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3-2 Maintenance Mode

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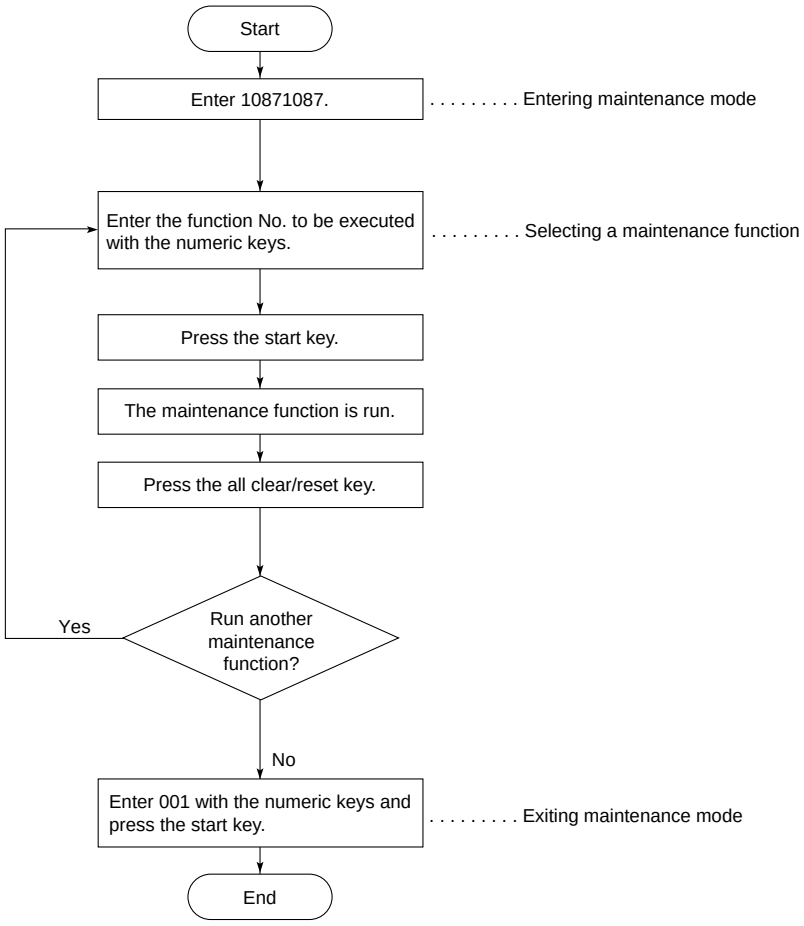
3-2-1 Maintenance mode

The copier is equipped with maintenance mode for service and repair of the machine.

(1) Executing a maintenance function



(2) Maintenance function list

Section	Function No.	Function name
List output	000	Outputting the own-status report
Completion	001	Exiting maintenance mode
Drive, paper feed and conveying	002	Moving the scanner to the DF scanning position
	010	Checking drive motor operation
	011	Checking the switches in the copier
	013	Checking clutch operation 1
	014	Checking clutch operation 2
	016	Setting the folio width
	017	Setting the folio length
	021	Adjusting the amount of slack in the paper of drawer 2
	022	Adjusting the amount of slack in the paper of drawer 3
	023	Adjusting the amount of slack in the paper of drawer 4
	026	Checking the switches on drawer 2
	027	Checking the switches on drawer 3
	028	Checking the switches on drawer 4
	030	Checking the operation of the cassette drive motor
High voltage	040	Setting the grid control voltage
	041	Setting the developing bias control voltage
	042	Adjusting the surface potential when copying postcards (effective only with 100 V specifications)
Developing	051	Adjusting the toner control voltage
	053	Displaying toner data
	065	Resetting the waste toner tank overflow detection
Fixing	074	Adjusting the fixing control temperature
	078	Resetting the fixing problem detection
Optical	081	Adjusting the ISU gain
	082	Adjusting the LSU printing start position in the main scanning direction
	083	Adjusting the LSU printing end position in the main scanning direction
	099	Adjusting home position with the DF
	101	Adjusting the shading position
	104	Adjusting the magnification in the main scanning direction with the original on the contact glass

Section	Function No.	Function name
Optical (cont.)	105	Adjusting the magnification in the main scanning direction with the original fed from the DF
	106	Adjusting the magnification in the auxiliary scanning direction with the original on the contact glass
	107	Adjusting the magnification in the auxiliary scanning direction with the original fed from the DF
	108	Adjusting detection of the original width
Timing adjustment	110	Adjusting the start position of image printing
	111	Adjusting the scanning start position of the original on the contact glass
	112	Adjusting the scanning start position of the original fed from the DF
	115	Adjusting the end position of image printing
	116	Adjusting the scanning end position of the original on the contact glass
	117	Adjusting the scanning end position of the original fed from the DF
	120	Adjusting the centerline of drawer 1
	121	Adjusting the centerline of drawer 2
	122	Adjusting the centerline of drawer 3
	123	Adjusting the centerline of drawer 4
	124	Adjusting the centerline of the bypass
	126	Adjusting the centerline of the original on the contact glass
	127	Adjusting the DF original centerline
Operation unit and options	331	Testing the keys
	332	Lighting all the indicators and display on the operation panel
	336	Setting the presence of the DF
	337	Checking the operation of the DF motor
Test pattern print	340	Outputting test patterns
	344	Outputting VTC patterns
Counts	350	Setting the copy count for waste toner tank replacement
	353	Setting the copy limit after the waste toner tank overflow detection
	354	Checking and clearing the DF original count
	355	Checking and clearing the scan count
	356	Checking and clearing the printer count
	363	Checking and clearing the IU developing count

Section	Function No.	Function name
Counts (cont.)	364	Checking and clearing the waste toner tank count
	365	Entering the service telephone No.
	367	Displaying the ROM version
	368	Displaying the engine ROM version
Mode settings	370	Switching between double and single counts
	371	Setting auto start
	372	Setting auto clear time
	373	Setting auto preheat time
	374	Setting auto shutoff time
	378	Setting operation under the toner empty condition
Backup	390	Initializing memory 1
	391	Initializing memory 2
Copying	400	Test copy mode
	415	Setting the copy density level
Initializa-tion	601	Initializing all data
	602	Initializing permanent data
	603	Setting factory defaults
	604	Initializing the main PCB (MFP)
User data	625	Selecting the language group
List output	760	Outputting the setting list
	761	Outputting the action list
	762	Outputting the monitor list
	763	Outputting the own-status repor

(3) Contents of maintenance functions

Function No.	Description
000	**Outputting the own-status report** **Description** Outputs the list of settings in maintenance mode. **Purpose** Used before replacing the main PCB. **Method** Press the start key. *A sheet of the own-status report as in the figure below is output and the current function is exited. Data in the figure are reference values.*

