

PRINTER/SCANNER OPTION

(Machine Code: D315)








For Machine Code: B291/B295/B296/B297 Copiers

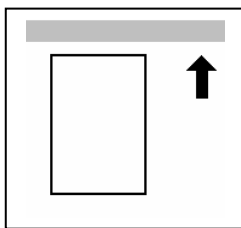
THESE OPTIONS MUST BE INSTALLED BY A CUSTOMER SERVICE REPRESENTATIVE WHO HAS COMPLETED BASE COPIER AND FAX UNIT TRAINING.

22 September 2006
Subject to Change

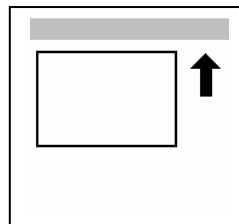
Conventions Used in this Manual

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:

 WARNING
FAILURE TO OBEY WARNING INFORMATION COULD RESULT IN SERIOUS INJURY OR DEATH.

 CAUTION
Obey these guidelines to ensure safe operation and prevent minor injuries.

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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1. INSTALLATION

1.1 OVERVIEW

This section describes the installation procedures for printer, scanner, and other options for B291/B295/B296/B297 Series machines.

Printer/Scanner Options

The options listed in the table below are for B291/B295/B296/B297 machines only.

No.	Item	SD Card Slot	Merge Options
D315	Printer/Scanner Unit Type 4500	C1	DOS
D316	Printer Unit Type 4500	C1	DOS, Scanner Enhance
D317	RPCS Printer Unit Type 4500	C1	DOS, Scanner Enhance, Printer Enhance
D319	PostScript3 Unit Type 4500	C2	None
D319	Printer Enhance Option Type 4500	Merge: C3 → C1	
D319	Scanner Enhance Option Type 4500	Merge: C3 → C1	

Other Options

The options listed in the table below are used both B195/B198/B264/B265 Series machines as well as B291/B295/B296/B297 Series machines.

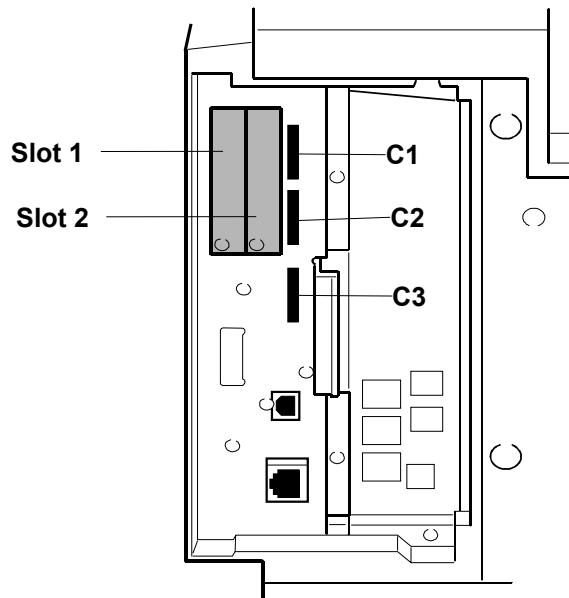
No.	Item	Slots
B609	File Format Converter Type B	Board Slot 1 or 2.
B826	Bluetooth Interface Unit Type 3245	Board Slot 1 or 2. Only one of these boards can be installed at one time.
G813	IEEE 802.11b Interface Unit Type H	
B679	IEEE 1284 Interface Board Type A	
B735	Data Overwrite Security Unit Type D	SD card slot C1, or merge to SD Slot C1.
B720	Browser Unit Type A	SD card slot C3 (Install, then remove)
G818	Memory Unit Type E 256 MB	Controller Board

NOTE:

- IEEE1394 (FireWire) can be used with the B195/B198/B264/B265 Series machines only. (The B291/B295/B296/B297 Series machines do not support the use of this option.)
- For more details about merging applications from SD card slot C3 to C1, see page 1-9 .

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.

