MINOLTA

# Option Service Manual

The essentials of imaging

# Pi1802e for Di152/Di152f Di183/Di183f

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Issued for Di152/183 and Other Models.

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# GENERAL, MECHANICAL/ELECTRICAL

# 1. SPECIFICATIONS

## 1-1. Controller Specifications

| | |
|---|---|
| Type | : Printer controller built into copier |
| Print Speed | : 15 ppm (A4C/Letter C)<br>18 ppm (A4C/Letter C) |
| Printer Language | : PCL5e/PCL6 |
| CPU | : MPC8240 manufactured by Motorola |
| Program ROM | : Capacity 2 MB |
| RAM | : Standard 32 MB (On Board) |
| Host Interface | : Conforming to IEEE1284 |
| Network Connection | : 10/100Base T (option) |
| Engine Interface | : Minolta Video Interface |
| Network Protocol | : IPX/SPX: NetWare 3.1x & 4.x & 5.x<br>TCP/IP: lpr, IPP, RAW |
| Network Management | : SNMP compatible<br>To be controlled by a Web browser |
| Applicable Paper Size | : Max. standard paper A3/Ledger |
| Resolution | : 600 × 600 dpi |
| Power Requirements | : 5 V ± 3 %, 1 A or less |
| Max. Power Consumption | : 6.5 W or less |
| Operating Environmental Requirements | : Temperature: 10 to 35 °C<br>Humidity: 15 to 85% |
| Fonts | : True Type 45 font + 8 Bitmap font<br>True Type font: 53 |
| Standard Accessories | : <CD-ROM><br>PCL6<br>• Windows 95/98/Me printer driver<br>• Windows NT 4.0/2000 printer driver |
| Option | : Network Card (NC-3) |

## 1-2. Add-on Memory (DIMM) Specifications

| Item | 64 MB | 128 MB |
|---|---|---|
| Clock Frequency | 100 MHz or more | 100 MHz or more |
| Voltage | 3.3 ± 0.3 V | 3.3 ± 0.3 V |
| Parity | None | None |
| No. of Pins | 168 | 168 |

## 1-3. Supporting Client Specifications

### (1) IBM PC and Compatible Computers

OS : Microsoft Windows 95
Microsoft Windows 98
Microsoft Windows Me
Microsoft Windows NT Workstation Version 4.0
Microsoft Windows 2000

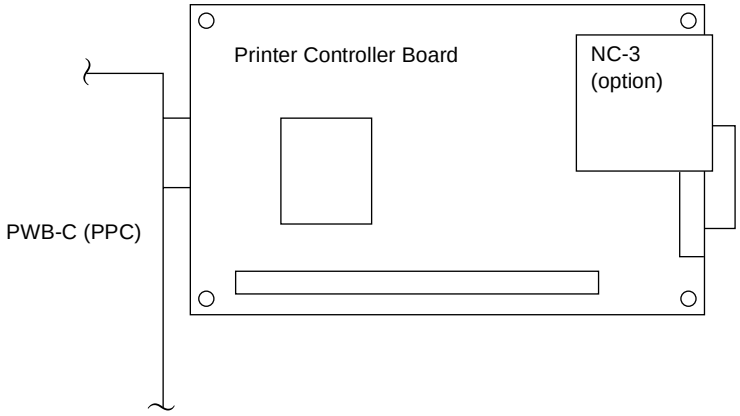
Miscellaneous : Should have sufficient memory and resources in the above Windows and other applications used.

