14
4587-7			Check data 8	ALL	0 <0-255>	M		14
4587-8			Check data 9	ALL	0 <0-255>	M		14
4587-9			Check data 10	ALL	0 <0-255>	M		14
4587-10			Check data 11	ALL	0 <0-255>	M		14
4587-11			Check data 12	ALL	0 <0-255>	M		14
4587-12			Check data 13	ALL	0 <0-255>	M		14
4587-13			Check data 14	ALL	0 <0-255>	M		14
4587-14			Check data 15	ALL	0 <0-255>	M		14
4587-15			Check data 16	ALL	0 <0-255>	M		14

Setting mode (08)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
4588-0	General	Checking of NVRAM board data on LGC board No. 3 (0 x 55)	Check data 1	ALL	85 <0-255>	M	Hexadecimal number (0 x 55)	14
4588-1			Check data 2	ALL	85 <0-255>	M		14
4588-2			Check data 3	ALL	85 <0-255>	M		14
4588-3			Check data 4	ALL	85 <0-255>	M		14
4588-4			Check data 5	ALL	85 <0-255>	M		14
4588-5			Check data 6	ALL	85 <0-255>	M		14
4588-6			Check data 7	ALL	85 <0-255>	M		14
4588-7			Check data 8	ALL	85 <0-255>	M		14
4588-8			Check data 9	ALL	85 <0-255>	M		14
4588-9			Check data 10	ALL	85 <0-255>	M		14
4588-10			Check data 11	ALL	85 <0-255>	M		14
4588-11			Check data 12	ALL	85 <0-255>	M		14
4588-12			Check data 13	ALL	85 <0-255>	M		14
4588-13			Check data 14	ALL	85 <0-255>	M		14
4588-14			Check data 15	ALL	85 <0-255>	M		14
4588-15			Check data 16	ALL	85 <0-255>	M		14

Setting mode (08)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
4589-0	General	Checking of NVRAM board data on LGC board No. 4 (0 x AA)	Check data 1	ALL	170 <0-255>	M	Hexadecimal number (0 x AA)	14
4589-1			Check data 2	ALL	170 <0-255>	M		14
4589-2			Check data 3	ALL	170 <0-255>	M		14
4589-3			Check data 4	ALL	170 <0-255>	M		14
4589-4			Check data 5	ALL	170 <0-255>	M		14
4589-5			Check data 6	ALL	170 <0-255>	M		14
4589-6			Check data 7	ALL	170 <0-255>	M		14
4589-7			Check data 8	ALL	170 <0-255>	M		14
4589-8			Check data 9	ALL	170 <0-255>	M		14
4589-9			Check data 10	ALL	170 <0-255>	M		14
4589-10			Check data 11	ALL	170 <0-255>	M		14
4589-11			Check data 12	ALL	170 <0-255>	M		14
4589-12			Check data 13	ALL	170 <0-255>	M		14
4589-13			Check data 14	ALL	170 <0-255>	M		14
4589-14			Check data 15	ALL	170 <0-255>	M		14
4589-15			Check data 16	ALL	170 <0-255>	M		14

Setting mode (08)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
4590-0	General	Checking of NVRAM board data on LGC board No. 5 (0 x FF)	Check data 1	ALL	255 <0-255>	M	Hexadecimal number (0 x FF)	14
4590-1			Check data 2	ALL	255 <0-255>	M		14
4590-2			Check data 3	ALL	255 <0-255>	M		14
4590-3			Check data 4	ALL	255 <0-255>	M		14
4590-4			Check data 5	ALL	255 <0-255>	M		14
4590-5			Check data 6	ALL	255 <0-255>	M		14
4590-6			Check data 7	ALL	255 <0-255>	M		14
4590-7			Check data 8	ALL	255 <0-255>	M		14
4590-8			Check data 9	ALL	255 <0-255>	M		14
4590-9			Check data 10	ALL	255 <0-255>	M		14
4590-10			Check data 11	ALL	255 <0-255>	M		14
4590-11			Check data 12	ALL	255 <0-255>	M		14
4590-12			Check data 13	ALL	255 <0-255>	M		14
4590-13			Check data 14	ALL	255 <0-255>	M		14
4590-14			Check data 15	ALL	255 <0-255>	M		14
4590-15			Check data 16	ALL	255 <0-255>	M		14
4602	Feeding system / Paper transport	Paper transport period measuring function setting		ALL	0 <0-1>	M	0: Enabled 1: Disabled	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
4615-0	Counter	Counter for number of pages per print job	1	ALL	0 <8 digits>	M	4
4615-1			2	ALL	0 <8 digits>	M	4
4615-2			3	ALL	0 <8 digits>	M	4
4615-3			4 to 5	ALL	0 <8 digits>	M	4
4615-4			6 to 7	ALL	0 <8 digits>	M	4
4615-5			8 to 10	ALL	0 <8 digits>	M	4
4615-6			11 to 15	ALL	0 <8 digits>	M	4
4615-7			16 to 20	ALL	0 <8 digits>	M	4
4615-8			21 to 30	ALL	0 <8 digits>	M	4
4615-9			31 to 40	ALL	0 <8 digits>	M	4
4615-10			41 to 50	ALL	0 <8 digits>	M	4
4615-11			51 to 75	ALL	0 <8 digits>	M	4
4615-12			76 to 100	ALL	0 <8 digits>	M	4
4615-13			101 to 200	ALL	0 <8 digits>	M	4
4615-14			201 to 300	ALL	0 <8 digits>	M	4
4615-15			301 to 400	ALL	0 <8 digits>	M	4
4615-16			401 to 500	ALL	0 <8 digits>	M	4
4615-17			501 to 750	ALL	0 <8 digits>	M	4
4615-18			751 to 1000	ALL	0 <8 digits>	M	4
4615-19			1001 to 2000	ALL	0 <8 digits>	M	4
4615-20			2001 to 3000	ALL	0 <8 digits>	M	4
4615-21			3001 to 4000	ALL	0 <8 digits>	M	4
4615-22			4001 to 5000	ALL	0 <8 digits>	M	4
4615-23			5001 to 6000	ALL	0 <8 digits>	M	4
4615-24			6001 to 7000	ALL	0 <8 digits>	M	4
4615-25			7001 to 8000	ALL	0 <8 digits>	M	4
4615-26			8001 to 9000	ALL	0 <8 digits>	M	4
4615-27			9001 and over	ALL	0 <8 digits>	M	4

Setting mode (08)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
4616-0	Counter	Fuser error counter Range for retaining history	Latest error only	ALL	255 <0-255>	M		14
4616-1			Back to 1 error before	ALL	255 <0-255>	M		14
4616-2			Back to 2 errors before	ALL	255 <0-255>	M		14
4616-3			Back to 3 errors before	ALL	255 <0-255>	M		14
4616-4			Back to 4 errors before	ALL	255 <0-255>	M		14
4616-5			Back to 5 errors before	ALL	255 <0-255>	M		14
4620-0	Counter	Fuser counter (waiting period)	Waiting at low temperature	ALL	0 <0-65535>	M		4
4620-1			Waiting at high temperature	ALL	0 <0-65535>	M		4
4620-2			Waiting at low temperature (limit value)	ALL	0 <0-65535>	M		4
4620-3			Waiting at high temperature (limit value)	ALL	0 <0-65535>	M		4
4621	Paper feeding	Paper width checking in bypass feeding		ALL	0 <0-1>	M	0: Enabled 1: Disabled	1
4622	Counter	Counter for paper width checking in bypass feeding		ALL	0 <0-65535>	M		1
5554	Maintenance	Setting value of PM counter		ALL	Refer to content <8 digits>	M	<Default value> e-STUDIO555 :460,000 e-STUDIO655 JPC 0 UC, EUR: 515,000 e-STUDIO755 JPC 0 UC, EUR: 540,000 e-STUDIO855 JPC 0 UC, EUR: 600,000	1
5555	Maintenance	Setting value of PM time counter display/0 clearing		ALL	Refer to content <8 digits>	M	<Default value> e-STUDIO555/655 JPC 400,000 UC, EUR: 400,000 e-STUDIO755/855 JPC 330,000 UC, EUR: 330,000	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
5562	Maintenance	Setting value of PM counter / Parts	ALL	Refer to content <8 digits>	M	<Default value> e-STUDIO555 :460,000 e-STUDIO655 JPC 0 UC, EUR: 515,000 e-STUDIO755 : JPC 0 UC, EUR: 540,000 e-STUDIO855 JPC 0 UC, EUR: 600,000	1
5563	Maintenance	Setting value of PM time counter display/0 clearing / Parts	ALL	Refer to content <8 digits>	M	Time accumulating counter <Default value> e-STUDIO555/655 :470,000 e-STUDIO755/855 :390,000	1
5568	Maintenance	Current value of PM counter Display/0 clearing	ALL	0 <8 digits>	M	Counts up when the registration sensor is ON.	1
5569	Maintenance	Current value of PM time counter	ALL	0 <8 digits>	M	Counts the drum driving time.	1
5576	Maintenance	Current value of PM counter Display/0 clearing / Parts	ALL	0 <8 digits>	M	Counts up when the registration sensor is ON.	1
5577	Maintenance	Current value of PM time counter / Parts	ALL	0 <8 digits>	M	Counts the drum driving time.	1
5581	Maintenance	Switching of output pages/driving counts at PM	ALL	0 <0-2>	M	Selects the reference to notify the PM timing. (The message is displayed on the LCD screen.) 0: PM counter (The number of output pages is set at 08-251.) 1: PM time counter (The timing is set at 08-375.) 2: Whenever either the PM counter or the PM time counter has exceeded the threshold	1

Setting mode (08)								
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure	
5585	Maintenance	Switching of output pages/ driving counts at PM / Parts	ALL	0 <0-2>	M	Selects the reference to notify the PM timing. (The message is displayed on the LCD screen.) 0: PM counter (The number of output pages is set at 08- 251.) 1: PM time counter (The timing is set at 08-375.) 2: Whenever either the PM counter or the PM time counter has exceeded the threshold	1	
6245	Feeding system / Paper transport	Feeding retry counter upper limit value (O-LCF)	ALL	0 <8 digits>	M	When the number of feeding retry (08-1402) exceeds the setting value, the feeding retry will not be performed subsequently. In case "0" is set as a setting value, however, the feeding retry continues regardless of the counter setting value. Refer to (Note 1). * Refer to (Note 1).	1	
<p>Note: In this equipment, a toner image is formed on the transfer belt prior to a paper feeding. When the feeding retry occurs and the transport timing is delayed, the toner image on the transfer belt is cleaned off without the 2nd transfer since the paper cannot be reached for the 2nd transfer process. After that, the toner image formation is retried while the paper is waited. In this case, the toner for this image formation is consumed wastefully since the toner image on the transfer belt is already cleaned off, even though the printing is normally completed. Therefore, note that the excessive toner will be consumed consequently when the upper limit value of feeding retry counter is set larger or set as "0" (no limit). The toner is also consumed wastefully when the paper misfeeding occurs. Replace the roller at earlier timing if the paper misfeedings have occurred frequently.</p>								
6810-0	Counter	Number of output pages in black mode / Large size	1-UP / Duplex printing	PRT	0 <8 digits>	SYS	Counts the number of output pages.	4
6810-1			2-UP / Duplex printing	PRT	0 <8 digits>	SYS	Counts the number of output pages using [2IN1] or [MAGAZINE SORT].	4
6810-2			2-UP / Simplex printing	PRT	0 <8 digits>	SYS	Counts the number of sheets using [2IN1] or [MAGAZINE SORT].	4
6810-3			4-UP / Duplex printing	PRT	0 <8 digits>	SYS	Counts the number of output pages using [4IN1].	4
6810-4			4-UP / Simplex printing	PRT	0 <8 digits>	SYS	Counts the number of sheets using [4IN1].	4
6810-7			1-UP / Simplex printing	PRT	0 <8 digits>	SYS	Counts the number of output pages.	4

Setting mode (08)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
6813-0	Counter	Number of output pages of the printer or BOX / Large	1-UP / Duplex printing	PRT	0 <8 digits>	SYS	Counts the number of output pages.	4
6813-1			2-UP / Duplex printing	PRT	0 <8 digits>	SYS	Counts the number of output pages using [2IN1] or [MAGAZINE SORT].	4
6813-2			2-UP / Simplex printing	PRT	0 <8 digits>	SYS	Counts the number of sheets using [2IN1] or [MAGAZINE SORT].	4
6813-3			4-UP / Duplex printing	PRT	0 <8 digits>	SYS	Counts the number of output pages using [4IN1].	4
6813-4			4-UP / Simplex printing	PRT	0 <8 digits>	SYS	Counts the number of sheets using [4IN1].	4
6813-5			N-UP / Duplex printing	PRT	0 <8 digits>	SYS	Counts the number of output pages using [N IN1].	4
6813-6			N-UP / Simplex printing	PRT	0 <8 digits>	SYS	Counts the number of sheets using [N IN1].	4
6813-7			1-UP / Simplex printing	PRT	0 <8 digits>	SYS	Counts the number of sheets output pages.	4
6815-0	Counter	Number of output pages of the FAX printing / Large	1-UP / Simplex printing	FAX	0 <8 digits>	SYS	Counts the number of output pages in the default settings.	4
6815-7			1-UP / Duplex printing	FAX	0 <8 digits>	SYS		4
6817	Counter	Counter Calibration counter		ALL	0 <8 digits>	SYS	Displays the number of times a calibration chart is printed. When "0" is set for this code, and also when in the line adjustment mode or when the fee charging counter is reset, this counter is reset. The counter value goes up every time a calibration chart is printed, regardless of the setting value of the code 08-9894 (Calibration chart charging method).	1
6852-0	Counter	Black job counter	Black copier job counter	PPC	0 <8 digits>	SYS	Counts up when a black job is printed.	4
6852-1			Black printer job counter	PRT	0 <8 digits>	SYS		4
6852-2			Total black job counter	PPC / PRT	0 <8 digits>	SYS		4

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
7000	Image	Clearing of adjustment values of all image process (PPC) related 05 codes	PPC	-	M/ SYS clear	Clears the gamma correction table values and the adjustment values of the following 05 codes: 05-7000 to 7299, 7600 to 7999	3
7001	Image	Clearing of all gamma correction table values (PPC related areas only)	PPC	-	SYS	Clears all the gamma correction table values in the PPC related areas of the HDD.	3
7300	Image	Clearing of adjustment values of all image process (network print) related 05 codes	PRT	-	M/ SYS clear	Clears the gamma correction table values and the adjustment values of the following 05 codes: 05-7300 to 7399	3
7400	Image	Clearing of adjustment values of all image process (network scan) related 05 codes	SCN	-	SYS clear	Clears the adjustment values of the following 05 codes: 05-7400 to 7499	3
7500	Image	Clearing of adjustment values of all image process (Fax) related 05 codes	FAX	-	M/ SYS clear	Clears the adjustment values of the following 05 codes: 05-7500 to 7599	3
8506	General	Forcible mode change in cartridge empty status	ALL	1 <0-2>	SYS	0: SLEEP MODE 1: AUTO POWER SAVE 2: READY	1
8509	General	Controlling amount for print image position adjustment in secondary scanning direction	PRT	12 <0-36>	SYS	0-36	1
8510	General	Menu display for controlling print image position adjustment in secondary scanning direction	PRT	0 <0-1>	SYS	0: Menu not displayed 1: Menu displayed	1
8511	General	Wide A4 Mode (for PCL)	PRT	0 <0-1>	SYS	0: Disable 1: Enable	1
8512	General	Number of jobs in batch processing	ALL	10 <2-10>	SYS	2-10: From 2 to jobs can be specified	1
8515	General	Outside erase Judgment threshold (Default)	PPC	0 <-3-3>	SYS	The larger the value is, area to be erased increases. The smaller the value is, area to be erased decreases.	1
8516	General	Outside erase Judgment threshold (Default)	SCN	0 <-3-3>	SYS	The larger the value is, area to be erased increases. The smaller the value is, area to be erased decreases.	1
8517	General	Remote Scan User authentication automatic login	ALL	1 <0-1>	SYS	0: OFF (A user always enters manually (current method)) 1: ON (Previous authentication information will be used)	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
8518	General	Overwriting mode for scanned files	ALL	0 <0-3>	SYS	0: Always OFF 1: Meta Scan function ON / Normal scan function OFF 2: Meta Scan function OFF / Normal scan function ON 3: Always ON	1
8519	General	Scan PDF file Paper size	ALL	1 <0-1>	SYS	0: Equivalent to scan image size 1: Fitted into any standard size	1
8523	Image processing	Toner near-empty status Message display	ALL	0 <0-1>	SYS	0: ON 1: OFF	1
8524	General	No paper Message display	ALL	0 <0-1>	SYS	0: ON 1: OFF	1
8532	General	Control panel Brightness level adjustment	ALL	4 <1-7>	SYS	1-7: Brightness level	1
8535	Network	Storing network logs in the HDD	ALL	2 <1-2>	SYS	Stores the network logs of SRAM in the HDD when network-related trouble occurred. 1: Enabled 2: Disabled	1
8536	Network	Data size when storing network logs in the HDD	ALL	30 <1-30>	SYS	Specifies the size of network logs to be stored in the HDD. 1-30: 1-30 MB	1
8537	General	Sorting method for displaying private print jobs	PRT	0 <0-1>	SYS	Changes the sorting order for print jobs on the private print list. 0: Descending order 1: Ascending order	1
8540	General	Date and time format setting for Meta Scan XML files	ALL	1 <0-1>	SYS	0: YYYY/MM/DDhh:mm:ss.mmm 1: YYYY-MM-DDThh:mm:ss.mmTZD	1
8543	General	Setting whether entering the low power mode during the sleep mode	ALL	1 <0-1>	SYS	0: Does not enter 1: Enters under particular conditions	1
8544	General	Interval setting for transition to the Super Sleep mode	ALL	5 <5-600>	SYS	The interval between recovering from the Super Sleep mode and making the transition to the Super Sleep mode again. Unit: seconds.	1
8550	User interface	Keyboard layout for the 8th language	ALL	0 <0-2>	SYS	0: QWERTY layout (for EUR) 1: QWERTZ layout 2: AZERTY layout	1
8551	User interface	Keyboard layout for the 9th language	ALL	0 <0-2>	SYS	0: QWERTY layout (for EUR) 1: QWERTZ layout 2: AZERTY layout	1
8552	User interface	Keyboard layout for the 10th language	ALL	0 <0-2>	SYS	0: QWERTY layout (for EUR) 1: QWERTZ layout 2: AZERTY layout	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
8553	User interface	Keyboard layout for the 11th language	ALL	0 <0-2>	SYS	0: QWERTY layout (for EUR) 1: QWERTZ layout 2: AZERTY layout	1
8554	User interface	Keyboard layout for the 12th language	ALL	0 <0-2>	SYS	0: QWERTY layout (for EUR) 1: QWERTZ layout 2: AZERTY layout	1
8555	User interface	Keyboard layout for the 13th language	ALL	0 <0-2>	SYS	0: QWERTY layout (for EUR) 1: QWERTZ layout 2: AZERTY layout	1
8556	User interface	Keyboard layout for the 14th language	ALL	0 <0-2>	SYS	0: QWERTY layout (for EUR) 1: QWERTZ layout 2: AZERTY layout	1
8560	User interface	UI data in the HDD 8th language version	ALL	-	-	-	2
8561	User interface	UI data in the HDD 9th language version	ALL	-	-	-	2
8562	User interface	UI data in the HDD 10th language version	ALL	-	-	-	2
8563	User interface	UI data in the HDD 11th language version	ALL	-	-	-	2
8564	User interface	UI data in the HDD 12th language version	ALL	-	-	-	2
8565	User interface	UI data in the HDD 13th language version	ALL	-	-	-	2
8566	User interface	UI data in the HDD 14th language version	ALL	-	-	-	2
8570	User interface	WebUI data in the HDD 8th language version	ALL	-	-	-	2
8571	User interface	WebUI data in the HDD 9th language version	ALL	-	-	-	2
8572	User interface	WebUI data in the HDD 10th language version	ALL	-	-	-	2
8573	User interface	WebUI data in the HDD 11th language version	ALL	-	-	-	2
8575	User interface	WebUI data in the HDD 13th language version	ALL	-	-	-	2
8576	User interface	WebUI data in the HDD 14th language version	ALL	-	-	-	2
8800	Network	Enabling / Disabling of 802.1X	ALL	2 <1-2>	NIC	1: Enabled 2: Disabled	12
8801	Network	802.1X fallbackNumber of retry	ALL	3 <3-10>	NIC	3-10:3-10 times	12
8802	Network	Enabling / Disabling of IPsec	ALL	2 <1-2>	NIC	1: Enabled 2: Disabled	12
8803	Network	Enabling / Disabling of SNMPv3	ALL	2 <1-2>	NIC	1: Enabled 2: Disabled	12
8804	Network	Enabling / Disabling of IP filtering	ALL	2 <1-2>	NIC	1: Enabled 2: Disabled	12
8805	Network	Enabling / Disabling of MAC address filtering	ALL	2 <1-2>	NIC	1: Enabled 2: Disabled	12
8806	Network	SCEP CA Server Address1	ALL	- <null-128>	NIC	Maximum 128 letters	12

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
8807	Network	SCEP CA Server Address2	ALL	- <null-128>	NIC	Maximum 128 letters	12
8808	Network	SCEP CA Server Address3	ALL	- <null-128>	NIC	Maximum 128 letters	12
8809	Network	SCEP Timeout1	ALL	30 <1-300>	NIC	Timeout period (second)	12
8810	Network	SCEP Timeout2	ALL	30 <1-300>	NIC	Timeout period (second)	12
8811	Network	SCEP Timeout3	ALL	30 <1-300>	NIC	Timeout period (second)	12
8812	Network	SCEP Common Name Address1	ALL	1 <1-2>	NIC	1: IP Address 2: FQDN	12
8813	Network	SCEP Common Name Address2	ALL	1 <1-2>	NIC	1: IP Address 2: FQDN	12
8814	Network	SCEP Common Name Address3	ALL	1 <1-2>	NIC	1: IP Address 2: FQDN	12
8815	Network	Installation method of IPsec certificate	ALL	2 <2-3>	NIC	2: Import (Default) 3: SCEP	12
8816	Network	Installation method of IEEE 802.1X certificate	ALL	2 <2-3>	NIC	2: Import (Default) 3: SCEP	12
8817	Network	Enabling / Disabling of WS Pull Scan when user authentication is enabled	ALL	2 <1-2>	NIC	1: Enable 2: Disable (Default)	12
8818	Network	Enabling / Disabling of WS Pull Scan when department management is enabled	ALL	2 <1-2>	NIC	1: Enable 2: Disable (Default)	12
8819	Network	Enabling / Disabling of 802.1X fallback	ALL	2 <1-2>	NIC	1: Enable 2: Disabled	12
8820	Network	IPsec NAT-Traversal setting	ALL	1 <1-3>	NIC	1: Default (IKEv1: Disabled, IKEv2: Enabled) 2: Enable IKEv1 & IKEv2 3: Disable IKEv1 & IKEv2	12
8821	Network	IPsec CRL setting	ALL	2 <1-2>	NIC	1: Enable CRL 2: Disable CRL	12
9051	User interface	Panel calibration setting value display	ALL	0 <0-1>	SYS	Switches whether the screen for displaying panel calibration setting values is displayed or not. 0: Disabled (screen not displayed) 1: Enabled (screen displayed)	1
9117	Network	Raw printing job (Blank page will not be printed)	PRT	0 <0-1>	SYS	0: OFF 1: ON	1

Setting mode (08)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
9185-0	User interface	Feeding paper media	Copier	ALL	1 <1-113>	SYS	Sets a media type for APS drawer searching in the copier functions. <Acceptable value (decimal number)> 1, 2, 3 Each bit 0: Excluded from feeding target media Each bit 1: Feeding target media bit 0:Plain paper bit 1:Recycled paper	4
9185-1	User interface		Printer/Box	ALL	1 <1-113>	SYS	Sets a media type to print on plain paper in the printer/box functions. This setting is used for drawer searching or media type inconsistency judgment. The setting result does not affect other media types, other than plain paper. <Acceptable value (decimal number)> 1 only Each bit 0: Excluded from feeding target media Each bit 1: Feeding target media bit 0:Plain paper bit 1:N/A (Always set "0")	4
9300	Paper feeding	1st drawer Paper information		ALL	0 <0-3>	SYS	0: Plain paper 1: Thick paper 1 2: Thick paper 2 3: Thick paper 3 8: Recycled paper Only "0", "1", "2", "3" and "8" are acceptable.	1
9301	Paper feeding	2nd drawer Paper information		ALL	0 <0-3>	SYS	0: Plain paper 1: Thick paper 1 2: Thick paper 2 3: Thick paper 3 8: Recycled paper Only "0", "1", "2", "3" and "8" are acceptable.	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
9302	Paper feeding	3rd drawer Paper information	ALL	0 <0-3>	SYS	0: Plain paper 1: Thick paper 1 2: Thick paper 2 3: Thick paper 3 8: Recycled paper Only "0", "1", "2", "3" and "8" are acceptable.	1
9303	Paper feeding	4th drawer Paper information	ALL	0 <0-3>	SYS	0: Plain paper 1: Thick paper 1 2: Thick paper 2 3: Thick paper 3 8: Recycled paper Only "0", "1", "2", "3" and "8" are acceptable.	1
9304	Paper feeding	Tandem LCF Paper information	ALL	0 <0-8>	SYS	0: Plain paper 8: Recycled paper Only "0" and "8" are acceptable.	1
9305	Paper feeding	Bypass tray Paper information	ALL	0 <0-3, 16, 17>	SYS	0: Plain paper 1: Thick paper 1 2: Thick paper 2 3: Thick paper 3 16: OHP film 17: Tab paper	1
9347	Paper feeding	Optional LCF Paper information	ALL	0 <0-3>	SYS	0: Plain paper 1: Thick paper 1 2: Thick paper 2 3: Thick paper 3	1
9359	User interface	Printing resume after jam releasing	ALL	0 <0-1>	SYS	0: Auto resume 1: Resume by users	1
9379	User interface	AES data encryption function setting (Except for CND)	ALL	0 <0-2>	SYS	0: Encryption invalid 1: Encryption valid (Security priority) Encrypts all of the user's data. 2: Encryption valid (Performance priority) Encrypts the user's data except the files temporarily created and deleted in the image processing such as copying or printing.	1
9394	Network	Single-page option for storing File and sending Email	ALL	0 <0-1>	SYS	0: Sets 1 page as 1 file 1: Makes a file based on the original	1
9629	Network	Attribute name for LDAP Role Based Access	ALL	eBMUser R <->	SYS		11
9739	Maintenance	Remote service Toner-end notification	ALL	0 <0-2>	SYS	0: RDMS toner empty notified immediately 1: RDMS toner empty notified once a day 2: RDMS toner empty not notified	1

Setting mode (08)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
9746	Network	802.1X/Dynamic WEP selecting button display		ALL	0 <0-1>	SYS	Switches whether a selecting button for Security mode 802.1X/Dynamic WEP is displayed or not. 1: Not displayed 2: Displayed	1
9747	Network	PMK Cache setting		ALL	1 <1-2>	NIC	Sets whether PMK Cache is enabled or disabled when WPA2 is selected. Set "1" (Enable) when the PMK Cache function need to be ON. 1: Disable (Default) 2: Enable	12
9749	Network	WIA Scan Driver		SCN	1 <1-2>	NIC	Selects WIA Scan Driver. 1: TTEC 2: Microsoft	12
9798	Network	Temporary communication password setting		ALL	99999	SYS	Sets a temporary communication password. The password can be entered in alphanumeric characters (A to Z, a to z, 0 to 9) up to 10 digits. The entered password is displayed with "*" on the touch panel and the self-diagnostic lists. (Maximum 10 digits, minimum 5 digits)	11
9799	General	Local authentication mode switchover		ALL	0 <0-1>	SYS	Sets the authentication mode when "0: (Internal authentication)" is selected in the code 08-1471. 0: Card ID differs from the User ID 1: Card ID is the same as the User ID	1
9804	Image processing	Forcible mode change in toner empty status		ALL	1 <0-2>	SYS	0: READY 1: AUTO POWER SAVE 2: READY	1
9805	Laser	Polygonal motor standby rotation Shift waiting time at job end		ALL	3 <0-2>	SYS	0: 0 sec. (current setting) (Polygonal motor ready rotation at job end) 1 to 9: Setting value x 5 sec.	1
9811-0	Finisher	Stapling setting Maximum number of sheets acceptable exceeding upper limit / Long size	Plain	ALL	0 <-50-50>	SYS	-50 to 50	4
9811-1			Thick1	ALL	0 <-50-50>	SYS		4
9811-2			Thick2	ALL	0 <-50-50>	SYS		4
9811-3			Thick3	ALL	0 <-50-50>	SYS		4

Setting mode (08)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
9814	General	Number of output pages for pausing continuous printing for 2nd transfer resistance detection control (at normal temperature)	At normal temperature	ALL	4 <0-100>	SYS	When the setting value of this code is "1" or higher, the 2nd transfer resistance detection is performed every time the number of pages of (setting value X 100) have output.	1
9815	General	Number of output pages for pausing continuous printing for 2nd transfer resistance detection control (at low temperature)	At low temperature	ALL	10 <0-100>	SYS	When the setting value of this code is "1" or higher, the 2nd transfer resistance detection is performed every time the number of pages of (setting value X 10) have output.	1
9819	General	STAGE SSL		ALL	1 <0-1>	SYS	When remote scanning is performed, the SSL communication is carried out. 0: Disabled 1: Enabled (SSL communication)	1
9822	General	STAGE SSL port number		ALL	20443 <0-65535>	SYS	When remote scanning is performed using SSL communication, the SSL port number is set.	1
9825	Image	Image quality of the black part in the ACS mode		ALL	0 <0-1>	SYS	0: Black 1: Gray scale	1
9826	General	Disable Media File Save		ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
9828	General	Remote scanning mode		ALL	1 <0-1>	SYS	0: Batch 1: Sequential	1
9829	General	Department management limitation setting		ALL	0 <0-1>	SYS	Decide the default limitation setting when the new department code is created. 0: No limit 1: Limited	1
9847	Finisher	Hole punching setting		ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
9880	Maintenance	Total counter transmission date setting(2)		ALL	0 <0-31>	SYS	0 to 31	1
9881	General	Day of total counter data transmission		ALL	0 <0-127>	-	1 byte 00000000(0)-01111111(127) From the 2nd bit - Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday	1
9882	General	Display mode of the used capacity on the e-Filing administrator page		ALL	1 <0-1>	SYS	0: All files search mode 1: Performance priority mode	1
9883	General	Hardcopy security printing		ALL	0 <0-1>	SYS	0: Disable 1: Enable	1

Setting mode (08)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
9884	Counter	Hardcopy security printing/ Counting method switchover		ALL	0 <0-1>	SYS	0: Counted as 1 1: Counted as 2	1
9886	Scanner	Decimal point indication for Enhanced Scan Template		SCN	EUR: 0 UC: 1 JPC: 1 <0-1>	SYS	0: Comma 1: Period	1
9888	Scanner	Permission setting for changing the scan parameter when recalling an extension		SCN	0 <0-1>	SYS	0: Prohibited 1: Accepted	1
9889	General	Acceptance of data cloning using USB storage device		ALL	1 <0-1>	SYS	Acceptance of the usage of the USB data cloning tool 0: Accepted 1: Not accepted	2
9891	User interface	Warning message on the touch panel when PM (Periodic Maintenance) time has come		ALL	1 <0-1>	SYS	0: No warning notification 1: Warning notification	1
9897	Image	Default value setting of background peak adjustment (Black)		ALL	5 <1-9>	SYS	1: -4 2: -3 3: -2 4: -1 5: 0 6: +1 7: +2 8: +3 9: +4	1
9899	Image	Default value setting of density in the scan mode (Gray)		ALL	6 <1-11>	SYS	1: -5 2: -4 3: -3 4: -2 5: -1 6: 0 7: +1 8: +2 9: +3 10: +4 11: +5	1
9929	Version	Processor version display		ALL	-	SYS	Displays the version of the processor.	2
9937-0	Finisher	Stapling setting Acceptable number of sheets exceeding upper limit / Short size	Plain	ALL	0 <-100- 100>	SYS	-100 to 100	4
9937-1			Thick1	ALL	0 <-100- 100>	SYS		4
9937-2			Thick2	ALL	0 <-100- 100>	SYS		4
9937-3			Thick3	ALL	0 <-100- 100>	SYS		4

Setting mode (08)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
9938-0	Finisher	Stapling Acceptable number of sheets exceeding upper limit / Saddle stitch	Plain	ALL	0 <-15-15>	SYS	-15 to 15	4
9938-1			Thick1	ALL	0 <-15-15>	SYS		4
9938-2			Thick2	ALL	0 <-15-15>	SYS		4
9938-3			Thick3	ALL	0 <-15-15>	SYS		4
9945	Version	Finisher Converter ROM version		ALL	-	-	CNV-XXX	2
9946	General	E-mail transmission retry number		ALL	3 <0-14>	SYS	The number of times of E-mail communication retry for Scan to E-mail and Internet Fax is set.	1
9947	General	E-mail transmission retry interval		ALL	1 <0-15>	SYS	When E-mail transmission retry for Scan to E-mail and Internet Fax is performed, the interval is set. 0 min - 15 min	1
9954	General	Control box counter / job list printing operation (Individual customer)		ALL	0 <0-1>	SYS	0: Invalid 1: Valid	1
9955	User interface	Name of [EXTENSION] button		ALL	EXTENSION	SYS	Sets the name of [EXTENSION] on the touch panel. "EXTENSION" is displayed if no setting is performed. Maximum 16 letters (16 bytes)	11
9957	Network	E-mail address specifying method		ALL	0 <0-1>	SYS	Selects the E-mail address specifying method on the Email submenu of the Setup menu in TopAccess. 0: To/Cc 1: To/Bcc	1
9958	Network	Bcc address display ON/ OFF setting (Job Log / Job Status)		ALL	0 <0-1>	SYS	Sets whether the Bcc address is displayed or not on the Job Log or Job Status when "1: To/ Bcc" is selected in the code 08-9957. 0: OFF (Bcc address not displayed) 1: ON (Bcc address displayed)	1
9959	Network	Bcc address display ON/ OFF setting (Job Notification)		ALL	1 <0-1>	SYS	Sets whether the Bcc address is displayed or not on all the Job Notifications except for the administrator when "1: To/Bcc" is selected in the code 08-9957. 0: OFF (Bcc address not displayed) 1: ON (Bcc address displayed)	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
9980	Network	Receiver's address fixing function at authentication	ALL	0 <0-1>	SYS	Fixes the receiver's address ("To: Destination" field) when the user authentication and E-mail authentication are enabled. 0: Disabled 1: Enabled	1
9981	Network	Sending Email text	ALL	0 <0-1>	SYS	0: Disabled 1: Enabled	1

<<Pixel counter related code>> (Ch.2.2.6)

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1500	Pixel counter	Standard paper size setting	ALL	EUR: 0 UC: 1 JPC: 0 <0-1>	SYS	Selects the standard paper size to convert it into the pixel count (%). 0: A4 1: LT	1
1501	Pixel counter	Pixel counter all clearing	ALL	-	SYS	Clears all information related to the pixel counter.	3
1502	Pixel counter	Service technician reference counter clearing	ALL	-	SYS	Clears all information related to the service technician reference pixel counter.	3
1503	Pixel counter	Toner cartridge reference counter clearing	ALL	-	SYS	Clears all information related to the toner cartridge reference pixel counter.	3
1504	Pixel counter	Pixel counter display setting	ALL	1 <0-1>	SYS	Selects whether or not to display the pixel counter on the LCD screen. 0: Displayed 1: Not displayed	1
1505	Pixel counter	Displayed reference setting	ALL	0 <0-1>	SYS	Selects the reference when displaying the pixel counter on the LCD screen. 0: Service technician reference 1: Toner cartridge reference	1
1506	Pixel counter	Toner empty determination counter setting	ALL	0 <0-1>	SYS	Selects the counter to determine toner empty. 0: Output pages 1: Pixel counter	1
1507	Pixel counter	Threshold setting for toner empty determination (Output pages)	ALL	500 <0-999>	SYS	Sets the number of output pages to determine toner empty. This setting is valid when "0" is set at 08-1506.	1

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1508	Pixel counter	Threshold setting for toner empty determination (Pixel count)	ALL	21500 <0-60000>	SYS	Sets the pixel count to determine the toner empty status. This setting is valid when "1" is set at 08-1506.	1
1509	Pixel counter	Pixel counter clear flag/Service technician reference	ALL	0 <0-1>	SYS	Becomes "1" when 08-1502 is performed.	2
1510	Pixel counter	Service technician reference cleared date	ALL	-	SYS	Displays the date on which 08-1502 was performed.	2
1514	Pixel counter	Toner cartridge reference cleared date	ALL	-	SYS	Displays the date on which 08-1503 was performed.	2
1518	Pixel counter	Toner cartridge reference count started date	ALL	-	SYS	Displays the date on which 08-1503 was performed.	2
1548	Pixel counter	Number of output pages (Service technician reference)	PPC	<8 digits>	SYS	Counts the number of output pages converted to the standard paper size in the copy function and service technician reference. [Unit. page]	2
1550	Pixel counter	Number of output pages (Service technician reference)	PRT	<8 digits>	SYS	Counts the number of output pages converted to the standard paper size in the printer function and service technician reference. [Unit. page]	2
1551	Pixel counter	Number of output pages (Service technician reference)	FAX	<8 digits>	SYS	Counts the number of output pages converted to the standard paper size in the FAX function and service technician reference. [Unit. page]	2
1553	Pixel counter	Number of output pages (Toner cartridge reference)	PPC	<8 digits>	SYS	Counts the number of output pages converted to the standard paper size in the copy function and toner cartridge reference. [Unit. page]	2
1555	Pixel counter	Number of output pages (Toner cartridge reference)	PRT	<8 digits>	SYS	Counts the number of output pages converted to the standard paper size in the printer function and toner cartridge reference. [Unit. page]	2
1556	Pixel counter	Number of output pages (Toner cartridge reference)	FAX	<8 digits>	SYS	Counts the number of output pages converted to the standard paper size in the FAX function and toner cartridge reference. [Unit. page]	2

Setting mode (08)							
Code	Classification	Items	Function	Default <Acceptable value>	RAM	Contents	Procedure
1566	Pixel counter	Toner cartridge replacement counter	ALL	<3 digits>	SYS	Counts the number of time of the toner cartridge replacement.	2
1592	Pixel counter	Average pixel count (Service technician reference)	PPC	0 <0-10000>	SYS	Displays the average pixel count in the copy function and service technician reference. [Unit: 0.01%]	2
1593	Pixel counter	Average pixel count (Service technician reference)	PRT	0 <0-10000>	SYS	Displays the average pixel count in the printer function and service technician reference. [Unit: 0.01%]	2
1594	Pixel counter	Average pixel count (Service technician reference)	FAX	0 <0-10000>	SYS	Displays the average pixel count in the FAX function and service technician reference. [Unit: 0.01%]	2
1595	Pixel counter	Average pixel count (Service technician reference)	PPC/ PRT/ FAX	0 <0-10000>	SYS	Displays the average pixel count in the copy/printer/FAX function and service technician reference. [Unit: 0.01%]	2
1606	Pixel counter	Latest pixel count (Service technician reference)	PPC	0 <0-10000>	SYS	Displays the latest pixel count in the copy function and service technician reference. [Unit: 0.01%]	2
1607	Pixel counter	Latest pixel count (Service technician reference)	PRT	0 <0-10000>	SYS	Displays the latest pixel count in the printer function and service technician reference. [Unit: 0.01%]	2
1608	Pixel counter	Latest pixel count (Service technician reference)	FAX	0 <0-10000>	SYS	Displays the latest pixel count in the FAX function and service technician reference. [Unit: 0.01%]	2
1613	Pixel counter	Average pixel count (Toner cartridge reference)	PPC	0 <0-10000>	SYS	Displays the average pixel count in the copy function and toner cartridge reference. [Unit: 0.01%]	2
1619	Pixel counter	Average pixel count (Toner cartridge reference)	PRT	0 <0-10000>	SYS	Displays the average pixel count in the printer function, and toner cartridge reference. [Unit: 0.01%]	2
1624	Pixel counter	Average pixel count (Toner cartridge reference)	PPC/ PRT/ FAX	0 <0-10000>	SYS	Displays the average pixel count in the copy/printer/FAX function and toner cartridge reference. [Unit: 0.01%]	2
1625	Pixel counter	Average pixel count (Toner cartridge reference)	FAX	0 <0-10000>	SYS	Displays the average pixel count in the FAX function and toner cartridge reference. [Unit: 0.01%]	2

Setting mode (08)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
1629	Pixel counter	Average pixel count (Toner cartridge reference)		PPC	0 <0-10000>	SYS	Displays the latest pixel count in the copy function and toner cartridge reference. [Unit: 0.01%]	2
1633	Pixel counter	Average pixel count (Toner cartridge reference)		PRT	0 <0-10000>	SYS	Displays the latest pixel count in the printer function and toner cartridge reference. [Unit: 0.01%]	2
1634	Pixel counter	Latest pixel count (Toner cartridge reference)		FAX	0 <0-10000>	SYS	Displays the latest pixel count in the FAX function and toner cartridge reference. [Unit: 0.01%]	2
1639	Pixel counter	Latest pixel count (Toner cartridge reference)		PPC	0 <0-10000>	SYS	Displays the latest pixel count in the copy function and toner cartridge reference. [Unit: 0.01%]	2
1640	Pixel counter	Latest pixel count (Toner cartridge reference)		PRT	0 <0-10000>	SYS	Displays the latest pixel count in the printer function and toner cartridge reference. [Unit: 0.01%]	2
1649-0	Pixel counter	Pixel count distribution	0-5%	PPC	<8 digits>	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the copy function are displayed. [Unit: page]	14
1649-1			5.1-10%	PPC	<8 digits>	SYS		14
1649-2			10.1-15%	PPC	<8 digits>	SYS		14
1649-3			15.1-20%	PPC	<8 digits>	SYS		14
1649-4			20.1-25%	PPC	<8 digits>	SYS		14
1649-5			25.1-30%	PPC	<8 digits>	SYS		14
1649-6			30.1-40%	PPC	<8 digits>	SYS		14
1649-7			40.1-60%	PPC	<8 digits>	SYS		14
1649-8			60.1-80%	PPC	<8 digits>	SYS		14
1649-9			80.1-100%	PPC	<8 digits>	SYS		14
1650-0	Pixel counter	Pixel count distribution	0-5%	PRT	<8 digits>	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the printer function are displayed. [Unit: page]	14
1650-1			5.1-10%	PRT	<8 digits>	SYS		14
1650-2			10.1-15%	PRT	<8 digits>	SYS		14
1650-3			15.1-20%	PRT	<8 digits>	SYS		14
1650-4			20.1-25%	PRT	<8 digits>	SYS		14
1650-5			25.1-30%	PRT	<8 digits>	SYS		14
1650-6			30.1-40%	PRT	<8 digits>	SYS		14
1650-7			40.1-60%	PRT	<8 digits>	SYS		14
1650-8			60.1-80%	PRT	<8 digits>	SYS		14
1650-9			80.1-100%	PRT	<8 digits>	SYS		14

Setting mode (08)								
Code	Classification	Items		Function	Default <Acceptable value>	RAM	Contents	Procedure
1651-0	Pixel counter	Pixel count distribution	0-5%	FAX	<8 digits>	SYS	The pixel count data are divided into 10 ranges. The number of output pages in each range is displayed. In this code, the distributions in the FAX function are displayed. [Unit: page]	14
1651-1			5.1-10%	FAX	<8 digits>	SYS		14
1651-2			10.1-15%	FAX	<8 digits>	SYS		14
1651-3			15.1-20%	FAX	<8 digits>	SYS		14
1651-4			20.1-25%	FAX	<8 digits>	SYS		14
1651-5			25.1-30%	FAX	<8 digits>	SYS		14
1651-6			30.1-40%	FAX	<8 digits>	SYS		14
1651-7			40.1-60%	FAX	<8 digits>	SYS		14
1651-8			60.1-80%	FAX	<8 digits>	SYS		14
1651-9			80.1-100%	FAX	<8 digits>	SYS		14

<<PM support mode related code>>

- The management items at PM support mode can also be operated at setting mode (08). The following items are displayed or set by using sub-codes at PM management setting in the table below.

<Sub-codes>

- 0: Present number of output pages
 - Means the present number of output pages.
- 1: Recommended number of output pages for replacement
 - Means the recommended number of output pages for replacement.
- 2: Number of output pages at the last replacement
 - Means the number of output pages at the last replacement.
- 3: Present driving counts
 - Means the present drive counts (1 count = 2 seconds).
- 4: Recommended driving counts to be replaced
 - Means the recommended drive counts for replacement (1 count = 2 seconds).
- 5: Driving counts at the last replacement
 - Means the drive counts at the last replacement.
- 6: Present output pages for control
 - Means the present number of output pages for controlling.
- 7: Present driving counts for control
 - Means the present drive counts for controlling (1 count = 2 seconds).
 - * For the cleaning web, this means the total feeding amount for controlling the cleaning web. (1 count = 1 mm).
- 8: Number of times replaced
 - Counts up when clearing the counter of each unit in the PM Support Mode Screen.

Notes:

- Barring the exceptions, sub-code 3 is equivalent to sub-code 7.
- Barring the exceptions, when the value of sub-code 3 is changed, the value of sub-code 7 is also updated and vice versa.
- When "0" is set at one of sub-codes 0, 3, 6 and 7, the rest of them are automatically updated to "0".
(Exceptions: 08-1228, 08-1252)

Items	PM management setting <Procedure 4> *Indicated in 8 digits	Date of previous replacement <Procedure 2>	Remarks
Photoconductive drum	1150-0 to 8	1151	<Default value of code 1150 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0/0 Sub-code 1: 460,000/515,000/ 540,000/600,000 Sub-code 4: 495,000/495,000/ 410,000/410,000
Drum cleaning blade	1158-0 to 8	1159	<Default value of code 1158 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0/0 Sub-code 1: 460,000/ 500,000/515,000/ 540,000/600,000 Sub-code 4: 495,000/495,000/ 410,000/410,000
Drum cleaning brush	1166-0 to 8	1167	<Default value of code 1166 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0/0 Sub-code 1: 460,000/515,000/ 540,000/600,000 Sub-code 4: 495,000/495,000/ 410,000/410,000
Drum separation finger	1172-0 to 8	1173	<Default value of code 1172 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0/0 Sub-code 1: 460,000/515,000/ 540,000/600,000 Sub-code 4: 495,000/495,000/ 410,000/410,000
Main charger grid	1174-0 to 8	1175	<Default value of code 1174 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0/0 Sub-code 1: 460,000/515,000/ 540,000/600,000 Sub-code 4: 495,000/495,000/ 410,000/410,000
Main charger wire	1182-0 to 8	1183	<Default value of code 1182 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0/0 Sub-code 1: 460,000/515,000/ 540,000/600,000 Sub-code 4: 495,000/495,000/ 410,000/410,000
Main charger wire cleaning pad	1190-0 to 8	1191	<Default value of code 1190 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0/0 Sub-code 1: 460,000/515,000/ 540,000/600,000 Sub-code 4: 495,000/495,000/ 410,000/410,000
Ozone filter	1198-0 to 8	1199	<Default value of code 1198 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0/0 Sub-code 1: 460,000/515,000/ 540,000/600,000 Sub-code 4: 495,000/495,000/ 410,000/410,000

Items	PM management setting <Procedure 4> *Indicated in 8 digits	Date of previous replacement <Procedure 2>	Remarks
Developer material	1200-0 to 8	1201	<Default value of code 1200 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0/0 Sub-code 1: 460,000/515,000/540,000/600,000 Sub-code 4: 400,000/400,000/330,000/330,000
Toner filter	1208-0 to 8	1209	<Default value of code 1208 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0/0 Sub-code 1: 460,000/515,000/540,000/600,000 Sub-code 4: 400,000/400,000/330,000/330,000
Used toner bag	1212-0 to 5, 8	1213	<Default value of code 1212 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 3, 5, 8: 0/0/0/0 Sub-code 1: 920,000/1,030,000/1,080,000/1,200,000 Sub-code 4: 990,000/990,000/820,000/820,000
Transfer belt	1228-0 to 8	1229	<Default value of code 1228 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0/0 Sub-code 1: 460,000/515,000/540,000/600,000 Sub-code 4: 495,000/495,000/410,000/410,000
Transfer belt cleaning blade	1232-0 to 8	1233	<Default value of code 1232 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0/0 Sub-code 1: 460,000/515,000/540,000/600,000 Sub-code 4: 495,000/495,000/410,000/410,000
Transfer belt cleaning brush	1234-0 to 8	1235	<Default value of code 1234 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0/0 Sub-code 1: 460,000/515,000/540,000/600,000 Sub-code 4: 495,000/495,000/410,000/410,000
Fuser roller	1246-0 to 8	1247	<Default value of code 1246 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0/0 Sub-code 1: 460,000/515,000/540,000/600,000 Sub-code 4: 470,000/470,000/390,000/390,000
Pressure roller	1250-0 to 8	1251	<Default value of code 1250 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0/0 Sub-code 1: 460,000/515,000/540,000/600,000 Sub-code 4: 470,000/470,000/390,000/390,000

Items	PM management setting <Procedure 4> *Indicated in 8 digits	Date of previous replacement <Procedure 2>	Remarks
Cleaning web	1252-0 to 8	1253	<Default value of code 1252 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0/0 Sub-code 1: 460,000/515,000/540,000/600,000 Sub-code 4: 470,000/470,000/390,000/390,000
Cleaning web roller	1254-0 to 8	1255	<Default value of code 1254 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 3, 5, 6, 8: 0/0/0/0 Sub-code 1: 460,000/515,000/540,000/600,000 Sub-code 4: 470,000/470,000/390,000/390,000 Sub-code 7: 1/1/1/1
Fuser roller separation finger	1268-0 to 8	1269	<Default value of code 1268 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0/0 Sub-code 1: 460,000/515,000/540,000/600,000 Sub-code 4: 470,000/470,000/390,000/390,000
Pickup roller (RADF)	1282-0,1,2,8	1283	<Default value of code 1282 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 8: 0/0/0/0 Sub-code 1: 120,000/120,000/120,000/120,000
Feed roller (RADF)	1284-0,1,2,8	1285	<Default value of code 1284 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 8: 0/0/0/0 Sub-code 1: 120,000/120,000/120,000/120,000
Separation roller (RADF)	1286-0,1,2,8	1287	<Default value of code 1286 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 8: 0/0/0/0 Sub-code 1: 120,000/120,000/120,000/120,000
Pickup roller (Tandem LCF)	1288-0,1,2,8	1289	<Default value of code 1288 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 8: 0/0/0/0 Sub-code 1: 400,000/400,000/400,000/400,000
Pickup roller (1st drawer)	1290-0,1,2,8	1291	<Default value of code 1290 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 8: 0/0/0/0 Sub-code 1: 200,000/200,000/200,000/200,000
Pickup roller (2nd drawer)	1292-0,1,2,8	1293	<Default value of code 1292 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 8: 0/0/0/0 Sub-code 1: 200,000/200,000/200,000/200,000
Pickup roller (Option LCF)	1294-0,1,2,8	1295	<Default value of code 1294 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 8: 0/0/0/0 Sub-code 1: 500,000/500,000/500,000/500,000

Items	PM management setting <Procedure 4> *Indicated in 8 digits	Date of previous replacement <Procedure 2>	Remarks
Feed roller (Tandem LCF)	1296-0,1,2,8	1297	<Default value of code 1296 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 8: 0/0/0/0 Sub-code 1: 400,000/400,000/400,000/400,000
Feed roller (1st drawer)	1298-0,1,2,8	1299	<Default value of code 1298 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 8: 0/0/0/0 Sub-code 1: 200,000/200,000/200,000/200,000
Feed roller (2nd drawer)	1300-0,1,2,8	1301	<Default value of code 1300 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 8: 0/0/0/0 Sub-code 1: 200,000/200,000/200,000/200,000
Feed roller (Option LCF)	1302-0,1,2,8	1303	<Default value of code 1302 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 8: 0/0/0/0 Sub-code 1: 500,000/500,000/500,000/500,000
Separation roller (Tandem LCF)	1304-0,1,2,8	1305	<Default value of code 1304 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 8: 0/0/0/0 Sub-code 1: 400,000/400,000/400,000/400,000
Separation roller (1st drawer)	1306-0,1,2,8	1307	<Default value of code 1306 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 8: 0/0/0/0 Sub-code 1: 200,000/200,000/200,000/200,000
Separation roller (2nd drawer)	1308-0,1,2,8	1309	<Default value of code 1308 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 8: 0/0/0/0 Sub-code 1: 200,000/200,000/200,000/200,000
Separation roller (Option LCF)	1310-0,1,2,8	1311	<Default value of code 1310 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 8: 0/0/0/0 Sub-code 1: 500,000/500,000/500,000/500,000
Separation roller (3rd drawer)	1312-0,1,2,8	1313	<Default value of code 1312 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 8: 0/0/0/0 Sub-code 1: 200,000/200,000/200,000/200,000
Separation roller (4th drawer)	1314-0,1,2,8	1315	<Default value of code 1314 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 8: 0/0/0/0 Sub-code 1: 200,000/200,000/200,000/200,000
Separation roller (Bypass feed)	1316-0,1,2,8	1317	<Default value of code 1316 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 8: 0/0/0/0 Sub-code 1: 100,000/100,000/100,000/100,000
Feed roller (3rd drawer)	1320-0,1,2,8	1321	<Default value of code 1320 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 8: 0/0/0/0 Sub-code 1: 200,000/200,000/200,000/200,000

Items	PM management setting <Procedure 4> *Indicated in 8 digits	Date of previous replacement <Procedure 2>	Remarks
Feed roller (4th drawer)	1322-0,1,2,8	1323	<Default value of code 1322 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 8: 0/0/0/0 Sub-code 1: 200,000/200,000/200,000/200,000
Feed roller (Bypass feed)	1324-0,1,2,8	1325	<Default value of code 1324 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 8: 0/0/0/0 Sub-code 1: 100,000/100,000/100,000/100,000
Pickup roller (3rd drawer)	1328-0,1,2,8	1329	<Default value of code 1328 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 8: 0/0/0/0 Sub-code 1: 200,000/200,000/200,000/200,000
Pickup roller (4th drawer)	1330-0,1,2,8	1331	<Default value of code 1330 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 8: 0/0/0/0 Sub-code 1: 200,000/200,000/200,000/200,000
Pickup roller (Bypass feed)	1332-0,1,2,8	1333	<Default value of code 1332 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 8: 0/0/0/0 Sub-code 1: 100,000/100,000/100,000/100,000
Web roller one-way clutch	1338-0 to 8	1339	<Default value of code 1338 (e-STUDIO555/655/755/855)> Sub-codes 0, 2, 3, 5, 6, 7, 8: 0/0/0/0 Sub-code 1: 460,000/515,000/540,000/600,000 Sub-code 4: 470,000/470,000/390,000/390,000

2.2.6 Pixel counter

1. Outline

Pixel counter is a function that counts the number of dots emitted by the laser and converts it into the print ratio (%) per standard paper size. This "Print ratio (%) per standard paper size" is called Pixel count (%).

This function enables you to know how each user uses the equipment and to grasp the tendency of toner consumption (number of output pages per cartridge).

2. Factors affecting toner consumption

Standard number of output pages per cartridge shows the average number of output pages under the condition that the data of print ratio 6% is printed on the standard paper size (A4/LT) at a normal temperature and humidity.

However, users do not always print under the above condition. As for the type of original, copy/print mode and environment, each user has different tendency, and as a result, the number of output pages per cartridge becomes different depending on the user.

The major factors affecting toner consumption are as follows:

- Original/Data coverage
- Original/Data density
- Original/Print mode
- Density setting

Also there are other factors in addition to the above, such as environment, individual difference of equipment, difference in lot quality of materials, toner density and drum surface potential.

The general relations between the 4 factors mentioned in the previous page and toner consumption per output page in the Copier Function are as follows:

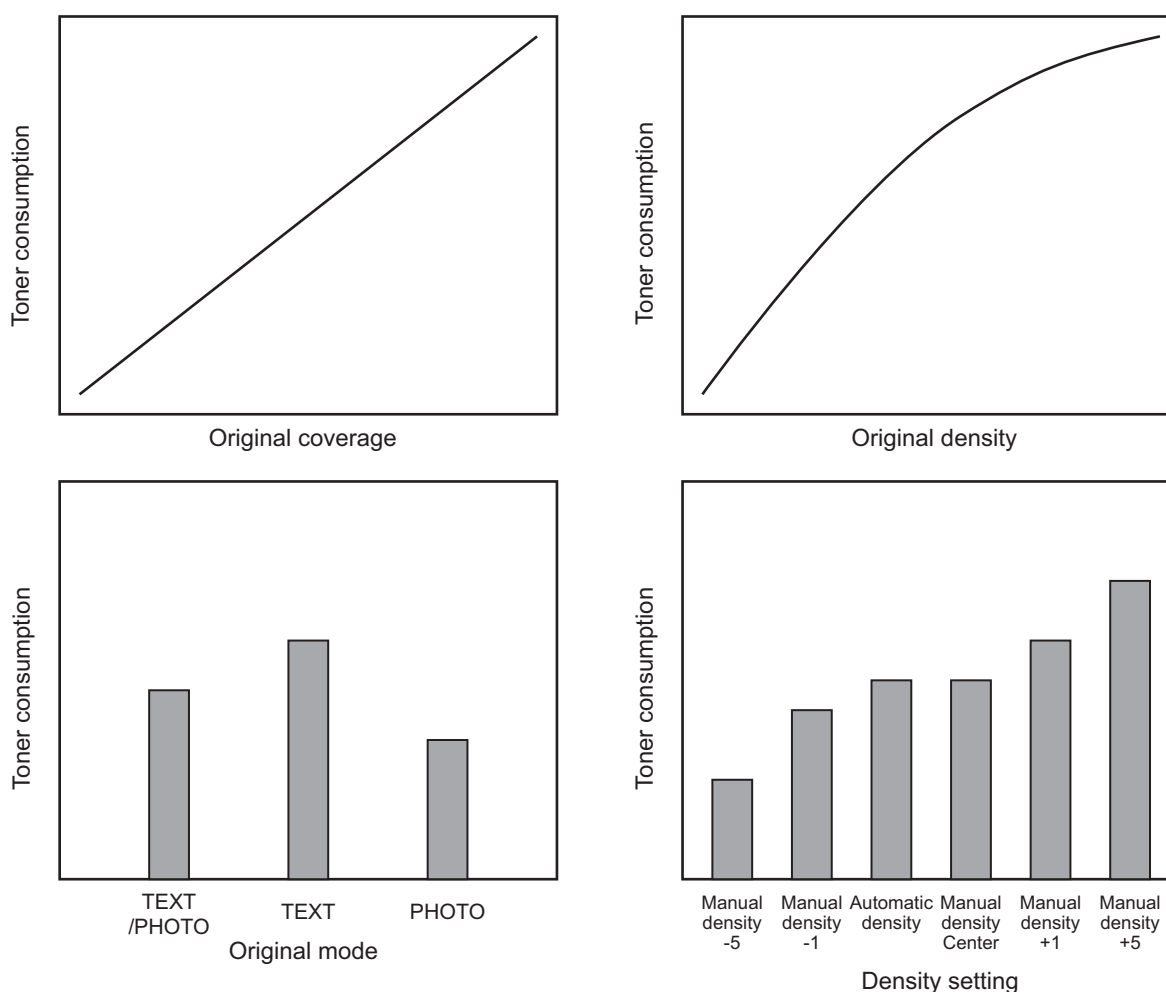


Fig. 2-3 Factors affecting toner consumption and the tendency

3. Details of pixel counter

- Toner cartridge reference and service technician reference

The pixel counter function in this equipment has 2 references, toner cartridge reference and service technician reference.

Toner cartridge reference

This is a system that accumulates data between the installation of a new toner cartridge and next installation.

The installation of new toner cartridge is judged when the total number of pixel count or output pages after the detection of toner cartridge empty has exceeded the threshold.

The threshold to be used is selectable in the setting mode (08-1506) between the pixel count and output pages (0: Output pages 1: Pixel counter). The threshold of pixel count is set in the setting mode (08-1508) and that of output pages is set in the setting mode (08-1507). When the new toner cartridge is judged as installed, the data related with the previous cartridge is cleared and replaced with the data after the installation of new cartridge. Clearing of the counter of the toner cartridge reference is performed in the setting mode (08-1503).

Service technician reference

This is a system that accumulates data between clearing the counter of the service technician reference by service technician and subsequently clearing the same counter.

Clearing of the counter of the service technician reference is performed in the setting mode (08-1502).

- Print count (number of output pages)

The number of output pages shown at the pixel counter is counted after converting all paper sizes to the standard paper size (A4/LT). Printing on other than the standard size is converted by paper area ratio. The standard paper size is set in the setting mode (08-1500).

The examples of conversion are as follows:

Ex.)

"1" is added to the print count when printing on A4/LT size.

"2" is added to the print count when printing on A3/LD size. (area ratio to A4/LT: 200%)

"1.49" is added to the print count when printing on B4 size. (area ratio to A4: 149%)

"1.27" is added to the print count when printing on LG size. (area ratio to LT: 127%)

- Pixel count (%)

Pixel count (%) shows the ratio of laser emitting pixels to all pixels on standard paper.

The examples of pixel count are as follows:

Note:

In the following examples, 'solid copy' is considered to be 100%. But since the image has 4 margins, it never becomes 100% actually.

Ex.)

Printing 5 pages on A4/LT size with solid copy (Laser emits to all pixels.)

→ Pixel count: 100%, Print count: 5

Printing 5 pages on A4/LT size with blank copy (Laser never emits.)

→ Pixel count: 0%, Print count: 5

Printing 2 pages on A4/LT size with solid copy (Laser emits to all pixels.)

Printing 2 pages on A4/LT size with blank copy (Laser never emits.)

→ Pixel count: 50%, Print count: 4

Printing 3 pages on A4/LT size with 6% of laser emission

Printing 1 page on A4/LT size with 2% of laser emission

→ Pixel count: 5%, Print count: 4

Printing 2 pages on A3/LD size with solid copy (Laser emits to all pixels.)

→ Pixel count: 100%, Print count: 4

Printing 2 pages on A3/LD size with 6% of laser emission

→ Pixel count: 6%, Print count: 4

- Average pixel count (%) and latest pixel count (%)

There are 2 types of the value calculated as the pixel count, average pixel count (%) and latest pixel count (%).

Average pixel count (%)

The average value of all pixel count data after each reference data is cleared is calculated and displayed.

Latest pixel count (%)

The value is displayed for printing just before the pixel counter is confirmed.

- Type of calculated data

Since this is multifunctional, the data of pixel count is calculated for each function.

The following list is the information that can be confirmed by LCD screen. But actually, more information can be confirmed by the setting mode (08).

See after-mentioned "5)-Display in the setting mode (08)" for details.

○: With data

—: Without data

	Toner cartridge reference	Service technician reference
Copier function	○	○
Printer function	○	○
FAX function	○	○
Total	○	○

Table 2-201 Type of calculated data

- Setting related with the pixel counter function

Standard paper size setting

The standard paper size (A4 or LT) to convert it into the pixel count is selected (08-1500).

Pixel counter display setting

Whether or not to display the pixel counter on the LCD screen is selected (08-1504).

Display reference setting

The reference when displaying the pixel counter on the LCD screen (toner cartridge reference or service technician reference) is selected (08-1505).

Determination counter of toner empty

This is the counter to determine the replacement of new toner cartridge after the toner empty is detected.

After the toner empty is detected by the auto-toner sensor, this counter checks if toner empty is not detected one more time while the specified number of pixel count or output pages is counted.

Pixel counter clearing

There are 3 types for the pixel count clear as follows:

08-1501: All information related to the pixel count is cleared.

08-1502: All information related to the service technician reference pixel count is cleared.

08-1503: All information related to the toner cartridge reference pixel count is cleared.

4. Relation between pixel count and toner consumption

The user's printing out the image with large coverage or high density may cause the large value of pixel count. And the setting that toner consumption becomes high in the original mode or density setting may cause it as well.

In this case, the replacement cycle of toner cartridge is faster than the standard number of output pages. Therefore, this trend needs to be grasped for the service.

The relation between pixel count and number of output pages per cartridge is as follows:

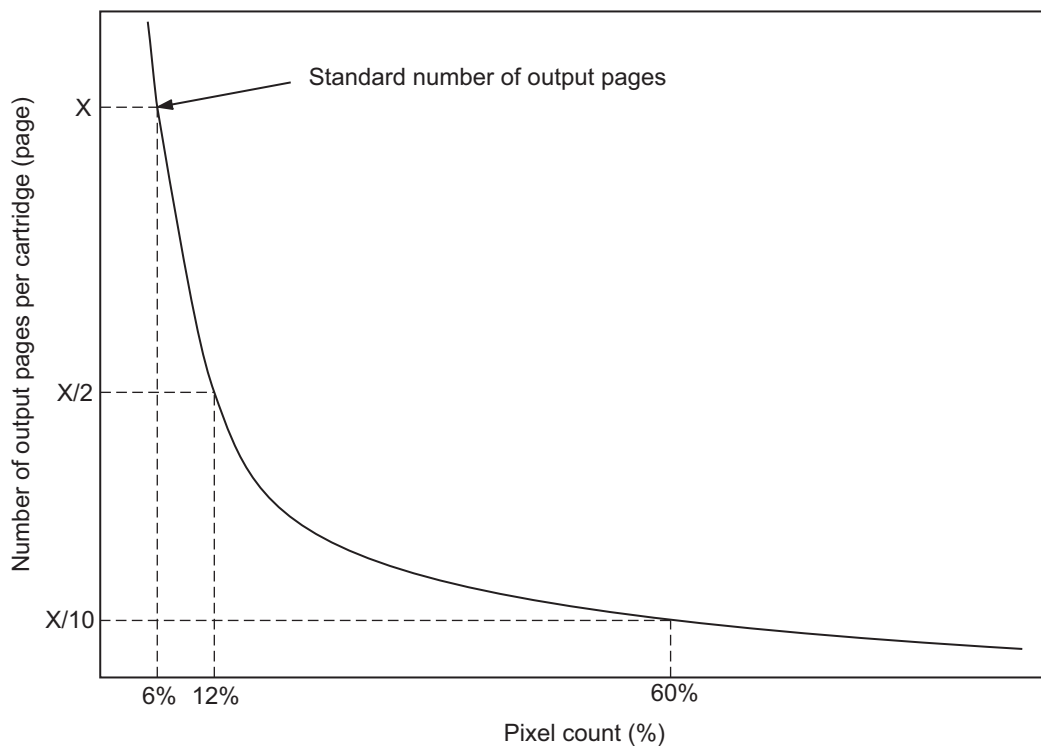


Fig. 2-4 Pixel count and number of output pages per cartridge

5. Pixel counter confirmation

- Display on LCD screen

Whether or not to display the pixel counter on the LCD screen is selected (0: Displayed, 1: Not displayed) in the setting mode (08-1504), and whether or not to display it at the service technician reference or toner cartridge reference is selected (0: Service technician reference, 1: Toner cartridge reference) in the setting mode (08-1505).

The following screen is displayed when the buttons, [COUNTER] and [PIXEL COUNTER] are pressed in this order after "Displayed" is selected with the code above and the power is, as usual, turned ON.

The following screen is displayed when the toner cartridge reference is selected in the setting mode (08-1505).

123 COUNTER ?				
TONER CARTRIDGE				
	Copy	Printer	Fax	Total
Print Count[LT/A4]	180	61	0	241
Average Pixel Count[%]	2.76	2.80	0.00	2.76
Latest Pixel Count[%]	3.08	1.10	0.00	1.10
<div>↑ RETURN</div>				
<div>2009/03/04 16:21 JOB STATUS ▶</div>				

Fig. 2-5 Information screen of toner cartridge reference

The following screen is displayed when the service technician reference is selected in the setting mode (08-1505).

123
COUNTER
?

SERVICE

	Copy	Printer	Fax	Total
Print Count [LT / A4]	180	61	0	241
Average Pixel Count [%]	2.76	2.80	0.00	2.76
Latest Pixel Count [%]	3.08	1.10	0.00	1.10

RETURN

2009/03/04
16:17
JOB STATUS

Fig. 2-6 Information screen of service technician reference

- Data list printing

The data for pixel counter can be printed in the list print mode (9S).

9S-104: The data of the toner cartridge reference is printed.


9S-105: The data of service technician reference is printed.

PIXEL COUNTER CODE LIST						
2004.7.11 09:55						
TONERCARTRIDGE						
No	DATE		PPC	PRN	FAX	TOTAL
0	20040711	Print Count [LT/A4]	12345	23456	12345	45678
1	20040711	Average Pixel Count [%]	12345	23456	12345	45678
2	20040711	Latest Pixel Count [%]	12345	23456	12345	45678

Fig. 2-7 Data list of toner cartridge reference

PIXEL COUNTER CODE LIST						
2004.7.11 09:55						
SERVICEMAN						
No	DATE		PPC	PRN	FAX	TOTAL
0	20040711	Print Count [LT/A4]	12345	23456	12345	45678
1	20040711	Average Pixel Count [%]	12345	23456	12345	45678
2	20040711	Latest Pixel Count [%]	12345	23456	12345	45678

Fig. 2-8 Data list of service technician reference

- Display in the setting mode (08)
Information of pixel count can be also checked in the setting mode (08).
For details, see  P.2-73 "2.2.5 Setting mode (08)".

Print count, pixel count

		Toner cartridge reference	Service technician reference
Copier function	Print count (page)	1553	1548
	Average pixel count (%)	1613	1592
	Latest pixel count (%)	1639	1606
Printer function	Print count (page)	1555	1550
	Average pixel count (%)	1619	1593
	Latest pixel count (%)	1640	1607
FAX function	Print count (page)	1556	1551
	Average pixel count (%)	1625	1594
	Latest pixel count (%)	1634	1608
Total	Average pixel count (%)	1624	1595

Table 2-202 Pixel count code table

Pixel count distribution

	Pixel count distribution (page)
Copier function	1649
Printer function	1650
FAX function	1651

Table 2-203 Pixel count code table

Note:

By entering the sub code at the above code, the pixel count distribution can be displayed dividing into 10 ranges. The sub codes are as follows.

0: 0 - 5% 1: 5.1 - 10% 2: 10.1 - 15% 3: 15.1 - 20% 4: 20.1 - 25%
5: 25.1 - 30% 6: 30.1 - 40% 7: 40.1 - 60% 8: 60.1 - 80% 9: 80.1 - 100%

Other information

Toner cartridge replacement counter

The toner cartridge replacement count is displayed. (08-1566)

Toner cartridge reference count started date

The toner cartridge reference count started date is displayed. (08-1518)

Service technician reference cleared date

The service technician reference cleared date is displayed.(08-1510)

The date (08-1502 was performed) is stored.

Toner cartridge reference cleared date

The toner cartridge reference cleared date is displayed.(08-1514)

The date (08-1503 was performed) is stored.

2.2.7 Classification List of Adjustment Mode (05) / Setting Mode (08)

Classification	Adjustment Mode (05)	Setting Mode (08)
User interface		[AMS] 605 [X in 1] 650 [Indicator] 671 [Edit copying] 645, 646 [Sound] 610, 969, 970 [Counter] 202 [Cascade] 652, 653 [Screen] 207, 602 [Administrator] 263 [Feeding setting] 658, 659 [Original counter] 302 [Original direction] 628 [Book duplexing] 611 [Language] 220, 221, 8560, 8561, 8562, 8563, 8564, 8565, 8566, 8570, 8571, 8572, 8573, 8575, 8576 [Copy volume] 300 [Default setting] 276, 280, 281, 283, 284, 285, 286, 331, 503, 603, 604, 607, 618, 642 [Security level] 1708 [Sorting] 627, 634, 641, 649 [Timer] 204, 205, 206 [Template] 1140, 3851 [Image shift] 636, 1429, 1430 [Tray reset] 648 [Blank copying prevention] 625 [Date] 640 [Annotation] 651, 657 [Display] 213, 342, 613, 1478 [Job Build] 1130, 1131 [File] 209, 219 [Department management] 617, 620, 621, 622, 623, 624, 629 [Box printing] 953, 954 [JOB STATUS] 983 [Keyboard layout] 1929, 1930, 1931, 1932, 1933, 1935, 8550, 8551, 8552, 8553, 8554, 8555, 8556 [Jam releasing] 9359 [EXTENSION button] 9955 [Feeding paper media] 9185-0 to 1 [Panel calibration] 9051
Scanner	[Position] 305, 306 [Carriage position] 359 [Shading position] 310, 311 [Distortion] 308 [Reproduction ratio] 340 [Void amount] 7489	[E-mail] 272, 273 [Enhanced template] 9886, 9888 [Pre-scan] 3015
FAX		[Function] 1498, 1926, 3847, 3848, 3849 [Destination] 701 [Default setting] 274, 275 [Priority drawer] 689 [Receiving confidential data] 3846

Classification	Adjustment Mode (05)	Setting Mode (08)
Image	[Binarization] 700, 701, 702 [Image density] 501, 503, 504, 505, 506, 507, 508, 509, 510, 512, 514, 515, 710, 714, 715, 719, 720, 724, 725, 729, 845, 846, 847, 848, 850, 851, 852, 853, 855, 856, 857, 858, 860, 861, 862, 863, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942 [Pixel size] 663 [Gamma balance] 596-0 to 2, 597-0 to 2, 598-0 to 2, 599-0 to 2 [Gamma adjustment] 593, 594, 595, 943, 944, 945 [Background processing] 600, 601, 602, 869, 870, 871, 872, 946, 947, 948 [Sharpness] 620, 621-0 to 1, 622, 865-0 to 2, 866-0 to 2, 867-0 to 2, 868-0 to 1, 922, 923, 924-0 to 1 [Smudged/Faint text] 653, 654, 655, 928 [Toner saving] 664, 665 [Margin] 430, 431, 432, 433, 434-0 to 1, 435, 436, 437, 438 [Range correction] 532, 533, 534, 570, 571, 572, 693, 694, 695, 825, 826, 827, 828, 830, 831, 832, 833, 835, 836, 837, 838, 913, 914, 915, 916, 917, 918, 919, 920, 921 [Background processing] 9104, 9107	[Custom Mode] 508, 509 [Error diffusion / Dither] 502 [Default setting] 550 [ACS] 9825
Image control	[Image quality control] 241, 242, 244, 247, 248, 249, 260, 261, 262, 263-0 to 1, 264-0 to 1, 265-0 to 1, 268, 269, 270, 290, 291, 292, 293, 294, 295, 296, 299	[Image quality control autostart] 1826, 1827, 1828, 1829, 1830, 1831 [Image quality open-loop control] 1811 [Image quality closed-loop control] 1809, 1810, 1814, 1815 [Contrast voltage] 1820, 1821, 1833 [Developer unit prerunning period] 1808 [Condition setting] 804 [Counter for accumulated number] 1371 [0 clearing] 800 [Transfer output correction] 1837 [Toner control] 1910 [Drum surface potential sensor] 1812, 1813, 1345 [Background potential offset correction] 1834 [Auto-start print volume setting] 803, 810 [Laser power offset correction] 1835 [Exposure amount (laser power)] 1824, 1825 [All clearing] 7000, 7001, 7300, 7400, 7500
Drive system	[Motor speed] 409, 412, 426, 427, 439, 446-0 to 1, 447-0 to 1, 451-0 to 1, 453-0 to 1, 454-0 to 1, 456-0 to 1, 475-0 to 3, 478-0 to 3, 479, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 493, 495, 4541-0 to 3	

Classification	Adjustment Mode (05)	Setting Mode (08)
Feeding system	[Paper pushing amount] 466-0 to 4 [Aligning amount] 448-0 to 4, 449-0 to 4, 450-0 to 4, 452-0 to 4, 455-0 to 4, 457, 458-0 to 4, 460-0 to 4, 461-0 to 4, 462-0 to 4, 463-0 to 4, 469-0 to 4, 470-0 to 4, 471-0 to 4, 472-0 to 4, 473-0 to 3, 474-0 to 4, 480, 4562-0 to 3, 4563-0 to 3, 4564-0 to 3, 4565-0 to 3, 4566-0 to 3, 4567-0 to 3, 4568-0 to 3, 4569-0 to 3, 4580-0 to 1, 4581-0 to 1, 4582-0 to 4, 4583-0 to 4, 4584-0 to 4, 4585-0 to 4, 4586-0 to 1, 4587-0 to 4, 4588-0 to 4, 4589-0 to 4, 4590-0 to 4, 4591-0 to 4, 4592-0 to 1, 4593-0 to 4, 4594-0 to 4, 4595-0 to 4, 4596-0 to 4, 4597-0 to 4, 4598-0 to 1, 4599-0 to 4, [Paper remained] 476-0 to 5, 477-0 to 5	[Reversing speed (Thick paper)]1901 [Insertor] 211 [Feeding] 254, 619 [Paper feeding timing] 1909 [Paper source] 480, 481, 1135, 1431, 4016-0 to 1 [Detection] 449, 1492, 4621 [Setting] 988 [Tab paper] 214, 215, 216, 217, 1437, 1438, 1439 [Paper size] 224, 225, 226, 227, 228, 243, 247, 248, 249, 256, 630 [Paper dimension] 210, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 244, 245, 246, 470, 471 [Paper retry] 463-0 to 1, 464-0 to 1, 465-0 to 1, 466-0 to 1, 467-0 to 1, 468-0 to 1, 482, 1390, 1391, 1392, 1393, 1394, 1395, 1396, 1397, 1398, 1399, 1400, 1401, 1402, 1900-0 to 1 [Paper information] 9300, 9301, 9302, 9304, 9305, 9347
Laser	[Write start] 408, 410, 411, 428, 429, 440, 441, 442, 443, 444, 445, 498-0 to 2 [Polygonal motor] 401, 405 [Sideways deviation] 497-0 to 6 [Laser power] 286-0 to 1	[Polygonal motor] 398, 399, 478, 483, 484, 485, 486, 489, 9805
Main charger	[Grid] 210, 251-0 to 1	[Cleaning] 418
Developer	[Auto-toner] 200, 201 [Developer bias] 205, 253-0 to 1	[Auto-toner] 414 [Toner near-empty status Message display] 8523, 9804
Transfer	[Transfer transformer] 221	[Transfer timing] 841 [Transformer DC] 830, 868, 869
Fuser		[Temperature] 406, 407, 408, 409, 410, 411, 412, 413, 437, 890, 891, 897, 898, 1804 [Cleaning web] 401, 402, 403, 404, 405 [High fusing mode] 433 [Threshold] 460 [Status counter] 400 [Printing speed] 858, 859, 860, 861 [Pre-running] 417, 439, 440, 441, 526, 844, 845, 846, 847, 848, 855 [Power supply at fusing error] 1906
Image processing		[Detection and control] 1415 [Drum pre-running period] 1836 [Toner supply amount correction] 455, 456, 457 [Counter] 1385, 1386, 1387, 1388
RADF	[Aligning amount] 354, 355 [Transporting] 357, 358, 365, 366 [Sensor/EEPROM] 352, 356	[Switchback] 462 [A4/LT automatic detection] 3017
Finisher	[Binding/Folding position] 468-0 to 2	[Stapling] 704-0 to 1, 9811-0 to 3, 9937-0 to 3, 9938-0 to 3 [Hole punching] 9847

Classification	Adjustment Mode (05)	Setting Mode (08)
Network		[AppleTalk] 1014, 1015, 1936, 3729, 3730 [BDC] 1122 [Bindery] 1026 [Community] 1065, 1066 [DDNS] 1020, 3737, 3745, 3746, 3747, 3748 [DHCP] 1755, 1756, 1757, 1759, 1760, 1762, 3772, 3773, 3774, 3778, 3779, 3780 [Directory] 1028, 1029 [DNS] 1017, 1018, 1019, 3736, 3781, 3782 [DPWS] 3749, 3750, 3751, 3752, 3753, 3754, 3755, 3757, 3758, 3759, 3760, 3765, 3766, 3785, 3796 [E-mail] 265, 1097, 1098, 1476, 1477, 1489, 1491, 3837, 9946, 9947 [File] 1779, 1782, 1783, 1784, 1785, 1786, 9394, 9957, 9958, 9959, 9980, 9981 [FTP] 1055, 1059, 1060, 1089, 1090, 1091, 1092, 3739 [HTTP] 1030, 1031, 1032, 3738 [IP Conflict] 1440 [IP Filter] 1720, 1721, 1722, 1723, 1724, 1725, 1726, 1727, 1728, 1729, 1730, 1731, 1732, 1733, 1734, 1735, 1736, 1737, 1738, 1739, 8804 [IP address] 1006, 1007, 1008, 1009, 1010, 1767, 1768 [IPP] 1078, 1079, 1080, 1081, 1082, 1083, 1084, 1085, 1086, 1087, 1088, 1447, 1448, 1449, 1450, 1451, 3725, 3726 [IPsec] 8802, 8815, 8820, 8821 [IPv6] 3767, 3768, 3770, 3775, 3776, 3777 [IPX] 1011, 1099 [LDAP] 1016, 1138, 1923,, 1927, 3727, 3728, 3743, 9629 [LLTD] 3793 [LLMNR] 3794 [LPD] 1075, 1076, 1077 [MAC address] 1141, 8805 [MIB] 1063 [NDS] 1027 [NetBios] 1023 [NIC] 1002 [Novell] 1093, 1094 [PCL setting] 973 [PDC] 1121 [PJL] 3797 [PMK] 9747 [POP3] 1046, 1047, 1048, 1049, 1050, 1051, 1052, 3742, 3744 [Raw/TCP] 1073, 1074, 3731, 3732 [RawPort] 945 [Raw printing] 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 978, 979, 9117 [Rendezvous] 1103, 1104, 1105 [Role Base Access] 1493, 1928 [Samba] 1464, 3783, 3833 [SCEP] 8806, 8807, 8808, 8809, 8810, 8811, 8812, 8813, 8814 [SearchRoot] 1095 [SLP] 1021 [SMB] 1117, 1950, 1951

Classification	Adjustment Mode (05)	Setting Mode (08)
Network		[SMTP] 1022, 1037, 1038, 1039, 1040, 1041, 1042, 1100, 1101, 1102, 1111, 3741 [SNMP] 8803 [SNTP] 1441, 1442, 1444, 1445, 1446, 3740, 3845 [Telnet] 3864, 3865, 3866, 3867, 3868 [SSL] 1740, 1741, 1742, 1743, 1744, 1745, 1746, 1747, 1748, 1749, 1750, 9819, 9822 [TRAP] 1069, 1070 [WIA Scan Driver] 9749 [WINS] 1024, 1025 [WS Pull Scan] 8817, 8818 [Offramp] 1043, 1044, 1045 [Function] 1432, 1435, 1436 [Automatic transferring] 660, 661 [Initialization] 1119 [Scan job] 1781-0 to 1, 1940, 3804, 3805, 3815, 3816, 3817, 3818 [Speed setting] 1003 [Direct SMTP] 3810, 3811 [Data retention period] 259, 260, 264 [Domain] 1113, 1123 [Authentication] 1484, 1485, 1487, 1920, 1921, 1922, 1925, 1937, 1952, 1953, 1954, 1955, 1956, 1957, 1958, 1959, 3722, 3723, 3724 [e-Filing Access Mode] 1497 [Print queue] 1096 [Prefix] 3771 [Frame type] 1012 [Host name] 1112 [Local I/F] 614 [Workgroup name] 1124 [Temporary communication password] 9798
Wireless LAN		[Supplicant] 1679, 1681, 1682, 1684, 1685, 1686, 1689, 1690, 1691, 1692, 1693, 1696, 1697, 1699, 1700, 1701, 1704, 1705, 1706, 1707, 1764, 1765, 1766 [Driver] 1661, 1662, 1663, 1664, 1665, 1666, 1667, 1668, 1669, 1670, 1671, 1672, 1673, 1674, 1675, 1676, 1677, 1678
Bluetooth		[Data encryption] 1715 [Setting] 1710, 1711, 1712, 1713, 1714 [BIP] 1719, 1941

Classification	Adjustment Mode (05)	Setting Mode (08)
Counter		[HDD] 390, 391, 392, 393 [Number of output pages] 1530-0 to 4, 1530-7, 1533-0 to 7, 1535-0, 1535-7, 6810-0 to 4, 6810-7, 6813-0 to 7, 6815-0, 6815-7, 6817 [External counter] 381, 1126 [Paper source] 355, 356, 357, 358, 359, 360, 370, 372, 374 [Paper size] 305-0 to 23, 306-0 to 23, 307-0 to 23, 308-0 to 23, 312-0 to 23, 313-0 to 23, 314-0 to 23, 315-0 to 23, 316-0 to 23 [Tab paper] 1412 [Double count] 344, 346, 347, 348, 349, 352, 353 [Counter for period of time fuser unit] 1378, 1380, 1382 [Heater and energizing time accumulating] 1372 [Toner cartridge rotation] 1376, 1410 [Toner transport motors] 1519 [Used toner full status] 476 [Large/Small size] 320-0 to 2, 321-0 to 2, 322-0 to 2, 323-0 to 2, 327-0 to 2, 328-0 to 2, 329-0 to 2, 330-0 to 2, 332-0 to 2, 335-0 to 2 [Print job] 4615-0 to 27 [Fuser error counter] 4616-0 to 5 [Fuser counter (waiting period)] 4620-0 to 3 [Counter for paper width checking in bypass feeding] 4622 [Pixel counter] 1500, 1501, 1502, 1503, 1504, 1505, 1506, 1507, 1508, 1509, 1510, 1514, 1518, 1548, 1550, 1551, 1553, 1555, 1556, 1566, 1592, 1593, 1594, 1595, 1606, 1607, 1608, 1613, 1619, 1624, 1625, 1629, 1634, 1639, 1640, 1649-0 to 9, 1650-0 to 9, 1651-0 to 9 [Job] 6852-0 to 2
Version		[HDD] 944 [ROM] 900, 903, 904, 905, 906, 907, 908, 909, 911, 915, 9945 [System] 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 933, 934, 935, 936, 937, 938, 939 [Processor] 9929

Classification	Adjustment Mode (05)	Setting Mode (08)
Maintenance	[Equipment number] 976	[FSMS]999 [HTTP] 726, 727, 728, 729, 730, 731 [PM counter] 251, 252, 375, 376, 5554, 5555, 5562, 5563, 5568, 5569, 5576, 5577, 5581, 5585 [PM support mode] 1150-0 to 8, 1151, 1158-0 to 8, 1159, 1166-0 to 8, 1167, 1172-0 to 8, 1173, 1174-0 to 8, 1175, 1182-0 to 8, 1183, 1190-0 to 8, 1191, 1198-0 to 8, 1199, 1200-0 to 8, 1201, 1208-0 to 8, 1209, 1212-0 to 5, 1212-8, 1213, 1228-0 to 8, 1229, 1232-0 to 8, 1233, 1234-0 to 8, 1235, 1246-0 to 8, 1247, 1250-0 to 8, 1251, 1252-0 to 8, 1253, 1254-0 to 8, 1255, 1268-0 to 8, 1269, 1282-0 to 2, 1282-8, 1283, 1284-0 to 2, 1284-8, 1285, 1286-0 to 2, 1286-8, 1287, 1288-0 to 2, 1288-8, 1289, 1290-0 to 2, 1290-8, 1291, 1292-0 to 2, 1292-8, 1293, 1294-0 to 2, 1294-8, 1295, 1296-0 to 2, 1296-8, 1297, 1298-0 to 2, 1298-8, 1299, 1300-0 to 2, 1300-8, 1301, 1302-0 to 2, 1302-8, 1303, 1304-0 to 2, 1304-8, 1305, 1306-0 to 2, 1306-8, 1307, 1308-0 to 2, 1308-8, 1309, 1310-0 to 2, 1310-8, 1311, 1312-0 to 2, 1312-8, 1313, 1314-0 to 2, 1314-8, 1315, 1316-0 to 2, 1316-8, 1317, 1320-0 to 2, 1320-8, 1321, 1322-0 to 2, 1322-8, 1323, 1324-0 to 2, 1324-8, 1325, 1328-0 to 2, 1328-8, 1329, 1330-0 to 2, 1330-8, 1331, 1332-0 to 2, 1332-8, 1333, 1338-0 to 2, 1338-8, 1339 [Error history] 253 [Equipment number] 995 [Emergency Mode] 710, 711 [Service notification] 702, 703, 707, 715, 716, 717, 718, 719, 720, 721, 723, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 794, 795, 796, 1145, 1495, 9739, 9880, 9881 [Supply order] 732, 733, 734, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 758, 759, 760, 761, 762, 763, 765 [Telephone] 250 [Panel calibration] 692 [PM timing display/Output pages] 223 [Remote update] 3630 [Adjustment history in production line] 9096
Electronic Filing		[Setting] 267, 270, 950, 976
Data overwrite kit		[HDD] 1422, 1424, 1426 [SRAM] 1428

Classification	Adjustment Mode (05)	Setting Mode (08)
General		[HDD] 271, 670, 690, 691, 694, 9379 [NIC] 693 [PCL] 1149 [TAT partition] 1118 [Address book] 1125 [Card authentication] 1776 [Card reader] 1772, 1773, 1774, 1775 [Administrator's password] 1778 [IH error data] 1907 [Summer time] 3852, 3853, 3854, 3855, 3856, 3857, 3858, 3859, 3860, 3861, 3862, 3863 [Destination] 201 [Trial period] 673, 695, 798, 799 [Setting] 949, 975, 986, 1470, 1471, 9799, 9814, 9815, 9826, 9829, 9848 [Software version upgrade] 947 [Taiwan's Green Mark Program] 1908 [Data cloning] 9889 [Databases] 684, 685, 686 [Electronic key] 3840, 3841, 3842, 3870 [Partition] 662, 666, 667 [Banner] 678, 679, 680 [Date/Time] 200, 638 [File] 288 [Department management] 672 [BANNER MESSAGE button] 681 [User data management] 1472, 1473, 1474, 1481, 1482, 1483, 1496 [Line] 203 [Duplex printing] 683 [File/Email] 1913, 1916 [Extension fields] 1914 [KS/KSSM setting] 1961 [KS] 1960, 1963, 1964, 1965, 1966, 1967, 1968, 1970, 1971, 1972, 1973, 1974, 1975, 1976, 1977, 1978, 1979, 1980 [KSSM] 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994 [Remote scanning] 3850, 9828 [Filing box] 9882 [Wide A4 Mode (for PCL)] 8511 [EWB] 3869 [SRAM board data check] 4586, 4587-0 to 15, 4588-0 to 15, 4589-0 to 15, 4590-0 to 15 [USB] 3615, 3802 [Date unpacked] 3612 [Counter/job list print] 9954 [Cartridge empty] 8506 [Outside erase] 8515, 8516 [Service history] 3619 [Hardcopy security printing] 9883 [Number of jobs in batch process] 8512 [Scan setting] 8517, 8518, 8519 [Panel] 8532 [Private print] 8537 [Print image position adjustment in secondary scanning direction] 8508, 8509, 8510 [No paper message] 8524 [Proof print function] 3635 [Direct print] 3803 [RBAC Setting] 3871 [Meta Scan] 8540 [Sleep] 8543, 8544

3. ADJUSTMENT

To start any of the self-diagnostic modes, turn the power OFF using the main power switch, and then back ON while pressing a digital key corresponding to the mode to be started.
When the power should be turned OFF, be sure to shut down the equipment by pressing the [ON/OFF] button for a few seconds.

3.1 Adjustment of Auto-Toner Sensor

When the developer material is replaced, adjust the auto-toner sensor in the following procedure.

Note:

Check if the cleaning blade is pressed against the drum before performing this adjustment.

<Procedure> (Adjustment Mode (05-200))

- (1) Install the into the equipment.
- (2) While pressing [0] and [5] simultaneously, turn the power ON.
The following message will be displayed.

[0][5] → [POWER]	100%	A	<u>A3</u>
	TEST MODE		

Fig. 3-1

- (3) Key in code [200] and press the [START] button.
The display changes as follows.

[200] → [START] →	ⓑ		
	230%	200	<u>A3</u>
	TEST MODE		
	128		128 Ⓐ
	ⓒ		

Fig. 3-2

Notes:

- A indicates the controlled value of the auto-toner sensor output.
- B indicates the output voltage of the auto-toner sensor (2.30 V in the above case).
The drum, developer unit, etc. are in operation.
- C indicates the latest adjustment value.

- (4) After about two minutes and 30 seconds, the value B automatically starts changing.

230%	200	<u>A3</u>
TEST MODE		WAIT
128		<u>128</u>

Fig. 3-3

- (5) After a short time, the value B becomes stable and the display changes as follows.

240%	200	<u>A3</u>
ADJUSTMENT MODE		
128		<u>150</u>

Fig. 3-4

- (6) Press the [ENTER] or [INTERRUPT] button. The drum, developer unit, etc. are stopped and the following is displayed.

The drum, developer unit, etc. are stopped and the following is displayed.

[ENTER] or [INTERRUPT]	100%	A	<u>A3</u>
	TEST MODE		

Fig. 3-5

- (7) Standard of adjustment value range

Humidity(%)	Adjustment reference voltages (V)
0 to 29.9	2.46
30.0 to 44.9	2.48
45.0 to 59.9	2.50
60.0 to 74.9	2.64
75.0 to 100	2.78

- (8) Key in code [290] and press the [START] button. When the message "WAIT" goes off, turn the power OFF by shutdown.

- (9) Install the toner cartridge.

3.2 Image Dimensional Adjustment

3.2.1 General description

There are several adjustment items in the image dimensional adjustment, as listed below. When adjusting these items, the following adjustment order should strictly be observed.

Item to be adjusted		Code in mode 05
1	Paper alignment at the registration roller	448, 449, 450, 452, 455, 457, 458, 460, 461, 462, 463, 469, 470, 471, 472, 473, 474, 480
2	Printer related adjustment	
	(a) Reproduction ratio of primary scanning direction (Fine adjustment of polygonal motor rotation speed)	401
	(b) Primary scanning data laser writing start position	411
	(c) Reproduction ratio of secondary scanning direction (Fine adjustment of transfer belt motor rotation speed)	488
	(d) Secondary scanning data laser writing start position	408, 428, 429, 440, 441, 442, 443, 444, 445
	(e) Primary scanning data laser writing start position at duplexing	498
3	Scanner related adjustment	
	(a) Image distortion	—
	(b) Reproduction ratio of primary scanning direction	405
	(c) Image location of primary scanning direction	306
	(d) Reproduction ratio of secondary scanning direction	340
	(e) Image location of secondary scanning direction	305
	(f) Top margin	430
	(g) Right margin	432
	(h) Bottom margin	433

[Procedure to key in adjustment values]

In accordance with the procedure described below, make adjustment of each adjustment item so that the measured values obtained from test copies satisfy the specification. By pressing the [FAX] button, immediately after starting the Adjustment Mode (05), single-sided test copying can be performed (normal copy mode).

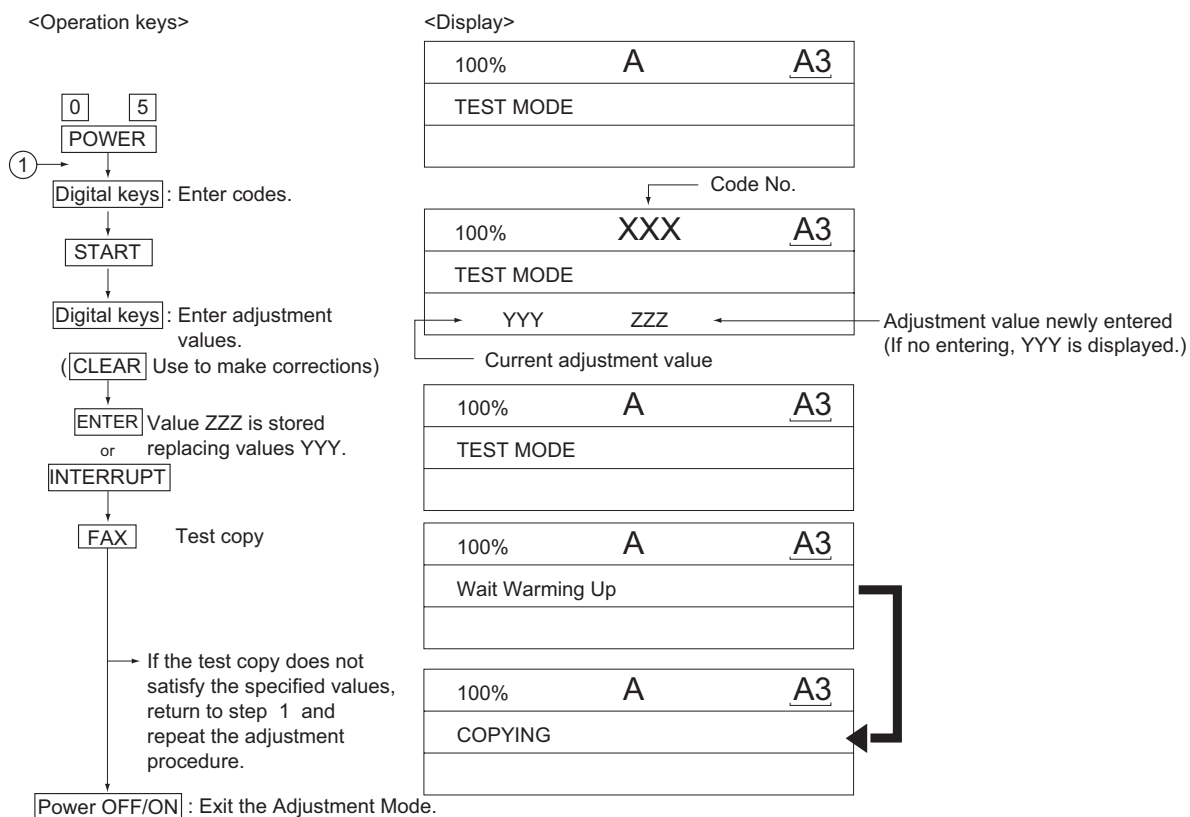


Fig. 3-6

3.2.2 Paper alignment at the registration roller

- Adjustment with touch panel

Paper alignment at the registration roller can be adjusted in the following procedure by performing the code 05-480.

- (1) Select the drawer.

100 % 480 LT
TEST MODE

CST1 Tandem LCF

CST2 Option LCF

CST3 SFB

CST4 ADU

CANCEL ENTER

Fig. 3-7

- (2) Select the paper size.

100 % 480 LT
TEST MODE

CST1

330mm-159mm

220mm-329mm -204mm

205mm-219mm

160mm-204mm

CANCEL ENTER

Fig. 3-8

- (3) Select the media type.

The screenshot shows a dark blue header bar with the text "100 % 480 LT" and "TEST MODE". Below the header, the text "CST1 330mm-" is displayed. There are four selection buttons: "Normal", "OHP", "Thick1", "Thick2", and "Thick3". The "Normal" button is currently selected. At the bottom of the screen, there are two buttons: "CANCEL" and "ENTER".

Fig. 3-9

- (4) Key in the adjustment value.

The screenshot shows the same dark blue header bar with "100 % 480 LT" and "TEST MODE". Below the header, the text "CST1 330mm- Plain" is displayed. There are four selection buttons: "Normal", "OHP", "Thick1", "Thick2", and "Thick3". The "Normal" button is currently selected. The value "48" is entered in the adjustment field. At the bottom of the screen, there are two buttons: "CANCEL" and "ENTER".

Fig. 3-10

- (5) Press the [ENTER] button to finish the adjustment.
*Press the [FUNCTION CLEAR] button to return to the previous menu.

- Adjustment by direct code entry

As for the codes shown in the table below, the paper alignment at the registration roller can be adjusted by a direct entry with the digital keys.

(For codes not shown in this table, perform the adjustment with the touch panel.)

Paper type	Weight	1st drawer	2nd drawer	3rd drawer	4th drawer	Tandem LCF	Duplexing (ADU)	Option LCF	Bypass feed(SFB)
Plain paper	64-80 g/m ² 17-20 lb.	450 (*1)	452 (*1)	448 (*1)	449 (*1)	457	455 (*1)	-	458 (*1)
Thick paper 1	81-105g/m ² 21-28 lb.	469 (*1)	470 (*1)	471 (*1)	472 (*1)	473-0	474 (*1)	-	460 (*1)
Thick paper 2	106-163g/m ² 29-43 lb.	-	-	-	-	473-1	-	-	461 (*1)
Thick paper 3	164-209g/m ² 44-55 lb.	-	-	-	-	473-2	-	-	462 (*1)
OHP	-	-	-	-	-	473-3	-	-	463 (*2)

Sub-code

(*1) 0: Long size 1: Middle size 2: Short size1 3:Short size 4:Post card

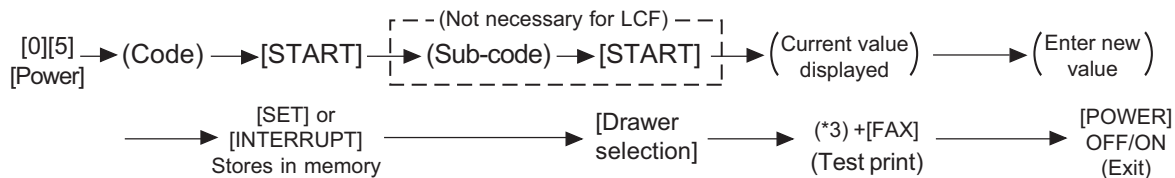
(*2) 0: Long size of OHP film 1: Middle size of OHP film 2: Short size1 of OHP film
3: Short size 2 of OHT film 4:Post card size of OHP film

Notes:

1. Long size: 330 mm or longer (13.0 inches or longer)
Middle size: 220-239 mm (8.7-12.9 inches)
Short size1: 205-219 mm (8.1-8.6 inches)
Short size2: 160-204 mm (6.3-8.0 inches)
Post card: 159 mm or shorter (6.2 inches or shorter)
2. The adjustment of "Post card" is for Japan only.

<Procedure>

- (1) Perform the test print according to the following procedure.



- (*3)1: Single-sided grid pattern 3: Double-sided grid pattern
9: Gamma adjustment correction pattern (Dither)
10: Gamma adjustment correction pattern (Error diffusion)

- (2) Check if any transfer void is occurring. If there is a transfer problem, try the values in descending order as “31” → “30” → “29”... until the transfer void disappears. At the same time, confirm if any paper jam occurs. Also, when the aligning amount has been increased, this may increase the scraping noise caused by the paper and the Mylar sheet as it is transported by the registration roller. If this scraping noise is annoying, try to decrease the value.

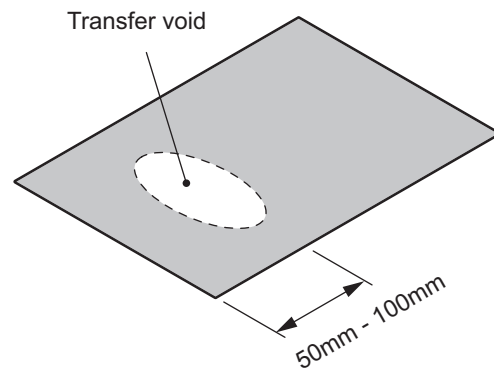


Fig. 3-11

- (3) Perform the same procedure for all paper sources.

Note:

When paper thinner than specified is used, paper jams may occur frequently at the registration section. In this case, it is advisable to change (or reduce) the aligning amount. However, if the aligning amount is reduced too much, this may cause the shift of leading edge position. So, when adjusting the aligning amount, try to choose the appropriate amount while confirming the leading edge position is not shifted.

* As a tentative countermeasure, the service life of the feed roller can be extended by increasing the aligning amount.

3.2.3 Printer related adjustment

The printer related adjustment is performed by using the printed out grid pattern.

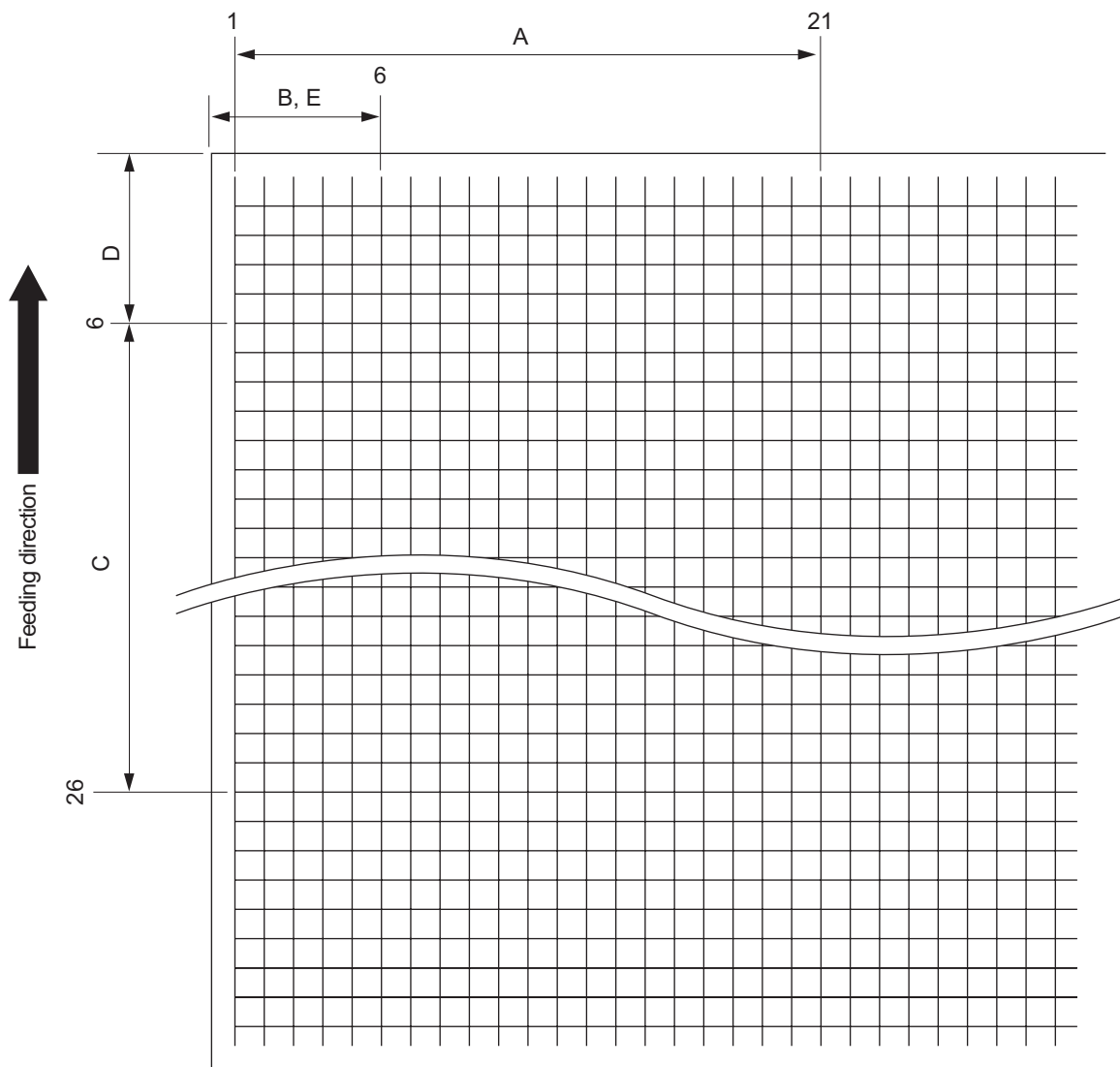


Fig. 3-12 Grid pattern

	Adjustment Tolerance	Detail of adjustment
A	$200 \pm 0.5\text{mm}$	Refer to "[A] Reproduction ratio of primary scanning direction (Fine adjustment of polygonal motor rotation speed (Printer))"
B	$52 \pm 0.5\text{mm}$	Refer to "[B] Primary scanning data laser writing start position (Printer)"
C	$200 \pm 0.5\text{mm}$	Refer to "[C] Reproduction ratio of secondary scanning direction (Fine adjustment of transfer belt motor rotation speed (Copier/Printer))"
D	$52 \pm 0.5\text{mm}$	Refer to "[D] Secondary scanning data laser writing start position"
E	$52 \pm 0.5\text{mm}$	Refer to "[E] Primary scanning data laser writing start position at duplexing"

[A] Reproduction ratio of primary scanning direction (Fine adjustment of polygonal motor rotation speed (Printer))

<Procedure>

- (1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)
- (2) Press [1] → [FAX]. (A grid pattern with 10 mm squares is printed out. Use A3/LD in the 2nd drawer.
- (3) Check the grid pattern on the test chart printed out and measure the distance A from the 1st line to the 21st line of the grid pattern.
- (4) Check if the distance A is within 200 ± 0.5 mm.
- (5) If not, use the following procedure to change values and measure the distance A again.