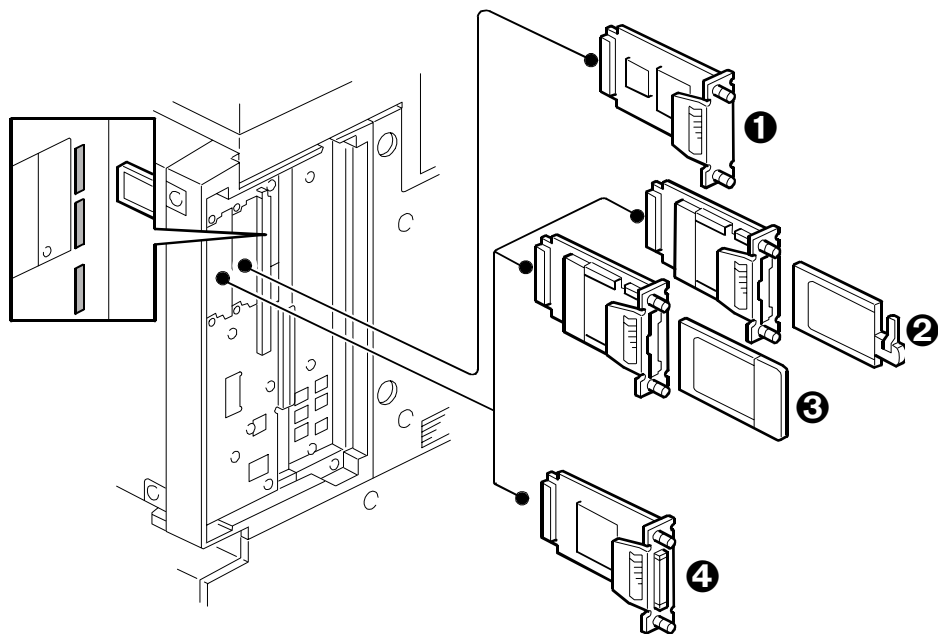
Slot 1, Slot 2

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

Slot	SD Card
C1	RPCS Printer Unit -or- Printer Unit -or- Printer/Scanner Unit -or- Data Overwrite Security (if no printer unit is installed; if a printer or printer/scanner card is installed, you can merge the DOS card with this).
C2	PostScript3
C3	Service slot for firmware version updates, installing the optional browser unit, 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* ¹
1 or 2	❸ IEEE802.11b G813 – Wireless LAN* ¹
1 or 2	❹ IEEE1284 Interface Board B679 – Centronics* ¹

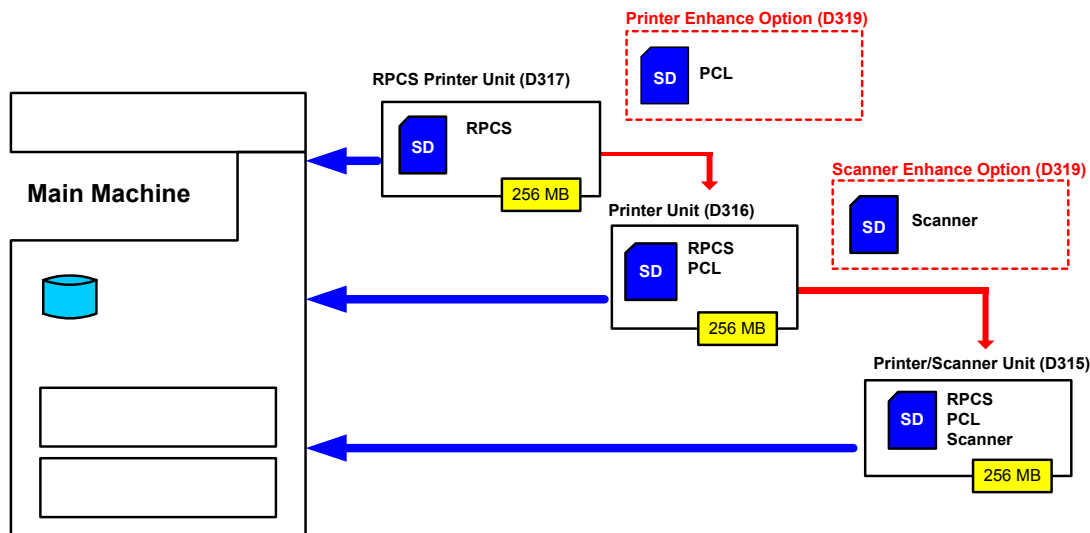
*¹ Only one of these boards can be installed at one time.

1.2 PRINTER AND P/S OPTIONS

1.2.1 OVERVIEW

This section describes the installation of the following items:

- RPCS Printer Unit
- Printer Unit
- Printer/Scanner Unit
- 256 Memory. Optional memory is required for each unit.
- Printer Enhance Option
- Scanner Enhance Option



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The three main units are:

- **RPCS Printer Unit Type 4500.** For customers who require only basic copying and printing and the RPCS printer language. The 256 MB memory is required.
- **Printer Unit Type 4500.** For customers who do not require the extended scanning features but need more printing capability (both RPCS and PCL printer languages are provided). The 256 MB memory is required.
- **Printer/Scanner Unit Type 4500.** For customers who require the full range of DS features (advanced scanning and printing features such as "scan-to" solutions, virtual mailboxes, PCL, etc.). The 256 MB memory unit is required.

Separate Options

There are two separate options not provided with the kits: 256 MB memory and PS3.

- **256 MB memory.** Not provided with any option. However, every unit (RPCS, Printer Unit, P/S unit) requires installation of the 256 MB memory.
- **PostScript 3 Unit.** The PS3 option can be used with the RPCS Unit, the Printer Unit, or the Printer/Scanner Unit.

Enhance Options

There are two enhance options:

- **Printer Enhance Option Type 4500.** Updates the RPCS unit by adding PCL.
- **Scanner Enhance Option Type 4500.** Updates the RPCS unit or Printer Unit by adding the advanced scanning features.