## 1-4. Supporting Browser Specifications

### (1) When PageScope Light is used

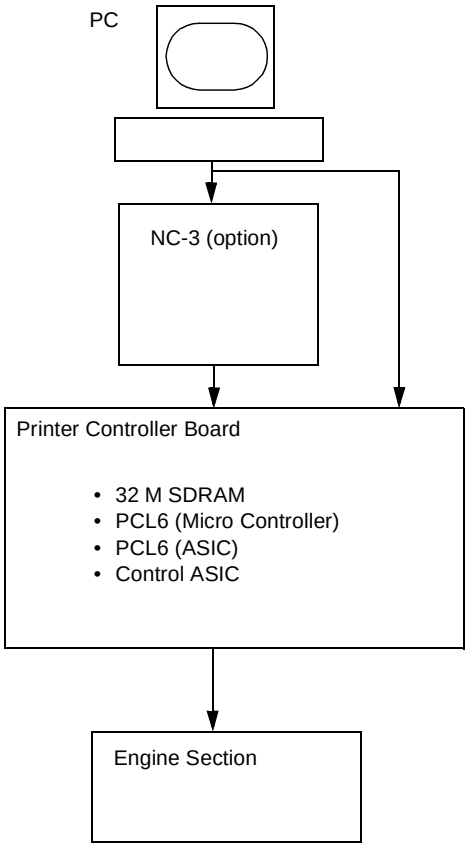
- Netscape version 4.0 or later recommended
- Internet Explorer version 4.0 or later recommended

## 2. COMPONENT LAYOUT



# 3. SYSTEM CONFIGURATION

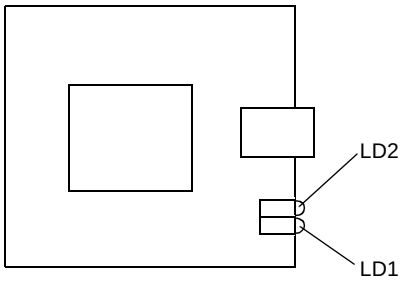
• Controller System Configuration



# 4. NC-3 BOARD (OPTION)

## 4-1. Display of LEDs on the NC-3 Board

**(1) NC-3 Board**




**(2) LED Conditions**

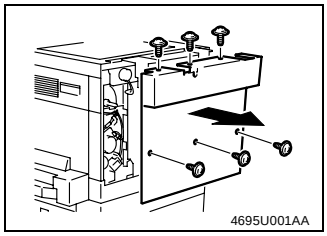
| Operation | LD1 | LD2 |
|---|---|---|
| Printer power is turned ON. | ◎ | ◎ |
| Data is being transmitted or received. | ○ | ◎ |

ON: ◎ ; blinking: ○

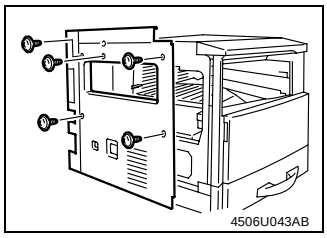
# DIS/REASSEMBLY, ADJUSTMENT

# 1. DISASSEMBLY

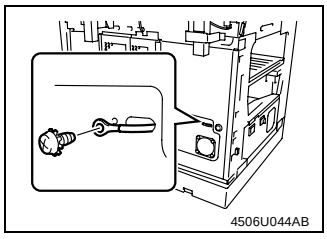
## 1-1. Removal of Printer Controller Board



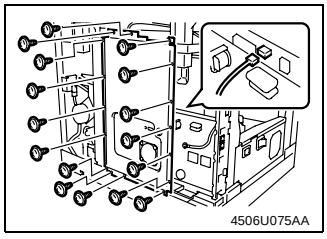

1. Turn OFF the Power Switch and unplug the power cord.
2. Remove the Rear Cover.



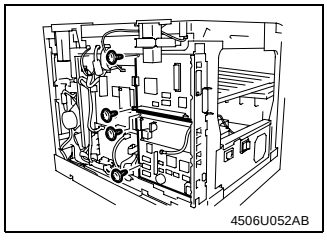

3. Remove the Left Cover.



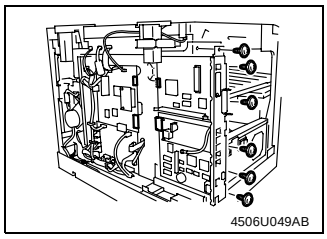

4. Remove the ground wire from the NCU Board (only with the machine with a fax function).




5. Unplug the Speaker connector.
   Remove the Fax Shield Cover
   (only with the machine with a fax function).



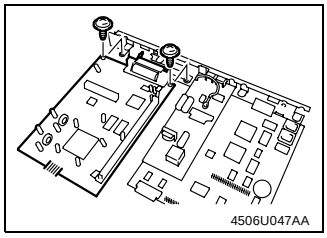

6. Remove the screws from the Printer Controller Board. Remove the screws from the Fax Board (only with the machine with a fax function).