(Adjustment Mode) → (Key in code [401]) → [START]

→ (Key in a value (acceptable values: 0 to 255))

→ [ENTER] or [INTERUPT] (Stored in memory)

→ "100% A" is displayed

→ Press [1] → [FAX] → (A grid pattern is printed out.)

*The larger the adjustment value is, the longer the distance A becomes.

(e-STUDIO555/655: 0.3 mm/step, e-STUDIO755/855: 0.1 mm/step)

[B] Primary scanning data laser writing start position (Printer)

<Procedure>

- (1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)
- (2) Press [1] → [FAX]. (A grid pattern with 10 mm squares is printed out. Use A3/LD in the 2nd drawer.
- (3) Check the grid pattern on the test chart printed out and measure the distance B from the left edge of the paper to the 6th line of the grid pattern.
- (4) Check if the distance B is within 52 ± 0.5 mm.
- (5) If not, use the following procedure to change values and measure the distance B again.

(Adjustment Mode) → (Key in the code [411]) → [START]

→ (Key in a value (acceptable values: 0 to 255))

→ [ENTER] or [INTERUPT] (Stored in memory)

→ "100% A" is displayed

→ Press [1] → [FAX] → (A grid pattern is printed out.)

*The larger the adjustment value is, the longer the distance B becomes (approx. 0.05 mm/step).

Note:

Make sure the first line of the grid pattern is printed out since the line is occasionally vanished.

[C] Reproduction ratio of secondary scanning direction (Fine adjustment of transfer belt motor rotation speed (Copier/Printer))

<Procedure>

- (1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment mode)

- (2) Press [1] → [FAX]. (A grid pattern with 10 mm squares is printed out. Use A3/LD in the 2nd drawer.
- (3) Check the grid pattern on the test chart printed out and measure the distance C from the 6th line at the leading edge of the paper to the 26th line of the grid pattern.
*Normally, the 1st line of the grid pattern is not printed.
- (4) Check if the distance C is within 200 ± 0.5 mm.
- (5) If not, use the following procedure to change values and measure the distance C again.

(Adjustment Mode) → (Key in code [488]) → [START]

→ (Key in a value (acceptable values: 0 to 255))

→ [ENTER] or [INTERRUPT] (Stored in memory)

→ "100% A" is displayed

→ Press [1] → [FAX] → (A grid pattern is printed out.)

*The larger the adjustment value is, the longer the distance C becomes (approx. 0.2 mm/step).

[D] Secondary scanning data laser writing start position

This adjustment has to be performed for each paper source. (If there is no paper source, skip this step.)
The following table shows the order of the paper source to be adjusted, code, paper size and acceptable values.

* Image location of all paper sources can be adjusted in the Adjustment mode (05-408)

For 4 drawers (JPC model only)

Order for adjustment	Paper source	Code	Paper size	Acceptable value	Remarks
1	All	408	A3 (recommended)	0 to 80	Paper fed from the 2nd drawer
2	1st drawer	440	A4/LT	0 to 40	
3	3rd drawer	444	A4/LT	0 to 40	
4	4th drawer	428	A4/LD	0 to 40	
5	LCF	443	A4/LT	0 to 40	
6	Bypass feed	442	A3/LD	0 to 40	
7	Duplexing	445	A3/LD	0 to 40	Paper fed from the 2nd drawer

* -: Any size

For tandem LCF

Order for adjustment	Paper source	Code	Paper size	Acceptable value	Remarks
1	All	408	A3/LD (recommended)	0 to 80	Paper fed from the 2nd drawer
2	1st drawer	440	-	0 to 40	
3	Tandem LCF	429	-	0 to 40	
4	LCF	443	-	0 to 40	
5	Bypass feed	442	-	0 to 40	
6	Duplexing	445	-	0 to 40	Paper fed from the 2nd drawer

* -: Any size

<Procedure>

- (1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)
- (2) Press [1] ([3] for duplexing) → [FAX]. (A grid pattern with 10 mm squares is printed out.)
- (3) Check the grid pattern on the test chart printed out and measure the distance D from the leading edge of the paper to the 6th line of the grid pattern.
*Normally, the 1st line of the grid pattern is not printed.
*At the duplexing, measure it on the top side of the grid pattern.
- (4) Check if the distance D is within 52 ± 0.5 mm.
- (5) If not, use the following procedure to change values and measure the distance D again.

(Adjustment Mode) → (Key in the code shown above) → [START]
→ (Key in an acceptable value shown above)
→ [ENTER] or [INTERRUPT] (Stored in memory)
→ "100% A" is displayed
→ Press [1] ([3] for duplexing) → [FAX] → (A grid pattern is printed out.)
*The larger the adjustment value is, the longer the distance D becomes (approx. 0.4 mm/step).

[E] Primary scanning data laser writing start position at duplexing

Note:

Make sure the first line of the grid pattern is printed out since the line is occasionally vanished.

[E-1] Adjustment for long-sized paper

<Procedure>

- (1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)
- (2) Press [3] → [FAX]. (A grid pattern with 10 mm squares is printed out. Use A3/LD in the 2nd drawer.)
- (3) Check the grid pattern on the test print and measure the distance E from the left edge of the paper to the 6th line of the grid pattern.
- (4) Check if the distance E is within 52 ± 0.5 mm.
- (5) If not, use the following procedure to change values and measure the distance E again.

(Adjustment Mode) → (Key in code [498]) → [START] → [0] → [START]
→ (Key in a value (acceptable values: 0 to 255))
→ [ENTER] or [INTERRUPT] (Stored in memory)
→ "100% A" is displayed.
→ Press [3] → [FAX] → (A grid pattern is printed out.)
*The larger the adjustment value is, the longer the distance E becomes (0.05 mm/step).

[E-2] Adjustment for short-sized paper

<Procedure>

- (1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)
- (2) Press [3] → [FAX]. (A grid pattern with 10 mm squares is printed out. Use A4/LT in the 1st drawer/tandem LCF.)

- (3) Check the grid pattern on the test print and measure the distance E from the left edge of the paper to the 6th line of the grid pattern.
- (4) Check if the distance E is within 52 ± 0.5 mm.
- (5) If not, use the following procedure to change values and measure the distance E again.

(Adjustment Mode) → (Key in the code [498]) → [START] → [1] → [START]

→ (Key in a value (acceptable values: 0 to 255))

→ [ENTER] or [INTERRUPT] (Stored in memory).

→ "100% A" is displayed

→ Press [3] → [FAX] → (A grid pattern is printed out.)

*The larger the adjustment value is, the longer the distance E becomes (0.05 mm/step).

[E-3] Adjustment for middle-sized paper

<Procedure>

- (1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)
- (2) Press [3] → [FAX]. (A grid pattern with 10 mm squares is printed out. Use A4-R/LT-R.)
- (3) Check the grid pattern on the test print and measure the distance E from the left edge of the paper to the 6th line of the grid pattern.
- (4) Check if the distance E is within 52 ± 0.5 mm.
- (5) If not, use the following procedure to change values and measure the distance E again.

(Adjustment Mode) → (Key in the code [498]) → [START] → [1] → [START]

→ (Key in a value (acceptable values: 0 to 255))

→ [ENTER] or [INTERRUPT] (Stored in memory).

→ "100% A" is displayed

→ Press [3] → [FAX] → (A grid pattern is printed out.)

*The larger the adjustment value is, the longer the distance E becomes (0.04 mm/step).

Note:

When the setting value of the code 05-498-0 "Adjustment of primary scanning laser writing start position at duplex feeding (long size)" is changed, the laser writing start position for the middle size is also altered automatically. (However, the setting value for the code 05-498-2 is not changed.) When the setting value for the code 05-498-0 has been changed, check the laser writing start position with A4-R/LT-R paper, and then set the value for the 05-498-2 again if required.

<Adjustment procedure summarization for A to E>

[0] [5] [Power ON] → [1] ([3](05-445, 498) for duplex) → [FAX]

- A: 05-401 (2nd drawer, A3/LD) → 200±0.5 mm
(e-STUDIO555/655: 0.3 mm/step,
e-STUDIO755/855: 0.1 mm/step)
- B: 05-411 (2nd drawer, A3/LD) → 52±0.5 mm (0.05 mm/step)
- C: 05-488 (2nd drawer, A3/LD) → 200±0.5 mm (0.5 mm/step)
- D: 05-408 (All, A3/LD (recommended)
440 (1st drawer),
444 (3rd drawer * JPC model only),
428 (4th drawer * JPC model only),
443 (LCF),
442 (Bypass feed),
445 (Duplexing)
→ 52±0.5 mm (0.4 mm/step)
- E: 05-498-0 (2nd drawer, A3/LD),
498-1 (1st drawer/Tandem LCF, A4/LT)
498-2 (A4-R/LT-R) → 52±0.5 mm (0.05 mm/step)

3.2.4 Scanner related adjustment

Make a copy, compare the result with the original and make an adjustment if the image is distorted.

[A] Image distortion

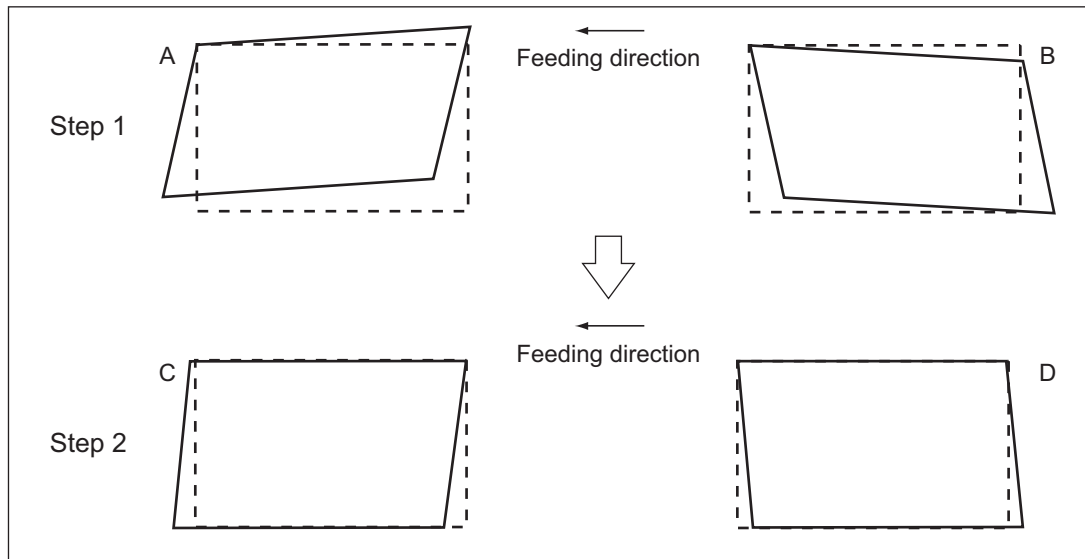


Fig. 3-13

<Procedure>

- (1) While pressing [0] and [5] simultaneously, turn the power ON.
- (2) Press [FAX] to make a copy of any image on a sheet of A3/LD paper.
- (3) Key in [308] and press the [START] button to move the carriage to the adjustment position.
- (4) Remove the original glass.
- (5) Make an adjustment in the order of step 1 and 2.
 - Step 1
 - In case of A: Tighten the mirror-3 adjustment screw (CW).
 - In case of B: Loosen the mirror-3 adjustment screw (CCW).
 - Step 2
 - In case of C: Tighten the mirror-1 adjustment screw (CW).
 - In case of D: Loosen the mirror-1 adjustment screw (CCW).

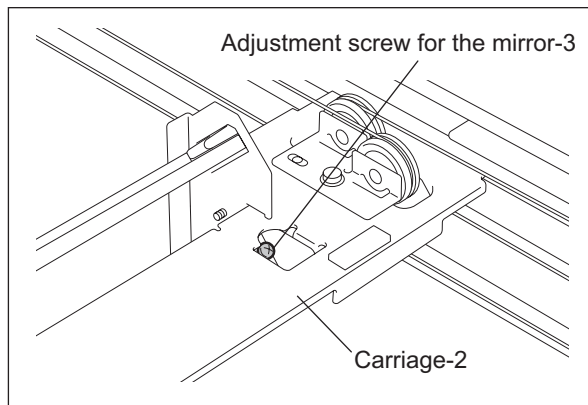


Fig. 3-14

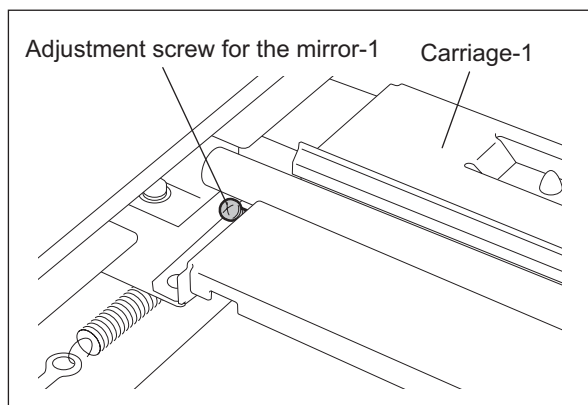


Fig. 3-15

[B] Reproduction ratio adjustment of the primary scanning direction

<Procedure>

- (1) While pressing [0] and [5] simultaneously, turn the power ON → (Adjustment Mode)
- (2) Place a ruler on the original glass (along the direction from the rear to the front of the equipment).
- (3) Press [FAX]→ [START] to make a copy at the mode of A3 (LD), 100% and the 2nd drawer.
- (4) Measure the distance A from 10 mm to 210 mm of the copied image of the ruler.
- (5) Check if the distance A is within the range of 200 ± 0.5 mm.
- (6) If not, use the following procedure to change values and repeat the steps (3) to (5) above.
(Adjustment Mode) → (Key in the code [405]) → [START]
→ (Key in a value (acceptable values: 0 to 255))
→ Press the [ENTER] or the [INTERRUPT] button (stored in memory).
→ ("100% A" is displayed.)
*The larger the adjustment value is, the higher the reproduction ratio and the longer the distance A become.
(e-STUDIO555/655: 0.3 mm/step, e-STUDIO755/855: 0.1 mm/step)

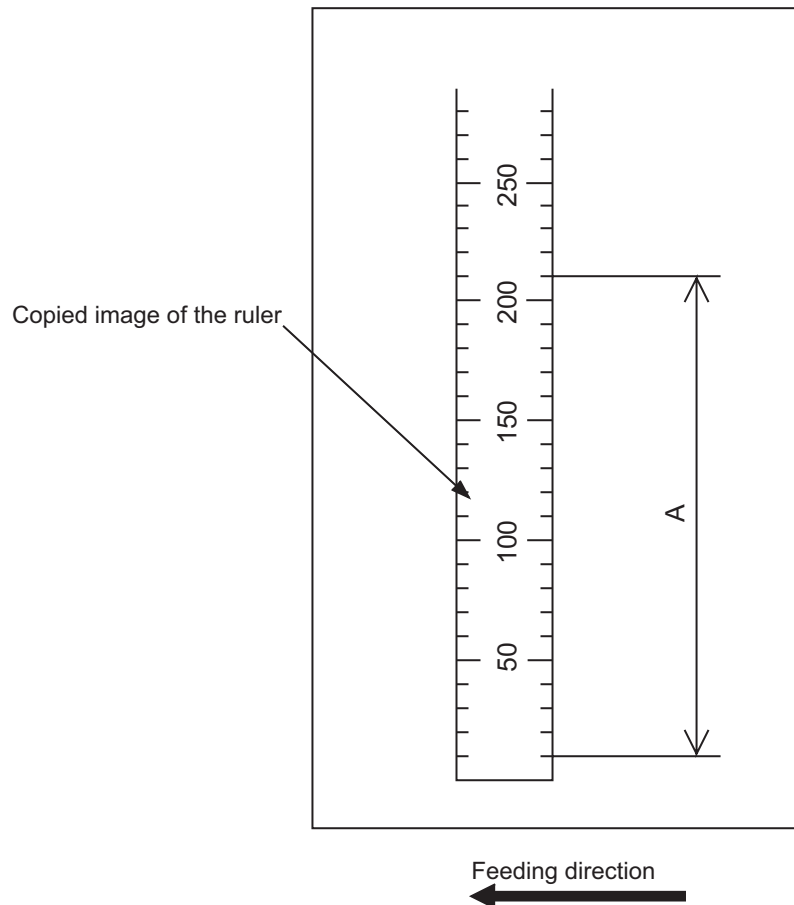


Fig. 3-16

[C] Image position adjustment of the primary scanning direction

<Procedure>

- (1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)
- (2) Place a ruler on the original glass with its leading edge pushed against the rear side and its side along the original scale on the left.
- (3) Press [FAX]→ [START] to make a copy at the mode of A3 (LD), 100% and the 2nd drawer.
- (4) Measure the distance B from the left edge of the paper to 100 mm of the copied image of the ruler.
- (5) Check if the distance B is within the range of 100 ± 1.0 mm.
- (6) If not, use the following procedure to change values and repeat the steps (3) to (5) above.

(Adjustment Mode) → (Key in the code [306]) → [START]

→ (Key in a value (acceptable values: 63 to 193))

→ Press the [ENTER] or the [INTERRUPT] button (stored in memory).

→ ("100% A" is displayed.)

*The smaller the adjustment value is, the more the image is shifted to the left and the distance B becomes narrower (approx. 0.04 mm/step).

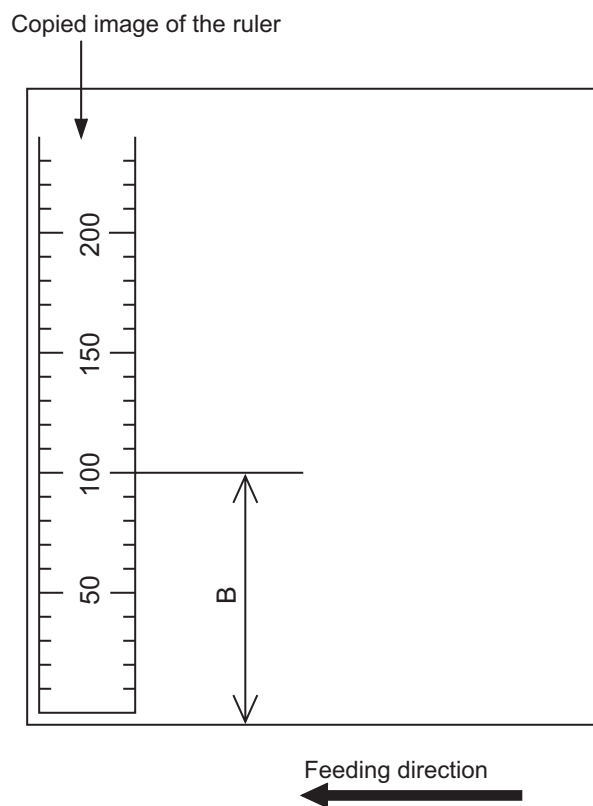


Fig. 3-17

[D] Reproduction ratio adjustment of the secondary scanning direction

<Procedure>

- (1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)
- (2) Place a ruler on the original glass with its leading edge pushed against the original scale on the left.
- (3) Press [FAX]→ [START] to make a copy at the mode of A3 (LD), 100% and the 2nd drawer.
- (4) Measure the distance C from 10 mm to 210 mm of the copied image of the ruler.
- (5) Check if the distance C is within the range of 200 ± 0.5 mm.
- (6) If not, use the following procedure to change values and repeat steps (3) to (5) above.

(Adjustment Mode) → (Key in the code [340]) → [START]

→ (Key in a value (acceptable values: 0 to 255))

→ Press the [ENTER] or the [INTERRUPT] button (stored in memory).

→ ("100% A" is displayed.)

*The smaller the adjustment value is, the lower the reproduction ratio becomes (0.05 mm/step).

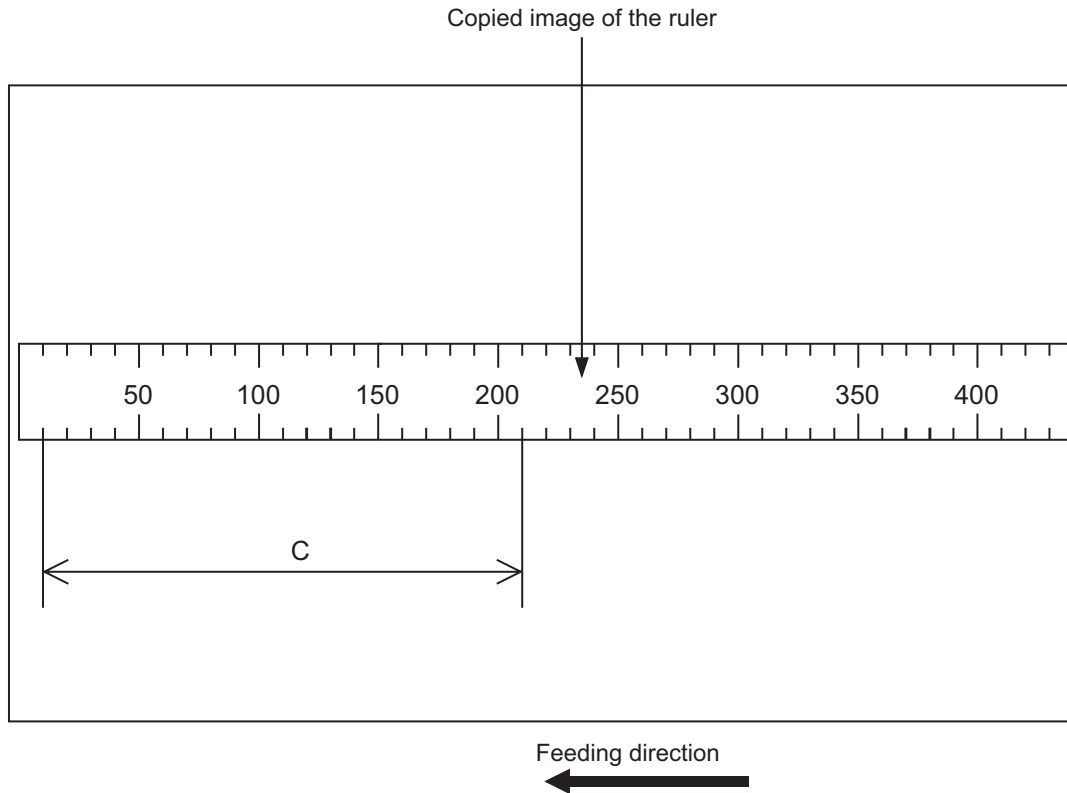


Fig. 3-18

[E] Image position adjustment of the secondary scanning direction

<Procedure>

- (1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)
- (2) Place a ruler on the original glass with its leading edge pushed against the original scale on the left.
- (3) Press [FAX]→ [START] to make a copy at the mode of A3 (LD), 100% and the 2nd drawer.
- (4) Measure the distance D from the leading edge of the paper to 10 mm of the copied image of the ruler.
- (5) Check if the distance D is within the range of 10 ± 0.5 mm.
- (6) If not, use the following procedure to change values and repeat the steps (3) to (5) above.

(Adjustment Mode) → (Key in the code [305]) → [START]

→ (Key in a value (acceptable values: 92 to 164))

→ Press the [ENTER] or the [INTERRUPT] button (stored in memory).

→ ("100% A" is displayed.)

*The larger the adjustment value is, the more the image is shifted to the trailing edge (0.143 mm/step).

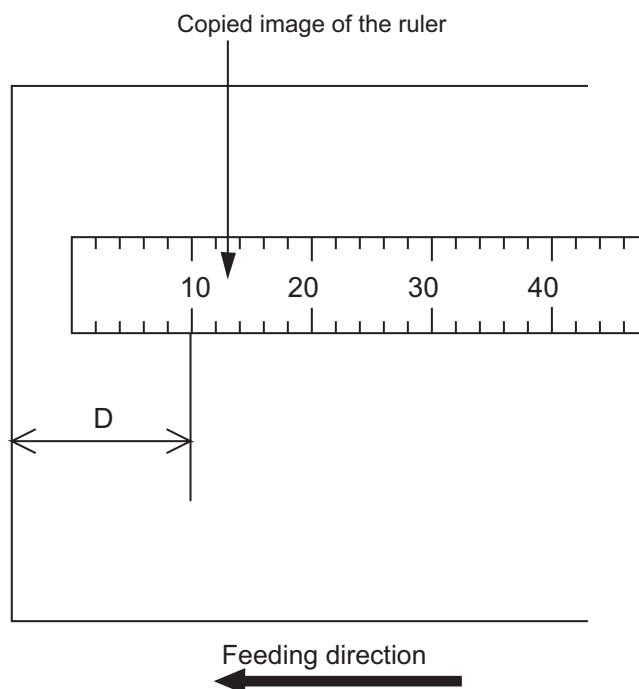


Fig. 3-19

[F] Top margin

<Procedure>

- (1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)
- (2) Open the RADF.
- (3) Press [FAX] → [START] to make a copy at the mode of A3/LD, 100%, Text/Photo and the 2nd drawer.
- (4) Measure the blank area E at the leading edge of the copied image.
- (5) Check if the blank area E is within the range of 3 ± 0.5 mm.
- (6) If not, use the following procedure to change values and repeat the steps (3) to (5) above.

(Adjustment Mode) → (Key in the code [430]) → [START]

→ (Key in a value (acceptable values: 0 to 255))

→ Press the [ENTER] or the [INTERRUPT] button (stored in memory).

→ ("100% A" is displayed.)

*The larger the adjustment value is, the wider the blank area becomes (approx. 0.04 mm/step).

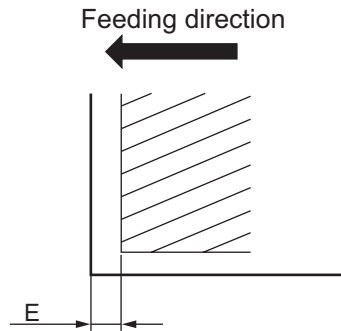


Fig. 3-20

[G] Right margin

<Procedure>

- (1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)
- (2) Open the RADF.
- (3) Press [FAX]→ [START] to make a copy at the mode of A3/LD, 100%, Text/Photo and the 2nd drawer.
- (4) Measure the blank area F at the right side of the copied image.
- (5) Check if the blank area F is within the range of 2 ± 1.0 mm.
- (6) If not, use the following procedure to change values and repeat the steps (3) to (5) above.

(Adjustment Mode) → (Key in the code [432]) → [START]

→ (Key in a value (acceptable values: 0 to 255))

→ Press the [ENTER] or the [INTERRUPT] button (stored in memory).

→ ("100% A" is displayed.)

*The larger the adjustment value is, the wider the blank area at the right side becomes (approx. 0.04 mm/step).

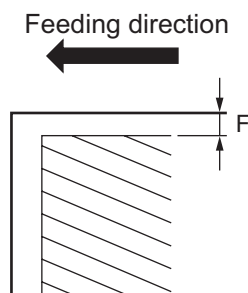


Fig. 3-21

[H] Bottom margin

<Procedure>

- (1) While pressing [0] and [5] simultaneously, turn the power ON. → (Adjustment Mode)
- (2) Open the RADF.
- (3) Press the [FAX]→ [START] to make a copy at the mode of A3/LD, 100%, Text/Photo and the 2nd drawer.
- (4) Measure the blank area G at the trailing edge of the copied image.
- (5) Check if the blank area G is within the range of 2 ± 1.0 mm.
- (6) If not, use the following procedure to change values and repeat the steps (3) to (5) above.

(Adjustment Mode) → (Key in the code [433]) → [START]

→ (Key in value (acceptable values: 0 to 255))

→ Press the [ENTER] or the [INTERRUPT] button (stored in memory).

→ ("100% A" is displayed.)

*The larger the adjustment value is, the wider the blank area at the trailing edge becomes (approx. 0.04 mm/step).

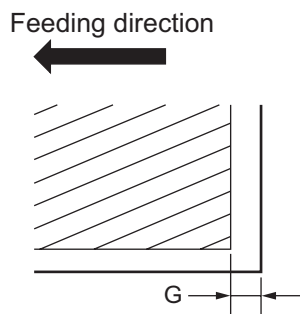


Fig. 3-22

3.3 Image Quality Adjustment (Copying Function)

3.3.1 Density adjustment

The center density and the density variation controlled by density adjustment keys can be adjusted as follows.

< Adjustment Mode (05) >

Original mode			Item to be adjusted	Remarks
Text/Photo	Photo	Text		
503 (931)	501 (933)	504 (932)	Manual density mode center value	The larger the value is, the darker the image becomes. Acceptable values: 0 to 255
505 (934)	506 (936)	507 (935)	Manual density mode light step value	The larger the value is, the lighter the light side becomes. Acceptable values: 0 to 255
508 (937)	509 (939)	510 (938)	Manual density mode dark step value	The larger the value is, the darker the dark side becomes. Acceptable values: 0 to 255
514 (940)	512 (942)	515 (941)	Automatic density mode	The larger the value is, the darker the image becomes. Acceptable values: 0 to 255

* The values in "()" are the adjustment codes of the Custom Mode.

Make a test copy and compare the image obtained with the current settings; if necessary, make adjustment using the following procedure.

<Procedure>

- (1) While pressing [0] and [5] simultaneously, turn the power ON.
- (2) Key in a code and press the [START] button.
- (3) Key in an adjustment value.
(To correct the keyed-in value, press the [CLEAR] button.)
- (4) Press the [ENTER] or [INTERRUPT] button to store the value. → The equipment goes back to the ready state.
- (5) Shut down (turn the power OFF), back ON, and then perform the copying job.
- (6) If the desired image density has not been attained, repeat step (1) to (5).

3.3.2 Gamma slope adjustment

Gamma slope is adjustable with the following codes.

< Adjustment Mode (05) >

Original mode			Item to be adjusted	Remarks
Text/Photo	Photo	Text		
593 (943)	594 (945)	595 (944)	Gamma slope adjustment	1 to 9: Select the gamma slope angle. (The larger the value is, the larger the angle becomes.)

* The values in "()" are the adjustment codes of the Custom Mode.

<Procedure>

Procedure is same as that of  P.3-23 "3.3.1 Density adjustment".

3.3.3 Background adjustment

Background of the gamma data can be adjusted with the following codes.

< Adjustment Mode (05) >

Original mode			Item to be adjusted	Remarks
Text/Photo	Photo	Text		
600 (946)	602 (947)	601 (948)	Background adjustment	1 to 9: The larger the value is, the background becomes lighter.

3.3.4 Sharpness adjustment

If you want to make copy images look softer or sharper, perform the following adjustment.

< Adjustment Mode (05) >

Original mode				Item to be adjusted	Remarks
Text/Photo	Photo		Text		
	Error diffusion process	Dither process			
620 (922)	621-0 (924-0)	621-1 (924-1)	622 (923)	Sharpness adjustment	Key in the following values depending on the original mode. One's place 1: Text/Photo 3: Photo 2: Text Ten's place 1 to 9: Change intensity (The larger the value is, the sharper the image becomes.) • Example of value entry in case the mode is "Text/Photo". <div><div><div>2</div><div>1</div><div></div></div><div>Fixed value for Text/Photo mode</div><div>Key in a value 1 to 9</div></div>

* The values in "()" are the adjustment codes of the Custom Mode.

Make a test copy and compare the image obtained with the current settings; if necessary, make adjustment using the following procedure.

<Procedure>

Procedure is same as that of  P.3-23 "3.3.1 Density adjustment".

3.3.5 Setting range correction

The values of the background peak / text peak in the range correction can be switched to “varied” or “fixed” in the following codes.

If they are fixed, the range correction is performed with standard values.

The values of the background peak affect the reproduction of the background density and the values of the text peak affect that of the text density.

< Adjustment Mode (05) >

Original mode			Item to be adjusted	Remarks															
Text/Photo	Photo	Text																	
570 (913)	571 (915)	572 (914)	Range correction for original manually set on the original glass	The following are the default values set for each original mode. Text/Photo: 12, Photo: 12, Text: 22 Each digit stands for: One's place: Automatic density mode Ten's place: Manual density mode The setting conditions possible are as follows: <table><tr><td></td><td>Background peak</td><td>Text peak</td></tr><tr><td>1:</td><td>fixed</td><td>fixed</td></tr><tr><td>2:</td><td>varied</td><td>fixed</td></tr><tr><td>3:</td><td>fixed</td><td>varied</td></tr><tr><td>4:</td><td>varied</td><td>varied</td></tr></table>		Background peak	Text peak	1:	fixed	fixed	2:	varied	fixed	3:	fixed	varied	4:	varied	varied
	Background peak	Text peak																	
1:	fixed	fixed																	
2:	varied	fixed																	
3:	fixed	varied																	
4:	varied	varied																	
693 (916)	694 (918)	695 (917)	Range correction for original set on the RADF																

* The values in “()” are the adjustment codes of the Custom Mode.

Make a test copy and compare the image obtained with the current settings; if necessary, make adjustment using the following procedure.

<Procedure>

Procedure is same as that of  P.3-23 "3.3.1 Density adjustment".

3.3.6 Setting range correction (Adjustment of background peak)

The levels of the background peak for the range correction can be set at the following codes.

< Adjustment Mode (05) >

Original mode			Item to be adjusted	Remarks
Text/Photo	Photo	Text		
532 (919)	533 (921)	534 (920)	Background peak for range correction	When the value increases, the background (low density area) of the image is not output. Acceptable values: 0 to 255 (Default: Text/Photo: 40, Photo: 16, Text: 64)

* The values in “()” are the adjustment codes of the Custom Mode.

Make a test copy and compare the image obtained with the current settings; if necessary, make adjustment using the following procedure.

<Procedure>

Procedure is same as that of  P.3-23 "3.3.1 Density adjustment".

3.3.7 Adjustment of smudged/faint text

The smudged/faint text can be set at the following codes.

< Adjustment Mode (05) >

Original mode	Item to be adjusted	Remarks
Text/Photo		
653 (928)	Adjustment of smudged/faint spotted text	When the value increases, the faint text is improved. When the value decreases, the smudged text is improved. Acceptable values: 0 to 255 (Default: 192) Note: Remember the image specifications and life span of the replacing parts may not meet the standard when the setting value is changed from the default value.

* The values in "()" are the adjustment codes of the Custom Mode.

Make a test copy and compare the image obtained with the current settings; if necessary, make adjustment using the following procedure.

<Procedure>

Procedure is same as that of  P.3-23 "3.3.1 Density adjustment".

3.4 Image Quality Adjustment (Printing Function)

3.4.1 Adjustment of smudged/faint text

The smudged/faint text can be set at the following codes.

< Adjustment Mode (05) >

Language		Remarks
PS	PCL	
654	655	When the value increases, the smudged text is improved. When the value decreases, the faint text is improved. Acceptable values: 0 to 9 (Default: 5)

<Procedure>

- (1) While pressing [0] and [5] simultaneously, turn the power ON.
- (2) Key in a code and press the [START] button.
- (3) Key in an adjustment value.
(To correct the keyed-in value, press the [CLEAR] button.)
- (4) Press the [ENTER] or [INTERRUPT] button to store the value. The equipment goes back to the ready state.
- (5) Shut down (turn the power OFF), back ON, and then perform the printing job.
- (6) If the desired text density has not been attained, repeat step (1) to (5).

3.4.2 Gamma balance adjustment

The gamma balance is adjusted by adjusting the density at the Black Mode. The adjustment is performed by selecting its density area from the following: low density, medium density and high density.

< Adjustment Mode (05) >

Language and screen				Item to be adjusted	Remarks
Smooth (PS)	Detail (PS)	Smooth (PCL)	Detail (PCL)		
596-0	597-0	598-0	599-0	Low density	The larger the value is, the density of the item to be adjusted becomes darker. Acceptable values: 0 to 255. (Default: 128)
596-1	597-1	598-1	599-1	Medium density	
596-2	597-2	598-2	599-2	High density	

<Procedure>

- (1) While pressing [0] and [5] simultaneously, turn the power ON.
- (2) Key in the codes to be adjusted (language and screen) and press the [START] button.
- (3) Key in the value corresponding to the density area to be adjusted (0, 1 or 2) and press the [START] button.
0: Low density (L) 1: Medium density (M) 2: High density (H)
- (4) Key in the adjustment value. (To correct the value once keyed in, press [CLEAR] button.)
- (5) Press the [ENTER] or [INTERRUPT] button to store the value in memory. " The equipment goes back to the ready state.
- (6) For resetting the value, repeat step (2) to (5).
- (7) Let the equipment restart and perform printing job.
- (8) If the image density has not been attained, repeat step (1) to (7).


3.4.3 Image density adjustment

Adjust the image density level when normal printing (Toner save: Disable) and (Toner save: Enable).

< Adjustment Mode (05) >

Normal	Toner Saving mode		Item to be adjusted	Remarks
	PS	PCL		
663	664	665	Image density adjustment	The image density level in the Printer function can be set. The smaller the value is, the lighter the density of image becomes. Acceptable values: 0 to 255.

<Procedure>

Procedure is same as that of  P.3-27 "3.4.1 Adjustment of smudged/faint text".

3.5 Image Quality Adjustment (Scanning Function)

3.5.1 Density adjustment

Adjusts the center density and the variation of density adjustment button.

< Adjustment Mode (05) >

Original mode				Item to be adjusted	Remarks
Text/Photo	Photo	Text	Gray Scale		
845	847	846	848	Manual density mode center value	The larger the value is, the darker the image becomes. Acceptable values: 0 to 255
850	852	851	853	Manual density mode light step value	The larger the value is, the lighter the light side becomes. Acceptable values: 0 to 255
855	857	856	858	Manual density mode dark step value	The larger the value is, the darker the dark side becomes. Acceptable values: 0 to 255
860	862	861	863	Automatic density mode	The larger the value is, the darker the image becomes. Acceptable values: 0 to 255

<Procedure>

- (1) While pressing [0] and [5] simultaneously, turn the power ON.
- (2) Key in a code and press the [START] button.
- (3) Key in an adjustment value.
(To correct the keyed-in value, press the [CLEAR] button.)
- (4) Press the [ENTER] or [INTERRUPT] button to store the value. The equipment goes back to the ready state.
- (5) Shut down (turn the power OFF), back ON, and then perform the scanning job.
- (6) If the desired image density has not been attained, repeat step (1) to (5).

3.5.2 Sharpness adjustment

If you want to make scan images look softer or sharper, perform the following adjustment.

< Adjustment Mode (05) >

Original mode				Item to be adjusted	Remarks
Text/Photo	Photo	Text	Gray Scale		
865-0	867-0	866-0	868-0	150 to 200 dpi	Key in the following values depending on the original mode. One's place Leave the value in one's place at the fixed value. Ten's place 1 to 9: Change intensity <ul style="list-style-type: none"> The larger the value is, the sharper the image becomes.) Example of value entry in case the mode is "Text/Photo". <div style="margin-top: 10px;"> $\begin{array}{c} 2 \quad 1 \\ \downarrow \quad \downarrow \\ \text{Fixed value for Text/Photo mode} \\ \text{Key in a value 1 to 9} \end{array}$ </div>
865-1	867-1	866-1	868-1	300 to 400 dpi	
865-2	867-2	866-2	—	600 dpi	

<Procedure>

- (1) While pressing [0] and [5] simultaneously, turn the power ON.
- (2) Key in a code and press the [START] button.
- (3) Key in the sub code (0,1 or 2), and press the [START] button.
- (4) Key in an adjustment value.
(To correct the keyed-in value, press the [CLEAR] button.)
- (5) Press the [ENTER] or [INTERRUPT] button to store the value in memory. The equipment goes back to the ready state.
- (6) For resetting the value, repeat step (2) to (5).
- (7) Shut down (turn the power OFF), back ON, and then perform the scanning job.
- (8) If the desired image density has not been attained, repeat step (1) to (7).

3.5.3 Setting range correction

The values of the background peak / text peak in the range correction can be switched to “varied” or “fixed” in the following codes.

If they are fixed, the range correction is performed with standard values.

The values of the background peak affect the reproduction of the background density and the values of the text peak affect that of the text density.

< Adjustment Mode (05) >

Original mode				Item to be adjusted	Remarks
Text/Photo	Photo	Text	Gray Scale		
825	827	826	828	Range correction for original manually set on the original glass	The following are the default values set for each original mode. Text/Photo: 12, Photo: 12, Text: 12, Gray Scale:12 Each digit stands for: One's place: Automatic density mode Ten's place: Manual density mode The setting conditions possible are as follows: Background peak Text peak 1: fixed fixed 2: varied fixed 3: fixed varied 4: varied varied
830	832	831	833	Range correction for original set on the RADF	

<Procedure>

Procedure is same as that of  P.3-29 "3.5.1 Density adjustment".

3.5.4 Setting range correction (Adjustment of background peak)

The levels of the background peak for the range correction can be set at the following codes.

< Adjustment Mode (05) >

Original mode				Item to be adjusted	Remarks
Text/Photo	Photo	Text	Gray Scale		
835	837	836	838	Background peak for range correction	When the value increases, the background (low density area) of the image is not output. Acceptable values: 0 to 255 (Default: text/photo: 40, photo: 16, text: 48, Gray Scale:16)

<Procedure>

Procedure is same as that of  P.3-29 "3.5.1 Density adjustment".

3.5.5 Background adjustment

Background of the gamma data can be adjusted with the following codes.

< Adjustment Mode (05) >

Original mode				Item to be adjusted	Remarks
Text/Photo	Photo	Text	Gray Scale		
869	871	870	872	Background adjustment	1 to 9: The larger the value is, the background becomes lighter.

3.6 Measurement at Replacement of High-Voltage Transformer

The high-voltage transformer does not need to be adjusted, however, when you check each value of the main charger bias and the developer bias, it needs to be measured.

Note:

When carrying out the operation, be careful not to touch the electronic section because it is high voltage.

3.6.1 Measurement

[1] Preparation

Items to check		Main Charger	Developer Bias
Process Unit		Take off from the equipment	Remove the connector of the auto toner sensor, and release the developer unit from the drum.
Digital Tester	Function switch	DC	
	Full-scale (range)	1000 V	
	Remarks	Use a digital tester with an input resistance of 10 M Ω (RMS value) or higher.	
How to turn ON the power		Attach the door switch jig and start with the adjustment mode [05] while the front cover opened.	

[2] Installing Jig

- (1) Put in the door switch jig and slide it down.
- (2) Rotate the jig counterclockwise by 90 degrees.

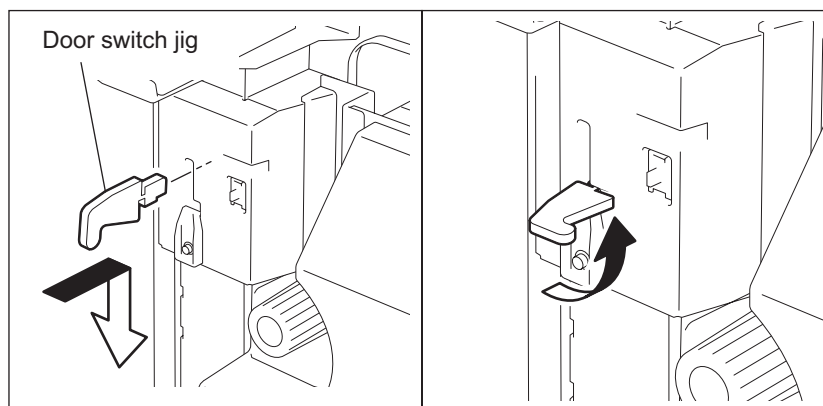


Fig. 3-23

[3] Connection

(1) Connection for main charger measurement

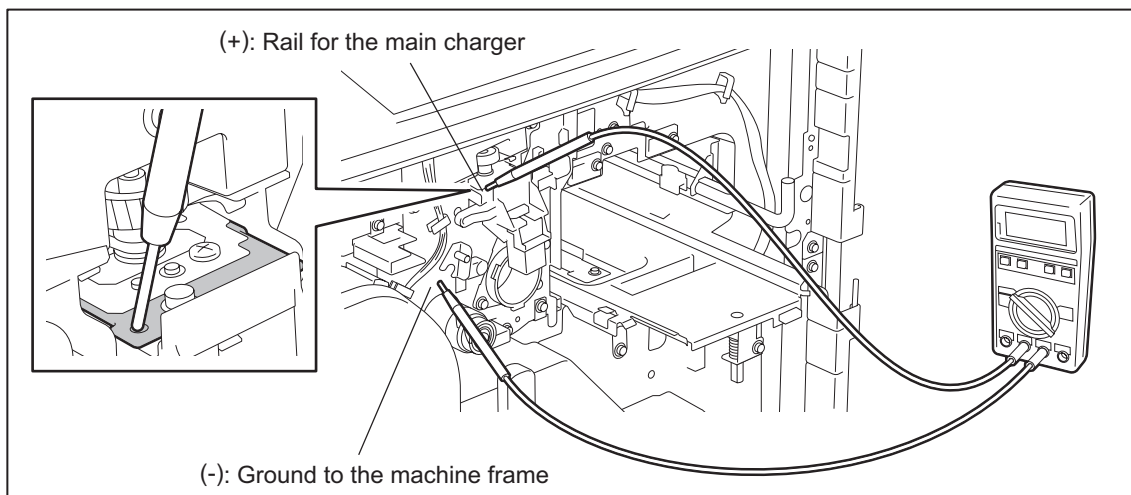


Fig. 3-24

(2) Connection for developer bias measurement

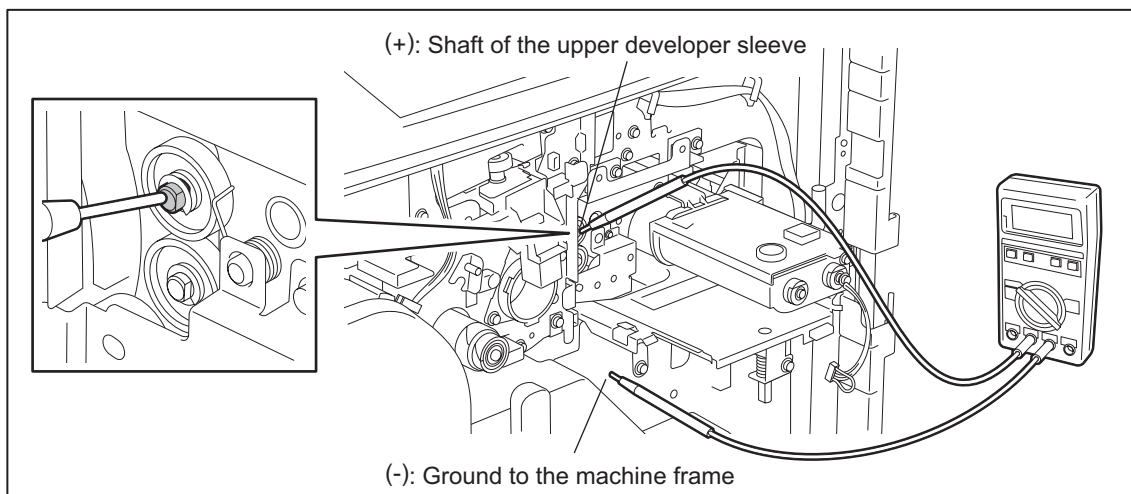
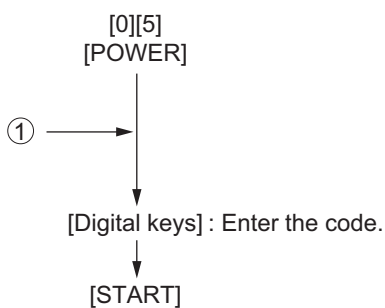


Fig. 3-25

[4] Operation

Connect the digital testers as described in "[3] Connection", and follow the procedure on the next page to measure the output from the main charger and developer bias charger.

<Keys to press>



Check that the measured value satisfies the following table.

	Developer bias	Main charger
Code	205	210
Default value	113 (bit)	102 (bit)
Output value	-394±22V	-500±22V

[CANCEL]

→ Return to ① to enter the other adjustment code.

[POWER] : OFF

Disconnect the digital testers and return the equipment to its original state.

[0][5]
[POWER]

[Digital keys] : 290

[START]

[POWER] : After the message "WAIT" has disappeared, turn the power OFF and then back ON.

<Display>

100%	A	<u>A3</u>
TEST MODE		

100%	XXX	<u>A3</u>
TEST MODE		
→ YYY		

Code No.

Current set value

100%	A	<u>A3</u>
TEST MODE		

Fig. 3-26

Note:

If the output value does not reach a specified level, replace the high-voltage transformer.

Remark:

Transfer bias ON timing adjustment (Not essential)

Depending on the environmental condition or the paper type, transfer ability for the paper leading edge may decrease slightly and the poor image transfer may occur.

In this case, the image quality can be improved by adjusting the leading edge void width wider.

Also, it can be improved by changing the transfer bias ON timing using the setting code 08-841.

- * When using the setting code 08-841 to improve the image quality, increase the value by one and check the result. If the result is not sufficient, repeat the same procedure.

(The transfer ability for the paper leading edge shows a tendency as shown in the table below.)

- * The transfer ability for the paper leading edge and the paper separation ability from the photo-conductive drum are inversely related as shown in the table below.

Therefore, if the value is increased too much, this may cause the slight decrease of the paper separation ability from the photo-conductive drum. So, when adjusting the value, be sure to check the paper feeding as well as the image quality.

[Setting code 08-841: Transfer timing correction]

Value	Content		Transfer ability for paper leading edge	Paper separation ability from the photo-conductive drum
	e-STUDIO555/655	e-STUDIO755/855		
0	Approx. 1.4 mm slower than the standard ON timing	Approx. 1.6 mm slower than the standard ON timing	<div style="text-align: center;"> ↓ Transfer ability improves </div>	<div style="text-align: center;"> ↑ Separation ability improves </div>
1	Same as the standard ON timing.	Same as the standard ON timing.		
2	Approx. 1.4 mm faster than the standard ON timing (Default value)	Approx. 1.6 mm faster than the standard ON timing. (Default value)		
3	Approx. 2.8 mm faster than the standard ON timing.	Approx. 3.3 mm faster than the standard ON timing.		
4	Approx. 7.1 mm faster than the standard ON timing.	Approx. 8.2 mm faster than the standard ON timing.		

3.7 Adjustment of the Scanner Section

3.7.1 Carriages

[A] Installing carriage wires

When replacing the carriage wires, refer illustrations below:

[Front side]

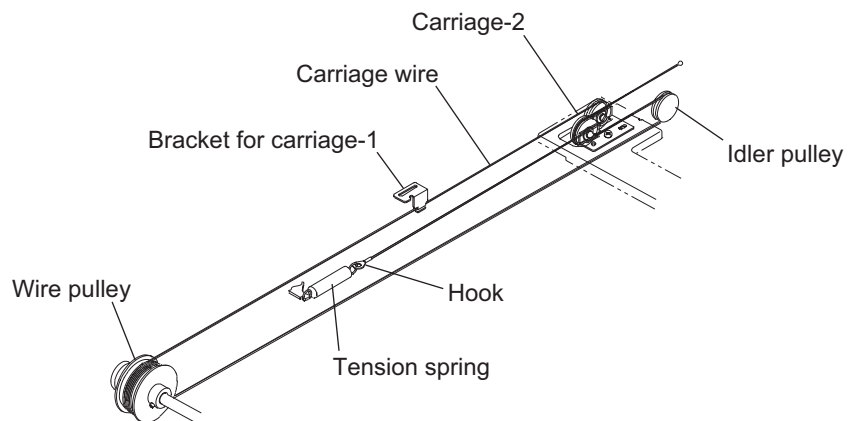


Fig. 3-27

[Rear side]

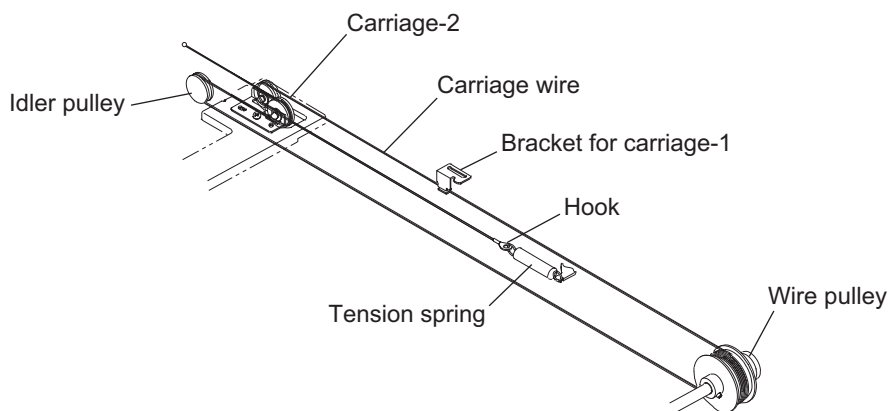


Fig. 3-28

Adjustment of the carriage wire tension is not necessary since a certain tension is applied to the carriage wires by the tension springs.

Note:

Make sure the tension applied to the wire is normal.

[B] Adjusting carriages-1 and -2 positions

<Procedure>

- (1) Move the carriage-2 toward the exit side.
- (2) Loosen the screws fixing the front side pulley bracket, make the sections A and B of the carriage-2 touch with the inside of the exit side frame and screw them up.

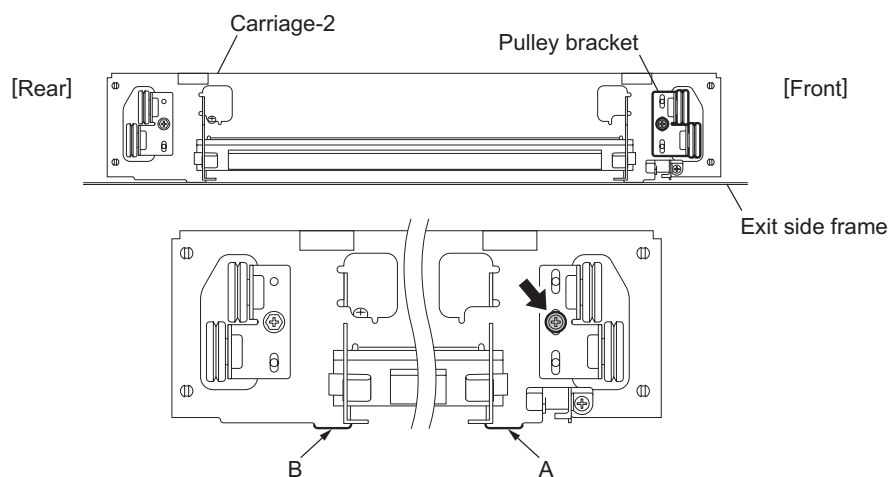


Fig. 3-29

- (3) Put the carriage-1 on the rail, make the sections C and D of it touch with the inside of the exit side frame and screw up the front/rear sides of the bracket to fix it.

Note:

Make sure that the sections A and B of the carriage-2 touch with the exit side frame.

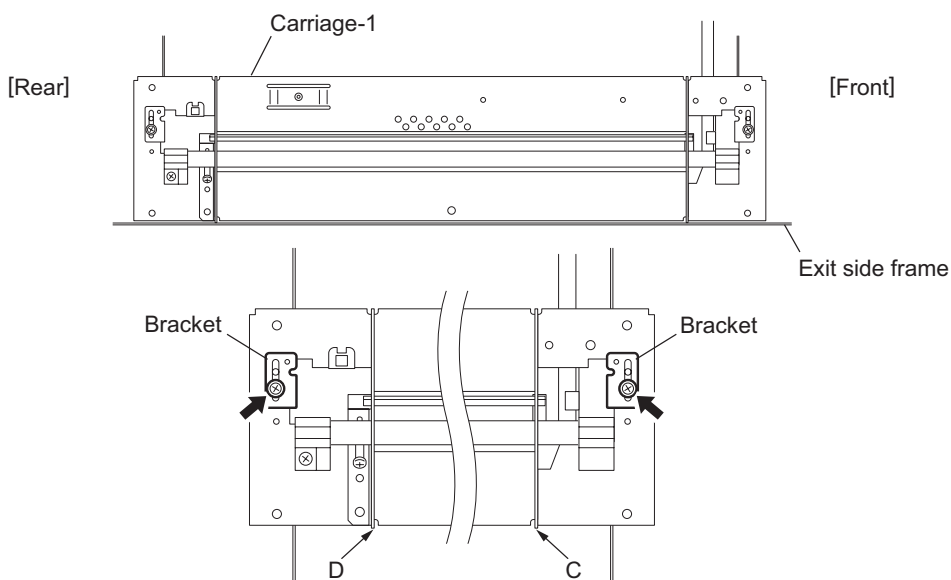


Fig. 3-30

[C] Assembling carriage wires (Winding the wire around the wire pulley)

<Procedure>

- (1) Pull the $\varnothing 3$ ball terminal located at the center of the wire into a hole on the wire pulley. One end of the wire with a hook attached comes to the outside.
- (2) Wind the wires around the wire pulleys of the front and rear sides. The number of turns to be wound are as follows:
 - 2 turns toward the opposite side of the boss
 - 5 turns toward the boss side

Note:

Pay attention to the following when the wires are wound around the pulleys:

- Do not twist the wire.
- Wind the wires tightly so that they are in complete contact with the surface of the pulleys.
- Each turn should be pushed against the previously wound turn so that there is no space between them.

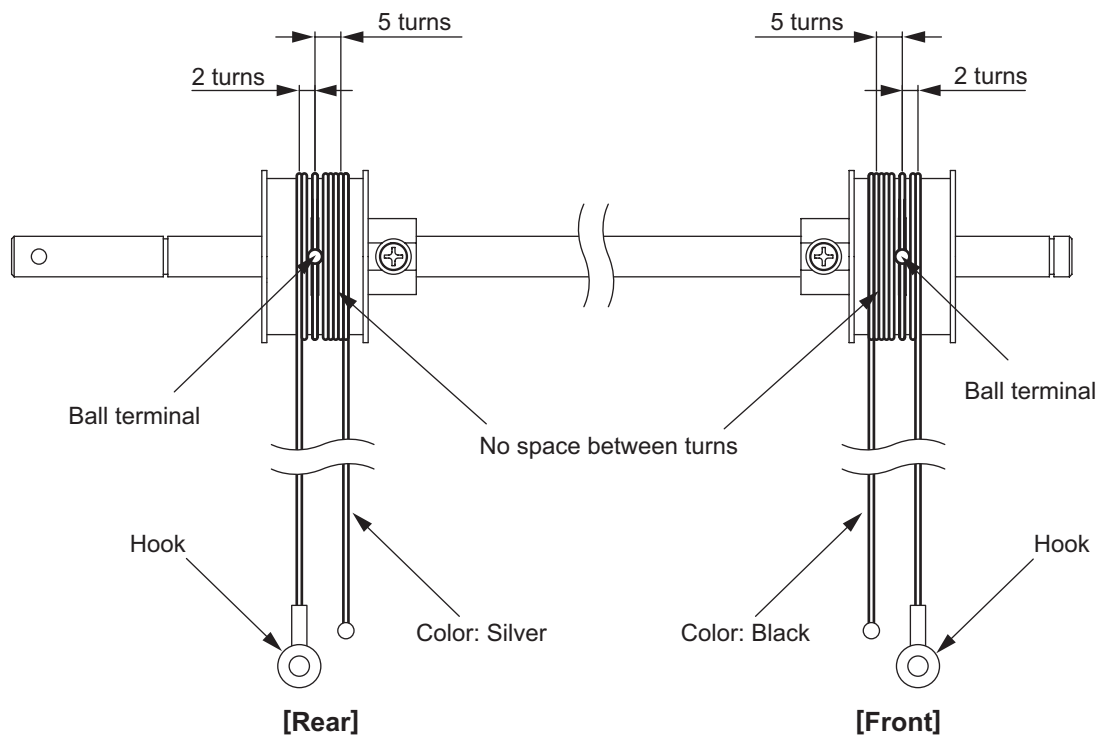


Fig. 3-31

(3) After winding the wires around the pulleys, attach the wire holder jigs not to loosen the wires.

Notes:

- When the wire holder jig is attached, make sure that the wire is not shifted or loosened.
- The wire should come out of the slot of the wire holder jig and be passed through between the arm and the jig.

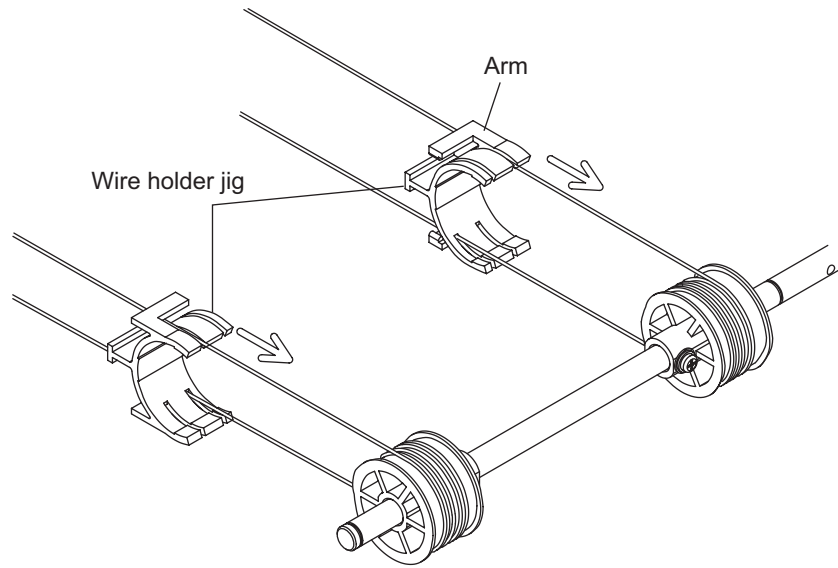


Fig. 3-32

3.7.2 Lens unit

[A] Replacing the lens unit

- The lens unit must not be readjusted and some part of its components must not be replaced in the field since the unit is precisely adjusted. If any of the components is defective, replace the whole unit.
- When replacing the unit, do not loosen or remove the 10 screws indicated with the arrows.

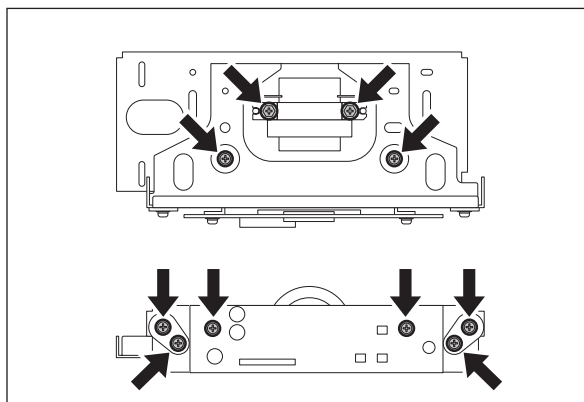


Fig. 3-33

- Handle the unit with care. Do not hold the lens and adjusted part (hold the unit as shown below).

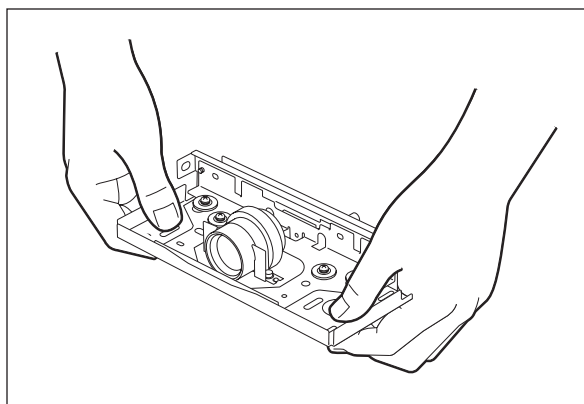


Fig. 3-34

[B] Adjustment of the magnification ratio of the lens

Notes:

- Perform this adjustment only when the lens unit is taken off or replaced.
- Make sure that the primary scanning reproduction ratio (printer section) is correct before this adjustment.

- (1) Place a ruler on the original glass (in the primary scanning direction) and make a copy on A4/LT-sized paper at 100% reproduction ratio.
- (2) Compare the copied ruler with the actual ruler.

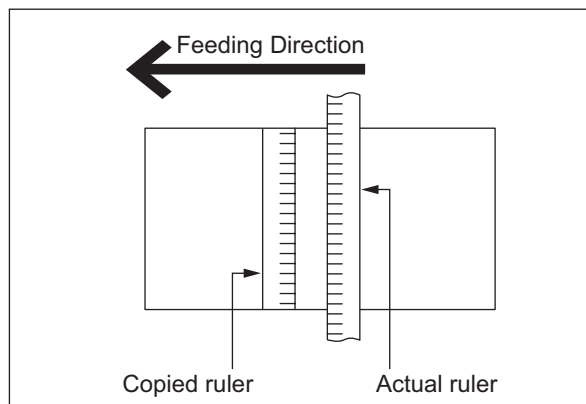


Fig. 3-35

- (3) If each mark on the rulers differs, perform the adjustment with the following procedures.

<Procedure>

- (1) Take off the original glass and lens cover.
- (2) Loosen 4 screws fixing the lens unit.

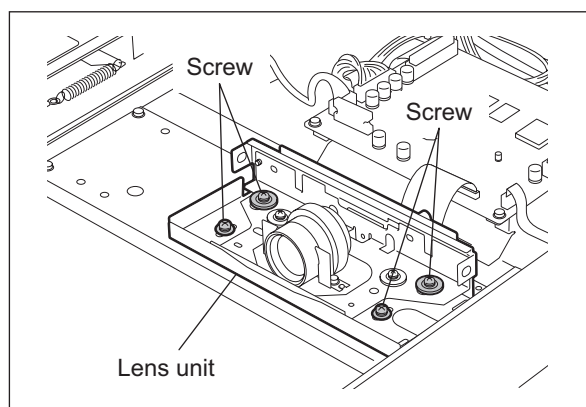


Fig. 3-36

- (3) Slide the lens unit to the right or left direction using the marks on the lens base as a guide. (Slide right when the copied ruler is magnified and slide left when the copied ruler is demagnified.) The following table shows how the reproduction ratio difference between the copied ruler and actual ruler corresponds to the movement amount of the lens unit.

Reproduction-ratio error	Movement amount of unit
0.1%	0.5 mm
0.2%	0.9 mm
0.3%	1.4 mm
0.4%	1.8 mm
0.5%	2.3 mm
0.6%	2.7 mm
0.7%	3.2 mm
0.8%	3.6 mm
0.9%	4.1 mm
1.0%	4.5 mm

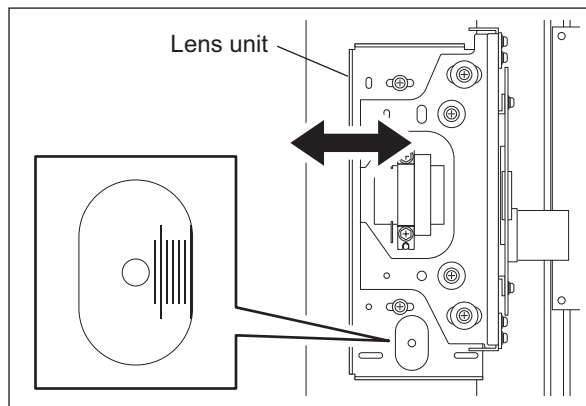


Fig. 3-37

Note:

Fine adjustment can be made in the "Reproduction ratio of primary scanning direction (printer)". on the copied ruler and actual ruler match.

- (4) Tighten 4 screws fixing the lens unit.
- (5) Attach the lens cover and original glass. Make a copy to confirm the reproduction ratio.
- (6) Repeat the procedure 1 to 5 until the marks on the copied ruler and actual ruler match.

3.7.3 Scan motor

When the scan motor has been installed again, adjust the belt tension in the following procedure.

<Procedure>

- (1) Install the belt tension jig (spring).
- (2) Loosen 2 screws. Then tighten these screws when the belt is tensed enough.

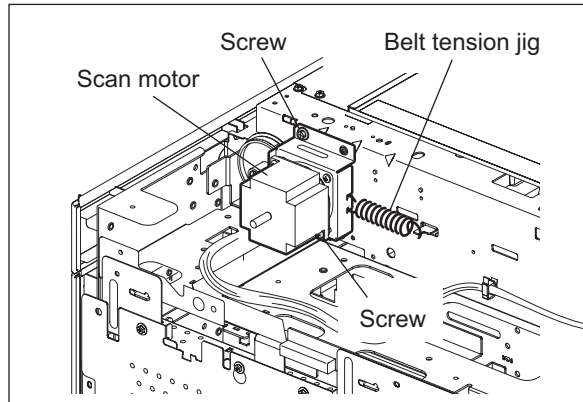


Fig. 3-38

3.8 Adjustment of the Paper Feeding System

3.8.1 Sheet sideways deviation caused by paper feeding

<Procedure>

The center of the printed image shifts to the front side. -> Move the guide to the front side when feeding paper from the bypass tray or the drawer. Move the front cover to the rear side when feeding paper from the Tandem LCF. (Arrow (A) direction in the lower figure).

The center of the printed image shifts to the rear side. -> Move the guide to the rear side when feeding paper from the bypass tray or the drawer. Move the front cover to the front side when feeding paper from the Tandem LCF. (Arrow (B) direction in the lower figure).

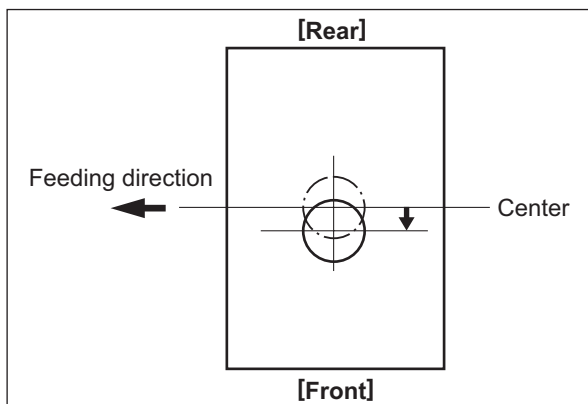


Fig. 3-39

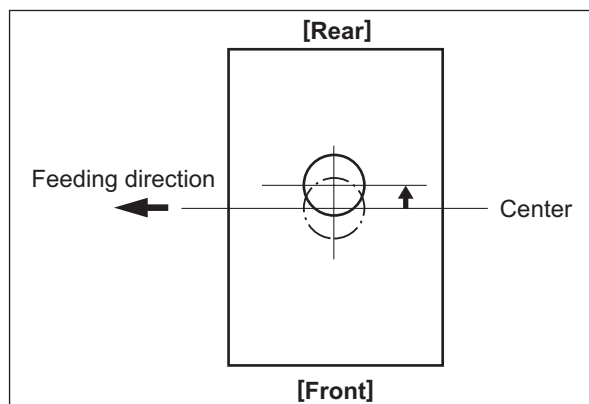


Fig. 3-40

Bypass feeding

1. Loosen the screen.
2. Move the entire guide to the front or rear side.
3. Tighten the screw.

Drawer feeding

1. Loosen 2 screws.
2. Move the entire guide to the front or rear side.
3. Tighten the screws.

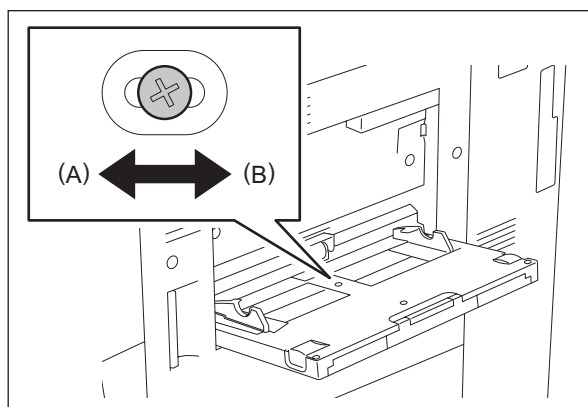


Fig. 3-41

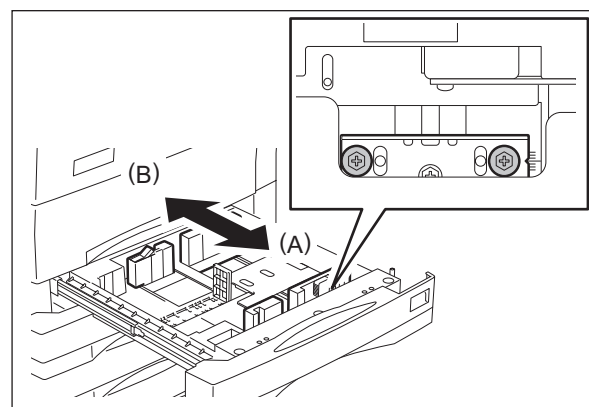


Fig. 3-42

Tandem LCF

- (1) Remove the screw 1 on the left side of the Tandem LCF and the screw 2 on the right side, and then temporarily fix it to the oblong hole. rescrew it to the oblong hole.
- (2) Loosen the screw 2 on the left side of the Tandem LCF and the screw 1 on the right side.
- (3) Remove screw 3, and then temporarily fix to the oblong hole.
- (4) Move the front cover of the Tandem LCF to the front or rear side, and then tighten screw 1 and 2.
- (5) Align the surface of the covers of the 2nd drawer and Tandem LCF. If they do not align, adjust the angle of the Tandem LCF front cover.
- (6) Tighten screw 6.

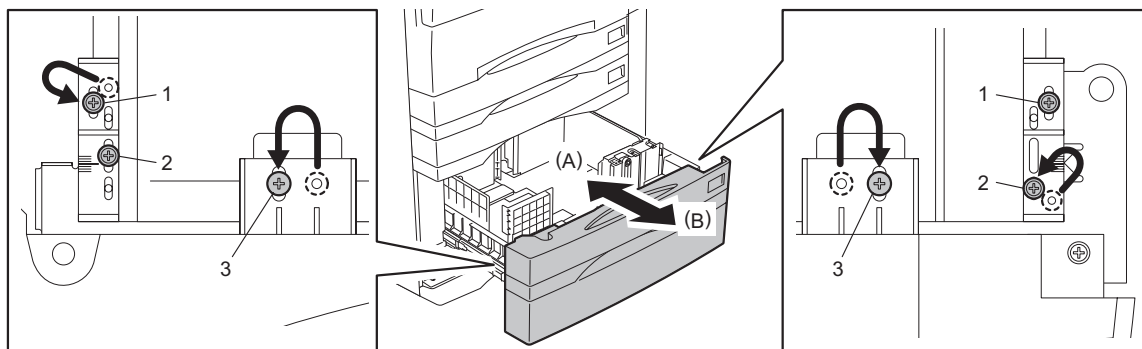


Fig. 3-43

Note:

When the sideways deviation has been adjusted for the Tandem LCF feeding, adjust its protruding point.

If the Tandem LCF drawer cannot be closed securely, decrease the protruding amount.

(When the value decreases in increments of "1", the protruding amount decreases by 1 mm.)

- (1) Move 2 screws of the bracket on the rear side in the same increments as the digit of the scale at right on the front side.
(In case of No. 5, 6 and 7, place the bracket upside down to install it.)

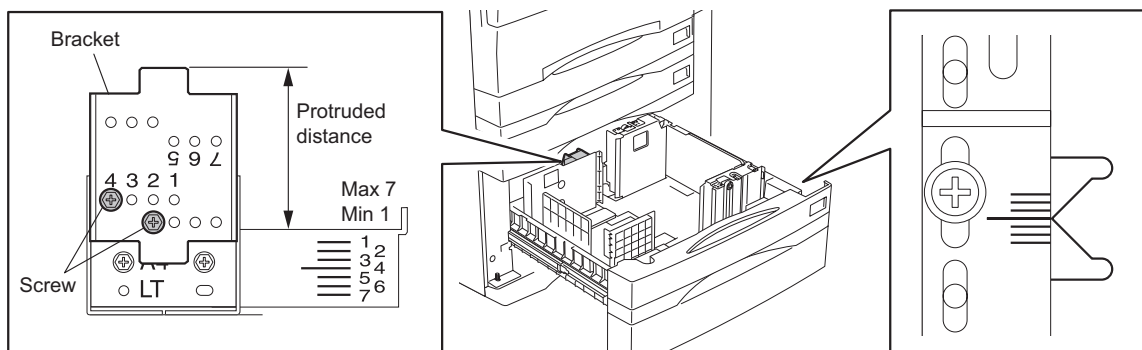


Fig. 3-44

3.8.2 Separation roller pressure force adjustment

In some cases the life of the separation roller may be shortened or paper jams and multiple feeding (EB50) may occur regardless of the operation frequency of the equipment. This comes from the weight or edge status of paper used and the amount of paper dust.

Generally paper jams and multiple feeding often occur as the life end of the roller approaches.

However, if they often occur even though its life has not yet reached its replacement timing, or if the life end comes much earlier than the scheduled replacement timing, the jams and multiple feeding can be suppressed by adjusting the pressure force of the separation roller.

In this method, however, when the roller life becomes longer, jams and multiple feeding may occur frequently, and when the jams and multiple feeding are suppressed, the roller life may become shorter. Therefore, perform this adjustment while checking the status carefully, and if necessary, give a sufficient explanation to users.

<Procedure>

- (1) Take off the paper feed unit. (SERVICE MANUAL "9.9 Disassembly and Replacement: [A] Paper feeder unit / Bypass feed unit")
- (2) Remove 1 screw, and then screw it temporarily to an oblong hole located next to it.

Note:

Make a mark for the installation position of the bracket in advance.

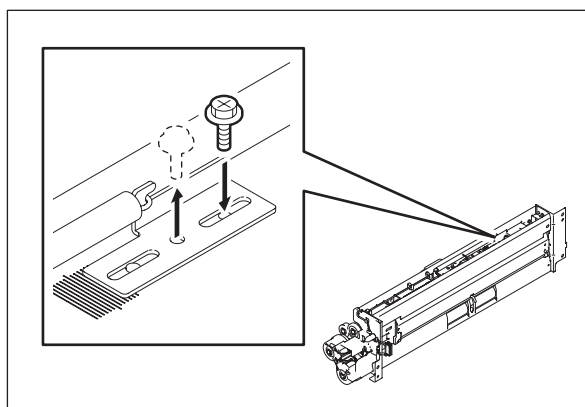


Fig. 3-45

- (3) Move the bracket.
Move to the direction A: The roller life will become longer (but multiple feeding may occur frequently).
Move to the direction B: Multiple feeding will be suppressed (but the roller life may become shorter).

Note:

The recommended moving distance of the bracket is within 2 scale marks.

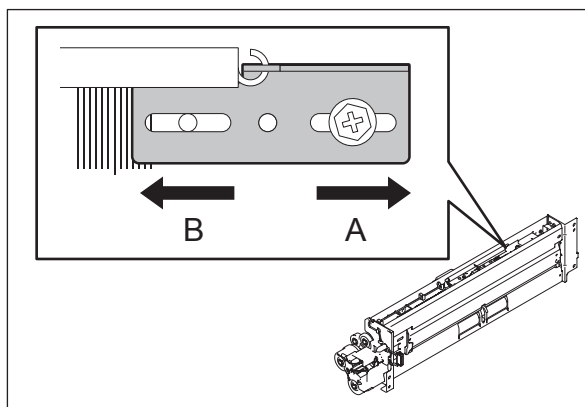


Fig. 3-46

- (4) Tighten the screw that temporarily screwed.

Note:

In this step check the Mylar attached before the separation roller because the roller life may become shorter if this Mylar is scraped and worn.

Reference value of distance C (from the edge of the plate to that of the Mylar):
 7.9 ± 0.2 mm

- * If the distance C is 7.0 mm or shorter, the Mylar must be replaced.

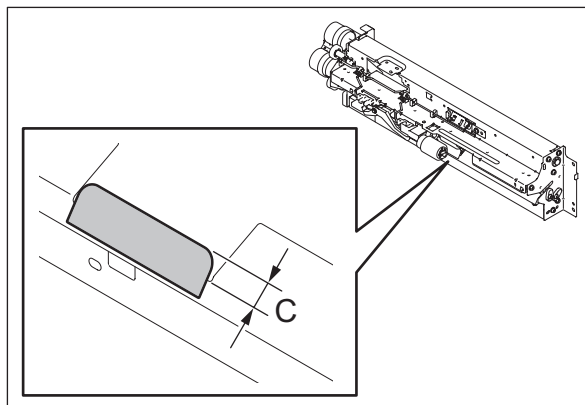


Fig. 3-47

3.9 Adjustment of Developer Unit

None of the doctor-sleeve gap, drum sleeve gap and developer sleeve pole position needs to be adjusted.

3.10 Transfer Belt Deviation Adjustment

The transfer belt may deviate towards the front or rear side depending on the place of installation or variations in the equipment, etc.

If this is the case, perform the following adjustment.

3.10.1 Transfer belt deviation check

Print out about 10 sheets, pull out the transfer/transport unit, and check the transfer belt deviation.

- Judgment criteria

Measure the gap between the bracket and the transfer belt in the front and rear side of the transfer belt unit as shown in the figure.

No adjustment is needed if the gap between the front and rear side of the transfer belt and the bracket is the same.

Perform adjustment if Dimension A (deviation towards the front side) or Dimension B (deviation towards the rear side) is very narrow.

When the belt is positioned in the center, the length of A and B is about 7 mm.

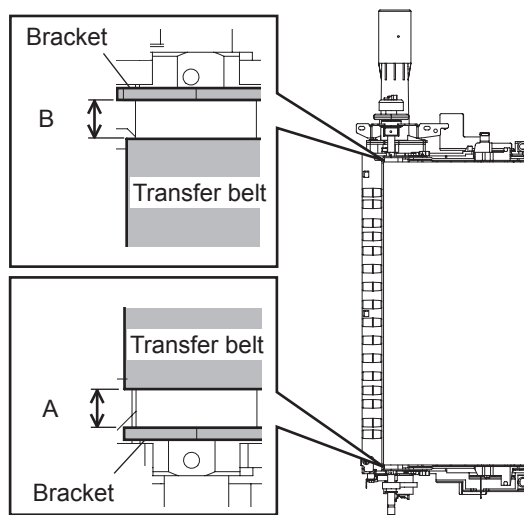


Fig. 3-48

Note:

You can perform adjustment using the current frame (without scales) with the new bracket installed.

It is recommended that you add a mark before and after the adjustment, so that the adjustment position is clear.

3.10.2 Adjustment procedure

- If the transfer belt deviates towards the front side:
Pull out the transfer/transport unit to perform adjustment.
- (1) Move the screw installed in the fixing hole to the adjustment hole, and temporarily fix it.
 - (2) Loosen the screw on the other side so that the bracket can be adjusted.

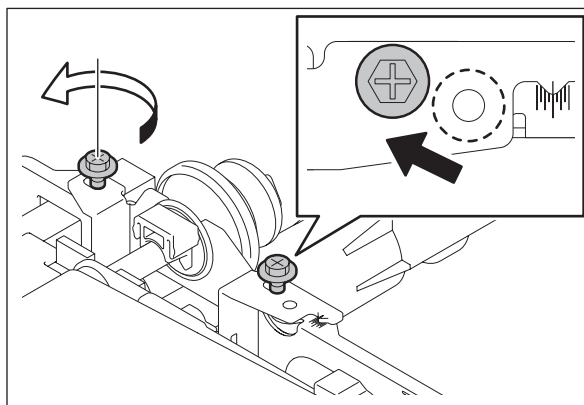


Fig. 3-49

- (3) Move the bracket somewhat to the left-hand side (fuser unit side), and tighten the 2 screws.

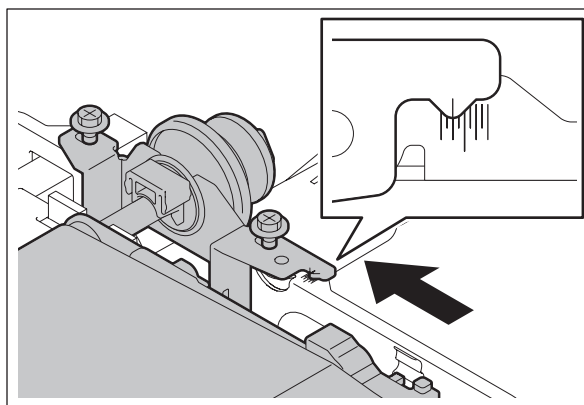


Fig. 3-50

- (4) If the transfer belt still deviates towards the front side after copying, move the belt to the center manually and make a copy again.
- (5) If it still deviates, change the position of the bracket (scale) and adjust it again.
 - If the belt still deviates towards the front side after the adjustment: Move the bracket to the left-hand side (fuser unit side) and make copies.
 - If the belt still deviates towards the rear side after the adjustment: Move the bracket to the right-hand side (drum side) and make copies.

- (6) Adjustment is completed when the transfer belt deviates neither to the front nor the rear side.
- If the transfer belt deviates towards the rear side:
The adjustment procedure is the same as that for the deviation to the front side except for the adjustment direction of the bracket in step 3.
Example: Move the bracket somewhat to the right-hand side (drum side), and tighten the 2 screws.

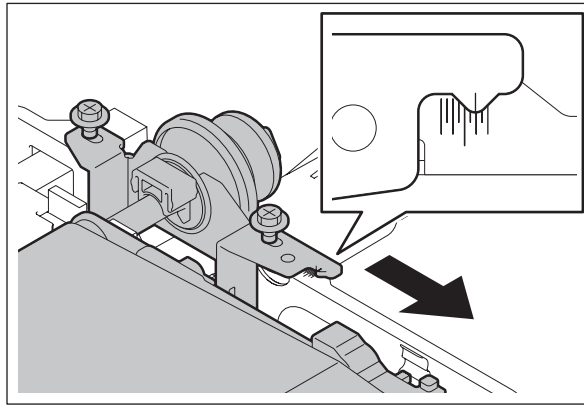


Fig. 3-51

Note:

When no improvement can be seen after the adjustment, check the following items and correct if needed.

- Check if the place of installation is flat.
- Check if the transfer/transport unit is deformed.
- Check if the transfer belt is damaged or deformed.

3.11 Adjustment of Fuser Unit

3.11.1 Adjustment of fuser roller pressure

Normally, the heat roller pressure need not be adjusted. However, it must be carried out when wrinkles frequently appear on copies made on plain paper.

<Procedure>

- (1) Open the RADF and make a copy with A3/LD size (solid copy).
- (2) Turn the power OFF after copying is finished.
- (3) Open the front cover quickly, and pull out the transfer/transport unit.
- (4) Insert the copy made in (1) into the fuser entrance guide with the image side facing down while turning the jam release lever CCW until the center of the copy paper is nipped by the heat roller.
- (5) Leave the copy paper for about 20 seconds, and then take it out by quickly turning the jam release lever CCW again.
- (6) Measure the width of the area nipped by the heat and pressure rollers at the front and the rear.

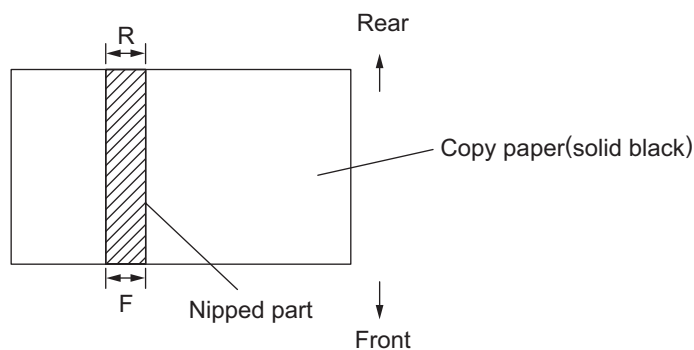


Fig. 3-52

- (7) Remove 2 screws and take off the cleaning web unit.
- (8) If $|F-R| \geq 0.5\text{mm}$, lift up the upper separation finger unit and loosen the fixing screw of the pressure spring on the side with the wider nip width. One half turn corresponds to narrowing the nipped section by about 0.5mm.

- (9) If $|F-R| < 0.5\text{mm}$, the adjustment is completed. Close the RADF and make five blank copies with A3/LD size to clean the heat and pressure rollers.

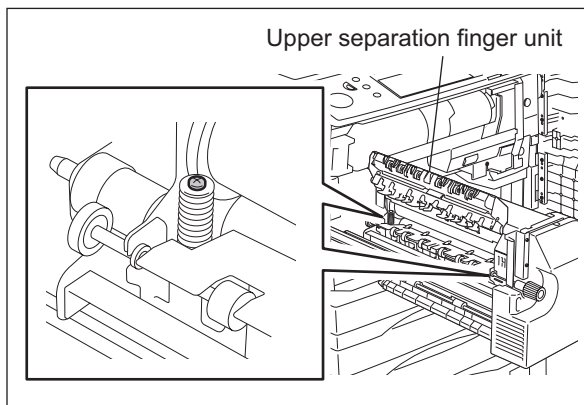


Fig. 3-53

3.11.2 Setting of fuser/pressure roller temperature

The fuser has been set (heat roller surface temperature: 200°C) taking the fusing performance, wrinkling, curling and toner transfer deficiency at the leading/trailing edges of the duplex print into consideration when our company recommended paper is used. This is to allow the characteristics of the paper to be demonstrated in a well-balanced manner. However, various types of paper are used in the field, and factors such as the paper thickness and smoothness greatly effect the fusing performance, in particular. If the fusing performance deteriorates while using a specific type of paper, deal with that by changing the fuser roller temperature at the setting mode "08".

Change the fuser roller temperature (in ready status, during printing).

To improve fusing efficiency, a change is made in the range of the setting value between "12" and "14" (200°C to 210°C).

<Setting mode(08)>

Code	Contents
411	Fuser roller temperature in ready status
410	Fuser roller temperature during printing with plain paper
413	Fuser roller temperature during printing with thick paper 1
437	Fuser roller temperature during printing with thick paper 2
412	Fuser roller temperature during printing with thick paper 3
1804	Fuser roller temperature during printing with OHP

Notes:

1. When a large value is set (to increase the temperature), the level of wrinkling, curling and toner transfer deficiency at the leading/trailing edges of the duplex print tends to be worsened.
2. Do not set the fuser roller temperature in the ready status (08-411) higher than the one during printing (08-410, 413, 437, 412).
3. When printing with OHP, remember that the OHP films tend to stick together if the setting value for the fuser roller temperature (08-1804) is higher than the default value.

Change the starting temperature of the pressure roller low speed pre-running during ready in the setting mode (08-845, 847). To improve the fusing quality, change the setting value to "12" (110°C).

Note:

The frequency of pre-running is increased when the starting temperature of the pressure roller pre-running during ready is increased.

3.11.3 Adjustment of fuser entrance guide

Check the gap between the fuser entrance guide and the press roller when the following troubles occur:

- Stain on the paper back side
- Jam at the fuser entrance
- Paper wrinkling

Adjust the fuser entrance guide following the procedure below until the troubles are cleared.

The gap is 0.8 mm when the screw is at position 1. (Default value)

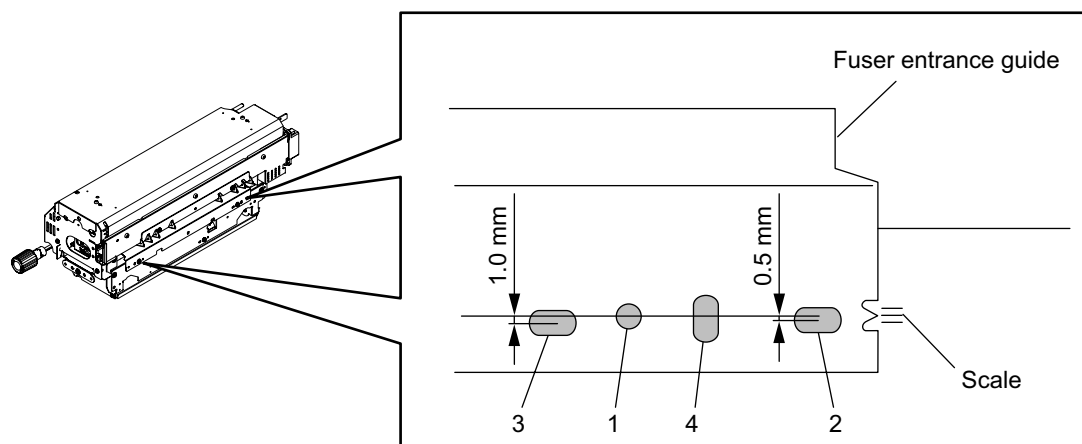


Fig. 3-54

<Adjustment procedure>

- (1) Move the screw to the screw hole 2 and check the gap. (Fixed value of the gap is 1.3 mm.)
- (2) Move the screw to the screw hole 3 and check the gap. (Fixed value of the gap is 1.8 mm.)
- (3) Move the screw to the oblong hole 4 and adjust the gap. (Adjust it with $0.4 < \text{gap} < 1.7$.)
*The scale is marked off in ± 1 mm (Also adjust the leveling of the fuser entrance guide after the screw has been moved to the oblong hole 4 and the adjustment has been made)

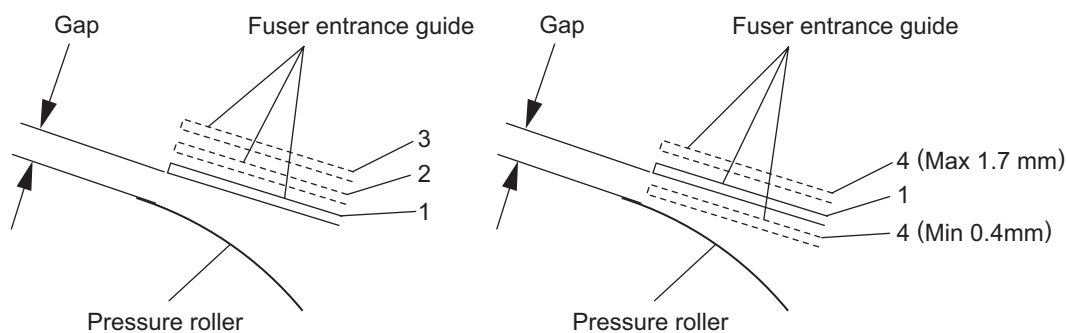


Fig. 3-55

3.11.4 High-fusing mode

When the fusing level needs to be raised, it can be set at the setting mode "08".

(1) Level up at 1st printing

Changing the setting of the pre-running time for first printing

The level is raised by delaying the time for the 1st printing and extending the time to warm the fuser roller. At this code, the time to delay is set.

<Setting mode(08)>

Code	Contents
440	First printing time with plain paper
441	First printing time with thick paper 1
439	First printing time with thick paper 2
417	First printing time with thick paper 3
526	First printing time with OHP

(2) Level up at continuous printing.

The level for the continuous printing is set at the "high-fusing mode (08-433)". The level is raised by delaying the printing cycle and controlling not to lower the fuser roller temperature.

The setting of 08-433 is reflected when "Thick paper 3" is selected.

Note:

08-417 of (1) and 08-433 of (2) can be combined.

3.11.5 Changing Printing Speed

When the fuser roller temperature drops drastically during the continuous printing, the printing may be stopped to increase the fuser roller temperature because the shortage in supply to the fuser unit, depending of the use condition (use environment, power voltage condition, heat reserve condition of the fuser unit).

To prevent the printing from stopping or to decrease its frequency, enable the setting of changing the printing speed when the temperature drops, at the setting mode "08".

<Setting mode(08)>

Code	Contents	Default	Values
858	Changing Printing Speed (Plain paper)	0	0: Disabled, 1: Enabled only for 5min. 2: Always enabled
859	Changing Printing Speed (Thick paper 1)	0	0:Disabled, 1: Enabled only for 5min. 2: Always enabled
860	Changing Printing Speed (Thick paper 2)	0	0:Disabled, 1: Enabled only for 5min. 2: Always enabled
861	Changing Printing Speed (Thick paper 3)	0	0:Disabled, 1: Enabled only for 5min. 2: Always enabled

Notes:

1. When the setting value "1" is selected, the printing speed slows down if the fuser roller temperature drops for only 5 minutes after the warming-up time.
2. When the setting value "2" is selected, the printing speed slows down if the fuser roller temperature drops.

3.12 Adjustment of the RADF

3.12.1 RADF position adjustment

Perform this adjustment when the RADF is removed.

- (1) Place the RADF aligning its installation shoulder screw with the hole of the hinge bracket, and then slide it to the front side.

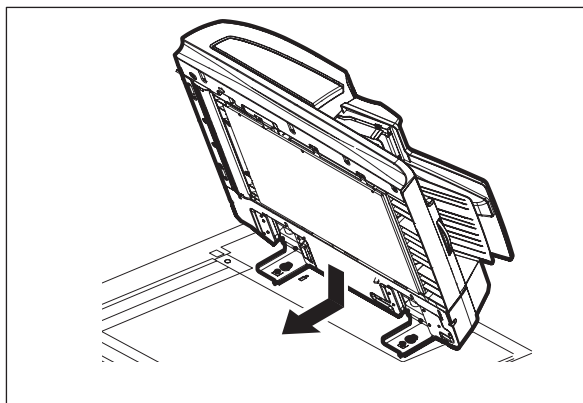


Fig. 3-56

- (2) Tighten the 2 fixing screws of the hinge bracket (front side) temporarily.

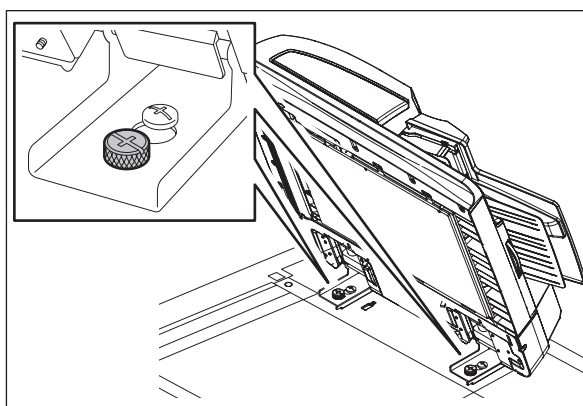


Fig. 3-57

- (3) Remove the platen sheet.

Note:

Be sure not to fold or stain the removed platen sheet.

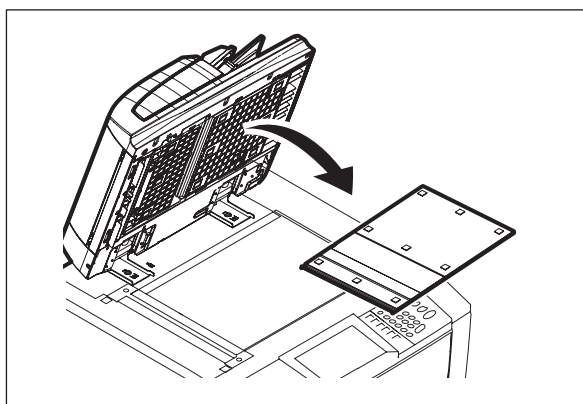


Fig. 3-58

- (4) Remove 2 screws.

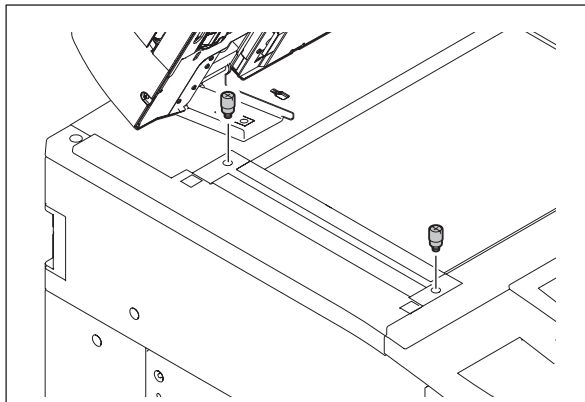


Fig. 3-59

- (5) Install 2 positioning pins.

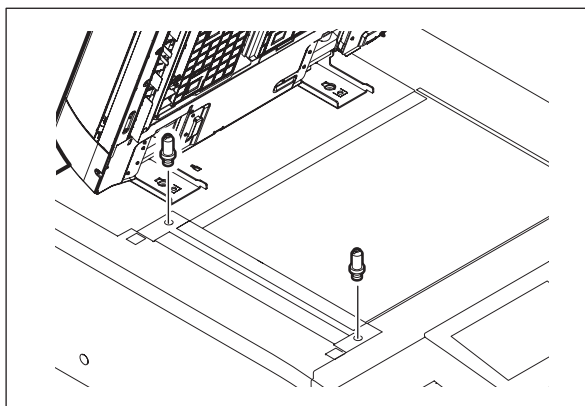


Fig. 3-60

- (6) Close the RADF gently and check if the positioning pins fit the holes on the RADF.

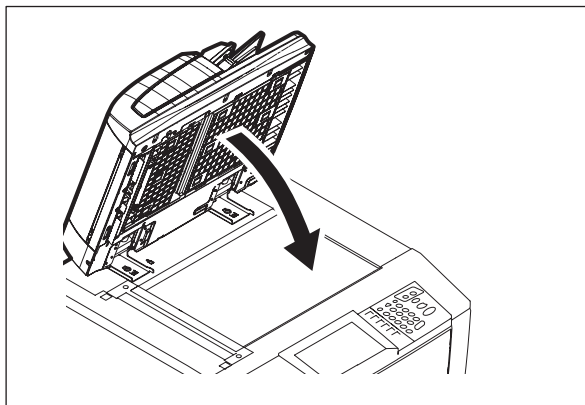


Fig. 3-61

- (7) When the RADF is closed, check if the hole of the adjustment plate on the right-hand hinge is aligned with the hole on the equipment. If it is not, turn the adjustment screw to match the hole.

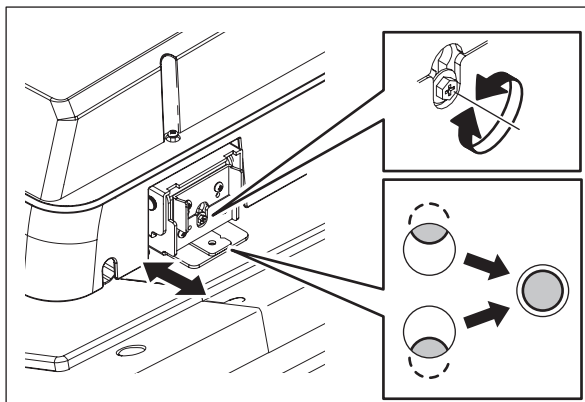


Fig. 3-62

- (8) Install 1 fixing screw (rear side) on the right-hand hinge bracket.

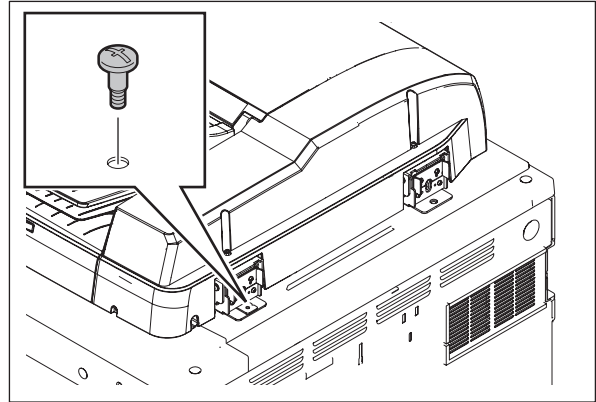


Fig. 3-63

- (9) Insert a washer, and install 1 fixing screw (rear side) on the left-hand hinge bracket.

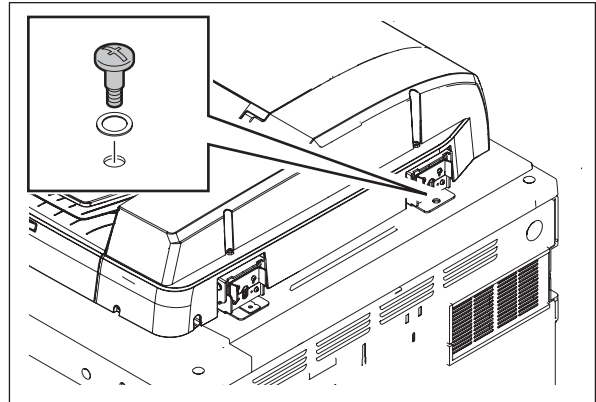


Fig. 3-64

- (10) Tighten the 2 fixing screws (front side) on the hinge bracket.

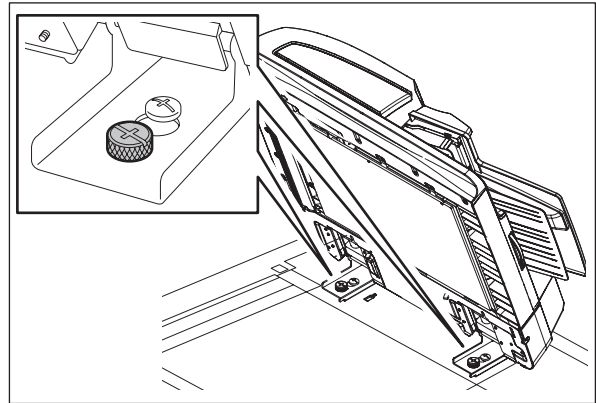


Fig. 3-65

- (11) Open the RADF and remove 2 positioning pins.