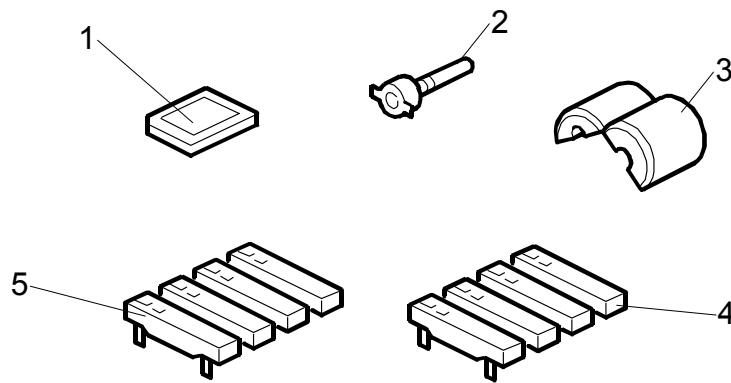
1.2.2 KIT CONTENTS

Check the accessories and their quantities against the list below and the illustration on the next page. This is a common list for all the kits.

Common Accessory Table

This common accessory table lists all the items of the following units and options for the B291/B295/B296/B297 Series machines:

- RPCS: RPCS Printer Unit
- PU: Printer Unit
- P/S: Printer/Scanner Unit
- PEO: Printer Enhance Unit
- SEO: Scanner Enhance Unit



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	Description	Qty	Kit Contents				
			RPCS	PU	P/S	PEO	SEO
	256 MB Memory* ¹	1	No	No	No	No	No
1.	SD Card	1	Yes	Yes	Yes	Yes	Yes
2.	Stamp Cartridge	1	No	No	Yes	No	Yes
3.	Ferrite Core	1	No	Yes	Yes	Yes	Yes
4.	NA Keytop Set* ³	1	Yes	Yes	Yes	Yes	Yes
5.	EU Keytop Set* ³	1	Yes	Yes	Yes	Yes	

*¹ The 256 Memory is a separate option and it is not provided in the kits. However, one memory unit is required for the installation of every print unit.

*³ The number of keytops provided varies:

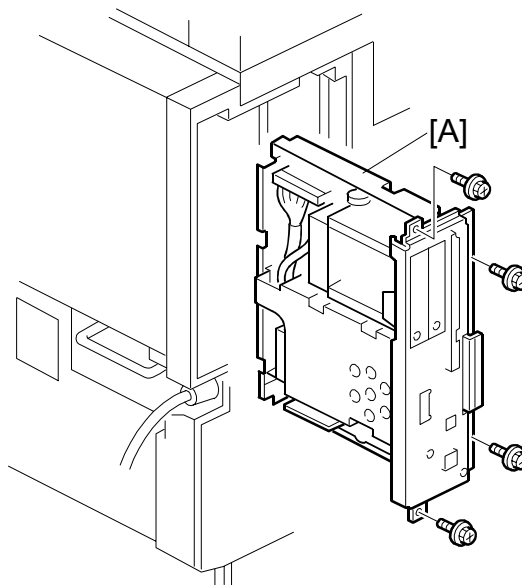
Kit	Keytops			
	Copy	Document Server	Printer	Scanner
RPCS Unit	1		1	
Printer Unit	1	1	1	
Printer/Scanner Unit	1	1	1	1
Printer Enhance Unit		1		
Scanner Enhance Unit				1

1.2.3 PRINTER/SCANNER INSTALLATION

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

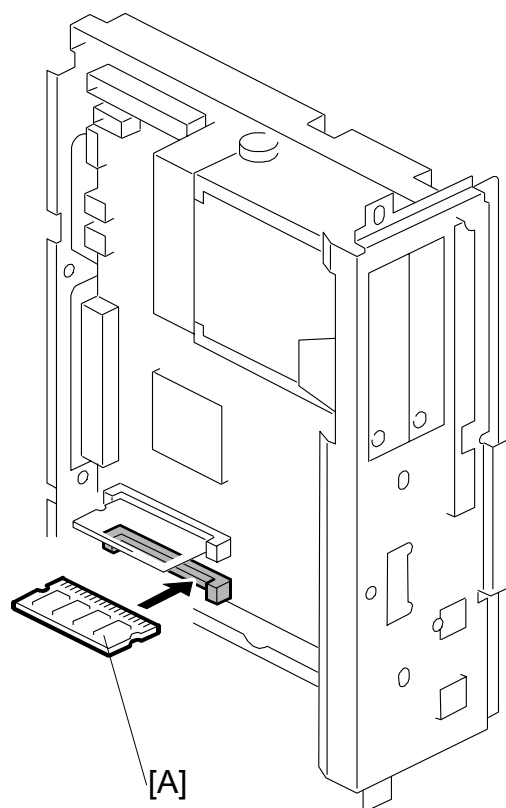
Installation

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



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3. Install the 256 MB memory DIMM [A].
4. Reinstall the controller board.



