

# **PRINTER/SCANNER OPTION**

**(Machine Code: B767)**

**and**

# **PRINTER OPTION**








**(Machine Code: B846)**

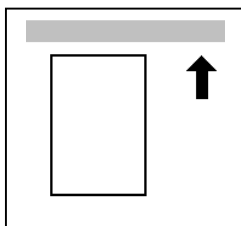
# **SERVICE MANUAL**

10 June 2005  
Subject to Change

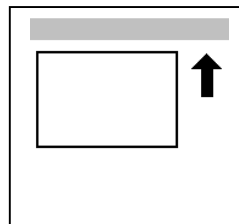
## Conventions Used in this Manual

This manual uses several symbols.

Symbol	What it means
	Refer to section number
	See Core Tech Manual for details
	Screw
	Connector
	E-ring
	Clip ring
	Clamp




Lengthwise, SEF  
(Short Edge Feed)



Sideways, LEF  
(Long Edge Feed)

## Cautions, Notes, etc.

The following headings provide special information:

	<b>WARNING</b>
<b>FAILURE TO OBEY WARNING INFORMATION COULD RESULT IN SERIOUS INJURY OR DEATH.</b>	

	<b>CAUTION</b>
<b>Obey these guidelines to ensure safe operation and prevent minor injuries.</b>	

### Important

- Obey these guidelines to avoid problems such as misfeeds, damage to originals, loss of valuable data and to prevent damage to the machine.

### IMPORTANT

- ALWAYS OBEY THESE GUIDELINES TO AVOID SERIOUS PROBLEMS SUCH AS MISFEEDS, DAMAGE TO ORIGINALS, LOSS OF VALUABLE DATA AND TO PREVENT DAMAGE TO THE MACHINE. BOLD IS ADDED FOR EMPHASIS.**

**NOTE:** This information provides tips and advice about how to best service the machine.

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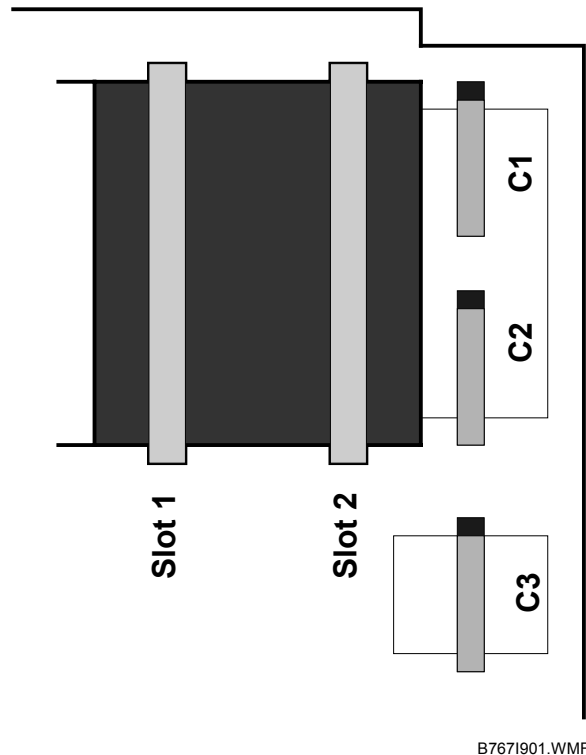
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# 1. INSTALLATION

## 1.1 OVERVIEW

### *Board, SD Card Slots*

The machine controller box has two board slots and three SD card slots. Make sure that each board and SD card is put in the correct slot.



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The names of the slots for the boards and SD cards are embossed on the face of the controller plate.

### **Slot 1, Slot 2**

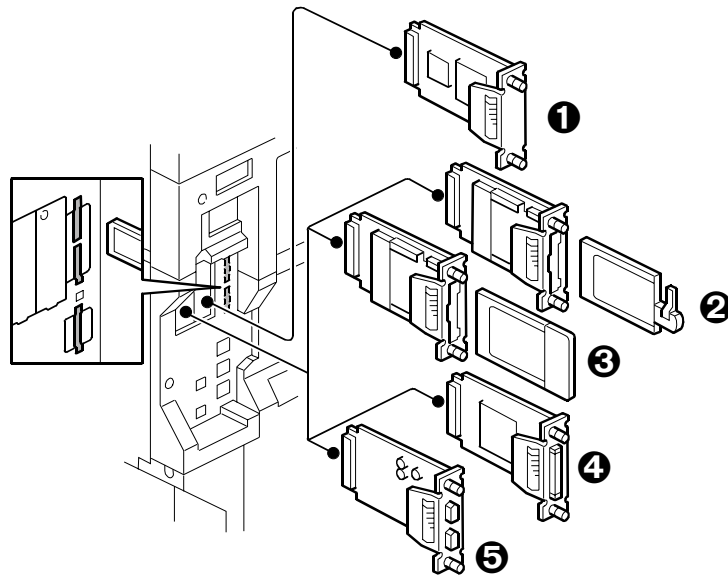
The optional boards are inserted here (see the next page).

### **SD Card Slots**

<b>C1</b>	Printer/Scanner B767, or Printer Option B846. The printer/scanner option or printer option also requires installation of the 256 MB memory.
<b>C2</b>	PostScript3 B757 or Data Overwrite Security B770. The DOS option can be moved to the PostScript SD card if both options will be used.
<b>C3</b>	Service slot for firmware version updates, moving applications to other SD cards, and downloading/uploading NVRAM contents.

**Board Slots**

Two slots are available for the following boards:



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Slot	Board
1 or 2	❶ File Format Converter B609 (MLB)
1 or 2	❷ Bluetooth Interface Unit B736* <sup>1</sup>
1 or 2	❸ IEEE802.11b G813 – Wireless LAN* <sup>1</sup>
1 or 2	❹ IEEE1284 Interface Board B679 – Centronics* <sup>1</sup>
1 or 2	❺ IEEE1394 Interface Board B581 – FireWire* <sup>1</sup>

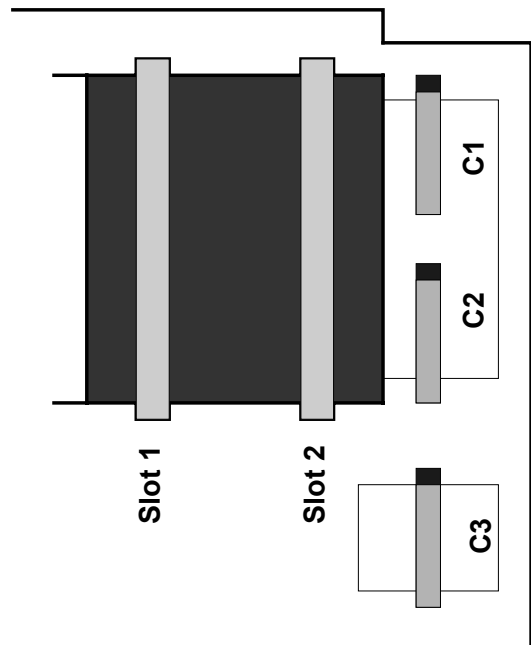
\*<sup>1</sup> Only one of these boards can be installed at one time.