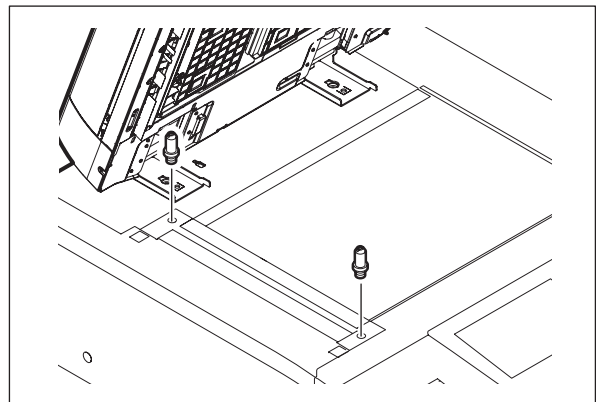


Fig. 3-66

(12) Install 2 screws.

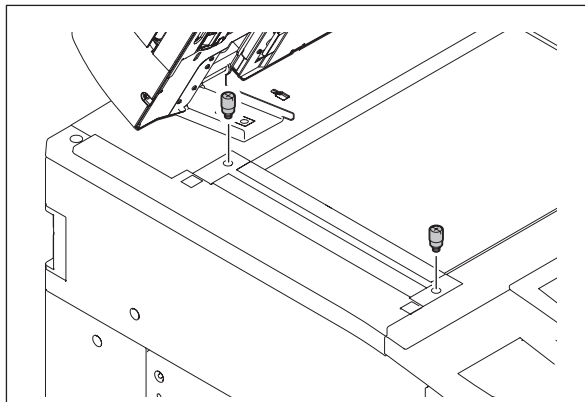


Fig. 3-67

(13) Place the platen sheet on the original glass and align it to the top left corner.
Close the RADF gently and open it to check if the platen sheet is attached properly.

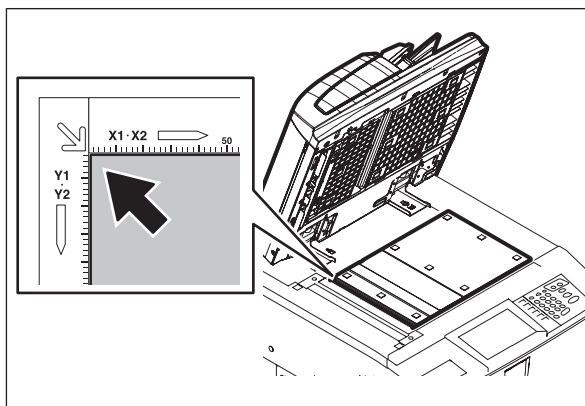


Fig. 3-68

3.12.2 RADF height adjustment

Note:

Check if the image adjustment for the equipment is performed properly before this adjustment of the RADF.

[A] Adjustment

- (1) Close the RADF.
- (2) Light the exposure lamp.
 - Turn the power ON while pressing [0] and [3] simultaneously.
 - Key in [267] and then press the [START] button. The exposure lamp is turned ON for a given length of time.
- (3) Visually check the gap between platen guide holder "A" and upper surface of the original glass "B" from the left hand side of the equipment. If the value is not within the tolerance, perform the adjustment according to the following procedure.

[Tolerance of the gap]

Rear side: 0 - 0.2 mm

Front side: 0 mm

- (4) Close the RADF. Adjust it by turning the adjustment screws on the hinges.
 - Adjust the gap on the rear side by means of the screw on the hinge on the feed side (right side) of the RADF.
Turn it clockwise Heightened
Turn it counterclockwise Lowered

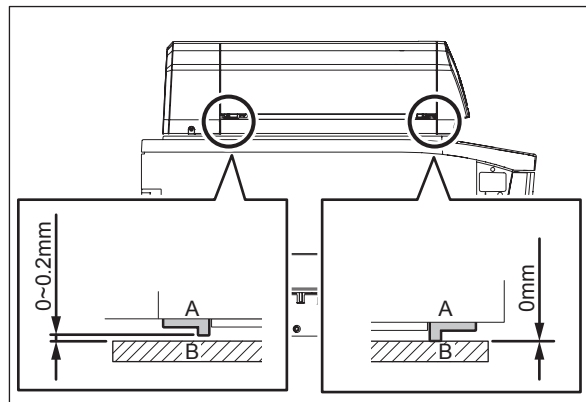


Fig. 3-69

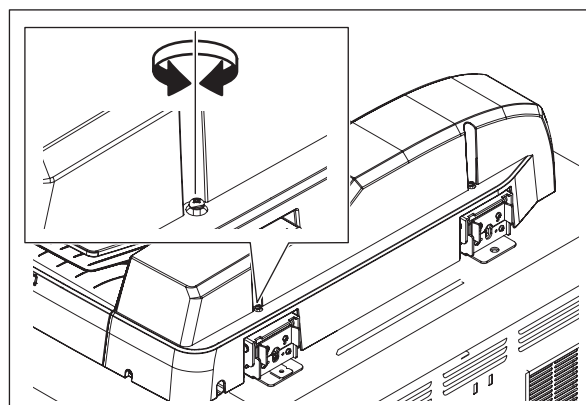


Fig. 3-70

- Adjust the gap on the front side by means of the screw on the hinge on the exit side (left side) of the RADF.
Turn it clockwise Lowered
Turn it counterclockwise Heightened

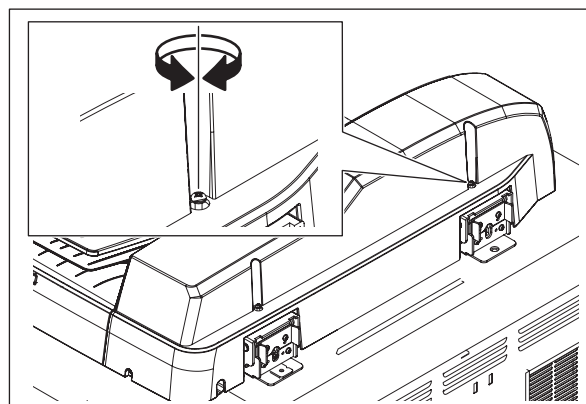
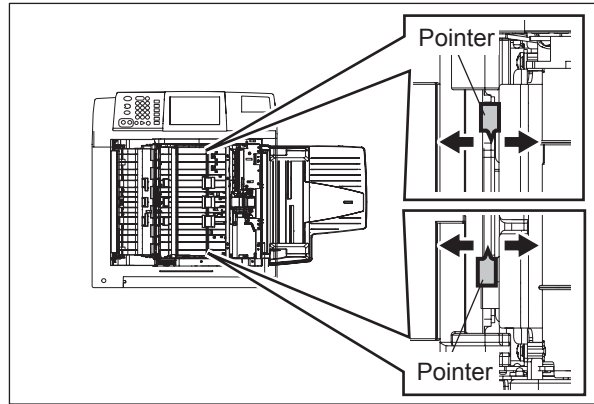


Fig. 3-71

Note:

Open the original jam access cover and check the height adjustment pointer on the front and rear side. When taking off / reinstalling the RADF, be sure to check the position of the height adjustment pointer before taking off the RADF. Check the position of the pointer again after the RADF is reinstalled. Perform the RADF height adjustment only when the position is not aligned with that before the reinstallation.

**Fig. 3-72**

3.12.3 RADF image skew adjustment

Note:

First check if the image adjustment has been performed properly and then start this adjustment for the RADF. Also, the RADF position and height shall be adjusted correctly.

[A] Simplex copying:

- (1) Check the image using the chart (original) with vertical and horizontal lines in the following procedure.
Place the chart provided as an original with its face up on the original tray of the RADF, select [1 Sided -> 1 Sided] and make copies.

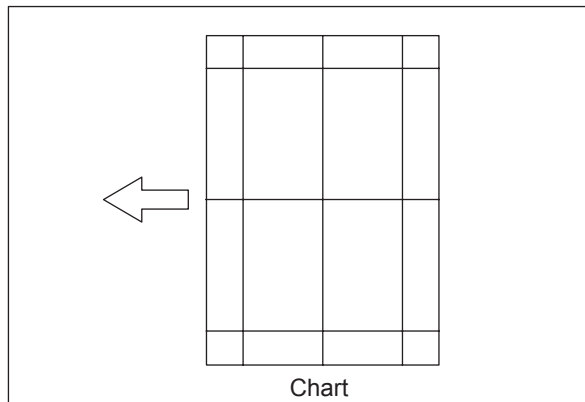


Fig. 3-73

- (2) Superimpose the chart on the copy and check the inclination of the copy image.

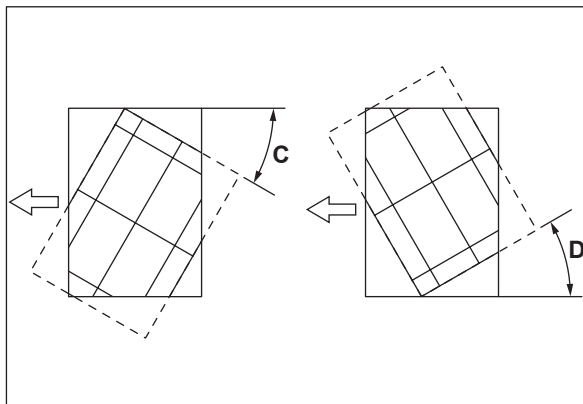


Fig. 3-74

- (3) If the adjustment is necessary, open the original jam access cover and change the position of the lower screw fixing the plate. Loosen the screw, and then if the image skew is "C" as shown in the figure above, shift the aligning plate in the direction of "+", and if "D", shift it to "-".

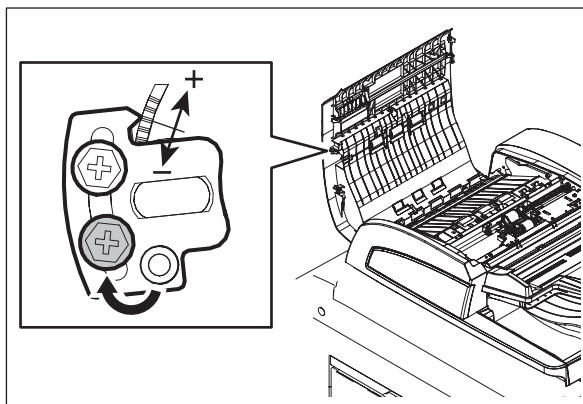


Fig. 3-75

[B] Duplex copying:

- (1) Check the image using the chart (original) with vertical and horizontal lines in the following procedure.
Place the chart provided as an original with its face up on the original tray of the RADF, select [2 Sided -> 2 Sided] and make copies.

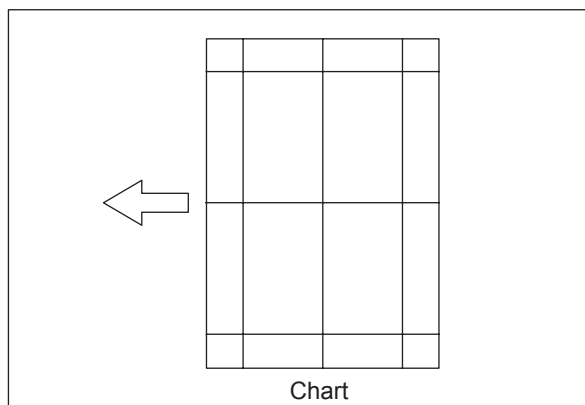


Fig. 3-76

- (2) Superimpose the chart on the copy and check the inclination of the copy image.

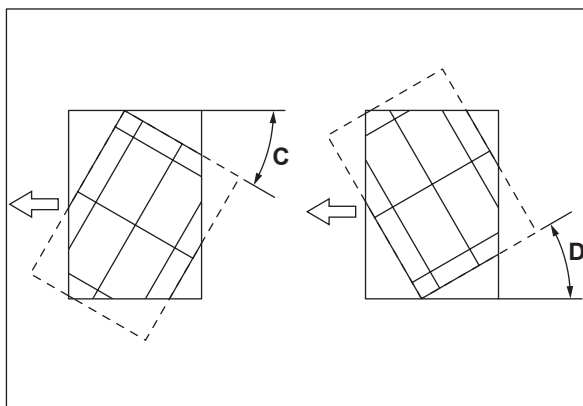


Fig. 3-77

- (3) If the adjustment is necessary, open the original jam access cover and change the position of the lower screw fixing the plate. Loosen the screw, lift the guide and then if the image skew is "C" as shown in the figure above, shift the aligning plate in the direction of "+", and if "D", shift it to "-".

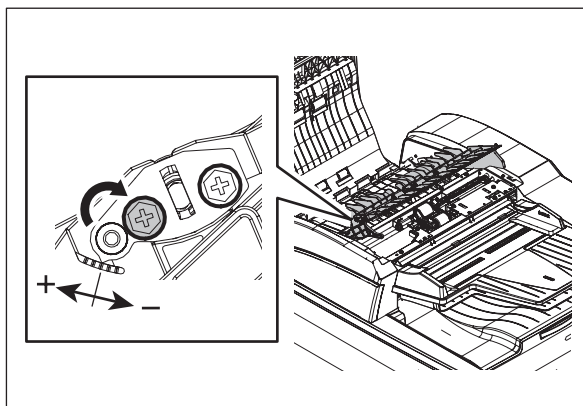


Fig. 3-78

3.12.4 RADF leading edge position adjustment

Note:

First check if the image adjustment has been performed properly and then start this adjustment for the RADF. Also, the RADF position and height shall be adjusted correctly.

[A] Simplex copying:

- (1) Check the image using the chart (original) with vertical and horizontal lines in the following procedure.
Place the chart provided as an original with its face up on the original tray of the RADF, select [1 Sided -> 1 Sided] and make copies.

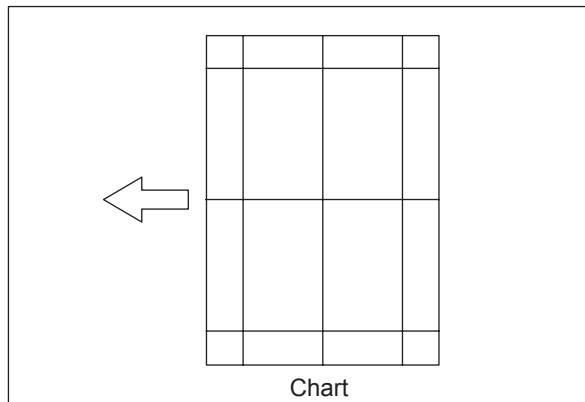


Fig. 3-79

- (2) Superimpose the chart on the copy and check the leading edge E of the chart and F of the copy.
- (3) If the adjustment is necessary, shut down the equipment and turn the power ON while pressing [0] and [5] simultaneously, key in [365] and then press the [START] button.
- (4) Enter the value.
If the leading edge (F) margin of the copy image is larger than the (E) margin of the chart, enter a value smaller than the current one. If the leading edge (F) margin of the copy image is smaller than the (E) margin of the chart, enter a value larger than the current one.

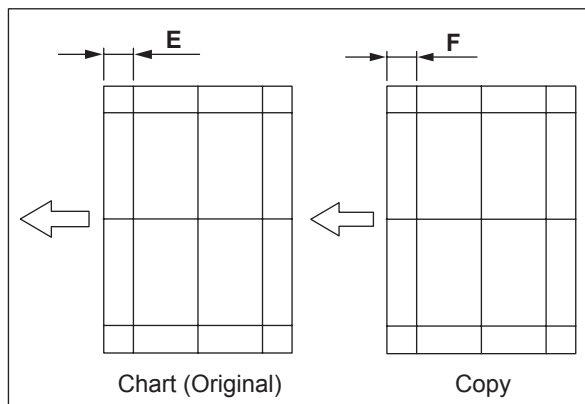


Fig. 3-80

Note:

Changing one value shifts the copy image by 0.2 mm.

- (5) Press the [ENTER] button.

[B] Duplex copying:

- (1) Check the image using the chart (original) with vertical and horizontal lines in the following procedure.
Place the chart provided as an original with its face up on the original tray of the RADF, select [2 Sided -> 2 Sided] and make copies.

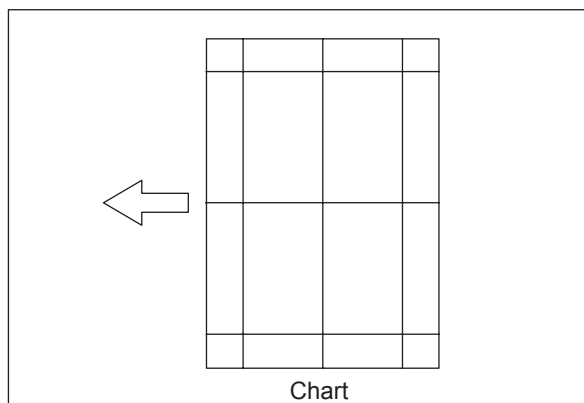


Fig. 3-81

- (2) Superimpose the chart on the copy and check the leading edge E of the chart and F of the copy.
- (3) If the adjustment is necessary, shut down the equipment and turn the power ON while pressing [0] and [5] simultaneously, key in [366] and then press the [START] button.
- (4) Enter the value.
If the leading edge (F) margin of the copy image is larger than the (E) margin of the chart, enter a value smaller than the current one. If the leading edge (F) margin of the copy image is smaller than the (E) margin of the chart, enter a value larger than the current one.

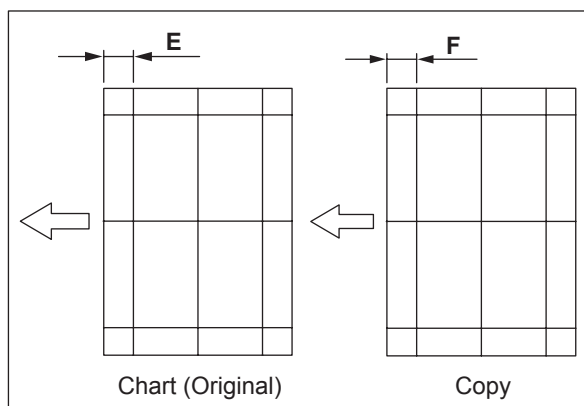


Fig. 3-82

Note:

Changing one value shifts the copy image by 0.2 mm.

- (5) Press the [ENTER] button.

3.12.5 RADF horizontal position adjustment

Note:

First check if the image adjustment has been performed properly and then start this adjustment for the RADF. Also, the RADF position and height shall be adjusted correctly.

- (1) Check the image using the chart (original) with a center line in the following procedure. Place the chart provided as an original with its face up on the original tray of the RADF, and then make copies.

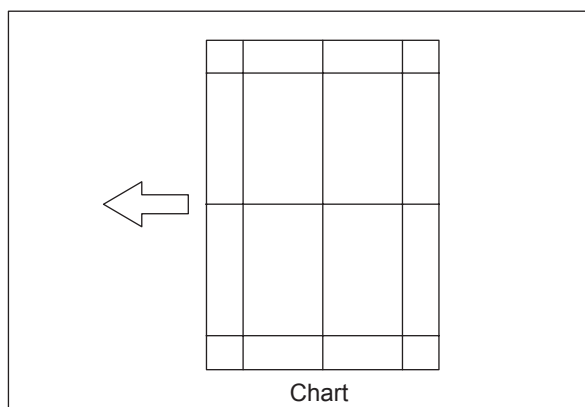


Fig. 3-83

- (2) Fold the copy in half and check if the center line is misaligned.
- (3) If the adjustment is necessary, shut down the equipment and turn the power ON while pressing [0] and [5] simultaneously.
- (4) Key in [358] and then press the [START] button.
- (5) If the center line of the copy image is shifted to the front side of the equipment (G), enter a value larger than the current one.

Note:

Changing one value shifts the copy image by 0.08 mm.

- (6) If the center line of the copy image is shifted to the rear side of the equipment (H), enter a value smaller than the current one.
- (7) Press the [ENTER] button.

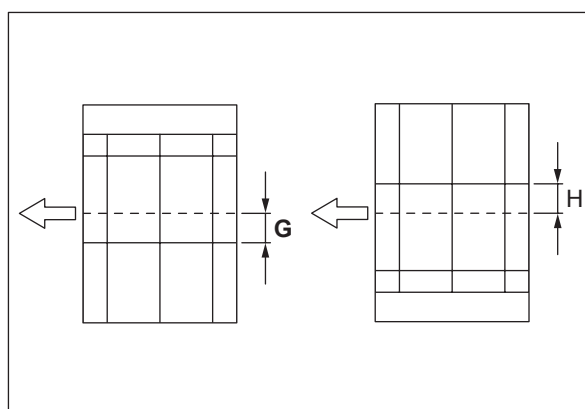


Fig. 3-84

3.12.6 RADF copy ratio adjustment

Note:

First check if the image adjustment has been performed properly and then start this adjustment for the RADF. Also, the RADF position and height shall be adjusted correctly.

- (1) Check the image using the chart (original) with vertical and horizontal lines in the following procedure.
Place the chart provided as an original with its face up on the original tray of the RADF.

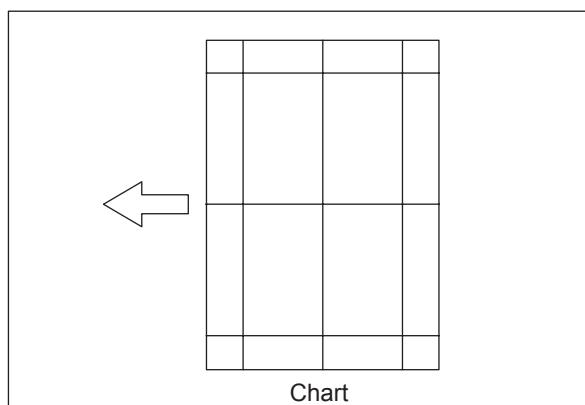


Fig. 3-85

- (2) Press the [START] button.
- (3) Superimpose the chart on the copy and check the image dimension "I".
- (4) If the adjustment is necessary, shut down the equipment and turn the power ON while pressing [0] and [5] simultaneously.
- (5) Key in [357] and then press the [START] button.
- (6) If the copy image dimension "I" is larger than the chart dimension, enter a value smaller than the current one. If the copy image dimension "I" is smaller than the chart dimension, enter a value larger than the current one.

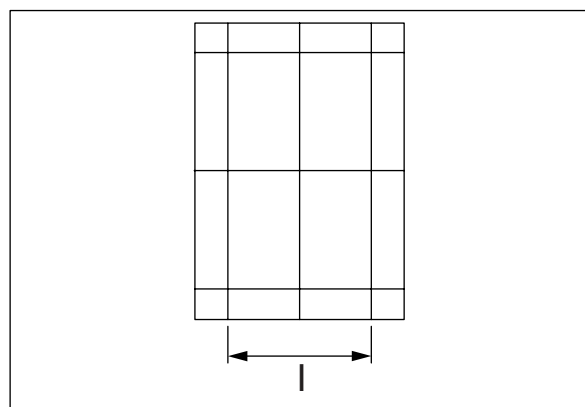


Fig. 3-86

Note:

When the value is increased (decreased) by 1, the copy image (ratio in the secondary scanning direction) is affected correspondingly by 1%.

- (7) Press the [ENTER] button.

3.12.7 RADF opening/closing switch adjustment

Adjust the bracket position so that the sensor is turned ON when the height “J” becomes 145 mm or less (within the empty weight falling limit).

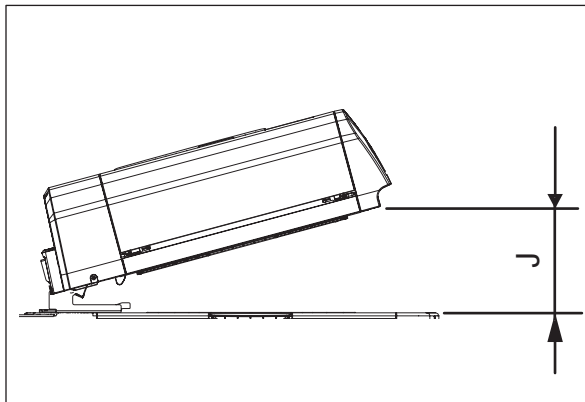


Fig. 3-87

- (1) Take off the RADF rear cover.
📖 SERVICE MANUAL “16.5.3 RADF rear cover”
- (2) Loosen the fixing screw of the bracket. Slide the bracket vertically using the scale as a guide to adjust the position where the switch is turned ON.
- (3) Tighten the fixing screw of the bracket. Install the RADF rear cover.

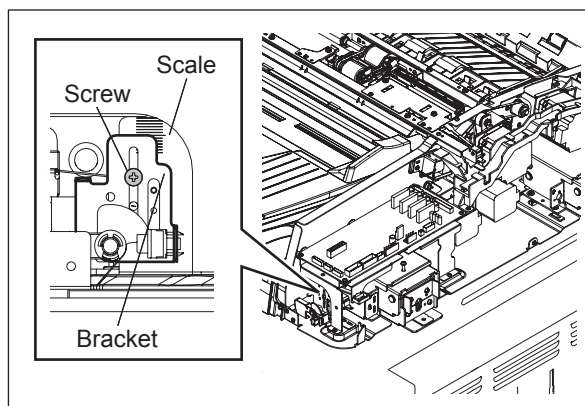


Fig. 3-88

3.12.8 Original reading start sensor adjustment

When the RADF board or the original reading start sensor (sensor section or prism) is replaced, be sure to perform this adjustment. If not, paper jams (E721, E725, E774) or operational problems may occur.

[A] Automatic adjustment

- (1) Turn the power ON while pressing [0] and [5] simultaneously.
- (2) Key in [356] and then press the [START] button.

Notes:

1. Be sure to close all of the RADF cover before the adjustment is performed.
2. Check that there is no paper on the original reading start sensor so that the light is not shielded.

[B] Manual adjustment

Note:

When the reading start sensor is replaced or re-installed, perform this manual adjustment.

- (1) Take off the left RADF cover.
- (2) Close the original jam access cover and the RADF.
- (3) Turn the power ON while pressing [0] and [5] simultaneously.
- (4) Key in [353] and then press the [START] button.

Note:

Be sure not to close or open the original jam access cover and the RADF until step 6 is finished. If you do so, the adjustment value will be reset. In this case, repeat the adjustment from step 2.

- (5) Loosen 2 prism vertical adjustment screws of the prism.

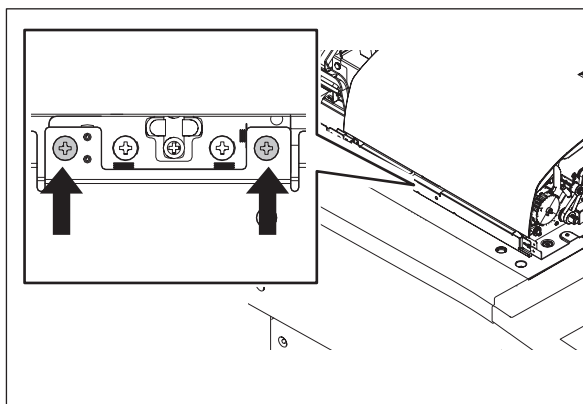


Fig. 3-89

- (6) Slide the prism vertically. When the prism comes to the proper adjustment position, LED 3 on the RADF board lights. At this position, tighten 2 prism vertical adjustment screws.

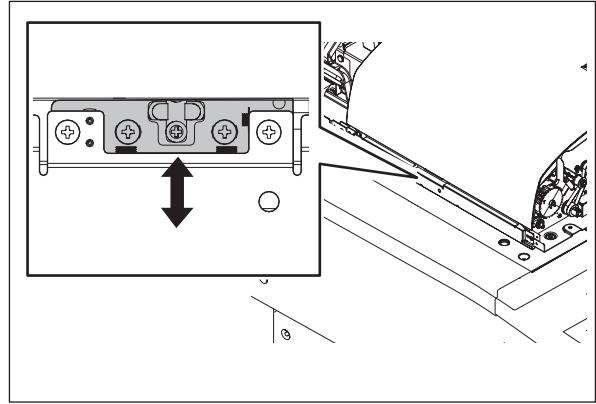


Fig. 3-90

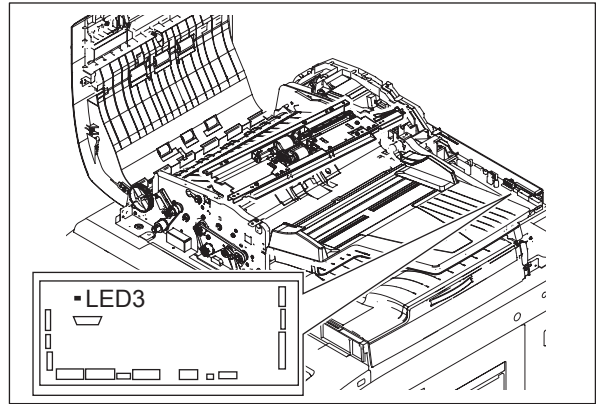


Fig. 3-91

Notes:

If LED 3 does not light, follow the procedure below.

1. Tighten 2 prism vertical fixing screws aligning with the forth mark-off line from the top.

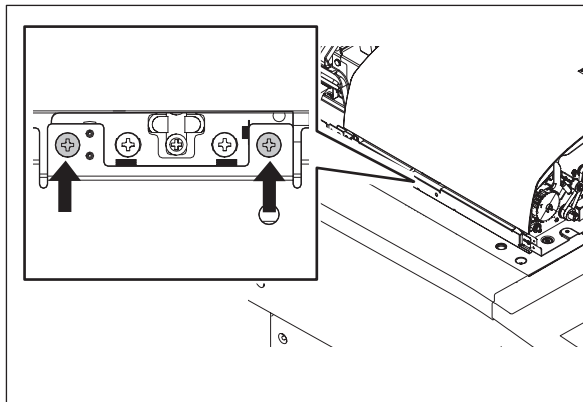


Fig. 3-92

2. Loosen the 2 prism horizontal adjustment screws.

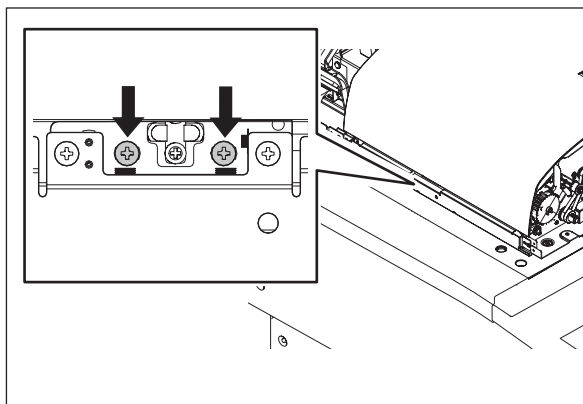


Fig. 3-93

3. Slide the prism horizontally. When the prism comes to the proper adjustment position, LED 3 on the RADF board lights. At this position, tighten 2 prism horizontal adjustment screws.

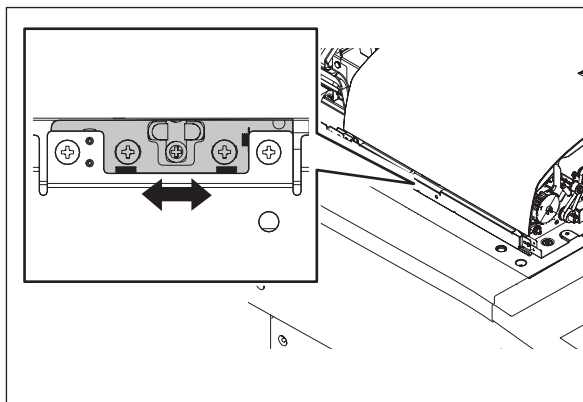


Fig. 3-94

- (7) Perform the automatic adjustment (05-356).

Note:

After the manual adjustment is performed, be sure to do the automatic one.

- (8) Turn the power OFF and install the cover.

3.12.9 Platen Sheet

If a shadow-like dark area appears on the edge of the image, reset the platen sheet

- (1) Open the RADF and remove the platen sheet.

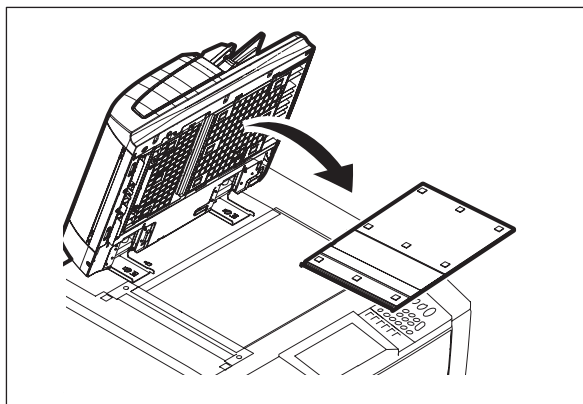


Fig. 3-95

- (2) Place the platen sheet on the original glass and align it to the top left corner. Close the RADF gently and open it to check if the platen sheet is attached properly.

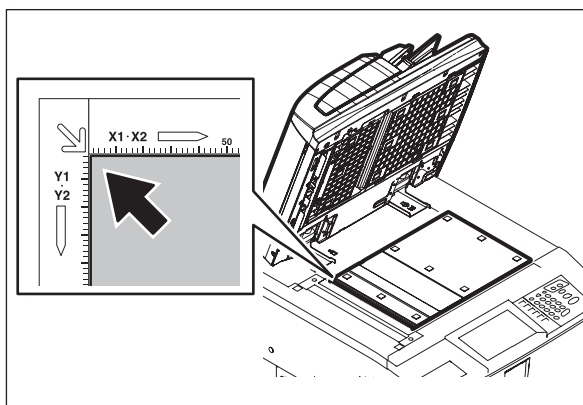


Fig. 3-96

3.13 Adjustment of Finisher

3.13.1 Adjusting the Height Sensor (PS1)

Perform the following adjustments whenever you have replaced the finisher controller PCB or the height sensor (PS1).

- (1) Set SW3 on the finisher controller PCB as indicated.

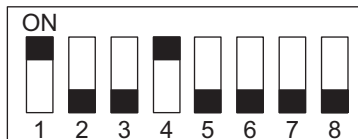


Fig. 3-97

- (2) Place a paper on the tray.
- (3) Press SW1 on the finisher controller PCB. This causes the finisher to execute automatic adjustment, in which the tray unit will shift.
 - At the end of adjustment, trays will return to their home positions.
 - During adjustment, LED1 flashes. At the end of adjustment, LED1 turns and remains.
 - If automatic adjustment fails, the mechanism stops while the tray in question is being adjusted (at the same time, LED1 turns OFF).
- (4) Shift all bits on SW3 to OFF, and turn OFF the host machine once. This causes the finisher to execute automatic adjustment, in which the tray unit will shift.

3.13.2 Adjusting the Alignment Position

If you have replaced the finisher controller PCB or if an alignment fault occurs, adjust as follows. Performing the steps will affect all paper sizes.

- (1) Remove the rear cover of the finisher unit.
- (2) Set SW3 of the finisher controller PCB as indicated.

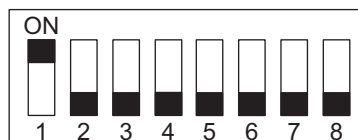


Fig. 3-98

- (3) If you are using A4 paper, press SW1 on the finisher controller PCB. If you are using LT paper, press SW2 on the finisher controller PCB.
 - Pressing SW1/2 will open the swing guide and cause the alignment plate to move to A4/LT positions.
- (4) WPlace 10 sheets of A4/LT paper between the alignment plate and the guide plate, butting them against the stoppers.
- (5) Press SW1 or SW2 on the finisher controller PCB, and butt the alignment plate, against the sheets.
 - Pressing SW1 will shift the alignment plate to the front in 0.35 mm increments.
 - Pressing SW2 will shift the alignment plate to the rear in 0.35 mm increments.
- (6) Press SW1 and SW2 simultaneously to store the adjustment value (this will lower the swinging guide).
- (7) Shift all bits of SW3 OFF, and install the rear cover of the finisher unit.

3.13.3 Adjusting the Staple Position (stapler movement range)

Adjust as follows if you have replaced the finisher controller PCB. Performing the steps will affect all paper sizes and all stapling positions.

- (1) Remove the rear cover from the finisher unit.
- (2) Set SW3 on the finisher controller PCB as indicated.

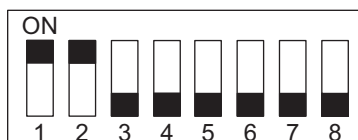


Fig. 3-99

- (3) If you are using A4 paper, press SW1 on the finisher controller PCB. If you are using LT paper, press SW2 on the finisher controller PCB.
 - Pressing SW1/2 will open the swing guide and cause the feed belt to rotate.
- (4) Within 5 seconds after pressing the switch, place one sheet of A4/LT paper between the alignment plate and the guide plate, butting it against the stoppers.
 - When the finisher detects the paper, it will lower the swing guide and execute stapling (rear, 1-position). Take out the stapled paper manually as delivery will not be executed.

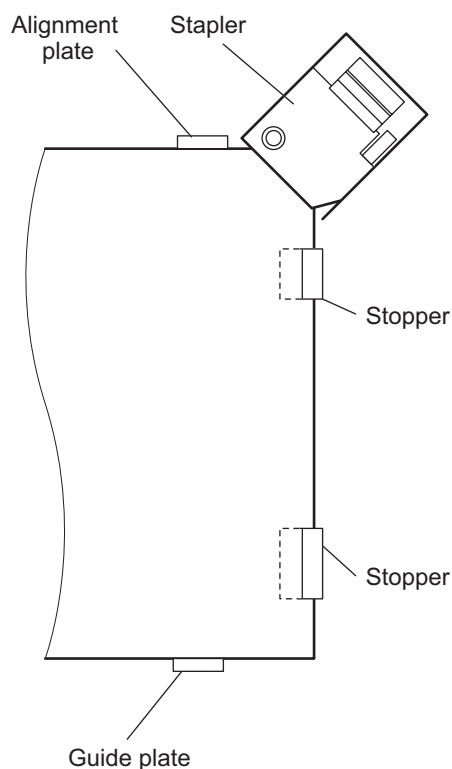


Fig. 3-100

- (5) If the stapling position is correct, set all bits on SW3 to OFF to end the adjustments. If you need to change the stapling position, on the other hand, go to the next step.

- (6) To suit the position of the staple on the paper, press SW1 or SW2 on the finisher controller PCB as many times as necessary.
- Pressing SW1 will shift the stapling position to the front in 0.3 mm increments.
 - Pressing SW2 will shift the stapling position to the rear in 0.3 mm increments.

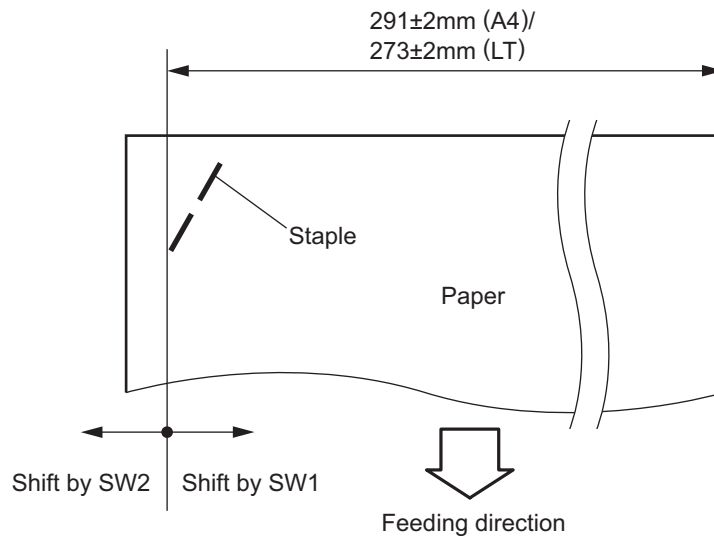


Fig. 3-101

- (7) Press SW1 and SW2 simultaneously.
- This will open the swing guide, and cause the feed belt to rotate. Placement of one sheet of A4/LT paper will cause the finisher to start stapling.
- (8) Check the stapling position. If good, set all bits of SW3 to OFF. If re-adjustments are necessary, go back to Step 6.

Note:

The settings held by the finisher controller PCB are changed as soon as SW1 or SW2 is pressed. As such, to recover the previous settings after the press, you must press the other of the two switches as many times as you pressed previously.

3.13.4 Adjusting the Buffer Roller Winding Amount

Perform this adjustment in the following instances:

- When the finisher controller PCB or the EEPROM (Q2) on the finisher controller PCB has been replaced
- When something causes the winding amount to fluctuate

The "winding amount" is the amount of difference between the First and Second sheets wound onto the buffer roller device in the feed direction.

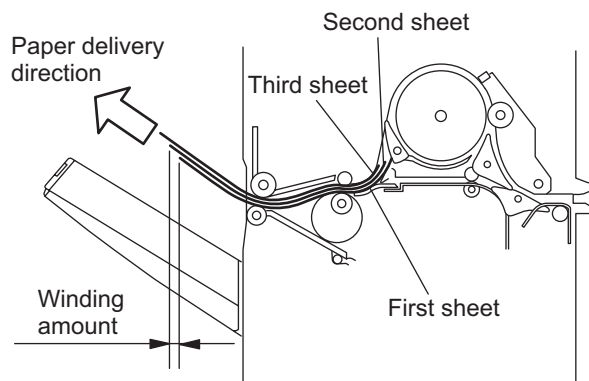


Fig. 3-102

- (1) Set SW3 on the finisher controller PCB as indicated.

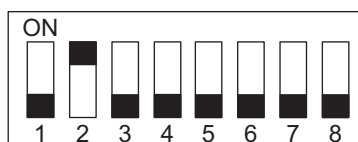


Fig. 3-103

- (2) Turn the host machine OFF then back ON again.
- (3) Set the mode setting on the host machine to "1" and the number of originals (A4 or LT) to "3" in the staple mode.
- (4) Press the copy start key.
 - Copying starts, three sheets for the first copy are output as a stack on the staple tray, and copying stops with the copies held at the delivery roller.
- (5) Remove the stack of sheets from the finisher delivery taking care to prevent the offset of the output sheets from changing.

- (6) Measure the winding amount (shift) of the stack of sheets, and compare this amount with the standard amounts.
- This amount should be measured at the center of the paper leading edge.

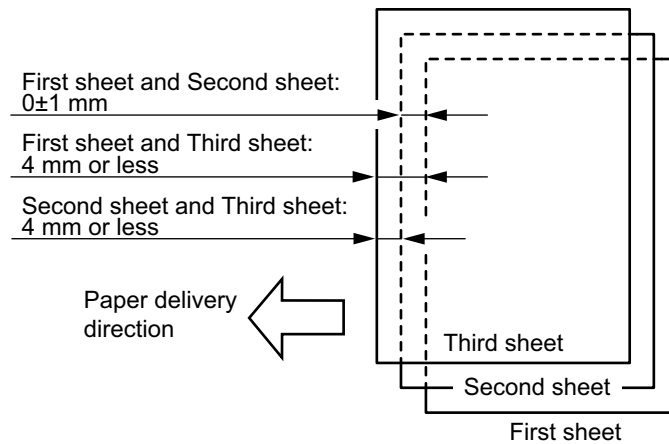


Fig. 3-104

- (7) If the amount is within the standard, turn the host machine OFF, and then set all bits of SW3 to OFF. If the amount is outside the standard, perform the following.
- (8) Turn the host machine OFF, and set SW3 on the finisher controller PCB as indicated. If EEPROM (Q2) on the finisher controller PCB has been replaced, proceed to step 10.

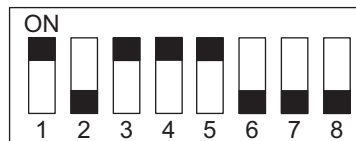


Fig. 3-105

- (9) Turn the host machine ON, and then press SW2 on the finisher controller PCB.
- The current setting values are displayed at LED1.

Adjustment value 0	Lights for 1 second (once)
Adjustment value +N	Blinks (lights for 0.2 second) for N times.
Adjustment value -N	Lights for 1 second (once), and blinks (lights for 0.2 second) for N times.

The adjustment width is 0.72mm for each N=1.

- (10) Turn the host machine OFF, and then set SW3 on the finisher controller PCB as indicated.

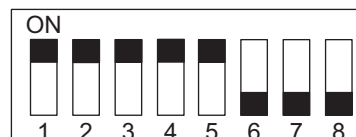


Fig. 3-106

- (11) Press SW1 or SW2 on the finisher controller PCB as necessary.
- Each press of SW1 increments the winding amount in 0.72mm increments.
 - Each press of SW2 decrements the winding amount in 0.72mm increments.

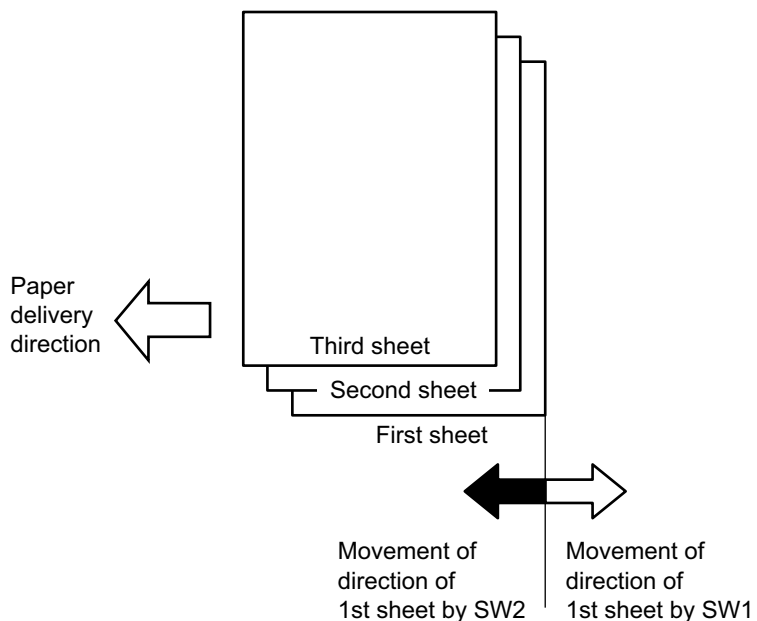


Fig. 3-107

- (12) Repeat steps 1) through 6) twice. Check that the winding amount is within the standard in both times.
- (13) Turn the host machine OFF, and set all bits of SW3 to OFF. This completes the adjustment.

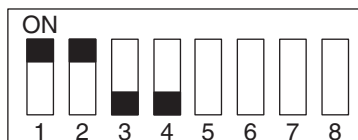
3.14 Adjustment of Saddle stitch finisher

3.14.1 Adjusting the Folding Position

The folding position is adjusted by changing the settings of bits 6 through 8 of DIPSW1 on the saddle stitcher controller PCB to match the stitching position (i.e., adjusting the distance over which the paper positioning plate is moved to the folding position from the stitching position.)

If you have replaced the saddle stitcher controller PCB, be sure to set the new DIPSW1 so that the settings will be the same as those on the old DIPSW1. If, for any reason, you must change the following position, perform the following steps:

- (1) Remove the PCB cover, and set bits 1 through 4 of DIPSW1 on the saddle stitcher controller PCB as indicated.



Do not change
bits 5 through 8.

Fig. 3-108

- (2) Remove the rear cover of the saddle stitcher unit, and tape the actuator of the inlet cover sensor (PI9S) and the inlet cover switch (MS1S) of the saddle stitcher unit in place.
- (3) Before inserting the paper, mark the top of the paper (you will be using two sheets of A3 or LD paper).

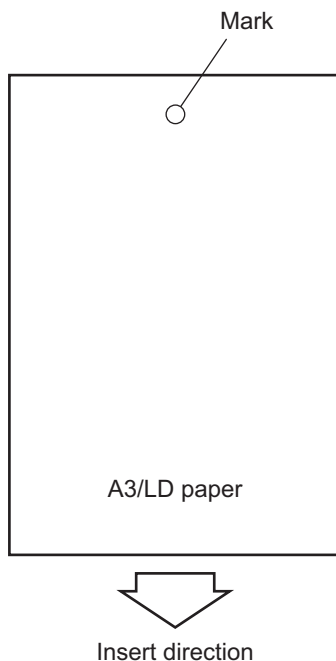


Fig. 3-109

- (4) Press SW2 on the saddle stitcher controller PCB so that the feed motor (M1S) starts to rotate. (Press SW2 three seconds or more if LD paper is used).

- (5) Open the inlet cover, and insert two sheets of paper (push them in by hand until the leading edge of the sheets butts against the paper positioning plate).

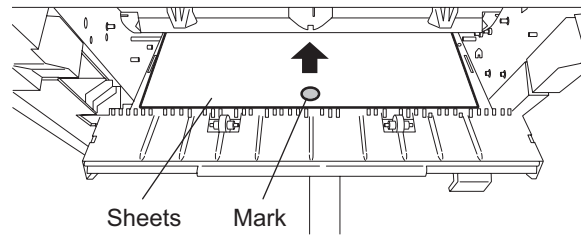


Fig. 3-110

- (6) Close the inlet door while holding it down with your hand.
- (7) Press SW2 on the saddle stitcher controller PCB.
- The saddle stitcher unit will "stitch" the sheets, and fold and deliver the stack automatically.

- (8) Measure the distance (L) between the stitching position and the folding position. Then, perform "positive width adjustment" or "negative width adjustment" to suit the relationship between the stitching position and the folding position.
- If the stitching position is below the folding position, perform "positive width adjustment."
 - If the stitching position is above the folding position, perform "negative width adjustment."

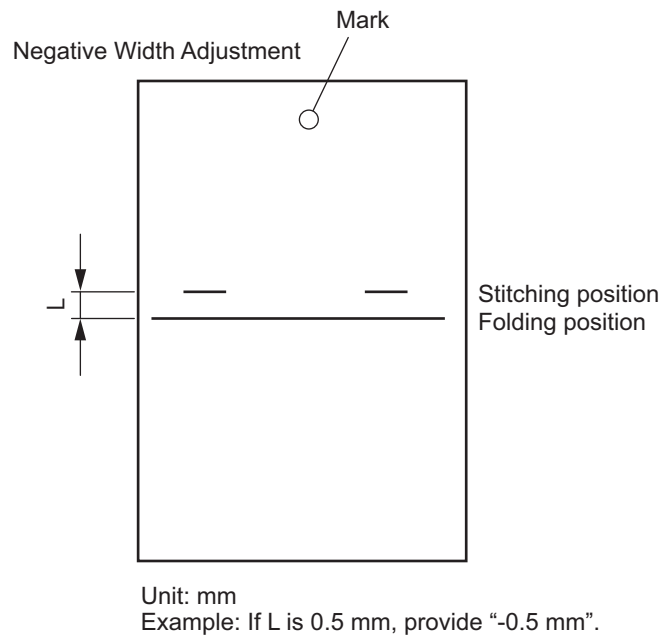
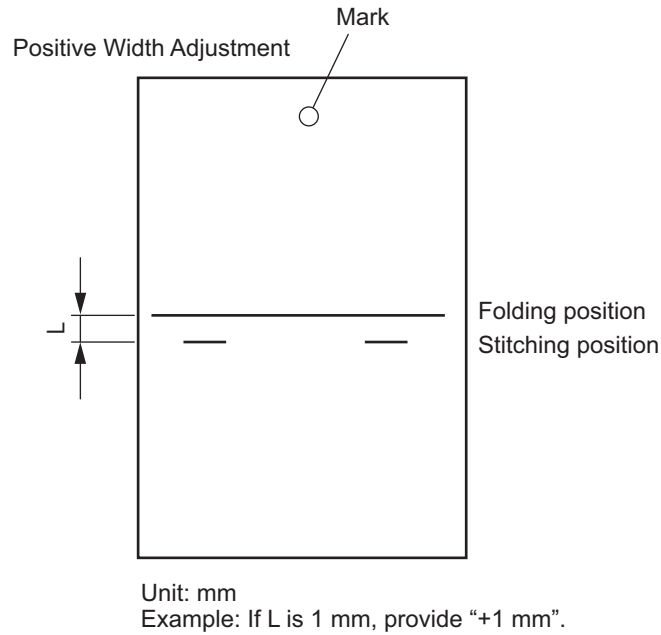


Fig. 3-111

- (9) Change the settings of bits 6 through 8 on DIPSW1 referring to the table below.
- If the width adjustment is "0",
The stitching position and the folding position match, requiring no change.
 - If for "positive width adjustment," Set DIPSW1 so that the difference resulting from subtraction of the interval from the appropriate setting in the table is provided.
For instance, if the DIPSW1 is currently set to +2 and the interval is +1 mm, set DIPSW1 to reflect -2.
 - If for "negative width adjustment" Set DIPSW1 so that the sum resulting from addition of the interval from the appropriate setting is provided.
For instance, if the DIPSW1 is currently set to -1 and the interval is +0.5 mm, set DIPSW1 to reflect +1.

DIPSW1 bit settings			Settings (in units of 0.5 mm)
bit 6	bit 7	bit 8	
OFF	ON	ON	+3
OFF	ON	OFF	+2
OFF	OFF	ON	+1
OFF	OFF	OFF	0
ON	OFF	ON	-1
ON	ON	OFF	-2
ON	ON	ON	-3

Do not touch the following:

bit 6	bit 7	bit 8
ON	OFF	OFF

- (10) Set bits 1 through 4 on DIPSW1 to OFF.

3.14.2 Stitching Position (adjusting center stitching)

Use the host machine adjustment mode to perform the following:

3.15 Adjustment of Hole punch unit

3.15.1 Sensor output adjustment

Perform this adjustment when the punch driver PCB, transmission sensor (photosensor PCB/LED PCB) or reflection sensor (scrap full detection PCB unit) has been replaced.

- (1) Remove the rear cover of the finisher unit.
- (2) Set bits 1 through 6 of DIPSW3 on the finisher controller PCB as indicated.

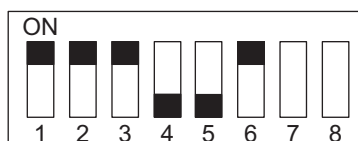


Fig. 3-112

- (3) Press SW1 on finisher controller PCB. Pressing this switch automatically adjusts sensor output.
- (4) Set all bits on DIPSW3 to OFF

3.15.2 Registering the number of punch holes

This operation registers which puncher unit is attached to the IC on the punch driver PCB so that the puncher unit can be identified by the finisher. For this reason, this operation must be performed when the punch driver PCB has been replaced.

- (1) Remove the rear cover of the finisher unit.
- (2) Set bits 1 through 6 of DIPSW3 on the finisher controller PCB as indicated.

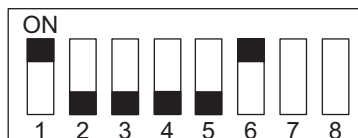


Fig. 3-113

- (3) Set bits 7 and 8 on DIPSW3 on the finisher controller PCB to match the number of punch holes of the attached puncher unit according to the table.
- (4) Press SW1 on the finisher controller PCB. Press SW2 when setting a 2-/3-hole model (MJ-6003N). Pressing this switch registers the number of punch holes to the punch driver PCB.

Number of Punch Holes	DIPSW3 bit settings		Push switch
	bit 7	bit 8	
2-hole OFF OFF SW1 (MJ-6003E)	OFF	OFF	SW1
2-/3-hole OFF OFF SW2 (MJ-6003N)	OFF	OFF	SW2
4-hole ON OFF SW1 (MJ-6003F)	ON	OFF	SW1
4-hole ON ON SW1 (MJ-6003S)	ON	ON	SW1

- (5) Set all bits on DIPSW3 to OFF.

3.15.3 Checking the sensitivity level of the transmission sensor

How dirty the transmission sensor (photosensor PCB/LED PCB) can be checked by the number of times that LED1 on the finisher controller PCB lights. For this reason, how dirty the transmission sensor is serves as a guide for when to perform cleaning during periodic maintenance.

- (1) Remove the rear cover of the finisher unit.
- (2) Set bits 1 through 6 of DIPSW3 on the finisher controller PCB as indicated.

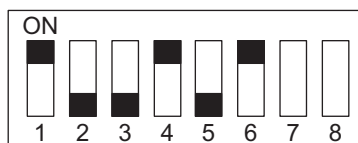


Fig. 3-114

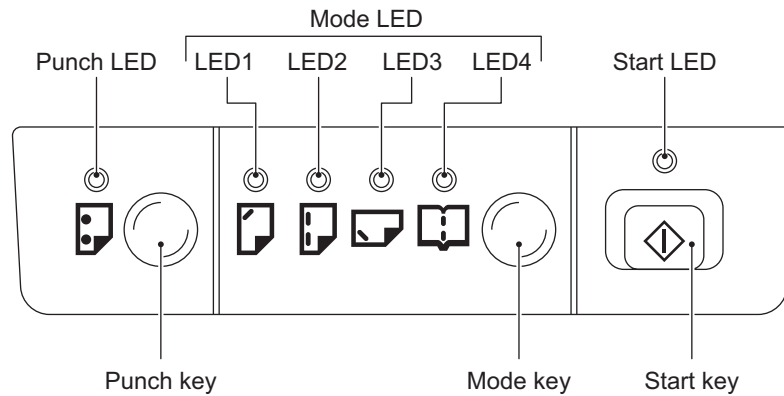
- (3) Press SW1 on the finisher controller PCB. Pressing this switch lights LED1 on the finisher controller PCB as indicated in the table so that you can check the sensitivity level of the transmission sensor.

Sensitivity Level	Number of LED Lightings
Sensor not dirty	Lit 1X
Sensor slightly dirty	Lit 2X
Sensor dirty	Lit 3X

- (4) Set all bits on DIPSW3 to OFF.

3.16 Adjustment of Inserter

Each adjustment condition and such at the inserter can be checked through the LEDs on the inserter control panel.



3.16.1 Tray guide width adjustment

When replacing boards and volumes and disassembling or installing the tray unit, make sure to follow these adjustments.

- (1) Turn ON the power with pressing the control panel mode key and start key. (The start LED blinks in green.)
- (2) Press the mode key and set up only the mode LED3 to light ON, and press the start key. (The start LED lights ON in green.)
*With pressing the mode key for more than 1 sec., all the mode LEDs light OFF and become able to be reset.
- (3) Press the start key. (The mode LED2, 3 blink.)
- (4) Move the tray guide to the position where its width becomes the narrowest, and press the start key.
- (5) The mode LED display switches. (The mode LED1, 4 blink.)
- (6) Move the tray guide to the position where its width becomes the broadest.

- (7) The mode LED1~4 light OFF and the writing operation of the tray width adjustment data into the EEPROM is finished.

*When the writing into the EEPROM has been finished, make sure to check the result with the following table.

Writing result	Mode LED display			
	LED1	LED2	LED3	LED4
Success	○	-	○	-
Failure (minimum position)	◎	◎	-	-
Failure (maximum position)	-	-	◎	◎
Failure (both maximum) and minimum positions)	◎	◎	◎	◎

◎ : Blinking

○ : Light ON

- : Light OFF

3.16.2 Input check 1

This is a mode at which the checking of each motor, solenoid and clutch operation is carried out.

- (1) Turn ON the power with pressing the control panel mode key and start key. (The start LED blinks in green.)

- (2) Press the mode key and set up the LED1 to blink and LED2~4 to light OFF, and press the start key. (The start LED lights ON in green.)

*With pressing the mode key for more than 1 sec., all the mode LEDs light OFF and become able to be reset.

- (3) Press the mode key and check the operations referring to the following table. The operational mode is switched at every time the mode key is pressed.

*Num (at the right table): the number of times which the key is pressed

*At the operational mode 7~36, the motor rotation speed is switched whenever the start key is pressed. The motor rotation speed can be checked by referring to the mode LED blinking speed.

Mode LED blinking at 1000msec. cycle: Low speed

Mode LED blinking at 700msec. cycle: Medium speed

Mode LED blinking at 500msec. cycle: High speed 1

Mode LED blinking at 250msec. cycle: High speed 2

Mode LED blinking at 100msec. cycle: High speed 3

*Num.	Operation	LED1	LED2	LED3	LED4
1	Pickup trigger solenoid ON	○	-	-	-
2	Pickup trigger solenoid OFF	-	-	-	-
3	Pickup clutch ON	-	○	-	-
4	Pickup clutch OFF	-	-	-	-
5	Reverse solenoid ON	-	-	○	-
6	Reverse solenoid OFF	-	-	-	-

*Num.	Operation	LED1	LED2	LED3	LED4
7	Feed motor rotated forward (low speed)	◎	-	-	-
8	Feed motor stopped	-	-	-	-
9	Feed motor rotated forward (medium speed)	◎	-	-	-
10	Feed motor stopped	-	-	-	-
11	Feed motor rotated forward (high speed 1)	◎	-	-	-
12	Feed motor stopped	-	-	-	-
13	Feed motor rotated forward (high speed 2)	◎	-	-	-
14	Feed motor stopped	-	-	-	-
15	Feed motor rotated forward (high speed 3)	◎	-	-	-
16	Feed motor stopped	-	-	-	-
17	Feed motor rotated in reverse (low speed)	-	◎	-	-
18	Feed motor stopped	-	-	-	-
19	Feed motor rotated in reverse (medium speed)	-	◎	-	-
20	Feed motor stopped	-	-	-	-
21	Feed motor rotated in reverse (high speed 1)	-	◎	-	-
22	Feed motor stopped	-	-	-	-
23	Feed motor rotated in reverse (high speed 2)	-	◎	-	-
24	Feed motor stopped	-	-	-	-
25	Feed motor rotated in reverse (high speed 3)	-	◎	-	-
26	Feed motor stopped	-	-	-	-
27	Transport motor rotated forward (low speed)	-	-	◎	-
28	Transport motor stopped	-	-	-	-
29	Transport motor rotated forward (medium speed)	-	-	◎	-
30	Transport motor stopped	-	-	-	-
31	Transport motor rotated forward (high speed 1)	-	-	◎	-
32	Transport motor stopped	-	-	-	-
33	Transport motor rotated forward (high speed 2)	-	-	◎	-
34	Transport motor stopped	-	-	-	-
35	Transport motor rotated forward (high speed 3)	-	-	◎	-
36	Transport motor stopped	-	-	-	-
37	Fan motor ON	-	-	-	○
38	Fan motor OFF	-	-	-	-

◎ : Blinking

○ : Light ON

- : Light OFF

3.16.3 Check of sensor operations 1

This is a mode 1 to check each sensor operation separately.

- (1) Turn ON the power with pressing the control panel mode key and start key. (The start LED blinks in green.)
- (2) Press the mode key and set up the mode LED2 to blink and mode LED1, 3, 4 to light OFF, and press the start key. (The start LED lights ON in green.)
 *With pressing the mode key for more than 1 sec., all the mode LEDs light OFF and become able to be reset.
- (3) Check the ON/OFF status of each sensor through the mode LED display.
 *The display is switched whenever the start key is pressed.

LED display

When the start switch is OFF:

Mode LED	Display	Sensor status
LED1	Light OFF	Separation sensor OFF
	Light ON	Separation sensor ON
LED2	Light OFF	Reverse path sensor OFF
	Light ON	Reverse path sensor ON
LED3	Light OFF	Transport sensor OFF
	Light ON	Transport sensor ON
LED4	Light OFF	DC 24V supplied
	Light ON	DC 24V cut off

When the start switch is ON:

Mode LED	Display	Sensor status
LED1	Light OFF	Empty sensor OFF
	Light ON	Empty sensor ON
LED2	Light OFF	Paper length sensor OFF
	Light ON	Paper length sensor ON

3.16.4 Check of sensor operations 2

This is a mode 2 to check each sensor operation separately.

- (1) Turn ON the power with pressing the control panel mode key and start key. (The start LED blinks in green.)
- (2) Press the mode key and set up the mode LED1, 2 to blink and mode LED3, 4 to light OFF, and press the start key. (The start LED lights ON in green.)
*With pressing the mode key for more than 1 sec., all the mode LED light OFF and become able to be reset.
- (3) Check the ON/OFF status of each sensor through the mode LED display.
*The display is switched whenever the start key is pressed.

LED display

When the start switch is OFF:

Mode LED	Display	Sensor status
LED1	Light OFF	Joint sensor OFF
	Light ON	Joint sensor ON
LED2	Light OFF	Tray open/close sensor OFF
	Light ON	Tray open/close sensor ON
LED3	Light OFF	Transport cover 1 open/close sensor OFF
	Light ON	Transport cover 1 open/close sensor ON
LED4	Light OFF	Transport cover 2 open/close sensor OFF
	Light ON	Transport cover 2 open/close sensor ON

When the start switch is ON:

Mode LED	Display	Sensor status
LED1	Light OFF	Dip-switch 1 OFF
	Light ON	Dip-switch 1 ON
LED2	Light OFF	Dip-switch 2 OFF
	Light ON	Dip-switch 2 ON
LED3	Light OFF	Dip-switch 3 OFF
	Light ON	Dip-switch 3 ON
LED4	Light OFF	Dip-switch 4 OFF
	Light ON	Dip-switch 4 ON

3.17 Adjustment of LCF (MP-4004)

3.17.1 Sheet sideways deviation adjustment

When the center of the printed image shifts to the front side or rear side, adjust the tray position taking the following procedure.

<Procedure>

- (1) Pull out the tray unit.
- (2) Loosen 3 screws and move the adjustment board to the right position. Then screw it shut.

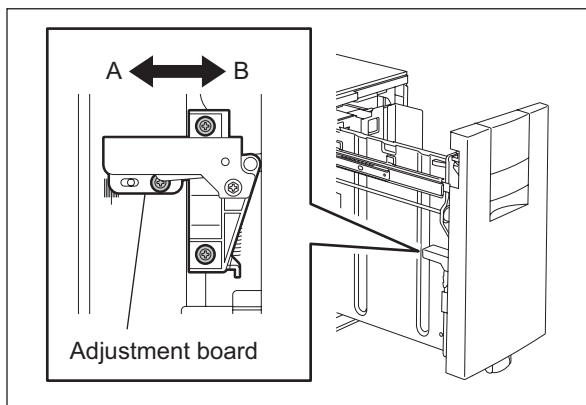


Fig. 3-115

- The center of the printed image shifts to the front side:
Move the adjustment board to the front side (Arrow (B) in the upper figure).

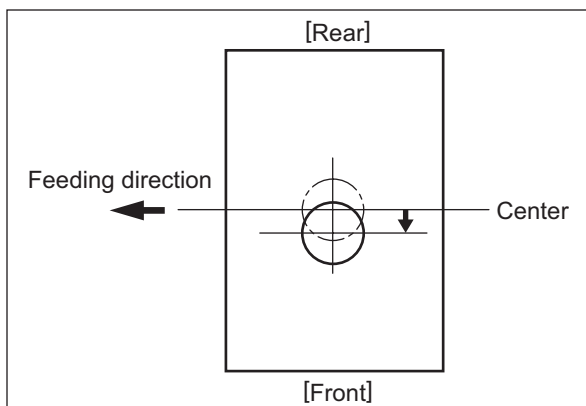


Fig. 3-116

- The center of the printed image shifts to the rear side:
Move the adjustment board to the rear side (Arrow (A) in the upper figure).

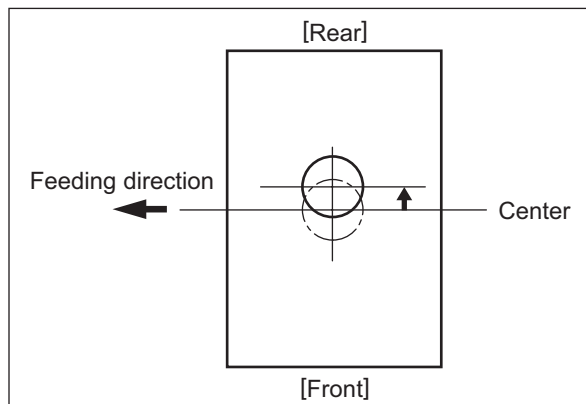


Fig. 3-117

Note:

After the tray position adjustment, re-adjust the front cover position. Adjustment: loosen 4 screws and slide the front cover to adjust the gap between the front and upper cover, and the front and right cover to 3 mm respectively.

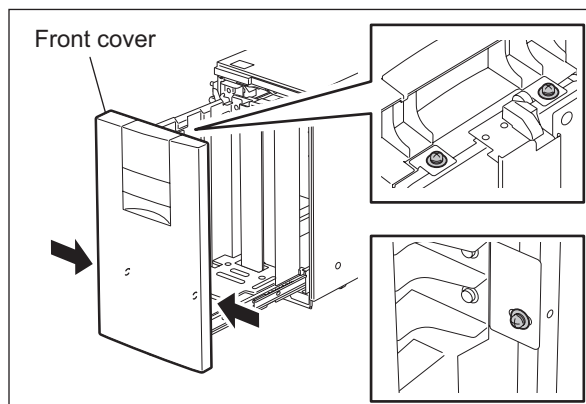


Fig. 3-118

3.17.2 LCF slant adjustment

Compensate the slant of LCF by the adjusting the stoppers.

<Procedure>

- (1) Pull out the LCF from the equipment.
- (2) Turn 2 screws and adjust the stoppers.
Turn to the right: Stopper moves downward.
Turn to the left : Stopper moves upward.

Note:

When moving the equipment, need to move the stopper upward.

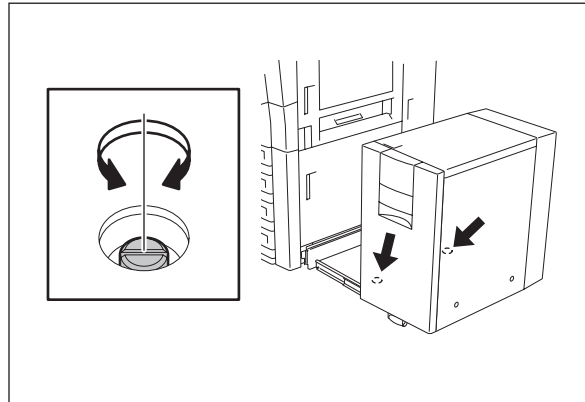


Fig. 3-119

4. PREVENTIVE MAINTENANCE (PM)

4.1 General Description

The purpose of preventive maintenance (PM) is to maintain the quality level of this equipment by periodically inspecting and cleaning this equipment and also replacing the parts whose replacement timing has come according to the maintenance contract. There are PM kits packaged for each unit or a group of parts with the same replacement number of output pages, allowing you to carry out efficient parts replacement.

Also to maintain the quality level of the equipment, overhauling is required when a specified number of pages has been printed or when a specified period of time has passed, regardless of the number of output pages.

4.2 PM Display

4.2.1 General description

The maintenance times of the PM parts vary depending on the state of the parts, for example, if one part is replaced due to a problem during the operation, the maintenance time of another part will change accordingly. In this equipment, the optimal maintenance time corresponding to each part is displayed on the control panel LCD.

The [process unit (K)] explained below is a photoconductive drum or a cleaner unit which includes a photoconductive drum. The [developer material (K)] explained below is a developer material or a developer unit which includes a developer material. The [PM part other than the process unit] explained below is a fuser roller or a fuser unit which includes a fuser roller.

4.2.2 PM display conditions

The conditions of the PM display consist of the codes of the setting mode (08) for “the setting value treated as a threshold of the PM display”, “the counter indicating the current number of prints and driving time” and “the setting value which determines the display conditions”.

The PM timing is displayed when the counter exceeds the setting value according to the display condition based on “the setting value which determines the display conditions”.

- Setting value treated as a threshold of the PM display

Note:

When “0” is entered as the setting value, PM timing is not displayed.

- 08-251 : Setting value of PM counter [process unit (K)]
- 08-375 : Setting value of PM time counter [process unit (K)]
- 08-5554 : Setting value of PM counter [developer material (K)]
- 08-5555 : Setting value of PM time counter [developer material (K)]
- 08-5562 : Setting value of PM counter [parts other than the PM parts of the process unit]
- 08-5563 : Setting value of PM time counter [parts other than the PM parts of the process unit]

- Counter indicating the current number of prints and driving time
 - 08-252 : Current value of PM counter [process unit (K)]
 - 08-376 : Current value of PM time counter [process unit (K)]
 - 08-5568 : Current value of PM counter [developer material (K)]
 - 08-5569 : Current value of PM time counter [developer material (K)]
 - 08-5576 : Current value of PM counter [parts other than the PM parts of the process unit]
 - 08-5577 : Current value of PM time counter [parts other than the PM parts of the process unit]

- Setting value which determines the display conditions
 - 08-223 : Switching of output pages/driving counts at PM [process unit (K)]
 - 08-5581 : Switching of output pages/driving counts at PM [developer material (K)]
 - 08-5585 : Switching of output pages/driving counts at PM [parts other than the PM parts of the process unit]

For example, you can set the conditions of the PM display of the [process unit (K)] as follows.

PM display by specifying the number of prints	1. Key in "0" for 08-223 (Switching of output pages/driving counts at PM [process unit (K)]). 2. Key in the value of the number of prints for the PM display other than "0" for 08-251 (Setting value of PM counter [process unit (K)]).
PM display by specifying the driving time	1. Key in "1" for 08-223 (Switching of output pages/driving counts at PM [process unit (K)]). 2. Key in the value of the driving time for the PM display other than "0" for 08-375 (Setting value of PM time counter [process unit (K)]).
PM display by the earlier one: when the number of prints or the driving time reaches the set value	1. Key in "2" for 08-223 (Switching of output pages/driving counts at PM [process unit (K)]). 2. Key in the value of the number of sheets for the PM display other than "0" for 08-251 (Setting value of PM counter [process unit (K)]). 3. Key in the value of the driving time other than "0" for 08-375 (Setting value of PM time counter [process unit (K)]).

If the value of 08-9891 (Warning message on the touch panel when PM time has come) is set to "0: No warning notification", the PM display is not performed regardless of the settings above.
(Default value is "1: Display warning notification")

4.2.3 PM display contents

When the counter value exceeds the setting value, the equipment notifies you of when the maintenance time has come by displaying the message "Time for periodic maintenance ****" on the control panel LCD. "****" in the message is a 4-digit hexadecimal number code. This number is allocated in the following manner, therefore the parts needing maintenance can be identified.

PM parts of the process unit (K)	: 0008
PM parts of the developer material (K)	: 0080
Parts other than the PM parts of the process unit	: 0100

If multiple parts have reached the maintenance time, the sum of the corresponding code values listed above is displayed in hexadecimal numbers.

For example, if the peripheral parts of the process units (K) and developer material (K) reach the maintenance time, the 4-digit hexadecimal number code will be "0188" in hexadecimal numbers:
0008+0080+0100=0188.

4.2.4 Clearing counter

The counter indicating “current number of prints and driving time” used for the PM display function is reset by entering “0” in it or clearing it in the PM support mode.

Note:

Even if “0” is entered in the PM management setting value of the setting mode (08), the corresponding counter for the PM display is not reset. Be sure to clear the counter in the PM support mode when the maintenance is finished.

The reset condition of each counter is as follows:

- 08-252: Current value of PM counter [process unit (K)]
- 08-376: Current value of PM time counter [process unit (K)]
When the current value of “CLEANER/DRUM” on the main screen or “DRUM” on the sub-screen in the PM support mode is cleared, the counter is reset.
- 08-5568: Current value of PM time counter [developer material (K)]
- 08-5569: Current value of PM time counter [developer material (K)]
When the current value of “DEVELOPER” on the main screen or “DEVELOPER” on the sub-screen in the PM support mode is cleared, the counter is reset.
- 08-5576: Current value of PM counter [parts other than the PM parts of the process unit]
- 08-5577: Current value of PM time counter [parts other than the PM parts of the process unit]
When the current value of “FUSER” on the main screen or “FUSER ROLLER” on the sub screen in the PM support mode is cleared, the counter is reset.

4.3 General Descriptions for PM Procedure

Perform the preventive maintenance in the following timing.

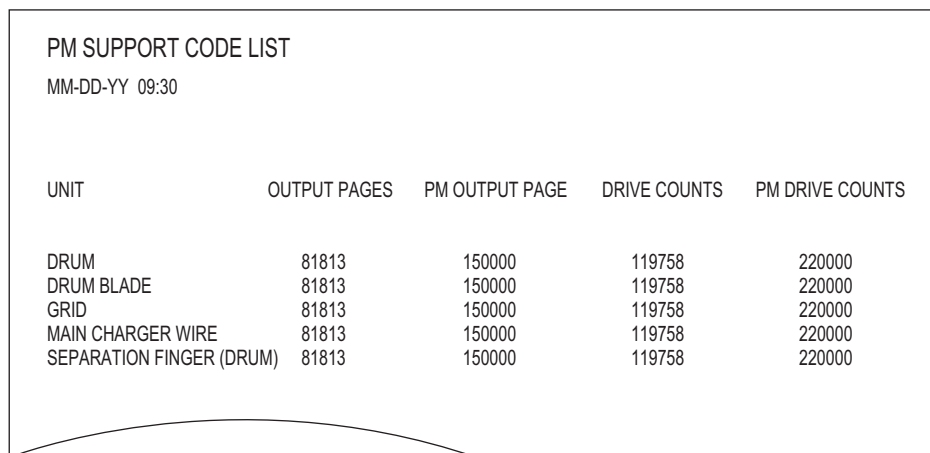
e-STUDIO555:every 460,000 sheets
e-STUDIO655:every 515,000 sheets
e-STUDIO755:every 540,000 sheets
e-STUDIO855:every 600,000 sheets

(1) Preparation

- Ask the user about the current conditions of the equipment and note them down.
- Before starting maintenance, make some sample copies and store them.
- See the replacement record and check the parts to be replaced in the PM support mode (6S-2) or list printing mode (9S-103).

6S-2 : [6] + [START] + [POWER] ON → [2] → [START]

9S-103 : [9] + [START] + [POWER] ON → [103] → [START]



UNIT	OUTPUT PAGES	PM OUTPUT PAGE	DRIVE COUNTS	PM DRIVE COUNTS
DRUM	81813	150000	119758	220000
DRUM BLADE	81813	150000	119758	220000
GRID	81813	150000	119758	220000
MAIN CHARGER WIRE	81813	150000	119758	220000
SEPARATION FINGER (DRUM)	81813	150000	119758	220000

Fig. 4-1

- Turn OFF the power and make sure to unplug the equipment.
- (2) Perform a preventive maintenance using the following checklist and illustrations. Refer to the Service Manual if necessary.
- (3) Plug in the equipment after the maintenance has been finished. Then turn ON the power and make some copies to confirm that the equipment is working properly.

4.4 PM Support Mode

To start any of the self-diagnostic modes, turn the power OFF using the main power switch, and then back ON while pressing a digital key corresponding to the mode to be started.

4.4.1 General description

The timing for the parts replacement usually depends on the number of output pages ever printed after they were replaced before. However, the life span of them changes depending on the general use of users and the environment in which the equipment is placed. Therefore, it is necessary to consider not only the number of output pages but also the drive counts when deciding the timing for the parts replacement in order to utilize the parts and materials effectively.

This equipment has the PM support mode, which makes it possible to see the general use of each part (the number of output pages, drive counts) and replacement record and to do a counter clearing operation more efficiently when replacing.

The replacement record can be printed out in the list printing mode (9S-103).

4.4.2 Operational flow and operational screen

[1] Operational flow

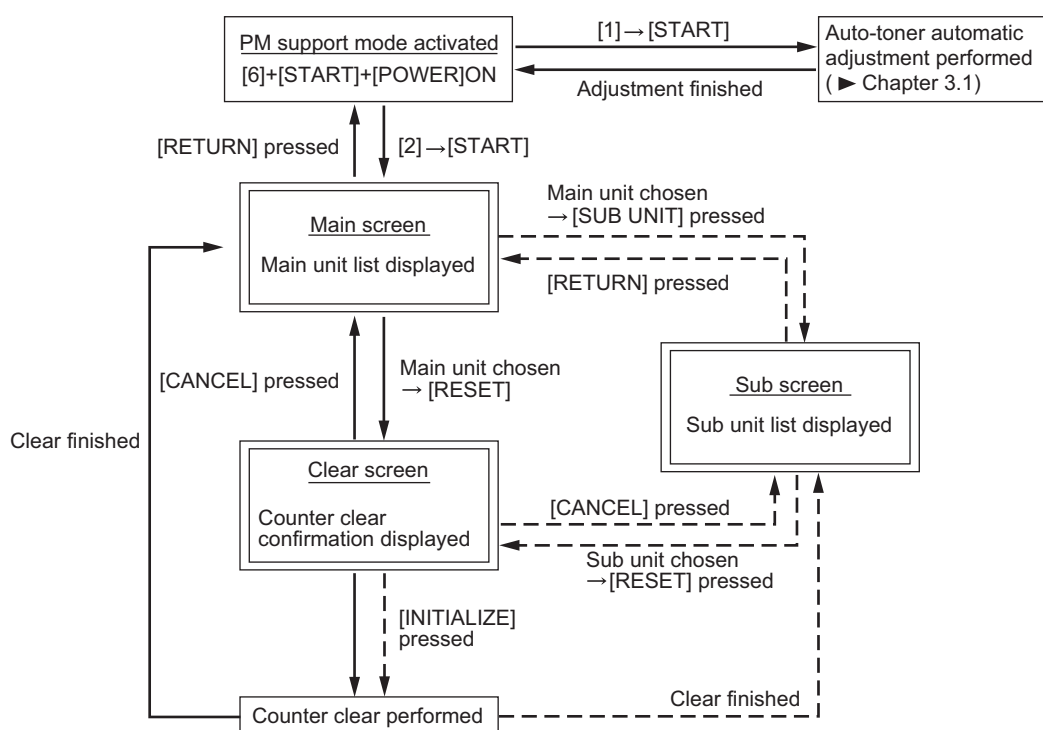


Fig. 4-2

- * The screen goes back to the main screen when the counter clear is executed or the [CANCEL] button is pressed after moving from the main screen, while it goes back to the sub screen after moving from the sub screen.

[2] Operational screen

1. Main screen

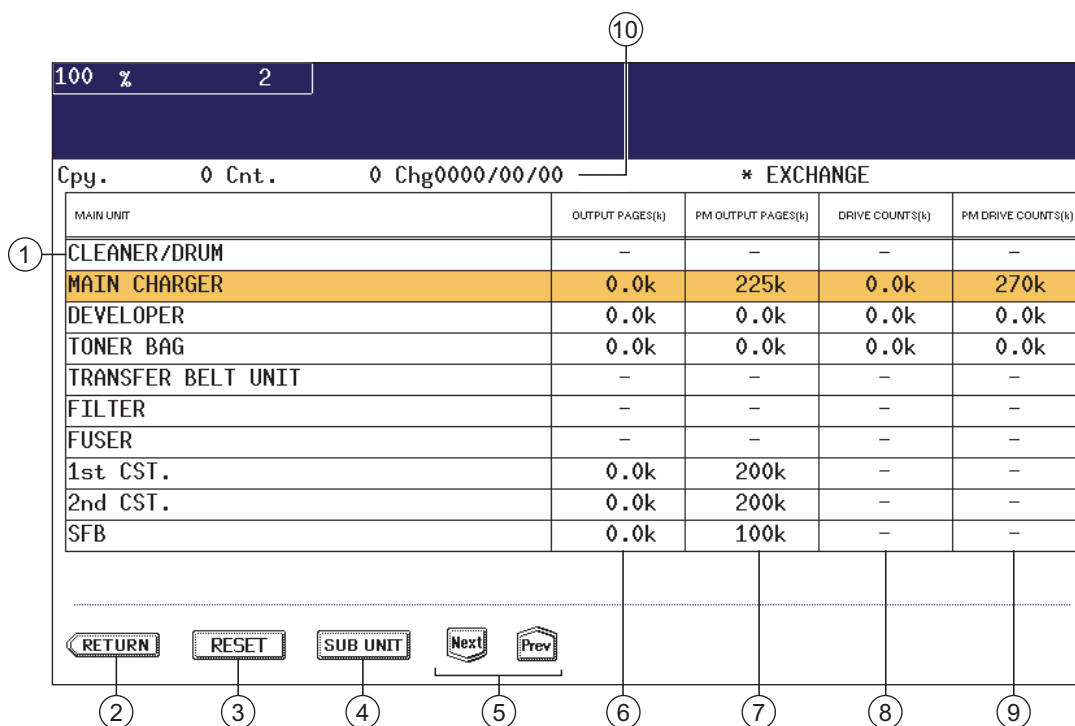


Fig. 4-3

- ① Displaying of the main unit name
- ② Back to the PM support mode activation screen
- ③ Moving to the clear screen to clear the selected unit counters (⑥ and ⑧), including all sub unit (parts) counters belonging to that unit
When the unit is not selected, all counters are cleared.
- ④ Moving to the sub screen of the selected unit
- ⑤ Moving to the next/previous page
- ⑥ Displaying of the present number of output pages counts (x 1,000)
When there are differences among the sub units (parts), “_” is displayed and “CHECK SUBUNIT” is displayed at the top
“*” is displayed next to the present number when the number of output pages counts has exceeded its PM standard number.
- ⑦ Displaying of the standard number of output pages counts (x 1,000) to replace the unit parts
- ⑧ Displaying of the present drive counts (x 1,000)
“*” is displayed next to the present number when the number of drive counts has exceeded its PM standard number.
- ⑨ Displaying of the standard number of drive counts (x 1,000) to replace the unit parts
- ⑩ Displaying of the number of output pages counts (Cpy.), drive counts (Cnt.) and previous replacement date (Chg.) for a chosen unit.
When the replacement date for the sub unit is different, press the [SUB UNIT] button to move to the sub screen and see each information, otherwise information is not displayed

Notes:

- When the value of the output pages or the drive counts among the sub units (parts) is different, “_” is displayed at the value section of the main unit and “CHECK SUBUNIT” is displayed at the top.
- “—” is always displayed at the drive counts section for the reversing automatic document feeder (RADF) and feed unit.
- The paper source differs depending on the structure of options, however, “0.0k” is displayed in “OUTPUT PAGES (k)” and its standard number of output pages is displayed in “PM OUTPUT PAGES (k)” even for the installed paper source.

2. Sub screen

100 % 2

Cpy. 0 Cnt. 0 Chg0000/00/00 * EXCHANGE

SUB UNIT	OUTPUT PAGES(k)	PM OUTPUT PAGES(k)	DRIVE COUNTS(k)	PM DRIVE COUNTS(k)
GRID	0.0k	225k	0.0k	270k
MAIN CHARGER WIRE	0.0k	225k	0.0k	270k
CLEANING PAD	0.0k	225k	0.0k	270k

RETURN RESET

Fig. 4-4

- ① Displaying of the sub unit (parts) name
- ② Back to the main screen
- ③ Moving to the clear screen to clear the selected unit (parts) counters
- ④ Displaying of the present number of output pages counts (x 1,000)
 “*” is displayed next to the present number when the number of output pages counts has exceeded its PM standard number.
- ⑤ Displaying of the standard number of output pages counts (x 1,000) to replace the sub unit (parts)
- ⑥ Displaying of the present drive counts (x 1,000)
 “*” is displayed next to the present number when the number of drive counts has exceeded its PM standard number.
- ⑦ Displaying of the standard number of drive counts (x 1,000) to replace the sub unit (parts)
- ⑧ Displaying of the number of output pages counts, drive counts and previous replacement date for a chosen sub unit

3. Clear screen

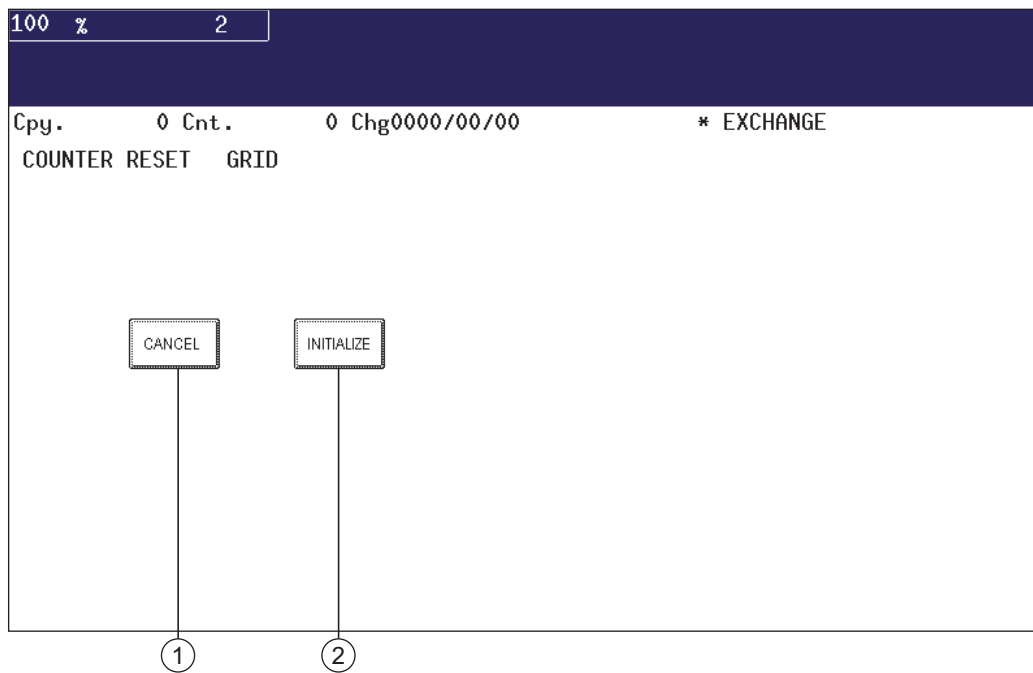


Fig. 4-5

- ① When the [CANCEL] button is pressed, the counter is not cleared and the display returns to the main or sub screen.
- ② When the [INITIALIZE] button is pressed, "Present number of output pages counts" and "Present driving counts" are cleared and "Previous replacement date" is updated.

[3] LCD screen display list

Note:

The name inside [] is displayed on the LCD screen.

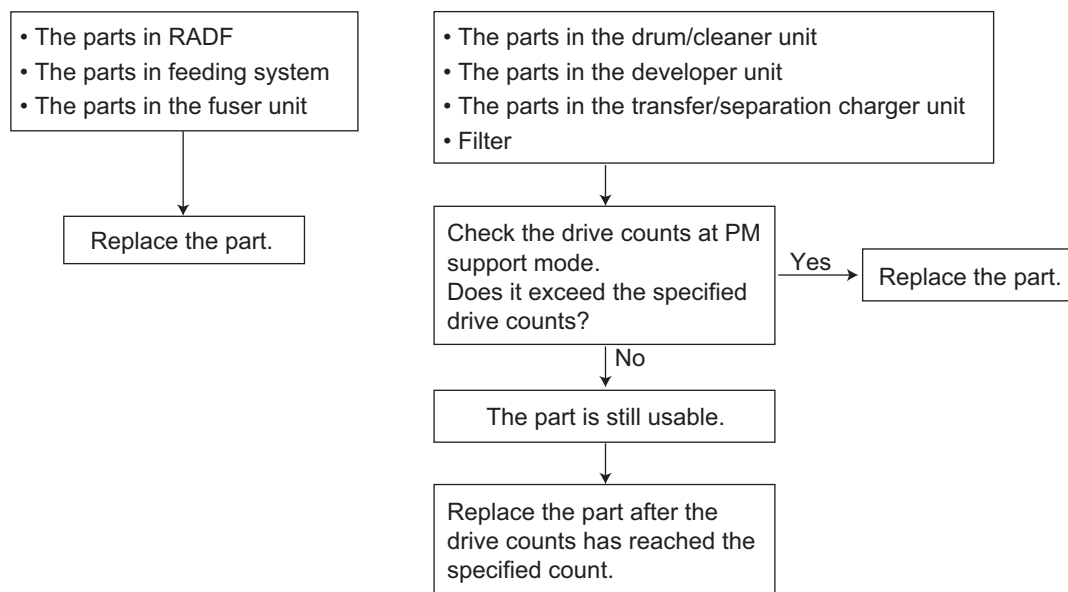
Main screen	Sub-screen
Drum/cleaner unit [CLEANER/DRUM]	Drum [DRUM] Drum cleaning blade [DRUM BLADE] Drum cleaning brush [DRUM BRUSH] Drum separation finger [SEPARATION FINGER(DRUM)]
Main charger [MAIN CHARGER]	Main charger grid [GRID] Main charger wire [MAIN CHARGER WIRE] Cleaning pad [CLEANING PAD]
Developer unit [DEVELOPER]	Developer [DEVELOPER]
Toner bag [TONER BAG]	Toner bag [TONER BAG]
Transfer belt unit [TRANSFER BELT UNIT]	Transfer belt [TRANSFER BELT] Cleaning blade [BELT BLADE] Cleaning brush [BELT BRUSH]
Filter [FILTER]	Ozone filter [OZONE FILTER] Toner filter [TONER FILTER]
Fuser unit [FUSER]	Fuser roller [FUSER ROLLER] Pressure roller [PRESS ROLLER] Cleaning web [CLEANING WEB] Web pushing roller [CLEANING WEB ROLLER] Separation finger [SEPARATION FINGER (FUSER)] Web roller one-way clutch [WEB ROLLER ONE-WAY CLUTCH]
1st drawer [1st CST.]	1st drawer pickup roller [PICK UP ROLLER (1st CST.)] 1st drawer feed roller [FEED ROLLER (1st CST.)] 1st drawer separation roller [SEP ROLLER (1st CST.)]
2nd drawer [2nd CST.]	2nd cassette pickup roller [PICK UP ROLLER (2nd CST.)] 2nd cassette feed roller [FEED ROLLER (2nd CST.)] 2nd cassette separation roller [SEP ROLLER (2nd CST.)]
Bypass feed unit [SFB]	Bypass pickup roller [PICK UP ROLLER (SFB)] Bypass feed roller [FEED ROLLER (SFB)] Bypass separation roller [SEP ROLLER (SFB)]
RADF unit [RADF]	RADF pickup roller [PICKUP ROLLER (RADF)] RADF feed roller [FEED ROLLER (RADF)] RADF separation roller [SEP ROLLER (RADF)]
T-LCF feed unit [T-LCF]	T-LCF pickup roller [PICK UP ROLLER (T-LCF)] T-LCF feed roller [FEED ROLLER (T-LCF)] T-LCF separation roller [SEP ROLLER (T-LCF)]
3rd drawer [3rd CST.]	3rd drawer pickup roller [PICK UP ROLLER (3rd CST.)] 3rd drawer feed roller [FEED ROLLER (3rd CST.)] 3rd drawer separation roller [SEP ROLLER (3rd CST.)]
4th drawer [4th CST.]	4th drawer pickup roller [PICK UP ROLLER (4th CST.)] 4th drawer feed roller [FEED ROLLER (4th CST.)] 4th drawer separation roller [SEP ROLLER (4th CST.)]
O-LCF feed unit [O-LCF]	O-LCF pickup roller [PICK UP ROLLER (O-LCF)] O-LCF feed roller [FEED ROLLER (O-LCF)] O-LCF separation roller [SEP ROLLER (O-LCF)]

4.4.3 Work flow of parts replacement

The timing for the parts replacement usually depends on the number of output pages ever made after they were replaced before. However, its drive counts time is also to be considered when replacing the parts. Even if the number of output pages has reached the level of replacement, for instance, the part may still be usable with its drive counts not reaching the specified drive counts. On the other hand, the part may need replacement even if the number of output pages has not reached the level of replacement with its driving time exceeding the specified drive counts. The life span of some parts such as feed roller is heavily dependent on the number of output pages rather than the drive counts. The following work flow diagram shows how to judge the timing of replacement with the number of output pages and the drive counts.

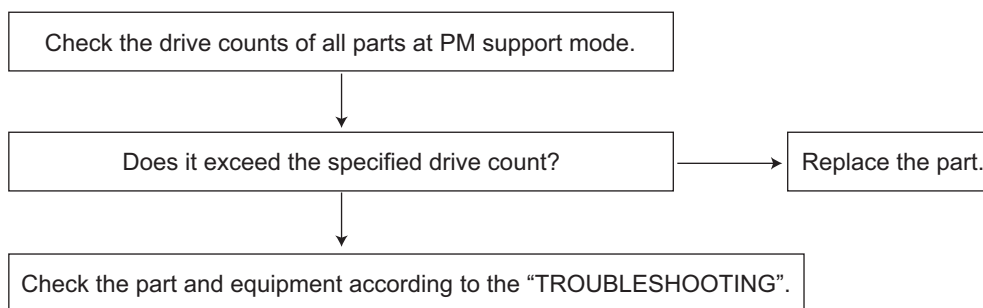
Example 1:

When the number of output pages has reached the specified level



Example 2:

When the image failure occurred before the number of output pages has reached the specified level



4.5 Preventive Maintenance Checklist

Symbols used in the checklist

Cleaning	Lubrication/Coating	Replacement	Operation check
A Clean with alcohol B Clean with soft pad, cloth or vacuum cleaner	L Launa 40 SI Silicon oil W White grease (Molykote EM-30) AV Alvania No.2	The number of sheets consumed before replacement (Value x 1,000) R Replace if deformed or damaged	C After cleaning or replacement, confirm there is no problem.

[Preventive Maintenance Checklist]

Notes:

- Perform cleaning and lubricating in the following timing. Lubricate the replacement parts according to the replacement cycle.
e-STUDIO555: every 460,000 sheets
e-STUDIO655: every 515,000 sheets
e-STUDIO755: every 540,000 sheets
e-STUDIO855: every 600,000 sheets
- Values under "Replacement" indicate the replacement cycle for the e-STUDIO555/e-STUDIO655/e-STUDIO755/e-STUDIO855.
- The replacement cycle of the parts in the feeding section equals to the number of sheets fed from each paper source.
- Be careful not to put oil on the rollers, belts and belt pulleys when lubricating.