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5. Remove the SD card slot cover [A] (x1).
6. Insert the Printer/Scanner SD card [B] in SD card slot C1.
7. Reattach the covers.
8. Connect the LAN cable to the "NIC" connection.
9. Connect the USB cable to the "USB" connection.
10. 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.

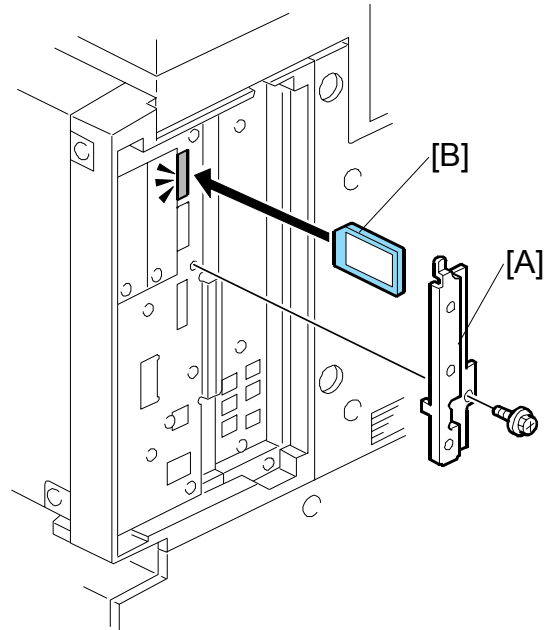
11. Replace the blank keytops:

- ❶ Copy
- ❷ Document Server
- ❸ Printer
- ❹ Scanner

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

13. Enable the NIB and/or USB function.

- To enable the NIB 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).



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1.2.4 PRINTER ENHANCE, SCANNER ENHANCE OPTIONS

Accessory Check

Refer to the "Common Accessory Table" on page 1-6.

Installation (Application Merge)

The installation of the printer enhance option and scanner enhance option is done with **SP5873 001 (Application Merge)**.

NOTE:

- If you are going to update the RPCS unit with both the printer and scanner enhance options, the order of execution is not important.
 - For more details about merging more than one application with SD card in slot C1, refer to the merge maps on page 1-11.
1. Turn off the copier.
 2. Remove the cover (🔧 x1).
 3. Confirm that the RPCS Unit or Printer Unit SD card is in SD card Slot **C1**.
 4. Put the option SD Card (Printer Enhance Option or Scanner Enhance Option) in SD card slot **C3**.
 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.
 10. When the display tells you copying is completed, touch "Exit", then turn the copier off.
 11. Remove the option SD card from **C3**.
 12. Turn the copier on.
 13. Go into the User Tools mode and confirm that update was successful.
User Tools> System Settings> Administrator Tools> Firmware Version> Next
 14. Turn the copier off again, then reattach the cover.
 15. Return the copied SD card to the customer for safekeeping, or tape it to the faceplate of the controller.

To undo an option update

1. Turn the main switch off.
2. Confirm that the RPCS Unit or Printer Unit SD card is in SD card Slot **C1**.
3. Put the original option SD card (Printer Enhance Option or Scanner Enhance Option) in SD card slot **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 option SD card from Slot **C3**..
9. Turn the main switch on.
10. Go into the User Tools mode and confirm that undo was successful.
User Tools> System Settings> Administrator Tools> Firmware Version> Next
11. Turn the copier off again, then reattach the cover.

Important Notes About SD Cards

Here are some basic rules about merging applications on SD cards.

- The data necessary for authentication is transferred with the application program to the target SD card.
- 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.
- Once the merge is completed, the SD card from which the application was copied cannot be used again, but the customer must keep the card to serve as proof of purchase.
- An SD card from which an application has been moved to another SD card can be restored to full operation with **SP5873 002** (Undo).
- Before storing the card from which an application has been copied, label it carefully so that you can identify it easily if you need to do the undo procedure later.

1.2.5 APPLICATION MERGE MAPS

SD Application Merge Maps

The tables below map all the possible configurations for the installation of the SD card options.

This is the key for the abbreviations in the tables.

RPCS	RPCS Printer Unit Type 4500
PU	Printer Unit Type 4500
P/S	Printer/Scanner Unit Type 4500
PEO	Printer Enhance Option Type 4500
SEO	Scanner Enhance Option Type 4500
DOS	Data Overwrite Security Type D
PS3	PostScript 3 Unit Type 4500

How to Read the Tables

The shaded areas in the "Slot 1" rows indicate which applications must be merged with the underlined SD cards. The merge operation must be done with SP5873.

