



C910 / C930 Troubleshooting Guide

Distributed at the Oki Data A3/C9 Service Training Classes.

Rev. 3.20

5. ADJUSTMENT

The printer is adjusted by key operation on the Maintenance Utility and the Operator Panel.

Select the menu according to the items to adjust and the purpose of adjustment.

5.0 System Maintenance Menu

This menu is launched by turning on the power source while keeping the [Menu+]+[Menu-]+[Help] switches pressed.

The menu display is only available in English regardless of destination.

- Note** • This menu can be modified according to the destination, etc. Therefore, it is not open (closed) to the end user.
- C910 needs password to enter the System Maintenance Menu. Default is "000000".

- Caution** Do not reset the OKIUSER Setting of the C930 Series.
- Resetting OKIUSER resets settings made in it, including its model name and server name. When the OKIUSER menu has been entered on it, press the Return button to exit from the menu.

Table 5-0. Maintenance Menu Display Table (1/2)

Category	Item	Value	DF	Old Menu	Function	Valid	Save
System Maintenance	OKI USER	ODA OEL APS JP1 JPOEM1 OEMA OEML	*	"SYSTEM MAINTENANCE MENU" - "OKIUSER" - "OKIUSER"	Set the destination. JPOEM1: Japan OEM OEMA : A4 Default Overseas OEM OEML : Letter Default Overseas OEM Automatically reboot after escaping from the menu. The default value for non-PS models is JP1.	RB	-
	Maintenance Menu	NEXT			This displays the menu to initialize the harddisk and Flash ROM.		
	Maintenance Print Menu	Enable Disable	*		This switches whether to Show/Hide the "Print Information" – "ID Check Pattern" and "Engine Status" of the Function Menu. If this item is disabled, the "Print Information" – "ID Check Pattern" and "Engine Status" of the Function Menu is never displayed. The printer is restarted after the settings are modified and escaping from the menu.	ET	-
	Print Page Count	Enable Disable	*	"SYSTEM MAINTENANCE MENU" - "PAGE CNT PRINT" - "PAGE CNT PRINT"	This sets whether to Show/Hide the display of the "Functions"- "Configuration" - "Print Page Count"- "Total Page".	ET	-
	Personality	NEXT			This displays the menu to edit the default PDL language supported according to destination.		
	Change Password	NEXT					
	Diagnostic Mode				"SYSTEM MAINTENANCE MENU"- "DIAGNOSTIC MODE XX.XX"	This goes to the engine's self-diagnosis mode.	ET

Table 5-0. Maintenance Menu Display Table (2/2)

Category	Item	Value	DF	Old Menu	Function	Valid	Save
Maintenance Menu	Format HDD	Execute	-	SYSTEM MAINENANCE MENU — MAINTENANCE MENU — HDD INITIALIZE	Initialize the HDD. When executed it will escape from the menu and start initializing the HDD. [Display Condition] ¥Mount HDD (Boot Menu - Storage Setup - Enable Initialization Enable, Boot Menu - Storage Setup - Enable HDD Yes)	ET	-
	Format Flash ROM	NEXT	-	SYSTEM MAINENANCE MENU - MAINTENANCE MENU — FLASH INITIALIZE	This displays the menu to initialize the Flash ROM.	RB	-
	Reset EEPROM	Execute	-	SYSTEM MAINENANCE MENU - MAINTENANCE MENU — MENU RESET	This resets the EEPROM details to the factory preset (factory default) value. It automatically reboots after the settings are made and applied. * Some special items are not initialized.	RB	-
	Reset Parameter	Execute	-		This resets the EEPROM details to the factory preset (factory default) value. At that time, the OEM related settings that are not initialized with Reset EEPROM will also be initialized. It automatically reboots after the settings are made and applied. * Some of the PU, network, etc. cannot be initialized.	RB	-
Personality	IBM PPR III XL	Enable Disable	*E *J	SYSTEM MAINENANCE MENU - PERONALITY — IBM PPR III XL	Changes the default PDL language supported according to the destination. The PDL language disabled from this menu will no longer be displayed on the Print Setup — Personality of the Function menu. When receiving print data in the disabled PDL language, display INVALID DATA and dispose the incoming data. (HP-GL/2 is currently under development and there are no plans scheduled for application for the product). PDF requires Adobe Postscript, therefore, it is not possible to turn PDF ON/OFF by itself (if Adobe Postscript is DISABLED, the PDF Function will also be DISABLED). It is not possible to DISABLE Adobe Postscript and PDF with PX711/713. (It shall be usually used in the ENABLE state. Though DISABLE is set the incoming data will still be processed. It has been incorporated for future extension purposes.)		-
	EPSON FX	Enable Disable	*E *J	SYSTEM MAINENANCE MENU - PERONSALITY — EPSON fx			
	HP-GL/2	Enable Disable	*JE	SYSTEM MAINENANCE MENU - PERSONALITY — hp-gl/2			
Format Flash ROM	Slot 0	Execute	-		Initialize the Flash ROM. Escape the menu to execute, then start formatting the Flash device mounted on the resident (onboard).	ET	-
	Slot 1	Execute	-		Initialize the Flash ROM. Escape the menu to execute, then start formatting the Flash device mounted on the wireless LAN (Optional).	ET	-

During the Engine Self-Diagnosis Mode, switch operations and the LCD display is instructed by the engine firmware, therefore, it will vary from the specifications of the controller firmware operations. Note that the Engine Self-Diagnosis Mode can also be executed in the state with the controller PCD removed.

For details, accordingly refer to the Engine Specifications Manual.

5.0.1 ID Check Pattern Print ("TEST PRINT MENU" Item)

This pattern can be used to investigate the cause (plain identification of problem or check cycle of problem) resulting from the ID or LED head. CMYK are each composed of a 20% duty pattern. (printing 2 sheets)

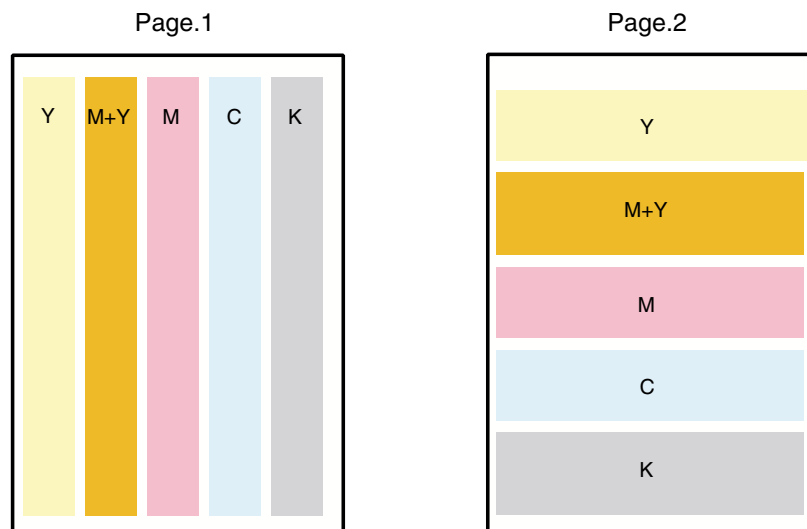
Test Pattern Print Procedure : (Switch pressing order)

* HDD = NO : "0" → "0" → "3" → "3"

* HDD = YES : "0" → "0" → "0" → "3" → "3"

- Vertical Black/White Lines (Vertical Black/White Lines)
- Vertical Black/White Band (Vertical Black/White Band)
- Horizontal Black/White Lines (Horizontal Black/White Lines)
- Horizontal Black/White Band (Horizontal Black/White Band)

Print pattern (Print Pattern):



5.1 Maintenance Menu and Its Function

5.1.1 Maintenance Menu

There is a Maintenance Menu Category in a regular menu category.

The following items can be set from this menu.

Maintenance Menu

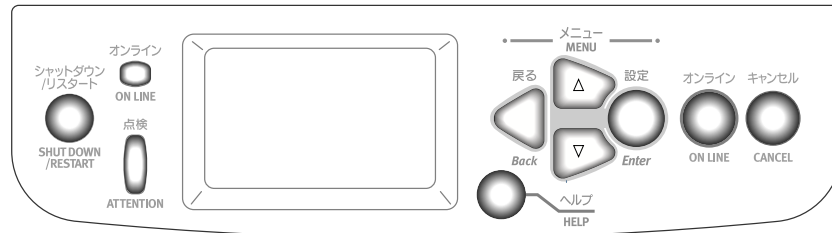
Category	Item (1st Line)	Value (2nd Line)	DF	Function
MAINTENANCE MENU	EEPROM Reset	EXECUTE	*	Reset the EEPROM of the CU.
	SAVE MENU Setting	EXECUTE	*	Save the current menu settings. An ARE YOU SURE? YES/NO selection message appears.
	RESTORE MENU	EXECUTE	*	Modify the setting to the menu setting saved. (Display only when there is a menu setting saved) Note Saved on the Flash (surface-mounted) of the CU. Saved on the HDD if there is a HDD.
	POWER SAVE	ENABLE DISABLE	*	This sets the ENABLE/DISABLE of the power save mode. When the power save mode is enabled, the time it takes to activate the power save mode can be modified by the Power Save Delay Time Item in the System Config Menu.
	Plain Paper Black Setting	0 +1 +2 -2 -1	*	Plain Paper/Black Print: This fine-tunes any uneven printing or dust in the printouts. Decrement this setting if there is any scattering in high density printing or if there is snow-like patterns in the printout. Increment this setting if the printout appears whitening out.
	Plain Paper Color Setting	0 +1 +2 -2 -1	*	Plain Paper/COLOR Print: This is used to fine-tune any uneven printing or dust in the printouts. Decrement this setting if there is any scattering in high density printing or if there is snow-like patterns in the printout. Increment this setting if the printout appears whitening out.
	Transparency Black Setting	0 +1 +2 -2 -1	*	Transparency/BLACK Print: This is used to fine-tune any uneven printing or dust in the printouts. Decrement this setting if there is any scattering in high density printing or if there is snow-like patterns in the printout. Increment this setting if the printout appears whitening out.
	Transparency Color Setting	0 +1 +2 -2 -1	*	Transparency/COLOR Print: This is used to fine-tune any uneven printing or dust in the printouts. Decrement this setting if there is any scattering in high density printing or if there is snow-like patterns in the printout. Increment this setting if the printout appears whitening out.

5.1.2 Engine Maintenance Mode

Engine maintenance mode tests the basic operation of the print engine components.

5.1.2.1 Operation Panel

Instructions on self-diagnosis operations is based on the following Operation Panel layout, as a prerequisite.