## 1.2 MERGING APPLICATIONS ON ONE SD CARD

### 1.2.1 OVERVIEW

The machine has three SD card slots:

- **C1** is for the printer/scanner option only.
- **C2** is for the PostScript3 or the Data Overwrite Security SD card. If both options must be installed, the DOS application must be moved to the PS3 SD card.
- **C3** is used for servicing only. Otherwise, this slot should always be empty.



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Installation

#### Important

- The data necessary for authentication is transferred with the application program to the target SD card.
- Do not use an SD card if it was used with a computer before this time. Correct operation is not guaranteed if this type of SD card is used.
- The SD card is the only evidence that the customer is licensed to use the application program. The service technician may occasionally need to check the SD card and its data to solve problems. SD cards must be stored in a safe location at the work site.
- A licensing agreement prohibits copying of the PostScript SD card. However, you can copy an application from another SD card to the PS SD card.
- If an SD card was used to combine applications on that card, that SD card cannot be used for a different function.

## 1.2.2 MERGING APPLICATIONS

Do this procedure to put more than one application on one SD card.

This procedure shows you how to move the DOS application to the PS3 SD card.

1. Turn off the copier.
2. Remove the SD card slot cover (🔑 x2).
3. Put the Source (DOS) SD card in **C3**. This card contains the application that you want to copy.  
**NOTE:** The PS SD card cannot be the source card because it cannot be copied.
4. Put the Target (PS3) SD card in **C2**. The application on the card in **C3** will be copied to this card.
5. Open the front door.
6. Turn the copier on.
7. Go into the SP mode and select **SP5873 001**.
8. Touch "Execute".
9. Read the instructions on the display and touch "Execute" to start copying.
10. When the display tells you copying is completed, touch "Exit".
11. Turn the copier off.
12. Remove the Source SD card from **C3**. Keep the target SD card in **C2**.
13. Turn the copier on.
14. Go into the User Tools mode and check that all the applications on the SD card in **C2** are enabled:  
User Tools> System Settings> Administrator Tools> Firmware Version> Next
15. Turn the copier off again, then:
  - Attach the SD card slot cover.
  - Attach the rear cover of the machine.

### Important!

- After an SD card is copied, it cannot be used. But it must be kept by the customer, to serve as proof of purchase by the customer.
- The original card can also be used to perform an undo procedure (SP 5873 002). Before you store the card in a safe place, label it carefully so that you can identify it easily if you need to do the undo procedure (see the next page).

### 1.2.3 UNDO EXEC

1. Turn the main switch off.
2. Put the SD card with the merged applications in **C2**.
3. Put the original destination SD card (the one that is kept by the customer) into **C3**.

**NOTE:** The SD card in **C3** must be the original SD card for the application you want to move from **C2** to **C3**. You cannot use a different blank SD card in **C3**.

4. Turn the main switch on.
5. Go into the SP mode and do **SP5873-002** (Undo Exec).
6. Follow the messages on the operation panel to complete the procedure.
7. Turn the main switch off.
8. Remove the SD cards from the slots.
9. Turn the main switch on.

## 1.3 INSTALLING CONTROLLER OPTIONS

### 1.3.1 P/S UNIT (B767), P UNIT (B846), 256 MB MEMORY (G818)

#### Accessories

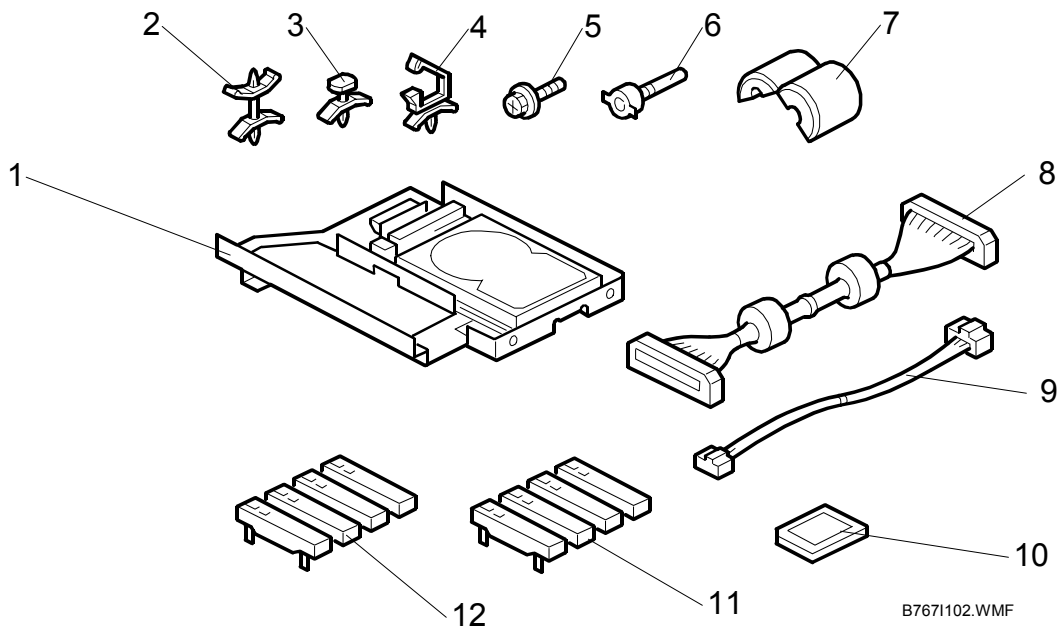
Check the accessories and their quantities against the following list:

Description	Q'ty
1. HDD .....	1
2. Standoff (double) .....	1
3. Standoff (single).....	1
4. Harness Clamps .....	1
5. Screws .....	2
6. Stamp Cartridge* <sup>1</sup> .....	1
7. Ferrite Core.....	1
8. HDD Harness.....	1
9. AC Harness .....	1
10. Printer/scanner SD card, or P SD Card .....	1
11. NA Keytop Set* <sup>2</sup> .....	1
12. EU Keytop Set* <sup>2</sup> .....	1

\*<sup>1</sup> Not provided with the Printer Unit (B846).