7. Remove the Interface Bracket.

***NOTE***

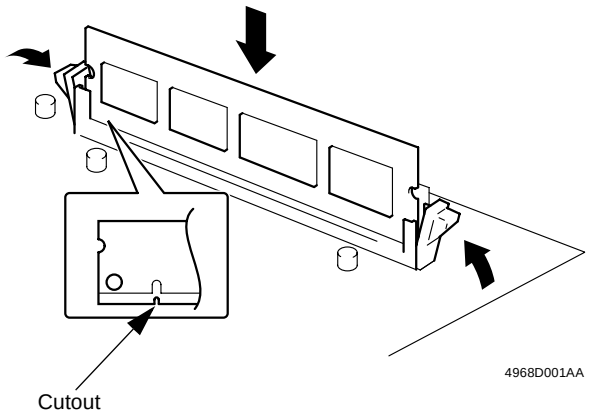
- *Unplug the battery connector with the machine with a fax function.*




8. Remove the Printer Controller Board from the Interface Bracket.

## 1-2. Installation of the Add-on Memory (DIMM)

1. Remove the exterior covers.
2. Align the cutout in the DIMM with the protrusion on the slot and then push the DIMM down until it locks into position. Then, check that the levers on both ends are properly locked.



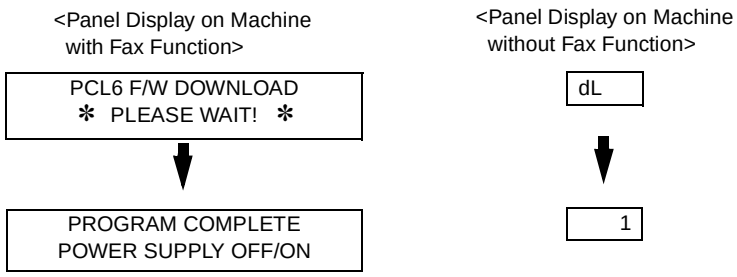
## 1-3. Upgrading Firmware

### (1) Upgrading the Printer Controller

<Procedure>

1. Connect the PC with the Printer Controller Board using a parallel cable.
2. Turn ON the printer.
3. Start “DOS prompt” or “command prompt” of the host computer.
4. Type the following command and file name and then press the Enter key.
   C:\>copy_xxxx.xxx_/b_lpt1:

✻ xxxx.: File name (Verify the correct name.)




5. Type “exit” and then press the Enter key.
   C:\>exit
6. Turn OFF and ON the printer.

### (2) Upgrading the NC-3

<Procedure>

1. Connect the PC with the Printer Controller Board using a parallel cable.
2. Turn ON the printer.
3. Start “DOS prompt” or “command prompt” of the host computer.
4. Type the following command and file name and then press the Enter key.
   C:\>copy_xxxx.xxx_/b_lpt1:

✻ xxxx.: File name (Verify the correct name.)

***NOTE***

- *Unplug the battery connector with the machine with a fax function.*

5. Type “exit” and then press the Enter key.
   C:\>exit
6. Turn OFF and ON the printer.

### (3) Upgrading Using PageScope Light

***NOTE***

- *This function can be available only when the Add-on Memory (DIMM) is installed to the printer controller.*

<Procedure>

1. Turn ON the printer.
2. Start the Internet Explorer.
3. Enter the IP address.
   http://xxxxx/

✻ xxxx: IP address (Verify the correct address.)

4. Press the Enter key.
5. Click “Printer.”
6. Click “Maintenance.”
7. Type the password.
   Password default value: sysadm
8. Click “Browse” and the F/W file to be downloaded.
9. Click “Send.”

