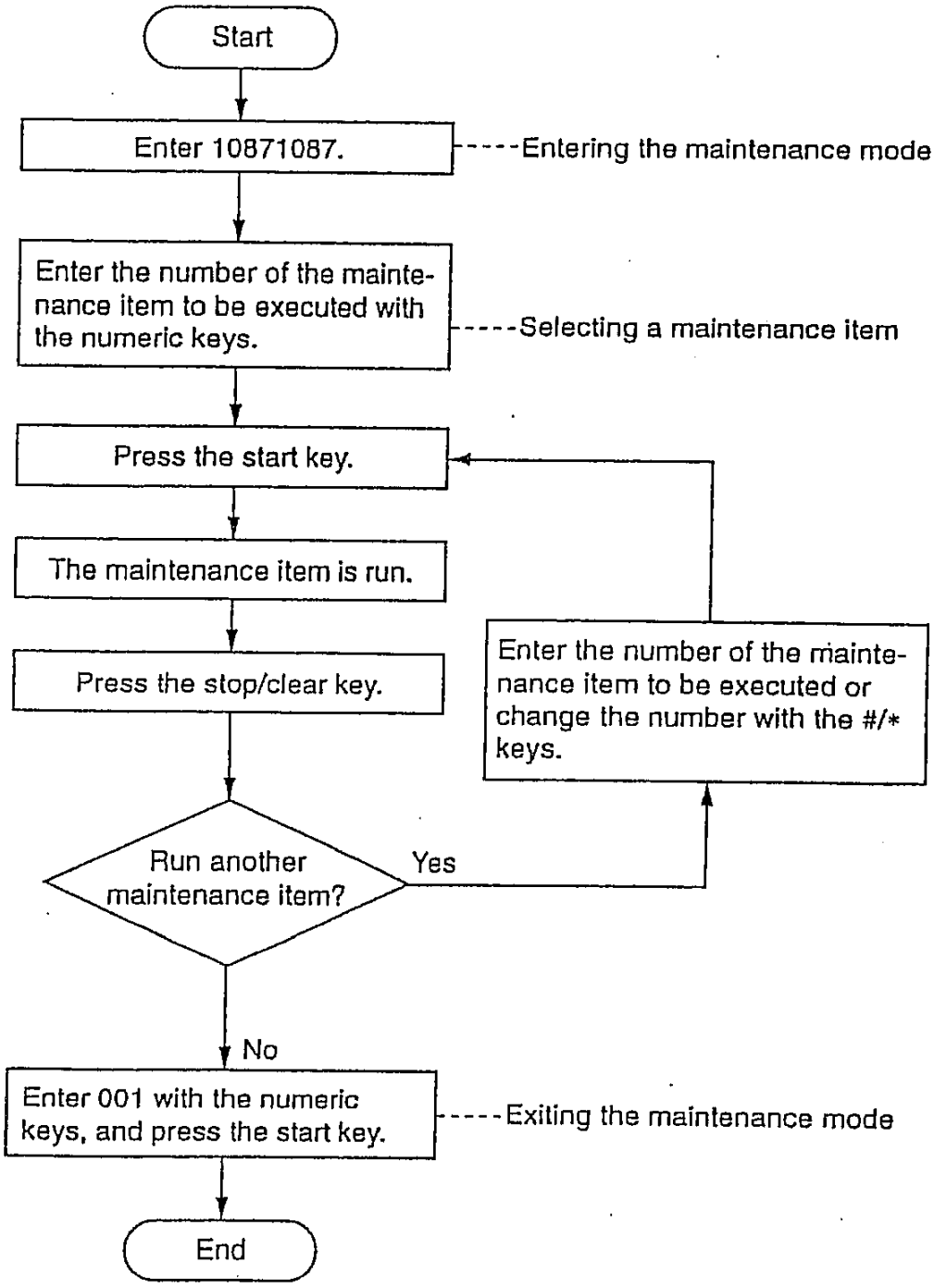
3-2-1 Maintenance mode

The copier is equipped with a maintenance function which can be used to maintain and service the machine.

(1) Executing a maintenance item



(2) Maintenance mode items list

Section	Maintenance Item No.	Maintenance item contents	Initial value
Mode canceling	001	Exiting the maintenance mode	—
Memory initialization	010	Initializing all the backup RAM	—
	011	Initializing the main PCB backup RAM	—
	012	Initializing the task PCB backup RAM	—
	013	Initializing the IPU PCB backup RAM	—
	014	Initializing the backup RAM of the scanner control PCB	—
	015	Initializing the backup RAM of the operation unit main PCB	—
Drive system	020	Turning the drive motor on 1	—
	021	Turning the drive motor on 2	—
	030	Correcting the printer magnification	—
	032	Adjusting the printer leading edge registration	—
	033	Correcting side registration for duplex printing	—
	034	Adjusting paper forwarding speed for duplex printing	—
	035	Adjusting the amount of slack in the paper at the registration roller	—
Optical	053	AGC operation	—
	055	Adjusting the even black data	—
	056	Adjusting the odd black data	—
	057	Adjusting the even white data	—
	058	Adjusting the odd white data	—
	060	Adjusting the scanner input (binary input gamma)	—
	061	Adjusting the scanner leading edge registration	—
	062	Adjusting the scanner magnification	—
	063	Adjusting magnification in the main scanning direction	—
	065	Adjusting the scanner center line	—
	066	Adjusting the scanner input (multiple value input gamma 1)	—
	067	Adjusting the scanner input (multiple value input gamma 2)	—
Charging	080	Setting the grid control voltage	—

Section	Maintenance item No.	Maintenance item contents	Initial value
Developing	100	Setting the toner sensor control voltage for the initial developer	—
	104	Developing unit thermistor output display	—
	105	Checking/changing the developing unit drive time	—
	111	Adjusting the toner control voltage	—
	112	Adjusting the developing bias voltage	—
	117	Peeling off the toner cartridge seal	—
Cleaning	130	Applying toner to the cleaning blade	—
Fixing	141	Setting the primary stabilization fixing temperature	—
	142	Setting the secondary stabilization fixing temperature	—
	143	Setting the preheat temperature	—
	144	Setting the fixing control for low ambient temperature	—
	145	Setting the fixing phase control	—
Operation and options	150	Checking the DF operation	—
	151	Checking if all the LEDs in the operation unit light	—
	160	Setting the key counter	—
	161	Adjusting leading edge registration in the ADF mode	—
	162	Adjusting the center line of an original fed from the DF	—
	165	Adjusting leading edge registration in the RADF mode	—
	170	Operating the MMD host monitoring system	—
	171	Selecting sorter auto shift mode	—
	172	Setting counting of punch waste	—
	173	Selecting presence or absence of the paper feed desk lower drawer	— 1/15 MB-10
	175	Selecting presence or absence of the switchback unit	— 1/15 2/3/3
Modes	180	Selecting destination	—
	181	Selecting auto detection of paper size in the drawer	1 (Detected)
	182	Selecting counting by the total counter	0 (Counts up)

Section	Maintenance Item No.	Maintenance item contents	Initial value
Modes (cont.)	183	Switching between double and single counts	1 (Double)
	184	Setting folio length (for metric specs only)	330 mm
	185	Setting folio width (for metric specs only)	210 mm
	186	Selecting copy count timing	1 (When secondary paper feed starts)
	187	Selecting the display of copy density	0 (No display to indicate over-density)
	188	Selecting the display of an opening animation	1 (Animation displayed)
	189	Turning auto paper select function on/off	1 (On)
	190	Turning auto start function on/off	1 (On)
	191	Setting auto preheat/energy saver time	15 min.
	192	Setting auto clear time	90 s
	194	Setting auto shutoff time	60 min.
	195	Setting first copy speed	—
	201	Displaying/clearing copy counts by paper source	—
	202	Displaying/resetting the option counters	—
	203	Setting the value for maintenance due indication	—
	204	Checking/clearing the jam counts	—
	205	Checking/clearing the service call code counts	—
	206	Registering the service telephone number	—
	207	Setting the maintenance cycle	—
	208	Checking/clearing the maintenance count	—
	209	Setting the copy limit	—
	220	Resetting the partial operation control function	—
	245	Setting the machine number	—
Image processing	300	Adjusting the printer left margin	—
	301	Adjusting the printer leading edge margin	—
	302	Adjusting the printer right margin	—
	303	Adjusting the printer trailing edge margin	—
	318	Adjusting the original size sensor threshold	—
	320	Adjusting the scanner left margin	—
	321	Adjusting the scanner leading edge margin	—

Section	Maintenance item No.	Maintenance item contents	Initial value
Image processing (cont.)	322	Adjusting the scanner right margin	—
	323	Adjusting the scanner trailing edge margin	—
	324	Adjusting the left margin of an original fed from the DF	—
	325	Adjusting the right margin of an original fed from the DF	—
	328	Adjusting engine output	6 —
	329	Correcting the image center line when paper is fed from the bypass table	—
	330	Correcting the image center line when paper is fed from the upper drawer	—
	331	Correcting the image center line when paper is fed from the lower drawer	—
	332	Correcting the image center line when paper is fed from the paper feed desk upper drawer	—
	333	Correcting the image center line when paper is fed from the paper feed desk lower drawer	—
	334	Correcting the image center line when paper is fed from the large paper deck	—
	335	Correcting the image center line when paper is fed from the duplex unit	—
	340	Setting the dark exposure gradient	—
	341	Setting the light exposure gradient	—
	390	Outputting a test pattern	—
Report output	396	Own-status report output	—
Operation check	401	Copying without paper	—
	402	Copying without paper with the DF	—

(3) Contents of maintenance mode items

Maintenance item No.	Description
001	**Exiting the maintenance mode** **Description** Exits maintenance mode and returns to normal copy mode. **Purpose** Used when exiting maintenance mode. **Method** Press the start key. The copier returns to the normal copy mode.
010	**Initializing all the backup RAM** **Description** Initializes all the backup data. **Purpose** No need to run this item during maintenance. **Method** 1. Press the start key. 2. Press the all clear/reset key. All the backup data is initialized. Press the stop/clear key to cancel.
011	**Initializing the main PCB backup RAM** **Description** Initializes the backup data on the main PCB. **Purpose** Used when replacing the backup PCB on the main PCB. **Method** 1. Press the start key. 2. Press the all clear/reset key (or press the stop/clear key to cancel). The following data are initialized.