\*<sup>2</sup> Only scanner keytop set is not used for the Printer Unit (B846)

**NOTE:** The Optional Memory (G818) is required for both Printer/Scanner Unit (B767) and the Printer Unit (B846)

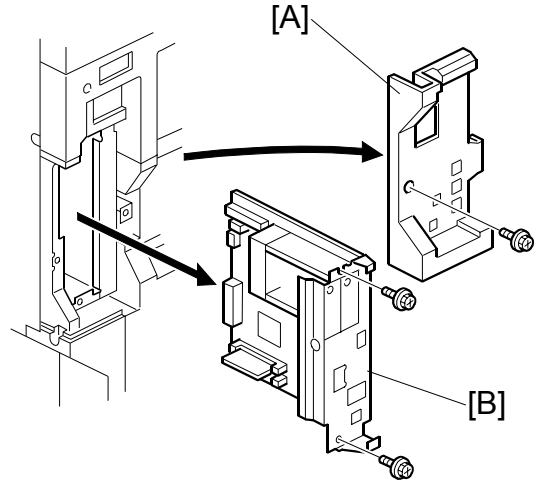


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**Printer/Scanner Installation****⚠ CAUTION****TURN OFF THE MAIN POWER SWITCH AND DISCONNECT THE POWER SUPPLY CORD.**

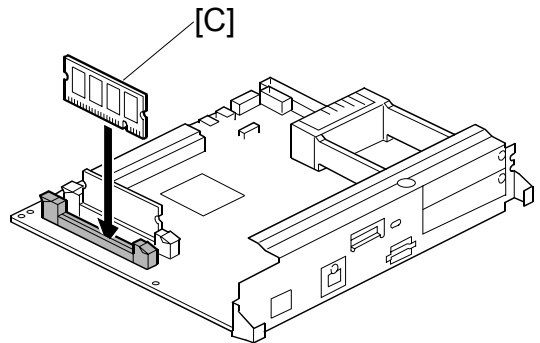
Installation

1. Remove cover [A] (⚙ x1).
2. Remove controller board [B] (⚙ x1).



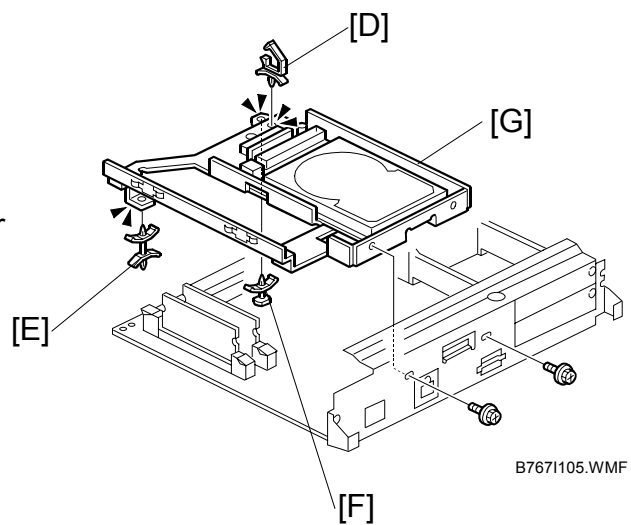
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3. Install the 256 MB memory DIMM [C].



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4. Attach:
  - Harness clamp [D]
  - Double standoff [E]
  - Single standoff [F]
5. Attach the HDD [G] to the controller board (⚙ x2).

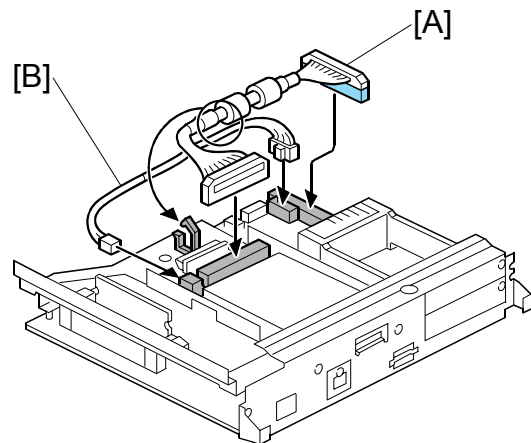


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6. Connect the HDD harness [A] (x2).
7. Connect the AC harness [B] (x2, x1)

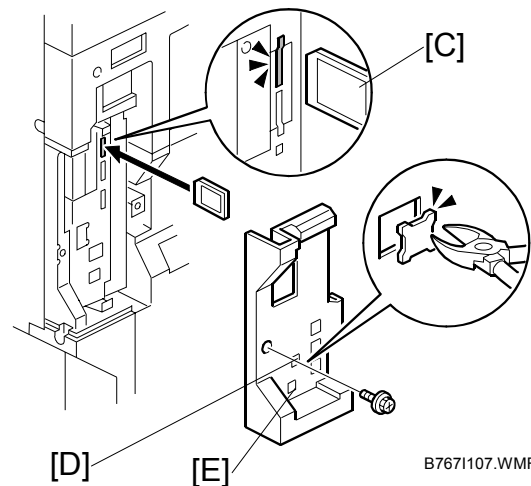
**NOTE:** Close the harness clamp around both cables.

8. Reinstall the controller board.



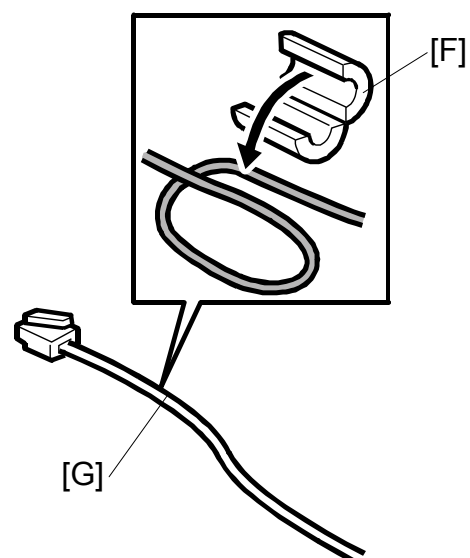
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9. Insert the Printer/Scanner SD card [C] in SD card slot C1.
10. Remove the "USB" knockout [D] and "NIC" knockout [E].
11. Reattach the application cover.



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12. Attach the ferrite core [F] to the LAN cable [G].

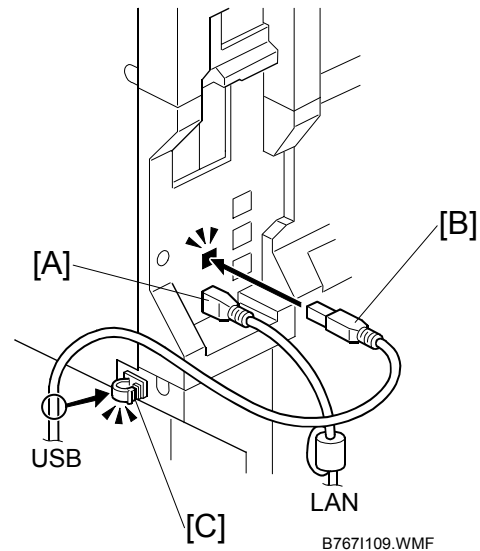


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13. Connect the LAN cable [A] to the "NIC" connection.
14. Connect the USB cable [B] to the "USB" connection.