C1	<u>RPCS</u> ↑PEO ↑SEO	<p><u>RPCS</u> Printer Unit SD card must reside in C1.</p> <p>The Printer Enhance Option (PEO) and Scanner Enhance Option (SEO) must be merged with the <u>RPCS</u> SD card in C1 using SP5873 001.</p> <p>Important: Where 2 or more merge operations are required with SP5873 001, the merges can be done in any order.</p>
C2	PS3	The PostScript 3 Unit must reside in C2.
C3		Reserved for firmware update and application merge. During the merge execution with SP5873 001 , the application on the SD card in C3 is copied to the SD card in Slot 1.

Basic or Fax

C1	DOS
C2	
C3	

Printer Function

Printer Function

	1	2	3	4	5	6	7
C1	RPCS	RPCS	RPCS	RPCS ↑DOS	RPCS ↑DOS	RPCS ↑DOS	RPCS ↑PEO
C2		PS3	PEO		PS3	PEO	
C3							
	8	9	10	11	12	13	14
C1	RPCS ↑PEO	RPCS ↑DOS PEO	RPCS ↑DOS PEO	PU	PU	PU ↑DOS	PU ↑DOS
C2	PS3		PS3		PS3		PS3
C3							

Note: In configurations 3 and 6 above, note that the print enhance option (PEO) may reside in C2 if the PS3 option is not used.

Fax/Printer

	1	2	3	4	5	6	7
C1	RPCS	RPCS	RPCS	RPCS ↑DOS	RPCS ↑DOS	RPCS ↑DOS	RPCS ↑PEO
C2		PS3	PEO		PS3	PEO	
C3							
	8	9	10	11	12	13	14
C1	RPCS ↑PEO	RPCS ↑DOS ↑PEO	RPCS ↑DOS PEO	PU	PU	PU ↑DOS	PU ↑DOS
C2	PS3		PS3		PS3		PS3
C3							

Scanner/Fax/Printer

	1	2	3	4	5
C1	P/S	P/S	P/S ↑DOS	P/S ↑DOS	RPCS ↑PEO ↑SEO
C2		PS3		PS3	
C3					
	6	7	8	9	10
C1	RPCS ↑PEO ↑SEO	RPCS ↑DOS ↑SEO	RPCS ↑DOS ↑SEO	RPCS ↑PEO ↑DOS ↑SEO	RPCS ↑PEO ↑DOS ↑SEO
C2	PS3		PS3		PS3
C3					

1.3 OTHER OPTIONS

1.3.1 IEEE 1284 (B679)

Accessories

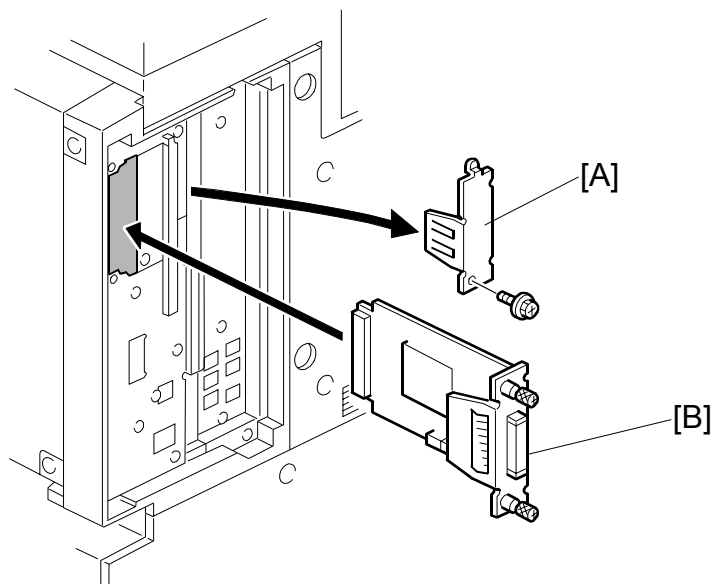
Check the accessories and their quantities against the following list:

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), or Bluetooth.



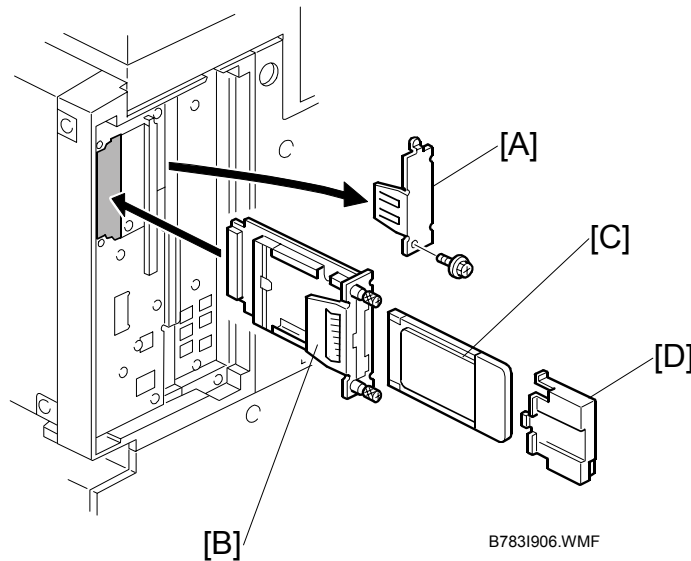
1. Remove the cover [A] of board **Slot 1 or 2** (⌘ x1)
2. Install the interface board [B] (⌘ x2 knob screws)
NOTE: Use a screwdriver to tighten the knob-screws. Do not tighten manually, because this can disconnect the board.
3. Reattach the application cover (⌘ x1)