5.1.2.2 Regular Self-Diagnosis Mode (Level 1)

The Regular Self-Diagnosis Mode menu is as follows.

- Switch Scan Test
- Motor and Clutch Test
- Execute Test Pattern
- Initialize NVM
- Consumable Counter Display
- Consumable Continual Counter Display

5.1.2.2.1 How to Enter Self-Diagnosis Mode (Level 1)

1. Press the [MENU+], [MENU-] and [HELP] keys at the same time when turning ON the power to go to the System Maintenance Mode.
2. Press the [MENU+] and [MENU-] key until the “DIAGNOSTIC MODE” is displayed.

DIAGNOSTIC MODE	
XX.XX.XX	S-MODE

3. “Diagnostic Mode XX.XX.XX” appears on the LCD panel. The XX.XX.XX stands for the version of the ROM. At the bottom right the setting of the “Factory Working Mode” is displayed. This is usually “S-MODE”.
4. Press the [MENU+] or [MENU-] key to go to each self-diagnostic step. (The menu item rotates by pressing the [MENU+] or [MENU-] keys)

5.1.2.2.2 Escape from Self-Diagnosis Mode

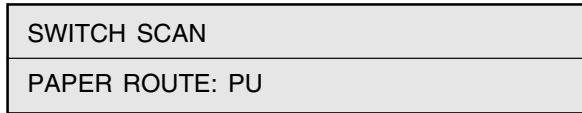
1. Turn OFF the power then re-turn it ON after 10 seconds.

5.1.2.3 Switch Scan Test

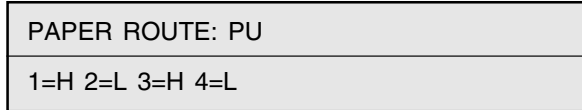
This self-diagnosis is used to check the input sensor and switch.



1. Keep the [MENU+] and [MENU-] keys pressed until [SWITCH SCAN] appears at the top of the display and operations goes into the regular diagnosis mode. (The [MENU+] key = Increment Test Item / the [MENU-] key = Decrement Test Item.)
2. The following message appears by pressing [ENTER]



3. Keep the [MENU+] and [MENU-] keys pressed until the item that applies to the unit to test from Table 5-1-1 appears, at the top of the display.
Press the [MENU+] and [MENU-] keys. The [MENU+] key = Increment Test Item / the [MENU-] key = Decrement Test Item.



4. The test is started by pressing the [ENTER] key. The top of the display starts blinking and the applicable unit number (1-4) and the current state appears.
Operate each unit (Figure 5-1). Display the operations on each respective applicable LCD area. (The display varies according to each sensor. For details refer to Table 5-1-1.)
5. Press the [CANCEL] or [BACK] key to return to state 2.
6. Accordingly repeat Steps 2 to 4.
7. To end the test press the [BACK] key. (Return to state 1)

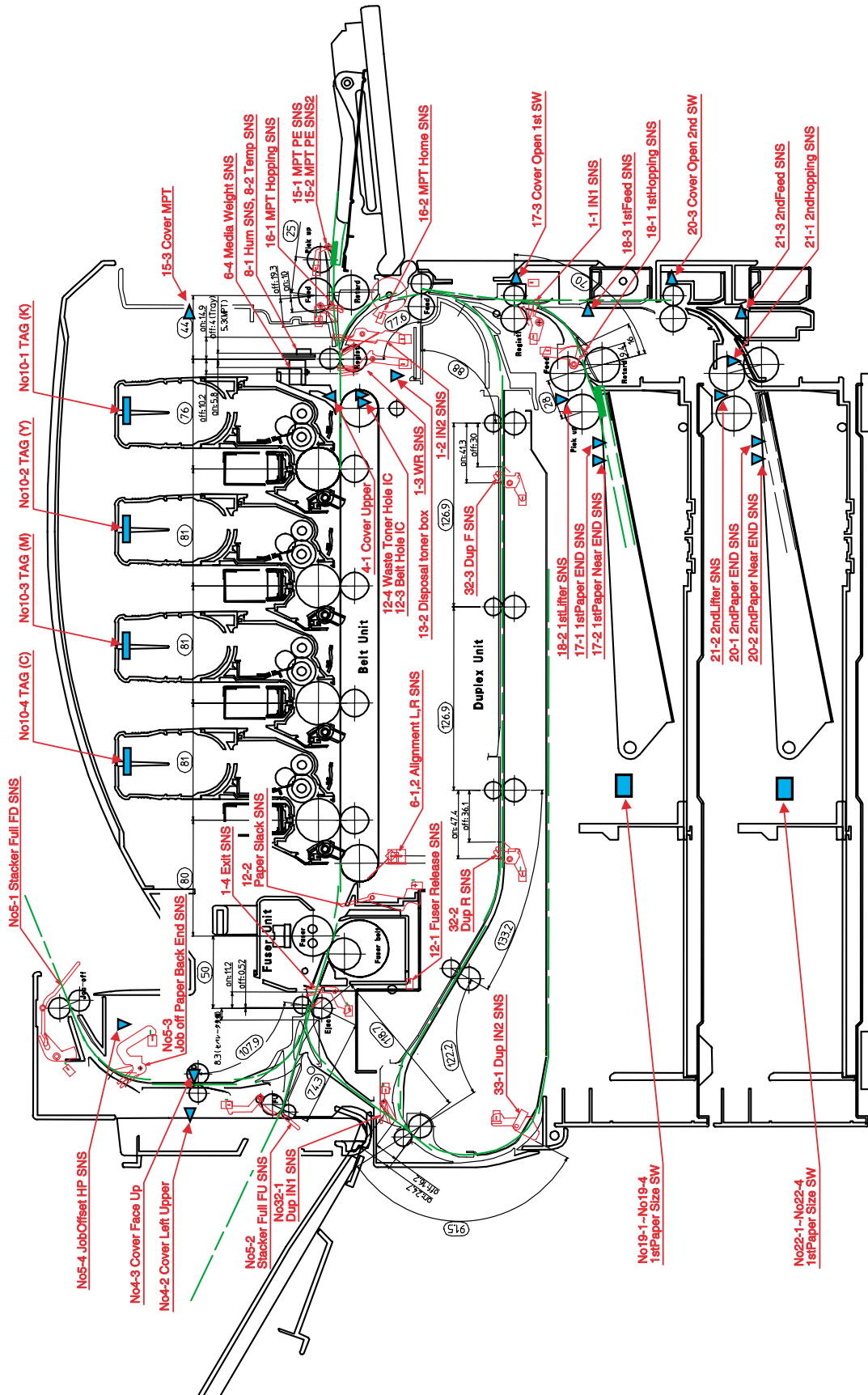


Figure 5-1 Location of Switching Sensor

Table 5-1-1 Switch Scan Details

No.	Top of the Display	1		2		3		4	
		Detail	Display	Detail	Display	Detail	Display	Detail	Display
1	PAPER ROUTE : PU	IN1 Sns	H:OFF L:ON	IN2 Sns	H:OFF L:ON	WR Sns	H:OFF L:ON	Exit Sns	H:OFF L:ON
2	PAPER ROUTE : SUB	IN1 Sns	H:OFF L:ON	IN2 Sns	H:OFF L:ON	WR Sns	H:OFF L:ON		
3	TONER SENS	Toner-K Sns	H:ON L:OFF	Toner-Y Sns	H:ON L:OFF	Toner-M Sns	H:ON L:OFF	Toner-C Sns	H:ON L:OFF
4	COVER UP_LU_FU	Cover-Upper	H:Open L:Close	Cover-Left Upper	H:Open L:Close	Cover-Face Up	H:Open L:Close		
5	STKF_FD_FU JOB OFFHOME	Stacker Full Sns (Face down)	H:Full L:Empty	Stacker Full Sns (Face up)	H:Full L:Empty	Job Offset Paper-End Sns	H:ON L:OFF	JobOffset Home Position Sns	H:ON L:OFF
6	REG L/R_DENS_WEIGHT	Alignment-Left-Sns	AD Value: ***H	Alignment-Right-Sns	AD Value: ***H			Media Weight-Sns	Frequency
7	HEATER THERMISTER	Upper-Center-Thermister	AD Value: ***H	Lower-Center-Thermister	AD Value: ***H	Upper-Side-Thermister	AD Value: ***H	Detect-ambient temperature-Thermister	AD Value: ***H
8	HUM_TEMP_OHP	Hum Sns	AD Value: ***H	Temperture-Sns	AD Value: ***H	OHP Sns	AD Value: ***H		
9	ID UP/DOWN							ID UpDown Sns	H:Up L:Down
10	RFID COLOR	TAG-K presence	UID:****H	TAG-Y presence	UID:****H	TAG-M presence	UID:****H	TAG-C presence	UID:****H
11	DRUM PHASE SNS KYMC	K-Drum Phase Sns	Port Level H, L	Y-Drum Phase Sns	Port Level H, L	M-Drum Phase Sns	Port Level H, L	C-Drum Phase Sns	Port Level H, L
12	F-RLS SLK BLT DT-DCT	Fuser Release Sns	H:ON L:OFF	Paper Slack Sns	H:ON L:OFF	Belt Hole IC	H:ON L:OFF	Waste Toner Hole IC	H:ON L:OFF
13	DISTNR FULL_BOX_BOXSP	Disposal toner full	H:ON L:OFF	Disposal toner box	H:Not installed L:Installed				
14	TNR SPLY SNS KY_MC	K-Toner Supply Sns	Port Level H, L	Y-Toner Supply Sns	Port Level H, L	M-Toner Supply Sns	Port Level H, L	C-Toner Supply Sns	Port Level H, L
15	MPT PE_HOP_CVO_HOME	MPT-Paper-End Sns	Port Level H, L	MPT-Hopping Sns	H:ON L:OFF	Cover-MPT	H:Open L:Close	MPT Home Position Sns	H:Open L:Close
16	TRAY1 PE_PNE_CVO	1st-Paper-End Sns	Port Level H, L	1st-Paper-Near-End Sns	Port Level H, L	Cover-1st	H:Open L:Close		
17	TRAY1 HOP_LIFT	1st-Hopping Sns	Port Level H, L	1st-Lifter Sns	Port Level H, L	1st-Feed Sns	Port Level H, L		
18	TRAY1 CASSETTE SIZE	1st-Paper Size-1 Sw	Port Level H, L	1st-Paper Size-2 Sw	Port Level H, L	1st-Paper Size-3 Sw	Port Level H, L	1st-Paper Size-4 Sw	Port Level H, L
19	TRAY2 PE_PNE_CVO	2nd-Paper-End Sns	Port Level H, L	2nd-Paper-Near-End Sns	Port Level H, L	Cover-Open-2nd Sw	Port Level H, L		
20	TRAY2 HOP_LIFT_FEED	2nd-Hopping Sns	Port Level H, L	2nd-Lifter Sns	Port Level H, L	2nd-Feed Sns	Port Level H, L		
21	TRAY2 CASSETTE SIZE	2nd-Paper Size-1 Sw	Port Level H, L	2nd-Paper Size-2 Sw	Port Level H, L	2nd-Paper Size-3 Sw	Port Level H, L	2nd-Paper Size-4 Sw	Port Level H, L
22	TRAY3 PE_PNE_CVO	3rd-Paper-End Sns	Port Level H, L	3rd-Paper-Near-End Sns	Port Level H, L	Cover-Open-3rd Sw	Port Level H, L		
23	TRAY3 HOP_LIFT_FEED	3rd-Hopping Sns	Port Level H, L	3rd-Lifter Sns	Port Level H, L	3rd-Feed Sns	Port Level H, L		
24	TRAY3 CASSETTE SIZE	3rd-Paper Size-1 Sw	Port Level H, L	3rd-Paper Size-2 Sw	Port Level H, L	3rd-Paper Size-3 Sw	Port Level H, L	3rd-Paper Size-4 Sw	Port Level H, L
25	TRAY4 PE_PNE_CVO	4th-Paper-End Sns	Port Level H, L	4th-Paper-Near-End Sns	Port Level H, L	Cover-Open-4th Sw	Port Level H, L		
26	TRAY4 HOP_LIFT_FEED	4th-Hopping Sns	Port Level H, L	4th-Lifter Sns	Port Level H, L	4th-Feed Sns	Port Level H, L		
27	TRAY4 CASSETTE SIZE	4th-Paper Size-1 Sw	Port Level H, L	4th-Paper Size-2 Sw	Port Level H, L	4th-Paper Size-3 Sw	Port Level H, L	4th-Paper Size-4 Sw	Port Level H, L
28	TRAY5 PE_PNE_CVO	5th-Paper-End Sns	Port Level H, L	5th-Paper-Near-End Sns	Port Level H, L	Cover-Open-5th Sw	Port Level H, L		
29	TRAY5 HOP_LIFT_FEED	5th-Hopping Sns	Port Level H, L	5th-Lifter Sns	Port Level H, L	5th-Feed Sns	Port Level H, L		
30	TRAY5 CASSETTE SIZE	5th-Pape rSize-1 Sw	Port Level H, L	5th-Paper Size-2 Sw	Port Level H, L	5th-Paper Size-3 Sw	Port Level H, L	5th-Pape Size-4 Sw	Port Level H, L
31	DUP INS_REAR_FRONT	Dup-In Sns	Port Level H, L	Dup-Rear Sns	Port Level H, L	Dup-Front Sns	Port Level H, L		