### North America Only

15. Open the clamp [C] and close it around the USB cable.

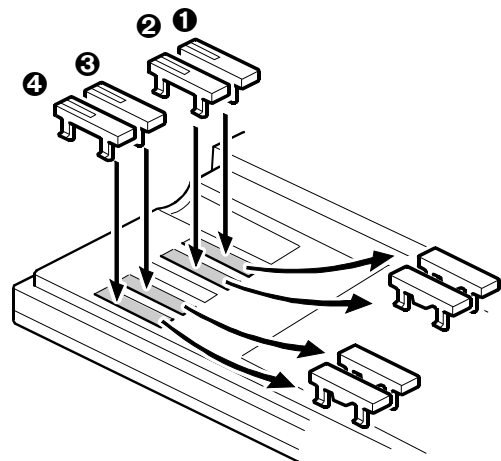


16. Remove the 1st, 2nd, 4th, and 5th blank key tops.

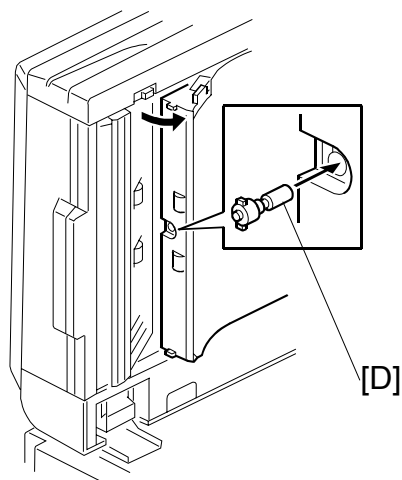
**NOTE:** The 3rd blank keytop from the top is reserved for the "Fax" keytop. Do not remove it at this time.

17. Replace the blank keytops:

- ❶ Copy
- ❷ Document Server
- ❸ Printer
- ❹ Scanner (P/S Unit only)



18. Attach the stamp cartridge [D] if the ARDF is installed. (P/S Unit only)



19. Connect the machine's power cord and turn the main power switch on.

20. Enable the network and USB functions.

**Important:** The NIB and USB functions must be enabled with SP5985. These functions are built into the controller.

- To enable the Ethernet function, enter the SP mode and set SP5985-001 (On Board NIC) to "1" (Enable).
- To enable the USB function, enter the SP mode and set SP5985-002 (On Board USB) to "1" (Enable).

21. If there was no HDD in the machine before you installed the printer/scanner unit or printer unit, do **SP5846 41** to let the user get access to the address book.

**Important**

- This SP must be done immediately after installation of an HDD unit in a machine that previously had no HDD.
- The first time the machine power is turned on with the new HDD installed, the system automatically takes the address book from the NVRAM and writes it on the new HDD. But, only the system administrator can get access to the new address book on the HDD at this time.
- If you do **SP5846 41** immediately after power on, then all users can use the address book.

**NOTE:** It is not necessary to format the new hard disk after installation.

22. If there was no HDD in the machine before you installed the printer/scanner unit or printer unit, do **SP5853** to copy the preset stamp data to the hard disk. Then turn the main power switch off/on.

### 1.3.2 IEEE 1284 INTERFACE BOARD (B679)

#### Accessories

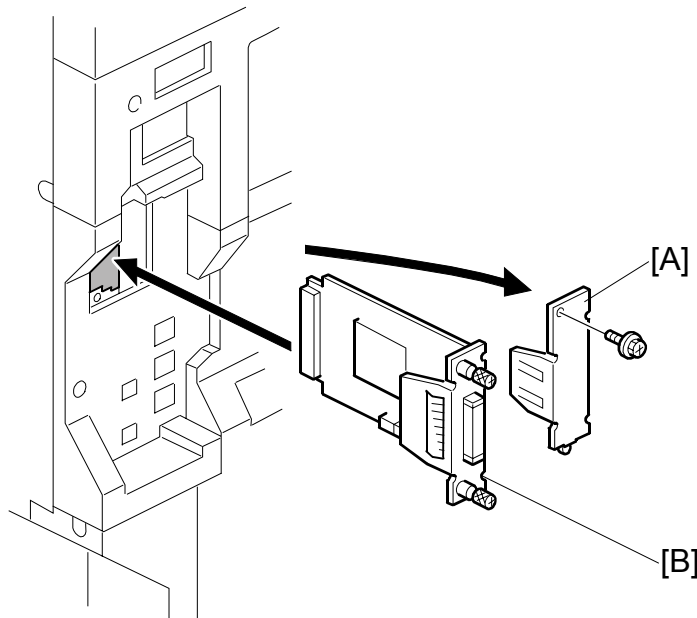
Check the accessories and their quantities against the following list:

Description	Q'ty
1. IEEE 1284 Interface Board B679.....	1

#### **⚠ CAUTION**

**TURN OFF THE MAIN POWER SWITCH AND DISCONNECT THE POWER SUPPLY CORD.**

**NOTE:** You can only install one of these network interfaces: IEEE 802.11b (Wireless LAN), IEEE1284 (Parallel/Centronics), IEEE1394 (FireWire), Bluetooth.



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1. Remove the cover [A] of board **Slot 1 or 2** (⚙ x1)
2. Install the interface board [B] (⚙ x2 knob screws)  
**NOTE:** Use a screwdriver to tighten the knob-screws. Do not tighten manually, because this can disconnect the board.
3. Reattach the application cover (⚙ x1)

### 1.3.3 IEEE 1394 INTERFACE BOARD (B581)

#### Accessories

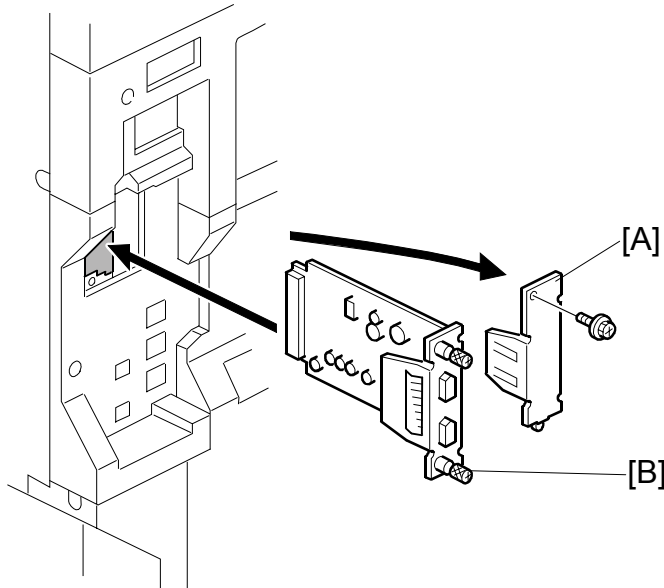
Check the accessories and their quantities against the following list:

Description	Q'ty
1. IEEE 1394 Interface Board B581 .....	1

#### **CAUTION**

**TURN OFF THE MAIN POWER SWITCH AND DISCONNECT THE POWER SUPPLY CORD.**

**NOTE:** You can only install one of these network interface boards: IEEE 802.11b (Wireless LAN), IEEE1284 (Parallel/Centronics), IEEE1394 (FireWire), or Bluetooth.



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1. Remove the cover [A] of board **Slot 1 or 2** (⌘ x1).
2. Install the interface board [B] (⌘ x1 knob screw).  
**NOTE:** Use a screwdriver to tighten the knob-screw. Do not tighten manually, because this can disconnect the board.
3. Reattach the application cover (⌘ x1).

### UP Mode Settings for IEEE 1394

Enter the UP mode. Then do the procedure below to perform the initial interface settings for IEEE 1394. These settings take effect every time the machine is powered on.