P001

Self Status Report

000	SELF STATUS RPT		120	PAPER CENTER (1)	: 10
001	EXIT		121	PAPER CENTER (2)	: 10
002	SCANNER SET		122	PAPER CENTER (3)	: 10
010	MAIN MOTOR DRIVE		123	PAPER CENTER (4)	: 10
011	MAIN SW TEST		124	BYPASS CENTER	: 10
013	CLUTCH TEST		126	TBL DOC CENTER	: 10
014	SOLENOID TEST		127	ADF DOC CENTER	: 10
016	FOLIO SIZE (WIDTH)	: 210 mm	331	KEY TEST	
017	FOLIO SIZE (LENGTH)	: 330 mm	332	LED&LCD TEST	
021	BENDING AMOUNT (2)	: 30	336	ADF OPTION : OFF	
022	BENDING AMOUNT (3)	: 30	337	ADF MOTOR DRIVE	
023	BENDING AMOUNT (4)	: 30	340	PRINT TEST 1	
026	CASSETTE 2 SW TEST		344	PRINT VTC	
027	CASSETTE 3 SW TEST		350	TANK REPLACEMENT	: 60
028	CASSETTE 4 SW TEST		353	RECOVERY TANK OVF	: 60
030	OP CAS. MOTOR DRIVE		354	ADF COUNTER	: 000000
040	GRID BIAS	: 233	355	SCANNER COUNTER	: 000000
041	DB BIAS	: 205	356	PRINT COUNTER	: 000000
042	GRID BIAS (CARD)	: 222	363	IU COUNTER SET	: 000187
051	TONER DATA	: 54	364	RECOVERY TANK CNT.	: 000000
053	TONER CONTROL		365	REG. SERVICE TEL No.	
065	CLEAR TANK OVF.		367	ROM VERSION	: 1. 08
074	HEATER TMP SET	: 163	368	ENGINE ROM VERSION	: 1. 02
078	CLEAR C60		370	DOUBLE/SINGLE CNT	: SINGLE
081	ISU GAIN		371	COPY AUTO START	: ON
082	LSU START		372	AUTO CLEAR TIMER	: 2
083	LSU END		373	AUTO PREHEAT	: 3
099	ADF HOME POSITION	: 4	374	AUTO SHUT OFF	: 6
101	SHADING POSITION	: 6	378	T. E ACTION	: STOP
104	TBL MAIN SCANNING	: 30	390	INITIALIZE M => E	
105	ADF MAIN SCANNING	: 30	391	INITIALIZE E => M	
106	TBL SUB SCANNING	: 30	400	COPY	
107	ADF SUB SCANNING	: 30	415	DENSITY LEVEL	: 184
108	DOC		601	INI. ALL DATA	
110	PAPER TOP	: 10	602	INI. KEEP DATA	
111	TBL DOC TOP	: 10	603	INI. SHIP DATA	
112	ADF DOC TOP	: 20	604	INI. MFP DATA	
115	PAPER REAR	: 10	625	LANGUAGE SELECTION	: 2
116	TBL DOC REAR	: 10	760	SETTING LIST	
117	ADF DOC REAR	: 20	763	SELF STATUS RPT	

Figure 3-2-1 (a) Own-status report

Function No.	Description
001	**Exiting maintenance mode** **Description** Exits maintenance mode and returns to normal mode. **Purpose** Used when ending maintenance mode. **Method** *Press the start key. The copier returns to normal mode.*

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<table>
<tr><th>Function No.</th><th>Description</th></tr>
<tr><td>002</td><td>
Moving the scanner to the DF scanning position

Description
Moves the scanner and the mirror frame to the DF scanning positions.

Purpose
Used when the scanner and mirror frames are to be fastened with pins before moving the machine.

Method
1. Press the start key. The scanner and mirror frame move to the DF scanning positions and the display shows the message requesting the power to be turned off.
2. Turn the main switch off.
</td></tr>
<tr><td>010</td><td>
Checking drive motor operation

Description
Operates the drive motor.

Purpose
To check the operation of the drive system and paper conveying system.

Method
Press the start key. The drive motor is turned on.

Completion
Press the all clear/reset key. The drive motor stops and the current function is exited.
</td></tr>
<tr><td>011</td><td>
Checking the switches in the copier

Description
Displays the statuses of individual switches in the copier.

Purpose
To check the operation of the switches in the copier.

Method
1. Press the start key.
2. Select the switch to be checked with the cursor up or down keys. The status of the selected switch is displayed.
<table>
<tr><th>Display (switch name)</th><th>Status</th></tr>
<tr><td>FRONT (safety switch 1)</td><td>On, off</td></tr>
<tr><td>SIDE (safety switch 2)</td><td>On, off</td></tr>
<tr><td>EJ.OP (safety switch 3)</td><td>On, off</td></tr>
</table>
</td></tr>
</table>

Function No.	Description

011 (cont.)

Display (switch name)	Status
B.SIZE (bypass paper size switch)	5: A3/11" 1: B4 3: A4/8 1/2" 7: B5 6: A5/5 1/2" 2: B6 0: A6 (all widthwise)
P.E (paper switch)	On, off
SIZE (paper size switch 1/2/3/4)	B: A3/11" × 17" 5: B4/8 1/2" × 14" 2: folio 1: A4R/8 1/2" × 11"R 4: B5R E: A4/8 1/2" × 11" 6: A5R/5 1/2" × 8 1/2" 7: B5
BYPASS P.E (bypass paper switch)	On, off
RESIST (registration switch)	On, off
EJECT (eject switch)	On, off
TBL.V (original size switch)	On, off
H.P (scanner home position switch)	On, off
IU TYPE [imaging unit specification check (DEV A, DEV B, DEV C)]	0: none 1: type A 2: type B 3: type D 4: type C 5: type E 6: type F 7: type G
IU (developing unit fuse)	On, off
OVF (overflow switch)	On, off

Completion
Press the all clear/reset key. The current function is exited.

<table>
<tr><th>Function No.</th><th>Description</th></tr>
<tr><td>013</td><td>
Checking clutch operation 1

Description
Turns individual clutches on and off.

Purpose
To check clutch operation.

Method
1. Press the start key.
2. Enter the number specified for the clutch to be checked with the numeric keys. The bit on the display corresponding to the clutch being turned on changes from 0 to 1.

<table>
<tr><th>Clutch</th><th>Key</th><th>Bit display</th></tr>
<tr><td>Registration clutch</td><td>0</td><td>0000 0001</td></tr>
<tr><td>Cassette feed clutch 3 (lower special cassette)*</td><td>1</td><td>0000 0010</td></tr>
<tr><td>Cassette feed clutch 2 (middle special cassette)*</td><td>2</td><td>0000 0100</td></tr>
<tr><td>Cassette feed clutch 1 (upper special cassette)*</td><td>3</td><td>0000 1000</td></tr>
</table>
* Optional.

Completion
Press the all clear/reset key. The current function is exited.
</td></tr>
</table>

<table>
<tr><th>Function No.</th><th>Description</th></tr>
<tr><td>014</td><td>

Checking clutch operation 2

Description
Turns individual clutches on and off.

Purpose
To check clutch operation.

Method
1. Press the start key.
2. Enter the number specified for the clutch to be checked with the numeric keys. The bit on the display corresponding to the clutch being turned on changes from 0 to 1.

<table>
<tr><th>Clutch</th><th>Key</th><th>Bit display</th></tr>
<tr><td>Paper feed clutch</td><td>0</td><td>0000 0001</td></tr>
<tr><td>Cassette paper feed clutch 3 (lower special cassette)*</td><td>1</td><td>0000 0010</td></tr>
<tr><td>Cassette paper feed clutch 2 (middle special cassette)*</td><td>2</td><td>0000 0100</td></tr>
<tr><td>Cassette paper feed clutch 1 (upper special cassette)*</td><td>3</td><td>0000 1000</td></tr>
<tr><td>Bypass paper feed clutch</td><td>4</td><td>0001 0000</td></tr>
</table>

* Optional.

Completion
Press the all clear/reset key. The current function is exited.

</td></tr>
</table>

<table>
<tr><th>Function No.</th><th>Description</th></tr>
<tr><td>016</td><td>
Setting the folio width

Description
Changes the image area by setting the width of the folio paper used.

Purpose
To be set according to the width of the paper; when the setting is shorter than the actual paper used, the right and left sides of the image are not printed.

Method
Press the start key. The current setting is displayed.

Setting
1. Change the setting using the numeric keys.

<table>
<tr><td>Description</td><td>Setting range</td><td>Initial value</td></tr>
<tr><td>Folio width</td><td>200 – 220 mm</td><td>210 mm</td></tr>
</table>

2. Press the start key. The new value is set.
</td></tr>
<tr><td>017</td><td>
Setting the folio length

Description
Changes the image area by setting the length of the folio paper used.

Purpose
To be set according to the length of the paper; when the setting is shorter than the actual paper used, the trailing edge of the image is not printed.

Method
Press the start key. The current setting is displayed.

Setting
1. Change the setting using the numeric keys.