No.	Top of the Display	1		2		3		4	
		Detail	Display	Detail	Display	Detail	Display	Detail	Display
32	DUP STACK_COVER	Dup-Stack Sns	Port Level H, L	Dup-Cover Open Sns	Port Level H, L				
33	FIN S01_S02_S03_S04	Uper Cover Sns [PI23]	H:OPEN L:CLOSE	Front door Sns [PI22]	H:OPEN L:CLOSE	Front door SW [MS2]	H:OPEN L:CLOSE	Joint SW [MS1]	H:OPEN L:CLOSE
34	FIN S05_S06_S07_S08	Bookbinding position Sns[PI10]	H:Paper present L:Paper absent	Processing tray Sns [PI6]	H:Paper present L:Paper absent	Entrance Sns [PI1]	H:Paper present L:Paper absent	Punch timing Sns	H:Paper present L:Paper absent
35	FIN S09_S10_S11_S12	Bookbinding tray paper Sns [PI13]	H:Paper present L:Paper absent	Bookbinding home position Sns [PI11]	H:Home position L:Except in the home position	Bookbinding roller home position Sns [PI12]	H:Home position L:Except in the home position	Front matching home position Sns [PI4]	H:Home position L:Except in the home position
36	FIN S13_S14_S15_S16	Rear matching home position Sns [PI5]	H:Home position L:Except in the home position	Belt home position outlet Sns [PI7]	H:Home position L:Except in the home position	Feed roller home position Sns[PI3]	H:Home position L:Except in the home position	Paddle home position [PI2]	H:Home position L:Except in the home position
37	FIN S17_S18_S19_S20	Staple / fold motor clock [PI14]	H/L:Clock	Self prime Sns [PI21]	H:Start staple detection L:Staple absent	Staple Sns [PI20]	H:Staple absent L:Staple present	Stapler safty SW [MS3]	H:Not to drive L:Drive
38	FIN S21_S22_S23_S24	Staple home position Sns[PI19]	H:Home position L:Except in the home position	Stapler slide home position Sns [PI18]	H:Home position L:Except in the home position	Stapler connect signal	Hconnected Lunconnected	Stack tray lift motor clock[PI17]	H/L:Clock
39	FIN S25_S26_S27_S28	Lower stack tray Sns [PI16]	H:Lower position L:Except in the lower position	Upper stack tray Sns [PI15]	H:Upper position L:Except in the upper position	Interlevel stack tray Sns [PI24]	H:Interlevel detection L:Interlevel undetection	Paper stack tray Sns [PI9]	H:Paper detect position L:Except in the paper detect position
40	FIN S29_S30_S31_S32	Stack tray paper Sns [PI8]	H:Paper present L:Paper absent	Punch connect signal	Hconnected Lunconnected				
41	INV IN_OUT_EXIT_COV	Entrance Sns [FP1]	H:ON L:OFF	Outlet Sns [FP2]	H:ON L:OFF	PU→Inverter Exit Sns Signal	H:ON L:OFF	Cover open SW [FMS1]	H:Open L:Close
42	INV REMAIN_JOINT	Lower Sns[FP3]	H:ON L:OFF	Inverter connected Sns [FP4]	H:ON L:OFF	PU→Inverter CNT2 Signal	H:ON L:OFF		
43	HALL BELT_DT-BOX_DCT	Belt Hole IC	H:ON L:OFF	Waste Toner Box Hole IC	H:ON L:OFF	Waste Toner Hole IC	H:ON L:OFF		

Table 5-1-2 Paper Size Detection, Various Paper Types and Bits- corrected 2-11

No.	Paper	1	2	3	4
0	No cassette	H	H	H	H
1	B5-L	H	H	H	L
2	Legal 13-S	H	H	L	H
3	B5-S	H	H	L	L
4	A4-L	H	L	H	H
5	Letter-L	H	L	H	L
6	A5-S	H	L	L	H
7	A4-S	H	L	L	L
8	B4-S	L	H	H	H
9	A3-S	L	H	H	L
A	Legal 14-S	H	L	H	L
B	Executive-S	L	H	L	L
C	A3nobi-S	L	L	H	H
D	Ledger-S	L	L	H	L
E	A6-S	L	L	L	H
F	Letter-S	L	L	L	L

5.1.2.4 Motor/Clutch Test

This self-diagnosis routine is used to test the motor and clutch.

1. Continue to press the [MENU+] and [MENU-] keys until "MOTOR & CLUTCH TEST" appears at the top of the display and the operation enters the self-diagnosis (Level 1) mode.

The [MENU+] key = Increment Test Item / the [MENU-] key = Decrement Test Item.

2. The following message appears when the [ENTER] is pressed. The suitable location of the unit to be tested as shown in Table 5-2 will appear at the bottom of the display.

Press the [MENU+] and [MENU-] keys.

The [MENU+] key = Increment Test Item / the [MENU-] key = Decrement Test Item.

MOTOR & CLUTCH TEST
PK – ID MOTOR

3. Press the [ENTER] key to start the test. The name of the unit will start blinking. Then the applicable unit will drive for 10 seconds.

Note After driving for 10 seconds, it will return to State 2. The drive will start again by re-pressing the applicable switch.

- To drive the applicable unit, there is a need to clear the drive limitational conditions indicated in Table 5-2. Launching a state drive that doesn't clear the limitation conditions is invalid. When this happens the clear information is displayed at the bottom of the display.
 - The clutch solenoid generally repeats ON/OFF with regular printer driver. (models that do not drive independently due to its mechanical structure will come be driven by a motor.)
4. Press the [CANCEL] key to stop the applicable unit drive. (maintain the display of the applicable unit, at this time)
 5. Accordingly repeat Steps 2 to 4.
 6. Press the [BACK] key to end the test. (Returns to state 1)