Maintenance item No.	Description
011 (cont.)	

Maintenance item No.	Description	Initial data
030	Correcting the printer magnification	8
032	Adjusting the printer leading edge registration	0
033	Correcting side registration for duplex printing	10
034	Adjusting paper forwarding speed for duplex printing	20
035	Adjusting the amount of slack in the paper at the registration roller	20
080	Setting the grid control voltage	3.45
105	Checking/changing the developing unit drive time	0
111	Adjusting the toner control voltage	2.16
112	Adjusting the developing bias voltage	3.92
141	Setting the primary stabilization fixing temperature	170
142	Setting the secondary stabilization fixing temperature	180
143	Setting the preheat/energy saver temperature	155
144	Setting the fixing control for low ambient temperature	0
145	Setting the fixing phase control	0
160	Setting the key counter	0
172	Setting counting of punch waste	2
173	Selecting presence or absence of the paper feed desk lower drawer	0
175	Selecting presence or absence of the switch back unit	0
183	Switching between double and single counts	0
186	Selecting copy count timing	0
189	Turning auto paper select function on/off	0

<table>
<tr><th>Maintenance item No.</th><th>Description</th></tr>
<tr><td>012</td><td>

Initializing the task PCB backup RAM

Description
Initializes the backup data on the task PCB.

Purpose
Used when replacing the backup PCB on the task PCB.

Method
1. Press the start key.
2. Press the all clear/reset key (or press the stop/clear key to cancel). The following data are initialized.

<table>
<tr><th>Maintenance item No.</th><th>Description</th><th>Initial data</th></tr>
<tr><td>180</td><td>Selecting destination</td><td>1</td></tr>
<tr><td>181</td><td>Selecting auto detection of paper size in the drawer</td><td>1</td></tr>
<tr><td>182</td><td>Selecting counting by the total counter</td><td>0</td></tr>
<tr><td>184</td><td>Setting folio length (for metric specs only)</td><td>330</td></tr>
<tr><td>185</td><td>Setting folio width (for metric specs only)</td><td>210</td></tr>
<tr><td>190</td><td>Turning auto start function on/off</td><td>1</td></tr>
<tr><td>203</td><td>Setting the value for maintenance due indication</td><td>0</td></tr>
<tr><td>206</td><td>Registering the service telephone number</td><td>0</td></tr>
<tr><td>207</td><td>Setting the maintenance cycle</td><td>100</td></tr>
<tr><td>209</td><td>Setting the copy limit</td><td>99</td></tr>
<tr><td>245</td><td>Setting the machine number</td><td>0</td></tr>
</table>

</td></tr>
<tr><td>013</td><td>

Initializing the IPU PCB backup RAM

Description
Initializes the backup data on the IPU PCB.

Purpose
Used when replacing the IPU PCB.

Method
1. Press the start key.
2. Press the all clear/reset key (or press the stop/clear key to cancel). The following data are initialized.

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

Maintenance item No.	Description
013 (cont.)	

Maintenance item No.	Description	Initial data
063	Adjusting magnification in the main scanning direction	0
300	Adjusting the printer left margin	0
301	Adjusting the printer leading edge margin	0
302	Adjusting the printer right margin	0
303	Adjusting the printer trailing edge margin	0
318	Adjusting the original size sensor threshold	160
320	Adjusting the scanner left margin	2
321	Adjusting the scanner leading edge margin	6
322	Adjusting the scanner right margin	2
323	Adjusting the scanner trailing edge margin	2
324	Adjusting the left margin of an original fed from the DF	2
325	Adjusting the right margin of an original fed from the DF	2
328	Adjusting engine output	12
329	Correcting the image center line when paper is fed from the bypass table	0
330	Correcting the image center line when paper is fed from the upper drawer	0
331	Correcting the image center line when paper is fed from the lower drawer	0
332	Correcting the image center line when paper is fed from the paper feed desk upper drawer	0
333	Correcting the image center line when paper is fed from the paper feed desk lower drawer	0
334	Correcting the image center line when paper is fed from the large paper deck	0
335	Correcting the image center line when paper is fed from the duplex unit	0
340	Setting the dark exposure gradient	0
341	Setting the light exposure gradient	0
390	Outputting a test pattern	1

Maintenance item No.	Description
014	**Initializing the backup RAM of the scanner control PCB** **Description** Initializes the backup data on the scanner control PCB. **Purpose** Used when replacing the scanner control PCB. **Method** 1. Press the start key. 2. Press the all clear/reset key (or press the stop/clear key to cancel). The following data are initialized.

Maintenance item No.	Description	Initial data
060	Adjusting the scanner input (binary input gamma)	12
061	Adjusting the scanner leading edge registration	0
062	Adjusting the scanner magnification	0
065	Adjusting the scanner center line	0
066	Adjusting the scanner input (multiple value input gamma 1)	12
067	Adjusting the scanner input (multiple value input gamma 2)	12
161	Adjusting leading edge registration in the ADF mode	0
162	Adjusting the center line of an original fed from the DF	0
165	Adjusting leading edge registration in the RADF mode	0

<table>
<tr><th>Maintenance item No.</th><th>Description</th></tr>
<tr><td>015</td><td>
Initializing the backup RAM of the operation unit main PCB
Description
Initializes the backup data on the operation unit main PCB.
Purpose
Used when replacing the operation unit main PCB.
Method
1. Press the start key.
2. Press the all clear/reset key (or press the stop/clear key to cancel). The following backup data are initialized.
<table>
<tr><th>Maintenance item No.</th><th>Description</th><th>Initial data</th></tr>
<tr><td>171</td><td>Selecting sorter auto shift mode</td><td>1</td></tr>
<tr><td>187</td><td>Selecting the display of copy density</td><td>0</td></tr>
<tr><td>188</td><td>Selecting the display of an opening animation</td><td>1</td></tr>
<tr><td>191</td><td>Setting auto preheat/energy saver time</td><td>3</td></tr>
<tr><td>192</td><td>Setting auto clear time</td><td>3</td></tr>
<tr><td>194</td><td>Setting auto shutoff time</td><td>12</td></tr>
</table>
</td></tr>
<tr><td>020</td><td>
Turning the drive motor on 1
Description
Controls the drive motor and toner density of the developer.
Purpose
To check toner density control operation.
Method
Press the start key. The drive motor, developing bias, separation charger, cleaning lamp and paper conveying section fan motor turn on and the internal cooling fan motor runs at full speed. The toner density of the developer is controlled, and the output voltage of the toner sensor is displayed on the touch screen.
Completion
Press the stop/clear key to stop operation.
</td></tr>
</table>

<table>
<tr><th>Maintenance item No.</th><th>Description</th></tr>
<tr><td>021</td><td>

Turning on the drive motor 2

Description
Operates the drive motor.

Purpose
To check the drive and paper-conveying systems.

Method
Press the start key. The drive motor, developing bias, separation charger, cleaning lamp and paper conveying section fan motor turn on, and the internal cooling fan motor runs at full speed.

Completion
Press the stop/clear key to stop operation.

</td></tr>
<tr><td>030</td><td>

Correcting the printer magnification

Adjustment
Refer to page 3-3-36.

</td></tr>
<tr><td>032</td><td>

Adjusting the printer leading edge registration

Adjustment
Refer to page 3-3-44.

</td></tr>
<tr><td>033</td><td>

Correcting side registration for duplex printing

Description
Corrects the home position of the duplex unit side registration guides.

Purpose
To be executed when paper is refed askew from the duplex unit (option).

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

Setting
1. Press the #/* keys to change the setting.

<table>
<tr><th>Description</th><th>Setting range</th><th>Ref. value</th><th>Change in value per step</th></tr>
<tr><td>Side registration</td><td>0 to +20</td><td>10</td><td>1 pulse</td></tr>
</table>

2. Press the start key. The value is set and the test copy mode is entered.

Test copy
Press the start key and make test copies in the duplex copy mode.

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

<table>
<tr><th>Maintenance item No.</th><th>Description</th></tr>
<tr><td>034</td><td>
Adjusting paper forwarding speed for duplex printing
Description
Adjusts the paper forwarding speed.
Purpose
To be executed when paper refed from the duplex unit (option) jams.
Method
Press the start key. The current setting is displayed.
Setting
1. Press the #/* keys to change the setting.
<table>
<tr><th>Description</th><th>Setting range</th><th>Ref. value</th><th>Change in value per step</th></tr>
<tr><td>Duplex forward solenoid-on time</td><td>1 to +40</td><td>20</td><td>10 ms</td></tr>
</table>
2. Press the start key. The value is set and the test copy mode is entered.
Test copy
Press the start key and make test copies in the duplex copy mode.
</td></tr>
<tr><td>035</td><td>
Adjusting the amount of slack in the paper at the registration roller
Adjustment
Refer to page 3-3-20-1.
</td></tr>
<tr><td>053</td><td>
AGC operation
Adjustment
Refer to page 3-3-46-1.
</td></tr>
<tr><td>055</td><td>
Adjusting the even black data
Adjustment
Refer to page 3-3-46-1.
</td></tr>
<tr><td>056</td><td>
Adjusting the odd black data
Adjustment
Refer to page 3-3-46-1.
</td></tr>
<tr><td>057</td><td>
Adjusting the even white data
Adjustment
Refer to page 3-3-46-1.
</td></tr>
<tr><td>058</td><td>
Adjusting the odd white data
Adjustment
Refer to page 3-3-46-1.
</td></tr>
</table>

<table>
<tr><th>Maintenance item No.</th><th>Description</th></tr>
<tr><td>060</td><td>
Adjusting the scanner input (binary input gamma)

Description
Adjusts the CCD density properties.

Purpose
To be executed when adjusting the image density in memory copy* mode.

Caution
Maintenance item No. 328 must be completed before this item is executed.

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

Setting
1. Press the #/* keys to change the setting.
<table>
<tr><th>Description</th><th>Setting range</th><th>Ref. value</th></tr>
<tr><td>Scanner input</td><td>0 to 23</td><td>12</td></tr>
</table>
The image becomes lighter when the value is increased, and darker when the value is decreased.
2. Press the start key. The value is set and the test copy mode is entered.