1. Press the “User Tools/Counter”key.
2. On the touch panel, press “System Settings”.
3. Press “Interface Settings”.
4. Press “IEEE1394”.
5. Press the following soft keys on the touch panel. Then select the following settings:
  - “IP Address”. Select the “AUTO-Obtain (DHCP)” or “Specify”. When you select “Specify”, you can set the IP Address and Subnet Mask manually.
  - “IP over 1394”.
  - Enable or disable this setting as required. This setting enables IP over 1394 as the default setting for the printing method.
  - “SCSI Print”. Enable or disable this setting as required. This setting enables SCSI Print as the default setting for the printing method.
  - “Bi-directional SCSI Print”. Switch bi-directional printing on or off for SCSI print.

### SP Mode Settings for IEEE 1394

The following SP commands can be set for IEEE 1394.

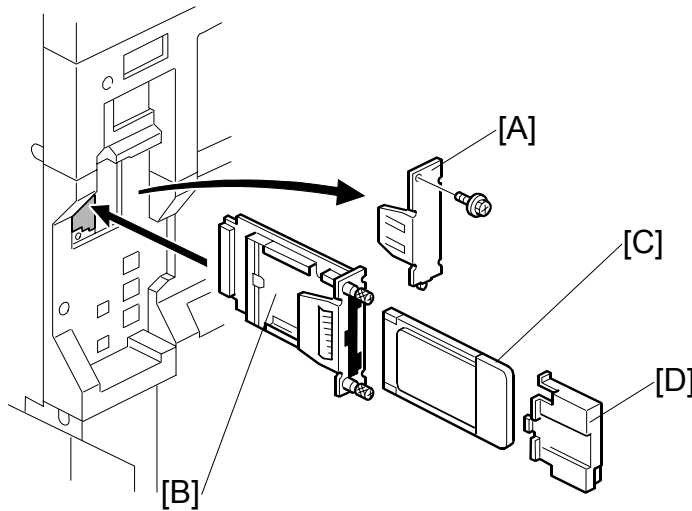
SP No.	Name	Function
5839 004	Device Name	Sets the name of the device used on the network. Example: RNPXXXXXXXXXX
5839 007	Cycle Master	Enables or disables cycle master function of the IEEE 1394 standard bus.
5839 008	BCR Mode	Sets the BCR (Broadcast Channel Register) setting for the Auto Node operation for the standard IEEE1394 bus for when IRM is not in use. The following three settings are available: “Standard,” “IRM Color Copy,” and “Always Effective.”
5839 009	IRM 1394a Check	Determines whether an IRM check for IEEE 1394a is conducted for the Auto Node when IRM is not used.
5839 010	Unique ID	Enables the “Node_Unique_Id” setting for enumeration on the standard IEEE 1394 bus.
5839 011	Logout	Determines how successive initiator login requests are handled during login in for SBP-2.
5839 012	Login	Enables or disables exclusive login for SBP-2.
5839 013	Login MAX	Sets the limit for the number of logins for SBP-2. Range: 1 ~ 62.

### 1.3.4 IEEE 802.11B INTERFACE KIT (G813)

#### Accessories

Check the accessories and their quantities against the following list:

Description	Q'ty
1. IEEE 802.11b Board .....	1
2. PCI Card .....	1
3. Antenna cap .....	1



B7671906.WMF

#### **CAUTION**

**TURN OFF THE MAIN POWER SWITCH AND DISCONNECT THE POWER SUPPLY CORD.**

**NOTE:** You can only install one of the following network interfaces at the same time: IEEE 802.11b (Wireless LAN), IEEE1284 (Parallel/Centronics), IEEE1394 (FireWire), Bluetooth.

1. Remove the cover [A] of board **Slot 1 or 2** (⌘ x1)
2. Attach the interface board [B] to the controller board (⌘ x1 knob screw).  
**NOTE:** Use a screwdriver to tighten the knob-screws. Do not tighten manually, because this can disconnect the board.
3. With the printed side facing the front of the machine, insert the interface card [C] board.
4. Attach the antenna cap [D].

### UP Mode Settings for Wireless LAN

Enter the UP mode. Then do the procedure below to perform the initial interface settings for IEEE 802.11b. These settings take effect every time the machine is powered on.

**NOTE:** You cannot use the wireless LAN if you use Ethernet.

1. Press the “User Tools/Counter” key.
2. On the touch panel, press “System Settings”.  
**NOTE:** The Network I/F (default: Ethernet) must be set for either Ethernet or wireless LAN.
3. Select “Interface Settings”> “Network”> “Network I/F Setting”
4. Press “IEEE 802.11b”. Only the wireless LAN options show.
5. **Communication Mode.** Select either “802.11 Ad hoc”, “Ad hoc” or “Infrastructure”.
6. **SSID Setting.** Enter the SSID setting. (The setting is case sensitive.)
7. **Channel.** You need this setting when Ad Hoc Mode is selected.  
Range: 1 ~ 14 (default: 11)  
**NOTE:** The allowed range for the channel settings may vary for different countries.
8. **WEP (Encryption) Setting.** The WEP (Wired Equivalent Privacy) setting is designed to protect wireless data transmission. The same WEP key is required on the receiving side in order to unlock encoded data. There are 64 bit and 128 bit WEP keys.

WEP:

Selects “Active” or “Inactive”. (“Inactive” is default.)

Range of Allowed Settings:

64 bit	10 characters
128 bit	26 characters

9. **Transmission Speed.** Press the Next button to show more settings. Then select the transmission speed for the mode: Auto, 11 Mbps, 5.5 Mbps, 2 Mbps, 1 Mbps (default: Auto). This setting should match the distance between the closest machine or access point. This depends on which mode is selected.

**NOTE:** For the Ad Hoc Mode, this is the distance between the machine and the closest PC in the network. For the Infrastructure Mode, this is the distance between the machine and the closest access point.