<table>
<tr><td>Description</td><td>Setting range</td><td>Initial value</td></tr>
<tr><td>Folio length</td><td>330 – 356 mm</td><td>330 mm</td></tr>
</table>

2. Press the start key. The new value is set.
</td></tr>
</table>

<table>
<tr><th>Function No.</th><th>Description</th></tr>
<tr><td>021</td><td>
Adjusting the amount of slack in the paper of drawer 2

Description
Adjusts the amount of slack in the paper when drawer 2 (upper special cassette, optional) is used.

Purpose
Used when paper from the upper special cassette is missing part of the image or has an irregular image at the leading edge, or when paper is Z-folded.

Method
Press the start key. The current setting is displayed.

Setting
1. Change the setting using the numeric keys.
<table>
<tr><th>Description</th><th>Setting range</th><th>Initial value</th><th>Change in value per step</th></tr>
<tr><td>Amount of slack in paper of the upper special cassette</td><td>0 – 60</td><td>30</td><td>0.5 mm</td></tr>
</table>
2. Press the start key. The new value is set.
</td></tr>
<tr><td>022</td><td>
Adjusting the amount of slack in the paper of drawer 3

Description
Adjusts the amount of slack in paper when drawer 3 (middle special cassette, optional) is used.

Purpose
Used when paper from the middle special cassette is missing part of the image or has an irregular image at the leading edge, or when paper is Z-folded.

Method
Press the start key. The current setting is displayed.

Setting
1. Change the setting using the numeric keys.
<table>
<tr><th>Description</th><th>Setting range</th><th>Initial value</th><th>Change in value per step</th></tr>
<tr><td>Amount of slack in paper of the middle special cassette</td><td>0 – 60</td><td>30</td><td>0.5 mm</td></tr>
</table>
2. Press the start key. The new value is set.
</td></tr>
</table>

<table>
<tr><th>Function No.</th><th>Description</th></tr>
<tr><td>023</td><td>
Adjusting the amount of slack in the paper of drawer 4

Description
Adjusts the amount of slack in the paper when drawer 4 (lower special cassette, optional) is used.

Purpose
Used when paper from the lower special cassette is missing part of the image or has an irregular image at the leading edge, or when paper is Z-folded.

Method
Press the start key. The current setting is displayed.

Setting
1. Change the setting using the numeric keys.

<table>
<tr><th>Description</th><th>Setting range</th><th>Initial value</th><th>Change in value per step</th></tr>
<tr><td>Amount of slack in paper of the lower special cassette</td><td>0 – 60</td><td>30</td><td>0.5 mm</td></tr>
</table>
2. Press the start key. The new value is set.
</td></tr>
</table>

<table>
<tr><th>Function No.</th><th>Description</th></tr>
<tr><td>026</td><td>
Checking the switches on drawer 2

Description
Displays the status of the switches on drawer 2 (upper special cassette, optional).

Purpose
To check the operation of the switches in the upper special cassette (optional).

Method
1. Press the start key.
2. Select the switch to be checked with the cursor up or down keys. The status of the selected switch is displayed.

<table>
<tr><th>Display (switch name)</th><th>Status</th></tr>
<tr><td>SIZE (paper size switch 1/2/3/4)</td><td>B: A3/11" × 17"
5: B4/8 1/2" × 14"
2: folio
1: A4R/8 1/2" × 11"R
4: B5R
E: A4/8 1/2" × 11"
6: A5R/5 1/2" × 8 1/2"
7: B5</td></tr>
<tr><td>P.E (paper switch)</td><td>On, off</td></tr>
<tr><td>TRANSFER (cassette feed switch)</td><td>On, off</td></tr>
<tr><td>COVER (cassette safety switch)</td><td>On, off</td></tr>
<tr><td>DESK (special cassette presence/absence detection signal)</td><td>On, off</td></tr>
</table>

Completion
Press the all clear/reset key. The current function is exited.
</td></tr>
</table>

<table>
<tr><th>Function No.</th><th>Description</th></tr>
<tr><td>027</td><td>
Checking the switches on drawer 3

Description
Displays the status of the switches on drawer 3 (middle special cassette, optional).

Purpose
To check the operation of the switches in the middle special cassette (optional).

Method
1. Press the start key.
2. Select the switch to be checked with the cursor up or down keys. The status of the selected switch is displayed.

<table>
<tr><th>Display (switch name)</th><th>Status</th></tr>
<tr><td>SIZE (paper size switch 1/2/3/4)</td><td>B: A3/11" × 17"
5: B4/8 1/2" × 14"
2: folio
1: A4R/8 1/2" × 11"R
4: B5R
E: A4/8 1/2" × 11"
6: A5R/5 1/2" × 8 1/2"
7: B5</td></tr>
<tr><td>P.E (paper switch)</td><td>On, off</td></tr>
<tr><td>TRANSFER (cassette feed switch)</td><td>On, off</td></tr>
<tr><td>COVER (cassette safety switch)</td><td>On, off</td></tr>
<tr><td>DESK (special cassette presence/absence detection signal)</td><td>On, off</td></tr>
</table>

Completion
Press the all clear/reset key. The current function is exited.
</td></tr>
</table>

<table>
<tr><th>Function No.</th><th>Description</th></tr>
<tr><td>028</td><td>
Checking the switches on drawer 4

Description
Displays the status of the switches on drawer 4 (lower special cassette, optional).

Purpose
To check the operation of the switches in the lower special cassette (optional).

Method
1. Press the start key.
2. Select the switch to be checked with the cursor up or down keys. The status of the selected switch is displayed.

<table>
<tr><th>Display (switch name)</th><th>Status</th></tr>
<tr><td>SIZE (paper size switch 1/2/3/4)</td><td>B: A3/11" × 17"
5: B4/8 1/2" × 14"
2: folio
1: A4R/8 1/2" × 11"R
4: B5R
E: A4/8 1/2" × 11"
6: A5R/5 1/2" × 8 1/2"
7: B5</td></tr>
<tr><td>P.E (paper switch)</td><td>On, off</td></tr>
<tr><td>TRANSFER (cassette feed switch)</td><td>On, off</td></tr>
<tr><td>COVER (cassette safety switch)</td><td>On, off</td></tr>
<tr><td>DESK (special cassette presence/absence detection signal)</td><td>On, off</td></tr>
</table>

Completion
Press the all clear/reset key. The current function is exited.
</td></tr>
</table>

<table>
<tr><th>Function No.</th><th>Description</th></tr>
<tr><td>030</td><td>
Checking the operation of the cassette drive motor

Description
With the special cassette (optional) attached, turns the cassette drive motor and paper feed clutch on.

Purpose
To check the drive system of the special cassette.

Method
Press the start key. The cassette drive motor is turned on.

Completion
Press the all clear/reset key. The cassette drive motor turns off and the current function is exited.
</td></tr>
<tr><td>040</td><td>
Setting the grid control voltage

Description
Sets the grid control voltage.

Purpose
Used when the drum has been replaced.

Method
Press the start key. The current setting is displayed.

Setting
1. Change the setting using the numeric keys.

<table>
<tr><th>Description</th><th>Setting range</th><th>Initial value</th></tr>
<tr><td>Grid control voltage</td><td>0 – 255</td><td>245</td></tr>
</table>

2. Press the start key. The new value is set.
</td></tr>
</table>

<table>
<tr><th>Function No.</th><th>Description</th></tr>
<tr><td>041</td><td>
Setting the developing bias control voltage

Description
Sets the developing bias control voltage.

Purpose
Used when image contrast is incorrect.

Method
Press the start key. The current setting is displayed.

Setting
1. Change the setting using the numeric keys.

<table>
<tr><th>Description</th><th>Setting range</th><th>Initial value</th></tr>
<tr><td>Developing bias control voltage</td><td>0 – 255</td><td>205</td></tr>
</table>

2. Press the start key. The new value is set.
</td></tr>
<tr><td>042</td><td>
Adjusting the surface potential when copying postcards (effective only with 100 V specifications)

Description
Sets the drum surface potential when postcards are fed from the bypass table. The grid control voltage does not change when this setting is changed.