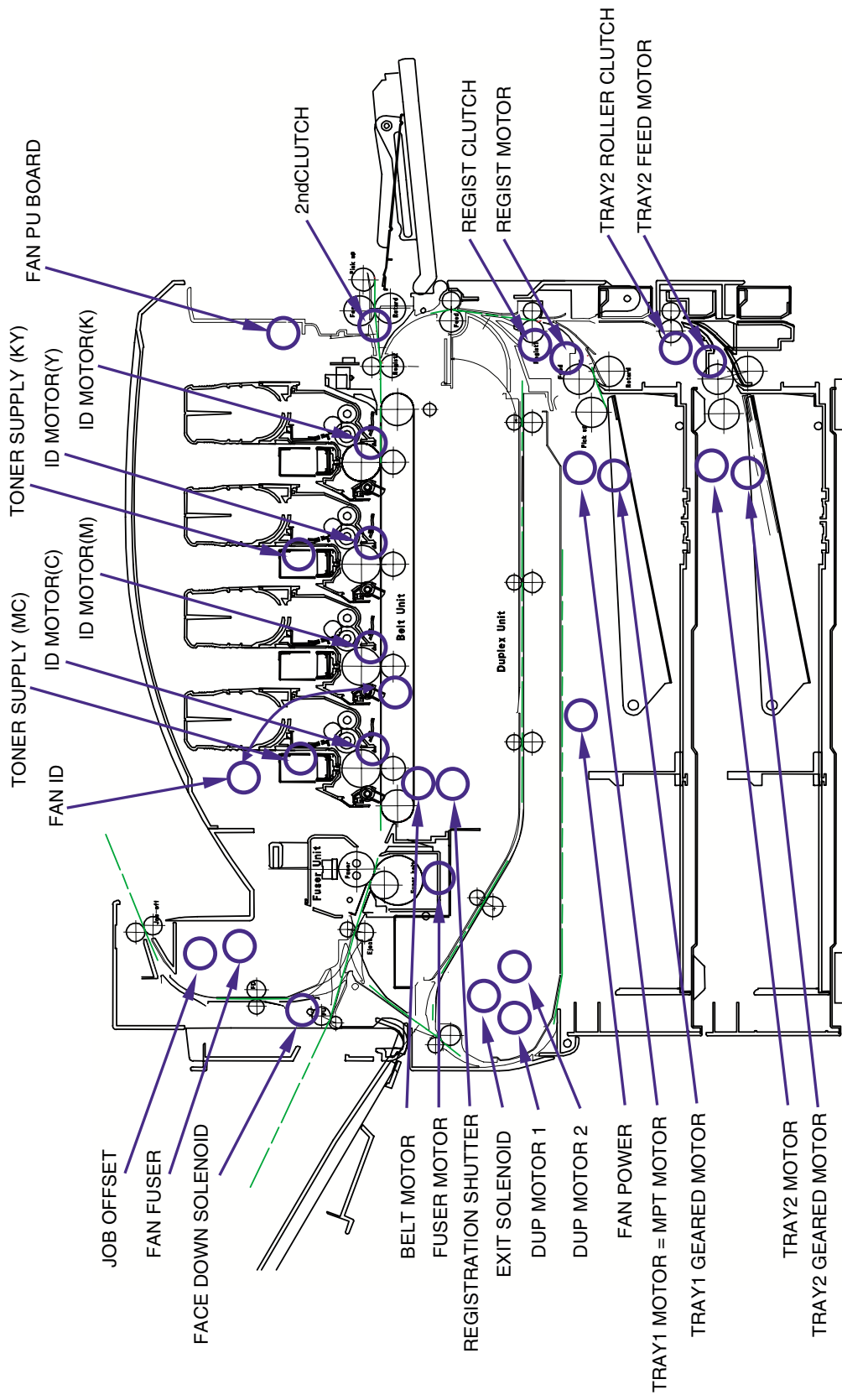


Figure 5-2 Location of Motor and Clutch

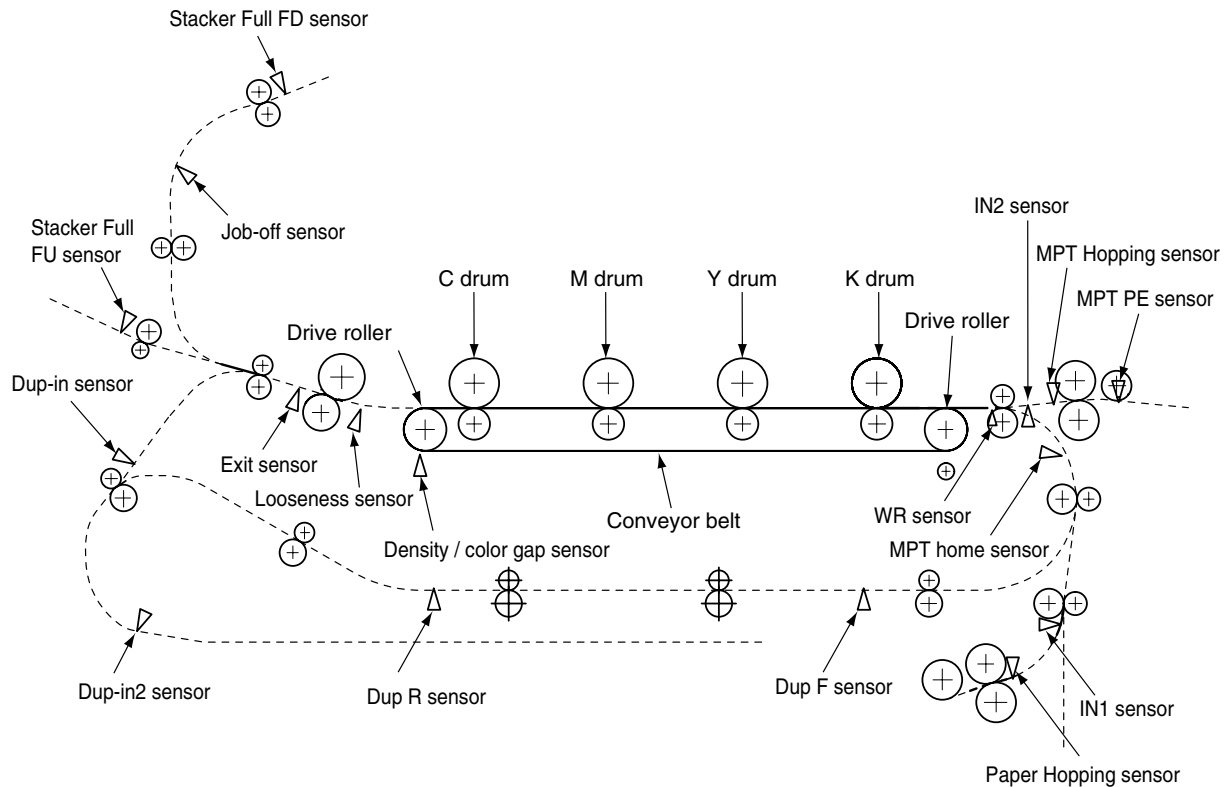
Table 5-2 Motor and Clutch Test

Unit Name Display	Drive Limitation	Error display	Remarks
K-ID MOTOR	-	-	-
Y-ID MOTOR	-	-	-
M-ID MOTOR	-	-	-
C-ID MOTOR	-	-	-
BELT MOTOR	-	-	-
FUSER MOTOR	-	-	-
FUSER RLS	-	-	-
REGIST MOTOR	-	-	-
REGIST CLUTCH	-	-	-
MPT MOTOR	-	-	-
MPT LIFT UP	-	-	-
EXIT SOLENOID	-	-	-
FACEDOWN SOLENOID	-	-	-
REGISTRATION SHUTTER	-	-	-
JOB OFFSET	-	-	-
TRAY1 MOTOR	-	-	-
TRAY2 MOTOR	TRAY 2 is installed.	-	OPTION
TRAY3 MOTOR	TRAY 3 is installed.	-	OPTION
TRAY4 MOTOR	TRAY 4 is installed.	-	OPTION
TRAY5 MOTOR	TRAY 5 is installed.	-	OPTION
TRAY2 FEED MOTOR	TRAY 2 is installed and the cassette is not installed.	-	OPTION
TRAY3 FEED MOTOR	TRAY 2 is installed and the cassette is not installed.	-	OPTION
TRAY4 FEED MOTOR	TRAY 2 is installed and the cassette is not installed.	-	OPTION
TRAY5 FEED MOTOR	TRAY 2 is installed and the cassette is not installed.	-	OPTION
TRAY2 ROLLER CLUTCH	TRAY 2 is installed.	-	OPTION
TRAY3 ROLLER CLUTCH	TRAY 3 is installed.	-	OPTION
TRAY4 ROLLER CLUTCH	TRAY 4 is installed.	-	OPTION
TRAY5 ROLLER CLUTCH	TRAY 5 is installed.	-	OPTION
TRAY1 GEARED MOTOR	-	-	-
TRAY2 GEARED MOTOR	TRAY 2 is installed.	-	OPTION
TRAY3 GEARED MOTOR	TRAY 3 is installed.	-	OPTION
TRAY4 GEARED MOTOR	TRAY 4 is installed.	-	OPTION
TRAY5 GEARED MOTOR	TRAY 5 is installed.	-	OPTION
DUP MOTOR	Duplex unit is installed.	-	OPTION
DUP FAN	Duplex unit is installed.	-	OPTION
FIN TRANSFER MOTOR	Finisher is installed.	-	OPTION
FIN SADDLE ROLLER	Finisher is installed.	-	OPTION
FIN BUNDLE MOTOR_FWD	Finisher is installed.	-	OPTION
FIN BUNDLE MOTOR_REW	Finisher is installed.	-	OPTION
FIN PADDLE	Finisher is installed.	-	OPTION
FIN BUNDLE ROLLER	Finisher is installed.	-	OPTION
FIN SLIDE MOTOR	Finisher is installed.	-	OPTION
FIN ORDER	Finisher is installed.	-	OPTION

Unit Name Display	Drive Limitation	Error display	Remarks
FIN SHIFT MOTOR	Finisher is installed.	-	OPTION
FIN STAPLE EXEC	Finisher is installed.	-	OPTION
FIN SADDLE EXEC	Finisher is installed.	-	OPTION
FIN SADDLE TRANSFER	Finisher is installed.	-	OPTION
FIN SADDLE CLUTCH	Finisher is installed.	-	OPTION
FIN PUNCH HOLE	Finisher is installed.	-	OPTION
FIN PUNCH REG	Finisher is installed.	-	OPTION
INV MOTOR A	Inverter is installed.	-	OPTION
INV MOTOR B	Inverter is installed.	-	OPTION
INV SEPARATER	Inverter is installed.	-	OPTION
INV PRESSURE SOLENOID	-	-	-
INV REGIST CLUTCH	-	-	-
FAN POWER	-	-	-
FAN PU-BOARD	-	-	-
FAN FUSER	-	-	-
FAN BELT	-	-	-
FAN ID	-	-	-
TONER SUPPLY K	-	-	-
TONER SUPPLY Y	-	-	-
TONER SUPPLY KY	-	-	-
TONER SUPPLY M	-	-	-
TONER SUPPLY C	-	-	-
TONER SUPPLY MC	-	-	-
DISPOSAL TONER TUBE	-	-	-
ID UP/DOWN	-	-	-

Sensor

Paper-Related Sensor



Sensor	Function	State of Sensor
Entrance MT Sensor Entrance Cassette Sensor	This detects the top of the paper entering and then determines the timing to switch from the hopping to the conveyor.	ON : Paper Available OFF : Paper Unavailable
Entrance Belt Sensor	This detects the tip of the paper transferred, then determines the length of the paper according to the time it takes the tips of the paper to reach the sensor.	ON : Paper Available OFF : Paper Unavailable
Paper Discharge Sensor	This detects the tip and end of the paper, then determines paper discharge.	ON : Paper Available OFF : Paper Unavailable
Double-Side Print Entrance Sensor	This determines the tip of the paper entering the double-side printer unit, then determines the times it takes for the inverse roller to inverse from CCW to CW.	ON : Paper Available OFF : Paper Unavailable
Double-Side Print Rear Sensor	This detects the tip of the paper after inversion by the double-side printer unit.	ON : Paper Available OFF : Paper Unavailable
Double-Side Print Front Sensor	After inversion by the double-side printer unit, the end and tip of the paper is detected and then paper discharge is determined.	ON : Paper Available OFF : Paper Unavailable
Stack Full Sensor	This detects paper-full in the face-down stacker.	ON : Stack Full OFF : Stack Empty
Face-Down Paper Discharge Sensor	This detects paper conveyance to the paper discharge roller, then determines the timing to offset job operations.	ON : Paper Available OFF : Paper Unavailable
Face-Down Route Sensor	When the paper jams, this detects the paper jam in the face-down conveyance rotor.	ON : Paper Available OFF : Paper Unavailable
Conveyance Sensor	This detects the paper conveyed from the option tray.	ON : Paper Available OFF : Paper Unavailable