11 Mbps	140 m (153 yd.)
5.5 Mbps	200 m (219 yd.)
2 Mbps	270 m (295 yd.)
1 Mbps	400 m (437 yd.)

10. Press "Return to Default" to initialize the wireless LAN settings. Press "Yes" to initialize the following settings:

- Transmission mode
- Channel
- Transmission Speed
- WEP
- SSID
- WEP Key

### SP Mode Settings for IEEE 802.11b Wireless LAN

The following SP commands and UP modes can be set for IEEE 802.11b

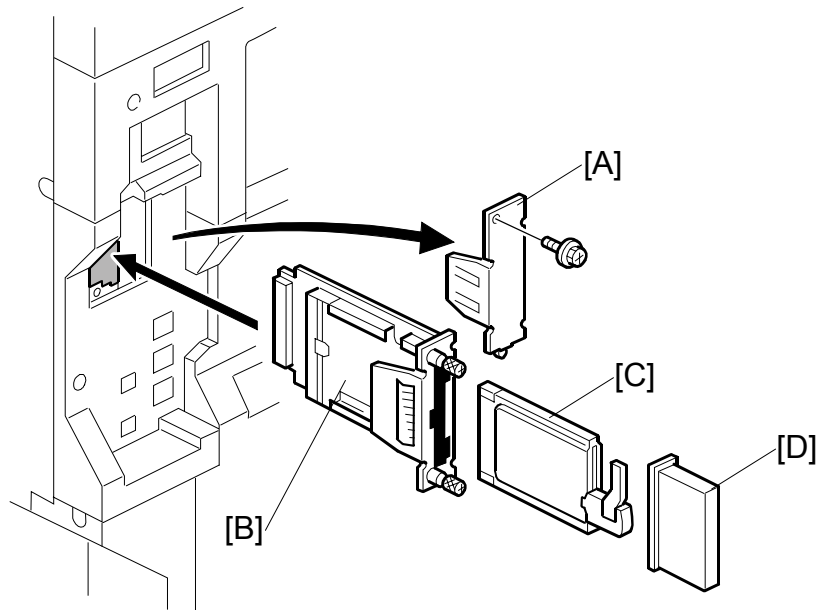
SP No.	Name	Function
5840 006	Channel MAX	Sets the maximum range of the channel settings for the country.
5840 007	Channel MIN	Sets the minimum range of the channels settings allowed for your country.
5840 011	WEP Key Select	Used to select the WEP key (Default: 00).
<b>UP mode</b>	<b>Name</b>	<b>Function</b>
	SSID	Used to confirm the current SSID setting.
	WEP Key	Used to confirm the current WEP key setting.
	WEP Mode	Used to show the maximum length of the string that can be used for the WEP Key entry.

### 1.3.5 BLUETOOTH UNIT (B736)

#### Accessories

Check the accessories and their quantities against the following list:

Description	Q'ty
1. Bluetooth Unit B736.....	1
2. PCI Card.....	1
3. Cap .....	1



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#### **CAUTION**

**TURN OFF THE MAIN POWER SWITCH AND DISCONNECT THE POWER SUPPLY CORD.**

**NOTE:** You can only install one of these network interfaces at the same time: IEEE 802.11b (Wireless LAN), IEEE1284 (Parallel/Centronics), IEEE1394 (FireWire), Bluetooth.

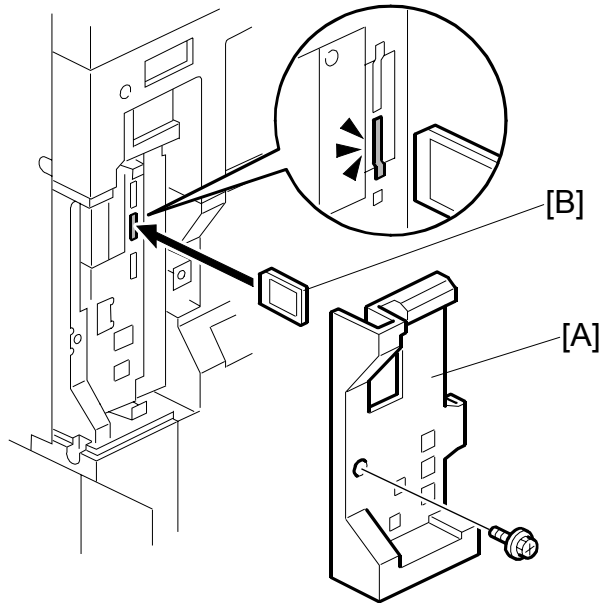
1. Remove the cover [A] of board **Slot 1 or 2** (⌘ x1).
2. Attach the interface board [B] to the controller board (⌘ x2 knob screws).  
**NOTE:** Use a screwdriver to tighten the knob-screws. Do not tighten manually, because this can disconnect the board.
3. Install the Bluetooth card [C] in the slot in the Bluetooth unit.
4. Attach the antenna cap [D].

### 1.3.6 POSTSCRIPT 3 UNIT (B757)

#### Accessories

Check the accessories and their quantities against the following list:

Description	Q'ty
1. PostScript 3 Emulation SD Card .....	1
2. Decal .....	1



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#### **CAUTION**

**TURN OFF THE MAIN POWER SWITCH AND DISCONNECT THE POWER SUPPLY CORD.**

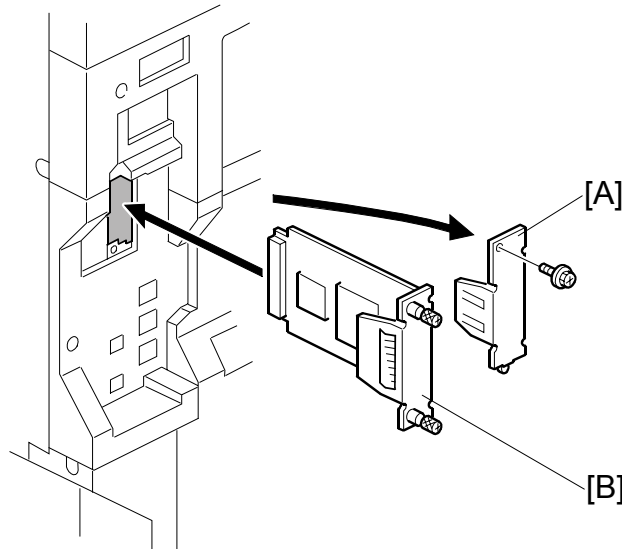
1. Remove the application cover [A] (⚙ x1).
2. With the printed side of the SD card [B] facing the rear of the machine, install the SD card in SD card slot **C2**.
3. Reattach the application cover (⚙ x1).
4. Attach the "Adobe PostScript 3" decal to the front cover.

### 1.3.7 FILE FORMAT CONVERTER (B609)

#### Accessories

Check the accessories and their quantities against the following list:

Description	Q'ty
1. File Format Converter Board B609 .....	1



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#### **CAUTION**

**TURN OFF THE MAIN POWER SWITCH AND DISCONNECT THE POWER SUPPLY CORD.**

**Important:** This option also requires installation of the Printer/Scanner Unit B767 or the Printer Unit B846.

1. Remove the cover [A] of Board **Slot 1 or 2** (⌘ x1).
2. Install the board [B] (⌘ x2 knob screws).  
**NOTE:** Use a screwdriver to tighten the knob-screw. Do not tighten manually, because this can disconnect the board.
3. Reattach the application cover (⌘ x1).

## 1.4 CHECK ALL CONNECTIONS

1. Connect the machine's power cord and turn on the main switch.
2. Go into the printer user mode and print the configuration page.  
User Tools> Printer Settings> List Test Print> Config. Page

**NOTE:** The same data can also be printed with printer SP1-004 – Print Summary. All installed options are listed in the “System Reference” column.

## 2. DETAILS

### 2.1 OVERVIEW

**Enhanced and New Printer Features Table for R-C4**

Feature	R-C3/R-C4 Compared	Description
Sample Print	Enhanced	Outputs a single hard copy of the document so it can be checked for errors or irregularities. If the sample copy looks acceptable, the user can enter a number to print additional copies. This feature can be used before setting up large copy jobs.
Locked Print	Enhanced	Printing a document requires a password entry. This feature is useful for protecting sensitive information.
Hold Print	New	Documents are stored on the printer HDD (similar to a locked print) but printing does not require a password entry.
Stored Print	New	Documents are stored on the printer HDD and printed as needed. This is useful for documents that are printed frequently (applications, catalogs, etc.)