Purpose
Used when images are entirely light or a background appears on the copy image of postcards.

Method
Press the start key. The current setting is displayed.

Setting
1. Change the setting using the numeric keys.

<table>
<tr><th>Description</th><th>Setting range</th><th>Initial value</th></tr>
<tr><td>Grid control voltage</td><td>0 – 255</td><td>222</td></tr>
</table>

2. Press the start key. The new value is set.
</td></tr>
</table>

<table>
<tr><th>Function No.</th><th>Description</th></tr>
<tr><td>051</td><td>
Adjusting the toner control voltage

Description
Changes the toner control voltage which has been set automatically after replacement (initialization) of the imaging unit.

Purpose
Used to reset data after the main PCB is replaced or function No. 601 is executed. Change the data when a background appears on the copy image.

Method
Press the start key. The current setting is displayed.

Setting
1. Change the setting using the numeric keys.

Set to the value for 051 in the own-status report output by running function No. 000.

<table>
<tr><td>Description</td><td>Setting range</td></tr>
<tr><td>Toner control voltage</td><td>0 – 255</td></tr>
</table>

2. Press the start key. The new value is set.
</td></tr>
<tr><td>053</td><td>
Displaying toner data

Description
Displays the toner data in real time.

Purpose
Check the displayed data when a background appears on the copy image.

Method
Press the start key. The following items are shown.

CTRL:XXX
SENS:XXX TMP:XXX

CTRL: toner control voltage (V)

SENS: toner sensor output voltage (V)

TMP: machine inside temperature (°C)

Completion
Press the all clear/reset key. The current function is exited.
</td></tr>
</table>

<table>
<tr><th>Function No.</th><th>Description</th></tr>
<tr><td>065</td><td>
Resetting the waste toner tank overflow detection

Description
Resets the waste toner tank overflow detection which is stored by the main PCB.

Purpose
Used after the waste toner tank is replaced.

Method
Press the start key. After resetting, “COMPLETED” is displayed.

Completion
Press the all clear/reset key. The current function is exited.
</td></tr>
<tr><td>074</td><td>
Adjusting the fixing control temperature

Description
Sets the fixing control temperature.

Purpose
Used when a fixing problem occurs.

Method
Press the start key. The current setting is displayed.

Setting
1. Change the setting using the numeric keys.

<table>
<tr><th>Description</th><th>Setting range</th><th>Initial value</th></tr>
<tr><td>Fixing control temperature</td><td>124 – 203
(140 – 200°C)</td><td>163</td></tr>
</table>

2. Press the start key. The new value is set.
</td></tr>
</table>

Function No.	Description
078	**Resetting the fixing problem detection** **Description** Resets service call code C60 (fixing problem). **Purpose** Used after the cause of the fixing problem is eliminated. **Method** Press the start key. After resetting, “COMPLETED” is displayed. **Completion** Press the all clear/reset key. The current function is exited.
081	**Adjusting the ISU gain** **Description** Displays the ISU gain data in real time. **Purpose** *Do not turn VR1 and VR2 on the engine PCB when running this maintenance item; otherwise the entire image appears too light or dark.* **Method** Press the start key. The scanner moves to the shading position, the exposure lamp lights, and AGC processing starts. During AGC processing, ISU gain data are displayed at intervals of 200 ms. *The displayed data changes as follows when VR1 and VR2 are turned.* *ODD: odd resister data (VR1)* *EVEN: even register data (VR2)* *Turning VR1 and VR2 clockwise makes the entire image darker (the gain data larger); turning them counterclockwise makes it lighter (the gain data smaller).* **Completion** Press the all clear/reset key. The AGC processing stops and the current function is exited.
082	**Adjusting the LSU printing start position in the main scanning direction** **Adjustment** Refer to page 3-3-24.
083	**Adjusting the LSU printing end position in the main scanning direction** **Adjustment** Refer to page 3-3-24.

<table>
<tr><th>Function No.</th><th>Description</th></tr>
<tr><td>099</td><td>
Adjusting home position with the DF

Description
Adjusts the scanner home position when the sheet-through DF (optional) is used.

Purpose
Do not change the setting; otherwise, the light from the exposure lamp is blocked and image problems, including black lines appearing on the image, may occur.

Method
Press the start key. The current setting is displayed.

Setting
1. Change the setting using the numeric keys.

<table>
<tr><th>Description</th><th>Setting range</th><th>Initial value</th><th>Change in value per step</th></tr>
<tr><td>Home position</td><td>0 – 8</td><td>4</td><td>0.5 mm</td></tr>
</table>

2. Press the start key. The new value is set.
</td></tr>
<tr><td>101</td><td>
Adjusting the shading position

Description
Adjusts the scanner stop position in shading.

Purpose
Do not change the setting; otherwise, image problems, including black lines appearing on the image, may occur.

Method
Press the start key. The current setting is displayed.

Setting
1. Change the setting using the numeric keys.

<table>
<tr><th>Description</th><th>Setting range</th><th>Initial value</th><th>Change in value per step</th></tr>
<tr><td>Shading position</td><td>0 – 10</td><td>5</td><td>1 mm</td></tr>
</table>

2. Press the start key. The new value is set.
</td></tr>
</table>

<table>
<tr><th>Function No.</th><th>Description</th></tr>
<tr><td>104</td><td>Adjusting the magnification in the main scanning direction with the original on the contact glass

Adjustment
Refer to page 3-3-23.</td></tr>
<tr><td>105</td><td>Adjusting the magnification in the main scanning direction with the original fed from the DF

Description
Adjusts the magnification in the main scanning direction when the sheet-through DF (optional) is used.

Purpose
Used when the magnification in the main scanning direction is incorrect with the sheet-through DF.

Method
Press the start key. The current setting is displayed.

Setting
1. Change the setting using the numeric keys.
<table><tr><th>Description</th><th>Setting range</th><th>Initial value</th><th>Change in value per step</th></tr><tr><td>Magnification in the main scanning direction with the DF</td><td>0 – 60</td><td>30</td><td>0.1%</td></tr></table>2. Press the start key. The new value is set.</td></tr>
<tr><td>106</td><td>Adjusting the magnification in the auxiliary scanning direction with the original on the contact glass

Adjustment
Refer to page 3-3-23.</td></tr>
</table>

<table>
<tr><th>Function No.</th><th>Description</th></tr>
<tr><td>107</td><td>
Adjusting the magnification in the auxiliary scanning direction with the original fed from the DF

Description
Adjusts the magnification in the auxiliary scanning direction when the sheet-through DF (optional) is used.

Purpose
Used when the magnification in the auxiliary scanning direction is incorrect with the sheet-through DF.

Method
Press the start key. The current setting is displayed.

Setting
1. Change the setting using the numeric keys.
<table>
<tr><th>Description</th><th>Setting range</th><th>Initial value</th><th>Change in value per step</th></tr>
<tr><td>Magnification in auxiliary scanning direction with the DF</td><td>0 – 60</td><td>30</td><td>0.1%</td></tr>
</table>
2. Press the start key. The new value is set.
</td></tr>
</table>

Function No.	Description
108	**Adjusting detection of the original width** **Description** Sets the criteria to be used in detecting each original width. **Purpose** Used when an original width is not detected correctly. **Method** Press the start key. **Setting** 1. Select an original width using the cursor down key and press the start key. The current setting is displayed.

Display	Original width
A5R > B5R	A5 lengthwise, B5 lengthwise
B5R > A4R	B5 lengthwise, A4 lengthwise
A4R > B5	A4 lengthwise, B5 widthwise
B5 > A4	B5 widthwise, A4 widthwise
STATE > LETTER	$5^1/_2" \times 8^1/_2"$, $8^1/_2" \times 11"$
LETTER > LEDGER	$8^1/_2" \times 11"$, $11" \times 8^1/_2"$

E.g.: In “A5R > B5R”, the judging criterion of distinguishing the A5 lengthwise from the B5 lengthwise is set.