Test copy
Press the start key to make test copies by using a gray chart to check the image density.
</td></tr>
<tr><td>061</td><td>Adjusting the scanner leading edge registration

Adjustment
Refer to page 3-3-45.</td></tr>
<tr><td>062</td><td>Adjusting the scanner magnification

Adjustment
Refer to page 3-3-37.</td></tr>
<tr><td>063</td><td>Adjusting magnification in the main scanning direction

Adjustment
Refer to page 3-3-35.</td></tr>
<tr><td>065</td><td>Adjusting the scanner center line

Adjustment
Refer to page 3-3-46.</td></tr>
</table>

*Standard for 120 V specifications and optional for other specifications.

Maintenance item No.	Description
066	**Adjusting the scanner input (multiple value input gamma 1)** **Description** Adjusts the CCD density properties. **Purpose** To be executed when adjusting the image density in the character or character-photo modes. **Caution** Maintenance item No. 328 must be completed before this item is executed. **Method** Press the start key. The current setting is displayed. **Setting** 1. Press the #/* keys to change the setting.

Description	Setting range	Ref. value
Scanner input	0 to 23	12

The image becomes lighter when the value is increased, and darker when the value is decreased.

2. Press the start key. The value is set and the test copy mode is entered.

Test copy
Press the start key to make test copies by using a gray chart to check the image density.

<table>
<tr><th>Maintenance item No.</th><th>Description</th></tr>
<tr><td>067</td><td>
Adjusting the scanner input (multiple value input gamma 2)

Description
Adjusts the CCD density properties.

Purpose
To be executed when adjusting the image density in the photo mode.

Caution
Maintenance item No. 328 must be completed before this item is executed.

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

Setting
1. Press the #/* keys to change the setting.
<table>
<tr><th>Description</th><th>Setting range</th><th>Ref. value</th></tr>
<tr><td>Scanner input</td><td>0 to 23</td><td>12</td></tr>
</table>
The image becomes lighter when the value is increased, and darker when the value is decreased.
2. Press the start key. The value is set and the test copy mode is entered.

Test copy
Press the start key to make test copies by using a gray chart to check the image density.
</td></tr>
<tr><td>080</td><td>
Setting the grid control voltage

Description
Sets the maximum value of the grid control voltage.

Purpose
To be executed when replacing the drum.

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

Setting
1. Press the #/* keys to change the setting.
<table>
<tr><th>Description</th><th>Setting range</th><th>Ref. value</th></tr>
<tr><td>Grid control voltage</td><td>0 to 5.00 V</td><td>3.45 V</td></tr>
</table>
2. Press the start key. The value is set and main charging is performed at the set grid control voltage.
</td></tr>
</table>

<table>
<tr><th>Maintenance item No.</th><th>Description</th></tr>
<tr><td>100</td><td>
Setting the toner sensor control voltage for the initial developer
Description
Sets the toner sensor control voltage automatically.
Purpose
To be executed when installing the copier or replacing developer.
Method
Press the start key. Aging starts to automatically set the toner sensor control voltage for the initial developer. The drive stops after about 2.5 minutes, and the setting is displayed on the touch screen. When the value is not within the range from 1.00 V to 4.00 V due to a developing section problem, the data is not saved, displaying "0.00". If the stop/clear key is pressed during aging, the toner sensor control voltage is not changed.
</td></tr>
<tr><td>104</td><td>
Developing unit thermistor output display
Description
Displays the developing unit thermistor output voltage.
Purpose
To check the developing unit thermistor output voltage.
Method
Press the start key. The developing unit thermistor output voltage is displayed.
</td></tr>
<tr><td>105</td><td>
Checking/changing the developing unit drive time
Description
Displays the time after the toner sensor control voltage for the initial developer has been set.
Purpose
To check or change the developing unit drive time.
Method
Press the start key. The current developing unit drive time is displayed.
Setting
1. Press the #/* keys to change the value. Set the value to 0 to clear the developing unit drive time.
<table>
<tr><th>Description</th><th>Setting range</th><th>Initial value</th></tr>
<tr><td>Developing unit drive time</td><td>0 to 255 h</td><td>0 h</td></tr>
</table>
2. Press the start key to set the value.
</td></tr>
</table>

<table>
<tr><th>Maintenance item No.</th><th>Description</th></tr>
<tr><td>111</td><td>
Adjusting the toner control voltage

Description
Adjusts the toner control voltage.

Purpose
To be executed after replacement of the backup PCB on the main PCB.

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

Setting
1. Press the #/* keys to change the setting.
<table>
<tr><th>Description</th><th>Setting range</th><th>Ref. value</th></tr>
<tr><td>Toner control voltage</td><td>0 to 5 V</td><td>2.16 V</td></tr>
</table>
2. Press the start key to set the value.
</td></tr>
<tr><td>112</td><td>
Adjusting the developing bias voltage

Description
Sets the maximum value of the developing bias voltage.

Purpose
To be executed when the image contrast is poor.

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

Setting
1. Press the #/* keys to change the setting.
<table>
<tr><th>Description</th><th>Setting range</th><th>Ref. value</th></tr>
<tr><td>Developing bias control voltage</td><td>0 to 5 V</td><td>3.92 V</td></tr>
</table>
2. Press the start key to set the value.
</td></tr>
</table>

<table>
<tr><th>Maintenance item No.</th><th>Description</th></tr>
<tr><td>117</td><td>Peeling off the toner cartridge seal

Description
Peels the toner cartridge seal off and forces toner replenishment.

Purpose
To be executed when inserting the toner cartridge during copier installation.

Method
Press the start key. Aging starts, and the toner feed motor rotates to peel the cartridge seal off, forcing toner replenishment. Press the stop/clear key to stop toner replenishment.</td></tr>
<tr><td>130</td><td>Applying toner to the cleaning blade

Description
Applies toner to the drum to coat the cleaning blade with it.

Purpose
To be executed when replacing the cleaning blade or the drum.

Method
Press the start key. The drive motor turns on, main charging is performed and toner is applied to the drum. Press the stop/clear key to stop toner replenishment.</td></tr>
<tr><td>141</td><td>Setting the primary stabilization fixing temperature

Description
Sets the primary stabilization fixing temperature while warming up the copier.

Purpose
To be executed when a fixing problem occurs.

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

Setting
1. Press the #/* keys to change the setting.

<table><tr><th>Description</th><th>Setting range</th><th>Ref. value</th></tr><tr><td>Primary stabilization fixing temperature</td><td>150 to 200°C</td><td>170°C</td></tr></table>
2. Press the start key to set the value.</td></tr>
</table>

<table>
<tr><th>Maintenance item No.</th><th>Description</th></tr>
<tr><td>142</td><td>
Setting the secondary stabilization fixing temperature

Description
Sets the secondary stabilization fixing temperature while warming up the copier.

Purpose
To be executed when a fixing problem occurs.

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

Setting
1. Press the #/* keys to change the setting.
<table>
<tr><th>Description</th><th>Setting range</th><th>Ref. value</th></tr>
<tr><td>Secondary stabilization fixing temperature</td><td>160 to 200°C</td><td>180°C</td></tr>
</table>
Caution: The secondary stabilization fixing temperature must be set higher than the primary stabilization fixing temperature.
2. Press the start key to set the value.
</td></tr>
<tr><td>143</td><td>
Setting the preheat/energy saver temperature

Description
Sets the fixing control temperature in the preheat/energy saver mode.

Purpose
To be executed when changing the preheat temperature, and hence the time taken to return from preheat mode.

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

Setting
1. Press the #/* keys to change the setting.
<table>
<tr><th>Description</th><th>Setting range</th><th>Ref. value</th></tr>
<tr><td>Preheat/energy saver temperature</td><td>100 to 200°C</td><td>120°C</td></tr>
</table>
2. Press the start key to set the value.
</td></tr>
</table>

<table>
<tr><th>Maintenance item No.</th><th>Description</th></tr>
<tr><td>144</td><td>
Setting the fixing control for low ambient temperature
Description
Sets the presence or absence of the fixing control for low ambient temperature.
Purpose
To be executed when fixing problems occur at low temperature.
Method
Press the start key. The current setting is displayed.
Setting
1. Press the #/* keys to change the setting.
<table>
<tr><th>Setting</th><th>Description</th></tr>
<tr><td>0</td><td>Fixing control for low ambient temperature present</td></tr>
<tr><td>1</td><td>Fixing control for low ambient temperature absent</td></tr>
</table>
2. Press the start key to set the value.
</td></tr>
<tr><td>145</td><td>
Setting the fixing phase control
Description
Sets the presence or absence of the fixing phase control.
Method
Press the start key. The current setting is displayed.
Setting
1. Press the #/* keys to change the setting.
<table>
<tr><th>Setting</th><th>Description</th></tr>
<tr><td>0</td><td>Fixing phase control absent</td></tr>
<tr><td>1</td><td>Fixing phase control present</td></tr>
</table>
2. Press the start key to set the value.
</td></tr>
</table>

<table>
<tr><th>Maintenance item No.</th><th>Description</th></tr>
<tr><td>150</td><td>Checking the DF operation

Description
Checks independent operation of the DF (option) either with or without an original.

Purpose
To check the independent operation of the DF (option).

Method
Press the start key and check the independent operation of the DF.

Completion
Press the stop/clear key.</td></tr>
<tr><td>151</td><td>Checking if all the LEDs in the operation unit light

Description
Lights all the LEDs in the operation unit.

Purpose
To check if all the LEDs in the operation unit.

Method
Press the start key.

Completion
Press the stop/clear key.</td></tr>
<tr><td>160</td><td>Setting the key counter

Description
Sets the presence or absence of the key counter.

Purpose
To be executed when installing the optional key counter.

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

Setting
1. Press the #/* keys to change the setting.

<table><tr><th>Setting</th><th>Description</th></tr><tr><td>0</td><td>Counter error ignored</td></tr><tr><td>1</td><td>Key counter present</td></tr><tr><td>2</td><td>———</td></tr><tr><td>3</td><td>———</td></tr></table>
2. Press the start key to set the value.</td></tr>
</table>

<table>
<tr><th>Maintenance Item No.</th><th>Description</th></tr>
<tr><td>161</td><td>
Adjusting leading edge registration in the ADF mode

Description
Adjusts the stopping position of an original fed from the RADF (option) in the ADF mode.

Method
To be executed when there is a regular error between the leading edge of the copy image and that of the original in ADF mode when the RADF (option) is used.