***NOTE***

- *Panel display is the same as that when upgrading the Printer Controller.*

10. Turn OFF and ON the printer.

# TROUBLESHOOTING

# 1. INTRODUCTION

## 1-1. General Precautions

- When replacing a part or plugging or in unplugging a connector, always make sure that the power cord of the copier has been unplugged.
- NEVER cut the pattern on the PWB.
- When energizing the controller with its cover removed, use utmost care not to touch a board or any other component inside it.
- The basic rule is not to run the controller with any of its parts removed.
- When the user is using a word processor or personal computer from the power outlet of the same line, take necessary steps to prevent the circuit breaker from opening due to overloads.
- Keep all disassembled parts in good order and keep tools under control so that none will be lost or damaged.

## 1-2. Reading the Text

- If a component (except fuses) on a PWB or any other functional unit is defective, the text only instructs you to replace the whole PWB or functional unit and does not give trouble-shooting procedures applicable within the defective unit.
- All troubleshooting procedures contained herein assume that there are no breaks in the harnesses and cords and all connectors are plugged into the right positions.
- The text does not contain the removal procedures of covers and parts. See DIS/REASSEMBLY of the Service Manual for copier.
- The procedures preclude possible malfunctions due to noise and other network problems.

## 1-3. Network Problems

- Any problem that occurs in conjunction with the operation of the controller over a network should be directed to the network administrator for check and repair. The servicemen should never attempt to make network-related settings or repair network-related problems.
- The user should only ask for a check on network-related wiring from the network to the controller and should never attempt to check it out him/herself.

## 2. ERROR CODES

**(1) Machine without Fax Function**

| Code | Name | Description |
|---|---|---|
| H2 | Size error | The size of the paper fed out as printed pages does not match the paper size |
| H3 | Tray full | The capacity of the Exit Tray has been exceeded.<br>✻ When the Job Tray (option) is mounted |
| H4 | No good paper size | No good paper size is found when Auto Paper is specified. |
| H5 | Incorrect paper size | There is a mismatch of paper size between the printer side and the driver side. |
| H6 | Media type error | The media type is wrong. |
| dL Err | Firmware down-load error | Firmware downloading fails. |

**(2) Machine with Fax Function**

| Display | Name |
|---|---|
| PAPER SIZE ERROR | Size error |
| UPPER TRAY FULL | Paper tray full |
| NO SUITABLE PAPER | No good paper size |
| INCORRECT PAPER SIZE | Incorrect paper size |
| MEDIA TYPE ERROR | Media type error |
| PCL6 DOWNLOAD ERROR | Firmware download error |

✻ See “(1) Machine without Fax Function” for the description of each error.

# 3. TROUBLESHOOTING PROCEDURES

- The basic repair procedure applicable to the controller is to replace the defective PWB or other functional unit with a new one.

## 3-1. Printing is not Possible via Parallel Port

| Step | Check | Result | Action |
|---|---|---|---|
| 1 | Check the printer cable for proper connection. | NG | Reconnect cable and turn ON the machine again. |
| | | OK | Go to step 2. |
| 2 | Check the connection between the PWB-C and Printer Controller Board. | NG | Reconnect and turn ON the machine again. |
| | | OK | Change the Printer Controller Board. |

## 3-2. Printing is not Possible via Network

| Step | Check | Result | Action |
|---|---|---|---|
| 1 | Check the cable and connector on the NC-3 Board for proper connection. | NG | Reconnect cable and connector and turn ON the machine again. |
| | | OK | Go to step 2. |
| 2 | Check correct printing through parallel port. | NG | Perform troubleshooting procedures of “3-1. Printing is not Possible via Parallel Port.” |
| | | OK | Change the NC-3 Board. |

## 3-3. Malfunction Code

- C133B: Communication failure
- When a malfunction occurs, reset the malfunction on the machine side. If it does not eliminate the problem, perform the following procedures.

| Step | Check | Result | Action |
|---|---|---|---|
| 1 | Check the printer cable for proper connection. | NG | Reconnect cable and turn ON the machine again. |
| | | OK | Go to step 2. |
| 2 | Check the connection between the PWB-C and Printer Controller Board. | NG | Reconnect and turn ON the machine again. |
| | | OK | • Change the Printer Controller Board.<br>• Change PWB-C. |