Other Sensors

- ① Paper Empty Sensor
This sensor checks whether the paper cassette is empty or not.
- ② Paper Near-End Sensor
This sensor checks whether the paper cassette will be empty soon or not.
- ③ MBF Paper Empty Sensor
This sensor checks whether there is paper in the front feeder.
- ④ MBF Hopping Switch
This micro-switch checks whether the front feeder table is in the UP position or DOWN position.
- ⑤ Stack-Full Sensor
This sensor checks whether the stacker is full or not.
- ⑥ Paper Size Switch
This sensor detects the size of the paper in the paper cassette.
- ⑦ EP UP/DOWN Sensor (one sensor each for Y, M, C, K)
This sensor checks whether the I/D unit is in the UP position or DOWN position.
- ⑧ Toner K, Y, M and C Sensor
This sensor checks the toner residual quantity in an image drum, when a sensor lever measures a time interval to open periodically.
- ⑨ RFID Sensor
The radio communications of this sensor are carried out to IC tip built in the toner cartridge, and it checks the existence of a toner cartridge, and the toner residual quantity in a toner cartridge.
- ⑩ Thermal Sensor
Refer to 2.7 “Image Transfer Control Due to Environmental Change”.
- ⑪ Humidity Sensor
Refer to 2.7 “Image Transfer Control Due to Environmental Change”.
- ⑫ Transparency Sensor
This sensor detects whether there is a transparency or not.
- ⑬ Positioning Sensor
This sensor reads the printed position pattern on the left and right ends of the transfer belt when color drift is corrected. (Refer to Section 2.13)
- ⑭ Density Sensor
This sensor measures the pattern density to measure the density printed on the conveyor belt.
- ⑮ Media Thickness Sensor
This sensor detects the thickness of the media.
- ⑯ Disposal Toner Sensor
This sensor checks whether the disposal toner in the disposal toner box is full or not.
- ⑰ Looseness Sensor
This sensor detects looseness in paper transport and adjusts the speed.

5.1.2.5 Test Print

This self-diagnostic routine is used to print the test pattern in the PU. Other test patterns are stored in the controller.

1. Continue to press the [MENU+] and [MENU-] keys until "TEST PRINT" appears at the top row of the display, and the system is in the self-diagnosis (Lever 1) mode. The [MENU+] key = Increment Test Item / the [MENU-] key = Decrement Test Item.
2. Press the [ENTER] key only for the setting item applied for test printing appears at the bottom of the display. Press the [MENU+] and [MENU-] keys until the applicable item appears. The [MENU+] key = Increment Item / the [MENU-] key = Decrement Item. (Go to Item 5 to [Default Setting] if setting of each item is unnecessary.)
3. Press the [ENTER] key for the setting item to appear on the top row of the display and the setting value to appear at the bottom row of the display. Press the [MENU+] key for the setting value to increment. Press the [MENU-] key for the setting value to decrement (the final display setting value is applied). Accordingly repeat item 3.

TEST PATTERN
1

The settings shaded in are default settings.

Display	Setting value	Function
PRINT EXECUTE	A	Press [Enter] to start printing or [CANCEL] to stop printing (each page).
TEST PATTERN	0	0: Blank page 1 to 7: See the "Test Print Pattern" table (pattern printing). 8 to 15: Blank page
CASSETTE	TRAY1	Choose a paper feeder.
	TRAY2	
	TRAY3	
	TRAY4	
	TRAY5	
	MPF	
PAGE	0	Set the number of test print pages. Press [ONLINE] to move the cursor to the digit to be edited. Press [MENU_] to increase the set value, and [MENU_] to decrease the set value.
COLOR	ON	Choose Color or Monochrome.
	OFF	
DUPLEX@Å1	3 PAGES STACK	Prints on both sides of a stack of 3 sheets.
	OFF	Turns off duplex printing.
	1 PAGES STACK	Prints on both sides of one sheet.
JOB OFFSET	OFF	Turns the job offset function on and off.
	ON	
FINISHER Å2	OUTPUT BIN	Choose an output bin.
	PUNCH	Turns the punch mode on and off.
	OFFSET	Turns the offset mode on and off.
	STAPLE	Choose the staple location.
	STAPLE PAGE	Set the number of sheets to be stapled (0 to 50).
	INVERT	Turns the invert mode on and off.

*1 TRAY 2 to TRAY 5 and DUPLEX will be displayed only when their respective units are installed.

*2 If the finisher is not installed, "OUTPUT BIN" is displayed and only the output bin is selectable.

- Presets: FACE DOWN/FACE UP Default: FACE DOWN

* These settings are valid in the test mode only (they will not be written to the EEPROM).



* COLOR Setting

When COLOR is on, if [ONLINE] is pressed, the settings below will appear and the print color-setting mode will be entered.

COLOR			
Y:ON	M:ON	C:ON	K:ON

Press [ENTER] to move the cursor to the color to be turned on or off.

Press [MENU+] or [MENU-] to turn the setting of each color on or off, respectively[OK to add?].

Press [BACK] to exit the print color-setting mode.

* FINISHER Setting

- (1) When "FINISHER" is shown at the bottom of the display panel, press [ENTER].
- (2) Press [MENU+] or [MENU-] until the setting item to be edited appears.
- (3) Press [ENTER]; the set value will appear at the bottom of the panel.
Press [MENU+] or [MENU-] until the desired value appears. ([MENU+] increases the value and [MENU-] decreases the value.)
- (4) Press [BACK] to return to step (2) above. Press [BACK] again to return to step (1).
- (5) Repeat steps (2) to (4) as necessary.

The settings shaded in are default settings.

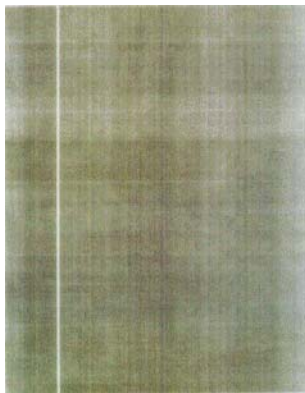
Display	Setting value	Function
OUTPUT BIN	FACE DOWN	Printer face down
	FINISHER UPPER BIN	Finisher upper bin
	FINISHER LOWER BIN	Finisher lower bin
PUNCH	OFF	Punch on/off
	ON	
OFFSET	OFF	Offset on/off
	ON	
STAPLE MODE	OFF	Staple mode off
	Rear	Rear corner
	Center	Center corner
	Front	Front corner
	Saddle	Saddle stitch
STAPLE NUMBER	0	Set the number of sheets to be stapled (0 to 50). * When the staple mode is on, ÅgSTAPLE NUMBERÅh is selectable between 2 and 50.
INVERT	OFF	Invert on/off
	ON	

4. Operations in section 2 will execute test printing at the set value that is set in Steps 2 to 3, by pressing the [ENTER] key when the state displays "PRINT EXECUTE" at the bottom row of the display.

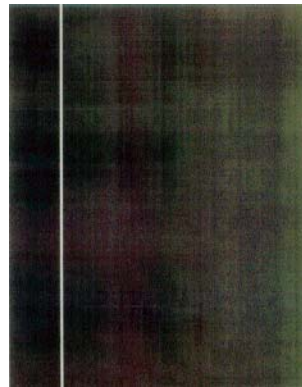
Press the [ENTER] key to stop test printing.

Print Test Pattern

Pattern No.	Print pattern
0	None (blank page)
1	2 by 2
2	4 by 4
3	Horizontal line
4	Slanted line
5	Vertical line
6	Vertical band
7	Full



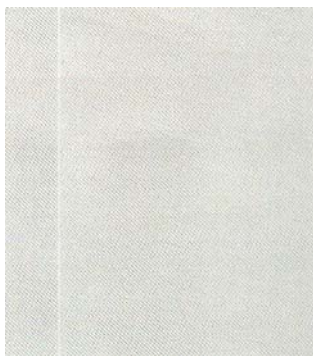
Pattern 1



Pattern 2



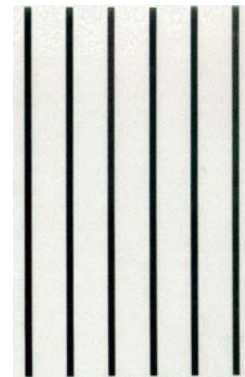
Pattern 3



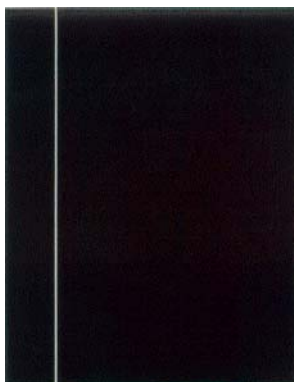
Pattern 4



Pattern 5



Pattern 6



Pattern 7

- The following message appears when printing.

P=*** T=*** U=*** [###]
H=***% L=***[###]

P: Test Print Sheets (Unit: number of sheets)

U: Upper-side Heater temperature Measurement Value[Setting] (Unit: °C)

L: Lower-Side Heater temperature Measurement Value[Setting] (Unit: °C)

T: Environmental Temperature Measurement Value (Unit: %)

H: Environmental Humidity Measurement Value (Unit: %)

- Press [MENU+] key to switch the display.

KTR=*. **KV YTR=*. **KV
MTR=*. **KV CTR=*. **KV

YTR, MTR, CTR and KTR are image transfer voltage settings of each color. (Unit: KV)

- Press [MENU+] key to switch the display.

KR=*. **uA YR=*. **uA
MR=*. **uA CR=*. **uA

YR, MR, CR, and KR represent the electric current (uA) of the transfer roller for each color, respectively.

- Press [MENU+] key to switch the display.

THICK= *** TEMP=***
REGIST=**** EXIT=****

THICK: Detected medium thickness (μm)

TEMP: Fusing temperature (°C)

REGIST: Constant speed of resist motor (hexadecimal)

EXIT: Constant speed of fuser motor (hexadecimal)

5. Accordingly repeat Steps 2 to 4.
6. Press the [BACK] key to end the test. (Returns to state 1)

7.5.1 LCD Message List

When the printer detects errors that can be restored, it displays a service call error on the LCD, as shown below.

Service Call
nnn: Error

Note nnn is an Error code.

When a service call is displayed, the error code and accompanying error information is displayed on the bottom row of the LCD. The meaning of the error code and the overview of the remedies are indicated in Table 7-1-1.