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

Setting
1. Press the #/* keys to change the setting.
<table>
<tr><th>Description</th><th>Setting range</th><th>Ref. value</th><th>Change in value per step</th></tr>
<tr><td>Stopping position of the original</td><td>–63 to +63</td><td>0</td><td>0.42 mm</td></tr>
</table>
2. Press the start key. The value is set and the test copy mode is entered.

Test copy
Press the start key to make test copies.
</td></tr>
<tr><td>162</td><td>
Adjusting the center line of an original fed from the DF

Description
Adjusts the scan center line of an original fed from the DF (option).

Purpose
To be executed when there is a regular error between the center of the copy image and that of the original when the DF (option) is used.

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

Setting
1. Press the #/* keys to change the setting.
<table>
<tr><th>Description</th><th>Setting range</th><th>Ref. value</th><th>Change in value per step</th></tr>
<tr><td>Original-scan position</td><td>–10 to +10</td><td>0</td><td>0.5 mm</td></tr>
</table>
2. Press the start key. The value is set and the test copy mode is entered.

Test copy
Press the start key to make test copies.
</td></tr>
</table>

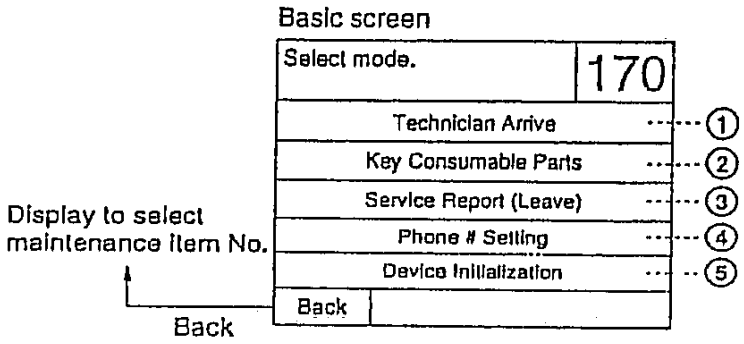
Maintenance item No.	Description
165	**Adjusting leading edge registration in the RADF mode** **Description** Adjusts the stop position of an original fed from the RADF (option) in the RADF mode. **Purpose** To be executed when there is a regular error between the leading edge of the copy image and that of the original in RADF mode when the RADF (option) is used. **Method** Press the start key. The current setting is displayed. **Setting** 1. Press the #/* keys to change the setting.

Description	Setting range	Ref. value	Change in value per step
Stopping position of the original	–63 to +63	0	0.42 mm

2. Press the start key. The value is set, and the test copy mode is entered.

Test copy
Press the start key to make test copies.

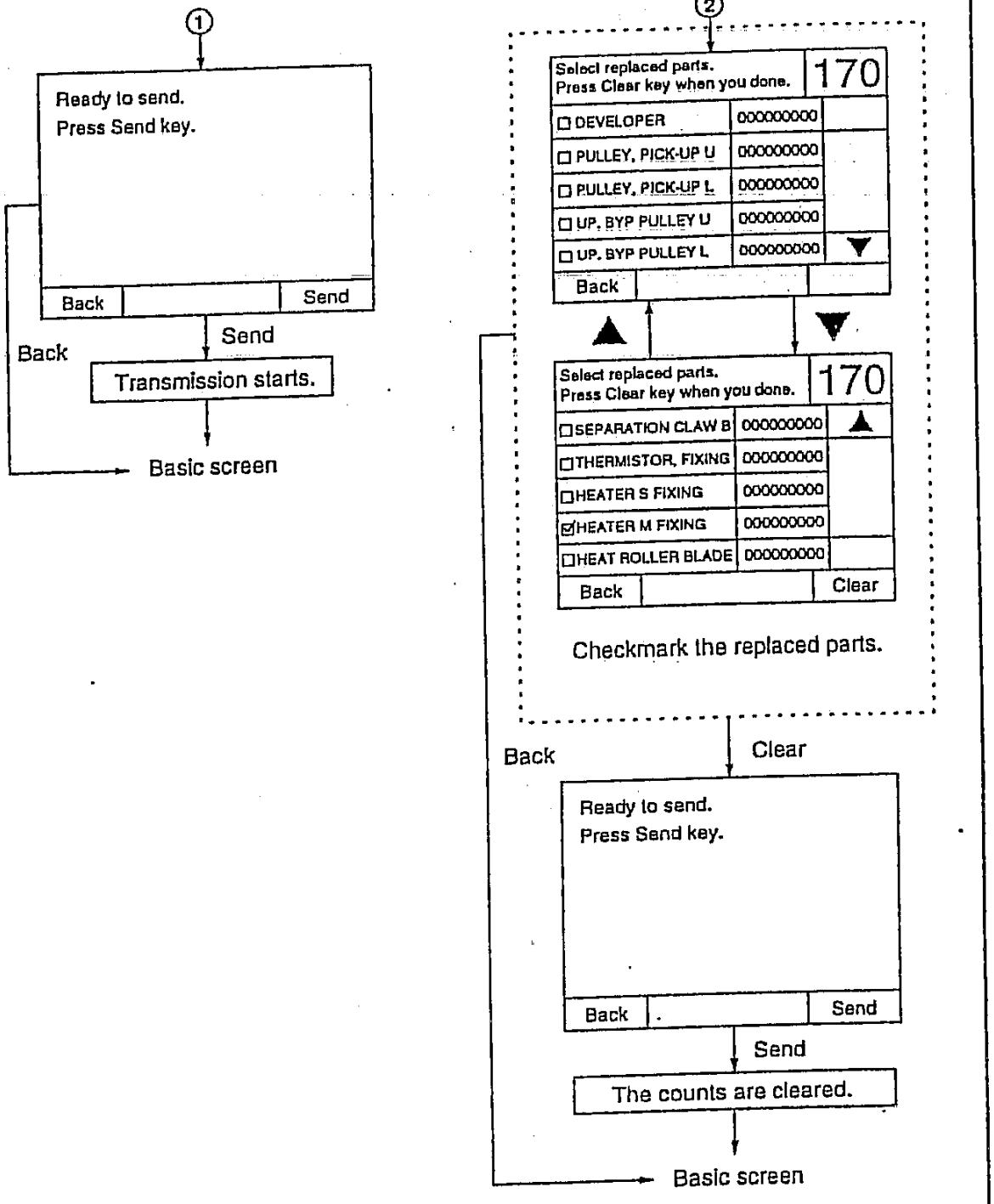
Maintenance item No.	Description
170	**Operating the MMD host monitoring system** **Description** Initializes or operates the MMD host monitoring system. **Purpose** Used when setting up the machine or during regular maintenance or repair. **Method** 1. Press the start key. The basic screen is displayed. 2. Operate the device following the instructions on the key touch screen. **Completion** Press the stop/clear key.



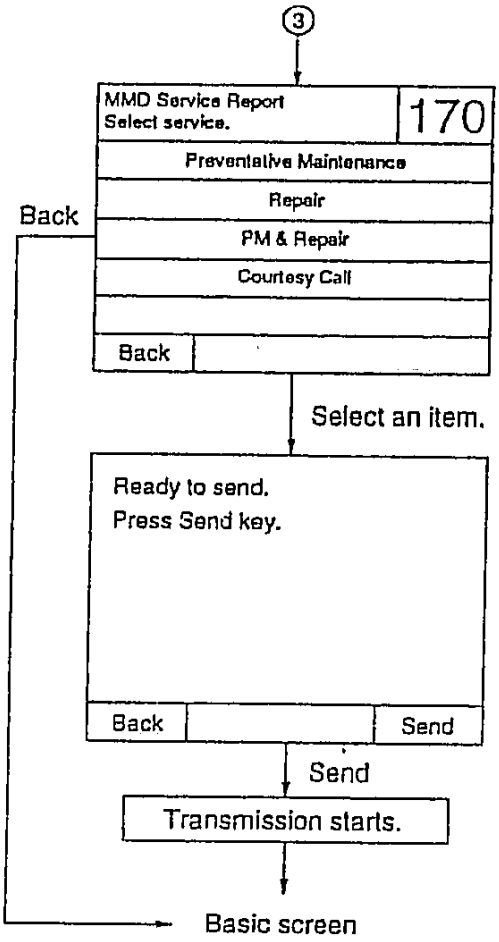
- To initialize the MMD host monitoring system, run the following modes in order:
  "Phone # Setting" ④
  "Device Initialization" ⑤

- During regular maintenance or repair, run the following modes in order:
  "Technician Arrive" ①
  "Key Consumable Parts" ②
  "Service Report (Leave)" ③