For the following original sizes, data for those with the same original width are applied.

Folio: same as A4 lengthwise

B4: same as B5 widthwise

A3: same as A4 widthwise

$8^1/_2" \times 14"$: same as $8^1/_2" \times 11"$

$11" \times 17"$: same as $11" \times 8^1/_2"$

2. Change the setting using the numeric keys.

Description	Setting range	*Initial value*	Change in value per step
Width judging criteria	0 – 14	7	1 mm

3. Press the start key. The new value is set.

<table>
<tr><th>Function No.</th><th>Description</th></tr>
<tr><td>110</td><td>Adjusting the start position of image printing

Adjustment
Refer to page 3-3-7.</td></tr>
<tr><td>111</td><td>Adjusting the scanning start position of the original on the contact glass

Adjustment
Refer to page 3-3-21.</td></tr>
<tr><td>112</td><td>Adjusting the scanning start position of the original fed from the DF

Description
Adjusts the start position of original scanning when the sheet-through DF (optional) is used.

Purpose
Used if the leading edge of the original does not agree with that of the copy image when the sheet-through DF is used.

Method
Press the start key. The current setting is displayed.

Setting
1. Change the setting using the numeric keys.
<table><tr><th>Description</th><th>Setting range</th><th>Initial value</th><th>Change in value per step</th></tr><tr><td>DF original scanning start position</td><td>0 – 40</td><td>20</td><td>0.5 mm</td></tr></table>2. Press the start key. The new value is set.</td></tr>
<tr><td>115</td><td>Adjusting the end position of image printing

Adjustment
Refer to page 3-3-8.</td></tr>
<tr><td>116</td><td>Adjusting the scanning end position of the original on the contact glass

Adjustment
Refer to page 3-3-22.</td></tr>
</table>

<table>
<tr><th>Function No.</th><th>Description</th></tr>
<tr><td>117</td><td>
Adjusting the scanning end position of the original fed from the DF

Description
Adjusts the end position of original scanning when the sheet-through DF (optional) is used.

Purpose
Used if the trailing edge of the original does not agree with that of the copy image when the sheet-through DF is used.

Method
Press the start key. The current setting is displayed.

Setting
1. Change the setting using the numeric keys.
<table>
<tr><th>Description</th><th>Setting range</th><th>Initial value</th><th>Change in value per step</th></tr>
<tr><td>DF original scanning end position</td><td>0 – 40</td><td>20</td><td>0.5 mm</td></tr>
</table>
2. Press the start key. The new value is set.
</td></tr>
<tr><td>120</td><td>
Adjusting the centerline of drawer 1

Adjustment
Refer to page 3-3-6.
</td></tr>
<tr><td>121</td><td>
Adjusting the centerline of drawer 2

Description
Adjusts the image centerline when paper is fed from the upper special cassette (optional).

Purpose
Used if the centerline of the original does not agree with that of the copy image when paper is fed from the upper special cassette.

Method
Press the start key. The current setting is displayed.

Setting
1. Change the setting using the numeric keys.
<table>
<tr><th>Description</th><th>Setting range</th><th>Initial value</th><th>Change in value per step</th></tr>
<tr><td>Centerline of the upper special cassette</td><td>0 – 20</td><td>10</td><td>0.5 mm</td></tr>
</table>
2. Press the start key. The new value is set.
</td></tr>
</table>

<table>
<tr><th>Function No.</th><th>Description</th></tr>
<tr><td>122</td><td>
Adjusting the centerline of drawer 3

Description
Adjusts the image centerline when paper is fed from the middle special cassette (optional).

Purpose
Used if the centerline of the original does not agree with that of the copy image when paper is fed from the middle special cassette.

Method
Press the start key. The current setting is displayed.

Setting
1. Change the setting using the numeric keys.
<table>
<tr><th>Description</th><th>Setting range</th><th>Initial value</th><th>Change in value per step</th></tr>
<tr><td>Centerline of the middle special cassette</td><td>0 – 20</td><td>10</td><td>0.5 mm</td></tr>
</table>
2. Press the start key. The new value is set.
</td></tr>
<tr><td>123</td><td>
Adjusting the centerline of drawer 4

Description
Adjusts the image centerline when paper is fed from the lower special cassette (optional).

Purpose
Used if the centerline of the original does not agree with that of the copy image when paper is fed from the lower special cassette.

Method
Press the start key. The current setting is displayed.

Setting
1. Change the setting using the numeric keys.
<table>
<tr><th>Description</th><th>Setting range</th><th>Initial value</th><th>Change in value per step</th></tr>
<tr><td>Centerline of the lower special cassette</td><td>0 – 20</td><td>10</td><td>0.5 mm</td></tr>
</table>
2. Press the start key. The new value is set.
</td></tr>
</table>

<table>
<tr><th>Function No.</th><th>Description</th></tr>
<tr><td>124</td><td>Adjusting the centerline of the bypass
Method
Refer to page 3-3-6.</td></tr>
<tr><td>126</td><td>Adjusting the centerline of the original on the contact glass
Method
Refer to page 3-3-20.</td></tr>
<tr><td>127</td><td>Adjusting the DF original centerline
Description
Adjusts the original scanning centerline when the sheet-through DF (optional) is used.
Purpose
Used if the center of the original does not agree with that of the copy image when the sheet-through DF is used.
Method
Press the start key. The current setting is displayed.
Setting
1. Change the setting using the numeric keys.
<table>
<tr><th>Description</th><th>Setting range</th><th>Initial value</th><th>Change in value per step</th></tr>
<tr><td>DF centerline</td><td>0 – 20</td><td>10</td><td>0.5 mm</td></tr>
</table>
2. Press the start key. The new value is set.</td></tr>
<tr><td>331</td><td>Testing the keys
Description
Types out the keys on the operation panel in the specified order.
Purpose
To check the key function after replacing the operation unit.
Method
1. Press the start key.
2. Press the keys on the operation panel in the order shown on the next page to check key function. If the keys are entered correctly, the corresponding indicators light up. If the keys are not entered correctly, the correct key names will be displayed.
3. After all the keys are entered, “OK” is displayed.</td></tr>
</table>

Function No.	Description
331 (cont.)	**Order of pressing the keys** **Note** It is not necessary to press the on-line key if the destination is set to "OEM4".

Order of pressing	Key	Display	Indicator
1	Function key	FUNCTION	
2	On-line key	ONLINE	On-line
3	Preset R/E key	PRESET	
4	Zoom-down key	50%	
5	Zoom-up key	200%	
6	Manual key	AUTO	
7	Original select key	ORIGINAL	
8	Paper size select key	PAPER	
9	Sort copy key	SORT	
10	Numeric key 1	1	
11	Numeric key 2	2	
12	Numeric key 3	3	
13	Numeric key 4	4	
14	Numeric key 5	5	
15	Numeric key 6	6	
16	Numeric key 7	7	
17	Numeric key 8	8	
18	Numeric key 9	9	
19	Numeric key *	*	
20	Numeric key 0	0	
21	Numeric key #	#	
22	Half tone key	RESOLUTION	Half tone
23	Copy exposure adjustment key (darker)	DARK	Copy exposure adjustment indicators
24	Copy exposure adjustment key (lighter)	LIGHT	Copy exposure adjustment indicators
25	Stop/clear key	STOP	
26	Start key	START	
27	All clear/reset key	RESET	

<table>
<tr><th>Function No.</th><th>Description</th></tr>
<tr><td>332</td><td>
Lighting all the indicators and display on the operation panel

Description
Lights the indicators and message display on the operation panel.

Purpose
Used to check the indicators and display on the operation panel.

Method
Press the start key. All the indicators on the operation panel light, and all the dots of the message display (LCD) light.

Completion
Press the all clear/reset key. The current function is exited.
</td></tr>
<tr><td>336</td><td>
Setting the presence of the DF

Description
Sets the presence of the sheet-through DF (optional).

Purpose
Used when the sheet-through DF is attached.

Method
Press the start key. The current setting is displayed.