Table 7-1-1 Operator Alarm (1/10)

Display	Cause	Error Description and Analysis	judgment	Remedy	600	1200
Service Call 001: Error to 007: Error	CPU Exception	Is the error display reproducible? Is the error display reproducible?	Yes Yes	Power OFF/ON Replace CU PCB. (Must replace EEPROM)	✓	-
Service Call 020: Error or 024: Error	CU ROM Hash Check Error 1	Is the Slot A ROM DIMM mounted properly? Is operations restored by replacing the Slot A ROM DIMM?	No Yes No	Remount Slot A ROM DIMM Replace Slot A ROM DIMM. Replace CU PCB. (Must replace EEPROM)	✓	-
Service Call 025: Error	CU Font ROM Hash Error	Detected a Font ROM_DIMM hash check error. (Japan Model only)		Is the Slot B ROM DIMM1 mounted normally? Is the problem corrected by replacing the Slot B ROM DIMM1?	✓	-
Service Call 030: Error	CU Resident RAM Check Error	Is the error display reproducible?	Yes	Replace CU PCB. (Must replace EEPROM)	✓	-
Service Call 031: Error	CU Slot1 DIMM RAM Check Error	Is the applicable RAM DIMM mounted properly? Is operation restored by replacing the applicable RAM DIMM?	No Yes No	Re-mount applicable RAM DIMM. Replace RAM DIMM. Replace CU PCB. (Must replace EEPROM)	✓	-
Service Call 032: Error	CU Slot2 DIMM RAM Check Error	Is the applicable RAM DIMM mounted properly? Is operation restored by replacing the applicable RAM DIMM?	No Yes No	Re-mount applicable RAM DIMM. Replace RAM DIMM. Replace CU PCB. (Must replace EEPROM)	✓	-
Service Call 036: Error	Slot1 RAM Spec error Specification of DIMM in CU RAM slot is unsupported.	Is this a standard RAM DIMM? Is the applicable RAM DIMM difference mounted normal? Is operation restored by replacing the applicable RAM DIMM?	No No Yes No	Use a standard RAM DIMM. Re-mount applicable RAM DIMM. Replace RAM DIMM Replace CU PCB. (Must replace EEPROM)	✓	-
Service Call 037: Error	Slot2 RAM Spec error Specification of DIMM in CU RAM slot2 is unsupported.	Is this a standard RAM DIMM? Is the applicable RAM DIMM difference mounted normal? Is operation restored by replacing the applicable RAM DIMM?	No No Yes No	Use a standard RAM DIMM. Re-mount applicable RAM DIMM. Replace RAM DIMM. Replace CU PCB. (Must replace EEPROM)	✓	-
Service Call 040: Error	CU EEPROM ERROR	Is the problem corrected by replacing the CU PCB EEPROM?	Yes No	REPLACE EEPROM. (User must correct environ- mental conditions) Replace CU PCB. (Must replace EEPROM)	✓	-
Service Call 041: Error	CU FLASH ERROR CU PCB flash ROM error	Is the error display reproducible?	Yes	Replace CU PCB. (Must replace EEPROM)	✓	-

Table 7-1-1 Operator Alarm (2/10)

Display	Cause	Error Description and Analysis	Judgment	Remedy	600	1200
Service Call 042: Error to 045: Error	CU PCB flash ROM error Flash File System Error	Failed to access flash memory that is surface- mounted on CU PCB.		Replace CU PCB (Must replace EEPROM) *1	✓	-
Service Call 048: Error	PS+PCL Model CU ROM is mounted on a Non-PS model unit.	Is a standard model program ROM mounted?	Yes No	Replace Program ROM DIMM. Replace with standard program ROM DIMM officially for the model.	✓	-
Service Call 049: Error	CU Type Mismatch CU ROM model mismatches unit.	Is a standard model program ROM mounted?	Yes No	Replace Program ROM DIMM. Replace with standard program ROM DIMM officially for the model.		-
Service Call 050: Error	Operator Panel Error	Is the error display reproduc- ible?	Yes	Refer to the flowchart on "Failure to appear on LCD".	✓	-
Service Call 051: Error	CU FAN ERROR CPU cooling fan of CU PCB is abnormal.	Is the connection of the CU PCB normal? Replace and restore fan?	No Yes No	Normally connect. Replace fan. Replace CU PCB. (Must replace EEPROM)	✓	-
Service Call 052: Error	Image Processor Driver Error	Is the error display reproducible?		Power OFF/ON Replace CU PCB. (Replace EEPROM)	✓	-
Service Call 060: Error	Parallel Inter- face Driver Error	Is the error display reproducible?		Power OFF/ON Replace CU PCB. (Replace EEPROM)	✓	-
Service Call 062: Error	USB Drive Error	Is the error display reproducible? Is the Network PCB properly mounted?		Power OFF/ON Replace CU PCB. (Replace EEPROM)	✓	-
Service Call 063: Error	Network comm. Error H/W I/F abnor- mality between CU-NIC.	Does replacement of the network PCB correct the problem?	No Yes No	Properly mount Replace Network Replace CU PCB. (Must replace EEPROM)	✓	-
Service Call 070: Error	CANT_HAPPEN PS Firmware Abnormality Detection	Check if problem is corrected by turning OFF/ON Power/	No	Replace CU PCB. (Must replace EEPROM)	✓	✓
Service Call 072: Error	Engine commu- nication error I/F Error between PU- CU.	Is the CU Assy properly mounted? Does replacement of the CU PCB correct the problem?	No Yes No	Properly mount Replace CU PCB. (Must replace EEPROM) Replace PU PCB	✓	✓
Service Call 073: Error to 075: Error	Video overrun detect	Is the CU Assy properly mounted? Does replacement of the CU PCB correct the problem?	No Yes	Properly mount Replace CU PCB. (Must replace EEPROM)	✓	-
Service Call 081: Error	Parameter Match Check Error	Normal Read/Write not possible with EEPROM or Flash.		If the condition does not change replace CU PCB.	✓	-
Service Call 096: Error	Finisher Unrestorable Error	Is the error display reproducible?		If turning OFF and ON the power again does not correct the problem, maintenance by a servicing personnel is necessary.	✓	✓
Service Call 097 Error	Inverter power supply Error	Is the error display reproducible?		If turning OFF and ON the power again does not correct the problem, maintenance by a servicing personnel is necessary.	✓	✓
Service Call 102: Error	After turning ON the power, Error is detected in engine RAM Read/Write.	Does the Error take place again?	Yes	Replace Engine Control PCB (S2V)	✓	✓

Table 7-1-1 Operator Alarm (3/10)

Display	Cause	Error Description and Analysis	Judgment	Remedy	600	1200
Service Call 103: Error	When turning ON the power, detected Engine SRAM Read / Write Error.	Does the Error take place again?	Yes	Replace Engine Control PCB (S2V)	✓	✓
Service Call 104: Error	When turning ON the power, detected error in engine EEPROM test total.	Does the Error take place again?	Yes	Replace engine control PCB (S2V).	✓	✓
Service Call 105: Error	When turning ON the power, failed to detect the EEPROM (presence).	Is there an EEPROM? Does the Error take place again?	Yes Yes	Check to see if there is an EEPROM. If not, mount an EEPROM. Replace engine control PCB (S2V).	✓	✓
Service Call 106: Error	Error detected in engine control logic.	Does the Error take place again?	Yes	Replace engine control PCB (S2V).	✓	✓
Service Call 111: Error to 117: Error	An optional unit for another model was detected. 111: Duplex unit 112: 2nd Tray 113: 3rd Tray 114: 4th Tray 115: 5th Tray 116: Finisher 117: Inverter	Is the proper optional unit for that model mounted?	No No	Mount the proper optional unit. Check the connection. Then turn ON the power again. Replace the unit if operations is not restored.	✓	✓
Service Call 121: Error	Low Voltage Power FAN Error	1) Is the PU PCB high voltage power cable properly connected? 2) Does the Error take place again?	No Yes Yes	Connect properly Check to see if there is any contact-defects in the high voltage system. Replace High Voltage Power Unit	✓	✓
Service Call 123: Error	Sensor detects an inappropriate relative humidity for the operating environment.	1) Is an Error message displayed? 2) Does the Error take place again?	Yes Yes	Turn ON power again. Replace the environmental sensor.	✓	✓
Service Call 124: Error	Sensor detects an inappropriate room temperature for the operating environment.	1) Is an Error message displayed? 2) Does the Error take place again?	Yes Yes	Turn ON power again. Replace the environmental sensor.	✓	✓
Service Call 125: Error	Error detected in MT home position.	1) Is an Error message displayed? 2) Does the Error take place again?	Yes Yes	Turn ON power again. Replace MT	✓	✓
Turn OFF the power and wait for awhile. 126: Dew Error	Sensor Dew Error	Sensor Dew Error Detected		Wait a while then turn ON power again.	✓	✓
Service Call 127: Error	Fuser Cooling FAN Error	1) Is the fuser cooling fan operating? 2) Cooling fan is replaced but Error occurs again.	No Yes Yes	Replace fuser cooling fan. Replace engine control PCB (S2V). Replace engine control PCB (S2V).	-	✓
Service Call 128: Error	Engine FAN Motor Error	Error was detected in each fan. 01: Fuser FAN Error 02: Power FAN Error 03: PU Motor FAN Error 04: Belt FAN Error 05: IDFAN Error 06: Top Cover FAN Error		Is the applicable location of the fan connection normal? If the condition does not change Replace fan.	✓	✓

Table 7-1-1 Operator Alarm (4/10)