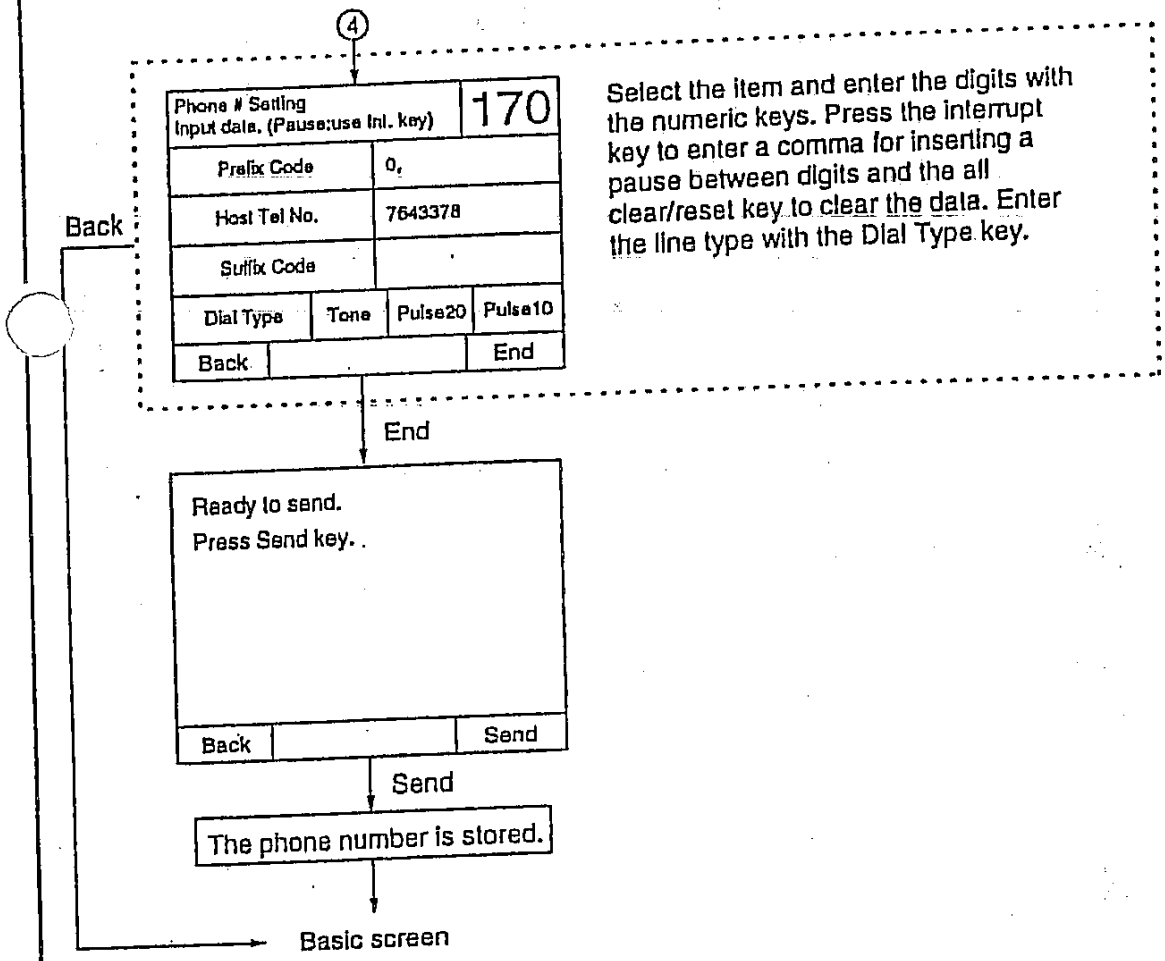
Maintenance item No.	Description



Maintenance item No.	Description

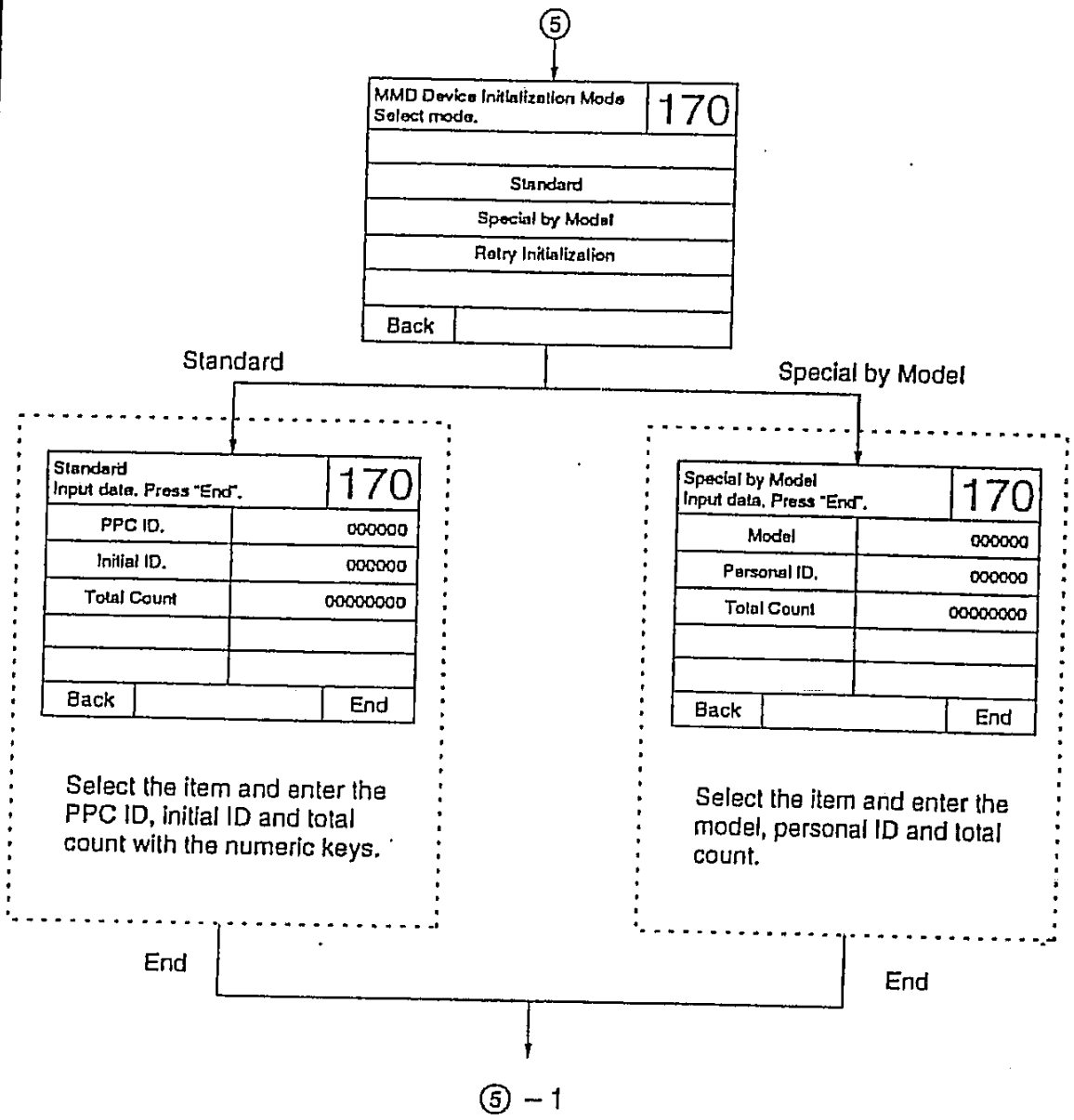


Maintenance Item No.	Description

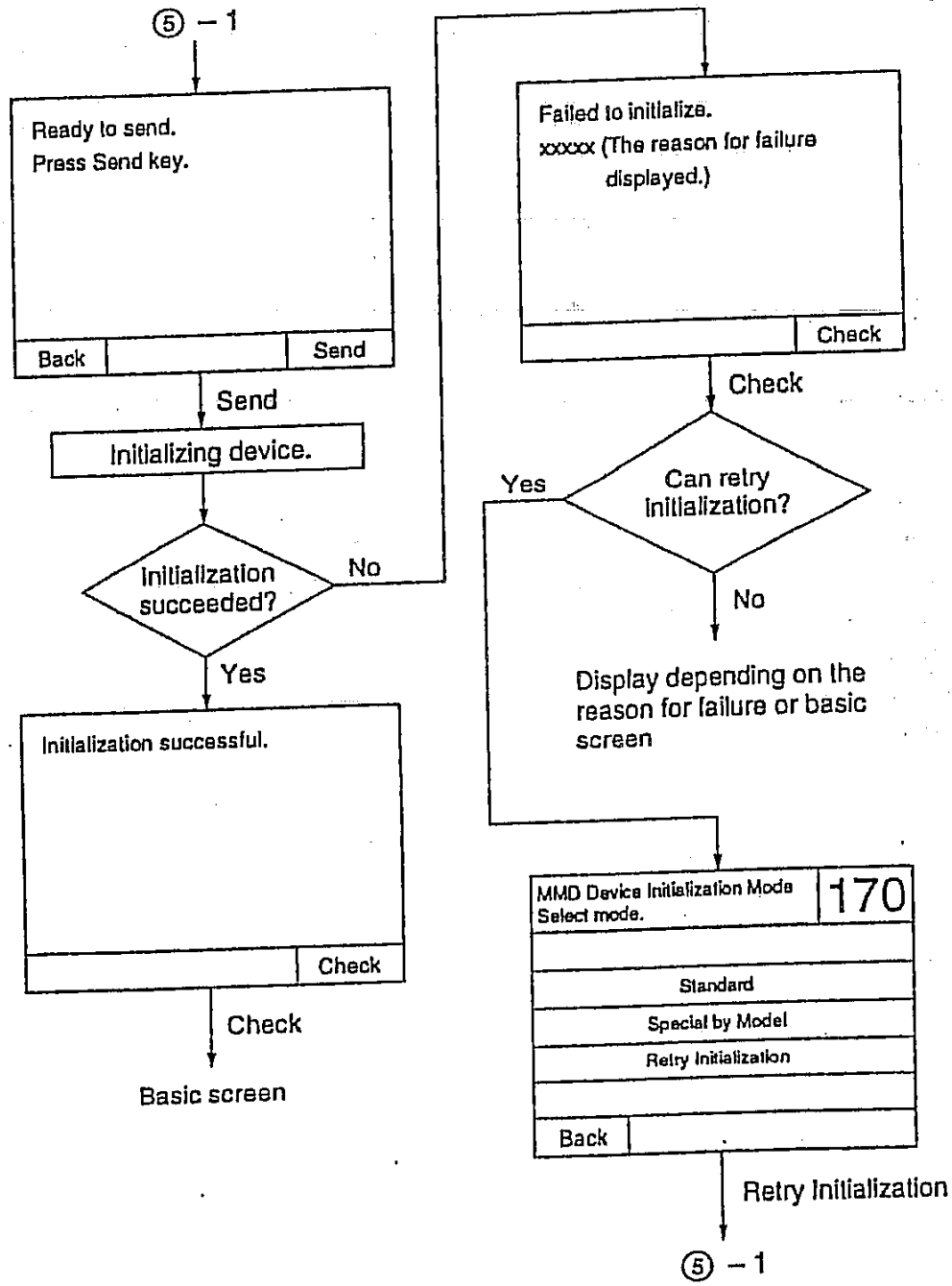


685450G

Maintenance item No.	Description



Maintenance item No.	Description



<table>
<tr><th>Maintenance item No.</th><th>Description</th></tr>
<tr><td>171</td><td>
Selecting sorter auto shift mode

Description
Selects whether the auto shift mode of the stapler-sorter-stacker (option) is on or off.

Purpose
To be set according to user request.

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

Setting
1. Press the #/* keys to change the setting.
<table>
<tr><th>Setting</th><th>Description</th></tr>
<tr><td>0</td><td>Auto shift mode off</td></tr>
<tr><td>1</td><td>Auto shift mode on</td></tr>
</table>
2.Press the start key. The value is set.
</td></tr>
<tr><td>172</td><td>
Setting counting of punch waste

Description
Sets the maximum punch waste count for the stapler-sorter-stacker.