1.3.2 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. Cap	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), or 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” (tab) → “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

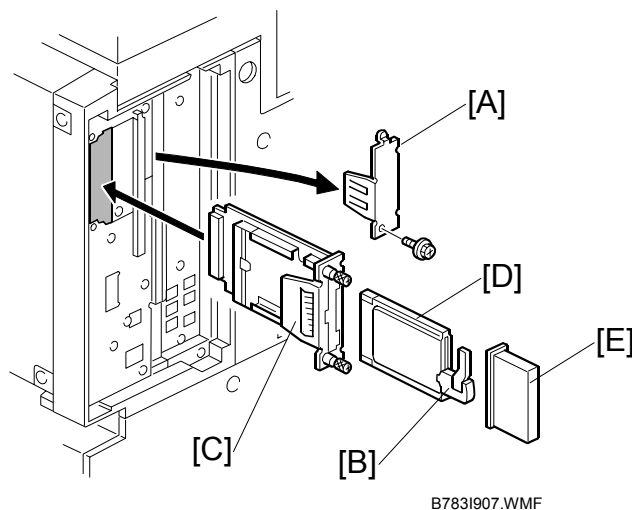
SP No.	Name	Function
5840 006	Channel MAX	Sets the maximum range of the channel settings for the country.
5840 007	Channel MIN	Sets the minimum range of the channels settings allowed for your country.
5840 011	WEP Key Select	Used to select the WEP key (Default: 00).
UP mode	Name	Function
	SSID	Used to 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.

1.3.3 BLUETOOTH UNIT 3245 (B826)

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



⚠ 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), or Bluetooth.

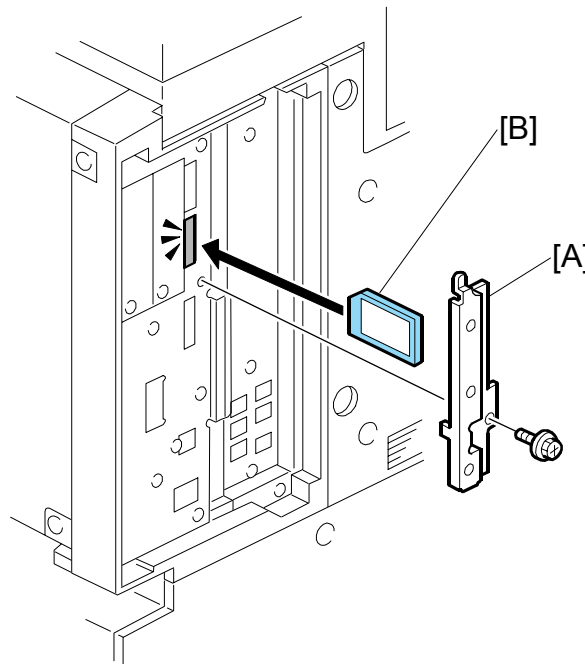
1. Remove the cover [A] of board **Slot 1 or 2** (⚙ x1).
2. Attach the conductive tape [B] to the Bluetooth card.
Important: Attach the tape to the card on the side of the card opposite to the position shown at [B]
3. Attach the interface board [C] to the controller board (⚙ x2 knob screws).
NOTE: Use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

1.3.4 POSTSCRIPT 3 UNIT (D319)

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.

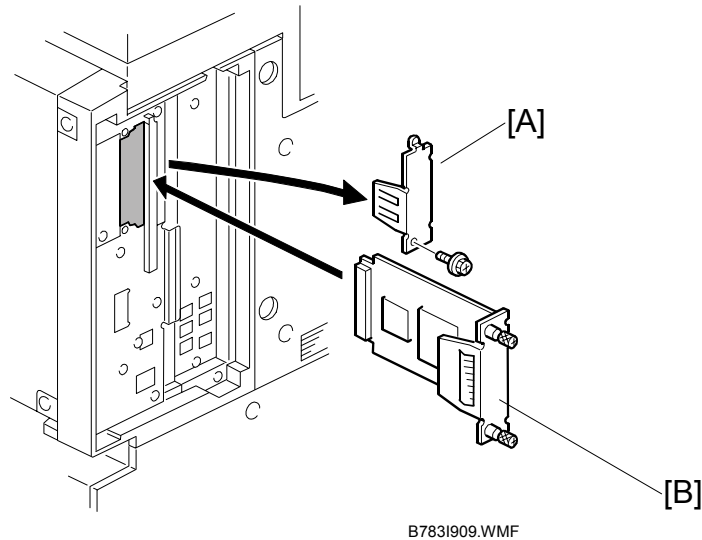
1. Remove the application cover [A] (⚙ x1).
2. With the printed side of the SD card [B] facing the rear of the machine, install the SD card in SD card slot **C2**.
3. Reattach the application cover (⚙ x1).
4. Attach the "Adobe PostScript 3" decal to the front cover.