Details

**R-C4 Printer Features Comparison Table**

Model	Feature	Storage Capacity	Sort by User ID	Multiple File Print/Delete	Save at Power Off	File Password	Save After Printing
R-C3	Sample Print	30* <sup>1</sup>	No	No	No	Yes (4-digit)	No
	Locked Print		No	No	No	NO	No
R-C4	Sample Print	100* <sup>1</sup>	Yes	Yes	Yes	Yes (4-8 digits)	No
	Locked Print		Yes	Yes	Yes	No	No
	Hold Print		Yes	Yes	Yes	No	No
	Stored Print		Yes	Yes	Yes	Optional (4-8 digits)	Yes

\*<sup>1</sup> Total number of files (includes all job types).

### 3. SERVICE TABLES

#### 3.1 PRINTER SERVICE TABLE

SP	Number/Bit SW		Initial	
1001	Bit Switch			
	001	Bit SW 1	00H	Adjusts the bit switch settings. <b>Note: These bit switches are currently not being used</b>
	002	Bit SW 2	00H	
	003	Bit SW 3	00H	
	004	Bit SW 4	00H	
	005	Bit SW 5	00H	
	006	Bit SW 6	00H	
	007	Bit SW 7	00H	
	008	Bit SW 8	00H	

SP	Number/Name		Function/[Setting]
1003	Clear setting		
	001	Initialize Printer System	Initializes the settings in the printer feature settings of UP mode.
	002	Clear CSS Counter	<b>DFU</b>
	003	Delete Program	<b>DFU</b>
1004	Print Summary		Prints the printer summary sheet.
1005	Display Version.		Displays the version of the controller firmware.
1006	Sample/Proof Print		[0~1/0/1] 0: Link with Doc. Server 1: Enable

SP	Function/[Setting]					
7910	PDL Part No. Information					
	Returns a text string for the version.					
	<b>RPCS</b>	150	<b>R55</b>	156	<b>PDF</b>	162
	<b>PS</b>	151	<b>RTIFF</b>	157	<b>BMLinks</b>	163
	<b>RPDL</b>	152	<b>PCL</b>	156	<b>PICTBRIDGE</b>	164
	<b>R98</b>	153	<b>PCLXL</b>	159	<b>FONT</b>	180
	<b>R16</b>	154	<b>MSIS</b>	160	<b>FONT1</b>	181
	<b>RPGL</b>	155	<b>MSIS (OPT)</b>	161	<b>FONT2</b>	182
					<b>FONT3</b>	183

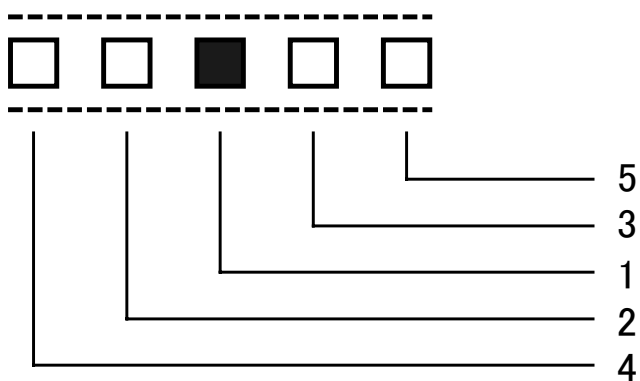
7911	PDL Version Information			Returns a text string for the version.		
	<b>RPCS</b>	150	<b>R55</b>	156	<b>PDF</b>	162
	<b>PS</b>	151	<b>RTIFF</b>	157	<b>BMLinks</b>	163
	<b>RPDL</b>	152	<b>PCL</b>	156	<b>PICTBRIDGE</b>	164
	<b>R98</b>	153	<b>PCLXL</b>	159	<b>FONT</b>	180
	<b>R16</b>	154	<b>MSIS</b>	160	<b>FONT1</b>	181
	<b>RPGL</b>	155	<b>MSIS (OPT)</b>	161	<b>FONT2</b>	182
					<b>FONT3</b>	183

### 3.2 SCANNER SERVICE TABLE

SP	Number/Name	Function/[Setting]
1004	Compression Type	Selects the compression type for binary picture processing. [1-3/1/1] 1: MH, 2: MR, 3: MMR
1005	Erase Margin	Creates an erase margin for all edges of the scanned image. <i>If the machine has scanned the edge of the original, create a margin.</i> [0 – 5/0/1mm]
1009	Forbid Using TWAIN	Sets the system not to use the network TWAIN scanner driver. <b>0</b> : Not forbidden (can use TWAIN) <b>1</b> : Forbid using TWAIN driver.

SP	Number/Name	Function/[Setting]
2021	Compression level (grayscale)	
	These SP codes set the compression ratio for the grayscale processing mode that can be selected with the notch settings on the operation panel. Range: 5 (lowest ratio) $\leftrightarrow$ 95 (highest ratio)	
2021 1	Level 3 (Middle I-Qual)	[5~95/ <b>40</b> /1/step]
2021 2	Level 2 (High I-Qual)	[5~95/ <b>50</b> /1/step]
2021 3	Level 4 (Low I-Qual)	[5~95/ <b>30</b> /1/step]
2021 4	Level 1 (Highest I-Qual)	[5~95/ <b>60</b> /1/step]
2021 5	Level 5 (Lowest I-Qual)	[5~95/ <b>20</b> /1/step]

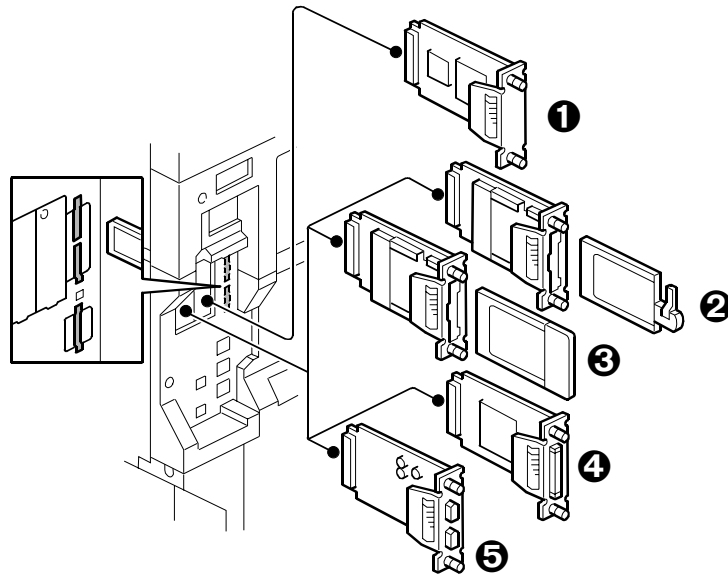
#### Compression Notch Assignment



B767I910.WMF

## 4. SPECIFICATIONS

### 4.1 SYSTEM COMPONENTS



B7671101.WMF

Spec.