Purpose
To be set according to user request.

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

Setting
1. Press the #/* keys to change the setting.
<table>
<tr><th>Setting</th><th>Maximum punch waste count</th></tr>
<tr><td>0</td><td>10000 times</td></tr>
<tr><td>1</td><td>15000 times</td></tr>
<tr><td>2</td><td>20000 times</td></tr>
<tr><td>3</td><td>25000 times</td></tr>
<tr><td>4</td><td>30000 times</td></tr>
</table>
2. Press the start key. The value is set.
</td></tr>
</table>

<table>
<tr><th>Maintenance item No.</th><th>Description</th></tr>
<tr><td>173</td><td>
Selecting presence or absence of the paper feed desk lower drawer

Description
Selects presence or absence of the lower drawer of the paper feed desk (option).

Purpose
Used when installing the lower drawer of the paper feed desk.

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

Setting
1. Press the #/* keys to change the setting.
<table>
<tr><th>Setting</th><th>Description</th></tr>
<tr><td>0</td><td>Absent</td></tr>
<tr><td>1</td><td>Present</td></tr>
</table>
2. Press the start key. The value is set.
</td></tr>
<tr><td>175</td><td>
Selecting presence or absence of the switchback unit

Description
Selects presence or absence of the switchback unit (option).

Purpose
Used when installing the switchback unit.

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

Setting
1. Press the #/* keys to change the setting.
<table>
<tr><th>Setting</th><th>Description</th></tr>
<tr><td>0</td><td>Absent</td></tr>
<tr><td>1</td><td>Present</td></tr>
</table>
2. Press the start key. The value is set.
</td></tr>
</table>

<table>
<tr><th>Maintenance item No.</th><th>Description</th></tr>
<tr><td>180</td><td>
Selecting destination

Description
Selects the destination.

Purpose
Used when replacing the backup PCB on the task PCB.

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

Setting
1. Press the #/* keys to change the setting.
<table>
<tr><th>Setting</th><th>Description</th></tr>
<tr><td>0</td><td>Japanese specs</td></tr>
<tr><td>1</td><td>USA (inch) specs</td></tr>
<tr><td>2</td><td>Europe (metric) specs</td></tr>
<tr><td>3</td><td>Asia-Pacific specs</td></tr>
</table>
2. Press the start key. The value is set.
</td></tr>
<tr><td>181</td><td>
Selecting auto detection of paper size in the drawer

Description
Selects whether the paper size in the drawer is detected automatically.

Purpose
To be set according to user request.

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

Setting
1. Press the #/* keys to change the setting.
<table>
<tr><th>Setting</th><th>Description</th></tr>
<tr><td>0</td><td>Detected</td></tr>
<tr><td>1</td><td>Not detected</td></tr>
</table>
2. Press the start key. The value is set.
</td></tr>
</table>

<table>
<tr><th>Maintenance Item No.</th><th>Description</th></tr>
<tr><td>182</td><td>
Selecting counting by the total counter

Description
Selects whether the total counter counts up.

Purpose
To be set according to user request.

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

Setting
1. Press the #/* keys to change the setting.
<table>
<tr><th>Setting</th><th>Description</th></tr>
<tr><td>0</td><td>Counts up</td></tr>
<tr><td>1</td><td>Does not count up</td></tr>
</table>
2. Press the start key. The value is set.
</td></tr>
<tr><td>183</td><td>
Switching between double and single counts

Description
Switches between double and single counts.

Purpose
To be set according to user request.

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

Setting
1. Press the #/* keys to change the setting.
<table>
<tr><th>Setting</th><th>Description</th></tr>
<tr><td>0</td><td>Single count for all sizes</td></tr>
<tr><td>1</td><td>Double count for A3/11" × 17" only</td></tr>
</table>
2. Press the start key. The value is set.
</td></tr>
</table>

<table>
<tr><th>Maintenance Item No.</th><th>Description</th></tr>
<tr><td>184</td><td>
Setting folio length (for metric specs only)
Description
Sets the length of the folio paper used.
Purpose
To be set according to user request.
Method
Press the start key. The current setting is displayed.
Setting
1. Press the #/* keys to change the setting.
<table>
<tr><th>Description</th><th>Setting range</th><th>Ref. value</th></tr>
<tr><td>Folio length</td><td>330 to 356 mm</td><td>330 mm</td></tr>
</table>
2. Press the start key. The value is set.
</td></tr>
<tr><td>185</td><td>
Setting folio width (for metric specs only)
Description
Sets the width of the folio paper used.
Purpose
To be set according to user request.
Method
Press the start key. The current setting is displayed.
Setting
1. Press the #/* keys to change the setting.
<table>
<tr><th>Description</th><th>Setting range</th><th>Ref. value</th></tr>
<tr><td>Folio width</td><td>200 to 220 mm</td><td>210 mm</td></tr>
</table>
2. Press the start key. The value is set.
</td></tr>
</table>

<table>
<tr><th>Maintenance Item No.</th><th>Description</th></tr>
<tr><td>186</td><td>
Selecting copy count timing

Description
Selects copy count timing of the total counter.

Purpose
To be set according to user request.

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

Setting
1. Press the #/* keys to change the setting.
<table>
<tr><th>Setting</th><th>Description</th></tr>
<tr><td>0</td><td>Counts when paper is ejected</td></tr>
<tr><td>1</td><td>Counts when secondary paper feed starts</td></tr>
</table>
2. Press the start key. The value is set.
</td></tr>
<tr><td>187</td><td>
Selecting the display of copy density

Description
Selects the display mode to indicate copy density.

Purpose
To be set according to user request.

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

Setting
1. Press the #/* keys to change the setting.
<table>
<tr><th>Setting</th><th>Description</th></tr>
<tr><td>0</td><td>No display to indicate over-density.</td></tr>
<tr><td>1</td><td>Display to indicate over-density.</td></tr>
</table>
2. Press the start key. The value is set.
</td></tr>
</table>

<table>
<tr><th>Maintenance Item No.</th><th>Description</th></tr>
<tr><td>188</td><td>
Selecting the display of an opening animation

Description
Selects the display or no display of an animation when the start switch is turned on.

Purpose
To be set according to user request.

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

Setting
1. Press the #/* keys to change the setting.
<table>
<tr><th>Setting</th><th>Description</th></tr>
<tr><td>0</td><td>No animation displayed</td></tr>
<tr><td>1</td><td>Animation displayed</td></tr>
</table>
2. Press the start key. The value is set.
</td></tr>
<tr><td>189</td><td>
Turning auto paper select function on/off

Description
Selects whether the auto paper select function is turned on/off.

Purpose
To be set according to user request.

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

Setting
1. Press the #/* keys to change the setting.
<table>
<tr><th>Setting</th><th>Description</th></tr>
<tr><td>0</td><td>On</td></tr>
<tr><td>1</td><td>Off</td></tr>
</table>
2. Press the start key. The value is set.
</td></tr>
</table>

<table>
<tr><th>Maintenance item No.</th><th>Description</th></tr>
<tr><td>190</td><td>
Turning auto start function on/off

Description
Selects whether the auto start function is turned on/off.

Purpose
To be set according to user request.

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

Setting
1. Press the #/* keys to change the setting.
<table>
<tr><th>Setting</th><th>Description</th></tr>
<tr><td>0</td><td>On</td></tr>
<tr><td>1</td><td>Off</td></tr>
</table>
2. Press the start key. The value is set.
</td></tr>
<tr><td>191</td><td>
Setting auto preheat/energy saver time

Description
Sets the auto preheat/energy saver time.

Purpose
To be set according to user request.

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

Setting
1. Press the #/* keys to change the setting.
<table>
<tr><th>Setting range</th><th>Change in value per step</th></tr>
<tr><td>0 (Cancel)
1 to 9 (5 to 45 min.)</td><td>5 min.</td></tr>
</table>
2. Press the start key. The value is set.
</td></tr>
</table>

<table>
<tr><th>Maintenance item No.</th><th>Description</th></tr>
<tr><td>192</td><td>
Setting auto clear time

Description
Sets the auto clear time.

Purpose
To be set according to user request.

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

Setting
1. Press the #/* keys to change the setting.
<table>
<tr><th>Setting range</th><th>Change in value per step</th></tr>
<tr><td>1 to 9 (30 to 270 s)</td><td>30 s</td></tr>
</table>
2. Press the start key. The value is set.
</td></tr>
<tr><td>194</td><td>
Setting auto shutoff time

Description
Sets the auto shutoff time.

Purpose
To be set according to user request.

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

Setting
1. Press the #/* keys to change the setting.
<table>
<tr><th>Setting range</th><th>Change in value per step</th></tr>
<tr><td>0 (Cancel)
1 to 24 (5 to 120 min.)</td><td>5 min.</td></tr>
</table>
2. Press the start key. The value is set.
</td></tr>
</table>

Maintenance item No.	Description
195	**Setting first copy speed** **Description** Selects the use or non-use of increased first copy speed mode, in which copy paper feed starts simultaneously with DF original feed under the specified conditions when the RADF is used so that the speed of the first copy is increased. **Purpose** To be set according to user request. **Method** Press the start key. The current setting is displayed. **Setting** 1. Press the #/* keys to change the setting.

Setting	Description
0	No faster copy mode
1	Faster copy mode

2. Press the start key. The value is set.

Maintenance item No.	Description
201	**Displaying/clearing copy counts by paper source** **Description** Displays or clears copy counts by paper source. **Purpose** To display or clear the copy counts by paper source, or to check the time to replace the consumable parts. **Method** Press the start key. **Selection** Enter the mode number with the numeric keys or #/* keys to select the paper source to be checked and press the start key. The current count is displayed.

Mode No.	Paper source
0	Bypass table
1	Copier upper drawer
2	Copier lower drawer
3	Paper feed desk upper drawer
4	Paper feed desk lower drawer
5	Large paper deck
6	Duplex unit

Setting

1. Press the #/* keys to change the count. Set the count to 0 to clear it.
2. Press the start key.

Maintenance item No.	Description
202	**Displaying/resetting the option counters** **Description** Displays or resets the respective counters of the RADF, stapler-sorter and stapler-sorter-stacker. **Purpose** To check the time to replace the consumable parts. **Method** Press the start key. **Selection** Enter the mode number with the numeric keys or the #/* keys to select the count to be checked and press the start key. The current count is displayed.