Display	Cause	Error Description and Analysis	judgment	Remedy	600	1200
Service Call 131: Y Head 132: M Head 133: C Head 134: K Head	After turning ON the power or when cover is closed, the sensor detects that the unit is missing.	1) Is an Error message displayed? 2) Is the LED head properly mounted? 3) Does the Error take place again?	Yes No Yes	ICheck the OED head unit. Turn ON power again. Replace the LED head Assy.	✓	✓
Service Call 142: C ID	Color ID up/down error is detected.	1) Is an Error message displayed? 2) Does the Error take place again?	Yes Yes	Turn ON power again. Confirm that the Y, M, and C ID units are in position, and reboot.	✓	✓
Service Call 144: Y ID 145: M ID 146: C ID 147: K ID	This is indicated when the toner feed switch error or the toner lock-lever-open error occurs repeatedly when new toner is used.	1) Is the toner lock-lever-open error indicated? 2) Does the problem persist even if the ID units are replaced?	Yes Yes No	Confirm that the lever is in position. Replace the toner feed unit. Replace the ID units.	✓	✓
Service Call 150: Y 151: M 152: C 153: K	When ID unit fuse cannot be cut.	Check if the ID Unit is normally mounted.	Yes	Check cable connection, then replace engine PCB.	✓	✓
Service Call 154: Error	When belt unit fuse cannot be cut.	Is the belt unit mounted normally?	Yes	Check cable connection, then replace engine PCB.	✓	✓
Service Call 155: Error	When fuser unit fuse cannot be cut.	Is the fuser unit mounted normally?	Yes	Check cable connection, then replace engine PCB.	✓	✓
Service Call 160: Y Toner 161: M Toner 162: C Toner 163: K Toner	Toner sensor detected error.	1) Is an Error message displayed? 2) Does the Error take place again?	Yes Yes	Replace toner sensor or Assy (SGG-PWB). Replace toner sensor or Assy (SGG-PWB).	✓	✓
Service Call 167: Error	Thermistor Slope Error	1) Is an Error message displayed? 2) Does the Error take place again?	Yes Yes	Turn ON power again. Leave in that state for 30 minutes then turn ON power again.	✓	✓
Service Call 168: Error	Compensation Thermistor Error	1) Is an Error message displayed? 2) Does the Error take place again?	Yes Yes	Turn ON power again. Leave in that state for 30 minutes then turn ON power again.	✓	✓
Service Call 169: Error	Upper Side Thermistor Error	1) Is an Error message displayed? 2) Does the Error take place again?	Yes Yes	Turn ON power again. Leave in that state for 30 minutes then turn ON power again.	✓	✓
Service Call 170: Error 171: Error 174: Error 175: Error	Fuser Thermistor short-circuit or Open is detected (High Temperature (HOT) or Low Temperature (COLD))	1) Is an Error message displayed? 2) Does the Error take place again?	Yes Yes	Turn ON power again. Leave in that state for 30 minutes then turn ON power again.	✓	✓
Service Call 172: Error 176: Error	Thermistor indicates High Temperature (HOT) Error.	1) Is an Error message displayed? 2) Does the Error take place again?	Yes Yes	Turn ON power again. Leave in that state for 30 minutes then turn ON power again.	✓	✓

Table 7-1-1 Operator Alarm (5/10)

Display	Cause	Error Description and Analysis	Judgment	Remedy	600	1200
Service Call 173: Error 177: Error	Thermistor indicates Low Temperature (COLD) Error.	1) Is an Error message displayed? 2) Does the Error take place again?	Yes Yes	Turn ON power again. Leave in that state for 30 minutes then turn ON power again.	✓	✓
Service Call 179: Error	Wrong Fuser Standard	1) Is the model and power voltage of the fuser mounted proper? 2) Fuser is properly mounted, but Error results again.	No Yes	Assemble the proper fuser. Check to see that the fuser is properly assemble. Replace fuser.	✓	✓
Service Call 180: Error to 186: Error	The engine detects communication is not possible with the optional unit. 180: Envelope Feeder (Unused) 181: Duplex unit 182: Tray2 unit 183: Tray3 unit 184: Tray4 unit 185: Tray5 unit 186: Finisher unit	1) Is an Error message displayed? 2) Does the Error take place again?	Yes Yes	Turn ON power again. Replace optional unit.	✓	✓
Service Call 187: Error	Communication with control panel failed.	Is the control panel and cable connected properly?	No Yes	Connect properly Replace the control panel and cable.	✓	✓
Service Call 188: Error	Sub-CPU I/F Error	Sub-CPU Communication Error		Check the connection of the S2M board. Replace the S2M board.	✓	✓
Service Call 189: Error	Inverter Unit I/F Error	1) Inverter communications error 2) Does the Error take place again?	Yes Yes	Check the connection of the I/F cable. Replace the V72-3 board.	✓	✓
Service Call 190: Error	System Memory Overflow	System Memory Overflow		Power OFF/ON Replace CU PCB. (Replace EEPROM)	✓	✓
Service Call 200: Error to 202: Error	PU Firm Download Error	Error occurred when downloading PU firmware.		After turning ON the power again, try downloading again. (This process isn't executed for regular operations, therefore, will not occur)	✓	✓
POWER OFF/ON 209: DOWNLOAD ERROR	Custom Media Table Download Error	Failed to download custom media table.		After turning ON the power again, try downloading again. (This process isn't executed for regular operations, therefore, will not occur)	✓	✓
Service Call 203: Error to 208: Error 210: Error to 214: Error 0xFOC: Error 0xFOD: Error 0xFFE: Error 0xFFF: Error	CU Program Dysfunction	Detected illegal process with CU program.	Yes	Write down the 24 digit number displayed on the LCD panel and report it. Turn OFF the power. Then check the insertion of the CU board. Now turn ON the power again.	✓	-
Service Call 220: Error	Print Statistic mismatch	HDD was removed or replaced after print statistic is set to ON.		Get the original HDD back.	✓	✓
Service Call 230: Error	RFID Reader not Installed	1) RFID read device error 2) Does the Error take place again?	Yes Yes	Check the connection of the RFID R/W board. Replace the RFID R/W board. Replace the S2V board.	✓	✓

Table 7-1-1 Operator Alarm (6/10)

Display	Cause	Error Description and Analysis	Judgment	Remedy	600	1200
Service Call 231: Error	RFID Reader I/ F Error	An interface error was detected with the RFID reader device. 01: communication error between the RFID reader and the engine PCB. 02: the transceiver circuit error of the RFID reader. 03: communication error between the RFID reader and the Tag chip. 04: the RFID Tag detection error (more than 4 chips).		01: Same action as for error 230 02: Replace the RFID R/W board. 03: Check the connection of the antenna cable. 04: Check to confirm that the number of RFID tags is correct.	✓	✓
Service Call 240: Error to 245: Error 247: Error 248: Error	Engine Program Memory Error	240: Flash-memory hardware error 241: Duplex flash-memory error 242: Optional tray-2 flash-memory error 243: Optional tray-3 flash-memory error 244: Optional tray-4 flash-memory error 245: Optional tray-5 flash-memory error 247: Sub-CPU flash-memory error 248: Inverter flash-memory error		If the error still occurs after rebooting, replace the circuit board of the relevant unit.	✓	✓
Close the Cover 310: Top Cover Open	The printer engine cover is open.	1) Check to see if the top cover is open. 2) Check to see if the cover switch is normal.	Yes No	Close top cover Replace the cover switch.	✓	✓
Reset fuser 320: Fuser Error	After turning ON the power or when cover is closed, the sensor detects that the unit is missing.	1) Is an Error message displayed? 2) Is the fuser unit mounted properly? 3) Does the Error take place again?	Yes No Yes	Check how the fuser is mounted. Re-mount the fuser, then turn ON the power again. Replace the Fuser Unit Assy	✓	✓
Turn OFF the power and wait for awhile. 321: MOTOR OVERHEAT	This indicates that the motor has overheated and that the printer is temporarily unusable.			Wait a while then turn ON power again.	✓	✓
Open Cover 323: Paper Thickness Error	When media is missing, the sensor output value is outside the standard value. (Only for Factory Mode)	1) Has any abnormal substance get mixed in with the sensor? 2) Can the paper thickness detection be reset and restored by opening/closing the tray? 3) Is operation restored by turning OFF/ON the power?	Yes No	Remove obstruction/impurity. Normal	✓	✓
Open Cover 324: Paper Thickness Error	Sensor Output Difference Value Outside Standard (Only for Factory Mode)	1) Has any abnormal substance get mixed in with the sensor? 2) Can the paper thickness detection be reset and restored by opening/closing the tray? 3) Is operation restored by turning OFF/ON the power?	Yes No	Remove obstruction/impurity. Normal	✓	✓
Open Cover 325: Paper Thickness Error	Media Detection Value Outside Standard	1) Is there any abnormal media mixed in? 2) Has the media been fed as overlapped sheets?	Yes	Remove the abnormal media.	✓	✓
Open Cover 326: Paper Thickness Error	U-Heavy Mode Media Detection Value Outside Standard	Is there any abnormal media mixed in?	Yes	Remove the abnormal media.	✓	✓

Table 7-1-1 Operator Alarm (7/10)

Display	Cause	Error Description and Analysis	Judgment	Remedy	600	1200
Reset the belt 330: Belt Error	After turning ON the power or when cover is closed, the sensor detects that the unit is missing.	1) Is an Error message displayed? 2) Is the belt unit properly mounted? 3) Does the Error take place again?	Yes No Yes	Check how the belt unit is mounted. Re0mount the belt unit, then turn ON the power again. Replace Belt Unit Assy	✓	✓
Reset the drum 340 to 343: Drum Error	After turning ON the power or when cover is closed, the sensor detects that the unit is missing.	1) Is an Error message displayed? 2) Is the image drum properly mounted? 3) Does the Error take place again?	Yes No	Check how the ID is mounted. Turn ON power again. Replace ID Unit Assy	✓	✓
Replace with a new drum 350: Yellow Drum Life Near-End 351: Magenta Drum Life Near-End 352: Cyan Drum Life Near-End 353: Black Drum Life Near-End	ID Unit Life	Is this immediately after replacing the ID unit?	Yes No	Check ID Unit Life Replace ID Unit	✓	✓
Replace with a new fuser 354: Fuser Life Near-End	Fuser Life (This takes place when the fuser life is continually OFF)	Is this immediately after replacing the fuser?	Yes No	Check Fuser Life Replace fuser.	✓	✓
Replace with new belt 355: Belt Life Near-End	Notify Belt Life (Alarm) Print N-count worth by opening/closing cover.	Is this immediately after replacing the belt?	Yes No	Check Belt Life Replace belt.	✓	✓
Replace with new belt 356: Belt Life Near-End	Notify the Disposal Toner Full Belt Life (Alarm). Print N-count worth by opening/closing cover. N=20	Is this immediately after replacing the belt?	Yes No	Check Belt Life Replace belt.	✓	✓
Replace with new double-side printer unit 360: Double-side printer unit is open	If the Double-Side Printer Unit is disassembled from this machine.	Are operations restored by re-inserting the Double-Side Printer Unit?	Yes No	Normal Replace double-side printer unit or replace engine PCB.	✓	✓
Check Duplex 370: Paper Jam	Paper jam detected in double-side printer unit when turning over paper.	Check paper jam in double-side printer.	Yes No	Remove the paper jam. Check/replace double-side printer unit.	✓	✓
Check Duplex 371: Paper Jam	Paper jam detected in double-side printer unit.	Check paper jam in double-side printer.	Yes No	Remove the paper jam. Check/replace double-side printer unit.	✓	✓
Check Duplex 372: Paper Jam	Paper jam in paper supply from the double-side printer unit.	Check misfeed in double-side printer unit.	Yes No	Remove the misfed paper, then close cover. Check/replace double-side printer unit.	✓	✓