No.	Item	Code	Remarks
❶	File Format Converter (MLB)	B609	Slot 1 or 2
❷	Bluetooth Interface Unit* <sup>1</sup>	B736	
❸	IEEE802.11b – Wireless LAN* <sup>1</sup>	G813	
❹	IEEE1284 Interface Board – Centronics* <sup>1</sup>	B679	
❺	IEEE1394 Interface Board – FireWire* <sup>1</sup>	B581	
6	Memory 256 MB	G818	Not shown
7	USB 2.0	---	Built into controller board
8	NIB Network Interface	---	
9	PostScript 3* <sup>2</sup>	B757	SD Card (C2)
10	Printer Scanner Unit	B767	SD Card (C1)
11	Printer Unit	B846	SD Card (C1)

\*<sup>1</sup> Only one of these boards can be installed at one time.

\*<sup>2</sup> If both PS3 and DOS (Data Overwrite Security B735) are required, DOS must be moved to the PS3 SD card with SP5878 1. (●Error! Reference source not found.)

## 4.2 SPECIFICATIONS

### 4.2.1 PRINTER CONTROLLER (GENERAL)

Printing Speed:	Maximum 25 ppm (A4/LT LEF): B205 Maximum 30 ppm (A4/LT LEF): B209
Printer Languages:	PCLXL/PCL5e PostScript 3 (option) RPCS (Refined Printing Command Stream) - an original Ricoh PDL
Resolution (Driver):	RPCS 200/600 dpi PS3 600 dpi PCL5e 300/600 dpi PCLXL 600 dpi
Resident Fonts:	PCL TrueType: 10, Intellifont: 35, International: 13, Bitmap: 1 PS3 Option fonts PS3
Connectivity	Std. RJ-45 network port (100BASE-TX, 10BASE-T, USB 2.0) Option IEEE1394 (FireWire), IEEE802.11b (Wireless LAN), Bluetooth, IEEE1284 (Centronics Parallel)
Network Protocols	TCP/IP, IPX/SPX, SMB (NetBIOS over TCP/IP), AppleTalk (Auto Switching)
RAM:	Maximum 384 MB (Resident 128 MB + Additional 256 MB) <b>Note:</b> Additional 256 MB is required for the printer/scanner unit and printer unit.

## 4.2.2 USB SPECIFICATIONS

USB connectivity is built into the controller.

Interface	USB 1.1, USB 2.0
Data rates	480 Mbps (high speed), 12 Mbps (full speed), 1.5 Mbps (low speed)
	High speed mode is only supported by USB 2.0.

## 4.2.3 IEEE 802.11B SPECIFICATIONS

Standard applied	IEEE802.11b	
Data transmission rates	Speed	Distance
	11 Mbps	140 m (153 yd.)
	5.5 Mbps	200 m (219 yd.)
	2 Mbps	270 m (295 yd.)
	1 Mbps	400 m (437 yd.)
Network protocols	TCP/IP, Apple Talk, NetBEUI, IPX/SPX, SMB	
Bandwidth	2.4GHz (divided over 14 channels, 2400 to 2497 MHz for each channel)	

Spec.

## 4.2.4 IEEE 1394 SPECIFICATIONS

Interface	IEEE 1394 (firewire)	
Number of Ports	2 ports	
Data Transmission Speed	400 Mbps, 200 Mbps, 100 Mbps	
Available Features, Functions, Protocols	SCSI print	IP over 1384
	Print	Print, Scan
	SBP-2	TCP/IP

## 4.2.5 BLUETOOTH SPECIFICATIONS

Transmission Specifications	Based on Bluetooth V1.1
Data Transfer Speed	1 Mbps
Profile	Hard Copy Cable Replacement Profile (HCRP), Serial Port Profile (SPP), BIP
Distance Between Devices	10 m (The maximum distance when using outdoors, otherwise depends on the office environment.)

## 4.2.6 SCANNER SPECIFICATIONS

Standard Scanner Resolution:	Main scan/Sub scan 600 dpi	
Scanning Speed	52 ipm, E-mail/Scan-to-Folder/Network Delivery Scanner (A4 LEF, Text 200 dpi, MH Compression)	
Available scanning Resolution Range:	100 ~ 1200 dpi;	When used as a Network TWAIN scanner.
	100, 200, 300, 400, 600 dpi;	When used as a network delivery scanner or for sending e-mail
Grayscale:	8 bits/pixel	
Interface:	Ethernet 10/100BASE TX, IP over IEEE1394, Wireless LAN 802.11b	
Compression Method:	MH, MR, MMR (Binary Picture Processing) JPEG (Grayscale Processing)	
Video Memory Capacity:	384 MB	
Image Storage Capacity:	Number of originals per file: Maximum 1,000 pages Maximum of files: 3000 files	
Max. Storage on Doc. Svr.	9,000 pages (B&W (ITUT No. 1/200 dpi MMR)	

## 4.2.7 SOFTWARE ACCESSORIES

### **PRINTER**

The printer drivers and utility software are provided on one CD-ROM. An auto-run installer allows you to select which components to install.

### **Printer Drivers**

Printer Language	Windows 95/98/Me	Windows NT4.0	Windows 2000, XP, Server 2003	Macintosh
PCL 6	Yes	Yes	Yes	No
PCL 5e	Yes	Yes	Yes	No
PS3	Yes	Yes	Yes	Yes
RPCS	Yes	Yes	Yes	No

- NOTE:** 1) The printer drivers for Windows NT 4.0 are only for the Intel x86 platform. There is no Windows NT 4.0 printer driver for the PowerPC, Alpha, or MIPS platforms.
- 2) The PS3 drivers are all genuine AdobePS drivers, except for Windows 2000/XP/Server 2003, which uses Microsoft PS. A PPD file for each operating system is provided with the driver.

**Utility Software**

<b>Software</b>	<b>Description</b>
Agfa Monotype Font Manager 2000 (Win 95/98/Me, NT4, 2000)	A font management utility with screen fonts for the printer.
SmartNetMonitor for Admin (Win 95/98/Me, NT4, 2000/XP/Server 2003)	A printer management utility for network administrators. NIB setup utilities are also available.
SmartNetMonitor for Client (Win 95/98/Me, NT4, 2000/XP/Server 2003)	A printer management utility for client users. Peer-to-peer printing utility and parallel/recovery printing functions are included.
1394 Utility (Win 2000/XP)	A utility for removal IEEE 1394 printers.
LAN-Fax M3 Driver (Win 95/98/Me, NT4, 2000/XP)	This driver allows use of the LAN-Fax functions by installing the LAN-Fax driver, Address Book, and LAN-Fax Cover Sheet Editor.
Printer Utility for Mac	This software provides several convenient functions for printing from Macintosh clients.
USB Printing Support	A utility for the USB 2.0 board. A computer running Windows 98 SE or Windows ME requires installation of this utility.
Acrobat Reader	A utility that allows reading PDF files.

Spec.

**SCANNER**

The scanner driver and utility software are provided on one CD-ROM.

**Scanner Driver**

- Network Twain Driver for Win95/98/Me/NT4/2000/XP/Server 2003

**Scanner Utilities**

- Scan Router V2 Lite for Win95/98/Me/NT4.0/2000/XP
- Desk Top Binder V2 Lite for Win95/98/Me/NT4.0/2000/XP/Server 2003