Mode No.	Counts
0	RADF original replacement count
1	No. of originals that have passed DF in ADF mode
2	No. of originals that have passed DF in RADF mode
3	No. of copies that have passed in the sorter
4	Frequency the stapler has been activated
5	Frequency the punch has been activated
6	Frequency the stacker has been activated

Setting

1. Press the #/* keys to change the count value. Set the count to 0 to clear it.
2. Press the start key.

<table>
<tr><th>Maintenance item No.</th><th>Description</th></tr>
<tr><td>203</td><td>
Setting the value for maintenance due indication

Description
Sets when to show a message notifying that the time for maintenance is about to be reached, by setting the number of copies that can be made before the current maintenance cycle ends.

Purpose
To change the time to show the maintenance due indication.

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

Setting
1. Press the numeric keys or the #/* keys to change the setting.
<table>
<tr><th>Description</th><th>Setting range</th><th>Change in value per step</th></tr>
<tr><td>Maintenance due indication value</td><td>0 to 999
(0 to 9990 copies)</td><td>10 copies</td></tr>
</table>
2. Press the start key. The value is set.
</td></tr>
<tr><td>204</td><td>
Checking/clearing the jam counts

Description
Checks/resets the jam counts by jam location.

Purpose
To check the time to replace the maintenance parts.

Method
Press the start key.

Selection
Enter the mode No. with the numeric keys or the #/* keys to select the count to be checked and press the start key. The current value is displayed.
<table>
<tr><th>Mode No.</th><th>Jam location</th><th>Jam code</th></tr>
<tr><td>0</td><td>Bypass</td><td>10</td></tr>
<tr><td>1</td><td>Copier upper drawer</td><td>11</td></tr>
<tr><td>2</td><td>Copier lower drawer</td><td>12</td></tr>
<tr><td>3</td><td>Desk upper drawer</td><td>13</td></tr>
<tr><td>4</td><td>Desk lower drawer</td><td>14</td></tr>
<tr><td>5</td><td>Large paper deck</td><td>15</td></tr>
<tr><td>6</td><td>Copier lower vertical paper conveying section</td><td>20</td></tr>
<tr><td>7</td><td>Copier upper vertical paper conveying section</td><td>21</td></tr>
<tr><td>8</td><td>Feed</td><td>22</td></tr>
</table>
</td></tr>
</table>

Maintenance item No.	Description

204 (cont.)

Mode No.	Jam location	Jam code
9	Registration switch	23
10	Under the drum	30
11	Fixing	40
12	Switchback	41
13	Ejection from the side	50
14	Ejection to the top	51
15	———	—
16	Feedshift section	60
17	Duplex registration section	63
18	Duplex conveying section	64
19	Duplex eject section	65
20	Duplex registration switch	66
21	DF no paper feed	70
22	DF original feed section	71
23	DF belt section	72
24	DF reversing section	73
25	DF eject section	74
26	Sorter	80
27	Sorter entrance	81
28	Sort conveying section	82
29	Sort eject section	83
30	Stapler and punch	84
31	Stacker entrance	85
32	Stacker conveying section	86
33	Stacker eject section	87
34	No paper feed from duplex unit	16
35	———	—
36	———	—
37	———	—
38	———	—
39	———	—

Setting

1. Press the #/* keys to change the value. Set to 0 to clear the count.
2. Press the start key.

Maintenance item No.	Description
205	**Checking/clearing the service call code counts** **Description** Checks/resets individual service call code counts. **Purpose** To check the service call code counts. **Method** Press the start key. **Selection** Enter the mode No. with the numeric keys or the #/* keys to select the count to be checked and press the start key. The current value is displayed.

Mode No.	Service call name	Service call code
0	Task PCB RAM problem	C001
1	Main PCB RAM problem	C002
2	Operation unit main PCB communication problem	C011
3	IPU PCB communication problem	C013
4	Scanner control PCB communication problem	C014
5	Main PCB communication problem	C015
6	Printer board communication problem	C016
7	Memory copy board communication problem	C017
8	———	—
9	Scanner home position problem	C110
10	Memory copy board problem	C020
11	Drive motor problem	C200
12	Duplex unit side registration motor problem	C220
13	Desk drive motor problem	C240
14	Upper lift motor problem	C250
15	Lower lift motor problem	C251
16	Desk upper lift motor problem	C252
17	Desk lower lift motor problem	C253
18	Polygon motor problem	C300
19	VTC problem	C302
20	BD steady-state problem	C303
21	———	—
22	Broken developing unit thermistor wire	C430

Maintenance item No.	Description

205 (cont.)

Mode No.	Service call name	Service call code
23	Main high-voltage transformer PCB problem	C500
24	Transfer high-voltage transformer PCB problem	C510
25	Broken fixing unit thermistor wire	C600
26	Abnormally low fixing temperature	C620
27	Abnormally high fixing temperature	C640
28	Sorter stapler problem	C700
29	Sorter jogger problem	C701
30	Sorter bin sliding problem	C702
31	Mail box problem	C710
32	Sorter bin unit overrun problem	C720
33	Sorter bin slide motor problem	C721
34	Sorter paper press motor problem	C722
35	Sorter jog motor problem	C723
36	Sorter punch problem	C724
37	Sorter stapler table shift motor problem	C725
38	Sorter side registration motor problem	C726
39	Sorter stapler table motor problem	C727
40	Sorter bin shift motor problem	C728
41	Sorter slide tray motor problem	C729
42	Sorter hand motor problem	C730
43	Sorter stack tray motor problem	C731
44	Sorter pick-up section problem	C732
45	RADF paper feed motor problem	C770
46	RADF conveying motor problem	C771
47	RADF switchback motor problem	C772
48	Large paper deck conveying motor problem	C780
49	Large paper deck lift 1 motor problem	C781
50	Large paper deck lift 2 motor problem	C782
51	Large paper deck lift 1 position problem	C783
52	Large paper deck lift 2 position problem	C784
53	———	—
54	———	—
55	———	—

<table>
<tr><th>Maintenance Item No.</th><th>Description</th></tr>
<tr><td>205 (cont.)</td><td>
<table>
<tr><th>Mode No.</th><th>Service call name</th><th>Service call code</th></tr>
<tr><td>56</td><td>———</td><td>—</td></tr>
<tr><td>57</td><td>———</td><td>—</td></tr>
<tr><td>58</td><td>———</td><td>—</td></tr>
<tr><td>59</td><td>———</td><td>—</td></tr>
</table>
Setting
1. Press the #/* keys to change the value. Set to 0 to clear the count.
2. Press the start key.
</td></tr>
<tr><td>206</td><td>
Registering the service telephone number

Description
Sets the telephone number to be shown when a service call code is detected.

Purpose
Used when installing the machine.

Method
Press the start key. The current telephone number is displayed.

Setting
1. Enter the new telephone number, up to 16 digits, with the keys specified below.
<table>
<tr><th>Figures</th><th>Keys</th></tr>
<tr><td>0 to 9</td><td>Numeric keys</td></tr>
<tr><td>Space</td><td>Recall key</td></tr>
<tr><td>—</td><td>Function key</td></tr>
</table>
2. Press the start key. The new telephone number is set.
</td></tr>
</table>

<table>
<tr><th>Maintenance Item No.</th><th>Description</th></tr>
<tr><td>207</td><td>
Setting the maintenance cycle

Description
Checks/changes the maintenance cycle.

Purpose
Used when the backup PCB on the task PCB has been replaced.

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

Setting
1. Press the #/* keys to change the setting.
<table>
<tr><th>Setting range</th><th>Change in value per step</th></tr>
<tr><td>10 to 100 (10000 to 100000 copies)</td><td>1000 copies</td></tr>
</table>
2. Press the start key. The value is set.
</td></tr>
<tr><td>208</td><td>
Checking/clearing the maintenance count

Description
Checks/resets the maintenance count.

Purpose
Used during maintenance.

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

Setting
1. Press the #/* keys to change the value. Set to 0 to clear the count.
2. Press the start key.
</td></tr>
<tr><td>209</td><td>
Setting the copy limit

Description
Limits the number of copies that can be made.

Purpose
To be set according to user request.

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

Setting
1. Press the #/* keys to change the setting.
<table>
<tr><th>Description</th><th>Setting range</th><th>Initial value</th></tr>
<tr><td>Copy limit</td><td>1 to 99 copies</td><td>99</td></tr>
</table>
2. Press the start key. The value is set.
</td></tr>
</table>

Maintenance item No.	Description
220	**Resetting the partial operation control function** **Description** Resets the service call code detection which triggered partial operation control. **Purpose** Used after the problem has been removed. **Method** Press the start key. The service call code detection which triggered partial operation control is reset.
245	**Setting the machine number** **Description** Sets the machine number. **Purpose** Used during machine installation. **Method** Press the start key. **Setting** 1. Enter the 8-digit machine number with the numeric keys. 2. Press the start key. The machine number is set.
300	**Adjusting the printer left margin** **Adjustment** Refer to page 3-3-42.
301	**Adjusting the printer leading edge margin** **Adjustment** Refer to page 3-3-38.
302	**Adjusting the printer right margin** **Adjustment** Refer to page 3-3-42.
303	**Adjusting the printer trailing edge margin** **Adjustment** Refer to page 3-3-40.

<table>
<tr><th>Maintenance Item No.</th><th>Description</th></tr>
<tr><td>318</td><td>
Adjusting the original size sensor threshold

Description
Sets the threshold of the original size sensor output during original detection.

Purpose
Used when the original size is not detected correctly.

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

Setting
1. Press the #/* keys to change the setting.
<table>
<tr><th>Description</th><th>Setting range</th><th>Ref. value</th></tr>
<tr><td>Original size sensor threshold</td><td>0 to 255</td><td>130</td></tr>
</table>
2. Press the start key. The value is set.
</td></tr>
<tr><td>320</td><td>
Adjusting the scanner left margin

Adjustment
Refer to page 3-3-43.
</td></tr>
<tr><td>321</td><td>
Adjusting the scanner leading edge margin

Adjustment
Refer to page 3-3-39.
</td></tr>
<tr><td>322</td><td>
Adjusting the scanner right margin

Adjustment
Refer to page 3-3-43.
</td></tr>
<tr><td>323</td><td>
Adjusting the scanner trailing edge margin

Adjustment
Refer to page 3-3-41.
</td></tr>
</table>

<table>
<tr><th>Maintenance item No.</th><th>Description</th></tr>
<tr><td>324</td><td>
Adjusting the left margin of an original fed from the DF

Description
Adjusts the scan start position in the main scanning direction when an original is fed from the DF (option).