A. Scanner

Items to check	Cleaning	Lubrication/Coating	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>	Remarks
A1 Original glass	B or A				35-12	*1
A2 ADF original glass	B				34-2	
A3 Mirror-1	B					
A4 Mirror-2	B					
A5 Mirror-3	B					
A6 Reflector	B					
A7 Lens	B				34-1	
A8 Exposure lamp			R	C	36-3	
A9 Automatic original detection sensor	B			C	38-7	
A10 Slide sheet (front and rear)	B or A		R			

B. Laser unit related section

Items to check	Cleaning	Lubrication/Coating	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>	Remarks
B1 LSU slit glass	B					*2
B2 Dustproof slit glass	B				32-2	*3

C. Feed unit

Items to check		Cleaning	Lubrication/ Coating	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>	Remarks
C1	Pickup roller (drawer)			200		7-38	*4
C2	Feed roller (drawer)			200		7-38	*4
C3	Separation roller (drawer)			200		7-52	*4
C4	Transport roller	A		R		2-2, 7-17	
C5	Paper guide (all)	B					
C6	Drive gear (tooth face and shaft)		W				*5
C7	GCB bushing bearing		L				
C8	Registration roller (rubber)	A		R		16-8	
C9	Registration roller (metal)	A		R		16-10	
C10	Paper dust removal brush-1	B		R		16-19	*26
C11	Paper dust removal brush-2	B		R			*26
C12	Pickup roller (Tandem LCF)			400		7-38	
C13	Feed roller (Tandem LCF)			400		7-38	
C14	Separation roller (Tandem LCF)			400		7-52	

D. Bypass feed unit

Items to check		Cleaning	Lubrication/ Coating	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>	Remarks
D1	Pickup roller			100		10-36	
D2	Feed roller			100		10-35	
D3	Separation roller		AV	100		11-35	*25
D4	Transport roller	A		R		11-8	
D5	Bypass tray	B					
D6	Drive gear (tooth face and shaft)		W				
D7	GCB bushing bearing		L				

E. Process related section

Items to check		Cleaning	Lubrication/ Coating	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>	Remarks
E1	Discharge LED	B					*22
E2	Drum shaft	B					
E3	Ozone filter			460/515/540/ 600		33-25	

F. Main charger

Items to check		Cleaning	Lubrication/ Coating	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>	Remarks
F1	Charger case	B					*6
F2	Charger wire			460/515/540/ 600	C	40-19	*6
F3	Contact point of terminals	B					
F4	Charger wire cleaning pad			460/515/540/ 600		40-9	
F5	Grid			460/515/540/ 600		40-27	

G. Drum/Cleaner

Items to check		Cleaning	Lubrication/ Coating	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>	Remarks
G1	Photoconductive drum			460/515/540/ 600			
G2	Whole cleaner unit	B					*7
G3	Drum cleaning blade			460/515/540/ 600		49-9	*8
G4	Drum cleaning brush			460/515/540/ 600		48-38	*8
G5	Recovery blade	B		R			*9
G6	Separation finger for drum			460/515/540/ 600	C	49-4, 21	*10
G7	Auger drive section		W				*11
G8	Cleaner lower guide	B					
G9	Image quality sensor	B		R		50-16	*7

H. Developer unit

Items to check		Cleaning	Lubrication/ Coating	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>	Remarks
H1	Whole developer unit	B					
H2	Developer motor unit		W				*21
H3	Developer material			460/515/540/ 600			*12
H4	Front shield	B		R			
H5	Oil seal (9 pcs.)		AV	920/1030/1080/ 1200			*13
H6	Guide roller	B or A		R			
H7	Toner filter			460/515/540/ 600		42-24	

I. Toner recycle

Items to check		Cleaning	Lubrication/ Coating	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>	Remarks
I1	Whole toner recycle unit	B					*14

J. Transfer belt

	Items to check	Cleaning	Lubrication/ Coating	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>	Remarks
J1	Transfer belt			460/515/540/ 600		22-18	
J2	Transfer belt power supply roller	A		R		22-6	*15
J3	Transfer belt drive roller	A		R		22-9	
J4	Transfer belt follower roller	A		R		22-2	
J5	Transfer belt cleaning blade			460/515/540/ 600		23-31	
J6	Transfer belt cleaning brush			460/515/540/ 600		23-10	*16
J7	Flicker periphery	B					*16

K. Toner bag

	Items to check	Cleaning	Lubrication/ Coating	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>	Remarks
K1	Toner bag			920/1030/1080/ 1200		203-3	*20

L. Fuser unit

	Items to check	Cleaning	Lubrication/ Coating	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>	Remarks
L1	Fuser roller			460/515/540/ 600		25-14	
L2	Pressure roller			460/515/540/ 600		25-12	
L3	Upper separation finger			460/515/540/ 600		27-22	*17
L4	Lower separation finger	A		R		27-9	
L5	Cleaning web			460/515/540/ 600		27-11	*18
L6	Web pushing roller			460/515/540/ 600		27-12	*18
L7	Thermistor (4 pcs.)	A		R		27-6, 28	*19
L8	Fuser unit entrance/ exit guide	A					
L9	Web motor worm gear		W				
L10	Fuser unit motor gear		W				
L11	Fuser roller drive gear/ Cleaning web drive gear			R			
L12	Fuser roller bearing/ One way bearing			R			
L13	Fuser unit exit roller	A				28-3, 23	

Items to check		Cleaning	Lubrication/ Coating	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>	Remarks
L14	Web roller one-way clutch			460/515/540/ 600		27-35	

M. Exit/Reverse section

Items to check		Cleaning	Lubrication/ Coating	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>	Remarks
M1	Exit/Reversal guide	A					
M2	Exit roller	A	SI	R		14-4, 19, 30	*23
M3	Drive gear		W				*24
M4	Reverse section transport roller (upper, lower)	A		R		13-6, 7	
M5	Reverse section follower roller (upper, lower)	A				14-24	
M6	Horizontal transport section transport roller (4 pcs.)	A				20-13, 14	
M7	Horizontal transport section follower roller (8 pcs.)	A				20-8	
M8	Reverse section mylar (2pcs.)	B or A					
M9	Bearing for GCB bushing		L				
M10	Bearing of plastic bushing		W				
M11	Paper guide	B					

N. RADF

Items to check		Cleaning	Lubrication/ Coating	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>	Remarks
N1	Pickup roller	A		120		81-12	
N2	Separation roller	A		120		82-8	
N3	Feed roller	A		120		81-12	
N4	Original registration roller	A				84-12	
N5	Intermediate transfer roller	A				84-4	
N6	Reading start roller	A				84-6	
N7	RADF original glass	A				51-18	
N8	Reading end roller	A				84-2	
N9	Reverse registration roller	A				84-1	
N10	Exit intermediate roller	A				86-26	
N11	Exit/reverse roller	A				86-26	

Items to check		Cleaning	Lubrication/ Coating	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>	Remarks
N12	Reverse roller	A				83-16	
N13	Exit roller	A				86-28	
N14	Platen sheet	B or A				92-3	

O. LCF (MP-4004)

Items to check		Cleaning	Lubrication/ Coating	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>	Remarks
O1	Pickup roller	A		400		5-28	
O2	Feed roller	A		400		4-20	
O3	Separation roller	A		400		4-31	
O4	Drive gears (tooth face)		W				
O5	Brush unit	B					
O6	Paper path section	B					

P. Finisher (MJ-1027/1028)

Items to check		Cleaning	Lubrication/ Coating	Replacement (x 1,000 sheets)	Operation check	Parts list <P-I>	Remarks
P1	Feed belt	B				15-2	
P2	Paddle	B				16-33	

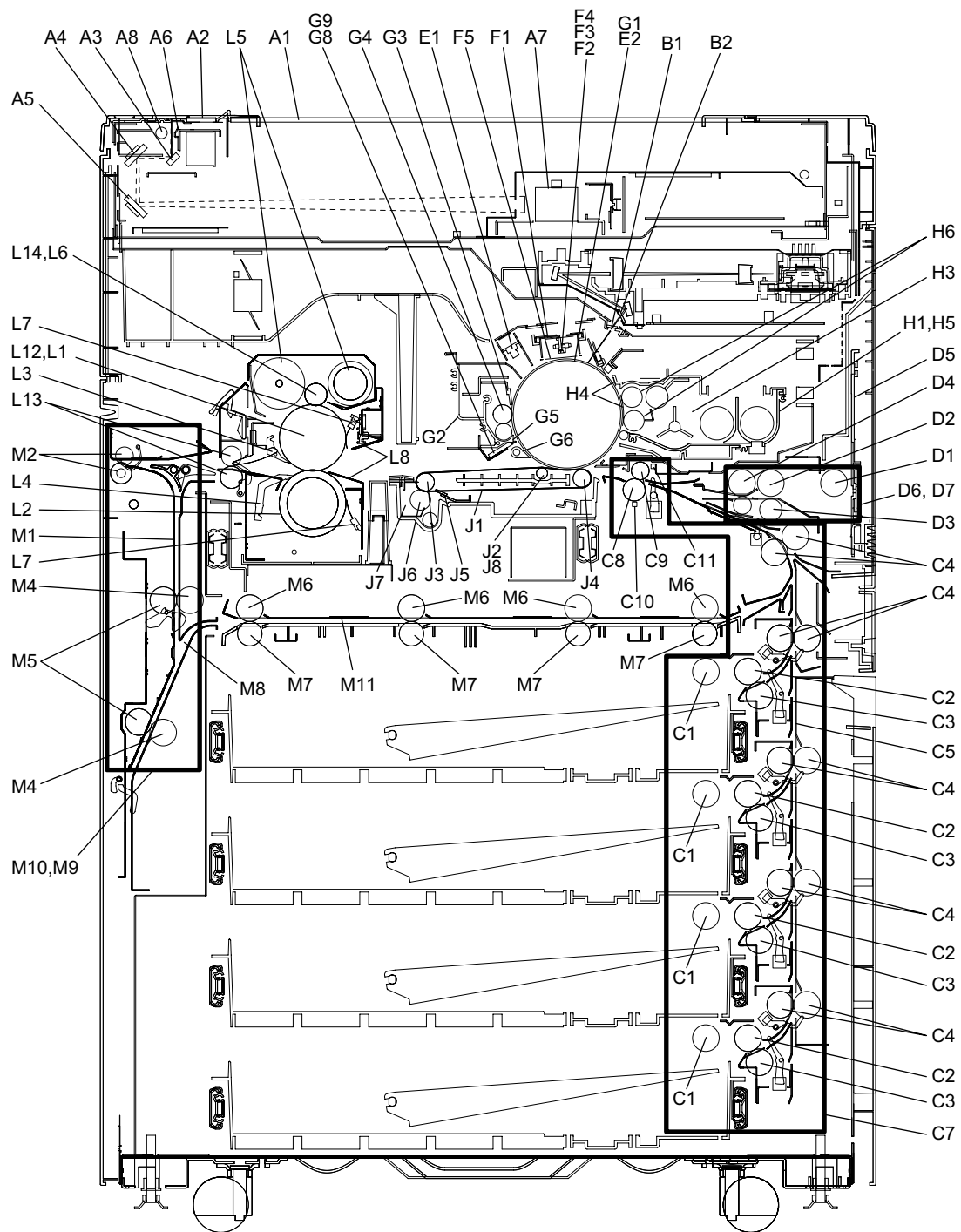


Fig. 4-6 Front side (4 drawers model)

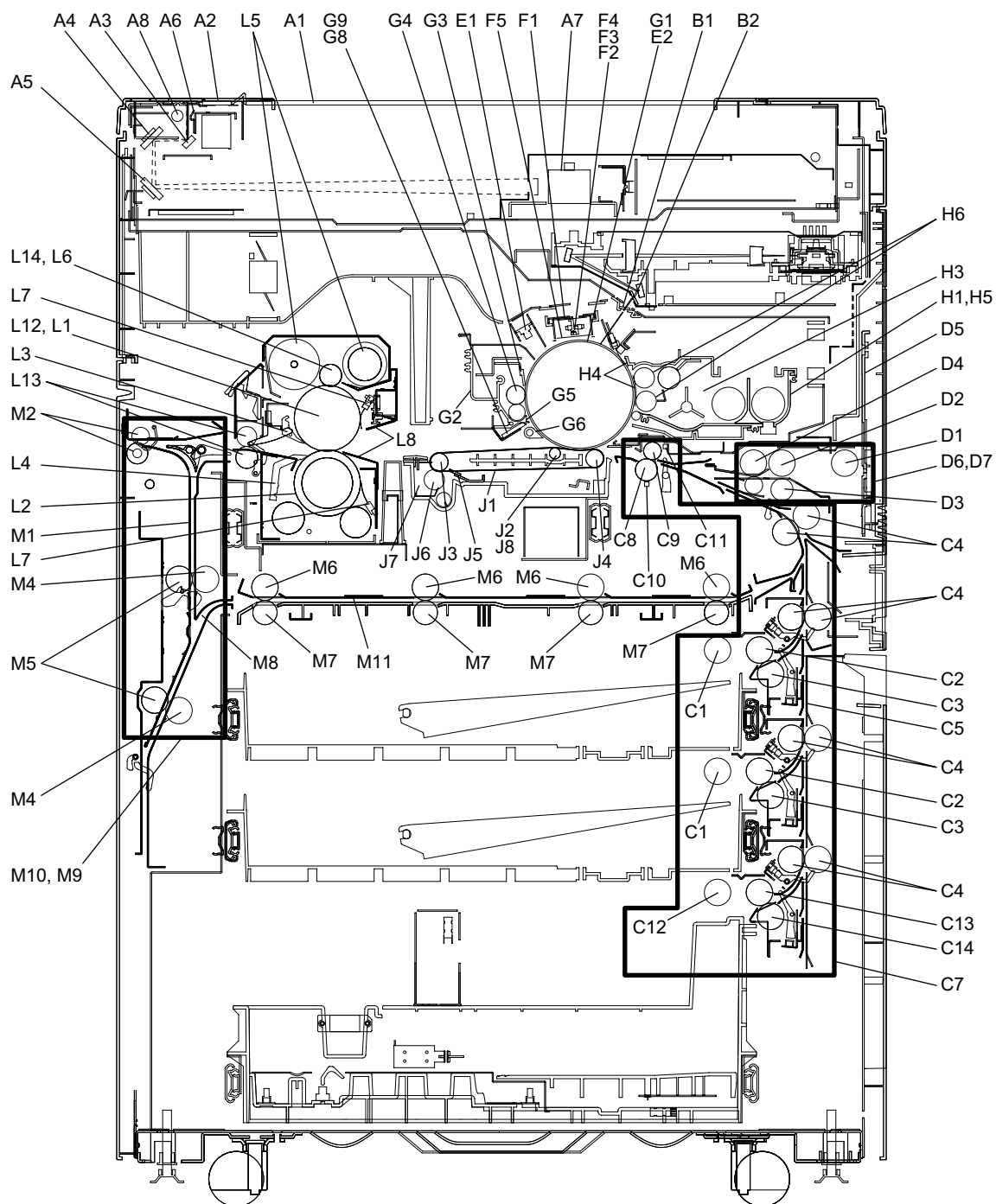


Fig. 4-7 Front side (2 drawers and tandem LCF model)

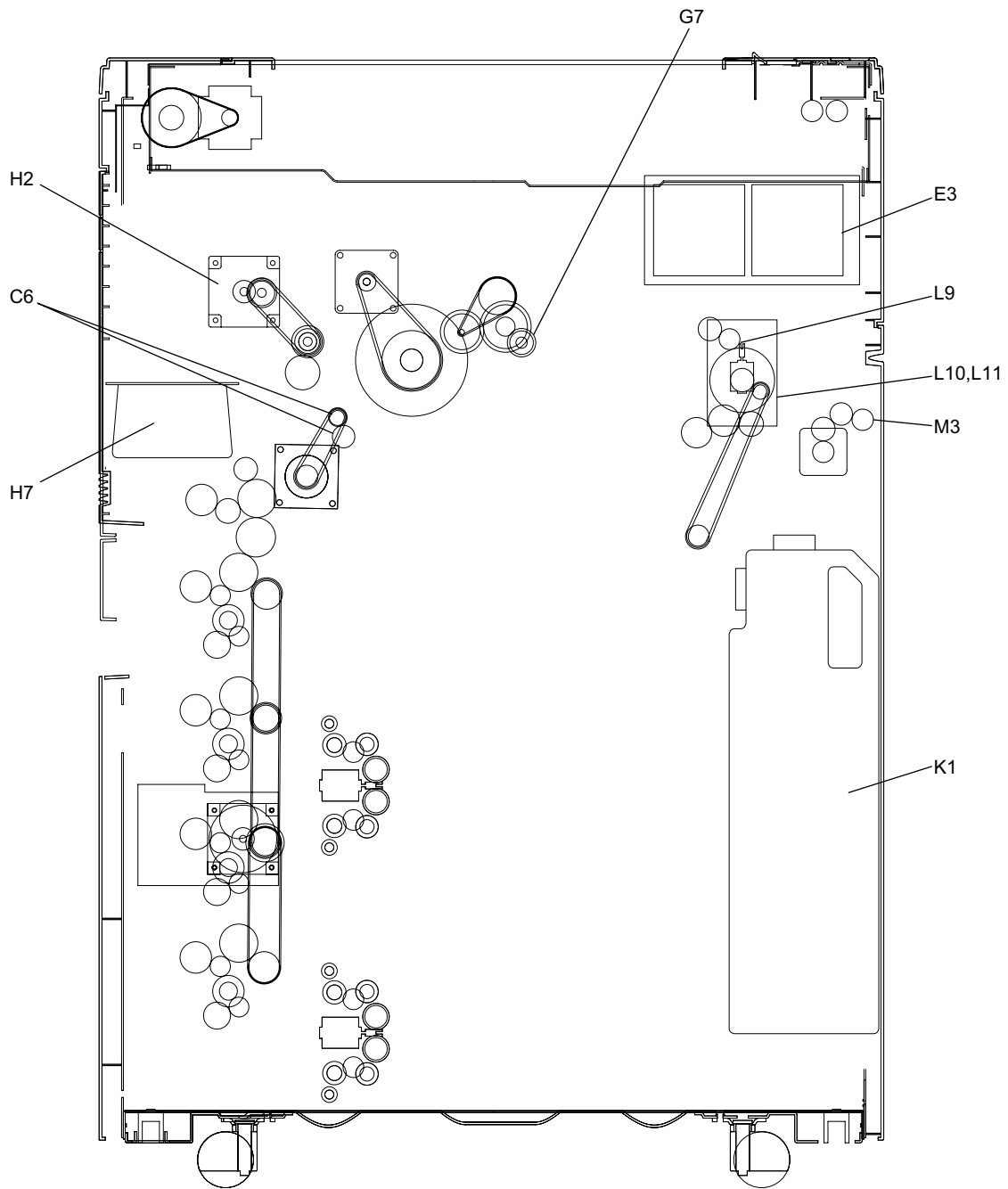


Fig. 4-8 Rear side

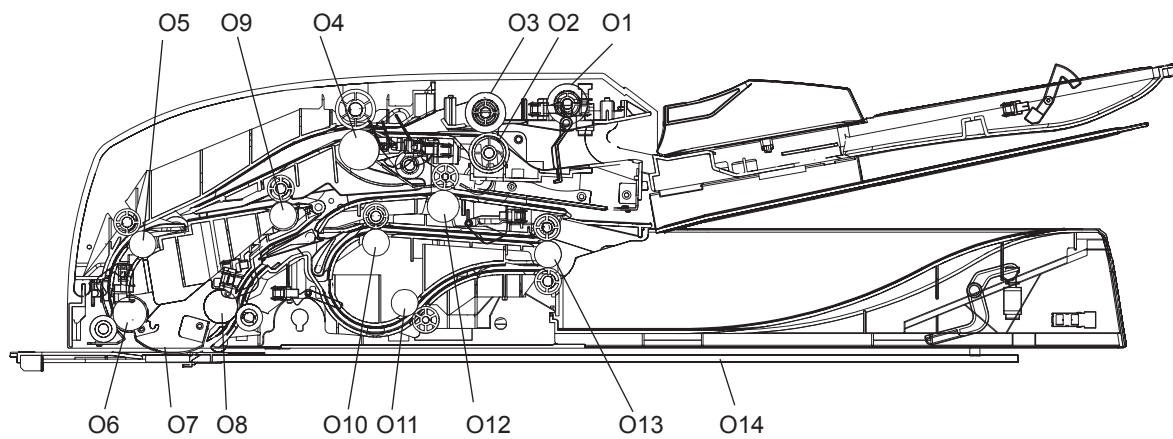


Fig. 4-9 Reversing Automatic Document Feeder

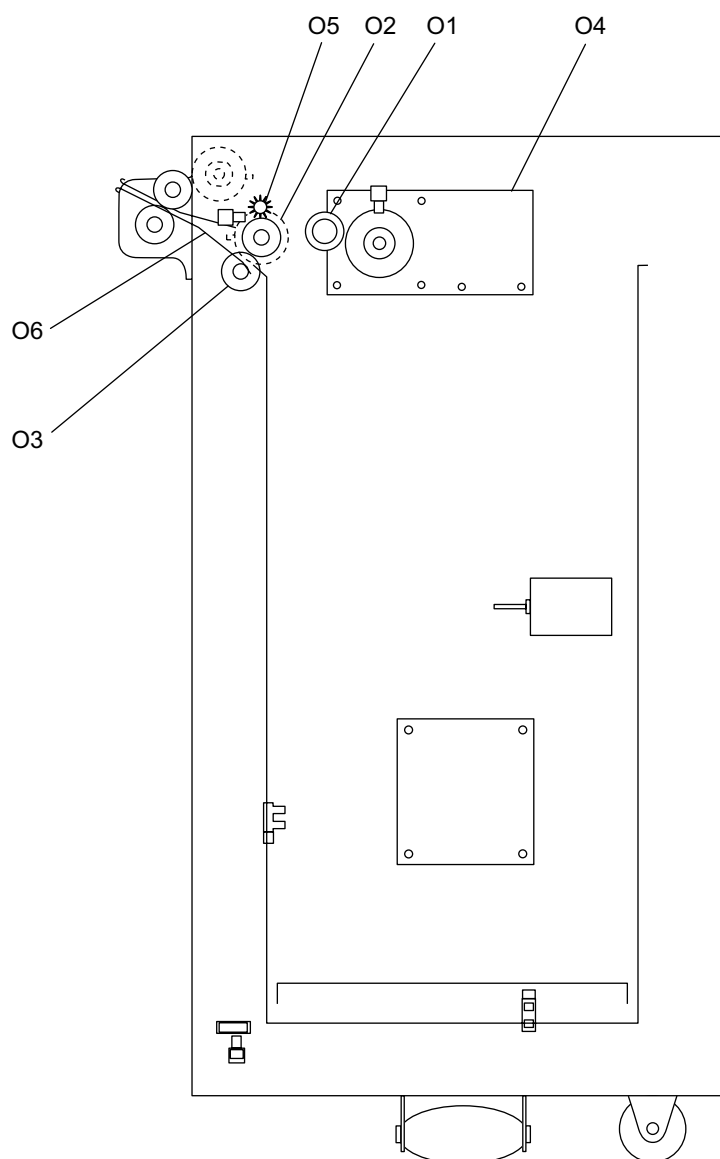


Fig. 4-10 Large Capacitor Feeder (MP-4004)

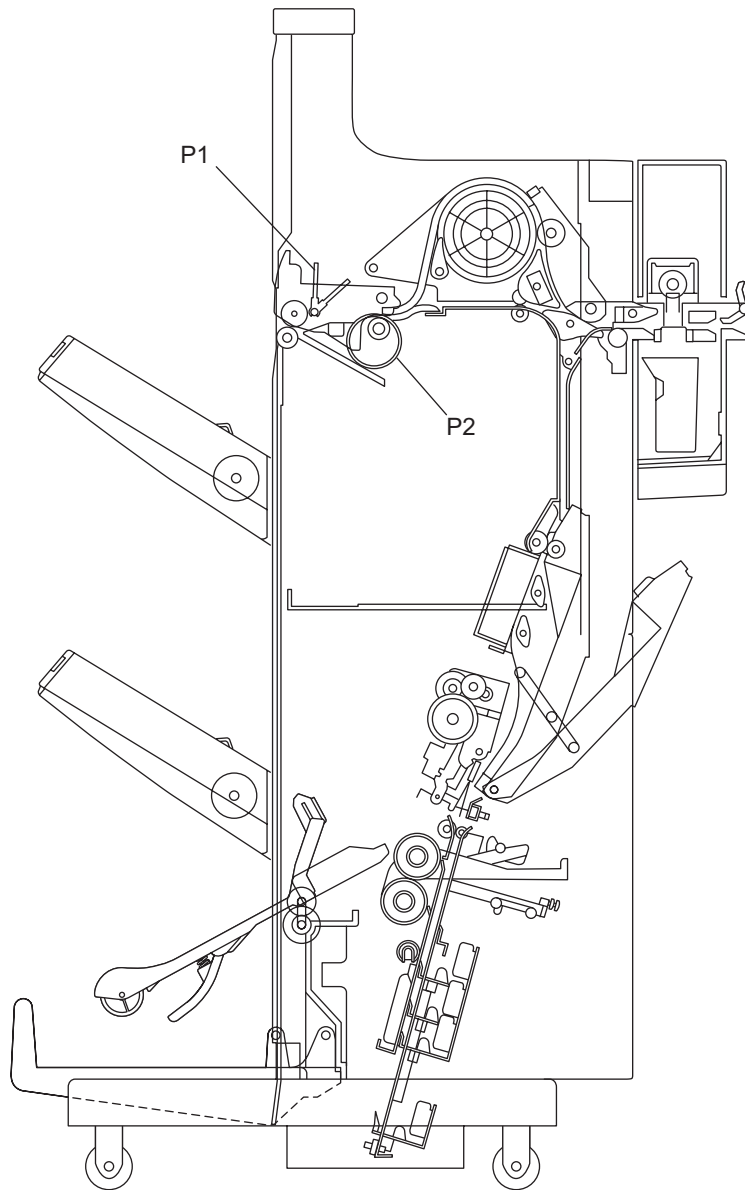


Fig. 4-11 Finisher (MJ-1027/1028)

Remarks “*” in the Preventive Maintenance Check List

- * 1. Original glass
Clean both sides of the original glass.

Note:

Make sure that there is no fingerprints or oil staining on part of the original glass on where the original scale is mounted since the shading correction plate is located below the scale to be scanned.

- * 2. LSU slit glass
Take off the laser optical unit and clean the LSU slit glass.

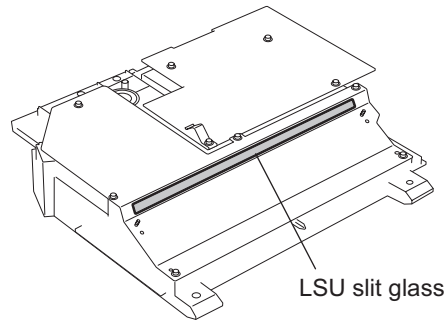


Fig. 4-12

- * 3. Dustproof slit glass
Take off the cleaner unit. Then release the hook to take off the dustproof slit glass unit and clean the face and back side of the dustproof slit glass.

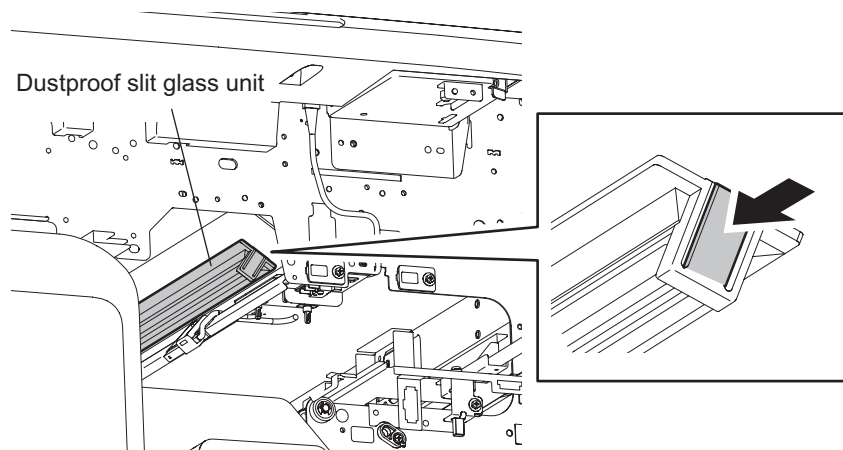


Fig. 4-13

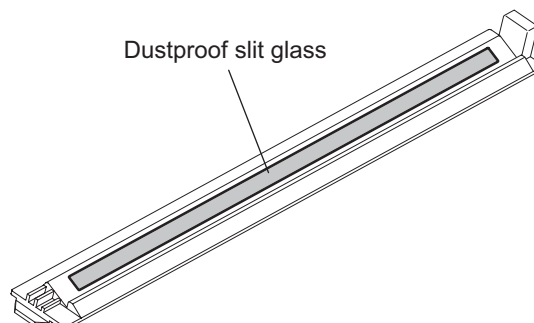


Fig. 4-14

- * 4. Pickup roller / feed roller / separation roller
When installing the pickup roller and feed roller, pay attention to allocate the pickup roller, gear, feed roller and one-way clutch correctly.
When replacing the separation roller, replace only the roller and continue to use the torque limiter.

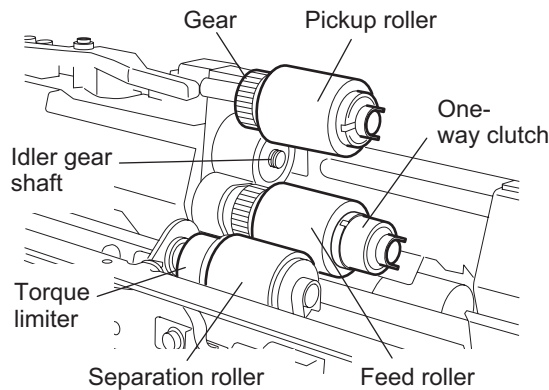


Fig. 4-15

- * 5. Drive gears in the paper feeding section (teeth face and shafts)
Apply some white grease (Molykote EM-30) to the teeth faces and shafts of the drive gears.

Note:

Make sure that oil is not running over or scattered around as the gear is rotated coming into the clutch after applying molykote to the gear which is located near the clutch. The quantity of molykote should be smaller than that to be applied to the other parts.

- * 6. Main charger case / main charger wire
Clean the main charger case and wire with a cloth soaked in water and squeezed tightly, and then wipe them with a dry cloth.

Note:

Be careful of the following when attaching a new wire (length: 363mm).

- Insert the wire securely into the V-grooves of the front and rear sides.
- Do not twist the wire.
- Do not touch the wire with your bare hand.

- * 7. **Cleaner Unit / Image quality sensor**
 Be sure to connect the ground wire to an aluminum die cast to prevent the image quality sensor from being damaged by static electricity before you clean the cleaner unit. Then clean the unit with a vacuum cleaner.
 Also wipe the window of the image quality sensor with cotton swabs or tissues after having cleaned the cleaner unit. Do not use a vacuum cleaner for the sensor. Be sure to clean the window of the image quality sensor since the sensor may not function properly if this window is dirty.

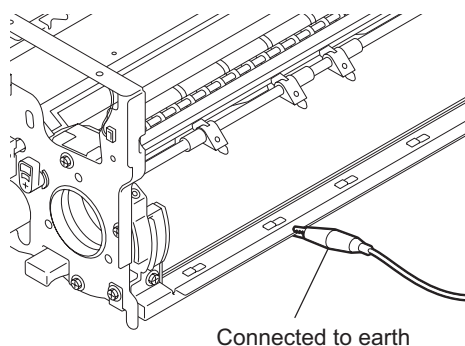


Fig. 4-16

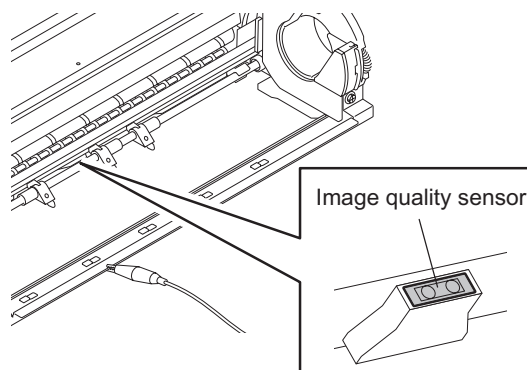


Fig. 4-17

- * 8. **Drum cleaning blade / Drum cleaning brush**
 The edge of the blade is breakable and can be easily damaged by matters such as the adherence of paper dust. Replace the cleaning blade and brush with new ones if poor images are copied due to the damaged blade regardless of the number of copies which have been made.
- * 9. **Recovery blade**
 Replace the recovery blade regardless the number of copies if the edge of the blade get damaged.
- * 10. **Separation fingers for the drum**
 The paper jam may be caused if the tip of the separation finger is damaged or deformed. If there is any problem with it, replace the finger with a new one regardless of the number of copies which have been made.
 If any mark which was made by the finger appears on the printed image, clean the tip of the finger.

Notes:

1. Wipe the tip of the finger lightly with a dry cloth trying not to deform it.
 Do not leave the lint on the tip.
2. Apply patting power to the tip of the fingers and drum surface after replacing or cleaning them.

- * 11. Cleaner auger drive section
Apply white grease to the cleaner auger drive section (shown by arrow).

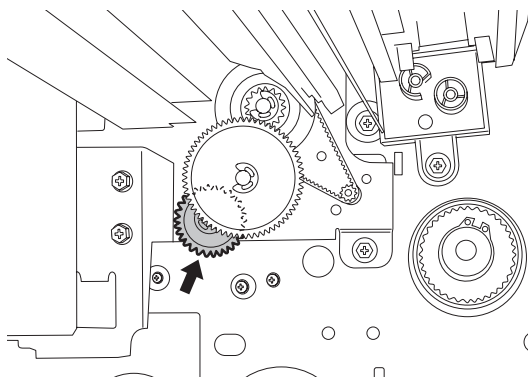


Fig. 4-18

- * 12. Developer material
After replacing the developer material, be sure to perform the auto-toner adjustment and then enforced performing of image quality control.
(P.3-3 "3.2 Image Dimensional Adjustment")
When removing the developer material from the developer unit with a vacuum cleaner or air blower, be sure to ground the bracket of the developer unit to prevent the auto toner sensor from being damaged by static electricity.

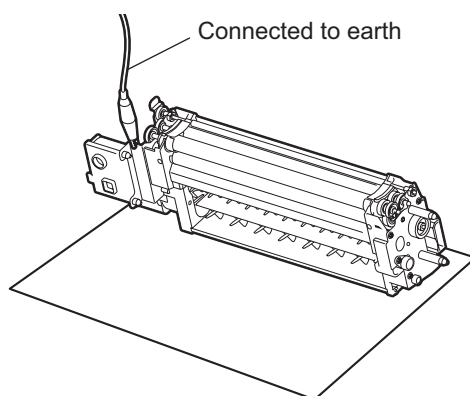


Fig. 4-19

- * 13. Oil seal

Mixer shaft	4 pcs.
Paddle shaft	2 pcs.
Upper developer sleeve (rear side)	1 pc.
Lower developer sleeve (rear side)	1 pc.
Transport sleeve (front side)	1 pc.

During replacement, coat the oil seal with grease (Alvania No.2).

- (1) Push in a new oil seal parallel to the mounting hole section of the developer frame or outside of the nozzle mixer.

* Pay attention to the direction in which the oil seal is attached. (See figure on right.)

- (2) Apply an even coat of grease to the inside of the oil seal.
 - Amount: About two small drops
- (3) Wipe off any grease the exudes from the inside.

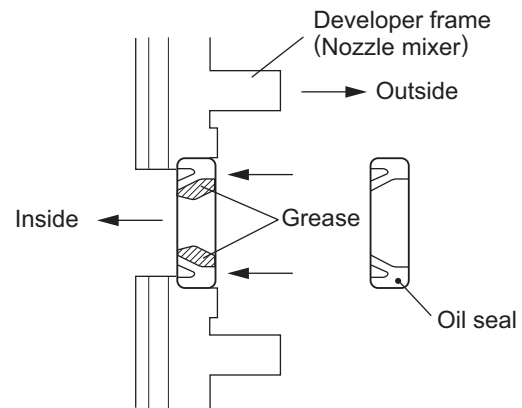


Fig. 4-20

Mixer Shaft

Apply a coating of grease (Alvania No.2) to the entire periphery of the mixer shaft before attaching the bearing.

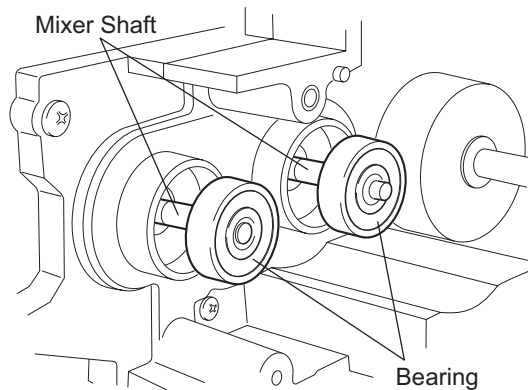


Fig. 4-21

- * 14. Whole toner recycle unit
Clean up the toner in the toner recycle unit when replacing the developer material.

- (1) Take off the toner recycle unit.
- (2) Remove 3 screws to separate the recycle toner hopper and the auger pipe.

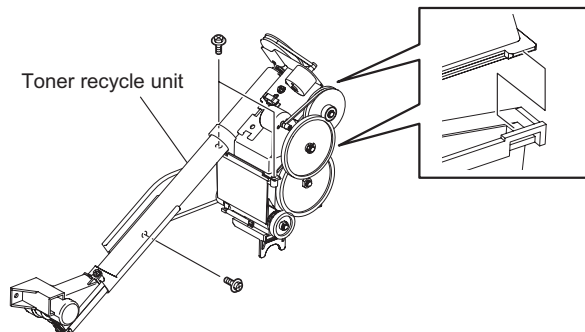


Fig. 4-22

- (3) Vacuum off the toner inside and the supply section of the recycle toner hopper.

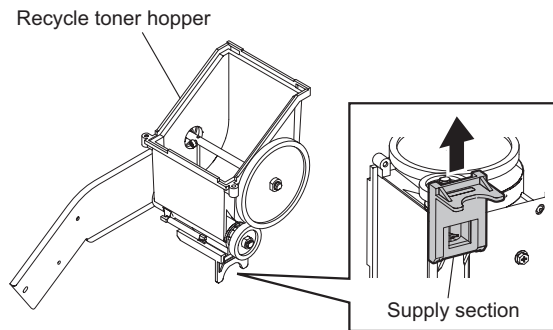


Fig. 4-23

- (4) Remove 1 screw and take off the cover of the supply opening.
- (5) Vacuum off the toner in the auger section.

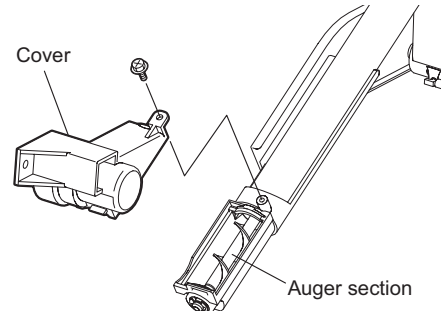


Fig. 4-24

Note:

When cleaning the auger section with a vacuum cleaner, be sure to ground the motor bracket to prevent the motor from being damaged by static electricity.

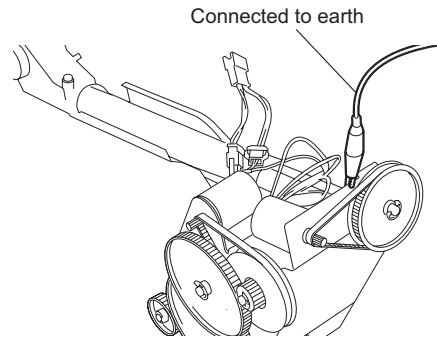


Fig. 4-25

- * 15. Transfer belt power supply roller
Fully clean up the toner and such adhered to the roller with alcohol since an image failure may occur if there remains any blot on the roller.

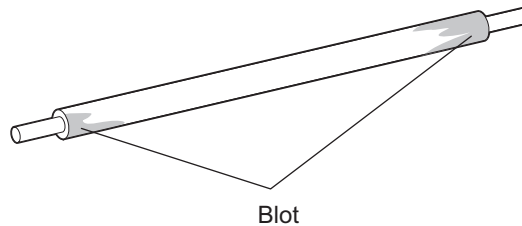


Fig. 4-26

- * 16. Transfer belt cleaning bush/Flicker periphery
When replacing the transfer belt cleaning brush, clean the toner pooling under the brush (around the flicker).

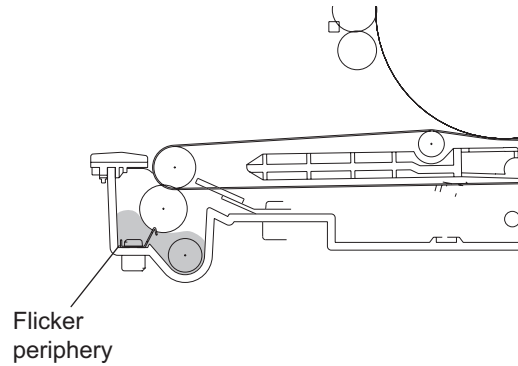


Fig. 4-27

- * 17. Upper separation finger
The paper jam may be caused if the tip of the finger is damaged or deformed. If there is any problem with it, replace the finger with a new one regardless of the number of copies which have been made.
Do not damage the tip of the finger during the cleaning. The finger may be damaged if the toner adhering to the tip of it is scraped off forcibly. Replace the finger if the toner is sticking to it heavily.
- * 18. Cleaning web/web pushing roller
Be sure to replace both of the cleaning web and the web pushing roller at the same time, since the cleaning web may be caught by the web pushing roller if this roller is continuously used.

Notes:

1. When the web pushing roller has been replaced, reel the web for 3 to 5 turns by hand.
2. Check if the cleaning web is tightly reeled after it has been installed in the fuser unit.
3. Turn the jam access knob of the fuser unit for 10 to 15 times to fit the web and the fuser roller. At this time, check if there is no installation defect in the unit.
4. Check the secure installation of the cleaning web as follows:
 - Be sure that the cleaning web does not hang out of the space between the upper entrance guide and the fuser roller when it is seen from the fuser unit entrance side.
 - Open the fuser unit cover and make sure that there are no slacks or creases on the cleaning web.

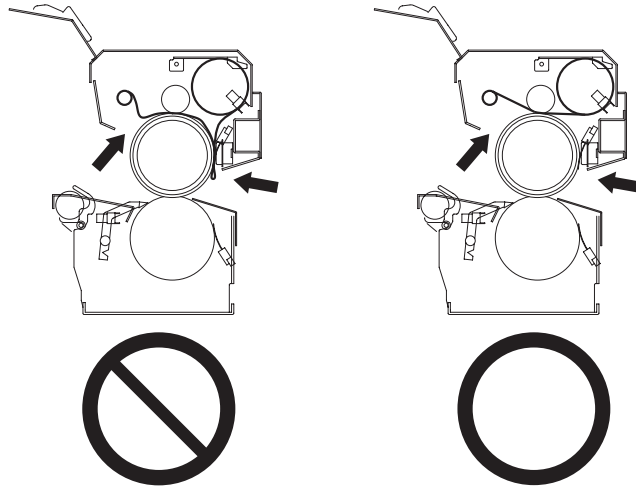


Fig. 4-28

5. Start the PM Support mode (6S) to reset the counter of the cleaning web when the web has been replaced, otherwise the cleaning ability of the web may be narrowed. At the first power-ON after this counter reset, the web motor rotates for 65 seconds.
6. Turn the power of the equipment ON. Then confirm that the message "READY" has appeared on the touch panel.
7. Perform the final check of the cleaning web (same as Step 4 above).
8. When the web motor is rotated at the output check in the Test mode (03-124), the cleaning web may be slacked. Do not rotate the motor for more than 10 seconds to prevent the web from being slacked.
9. It is recommended to replace all the supplies for the fuser unit at the same time. If it is necessary to replace the cleaning web before it is finished for any reason, set the counters manually for the newly replaced web according to its previous usage.

Counter related to the life span control of total feeding amount of the cleaning web

Present output pages for control: 08-1252-6

Total feeding amount for control: 08-1252-7

PM support screen related counter

Cleaning web counter: 08-1252-3

Also, when replacing the web pushing roller or one-way clutch which is half-way used, set the following counters manually.

Web pushing roller: 08-1254-0, 08-1254-3

One-way clutch: 08-1338-0, 08-1338-3

Additionally, when the present output pages for control (08-1252-6) has reached the setting value to display that the cleaning web is consumed (08-405), the time to replace the cleaning web appears on the screen and the feeding amount becomes small.

If the cleaning web which has exceeded its life span is used continuously, this could damage the fuser roller. Replace the cleaning web as soon as possible when it is finished.

- * 19. **Thermistor**
Clean the thermistor with alcohol if the toner or dirt is adhered on it while the fuser unit is reassembled or disassembled, such as the case the fuser roller is replaced.
Do not deform or damage the thermistor during the cleaning. Replace the thermistor with a new one if it is damaged or deformed regardless of degree.
- * 20. **Toner bag**
Be sure to check the amount of the used toner in the toner bag before starting the preventive maintenance. Tap the toner bag to even out the surface of the used toner, and if this top surface is higher than 180 mm from the bottom of the toner bag, replace the bag. Photoconductive drum defects may increase the used toner amount. Therefore be sure to check the used toner amount in the bag when the drum has been replaced.
In addition, whenever fogging on the photoconductive drum increases, be sure to check the used toner amount in the toner bag.
- * 21. **Developer motor unit**
When an abnormal noise occurs in the developer unit, apply white grease (Molykote EM-30) to the areas described below.
 - The shaft of the developer motor
 - Between the drive pulleys and the E-rings

<< Method of applying white grease (Molykote EM-30) >>

- (1) Take off the developer motor unit.
- (2) Remove 2 E-rings and take off the pulleys and belt.

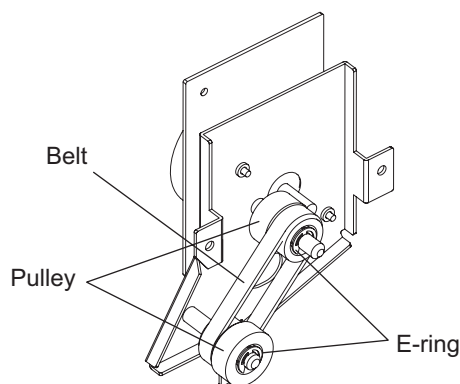


Fig. 4-29

- (3) Apply white grease (Molykote EM-30) to the places shown below.
 - Motor shaft (arrow A) :
About 3 small drops
 - E-rings (arrow B ; 2 places) :
About 2 small drops
 - * Apply to the surface contacting the pulleys.

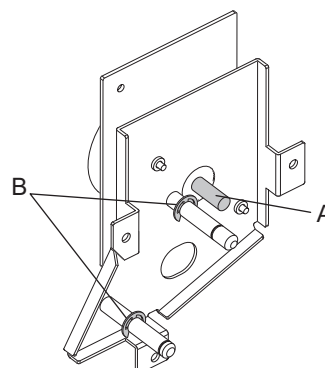


Fig. 4-30

- * 22. **Discharge LED**
Clean with soft pads or cloth. Do not use a vacuum cleaner.

- * 23. Exit roller
Remove the pin from the exit roller (upper), and then apply a few drops of silicon oil over the hole of the exit roller.
- * 24. Exit roller drive gear
Apply 1 rice-grain amount of white grease (Molykote EM-30) on the shaft section where the drive gear is installed.
- * 25. Separation roller (bypass feed unit)
Apply an even coat of grease (Alvania No.2) to all round the inside of the spring.
- * 26. Paper dust removal brush
Clean the frame if needed because paper dust brushed off with the corresponding brush accumulates on the lower frame of the registration rollers.
(Cleaning period guideline: Every two or three times of Preventive Maintenance.)

4.6 Precautions for Storing and Handling Supplies

4.6.1 Precautions for storing TOSHIBA supplies

1. Toner / Developer

Toner and developer should be stored in a place where the ambient temperature is between 10°C to 35°C (no condensation), and should also be protected against direct sunlight during transportation.

2. OPC drum

Like the toner and developer, OPC drums should be stored in a dark place where the ambient temperature is between 10 to 35°C (no condensation). Be sure to avoid places where drums may be subjected to high humidity, chemicals and/or their fumes.

3. Drum cleaning blade / Transfer belt cleaning blade

This item should be stored in a flat place where the ambient temperature is between 10 to 35°C, and should also be protected against high humidity, chemicals and/or their fumes.

4. Fuser roller / Pressure roller / Cleaning web / Transfer belt / Drum cleaning brush / Transfer belt cleaning brush

Avoid places where the heat rollers may be subjected to high humidity, chemicals and/or their fumes.

5. Copy Paper

Avoid storing copy paper in places where it may be subjected to high humidity.
After a package is opened, be sure to place and store it in a storage bag.

4.6.2 Checking and cleaning of photoconductive drum

1. Use of gloves

If fingerprints or oil adhere to the drum surface, the characteristics of the photosensitive drum may degrade, affecting the quality of the copy image. So, do not touch the drum surface with your bare hands.

2. Handling precautions

As the drum surface is very sensitive, be sure to handle the drum carefully when installing and removing it so as not damage its surface.

Be sure to apply "patting powder" (lubricant) to the entire surface of the drum and separation claws on the cleaner before installing the drum into the machine. When the drum has been replaced, reset the drum counter in the PM Support mode (6S).

Then perform "Image quality control enforcement" in the Adjustment mode (05-290).

Notes:

- Application of patting powder is for reducing the friction between the drum, cleaning blade, and separation fingers. If the application of patting powder is neglected, the drum and cleaning blade may be damaged.
- When paper fibers or thread adhere to the cleaning blade edge, they may reduce the cleaning efficiency and, in addition, may damage the blade and the drum. Be sure to remove any fibers found adhering to the blade.

3. Installation of Copier and Storage of Drum

Avoid installing the copier where it may be subjected to high temperature, high humidity, chemicals and/or their fumes.

Do not leave drums in a brightly lit place for a long time. Otherwise the drum will fatigue, and will not produce sufficient image density immediately after being installed in the machine. However, this effect may decrease as time elapses.

4. Cleaning the Drum

At periodic maintenance calls, wipe the entire surface of the drum clean using the designated cleaning cotton. Use sufficiently thick cleaning cotton (dry soft pad) so as not to scratch the drum surface inadvertently with your fingertips or nails. Also, remove your rings and wristwatch before starting cleaning work to prevent accidental damage to the drum.

Do not use alcohol, selenium refresher and other organic solvents or silicon oil as they will have an adverse effect on the drum.

5. Scratches on OPC Drum Surface

If the surface is scratched in such a way that the aluminum substrate is exposed, no copy image will be produced on this area. In addition, the cleaning blade will be damaged so replacement with a new drum will be necessary.

6. Collecting Used OPC Drums

Regarding the recovery and disposal of used OPC drums, we recommend following the relevant local regulations or rules.

4.6.3 Checking and cleaning of drum cleaning blade and transfer belt cleaning blade

1. Handling precautions

Pay attention to the following points as the cleaning blade life is determined by the condition of its edge:

- Do not allow hard objects to hit or rub against blade edge. Do not rub the edge with a cloth or soft pad.
- Do not leave oil (or fingerprints, etc.) on the edge.
- Do not apply solvents such as paint thinner to the blade.
- Do not allow loose thread or dirt to contact the blade edge.
- Do not place the blade near a heat source.

2. Cleaning procedure

Clean the blade edge with a cloth moistened with water and squeezed lightly.

4.6.4 Handling of drum cleaning brush and transfer belt cleaning brush

Do not touch the brush surface with bare hands.

4.6.5 Handling of transfer belt

1. Do not touch the belt surface with your bare hands.
2. Prevent oil or other foreign matter from adhering to the belt surface.
3. Do not touch the transfer belt with alcohol or other organic solvents.
4. Do not apply external pressure that might scratch the transfer belt.

4.6.6 Checking and cleaning of fuser roller and pressure roller

1. Handling precautions

- Do not leave oil (fingerprints, etc.) on the fuser roller.
- Be extremely careful not to allow a hard object to hit or rub against the rollers because the thin teflon layer coated on the aluminum substrate is easily damaged and, if damaged, will result in defective drum cleaning.

2. Checking

- Check for stain and damage to the fuser and pressure rollers and clean or replace if necessary. If marks made by the separation fingers have become distinct, open the fuser unit cover and move the position of the E-ring by sliding the upper separation finger unit to the direction of the thick arrow in the figure. The separation fingers thus contact with the different position on the fuser roller. In case there is any scratch which may cause a printing problem or the coating of the roller is removed, replace the roller.

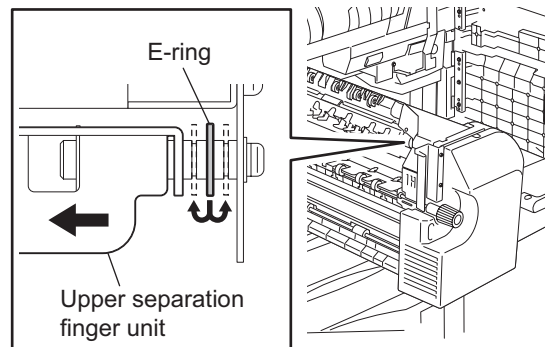


Fig. 4-31

- Clean the upper/lower separation fingers and check for chipped claws.
- Check the cleaning condition of the cleaning web (kinks, lines and slacks on the cleaning web).
- Clean the thermistor and check proper contact with the fuser roller.
- Check the fused condition of the toner image.
- Check the gap between the lower entrance guide and pressure roller (do not make them touch each other).
- Check the gap between the fuser roller and thermostat (2~2.5mm).
- Check the fuser and pressure rollers for proper rotation.
- Check the fuser and pressure rollers for bearing.
- Check the fuser roller drive gear and cleaning web drive gear
- Check the web motor lubrication to the worm gear (white molykote).

3. Cleaning procedure for fuser roller

When the fuser roller becomes dirty, it will cause paper jamming. If this happens, wipe the roller surface clean with cotton moistened in alcohol. For a better cleaning effect, clean the roller when it is still warm.

Note:

Be careful not to rub the teflon-coated surface with your fingernails or hard objects because it is easily damaged. Do not apply the silicon oil to the fuser roller.

4.6.7 Checking and replacing of cleaning web

1. Handling precaution

Never allow solvents such as paint thinner to adhere to the cleaning roller.

2. Defective cleaning and countermeasures

Defective cleaning should be judged by the toner deposited on the fuser and pressure rollers.

When the fuser roller has heavy toner deposits, replace the cleaning web and web pushing roller.

The cleaning web and cleaning rollers will be gradually degraded due to the subjection to the heat from the heat roller over a long period of time. Replace them preferably after a specified number of copies have been made.

3. Precaution when installing cleaning web

- Fully confirm that the cleaning web has no slacks, which may cause a cleaning defect by generating kinks and lines.
- Be sure to replace both of the cleaning web and the web pushing roller at the same time.
- Be sure to reset the counter of the cleaning web counter in the PM Support mode (6S) when the cleaning web roller has been replaced.

4.7 PM KIT

KIT name	Component	Part name	Qty.
MO-KIT-8550	Main charger wire	WIRE-CH-060*398	1
	Main charger grid	GRID-340	1
	Charger wire cleaning pad	K-BASE-PAD-CH-M	1
	Drum cleaning blade	BL-6000D	1
	Drum cleaning brush	B-6000	1
	Drum separation finger	K-CLAW-DRUM	2
		ASYS-CLAW-DRUM-C	1
	Developer material	D-6000	1
	Transfer belt	BT-6510TR	1
	Transfer belt cleaning blade	BL-6510TR	1
	Transfer belt cleaning brush	B-6510TR	1
MA-KIT-6000	Ozone filter	FLTR-OZN-800-390	1
	Toner filter	FILTER-DEV-F300	1
FR-KIT-8550	Fuser roller	HR-6000-U	1
	Pressure roller	HR-6000-L	1
	Cleaning web	CW-6000	1
	Web pushing roller	PR-6000W	1
	Web roller one-way clutch	BRG-ONEWAY-6-H	2
	Fuser unit upper separation finger	SCRAPER-212	6
DF-KIT-3018	Feed roller	ASYS-ROL-FEED	1
	Separation roller	ASYS-ROL-FEED	1
	Pickup roller	ASYS-ROL-RET	1
ROL-KIT-81CST	Feed roller	ASYS-ROL-FEED	1
	Separation roller	ASYS-ROL-SPT	1
	Pickup roller	ASYS-ROL-FEED	1
ROL-KIT-4004 * For MP4004L/A	Feed roller	ASYS-ROL-FEED-LCF	1
	Separation roller	ASYS-ROL-SPT-LCF	1
	Pickup roller	ASYS-ROL-PICK-L	2

4.8 Maintenance Part List

No.	Item	Parts list	
		Page	Item
1	Door switch jig	201	1
2	Area sheet	201	2
3	RADF position pin	201	4
4	Wire holder jig	201	5
5	Developer bottle nozzle	201	6
6	Belt tension jig	201	7
7	Downloading jig (K-PWA-DLM-320)	202	1
8	Downloading JIG (PWA-DWNLD-350-JIG2)	202	2
9	ROM writer adapter (For 1881)	202	4
10	ROM writer adapter (For 1931)	202	5

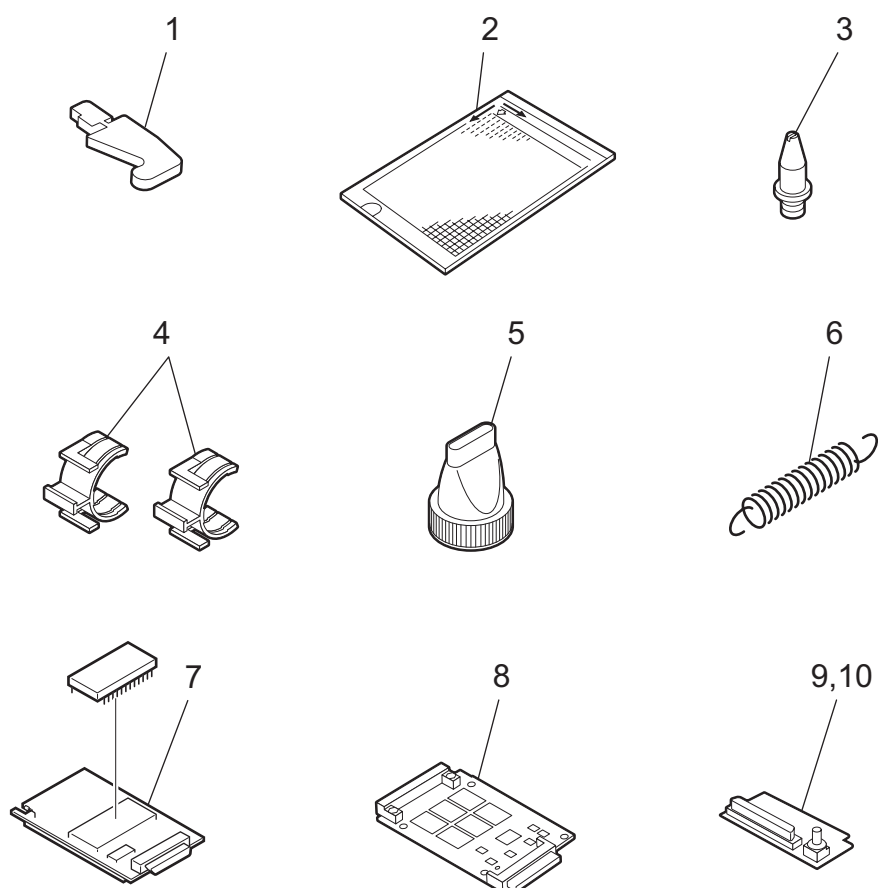


Fig. 4-32

4.9 Grease List

Grease name		Part name	Volume	Container	Parts list	
					Page	Item
SI	Silicon oil	ASM-SILICON-1M	100cc	Bottle	201	8
L	Launa 40	OIL-LAUNA40-100	100cc	Oiler	201	9
W	White grease (Molykote EM-30)	MOLYKOTE_EM-30L_100G	100g	Tube	201	12
AV	Alvania No.2	ASM-PG-ALV2	100g	Tube	201	11

4

4.10 Operational Items in Overhauling

Overhaul each equipment with the following timing.



- e-STUDIO555: When the number of output pages has reached 920,000 or 2.5 years have passed from the start of use (Whichever is earlier)
- e-STUDIO655: When the number of output pages has reached 1,030,000 or 2.5 years have passed from the start of use (Whichever is earlier)
- e-STUDIO755: When the number of output pages has reached 1,080,000 or 2.5 years have passed from the start of use (Whichever is earlier)
- e-STUDIO855: When the number of output pages has reached 1,200,000 or 2.5 years have passed from the start of use (Whichever is earlier)


- (1) Replace all the supplies.
- (2) Check the components in the drive section (gears, pulleys, timing belts, etc.). Replace them with new ones if they are damaged.
- (3) Check all the adhesives such as tape and Mylar if they are damaged or have become unstuck. Replace them with new ones if necessary.
- (4) Check the performance of all the switches and sensors. Replace them with new ones if necessary.
- (5) Clean inside the equipment thoroughly.

5. TROUBLESHOOTING

5.1 General Descriptions

This chapter explains the procedures for solving troubles occurring in the equipment.


When a trouble occurs, check if an error code is displayed on the LCD screen of the control panel first. If displayed, refer to  P.2-1 "2.1 Error Code List" to figure out the classification and contents of the error, and then refer to  P.5-2 "5.2 Diagnosis and Prescription for Each Error Code" to remove its cause.

If not displayed and the equipment does not operate properly or images are not printed properly, refer to  P.5-124 "5.3 Troubleshooting for the Image" to remove its cause.

The cause of a trouble in the equipment may be a minor failure. Check the items below first.

1. Is there any problem with the power cable?
 - * Check if the power cable is inserted securely. When it is almost removed or not inserted securely, power voltage may become unstable, causing a trouble in the equipment.
2. Are the connectors connected securely?
 - * Reconnect them securely. Even if they are apparently inserted, there may be a contact failure. Carefully check if the connection is secured especially after the disassembly or replacement of parts.

Notes:

- If unusual odor is detected or if smoke or fire comes out of the equipment, immediately turn the power OFF.
Even in the cases other than the above, fully observe safety precautions.
- If any PC board or HDD shall be replaced, refer to  P.5-149 "5.4 Replacement of PC Boards / HDD".
- To start any of the self-diagnostic modes, turn the power OFF using the main power switch, and then back ON while pressing a digital key corresponding to the mode to be started.

5.2 Diagnosis and Prescription for Each Error Code

5.2.1 Paper transport jam

[E010] Paper not reaching fuser transport sensor

Open the jam access cover. Is there any paper on the transport path or in the fuser unit?

↓ YES → Remove the paper.

NO

Is the fuser transport sensor working?

(Perform the input check in the test mode: 03-[FAX]OFF/[7]/[C])

↓ NO →

1. Check if the connector of the fuser transport sensor is disconnected.
2. Check if the connector CN332 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
5. Replace the fuser transport sensor.
6. Replace the LGC board.

↓

YES

Is the transfer belt working?

↓ NO →

1. Check if the connector of the transport belt is disconnected.
2. Check if the connector on the transport motor driving PC board is disconnected.
3. Check if the connector CN341 on the LGC board is disconnected.
4. Check if the connector pins are disconnected and the harnesses are open circuited.
5. Check if the conductor pattern on the LGC board is short circuited or open circuited.
6. Replace the transport motor driving PC board.
7. Replace the LGC board.

↓

YES

Is the drum separation finger solenoid working?

(Perform the output check in the test mode: 03-111,161)

↓ NO →

1. Check if the connector of the drum separation finger solenoid is disconnected.
2. Check if the connector CN339 on the LGC board is disconnected.
3. Check the installation state of cleaner.
4. Is the relay connector connecting the cleaner unit and the equipment disconnected or stained with toner?
5. Replace the drum separation finger solenoid.
6. Replace the LGC board.

↓

YES

Is the registration sensor working?

(Perform the input check in the test mode: 03-[FAX]ON/[4]/[E])

- | NO →
1. Check if the connector of the registration sensor is disconnected.
 2. Check if the registration sensor is installed correctly.
 3. Check if the registration actuator is operating properly.
 4. Check if the connector CN341 on the LGC board is disconnected.
 5. Check if the connector pins are disconnected and the harnesses are open circuited.
 6. Check if the conductor pattern on the LGC board is short circuited or open circuited.
 7. Replace the registration sensor.
 8. Replace the LGC board.
- |
- |
- |
- |
- |
- |
- |
- ↓

YES

Is the registration motor working?

(Perform the output check in the test mode: 03-108/158)

- | NO →
1. Check if the connector of the registration roller clutch is disconnected.
 2. Check if the connector CN341 on the LGC board is disconnected.
 3. Check if the connector pins are disconnected and the harnesses are open circuited.
 4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
 5. Replace the registration roller clutch.
 6. Replace the LGC board.
- |
- |
- |
- |
- |
- |
- ↓

YES

Check if there is any abnormality in the space between the registration motor and the registration roller (metal).

Check if the registration roller (rubber) is rotating smoothly.

Check the condition of the registration roller at the horizontal transport section and clean or replace it.

* If the error [E010] caused by a paper jam underneath the drum cleaner often occurs due to an insufficient paper separation from the photoconductive drum, set a smaller value in the code 08-841, and see what happens. At this time, however, pay attention to the transferability at the leading edge of the paper since this transferability can be slightly narrowed depending on the environments and conditions under which the equipment is placed or the media type of the paper used. (Refer to 3.6.1 in this manual about the details of the code 08-841.)

[E020] Paper stopping at fuser transport sensor

Is the fuser transport sensor working?

(Perform the input check in the test mode: 03-[FAX]OFF/[7]/[C])

- | NO →
1. Check if the connector of the fuser transport sensor is disconnected.
 2. Check if the connector CN332 on the LGC board is disconnected.
 3. Check if the connector pins are disconnected and the harnesses are open circuited.
 4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
 5. Replace the fuser transport sensor.
 6. Replace the LGC board.
- |
- |
- |
- |
- |
- |
- ↓

YES

Is the reverse motor driving?

(Perform the output check in the test mode: 03-126)

- | NO →
1. Check if the connector of the reverse transport unit is not disconnected.
 2. Check if the connector CN335 on the LGC board is not disconnected.
 3. Check if the connector pins are not disconnected and the harness is not open circuited.
 4. Check if the conductor pattern on the LGC board is not short- or open-circuited.
 5. Replace the LGC board
- |
- |
- |
- |
- |
- |
- ↓

YES

1. Check if the separation finger for the fuser unit is working normally.
2. Replace the LGC board

[E030] Power-ON jam

Open the cover of the unit/area whose picture is blinking on the control panel. Is there any paper on the transport path? (Refer to the following table.)

- ↓ YES → Remove the paper.

NO

Is the sensor in the jamming area working?

(Perform the input check in the test mode: refer to the following table.)

- | NO →
1. Check if the connector of the sensor is disconnected.
 2. Check if any of the connectors on the LGC board is disconnected.
 3. Check if the connector pins are disconnected and the harnesses are open circuited.
 4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
 5. Replace the sensor.
 6. Replace the LGC board.
- |
- |
- |
- |
- |
- |
- ↓

YES

Replace the LGC board.

Relation between the jamming area and the corresponding sensors and covers

Jamming area	Sensor	Test mode / Input check
Registration area	Registration sensor	03-[FAX]ON/[4]/[E]
Exit/Reverse area	Exit sensor	03-[FAX]OFF/[7]/[B]
	Reverse sensor-1	03-[FAX]OFF/[7]/[E]
	Reverse sensor-2	03-[FAX]OFF/[7]/[D]
	Fuser transport sensor	03-[FAX]OFF/[7]/[C]
Reverse transport area	Horizontal transport sensor-1	03-[FAX]OFF/[9]/[F]
	Horizontal transport sensor-2	03-[FAX]OFF/[9]/[G]
	Horizontal transport sensor-3	03-[FAX]OFF/[9]/[H]
Paper feeding area	1st drawer feed sensor	03-[FAX]OFF/[1]/[D]
	2nd drawer feed sensor	03-[FAX]OFF/[2]/[D]
	3rd drawer / tandem LCF feed sensor	03-[FAX]OFF/[3]/[D]
	4th drawer feed sensor	03-[FAX]OFF/[4]/[D]
	1st drawer transport sensor	03-[FAX]OFF/[1]/[C]
	2nd drawer transport sensor	03-[FAX]OFF/[2]/[C]
	3rd drawer / tandem LCF transport sensor	03-[FAX]OFF/[3]/[C]
	4th drawer transport sensor	03-[FAX]OFF/[4]/[C]
	Intermediate transport sensor	03-[FAX]OFF/[1]/[A]

[E061] Incorrect paper size setting for 1st drawer

[E062] Incorrect paper size setting for 2nd drawer

[E063] Incorrect paper size setting for 3rd drawer

[E064] Incorrect paper size setting for 4th drawer

[E065] Incorrect paper size setting for bypass tray

If any paper remains in the equipment or drawer, remove it. Match the paper size of the drawer setting and the one in the drawer.

- * Paper size detection is performed at the first sheet of paper when the drawer is opened or closed, or when the power of the equipment is turned ON.

[E090] Image data delay jam

1. Remove the paper remained in front of the registration sensor.
2. If the error still occurs, check the following:
3. Check if the error is cleared by turning the power OFF and then back ON.
4. Check if the connectors connecting the SYS board, SLG board and PLG board are disconnected.
5. Check if the connectors of the HDD are disconnected.
6. Check if the page memory is connected to the connector on the SYS board properly.
7. Replace the page memory.
8. Check if the harnesses connecting the SYS board, SLG board and PLG board are open-circuited.
9. Replace the HDD, SYS board, SLG board and PLG board.

[E091]Other time-out jam

1. Check if there is any paper in the equipment. Remove it if there is.
2. If the error still occurs, check the following:
3. Check if the error is cleared by turning the power OFF and then back ON.
4. Check if the connectors connecting the SYS board, SYSIF board, SLG board and PLG board are disconnected.
5. Check if the connectors of the HDD are disconnected.
6. Check if the page memory is connected to the connector on the SYS board properly.
7. Replace the page memory.
8. Check if the harnesses connecting the SYSIF board, SLG board and PLG board are open-circuited.
9. Replace the HDD, SYS board, SLG board and PLG board.

[E0A0]Image transport ready time-out jam

1. Remove the paper remained in front of the registration sensor.
2. Check if the error is cleared by turning the power OFF and then back ON.
3. Check if the connector CN341 on the LGC board is disconnected.
4. Replace the LGC board.

[E200] 1st drawer transport jam (paper not reaching registration sensor)**[E210] 2nd drawer transport jam (paper not reaching registration sensor)****[E300] 3rd drawer transport jam (paper not reaching registration sensor)****[E330] 4th drawer transport jam (paper not reaching registration sensor)****[E3C0] Tandem LCF transport jam (paper not reaching registration sensor)**

(First page of printing)

Open the jam access cover. Is there paper in front of the registration sensor?

↓ YES → Replace the paper.

NO

Is the registration sensor(S18) working?

(Perform the input check in the test mode: 03-[FAX]ON/[4]/[E])

	NO →	1. Check if the connector of the registration sensor is disconnected.
		2. Check if the connector CN305 on the LGC board is disconnected.
		3. Check if the connector pins are disconnected and the harnesses are open circuited.
		4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
		5. Replace the registration sensor.
		6. Replace the LGC board.
↓		

YES

1. Check the transport roller. Replace it if it is worn out.

(Second page or later of printing)

Open the jam access cover. Is there any paper on the transport path?

- | YES → If the paper is damaged, remove the paper and check the followings
| 1. Check if the paper is skewed, and correct it if it is skewed.
| 2. Check the paper amount.
| 3. Check if the paper is not the one with printing on its back side.
| 4. Check if the width of the side guides of the drawer is too narrow.
| 5. Check the motor-related adjustment value.
↓

NO

Is the intermediate transport sensor (S17) working?

(Perform the input check in the test mode: 03-[FAX]OFF/[1]/[A])

- | NO → 1. Are paper dusts accumulated on the intermediate transport sensor?
| 2. Check if the harness is not damaged.
| 3. Check if the connector is disconnected.
↓

YES

Is the transport motor (M17) rotating?

(Perform the output check in the test mode: 03-133,183)

- | NO → Check if the bearing of the transportation roller is locked.
| Replace the transport motor.
| 1. Check if the connector of the transport motor is disconnected.
| 2. Check if the connector CN327 on the LGC board is disconnected.
| 3. Check if the connector on the transport motor driving PC board is disconnected.
| 4. Check if the connector pins are disconnected and the harnesses are open circuited.
| 5. Check if the conductor pattern on the LGC board is short circuited or open circuited.
| 6. Replace the LGC board.
| 7. Replace the transport motor driving PC board.
↓

YES

Check if the spring of the follower roller of the intermediate transport roller is working properly.

Check if the registration roller (rubber) is rotating smoothly.

[E220] 2nd drawer transport jam (paper not reaching 1st drawer transport sensor)
[E310] 3rd drawer transport jam (paper not reaching 1st drawer transport sensor)
[E340] 4th drawer transport jam (paper not reaching 1st transport sensor)
[E3D0] Tandem LCF transport jam (paper not reaching 1st drawer transport sensor)

(First page of printing)

Open the jam access cover. Is there paper in front of the 1st drawer transport sensor?

↓ YES → Remove the paper.

NO

Is the 1st drawer transport sensor (S33) working?

(Perform the input check in the test mode: 03-[FAX]OFF/[1]/[C])

↓ NO →

1. Check if the connector of the 1st drawer transport sensor is disconnected.
2. Check if the connector CN329 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
5. Replace the 1st drawer transport sensor.
6. Replace the LGC board.

↓

YES

Are the transport clutches (CLT5,7,9,11) working?

(Perform the output check in the test mode: 03-210/225/229/230/231)

↓ NO →

1. Check if the connectors of the transport clutches are disconnected.
2. Check if the connector CN328,329,350 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
5. Replace the transport clutches.
6. Replace the LGC board.

↓

YES

1. Check the condition of the feed roller, separation roller and pickup roller of each paper source, and clean or replace them.
2. Check the transport roller. Clean or replace it.

(Second page or later of printing)

Open the jam access cover. Is there any paper on the transport path?

↓ YES → If the paper is damaged, remove the paper and check the followings:

1. Check if the paper is skewed, and correct it if it is skewed.
2. Check the paper amount.
3. Check if the paper is not the one with printing on its back side.
4. Check if the width of the side guides of the drawer is too narrow.
5. Check the motor-related adjustment value.

↓

NO

Check if the spring of the follower roller of the intermediate transport roller is working properly.

- [E201] 1st drawer transport jam (paper not reaching intermediate transport sensor)
 [E211] 2nd drawer transport jam (paper not reaching intermediate transport sensor)
 [E301] 3rd drawer transport jam (paper not reaching intermediate transport sensor)
 [E331] 4th drawer transport jam (paper not reaching intermediate transport sensor)
 [E3C1] Tandem LCF transport jam (paper not reaching intermediate transport sensor)
 [E261] Option LCF transport jam (paper not reaching intermediate transport sensor)
 [E2A1] Transport jam during duplex printing (paper not reaching intermediate transport sensor)

(First page of printing)

Is the intermediate transport sensor working?

(Perform the input check in the test mode: 03-[FAX]OFF/[1]/[A])

- NO → Open the jam access cover. Remove the paper and check the followings.
1. Check if the connector of the intermediate transport sensor is disconnected.
 2. Check if the connector CN327 on the LGC board is disconnected.
 3. Check if the connector pins are disconnected and the harnesses are open circuited.
 4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
 5. Replace the LGC board.

↓

YES

Is the transport motor rotating?

(Perform the output check in the test mode: 03-133,183)

- NO → Check if the bearing of the transportation roller is locked.
 Replace the transport motor.
1. Check if the connector of the transport motor is disconnected.
 2. Check if the connector CN327 on the LGC board is disconnected.
 3. Check if the connector on the transport motor driving PC board is disconnected.
 4. Check if the connector pins are disconnected and the harnesses are open circuited.
 5. Check if the conductor pattern on the LGC board is short circuited or open circuited.
 6. Check if the conductor pattern on the transport motor driving PC board is short circuited or open circuited.
 7. Replace the LGC board.
 8. Replace the transport motor driving PC board.

↓

YES

Is the 1st drawer transport clutch working?

(Perform the output check in the test mode: 03-210/225/229/230/231)

- NO →
1. Check if the connector of the 1st drawer transport clutch is disconnected.
 2. Check if the connector CN305 on the LGC board is disconnected.
 3. Check if the connector pins are disconnected and the harnesses are open circuited.
 4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
 5. Replace the 1st drawer transport clutch.
 6. Replace the LGC board.

↓

Check if the spring of the follower roller of the intermediate transport roller is working properly.

(Second page or later of printing)

Leading edge of paper not reaching the fuser exit sensor.

- | YES → If the paper is damaged, remove the paper and check the followings.
| 1. Check if the paper is skewed, and correct it if it is skewed.
| 2. Check the paper amount.
| 3. Check if the paper is not the one with printing on its back side.
| 4. Check if the width of the side guides of the drawer is too narrow.
| 5. Check the motor-related adjustment value.
↓

NO

Is the intermediate transport sensor working?

(Perform the input check in the test mode: 03-[FAX]OFF/[1]/[A])

- | NO → 1. Are paper dusts accumulated on the intermediate transport sensor?
| 2. Check if the harness is not damaged.
↓ 3. Check if the connector is disconnected.

YES

Is the transport motor rotating?

(Perform the output check in the test mode: 03-133,183)

- | NO → Check if the bearing of the transportation roller is locked.
| Replace the transport motor.
| 1. Check if the connector of the transport motor is disconnected.
| 2. Check if the connector CN327 on the LGC board is disconnected.
| 3. Check if the connector on the transport motor driving PC board is disconnected.
| 4. Check if the connector pins are disconnected and the harnesses are open circuited.
| 5. Check if the conductor pattern on the LGC board is short circuited or open circuited.
| 6. Check if the conductor pattern on the transport motor driving PC board is short circuited or open circuited.
| 7. Replace the LGC board.
↓ 8. Replace the transport motor driving PC board.

YES

Check if the spring of the follower roller of the intermediate transport roller is working properly.

[E230] 1st drawer transport jam (paper not reaching 1st drawer transport sensor)
 [E240] 2nd drawer transport jam (paper not reaching 2nd drawer transport sensor)
 [E250] Option LCF transport jam (paper not reaching Option LCF transport sensor)
 [E370] 3rd drawer transport jam (paper not reaching 3rd drawer / Tandem LCF transport sensor)
 [E380] 4th drawer transport jam (paper not reaching 4th drawer transport sensor)
 [E3F0] Tandem LCF transport jam (paper not reaching 3rd drawer / Tandem LCF transport sensor)

(First page of printing)

Is the intermediate transport sensor working?

(Perform the input check in the test mode: 03-[FAX]OFF/[1]/[A], OFF/[1]/[C], OFF/[2]/[C], OFF/[3]/[C], OFF/[4]/[C])

- | | | |
|---|------|---|
| | NO → | Open the jam access cover. Remove the paper and check the followings.) |
| | | 1. Check if the connector of the transport sensor is disconnected. |
| | | 2. Check if the connector on the LGC board is disconnected. |
| | | 3. Check if the connector pins are disconnected and the harnesses are open circuited. |
| | | 4. Check if the conductor pattern on the LGC board is short- or open-circuited. |
| | | 5. Replace the LGC board. |
| ↓ | | |

YES

Is the reversed paper transport clutch working?

(Perform the output check in the test mode: 03-210/225/229/230/231)

- | | | |
|---|------|--|
| | NO → | 1. Check if the connectors of the transport clutches are disconnected. |
| | | 2. Check if the connector CN328, 329, 350 on the LGC board is disconnected. |
| | | 3. Check if the connector pins are disconnected and the harnesses are opencircuited. |
| | | 4. Check if the conductor pattern on the LGC board is short- or open-circuited. |
| | | 5. Replace the transport clutches. |
| | | 6. Replace the LGC board. |
| ↓ | | |

YES

Check the conditions of the feed roller, separation roller and pickup roller of the drawer in use, and replace them if necessary

(Second page or later of printing)

Leading edge of paper not reaching the fuser exit sensor.

- | | | |
|---|-------|--|
| | YES → | Is there any damage on the paper? (Remove the paper and check the followings.) |
| | | 1. Check if the paper is skewed, and correct it if it is skewed. |
| | | 2. Check the paper amount. |
| | | 3. Check if the paper is not the one with printing on its back side. |
| | | 4. Check if the width of the side guides of the drawer is too narrow. |
| ↓ | | |

NO

Is the intermediate transport sensor working?

(Perform the input check in the test mode: 03-[FAX]OFF/[1]/[A], OFF/[1]/[C], OFF/[2]/[C], OFF/[3]/[C], OFF/[4]/[C])

- | NO → 1. Are paper dusts accumulated on the intermediate transport sensor?
| 2. Check if the actuator of the sensor is working normally.
| 3. Check if the harness is not damaged.
↓ 4. Check if the connector is disconnected.

YES

Check the conditions of the feed roller, separation roller and pickup roller of the drawer in use, and replace them if necessary.

[E260] Option LCF transport jam (paper not reaching registration sensor)

Is there any paper before the registration sensor when the bypass unit cover is opened?

- ↓ YES → Remove the paper.

NO

Is the registration sensor working?

(Perform the input check in the test mode: 03-[FAX]ON/[4]/[E])

- | NO → 1. Check if the registration sensor connector is not disconnected.
| 2. Check if the connector J341 on the LGC board is not disconnected.
| 3. Check if the connector pins are not disconnected and the harness is
| not open circuited.
| 4. Check if the conductor pattern on the LGC board is not short circuited
| or open circuited.
| 5. Replace the registration sensor.
↓ 6. Replace the LGC board.

YES

Is the external LCF transport motor driving?

(Perform the output check in the test mode: 03-122/172)

- | NO → 1. Check if the connector of the transport motor is not disconnected.
| 2. Check if the connectors J854 on the LCF board are not
| disconnected.
↓ 3. Check if there is any abnormality at the transport drive unit.

YES

Is the external LCF feed clutch working?

(Perform the output check in the test mode: 03-272)

- | NO → 1. Check if the external LCF clutch connector is not disconnected.
| 2. Check if the connectors J851 on the LCF board are not
| disconnected.
| 3. Check if the connector CN346 on the LGC board is not disconnected.
| 4. Check if the connector pins are not disconnected and the harness is
| not open circuited.
| 5. Check if the conductor pattern on the LCF and LGC boards is not
| short circuited or open circuited.
| 6. Replace the external LCF feed clutch.
| 7. Replace the LCF board.
↓ 8. Replace the LGC board.

YES

Is the external LCF transport clutch working?

(Perform the output check in the test mode: 03-273)

- | NO →
1. Check if the connector of the external LCF feed clutch is not disconnected.
 2. Check if the connectors J851 on the LCF board are not disconnected.
 3. Check if the connector CN346 on the LGC board is not disconnected.
 4. Check if the connector pins are not disconnected and the harness is not open circuited.
 5. Check if the conductor pattern on the LCF and LGC boards is not short circuited or open circuited.
 6. Replace the external LCF feed clutch.
 7. Replace the LCF board.
 8. Replace the LGC board.

↓

YES

Leading edge of paper not reaching the fuser exit sensor.

- | YES →
- Is there any damage on the paper? (Remove the paper and check the followings.)
1. Check if the paper is skewed, and correct it if it is skewed.
 2. Check the paper amount.
 3. Check if the paper is not the one with printing on its back side.
 4. Check if the width of the side guides of the drawer is too narrow.

↓

NO

Is the intermediate transport sensor working?

(Perform the input check in the test mode: 03-[FAX]OFF/[1]/[A], OFF/[1]/[C], OFF/[2]/[C], OFF/[3]/[C], OFF/[4]/[C])

- | NO →
1. Are paper dusts accumulated on the intermediate transport sensor?
 2. Check if the actuator of the sensor is working normally.
 3. Check if the harness is not damaged.
 4. Check if the connector is disconnected.

↓

YES

1. Check the conditions of the feed roller, separation roller and pickup roller of the drawer in use, and replace them if necessary.
2. Check if there is any abnormality at the transport drive unit.
3. Check the condition of the external LCF feed roller and separation roller and clean or replace them.
Check if the registration roller (rubber) is rotating smoothly.

[E320] 3rd drawer transport jam (paper not reaching 2nd drawer transport sensor)

[E350] 4th drawer transport jam (paper not reaching 2nd drawer transport sensor)

[E3E0] Tandem LCF transport jam (paper not reaching 2nd drawer transport sensor)

Open the feed cover. Is there paper in front of the 2nd drawer transport sensor?

- | YES → If the paper is damaged, remove the paper and check the followings
| 1. Check if the paper is skewed, and correct it if it is skewed.
| 2. Check the paper amount.
| 3. Check if the paper is not the one with printing on its back side.
↓ 4. Check if the width of the side guides of the drawer is too narrow.

NO

Is the 2nd drawer transport sensor working?

(Perform the input check in the test mode: 03-[FAX]OFF/[2]/[C])

- | NO → 1. Check if the connector of the 2nd drawer transport sensor is
| disconnected.
| 2. Check if the connector CN329 on the LGC board is disconnected.
| 3. Check if the connector pins are disconnected and the harnesses are
| open circuited.
| 4. Check if the conductor pattern on the LGC board is short circuited or
| open circuited.
| 5. Replace the 2nd drawer transport sensor.
↓ 6. Replace the LGC board.

YES

Are the transport clutches working?

(Perform the output check in the test mode: 03-210/225/231)

- | NO → 1. Check if the connectors of the (lower/middle) transport clutches are
| disconnected.
| 2. Check if the connector CN329,350 on the LGC board is
| disconnected.
| 3. Check if the connector pins are disconnected and the harnesses are
| open circuited.
| 4. Check if the conductor pattern on the LGC board is short circuited or
| open circuited.
| 5. Replace the (lower/middle) transport clutches.
↓ 6. Replace the LGC board.

YES

1. Check the condition of the feed roller, separation roller and pickup roller of each paper source, and clean or replace them.
2. Check the transport roller. Clean or replace it.

[E360] 4th drawer transport jam (paper not reaching 3rd drawer / Tandem LCF transport sensor)

Open the feed cover. Is there any paper in front of the 3rd drawer / Tandem LCF feed sensor?

- | YES → If the paper is damaged, remove the paper and check the followings
| 1. Check if the paper is skewed, and correct it if it is skewed.
| 2. Check the paper amount.
| 3. Check if the paper is not the one with printing on its back side.
↓ 4. Check if the width of the side guides of the drawer is too narrow.

NO

Is the 3rd drawer / Tandem LCF feed sensor working?

(Perform the input check in the test mode: 03-[FAX]OFF/[2]/[D])

- | NO → 1. Check if the connector of the 3rd drawer / Tandem LCF feed sensor
| is disconnected.
| 2. Check if the connector CN328 on the LGC board is disconnected.
| 3. Check if the connector pins are disconnected and the harnesses are
| open circuited.
| 4. Check if the conductor patterns on the LGC board is short circuited or
| open circuited.
↓ 5. Replace the 3rd drawer / Tandem LCF drawer feed sensor.
6. Replace the LGC board.

YES

Is the 4th drawer transport clutch working?

(Perform the output check in the test mode: 03-225)

- | NO → 1. Check if the connector of the 4th drawer transport clutch is
| disconnected.
| 2. Check if the connector CN350 on the LGC board is disconnected.
| 3. Check if the connector pins are disconnected and the harnesses are
| open circuited.
| 4. Check if the conductor patterns on the PFP board and LGC board
| are short circuited or open circuited.
↓ 5. Replace the 4th drawer transport clutch.
6. Replace the LGC board.

YES

1. Check the condition of the feed roller, separation roller and pickup roller of each paper source, and clean or replace them.
2. Check the PFP transport roller. Clean or replace it.

[E510] Transport jam during duplex printing (paper not reaching reverse sensor-2)

Open the exit cover. Is there any paper in front of the reverse sensor-2?

↓ YES → Remove the paper.

NO

Is the reverse sensor-1 working?

(Perform the input check in the test mode: 03-[FAX]OFF/[1]/[G])

↓ NO →

1. Check if the connector of the reverse sensor-1 is disconnected.
2. Check if the connector CN335 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor patterns on LGC board are short circuited or open circuited.
5. Replace the reverse sensor-1.
6. Replace the LGC board.

↓

YES

Is the horizontal transport section driving clutch working?

(Perform the output check in the test mode: 03-222)

↓ NO →

1. Check if the connector of the horizontal transport section driving clutch is disconnected.
2. Check if the connector CN334 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
5. Replace the horizontal transport section driving clutch.
6. Replace the LGC board.

↓

YES

Is the Mylar at the reverse section normal?

↓ NO → Replace the Mylar.

YES

Check the condition of the roller at the horizontal transport section and clean or replace it.

[E511] Transport jam during duplex printing (paper not reaching horizontal transport sensor-1)

Is there any paper at the reverse section when the exit cover is opened?

↓ YES → Remove the paper.

NO

Is the Horizontal transport sensor-1 working?

(Perform the input check in the test mode: 03-[FAX]OFF/[9]/[F])

| NO → 1. Check if the connector of the Horizontal transport sensor-1 is not disconnected.
| 2. Check if the connector CN334 on the LGC board is not disconnected.
| 3. Check if the connector pins are not disconnected and the harness is not open circuited.
| 4. Check if the conductor pattern on the LGC board is not short circuited or open circuited.
| 5. Replace the Horizontal transport sensor-1.
| 6. Replace the LGC board.
↓

YES

Is the transport roller 1/2 at the horizontal transport section rotating?

(Perform the output check in the test mode: 03-110/220)

| NO → 1. Check if the connectors of the and horizontal transport section driving clutch-1 and horizontal transport section driving clutch-2 are not disconnected.
| 2. Check if the connectors of the and horizontal transport section driving clutch-1 and and horizontal transport section driving clutch-2 are not misconnected (drive clutch: black-black, transport clutch 1: bluepurple).
| 3. Check if the connector CN334 on the LGC board is not disconnected.
| 4. Check if the connector pins are not disconnected and the harness is not open circuited.
| 5. Check if the conductor pattern on the LGC board is not short- or open circuited.
| 6. Replace the transport drive clutch and transport clutch 1.
| 7. Replace the LGC board.
| 8. Check if the front side timing belt is put on properly.
| 9. Check the installation state of the horizontal transport section driving clutch-1.
↓

YES

Check the condition of the rollers at the horizontal transport section and clean or replace them.

[E512] Transport jam during duplex printing (paper not reaching horizontal transport sensor-2)

Is there any paper at the reverse section when the exit cover is opened?

↓ YES → Remove the paper.

NO

Is the Horizontal transport sensor-2 working?

(Perform the input check in the test mode: 03-[FAX]OFF/[9]/[G])

| NO → 1. Check if the connector of the Horizontal transport sensor-2 is not disconnected.
| 2. Check if the connector CN334 on the LGC board is not disconnected.
| 3. Check if the connector pins are not disconnected and the harness is not open circuited.
| 4. Check if the conductor pattern on the LGC board is not short- or open-circuited.
| 5. Replace the Horizontal transport sensor-2.
| 6. Replace the LGC board.
↓

YES

Is the transport roller 3/4 at the horizontal transport section rotating?

(Perform the output check in the test mode: 03-110/221)

| NO → 1. Check if the connectors of the horizontal transport section driving clutch-1 and horizontal transport section driving clutch-3 are not disconnected.
| 2. Check if the connectors of the horizontal transport section driving clutch-1 and horizontal transport section driving clutch-3 are not misconnected (drive clutch: black-black, transport clutch 2: blackblue)
| 3. Check if the connector CN334 on the LGC board is not disconnected.
| 4. Check if the connector pins are not disconnected and the harness is not open circuited.
| 5. Check if the conductor pattern on the LGC board is not short- or open-circuited.
| 6. Replace the and horizontal transport section driving clutch-1 and and horizontal transport section driving clutch-2.
| 7. Replace the LGC board.
| 8. Check if the front side timing belt is put on properly.
↓

YES

Check the condition of the rollers at the horizontal transport section and clean or replace them.

[E540] Transport jam during duplex printing (paper not reaching horizontal transport sensor-3)

Is the Horizontal transport sensor-3 working?

(Perform the input check in the test mode: 03-[FAX]OFF/[9]/[H])

- ↓
- NO →
1. Check if the connector of the Horizontal transport sensor-3 is not disconnected.
 2. Check if the connector CN334 on the LGC board is not disconnected.
 3. Check if the connector pins are not disconnected and the harness is not open circuited.
 4. Check if the conductor pattern on the LGC board is not short- or open-circuited.
 5. Replace the Horizontal transport sensor-3.
 6. Replace the LGC board.
- ↓

YES

Check the condition of the roller at the horizontal transport section and clean or replace it.

[E550] Paper remaining jam at paper transport path

Open the cover of the unit/area whose picture is blinking on the control panel. Is there any paper on the transport path?

↓ YES → Remove the paper.

NO

Is the sensor in the jamming area working? (Perform the input check in the test mode: refer to the following table)

- ↓
- NO→
1. Check if the connector of the sensor is disconnected.
 2. Check if any of the connectors on the LGC board is disconnected.
 3. Check if the connector pins are disconnected and the harnesses are open circuited.
 4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
 5. Replace the sensor.
 6. Replace the LGC board.
- ↓

YES

1. Check if any multiple paper is fed from the drawer.
2. Replace the LGC board.

Relation between the jamming area and the corresponding sensors and covers

Jamming area	Sensor	Test mode / Input check
Registration area	Registration sensor	03-[FAX]ON/[4]/[E]
Exit/Reverse area	Exit sensor	03-[FAX]OFF/[7]/[B]
	Reverse sensor-1	03-[FAX]OFF/[7]/[E]
	Reverse sensor-2	03-[FAX]OFF/[7]/[D]
	Fuser transport sensor	03-[FAX]OFF/[7]/[C]

Jamming area	Sensor	Test mode / Input check
Reverse transport area	Horizontal transport sensor-1	03-[FAX]OFF/[9]/[F]
	Horizontal transport sensor-2	03-[FAX]OFF/[9]/[G]
	Horizontal transport sensor-3	03-[FAX]OFF/[9]/[H]
Paper feeding area	1st drawer feed sensor	03-[FAX]OFF/[1]/[D]
	2nd drawer feed sensor	03-[FAX]OFF/[2]/[D]
	3rd drawer / tandem LCF feed sensor	03-[FAX]OFF/[3]/[D]
	4th drawer feed sensor	03-[FAX]OFF/[4]/[D]
	1st drawer transport sensor	03-[FAX]OFF/[1]/[C]
	2nd drawer transport sensor	03-[FAX]OFF/[2]/[C]
	3rd drawer / tandem LCF transport sensor	03-[FAX]OFF/[3]/[C]
	4th drawer transport sensor	03-[FAX]OFF/[4]/[C]
	Intermediate transport sensor	03-[FAX]OFF/[1]/[A]

[E570] Transport jam during duplex printing (paper not reaching reverse sensor-1)

Is there any paper before the registration sensor when the exit cover is opened?

↓ NO → Remove the paper.

YES

Is the reverse sensor 1 working?

(Perform the input check in the test mode: 03-[FAX]OFF/[7]/[E])

↓ NO →

1. Check if the connector of the reverse sensor-1 is not disconnected.
2. Check if the connector CN335 on the LGC board is not disconnected.
3. Check if the connector pins are not disconnected and the harness is not open circuited.
4. Check if the conductor pattern on the LGC board is not short- or open circuited.
5. Replace the reverse sensor-1.
6. Replace the LGC board.

↓

YES

Is the reverse motor driving?

(Perform the output check in the test mode: 03-126)

↓ NO →

1. Check if the connector of the reverse transport unit is not disconnected.
2. Check if the connector CN335 on the LGC board is not disconnected.
3. Check if the connector pins are not disconnected and the harness is not open circuited.
4. Check if the conductor pattern on the LGC board is not short- or open-circuited.
5. Replace the reverse moter.
6. Replace the LGC board

↓

YES

Is the gate solenoid working?

(Perform the output check in the test mode: 03-274)

- | NO →
1. Check if the connector of the gate solenoid is not disconnected.
 2. Check if the connector CN335 on the LGC board is not disconnected.
 3. Check if the connector pins are not disconnected and the harness is not open circuited.
 4. Check if the conductor pattern on the LGC board is not short- or open-circuited.
 5. Replace the gate solenoid.
 6. Replace the LGC board
- |
- |
- |
- |
- |
- |
- |
- ↓

YES

1. Check if there is no mechanical loading at the exit/reversal gate.
2. Check the myler at the reverse section and clean or replace it.

[E580] Paper stopping at reverse section

Is there any paper at the reverse section when the exit cover is opened?

↓ NO →

YES

Is the reverse sensor- 1/2 working?

(Perform the input check in the test mode: 03-[FAX]OFF/[7]/[D], [7]/[E])

- | NO →
1. Check if the connector of the reverse sensor 1/2 is not disconnected.
 2. Check if the connector CN335 on the LGC board is not disconnected.
 3. Check if the connector pins are not disconnected and the harness is not open circuited.
 4. Check if the conductor pattern on the LGC board is not short- or open-circuited.
 5. Replace the reverse sensor- 1/2.
 6. Replace the LGC board.
- |
- |
- |
- |
- |
- |
- |
- ↓

YES

1. Check if the setting of the paper size is correct.
2. Check the condition of the roller at the reverse section and clean or replace it.
3. Check if there is no mechanical loading at the follower roller and no abnormality at the myler.
4. Check if the adjustment of the reverse motor speed (05-453/454/456) is appropriate.
5. Replace the reverse sensor-2 if it is drastically damaged.

[E590] Paper stopping at exit section

Is there any paper at the reverse section when the exit cover is opened?

↓ NO → Remove the paper.

YES

Is the exit motor driving?

(Perform the output check in the test mode: 03-120)

↓ NO →

1. Check if the connector of the exit motor is not disconnected.
2. Check if the connector CN336 on the LGC board is not disconnected.
3. Check if the connector pins are not disconnected and the harness is not open circuited.
4. Check if the conductor pattern on the LGC board is not short- or open circuited.
5. Replace the LGC board.

↓

YES

1. Check if the setting of the paper size is correct.
2. Check if there is no abnormality and extraneous material at the guide and myler in front of the exit roller.
3. Check if there is no mechanical loading at the exit follower roller.

[E5A0] Paper not reaching exit sensor

Is the exit sensor working?

(Perform the input check in the test mode: 03-[FAX]ON/ [1]/[C])

↓ NO →

1. Check if the connector of the exit sensor is not disconnected.
2. Check if the connector CN335 on the LGC board is not disconnected.
3. Check if the connector pins are not disconnected and the harness is not open circuited.
4. Check if the conductor pattern on the LGC board is not short- or open circuited.
5. Replace the exit sensor.
6. Replace the LGC board.

↓

YES

<Simple discharging>

Is the gate solenoid working?

(Perform the output check in the test mode: 03-274)

↓ NO →

1. Check if the connector of the gate solenoid is not disconnected.
2. Check if the connector CN335 on the LGC board is not disconnected.
3. Check if the connector pins are not disconnected and the harness is not open circuited.
4. Check if the conductor pattern on the LGC board is not short- or open circuited.
5. Replace the LGC board.

↓

YES

Replace the LGC board.

<Reversal discharging>

1. Check if the setting of the paper size is correct.
2. Check if there is no abnormality and extraneous material at the guide and myler in front of the exit roller.
- * Perform 05-447 for thick paper to increase the value by 2 to 4.

[EB50] Paper remaining on the transport path due to multiple feeding

In case the paper is fed from the 1st drawer, bypass unit or

Open the bypass unit cover. Is there any paper in front of the drawer feed sensor?

- | | | |
|---|-------|---|
| | YES → | Remove the paper. |
| | | * Clean or replace the feed roller and separation roller if this error occurs frequently. |
| ↓ | | |

NO

Is the registration sensor working?

(Perform the input check in the test mode: 03-[FAX]ON/[4]/[E])

- | | | |
|---|------|--|
| | NO → | 1. Check if the connector of the registration sensor is disconnected. |
| | | 2. Check if the connector CN341 on the LGC board is disconnected. |
| | | 3. Check if the connector pins are disconnected and the harnesses are open circuited. |
| | | 4. Check if the conductor pattern on the LGC board is short circuited or open circuited. |
| | | 5. Replace the registration sensor. |
| | | 6. Replace the LGC board. |
| ↓ | | |

YES

Check the rollers. Clean or replace them.

In case the paper is fed from the 2nd drawer, 3rd drawer, 4th drawer, Tandem LCF

Open the bypass unit cover. Is there any paper in front of the 1st drawer transport sensor?

- | | | |
|---|-------|---|
| | YES → | Remove the paper. |
| | | * Clean or replace the feed roller and separation roller if this error occurs frequently. |
| ↓ | | |

NO

Are the 1st drawer transport sensor working?

(Perform the input check in the test mode: 03-[FAX]OFF/[1]/[C])

- | | | |
|---|------|--|
| | NO → | 1. Check if the connector of the 1st drawer transport sensor is disconnected. |
| | | 2. Check if the connector CN329 on the LGC board is disconnected. |
| | | 3. Check if the connector pins are disconnected and the harnesses are open circuited. |
| | | 4. Check if the conductor pattern on the LGC board is short circuited or open circuited. |
| | | 5. Replace the 1st drawer transport sensor. |
| | | 6. Replace the LGC board. |
| ↓ | | |

YES

If any paper remains in the equipment or drawer, remove it.
Check the rollers. Clean or replace them.

[EB60] Paper remaining on the transport path

Open the bypass unit cover. Is there any paper in front of the registration sensor?

↓ YES → Remove the paper.

NO

Is the registration sensor working?

(Perform the input check in the test mode: 03-[FAX]OFF/[4]/[E])

↓ NO →

1. Check if the connector of the registration sensor is disconnected.
2. Check if the connector CN341 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
5. Replace the registration sensor.
6. Replace the LGC board.

↓

YES

Check the rollers. Clean or replace them.

5.2.2 Paper misfeeding

[E110] Transport jam during duplay printing (paper not reaching registration sensor)

(First page of printing)

Open the jam access cover. Is there paper in front of the registration sensor?

↓ YES → Remove the paper.

NO

Is the registration sensor working?

(Perform the input check in the test mode: 03-[FAX]ON/[4]/[E])

↓ NO →

1. Check if the connector of the registration sensor is disconnected.
2. Check if the connector CN341 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
5. Replace the registration sensor.
6. Replace the LGC board.

↓

YES

Is the transport motor (M17) rotating?

(Perform the output check in the test mode: 03-133,183)

↓ NO →

Replace the transport motor.

1. Check if the connector of the transport motor is disconnected.
2. Check if the connector CN327 on the LGC board is disconnected.
3. Check if the connector on the transport motor driving PC board is disconnected.
4. Check if the connector pins are disconnected and the harnesses are open circuited.
5. Check if the conductor pattern on the LGC board is short circuited or open circuited.
6. Check if the conductor pattern on the transport motor driving PC board is short circuited or open circuited.
7. Replace the LGC board.
8. Replace the transport motor driving PC board.

↓

YES

Check if the spring of the follower roller of the intermediate transport roller is working properly.

YES

Check the transport roller. Clean or replace it.

(Second page or later of printing)

Leading edge of paper not reaching the fuser exit sensor.

↓ YES →

If the paper is damaged, remove the paper and check the followings.

1. Check if the paper is skewed, and correct it if it is skewed.
2. Check the paper amount.
3. Check if the paper is not the one with printing on its back side.
4. Check if the width of the side guides of the drawer is too narrow.
5. Check the motor-related adjustment value.

↓

NO

Is the intermediate transport sensor working?

(Perform the input check in the test mode: 03-[FAX]OFF/[1]/[A])

- | | | |
|---|------|--|
| | NO → | 1. Are paper dusts accumulated on the intermediate transport sensor? |
| | | 2. Check if the harness is not damaged. |
| ↓ | | 3. Check if the connector is disconnected. |

YES

Is the transport motor rotating?

(Perform the output check in the test mode: 03-133,183)

- | | |
|------|--|
| NO → | Replace the transport motor. |
| | 1. Check if the connector of the transport motor is disconnected. |
| | 2. Check if the connector on the LGC board is disconnected. |
| | 3. Check if the connector pins are disconnected and the harnesses are open circuited. |
| | 4. Check if the conductor pattern on the LGC board is short circuited or open circuited. |
| | 5. Replace the LGC board. |

YES

Check if the spring of the follower roller of the intermediate transport roller is working properly.

Replace the registration roller(rubber) if not solved.

[E120] Bypass misfeeding (paper not reaching registration sensor)

Open the bypass unit cover. Is there any paper in front of the registration sensor?

↓ YES → Remove the paper.

NO

Is the registration sensor working?

(Perform the input check in the test mode: 03-[FAX]ON/[4]/[E])

| NO → 1. Check if the connector of the registration sensor is disconnected.
| 2. Check if the connector CN341 on the LGC board is disconnected.
| 3. Check if the connector pins are disconnected and the harnesses are
| open circuited.
| 4. Check if the conductor pattern on the LGC board is short circuited or
| open circuited.
| 5. Replace the registration sensor.
| 6. Replace the LGC board.
↓

YES

Is the width of the side guides of the bypass unit too narrow?

Is the paper skewed?

↓ YES → Match the width of the side guides and that of the paper.

NO

Is the bypass feed clutch working? (Perform the output check in the test mode: 03-204)

Is the bypass feed sensor working? (Perform the input check in the test mode: 03-[FAX]OFF/[6]/[G])

| NO → 1. Check if the connector of the bypass feed clutch and bypass feed
| sensor are disconnected.
| 2. Check if the connector CN327 on the LGC board is disconnected.
| 3. Check if the connector pins are disconnected and the harnesses are
| open circuited.
| 4. Check if the conductor pattern on the LGC board is short circuited or
| open circuited.
| 5. Replace the bypass feed clutch and bypass feel sensor.
| 6. Replace the LGC board.
↓

YES

Check the bypass transport roller, feed separation and separation rollers.
Clean or replace them.

[E130] 1st drawer misfeeding (paper not reaching 1st drawer feed sensor)

Open the feed cover. Is there any paper in front of the 1st drawer transport sensor?

↓ YES → Remove the paper.

NO

Is the 1st drawer feed sensor working?

(Perform the input check in the test mode: 03-[FAX]OFF/[1]/[D])

↓ NO →

1. Check if the connector of the 1st drawer feed sensor is disconnected.
2. Check if the connector CN329 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
5. Replace the 1st drawer feed sensor.
6. Replace the LGC board.

↓

YES

Is the width of the side guides of the 1st drawer too narrow?

Is there any paper skewing?

↓ YES → Fit the width of the original guide to that of the paper.

NO

Is the 1st drawer feed clutch working?

(Perform the output check in the test mode: 03-201)

↓ NO →

1. Check if the connector of the 1st drawer feed clutch is disconnected.
2. Check if the connector CN329 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
5. Replace the 1st drawer feed clutch.
6. Replace the LGC board.

↓

YES

Check the 1st drawer feed roller, separation roller and pickup roller.

Clean or replace them.

* Check if the paper weight is within the specified range.

[E140] 2nd drawer misfeeding (paper not reaching 2nd drawer feed sensor)

Open the drawer feed cover. Is there any paper in front of the 2nd drawer transport sensor?

↓ YES → Remove the paper.

NO

Is the 2nd drawer transport sensor working?

(Perform the input check in the test mode: 03-[FAX]OFF/[2]/[D])

| NO → 1. Check if the connector of the 2nd drawer feed sensor is disconnected.
| 2. Check if the connector CN329 on the LGC board is disconnected.
| 3. Check if the connector pins are disconnected and the harnesses are open circuited.
| 4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
| 5. Replace the 2nd drawer feed sensor.
| 6. Replace the LGC board.
↓

YES

Is the width of the side guides of the 2nd drawer too narrow?

Is there any paper skewing?

↓ YES → Fit the width of the original guide to that of the paper.

NO

Is the 2nd drawer feed clutch working?

(Perform the output check in the test mode: 03-202)

| NO → 1. Check if the connector of the 2nd drawer feed clutch is disconnected.
| 2. Check if the connector CN329 on the LGC board is disconnected.
| 3. Check if the connector pins are disconnected and the harnesses are open circuited.
| 4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
| 5. Replace the 2nd drawer feed clutch.
| 6. Replace the LGC board.
↓

YES

Check the 2nd drawer feed roller, separation roller and pickup roller.

Clean or replace them.

* Check if the paper weight is within the specified range.

[E150] 3rd drawer misfeeding (paper not reaching 3rd drawer feed sensor)

[E190] Tandem LCF misfeeding (paper not reaching feed sensor of 3rd drawer / Tandem LCF)

Open the feed cover. Is there any paper in front of the 3rd drawer / Tandem LCF feed sensor?

↓ YES → Remove the paper.

NO

Is the 3rd drawer / Tandem LCF feed sensor working?

(Perform the input check in the test mode: 03-[FAX]OFF/[3]/[D])

↓ NO →

1. Check if the connector of the 3rd drawer / Tandem LCF feed sensor is disconnected.
2. Check if the connector CN328 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor patterns on the PFP board and LGC board are short circuited or open circuited.
5. Replace the 3rd drawer / Tandem LCF feed sensor.
6. Replace the LGC board.

↓

YES

Is the width of the side guides of the 3rd drawer too narrow?

Is there any paper skewing?

↓ YES → Fit the width of the original guide to that of the paper.

NO

Is the 3rd drawer / Tandem LCF feed clutch working?

(Perform the output check in the test mode: 03-226)

↓ NO →

1. Check if the connector of the 3rd drawer / Tandem LCF feed clutch is disconnected.
2. Check if the connector CN328 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor patterns on the PFP board and LGC board are short circuited or open circuited.
5. Replace the 3rd drawer / Tandem LCF feed clutch.
6. Replace the LGC board.

↓

YES

Check the 3rd drawer / Tandem LCF feed roller, separation roller and pickup roller.
Clean or replace them.

* Check if the paper weight is within the specified range.

[E160] 4th drawer misfeeding (paper not reaching 4th drawer feed sensor)

Open the feed cover. Is there any paper in front of the 4th drawer feed sensor?

↓ YES → Remove the paper.

NO

Is the 4th drawer feed sensor working?

(Perform the input check in the test mode: 03-[FAX]OFF/[4]/[D])

| NO → 1. Check if the connector of the 4th drawer feed sensor is disconnected.
| 2. Check if the connector CN350 on the LGC board is disconnected.
| 3. Check if the connector pins are disconnected and the harnesses are
| open circuited.
| 4. Check if the conductor patterns on the PFP board and LGC board
| are short circuited or open circuited.
| 5. Replace the 4th drawer feed sensor.
| 6. Replace the LGC board.
↓

YES

Is the width of the side guides of the 4th drawer too narrow?

Is there any paper skewing?

↓ YES → Fit the width of the original guide to that of the paper.

NO

Is the 4th drawer feed clutch working?

(Perform the output check in the test mode: 03-228)

| NO → 1. Check if the connector of the 4th drawer feed clutch is disconnected.
| 2. Check if the connector CN350 on the LGC board is disconnected.
| 3. Check if the connector pins are disconnected and the harnesses are
| open circuited.
| 4. Check if the conductor patterns on the PFP board and LGC board
| are short circuited or open circuited.
| 5. Replace the 4th drawer feed clutch.
| 6. Replace the LGC board.
↓

YES

Check the 4th drawer feed roller, separation roller and pickup roller.

Clean or replace them.

* Check if the paper weight is within the specified range.

[E180] Option LCF misfeeding (paper not reaching Option LCF feed sensor)

Open the LCF front cover. Is there any paper in front of the LCF feed sensor?

↓ YES → Remove the paper.

NO

Is the LCF feed sensor working?

(Perform the input check in the test mode: 03-[FAX]OFF/[5]/[D])

- | NO →
1. Check if the connector of the LCF feed sensor is disconnected.
 2. Check if either of the connector J851 on the LCF board is disconnected.
 3. Check if the connector J850 on the LGC board is disconnected.
 4. Check if the connector pins are disconnected and the harnesses are open circuited.
 5. Check if the conductor patterns on the LCF board and LGC board are short circuited or open circuited.
 6. Replace the LCF feed sensor.
 7. Replace the LCF board.
 8. Replace the LGC board.
- ↓

YES

Is the external LCF transport motor driving?

(Perform the output check in the test mode: 03-122/172)

- | NO →
1. Check if the connector of the transport motor is not disconnected.
 2. Check if the connector J854 on the board are not disconnected.
 3. Check if there is any abnormality at the transport drive unit.
- ↓

YES

Is the LCF feed clutch working?

(Perform the output check in the test mode: 03-272)

- | NO →
1. Check if the connector of the LCF feed clutch is disconnected.
 2. Check if any of the connector J851 on the LCF board is disconnected.
 3. Check if the connector CN346 on the LGC board is disconnected.
 4. Check if the connector pins are disconnected and the harnesses are open circuited.
 5. Check if the conductor patterns on the LCF board and LGC board are short circuited or open circuited.
 6. Replace the LCF feed clutch.
 7. Replace the LCF board.
 8. Replace the LGC board.
- ↓

YES

1. Check if there is any abnormality at the transport drive unit.
 2. Check the LCF feed roller, separation roller and pickup roller.
Clean or replace them.
- * Check if the paper weight is within the specified range.

5.2.3 Cover open jam

[E410] Front cover open jam

Is the front cover open?

↓ YES → Remove the paper if there is any, then close the cover.

NO

Is the voltage of 24V being supplied from the power supply unit?

(Perform the input check in the test mode: 03-[FAX] ON/[9]/[H])

↓ NO →

1. Check if the connector for 24 V power supply is disconnected.
2. Check if the connector CN344 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
5. Replace the LGC board.

YES

Replace the LGC board.

[E440] Right lower cover (feed cover) open jam

Is the feed cover open?

↓ YES → Remove the paper if there is any, then close the cover.

NO

Is the side door switch working?

(Perform the input check in the test mode: 03-[FAX]ON/[2]/[A])

↓ NO →

1. Check if the connector of the feed cover sensor is disconnected.
2. Check if the connector CN304 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
5. Replace the feed cover sensor.
6. Replace the LGC board.

YES

Replace the LGC board.

[E450] Option LCF side cover opened jam

Is the LCF front cover open?

↓ YES → Remove the paper if there is any, then close the cover.

NO

Is the LCF side cover opening/closing switch working?

(Perform the input check in the test mode: 03-[FAX]OFF/[5]/[B])

| NO → 1. Check if the connector of the LCF side cover opening/closing switch
| is disconnected.
| 2. Check if either of the connectors CN100 or CN106 on the LCF board
| is disconnected.
| 3. Check if the connector CN338 on the LGC board is disconnected.
| 4. Check if the connector pins are disconnected and the harnesses are
| open circuited.
| 5. Check if the conductor patterns on the LCF board and LGC board are
| short circuited or open circuited.
| 6. Replace the LCF side cover opening/closing switch.
| 7. Replace the LCF board.
| 8. Replace the LGC board.
↓

YES

1. Replace the LCF board.
2. Replace the LGC board.

[E460] Right center cover (bypass feed unit cover) open jam

Is the bypass feed unit cover open?

↓ YES → Remove the paper if there is any, then close the bypass feed unit cover.

NO

Is the bypass feed unit cover sensor working?