1.3.5 FILE FORMAT CONVERTER (B609)

Accessories

Check the accessories and their quantities against the following list:

Description	Q'ty
1. File Format Converter Board	1



⚠ CAUTION

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

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).

Important:

- This option also requires installation of the Printer/Scanner Unit D315.

1.3.6 BROWSER UNIT TYPE A (B720)

Accessories

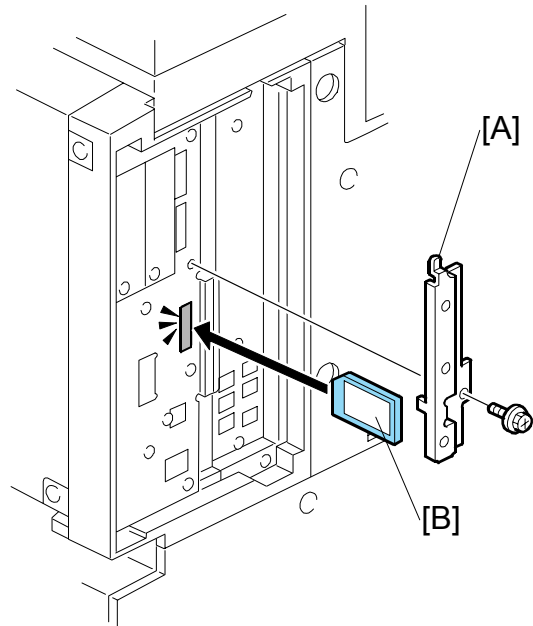
Description

Q'ty

1. Browser Unit B720 SD Card 1

Installation

1. Switch the machine off.
2. Remove the cover [A] (⚙ x1).
3. Push the SD card [B] into Slot **C3**.
4. Turn the machine on.
5. Push [User Tools].
6. Push [Login/Logout] on the operation panel
7. Login with the administrator user name and password.
8. Touch "Extended Feature Settings" twice.
9. Touch "SD Card".
10. Touch the "Browser" line.
11. Under "Install to:", touch "Machine HDD" then touch "Next"
12. When you see "Ready to Install" check the information on the screen to confirm your previous selection.
13. Touch "OK". You will see "Installing..." then "Completed".
14. Touch "Exit" twice to return to the copy screen.
15. Remove the SD card.



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1.4 CHECK ALL CONNECTIONS

1. Plug in the power cord and turn on the main switch.
2. Enter 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 by executing SP1-004 – Print Summary. All installed options are listed in the “System Reference” column.

2. SERVICE TABLES

2.1 PRINTER SERVICE TABLE

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

Service
Tables

1003	Clear setting		
	001	Initialize Printer System	Initializes the settings in the printer feature settings of UP mode.
	002	Clear CSS Counter	DFU
	003	Delete Program	DFU
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

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

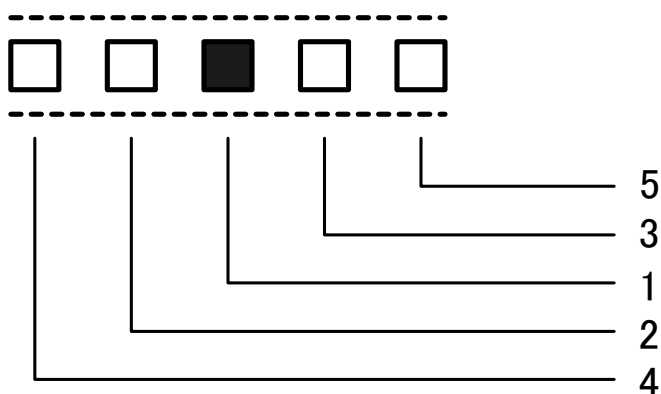
7911	PDL Version Information			Returns a text string for the version.		
	RPCS	150	R55	156	PDF	162
	PS	151	RTIFF	157	BMLinks	163
	RPDL	152	PCL	156	PICTBRIDGE	164
	R98	153	PCLXL	159	FONT	180
	R16	154	MSIS	160	FONT1	181
	RPGL	155	MSIS (OPT)	161	FONT2	182

2.2 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. 0: Not forbidden (can use TWAIN) 1: 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)	
1	Level 3 (Middle I-Qual)	[5~95/40/1/step]
2	Level 2 (High I-Qual)	[5~95/50/1/step]
3	Level 4 (Low I-Qual)	[5~95/30/1/step]
4	Level 1 (Highest I-Qual)	[5~95/60/1/step]
5	Level 5 (Lowest I-Qual)	[5~95/20/1/step]

Compression Notch Assignment



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3. DETAILS

3.1 OVERVIEW

Enhanced and New Printer Features Table for A-C4/A-C4.5

The features enhanced for the A-C4 apply to the A-C4.5 as well.