ADF OPTION:1
1:ON 2:OFF

<table>
<tr><th>Display</th><th>Description</th><th>Initial value</th></tr>
<tr><td>1: ON
2: OFF</td><td>Attached
Not attached</td><td>2: OFF</td></tr>
</table>
Setting
1. Enter 1 or 2 using the numeric keys.
2. Press the start key. The new value is set.
</td></tr>
<tr><td>337</td><td>
Checking the operation of the DF motor

Description
With the sheet-through DF (optional) attached, turns the DF motor on.

Purpose
To check the drive system of the sheet-through DF.

Method
Press the start key. The DF motor is turned on.

Completion
Press the all clear/reset key. The DF motor stops and the current function is exited.
</td></tr>
</table>

<table>
<tr><th>Function No.</th><th>Description</th></tr>
<tr><td>340</td><td>
Outputting test patterns

Description
Outputs test patterns stored in the copier.

Purpose
Used to check performance after an image printing problem or the position of the laser scanner unit is corrected.

Method
1. Press the start key.
2. Select the original size to A3/LED (11" × 17") or A4R/LET (8 1/2" × 11") using the cursor up key.
3. Select a paper source using the cursor down key.

<table>
<tr><th>Display</th><th>Paper feed position</th></tr>
<tr><td>1</td><td>Drawer 1</td></tr>
<tr><td>2</td><td>Drawer 2 (optional)</td></tr>
<tr><td>3</td><td>Drawer 3 (optional)</td></tr>
<tr><td>4</td><td>Drawer 4 (optional)</td></tr>
<tr><td>5</td><td>Bypass table</td></tr>
</table>

4. Press the start key. A test pattern is output continuously in the set copy modes.

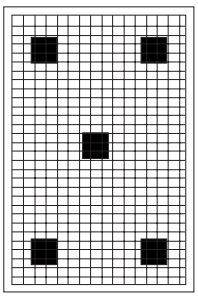

Figure 3-2-1 Test pattern

Completion
Press the all clear/reset key. Test pattern output stops and the current function is exited.
</td></tr>
</table>

<table>
<tr><th>Function No.</th><th>Description</th></tr>
<tr><td>344</td><td>
Outputting VTC patterns

Description
Outputs VTC patterns stored in the copier.

Purpose
Used to check for performance after an image printing problem is rectified.

Method
1. Press the start key.
2. Select a paper source using the cursor down key.

<table>
<tr><th>Display</th><th>Paper feed position</th></tr>
<tr><td>1
2
3
4
5</td><td>Drawer 1
Drawer 2 (optional)
Drawer 3 (optional)
Drawer 4 (optional)
Bypass table</td></tr>
</table>
3. Press the start key. A VTC pattern is output continuously.

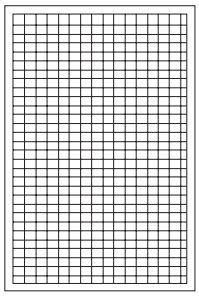
Figure 3-2-2 VTC pattern

Completion
Press the all clear/reset key. VTC pattern output stops and the current function is exited.
</td></tr>
</table>

<table>
<tr><th>Function No.</th><th>Description</th></tr>
<tr><td>350</td><td>
Setting the copy count for waste toner tank replacement

Description
Sets the number of sheets of paper to be handled by one waste toner tank.

Purpose
Used to change the time of replacing the waste toner tank.

Method
Press the start key. The current setting is displayed.

Setting
1. Change the setting using the numeric keys.

<table>
<tr><td>Description</td><td>Setting range</td><td>Initial value</td></tr>
<tr><td>Copy count</td><td>0 – 255</td><td>60</td></tr>
</table>

The set value is converted into the copy count for waste toner tank replacement as follows:

Set value × 1000 (copies).

E.g.: When the set value is 250, the copy count for waste toner replacement is 250000.
When the set value is 0, the copy count is 1000, the same as when the set value is 1.

2. Press the start key. The new value is set.
</td></tr>
<tr><td>353</td><td>
Setting the copy limit after the waste toner tank overflow detection

Description
Sets the number of sheets of paper that can be copied after waste toner tank overflow is detected.

Purpose
To be set according to user request.

Method
Press the start key. The current setting is displayed.

Setting
1. Change the setting using the numeric keys.

<table>
<tr><td>Description</td><td>Setting range</td><td>Initial value</td></tr>
<tr><td>Copy limit</td><td>0 – 60</td><td>60</td></tr>
</table>

The set value is converted into the copy limit as follows:

Set value × 5 (copies).

E.g.: When the set value is 60, the copy limit is 300.
When the set value is 0, copying is disabled as soon as the waste toner tank overflow is detected.

2. Press the start key. The new value is set.
</td></tr>
</table>

Function No.	Description
354	**Checking and clearing the DF original count** **Description** Checks, changes or clears the original feed count of the sheet-through DF (optional). **Purpose** Used to check the time for replacing maintenance parts. **Method** 1. Press the start key. 2. *Select either the single counter or the double counter using the cursor down key and press the start key.* The selected count is displayed. SGL: single counter DBL: double counter **Setting** • To change the count 1. Enter the count (6 digits) using the numeric keys. • To clear the count 1. Enter “000000” using the numeric keys. 2. Press the start key. The new count is set and the current function is exited. To cancel the count change, press the all clear/reset key.
355	**Checking and clearing the scan count** **Description** Checks, changes or clears the scan count. **Purpose** Used to check the time for replacing maintenance parts. **Method** 1. Press the start key. 2. *Select either the single counter or the double counter using the cursor down key and press the start key.* The selected counter count is displayed. SGL: single counter DBL: double counter **Setting** • To change the count 1. Enter the count (6 digits) using the numeric keys. • To clear the count 1. Enter “000000” using the numeric keys. 2. Press the start key. The new count is set and the current function is exited. To cancel the count change, press the all clear/reset key.

Function No.	Description
356	**Checking and clearing the printer count** **Description** Checks, changes or clears the printing count of the printer. **Purpose** Used to check the time for replacing maintenance parts. **Method** 1. Press the start key. 2. *Select either the single counter or the double counter using the cursor down key and press the start key.* The selected count is displayed. SGL: single counter DBL: double counter **Setting** • To change the count 1. Enter the count (6 digits) using the numeric keys. • To clear the count 1. Enter “000000” using the numeric keys. 2. Press the start key. The new count is set and the current function is exited. To cancel the count change, press the all clear/reset key.
363	**Checking and clearing the IU developing count** **Description** Checks, changes or clears the developing count of the imaging unit. *When replacing the imaging unit, the developing count is automatically cleared.* **Purpose** Used to check the time for replacing maintenance parts. **Method** Press the start key. The current count is displayed. **Setting** • To change the count 1. Enter the count (5 digits) using the numeric keys. • To clear the count 1. Enter “00000” using the numeric keys. 2. Press the start key. The new count is set and the current function is exited. To cancel the count change, press the all clear/reset key.

Function No.	Description
364	**Checking and clearing the waste toner tank count** **Description** Checks, changes or clears the count of the waste toner tank. **Purpose** Used when the waste toner tank is replaced. **Method** Press the start key. The current count is displayed. **Setting** • To change the count 1. Enter the count (6 digits) using the numeric keys. • To clear the count 1. Enter “000000” using the numeric keys. 2. Press the start key. The new count is set and the current function is exited. To cancel the count change, press the all clear/reset key.

Function No.	Description
365	**Entering the service telephone No.** **Description** Registers or deletes the service telephone No. shown when a service call code is triggered. **Purpose** *To set the telephone number for a service call when installing the machine.* **Method** Press the start key. If the telephone No. has already been registered, the current number is displayed. **Setting** • To register the telephone number 1. Enter the telephone number using the numeric keys. A maximum of 32 digits can be entered. To correct the entered number, press the stop/clear key to clear it. • To delete the telephone number 1. Press the stop/clear key. To cancel deletion of the telephone number, press the stop/clear key again. 2. Press the start key. The telephone number is registered or deleted and the current function is exited.
367	**Displaying the ROM version** **Description** Displays the ROM version of the main PCB. **Purpose** Used to check the ROM version of the main PCB. **Method** Press the start key. The ROM version is displayed. ROM VERSION Ver 1.00 **Completion** Press the all clear/reset key. The current function is exited.