Purpose
Used when the left margin does not meet the specified value when the DF (option) is used.

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

Setting
1. Press the #/* keys to change the setting.
<table>
<tr><th>Description</th><th>Setting range</th><th>Ref. value</th><th>Change in value per step</th></tr>
<tr><td>Left margin</td><td>0 to 6</td><td>2</td><td>0.5 mm</td></tr>
</table>
2. Press the start key. The value is set.
</td></tr>
<tr><td>325</td><td>
Adjusting the right margin of an original fed from the DF

Description
Adjusts the scan end position in the main scanning direction when an original is fed from the DF (option).

Purpose
Used when the right margin does not meet the specified value when the DF (option) is used.

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

Setting
1. Press the #/* keys to change the setting.
<table>
<tr><th>Description</th><th>Setting range</th><th>Ref. value</th><th>Change in value per step</th></tr>
<tr><td>Right margin</td><td>0 to 6</td><td>2</td><td>0.5 mm</td></tr>
</table>
2. Press the start key. The value is set.
</td></tr>
</table>

Maintenance item No.	Description
328	**Adjusting engine output** **Description** Adjusts the LSU image output. **Purpose** Used when the image density is too light or too dark. **Method** Press the start key. The current setting is displayed. **Setting** 1. Press the #/* keys to change the setting.

Description	Setting range	Ref. value
Engine output	0 to 23	12

The image becomes lighter when the value is increased and darker when the value is decreased.

2. Press the start key. The value is set and the test pattern output mode is entered.

Check
Press the start key to print a test pattern to check image density.

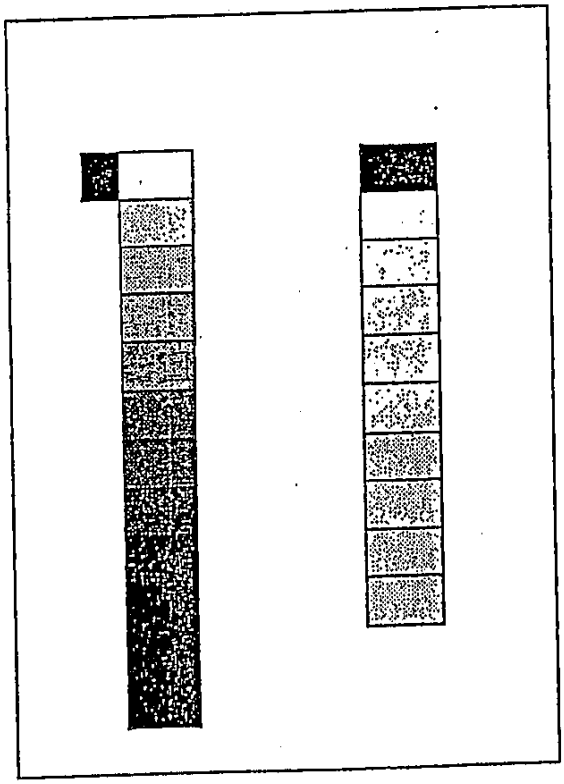


Figure 3-2-1 IPU gray PG

<table>
<tr><th>Maintenance item No.</th><th>Description</th></tr>
<tr><td>329</td><td>Correcting the image center line when paper is fed from the bypass table

Adjustment
Refer to page 3-3-20.</td></tr>
<tr><td>330</td><td>Correcting the image center line when paper is fed from the upper drawer

Adjustment
Refer to page 3-3-20.</td></tr>
<tr><td>331</td><td>Correcting the image center line when paper is fed from the lower drawer

Adjustment
Refer to page 3-3-20.</td></tr>
<tr><td>332</td><td>Correcting the image center line when paper is fed from the paper feed desk upper drawer

Description
Corrects the image center line when paper is fed from the upper drawer of the paper feed desk (option).

Purpose
Used when there is a regular error between the center line of the original and that of the copy image when the paper is fed from the upper drawer of the paper feed desk (option).

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

Setting
1. Press the #/* keys to change the setting.

<table>
<tr><th>Description</th><th>Setting range</th><th>Ref. value</th><th>Change in value per step</th></tr>
<tr><td>Image center line</td><td>–10 to +10</td><td>0</td><td>0.5 mm</td></tr>
</table>

2. Press the start key. The value is set and the test pattern output mode is entered.

Check
Press the start key to print a test pattern on paper from the desk upper drawer.</td></tr>
</table>

Maintenance item No.	Description
333	**Correcting the image center line when paper is fed from the paper feed desk lower drawer** **Description** Corrects the image center line when paper is fed from the lower drawer of the paper feed desk (option). **Purpose** Used when there is a regular error between the center line of the original and that of the copy image when the paper is fed from the lower drawer of the paper feed desk (option). **Method** Press the start key. The current setting is displayed. **Setting** 1. Press the #/* keys to change the setting.

Description	Setting range	Ref. value	Change in value per step
Image center line	–10 to +10	0	0.5 mm

2. Press the start key. The value is set and the test pattern output mode is entered.

Check
Press the start key to print a test pattern on paper from the desk lower drawer.

Maintenance item No.	Description
334	**Correcting the image center line when paper is fed from the large paper deck** **Description** Corrects the image center line when paper is fed from the large paper deck (option). **Purpose** Used when there is a regular error between the center line of the original and that of the copy image when the paper is fed from the large paper deck (option). **Method** Press the start key. The current setting is displayed. **Setting** 1. Press the #/* keys to change the setting.

Description	Setting range	Ref. value	Change in value per step
Image center line	–10 to +10	0	0.5 mm

2. Press the start key. The value is set and the test pattern output mode is entered.

Check
Press the start key to print a test pattern on paper from the large paper deck.

Maintenance item No.	Description
335	**Correcting the image center line when paper is fed from the duplex unit** **Description** Corrects the image center line when paper is fed from the duplex unit (option). **Purpose** Used when there is a regular error between the center line of the original and that of the copy image when the paper is fed from the duplex unit (option). **Method** Press the start key. The current setting is displayed. **Setting** 1. Press the #/* keys to change the setting. Description: Image center line; Setting range: –10 to +10; Ref. value: 0; Change in value per step: 0.5 mm 2. Press the start key. The value is set and the test pattern output mode is entered. **Check** Press the start key to print a test pattern on paper from the duplex unit.
340	**Setting the dark exposure gradient** **Description** Sets the exposure gradient for the exposure lamp when an exposure level darker than the center value is selected. **Purpose** Used when the copy density is not correct when it is set darker than the center level. **Method** Press the start key. The current setting is displayed. **Setting** 1. Press the #/* keys to change the setting. The larger the value, the sharper the gradient. Description: Dark exposure gradient; Setting range: 0 to 6; Ref. value: 0 2. Press the start key. The value is set.

Maintenance item No.	Description
341	**Setting the light exposure gradient** **Description** Sets the exposure gradient for the exposure lamp when an exposure level lighter than the center value is selected. **Purpose** Used when the copy density is not correct when it is set lighter than the center level. **Method** Press the start key. The current setting is displayed. **Setting** 1. Press the #/* keys to change the setting. The larger the value, the sharper the gradient.

Description	Setting range	Ref. value
Light exposure gradient	0 to 6	0

2. Press the start key. The value is set.

<table>
<tr><th>Maintenance item No.</th><th>Description</th></tr>
<tr><td>390</td><td>
Outputting a test pattern

Description
Outputs the test patterns stored in the copier.

Purpose
To check the image when correcting image printing problems.

Method
1. Press the start key. The current setting is displayed.
2. Press the #/* keys to select the test pattern to be printed.
<table>
<tr><th>Setting</th><th>Test pattern</th></tr>
<tr><td>1</td><td>Checked grid with a 50 mm-interval between lines</td></tr>
<tr><td>2</td><td>All gray 1</td></tr>
<tr><td>3</td><td>Multi-gradation pattern</td></tr>
<tr><td>4</td><td>Image density (ID) check patches</td></tr>
<tr><td>5</td><td>Jitter pattern 1</td></tr>
<tr><td>6</td><td>Jitter pattern 2</td></tr>
<tr><td>7</td><td>6% coverage pattern</td></tr>
<tr><td>8</td><td>All gray 2</td></tr>
<tr><td>9</td><td>All gray 3</td></tr>
<tr><td>10</td><td>Output gamma adjustment pattern</td></tr>
<tr><td>11</td><td>Drum check pattern</td></tr>
</table>
3. Press the start key. The value is set and the test pattern output mode is entered.
4. Press the start key to print the selected test pattern.
</td></tr>
<tr><td>396</td><td>
Own-status report output

Description
Outputs the list of current settings of the maintenance modes.

Purpose
To check the current settings of the maintenance modes.

Method
1. Press the start key.
2. Press the start key. The own-status report is output.
</td></tr>
</table>

Maintenance item No.	Description
401	**Copying without paper** **Description** Checks copying operation without feeding paper. **Purpose** To check the overall operation of the machine. **Method** 1. Press the start key. 2. Press the #/* keys to select setting 1. 3. Press the start key. The no-paper copy mode is entered. 4. Set copy modes. 5. Press the numeric keys to set the number of copies. 6. Remove all the sheets from the drawer selected. 7. Press the start key. Operation starts and continues until the stop/clear key is pressed or the number of operation cycles reaches the number set. **Completion** Turn the main switch off. The no-paper copy mode is exited.

Maintenance item No.	Description
402	**Copying without paper with the DF** **Description** Checks copying operation without feeding paper in synchronization with the DF (option). **Purpose** To check the overall operation of the machine in synchronization with the DF (option). **Method** 1. Press the start key. 2. Press the #/* keys to select setting 1. 3. Press the start key. The no-paper copy mode with the DF is entered. 4. Set copy modes. 5. Press the numeric keys to set the number of copies. 6. Remove all the sheets from the drawer selected. 7. Place an original on the DF. 8. Press the start key. Operation in synchronization with the DF starts and continues until the stop/clear key is pressed or the number of operation cycles reaches the number set. **Completion** Turn the main switch off. The no-paper copy mode with the DF is exited.

■