Feature	Status	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

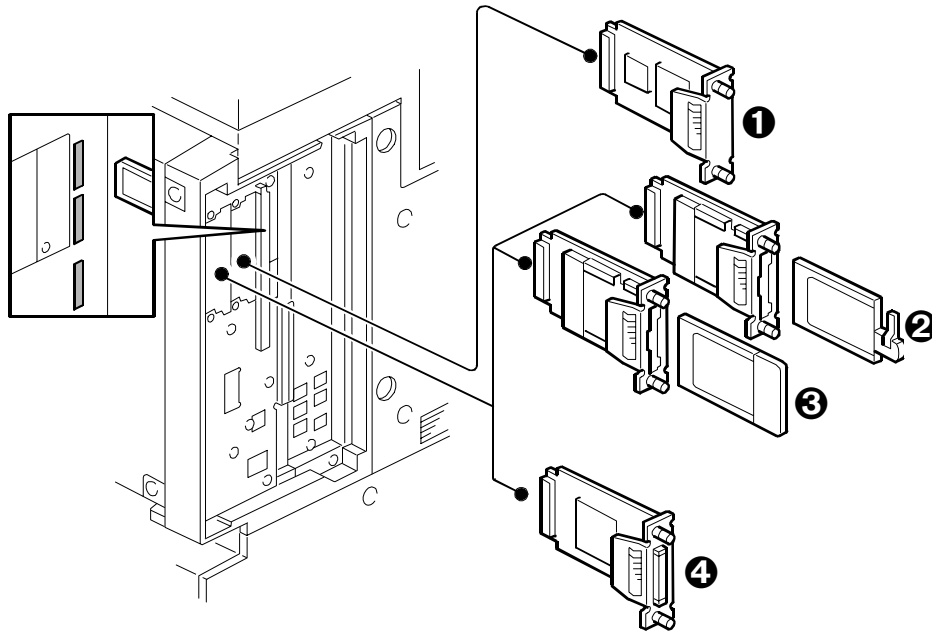
AC-4 Printer Features Comparison Table

Model	Feature	Storage Capacity	Sort by User ID	Multiple File Print/Delete	Save at Power Off	File Password	Save After Printing
A-C3	Sample Print	30* ¹	No	No	No	Yes (4-digit)	No
	Locked Print		No	No	No	NO	No
A-C4/ AC-4.5	Sample Print	100* ¹	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

*¹ Total number of files (includes all job types).

4. SPECIFICATIONS

4.1 SYSTEM COMPONENTS



D315I100.WMF

Spec.

No.	Item	Code	Remarks
❶	File Format Converter (MLB)	B609	Slot 1 or 2
❷	Bluetooth Interface Unit ^{*1}	B826	
❸	IEEE802.11b – Wireless LAN ^{*1}	G813	
❹	IEEE1284 Interface Board – Centronics ^{*1}	B679	
	Memory 256 MB	G818	Built into controller board
	USB 2.0	---	
	NIB Network Interface	---	
	PostScript 3 ^{*2}	D319	
	Printer Scanner Unit	D315	SD Card (C1)
	Printer Unit	D316	SD Card (C1)
	RPCS Printer Unit	D317	SP Card(C1)

^{*1} Only one of these boards can be installed at one time.

^{*2} If both PS3 and DOS (Data Overwrite Security B735) are required, DOS must be moved to the Printer/Scanner, Printer, or RPCS SD card with SP5878 1.

4.2 SPECIFICATIONS

4.2.1 PRINTER CONTROLLER (GENERAL)

Printing Speed:	Maximum 35 ppm (A4/LT LEF) B291/B296 Maximum 45 ppm (A4/LT LEF): B295/B297	
Printer Languages:	PCLXL/PCL5e PostScript 3 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	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) Note: Additional 256 MB is required for all printer/scanner unit and printer units.	

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 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.)

4.2.5 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, Scan-to-Folder, Scan-to-Email, or Document Server storage.
Grayscales:	8 bits/pixel	
Interface:	Ethernet 10/100BASE TX, 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)	

4.2.6 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

Software	Description
Agfa Monotype Font Manager 2000 (Win 95/98/Me, NT4, 2000)	A font management utility with screen fonts for the printer.
Smart Device Monitor for Admin (Win 95/98/Me, NT4, 2000/XP/Server 2003)	A printer management utility for network administrators. NIB setup utilities are also available.
DeskTopBinder – SmartDeviceMonitor 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.
LAN-Fax M7 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.
PS Utility for Mac	This software provides several convenient functions for printing from Macintosh clients.
Acrobat Reader	A utility that allows reading PDF files.

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

- DeskTopBinder Lite for 2000/XP/Server 2003