<table>
<tr><th>Function No.</th><th>Description</th></tr>
<tr><td>368</td><td>
Displaying the engine ROM version

Description
Displays the ROM version of the engine PCB.

Purpose
Used to check the ROM version of the engine PCB.

Method
Press the start key. The ROM version is displayed.

ENGINE ROM VERSION
Ver 1.00

Completion
Press the all clear/reset key. The current function is exited.
</td></tr>
<tr><td>370</td><td>
Switching between double and single counts

Description
Switches the developing count method of the imaging unit.

Purpose
To be set according to user (copy service provider) request.

Method
Press the start key. The current counting system is displayed.

DOUBLE/SINGLE CNT:1
1:DOUBLE 2:SINGLE

<table>
<tr><th>Display</th><th>Counting system</th></tr>
<tr><td>1: DOUBLE
2: SINGLE</td><td>Double counts for A3/11" × 17" only
Single counts for all sizes</td></tr>
</table>

Setting
1. Enter 1 or 2 using the numeric keys to switch the counting system.
2. Press the start key.
</td></tr>
</table>

<table>
<tr><th>Function No.</th><th>Description</th></tr>
<tr><td>371</td><td>
Setting auto start

Description
Turns the auto start function on or off.

Purpose
No change from the factory default of 1 is necessary. To prevent problems, change the setting to 2.

Method
Press the start key. The current setting is displayed.

COPY AUTO START:1
1:ON 2:OFF

<table>
<tr><th>Display</th><th>Description</th></tr>
<tr><td>1: ON
2: OFF</td><td>Auto start on
Auto start off</td></tr>
</table>

Setting
1. Enter 1 or 2 using the numeric keys to switch auto start on or off.
2. Press the start key.
</td></tr>
<tr><td>372</td><td>
Setting auto clear time

Description
Sets the time to return to the initial setting after copying is completed.

Purpose
To be set to a comparatively long time for continuous copying at the same settings.

Method
Press the start key. The current setting is displayed.

Setting
1. Change the settings using the numeric keys.

<table>
<tr><th>Description</th><th>Setting range</th><th>Change in value per step</th><th>Initial value</th></tr>
<tr><td>Auto clear time</td><td>0 – 9</td><td>30 s</td><td>2</td></tr>
</table>

The set value is converted to the auto clear time as follows:

Set value × 30 (s).

E.g.: When the set value is 3, the auto clear time is 90 s. When the value is set to 0, auto clear is canceled.

2. Press the start key. The new value is set.
</td></tr>
</table>

<table>
<tr><th>Function No.</th><th>Description</th></tr>
<tr><td>373</td><td>
Setting auto preheat time

Description
Sets the time to enter preheat/energy saver mode after copying is completed.

Purpose
When the copier is in frequent use, increase the value to enable copying promptly without the recovery time from preheating; when the copier is not in frequent use, decrease the value to save energy.

Method
Press the start key. The current setting is displayed.

Setting
1. Change the setting using the numeric keys.
<table>
<tr><th>Description</th><th>Setting range</th><th>Change in value per step</th><th>Initial value</th></tr>
<tr><td>Auto preheat time</td><td>0 – 9</td><td>5 min.</td><td>3</td></tr>
</table>
The set value is converted to the auto preheat/energy saver time as follows:
Set value × 5 (min.).
E.g.: When the set value is 3, the auto preheat time is 15 min. When the value is 0, auto preheat is canceled.
2. Press the start key. The new value is set.
</td></tr>
<tr><td>374</td><td>
Setting auto shutoff time

Description
Sets the time to enter shutoff (energy saving) mode after copying is completed.

Purpose
Used to save energy when the copier is not in frequent use, by decreasing the value.

Method
Press the start key. The current setting is displayed.

Setting
1. Change the setting using the numeric keys.
<table>
<tr><th>Description</th><th>Setting range</th><th>Change in value per step</th><th>Initial value</th></tr>
<tr><td>Auto shutoff time</td><td>0 – 24</td><td>5 min.</td><td>6</td></tr>
</table>
The set value is converted to the auto shutoff time as follows:
Set value × 5 (min.).
E.g.: When the set value is 4, the auto shutoff time is 20 min. When the value is 0, auto shutoff is canceled.
2. Press the start key. The new value is set.
</td></tr>
</table>

<table>
<tr><th>Function No.</th><th>Description</th></tr>
<tr><td>378</td><td>
Setting operation under the toner empty condition

Description
Switches between single and continuous copies under the toner empty condition.

Purpose
To be set by the user based on how frequently continuous or single copies are made.

Method
Press the start key. The current setting is displayed.

T.E ACTION:1
1:STOP 2:CONT

<table>
<tr><th>Display</th><th>Operation</th></tr>
<tr><td>1: STOP
2: CONT</td><td>Single copies
Continuous copies</td></tr>
</table>

Setting
1. Enter 1 or 2 using the numeric keys to switch between single and continuous copies.
2. Press the start key.
</td></tr>
<tr><td>390</td><td>
Initializing memory 1

Description
Writes the backup data of the main PCB in the engine PCB.

Purpose
Used after replacing the engine PCB.

Method
1. Press the start key. The memory is initialized.
2. After initialization, “COMPLETED” is displayed.

Completion
Press the all clear/reset key. The current function is exited.
</td></tr>
</table>

<table>
<tr><th>Function No.</th><th>Description</th></tr>
<tr><td>391</td><td>
Initializing memory 2

Description
Writes the backup data of the engine PCB in the main PCB.

Purpose
Used after replacing the main PCB.

Method
1. Press the start key. The memory is initialized.
2. After initialization, “COMPLETED” is displayed.

Completion
Press the all clear/reset key. The current function is exited.
</td></tr>
<tr><td>400</td><td>
Test copy mode

Description
Executes normal copying in maintenance mode.

Purpose
Used to make test copies during adjustment in maintenance mode.

Method
1. Press the start key. Test copy mode is set.
2. Set an original on the contact glass and make test copies. The preset number of copies, original and paper sizes, and magnification ratio are displayed.

Completion
Press the all clear/reset key. Test copy mode is exited and the screen to set the function No. appears.
</td></tr>
<tr><td>415</td><td>
Setting the copy density level

Description
Do not change the setting; otherwise, the entire image may be made lighter or darker and resolution may be lowered.

Purpose
Used to adjust the copy density.

Method
Press the start key. The current setting is displayed.

Setting
1. Change the setting using the numeric keys.
<table>
<tr><td>Description</td><td>Setting range</td><td>Initial value</td></tr>
<tr><td>Copy density level</td><td>0 – 255</td><td>184</td></tr>
</table>
Increasing the value darkens the copy image; decreasing the value lightens the image.
2. Press the start key. The new value is set.
</td></tr>
</table>

Function No.	Description
601	**Initializing all data** **Description** Initializes software switches for each destination and OEM, and all the data in SRAM. It is not necessary to carry out this function in the field. **Purpose** Used to initialize the all data. **Method** 1. Press the start key. The destination code input display is shown. Default: USA: 181 Europe: 004 There is no operation necessary on this screen. INI. ALL DATA COUNTRY CODE:000 2. Press the start key. The OEM code input display is shown. Default: 000 There is no operation necessary on this screen. INI. ALL DATA OEM CODE:000 3. Press the start key. Data initialization starts. To cancel data initialization, press the all clear/reset key. 4. After data initialization, the entered destination and OEM codes are displayed, and the ROM version is displayed after two seconds. INI. ALL DATA COMPLETED 000 000 INI. ALL DATA COMPLETED V1.00