Table 7-1-1 Operator Alarm (8/10)

Display	Cause	Error Description and Analysis	Judgment	Remedy	600	1200
Open Front Cover 380: Paper Jam	Paper jam in paper supply from Cassette 1, 2, 3, 4 or 5.	Check misfeed in the specified cassette.	Yes No	Remove the misfed paper, insert the cassette. Check/replace Cassette 1, 2, 3, 4 or 5.	✓	✓
Open Top Cover 381: Paper Jam	Paper jam detected between Black ID and fuser.	1) Check paper jam between Yellow ID and fuser. 2) Check the load on the fuser unit.	Yes No	Remove the paper jam. Replace fuser unit.	✓	✓
Open Top Cover 382: Paper Jam	Paper jam detected in fuser or between fuser and paper output area.	1) Check for paper jam inside the fuser and between the Yellow ID and fuser. 2) Check if the paper output switch is normal.	Yes No	Remove the paper jam. Replace paper output switch.	✓	✓
Open Top Cover 383: Paper Jam	Paper jam detected when paper started to enter double-side printer unit.	Check the entrance or inside the double-side printer for paper jam.	Yes No	Remove the paper jam. Check/replace double-side printer unit.	✓	✓
Open Top Cover 389: Paper Jam	Some sort of jam occurred in paper feed route.	JAM CHECK	Yes	Remove the paper jam.	✓	✓
Check MP Tray 390: Paper Jam	Paper jam occurred when supplying paper from MT	Check for misfeed around MT cassette.	Yes No	Remove the misfed paper, then close cover. Check/replace MT.	✓	✓
Check Tray* 391 to 395: Paper Jam	Paper jam detected between cassette and black ID.	1) Check for paper jam around the cassette and between the Yellow ID. 2) Check to see if the paper entry switch is normal.	Yes No	Remove the paper jam. Replace the entry switch.	✓	✓
Open Top Cover 400: Paper Size Error	Printer engine detects paper that is abnormal (45mm or more) according to setting.	1) Is the paper a custom size? 2) Is the paper a standard size?	Yes Yes No	Remedy Unnecessary Adjust the cassette paper size guide. Paper Size PCB Replace (PXC PWB).	✓	✓
Put in Toner 410: Yellow 411: Magenta 412: Cyan 413: Black	One of the toners are almost empty.	1) The specified toner cartridge is almost empty. 2) Check to see if the specified toner sensor is normal.	Yes No	Replace with a new toner kit. Replace the specified toner sensor.	✓	✓
Remove Paper 480: Stacker - Full	Paper Output Stacker is Full	1) Check if the stacker is full. 2) Check if the Stacker Full Sensor activator is normal.	Yes No	Remove paper from stacker. Replace the Stacker Full Sensor.	✓	✓
Insert *** 490: MP Tray Out-of-Paper (* is A4, B4, etc.)	Specified Cassette is Out-Of-Paper or removed. Or the cassette used in the printing process is out-of-paper.	1) Check if MT is Out-Of-Paper. 2) Check and see if the out-of-paper sensor activator is normal.	Yes No	Put paper in MT. Replace Out-Of-Paper Sensor.	✓	✓
Insert *** 491 to 495: Tray* Out-of-Paper (* is A4, B4, etc.)	Cassette 1, 2, 3, 4 or 5 has been detected to be Out-Of-Paper	1) Check and see if the specified cassette is out-of-paper. 2) Check and see if the out-of-paper sensor activator is normal.	Yes No	Put paper in specified cassette. Replace the corresponding out-of-paper sensor.	✓	✓
Replace Fuser	Fuser Counter Exceed Life	1) Is an Error message displayed? 2) Is this immediately after the fuser unit was replaced?	Yes No	Check the Fuser Unit Life Replace the fuser immediately or at the next maintenance.	✓	✓

Table 7-1-1 Operator Alarm (9/10)

Display	Cause	Error Description and Analysis	Judgment	Remedy	600	1200
Tray*Paper Almost Finished	Paper Near-End Detection	Is the tray paper level low? (less than about 30 sheets)	Yes No	Refill with paper. Check Paper Near-End Sensor	✓	✓
Disc Operation Error	Cannot write to HDD.	Is there any error in the operational procedures?	No Yes	Check the manual usage procedures. HDD malfunction. Replace HDD.	✓	✓
Service Call 910: Error to 914: Error	GDDC Error	910: Tray1 GDDC Error 911: Tray2 GDDC Error 912: Tray3 GDDC Error 913: Tray4 GDDC Error 914: Tray3 GDDC Error		Check to confirm that the tray is mounted correctly. Replace the geared motor of the tray.	✓	✓
Service Call 917	Belt Slit Sensor Error	The belt is not running properly. Does the error message still appear after rebooting?	Yes	Check to confirm that the belt is mounted correctly. Replace the belt.	✓	✓
Service Call 918	Duplex FAN0 Alarm Detection	Error of the fan in the duplex unit Does the error still occur after rebooting?	Yes Yes	Check to confirm that the duplex unit is mounted correctly. Check the connection of the fan. Replace the fan.	✓	✓
Service Call 919	Duplex 24V Abnormal Current Detection	24 V of power is not supplied to the duplex unit properly. Does the error still occur after rebooting?	Yes Yes	Check to confirm that the duplex unit is mounted correctly. Check the connection of the fan. Replace the fan.	✓	✓
Service Call 920	Yellow Image Drum Lock Error	The Y ID unit is not operating properly. Does the error message still appear after rebooting?	Yes Yes	Check to confirm that the Y ID unit is in position. Replace the Y ID unit. Replace the Y ID motor.	✓	✓
Service Call 921	Magenta Image Drum Lock Error	The M ID unit is not operating properly. Does the error message still appear after rebooting?	Yes Yes	Check to confirm that the M ID unit is in position. Replace the M ID unit. Replace the M ID motor.	✓	✓
Service Call 922	Cyan Image Drum Lock Error	The C ID unit is not operating properly. Does the error message still appear after rebooting?	Yes Yes	Check to confirm that the C ID unit is in position. Replace the C ID unit. Replace the C ID motor.	✓	✓
Service Call 923	Black Image Drum Lock Error	The K ID unit is not operating properly. Does the error message still appear after rebooting?	Yes Yes	Check to confirm that the K ID unit is in position. Replace the K ID unit. Replace the K ID motor.	✓	✓
Service Call 924	Tray2 24V Abnormal Voltage Detection	24 V of power is not supplied to tray 2 properly.		Check to confirm that tray 2 is mounted correctly.	✓	✓
Service Call 925	Tray3 24V Abnormal Voltage Detection	24 V of power is not supplied to tray 3 properly.		Check to confirm that tray 3 is mounted correctly.	✓	✓
Service Call 926	Tray4 24V Abnormal Voltage Detection	24 V power is not supplied to tray 4 properly.		Check to confirm that tray 4 is mounted correctly.	✓	✓
Service Call 927	Tray5 24V Abnormal Voltage Detection	24 V of power is not supplied to tray 5 properly.		Check to confirm that tray 5 is mounted correctly.	✓	✓
Service Call 928	Fuser Motor Lock Error	The fuser is not operating properly. Does the error still occur?	Yes Yes	Check to confirm that the fuser is in position. Replace the fuser. Replace the fuser motor.	✓	✓

Table 7-1-1 Operator Alarm (10/10)

Display	Cause	Error Description and Analysis	Judgment	Remedy	600	1200
Service Call 929	Waste Toner Transfer Motor Lock Error	The waste toner transfer motor is not operating properly. Does the error still occur?	Yes	Check to confirm that the waste toner transfer system is operating properly. Replace the waste toner motor.	✓	✓
Service Call 930	Sub-CPU Clock Frequency Error	The Sub-CPU clock frequency is not correct. Does the error still occur?	Yes	Check the connection of the S2M board. Replace the S2M board.	✓	✓
Service Call 931	Duplex CPU Clock Frequency Error	The duplex CPU clock frequency is not correct. Does the error still occur?	Yes	Check the connection of the V72-2 board. Replace the V72-2 board.	✓	✓
Service Call 932	Inverter CPU Clock Frequency Error	The inverter CPU clock frequency is not correct. Does the error still occur?	Yes	Check the connection of the V72-3 board. Replace the V72-3 board.	✓	✓
Service Call 933	Trya2 CPU Clock Frequency Error	The tray-2 CPU clock frequency is not correct. Does the error still occur?	Yes	Check the connection of the V72-1 board of tray 2. Replace the V72-1 board.	✓	✓
Service Call 934	Trya3 CPU Clock Frequency Error	The tray-3 CPU clock frequency is not correct. Does the error still occur?	Yes	Check the connection of the V72-1 board of tray 3. Replace the V72-1 board.	✓	✓
Service Call 935	Trya4 CPU Clock Frequency Error	The tray-4 CPU clock frequency is not correct. Does the error still occur?	Yes	Check the connection of the V72-1 board of tray 4. Replace the V72-1 board.	✓	✓
Service Call 936	Trya5 CPU Clock Frequency Error	The tray-5 CPU clock frequency is not correct. Does the error still occur?	Yes	Check the connection of the V72-1 board of tray 5. Replace the V72-1 board.	✓	✓
Service Call 940	Waste Toner Transfer Error	The transfer mechanism of the toner duct for ID is not operating properly. Does the error still occur?	Yes Yes Yes	Check to confirm that the basket assembly is in position (if it is engaged with the gear of the printer). Check to confirm that the holder magnet D contains a magnet, and check the magnetic polarity. Replace the HAL IC circuit board. Replace the duct assembly toner.	✓	✓
Software not authorized 001	Keychip check failed	ASP PCB KeyChip unmounted or KeyChip Error is detected.		Power OFF/ON Replace KeyChip	-	✓
Software not authorized 002	Unauthorized hard disk copy	The ASP PCB HDD is not a standard (official) product.		Power OFF/ON Replace HDD	-	✓
Software not authorized 003	Unauthorized software configuration	The ASP PCB HDD program does not match the destination.		Power OFF/ON Replace HDD	-	✓
Software not authorized 004	EEPROM missing	The ASP PCB EEPROM unmounted or EEPROM Error is detected.		Power OFF/ON Replace EEPROM	-	✓

Repetitive Marks on Printout

Distance between marks	Affected Roller	Replacement Part
3.71"	Image Drum	Replace image drum cartridge
2.50"	Development Roller	Replace image drum cartridge
2.27"	Toner Supply Roller	Replace image drum cartridge
1.73"	Charge Roller	Replace image drum cartridge
4.45"	Fuser Roller	Replace fuser
2.27"	Image Transfer Roller	Replace belt unit

Drum Contacts