(Perform the input check in the test mode: 03-[ENERGY SAVER]OFF/[6]/[H])

| NO → 1. Check if the connector of the bypass feed unit cover sensor is
| disconnected.
| 2. Check if the connector CN338 on the LGC board is disconnected.
| 3. Check if the connector pins are disconnected and the harnesses are
| open-circuited.
| 4. Check if the conductor patterns on the LGC board are short- or open-
| circuited.
↓ 5. Replace the bypass feed unit cover sensor.
6. Replace the LGC board.

YES

Replace the LGC board.

[E470] Left lower cover (exit cover) open jam

Is the exit cover close?

↓ YES → Remove paper if there is any, then close the cover.

NO

Is the voltage of 24V being supplied from the power supply unit?

(Perform the input check in the test mode: 03-[FAX] ON/[9]/[H])

↓ NO →

1. Check if the connector for 24V power supply is disconnected.
2. Check if the connector CN344 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor pattern on the LGC board is short- or open-circuited.
5. Replace the LGC board.

↓

YES

Is the exit cover switch working?

(Perform the input check in the test mode: 03-[FAX]OFF/[7]/[A])

↓ NO →

1. Check if the connector of the exit cover switch is disconnected.
2. Check if the connector CN335 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor pattern on the LGC board is short- or open-circuited.
5. Replace the exit cover switch.
6. Replace the LGC board.

↓

YES

Replace the LGC board.

5.2.4 RADF jam

[E712] Jam not reaching the original registration sensor

1. Clean the pickup roller, feed roller and separation roller if they are stained.
2. Flatten the original if it is folded or excessively curled and place it again.
3. Is the original registration sensor working? (Perform the input check: 03-[FAX]ON/[7]/[H])
* If it is working properly, proceed to 7. If not, check 3 to 6.
4. Check if the connector CN74 on the RADF board is disconnected from the original registration sensor or the harnesses are open circuited. Correct if any.
5. Replace the original registration sensor.
6. Replace the RADF board, and then perform the automatic adjustment for the original reading start sensor (05-356).
7. Replace the pickup roller, feed roller and separation roller if they are worn out.

[E714] Feed signal reception jam

1. Is the original empty sensor working? (Perform the input check: 03-[FAX]ON/[7]/[B])
2. Check if the lever of original empty sensor is working normally.
3. Check if the connector CN74 on the RADF board is disconnected from the original empty sensor or the harnesses are open circuited. Correct if any.
4. Replace the original empty sensor.
5. Replace the RADF board, and then perform the automatic adjustment for the original reading start sensor (05-356).

[E721] Jam not reaching the original reading start sensor

[E725] Stop jam at the original reading start sensor

1. Clean the original registration roller, intermediate transfer roller, reading start roller, reverse roller and reverse registration roller if they are stained.
2. Is the original reading start sensor working? (Perform the input check: 03-[FAX]ON/[7]/[G])
* If it is working properly, proceed to 8. If not, check 3 to 7 below.
3. Check if the connector CN75 on the RADF board is disconnected from the original reading start sensor or the harnesses are open circuited. Correct if any.
4. Perform the automatic adjustment of the original reading start sensor (05-356).
5. Perform the manual adjustment of the original reading start sensor.
6. Replace the original reading sensor, and then perform the automatic adjustment of the original reading start sensor (05-356).
7. Replace the RADF board, and then perform the automatic adjustment for the original reading start sensor (05-356).
8. Replace the original registration roller, intermediate transfer roller, reading start roller, reverse roller and reverse registration roller if they are worn out.

[E722] Jam not reaching the original exit sensor

1. Clean the reading end roller and the exit intermediate roller if they are stained.
2. Is the original exit sensor working? (Perform the input check: 03-[FAX]ON/[7]/[E])
* If it is working properly, proceed to 6. If not, check 3 to 5 below.
3. Check if the connector CN75 on the RADF board is disconnected from the original exit sensor or the harnesses are open circuited. Correct if any.
4. Replace the original exit sensor
5. Replace the RADF board, and then perform the automatic adjustment for the original reading start sensor (05-356).
6. Replace the reading end roller and the exit intermediate roller if they are worn out.

[E724] Stop jam at the original registration sensor

1. Clean the original registration roller if it is stained.
2. Is the original registration sensor working? (Perform the input check: 03-[FAX]ON/[7]/[H])
 - * If it is working properly, proceed to 6. If not, check 3 to 5 below.
3. Check if the connector CN74 on the RADF board is disconnected from the original registration sensor or the harnesses are open circuited. Correct if any.
4. Replace the original registration sensor.
5. Replace the RADF board, and then perform the automatic adjustment for the original reading start sensor (05-356).
6. Replace the original registration roller if it is worn out.

[E726] Transport/exit signal reception jam during ADF standby status

1. Check if there is any paper in the RADF. Remove it if there is.
2. Check if there is any paper in the equipment. Remove it if there is.
3. If a jam still occurs, turn the power OFF and then back ON to check if the equipment operates normally.

[E727] Jam not reaching the original reading end sensor

1. Clean the reading start roller and the reading end roller if they are stained.
2. Is the original reading end sensor working? (Perform the input check: 03-[FAX]ON/[5]/[D])
 - * If it is working properly, proceed to 6. If not, check 3 to 5 below.
3. Check if the connector CN75 on the RADF board is disconnected from the original read end sensor or the harnesses are open-circuited. Correct if this is the case.
4. Replace the original reading end sensor.
5. Replace the RADF board, and then perform the automatic adjustment for the original reading start sensor (05-356).
6. Replace the reading start roller and the reading end roller if they are worn out.

[E729] Original reading end sensor paper remaining jam

1. Clean the reading end roller if it is stained.
2. Is the original reading end sensor working? (Perform input check: 03: [FAX]/ON/[5]/[D])
 - * If it is working properly, proceed to 6. If not, check 3 to 5 below.
3. Check if the connector CN75 on the RADF board is disconnected from the original reading end sensor or the harnesses are open-circuited. Correct if this is the case.
4. Replace the original reading end sensor.
5. Replace the RADF board, and then perform the automatic adjustment for the original reading start sensor (05-356).
6. Replace the reading end roller if it is worn out.

[E731] Stop jam at the original exit sensor

1. Clean the exit roller and the exit intermediate roller if they are stained.
2. Is the original exit sensor working? (Perform the input check: 03-[FAX]ON/[7]/[E])
 - * If it is working properly, proceed to 6. If not, check 3 to 5 below.
3. Check if the connector CN75 on the RADF board is disconnected from the original exit sensor or the harnesses are open circuited. Correct if any.
4. Replace the original exit sensor.
5. Replace the RADF board, and then perform the automatic adjustment for the original reading start sensor (05-356).
6. Replace the exit roller and the exit intermediate roller if they are worn out.

[E744] Stop jam at the original exit/reverse sensor

1. Clean the exit/reverse intermediate roller if it is stained.
2. Is the original exit/reverse sensor working? (Perform input check: 03: [FAX]/ON/[5]/[B])
 - * If it is working properly, proceed to 6. If not, check 3 to 5 below.
3. Check if the connector CN75 on the RADF board is disconnected from the original exit/reverse sensor or the harnesses are open-circuited. Correct if this is the case.
4. Replace the original exit/reverse sensor.
5. Replace the RADF board, and then perform the automatic adjustment for the original reading start sensor (05-356).
6. Replace the exit/reverse intermediate roller, if it is worn out.

[E745] Jam not reaching the original exit/reverse sensor

1. Clean the exit intermediate roller if it is stained.
2. Is the original exit/reverse sensor working? (Perform input check: 03: [FAX]/ON/[5]/[B])
 - * If it is working properly, proceed to 6. If not, check 3 to 5 below.
3. Check if the connector CN75 on the RADF board is disconnected from the original exit/reverse sensor or the harnesses are open-circuited. Correct if this is the case.
4. Replace the original exit/reverse sensor.
5. Replace the RADF board, and then perform the automatic adjustment for the original reading start sensor (05-356).
6. Replace the exit intermediate roller, if it is worn out.

[E746] Original exit/reverse sensor paper remaining jam

[E762] Original registration sensor paper remaining jam

[E770] Original width detection sensor-1 paper remaining jam

[E771] Original width detection sensor-2 paper remaining jam

[E772] Original width detection sensor-3 paper remaining jam

[E773] Original intermediate transport sensor paper remaining jam

[E774] Original reading start sensor paper remaining jam

[E775] Original reading end sensor paper remaining jam

[E777] Original exit sensor paper remaining jam

1. Check if there is any paper on each sensor. Remove it if there is.
2. Is each sensor working?
(Perform input check: 03)
[E746]: [FAX]/ON/[5]/[B], [E762]: [FAX]/ON/[7]/[H],
[E770]: [FAX]/ON/[8]/[F], [E771]: [FAX]/ON/[8]/[G],
[E772]: [FAX]/ON/[8]/[H], [E773]: [FAX]/ON/[7]/[F],
[E774]: [FAX]/ON/[7]/[G], [E775]: [FAX]/ON/[5]/[D],
[E777]: [FAX]/ON/[7]/[E]
3. Check if the connector CN74 or CN75 on the RADF board is disconnected from each sensor or the harnesses are open-circuited. Correct if this is the case.
4. Replace each sensor.
 - * If the original reading start sensor is replaced, perform automatic adjustment (05-356) for it.
5. Replace the RADF board, and then perform the automatic adjustment for the original reading start sensor (05-356).

[E860] Original jam access cover open

1. Close the original jam access cover or the original reverse unit if they are opened. Remove if there are any original before closing them.
2. Is the original jam access cover opening/closing sensor and the original reverse unit opening/closing sensor working?
(Perform the input check: 03)
Original jam access cover opening/closing sensor: 03-[FAX]ON/[7]/[C],
Original reverse unit opening/closing sensor: 03-[FAX]ON/[5]/[C]
* If it is working properly, proceed to 6. If not, check 3 to 5 below.
3. Check if the connector CN74 or CN75 on the RADF board is disconnected from the original jam access cover opening/closing sensor, original reverse unit opening/closing sensor or the harnesses are open circuited. Correct if any.
4. Replace the original jam access cover opening/closing sensor or the original reverse unit opening/closing sensor.
5. Replace the RADF board, and then perform the automatic adjustment for the original reading start sensor (05-356).

[E870] RADF open jam

1. Close the RADF if it is opened. Remove if there is any original before closing it.
2. Is the RADF opening/closing sensor working? (Perform the input check: 03-[FAX]ON/[7]/[D])
* If it is working properly, proceed to 6. If not, check 3 to 5 below.
3. Check if the connector CN75 on the RADF board is disconnected from the RADF opening/closing sensor or the harnesses are open circuited. Correct if any.
4. Replace the RADF opening/closing sensor.
5. Replace the RADF board, and then perform the automatic adjustment for the original reading start sensor (05-356).
6. Is the RADF opening/closing sensor adjusted within the specified range?

[E871] Cover open jam in the read ready status

1. Close the original jam access cover or the front cover if they are opened in the read ready status.
2. Is the original jam access cover sensor working? (Perform the input check: 03-[FAX]ON/[7]/[C])
3. Check if the connector CN75 on the RADF board is disconnected from the Original jam access cover sensor or the harnesses are open circuited. Correct if any.
4. Replace the original jam access cover sensor.
5. Replace the RADF board, and then perform the automatic adjustment for the original reading start sensor (05-356).

[E890] ADF time out jam

1. Check if there is any paper in the RADF. Remove it if there is.
2. Check if there is any paper in the equipment. Remove it if there is.
3. If a jam still occurs, turn the power OFF and then back ON to check if the equipment operates normally.

5.2.5 Finisher jam

[1] Paper jam in puncher unit

[E9F0] Hole punch jam

Is there any paper remaining on the transport path in the finisher or equipment?

↓ YES → Remove the paper.

NO

Is the connector J1 on the punch driver PC board disconnected?

Is the harness connecting the punch driver PC board and punch home position sensor (PI3P) open circuited?

↓ YES → Connect the connector securely. Replace the harness.

NO

Is the punch home position sensor working properly?

I NO → 1. Connect the connector of the punch home position sensor securely.
↓ 2. Replace the punch home position sensor.

YES

Replace the punch driver PC board.

[2] Paper jam in finisher section

[EA10] Paper transport delay jam

Is there any paper remaining on the transport path in the finisher or equipment?

↓ YES → Remove the paper.

NO

Is the connector J17 on the finisher controller PC board disconnected?

Is the harness connecting the finisher controller PC board and inlet sensor (PI1) open circuited?

↓ YES → Connect the connector securely. Replace the harness.

NO

Is the inlet sensor working normally? (Check the movement of the actuator.)

I NO → 1. Connect the connector of the inlet sensor securely.
I 2. Attach the actuator securely if its shaft is out of place.
↓ 3. Replace the inlet sensor.

YES

Replace the finisher controller PC board.

[EA20] Paper transport stop jam

Is there any paper remaining on the transport path in the finisher or main unit?

↓ YES → Remove the paper.

NO

Is any of the connectors J17, J24, J9 and J11 on the finisher controller PC board disconnected?

Is the harness connecting the finisher controller PC board and inlet sensor (PI1) open-circuited?

Is the harness connecting the finisher controller PC board and buffer path inlet paper sensor (PI17) open-circuited?

Is the harness connecting the finisher controller PC board and buffer path paper sensor (PI14) open circuited?

Is the harness connecting the finisher controller PC board and stapling tray sensor (PI4) open circuited?

Is the harness connecting the finisher controller PC board and delivery sensor (PI3) open circuited?

↓ YES → Connect the connectors securely. Replace the harnesses.

NO

Is the inlet sensor working properly? (Check the movement of the actuator.)

Is the buffer path inlet paper sensor working properly? (Check the movement of the actuator.)

Is the buffer path paper sensor working properly? (Check the movement of the actuator.)

Is the stapling tray sensor working properly? (Check the movement of the actuator.)

Is the delivery sensor working properly? (Check the movement of the actuator.)

↓ NO →
↓
↓
1. Connect the connectors of the sensors securely.
2. Attach the actuators securely if their shafts are out of place.
3. Replace the sensors.

YES

Replace the finisher controller PC board.

[EA30] Power-ON jam

Is there any paper remaining on the transport path in the finisher?

↓ YES → Remove the paper.

NO

Is any of the connectors J17, J24 and J11 on the finisher controller PC board disconnected?

Is the harness connecting the finisher controller PC board and inlet sensor (PI1) open-circuited?

Is the harness connecting the finisher controller PC board and buffer path inlet paper sensor(PI17) open-circuited?

Is the harness connecting the finisher controller PC board and buffer path paper sensor (PI14) open circuited?

Is the harness connecting the finisher controller PC board and delivery sensor (PI3) open circuited?

↓ YES → Connect the connectors securely. Replace the harnesses.

NO

Is the inlet sensor working properly? (Check the movement of the actuator.)

Is the buffer path inlet paper sensor working properly? (Check the movement of the actuator.)

Is the buffer path paper sensor working properly? (Check the movement of the actuator.)

Is the delivery sensor working properly? (Check the movement of the actuator.)

↓ NO →
↓
↓
1. Connect the connectors of the sensors securely.
2. Attach the actuators securely if their shafts are out of place.
3. Replace the sensors.

YES

Replace the finisher controller PC board.

[EA40] Door open jam

Is there any paper remaining on the transport path in the finisher or main unit?

↓ YES → Remove the paper.

NO

Is the finisher connected with the main unit?

↓ NO → Connect the finisher with the main unit.

YES

Is the connector J12 on the finisher controller PC board disconnected?

Is the harness connecting the finisher controller PC board and joint sensor (PI15) open-circuited?

↓ YES → Connect the connector securely. Replace the harness.

NO

Is the joint sensor working properly?

↓ NO → 1. Connect the connector of the joint sensor securely.
2. Replace the joint sensor.

YES

Is the door of the finisher closed?

↓ NO → Close the door.

YES

Is the connector J12 on the finisher controller PC board disconnected?

Is the harness connecting the finisher controller PC board and door opening sensor (PI16) open-circuited?

↓ YES → Connect the connector securely. Replace the harness.

NO

Is the door opening sensor working properly?

↓ NO → 1. Connect the connector of the door opening sensor securely.
2. Replace the door opening sensor.

YES

Is the connector J5 on the finisher controller PC board disconnected?

Is the harness connecting the finisher controller PC board and door switch (MS1) open-circuited?

↓ YES → Connect the connector securely. Replace the harness.

NO

Is the connector J5 on the punch driver PC board disconnected?

Is the harness connecting the punch driver PC board and front door switch (MS2P) open-circuited?

↓ YES → Connect the connector securely. Replace the harness.

NO

Are the upper and front door switches working properly?

↓ NO → 1. Connect the connectors of the door switch and the front door switch
securely.
2. Replace the upper/front door switches.

YES

Replace the finisher controller PC board.

[EA50] Stapling jam

Is there any paper remaining on the transport path in the finisher or equipment or on the stapling tray?

↓ YES → Remove the paper.

NO

Is the jam cleared by taking off the staple cartridge from the finisher and removing the staple sheet slid from the staple case?

↓ YES → End.

NO

Is the connector J8 on the finisher controller PC board disconnected?

Is the harness connecting the finisher controller PC board and stapling home position sensor (PI22) open circuited?

↓ YES → Connect the connector securely. Replace the harness.

NO

Is the stapling home position sensor working properly?

I NO → 1. Connect the connector of the stapling home position sensor securely.
↓ 2. Replace the stapling home position sensor.

YES

Replace the finisher controller PC board.

[EA60] Early arrival jam

Is there any paper remaining on the transport path in the finisher or equipment?

↓ YES → Remove the paper.

NO

Is the connector J17 on the finisher controller PC board disconnected?

Is the harness connecting the finisher controller PC board and inlet sensor (PI1) open circuited?

↓ YES → Connect the connector securely. Replace the harness.

NO

Is the inlet sensor working properly? (Check the movement of the actuator.)

I NO → 1. Connect the connector of the inlet sensor securely.
I 2. Attach the actuator securely if its shaft is out of place.
↓ 3. Replace the inlet sensor.

YES

Replace the finisher controller PC board.

[3] Paper jam in saddle stitcher section

[EA80] Stapling jam

Is there any paper remaining on the transport path in the finisher, saddle stitcher section or main unit, or on the stapling tray?

↓ YES → Remove the paper.

NO

Is the jam cleared by taking off the staple cartridge from the finisher and removing the staples stuck in the stapling unit?

↓ YES → End

NO

Is the connector J8 on the saddle stitcher controller PC board disconnected?

Is the harness connecting the saddle stitcher controller PC board and stitcher home position switch (rear: MS5S, front: MS7S) open-circuited?

↓ YES → Connect the connector securely. Replace the harness.

NO

Are the stitcher home position switches working properly?

- ↓ NO →
1. Connect the connectors of the stitcher home position switches securely.
 2. Replace the stitcher home position switches.

YES

Replace the saddle stitcher controller PC board.

[EA90] Door open jam

Is there any paper remaining on the transport path in the finisher, saddle stitcher section or main unit?

↓ YES → Remove the paper.

NO

Is the saddle stitcher door closed?

↓ NO → Close the door.

YES

Is either of the connectors J10 or J11 on saddle stitcher controller PC board disconnected?
Are the harnesses connecting the saddle stitcher controller PC board and cover opening sensors (PI2S: front door opening/closing sensor, PI3S: delivery cover sensor, PI9S: inlet cover sensor) open-circuited?

↓ YES → Connect the connector securely. Replace the harness.

NO

Are the cover opening sensors working properly?

I NO →
↓
1. Connect the connectors of the cover opening sensors securely.
2. Replace the cover opening sensors.

YES

Replace the finisher controller PC board.

[EAA0] Power-ON Jam

Is there any paper remaining on the transport path in the finisher or saddle stitcher section?

↓ YES → Remove the paper.

NO

Is any of the connectors J10, J13 and J9 on the saddle stitcher controller PC board disconnected?

Is the harness connecting the saddle stitcher controller PC board and No.1 paper sensor (PI18S) open-circuited?

Is the harness connecting the saddle stitcher controller PC board and No.2 paper sensor (PI19S) open-circuited?

Is the harness connecting the saddle stitcher controller PC board and No.3 paper sensor (PI20S) open-circuited?

Is the harness connecting the saddle stitcher controller PC board and vertical path paper sensor (PI17S) open-circuited?

Is the harness connecting the saddle stitcher controller PC board and delivery sensor (PI11S) open-circuited?

↓ YES → Connect the connectors securely. Replace the harnesses.

NO

Is the No.1 paper sensor working properly? (Check the movement of the actuator.)

Is the No.2 paper sensor working properly? (Check the movement of the actuator.)

Is the No.3 paper sensor working properly? (Check the movement of the actuator.)

Is the vertical path paper sensor working properly? (Check the movement of the actuator.)

Is the delivery sensor working properly? (Check the movement of the actuator.)

↓ NO →
↓
↓
↓

1. Connect the connectors of the sensors securely.
2. Attach the actuators securely if their shafts are out of place.
3. Replace the sensors.

YES

Replace the saddle stitcher controller PC board.

[EAB0] Paper transport stop jam

Is there any paper remaining on the transport path in the finisher, saddle stitcher section or main unit?

↓ YES → Remove the paper.

NO

Is the connector J17 on finisher controller PC board disconnected?

Is the harness connecting the finisher controller PC board and inlet sensor (PI1) open-circuited?

Is either of the connectors J10 or J9 on the saddle stitcher controller PC board disconnected?

Is the harness connecting the saddle stitcher controller PC board and No.1 paper sensor (PI18S) open-circuited?

Is the harness connecting the saddle stitcher controller PC board and No.2 paper sensor (PI19S) open-circuited?

Is the harness connecting the saddle stitcher controller PC board and No.3 paper sensor (PI20S) open-circuited?

Is the harness connecting the saddle stitcher controller PC board and delivery sensor (PI11S) open-circuited?

↓ YES → Connect the connectors securely. Replace the harnesses.

NO

Is the inlet sensor working properly? (Check the movement of the actuator.)

Is the No.1 paper sensor working properly? (Check the movement of the actuator.)

Is the No.2 paper sensor working properly? (Check the movement of the actuator.)

Is the No.3 paper sensor working properly? (Check the movement of the actuator.)

Is the delivery sensor working properly? (Check the movement of the actuator.)

↓ NO →
↓
↓
1. Connect the connectors of the sensors securely.
2. Attach the actuators securely if their shafts are out of place.
3. Replace the sensors.

YES

Replace the saddle stitcher controller PC board.

[EAC0] Transport delay jam

Is there any paper remaining on the transport path in the finisher, saddle stitcher section or main unit?

↓ YES → Remove the paper.

NO

Is the connector J17 on the finisher controller PC board disconnected?

Is the harness connecting the finisher controller PC board and inlet sensor (PI1) open-circuited?

↓ YES → Connect the connector securely. Replace the harness.

NO

Is the inlet sensor working properly? (Check the movement of the actuator.)

↓ NO →
↓
↓
1. Connect the connector of the sensor securely.
2. Attach the actuator securely if its shaft is out of place.
3. Replace the sensor.

YES

Replace the finisher controller PC board.

[4] Paper jam in inserter section

[EC00] Inserter feeding delay jam

Are the pickup roller, feed roller and separation roller tainted?

↓ YES → Clean up the rollers.

NO

Is the harness between the inserter control board and separation sensor open-circuited?

↓ YES → Replace the harness.

NO

Is the separation sensor working improperly?

↓ YES → Replace the separation sensor.

NO

Replace the inserter control board.

[EC10] Inserter feeding stop jam

Are the transport roller and reverse roller tainted?

↓ YES → Clean up the rollers.

NO

Is the harness between the inserter control board and separation sensor open-circuited?

↓ YES → Replace the harness.

NO

Is the separation sensor working improperly?

↓ YES → Replace the separation sensor.

NO

Replace the inserter control board.

[EC20] Inserter reverse path delay jam-1

[EC30] Inserter reverse path stop jam-1

[EC40] Inserter reverse path delay jam-2

[EC50] Inserter reverse path stop jam-2

Are the transport roller and reverse roller tainted?

↓ YES → Clean up the rollers.

NO

Is the harness between the inserter control board and reverse path sensor is open-circuited?

↓ YES → Replace the harness.

NO

Is the reverse path sensor working improperly?

↓ YES → Replace the reverse path sensor.

NO

Replace the inserter control board.

[EC60] Inserter transport delay jam-1

[EC70] Inserter transport stop jam-1

[EC80] Inserter transport delay jam-2

[EC90] Inserter transport stop jam-2

Is the transport roller tainted?

↓ YES → Clean up the roller.

NO

Is the harness between the inserter control board and transport sensor is open-circuited?

↓ YES → Replace the harness.

NO

Is the transport sensor working impropely?

↓ YES → Replace the transport sensor.

NO

Replace the inserter control board.

[ECA0] Paper remaining in Inserter Unit at power-ON

Is there any paper remaining at the inserter transport path?

↓ YES → Remove the paper.

NO

Are the separation sensor, reverse path sensor and transport sensor working improperly?

↓ YES → Replace the sensors.

NO

Replace the inserter control board.

[ECB0] Incorrect setting of paper size for Inserter Unit

Is the paper size on the inserter tray consist with the size set at the copier control panel?

↓ NO → Set the same paper size as that on the tray.

YES

Is the separation sensor working improperly?

↓ YES → Replace the separation sensor.

NO

Perform the width adjustment of the inserter tray side guide.

[ECC0] Inserter Unit misfeeding

Is the condition improved when the copier power switch is turned OFF/ON?

↓

NO

1. Replace the copier LGC board.
2. Replace the IPC board.
3. Replace the inserter control board.

[ECD0] Inserter Unit door open jam

Is the problem solved by opening the inserter jam access cover?

↓

NO

1. Check the installation state of the cover.
2. Replace the cover switch and plate spring.

[5] Other paper jam

[EAD0] Print end command time-out jam

Is the main motor rotating normally?



NO

1. Check if there is any paper in the equipment. Remove it if there is.
2. If the error still occurs, check the following:
3. Check if the error is cleared by turning the power OFF and then back ON.
4. Check if the connectors connecting the SYS board, SYSIF board, SLG board and PLG board are disconnected.
5. Check if the harnesses connecting the SYS board, SLG board and PLG board are open circuited.
6. Replace the SYS board, SYSIF board and LGC board.

[EAE0] Receiving period time-out jam

Is the finisher working?



YES → Replace the finisher controller PC board.

NO

1. Check if the voltage (24V) is being supplied to the finisher.
2. Check the connection of the LGC board and IPC board.
3. Check if the harness connecting the IPC board and finisher I/F connector of the equipment side is open circuited.
4. Check if the harness connecting the I/F connector of the finisher side and finisher controller PC board is open circuited.
5. Replace the finisher controller PC board.

[EB30] Ready period time-out jam

Is there paper in the equipment?

↓ NO → Replace the LGC board.

YES

Are the IPC board and LGC board properly connected to each other?

↓ NO → Connect them properly.

YES

Is the harness securely connected to the IPC board?

↓ NO → Connect the harness properly.

YES

Is any of the connector pins of the harness connecting the equipment and finisher disconnected or any of those harnesses open circuited?

↓ NO → Connect the pin or replace the harness.

YES

1. Replace the IPC board.
2. Replace the LGC board.
3. Replace the finisher controller PC board.

5

[C160] 4th drawer tray abnormality

NO →

1. Check if the connector of the tray-up motor is disconnected.
2. Check if the connector CN331 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor pattern on the LGC board is short circuited or open circuited.
5. Replace the LGC board.

NO →

1. Check if the connector of the sensor is disconnected.
2. Check if the connector CN329, CN328, CN350 on the LGC board is disconnected.
3. Check if the slit reaches the sensor.
4. Check if the connector pins are disconnected and the harnesses are open circuited.
5. Check if the conductor pattern on the LGC board is short circuited or open circuited.
6. Replace the LGC board.

1. Check if the positioning pin of the drawer is tightly screwed.
2. Check if the paper is not caught in the coupling when the tray goes up.
3. Check if the conductor pattern on the LGC board is short circuited or open circuited.
4. Replace the LGC board.

[C180] Tandem LCF tray-up motor is abnormality

Does the tray move?

(Perform the output check in the test mode: 03-270)

NO →

1. Check if the connector of the Tandem LCF tray-up motor is disconnected.
2. Check if the connector CN345 on the LGC board is disconnected.
3. Check if the connector pins are disconnected and the harnesses are open circuited.
4. Check if the conductor patterns on the LCF board and LGC board are short circuited or open circuited.
5. Replace the LCF tray-up moter.
6. Replace the LGC board.

YES

Are the 3rd drawer/tandem LCF tray-up sensor and tandem LCF bottom sensor working?

(Perform the input check in the test mode: 03-[FAX]OFF/[3]/[E],/[8]/[F])

NO →

1. Check if the connectors of the sensors are disconnected.
2. Check if the connector CN328, CN345 on the LGC board is disconnected.
3. Check if the slit reaches the sensors.
4. Check if the connector pins are disconnected and the harnesses are open circuited.
5. Check if the conductor patterns on the LCF board and LGC board are short circuited or open circuited.
6. Replace the LGC board.

YES

1. Check if the driving mechanism is abnormal.
2. Check if the conductor pattern on the LGC board is short circuited or open circuited.
3. Replace the LGC board.

5

(Perform the output check in the test mode: 03-207)

YES

(Perform the input check in the test mode: 03-[FAX]OFF/[8]/[G], ./[8]/[H])

YES

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[C1C0] Option LCF tray-up motor abnormality

Is the tray motor driving?

(Perform the output check in the test mode: 03-271)

- | | | |
|---|------|--|
| | NO → | 1. Check if the connector on the LCF tray motor is not disconnected. |
| | | 2. Check if the connectors J851 on the LCF board are not disconnected. |
| | | 3. Check if the connector of the tray-up sensor is not disconnected. |
| | | 4. Check if the actuator reaches the sensor. |
| | | 5. Replace the LCF board. |
| | | 6. Replace the LGC board. |
| ↓ | | |

YES

Is the tray-up sensor working?

(Perform the input check in the test mode: 03-[FAX] OFF/[5]/[E])

- | | | |
|---|------|--|
| | NO → | 1. Check if the connector of the tray-up sensor is not disconnected. |
| | | 2. Check if the connectors J851 on the LCF board are not disconnected. |
| | | 3. Check if the actuator reaches the sensor. |
| | | 4. Check if the connector pins are not disconnected and the harness is not open circuited. |
| | | 5. Replace the LCF board. |
| | | 6. Replace the LGC board. |
| ↓ | | |

YES

1. Check if the tray lifting mechanism has no abnormality.
2. Replace the LCF board.
3. Replace the LGC board.

5.2.7 Scanning system related service call

[C260] Peak detection error

Does the exposure lamp light? (Perform the output check in the test mode: 03-267)

- | YES →
1. Check if the connectors on the CCD and SLG boards are disconnected.
 2. Check if the shading correction plate is detached or dirty.
 3. Check if the conductor pattern on the CCD board is short circuited or open circuited.
 4. Check if the conductor pattern on the SLG board is short circuited or open circuited.
 5. Replace the lens unit.
 6. Replace the SLG board.
- |
- |
- |
- |
- |
- |
- ↓

NO

1. Check if the connectors of the exposure lamp and inverter are disconnected.
2. Check the SLG board if the connector pin CN1 is disconnected and the harness is short circuited or open circuited.
3. Check if the conductor pattern on the SLG board is short circuited or open circuited.
4. Replace the SLG board.
5. Replace the inverter.
6. Replace the exposure lamp.

[C270] Carriage home position sensor not turning OFF within a specified period of time

Remove the original glass and move the carriages to the paper feeding side. Turn ON the power and check the following items.

Are the carriages slightly moved to the feeding direction? Are the carriages staying at a position other than home position?

- | YES →
1. Check if the conductor pattern on the SLG board is short circuited or open circuited.
 2. Replace the SLG board.
- |
- ↓

NO

1. Check if the connector pin is disconnected and the harness is short circuited or open circuited.
2. Check if the conductor pattern on the SLG board is short circuited or open circuited.
3. Replace the SLG board.

[C280] Carriage home position sensor not turning ON within a specified period of time

Remove the original glass and move the carriages to the paper feeding side. Turn ON the power and check the following items.

Do the carriages make a big noise after they arrive at the home position?

- | YES → The carriage home position sensor is not turned ON.
| 1. Check if the connector of the sensor is disconnected.
| 2. Replace the carriage home position sensor.
| 3. Check if the conductor pattern on the SLG board is short circuited or
| open circuited.
| 4. Replace the SLG board.
↓

NO

The carriages are stopped at the home position and do not move.

1. Check if the connector pins are disconnected and the harnesses are short circuited or open circuited.
2. Check if the conductor pattern on the SLG board is short circuited or open circuited.
3. Replace the SLG board.

5.2.8 Fuser unit related service call

Caution

Be sure to turn OFF the power and unplug the power cable beforehand when checking the IH control circuit and IH coil.

The fuser unit itself or the part of the unit remains heated and the capacitors are still charged after a while the power cable is unplugged. So make sure the unit is cooled down enough before checking.

[C411/C412] Thermistor/heater abnormality at power-ON

1. Check the power voltage

- (1) Check if the power voltage is normal. (Is the voltage during the operation $\pm 10\%$ of the rated voltage?)

2. Check the thermistors

- (1) Check if the connectors are disconnected.
- (2) Check if the center and side thermistors (front, rear) are in contact with the surface of the fuser roller properly?
- (3) Check if the harnesses of the center and side thermistors (front, rear) are open circuited.

3. Check the heater

- (1) Check if the IH coil is broken.
- (2) Check if the connector of the IH coil is disconnected.
- (3) Check if the thermostat is blown.
- (4) Check if the connectors on the IH control board are disconnected (AC input connector and LGC I/F connectors CN455).
- (5) Check if the IH control board is abnormal.
 - Replace the IH control board.

4. Check the LGC board

- (1) Check if the connectors CN332, CN334 are disconnected.
- (2) Check if the conductor pattern on the LGC board is short circuited or open circuited.
- (3) Replace the LGC board.

5. Clear the status counter

After repairing the matter which caused the error [C411/C412], perform the following:

- (1) Turn ON the power while [0] and [8] are pressed simultaneously.
- (2) Key in "400", then press [START].
- (3) Change the current status counter value "1" or "2" to "0", then press [ENTER] or [INTERRUPT] (to cancel [C411/C412]).
- (4) Turn the power OFF and then back ON. Make sure that the equipment enters the normal ready state.

[C443/C445/C446/C447/C449] Heater abnormality after abnormality judgment

1.2.3. Check the thermistors, Heater and LGC board

Check the above components following the procedures 1, 2 and 3 for [C411/C412].

4. Clear the status counter

Change the current status counter value (08-400) "3", "5", "6", "9", "19", "21", "22", "23", "24", "25", "27" or "29" to "0" for [C44X], taking the same procedure as that for [C41X].

- The status counter value is as follows in the following cases.
 - The error occurred during warming-up: "3", "5" or "6"
 - The error occurred after the equipment has become ready: "7"
 - The temperature detected by the center thermistor is 240°C or higher, the temperature detected by the side thermistor is 250°C or higher or the temperature detected by the edge thermistor is 270°C or higher: "9", "19", "21", "22", "23", "25", "27" or "29".
 - The error occurred during printing: "24" or "25"
 - The error occurred during energy saving: "26" or "27"
 - A paper jam occurred: "28" or "29"

[C465/C466/C467/C468] Pressure roller thermistor abnormality after entering ready status

1. Check the pressure roller thermistor

- (1) Check if the connector is disconnected.
- (2) Check if the pressure roller thermistor is in contact with the surface of the fuser roller properly.
- (3) Check if the harness of the pressure roller thermistor is open circuited.

2. Check the LGC board

- (1) Check if the connector CN332,CN334 is disconnected.
- (2) Check if the conductor pattern on the board is short circuited or open circuited.
- (3) Replace the LGC board.

3. Clear the status counter

Change the current status counter value (08-400) "5", "6", "7", "8", "18", "20", "24", "26" or "28" to "0"

[C471/472/473/474/475] IH power voltage abnormality or IH initial abnormality

1. Check the AC input voltage

Check if the AC input voltage is within the specified range.

(especially when the heater becomes ON after the power is turned ON (the copier is warming up))

2. Check the thermostat

Check if the thermostat is blown.

3. Check the IH control board

- (1) Check if the AC input connector on the IH control board, the LGC I/F connectors CN455 is disconnected?
- (2) Check if the fuse on the IH control board has blown.
- (3) Replace the IH control board.

4. Check the LGC board

- (1) Check if the connector CN332,CN334 and CN360 are disconnected.
- (2) Check if the conductor pattern on the board is short- or open-circuited.
- (3) Replace the LGC board.

5. Check the switching regulator

Check if the connector CN414 are disconnected.

6. Clear the status counter

Change the values "10", "11", "12" or "16" of the status counter (08-400) to "0".

[C480] IGBT abnormality**1. Check the operation of the IH fan**

Check if the IH fan is rotating normally. (Is the connector securely connected?)

2. Check the IH control board

- (1) Check if the IGBT or IGBT radiation plate are normal. (Is the radiation plate securely attached?)
- (2) Check if the conductor pattern on the board is short- or open-circuited.
- (3) Replace the IH control board.

3. Clear the status counter

Change the values "14" of the status counter (08-400) to "0".

[C481] IH abnormality**1. Check the IH control board**

- (1) Check if the IGBT or IGBT radiation plate are normal. (Is the radiation plate securely attached?)
- (2) Check if the conductor pattern on the board is short- or open-circuited.
- (3) Replace the IH control board.

2. Clear the status counter

Change the values "15" of the status counter (08-400) to "0".

[C490] IH control circuit abnormality or IH coil abnormality**1. Check the power voltage**

Is the voltage normal? (Is the voltage during the operation $\pm 10\%$ of the rated voltage?)

2. Check the IH control board

- (1) Check if the harness of IH coil is loosened.
- (2) Check if the conductor pattern on the board is short circuited or open circuited.
- (3) Replace the IH control board.

3. Check the IH coil

- (1) Check if the coil is broken or shorted.
- (2) Replace the IH coil.

4. Clear the status counter

Change the current status counter value (08-400) "17" to "0".

[C47X], [C481] and [C490] can be cleared by turning OFF and ON the main switch as long as the problem was solved, and the status counter does not have to be changed to "0".

The value of the status counter remains until the next service call overwrites the value.

[C4A0] End of cleaning web

- (1) Check if the cleaning web is remaining.
- (2) Check if the connector CN332 on the LGC board is not disconnected.
- (3) Check if there is no abnormality at the web sensor.
- (4) Replace the LGC board.

[C4B0] IGBT overheating abnormality

1. Check the LGC board

- (1) Check if the conductor pattern on the board is short circuited or open circuited.
- (2) Check if NVRAM is mounted.
- (3) Replace the LGC board.

2. Clear the status counter

Change the current status counter value (08-400) "30 or more" or "4" to "0".

[CD50] Web motor signal path abnormality

- (1) Check if the connector of the web motor and connector pins are not disconnected.
- (2) Check if the harness at the fuser unit is not open-circuited.
- (3) Check if the connector of the LGC board and connector pins are not disconnected.
- (4) Check if the harness between the connector of the LGC board and the fuser unit is not open circuited.
- (5) Replace the LGC board.
- (6) Replace the fuser unit.

5.2.9 Communication related service call

[C550] RADF interface error

- (1) Check if the harness connecting the ADF board and SLG board is disconnected or open circuited.
- (2) Check if the conductor pattern on the ADF board is short circuited or open circuited.
- (3) Check if the conductor pattern on the SLG board is short circuited or open circuited.
- (4) Replace the ADF board.
- (5) Replace the SLG board.

[C560] Communication error between Engine-CPU and PFC

- (1) Check if the conductor pattern around IC57 and IC58 on LGC board is not short- or open-circuited.
- (2) Replace the LGC board.

[C570] Communication error between Engine-CPU and IPC board

- (1) Check if the LGC board and IPC board are connected properly.
- (2) Check if the conductor pattern on the IPC board is short circuited or open circuited.
- (3) Check if the conductor pattern on the LGC board is short circuited or open circuited.
- (4) Replace the IPC board.
- (5) Replace the LGC board.

[C580] Communication error between IPC board and Finisher

- (1) Check if the specified finisher is attached.
- (2) Check if the harness connecting the IPC board and the finisher controller PC board is disconnected or open circuited.
- (3) Check if the conductor pattern on the IPC board is short circuited or open circuited.
- (4) Check if the conductor pattern on the finisher controller PC board is short circuited or open circuited.
- (5) Replace the IPC board.
- (6) Replace the finisher controller PC board.

[C590] Communication error between Engine-CPU and Laser-CPU

- (1) Check if the harness between the LGC board and PLG board is not disconnected or open-circuited.
- (2) Check if the conductor pattern around IC13, IC58, IC125 and CN342 on the LGC board is not short circuited or open circuited.
- (3) Check if the conductor pattern around IC9, IC25, IC32 and CN204 on the PLG board is not short- or open-circuited.
- (4) Check if the connector CN104 on the SYS board and CN130, CN133 on the SYSIF board is disconnected.
- (5) Replace the LGC board.
- (6) Replace the PLG board.
- (7) Replace the SYSIF board.

[F070] Communication error between System-CPU and Engine-CPU

[F110] Communication error between System-CPU and Scanner-CPU

[F111] Scanner response abnormality

- (1) Check if the connector CN104 on the SYS board and CN130, CN131, CN134 on the SYSIF board is disconnected.
- (2) Check if the connector CN10 on the SLG board is disconnected.
- (3) Check if the harness connecting the SYSIF board and SLG board is disconnected or open circuited.
- (4) Check if the harness connecting the SYSIF board and LGC board is disconnected or open circuited.
- (5) Check if the connection of the SYS board (CN104) and SYSIF board (CN130) is open circuited.
- (6) If the SYS board has been replaced, check if the jumper pin setting on the SYS board is correct. (The jumper pin should be inserted between pin 2 and 3 of CN103 and CN115.)
- (7) Check the version of the system ROM on the SYS board.
- (8) Check the version of the engine ROM version on the LGC board.
- (9) Check the version of the scanner ROM version on the SLG board.
- (10) Replace the SYS board.
- (11) Replace the SLG board.
- (12) Replace the LGC board.
- (13) Replace the SYSIF board.

5.2.10 RADF related service call

[C730] EEPROM abnormality

1. Check the IC-1, -2 and around on the RADF board to see if there is any burnout or short-circuiting.
2. Replace the Replace the RADF board, and then perform the automatic adjustment for the original reading start sensor (05-356).

[C880] RADF original feed motor abnormality

1. Check if the connector CN76 on the RADF board is disconnected from the RADF original feed motor or the harnesses are open-circuited. Correct if this is the case.
2. Replace the RADF original feed motor.

[C890] RADF read motor abnormality

1. Check if the connector CN76 on the RADF board is disconnected from the RADF read motor or the harnesses are open-circuited. Correct if this is the case.
2. Replace the RADF read motor.

[C8A0] RADF original reverse motor abnormality

1. Check if the connector CN77 on the RADF board is disconnected from the RADF original reverse motor or the harnesses are open-circuited. Correct if this is the case.
2. Replace the RADF original reverse motor.

[C8B0] RADF original exit motor abnormality

1. Check if the connector CN78 on the RADF board is disconnected from the RADF original exit motor or the harnesses are open-circuited. Correct if this is the case.
2. Replace the RADF original exit motor.

[C8E0] RADF communication protocol abnormality

1. Turn the power OFF and then back ON to check if the equipment operates normally.

5.2.11 Laser optical unit related service call

[CA10] Polygonal motor abnormality

Is the polygonal motor rotating?

- | NO → (e-STUDIO555/655)
- | 1. Check if the connector CN209 on the PLG board is disconnected.
- | 2. Check if the harness is open circuited and the connector pin is disconnected.
- | 3. Check if the following signals are transmitted on the pins of the connector CN209 on the PLG board.
- | Pin 1: $27 \pm 1V$, Pin 2: GND, Pin 5: Less than or equal to 1V (Lo),
- | Pin 4: Less than or equal to 0.7 V (Lo), Pin 3: Do not touch.
- | 4. Check if the conductor pattern on the PLG board is short circuited or open circuited.
- | 5. Replace the laser optical unit.
- | 6. Replace the PLG board.
- | (e-STUDIO755/855)
- | 1. Check if the connector CN206 on the PLG board is disconnected.
- | 2. Check if the harness is open circuited and the connector pin is disconnected.
- | 3. Check if the following signals are transmitted on the pins of the connector CN206 on the PLG board.
- | Pin 5: $24 \pm 1V$, Pin 4: GND, Pin 3: Less than or equal to 1V (Lo),
- | Pin 2: Less than or equal to 0.7 V (Lo), Pin 1: Do not touch.
- | 4. Check if the conductor pattern on the PLG board is short circuited or open circuited.
- | 5. Replace the laser optical unit.
- | 6. Replace the PLG board.
- | ↓

YES

Is the deformed image output?

- NO → (e-STUDIO555/655)
1. Check if the connector CN209 on the PLG board is about to be disconnected.
 2. Check if the harness is about to be open circuited and the connector pin is disconnected.
 3. Check if the following signals are transmitted on the pins of the connector CN209 on the PLG board.
Pin 1: $27 \pm 1V$, Pin 2: GND, Pin 5: Less than or equal to 1V (Lo),
Pin 4: Less than or equal to 0.7 V (Lo), Pin 3: Do not touch.
 4. Check if the conductor pattern on the PLG board is short circuited or open circuited.
 5. Check if the laser unit cooling fan is not stopped.
 6. Check if the intake area of the laser unit cooling fan is not blocked.
 7. Replace the laser optical unit.
 8. Replace the PLG board.
- (e-STUDIO755/855)
1. Check if the connector CN206 on the PLG board is about to be disconnected.
 2. Check if the harness is about to be open circuited and the connector pin is disconnected.
 3. Check if the following signals are transmitted on the pins of the connector CN206 on the PLG board.
Pin 5: $24 \pm 1V$, Pin 4: GND, Pin 3: Less than or equal to 1V (Lo),
Pin 2: Less than or equal to 0.7 V (Lo), Pin 1: Do not touch.
 4. Check if the conductor pattern on the PLG board is short circuited or open circuited.
 5. Check if the laser unit cooling fan is not stopped.
 6. Check if the intake area of the laser unit cooling fan is not blocked.
 7. Replace the laser optical unit.
 8. Replace the PLG board.
- ↓

YES

1. Check if the conductor pattern on the PLG board is short circuited or open circuited.
2. Check if the grounding wire of the high-voltage unit (e.g. developer unit, transfer unit) is grounded securely.
3. Check if the bias contact point of the high-voltage unit is contacted securely. (Check if the point is not stained either.)
4. Check if the metal plates of the transport system are grounded securely.
5. Check if the equipment is grounded securely?
6. Check if the laser unit cooling fan is not stopped.
7. Check if the intake area of the laser unit cooling fan is not blocked.
8. Replace the laser optical unit.

[CA20] H-sync detection error

(e-STUDIO555/655)

Is the harness connecting the connector (J207) on the PLG board and the connector on the LDR1 board open circuited? Are the connectors damaged or disconnected?

Is the harness connecting the connector (CN202) on the PLG board and the connector on the SNS board open circuited? Are the connectors damaged or disconnected?

(e-STUDIO755/855)

Is the harness connecting the connector (J207) on the PLG board and the connector on the LDR1 board open circuited? Are the connectors damaged or disconnected?

Is the harness connecting the connector (J208) on the PLG board and the connector on the LDR1 board open circuited? Are the connectors damaged or disconnected?

Is the harness connecting the connector (J210) on the PLG board and the connector on the SNS board open circuited? Are the connectors damaged or disconnected?

- | NO → (e-STUDIO555/655)
- | 1. Replace the harness. Reconnect the connector.
- | 2. Check if the connector(J207) on PLG board hold the harness
- | securely?
- | 3. Check if the following signals are transmitted on the pin of the
- | connector(CN1) on the PLG board?
- | Pin 1: 5V, Pin 3: 0V
- | 4. Replace the laser optical unit.
- | (e-STUDIO755/855)
- | 1. Replace the harness. Reconnect the connector.
- | 2. Check if the connector(J207,J208) on PLG board hold the harness
- | securely?
- | 3. Replace the laser optical unit.
- | ↓

YES

1. Check if the conductor pattern on the PLG board is short circuited or open circuited.
2. Check if the grounding wire of the high-voltage unit (e.g. developer unit, transfer unit) is grounded securely.
3. Check if the bias contact point of the high-voltage unit is contacted securely. (Check if the point is not stained either.)
4. Check if the metal plates of the transport system are grounded securely.
5. Check if the equipment is grounded securely?
6. Replace the laser optical unit.

- [CA30] Secondary scanning coarse adjustment error [e-STUDIO755/855]
- [CA41] Window comparator abnormality (error during secondary scanning control) [e-STUDIO755/855]
- [CA42] Sensor signal busy error (error during secondary scanning control) [e-STUDIO755/855]
- [CA43] Comparator abnormality [e-STUDIO755/855]
- [CA50] Laser power adjustment error [e-STUDIO755/855]
- [CAA0] Secondary scanning fine adjustment error [e-STUDIO755/855]
- [CAB0] Inter-page correction error of secondary scanning [e-STUDIO755/855]
- [CAC0] Primary scanning dot adjustment error [e-STUDIO755/855]
- [CAF0] Inter-page correction error of primary scanning [e-STUDIO755/855]
- [CD00] Laser initialization time-out [e-STUDIO755/855]

Is any harness between the PLG board and galvanic mirror, PLG board and laser drive PC board and PLG board and H-Sync detection PC board open circuited or any connector disconnected?

↓ YES → Replace the harness. Reconnect the connector.

NO

1. Replace the PLG board.
2. Replace the laser optical unit.

[CA90] Image data transmission error of sys board

Is the harness between the PLG, SYSIF and SYS boards open-circuited or the connector disconnected?

↓ YES → Replace the harness. Reconnect the connector.

NO

1. Replace the PLG board.
2. Replace the SYS board.
3. Replace the SYSIF board.

5.2.12 Finisher related service call

[CB10] Feed motor abnormality

[Procedure 1]

Is second feed motor (M8) rotating in reverse at the fixed timing?

↓ NO → Replace second feed motor or finisher controller PC board.

YES

Is the shutter securely attached to the shutter upper/lower bars?

↓ NO → Attach it securely.

YES

Turn the feed roller-2 in reverse by hand. Do the shutter upper/lower bars move up and down?

↓ NO → Fix the mechanism including the shutter upper/lower bars and gears of the feed roller-2.

YES

Is the shutter closed detecting switch (MS4) working normally?

↓ NO → Replace the switch.

YES

Replace the finisher controller PC board.

[Procedure 2]

Is second feed motor (M8) rotating in reverse at the fixed timing?

↓ NO → Replace second feed motor or finisher controller PC board.

YES

Is the shutter securely attached to the shutter upper/lower bars?

↓ NO → Attach it securely.

YES

Turn feed roller-2 in reverse by hand. Do the shutter upper/lower bars move up and down?

↓ NO → Fix the mechanism including the shutter upper/lower bars and gears of the feed roller-2.

YES

Is the shutter open sensor (PI5) working normally?

↓ NO → Replace the sensor.

YES

Replace the finisher controller PC board.

[Procedure 3]

Check the safety zone switch (MS3). Is the switch working normally?

↓ NO → Replace the switch.

YES

Is the safety zone switch (MS3) correctly pressed?

↓ NO → Fix the mechanism.

YES

Is the shutter closed detecting switch (MS4) working normally?

↓ NO → Replace the switch.

YES

Is the shutter closed detecting switch (MS4) correctly pressed?

↓ NO → Fix the mechanism.

YES

Replace the finisher controller PC board.

[CB20] Delivery motor abnormality

Rotate the delivery motor by hand. Does it rotate smoothly?

↓ NO → Fix the mechanism.

YES

Is the delivery motor clock sensor (PI10) working normally?

↓ NO → Replace the sensor.

YES

MJ-1027/1028:

Does the voltage between J11-4 and -5 on the finisher controller PC board become 24V when the delivery motor starts rotating?

MJ-1029:

Does the voltage between J11-1 and -2 on the finisher controller PC board become 24V when the delivery motor starts rotating?

↓ NO → Replace the finisher controller PC board.

YES

Is the wiring between the delivery motor and finisher controller PC board correct?

↓ YES → Correct the wiring.

NO

Replace the motor.

[CB30] Tray lift motor abnormality

[Procedure 1]

Is the tray 1 home position sensor (PI8) working properly?

↓ NO → Replace the tray 1 home position sensor.

YES

Is the tray 1 lifting mechanism working properly?

↓ NO → Correct the defect of the mechanism.

YES

Is 24V supplied to the tray1 lifting motor (M5) from the finisher control board at the timing of tray driving?

↓ NO → Replace the finisher control board.

YES

Is the harness between the finisher control board and tray 1 lifting motor normal?

↓ NO → Replace the harness.

YES

Replace the tray 1 lifting motor.

[Procedure 2]

Is the tray 1 lifted/lowered?

| YES → Is the wiring between the finisher controller PC board and tray 1 lifting motor normal?

| ↓ NO → Correct the wiring.

| YES

| ↓ Replace the tray 1 lifting motor.

NO

Is the power supplied to the motor from the finisher control board at the timing of tray 1 lifting?

↓ NO → Replace the finisher control board.

YES

Is there any abnormality at the tray 1 lifting mechanism?

↓ YES → Correct the defect of the mechanism.

YES

Correct the defect of the mechanism.

[Procedure 3]

Is the tray 2 home position sensor (PI25) working properly?

↓ NO → Replace the tray 2 home position sensor.

YES

Is the tray 2 lifting mechanism working properly?

↓ NO → Correct the defect of the mechanism.

YES

Is 24V supplied to the tray 2 lifting motor (M10) from the finisher control board at the timing of tray driving?

↓ NO → Replace the finisher control board.

YES

Is the harness between the finisher control board and tray 2 lifting motor normal?

↓ NO → Replace the harness.

YES

Replace the tray 2 lifting motor.

[Procedure 4]

Is the tray 2 lifted/lowered?

	YES →	<u>Is the harness between the finisher control board and tray 2 lifting motor normal?</u>
		↓ NO → Correct the wiring.
		YES
		Replace the tray 2 lifting motor.
↓		

NO

Is the power supplied to the motor from the finisher control board at the timing of tray 2 lifting?

↓ NO → Replace the finisher control board.

YES

Is there any abnormality at the tray 2 lifting mechanism?

↓ YES → Correct the defect of the mechanism.

NO

Replace the tray 2 lifting motor.

[Procedure 5]

Is the tray lifting mechanism working properly?

↓ NO → Correct the defect of the mechanism.

YES

Is the tray coming close detection switch working properly?

↓ NO → Replace the switch.

YES

Replace the finisher controller PC board.

[CB40] Alignment motor (rear) abnormality

Is the alignment guide home position sensor (PI6) working normally?

↓ NO → Replace the sensor.

YES

Is the wiring between the finisher controller PC board and the alignment motor (M3) correct?

↓ YES → Correct the wiring.

NO

Is there any mechanical problem with the alignment guide movement path?

↓ YES → Fix the mechanism.

NO

Is the problem solved by replacing the alignment motor?

↓ NO → Replace the finisher controller PC board.

YES

END

[CB50] Staple motor abnormality

Is the wiring between the finisher controller PC board and the stapler normal?

↓ NO → Correct the wiring.

YES

Is the problem solved by replacing the stapler?

↓ YES → END

NO

Replace the finisher controller PC board.

[CB60] Stapler shift motor abnormality

Is the stapler shift home position sensor (PI7) working normally?

↓ NO → Replace the sensor.

YES

Is the wiring between the finisher controller PC board and the stapler shift motor (M4) correct?

↓ YES → Correct the wiring.

NO

Is there any mechanical problem with the stapler stand motion path?

↓ YES → Fix the mechanism.

NO

Try replacing the staple shift motor. Is the problem corrected?

↓ YES → END

NO

Replace the finisher controller PC board.

[CB70] Stack amount detection sensor abnormality

[Procedure 1]

Is the problem solved by turning OFF and ON the power of the equipment?

↓ YES → END

NO

Is the wiring between the finisher controller PC board and the height sensor (PS1) correct?

↓ YES → Correct the wiring.

NO

Is the voltage between J6-2(+) and J6-4(-) on the finisher controller PC board 5V DC?

↓ NO → Replace the finisher controller PC board.

YES

Re-adjust the height sensor. Replace the height sensor if it still causes the problem.

[Procedure 2]

Is the connector J6 on the finisher controller PC board, J114 of the height sensor (PS1) or relay connector J212 and J213 (Only for MJ-1027/1028) disconnected?

↓ YES → Connect the connector(s).

NO

Is the voltage between J6-2(+) and J6-4(-) on the finisher controller PC board 5V DC?

↓ NO → Replace the finisher controller PC board.

YES

Is the wiring between the finisher controller PC board and height sensor correct?

↓ YES → Correct the wiring.

NO

Replace the height sensor.

[Procedure 3]

Is the problem solved by readjusting the DIP switch?

↓ YES → END

NO

Is the wiring between the finisher controller PC board and height sensor (PS1) correct?

↓ YES → Correct the wiring.

NO

Is the voltage between J6-2(+) and J6-4(-) on the finisher controller PC board 5V DC?

↓ NO → Replace the finisher controller PC board.

YES

Replace the height sensor.

[CB80] Backup RAM data abnormality

Is the problem solved by turning the power of the equipment OFF and ON?

↓ YES → End.

NO

Replace the finisher controller PC board.

Replace the punch driver PC board.

[CB90] Paper pushing plate motor abnormality

[Procedure 1]

Is the paper pushing plate home position sensor (PI14S) working normally?

↓ NO → Replace the sensor.

YES

Is the paper pushing plate motor (M8S) operating at the fixed timing?

↓ YES → Replace the saddle stitcher controller PC board.

NO

Is the paper pushing plate drive mechanism normal?

↓ NO → Fix the mechanism.

YES

Is the problem solved by replacing the paper pushing plate motor (M8S)?

↓ NO → Replace the saddle stitcher controller PC board.

YES

END

[Procedure 2]

Is the paper pushing plate top position sensor (PI15S) working normally?

↓ NO → Replace the sensor.

YES

Is the paper pushing plate motor (M8S) operating at the fixed timing?

↓ YES → Replace the saddle stitcher controller PC board.

NO

Is there any problem with the paper pushing plate drive mechanism?

↓ YES → Fix the mechanism.

NO

Is the problem solved by replacing the paper pushing plate motor (M8S)?

↓ NO → Replace the saddle stitcher controller PC board.

YES

END

[Procedure 3]

Is the paper pushing plate motor clock sensor (PI1S) working normally?

↓ NO → Replace the sensor.

YES

Is the paper pushing plate motor (M8S) operating at the fixed timing?

↓ YES → Replace the saddle stitcher controller PC board.

NO

Is there any problem with the pushing plate drive mechanism?

↓ YES → Fix the mechanism.

NO

Is the problem solved by replacing the paper pushing plate motor (M8S)?

↓ NO → Replace the saddle stitcher controller PC board.

YES

END

[CBA0] Stitch motor (front) abnormality

[CBB0] Stitch motor (rear) abnormality

Are the front and rear stitchers and their stands installed properly?

↓ NO → Install them properly.

YES

Are the stitcher home position switches (MS7S/MS5S) on the front and rear stitchers working normally?

↓ NO → Replace the front or rear stitcher.

YES

Are the front and rear stitchers operating at the fixed timing?

↓ NO → Replace the front or rear stitcher.

YES

Check the wiring between the stitcher and saddle stitcher controller PC board. If there is no problem, replace the controller PC board.

[CBC0] Alignment motor abnormality

Is the alignment plate home position sensor (PI5S) working normally?

↓ NO → Replace the sensor.

YES

Is the alignment motor (M5S) operating at the fixed timing?

↓ YES → Replace the saddle stitcher controller PC board.

NO

Is the alignment plate drive mechanism normal?

↓ NO → Fix the mechanism.

YES

Is the problem solved by replacing the alignment motor (M5S)?

↓ NO → Replace the saddle stitcher controller PC board.

YES

END

[CBD0] Guide motor abnormality

Is the guide home position sensor (PI13S) working normally?

↓ NO → Replace the sensor.

YES

Is the guide motor (M3S) operating at the fixed timing?

↓ YES → Replace the saddle stitcher controller PC board.

NO

Is the guide plate drive mechanism normal?

↓ NO → Fix the mechanism.

YES

Is the problem solved by replacing the guide motor (M3S)?

↓ NO → Replace the saddle stitcher controller PC board.

YES

END

[CBE0] Paper folding motor abnormality

Is the paper folding motor clock sensor (PI4S) working normally?

↓ NO → Replace the sensor.

YES

Is the paper folding home position sensor (PI21S) working normally?

↓ NO → Replace the sensor.

YES

Is the paper folding motor (M2S) operating at the fixed timing?

↓ YES → Replace the saddle stitcher controller PC board.

NO

Is the paper folding roller drive mechanism normal?

↓ NO → Fix the mechanism.

YES

Is the problem solved by replacing the paper folding motor (M2S)?

↓ NO → Replace the saddle stitcher controller PC board.

YES

END

[CBF0] Paper positioning plate motor abnormality

Is the paper positioning plate home position sensor (PI7S) working normally?

↓ NO → Replace the sensor.

YES

Is the paper positioning plate operating at the fixed timing?

↓ YES → Replace the saddle stitcher controller PC board.

NO

Is the paper positioning plate drive mechanism normal?

↓ NO → Fix the mechanism.

YES

Is the problem solved by replacing the paper positioning plate motor (M4S)?

↓ NO → Replace the saddle stitcher controller PC board.

YES

END

[CC00] Sensor connector connection error abnormality

[Procedure 1]

Is the guide home position sensor (PI13S) connected to the saddle stitcher controller PC board?

↓ NO → Connect it to the board.

YES

Is the wiring between the sensor and the saddle stitcher correct?

↓ YES → Correct the wiring.

NO

Is 5V DC being supplied from J9-7 on the saddle stitcher controller PC board?

↓ NO → Replace the saddle stitcher controller PC board.

YES

Is J9-8 on the saddle stitcher controller PC board correctly connected to the ground?

↓ NO → Replace the saddle stitcher controller PC board.

YES

END

[Procedure 2]

Is the paper pushing plate home position sensor (PI14S) connected to the saddle stitcher controller PC board?

↓ NO → Connect it to the board.

YES

Is the wiring between the sensor and the saddle stitcher correct?

↓ YES → Correct the wiring.

NO

Is 5V DC being supplied from J9-10 on the saddle stitcher controller PC board?

↓ NO → Replace the saddle stitcher controller PC board.

YES

Is J9-11 on the saddle stitcher controller PC board properly connected to the ground?

↓ NO → Replace the saddle stitcher controller PC board.

YES

END

[Procedure 3]

Is the paper pushing plate top position sensor (PI15S) connected to the saddle stitcher controller PC board?

↓ NO → Connect it to the board.

YES

Is the wiring between the sensor and the saddle stitcher correct?

↓ YES → Correct the wiring.

NO

Is 5V DC being supplied from J9-13 on the saddle stitcher controller PC board?

↓ NO → Replace the saddle stitcher controller PC board.

YES

Is J9-14 on the saddle stitcher controller PC board properly connected to the ground?

↓ NO → Replace the saddle stitcher controller PC board.

YES

END

[CC10] Microswitch abnormality

[Procedure 1]

Is the switch actuator for the inlet door working properly?

↓ NO → Fix the mechanism.

YES

Is the inlet cover switch (MS1S) working normally?

↓ NO → Replace the switch.

YES

Measure the voltage of J10-8 on the saddle stitcher controller PC board when the inlet door is open. Is it 5V?

↓ NO → The inlet cover sensor (PI9S) is broken. Replace it.

YES

Measure the voltage between J1-1 (+) and J1-2 (-) on the saddle stitcher controller PC board. Is it 24 V?

↓ NO → Replace the saddle stitcher controller PC board.

YES

Check the wiring between J19 on the finisher controller PC board and J1 on the saddle stitcher controller PC board. If there is no problem, replace the saddle stitcher controller PC board.

[Procedure 2]

Is the switch actuator for the front door working properly?

↓ NO → Fix the mechanism.

YES

Is the front cover switch (MS2S) working normally?

↓ NO → Replace the switch.

YES

Measure the voltage of J11-12 on the saddle switcher controller PC board when the front door is opened. Is it 5V?

↓ NO → The front door opening/closing sensor is broken. Replace it.

YES

Replace the saddle stitcher controller PC board.

[Procedure 3]

Is the switch actuator for the delivery door working properly?

↓ NO → Fix the mechanism.

YES

Is the delivery cover switch working normally?

↓ NO → Replace the switch.

YES

Measure the voltage of J11-9 on the saddle stitcher controller PC board when the delivery door is opened. Is it 5V ?

↓ NO → The delivery cover sensor (PI3S) is broken. Replace it.

YES

Replace the saddle stitcher controller PC board.

[CC20] Communication error between Finisher and Saddle stitcher section

Is the problem solved by turning OFF and ON the power switch of the equipment?

↓ YES → END

NO

Is the wiring between the finisher controller PC board and the saddle stitcher controller PC board connected?

↓ YES → Connect the wiring.

NO

Measure the voltage between J3-2 (+) and J3-1 (-) on the finisher controller PC board. Is it DC 5V?

↓ NO → Replace the finisher controller PC board.

YES

Replace the saddle stitcher controller PC board.

[CC40] Swing motor abnormality

[Procedure 1]

Rotate the swing motor in reverse by hand. Does the swing guide move up and down?

↓ NO → Fix the swing mechanism.

YES

Is the swing guide closed detection switch-2 (MS6) working normally?

↓ NO → Replace the switch.

YES

Is the swing guide open sensor (PI18) working normally?

↓ NO → Replace the sensor.

YES

Is the swing motor (M7) rotating in reverse at the fixed timing?

↓ NO → Replace the motor.

YES

Replace the finisher controller PC board.

[Procedure 2]

Is the safety zone switch (MS3) working normally?

↓ NO → Replace the switch.

YES

Is the safety zone switch (MS3) correctly pressed?

↓ NO → Fix the mechanism.

YES

Is the swing guide closed detection switch-2 (MS6) working normally?

↓ NO → Replace the switch.

YES

Is the swing guide closed detection switch-2 (MS6) correctly pressed?

↓ NO → Fix the mechanism.

YES

Replace the finisher controller PC board.

[Procedure 3]

Is the swing motor clock sensor (PI20) working normally?

↓ NO → Replace the sensor.

YES

MJ-1027/1028:

Does the voltage between J11-6 and -7 on the finisher controller PC board become 24V when the swing motor starts rotating?

MJ-1029:

Does the voltage between J9-6 and -7 on the finisher controller PC board become 24V when the swing motor starts rotating?

↓ NO → Replace the finisher controller PC board.

YES

Is the wiring between the swing motor and finisher controller PC board correct?

↓ YES → Correct the wiring.

NO

Replace the swing motor.

[CC50] Horizontal registration motor abnormality

Is the horizontal registration home position sensor (PI1P) working normally?

↓ NO → Replace the sensor.

YES

Is the wiring between the finisher controller PC board and horizontal registration home position sensor (PI1P) correct?

↓ NO → Correct the wiring.

YES

Is there any problem with the horizontal registration mechanism?

↓ YES → Fix the mechanism.

NO

Is the problem solved by replacing the horizontal registration motor (M2P)?

↓ YES → END

NO

Is the problem solved by replacing the punch driver PC board?

↓ YES → END

NO

Replace the finisher controller PC board.

[CC60] Punch motor abnormality

Is the punch motor clock sensor ((PI2P) working normally?

↓ NO → Replace the sensor.

YES

Is the punch home sensor (PI3P) working normally?

↓ NO → Replace the sensor.

YES

Is the wiring between the punch home sensor (PI3P) and finisher controller PC board correct?

↓ NO → Correct the wiring.

YES

Is the punching mechanism normal?

↓ YES → Fix the mechanism.

NO

Is the problem solved by replacing the punch motor (M1P) ?

↓ YES → END

NO

Is the problem solved by replacing the punch driver board?

↓ YES → END

NO

Replace the finisher controller PC board.

[CC80] Rear alignment motor abnormality [MJ-1029]

Is the alignment guide home position sensor (PI29) working normally?

↓ NO → Replace the sensor.

YES

Is the wiring between the finisher controller PC board and the alignment motor (M11) correct?

↓ YES → Correct the wiring.

NO

Is there any mechanical problem with the alignment guide movement path?

↓ YES → Fix the mechanism.

NO

Is the problem solved by replacing the alignment motor?

↓ NO → Replace the finisher controller PC board.

YES

END

[CCC1] Communication error between Inserter Unit and Finisher

Is the harness between the finisher controller PC board and the inserter control board normal?

↓ NO → Replace the harness.

YES

Is 5V output to CN13-5 on the inserter control board?

↓ YES → Replace the finisher control board.

NO

Replace the inserter control board.

[CCD1] Inserter EEPROM abnormality

Is the conductor pattern around IC5 on the inserter control board short- or open-circuited?

↓

YES

1. Replace the inserter control board.
2. Perform the inserter tray volume adjustment.

[CCE1] Inserter fan motor abnormality

Is the harness between the inserter control board and inserter fan normal?

↓ NO → Replace the harness.

YES

Is the conductor pattern around Q11, Q16 and CN8 on the inserter control board short circuited or open circuited?

↓ NO → Replace the inserter fan.

YES

Replace the inserter control board.

[CDE0] Paddle motor abnormality

Is the paddle home position sensor (PI26) working normally?

↓ NO → Replace the sensor.

YES

Is the wiring between the finisher controller PC board and the paddle motor (M14) correct?

↓ YES → Correct the wiring.

NO

Is the paddle drive mechanism normal?

↓ YES → Fix the mechanism.

NO

Is the problem solved by replacing the paddle motor?

↓ NO → Replace the finisher controller PC board.

YES

END

[CF00] Belt escape unit home position error detection [MJ-1029]

Check the Knurled belt home position sensor (PI28). Does the sensor operate normally?

↓ NO → Replace the sensor.

YES

Is the wiring between the finisher controller PC board and Knurled belt motor (M13) normal?

↓ NO → Repair the wiring.

YES

Is there any abnormality in the belt escape mechanism?

↓ NO → Check the assembly and repair the mechanism.

YES

Does it improve when the Knurled belt motor (M13) is replaced?

↓ NO → Replace the finisher controller PC board.

YES

End

[CF10] Undefined error code processing

- (1) Is the error recovered when the power of the equipment is turned OFF and then back ON?
- (2) If not as in step 1, check if the LGC board and IPC board are connected correctly.
- (3) If the error has still not been recovered in step 2, check if there is any defect in the LGC board, IPC board or finisher control board. If not, replace the LGC board, IPC board or finisher control board.

5.2.13 Service call for others

[C360] Wire cleaner drive motor abnormality

- (1) Check if the main charger is not disconnected.
- (2) Check if the wire cleaner drive motor is driving.
- (3) Is the wire cleaner position detection switch working?
- (4) Replace the LGC board.

[C370] Transfer belt cam motor abnormality

- (1) Is the transport belt unit working normally? (there is no extraneous material or toner clod).
- (2) Check if the connector of the transfer belt cam motor is not disconnected.
- (3) Check if the connector CN335 on the LGC board is disconnected.
- (4) Check if the fuse on the LVPS has blown.
- (5) Check if the transfer belt release detection sensor and transfer belt contact detection sensor is working properly.
- (6) Replace the transfer belt cam motor.
- (7) Replace the LGC board.

[C5A1] NVRAM data abnormality (LGC board)

- (1) Check if the NVRAM has been installed properly.
- (2) Check if the conductor patterns on the NVRAM is short circuited or open circuited.
- (3) Replace the NVRAM.
- (4) Replace the LGC board.

[C940] Engine-CPU is abnormality

Is the "Call for Service" displayed even after the power is turned OFF and back ON?

↓ NO → Leave it and see what happens.

YES

1. Check if the circuit pattern between the Engine-CPU and FROM is short circuited or open circuited.
2. Replace the LGC board if this error occurs frequently.

[C970] High-voltage transformer leakage abnormality

- (1) Is the main charger installed securely?
- (2) Check if the spring of high-voltage supply contact point is deformed.
- (3) Check if the main charger wire is broken or the main charger grid is deformed.
- (4) Check if any foreign matters is on the main charger win or the main charger grid.
- (5) Replace the High-voltage transformer.
- (6) Replace the LGC board.

[CD10] Cleaning brush drive motor abnormality

- (1) Check if the cleaning brush, recovery toner transport auger and recycle toner transport auger are not locked (no extraneous material or toner clod in both the toner transport sections at the cleaner unit and recycle toner unit).
- (2) Is the cleaning brush drive motor (M13) disconnected?
- (3) Check if the connector (CN337) on the LGC board and connector pins are not disconnected.
- (4) Replace the cleaning brush drive motor and recycle toner transport motor (M8).
- (5) Replace the LGC board.

[CD20] Used toner transport motor abnormality

- (1) Check if the transport auger is not locked (there is no extraneous material or toner clod).
- (2) Is the toner bag full detection sensor (S11) working normally?
- (3) Is the used toner transport motor (M9) disconnected?
- (4) Check if the connector (CN333) on the LGC board and connector pins are not disconnected.
- (5) Replace the used toner transport motor.
- (6) Replace the LGC board.

[CD30] Recycle toner transport motor abnormality

- (1) Check if the recycle toner transport auger is not locked (no extraneous material or toner clod in both the transport sections at the toner recycle unit).
- (2) Is the Recycle toner transport motor (M8) disconnected?
- (3) Check if the connector (CN337) on the LGC board and connector pins are not disconnected.
- (4) Replace the recycle toner transport motor.
- (5) Replace the LGC board.

[CD40] Toner bag full

- (1) Check the toner bag.
 - Is the toner bag full?
- (2) Check the toner bag full detection sensor (S11).
 - Is the tone full detection sensor working properly?
 - Is the connector not disconnected?
- (3) Check the used toner transport motor.
 - Is the used toner transport motor driving?
 - Does the pulley beside the motor become heavy when it is turned toward the direction of arrow (counterclockwise)?
- (4) Replace the LGC board.
- (5) Release the status counter.
 - Turn the power ON while pressing both the [0] and [8] keys.
 - Press the [START] key after inputting [476] with digital keys.
 - Change the status counter "1", "2" or "3" to "0" and press the [SET] or [INTERRUPT] key ([CD4] released).
 - Check if the copier becomes to a standby state normally when power is turned ON again.
 - In case that the used toner transport motor does not drive or [CD4] is not released when power is turned ON again, do the above procedure after manually turning the pulley beside the motor toward the direction of arrow (counterclockwise) several times.

[CE50] Temperature/humidity sensor abnormality

Is the connector CN338 on the LGC board or the connector of the temperature/humidity sensor (S7) disconnected?

Is the harness between the LGC board and the temperature/humidity sensor disconnected?

↓ YES → Connect the connector securely. Replace the harness.

NO

1. Check the connection of the KEY board and DSP board.
2. Check the connection of the DSP board and LGC board.
3. Replace the temperature/humidity sensor.
4. Replace the LGC board.

[CE90] Drum thermistor abnormality

Is the connector CN337 on the LGC board, or the connector of the drum thermistor disconnected?

Is the harness between the LGC board and the drum thermistor (THM5) disconnected?

↓ YES → Connect the connector securely. Replace the harness.

NO

1. Replace the drum thermistor.
2. Replace the LGC board.

[CF70] New toner transport motor abnormality

- (1) Check if the transport auger and paddle are not locked (no extraneous material or toner clod in both the toner transport sections at the cleaner unit).
- (2) Is the new toner transport motor disconnected?
- (3) Check if the connector of the LGC board and connector Pins are not disconnected.
- (4) Replace the new toner transport motor.
- (5) Replace the LGC board.

[CF80] Hopper motor lockup

- (1) Check if the recycle toner transport motor is not locked (no extraneous material or toner clod in both the toner transport sections at the recycle toner unit).
- (2) Is the disconnected?
- (3) Check if the connector of the LGC board and connector Pins are not disconnected.
- (4) Replace the hopper motor.
- (5) Replace the LGC board.

[F090] SRAM abnormality on SYS board

- (1) Turn the power OFF and start up the Setting Mode (08).
- (2) When "SRAM ERROR DOES IT INITIALIZE" is displayed on the LCD, check the destination and then press the [START] button. If the destination is not correct, key in the correct one and then press the [START] button.
- (3) After the confirmation message is displayed on the LCD, press the [INTERRUPT] button (to initialize the SRAM).
- (4) Perform the panel calibration (08-692).
- (5) Perform the initialization at the software version upgrade (08-947).

- (6) Enter the serial number (08-995). Be sure that the serial number is the same as that on the identification label attached on the rear cover of the equipment.

Note:

The MAC address of the equipment is generated based on this serial number. Entering the incorrect serial number may result in an inability to access the network due to an invalid MAC address.

- (7) Initialize the NIC information (08-693).
- (8) Turn the power OFF and then start up with the Adjustment mode (05).
- (9) Turn the power OFF and then back ON. If the error is not recovered, replace the SRAM on the SYS board.

[F100] HDD format error

- (1) Check if the HDD is mounted.
- (2) Check if the specified HDD is mounted.
- (3) Check if the connector pins of the HDD are bent.
- (4) Check if the power supply connector is disconnected.
- (5) Check if the connector CN109 and CN114 on the SYS board is disconnected.
- (6) Replace the harness.
- (7) Initialize the HDD. (Key in "2" at 08-690.)
- (8) Replace the HDD.
- (9) Replace the SYS board.

[F101] HDD unmounted

[F102] HDD boot error

[F103] HDD transfer time-out

[F104] HDD data error

[F105] other HDD error

- (1) Check if the connectors of the HDD are disconnected.
- (2) Check if the connector pins are disconnected or the wires of harnesses are broken.
- (3) Perform the bad sector check (08-694). If the check result is OK, recover the data in the HDD. If the check result is failed, replace the HDD.
- (4) Replace the SYS board.

[F106] Point and Print partition damage

- (1) Turn the power OFF and start up the Setting Mode (08).
- (2) Key in "662" and press the [START] button. (Partition clearing is performed.)
- (3) Restart the equipment.
- (4) Access TopAccess. Click the [Administration] tab, and then click the Maintenance Menu to open. Then install the "Point and Print" driver.

[F107] /BOX partition damage

Initialize the Electronic Filing using the Setting Mode (08-666).

[F108] /SHA partition damage

Initialize the shared folder using the Setting Mode (08-667).

[F120] Database abnormality


- (1) Rebuild the databases. (Perform 08-684.)
- (2) If the error is not recovered, initialize the HDD. (Key in "2" at 08-690.)

[F130] Invalid MAC address

Compare the serial number of the equipment with a number displayed in 08-995. If they are different, enter the correct serial number at 08-995.

[F200] Data Overwrite Enabler (GP-1070) is disabled

Perform firmware installation (some firmware: OS, HDD, SYS, Laser Firmware, PFC Firmware, Engine Main Firmware, and Scanner Firmware) with the USB media.

 P.6-5 "6.1 Firmware Updating with USB Media"

- * When the function of the Data Overwrite Enabler (GP-1070) is deleted from the equipment, the service call "F200" occurs.

[F350] SLG board abnormality


- (1) Check if the conductor pattern on the SLG board is short circuited or open circuited.
- (2) If there is no problem found in the check (1) above, check the combination of the firmware version of the system ROM, engine ROM and scanner ROM. Reinstall the scanner ROM firmware.
- (3) If an error occurs after step (2) above has been performed, replace the SLG board.

[F400] SYS board cooling fan abnormality

- (1) Check if the fan is rotating properly.
- (2) If not, check if any foreign object is adhered.
- (3) Are the connector CN112 and the relay connector of the SYS board connected securely?
- (4) Replace the SYS board cooling fan.

5.2.14 Error in Internet FAX / Scanning Function

Notes:

1. When initializing the Electronic Filing (Setting Mode (08-666)), all data in the Electronic Filing are erased. Back up the data in the Electronic Filing by using the Electronic Filing Function of TopAccess before the initialization.
2. When initializing the shared folder (Setting Mode (08-667)), all data in the shared folder are erased. Back up the data in the shared folder by using Explorer before the initialization.
3. When formatting the HDD (Setting Mode (08-690)), all data in the shared folder, Electronic Filing, Address Book, template, etc. are erased. Back up these data before the initialization. Note that some of data cannot be backed up refer to  P.5-158 "[3] Precautions and procedures when replacing the HDD" for the details.

[1] Internet FAX related error (When GM-1180/4180 or GM-2180 is installed)

[1C10] System access abnormality

[1C32] File deletion failure

Turn the power OFF and then back ON. Perform the job in error again.

If the error still occurs, first, check if there are no jobs existing and then perform the HDD formatting (08-690).

[1C11] Insufficient memory

When there are running jobs, perform the job in error again after the completion of the running jobs.

If the error still occurs, turn the power OFF and then back ON, and perform the job again.

[1C12] Message reception error

[1C13] Message transmission error

Turn the power OFF and then back ON. Perform the job in error again.

[1C14] Invalid parameter

When a template is used, form the template again.

If the error still occurs, turn the power OFF and then back ON, and perform the job again.

[1C15] Exceeding file capacity

Reset and extend the "Maximum send to E-mail/iFAX size" or reduce the number of pages and perform the job again.

[1C20] System management module access abnormality

[1C21] Job control module access abnormality

[1C22] Job control module access abnormality

Turn the power OFF and then back ON. Perform the job in error again.

Check if there are no other running jobs and perform the HDD formatting (08-690).

If the recovery is still not completed, replace the SYS board.

[1C30] Directory creation failure**[1C31] File creation failure****[1C33] File access failure**

Check if the access privilege to the storage directory is writable.
Check if the server or local disk has a sufficient space in disk capacity.

[1C40] Image conversion abnormality

Turn the power OFF and then back ON. Perform the job in error again.
Replace the main memory and perform the job again.

[1C60] HDD full failure during processing

Reduce the number of pages of the job in error and perform the job again.
Check if the server or local disk has a sufficient space in disk capacity.

[1C61] Address Book reading failure

Turn the power OFF and then back ON. Perform the job in error again.
Reset the data in the Address Book and perform the job again.

[1C62] Memory acquiring failure

Check if there is any job being performed and perform the job in error again.

Turn the power OFF and then back ON. Perform the job in error again.
Replace the main memory and perform the job again.

[1C63] Terminal IP address unset

Reset the Terminal IP address.
Turn the power OFF and then back ON. Perform the job in error again.

[1C64] Terminal mail address unset

Reset the Terminal mail address.
Turn the power OFF and then back ON. Perform the job in error again.

[1C65] SMTP address unset

Reset the SMTP address and perform the job.
Turn the power OFF and then back ON. Perform the job in error again.

[1C66] Server time-out error

Check if the SMTP server is operating properly.

[1C6D] System error

Turn the power OFF and then back ON. Perform the job in error again.
If the error still occurs, replace the SYS board.

[1C69] SMTP server connection error

Reset the login name or password of SMTP server and perform the job again.
Check if the SMTP server is operating properly.

[1C6A] HOST NAME error

Check if there is an illegal character in the device name.
Delete the illegal character and reset the appropriate device name.

[1C6B] Terminal mail address error

Check if the SMTP authentication method is correct.
Check if there are any illegal characters in the Terminal mail address.
Select the correct SMTP authentication method. Delete the illegal characters and reset the mail address. Then try again.

[1C6C] Destination mail address error

Check if there is an illegal character in the Destination mail address.
Delete the illegal character and reset the appropriate Destination mail address, then perform the job again.

[1C70] SMTP client OFF

Set the SMTP valid and perform the job again.

[1C71] SMTP authentication ERROR

Check that SMTP authentication method, login name and password are correct, then perform authentication again.

[1C72] POP Before SMTP ERROR

Check that both the POP Before SMTP setting and POP3 setting are correct, then perform authentication again.

[1C80] Internet FAX transmission failure when processing E-mail job received

Reset the "Received InternetFax Forward".

[1C81] Onramp Gateway transmission failure

Reset the mail box.

[1C82] Internet FAX transmission failure when processing FAX job received

Reset the "Received Fax Forward".

[1CC1] Power failure

Check if the power cable is connected properly and it is inserted securely.
Check if the power voltage is unstable.

[2] RFC related error
(When GM-1180/4180 or GM-2180 is installed)

[2500] HOST NAME error (RFC: 500) / Destination mail address error (RFC: 500) / Terminal mail address error (RFC: 500)

[2501] HOST NAME error (RFC: 501) / Destination mail address error (RFC: 501) / Terminal mail address error (RFC: 501)

Check if the Terminal mail address and Destination mail address are correct.

Check if the mail server is operating properly.

Turn the power OFF and then back ON. Perform the job in error again.

[2503] Destination mail address error (RFC: 503)

[2504] HOST NAME error (RFC: 504)

[2551] Destination mail address error (RFC: 551)

Check if the mail server is operating properly.

Turn the power OFF and then back ON. Perform the job in error again.

If the error still occurs, replace the SYS board.

[2550] Destination address ERROR (RFC: 550)

Check the destination address, status of mailbox access restriction on the server, etc. then perform authentication again.

[2551] Destination address ERROR (RFC: 551)

Check that the destination address is valid and the mail server works correctly, then perform authentication again.

[2552] From/Destination address ERROR (RFC: 552)

Check the capacity of the mail box in the mail server.

Select "Text" of the original modes for the original data or lower the resolution level and then retransmit.

Or divide the original data into several pieces and retransmit them.

[2553] Destination mail address error (RFC: 553)

Check if there is an illegal character in the mail box in the mail server.

[3] Electronic Filing related error

[2B10] No applicable job error in Job control module

[2B11] JOB status abnormality

[2B20] File library function error

[2B30] Insufficient disk space in /BOX partition

[2BC0] Fatal failure occurred

[2BC1] System management module resource acquiring failure

Erase some data in the Electronic Filing and perform the job in error again (in case of [2B30]).

Turn the power OFF and then back ON. Perform the job in error again.

Check if there are no other running jobs and perform the HDD formatting (08-690).

If the recovery is still not completed, replace the SYS board.

[2B21] Exceeding file capacity

Reset and extend the "Maximum send to E-mail/iFAX size" or reduce the number of pages and perform the job again.

[2B50] Image library error

[2B90] Insufficient memory capacity

Turn the power OFF and then back ON. Perform the job in error again.

If the error still occurs, replace the main memory.

Perform the job in error again.

Check if there are no other running jobs and initialize the Electronic Filing using the Setting Mode (08-666).

[2B31] Status of specified Electronic Filing or folder is undefined or being created/deleted

Check if the specified Electronic Filing or folder exists. (If no, this error would not occur.)

Delete the specified Electronic Filing or folder.

Perform the job in error again.

If the specified Electronic Filing or folder can not be deleted, initialize the Electronic Filing using the Setting Mode (08-666).

[2B32] Electronic Filing printing failure: Specified document can not be printed because of client's access (being edited, etc.)

Check if the specified document exists. (If no, this error would not occur.)

Delete the specified document.

Perform the job in error again.

If the specified document can not be deleted, initialize the Electronic Filing using the Setting Mode (08-666).

[2B51] List library error

Check if the Function List can be printed out.

If it can be printed out, perform the job in error again.

If it can not be printed out, replace the main memory.

If the recovery is still not completed, perform the HDD formatting (08-690).

[2BA0] Invalid Box password

Check if the password is correct.

Reset the password.

When this error occurs when printing the data in the Electronic Filing, perform the printing with the administrator's password.

If the recovery is still not completed or in case of invalid password for the operation other than printing (opening the file, etc.), initialize the Electronic Filing using the Setting Mode (08-666).

[2BA1] A paper size not supported in the Electronic Filing function is being selected

Check the paper size.

[2BB1] Power failure**[2BD0] Power failure occurred during restoring of Electronic Filing**

Check if the power cable is connected properly and it is inserted securely.

Check if the power voltage is unstable.

[2BE0] Machine parameter reading error

Turn the power OFF and then back ON. Perform the job in error again.

[2BF0] Exceeding maximum number of pages

Reduce the number of inserting pages and perform the job again.

[2BF1] Exceeding maximum number of documents

Backup the documents in the box or folder to PC or delete them.

[2BF2] Exceeding maximum number of folders

Backup the folders in the box or folder to PC or delete them.

[4] E-mail related error
(When GM-1180/4180 or GM-2180 is installed)

[2C10] System access abnormality
[2C32] File deletion failure

Turn the power OFF and then back ON. Perform the job in error again.
If the error still occurs, first, check if there are no jobs existing and then perform the HDD formatting (08-690).

[2C11] Insufficient memory

When there are running jobs, perform the job in error again after the completion of the running jobs.
If the error still occurs, turn the power OFF and then back ON, and perform the job again.

[2C12] Message reception error
[2C13] Message transmission error

Turn the power OFF and then back ON. Perform the job in error again.

[2C14] Invalid parameter

When a template is used, form the template again.
If the error still occurs, turn the power OFF and then back ON, and perform the job again.

[2C15] Exceeding file capacity

Reset and extend the "Message size limitation" or reduce the number of pages and perform the job again.

[2C20] System management module access abnormality
[2C21] Job control module access abnormality
[2C22] Job control module access abnormality

Turn the power OFF and then back ON. Perform the job in error again.
Check if there are no other running jobs and perform the HDD formatting (08-690).
If the recovery is still not completed, replace the SYS board.

[2C30] Directory creation failure
[2C31] File creation failure
[2C33] File access failure

Check if the access privilege to the storage directory is writable.
Check if the server or local disk has a sufficient space in disk capacity.

[2C40] Image conversion abnormality
[2C62] Memory acquiring failure

Turn the power OFF and then back ON. Perform the job in error again.
Replace the main memory and perform the job again.

[2C43] Encryption error

Turn the power OFF and then back ON. Perform the job in error again.

[2C44] Encryption PDF enforced mode error

Reset the encryption and perform the job in error again.

If an image file not encrypted is created, consult your administrators.

[2C60] HDD full failure during processing

Reduce the number of pages of the job in error and perform the job again.

Check if the server or local disk has a sufficient space in disk capacity.

[2C61] Address Book reading failure

Turn the power OFF and then back ON. Perform the job in error again.

Reset the data in the Address Book and perform the job again.

[2C63] Terminal IP address unset

Reset the Terminal IP address.

Turn the power OFF and then back ON. Perform the job in error again.

[2C64] Terminal mail address unset

Reset the Terminal mail address.

Turn the power OFF and then back ON. Perform the job in error again.

[2C65] SMTP address unset

Reset the SMTP address and perform the job.

Turn the power OFF and then back ON. Perform the job in error again.

[2C66] Server time-out error

Check if the SMTP server is operating properly.

[2C6D] System error

Turn the power OFF and then back ON. Perform the job in error again.

If the error still occurs, replace the SYS board.

[2C69] SMTP server connection error

Reset the login name and password of SMTP server and perform the job again.
Check if the SMTP server is operating properly.

[2C6A] HOST NAME error (No RFC error)

Check if there is an illegal character in the device name.
Delete the illegal character and reset the appropriate device name.

[2C6B] Terminal mail address error

Check if the SMTP authentication method is correct.
Check if there are any illegal characters in the Terminal mail address.
Select the correct SMTP authentication method. Delete the illegal characters and reset the mail address. Then try again.

[2C6C] Destination mail address error (No RFC error)

Check if there is an illegal character in the Destination mail address.
Delete the illegal character and reset the appropriate Destination mail address, then perform the job again.

[2C70] SMTP client OFF

Set the SMTP valid and perform the job again.

[2C71] SMTP authentication ERROR

Check that SMTP authentication method, login name and password are correct, then perform authentication again.

[2C72] POP Before SMTP ERROR

Check that both the POP Before SMTP setting and POP3 setting are correct, then perform authentication again.

[2C80] E-mail transmission failure when processing E-mail job received

Reset the "Received InternetFax Forward".

[2C81] Process failure of FAX job received

Reset the setting of the mail box or "Received InternetFax Forward".

[2CC1] Power failure

Check if the power cable is connected properly and it is inserted securely.
Check if the power voltage is unstable.

[5] File sharing related error
(When GM-1180/4180 or GM-2180 is installed)

[2D10] System access abnormality
[2D32] File deletion failure
[2DA6] File deletion failure
[2DA7] Resource acquiring failure

Delete some files in the shared folder by using Explorer because of automatic/manual file deletion failure (in case of [2DA6])

Turn the power OFF and then back ON. Perform the job in error again.

If the error still occurs, first, check if there are no jobs existing and then perform the HDD formatting (08-690).

[2D11] Insufficient memory

When there are running jobs, perform the job in error again after the completion of the running jobs.

If the error still occurs, turn the power OFF and then back ON, and perform the job again.

[2D12] Message reception error
[2D13] Message transmission error

Turn the power OFF and then back ON. Perform the job in error again.

[2D14] [2D61] Invalid parameter

When a template is used, form the template again.

If the error still occurs, turn the power OFF and then back ON, and perform the job again.

[2D15] Exceeding document number

Delete some documents in the folder, and then perform the job in error again.

[2D20] System management module access abnormality
[2D21] Job control module access abnormality
[2D22] Job control module access abnormality
[2D60] File library access abnormality

Delete some files in the shared folder by using Explorer because of automatic/manual file deletion failure (in case of [2DA6])

Turn the power OFF and then back ON. Perform the job in error again.

Check if there are no other running jobs and perform the HDD formatting (08-690).

If the recovery is still not completed, replace the SYS board.

[2D30] Directory creation failure
[2D31] File creation failure
[2D33] File access failure

Check if the access privilege to the storage directory is writable.

Check if the server or local disk has a sufficient space in disk capacity.

[2D40] Image conversion abnormality

Turn the power OFF and then back ON. Perform the job in error again.

Replace the main memory and perform the job again.

If the error still occurs, first, check if there are no jobs existing and then initialize the shared folder using the Setting Mode (08-667).

[2D43] Encryption error

Turn the power OFF and then back ON. Perform the job in error again.

[2D44] Encryption PDF enforced mode error

Reset the encryption and perform the job in error again.

If an image file not encrypted is created, consult your administrators.

[2D62] File server connection error

Check the IP address or path of the server.

Check if the server is operating properly.

[2D63] Invalid network path

Check the network path.

If the path is correct, turn the power OFF and then back ON, and perform the job again.

[2D64] Login failure

Reset the login name and password. Perform the job.

Check if the account of the server is properly set up.

[2D65] Exceeding documents in folder: Creating new document is failed

Delete some documents in the folder.

[2D66] HDD full failure during processing

Reduce the number of pages of the job in error and perform the job again.

Check if the server or local disk has a sufficient space in disk capacity.

[2D67] FTP service not available

Check if the setting of FTP service is valid.

[2D68] File sharing service not available

Check if the setting of SMB is valid.

[2DC1] Power failure

Check if the power cable is connected properly and it is inserted securely.
Check if the power voltage is unstable.

[6] E-mail reception related error (when GM-1180/4180 or GM-2180 is installed)

[3A10] [3A11] [3A12] E-mail MIME error

The format of the mail is not corresponding to MIME 1.0.
Request the sender to retransmit the mail in the format corresponding to MIME 1.0.

[3A20] [3A21] [3A22] E-mail analysis error

[3B10] [3B11] [3B12] E-mail format error

[3B40] [3B41] [3B42] E-mail decode error

These errors occur when the mail data is damaged from the transmission to the reception of the mail.
Request the sender to retransmit the mail.

[3A30] Partial mail time-out error

The partial mail is not received in a specified period of time.
Request the sender to retransmit the partial mail, or set the time-out period of the partial mail longer.

[3A40] Partial mail related error

The format of the partial mail is not corresponding to this equipment.
Request the sender to remake and retransmit the partial mail in RFC2046 format.

[3A50] [3A51] [3A52] Insufficient HDD capacity error

[3A60] [3A61] [3A62] Warning of insufficient HDD capacity

These errors occur when the HDD capacity is not sufficient for a temporary concentration of the jobs, etc.

Request the sender to retransmit after a certain period of time, or divide the mail into more than one.
Insufficient HDD capacity error also occurs when printing is disabled for no printing paper.

In this case, supply the printing paper.

[3A70] Warning of partial mail interruption

This error occurs when the partial mail reception setting becomes OFF during the partial mail reception.
Reset the partial mail reception setting ON and then request the sender to retransmit the mail.

[3A80] [3A81] [3A82] Partial mail reception setting OFF

Reset the partial mail reception setting ON and then request the sender to retransmit the mail.

[3B20] [3B21] [3B22] Content-Type error

The format of the attached file is not supported by this equipment (TIFF-FX).
Request the sender to retransmit the file in TIFF-FX.

[3B30] [3B31] [3B32] Charset error

These errors occur when the standard of the Charset is other than ISO-8559-1 or ISO-8559-2.
Request the sender to reformat the Charset into either of the standards described above and then retransmit the mail.

[3C10] [3C11] [3C12] [3C13] TIFF analysis error

These errors occur when the mail data is damaged from the transmission to the reception of the mail, or when the format of the attached file is not supported by this equipment (TIFF-FX).
Request the sender to retransmit the mail.

[3C20] [3C21] [3C22] TIFF compression error

The compression method of the TIFF file is not acceptable for this equipment. (Acceptable: MH/MR/MMR/JBIG)
Request the sender to retransmit the file in the acceptable compression method.

[3C30] [3C31] [3C32] TIFF resolution error

The resolution of the TIFF file is not acceptable for this equipment. (Acceptable: 200 x 100, 200 x 200, 200 x 400, 400 x 400, 300 x 300 or equivalent)
Request the sender to retransmit the file in the acceptable resolution.

[3C40] [3C41] [3C42] TIFF paper size error

The paper size of the TIFF file is not acceptable for this equipment. (Acceptable: A4, B4, A3, B5, LT, LG, LD or ST)
Request the sender to retransmit the file in the acceptable paper size.

[3C50] [3C51] [3C52] Offramp destination error

These errors occur when the FAX number of the offramp destination is incorrect.
Request the sender to correct the FAX number of offramp destination and then retransmit the mail.

[3C60] [3C61] [3C62] Offramp security error

These errors occur when the FAX number of the offramp destination is not on the Address Book.
Check if the FAX number of the offramp destination is correctly entered or the number has not been changed.

[3C70] Power failure error

Check if the mail is recovered after turning ON the power again.
Request the sender to retransmit the mail if it is not recovered.

[3D10] Destination address error

Check if the setting of the server or DNS is correct. Correct if any of the setting is incorrect.
When the content of the setting is correct, confirm the sender if the destination is correct.

[3D20] Offramp destination limitation error

Inform the sender that the transfer of the FAX data over 40 is not supported.

[3D30] FAX board error

This error occurs when the FAX board is not installed or the FAX board has an abnormality.
Check if the FAX board is correctly connected.

[3E10] POP3 server connection error

Check if the IP address or domain name of the POP3 server set for this equipment is correct, or check if POP3 server to be connected is operating properly.

[3E20] POP3 server connection time-out error

Check if POP3 server to be connected is operating properly.
Check if the LAN cable is correctly connected.

[3E30] POP3 login error

Check if the POP3 server login name and password set for this equipment are correct.

[3E40] POP3 Login Type ERROR

Check that the login type (Auto, POP3 or APOP) to the POP3 server is correct.

[3F00] [3F10] [3F20] [3F30] [3F40] File I/O error

These errors occur when the mail data is not transferred properly to the HDD.
Request the sender to retransmit the mail.
Replace the HDD if the error still occurs after retransmission.

5.2.15 Error in Printer Function

Printer function error (when GM-1180/4180 or GM-2180 is installed)

[4030] No printer kit/Invalid

Install the print kit and perform the job again.
Register it officially and perform the job again.

[4031] HDD full failure during printing

Reduce the number of pages of the job in error and perform the job again.
Check if the server or local disk has a sufficient space in disk capacity.

[4032] Private-print-only error

Select "Private", and then perform the printing again.

[4033] Printing data storing limitation error

Select "Print", and then perform the printing again.

[4034] e-Filing storing limitation error

Select "Print", and then perform the printing again.

[4035] Local file storing limitation error

Select "Remote" (SMB/FTP) for the destination of the file to save.

[4036] User authentication error

Perform the authentication or register as a user, and then perform the printing again.

[4037] Hardcopy security printing error

Hardcopy security printing cannot be performed because the function is restricted in the self-diagnosis mode.

[4038] Hold-print-only error

Select "Hold", and then perform the printing again.

[4039] Private/Hold-print-only error

Select "Private" or "Hold", and then perform the printing again.

[4040] Not being authorized to perform JOB

Confirm the administrator for the JOB authorization.

[4050] Problem in LDAP server connection or LDAP server authorization settings

Confirm the administrator for the LDAP server connection or LDAP server authorization settings.

[4300] Job execution error due to functional restrictions

USB direct printing cannot be performed because the function is restricted by the self-diagnosis. Check the self-diagnosis setting.

[4301] File conversion error

The format of this file (other than PDF and JPEG) is not supported in USB direct printing, or the file is invalid. Check the file.

[4310] Double-sign encoding error

Printing using this function cannot be performed due to a decoding process error which occurs because the PDF file is encrypted incorrectly or encrypted in a language not supported.

[4311] Printing not permitted

This file cannot be printed using this function due to the encrypted PDF file not permitting printing or permitting it only with a low resolution.

[4312] Password mismatching

The entered password is neither matched with a user password nor an owner password. Check the password again.

[A221] Print job cancellation

This message appears when deleting the job on the screen.

[A222] Print job power failure

When there are running jobs, perform the job in error again after the completion of the running jobs. If the error still occurs, turn the power OFF and then back ON, and perform the job again.

[A290] Limit over ERROR**[A291] Limit over ERROR****[A292] Limit over ERROR**

Clear the limit counter.

5.2.16 Troubleshooting for image quality control

[Corrective action when "Service Recommended for IQC" is blinked]

Check the control status of the image quality control (05-291).

<When "2" is displayed: pattern error>

The pattern is not read or formed correctly.

<When "4" is displayed: sensor error>

The sensor output is out of the acceptable range.

(1) Corrective action for pattern error

Output the test print (04-113 : 33-gradation pattern in subscanning direction).

Check the value for 05-294 and 05-295. Either of the values is 630 or more.

| NO → <Stains on the test print>
| If the cleaning blade is not installed to the cleaner unit properly, install it
| correctly.
| If the cleaning blade is damaged, etc., replace it, and then perform the
| image quality control enforcement / condition check (image check;
| described later).
| <The image density of the test print is remarkably high>
| Replace the LGC board or PLG board, and then perform the image
| quality control enforcement / condition check (image check; described
| later).
| <The test print is normal>
| Replace the image quality sensor, and then perform the image quality
| control enforcement / condition check (image check; described later).
↓

YES

Is the printout blank?

| YES → Check the output of 05-205 (developer bias) and 05-210 (main charger
| grid bias). The output reference value of the developer bias is $-500 \pm 22V$
| and that of the main charger grid bias is $-394 \pm 22V$. If the output is
| outside of the range, replace the high-voltage transformer. If it is within
| the allowance range, replace the PLG board or LGC board (See "
| Troubleshooting for the Image"). When the equipment is ready for
| printing, perform image quality control enforcement / condition check
| (image check; described later).
↓

NO

Is the image density of the image uneven or remarkably low?

| NO → 1. Perform the test print (04-113) again. If the printout is blank, return to
| the previous step "Is the printout blank?".
| 2. If the test print is normal, check the surface of the image quality
| sensor, clean it or replace it, and then perform the image quality
| control enforcement / condition check (image check; described later).
↓

YES

(The following procedure is for the normal image printing. See " Troubleshooting for the Image".)

Is the developer unit inserted securely and locked properly?

↓ NO → Insert the developer unit securely until it locks. When the normal image is able to be output, perform the image quality control enforcement / condition check (image check; described later).

YES

Is developer material in the developer remarkably low or any foreign matter in the developer?

↓ YES → Replace the developer material and the developer unit if needed. When the normal images is able to be output, perform the image quality control enforcement / condition check (image check; described later).

NO

Is the main charger wrongly installed or the main charger grid stained?

↓ YES → Install the main charger properly. Clean the main charger grid. If the main charger grid is damaged, replace it. When the normal image is able to be output, perform image quality control enforcement / condition check (image check; described later).

NO

Is there any stain or dent on the surface of the photoconductive drum?

↓ YES → Clean the photoconductive drum or replace it. Replace the cleaner unit and developer unit if needed. When the normal image is able to be output, perform the image quality control enforcement / condition check (image check; described later).

NO

Replace the LGC board, and perform the image quality control enforcement / condition check (image check; described later).

Replace the laser unit, and perform the image quality control enforcement / condition check (image check; described later).

Replace the HVT board, and perform the image quality control enforcement / condition check (image check; described later).

(2) Sensor abnormality

Perform the test print. (04-113: Secondary scanning direction 33 gradation steps)

Is solid black image is printed?

↓ YES → Clear the problem so that the correct image is printed. See " Troubleshooting for the Image" for details. When the correct image is able to be output, perform the image quality control enforcement / condition check (image check; described later).

NO

Is there any stain or dent on the surface of the photoconductive drum?

- | YES → 1. Is there any stain on the surface of the photoconductive drum facing
| the surface of the image quality sensor? If there is, check that the
| cleaning blade of the cleaner unit is installed properly. If the cleaning
| blade is damaged, replace it, and then perform the image quality
| control enforcement / condition check (image check; described later).
| 2. Check that there is no dent on the surface of the photoconductive
| drum facing the surface of the image quality sensor. If there is,
| replace the photoconductive drum, and then perform the image
| quality control enforcement / condition check (image check;
| described later).
↓

NO

Is the image quality sensor wrongly installed to the cleaner?

- | YES → Install the image quality sensor to the cleaner unit properly, and perform
| the image quality control enforcement / condition check (image check;
↓ described later).

NO

Is the surface of the image quality sensor stained?

- | YES → Clean the surface of the image quality sensor. Replace it if necessary,
| and then perform the image quality control enforcement / condition
↓ check (image check; described later).

NO

Are any of the following disconnected: the connector of the image quality sensor, the connector CN337 and CN342 of the LGC board, the connector CN134 and CN130 of the SYSIF board, the connector CN104 of the SYS board?

- | YES → Plug the connector again, and then perform the image quality control
↓ enforcement / condition check (image check; described later).

NO

Is the harness between the LGC board and the image quality sensor, the LGC board and the SYSIF board or LGC board and the switching power supply open-circuited?

- | YES → Replace the open-circuited harness, and then perform the image quality
↓ control enforcement / condition check (image check; described later).

NO

Is the power voltage for the 12V power normal?

- | NO → Check the power system, replace the switching power supply, and then
| perform the image quality control enforcement / condition check (image
↓ check; described later).

YES

Is the value for the image quality sensor output value (Light source off) 05-292 outside the range between 50 and 230?