Function No.	Description
602	**Initializing permanent data** **Description** Initializes data other than software switches for each destination and OEM; and settings, registrations, counts and machine data in SRAM. It is not necessary to carry out this function in the field. **Purpose** Used to initialize the above data. **Method** 1. Press the start key. The destination code input display is shown. Default: USA: 181 Europe: 004 There is no operation necessary on this screen. INI. KEEP DATA COUNTRY CODE:000 2. Press the start key. The OEM code input display is shown. Default: 000 There is no operation necessary on this screen. INI. KEEP DATA OEM CODE:000 3. Press the start key. Data initialization starts. To cancel data initialization, press the all clear/reset key. 4. After data initialization, the entered destination and OEM codes are displayed, and the ROM version is displayed after two seconds. INI. KEEP DATA COMPLETED 000 000 INI. KEEP DATA COMPLETED V1.00

Function No.	Description
603	**Setting factory defaults** **Description** Initializes data to the factory defaults other than software switches for each destination and OEM, and machine data in SRAM. **Purpose** Used to initialize the above data to the factory defaults. **Method** 1. Press the start key. Data initialization starts. To cancel data initialization, press the all clear/reset key. 2. After data initialization, the entered destination and OEM codes are displayed, and the ROM version is displayed after two seconds. INI. SHIP DATA COMPLETED 000 000 INI. SHIP DATA COMPLETED V1.00

Function No.	Description
604	**Initializing the main PCB (MFP)** **Description** Writes backup data of the engine PCB in the main PCB after initializing the main PCB for each destination and OEM. Initializes the image memory at the same time. **Purpose** Used after replacing the main PCB. **Method** 1. Press the start key. The destination code input display is shown. Default: USA: 181 Europe: 004 There is no operation necessary on this screen. INI. MFP DATA COUNTRY CODE:000 2. Press the start key. The OEM code input display is shown. Default: 000 There is no operation necessary on this screen. INI. MFP DATA OEM CODE:000 3. Press the start key. Data initialization starts. To cancel data initialization, press the all clear/reset key. 4. After data initialization, the entered destination and OEM codes are displayed, and the ROM version is displayed after two seconds. INI. MFP DATA COMPLETED 000 000 INI. MFP DATA COMPLETED V1.00

Function No.	Description
625	**Selecting the language group** **Description** Selects the language group to be used on the operation panel. **Purpose** Used when the operation ROM has been changed to the one for a different destination. **Method** Press the start key. The current setting is displayed. **Setting** 1. Change the setting with the numeric keys. 1: English 1, Spanish 1 and French 1. 2: English 2, French 2, Spanish 2, German, Italian, Dutch, Turkish, Polish, Russian, Norwegian, Swedish and Danish. 3: English 2, French 2, Spanish 2, German, Italian, Dutch, Finnish, Portuguese and Czech. 4: English 2, French 2, Spanish 2, German, Italian, Dutch, Norwegian and Swedish. 2. Press the start key. The new setting is stored.

Function No.	Description
760	**Outputting the setting list** **Description** Outputs the list of software switches and ROM versions. **Purpose** *Used when checking the above items to trace the cause.* **Method** Press the start key. *A sheet of the setting list as in the figure below is output and the current function is exited. Data in the figure are reference values.*

P001

System Configuration Report

Soft Switch

		0	1	2	3	4	5	6	7	8	9
SW000 - 009	:	04	00	60	00	00	70	08	00	00	00
SW010 - 019	:	A0	00	00	04	00	10	00	88	40	00
SW020 - 029	:	00	00	00	00	00	00	00	00	00	00
SW030 - 039	:	00	00	00	00	00	00	00	00	00	00
SW040 - 049	:	00	00	00	00	00	00	00	48	00	40
SW050 - 059	:	06	00	00	00	00	00	00	00	00	00
SW060 - 069	:	00	02	03	01	00	00	40	00	00	00
SW070 - 079	:	00	00	00	00	00	00	00	00	00	C0
SW080 - 089	:	80	00	00	00	00	00	16	00	00	00
SW090 - 099	:	00	00	00	00	00	00	00	00	00	00
SW100 - 109	:	00	00	00	00	00	00	00	00	00	00
SW110 - 119	:	00	00	00	00	00	00	00	00	00	00
SW120 - 129	:	00	00	00	00	00	00	00	00	00	00
SW130 - 139	:	00	00	00	00	00	00	00	00	00	00
SW140 - 149	:	00	00	00	00	00	00	00	00	00	00
SW150 - 159	:	00	00	00	00	00	00	00	00	00	00
SW160 - 169	:	00	00	00	00	00	00	00	00	00	00
SW170 - 179	:	00	00	00	00	00	00	00	00	00	00
SW180 - 189	:	00	00	00	00	00	00	00	00	00	00
SW190 - 199	:	00	00	00	00	00	00	00	00	00	00
SW200 - 209	:	00	00	14	14	0A	1E	1E	0A	0A	0A
SW210 - 219	:	1E	1E	04	06	1E	0A	10	00	00	00
SW220 - 229	:	00	00	0A	0A	0A	0A	0A	0A	0A	1E
SW230 - 239	:	1E	1E	00	00	00	00	00	00	00	00
SW240 - 249	:	00	7A	8F	80	7A	A9	3C	32	01	80
SW250 - 259	:	00	00	00	00	00	00	00	00	00	00
SW260 - 269	:	02	A3	E9	CD	03	B8	59	8C	DE	00
SW270 - 279	:	1E	3B	78	3C	00	00	00	00	00	10
SW280 - 289	:	06	06	06	06	06	06	06	06	06	06
SW290 - 299	:	06	06	06	06	06	06	06	06	00	00
SW300 - 309	:	22	62	12	62	26	07	22	22	22	22
SW310 - 319	:	22	22	22	22	22	22	22	22	22	22
SW320 - 329	:	22	22	22	06	06	06	06	00	00	00
SW330 - 339	:	00	00	00	00	00	00	00	00	00	00
SW340 - 349	:	14	14	14	14	14	14	14	14	14	00
SW350 - 359	:	14	14	14	14	14	14	14	14	14	00
SW360 - 369	:	07	07	07	07	07	07	03	07	07	00
SW370 - 379	:	B4	14	14	14	14	14	14	00	00	00

ROM Version 1. 08
ROM Date 1998-02-16

Figure 3-2-3 Setting list

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Function No.	Description
761	**Outputting the action list** **Description** Outputs the list of service call code detection history, version and other information. **Purpose** *Used when checking the above items to trace the cause.* **Method** Press the start key. *A sheet of the action list as in the figure below is output and the current function is exited. Data in the figure are reference values.*

P001

Action List

Service Call History	C00	C00	C00	C00	C00
ROM Version	1. 08				
ROM Date	1998-02-16				
Country Code	004				
OEM Code	000				
ADF Document	20	20	10		
Table Document	10	10	10		
Paper	10	10			
Cassette Center	10	10	10	10	
Bypass Center	10				
ADF Main Scanning Adjust	=	30			
ADF Sub Scanning Adjust	=	30			
Table Main Scanning Adjust	=	30			
Table Sub Scanning Adjust	=	30			

Figure 3-2-4 Action list

Function No.	Description
762	**Outputting the monitor list** **Description** Outputs the list of destination codes, OEM codes, counts and ROM versions. **Purpose** *Used when checking the above items to trace the cause.* **Method** Press the start key. *A sheet of the monitor list as in the figure below is output and the current function is exited. Data in the figure are reference values.*

P001

Monitor List

Country Code		04H
OEM Code		00H
ADF Counter	(S)	000000
	(D)	000000
Scanner Counter	(S)	000000
	(D)	000000
Image Unit		000186
Printer	(S)	000000
	(D)	000000
ROM Version		1. 08
ROM Date		1998-02-16

Figure 3-2-4 Monitor list

Function No.	Description
763	**Outputting the own-status report** **Description** Outputs the list of settings in maintenance mode. **Purpose** Used before replacing the main PCB. **Method** Press the start key. *A sheet of the own-status report as shown in function No. 000 is output and the current function is exited.*