Is the value for the image quality sensor light amount adjustment result 05-296 "0" or "255"?

Is the value for the image quality sensor light amount adjustment result 05-296 other than "0" or "255"?

Is the power voltage output (Vout2) that is created in the sensor outside the range?

- | YES → 1. Is toner adhered to the connector that connects the cleaner unit and
| this equipment and the connector almost short-circuited or
| disconnected? Replace the harness if needed, and then perform the
| image quality control enforcement / condition check (image check;
| described later).
| 2. Replace the LGC board, and perform the image quality control
| enforcement / condition check (image check; described later).
| 3. Replace the image quality sensor, and perform the image quality
| control enforcement / condition check (image check; described later).
↓

NO

Replace the LGC board, and perform the image quality control enforcement / condition check (image check; described later).

<<Procedure of the "enforced performing of image quality control"/"control status check">>

Set the value for the number of times of sensor abnormality (08-800) to "0".

Set the value for the Image quality closed-loop control (08-1809), (08-1810) to "0" (valid).

Perform the "enforced performing of image quality control" (05-290).

Check the control status of the image quality control (05-291) and number of times of sensor abnormality (08-800).

Are both values for 05-291 and 08-800 "0"?

Perform the test print (04-113: Secondary scanning direction 33 gradation steps). Is the image printed properly?

↓ YES → END

NO

See " Troubleshooting for the Image" and clear the problem.

- Is the value for 05-291 "1"?
Attempt the procedure again from the beginning.
- Is the value for 05-291 "2"?
Pattern abnormality. Go back to "(1) Pattern abnormality " and clear the problem.
- Is the value for 05-291 "4"?
Sensor abnormality. Go back to "(2) Sensor abnormality" and clear the problem.
- * When the value for 05-242 (Drum surface potential sensor control status) is other than "0", there is a problem on the drum surface potential control. Clear the problem with the troubleshooting for surface potential control related.

<<Procedure of the "enforced performing of image quality control"/"control status check">>

Set the value for the number of times of sensor abnormality (08-800) to "0".

Set the value for the Image quality closed-loop control (08-1809), (08-1810) to "0" (valid).

Perform the "enforced performing of image quality control" (05-290).

Check the control status of the image quality control (05-291) and number of times of sensor abnormality (08-800).

Are both values for 05-291 and 08-800 "0"?

Perform the test print (04-113: Secondary scanning direction 33 gradation steps). Is the image printed properly?

↓ YES → END

NO

See " Troubleshooting for the Image" and clear the problem.

- Is the value for 05-291 "1"?
Attempt the procedure again from the beginning.
- Is the value for 05-291 "2"?
Pattern abnormality. Go back to "(1) Pattern abnormality " and clear the problem.
- Is the value for 05-291 "4"?
Sensor abnormality. Go back to "(2) Sensor abnormality" and clear the problem.
- * When the value for 05-242 (Drum surface potential sensor control status) is other than "0", there is a problem on the drum surface potential control. Clear the problem with the troubleshooting for surface potential control related.

5.2.17 Troubleshooting for surface potential control

[Corrective action when "Service Recommended for SPC" is blinked]

Check the control status of the surface potential sensor (05-242).

<When "2" is displayed: sensor error>

The sensor detection value is abnormal or the sensor output value is not changed even though the main charger bias value is changed.

Is the connector of the surface potential sensor connected properly?

Is the main charger attached poorly?

Are leaks and such occurring?

I YES → After removing, if any, dust and correcting the defect, perform the
↓ "surface potential sensor control check" (described later).

NO

Is the connector of LGC board CN337, CN342 or that of SYSIF board CN134, CN130, SYS board CN104 disconnected?

I YES → Connect them properly again, and perform drum surface potential
↓ sensor control / condition check (described later).

NO

Is the main charger wrongly installed?

Are the main charger grid/wire wrongly installed?

Is the charger leakage, etc. occurring?

I YES → Remove the dusts or toner stains if any, and then install them properly.
I Perform the drum surface potential sensor control / condition check
↓ (described later)

NO

Check the value for 05-244. Is the value for 05-244 within the range between 400 and 800?

I NO → 1. Perform the charging transformer output (05-210) and check that the
I value is within the range of $-500 \pm 12V$. If the voltage is outside the
I range, replace the HVT board and perform the drum surface
I potential sensor control / condition check (described later).
I 2. When the charging transformer output is within the range of -
I $500 \pm 12V$, replace the drum surface potential sensor, and perform the
I drum surface potential sensor control / condition check (described
I later).
I 3. If the problem still occurs, replace the LGC board, and perform the
I drum surface potential sensor control/condition check (described
I later).
↓

YES

Check the value for 05-268 and 05-269. Is the value which is subtracted the value for 05-268 from the one for 05-269 "400" or more?

- | NO →
1. Replace the HVT board, and perform the drum surface potential sensor control / condition check (described later).
 2. Replace the photoconductive drum, and perform the drum surface potential sensor control / condition check (described later).
 3. Replace the surface potential sensor, and perform the drum surface potential sensor control / condition check (described later).
 4. If the problem still occurs, replace the LGC board, and perform the drum surface potential sensor control / condition check (described later).
- |
- |
- |
- |
- |
- |
- ↓

YES

Replace the LGC board and perform the drum surface potential sensor control / condition check (described later).

<<Procedure of the "surface potential sensor control check">>

1. Set the value for the number of detected abnormalities of the drum surface potential control (08-1812) to "0".
2. Set the value for the drum surface potential setting (08-1813) to "0" (valid).
3. Perform the "enforced performing of image quality control" (05-290).
4. Check the status of drum surface potential sensor control (05-242) and number of drum surface potential sensor control abnormality (08-1812).

Are both values for 05-242 and 08-1812 "0"?

Perform the test print (04-113: Secondary scanning direction 33 gradation steps). Is there any problem with the image?

↓ YES → End

NO

See " Troubleshooting for the Image" to clear the problem.

- Is the value for 05-242 "1"?
Repeat the procedure from the beginning.
 - Is the value for 05-242 "2"?
Drum surface potential sensor control abnormality. Go back to "Troubleshooting for surface potential control related" and clear the problem.
- * When 05-291 (Status of image quality control) is other than "0", there is a problem with the image quality control. Clear the problem with the trouble shooting for the image quality control related.

5.2.18 Troubleshooting for remaining toner detection sensor

Take an appropriate countermeasure for the following cases:

- When a message notifying the toner cartridge needs to be replaced is displayed and the cartridge is replaced accordingly, but the message remains displayed
- When a message notifying the toner cartridge needs to be replaced is displayed and the equipment simultaneously stops its operation during the process of a job (The equipment should keep its operation for a while even if such message is displayed.)
- The Auto Supply Order function does not work.

Countermeasure

1. Check if the connector or connector pins on the toner drive are disconnected.
2. Replace the remaining toner detection sensor.

5.3 Troubleshooting for the Image

If any abnormal image occurs in the test copying, perform trouble shooting for the image.

1. Abnormality of image density / Gray balance

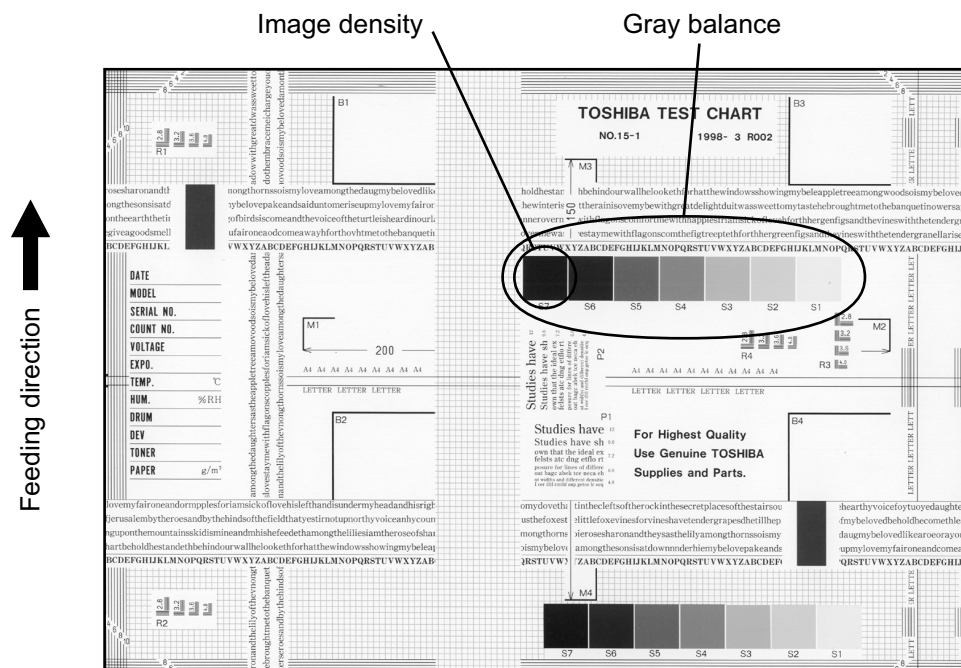


Fig. 5-1

Defective area	Step	Check items	Prescription
Density/Gray balance	1	Check the density/gray balance.	Adjust the density.
Printer section	2	Check test print image (04-113).	Go to step 4 if there is any problem on image.
Scanner	3	Are the original glass, mirrors and lens dirty?	Clean them.
Printed image	4	Is the image faded?	Perform troubleshooting for faded image.
	5	Is background fogging occurring?	Perform troubleshooting for background fogging.
	6	Is there a blotch on the image?	Perform troubleshooting for blotched image.
	7	Is the image transferred normally?	Perform troubleshooting for abnormal transfer.

2. Background fogging

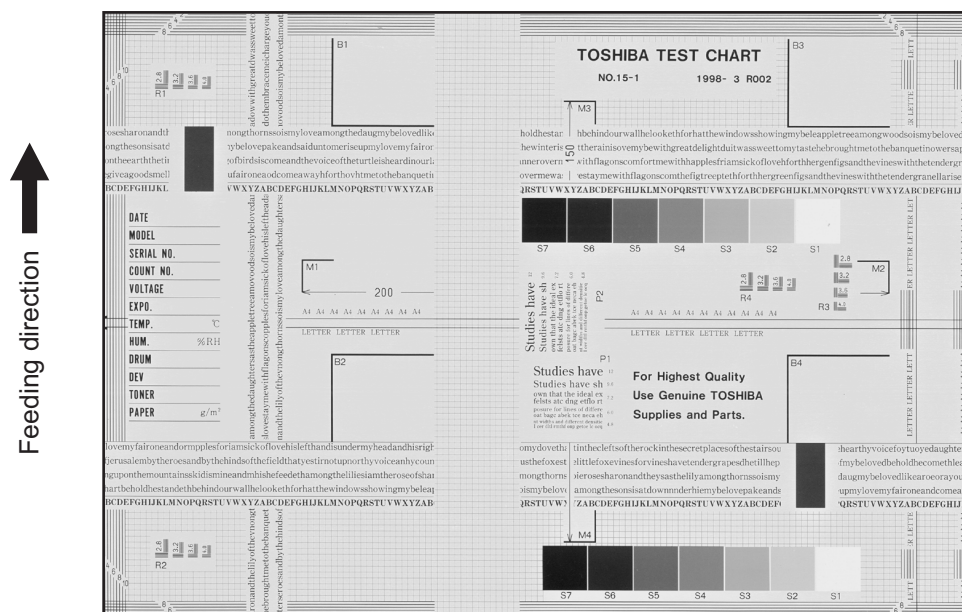


Fig. 5-2

Defective area	Step	Check items	Prescription
Density reproduction	1	Check the reproduction of the image density.	Adjust the density.
Printer section	2	Check test print image (04-113).	Go to step 4 if there is any problem on image.
Parameter adjustment value	3	Check the image processing parameter.	Check the range correction setting and the adjustment value of the background peak for range correction. (ch. 3.3.4, ch. 3.3.5) If they need to be adjusted, check the print image in the above circle mark to adjust the adjustment value of the background peak for range correction.
Scanner	4	Are the original glass (especially shading position), mirrors and lens dirty?	Clean them.
Developer material/Toner/Photoconductive drum	5	Using the specified developer material, toner and photoconductive drum?	Use the specified developer material, toner and photoconductive drum.
	6	Have the developer material and the photoconductive drum reached their PM life?	Replace the developer material and photoconductive drum.
	7	Is the storage environment of the toner cartridge 35°C or less without dew?	Use the toner cartridge stored in the environment within specification.
Main charger output	8	Is the setting value proper? Is the main charger output normal?	Replace the high-voltage transformer with a new one and print out a test chart. If any abnormal image appears, check the harness connection between the LGC board and the high-voltage transformer, power supply and stain on the main charger wire.

Defective area	Step	Check items	Prescription
Developer unit	9	Is the contact between the drum and developer material normal?	Replace the high-voltage transformer with a new one and print out a test chart. If any abnormal image appears, check the harness connection between the LGC board and the high-voltage transformer, power supply and stain on the main charger wire.
Developer bias output	10	Is the setting value proper? Is the developer bias output normal?	If the setting value is out of specification, adjust it. If the output is not normal, check the circuits. (Note 1)
Increasing toner density	11	Is the Auto-toner sensor connected correctly?	Check the connection of the connector of the Auto-toner sensor.
	12	Is the toner density high?	Adjust the toner density. (Note 2: See the toner density correcting method.)
Image quality sensor/ Surface potential sensor	13	Are the image quality sensor and the surface potential sensor normal?	Check the performance of the image quality sensor and the surface potential sensor. (See the troubleshooting related with the image quality control.)
Drum cleaning blade	14	Is the drum cleaned properly?	(See the troubleshooting for the poor cleaning.)

Note:

1. Toner density correcting method

Change the setting value 'Toner density life correction setting (08-414)' (6 is the default setting.)

- 0: Appox. 0.75% lower than the current value
- 1: Appox. 0.50% lower than the current value
- 2: Appox. 0.25% lower than the current value
- 3: The current value (Default setting)
- 4: Appox. 0.15% higher than the current value
- 5: Appox. 0.25% higher than the current value
- 6: Appox. 0.50% higher than the current value
- 7: Appox. 0.75% higher than the current value

<Caution for correction>

When increasing or decreasing the toner density too much, the image may become poor or the life of developer material, cleaner, photoconductive drum and fuser unit, etc. may shorten.

Therefore it is not recommended to correct (to shift) the toner density basically. If it is shifted, make sure that the image may be improper in a few minutes after shifting.

3. Moire/lack of sharpness

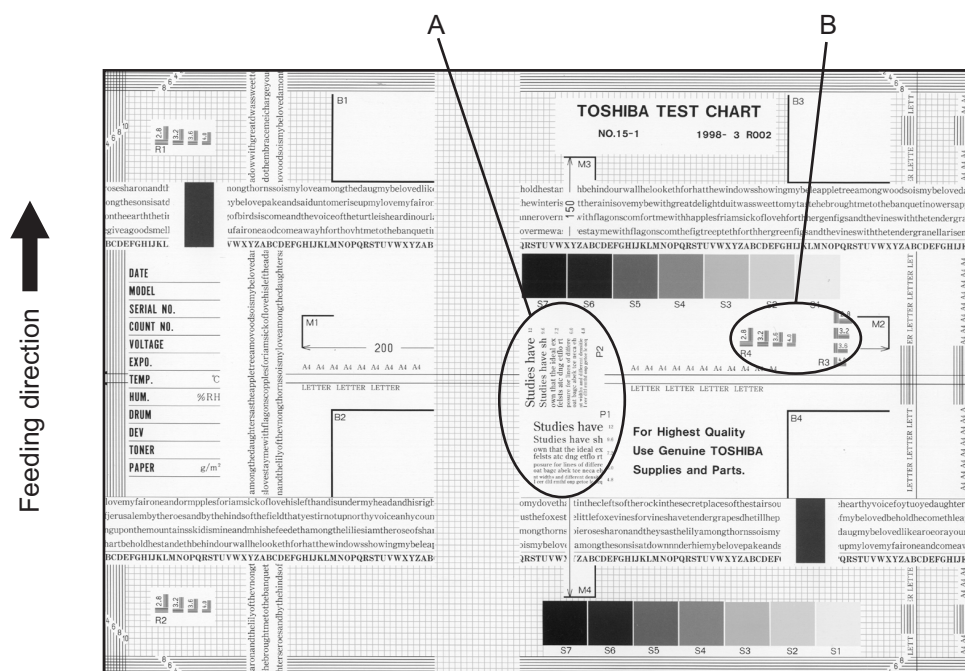


Fig. 5-3

Moire

Defective area	Step	Check items	Prescription
Density reproduction	1	Check the reproduction of the image density.	Adjust the density.
Parameter adjustment value	2	Check the image processing parameters.	Check the adjustment value for sharpness.
Printer section	3	Check test print image (04-113).	When defects occur, perform the corresponding troubleshooting procedure.

Lack of sharpness

Defective area	Step	Check items	Prescription
Density reproduction	1	Check the reproduction of the image density.	Adjust the density.
Parameter adjustment value	2	Check the image processing parameters.	Check the adjustment value for sharpness.
Printer section	3	Check test print image (04-113).	When defects occur, perform the corresponding troubleshooting procedure.
	4	Check the image processing parameters.	Check the encircled areas A and B in the image, and change the sharpness intensity in the sharpness adjustment mode.

4. Toner offset

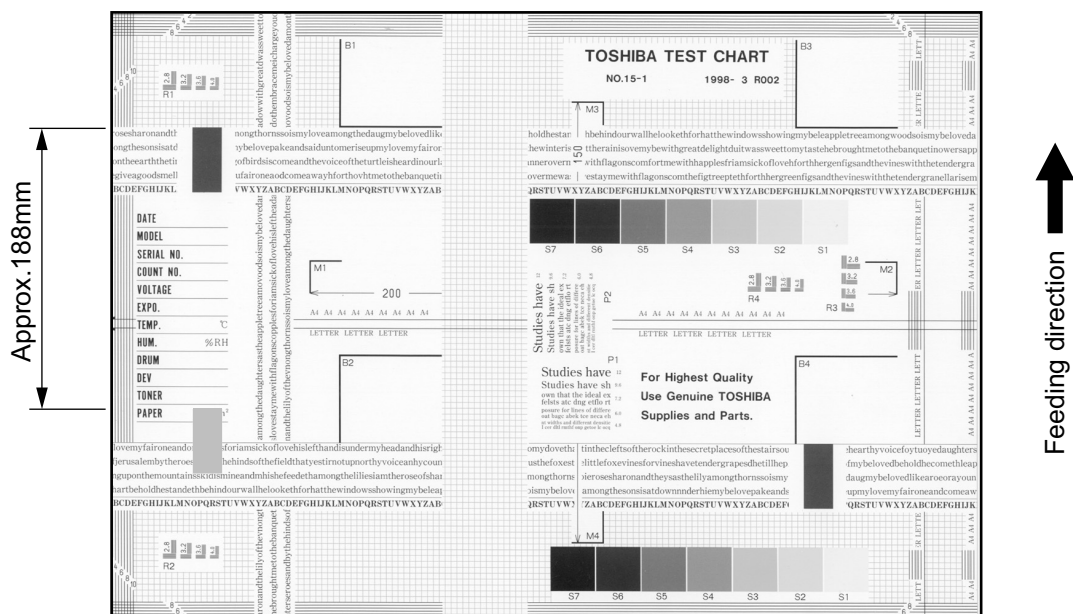


Fig. 5-4

Toner offset (Shadow image appears approx. 188 mm toward the dark image.)

Defective area	Step	Check items	Prescription
Density	1	Is the density too high?	Adjust the density.
Fuser unit	2	Is the pressure of the fuser roller normal?	Check the pressure releasing parts and pressurization mechanism.
	3	Is the thermistor in contact with the fuser roller?	Contact the thermistor with the fuser roller.
	4	Is there a scratch on the fuser roller surface?	Replace the fuser roller.
	5	Has the fuser roller reached its PM life?	Replace the fuser roller.
	6	Is the setting temperature of the fuser roller normal?	Check the adjustment values of fuser roller temperature? 08-410, 411
Fuser unit	7	Using the specified fuser roller and the pressure roller?	Use the specified fuser roller and the pressure roller.
	8	Is the pressurization of cleaning web normal?	Check the installation state of cleaning web mechanism.
	9	Is the cleaning web transported normally?	Check the drive system of the cleaning web. Check and correct setting (08-403, 1252-6 1252-7)
	10	Has the cleaning web reached its PM life?	Replace the cleaning web.
	11	Using the specified cleaning web?	Use the specified cleaning web.
	12	Is there any trouble with the thermistor?	Clean or replace the thermistor.

Defective area	Step	Check items	Prescription
Paper	13	Has the appropriate paper type been selected?	Select a proper mode.
	14	Is the setting temperature of the fuser roller in each paper type normal?	Check the setting and correct it. 08-410, 412, 413, 437, 1804
	15	Using the recommended paper?	Use the recommended paper.
Developer material/Toner	16	Using the specified developer material and toner?	Use the specified developer material and toner.
Scanner	17	Are the original glass (especially the position of shading correction plate), mirror and lens dirty?	Clean them.

5. Blurred image

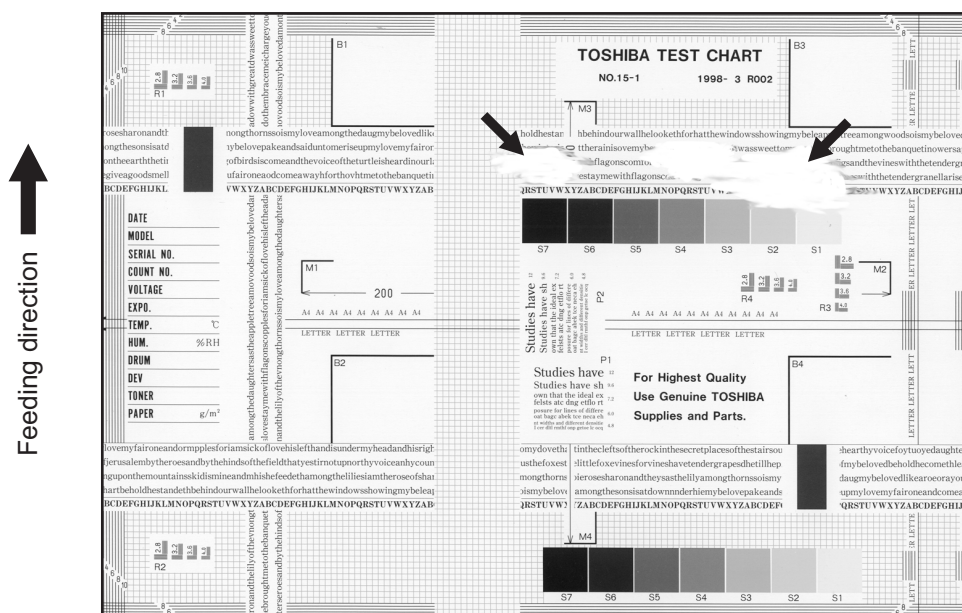


Fig. 5-5

Defective area	Step	Check items	Prescription
Paper	1	Is the paper in the drawer or LCF damp?	Change paper. Avoid storing paper in damp place.
Bedewed scanner	2	Is the scanner bedewed?	Clean the scanner.
Drum	3	Is the drum surface wet or dirty?	Wipe the drum with a piece of dry cloth. * Do not use alcohol or other organic solvents.

6. Poor fusing

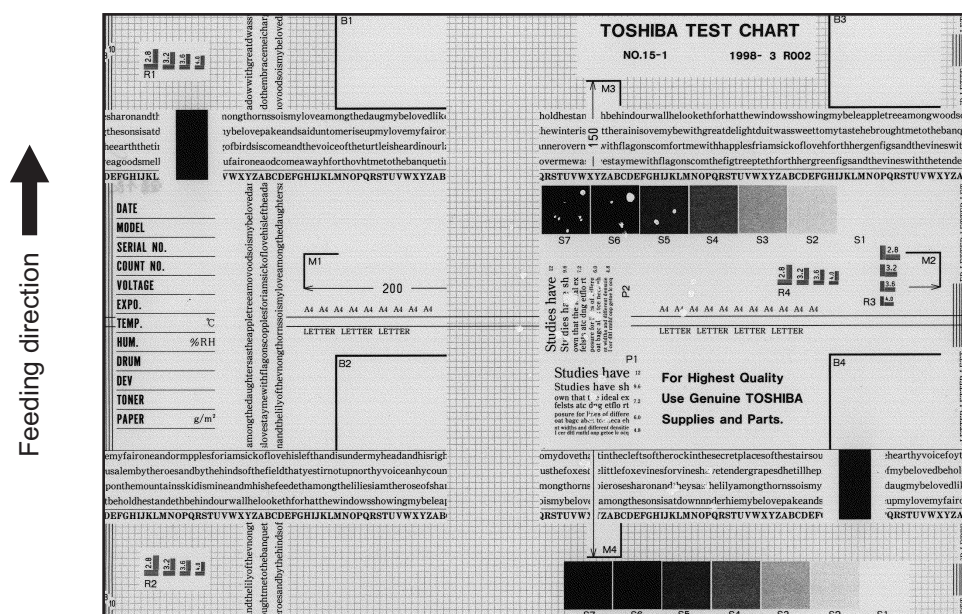


Fig. 5-6

Defective area	Step	Check items	Prescription
IH electric power	1	Check if the connector contacts properly.	Correct it.
	2	Is the IH coil shorted or broken? Is there any abnormality on the Heater Control PC board.	Replace the IH Coil or Heater Control PC board.
Pressure between fuser roller and pressure roller	3	Are the pressure springs working properly?	Check and adjust the pressure springs.
Fuser roller temperature	4	Is the temperature of the fuser roller normal?	Check the setting and correct it. 08-410, 411
Developer material/Toner	5	Using the specified developer material and toner?	Use the specified developer material and toner.
Thermistor	6	Is there any problem with the thermistor?	Clean or replace the thermistor..
Paper	7	Is the paper in the drawer or LCF damp?	Avoid storing paper in damp place.
	8	Is the paper type corresponding to its mode?	Use the proper type of paper or select the proper mode.
	9	Is the setting temperature of the fuser roller in each paper type normal?	Check the setting and correct it. 08-410, 412, 413, 437, 1804
	10	Using the recommended paper?	Use the recommended paper.

7. Blank copy

Feeding direction
↑



Fig. 5-7

Defective area	Step	Check items	Prescription
Bias supply connector	1	Is the connector inserted properly?	Insert the connector properly.
High-voltage transformer (Transfer charger, Developer bias)	2	Is the high-voltage transformer output defective?	Replace the transformer.
	3	Are the connectors of the high-voltage harness securely connected? Is the harness open circuited?	Reconnect the harness securely. Replace the high-voltage harness.
Developer unit	4	Is the developer unit installed properly?	Check and correct the engaging condition of the developer unit gears.
	5	Do the developer sleeve and mixers rotate?	Check and fix the drive system of the developer unit.
	6	Is the developer material smoothly transported?	Remove the foreign matter from the developer material.
Drum	7	Is the drum rotating?	Check the drive system of the drum.
CCD, SLG, SYS, SYSIF, LGC boards and harnesses	8	Are the connectors securely connected? Check if the harnesses connecting the boards are open circuited.	Connect the connectors securely. Replace the harness.

8. Solid copy

Feeding direction
↑

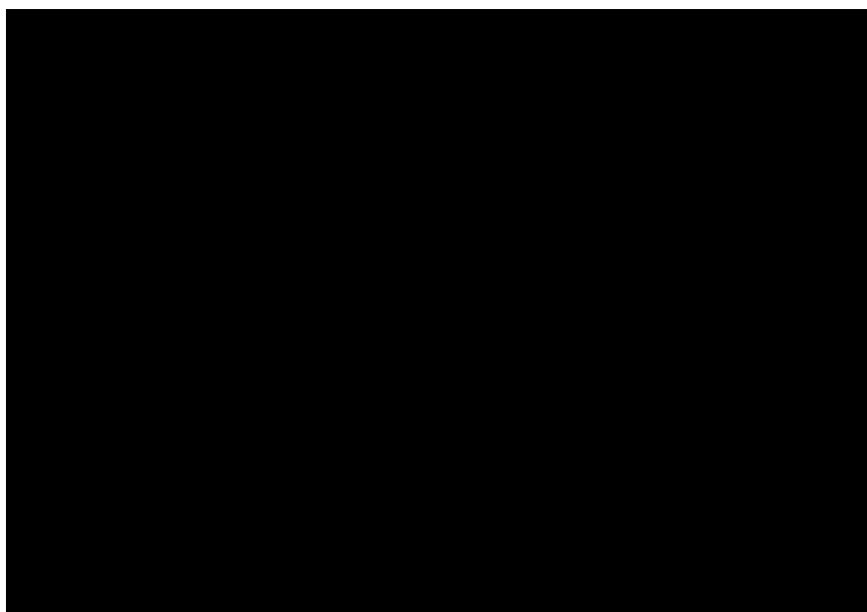


Fig. 5-8

Defective area	Step	Check items	Prescription
Exposure lamp and inverter	1	Does the exposure lamp light?	Check if the connector contacts with the exposure lamp terminal. Replace the defective inverter.
Scanner	2	Is there any foreign matter on the light path?	Remove it.
Bedewed scanner and drum	3	Is the scanner or drum bedewed?	Clean the mirrors, lens and drum. Keep the power cord plugged in all trough the day and night. (For the model with damp heater)
Main charger	4	Is the main charger securely installed?	Install it securely.
	5	Is the main charger wire broken?	Replace the main charger wire.
High-voltage transformer (Main charger)	6	Is the high-voltage transformer output defective?	Replace the transformer.
	7	Are the connectors of the high-voltage harness securely connected? Is the harness open circuited?	Reconnect the harness securely. Replace the high-voltage harness.
CCD, SLG, SYS, SYSIF, LGC boards and harnesses	8	Are the connectors securely connected? Check if the harnesses connecting the boards are open circuited.	Connect the connectors securely. Replace the harness.

9. White banding or white void (in the feeding direction)

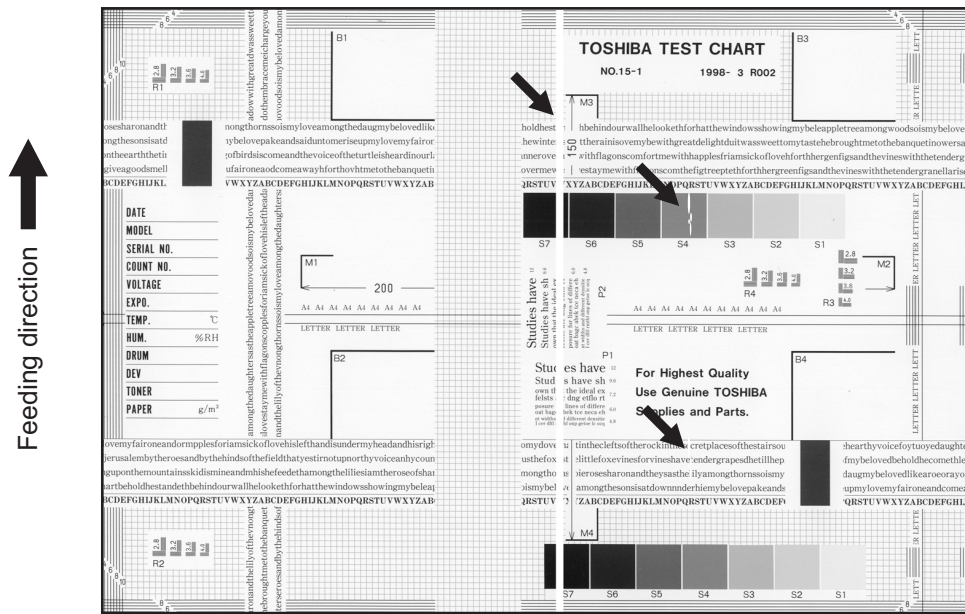


Fig. 5-9

Defective area	Step	Check items	Prescription
Laser optical unit	1	Is there a foreign matter or stain on the slit glass?	Remove the foreign matter or stain.
Main charger grid	2	Is there a foreign matter or dew on the charger grid?	Remove the foreign matter.
Developer unit	3	Is the developer material transported properly?	Remove the foreign matter if there is any.
	4	Is there a foreign matter or dew on the Polyurethane seal?	Remove the foreign matter or dew.
	5	Is the upper Polyurethane seal of the developer unit in contact with the drum?	Correct the position of the Polyurethane seal or replace it.
Drum	6	Is there a foreign matter on the drum surface?	Replace the drum. If there is a convex foreign matter adhering to the drum surface, it indicates that the blade edge at this area is worn out. In this case, replace both the drum and the drum cleaning blade.
Transport path	7	Does the toner image contact with any foreign matter before the paper enters the fusing section after the separation?	Remove the foreign matter.
Discharge LED	8	Is any of the discharge LEDS off?	Replace the discharge LED.
Scanner	9	Is there a foreign matter on the light path?	Remove the foreign matter.
	10	Are the original glass (especially the position of shading correction plate) mirror and lens dirty?	Clean them.
Cleaner	11	Is there any foreign matter, which contacts the drum on the cleaner stay?	Remove the foreign matter.

10. White banding (at right angle with the feeding direction)

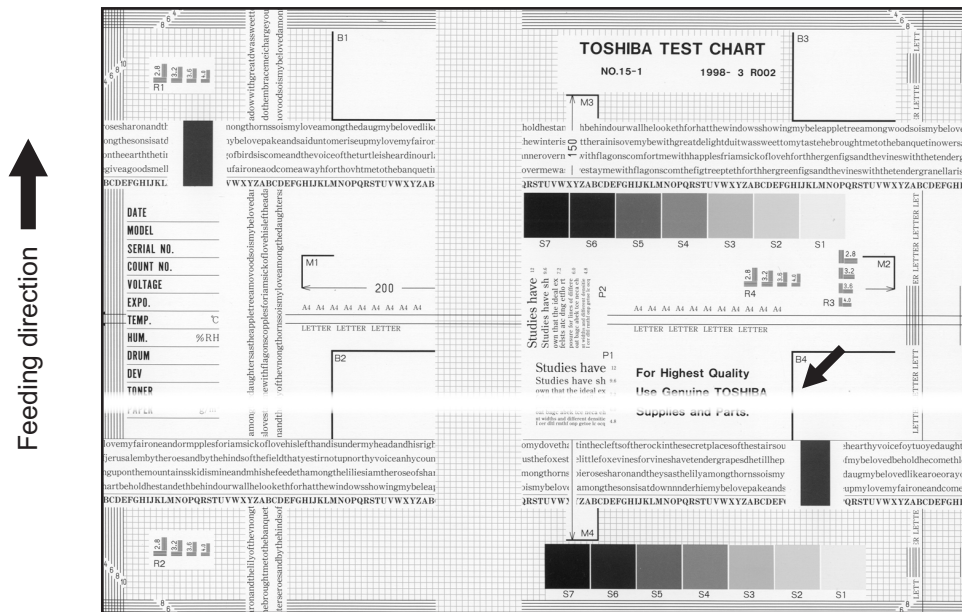


Fig. 5-10

Defective area	Step	Check items	Prescription
Main charger	1	Is there a foreign matter on the charger?	Remove the foreign matter.
	2	Is the connector in proper contact with the terminal?	Clean or adjust the terminal.
Drum	3	Is there any abnormality on the drum surface?	Replace the drum.
Discharge LED	4	Does the discharge LED light normally?	Replace the discharge LED or check the harness and the circuit.
Developer unit	5	Is the developer sleeve rotating normally? Is there any abnormality on the sleeve surface?	Check the drive system of the developer unit, or clean the sleeve surface.
Drive system	6	Are the drum and scanner jittering?	Check each drive system.
High-voltage transformer (Main charger / Developer bias / Transfer charger)	7	Is the high-voltage transformer output defective?	Replace the transformer.
Feed system	9	Is the aligning amount proper?	Adjust the aligning amount.

11. Skew (inclined image)

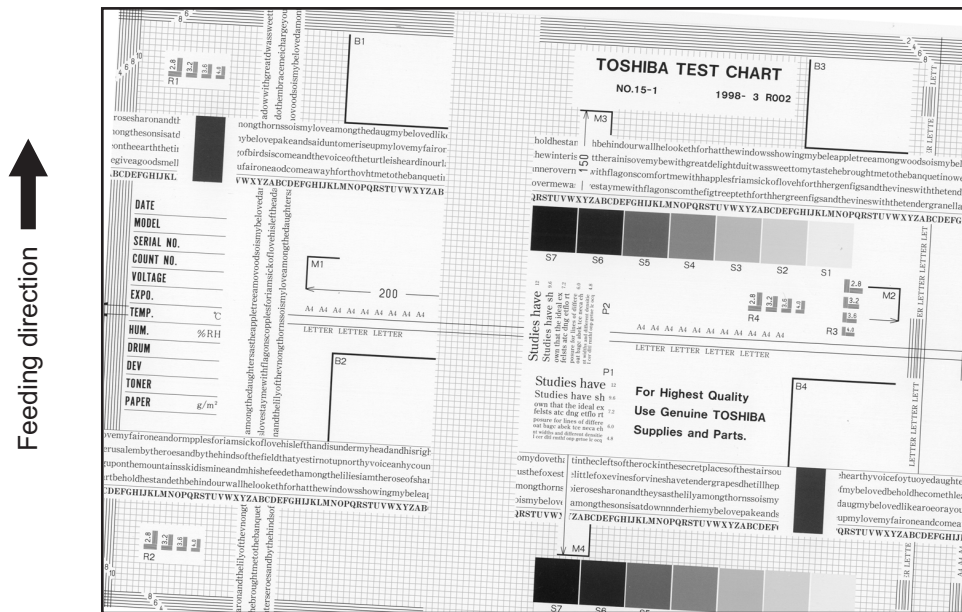


Fig. 5-11

Defective area	Step	Check items	Prescription
Drawers LCF	1	Is the drawer or LCF properly installed?	Install the drawer or LCF properly.
	2	Is there too much paper in the drawer or LCF?	The height of paper stack should not exceed 55 mm. 137 mm or lower/room for tandem LCF. 428 mm or lower for external LCF.
	3	Is the corner of the paper folded?	Change the direction of the paper and set it again.
	4	Are the side guides of the drawer or LCF properly installed?	Adjust the position of the side guides.
Feed roller	5	Is the surface of the feed roller dirty?	Clean the feed roller surface with alcohol, or replace the roller.
Rollers	6	Are the roller and shaft secured?	Check and tighten the E-rings, pins, clips and setscrews.
Aligning amount	7	Is the aligning amount proper?	Increase the aligning amount.
Registration roller	8	Is the spring detached from the registration roller?	Attach the spring correctly. Clean the roller if it is dirty.
Pre-registration guide	9	Is the pre-registration guide properly installed?	Correct it.
Carriage-1	10	Is the carriage-1 slanted?	Adjust the carriage-1.

12.Black banding (in the feeding direction)

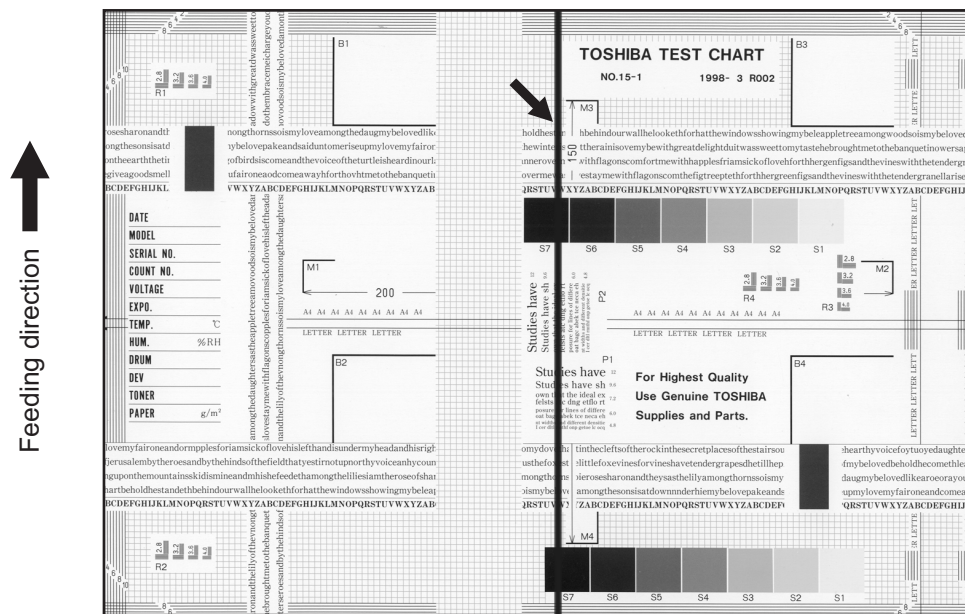


Fig. 5-12

Defective area	Step	Check items	Prescription
Scanner	1	Is there a foreign matter on the light path?	Clean the slit, lens and mirrors.
Shading correction plate	2	Is there dust or stains on part of the original glass where the shading correction plate is placed.	Clean the plate.
Main charger	3	Is there a foreign matter or stain on the charger grid, or in the main charger case?	Remove the foreign matter or stain.
	4	Is the main charger grid deformed?	Replace the main charger grid.
	5	Is there a foreign matter on the main charger grid?	Remove the foreign matter.
Drum	6	Are there scratches on the drum surface?	Replace the drum.
Laser optical unit	7	Is there a foreign matter or stain on the 2 slit glasses?	Remove the foreign matter or the stain.
	8	Is the inside of the main charger case dirty?	Clean the inside of the main charger case.
Cleaner	9	Is there paper dust sticking to the drum cleaning blade edge?	Clean or replace the cleaning blade.
	10	Does the drum cleaning blade work smoothly?	Push the cleaning blade by hand. If its move is not smooth enough, clean the section where the blade is installed, then install it again.
	11	Has the used toner been recovered properly?	Clean the toner recovery auger.
Fuser unit	12	Is the fuser roller surface dirty or damaged?	Clean or replace the fuser roller.
	13	Is the fuser roller thermistor dirty?	Clean the fuser roller thermistor.

13.Black banding (at right angle with the feeding direction)

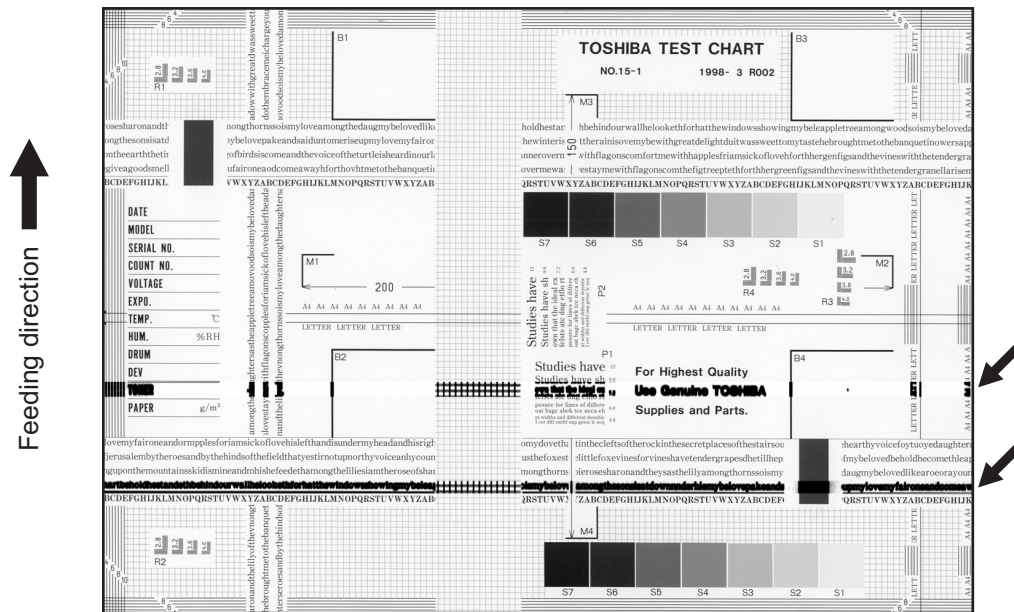


Fig. 5-13

Defective area	Step	Check items	Prescription
Fuser unit	1	Is the fuser roller dirty?	Clean them.
	2	Has the cleaning roller, pressure roller, fuser roller and separation finger for fuser roller reached their PM life?	Replace them.
High-voltage transformer (Main charger / Developer bias / Transfer charger)	3	Is the high-voltage transformer output defective?	Replace the transformer.
Drum	4	Is there a deep scratch on the drum surface?	Replace the drum if the scratch has reached the aluminum base.
Scanner	5	Is there a foreign matter on the carriage rail?	Remove the foreign matter.

14.White spots

↑
Feeding direction

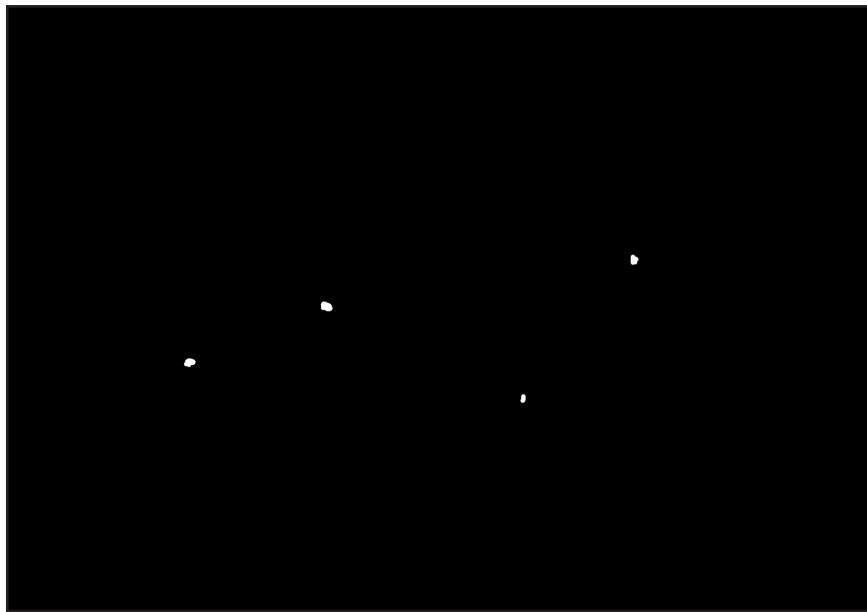


Fig. 5-14

Defective area	Step	Check items	Prescription
Toner empty	1	Is the toner supply symbol lighting?	Replace the toner cartridge.
	2	Is the toner cartridge installed properly?	Check the installation state of the toner cartridge.
	3	Is the performance of the new toner supply motor normal?	Check the performance of the new toner supply motor.
	4	Is the toner cartridge normal?	Check the toner cartridge. Replace if it is not normal.
Decreasing toner density	5	Is the Auto-toner sensor connected correctly?	Check the connection of the connector of the Auto-toner sensor.
	6	Is the toner density low?	Correct the toner density. (Note 2: See 'Toner density correcting method'.)
Developer material/Toner/Photoconductive drum	7	Using the specified developer material, toner and photoconductive drum?	Use the specified developer material, toner and photoconductive drum.
	8	Have the developer material and the photoconductive drum reached their PM life?	Replace the developer material and photoconductive drum.
	9	Is the storage environment of the toner cartridge 35°C or less without dew?	Use the toner cartridge stored in the environment within specification.
	10	Is there any dent on the surface of the photoconductive drum?	Replace the drum.
	11	Is there any film forming on the photoconductive drum?	Clean or replace the drum.
Main charger	12	Is there any foreign object on the charger?	Remove it.
	13	Is the charger dirty or deformed?	Clean or replace the main charger wire and grid.

Defective area	Step	Check items	Prescription
Main charger output	14	Is the setting value proper? Is the main charger output normal?	Replace the high-voltage transformer with a new one and print out a test chart. If any abnormal image appears, check the harness connection between the LGC board and the high-voltage transformer, power supply and stain on the main charger wire.
Developer bias output	15	Is the setting value proper? Is the developer bias output normal?	Replace the high-voltage transformer with a new one and print out a test chart. If any abnormal image appears, check the harness connection between the LGC board and the high-voltage transformer, power supply and stain on the main charger wire.
Transfer belt	16	Is there any foreign object or fiber, etc. on the belt surface?	Remove it.

Note:

1. Toner density correcting method

Change the setting value 'Toner density life correction setting (08-414)' (6 is the default setting.)

- 0: Appox. 0.75% lower than the current value
- 1: Appox. 0.50% lower than the current value
- 2: Appox. 0.25% lower than the current value
- 3: The current value (Default setting)
- 4: Appox. 0.15% higher than the current value
- 5: Appox. 0.25% higher than the current value
- 6: Appox. 0.50% higher than the current value
- 7: Appox. 0.75% higher than the current value

<Caution for correction>

When increasing or decreasing the toner density too much, the image may become poor or the life of developer material, cleaner, photoconductive drum and fuser unit, etc. may shorten.

Therefore it is not recommended to correct (to shift) the toner density basically. If it is shifted, make sure that the image may be improper in a few minutes after shifting.

15. Poor image transfer

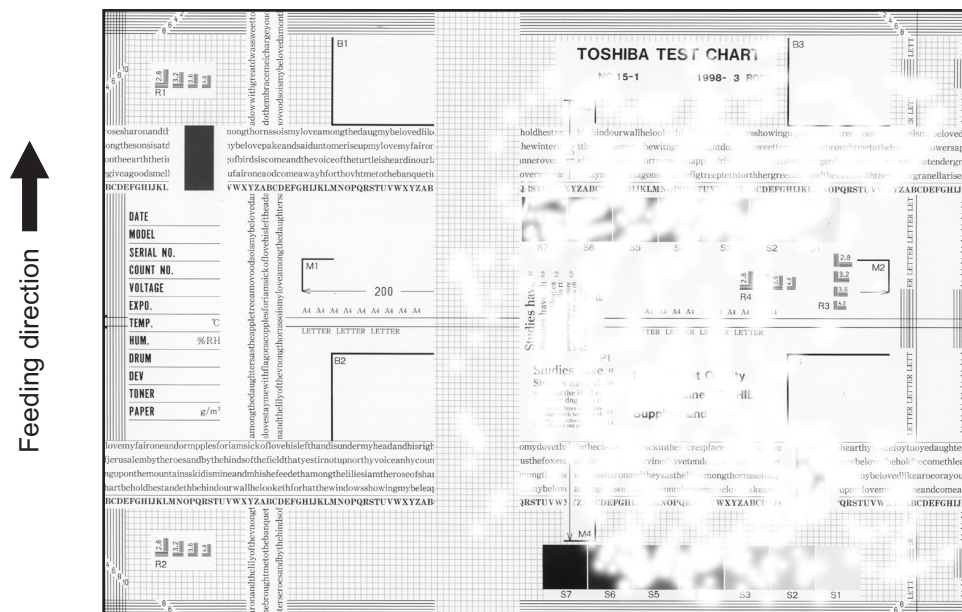


Fig. 5-15

Defective area	Step	Check items	Prescription
Transfer belt unit	1	Is the surface of the transfer belt supply roller dirty with toner?	Clean it with alcohol.
Paper	2	Is the paper in the drawer or LCF/ PFP curled?	Reinsert the paper with the reverse side up or change the paper.
	3	Is the paper in the drawer or LCF damp?	Avoid storing paper in damp place.
	4	Is the paper type corresponding to its mode?	Select the proper mode.
	5	Using the recommended paper?	Use the recommended paper.
Registration roller	6	Is there any abnormality related to the registration roller or with the roller itself?	Clean the roller if it is dirty. Securely attach the springs if they are detached. Replace the clutch if it is defective. Adjust the rotation speed of the roller.
High-voltage transformer (Transfer charger)	7	Is the high-voltage transformer output defective?	Replace the transformer.

Note:

Refer to 3.6.1 of chapter 3 for the poor image transfer at the paper leading edge.

16. Uneven image density

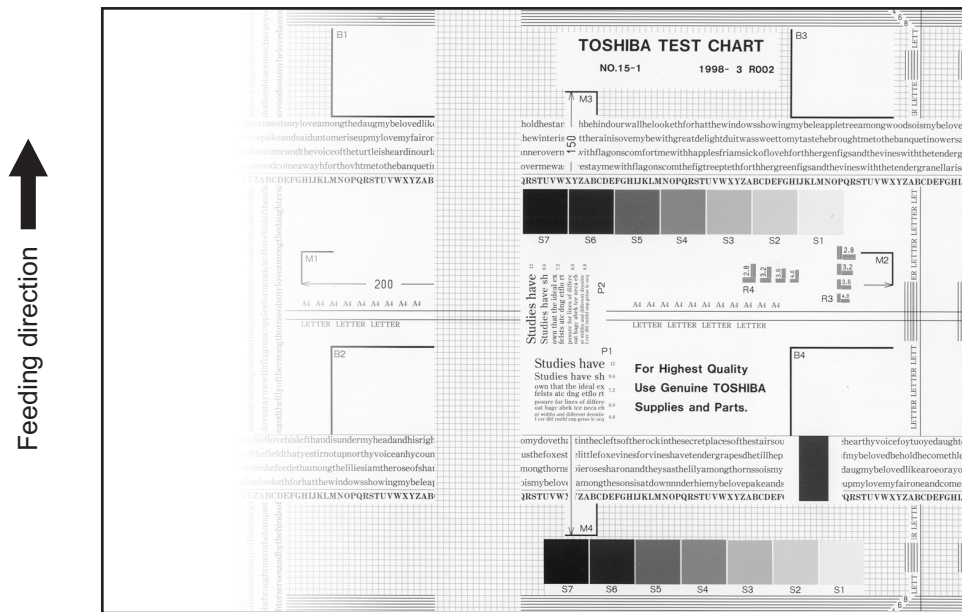


Fig. 5-16

Defective area	Step	Check items	Prescription
Main charger	1	Is the main charger dirty?	Clean or replace the main charger grid.
Transfer belt unit	2	Is the surface of the transfer belt supply roller dirty with toner?	Clean it with alcohol.
Laser optical unit	3	Is there any foreign matter or stain on the 2 slit glasses?	Remove the foreign matter or stain.
Discharge LED	4	Are the connectors of discharge LED harness securely connected?	Reconnect the harness securely.
	5	Is the discharge LED dirty?	Clean the discharge LED.
	6	Is any of the discharge LEDs off?	Replace the discharge LED.
Developer unit	7	Is the developer material transported normally?	Remove foreign matters if there is any.
Scanner section	8	Are the original glass (especially the position of shading correction plate), mirror and lens dirty?	Clean them.

17.Faded image (low density, abnormal gray balance)

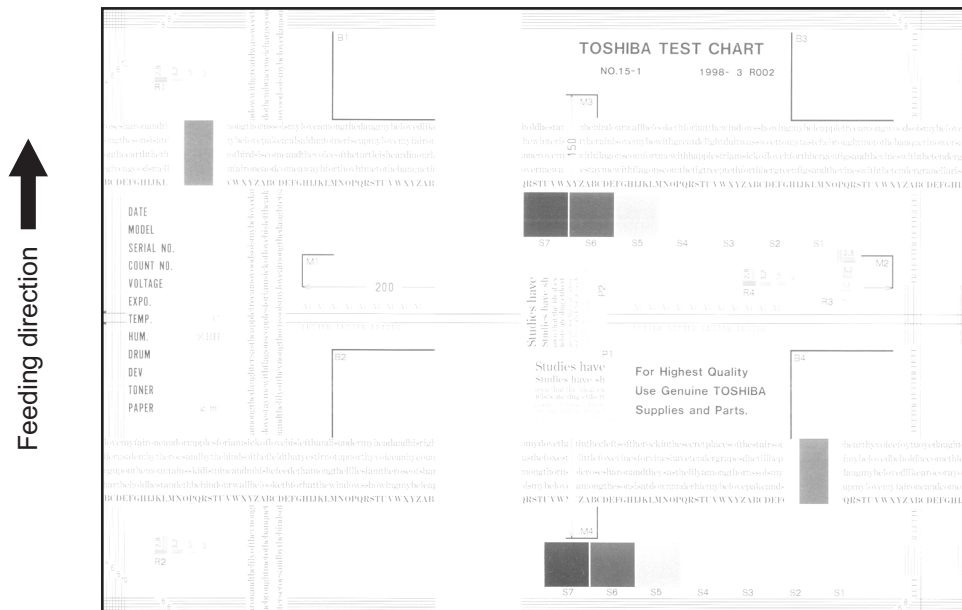


Fig. 5-17

Defective area	Step	Check items	Prescription
Developer material/Toner/Photoconductive drum	1	Using the specified developer material, toner and photoconductive drum?	Use the specified developer material, toner and photoconductive drum.
	2	Have the developer material and the photoconductive drum reached their PM life?	Replace the developer material and photoconductive drum.
	3	Is there any film forming on the photoconductive drum?	Clean or replace the drum.
Toner Cartridge	4	Is the toner supply symbol lighting?	Replace the toner cartridge.
	5	Is the toner cartridge installed properly?	Check the installation state of the toner cartridge, install it securely.
	6	Is the performance of the new toner supply motor normal?	Check the performance of the new toner supply motor.
	7	Is the toner cartridge normal?	Check the toner cartridge. Replace if it is not normal.
Main charger output	8	Is the setting value proper? Is the main charger output normal?	Replace the high-voltage transformer with a new one and print out a test chart. If any abnormal image appears, check the harness connection between the LGC board and the high-voltage transformer, power supply and stain on the main charger wire.

Defective area	Step	Check items	Prescription
Developer bias output	9	Is the setting value proper? Is the developer bias output normal?	Replace the high-voltage transformer with a new one and print out a test chart. If any abnormal image appears, check the harness connection between the LGC board and the high-voltage transformer, power supply and stain on the main charger wire.
Decreasing toner density	10	Is the Auto-toner sensor connected correctly?	Check the connection of the connector of the Auto-toner sensor.
	11	Is the toner density low?	Correct the toner density. (Note 2: See 'Toner density correcting method'.)
Image quality sensor/ Surface potential sensor	12	Are the image quality sensor and the surface potential sensor normal?	Check the performance of the image quality sensor and the surface potential sensor. (See the trouble shooting related with the image quality control.)
Main charger	13	Is the main charger dirty?	Clean or replace it.

Note:

1. Toner density correcting method

Change the setting value 'Toner density life correction setting (08-414)' (6 is the default setting.)

- 0: Appox. 0.75% lower than the current value
- 1: Appox. 0.50% lower than the current value
- 2: Appox. 0.25% lower than the current value
- 3: The current value (Default setting)
- 4: Appox. 0.15% higher than the current value
- 5: Appox. 0.25% higher than the current value
- 6: Appox. 0.50% higher than the current value
- 7: Appox. 0.75% higher than the current value

<Caution for correction>

When increasing or decreasing the toner density too much, the image may become poor or the life of developer material, cleaner, photoconductive drum and fuser unit, etc. may shorten.

Therefore it is not recommended to correct (to shift) the toner density basically. If it is shifted, make sure that the image may be improper in a few minutes after shifting.

18. Image dislocation in feeding direction

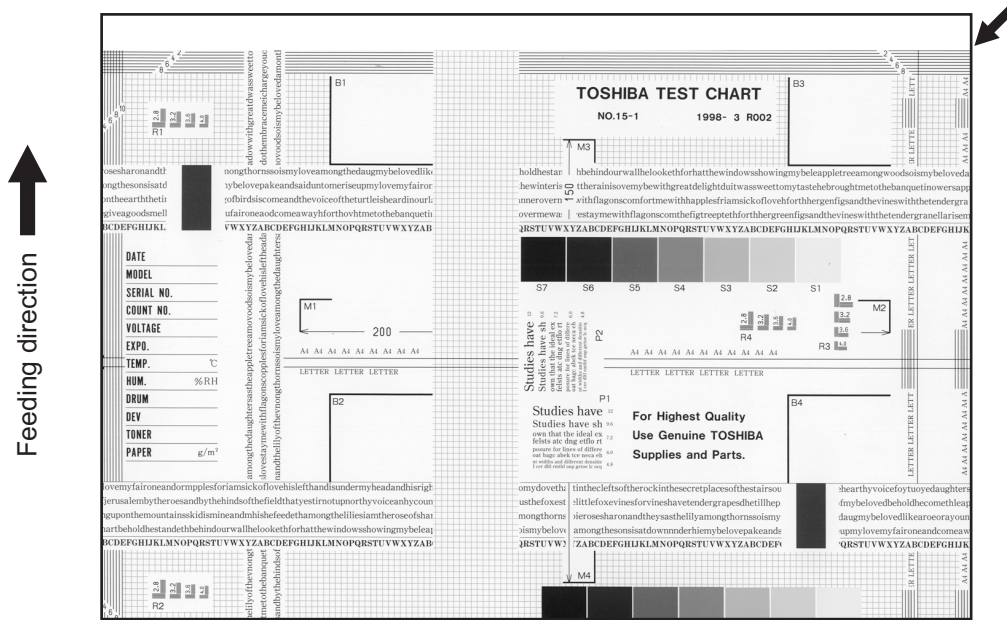


Fig. 5-18

Defective area	Step	Check items	Prescription
Scanner/Printer adjustment	1	Have the printed images been dislocated in the same manner?	Adjust the position of the leading edge of paper in the Adjustment Mode.
Registration roller	2	Is the registration roller dirty, or the spring detached?	Clean the registration roller with alcohol. Securely attach the springs.
	3	Is the registration roller working properly?	Adjust or replace the gears if they are not engaged properly.
Feed clutch	4	Is the feed clutch working properly?	Check the circuit or feed clutch, and replace them if necessary.
Pre-registration guide	5	Is the pre-registration guide installed properly?	Install the guide properly.

19. Jittering image

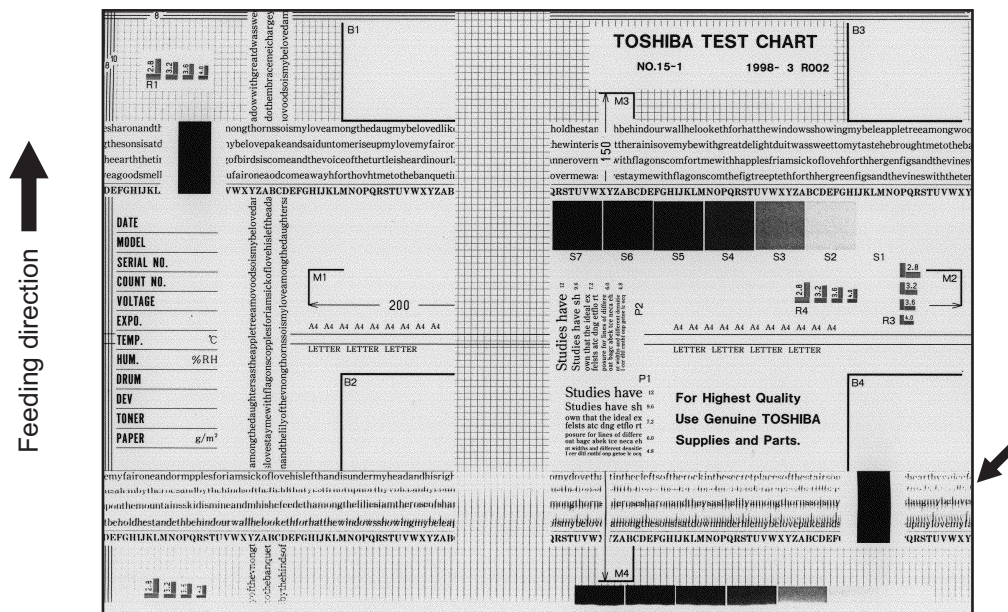


Fig. 5-19

Defective area	Step	Check items	Prescription
-	1	Is the toner image on the drum normal?	If normal, perform steps 2 to 4. Perform step 5 and followings in case the image is abnormal.
Registration roller	2	Is the registration roller rotating normally?	Check the registration roller area and springs for installation condition.
Fuser roller and pressure roller	3	Are the fuser roller and pressure roller rotating normally?	Check the fuser roller area. Replace the rollers if necessary.
Drum	4	Is there a big scratch on the drum?	Replace the drum.
Operation of carriage	5	Is there any problem with the slide sheet?	Replace the slide sheet.
	6	Is there any problem with the carriage foot?	Replace the carriage foot.
	7	Is the tension of the timing belt normal?	Adjust the tension.
	8	Is there any problem with the drive system of the carriage?	Check the drive system of the carriage.
Scanner	9	Is the mirror secured?	Secure it.
Drum drive system	10	Is there any problem with the drive system of the drum?	Check the drive system of the drum. Clean or replace the gears if they have stains or scratches.

20. Poor cleaning

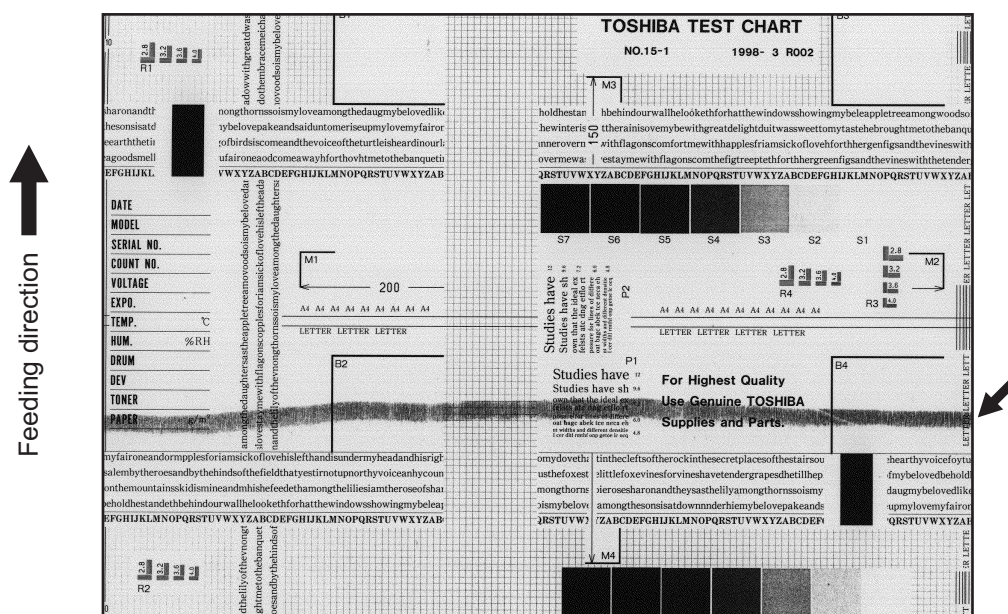


Fig. 5-20

Defective area	Step	Check items	Prescription
Developer material/Toner/Photoconductive drum	1	Using the specified developer material, toner and photoconductive drum?	Use the specified developer material, toner and photoconductive drum.
Dram cleaning brush	2	Is the cleaning brush damaged or has it reached its PM life?	Replace the cleaning brush.
Fuser unit	3	Are there bubble-like scratches on the fuser roller (188mm pitch on the printed image)?	Replace the fuser roller. Check and adjust the temperature control circuit.
	4	Is the pressurization of the press roller normal?	Check and adjust the pressurization mechanism.
	5	Is the temperature of the fuser roller normal?	Check the adjustment value of fuser roller temperature. (08-410, 411, 412, 413, 437, 1804)
	6	Is the pressurization of the cleaning web normal?	Check the installation state of the cleaning web mechanism.
	7	Is the cleaning web transported normally?	Replace the moter.
	8	Using the specified cleaning web?	Use the specified cleaning web.
Drum cleaning blade	9	Is the drum cleaning blade in proper contact with the drum?	Check the cleaning blade and replace it if it does not contact with the cleaning blade properly.
	10	Has the drum cleaning blade been turned up?	Replace the drum cleaning blade. Check and replace the drum if necessary.
Toner recovery auger	11	Is the toner recovered normally?	Clean the toner recovery auger. Check the pressure of the cleaning blade.

21. Uneven light distribution

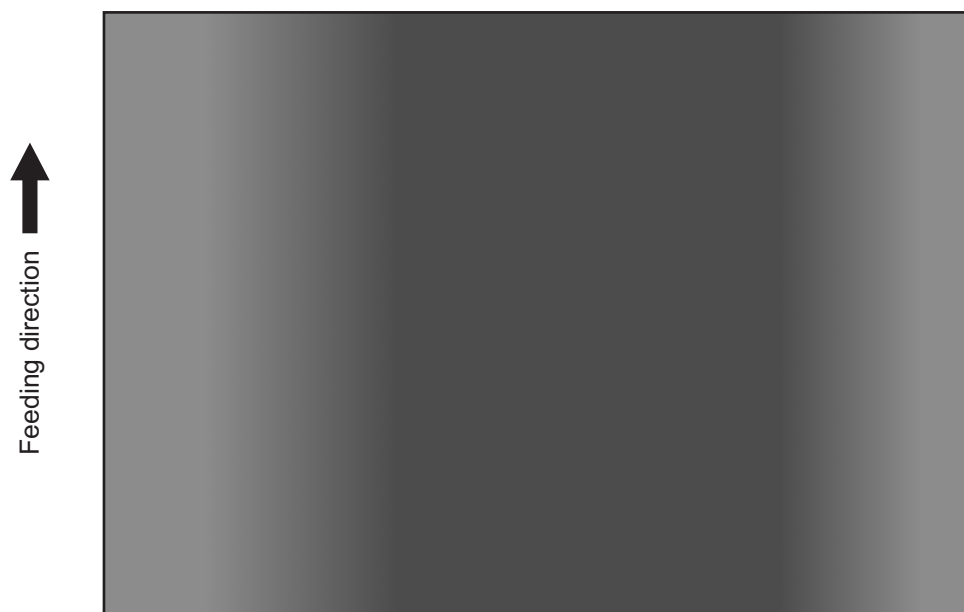


Fig. 5-21

Defective area	Step	Check items	Prescription
Original glass	1	Is the original glass dirty?	Clean the original glass.
Main charger	2	Are the needle electrode, main charger grid and main charger case dirty?	Clean or replace them.
Discharge LED	3	Is the discharge LED dirty?	Clean the discharge LED.
	4	Is any of the discharge LEDs off?	Replace the discharge LED.
Scanner	5	Are the reflector, exposure lamp, mirrors, lens, and original glass (especially the position of shading correction plate) dirty?	Clean them.
Exposure lamp	6	Is the exposure lamp discolored or degraded?	Replace the exposure lamp.

22. Blotched image

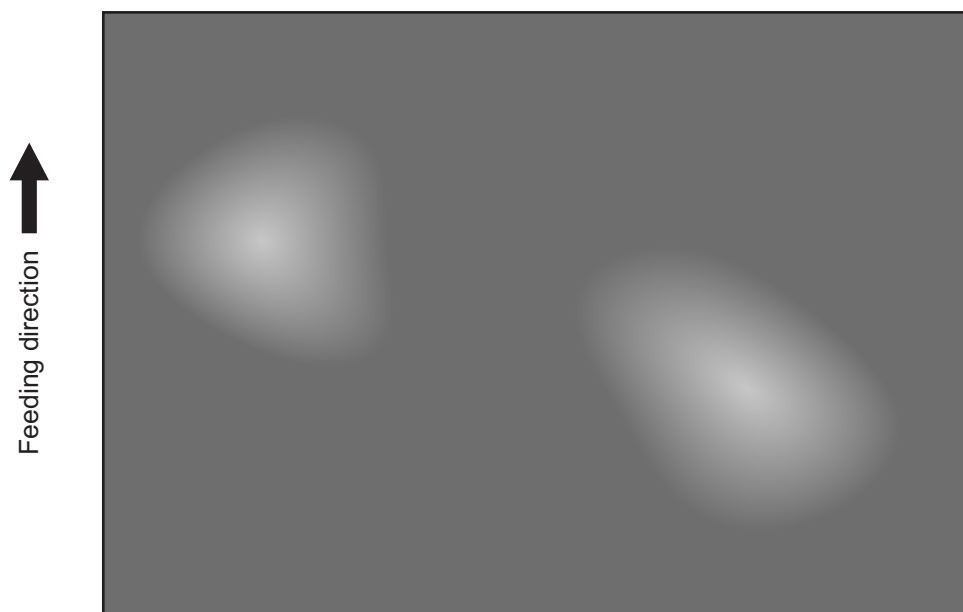



Fig. 5-22

Defective area	Step	Check items	Prescription
Paper	1	Is the paper type corresponding to its mode?	Check the paper type and mode.
	2	Is the paper too dry?	Change the paper.
Transfer belt unit	3	Is the surface of the transfer belt supply roller dirty with toner?	Clean it with alcohol.
	4	Does the transfer belt exceed its normal life span?	Replace the transfer belt.
High-voltage transformer (Transfer charger)	5	Is the output from the high-voltage transformer normal?	Adjust the output. Replace the transformer if necessary.


5.4 Replacement of PC Boards / HDD

5.4.1 Installation and Separation of PC Boards / HDD

Notes:

- When the PC board/HDD is replaced, refer to the respective Notes and Cautions of "Replacement of PC boards and HDD" in Chapter  P.5-155 "5.4.2 Precautions, Procedures and Settings for Replacing PC Boards and HDD".
- If the PC board has to be replaced due to an operational defect, this may have been caused by a contact failure of the connector. Before replacing the board, disconnect and then reconnect the connector to check if this action eliminates the operational defect.

[A] System control PC board (SYS board) / System interface PC board (SYSIF board) / SYS board case

- (1) Take off the rear cover
( SERVICE MANUAL “2.5 Installation and Replacement of Covers: [L] Rear cover”).
- (2) Disconnect the connector of the cooling fan from the joint connector of the SYS board cover.

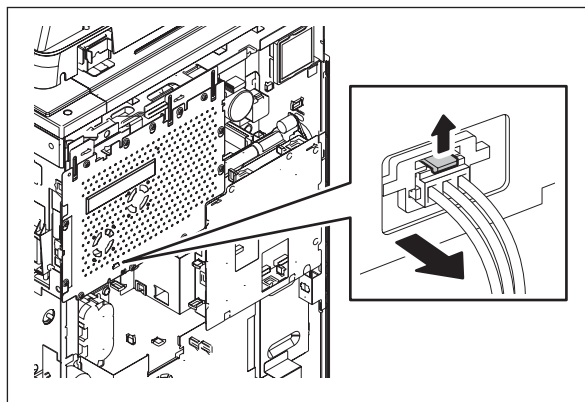


Fig. 5-23

- (3) Remove 2 screws.
- (4) Loosen 10 screws and release the harness from harness clamp to take off the SYS board cover by sliding it upward.

Note:

A cooling fan is installed on the SYS board cover. Therefore be sure not to pull the harnesses connecting to the fan.

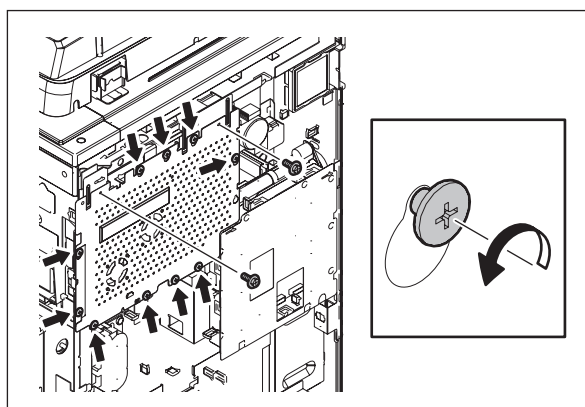


Fig. 5-24

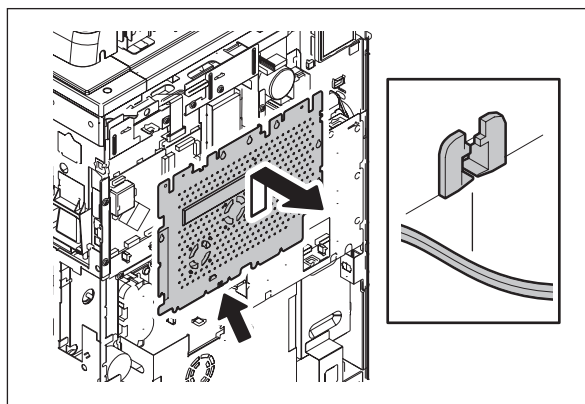


Fig. 5-25

- (5) Disconnect 3 connectors of the SYSIF board.
- (6) Remove 4 screws and take off the SYSIF board by sliding it to the right-hand side.

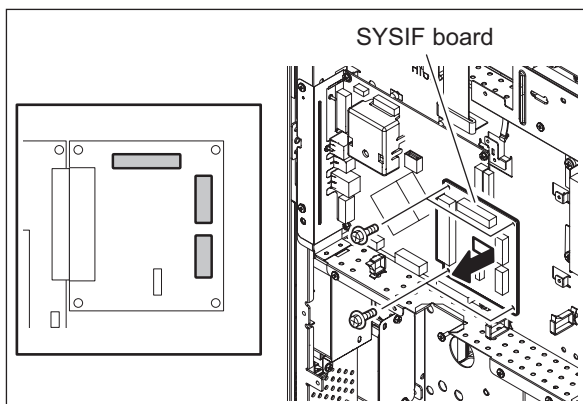


Fig. 5-26

- (7) Remove 4 screws to take off the leaf spring.

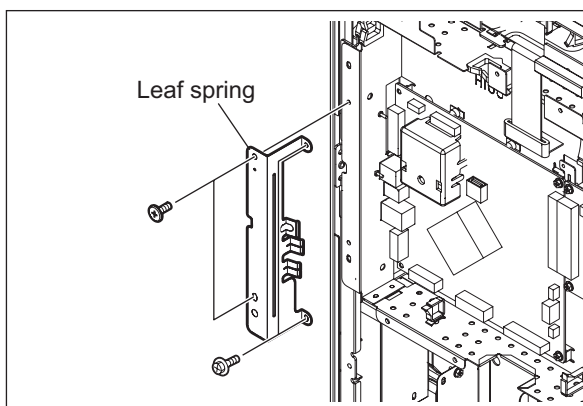


Fig. 5-27

- (8) Disconnect 5 connectors of the SYS board.
- (9) Remove 2 screws to take off the SYS board.

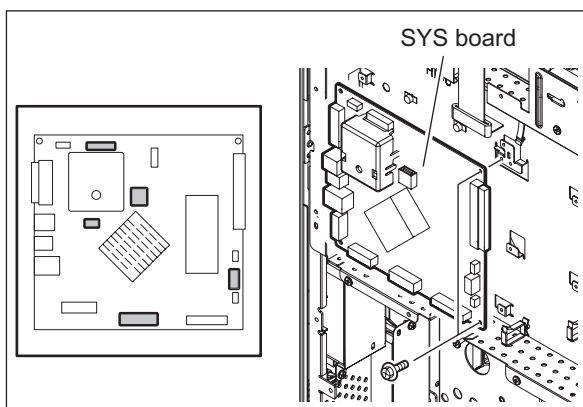


Fig. 5-28

- (10) Remove 6 screws to take off the SYS board case.

Notes:

1. When any option is installed, take off the option first and then take off the SYS board.
2. The SYS board case can be taken off without removing the SYS board and SYSIF board.
(In this case, remove 7 screws)

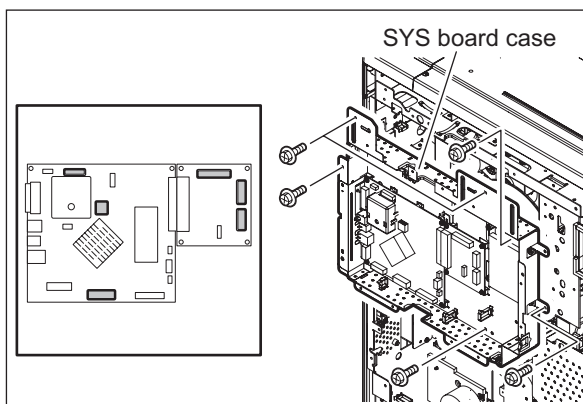



Fig. 5-29

[B] Logic PC board (LGC board)

- (1) Take off the rear cover
( SERVICE MANUAL “2.5 Installation and Replacement of Covers: [L] Rear cover”).
- (2) Loosen 8 screws and take off the LGC board cover by sliding it to the right side.

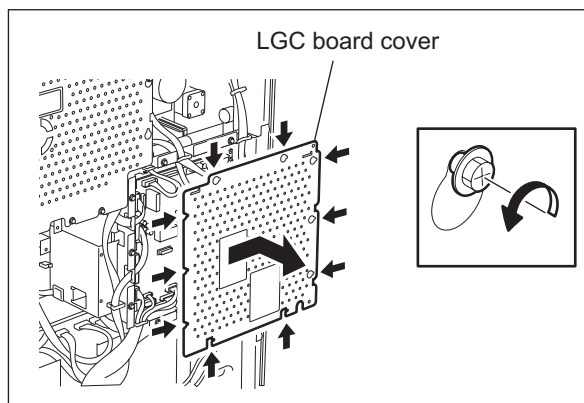


Fig. 5-30

- (3) Disconnect 20 connectors of the LGC board.
- (4) Remove 6 screws to take off the LGC board.

Notes:

When replacing the LGC board, remove IC27 from the old board and then install it on the new one.

- When installing IC27, be sure that its pins are attached in the correct direction and not misaligned.
- Do not touch the pins of IC27 with your bare hands. (Be careful of static electricity.)

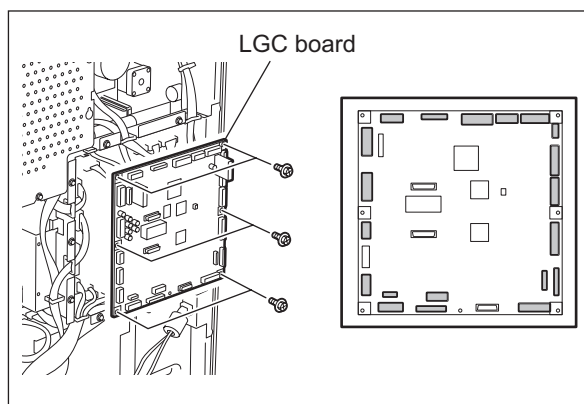




Fig. 5-31

[C] Hard disk (HDD)

- (1) Take off the rear cover
( SERVICE MANUAL “2.5 Installation and Replacement of Covers: [L] Rear cover”).
- (2) Remove the SYS board cover
( P.5-150 “[A] System control PC board (SYS board) / System interface PC board (SYSIF board) / SYS board case”).
- (3) Disconnect 1 connectors and remove 1 screw to take off the ground wire.
- (4) Remove 4 screws and remove 4 washers to take off the HDD with its bracket.

Note:

Be sure that any vibration is not transmitted to the HDD.

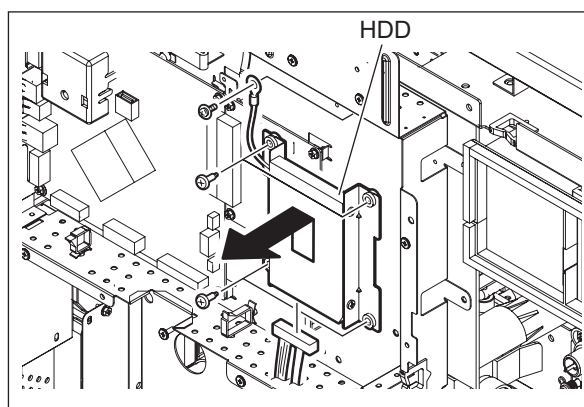


Fig. 5-32

- (5) Remove 4 screws and take off the HDD and the ground wire from the brackets.

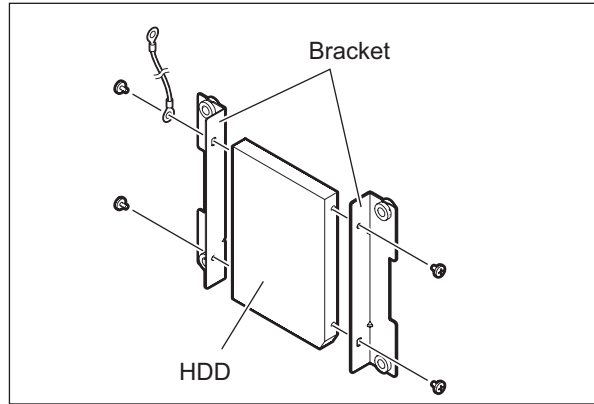


Fig. 5-33

[D] High-voltage transformer (HVT) / LGC board case

- (1) Take off the rear cover
(SERVICE MANUAL "2.5 Installation and Replacement of Covers: [L] Rear cover").
- (2) Take off the LGC board cover
(P.5-152 "[B] Logic PC board (LGC board)").
- (3) Disconnect 20 connectors of the LGC board.
- (4) Remove 7 screws and release the hook to take off the LGC board case with the board.

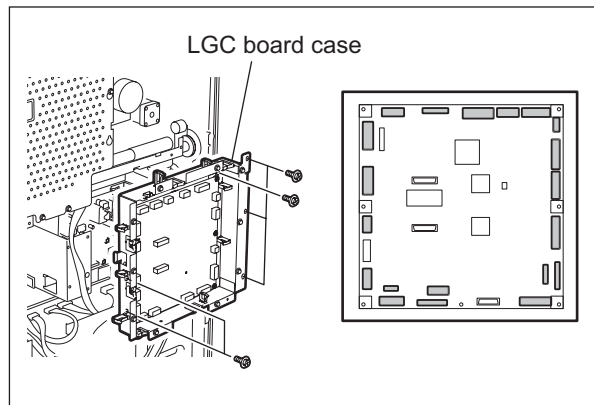


Fig. 5-34

- (5) Disconnect 6 connectors of the high-voltage transformer.
- (6) Remove 1 screw and release 3 locking supports to take off the high-voltage transformer.

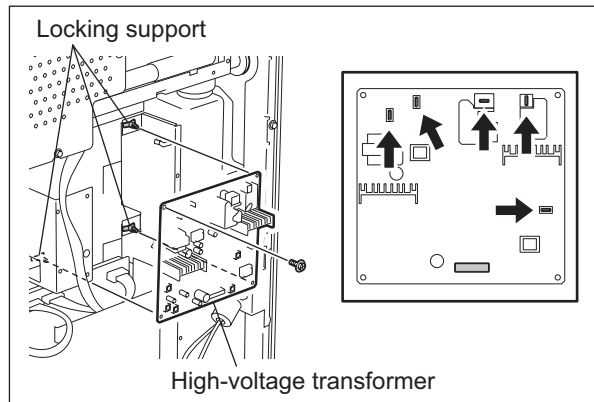


Fig. 5-35

[E] Switching regulator (PS)

- (1) Take off the rear cover
(SERVICE MANUAL "2.5 Installation and Replacement of Covers: [L] Rear cover").
- (2) Disconnect 12 connectors.
- (3) Remove 4 screws and release the hook to take off the switching regulator.

Note:

When installing or taking off the switching regulator, be sure that their harnesses are not caught.

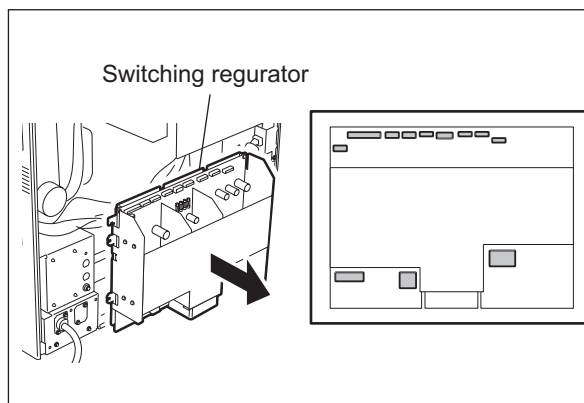


Fig. 5-36

[F] SRAM board <for SYS board> (RAM-S)

- (1) Take off the SYS board cover.
(P.5-150 "[A] System control PC board (SYS board) / System interface PC board (SYSIF board) / SYS board case")
- (2) Release 2 latches and take off the SRAM board for the SYS board with the case.

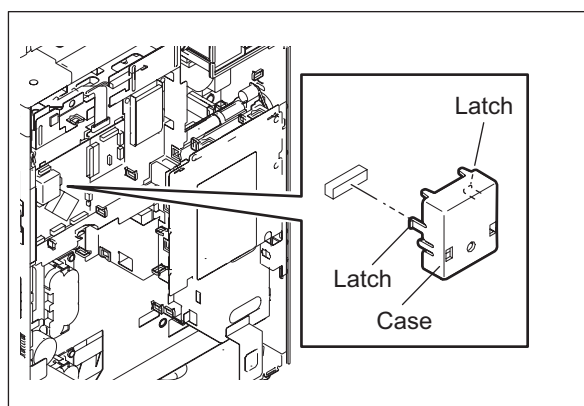


Fig. 5-37

- (3) Release 2 latches and take off the SRAM board for SYS board from the case.

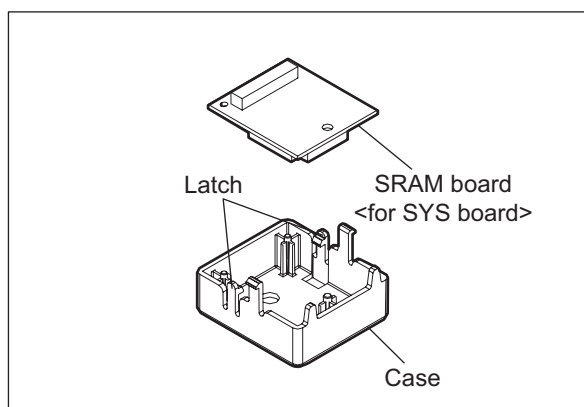





Fig. 5-38

5.4.2 Precautions, Procedures and Settings for Replacing PC Boards and HDD

[1] Precautions when replacing PC boards

- The ID for each equipment is registered on the the SYS board and the SLG board. So, if their replacement is required, be sure to replace only one board at a time.
- If more than one of the LGC board and the SYS board require replacement, replace them in the following procedure.
 1. First, replace one of the board to be replaced.
 2. Turn the power ON and confirm that "READY" is displayed.
 3. Turn the power OFF.
 4. Replace another board that requires replacement.
 5. Repeat steps 2 to 4.
- The SLG board can be replaced without other settings.
- When replacing the LGC board, be sure to remove IC27 from the board and install it on the new one. Make sure that its pins are attached in the correct direction, not misaligned and not damaged by static electricity.
- When the HDD requires replacement, see  P.5-158 "[3] Precautions and procedures when replacing the HDD".
- When the SYS board requires replacement, see  P.5-162 "[4] Precautions and Procedures when replacing the SYS board".
- When SRAM requires replacement, see  P.5-164 "[5] Precautions and Procedures when replacing SRAM board".

[2] HDD fault diagnosis

This code displays the HDD operation history, which is recorded in the HDD, on the control panel. HDD failure can be diagnosed or predicted with the information displayed.

1. Display

The following screen is displayed with setting code 08-670.

HDD manufacturer Model name HDD serial number

100 % 670

TEST MODE

•TOSHIBA MK8046GSX Z7AMT003T

ID	NAME	VALUE	NAV	Worst
01	Read Error Rate	0	100	100
02	Throughput Performance	0	100	100
03	Spin Up Time	1077	100	100
04	Spin Start/Stop Count	224	100	100
05	Re-allocated Sector Count	0	100	100
06	Read Channel Margin	-----	---	---
07	Seek Error Rate	0	100	100
08	Seek Time Performance	0	100	100
09	Power-On Hours	16	100	100
0a	Spin Retry Count	0	104	100

1/3

Prev Next ENTER

- Items supported differ depending on the HDD manufacturer.
- "---" is displayed on the VALUE, NAV and Worst columns if items are not supported.

2. Usage

The combination of the values of ID=05 and c5 is used to diagnose whether or not the HDD has a physical failure when HDD failure is suspected (service call F100-108 or 120 occurred).

Result		Description	Diagnosis
ID	VALUE		
05	0	Low possibility of physical failure	HDD replacement is not required.
c5	0		
05	From 1 to 999	Defective sector has been reassigned and HDD is recovered.	HDD replacement is not required.
c5	0		
05	Any value	High possibility of defective sector existence. (There will be a possibility of physical failure depending on the use of HDD.)	HDD replacement is recommended.
c5	1 or more		
05	Either one is at least 1000.	High possibility of physical failure	HDD replacement is recommended.
c5			
05	All values are displayed as "-----".	High possibility of physical failure (A HDD connector, harness or SYS board may be one of the causes.)	HDD replacement is recommended.
c5			

3. ID=05 and c5

ID	Name	Description	Remarks
05	Re-allocated Sector Count	The number of sectors reassigned	This value tends to increase at HDD failure.
c5	Current Pending Sector Count	The number of candidate sectors to be reassigned	This value tends to increase at HDD failure.

4. Description of each ID

ID	Name	Meaning
01	Read Error Rate	This attribute is a measure of the read error rate.
02	Throughput Performance	This attribute is a measure of the throughput performance.
03	Spin Up Time	This attribute is a measure of how quickly the drive is able to spin up from a spun down condition.
04	Spin Start/Stop Count	This attribute is a measure of the total number of spin ups from a spun down condition.
05	Re-allocated Sector Count	This attribute is a measure of the total number of reallocated sectors.
07	Seek Error Rate	This is a measure of the seek error rate.
08	Seek Time Performance	This attribute is a measure of a drive's seek performance during normal online operations.
09	Power-On Hours	This attribute is a measure of the total time (hours or minutes depending on disk manufacturer) the drive has been on.
0a	Spin Retry Count	This attribute is a measure of the total number of spin retries.
0c	Power Cycle Count	This attribute is a measure of the number of times the drive has been turned on.
c0	Power off Retract Count	This attribute is a measure of the total number of emergency unloads.
c1	Load Cycle Count	This attribute is a measure of the total number of load/unloads.
c2	Temperature	This attribute is a measure of the temperature in the HDD.
c3	ECC On the Fly Count	This attribute is a measure of the total number of the ECC On the Fly.
c4	Reallocation Event Count	This attribute is a measure of the total number of the reallocation events.
c5	Current Pending Sector Count	This attribute is a measure of the total number of candidate sectors to be reallocated.
c6	Off-Line Scan Uncorrectable Sector Count	This attribute is a measure of the total number of uncorrectable sectors found during the off-line scan.
c7	Ultra DMA CRC Error Count (Rate)	This attribute is a measure of the total number of errors found in data transfer in the Ultra-DMA mode.
c8	Write Error Rate	This attribute is a measure of the write error rate.

[3] Precautions and procedures when replacing the HDD

Notes:

- When the HDD is replaced, it is necessary to back up the data in the HDD before replacing and to recover them after replacing.
- To maintain the security, ask users to perform the backup/restore for users' data/information in the HDD. The service technician can perform them only when users permit it.
- Some data in the HDD cannot be backed up and can be kept only on the paper.
- When 08-690 is performed, the HDD self-certificate is not available, so the SSL-related setting becomes disabled.
- Do not replace the HDD and the SRAM board (for the SYS board) together.

A procedure for replacing the HDD is shown below.

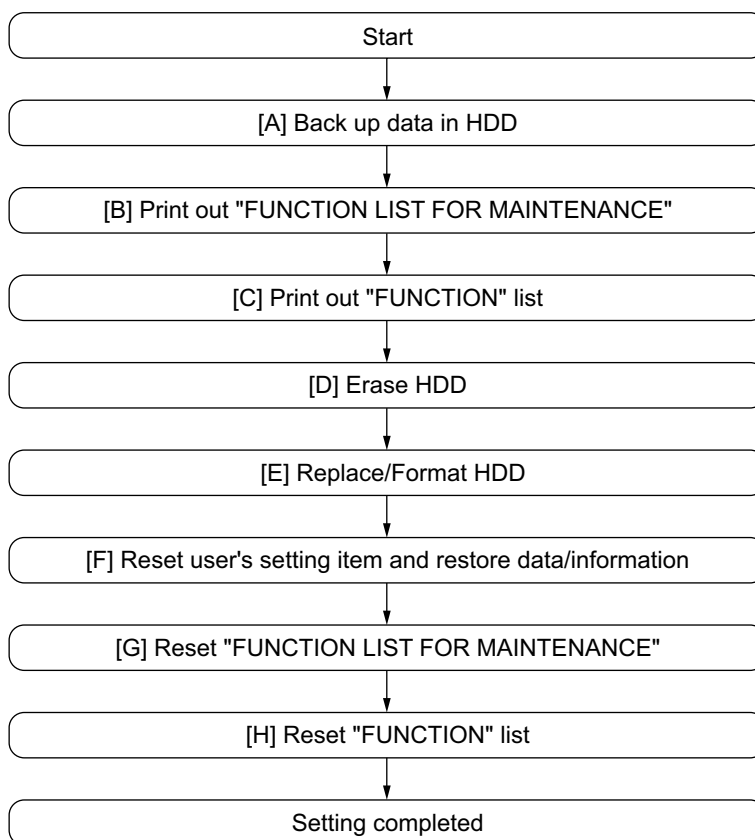


Fig. 5-39

[A] Back up in HDD

Ask the user (machine administrator) to back up the data in the HDD. Refer to the table below for the type of data, availability and method of backup.

Type of data in HDD	Availability	Backup method
Image data in the e-Filing	Available	Archive them in the “e-Filing” of TopAccess. As for the backup in Box data, all data (selectable by the box) can be backed up / restored in one go by using “e-Filing Backup/Restore Utility”.
F-code information, Template registration information, Address book data	Available	Back them up in the “Administrator” menu of TopAccess.
Department management data	Available	Export them in “Administrator” menu of TopAccess.
Log data (Print, Scan, FAX (Transmission/Reception))	Available	Export them in the “Administrator” menu of TopAccess. (Import cannot be performed.)
Data in the shared folder (Scanned data, Saved data of copy / FAX transmission)	Available	Copy them to the client computer via the network. (The data which have been copied to the client computer cannot be copied to the shared folder.)
Print waiting data (Copying data and FAX reception data that are waiting to be printed due to the paper run-out and jam, etc.)	Not available	Finish printing them after supplying paper or releasing the jam, etc. (The data cannot be left.)
Print job (Private print data, Schedule print data)	Not available	If any jobs are left, print them. (The data cannot be backed up.)
FAX saved data (Confidential / Bulletin board data)	Not available	Print them. (The data cannot be backed up.)
Registration data for FAX transmission (Delayed transmission / Recovery transmission)	Not available	Print them. (The data cannot be backed up.)

[B] Print out “FUNCTION LIST FOR MAINTENANCE”

- (1) Press the [USER FUNCTIONS] button and then the [USER] button.
- (2) Press the [LIST] button.
- (3) Key in [*] [#] [*] [*] [3] [3] and then press the [START] button. The “FUNCTION LIST FOR MAINTENANCE” is printed out.

[C] Print out “FUNCTION” list

- (1) Press the [USER FUNCTIONS] button.
- (2) Press the [ADMIN] button, enter the password, and then press the [ENTER] button.

Note:

Explain the procedure to the user (machine administrator) and ask him/her to enter his/her password.


- (3) Press the [LIST/REPORT] button and then the [LIST] button.
- (4) Press the [FUNCTION] button. The “FUNCTION” list is printed out.

[D] Erase HDD

When the Data Overwrite Enabler (GP-1070) is installed, be sure to perform 08-1426 (forcible HDD data clearing) and confirm that deleting of the HDD data is completed.

 P.5-168 "[1] Precautions for Installation of GP-1070 and Disposing of the HDD"

[E] Replace / Format HDD

- (1) Confirm that the power is turned OFF.
- (2) Replace the HDD. ( P.5-152 "[C] Hard disk (HDD)")
- (3) Clear the partitions on the HDD.
 1. Turn the power ON while pressing [3] and [CLEAR] button simultaneously.
 2. When "Firmware Assist Mode" appears on the LCD, key in [3] to select "3: All Partition Delete and Create Loader Partition." and then press the [START] button.
 3. When "Initialize completed." is displayed on the LCD, clearing of the partitions is completed.
- (4) Turn the power OFF.
- (5) Update the master data using the USB media.
See "6.1Firmware Updating with USB Media" for details.
- (6) Start up with the Setting Mode (08).
- (7) Format the HDD (08-690).
 - When "REBOOT THE MACHINE" is displayed on the LCD, formatting of the HDD is completed.
- (8) Turn the power OFF.
- (9) When the Fax Unit (GD-1250) is installed, perform "Fax Set Up" (1*-100) and "Clearing the image data" (1*-102). Then turn the power OFF.
- (10) Start up with the Setting mode (08).
- (11) Check the version of the HDD (08-944).
 - Confirm the version displayed on the LCD, and then press the [ENTER] button.
- (12) Turn the power OFF.

[F] Reset user's setting items and restore data/information

Ask the user (machine administrator) to reset the user's setting items and to restore data or information. Refer to the following for the reset and restore:

Items to reset/restore	Method
Printer driver	Upload them in the "Administrator" menu of TopAccess.
F-code information, Template registering information, Address book data	Restore them in the "Administrator" menu of TopAccess
Department management data	Import them in the "Administrator" menu of TopAccess.
Image data in the Electronic Filing	Upload them in the "e-Filing" of TopAccess.


- * When the SSL is enabled, perform the setting of the following items again with "Create self-certificate" of TopAccess.

Country Name
State or Province Name
Locality Name
Organization Name
Organizational Unit Name
Common Name
Email Address

- * When wireless LAN is used, perform the setting again on the LCD panel.
(only when security with a certificate is used)
Also, upload the following certificate file with "Install Certificate for Wireless LAN" of TopAccess.

CA certificate
User certificate

[G] Reset "FUNCTION LIST FOR MAINTENANCE"

- (1) Print out the "FUNCTION LIST FOR MAINTENANCE" list after the formatting. For how to print it out, refer to  P.5-159 "[B] Print out 'FUNCTION LIST FOR MAINTENANCE'".
- (2) While pressing [1] and [3] simultaneously, turn the power ON. (Function Mode)
- (3) Compare the lists which were printed before and after the formatting to check the setting items having the different setting values. Set the value which was set before the formatting.
- (4) Turn the power OFF.

[H] Reset "FUNCTION" list

Reset the fax function by referring to the "FUNCTION" list that was printed out in  P.5-159 "[C] Print out 'FUNCTION' list".

- (1) Press the [USER FUNCTIONS] button.
- (2) Press the [ADMIN] button, enter the password, and then press the [ENTER] button.

Note:

Explain the user (machine administrator) about the next operation and ask him/her to enter his/her password.

- (3) Press the [FAX] button and then the [TERMINAL ID] button to set each item.
- (4) Press the [INITIAL SETUP] button to set each item.

[4] Precautions and Procedures when replacing the SYS board

A procedure for SYS board replacement is shown below.

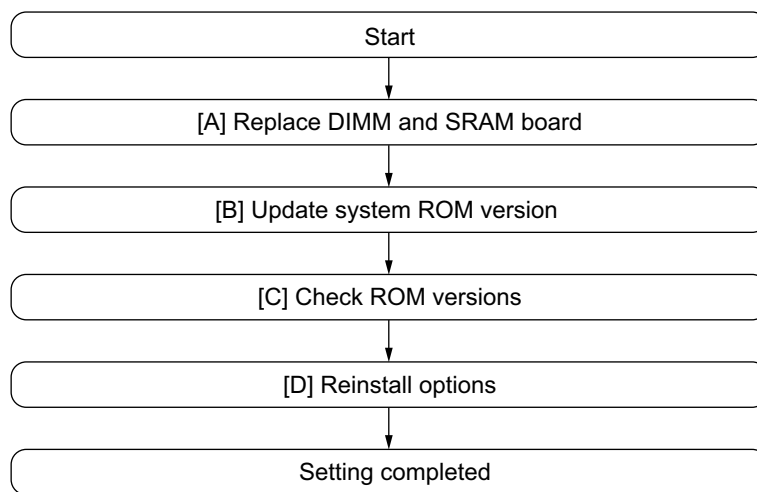
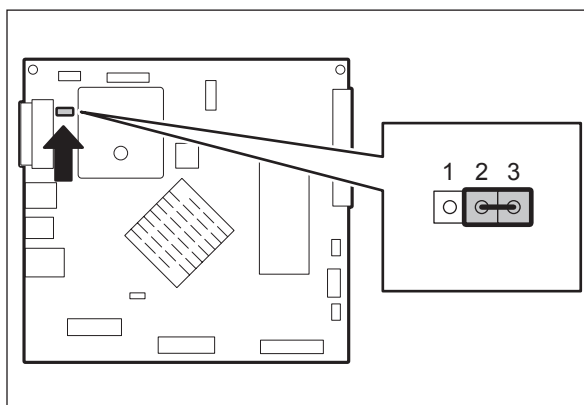


Fig. 5-40

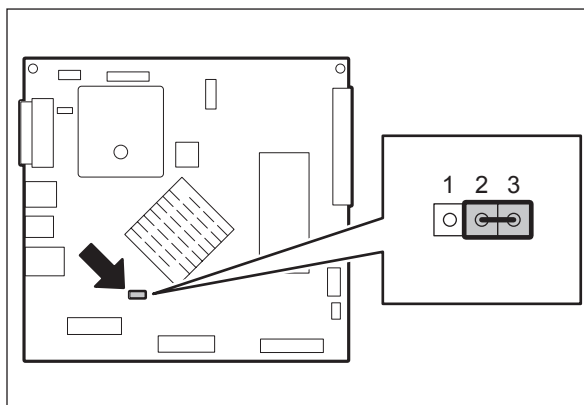
Important:

Before replacing the SYS board with the one provided as a service part, be sure to set the jumper pin on the board as shown below.

1. CN103



2. CN115



[A] Replace DIMM and SRAM boards

- (1) Confirm that the power is turned OFF.
- (2) Install DIMM (main memory, page memory) to the new SYS board (from the old SYS board).
- (3) Install SRAM board to the new SYS board (from the old SYS board).

[B] Update system ROM version

Update the version of system ROMs (OS data, UI data, System Firmware) with the USB media.

* See "6.1 Firmware Updating with USB Media" for details.

[C] Check ROM versions

- System firmware ROM version (08-900)
- FROM basic section software version (08-920)
- System firmware internal program version (08-921)
- Version of UI data in FROM displayed at power ON (08-930)

[D] Reinstall options

When any of the options below was installed, reinstall a license for the corresponding option following its unpacking instructions.

- Printer Kit (GM-1180)
- Printer/Scanner Kit (GM-2180)
- Scanner Kit (GM-4180)
- Meta Scan Enabler (GS-1010)
- External Interface Enabler (GS-1020)
- Data Overwrite Enabler (GP-1070)
- IPsec Enabler (GP-1080)

Remark:

Reinstallation is possible with the USB media used for installing the corresponding option before the SYS board is replaced.

When GP-1070 (Data Overwrite Enabler) has been installed, "F200" service call occurs. In this case, perform cancelling the "F200" service call (installing any of the OS / HDD SYS / PFC Firmware / Engine MainFirmware / Scanner Firmware using the USB media), and then install GP-1070 (Data Overwrite Enabler) again.

[5] Precautions and Procedures when replacing SRAM board


Note:

Do not replace the HDD and the SRAM board (for the SYS board) together.

Be careful not to damage the board when replacing the SRAM board.

When you replace the SRAM board while the data encryption function is enabled, readout of the user data/information stored in the HDD becomes impossible.

A procedure for replacing the SRAM board is shown below.

When disposing of the SRAM board, perform the items in  P.5-168 "[3] Precautions when disposing of the SRAM board".

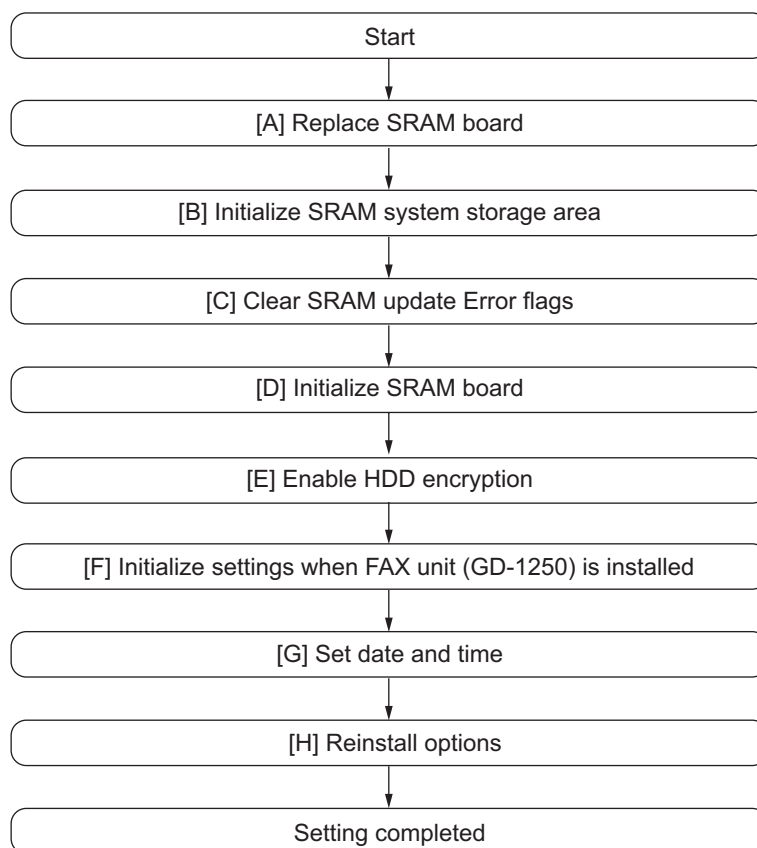



Fig. 5-41

[A] Replace SRAM board

- (1) Confirm that the power is turned OFF.
- (2) Take off the Fax Unit (GD-1250) if it is installed.
- (3) Replace the SRAM board.
 P.5-154 "[F] SRAM board <for SYS board> (RAM-S)"

[B] Initialized SRAM system storage area

- (1) Turn the power ON while pressing [3] and [CLEAR] simultaneously.
- (2) When “Firmware Assist Mode” appears on the LCD, check that “4: SRAM Data Format.” is marked and then press the [START] button. If not marked, key in [4] and then press the [START] button.
- (3) When “SRAM Data Format Complete.” is displayed on the LCD, the formatting is completed.
- (4) Turn the power OFF.

[C] Clear SRAM update Error flags

- (1) Turn the power ON while pressing [3] and the [CLEAR] button simultaneously.
- (2) After “Firmware Assist Mode” is displayed on the LCD, check that “1: Clear SRAM update Error flags.” is marked and press the [START] button.
If not, key in [1] and then press the [START] button.
- (3) When “SRAM update Error flags cleared.” is displayed on the LCD, clearing the flag is completed.
- (4) Turn the power OFF.

[D] Initialize SRAM board


- (1) Start up with the Setting Mode (08).
- (2) Initialize the SRAM error.
 1. When “SRAM ERROR DOES IT INITIALIZE” is displayed on the LCD, check the destination and then press the [START] button.
If the destination is not correct, key in the correct one and then press the [START] button.
 2. After the confirmation message is displayed, press the [INTERRUPT] button.
- (3) Perform the panel calibration (08-692).
 1. Touch the center of “+” mark displayed on the upper left of the LCD.
 2. Touch the center of “+” mark displayed on the lower right of the LCD.
- (4) Perform the initialization at the software version upgrade (08-947).
- (5) Initialize the NIC information (08-693).
- (6) Enter the serial number (08-995).
Key in the serial number on the label attached to the rear cover of the equipment, and then press the [OK] button.
- (7) Turn the power off.

[E] Enable HDD encryption

If the HDD encryption function has been set, perform the following procedure.

- (1) Start up with the Setting mode (08).
- (2) Enable the HDD encryption function (08-9379).
- (3) Format the HDD (08-690).
- (4) Turn the power OFF.

[F] Initialize settings when FAX Unit (GD-1250) is installed

- (1) Reinstall the FAX Unit (GD-1250) which was taken off at step (1) of  P.5-164 "[A] Replace SRAM board".
- (2) Start up with the Setting mode (08).
- (3) Set the destination of FAX (08-701).
- (4) Turn the power OFF.
- (5) Start up with the FAX Clearing Mode (1*).
- (6) Perform the FAX Set Up (1*-100).
- (7) Turn the power OFF and then back ON.
- (8) Set the dial type according to these buttons: [USER FUNCTIONS] -> [ADMIN] -> [FAX] -> [INITIAL SETUP]

[G] Set date and time

Set the date and time according to these buttons.

[USER FUNCTIONS] → [ADMIN] → [GENERAL] → [CLOCK] → [DATE/TIME]

[H] Reinstall options

When any of the options below was installed, reinstall a license for the corresponding option following its unpacking instructions.

- Printer Kit (GM-1180)
- Printer/Scanner Kit (GM-2180)
- Scanner Kit (GM-4180)
- Meta Scan Enabler (GS-1010)
- External Interface Enabler (GS-1020)
- Data Overwrite Enabler (GP-1070)
- IPsec Enabler (GP-1080)

Remark:

Reinstallation is possible with the USB media used for installing the corresponding option before the SYS board is replaced.


When GP-1070 (Data Overwrite Enabler) has been installed, "F200" service call occurs. In this case, perform cancelling the "F200" service call (installing any of the OS / HDD SYS / PFC Firmware / Engine MainFirmware / Scanner Firmware using the USB media), and then install GP-1070 (Data Overwrite Enabler) again.

[6] Firmware confirmation after the PC board/HDD replacement

After replacing the PC board/HDD, check the firmware version in the setting mode (08) and confirm if the firmware combination is correct.

Firmware	Code	Remarks
Updating HDD/UI data	08-944	HDD Version
	08-924	Version of UI data language 1 in HDD
Updating System ROM	08-900	System firmware ROM version
	08-921	System firmware ROM internal program version
Updating OS	08-920	FROM basic section software version
Updating Laser ROM	08-904	Laser ROM version
Updating Engine ROM	08-903	Engine ROM version
Updating Scanner ROM	08-905	Scanner ROM version
Updating PFC ROM	08-906	PFC ROM version
Updating RADF ROM	08-907	RADF ROM version
Updating Finisher ROM	08-908	Finisher ROM version Saddle stitcher ROM version
Updating Inserter ROM	08-909	Inserter ROM version
Updating FAX ROM	08-915	FAX ROM version

- * If "NGD" is displayed for the PFC ROM. version (08-906), the downloading of PFC ROM fails.
Update the firmware again.

 P.6-43 "6.5 When Firmware Updating Fails"

5.4.3 Precautions for Installation of GP-1070 and Disposal of the HDD and PC Boards

[1] Precautions for Installation of GP-1070 and Disposing of the HDD

When installing the Data Overwrite Enabler (GP-1070), perform the following setting:

08-1422: HDD data overwriting type setting

This setting is the overwriting method complying with DoD 5220.22-M.

- 0: LOW: This is the standard overwriting method. (This method is used normally.)
- 1: MEDIUM: This overwriting method is more secure than LOW. The erasing time is between LOW and HIGH.
- 2: HIGH: This is the most secure overwriting method. It takes the longest time to erase data.

If disposing of the HDD when the Data Overwrite Enabler (GP-1070) has been installed, perform the following settings for security.

 P.2-73 "2.2.5 Setting mode (08)"

08-1424: HDD data clearing type setting (forcible clearing)

This setting is the overwriting method complying with DoD 5220.22-M.

- 0: LOW: This is the standard overwriting method. (This method is used normally.)
- 1: MEDIUM: This overwriting method is more secure than LOW. The erasing time is between LOW and HIGH.
- 2: HIGH: This is the most secure overwriting method. It takes the longest time to erase data.

08-1426: Forcible HDD data clearing

HDD data are cleared according to the setting of 08-1424.

Note:

The process is displayed as a percentage during forcible HDD data clearing. Never turn the power OFF until 100% is displayed and the process is completed.

If the Data Overwrite Enabler (GP-1070) is not installed, perform 08-690 (HDD format).

[2] Precautions when disposing of the SYS board

When disposing of the SYS board, data clearing is not required since important data, such as user information, etc. are stored in the SRAM board.

[3] Precautions when disposing of the SRAM board

When disposing of the SRAM board, perform 08-1428 (Forcible SRAM backup data all clearing) for security reasons.

Note:

If these codes are performed, the equipment cannot be started up.

5.5 Other errors

1. Operation cannot be performed (operation from the control panel is not successful) after installing the option(s) such as Wireless LAN module.
 - Check if the optional board is installed properly.
2. The connection to the Wireless LAN cannot be made even though it is set to "Enabled".
 - The connection state and settings of the Wireless LAN can be checked with [USER FUNCTIONS] → [ADMIN] → [WIRELESS LAN] → [SETTING CHECK].
Confirm the settings with the administrator.
 - * "NIC INITIALIZING" does not disappear at the time of the power being turned ON and it disappears after 6 minutes with the NIC initializing time-out. In this case, the connection to the Wireless LAN did not succeed even though "NIC INITIALIZING" disappears.
 - * The connection to the Wireless LAN cannot be made if the Access Point to be connected is not found or security settings are not correct.
3. Abnormality when the power is turned ON
Check that the cable and harness of the fuser unit are not caught.
If the protection function of the fuser unit detects them being caught, the power cannot be turned ON.

6. FIRMWARE UPDATING

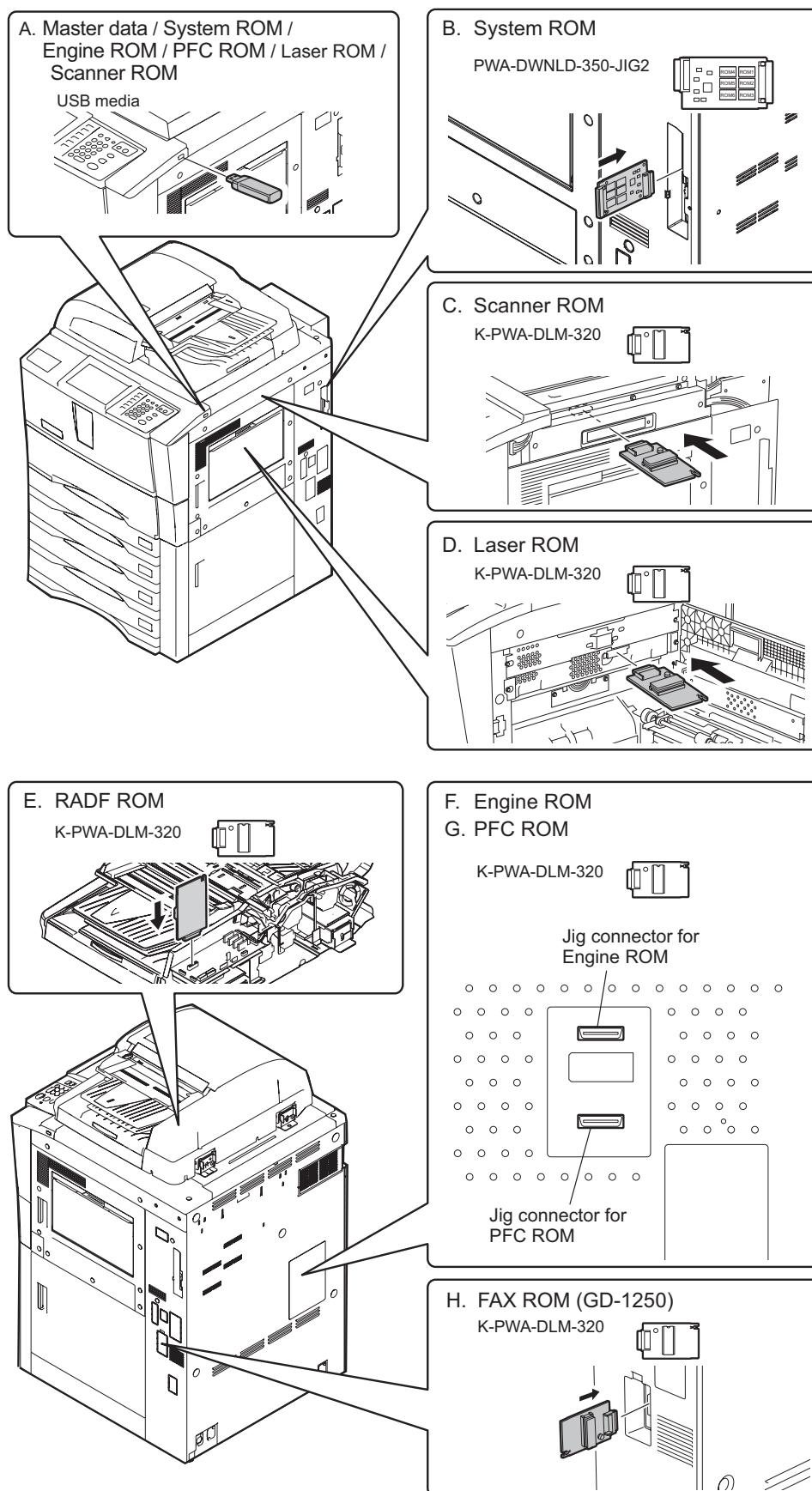
When you want to update the firmware to the latest one or the equipment becomes inoperable due to some defect in the firmware, updating can be performed as follows.

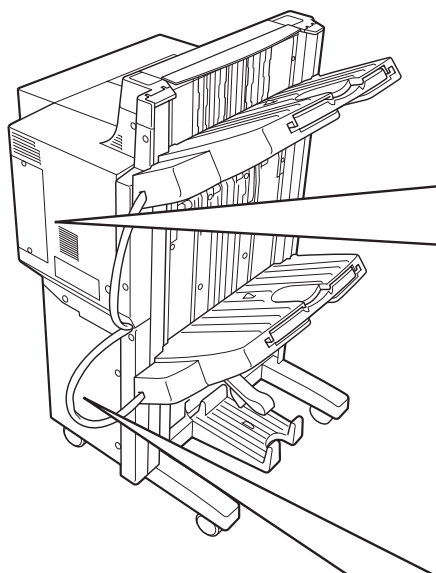
Equipment

Firmware	Updating method
Master data (HDD program data, System firmware, UI data)	USB media
System ROM (OS data)	USB media Download jig (PWA-DWNLD-350-JIG2)
Laser ROM (Printer firmware)	USB media Download jig (K-PWA-DLM-320)
PFC ROM (PFC firmware)	USB media Download jig (K-PWA-DLM-320)
Engine ROM (Main firmware)	USB media Download jig (K-PWA-DLM-320)
Scanner ROM (Scanner firmware)	USB media Download jig (K-PWA-DLM-320)
Reversing Automatic Document Feeder (RADF)	Download jig (K-PWA-DLM-320)

Options

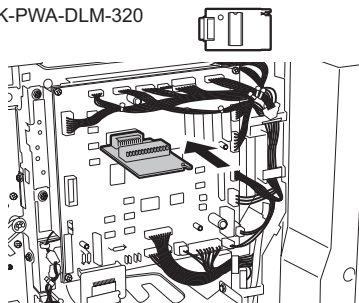
Model name	Firmware	Updating method
Finisher (MJ-1027)	Finisher firmware	Download jig (K-PWA-DLM-320)
Saddle Stitch Finisher (MJ-1028)	Finisher firmware	
	Saddle stitcher firmware	
Fax Unit (GD-1250)	FAX firmware	
Insertter (MJ-7001)	Insertter firmware	





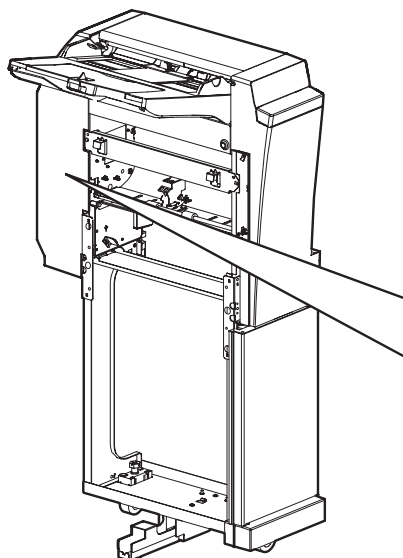
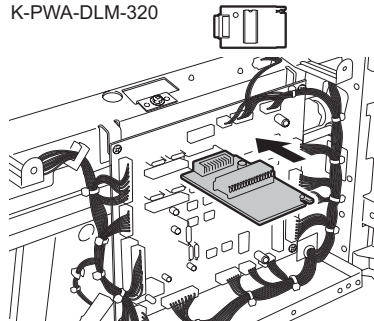
I. Finisher ROM (MJ-1027/1028)

K-PWA-DLM-320



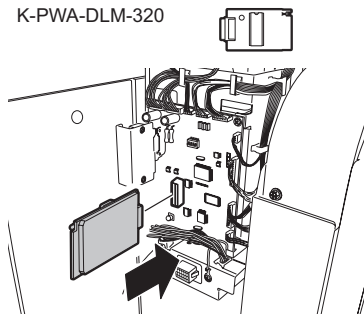
J. Saddle stitcher ROM (MJ-1028)

K-PWA-DLM-320



K. Inserter ROM (MJ-7001)

K-PWA-DLM-320



A	Master data, System ROM, Laser ROM, PFC ROM, Engine ROM, Scanner ROM	P. 6-7
B	System ROM	P. 6-22
C	Scanner ROM	P. 6-29
D	Laser ROM	P. 6-25
E	RADF ROM	P. 6-32
F	Engine ROM	P. 6-27
G	PFC ROM	P. 6-27
H	FAX ROM (GD-1250)	P. 6-40
I	Finisher ROM (MJ-1027/1028)	P. 6-34
J	Saddle stitcher ROM (MJ-1028)	P. 6-36
K	Inserter ROM (MJ-7001)	P. 6-38

Notes:

- Written firmware varies depending on the kinds of the boards provided as service parts. For updating, only the minimum firmware is installed on the system control PC board, logic PC board, PFC PC board, and scanning section control PC board. No firmware is installed on the FAX board. The latest version of the firmware at the time of delivery is written on the RADF control PC board, finisher control PC board and saddle stitcher control PC board. When any of above boards is replaced with a new one in the field, check the other firmware version used and then update with a corresponding suitable version.
- The firmware (master data) is not installed on the hard disk provided as a service part. When the hard disk is replaced with a new one, check the other firmware version used and then write a corresponding suitable version.

6.1 Firmware Updating with USB Media

Firmware can be updated by storing update programs and firmware data files in the USB media.

Program necessary for updating

Update program	Data file name	Remarks
Update program loader	mentusb2.o	An error occurs at a time of the [4] + [9] startup, unless this program is stored in the USB media. * Be sure to save this data file to the root directory of the USB media.
Model specific update program	dIFirmWare_555_855	An error occurs at a time of the [4] + [9] startup, unless this program is stored in the USB media.

Firmware type and data file name for updating

Equipment

Firmware	Stored	Data file name	Remarks
System ROM	System control PC board (SYS board)	firmImage0.bin	OS data
Master data	Hard disk	hdd.bin	HDD program data, System firmware, UI data
PFC ROM	Logic PC board (LGC board)	T100FWW.xxx * xxx is version.	PFC firmware
Laser ROM	Laser control PC board (PLG board)	T100LWW.xxx * xxx is version.	Laser firmware
Engine ROM	Logic PC board (LGC board)	T100MWW.xxx * xxx is version.	Main firmware
Scanner ROM	Scanning section control PC board (SLG board)	T100SLGWW.xxx * xxx is version.	Scanner firmware

Store the update program loader (mentusb2.o) in the root directory, and store the model specific update program (dIFirmWare_555_855) and the data file for updating in the model specific folder.

Model specific folder name	555_855
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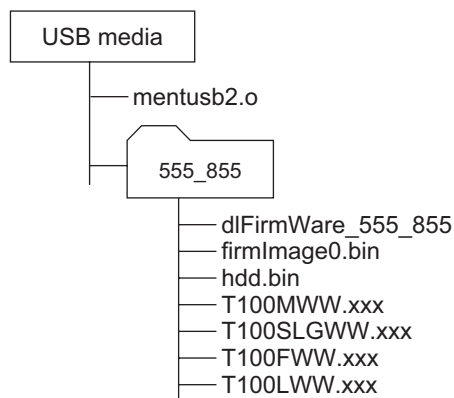



Fig. 6-1

Notes:

- Since the date and time set in the equipment are recorded in the firmware update log, make sure that they are correct before updating the firmware.
- Never change the model specific folder name, since it is used for identifying the data file when the data files used for updating multiple models are stored in the USB media.

Important:

- Only the USB media which meet the following conditions should be used for updating. Be careful since updating with any device other than the above is never guaranteed.
 - A combination USB media with a flash memory (to be connected directly to the USB port) and its capacity is between 256 MB and 512 MB (or 1 GB).
 - Operation of the USB media used for updating has been confirmed at the input check of this equipment (Test mode 03).
( P.2-28 "2.2.1 Input check (Test mode 03)")
 - USB media which comply with the following standards regulated by USB-IF (USB Implementers Forum)
 - Class number: 8 (=08h) (Mass-storage class)
 - Sub-class number: 6 (=06h) (SCSI transfer command set)
 - Protocol number: 80 (=50h) (Bulk-Only)
 - * Most common USB media comply with the specification above and can be used for updating. However, the operation in all the Multi Functional Digital Color Systems and Multi Functional Digital Systems is not necessarily guaranteed since the most of these devices are developed based on use in a PC environment (Windows or Macintosh). Therefore, check thoroughly that the device is operational in the equipment for which the updating will be performed when purchasing it.
- The USB media complying with USB1.1 and USB2.0 can be used for updating.
- Do not update the firmware by any storage device other than a flash memory (such as a USB connection type memory card reader, CD/DVD drive or hard disk), since it is never guaranteed.
- It is possible to store the model specific update program and the data file for updating directly in the root directory when you store the updating data file for one specific model in the USB media. However, if the model specific folder for the same model as that of the data file stored in the root directory already exists, this will have priority.

6.1.1 Master data/System ROM/Laser ROM/PFC ROM/Engine ROM/Scanner ROM

Important:

- The file system of USB media should be formatted in the FAT or FAT32 format. Be careful since the devices formatted in NTFS format will not be able to be operated. The file system can be confirmed on the properties in applications such as Explorer of Windows.
- Never shut down the equipment during the update. Firmware data and the following option data (if installed) could be damaged and may not be able to be operated properly.
 - Data Overwrite Enabler (GP-1070)
 - Meta Scan Enabler (GS-1010)
 - External Interface Enabler (GS-1020)
 - IPsec Enabler (GP-1080)

[A] Update procedure

- (1) Connect the USB media to the PC and write the model specific folder in which the data file is stored.
Store the update program loader (mentusb2.o) in the root directory, and store the model specific update program (dlFirmWare_555_855) and the data file for updating in the model specific folder.
- (2) Turn the power OFF using the main power switch on the right-hand surface of the equipment.
- (3) Connect the USB media to the USB port on the right upper cover.

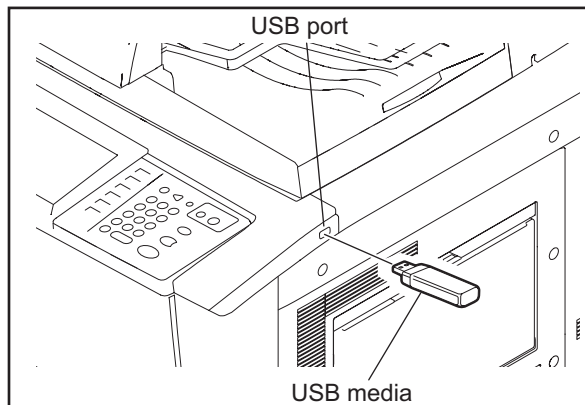


Fig. 6-1

Note:

Updating cannot be performed with multiple USB media connected at the same time.

- (4) Turn the power ON using the main power switch while simultaneously holding down the [4] and [9] buttons.
Data in the USB media are checked and the checking status is displayed on the screen.

The screen for selecting items to be updated is displayed after approx. 1 minute.

On this screen, the current firmware version of this equipment and the firmware version of data to be updated are displayed.

Download Strage Firmware Update Mode		dIFirmWare Version x.xx
		mentusb2 Version x.xx
Select Update Item		Installed Version Updater Version
* 1. OS Update		
* 2. HDD SYS Update	SYS Version ... xxxxxxxxxx (Vxxx.xxx x)	xxxxxxxxxx (Vxxx.xxx x)
* 3. LSR Firmware Update	LSR Version ... xxxxx-xx	xxxxx-xx
* 4. PFC Firmware Update	PFC Version ... xxxxx-xx	xxxxx-xx
* 5. Engine Main Firmware Update	ENG Version ... xxxxx-xx	xxxxx-xx
* 6. Scanner Firmware Update	SCN Version ... xxxxx-xx	xxxxx-xx

Fig. 6-2

Notes:

- The display of items on this screen varies depending on the types of data written on the USB media. Each item is displayed only when each data file is written on the USB media in the following conditions.

Item	Condition
1. OS Update	firmImage0.bin is written.
2. HDD SYS Update	hdd.bin is written.
3. Laser Firmware Update	T100LWW.xxx is written. (xxx is version.)
4. PFC Firmware Update	T100FWW.xxx is written. (xxx is version.)
5. Engine Main Firmware Update	T100MWW.xxx is written. (xxx is version.)
6. Scanner Firmware Update	T100SLGWW.xxx is written. (xxx is version.)

- For “2. HDD SYS Update”, “5. Engine Main Firmware Update” and “6. Scanner Firmware Update”, an asterisk (*) indicating that the item to be installed is not displayed next to one already installed in the same version as that of the update data for the purpose of efficiency, and this will not happen in the standard setting. If you want to install it, select it manually before starting the update.
- If the USB media are not recognized properly, “Set Correct USB Storage Device” message is displayed. In this case, disconnect the USB media and connect it again within 3 minutes, or shut down the equipment and connect the device properly. Then repeat the procedure from (4).
- If any of the error messages below is displayed, confirm if the update program or the data file in the USB media is correct. Then repeat the procedure from (4)

Error number	Error message	Cause
-	There is no mentusb2.o	Update program loader (mentusb2.o) is not stored.
01	There is no dIFirmWare_555_855	Model specific update program (dIFirmWare_555_855) is not stored.
01	There is no dIFirmWare_xxx_xxx in the storage device. * The model name comes at “xxx_xxx”.	The jumper line on the SYS board is set for another model.
02	Error Loadmodule	Module loading failed.
03	Machine Model Get Error	Model information was not downloaded.
04	Please Change USB Storage or Please Check ROMDATA	Checking of data file failed.
05	Other models ROMDATA Vxxxx.xxx x * The version name comes at “xxxx.xxx.x”.	Master data of other model (hdd.bin) are stored.

- (5) Select the item with the digital keys.
 “*” is displayed next to the selected item. Display or delete the “*” by pressing the number of the item.

Item	Remarks
1. OS Update	Updating OS data and UI data
2. HDD SYS Update	Updating Master data and System data
3. Laser Firmware Update	Updating Laser ROM
4. PFC Firmware Update	Updating PFC ROM
5. Engine Main Firmware Update	Updating Engine ROM
6. Scanner Firmware Update	Updating Scanner ROM

- (6) Press the [START] button.
 Updating starts and the processing status is displayed on the LCD screen.

Status display during update	Status display when update is completed
OS Update.....FROM write	OS Update.....Completed
HDD SYS Update Copy file	HDD SYS Update Completed
Laser Firm Update Flash Update	Laser Firm Update Completed
PFC Firm UpdateFlash Update	PFC Firm Update Completed
Engine Firm Update.....Flash Update	Engine Firm Update..... Completed
Scanner Firm UpdateFlash Update	Scanner Firm UpdateCompleted

- (7) “Update Completed.” is displayed at the bottom of the LCD screen after the updating is completed properly.

Download Storage Firmware Update Mode	dIFirmWare Version x.xx mentusb2 Version x.xx
	OS Update Completed
	HDD SYS Update Completed
	Engine MAIN Update ... Completed
	PFC Firm Update Completed
	LSR Firm Update Completed
	Scanner Firm Update .. Completed
	Update Completed.

Fig. 6-3

Notes:

- “Update Failed.” is displayed at the bottom of the LCD screen when the updating is not completed properly. “Failed” appears next to the failed item on the status display. In this case, shut down the equipment after all the updates are stopped (when either “Completed” or “Failed” is displayed for each item), and then check the following.
 - Do the USB media meet the conditions to be used for updating?
 - Is the data file written properly on the USB media?
 - Are the USB media installed properly?
 - Do the USB media and equipment operate properly?
- When an error occurred and the update failed, “Update Failed” or “Failed” appears on the screen and an error code appears next to the message. The content of each error code is shown below.

OS update Error	
Error number	Error content
O01	FROM writing failed
O02	FROM verification error
O03	File operation error
O04	SRAM flag set error
O06	Device error

HDD update Error	
Error number	Error content
H01	File creation error
H02	File decompression error
H03	Partition mount error
H00	Other errors

Laser Update Error		
Error number	Error message	Error content
L01	Time out (When the download is requested)	Communication timeout (When the download is requested)
L02	Time out (When the download is written)	Communication timeout (When the download is written)
L03	Time out (When the download is finished)	Communication timeout (When the download is finished)
L04	Reception failed (When the download is requested)	Downloading request was denied. (When the download is requested)
L05	Deletion error (When the download is written)	Deletion error (When the download is written)
L06	Writing error (When the download is written)	Writing error (When the download is written)
L07	Checksum error (When the download is finished)	Checksum error (When the download is finished)
L08	Reception status code abnormality (When the download is requested)	Reception status code abnormality (When the download is requested)
L09	Reception status code abnormality (When the download is written)	Reception status code abnormality (When the download is written)
L10	Reception status code abnormality (When the download is finished)	Reception status code abnormality (When the download is finished)
L00	Other error	Other error

PFC Update Error		
Error number	Error message	Error content
F01	Time out (When the download is requested)	Communication timeout (When the download is requested)
F02	Time out (When the download is written)	Communication timeout (When the download is written)
F03	Time out (When the download is finished)	Communication timeout (When the download is finished)
F04	Reception failed (When the download is requested)	Downloading request was denied. (When the download is requested)
F05	Deletion error (When the download is written)	Deletion error (When the download is written)
F06	Writing error (When the download is written)	Writing error (When the download is written)
F07	Checksum error (When the download is finished)	Checksum error (When the download is finished)
F08	Reception status code abnormality (When the download is requested)	Reception status code abnormality (When the download is requested)
F09	Reception status code abnormality (When the download is written)	Reception status code abnormality (When the download is written)
F10	Reception status code abnormality (When the download is finished)	Reception status code abnormality (When the download is finished)
F00	Other error	Other error

Engine Update Error		
Error number	Error message	Error content
M01	Time out (When the download is requested)	Communication timeout (When the download is requested)
M02	Time out (When the download is written)	Communication timeout (When the download is written)
M03	Time out (When the download is finished)	Communication timeout (When the download is finished)
M04	Reception failed (When the download is requested)	Downloading request was denied. (When the download is requested)
M05	Deletion error (When the download is written)	Deletion error (When the download is written)
M06	Writing error (When the download is written)	Writing error (When the download is written)
M07	Checksum error (When the download is finished)	Checksum error (When the download is finished)
M08	Reception status code abnormality (When the download is requested)	Reception status code abnormality (When the download is requested)
M09	Reception status code abnormality (When the download is written)	Reception status code abnormality (When the download is written)
M10	Reception status code abnormality (When the download is finished)	Reception status code abnormality (When the download is finished)
M00	Other error	Other error

Scanner Update Error		
Error number	Error message	Error content
S01	Time out (When the download is requested)	Communication timeout (When the download is requested)
S02	Time out (When the download is written)	Communication timeout (When the download is written)
S03	Time out (When the download is finished)	Communication timeout (When the download is finished)
S05	Deletion error (When the download is written)	Deletion error (When the download is written)
S06	Writing error (When the download is written)	Writing error (When the download is written)
S08	Reception status code abnormality (When the download is requested)	Reception status code abnormality (When the download is requested)
S09	Reception status code abnormality (When the download is written)	Reception status code abnormality (When the download is written)
S10	Reception status code abnormality (When the download is finished)	Reception status code abnormality (When the download is finished)
S00	Other error	Other error

- (8) Press the [ON/OFF] button on the control panel to shut down the equipment, and then remove the USB media.

Note:


When the equipment has been shut down normally, the LCD screen and LEDs (green and red) go OFF.

When OS data have been updated and the equipment has been shut down immediately after the update, the LEDs (green and red) may not go OFF even if the LCD screen goes OFF. This indicates that the equipment has not shut down normally. Press the [ON/OFF] button on the control panel. Five seconds or so after the beep, turn the main switch OFF, and then remove the download jig.

- (9) Perform the initialization of the updating data.
- Press the [ON/OFF] button on the control panel while [0] button and [8] button are pressed simultaneously.
 - Key in "947", and then press the [START] button.
 - Press the [INITIALIZE] button.

[B] Confirmation of the updated data

After the updating is completed, check each data version in the Setting Mode (08) to confirm that the data were overwritten properly.

 P.6-42 "6.4 Confirmation of the updated data"

[C] Display during the update

Update is performed in parallel as shown in the transition diagram below.

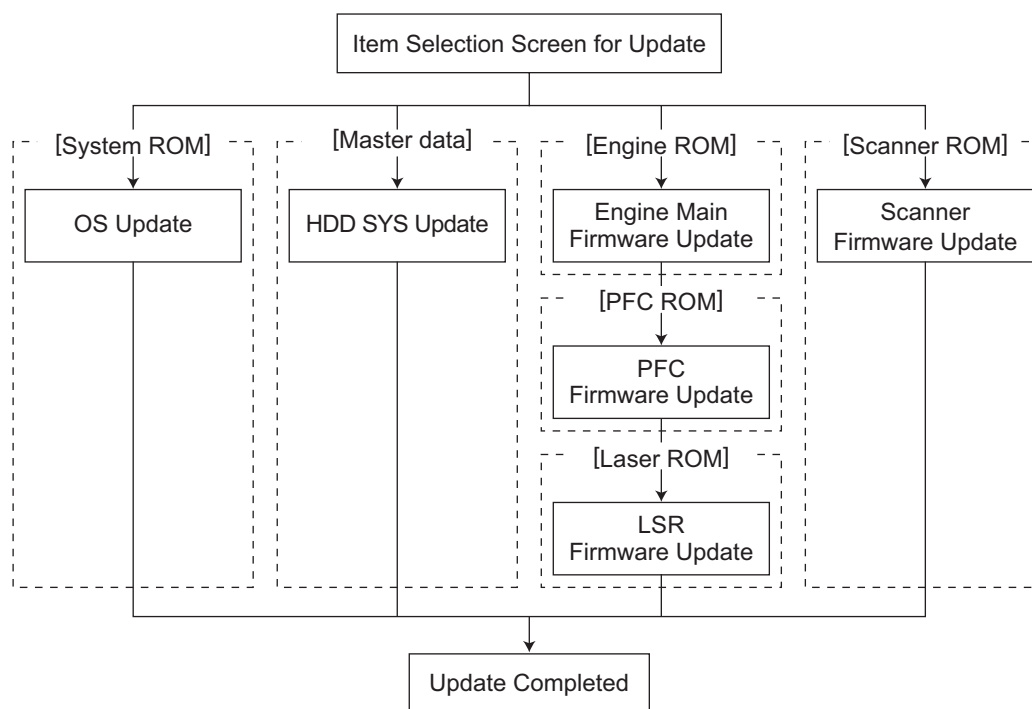


Fig. 6-4

System ROM



6



Fig. 6-6

e-STUDIO555/655/755/855 FIRMWARE UPDATING



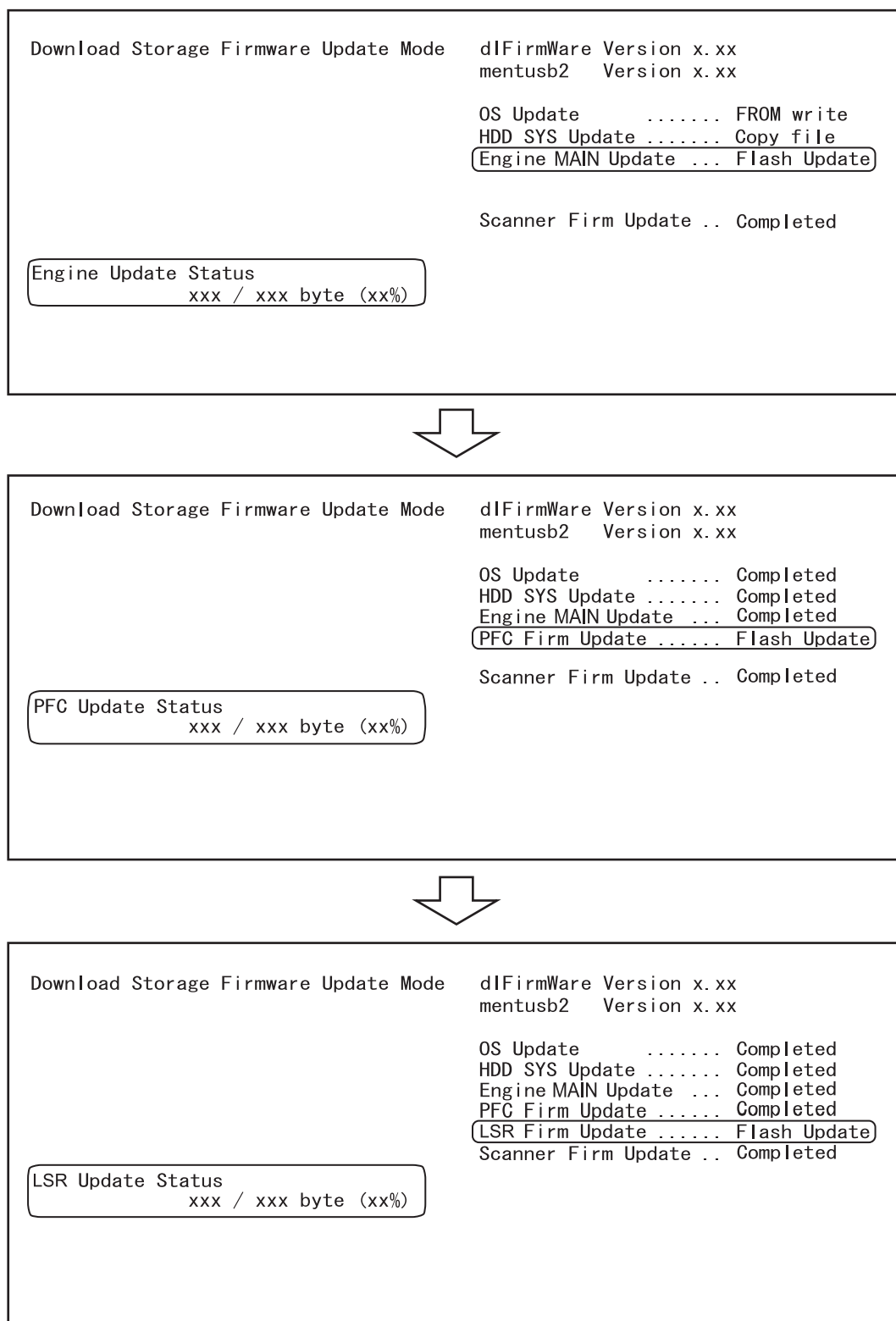


Fig. 6-8

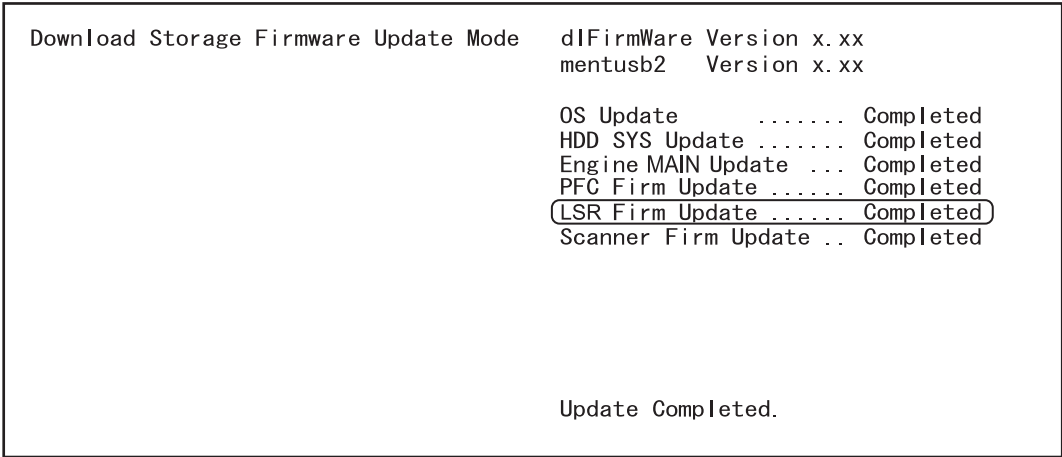


Fig. 6-9

6.2 Firmware Updating with PWA-DWNLD-350-JIG2

The data to be overwritten by this update are as follows.

Update the ROM data written on each board according to the need such as the case of replacing the system control PC board, logic PC board or scanning section control PC board.

Equipment

Firmware	Stored
System ROM (OS data)	Hard disk

PWA-DWNLD-350-JIG2 (48MB)

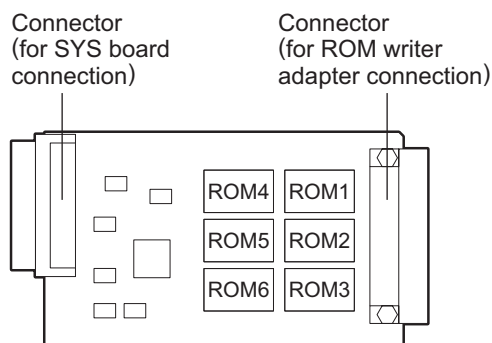


Fig. 6-10 Jig board: PWA-DWNLD-350-JIG2 (48 MB)

Important:

The download jig (PWA-DWNLD-350-JIG2) is the jig in which the Flash ROM is mounted on the board directly. Therefore, ROM writer adapter (PWA-DL-ADP-350) is required to write the data to these Flash ROMs. Refer to the following to write the data.

6.2.1 Writing the data to the download jig (PWA-DWNLD-350-JIG2)

The download jig (PWA-DWNLD-350-JIG) is the jig in which the Flash ROM is mounted on the board directly. The ROM writer adapter (PWA-DL-ADP-350) is required to write data to these Flash ROMs. Connect the download jig with the ROM writer via ROM writer adapter to write data. For the procedure to write data, refer to the download procedure, instruction manual of each ROM writer, or others.

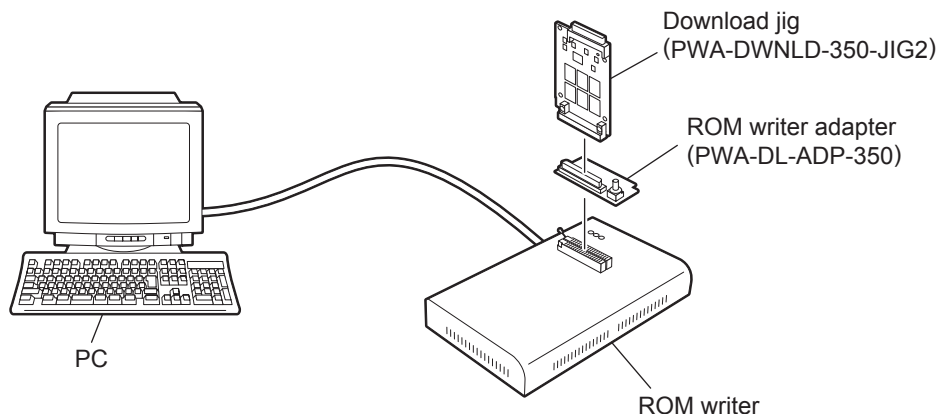
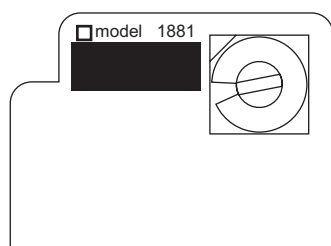


Fig. 6-11

Note:

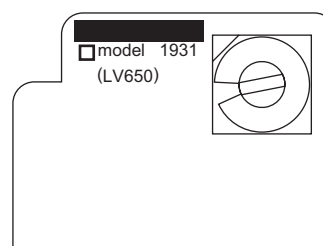
There are two types of the ROM writer adapter. Use the proper one according to the ROM writer to be used. Applicable type of the adapter for the ROM writer can be confirmed by the model name indicated on the board. Confirm that the adapter is available for the ROM writer to be used before connecting them. If an unapplied adapter is connected, the application of the ROM writer judges it as an error and writing the data cannot be implemented. Applicable combinations of the ROM writer and adapter are as follows.

ROM writer	ROM writer adapter
Minato Electronics MODEL 1881XP/1881UXP (or equivalent)	PWA-DL-ADP-350-1881 (model 1881)
Minato Electronics MODEL 1893/1895/1931/1940 (or equivalent)	PWA-DL-ADP-350-1931 (model 1931)



[PWA-DL-ADP-350-1881]

Fig. 6-12



[PWA-DL-ADP-350-1931]

Fig. 6-13

[A] Precautions when writing the data

- Set the writing voltage (VID) to 3.3 V.
When an error appears while the data are being written to the download jig, set the writing voltage (VID) to 12 V and then write them.
- When writing the data, set the address from 0 to 3FFFFFF. The data may not be written correctly if it is not set.
- Load the data file into the buffer by means of the following settings.

Auto Format Detected	Binary
From File	Normal
To Buffer	Normal
From File Address	0
To Buffer Address	0
Buffer Size	800100
Clear Buffer Before Loading the file	Clear buffer with blank state

[A-1] System ROM

Rotary Switch	File Name	Flash ROM
1	firmImage_jig0.bin	ROM1
2	firmImage_jig1.bin	ROM2
3	N/A	ROM3
4	N/A	ROM4
5	N/A	ROM5
6	N/A	ROM6

Note:

Be sure not to confuse different ROM Versions since the file name is identical although the ROM version is different.

6.2.2 System ROM

The firmware of the system ROM can be updated by using PWA-DWNLD-350-JIG2.

Important:

- Be sure to shut down the equipment before installing and removing the download jig.
- Do not shut down the equipment during the update. The data could be damaged and not be able to be operated properly.

[A] Update procedure

- (1) Write the ROM data to be updated to the download jig (PWA-DWNLD-350-JIG2).
- (2) Press the [ON/OFF] button on the control panel to shut down the equipment and turn the power OFF using the main power switch on the right-hand surface of the equipment.
- (3) Take off the cover plate.

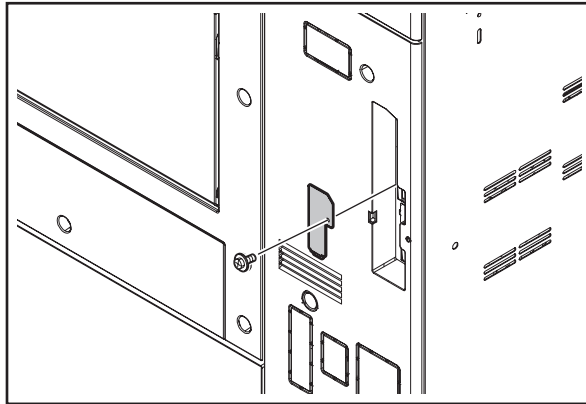


Fig. 6-14

- (4) Connect the download jig with the jig connector on the SYS board.

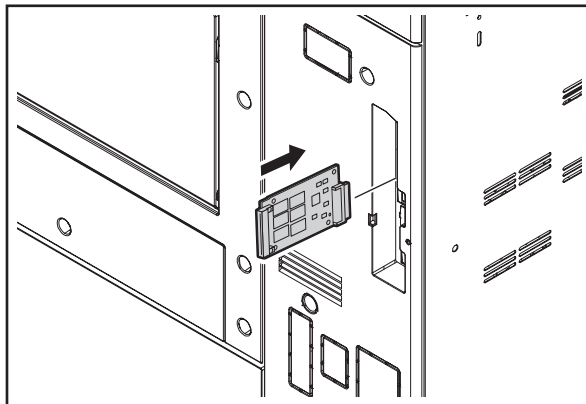


Fig. 6-15

- (5) Turn the power ON using the main power switch while simultaneously holding down the [8] and [9] buttons.
- (6) Select the item with the digital keys.
“*” is displayed next to the selected item. Display or delete the “*” by pressing the number of the item. All items are selected in the default settings.

- (7) Press the [START] button.
Updating starts and the processing status is displayed on the LCD screen.
- (8) "Update Completed." is displayed at the bottom of the LCD screen after the updating is completed properly.

Note:

"Update Failed." is displayed at the bottom of the LCD screen when the updating is not completed properly. "Failed" appears next to the failed item on the status display. In this case, shut down the equipment and check the following items. Then clear the problems and restart updating from the beginning.

- Is the download jig connected properly?
- Is the updating data written to the download jig properly?
- Do the download jig and the equipment operate properly?

- (9) Press the [ON/OFF] button on the control panel and turn the power OFF using the main power switch.

Note:


When the equipment has been shut down normally, the LCD screen and LEDs (green and red) go OFF.

When OS data have been updated and the equipment has been shut down immediately after the update, the LEDs (green and red) may not go OFF even if the LCD screen goes OFF. This indicates that the equipment has not shut down normally. Press the [ON/OFF] button on the control panel. Five seconds or so after the beep, turn the main switch OFF, and then remove the download jig.

- (10) Remove the download jig and install the cover plate.
- (11) Perform the initialization of the updating data.
 - Turn the power ON using the main power switch while pressing the [0] and [8] buttons simultaneously.
 - Key in "947", and then press the [START] button.
 - Press the [INITIALIZE] button.

[B] Confirmation of the updated data

After the updating is completed, check each data version in the Setting Mode (08) to confirm that the data were overwritten properly.

 P.6-42 "6.4 Confirmation of the updated data"

6.3 Firmware Updating with K-PWA-DLM-320

The firmware of the equipment (laser ROM, engine ROM, PFC ROM, scanner ROM, RADF ROM) and the option (Finisher ROM, FAX ROM, inserter ROM) can be updated individually by using K-PWA-DLM-320. Update the ROM data written on each board according to the need such as the case of replacing the board.

Equipment

Firmware	Stored
Laser ROM (Laser firmware)	Laser control PC board (PLG board)
Engine ROM (Main firmware)	Logic PC board (LGC board)
PFC ROM (PFC firmware)	Logic PC board (LGC board)
Scanner ROM (Scanner firmware)	Scanning section control PC board (SLG board)
Reversing Automatic Document Feeder (RADF) (RADF firmware)	RADF control PC board (RADF board)

Options

Model name	Firmware	Stored
Finisher (MJ-1027)	Finisher firmware	Finisher control PC board
Saddle Stitch Finisher (MJ-1028)	Finisher firmware	Finisher control PC board
	Saddle stitcher firmware	Saddle stitcher control PC board
Inserter (MJ-7001)	Inserter firmware	Inserter main board
Fax Unit (GD-1250)	Fax unit firmware	FAX board

K-PWA-DLM-320

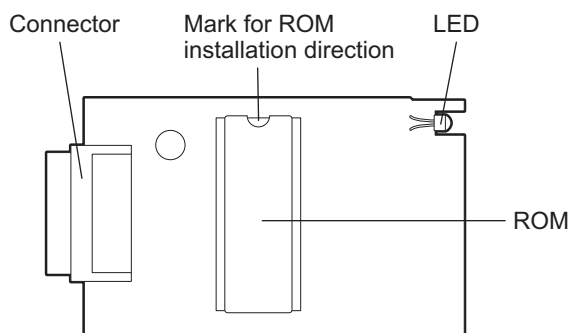


Fig. 6-16 Jig board: K-PWA-DLM-320

Important:

Pay attention to the direction of the ROM.

6.3.1 Laser ROM

Important:

- Be sure to shut down the equipment before installing and removing the download jig.
- Do not shut down the equipment during the update. The data could be damaged and not be able to be operated properly.

[A] Update Procedure

- (1) Install the ROM to the download jig (K-PWA-DLM-320).
Make sure the direction is correct.
- (2) Press the [ON/OFF] button on the control panel to shut down the equipment and turn the power OFF using the main power switch on the right-hand surface of the equipment.
- (3) Open the bypass feed unit.
- (4) Loosen a screw to open the connector cover.
- (5) Connect the downloading jig with the jig connector (J213) on the PLG board (ROM attached side upward).

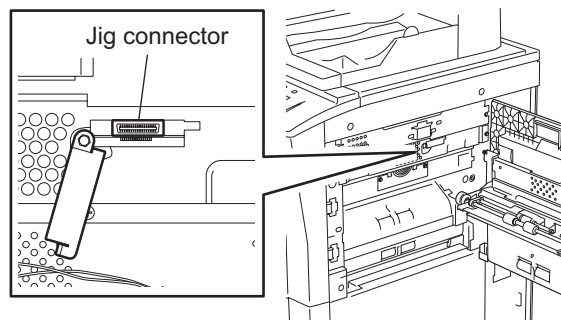



Fig. 6-17

- (6) Open the front cover.
- (7) Turn the power ON using the main power switch while simultaneously holding down the [0] and [8] buttons.
Updating starts automatically and the LED on the download jig lights.
- (8) After the update is completed properly, the LED on the download jig blinks.
The LED starts blinking approx. 15 sec. after the update starts. It is assumed that the update has failed if it does not start blinking even though 1 min. has passed. In this case, shut down the equipment and check the following items. Then clear the problems and restart updating from the beginning.
 - Is the download jig connected properly?
 - Is the ROM installed to the download jig properly?
 - Is the updating data written on the ROM of the download jig properly?
 - Do the download jig and the equipment operate properly?
- (9) Press the [ON/OFF] button on the control panel and turn the power OFF using the main power switch.
- (10) Remove the download jig and install the connector cover.

(11) Close the front cover.

[B] Confirmation of the updated data

After the updating is completed, check each data version in Setting Mode (08) to confirm that the data were overwritten properly.

 P.6-42 "6.4 Confirmation of the updated data"

6.3.2 Engine ROM/PFC ROM

Important:

- Be sure to shut down the equipment before installing and removing the download jig.
- Do not shut down the equipment during the update. The data could be damaged and not be able to be operated properly.

[A] Update Procedure

- (1) Install the ROM to the download jig (K-PWA-DLM-320).
Make sure the direction is correct.
- (2) Press the [ON/OFF] button on the control panel to shut down the equipment and turn the power OFF using the main power switch on the right-hand surface of the equipment.
- (3) Take off the connector cover on the rear cover.

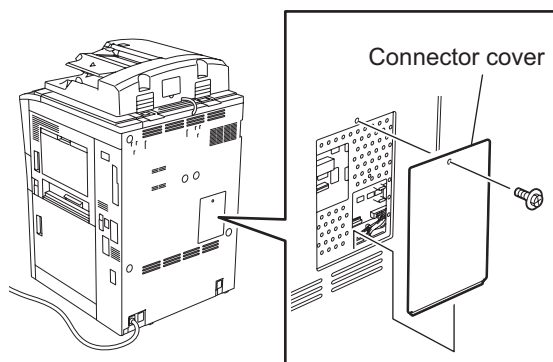


Fig. 6-18

- (4) Connect the downloading jig with the jig connector (Engine ROM: CN324, PFC ROM: CN325) on the LGC board (ROM attached side upward).

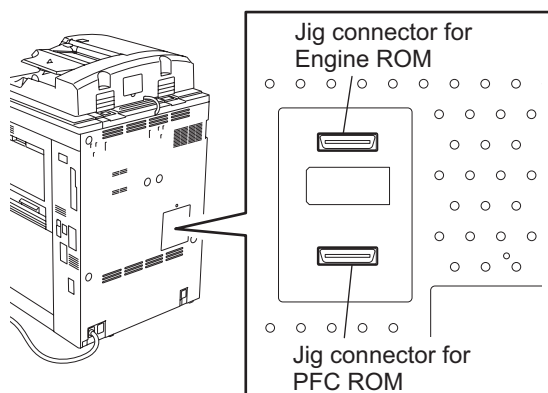



Fig. 6-19

- (5) Open the front cover.
- (6) Turn the power ON using the main power switch while simultaneously holding down the [0] and [8] buttons.
Updating starts automatically and the LED on the download jig lights.

- (7) After the update is completed properly, the LED on the download jig blinks.
The LED starts blinking approx. 20 sec. after the update starts. It is assumed that the update has failed if it does not start blinking even though 1 min. has passed. In this case, shut down the equipment and check the following items. Then clear the problems and restart updating from the beginning.
- Is the download jig connected properly?
 - Is the ROM installed to the download jig properly?
 - Is the updating data written on the ROM of the download jig properly?
 - Do the download jig and the equipment operate properly?
- (8) Press the [ON/OFF] button on the control panel and turn the power OFF using the main power switch.
- (9) Remove the download jig and install the connector cover.
- (10) Close the front cover.

[B] Confirmation of the updated data

After the updating is completed, check each data version in Setting Mode (08) to confirm that the data were overwritten properly.

 P.6-42 "6.4 Confirmation of the updated data"

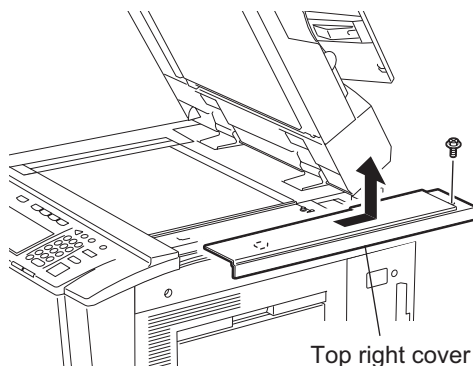
6.3.3 Scanner ROM

Important:

- Be sure to shut down the equipment before installing and removing the download jig.
- Do not shut down the equipment during the update. The data could be damaged and not be able to be operated properly.

[A] Update Procedure

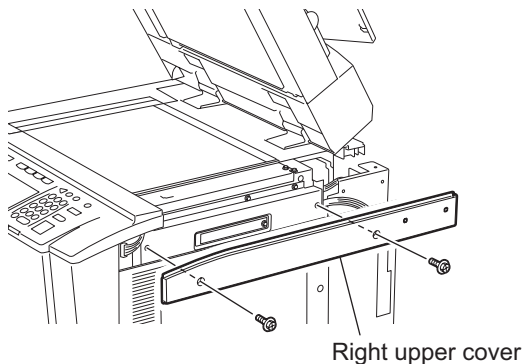
- (1) Install the ROM to the download jig (K-PWA-DLM-320).
Make sure the direction is correct.
- (2) Press the [ON/OFF] button on the control panel to shut down the equipment and turn the power OFF using the main power switch on the right-hand surface of the equipment.
- (3) Take off the top right cover.



Top right cover

Fig. 6-20

- (4) Take off the right upper cover.



Right upper cover

Fig. 6-21

- (5) Remove the cover plate.

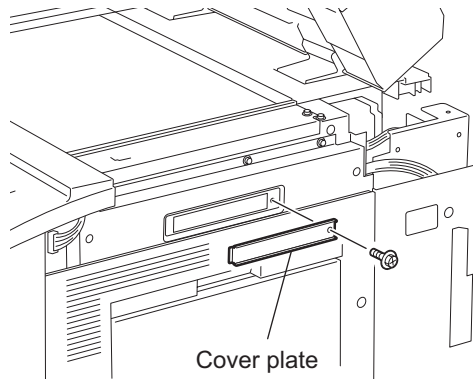


Fig. 6-22

- (6) Connect the download jig with the jig connector (CN6) on the scanning section control PC board (SLG board).

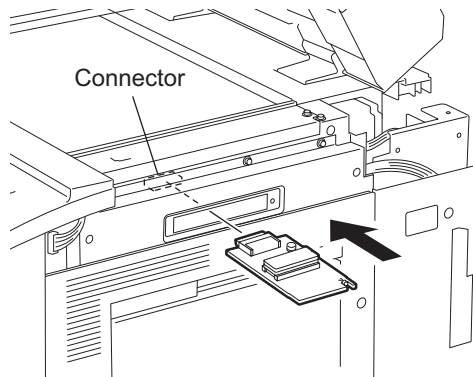



Fig. 6-23

- (7) Open the front cover.
- (8) Turn the power ON using the main power switch while simultaneously holding down the [0] and [8] buttons.
Updating starts automatically and the LED on the download jig lights.
- (9) After the update is completed properly, the LED on the download jig blinks.
The LED starts blinking approx. 20 sec. after the update starts. It is assumed that the update has failed if it does not start blinking even though 1 min. has passed. In this case, shut down the equipment and check the following items. Then clear the problems and restart updating from the beginning.
- Is the download jig connected properly?
 - Is the ROM installed to the download jig properly?
 - Is the updating data written on the ROM of the download jig properly?
 - Do the download jig and the equipment operate properly?
- (10) Press the [ON/OFF] button on the control panel and turn the power OFF using the main power switch.
- (11) Remove the download jig, and then install the cover plate, top right cover and right top cover.
- (12) Close the front cover.

[B] Confirmation of the updated data

After the updating is completed, check each data version in Setting Mode (08) to confirm that the data were overwritten properly.

 P.6-42 "6.4 Confirmation of the updated data"

Important:

If the exposure lamp blinks twice at the time of start-up and a "C270" error occurs, the model of the scanner ROM updated may be incorrect.

Check the model of the scanner ROM and retry updating.

6.3.4 RADF firmware

Important:

- Be sure to shut down the equipment before installing and removing the download jig.
- Do not shut down the equipment during the update. The data could be damaged and not be able to be operated properly.

[A] Update Procedure

- (1) Install the ROM to the download jig (K-PWA-DLM-320).
Make sure the direction is correct.
- (2) Press the [ON/OFF] button on the control panel to shut down the equipment and turn the power OFF using the main power switch on the right-hand surface of the equipment.
- (3) Take off the RADF rear cover.

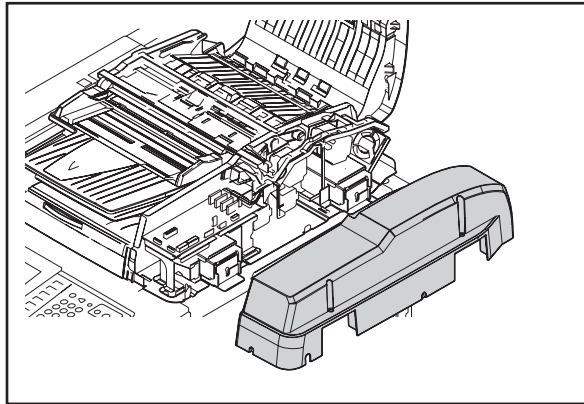


Fig. 6-24

- (4) Connect the download jig with the jig connector on the RADF control PC board.

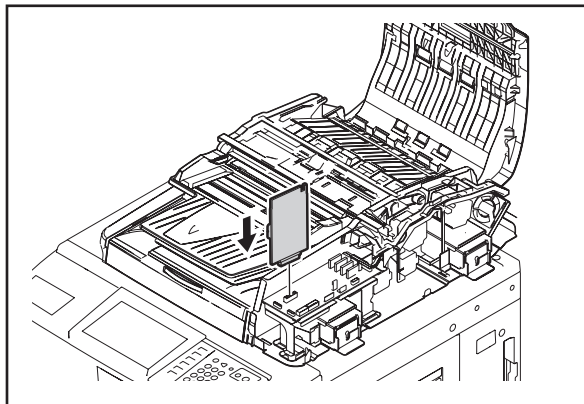



Fig. 6-25

- (5) Open the front cover.
- (6) Turn the power ON using the main power switch while simultaneously holding down the [0] and [8] buttons.
Updating starts automatically and the LED on the download jig lights.

- (7) After the update is completed properly, the LED on the download jig blinks (at an interval of approx. 1 sec.).
The LED starts blinking approx. 50 sec. after the update starts. It is assumed that the update has failed if it does not start blinking even though 2 min. has passed. In this case, shut down the equipment and check the following items. Then clear the problems and restart updating from the beginning.
- Is the download jig connected properly?
 - Is the ROM installed to the download jig properly?
 - Is the updating data written on the ROM of the download jig properly?
 - Do the download jig, RADF and the equipment operate properly?
- (8) Press the [ON/OFF] button on the control panel and turn the power OFF using the main power switch.
- (9) Remove the download jig and install the RADF rear cover.
- (10) Open the front cover.

[B] Confirmation of the updated data

After the updating is completed, check each data version in Setting Mode (08) to confirm that the data were overwritten properly.

 P.6-42 "6.4 Confirmation of the updated data"

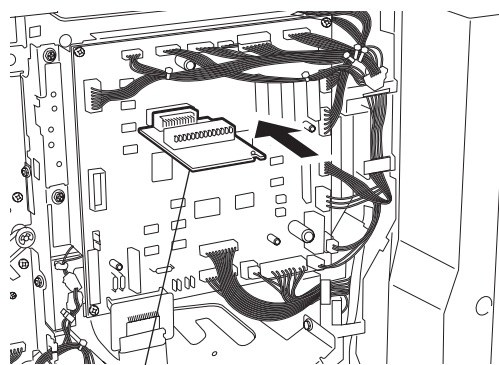
6.3.5 Finisher firmware (MJ-1027/1028)

Important:

- Be sure to shut down the equipment before installing and removing the download jig.
- Do not shut down the equipment during the update. The data could be damaged and not be able to be operated properly.

[A] Update Procedure

- (1) Install the ROM to the download jig (K-PWA-DLM-320).
Make sure the direction is correct.
- (2) Press the [ON/OFF] button on the control panel to shut down the equipment and turn the power OFF using the main power switch on the right-hand surface of the equipment.
- (3) Take off the finisher rear cover.
* Connect the finisher interface cable with the equipment.
- (4) Connect the download jig with the jig connector of the finisher control PC board.




Download jig

Fig. 6-26

- (5) Open the front cover.
- (6) Turn the power ON using the main power switch while simultaneously holding down the [0] and [8] buttons.
Updating starts and the LED on the download jig lights.
- (7) After the update is completed properly, the LED on the download jig blinks.
The LED starts blinking approx. 20 sec. after the update starts. It is assumed that the update has failed if it does not start blinking even though 1 min. has passed. In this case, shut down the equipment and check the following items. Then clear the problems and restart updating from the beginning.
 - Is the download jig connected properly?
 - Is the ROM installed to the download jig properly?
 - Is the updating data written on the ROM of the download jig properly?
 - Do the download jig, Finisher and the equipment operate properly?
- (8) Press the [ON/OFF] button on the control panel and turn the power OFF using the main power switch and remove the download jig.
- (9) Close the front cover.
- (10) Install the finisher rear cover.

[B] Confirmation of the updated data

After the updating is completed, check each data version in Setting Mode (08) to confirm that the data were overwritten properly.

 P.6-42 "6.4 Confirmation of the updated data"

6.3.6 Saddle stitcher firmware (MJ-1104)

Important:

- Be sure to shut down the equipment before installing and removing the download jig.
- Do not shut down the equipment during the update. The data could be damaged and not be able to be operated properly.

[A] Update Procedure

- (1) Install the ROM to the download jig (K-PWA-DLM-320).
Make sure the direction is correct.
- (2) Press the [ON/OFF] button on the control panel to shut down the equipment and turn the power OFF using the main power switch on the right-hand surface of the equipment.
- (3) Take off the saddle stitcher PCB cover.
* Connect the finisher interface cable with the equipment.
- (4) Connect the download jig with the jig connector of the saddle stitcher control PC board.

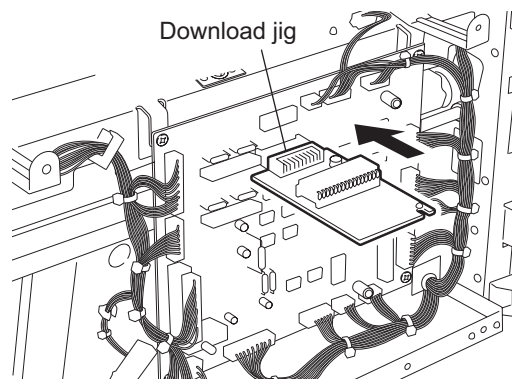



Fig. 6-27

- (5) Open the front cover.
- (6) Turn the power ON using the main power switch while simultaneously holding down the [0] and [8] buttons.
Updating starts and the LED on the download jig lights.
- (7) After the update is completed properly, the LED on the download jig blinks.
The LED starts blinking approx. 20 sec. after the update starts. It is assumed that the update has failed if it does not start blinking even though 1 min. has passed. In this case, shut down the equipment and check the following items. Then clear the problems and restart updating from the beginning.
 - Is the download jig connected properly?
 - Is the ROM installed to the download jig properly?
 - Is the updating data written on the ROM of the download jig properly?
 - Do the download jig, Finisher and the equipment operate properly?
- (8) Press the [ON/OFF] button on the control panel and turn the power OFF using the main power switch and remove the download jig.
- (9) Close the front cover.
- (10) Install the saddle stitcher PCB cover.

[B] Confirmation of the updated data

After the updating is completed, check each data version in Setting Mode (08) to confirm that the data were overwritten properly.

 P.6-42 "6.4 Confirmation of the updated data"

6.3.7 Inserter firmware (MJ-7001)

Important:

- Be sure to shut down the equipment before installing and removing the download jig.
- Do not shut down the equipment during the update. The data could be damaged and not be able to be operated properly.

[A] Update Procedure

- (1) Install the ROM to the download jig (K-PWA-DLM-320).
Make sure the direction is correct.
- (2) Press the [ON/OFF] button on the control panel to shut down the equipment and turn the power OFF using the main power switch on the right-hand surface of the equipment.
- (3) Take off the inserter rear cover after disconnecting the finisher interface cable from the inserter.
- (4) Connect the download jig with the jig connector of the inserter main board (ROM attached side to the left).

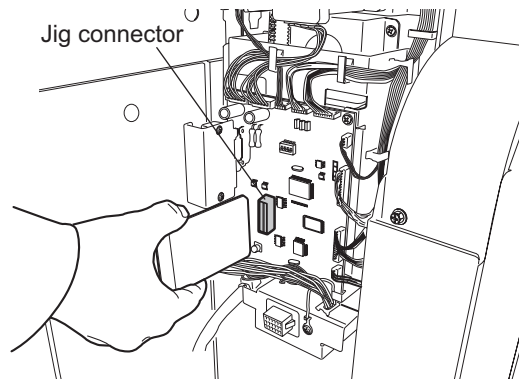



Fig. 6-28

- (5) Open the front cover.
- (6) Turn the power ON using the main power switch while simultaneously holding down the [0] and [8] buttons.
Updating starts and the LED on the download jig lights.
- (7) After the update is completed properly, the LED on the download jig blinks.
The LED starts blinking approx. 20 sec. after the update starts. It is assumed that the update has failed if it does not start blinking even though 1 min. has passed. In this case, shut down the equipment and check the following items. Then clear the problems and restart updating from the beginning.
 - Is the download jig connected properly?
 - Is the ROM installed to the download jig properly?
 - Is the updating data written on the ROM of the download jig properly?
 - Do the download jig, Inserter and the equipment operate properly?
- (8) Press the [ON/OFF] button on the control panel and turn the power OFF using the main power switch and remove the download jig.
- (9) Close the front cover.
- (10) Install the inserter rear cover.

[B] Confirmation of the updated data

After the updating is completed, check each data version in Setting Mode (08) to confirm that the data were overwritten properly.

 P.6-42 "6.4 Confirmation of the updated data"

6.3.8 Fax unit firmware (GD-1250)

Important:

- Before updating the FAX ROM, make sure to print out the current Function list for maintenance, Function list (ADMIN), Address book list and Group number information. In case the updating is failed and the registered information of the users is lost for some reason, re-register the user information referring to the lists and recover it.
- Confirm the following items before turning OFF the power of the equipment. Turning OFF the power may clear the data below.
 - Confirm that the "MEMORY RX" LED is OFF and there are no memory reception data.
 - Print the "Mailbox/Relay box report" and then confirm that there are no F code data.
 - Press the [JOB STATUS] button to display the screen and then confirm that there are no memory transmission data.

[A] Firmware update

- (1) Install the ROM to the download jig (K-PWA-DLM-320).
Make sure the direction is correct.
- (2) Press the [ON/OFF] button on the control panel to shut down the equipment and turn the power OFF using the main power switch on the right-hand surface of the equipment.
- (3) Remove the cover plate.

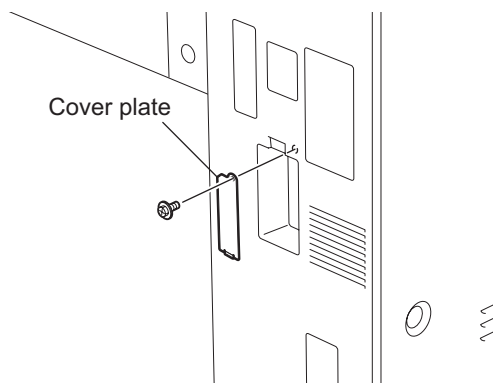


Fig. 6-29

- (4) Connect the download jig with the jig connector (CN602) on the FAX board.

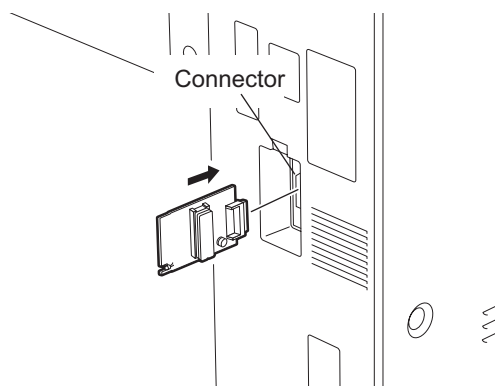


Fig. 6-30

- (5) Turn the power ON using the main power switch while simultaneously holding down the [0] and [8] buttons.
Updating starts automatically and the LED on the download jig lights.
- (6) After the update is completed properly, the LED on the download jig blinks. The LED starts blinking approx. 30 sec. after the update starts. It is assumed that the update has failed if it does not start blinking even though 1 min. has passed. In this case, shut down the equipment and check the following items. Then clear the problems and restart updating from the beginning.
 - Is the download jig connected properly?
 - Is the ROM installed to the download jig properly?
 - Is the updating data written on the ROM of the download jig properly?
 - Do the download jig, FAX board and the equipment operate properly?
- (7) Press the [ON/OFF] button on the control panel and turn the power OFF using the main power switch, remove the download jig, and then install the cover plate.
- (8) In the FAX Clearing Mode, perform the "FAX Set Up".
 - Confirm the destination setting is correct in the Setting Mode (08).
08-201: Destination setting of the equipment
08-701: Destination setting of the FAX machine
 - Turn the power ON using the main power switch while [1] button and [*] button are pressed simultaneously.
 - Key in "100".
 - Press the [START] button.


Notes:

If the equipment does not work properly after the operation (8), follow the procedure below and then perform the "Clearing the image data" in the FAX Clearing Mode to erase the image data in the memory.

- Confirm the destination setting is correct in the Setting Mode (08).
08-201: Destination setting of the equipment
08-701: Destination setting of the FAX machine
- Turn the power ON using the main power switch while [1] button and [*] button are pressed simultaneously.
- Key in "102".
- Press the [START] button.

[B] Confirmation of the updated data

After the updating is completed, check each data version in Setting Mode (08) to confirm that the data were overwritten properly.

 P.6-42 "6.4 Confirmation of the updated data"


6.4 Confirmation of the updated data

After the updating is completed, check each data version in Setting Mode (08) to confirm that the data were overwritten properly.

Firmware	Code	Remarks
Updating HDD/UI data	08-944	HDD Version
	08-924	Version of UI data language 1 in HDD
Updating System ROM	08-900	System firmware ROM version
	08-921	System firmware ROM internal program version
Updating OS	08-920	FROM basic section software version
Updating Laser ROM	08-904	Laser ROM version
Updating Engine ROM	08-903	Engine ROM version
Updating Scanner ROM	08-905	Scanner ROM version
Updating PFC ROM	08-906	PFC ROM version
Updating RADF ROM	08-907	RADF ROM version
Updating Finisher ROM	08-908	Finisher ROM version Saddle stitcher ROM version
Updating Inserter ROM	08-909	Inserter ROM version
Updating FAX ROM	08-915	FAX ROM version

Note:

If the laser ROM version (08-904) or the PFC ROM version (08-906) is displayed as “NGD”, it denotes that the updating of the ROM failed. In this case, try the firmware update again.

 P.6-43 "6.5 When Firmware Updating Fails"



The installed ROM versions and the registered optional Electronic License Keys can be confirmed in the list print mode following the procedure below.





- (1) Turn the power ON using the main power switch while pressing the digital key [9] and the [START] button simultaneously.
- (2) Key in “1” three times, and then press the [START] button.
- (3) “VERSION LIST” is printed out.
 - * It is recommended to keep this list for future reinstallation such as the replacement of the SYS board.
- (4) Keep pressing the [ON/OFF] button until you hear a sound to shut down the equipment.

6.5 When Firmware Updating Fails

When the equipment was shut down during firmware updating or it could not be started after updating for some reason, perform firmware updating again following the procedure below.

6.5.1 Procedure

- (1) Update "System ROM" of the system control PC board (SYS board) using the download jig (PWA-DWNLD-350-JIG2).
Updating with the USB media becomes possible only after the "System ROM" (OS data) has been updated.
See the updating procedure below for details.
 P.6-19 "6.2 Firmware Updating with PWA-DWNLD-350-JIG2"
- (2) Update "Master Data", "Laser ROM", "PFC ROM", "Engine ROM" and "Scanner ROM" using the USB media.
See the updating procedure below for details.
 P.6-5 "6.1 Firmware Updating with USB Media"
- (3) When the update with the USB media for "Laser ROM", "Engine ROM", "PFC ROM" and "Scanner ROM" failed, update these ROMs using the respective download jigs in the table below.

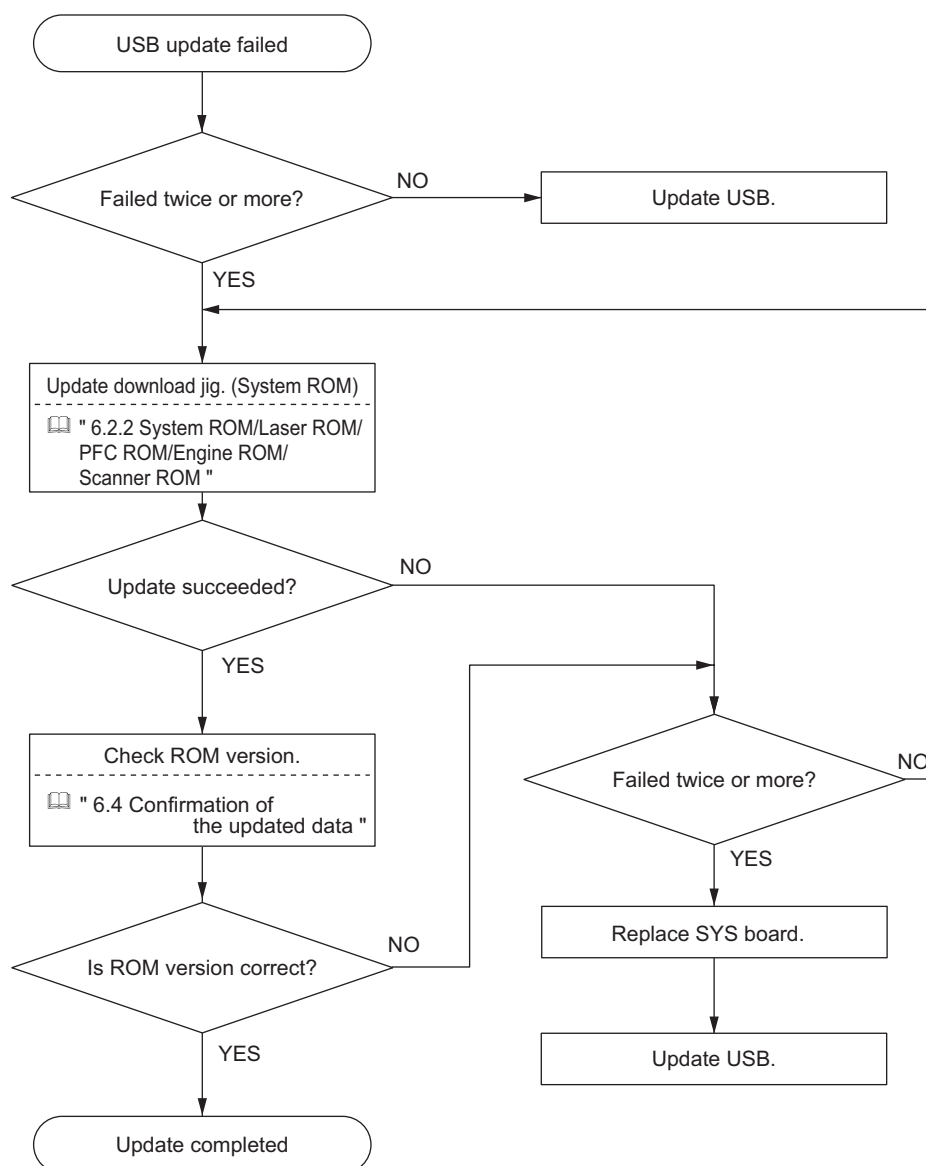
Firmware	Storage location	Download jig
Laser ROM	Laser control PC board (PLG board)	K-PWA-DLM-320  P.6-25 "6.3.1 Laser ROM"
Engine ROM	Logic PC board (LGC board)	K-PWA-DLM-320  P.6-27 "6.3.2 Engine ROM/PFC ROM"
PFC ROM	Logic PC board (LGC board)	K-PWA-DLM-320  P.6-27 "6.3.2 Engine ROM/PFC ROM"
Scanner ROM	Scanning section control PC board (SLG board)	K-PWA-DLM-320  P.6-29 "6.3.3 Scanner ROM"

Important:

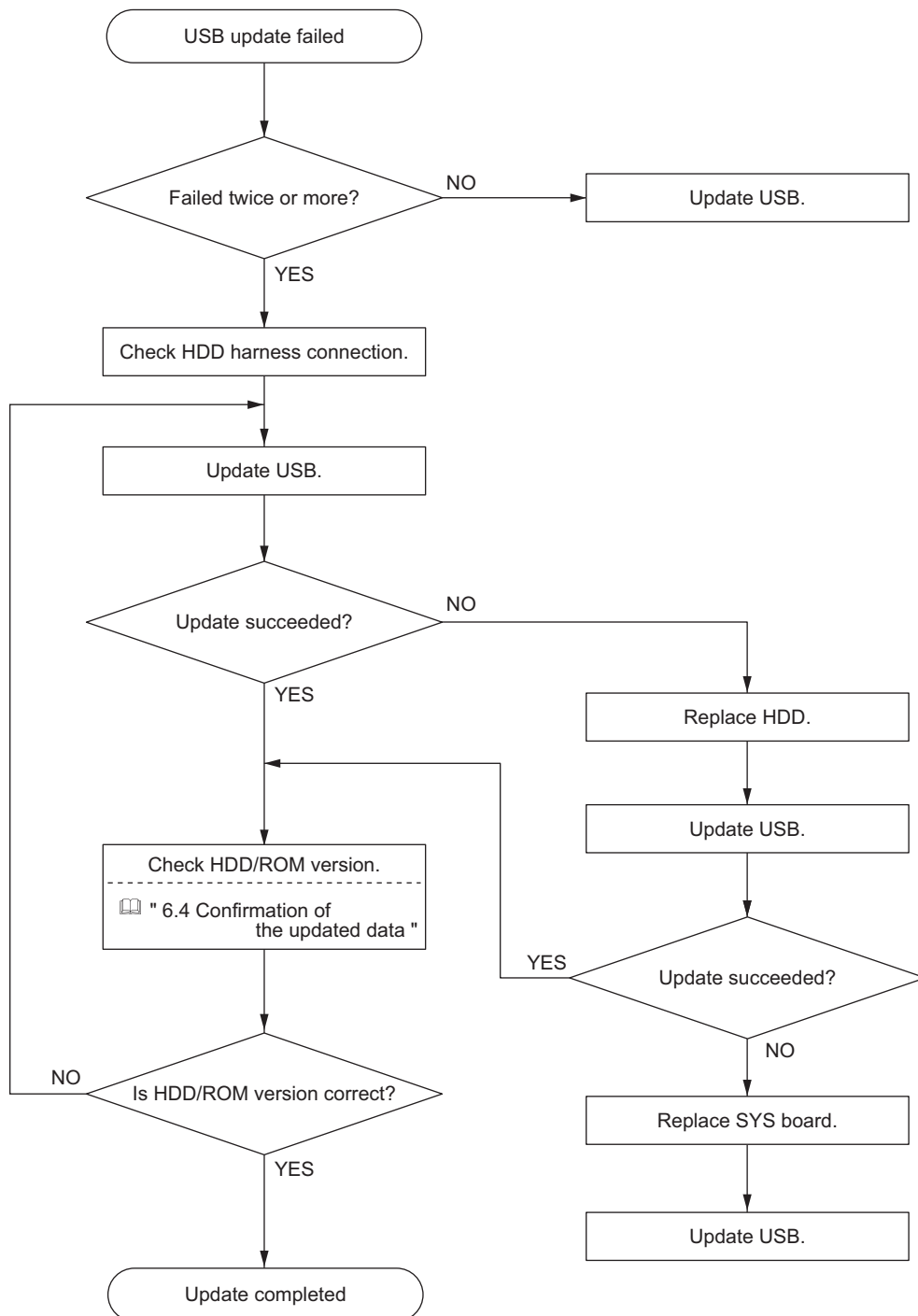
If the equipment cannot be started even when the above update has been performed, check that there is no damage to the "SYS board", "PLG board", "LGC board" or "SLG board". Replace them if necessary.

6.5.2 Flow chart for correcting USB update failure

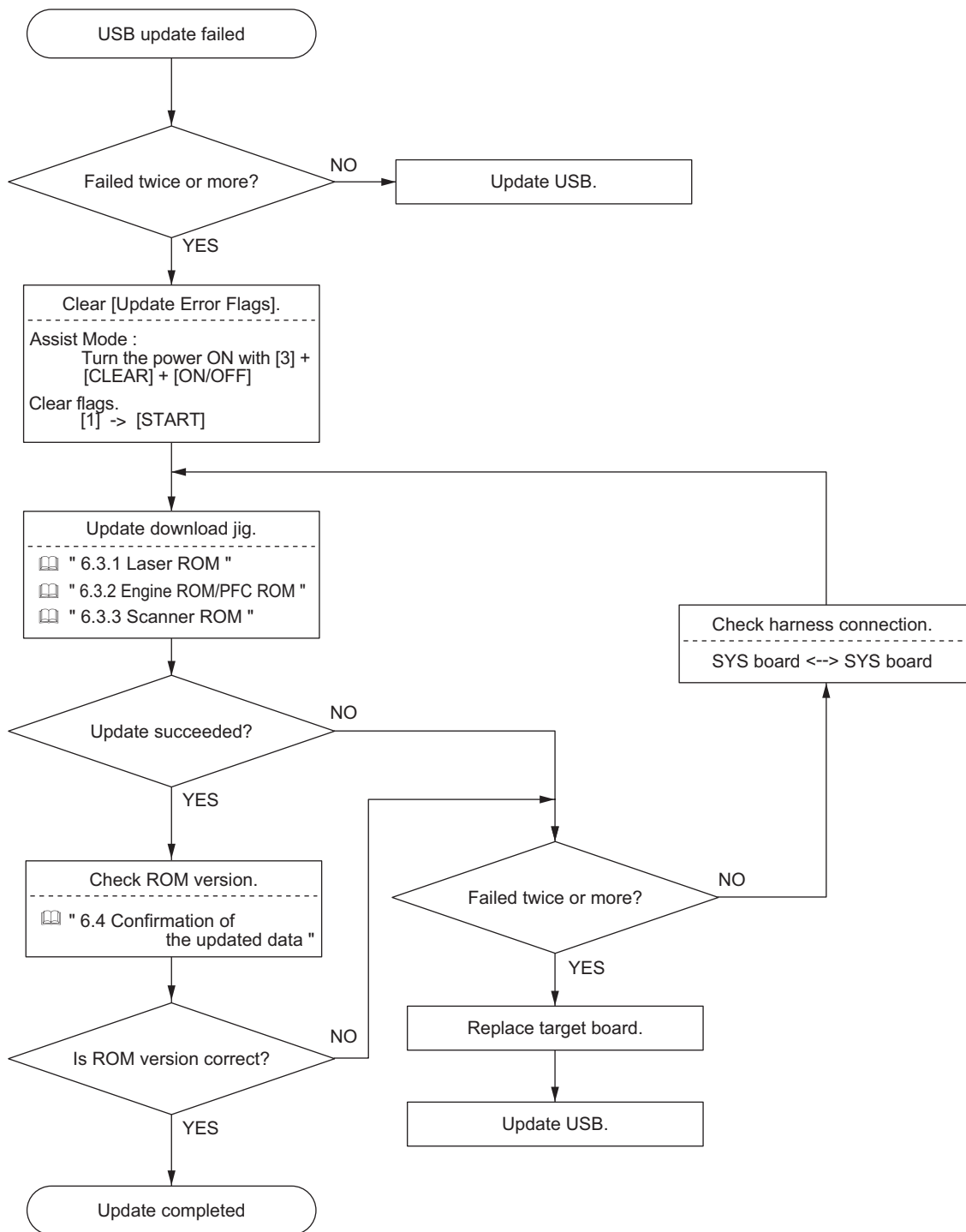
[A] When the update of the System ROM (OS data) failed



[B] When the update of HDD program data / system firmware / UI data (master data) failed



[C] When the update of Laser ROM / Engine ROM / PFC ROM failed / Scanner ROM failed



7. POWER SUPPLY UNIT

7.1 Output Channel

The following are 3 output channels for the main switch line.

1. +3.3 V

- +3.3VB: CN406 Pin 1
Output to the LGC board
- +3.3VB: CN407 Pin 5
Output to the PLG board
- +3.3VB: CN408 Pin 1
Output to the SLG board

2. +5.1 V

- +5VS: CN405 Pins 9 and 10
Output to the SYS board
- +5VA: CN405 Pins 12 and 13
Output to the SYS board
- +5VB: CN405 Pin 20
Output to the SYS board
- +5VB: CN406 Pin 2
Output to the LGC board, external LCF (via LGC board),
IPC board (finisher: via LGC board)
- +5VB: CN407 Pins 1 and 2
Output to the PLG board
- +5VB: CN408 Pins 3 and 4
Output to the SLG board
- +5VB: CN409 Pin 1
Output to the finisher

3. +12 V

- +12VA: CN405 Pins 15 and 16
Output to the SYS board
- +12VB: CN405 Pin 19
Output to the SYS board, FAX unit (via SYS board)
- +12VB: CN406 Pin 6
Output to the LGC board
- +12VB: CN407 Pin 6
Output to the PLG board
- +12VB: CN408 Pin 7
Output to the SLG board

The following are 3 output channels for the cover switch line.

1. +5.1 V

+5VD: CN403 Pin 5
Output to the PLG board

2. +24 V

+24VD1: CN402 Pins 2 and 3
Output to the LGC board, external LCF (via LGC board)
+24VD2: CN402 Pin 1
Output to the LGC board
+24VD2: CN403 Pin 1
Output to the PLG board
+24VD2: CN404 Pin 3
Output to the SLG board
+24VD3: CN409 Pins 3 and 4
Output to the finisher
+24VD4 CN404 Pins 5 and 7
Output to the RADF

3. +36 V

+36VD: CN402 Pins 7 and 8
Output to the LGC board
+36VD: CN403 Pin 3
Output to the PLG board
+36VD: CN404 Pin 1
Output to the SLG board

Output voltage by the type of connector

Main switch line

Connector	Destination	Voltage
CN405	For the SYS board, FAX unit (via SYS board)	+5VA, +5VB, +5VS, +12VA, +12VB
CN406	For the LGC board, external LCF (via LGC board), finisher (via LGC board)	+3.3VB, +5VB, +12VB
CN407	For the PLG board	+3.3VB, +5VB, +12VB
CN408	For the SLG board	+3.3VB, +5VB, +12VB
CN409	For the finisher	+5VB

Cover switch line

Connector	Destination	Voltage
CN402	For the LGC board, external LCF (via LGC board)	+24VD1, +24VD2, +36VD
CN403	For the PLG board	+5VD, +24VD2, +36VD
CN404	For the SLG board, RADF	+24VD2, +24VD4, +36VD
CN409	For the finisher	+24VD3

7.2 Fuse

When the power supply secondary fuse is blown out, confirm that there is no abnormality with each part using the following table.

Voltage	Board/unit	Part		Fuse type
+24VD1	LGC board	Web motor	M4	F4 : 8A (Semi time-lag)
		New toner supply motor	M5	
		New toner transport motor	M6	
		Hopper motor	M7	
		Recycle toner transport motor	M8	
		Used toner transport motor	M9	
		Wire cleaner drive motor	M12	
		Cleaning brush drive motor	M13	
		Transfer belt cam motor	M15	
		Transport motor	M17	
		Exit motor	M18	
		Reverse motor	M19	
		Auto-toner sensor	S12	
		Drum surface potential sensor	S13	
		Main switch	SW6	
		High-voltage transformer	HVT	
		Discharge LED	ERS	
+24VD1	LGC board	Registration motor	M16	F4 : 8A (Semi time-lag)
		Tray-up motor-1	M21	
		Tray-up motor-2	M22	
		Reverse section cooling fan-1	M24	
		Reverse section cooling fan-2	M25	
		IH board cooling fan	M26	
		Duct out fan	M27	
		Exit section cooling fan	M29	
		Tandem LCF tray-up motor	M41	
		Tandem LCF end fence motor	M42	
		Horizontal transport section driving clutch-1	CLT1	
		Horizontal transport section driving clutch-2	CLT2	
		Horizontal transport section driving clutch-3	CLT3	
		Bypass feed clutch	CLT4	
		1st drawer transport clutch	CLT5	
		1st drawer feed clutch	CLT6	
		2nd drawer transport clutch	CLT7	
		2nd drawer feed clutch	CLT8	
		3rd drawer transport clutch	CLT9	
		3rd drawer feed clutch	CLT10	
		4th drawer transport clutch	CLT11	
		4th drawer feed clutch	CLT12	
		Gate solenoid	SOL2	
		Bypass pickup solenoid	SOL3	
		Tandem LCF pickup solenoid	SOL7	
		Tandem LCF end fence solenoid	SOL8	
	External LCF			
+24VD2	LGC board	Developer unit motor	M10	F5 : 8A (Semi time-lag)
		Fuser cooling fan	M28	
		Duct in fan	M30	
		Developer unit fan	M31	
		Laser unit cooling fan	M32	
		Switching regulator cooling fan-1	M34	
		Switching regulator cooling fan-2	M35	
		Drum separation finger solenoid	SOL1	
	Copy key card			

Voltage	Board/unit	Part		Fuse type
+24VD2	PLG board	Polygonal motor (Only for e-STUDIO755/855 model)	M2	F5 : 8A (Semi time-lag)
+24VD2	SLG board	SLG board cooling fan	M23	F5 : 8A (Semi time-lag)
		Lamp inverter board	INV-EXP	
+24VD2	Finisher			F6 : 8A (Semi time-lag)
+24VD4	RADF			F7 : 8A (Semi time-lag)
+36VD	LGC board	Fuser motor	M3	F8 : 8A (Semi time-lag)
		Feed motor	M20	
+36VD	LGC board	Drum motor	M11	F8 : 8A (Semi time-lag)
		Transfer belt motor	M14	
+36VD	PLG board	Polygonal motor (Only for e-STUDIO555/655 model)	M2	F8 : 8A (Semi time-lag)
+36VD	SLG board	Scan motor	M1	F8 : 8A (Semi time-lag)
+5VB	LGC board	Harnesses and sensors to be connected to the LGC board	---	F9: 3.15A (Semi time-lag)

7.3 Configuration of Power Supply Unit

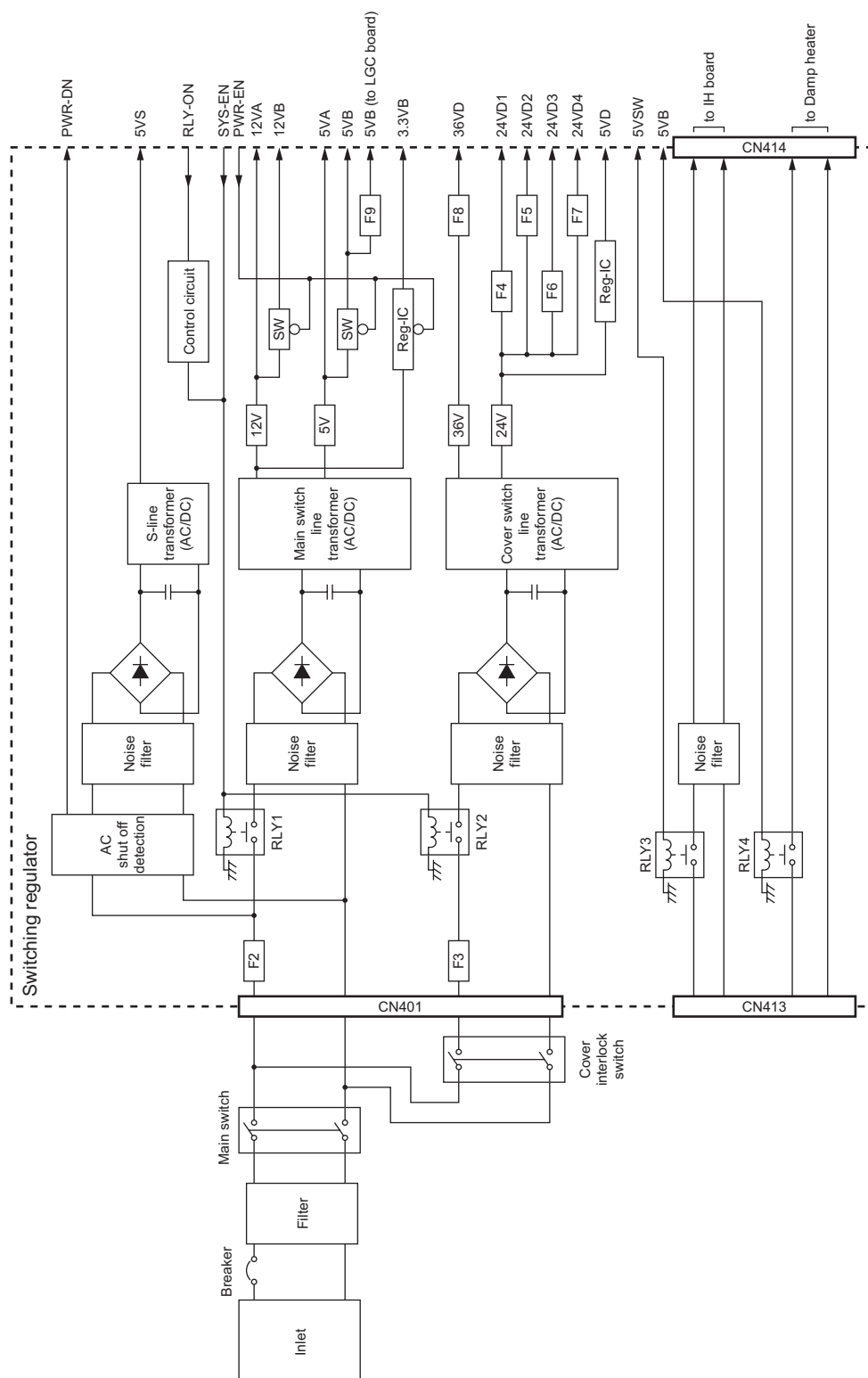


Fig. 7-1

8. REMOTE SERVICE

There are following functions as Remote Service.

1. Auto Supply Order
Automatically orders the toner and used toner container by FAX or E-mail.
2. Service Notification
Notifies the status of the equipment to the service technician by E-mail or FAX.

To start any of the self-diagnostic modes, turn the power OFF using the main power switch, and then back ON while pressing a digital key corresponding to the mode to be started.

8.1 Auto Supply Order

8.1.1 Outline

Automatically orders the toner and used toner container.

- (1) Placing an Order
There are two ways to place an order.
 - FAX
Installation of the FAX board is required.
If the FAX board has not been installed, it is regarded as OFF setting.
 - E-mail (E-mail body + TIFF image)
- (2) Order Intervals
When the toner empty occurs, the number of occurrences is counted. And when it reaches the specified number for CONDITION, the order is placed automatically.
With regard to the used toner container, it is done according to the number of the used toner container full detection.
The number of the CONDITION can be set respectively for the toner and used toner container.
- (3) If Order Failure Occurs
If some problems occur and the order cannot be placed after registering an order as a job, refer to the standard countermeasure for the FAX/E-mail transmission failure.

8.1.2 Setting Item

To enable Auto Supply Order, the following settings are required.

Note:

When selecting E-mail to place an order, it is required that sending and receiving E-mails are available. Confirm the details to the administrator.

(1) Self-diagnosis (08) Setting

As the default setting, the Auto Supply Order setting screen is not displayed on the touch panel. To display it, switching the Valid/Invalid setting (08-765) is required.

0: Valid (FAX/Internet FAX)

1: Valid (FAX/Internet FAX/HTTP)*

2: Invalid (Default)

When changing the setting value from “2” (default) to “0”, the Auto Supply Order setting screen is displayed. (* HTTP has not been supported yet.)

(2) Touch Panel Setting

Each item is set from the Auto Supply Order screen on the touch panel.

Entering the password and customer information is required because the setting is made from the ADMIN screen. Setting it with the administrator is a must.

- Basic setting

[ADMIN] > [SERVICE] > [SUPPLY ORDER SETUP] > [ORDER INFORMATION]

AUTO SUPPLY ORDER	Ordered by: [FAX], [MAIL], [HTTP] (*1)
FAX NUMBER	FAX number of supplier (*2)
E-MAIL	E-mail address of supplier (*3)
CUSTOMER	Customer information
NAME	
TEL NUMBER	
E-MAIL	
ADDRESS	
SUPPLIER	Supplier information
NAME	
ADDRESS	
SERVICE TECNICIAN	Service technician information
NUMBER	
NAME	
TEL NUMBER	
E-MAIL	

*1 HTTP has not been supported yet.

*2 Even when “FAX” is selected, the order is not placed without entering the FAX number.

*3 Even when “MAIL” is selected, the order is not placed without entering the E-mail address.

- Detailed setting for the order

[ADMIN] > [SERVICE] > [SUPPLY ORDER SETUP] > [TONER ORDERING]

***** TONER ORDER	Order information (TONER /USED TONER CONTAINER)
PART NUMBER	Part number to be ordered
CONDITIOIN	The number of conditions (*)
QUANTITY	The quantity to be ordered
AUTO ORDER	ON/OFF setting of order for each part

* The order is placed when the number of replacement reaches the number specified for the CONDITION.

- FAX number of this equipment (common information)

[ADMIN] > [FAX] > [TERMINAL ID]

ID NAME	ID name of this equipment
FAX NUMBER	FAX number of this equipment

- E-mail information of this equipment (common information)

[ADMIN] > [E-MAIL]

FROM ADDRESS	E-mail address of this equipment (*)
FROM NAME	E-mail username of this equipment

* When sending an E-mail, validity of the address is checked. If the address is invalid, it is not sent.

- (3) Output of setting list of the Auto Supply Order Keying in the following buttons and keys prints the setting list.

[USER FUNCTIONS] [USER] [LISTS] [*] [#] [*] [*] [3] [8] [START]

8.1.3 Setting procedure

- (1) Start up the self-diagnosis setting mode 08-765, and then change the setting value to "0".
- (2) Turn the power OFF, and then ON.
- (3) Press the [USER FUNCTIONS] button to enter the user function screen.
- (4) Press the [ADMIN] button.
 - When the Administrator Password has been set, ADMINISTRATOR PASSWORD screen is displayed.
- (5) Press the [PASSWORD] button and the screen is switched to a full keyboard. Then key in the Administrator Password and press the [OK] button.
 - * Confirm the password to the administrator.

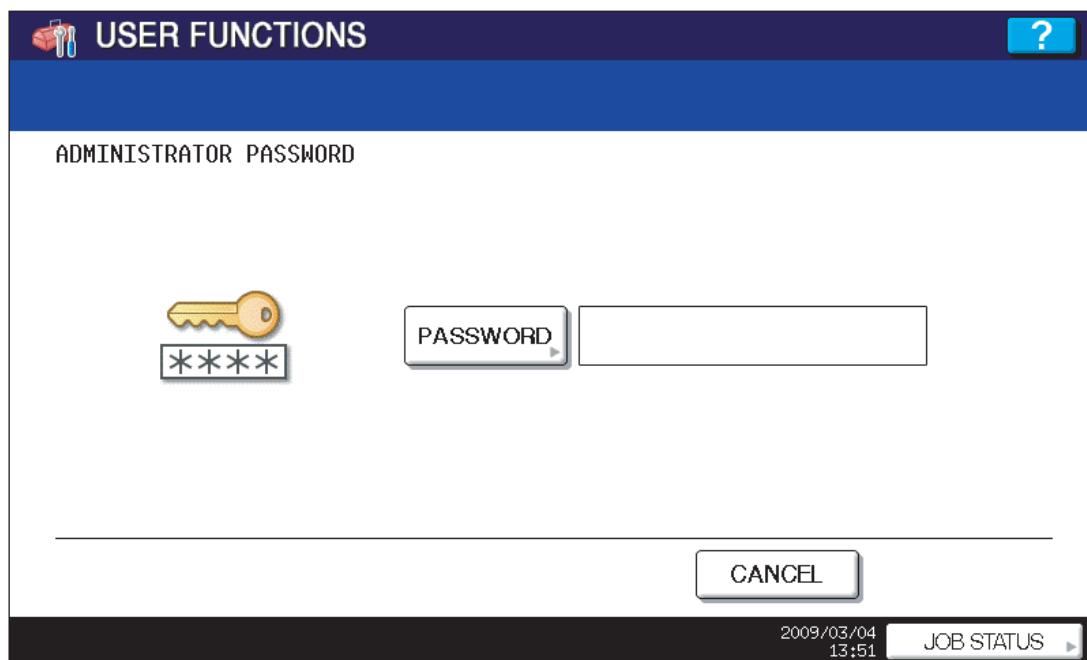


Fig. 8-1

(6) Press the [SERVICE] button in the ADMIN screen.

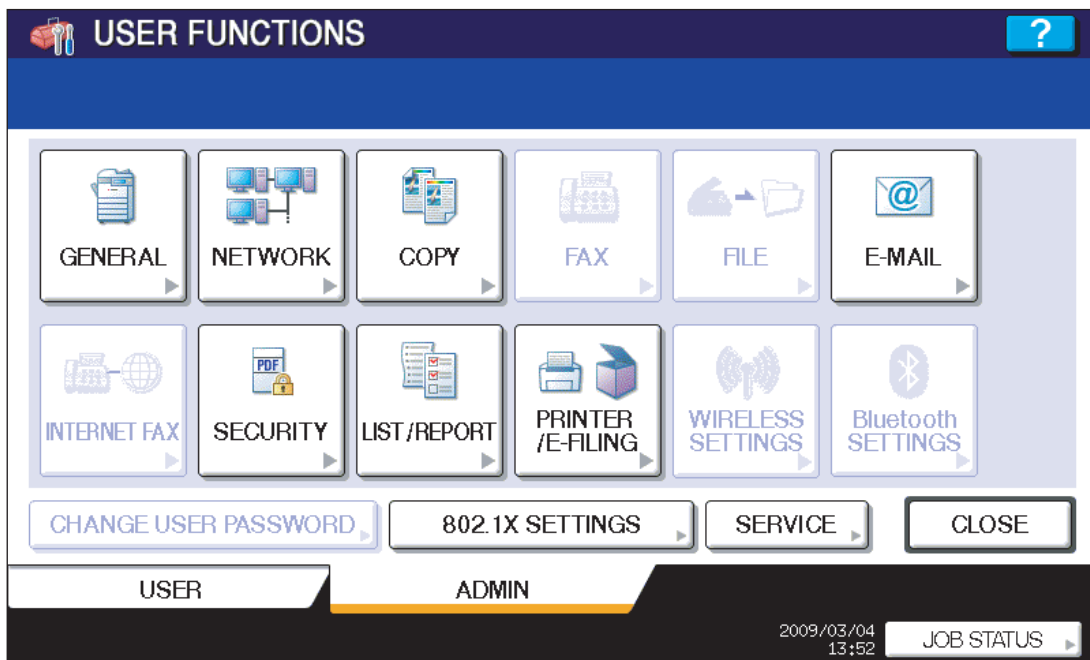


Fig. 8-2

(7) The SERVICE screen is displayed.

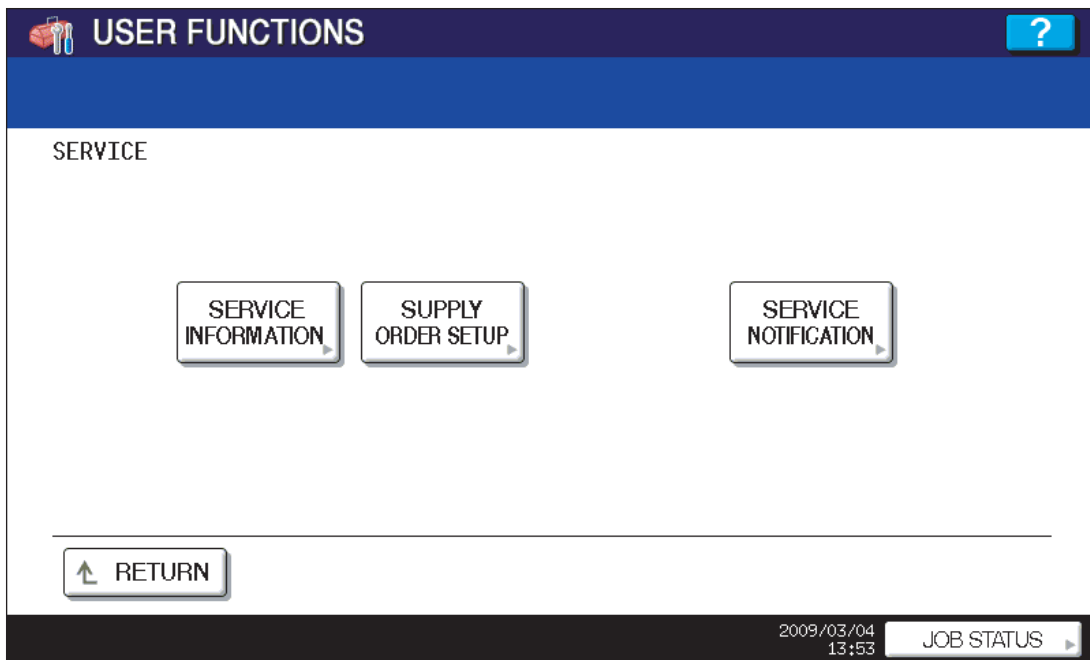


Fig. 8-3

(8) Press the [SUPPLY ORDER SETUP] button.

(9) Press the [ORDER INFORMATION] button.

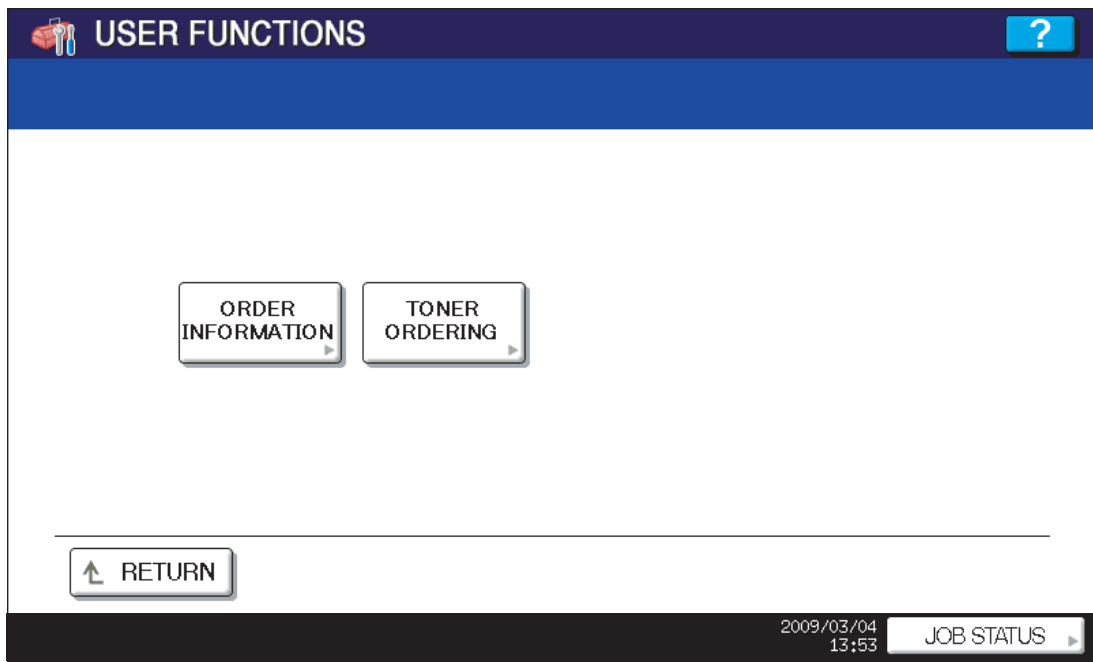


Fig. 8-4

(10) The ORDER INFORMATION screen is displayed.

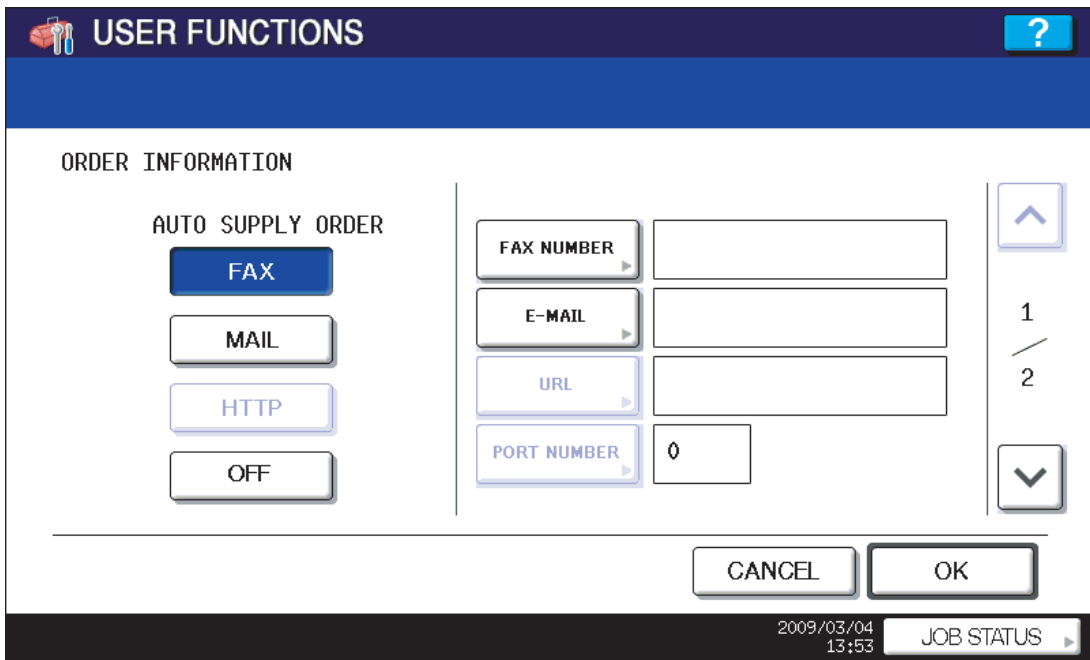


Fig. 8-5

- (11) Press the buttons on the screen of ORDER INFORMATION to set the required item.
 [FAX]/[MAIL]/[OFF] Select the [FAX] or the [MAIL] button for the transmitting way of order.
 (HTTP has not been supported yet.)
 [OFF]: Turn off the AUTO SUPPLY ORDER function.
- [FAX NUMBER] Input the FAX number of supplier.
 (To transmit by FAX, the order cannot be placed automatically if you do not input the number.)
- [E-MAIL] Input the E-mail address of supplier.
 (To transmit by E-mail, the order cannot be placed automatically if you do not input the address.)
- (12) Press the scroll button.
 (Press the [OK] button to register, and then the screen returns to the (7) SERVICE screen.
 Press the [CANCEL] button to cancel this register, and then the screen returns to the (7) SERVICE screen.)
- (13) The SUPPLIER screen is displayed.

Fig. 8-6

- (14) Press the buttons of the screen of SUPPLIER to set the required item.
 [NAME] Input the name of supplier.
 [ADDRESS] Input the address of supplier.
- (15) Press the [OK] button.

(16) The SERVICE screen is displayed.

The screenshot shows a software interface titled "USER FUNCTIONS" with a blue header bar. Below the header, the word "SERVICE" is displayed. Three buttons are arranged horizontally: "SERVICE INFORMATION", "SUPPLY ORDER SETUP", and "SERVICE NOTIFICATION". At the bottom left, there is a "RETURN" button with an upward arrow icon. The bottom right corner shows a date and time "2009/03/04 13:53" and a "JOB STATUS" button.

Fig. 8-7

(17) Press the [SERVICE INFORMATION] button.

(18) The CUSTOMER/SERVICE TECHNICIAN screen is displayed.

The screenshot shows a software interface titled "USER FUNCTIONS" with a blue header bar. Below the header, the text "SERVICE INFORMATION" is displayed. The screen is divided into two columns. The left column is titled "CUSTOMER" and contains four input fields labeled "NAME", "TEL NUMBER", "E-MAIL", and "ADDRESS". The right column is titled "SERVICE TECHNICIAN" and contains three input fields labeled "NUMBER", "NAME", and "E-MAIL". At the bottom right, there are "CANCEL" and "OK" buttons. The bottom right corner shows a date and time "2009/03/04 13:54" and a "JOB STATUS" button.

Fig. 8-8

(19) Press the buttons of the screen of CUSTOMER/SERVICE TECHNICIAN to set the required item.

CUSTOMER

[NAME] Input the name of customer.
[TEL NUMBER] Input the telephone number of customer.
[E-MAIL] Input the E-mail address of customer.
[ADDRESS] Input the address of customer.

SERVICE TECHNICIAN

[NUMBER] Input the number of SERVICE TECHNICIAN.
[NAME] Input the name of SERVICE TECHNICIAN.
[TEL NUMBER] Input the telephone number of SERVICE TECHNICIAN.
[E-MAIL] Input the E-mail address of SERVICE TECHNICIAN.

(20) Press the [OK] button to register and complete the order information setting.

(21) The SERVICE screen is returned.

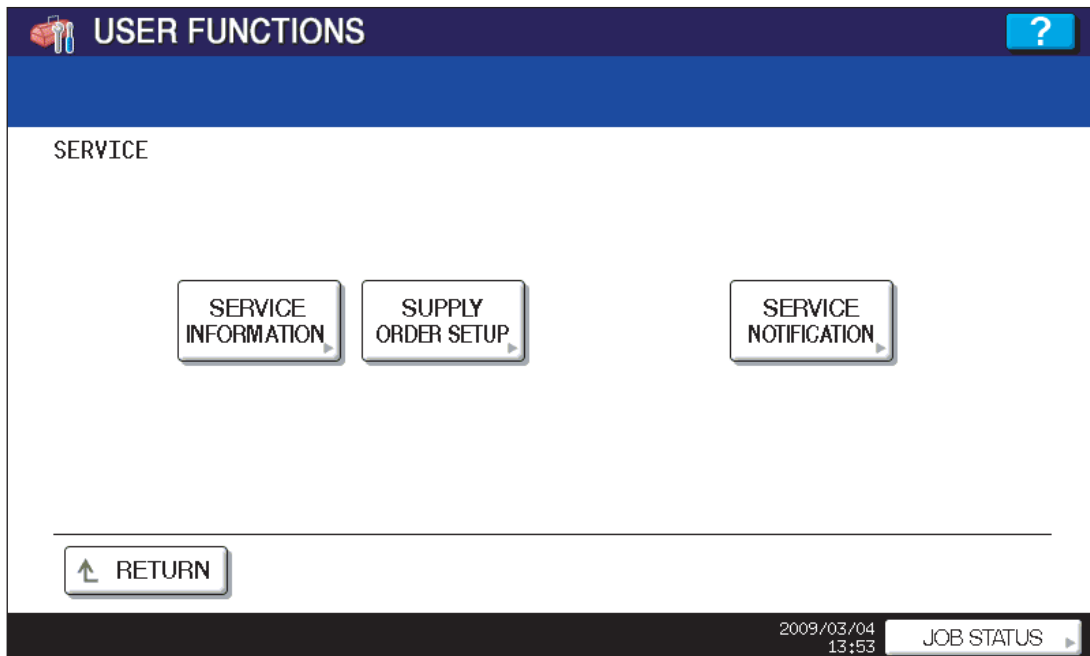


Fig. 8-9

(22) Press the [SUPPLY ORDER SETUP] button.

(23) Press the [TONER ORDERING] button.

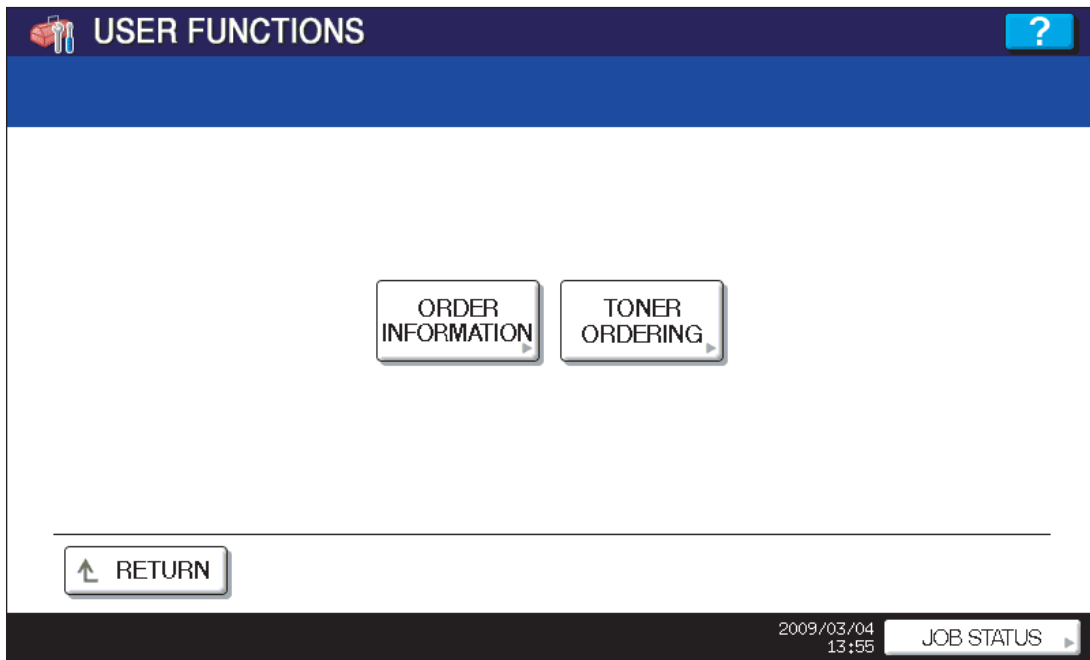


Fig. 8-10

(24) The TONER ORDERING screen is displayed.

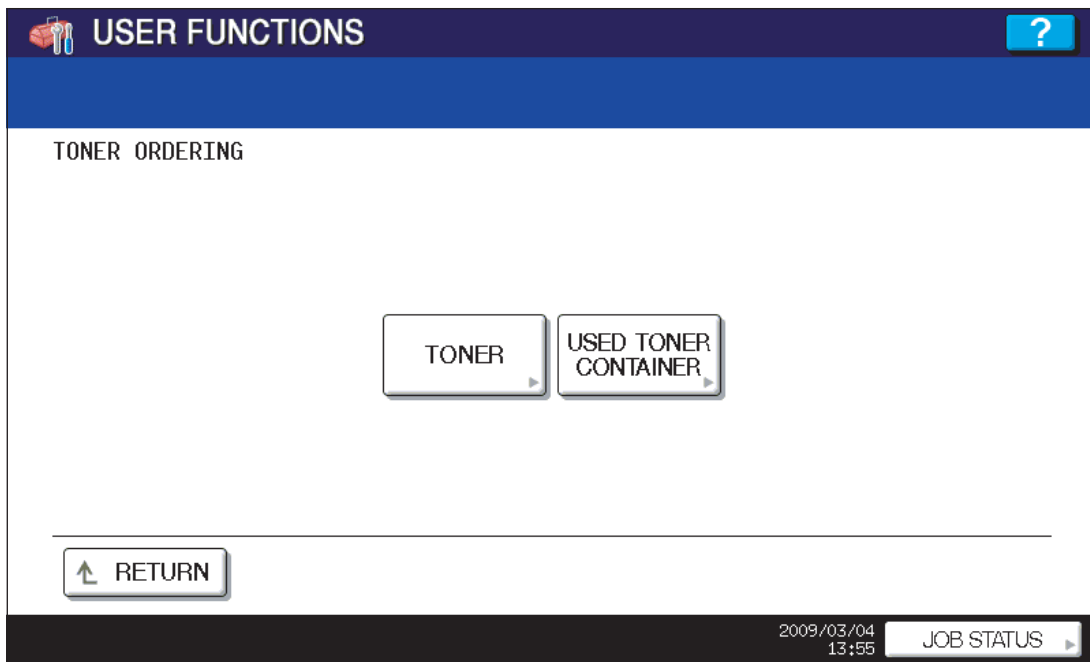


Fig. 8-11

(25) Select the part to be ordered. (Press the [TONER] button.)

(26) Input the order information of TONER.

USER FUNCTIONS ?

TONER ORDERING ► BLACK(K) TONER ORDER

PART NUMBER []

CONDITION [1]

QUANTITY [1]

AUTO ORDER

ON

OFF

CANCEL OK

2009/03/04 13:56 JOB STATUS ►

Fig. 8-12

[PART NUMBER]	Toner number
[CONDITION]	The order is placed when the number of toner empty reaches the number specified for the CONDITION.
[QUANTITY]	Quantity to be ordered

AUTO ORDER	
[ON]/[OFF]	Allows you to select whether each part to be ordered is placed automatically or not.

(27) Press the [OK] button to register the setting of toner order.

(28) The TONER ORDERING screen is displayed.

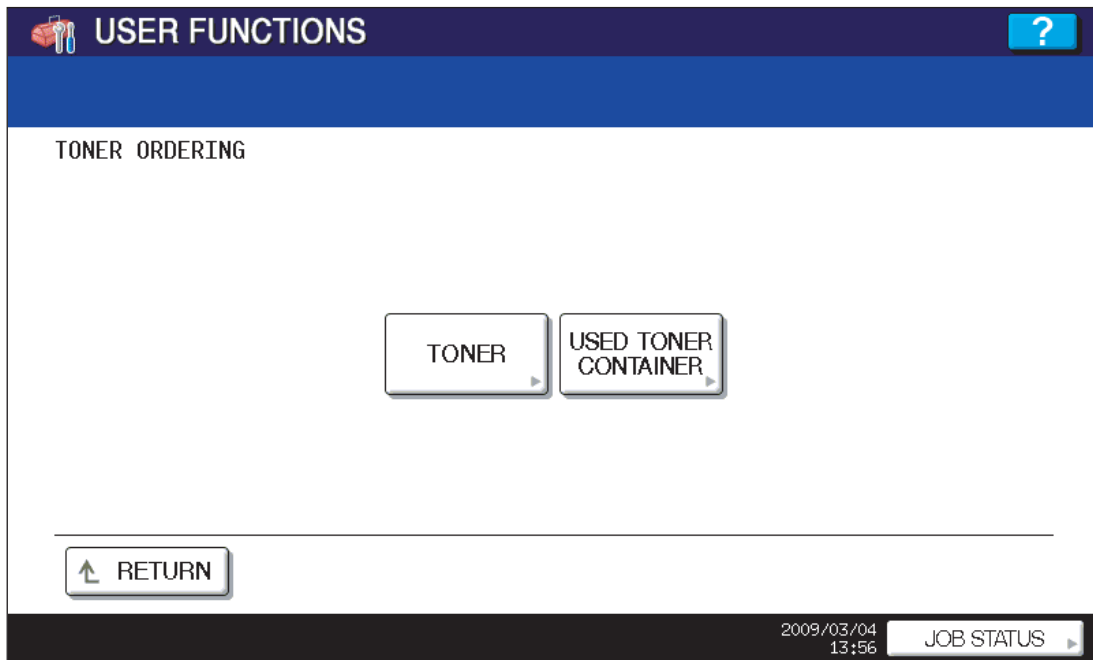


Fig. 8-13

(29) Press the [USED TONER CONTAINER] button, and then input the order information in the same way.

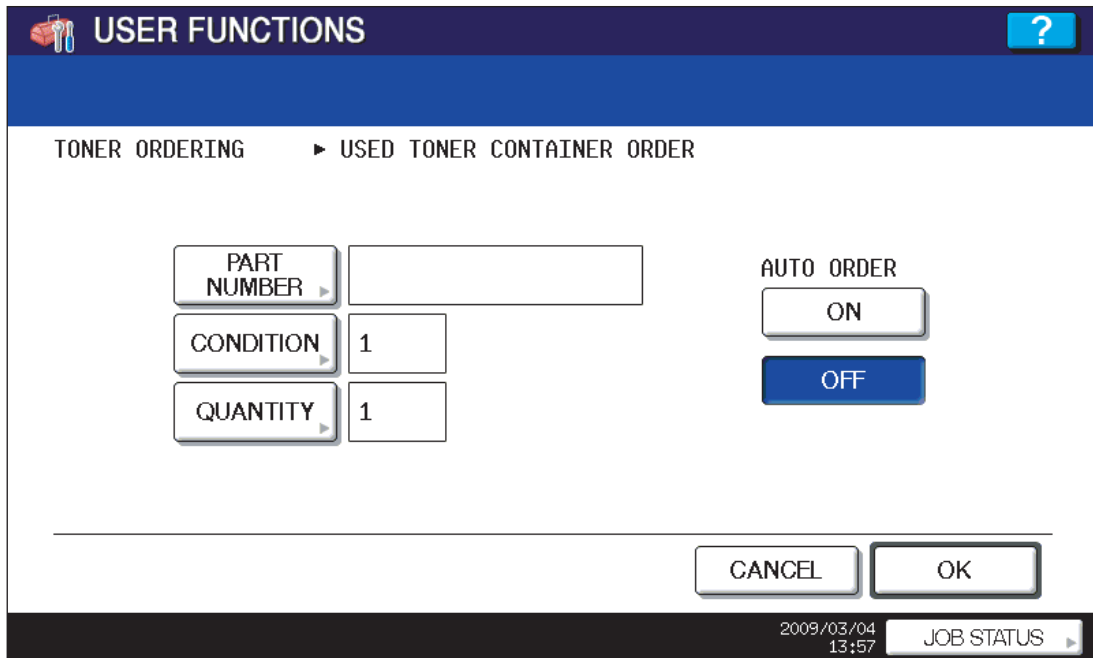


Fig. 8-14

(30) Press the [OK] button to register the order information.

(31) The screen returns to the TONER ORDERING.

- (32) Press the [USER FUNCTION] button to be switched from the ADMIN screen on touch panel and returned to the BASIC screen, so that the setting of Auto Supply Order is finished.

Note:

Auto Supply Order setting is also available from the following setting mode (08).

Items	08 code	Contents
The transmitting way of order [FAX]/[MAIL] / [OFF]	732	0: Ordered by FAX 1: Ordered by E-mail 2: Ordered by HTTP 3: OFF
SUPPLIER [FAX NUMBER]	733	Maximum 32 digits
SUPPLIER [E-MAIL]	734	Maximum 192 letters
CUSTOMER [NAME]	738	Maximum 50 letters
CUSTOMER [TEL NUMBER]	739	Maximum 32 digits
CUSTOMER [E-MAIL]	740	Maximum 192 letters
CUSTOMER [ADDRESS]	741	Maximum 100 letters
SUPPLIER [NAME]	746	Maximum 50 letters
SUPPLIER [ADDRESS]	747	Maximum 100 letters
SERVICE TECHNICIAN [NUMBER]	742	Maximum 5 digits
SERVICE TECHNICIAN [NAME]	743	Maximum 50 letters
SERVICE TECHNICIAN [TEL NUMBER]	744	Maximum 32 digits
SERVICE TECHNICIAN [E-MAIL]	745	Maximum 192 letters
Remarks [DESCRIPTION]	748	Maximum 128 letters
RESULT PRINTING [OFF] / [ALWAYS] / [ON ERROR]	764	0: OFF 1: Always 2: ON Error
TONER [PART NUMBER]	758	Maximum 20 digits
TONER [CONDITION]	760	1-99
TONER [QUANTITY]	759	1-99
USED TONER CONTAINER [PART NUMBER]	761	Maximum 20 digits
USED TONER CONTAINER [CONDITION]	763	1-99
USED TONER CONTAINER [QUANTITY]	762	1-99

8.1.4 Order Sheet Format

The sample of order sheet is as follows.

- (1) FAX (This format is the same as that of TIFF image attached E-mail.)
*1 Part not to be ordered is not output. (Less space between the lines)

DATE & TIME	:99-99-'99 99:99
CUSTOMER NAME	:XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
CUSTOMER ADDRESS	:XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
CUSTOMER TEL NUMBER	:XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
CUSTOMER E-MAIL ADDRESS	:XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
SERVICE TECHNICIAN NUMBER	:XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
SERVICE TECHNICIAN TEL NUMBER	:XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
SERVICE TECHNICIAN E-MAIL	:XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
SUPPLIER NAME	:XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
SUPPLIER ADDRESS	:XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

USED TONER CONTAINER	:	PART NUMBER	QUANTITY
		XXXXXXXXXXXX	99 (*1)

DESCRIPTION AREA

.....

DEVICE DESCRIPTION	:XXXXXXXXXXXXXXXXXXXXXXXXXXXX
SERIAL NUMBER	:XXXXXXXXXXXXXXXXXXXXXXXXXXXX
DEVICE FAX NUMBER	:XXXXXXXXXXXXXXXXXXXXXXXXXXXX
DEVICE E-MAIL ADDRESS	:XXXXXXXXXXXXXXXXXXXXXXXXXXXX

PRINT COUNTER	999999999
SCAN COUNTER	999999999

Fig. 8-15

- (2) E-MAIL (TIFF image attached with the E-mail is the same format with that of the FAX order sheet.)
SUBJECT: SUPPLY ORDER REQUEST
*1 Part not to be ordered is not output. (Less space between the lines)

Date&Time: '09-04-14 00:17
Service Number: a1 MachineName: TOSHIBA e-STUDIO655
SerialNumber: 1234567890
Device FAX Number: 456
Device Email: aaa@linux.nam1.local
OrderInformation:
BLACK PartNumber: BLACK-04 Quantity: 18 (*1)
CounterInformation:
PrintCounter(Small) FullColor: 0 TwinColor: 0 Black: 150
PrintCounter(Large) FullColor: 0 TwinColor: 0 Black: 0
ScanCounter FullColor: 0 TwinColor: 0 Black: 7

Fig. 8-16

(3) Result list

*1 Part not to be ordered is not output. (Less space between the lines)

ORDER XXXXXXXXX	
DATE & TIME	:99-99-'99 99:99
CUSTOMER NAME	:XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
CUSTOMER ADDRESS	:XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
CUSTOMER TEL NUMBER	:XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
CUSTOMER E-MAIL ADDRESS	:XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
SERVICE TECHNICIAN NUMBER	:XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
SERVICE TECHNICIAN NAME	:XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
SERVICE TECHNICIAN TEL NUMBER	:XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
SERVICE TECHNICIAN E-MAIL	:XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
SUPPLIER NAME	:XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
SUPPLIER ADDRESS	:XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

USED TONER CONTAINER	:	PART NUMBER	QUANTITY
		XXXXXXXXXXXX	99 (*1)

DESCRIPTION AREA

.....

DEVICE DESCRIPTION	:XXXXXXXXXXXXXXXXXXXXXXXXXXXX
SERIAL NUMBER	:XXXXXXXXXXXXXXXXXXXXXXXXXXXX
DEVICE FAX NUMBER	:XXXXXXXXXXXXXXXXXXXXXXXXXXXX
DEVICE E-MAIL ADDRESS	:XXXXXXXXXXXXXXXXXXXXXXXXXXXX

PRINT COUNTER	999999999
SCAN COUNTER	999999999

Fig. 8-17

8.2 Service Notification

8.2.1 Outline

This function automatically notifies the status of the equipment to the service technician by E-mail or FAX. The following three are the items to be notified.

- **Total Counter Transmit**
When this function is effective, it notifies each counter information periodically (on the set date and time every month).
- **Service Call Transmit (E-mail only)**
When this function is effective, it notifies the corresponding error code and such at a service call error.
- **PM Counter Transmit**
When this function is effective, it notifies that the PM timing has come when the present PM count has reached to its setting value, or the present PM driving count has reached to its setting value.

8.2.2 Setting

Note:

When using this function, it is required that sending and receiving E-mails or FAXes are available. Confirm the details to the administrator.

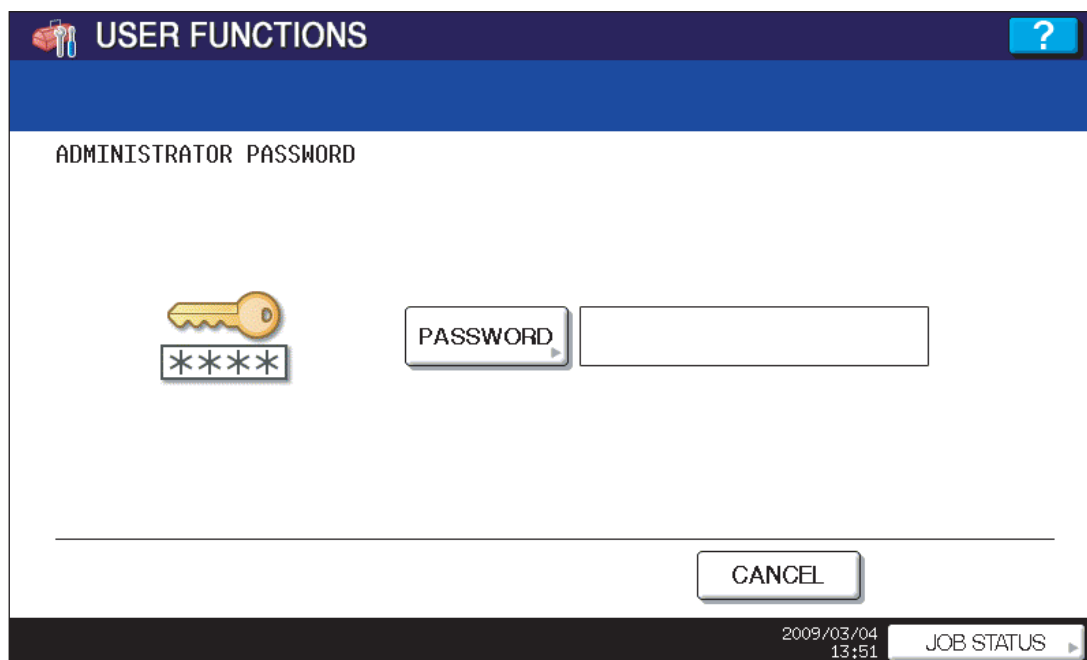
[1] Preparation

The screen to set this function is not displayed at the default setting.
Set this screen to be displayed with the following code (08).

08-774 Setting of notification display
0: Invalid (Default)
1: Valid

[2] Setting procedure

- (1) Press the [USER FUNCTIONS] button and select the [ADMIN] button. Then enter the password and press the [OK] button.
 - Confirm the password to the administrator.



The screenshot shows a screen titled "USER FUNCTIONS" with a blue header bar. Below the header, the text "ADMINISTRATOR PASSWORD" is displayed. In the center, there is a yellow key icon above a box containing four asterisks. To the right of this is a button labeled "PASSWORD" with a right-pointing arrow, followed by an empty rectangular input field. At the bottom right, there is a "CANCEL" button. The bottom status bar shows the date "2009/03/04", the time "13:51", and the text "JOB STATUS" with a right-pointing arrow. A small blue square with a white question mark is in the top right corner of the header bar.

Fig. 8-18

(2) Press the [SERVICE] button.

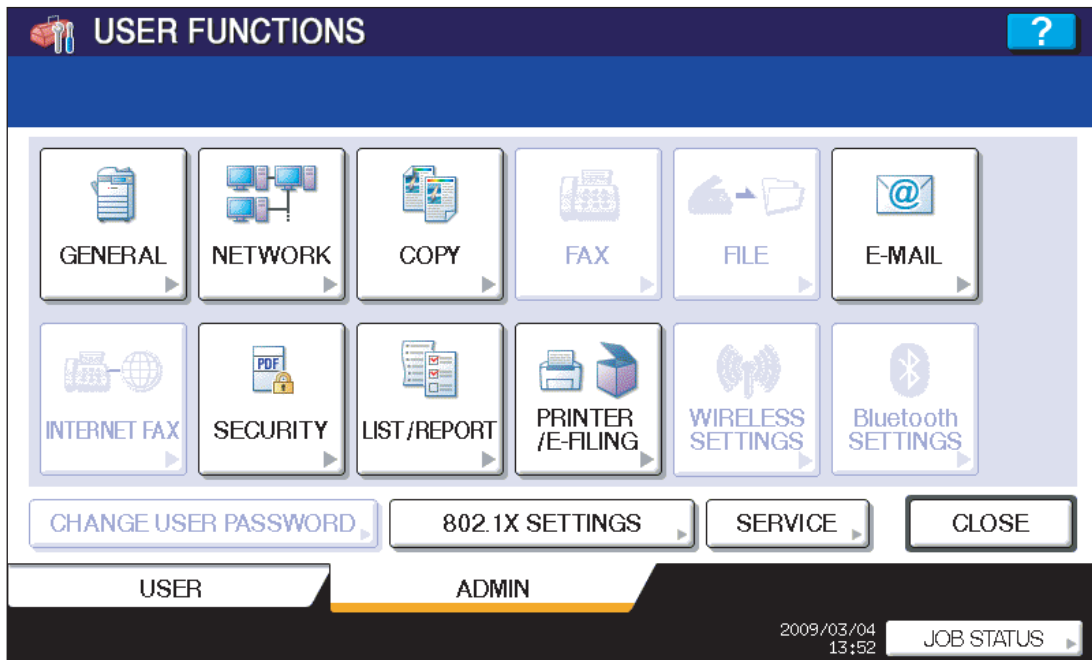


Fig. 8-19

(3) Press the [SERVICE NOTIFICATION] button.

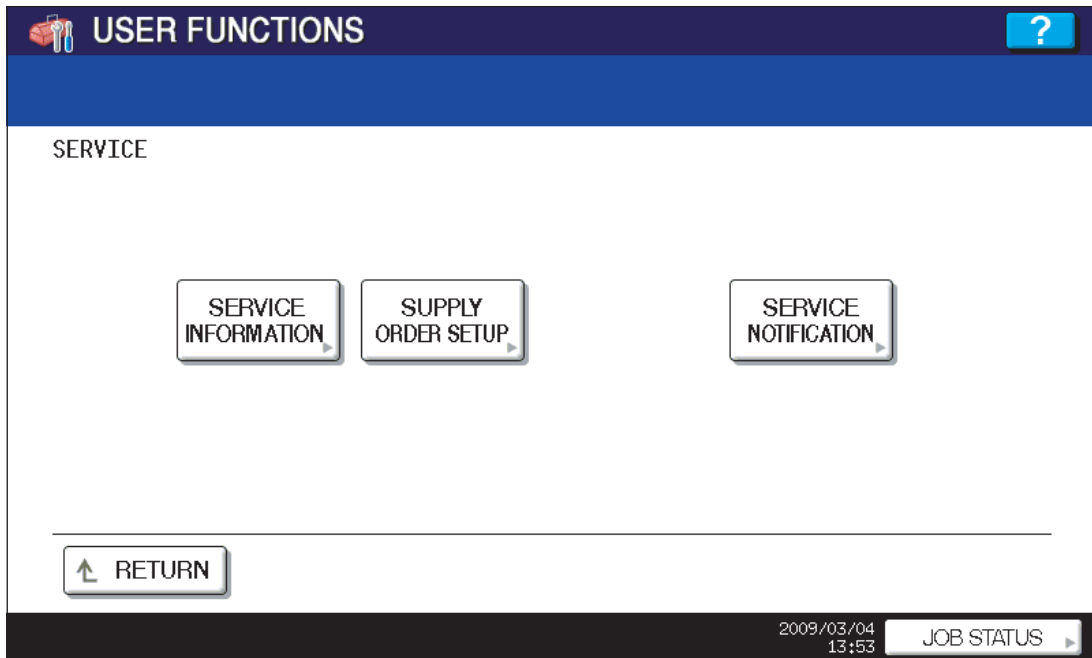


Fig. 8-20

- (4) Press the [E-MAIL] or [FAX] button in "SERVICE NOTIFICATION".
- When the [OFF] button is pressed, all functions related Service Notification become ineffective.

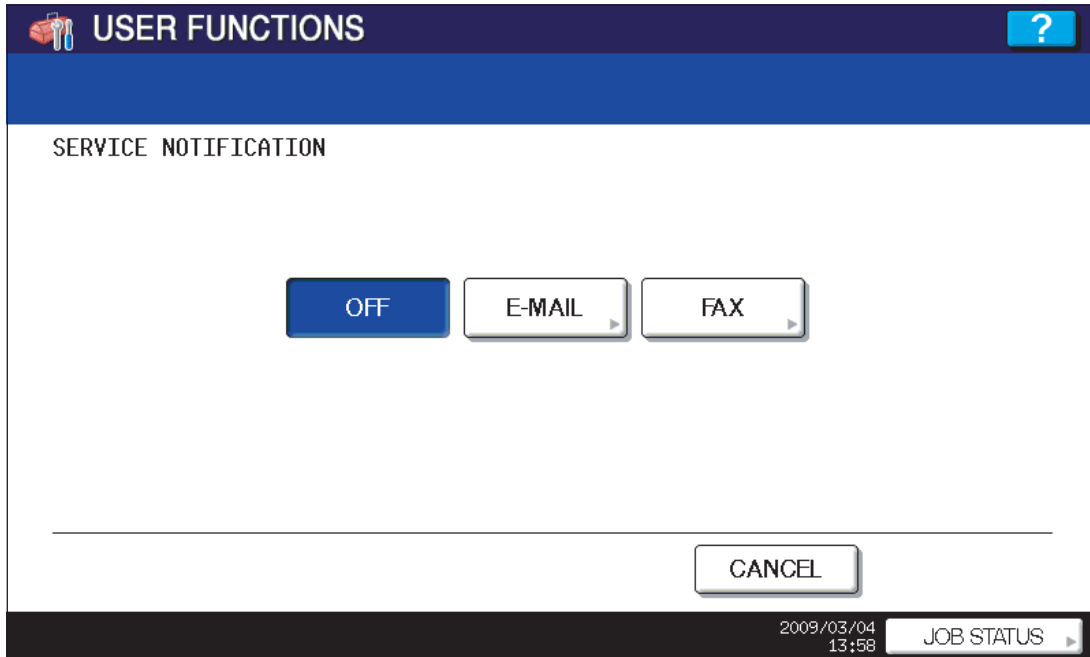


Fig. 8-21

- (5) Enter the E-mail address or FAX number of the destination.
- When pressing the [E-MAIL] button, the screen is switched to a full keyboard. Then enter the E-mail addresses and press the [OK] button. (Maximum 3 addresses can be set.)

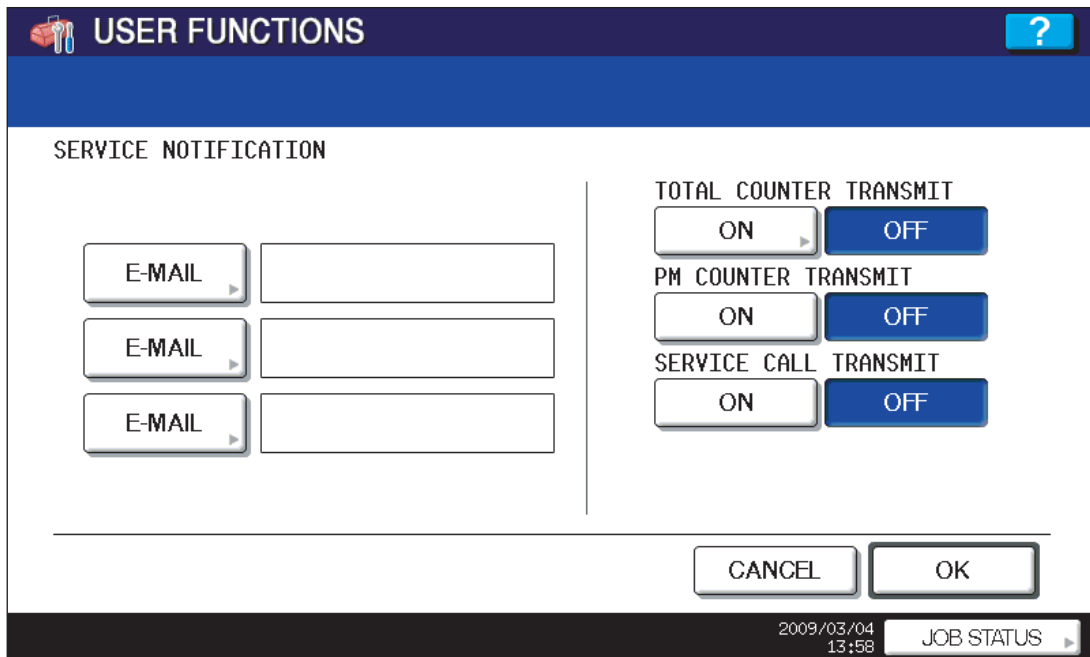


Fig. 8-22

- Press the [FAX NUMBER] button, key in the FAX number and then press the [OK] button.

The screenshot shows the 'USER FUNCTIONS' screen with a 'SERVICE NOTIFICATION' section. On the left, there is a 'FAX NUMBER' button followed by a text input field. On the right, there are two toggle switches: 'TOTAL COUNTER TRANSMIT' and 'PM COUNTER TRANSMIT', each with 'ON' and 'OFF' buttons. The 'OFF' buttons are highlighted in blue. At the bottom right, there are 'CANCEL' and 'OK' buttons. The status bar at the very bottom shows the date '2009/03/04', time '13:58', and a 'JOB STATUS' button.

Fig. 8-23

- (6) Press the [ON] button to notify or the [OFF] button not to notify each item for E-mail and FAX. When Total Count Transmit is set to ON, the screen to set the notification date is displayed. Then set the notification date with the following procedure.

The screenshot shows the 'USER FUNCTIONS' screen with a 'TOTAL COUNTER DETAILS' section. On the left, there are buttons for the days of the week: SUN, MON, TUE, WED, THU, FRI, and SAT. Below these is a 'DATE' button. In the center, it displays 'Time : 00:00' and a 'CHANGE' button. On the right, there is a 'SEND NOW' button. At the bottom right, there are 'CANCEL' and 'OK' buttons. The status bar at the very bottom shows the date '2009/03/04', time '13:59', and a 'JOB STATUS' button.

Fig. 8-24

Set the date and time of the Total Counter.

The following 3 items can be specified for the date setting, and more than one day of the week also can be selected.

- Day of the week (More than one day can be selected.)
- Notify Date 1
- Notify Date 2

You can send the Total Counter immediately without the above settings by pressing the [SEND NOW] button.

- **Day of the week ([SUN] to [SAT] buttons)**

Pressing the buttons ([Sunday] to [Saturday]) of the desired day makes transmission on every specified day. More than one day can be selected.

* This does not affect the settings of “Notify Date 1” and “Notify Date 2”.

- **Notify Date 1 and Notify Date 2 ([DATE] button)**

Pressing the [DATE] button sets up to 2 dates on which you want to send data.

* This is not affected by the specified day of the week.

The screenshot shows a software interface titled "USER FUNCTIONS" with a blue header bar. Below the header, the text "TOTAL COUNTER DETAILS" is displayed. There are two input fields: "NOTIFY DATE 1" and "NOTIFY DATE 2". Each field has a text box and a numeric keypad. The value "0" is entered in both numeric keypads. At the bottom right, there are "CANCEL" and "OK" buttons. The footer of the screen displays the date and time "2009/03/04 13:59" and a "JOB STATUS" indicator with a right-pointing arrow.

Fig. 8-25

Key in the date (acceptable values: 0-31) in “Notify Date 1” or “Notify Date 2” and press the [OK] button.

- **Time setting ([CHANGE] button)**

Pressing the [CHANGE] button sets the time at which you want to send data.

This is the time when data are sent with “Day of the week”, “Notify Date 1” and “Notify Date 2”.

Fig. 8-26

Key in the time (acceptable values: 00:00-23:59) in “Time”.

Key in the time in the hour column of “Time”, press the scroll button, key in the time in the minute column of “Time”.

After all the settings are completed, press the [OK] button. The display returns to the screen in step (5).

(7) Press the [OK] button. The setting completes.

Note:

Service Notification setting is also available from the following setting mode (08).

Items	08 code	Contents
Service Notification setting	767	0: OFF (Invalid) 1:E-mail 2:FAX
E-mail address 1	768	Maximum 192 letters
E-mail address 2	777	Maximum 192 letters
E-mail address 3	778	Maximum 192 letters
FAX number	1145	Maximum 32 digits
Total Counter Transmit setting	769	0: OFF (Invalid) 1: ON (Valid)
Total counter transmission date setting	770	0 to 31
Total counter transmission date setting(2)	9880	0 to 31
Day of total counter data transmission	9881	1 byte 00000000(0)-01111111(127) From the 2nd bit - Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday
Total counter transmission interval setting (Hour/Minute/Minute)	776	00:00-23:59
Service Call Transmit setting	775	0: OFF (Invalid) 1: ON (Valid)
PM Counter Transmit setting	771	0: OFF (Invalid) 1: ON (Valid)

8.2.3 Items to be notified

The items to be notified are shown below.

1. Total Counter Transmit / PM Counter Transmit by E-mail

Subject: Counter Notification

(In case of the PM Counter Transmit, it is shown as "Periodical Maintenance Notification".)

①	Date	: 04/26/2008 12:34
②	Machine Model	: TOSHIBA e-STUDIO655
③	SerialNumber	: 1234567890
④	Total Counter	: 00004787
⑤	Supplier:	
	Name	: SUPPLIER_NAME
	Fax Number	: 1122334455
	E-Mail	: Supplier_emailaddress@cccc.xxx
	Address	: SUPPLIER_ADDRESS
⑥	Customer:	
	Name	: CUSTOMER_NAME
	Tel Number	: 1234567890
	E-Mail	: customer_emailaddress@dddd.xxx
	Address	: CUSTOMER_ADDRESS
⑦	Service Technician:	
	Number	: svc12
	Name	: SERVICE_TECHNICIAN_NAME
	Tel Number	: 0987654321
	E-Mail	: svc@toshibatec.co.jp
	ChargeCounterFormat:	
⑧	LargeSizeChargeCount	1
⑨	LargeSizeChargePaperDefinition	1
	PMCounterFormat:	
⑩	LargeSizePMCount	1
⑪	LargeSizePMPaperDefinition	0
	Charge Counter:	
		Large Small
	<Print Counter>	
	Black	-----
⑫	Copy	00000000 00000000
⑬	Print	00000000 00000000
⑭	List	00000000 00000000
⑮	FAX	00000000 00000000
	<Scan Counter>	
	Black	-----
⑯	Copy Scan	00000000 00000000
⑰	FAX Scan	00000000 00000000
⑱	Net Scan	00000000 00000000
	<FAX Counter>	
⑲	Transmit	00000000 00000000
⑳	Receive	00000000 00000000

Fig. 8-27

Periodical Maintenance Counter:			
		Pages	Drive Counts
②①	K-EPU		
②②	Setting	00000000	00000000
	Current	00000000	00000000
②③	K-EPU		
②④	Setting	00000000	00000000
	Current	00000000	00000000
②⑤	Others		
②⑥	Setting	00000000	00000000
	Current	00000000	00000000
②⑦	Printer Error History:		
	Date	Time	ErrorCode Counter
	04/13/2008	16:44	F110 00000000
	04/12/2008	22:28	F110 00000000
	04/12/2008	22:23	F110 00000000
	03/15/2008	22:23	F110 00000000
	02/25/2008	11:12	F110 00000000

Fig. 8-28

- ① Date
- ② Machine model name
- ③ Serial number
- ④ Total counter value
- ⑤ Supplier information
- ⑥ Customer information
- ⑦ Service technician information
- ⑧ Count setting of large-sized paper (Fee charging system counter)
- ⑨ Definition setting of large-sized paper (Fee charging system counter)
- ⑩ Count setting of large-sized paper (PM)
- ⑪ Definition setting of large-sized paper (PM)
- ⑫ Number of output pages in the Copier Function (BLACK)
- ⑬ Number of output pages in the Printer Function (BLACK)
- ⑭ Number of output pages at the List Print Mode (BLACK)
- ⑮ Number of output pages in the FAX Function (BLACK)
- ⑯ Number of scanning pages in the Copier Function (BLACK)
- ⑰ Number of scanning pages in the FAX Function (BLACK)
- ⑱ Number of scanning pages in the Network Scanning Function (BLACK)
- ⑲ Number of transmitted pages in the FAX Function (BLACK)
- ⑳ Number of received pages in the FAX Function (BLACK)
- ㉑ PM count setting value / PM driving count setting value [EPU (K)]

- ②② PM count present value / PM driving count present value [EPU (K)]
- ②③ PM count setting value / PM driving count setting value [Developer material (K)]
- ②④ PM count present value / PM driving count present value [Developer material (K)]
- ②⑤ PM count setting value / PM driving count setting value [Other parts]
- ②⑥ PM count present value / PM driving count present value [Other parts]
- ②⑦ History error

*1 The latest 20 errors are displayed.

2. Total Counter Transmit / PM Counter Transmit by FAX

*1 In case of the PM Counter Transmit, the title is replaced to “PERIODICAL MAINTENANCE NOTIFICATION”.

Sheet 1

COUNTER NOTIFICATION (*1)

①	DATE	: 09/04/14 13:47
②	MACHINE MODEL	: TOSHIBA e-STUDIO655
③	SERIAL NUMBER	: 1234567890
④	TOTAL COUNTER	: 00004787
[
⑤	CUSTOMER NAME	: CUSTOMER_NAME
	CUSTOMER ADDRESS	: CUSTOMER_ADDRESS
	CUSTOMER TEL NUMBER	: 1234567890
	CUSTOMER E-MAIL ADDRESS	: customer_emailaddress@dddd.xxx
[
	SERVICE TECHNICIAN NUMBER	: svc12
⑥	SERVICE TECHNICIAN NAME	: SERVICE_TECHNICIAN_NAME
	SERVICE TECHNICIAN TEL NUMBER	: 0987654321
	SERVICE TECHNICIAN E-MAIL	: svc@toshibatec.co.jp
[
⑦	SUPPLIER NAME	: SUPPLIER_NAME
	SUPPLIER ADDRESS	: SUPPLIER_ADDRESS
	SUPPLIER FAX NUMBER	: 5544332211
	SUPPLIER E-MAIL	: supplier_emailaddress@cccc.xxx
]		

Fig. 8-29

COUNTER NOTIFICATION (*1)							
CHARGE COUNTER FORMAT				PM COUNTER FORMAT			
⑧	LARGE SIZE CHARGE COUNT	:	1	⑩	LARGE SIZE PM COUNT	:	1
⑨	LARGE SIZE CHARGE PAPER DEFINITION	:	1	⑪	LARGE SIZE PM PAPER DEFINITION	:	0
CHARGE COUNTER							
PRINT COUNTER				SCAN COUNTER			
	BLACK	LARGE	SMALL		BLACK	LARGE	SMALL
⑫	COPY	00000000	00000000		COPY SCAN	00000000	00000000 ⑮
⑬	PRINT	00000000	00000000		FAX SCAN	00000000	00000000 ⑯
⑭	LIST	00000000	00000000		NET SCAN	00000000	00000000 ⑰
⑮	FAX	00000000	00000000				
FAX COUNTER							
		LARGE	SMALL				
⑲	TRANSMIT	00000000	00000000				
⑳	RECEIVE	00000000	00000000				
PERIODICAL MAINTENANCE COUNTER							
㉑	SETTING VALUE (K-EPU PAGES)	:	00000000	㉑	SETTING VALUE (K-DEV DRIVE COUNTS)	:	00000000
㉒	CURRENT VALUE (K-EPU PAGES)	:	00000000	㉒	CURRENT VALUE (K-DEV DRIVE COUNTS)	:	00000000
㉓	SETTING VALUE (K-EPU DRIVE COUNTS)	:	00000000	㉓	SETTING VALUE (OTHERS PAGES)	:	00000000
㉔	CURRENT VALUE (K-EPU DRIVE COUNTS)	:	00000000	㉔	CURRENT VALUE (OTHERS PAGES)	:	00000000
㉕	SETTING VALUE (K-DEV PAGES)	:	00000000	㉕	SETTING VALUE (OTHERS DRIVE COUNTS)	:	00000000
㉖	CURRENT VALUE (K-DEV PAGES)	:	00000000	㉖	CURRENT VALUE (OTHERS DRIVE COUNTS)	:	00000000
⑳ PRINTER ERROR HISTORY							
DATE	TIME	ERROR CODE	COUNTER	DATE	TIME	ERROR CODE	COUNTER
09/04/13	16:44	F110	00000000	09/04/13	16:44	F110	00000000
09/04/12	22:28	F110	00000000	09/04/13	16:44	F110	00000000
09/04/12	22:23	F110	00000000	09/04/13	16:44	F110	00000000
09/03/15	22:23	F110	00000000	09/04/13	16:44	F110	00000000
09/02/25	11:12	F110	00000000	09/04/13	16:44	F110	00000000

Fig. 8-30

- ① Date
- ② Machine model name
- ③ Serial number
- ④ Total counter value
- ⑤ Customer information
- ⑥ Service technician information
- ⑦ Supplier information
- ⑧ Count setting of large-sized paper (Fee charging system counter)
- ⑨ Definition setting of large-sized paper (Fee charging system counter)
- ⑩ Count setting of large-sized paper (PM)
- ⑪ Definition setting of large-sized paper (PM)

- ⑫ Number of output pages in the Copier Function (BLACK)
- ⑬ Number of output pages in the Printer Function (BLACK)
- ⑭ Number of output pages at the List Print Mode (BLACK)
- ⑮ Number of output pages in the FAX Function (BLACK)
- ⑯ Number of scanning pages in the Copier Function (BLACK)
- ⑰ Number of scanning pages in the FAX Function (BLACK)
- ⑱ Number of scanning pages in the Network Scanning Function (BLACK)
- ⑲ Number of transmitted pages in the FAX Function (BLACK)
- ⑳ Number of received pages in the FAX Function (BLACK)
- ㉑ PM count setting value [EPU (K)]
- ㉒ PM count present value [EPU (K)]
- ㉓ PM driving count setting value [EPU (K)]
- ㉔ PM driving count present value [EPU (K)]
- ㉕ PM count setting value [Developer material (K)]
- ㉖ PM driving count present value [Developer material (K)]
- ㉗ PM driving count setting value [Developer material (K)]
- ㉘ PM driving count present value [Developer material (K)]
- ㉙ PM count setting value (Other parts)
- ㉚ PM driving count present value (Other parts)
- ㉛ PM driving count setting value (Other parts)
- ㉜ PM driving count present value (Other parts)
- ㉝ History of error

*2 The latest 20 errors are displayed.

3. Service Call Transmit

Subject: Service Call Notification

① Date: 04/14/2008 13:47
Machine Name: e-STUDIO3520C SerialNumber:1234567890
② ③

④ Function: Printer
⑤ Severity: Error
⑥ Error Code: XXXX
⑦ Message:
XX

⑧ Supplier:
Name : SUPPLIER_NAME
Tel Number : 1122334455
E-Mail : supplier_emailaddress@cccc.xxx
Address : SUPPLIER_ADDRESS

⑨ Customer:
Name : CUSTOMER_NAME
Tel Number : 1234567890
E-Mail : customer_emailaddress@dddd.xxx
Address : CUSTOMER_ADDRESS

⑩ Service Technician:
Number : svc12
Name : SERVICE_TECHNICIAN_NAME
Tel Number : 0987654321
E-Mail : svc@toshibatec.co.jp

⑪ Printer Error History:

Date	Time	Error Code	Counter
04/13/2008	16:44	F110	
04/12/2008	22:28	F110	
04/12/2008	22:23	F110	
03/15/2008	22:23	F110	
02/25/2008	11:12	F110	

(*)

Fig. 8-31

- ① Date (When an error occurs)
- ② Machine model name
- ③ Serial number
- ④ Function: Fixed at "Printer"
- ⑤ Severity: Fixed at "Error"
- ⑥ Error code
- ⑦ Error message: The content of error is displayed.
- ⑧ Supplier information

- ⑨ Customer information
 - ⑩ Service technician information
 - ⑪ History of error
- *1 The latest 20 errors are displayed.

9. BACKUP FUNCTION

9.1 Data Cloning

To start any of the self-diagnostic modes, turn the power OFF using the main power switch, and then back ON while pressing a digital key corresponding to the mode to be started.

9.1.1 General description

Data cloning is a function that backs up user data, setting data and SRAM data into a USB media and also restores these data into the equipment. The types of data to back up or restore are selectable. You can back up or restore all data in a batch, or only the required one separately.

9.1.2 Precautions

1. Programs required for data cloning are as follows:

System ROM version	Storage location	Program file name
---	Root directory	rootusb2, clone_555_855.xxx * xxx is version.

2. Be sure to check the "Status display of the USB data cloning permission (08-9889)" before data cloning. When the value of 08-9889 is "1 (Prohibited)", data cloning cannot be performed. Contact and ask the user (machine administrator) to change the setting on the [Data Cloning Function] in TopAccess.
3. It is assumed that data cloning is to be performed when equipment is installed or options are installed. If the address book has been registered, do not perform restore. Registered / set data are lost.
4. The USB media for the data cloning must meet the following conditions. A data cloning operation with any devices other than the following will not be guaranteed.
 - A combination USB media with a flash memory (to be connected directly to the USB port) and its capacity is between 256 MB and 512 MB (or 1 GB) or more.
 - A device compliant with the following specifications established by USB-IF (USB Implementers Forum)
Class number: 8 (=08h) (Mass storage class)
Sub-Class number: 6 (=06h) (SCSI transfer command set)
Protocol number: 80 (=50h) (Bulk-only)
 - Most of the common USB medias are compliant with the above specifications and are therefore applicable to this data cloning. However, most of these devices were originally developed to be used in an environment for PCs (e.g. Windows or Macintosh) and thus operations exclusively with this equipment have not been fully guaranteed. Therefore, the user must thoroughly check in advance whether there will be any problem in operating with this equipment when adopting one of these devices.
5. The USB medias compliant with both USB 1.1 and USB 2.0 can be used for this data cloning.
6. Data cloning with any storage devices other than a flash memory (e.g. USB-connectable memory card reader, CD/DVD drive, hard disk) will never be guaranteed. Therefore never use them for this operation.
7. Be sure to unplug the LAN cable and Fax line before data are backed up / restored. Also, do not use the RADF and open the cover, drawer, etc. during the data cloning.
8. Data can be backed up / restored only for the same model and version. If the version is different, update the firmware and back up / restore data in the same version.
9. Restore data to equipment which has the same options as when the data are backed up.
10. If "Department management" or "User management information" is restored, the counter values are copied as well, so clear all of them. However, the total counter is not copied.
11. Delete the backed up data in the USB media after the data cloning.

9.1.3 Backup files

Data files that are available for backup are limited to user data, setting data and SRAM data. The detailed descriptions for each file are shown below. Note that backup files are encrypted.

1. User data file

The folder “user_data” is created in the root directory and the following files are stored in it.

Data item	folder	File name
Address book	user_data	BACKUP_ADDR.sct
Mailbox	user_data	BACKUP_MBOX.sct
Template	user_data	BACKUP_TEMP.sct
Back up the Address book, Mailbox and Template in a batch	user_data	BACKUP_ALL.sct
Department management information	user_data	BACKUP_Department.sct
User management information	user_data	BACKUP_User.sct
Role information	user_data	BACKUP_Role.sct
Mata Scan information	user_data/metaScan	xxxx.sct * The file name that the user has set for saving this file comes at “XXXX”.

2. Setting data file

The folder “setting_data” is created in the root directory and the following files are stored in it.

Data item	folder	File name
Network / Print service	setting_data	network.sct, IPsec.sct* * Enabled when the IPsec enabler (GP-1080) is installed.
SaveAsFile / Email / InternetFAX	setting_data	scan.sct
Notification setting	setting_data	notice.sct
Directory Service	setting_data	ldap.sct
FAX setting	setting_data	fax.sct, fax08.sct
Wireless LAN setting / Bluetooth setting	setting_data	wl.sct, bl.sctt

3. SRAM data file

The folder “sram_data” is created in the root directory and the following files are stored in it.

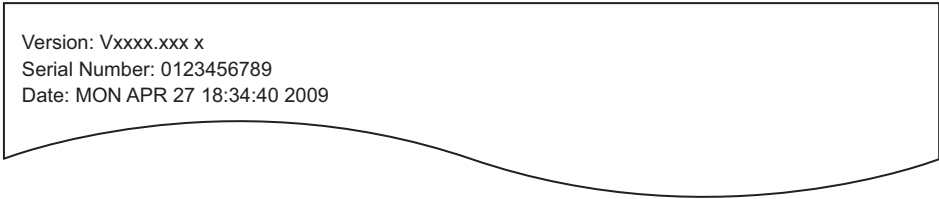
Data item	folder	File name
SRAM	sram_data	sram.sct

Note:

In addition to the backed up data, the following files are created in each folder

Data item	folder	File name
User data	user_data	user_data.txt
Setting data	setting_data	setting_data.txt
SRAM data	sram_data	sram_data.txt

<Contents of file>



Version: Vxxxx.xxx x
Serial Number: 0123456789
Date: MON APR 27 18:34:40 2009

Fig. 9-1

- File format (user_data.txt, setting_data.txt, sram_data.txt: all in common)
 - Line 1: Version
 - Line 2: Serial number
 - Line 3: Date

9.1.4 Cloning procedure

[A] Backup procedure

- (1) Shut down the equipment.
- (2) Connect the USB media to the USB port on the right upper cover.

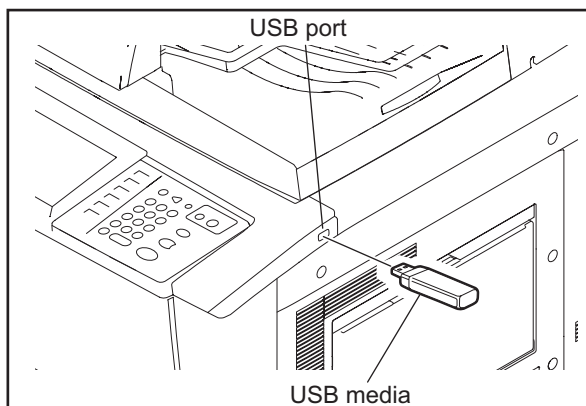


Fig. 9-2

Note:

Backing up cannot be performed with multiple USB media connected at the same time.

- (3) Turn the power ON while pressing the [5] and [9] buttons simultaneously. A screen for selecting items to back up is displayed. Key in any of "1", "3" or "5" for the item to be back up, and then press the [START] button.

Number	Backup Item
1: User Data Back Up	Backing up User data
3: Setting Back Up	Backing up Setting item
5: SRAM Data Back Up	Backing up SRAM data

Select No.	rootusb	version X.XX
	clone_xx_XXXXX_XXX	version X.XX
1: User Data Back Up		
2: User Data Restore		
3: Setting Back Up		
4: Setting Restore		
5: SRAM Data Back Up		
6: SRAM Data Restore		

Fig. 9-3

Notes:

- It may take some time for the next screen to appear after you key in the number for the item.
 - The screen above is not displayed if the data cloning function is disabled. In this case, ask the user (machine administrator) to enable the data cloning function on the TopAccess menu.
 - To clear the selection, press the [CLEAR] or [FUNCTION CLEAR] button.
- (4) A certain time after the [START] button is pressed, the following screen is displayed. Select the number of the desired data. The selected item will be displayed with an asterisk.

<When “1: User Data Back Up” is selected>

Number	Backup Item
1: Address Book	Backing up Address book
2: Mail Boxes	Backing up Mail box
3: Template	Backing up Template
4: Combined	Backing up 1: Address Book, 2: Mail Box and 3: Template in a batch
5: FAX Kit	Backing up Department management
6: User Info	Backing up User management information
7: Role Info	Backing up role information

* The items “4”, “5”, “6”, and “7” are selected in the screen by default.

User Data Backup

1: Address Book
2: Mail Boxes
3: Template
*4: Combined
*5: Department Code
*6: User Info
*7: Role Info

Fig. 9-4

<When “3: Setting Back Up” is selected>

Number	Backup Item
1: Network/Print Service	Backing up TopAccess: Network/Print Service
2: SaveAsFile/Email/InternetFAX	Backing up TopAccess: SaveAsFile/Email/InternetFAX
3: Notification	Backing up TopAccess: Notification
4: Directory Service	Backing up TopAccess: Directory Service
5: FAX Kit	Backing up Option: Fax setting
6: WirelessLAN/Bluetooth Kit	Backing up Option: WirelessLAN/Bluetooth setting

* No items are selected in the screen by default.

Setting Back Up

AdminSetting

1: Network/Print Service
2: SaveAsFile/Email/InternetFAX
3: Notification
4: Directory Service

Setting for Option

5: FAX Kit
6: WirelessLAN/Bluetooth Kit

Fig. 9-5

<When “5: SRAM Data Back Up” is selected>

Number	Backup Item
1. SRAM	Backing up SRAM Data

* No items are selected in the screen by default.



Fig. 9-6

- (5) Press the [START] button. The backup starts and the backing up status is displayed on the LCD screen.
- (6) “Back Up Completed” is displayed on the LCD screen when the backup has been properly completed.
- (7) Turn the power OFF and remove the USB media.

[B] Restoring procedure

- (1) Shut down the equipment.
- (2) Connect the USB media to the USB port on the right upper cover.

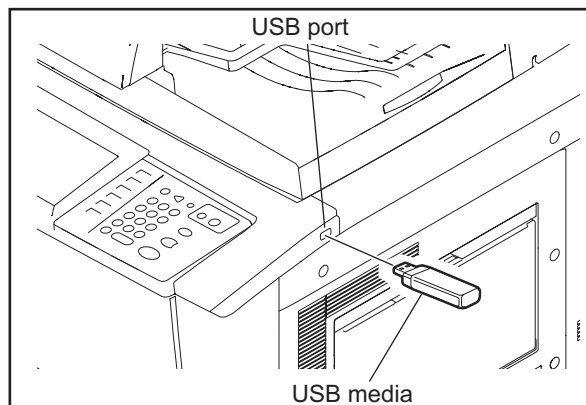


Fig. 9-7

Note:

Restoring cannot be performed with multiple USB media connected at the same time.

- (3) Turn the power ON while pressing the [5] and [9] buttons simultaneously. A screen for selecting items to restore is displayed. Key in any of "2", "4" or "6" for the item to be back up, and then press the [START] button.

Number	Restore Item
2: User Data Restore	Restoring up User data
4: Setting Restore	Restoring up Setting item
6: SRAM Data Restore	Restoring up SRAM data

Select No.	rootusb	version X. XX
	clone_xx_XXXXX_XXX	version X. XX
1: User Data Back Up		
2: User Data Restore		
3: Setting Back Up		
4: Setting Restore		
5: SRAM Data Back Up		
6: SRAM Data Restore		

Fig. 9-8

Notes:

- It may take some time for the next screen to appear after you key in the number for the item.
 - The screen above is not displayed if the data cloning function is disabled. In this case, ask the user (machine administrator) to enable the data cloning function on the TopAccess menu.
 - To clear the selection, press the [CLEAR] or [FUNCTION CLEAR] button.
- (4) A certain time after the [START] button is pressed, the following screen is displayed. Select the number of the desired data. The selected item will be displayed with an asterisk.

<When “2: User Data Restore” is selected>

Number	Restore Item
1: Address Book	Restoring Address book
2: Mail Boxes	Restoring Mail boxes
3: Template	Restoring Template
4: Combined	Restoring 1: Address Book, 2: Mail Box and 3: Template in a batch
5: Department Code	Restoring Department management
6: User Info	Restoring User management information
7: Role Info	Restoring role information

* The items “4”, “5”, “6”, and “7” are selected in the screen by default.

User Data Restore

1: Address Book
2: MailBoxes
3: Template
*4: Combined
*5: Department Code
*6: User Info
*7: Role Info

Fig. 9-9

<When “4: Setting Restore” is selected>

Number	Restore Item
1: Network/Print Service	Restoring TopAccess: Network/Print Service
2: SaveAsFile/Email/InternetFAX	Restoring TopAccess: SaveAsFile/Email/InternetFAX
3: Notification	Restoring TopAccess: Notification
4: Directory Service	Restoring TopAccess: Directory Service
5: FAX Kit	Restoring Option: Fax setting
6: WirelessLAN/Bluetooth Kit	Restoring Option: WirelessLAN/Bluetooth setting

* No items are selected in the screen by default.

* Be sure to restore the same option items in the same condition as when the option items were backed up.

Setting Restore

AdminSetting

1: Network/Print Service
2: SaveAsFile/Email/InternetFAX
3: Notification
4: Directory Service

Setting for Option

5: FAX Kit
6: WirelessLAN/Bluetooth Kit

Fig. 9-10

<When “6: SRAM Data Restore” is selected>

Number	Restore Item
1. SRAM	Restoring SRAM Data

* No items are selected in the screen by default.



Fig. 9-11

- (5) Press the [START] button. The restore starts and the restoring status is displayed on the LCD screen.
- (6) “Restore Completed” is displayed on the LCD screen when restoring has been properly completed.
- (7) Turn the power OFF and remove the USB media.
 - * When “department management data” or “user management data” are restored, clear their counter values in a procedure below.
- (8) Counter values can be all cleared as the data are copied. Note that the total counter values are not copied.

<Procedure>

Press the buttons as follows: [USER FUNCTIONS] → [ADMIN] → Enter the password → [COUNTER] → [DEPARTMANT SETTING] → Enter the password → [RESET ALL COUNTERS]

* Enable the department management when the [RESET ALL COUNTERS] buttons is set to be disabled.

[C] Confirmation of the error

“Back Up ERROR X” (X: Error number) is displayed at the top of the LCD screen when the data have not been properly backed up / restored. In this case, turn the power OFF and then check the following items. After confirming and solving the problem, back up / restore the data again from the beginning.

- Does the USB media meet the conditions being used for this cloning?
- Is the updated program file written on the USB media properly?
- Is the USB media installed properly?
- Is the USB media or the equipment damaged?

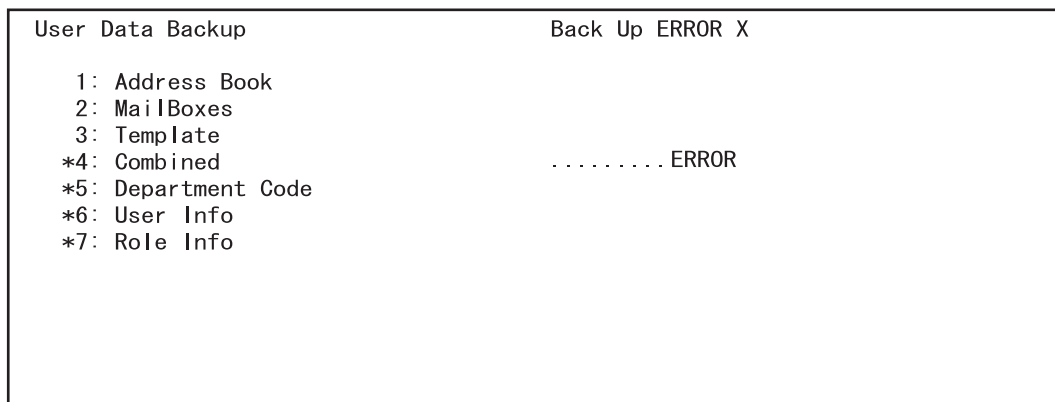


Fig. 9-12

Error number	Error content
ERROR 1	Copy error
ERROR 2	I/F error
ERROR 3	USB memory full error
ERROR 4	Working folder error
ERROR 5	File not found error
ERROR 6	Security error
ERROR 7	Checksum error
ERROR 8	Model check error
ERROR 9	Version check error
ERROR 10	Destination check error
ERROR 11	Serial number check error

9.2 AES Data Encryption Function Setting

9.2.1 General description

Data encryption is a function that encrypts data in the HDD to enhance the security. Note that this function may affect the equipment performance.

9.2.2 Precautions

When the data encryption function is set enabled, data currently stored in the HDD will not be retrieved. Therefore when data encryption function needs to be enabled after the installation of the equipment, it is necessary to back up the data in the HDD before setting this function and then recover them after the setting.

- To ensure security, ask the user (machine administrator) to back up or restore the user's data and information in the HDD. A service technician can back up or restore them only when the user (machine administrator) permits it.
- Some data in the HDD cannot be backed up and can be left only on printouts.

When the data encryption function is enabled, the following items are restricted.

- 08-206 (Auto Shut Off Mode timer setting (Sleep Mode)) is automatically set to "20: Not used".
- 08-602 (Screen setting for automatic energy saver/automatic power OFF) is automatically set to "0: OFF".
- When the [ENERGY SAVER] button is pressed on the control panel, the equipment does not enter the sleep mode.
- Since the energy saver mode cannot be set using the control panel, set it in TopAccess. However, the setting of "Sleep/Auto Shut Off" cannot be changed in TopAccess and "Disable" is displayed.

9.2.3 Setting procedure

A procedure for setting the data encryption function is shown below.

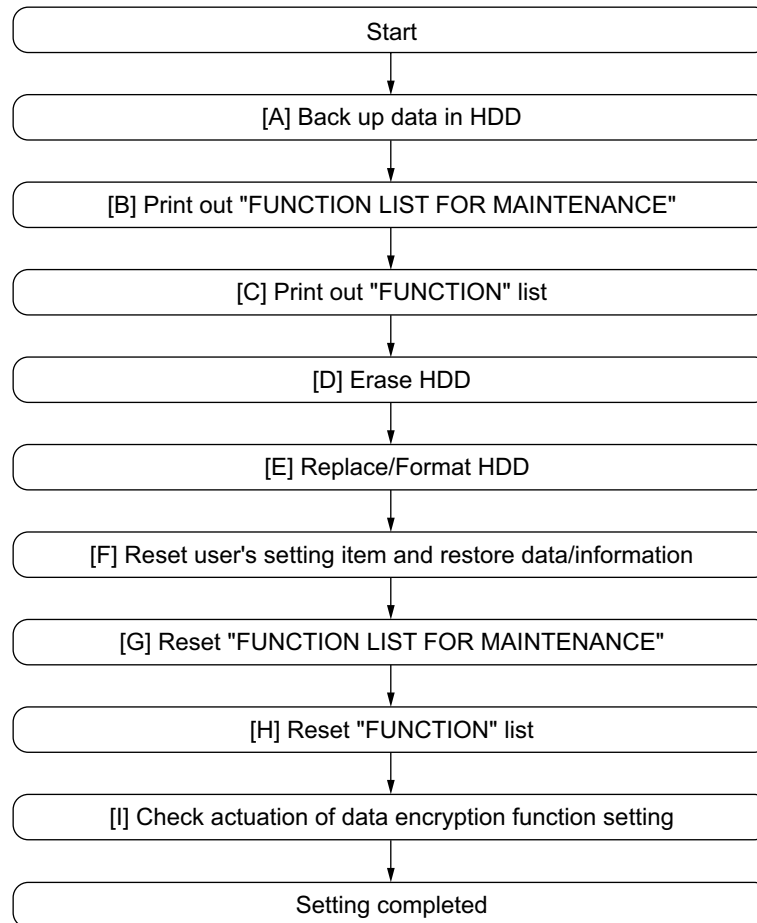


Fig. 9-13

[A] Back up in HDD

Ask the user (machine administrator) to back up the data in the HDD. Refer to the table below for the type of data, availability and method of backup.

Type of data in HDD	Availability	Backup method
Image data in the e-Filing	Available	Archive them in the “e-Filing” of TopAccess. As for the backup in Box data, all data (selectable by the box) can be backed up / restored in one go by using “e-Filing Backup/Restore Utility”.
F-code information, Template registration information, Address book data	Available	Back them up in the “Administrator” menu of TopAccess.
Department management data	Available	Export them in “Administrator” menu of TopAccess.
Log data (Print, Scan, FAX (Transmission/Reception))	Available	Export them in the “Administrator” menu of TopAccess. (Import cannot be performed.)
Data in the shared folder (Scanned data, Saved data of copy / FAX transmission)	Available	Copy them to the client computer via the network. (The data which have been copied to the client computer cannot be copied to the shared folder.)
Role information	Available	Export role information on the TopAccess menus. [User Management] tab > [User Confirm/Create/Modify] > [Role Information]
Print waiting data (Copying data and FAX reception data that are waiting to be printed due to the paper run-out and jam, etc.)	Not available	Finish printing them after the paper supply and the jam release, etc. (The data cannot be kept.)
Print job (Private print data, Schedule print data)	Not available	If any jobs are left, print them. (The data cannot be backed up.)
FAX saved data (Confidential / Bulletin board data)	Not available	Print them. (The data cannot be backed up.)
Registration data for FAX transmission (Delayed transmission / Recovery transmission)	Not available	Print them. (The data cannot be backed up.)

[B] Print out “FUNCTION LIST FOR MAINTENANCE”

- (1) Press the [USER FUNCTIONS] button and then the [USER] button.
- (2) Press the [LIST] button.
- (3) Key in [*] [#] [*] [*] [3] [3] and then press the [START] button. The “FUNCTION LIST FOR MAINTENANCE” is printed out.

[C] Print out “FUNCTION” list

- (1) Press the [USER FUNCTIONS] button.
- (2) Press the [ADMIN] button, enter the password, and then press the [ENTER] button.
- (3) Press the [LIST/REPORT] button and then the [LIST] button.
- (4) Press the [FUNCTION] button. The “FUNCTION” list is printed out.

Note:

Explain the procedure to the user (machine administrator) and ask him/her to enter his/her password.

[D] Enable data encryption function

Perform the setting of the data encryption function in the code 08-9379. The setting values are shown below.

- 0: Encryption disabled
- 1: Encryption enabled (Security priority)
- 2: Encryption enabled (Performance priority)

Security priority: All user data are encrypted.

Performance priority: Encryption data are generated only in a copying or a printing process temporarily. All user data except files which are deleted in a corresponding process are encrypted.

[E] Format HDD

Perform the code 08-690:2 to format the HDD.

When the FAX Unit (GD-1250) is installed, perform “Fax Set Up (1*-100)” and “Clearing the image data (1*-102)”. Then turn the power OFF.

1. Turn the power ON while pressing the digital keys [1] and [*] simultaneously.
2. Key in [100] and then press the [START] button.
3. Key in [102] and then press the [START] button.
4. Turn the power OFF.

[F] Reset user's setting items and restore data/information

Ask the user (machine administrator) to reset the user's setting items and to restore data or information. Refer to the following for the reset and restore:

Items to reset/restore	Method
Printer driver	Upload them in the "Administrator" menu of TopAccess.
F-code information, Template registering information, Address book data	Restore them in the "Administrator" menu of TopAccess.
Department management data	Import them in the "Administrator" menu of TopAccess.
Image data in the e-Filing	Restore them in the "e-Filing" of the TopAccess.
Role information	Import role information on the TopAccess menus. [User Management] tab > [User Confirm/Create/Modify] > [Role Information]


- * When the SSL is enabled, perform the setting of the following items again with "Create self-certificate" of TopAccess.

Country Name
State or Province Name
Locality Name
Organization Name
Organizational Unit Name
Common Name
Email Address

- * When wireless LAN is used, perform the setting again on the LCD panel. (only when security with a certificate is used) Also, upload the following certificate file with "Install Certificate for Wireless LAN" of TopAccess.

CA certificate
User certificate

[G] Reset "FUNCTION LIST FOR MAINTENANCE"

- (1) Print out the "FUNCTION LIST FOR MAINTENANCE" list after the formatting.
 P.9-13 "[B] Print out 'FUNCTION LIST FOR MAINTENANCE'"
- (2) While pressing [1] and [3] simultaneously, turn the power ON. (Function Mode)
- (3) Compare the lists which were printed before and after the formatting to check the setting items having the different setting values. Set the value which was set before the formatting
Turn the power OFF.
- (4) Turn the power OFF.

[H] Reset "FUNCTION" list

- Reset the fax function by referring to the "function list" that was printed out in Ch.9.2.3 [C] Print out "function list".
- Press the [USER FUNCTIONS] button.
 - Press the [ADMIN] button, enter the password, and then press the [ENTER] button.
 - Press the [FAX] button and then the [TERMINAL ID] button to set each item.
 - Press the [INITIAL SETUP] button to set each item.

Note:

Explain to the user (machine administrator) about the next operation and ask him/her to enter his/her password.

[I] Check actuation of data encryption function setting

Check if the data encryption function is in operation.

- Press the [USER FUNCTION] button on the control panel. If a key-shaped icon is displayed at the top right of the screen, the data encryption function is in operation.

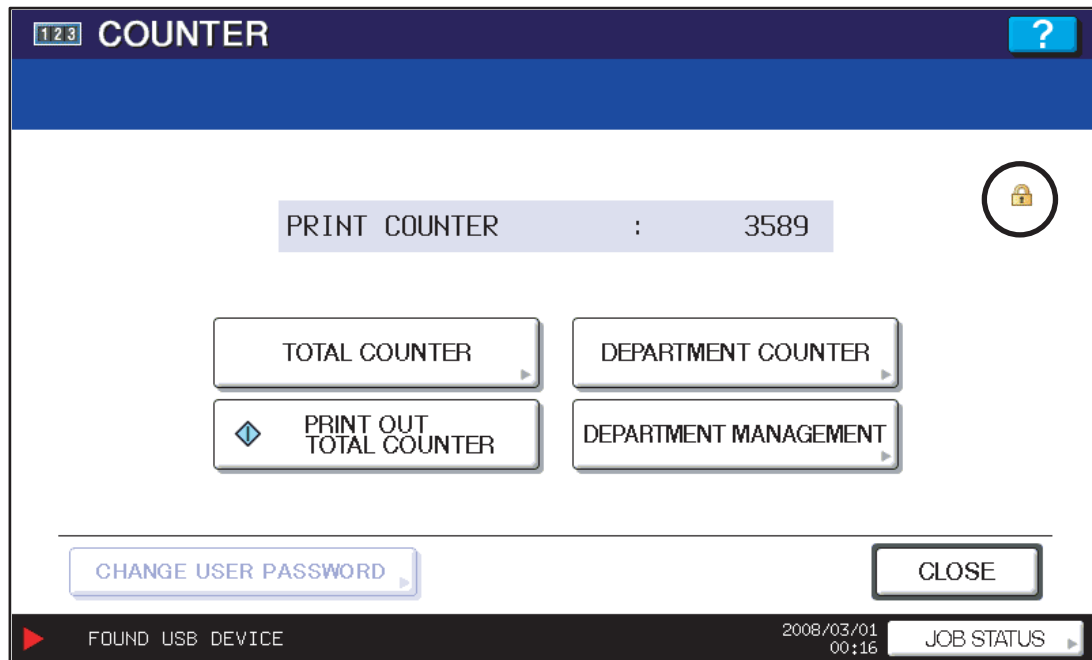


Fig. 9-14

9.2.4 Procedure for disabling data encryption function

The basic procedure is the same as the one for enabling this function. To disable it, set "0 (Invalid)" in the code 08-9379 at step P.9-14 "[D] Enable data encryption function".

9.2.5 Procedure for discarding HDD when data encryption function is enabled

Set the data encryption function disabled following the procedure shown in P.9-16 "9.2.4 Procedure for disabling data encryption function". Then perform the code 08-1426 (Forcible HDD data clearing) to completely erase the data in the HDD.

9.3 Assist Mode

9.3.1 Assist Mode

This equipment has the Assist Mode to enable the following functions.

- (1) Update Error flag clearing (Clear Update Error Flags.)
Even if the firmware downloading has been completed normally, the Recovery Mode may accidentally start up when the power is turned ON again. In this case, clear the Update Error flags used in the download process with this function. (Normally, the flags are automatically cleared in the download process.)
Also in the case the Recovery Mode accidentally starts up after the replacement of SRAM on the SYS board, the flags are cleared with this function.
- (2) Data storage partition formatting ("Format Loader Partition.")
When a defection occurs on the UI data, etc. which are stored in the HDD, the partition with the stored UI data, etc. is formatted with this function. (Do not use this function since it is not normally necessary.)
- (3) HDD partition creation ("All Partition Delete and Create Loader Partition.")
When the HDD is replaced or UI data, etc. are downloaded using the USB storage, it is necessary to format a partition in the HDD before downloading. In this case, the partition is created in the HDD with this function.

Notes:

1. When downloading with a download jig, it is not necessary to format a partition in advance.
2. Perform the HDD partition formatting only when a new HDD is installed since all data in the current HDD are erased by this operation.

- (4) SRAM data format
When SRAM is replaced with a new one, abnormal values may be written in the new SRAM. SRAM data must be formatted with this function for such case.

Notes:

1. This function is required only when a new SRAM is installed.
2. Do not perform this function in cases other than the installation of a new SRAM because all data in the SRAM will be deleted with this function.

9.3.2 Operating Procedure of Assist Mode

- (1) Turn ON the power while [3] button and [CLEAR] button are pressed simultaneously.
 - The following screen is displayed.

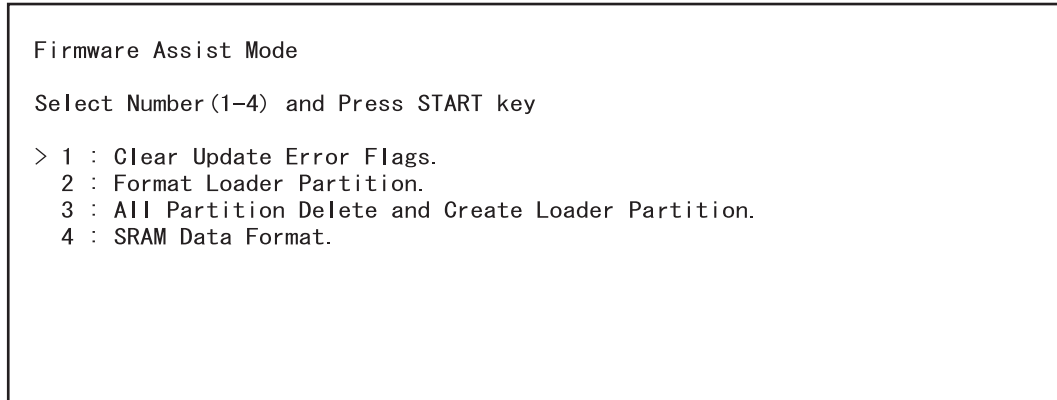


Fig. 9-15

- (2) Select the item with the digital keys and press the [START] button.

Note:

Explain the user (machine administrator) about the next operation and ask him/her to enter his/her password.

10. WIRE HARNESS CONNECTION DIAGRAMS

10.1 AC Wire Harness

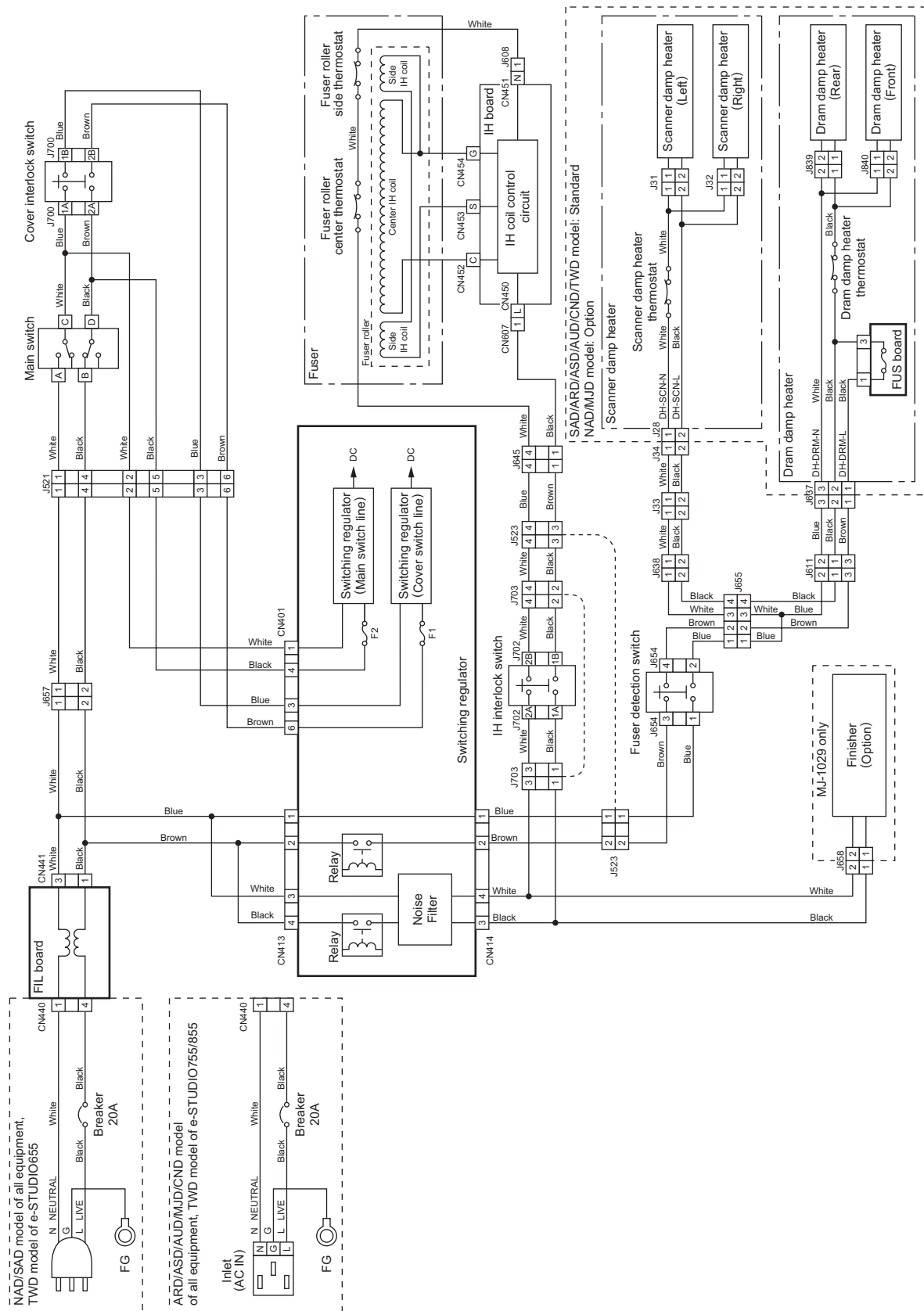
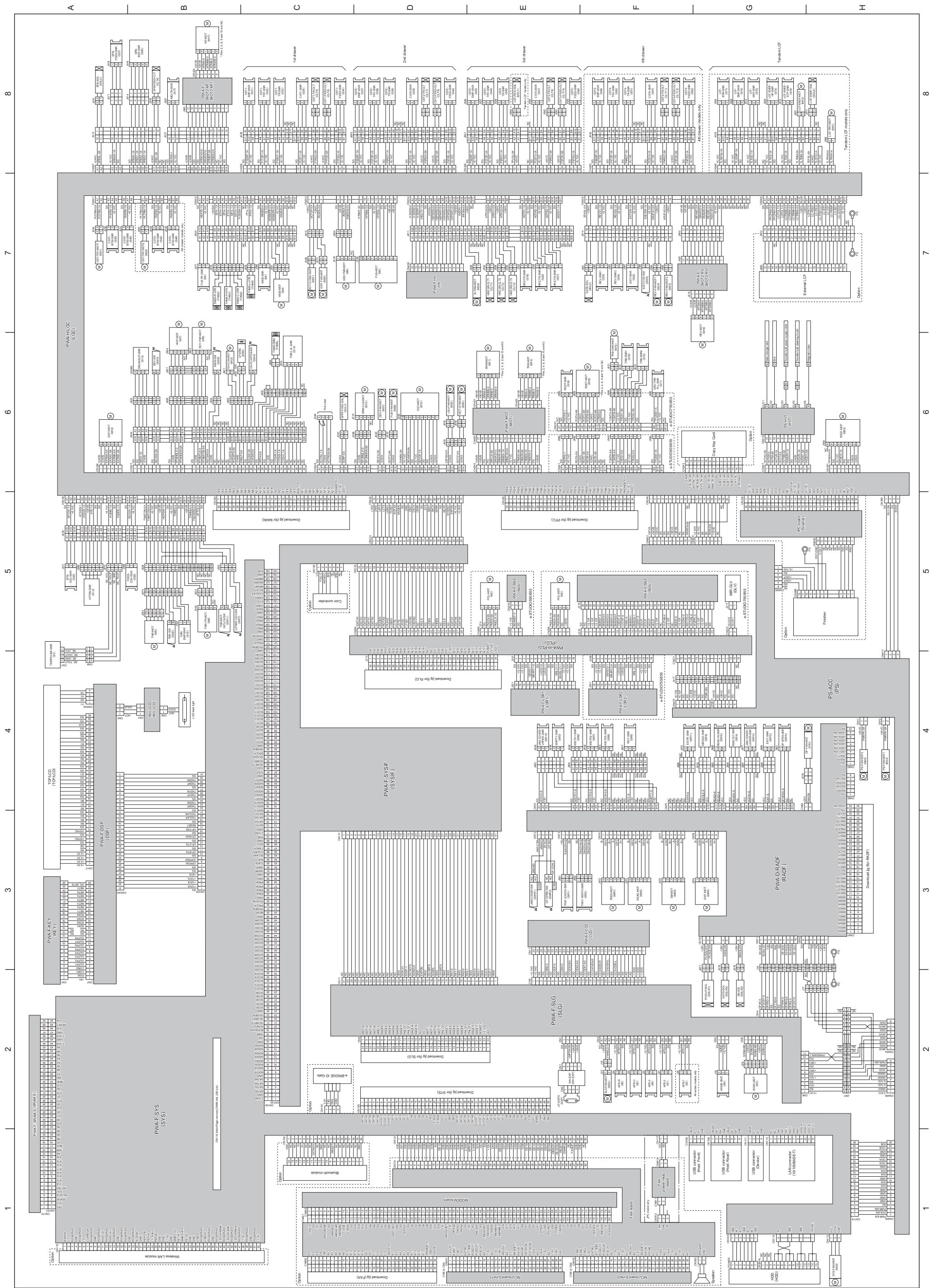


Fig. 10-1

10.2 DC Wire Harness



Motors				Sensors and Switches				Electromagnetic spring clutches				Lamps and heaters			
Symbol	Name	Figure	Wire harness location	Symbol	Name	Figure	Wire harness location	Symbol	Name	Figure	Wire harness location	Symbol	Name	Figure	Wire harness location
M1	SCAN-MOT Scan motor	17a	2-G	S1-5	APSL-I.3, APS-C, APS-R Automatic original detection sensor * Only for JPC model of all equipments	17a	2-F	S60	CST4-TYR-SNR 4th drawer tray-up sensor * Only for JPC model of all equipments	13)	8-F	CLT1	HRZ-DRL-CLT1 Horizontal transport section driving clutch-1	8)	7-E
M2	POL-MOT Cartridge home position sensor	3a-b	5-E	S6	HOMC-SNR Carriage home position sensor	11a	2-G	S51	CST4-TYR-SNR 4th drawer transport sensor * Only for JPC model of all equipments	13)	8-F	CLT2	HRZ-DRL-CLT2 Horizontal transport section driving clutch-2	8)	7-E
M3	FUS-MOT Fuser motor	4)	7-D	S7	TEMP-HUM-SNR Temperature/humidity sensor	2)	4-A	S52	CST4-FEED-SNR 4th drawer feed sensor * Only for JPC model of all equipments	13)	8-F	CLT3	HRZ-DRL-CLT3 Horizontal transport section driving clutch	8)	7-E
M4	WEB-MOT Web motor	4)	7-C	S8	WEB-SNR Web detection sensor	4)	7-C	S71	LCF-BTM-SNR Tandem LCF bottom sensor * Only for NAD/SAG/ADA/ASDA/AUD/MJ/DND/TWO model of all equipments	14)	8-G	CLT4	SCF-FEED-CLT Bypass feed clutch	12)	8-B
M5	TNR-MOT New toner supply motor	5)	5-B	S9	FUS-TR-SNR Fuser transport sensor	4)	7-B	S72	LCF-BTM-SNR Tandem LCF bottom sensor * Only for NAD/SAG/ADA/ASDA/AUD/MJ/DND/TWO model of all equipments	14)	8-G	CLT5	CST1-TR-CLT 1st drawer transport clutch	13)	8-C
M6	TNR-TR-MOT New toner transport motor	5)	5-B	S10	TNR-EMP-SNR Toner cartridge empty detection sensor	5)	5-B	S73	LCF-BTM-SNR Steady side blank stacking sensor * Only for NAD/SAG/ADA/ASDA/AUD/MJ/DND/TWO model of all equipments	14)	8-G	CLT6	CST1-FEED-CLT 1st drawer feed clutch	13)	8-C
M7	HOPPER-MOT Hopper motor	6)	6-B	S11	USD-TN-F-L-SNR Toner bag full detection sensor	6)	6-F	S74	LCF-EMP-SNR Steady side empty sensor * Only for NAD/SAG/ADA/ASDA/AUD/MJ/DND/TWO model of all equipments	14)	8-G	CLT7	CST1-TR-CLT 2nd drawer transport clutch	13)	8-D
M8	RCT-YNR-MOT Recoiler toner transport motor	6)	6-B	S12	ATTNR-SNR Auto-toner sensor	7)a	5-A	S75	LCF-ENDF-SP-SNR End fence stop position sensor * Only for NAD/SAG/ADA/ASDA/AUD/MJ/DND/TWO model of all equipments	14)	8-G	CLT8	CST1-FEED-CLT 2nd drawer feed clutch	13)	8-D
M9	USD-TNR-MOT Used toner transport motor	6)	7-C	S13	DRUM-SFL-SNR Drum surface potential sensor	7)a	6-B	S76	LCF-ENDF-SP-SNR End fence stop position sensor * Only for NAD/SAG/ADA/ASDA/AUD/MJ/DND/TWO model of all equipments	14)	8-G	CLT9	CST1-TR-CLT 3rd drawer / tandem LCF transport clutch	13)	8-E
M10	DEV-MOT Developer unit motor	7)a	6-D	S14	TRN-LV-SNR Image quality sensor	7)a	6-C	S77	LCF-ENDF-SP-SNR End fence stop position sensor * Only for NAD/SAG/ADA/ASDA/AUD/MJ/DND/TWO model of all equipments	14)	8-G	CLT10	CST1-FEED-CLT 3rd drawer / tandem LCF feed clutch	13)	8-E
M11	DNM-MOT Drum motor	7)a	6-E	S15	TBS-SNR2 Transfer belt release detection sensor	7)a	6-F	S78	LCF-ENDF-SP-SNR End fence stop position sensor * Only for NAD/SAG/ADA/ASDA/AUD/MJ/DND/TWO model of all equipments	14)	8-G	CLT11	CST1-TR-CLT 4th drawer transport clutch * Only for JPC model of all equipments	13)	8-F
M12	CH-CLN-MOT Charger drive motor	7)a	6-E	S16	TRN-SNR1 Transfer belt contact detection sensor	7)a	6-F	S79	LCF-ENDF-SP-SNR End fence stop position sensor * Only for JPC model of all equipments	14)	8-G	CLT12	CST1-FEED-CLT 4th drawer feed clutch * Only for JPC model of all equipments	13)	8-F
M13	DRM-CLN-MOT Cleaning brush drive motor	7)a	6-D	S17	MDO-TR-SNR Intermediate transport sensor	8)	8-B	SW1	FBR-SW Fuser detection switch	4)	AC wire harness				
M14	ROST-SMT Transfer belt motor	7)a	6-E	S18	ROST-SMT Registration sensor	8)	6-E	SW2	TNR-SW Toner cartridge detection switch	5)	5-B				
M15	TRB-CAM-MOT Horizental belt cam motor	7)a	6-F	S19	HRZ-TR-SNR1 Horizontal transport sensor-1	8)	7-E	SW3	DEV-SW Developer unit detection switch	7)a	6-B	SOL1	BPH-F-PNG-SOL Drm separation finger solenoid	7)a	6-C
M16	ROST-KAT Registration motor	8)	6-F	S20	HRZ-TR-SNR2 Horizontal transport sensor-2	8)	7-E	SW4	CP-CLK-POS-SW Way cleaner position detection switch	7)a	6-C	SOL2	GATE-SOL Gate extension	9)	7-F
M17	HRZ-TR-MOT Transport motor	8)	8-B	S21	HRZ-TR-SNR3 Horizontal transport sensor-3	8)	7-E	SW5	EXIT-COV-SW Exit cover switch	9)	7-F	SOL3	SPR-SOL Bypass pickup solenoid	12)	8-A
M18	EXT-MOT Exit motor	9)	6-A	S22	EXT-SNR Exit sensor	9)	7-F	SW6	MAIN-SW Main switch	10)	6-B	SOL7	LCF-IPCK-SOL Random LCF pickup solenoid * Only for NAD/SAG/ADA/ASDA/AUD/MJ/DND/TWO model of all equipments	13)	8-E
M19	REV-MOT Reverse motor	9)	7-G	S23	REV-SNR1 Reverse sensor-1	9)	7-F	SW7	U-FRM-COV-SW Front cover switch	10)	5-B	SOL8	LCF-ENDF-SOL Tandem LCF and fence solenoid * Only for NAD/SAG/ADA/ASDA/AUD/MJ/DND/TWO model of all equipments	14)	8-H
M20	FEED-MOT Feed motor	13)	6-H	S24	REV-SNR2 Reverse sensor-2	9)	7-F	SW8	IF-INTELK-SW If interlock switch	10)	AC wire harness				
M21	CST-TRY-MOT1 Tray-up motor-1	13)	7-A	S25	SFB-COV-SNR Bypass feed unit cover sensor	11)	5-A	SW9	TNR-MOT-INTLK-SW Toner motor interlock switch	10)	5-B	SOLR1	Original pickup solenoid	17)b	2-G
M22	CST-TRY-MOT2 Tray-up motor-2 * Only for JPC model of all equipments	13)	7-B	S26	FEED-COV-SNR Feed cover sensor	11)	5-B	SW11	SR1 Original tray sensor	17)a	3-E	SOLR2	Original reverse solenoid	17)a	2-G
M23	SLG-FAN-MOT SLG board cooling fan	17a</													

REVISION RECORD

Ver.01

Ver.01 <2009.7.8>	
Page	Contents
1-1	The applicable destination for the Tandem LCF has been corrected.
1-17	GQ-1040 has been corrected to GQ-1240.
2-1 to 2-22	The link pages have been corrected.
2-12	The model name has been corrected.
2-39	An "Output for" field has been added to the table.
4-37	DF-KIT-8110 has been corrected to DF-KIT-3018.
5-103	2B21 has been added to the troubleshooting.
5-104	2BA1 has been added to the troubleshooting.
5-163	A note for installing GP-1070 has been added.
5-166	A note for installing GP-1070 has been added.
6-12	The notes for shutting down the equipment have been corrected.
6-23	The notes for shutting down the equipment have been corrected.

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