

Model: PRIPORT PEARL/PEARL-MC/RUBY/SAPPHIRE/GARNET/SA2/SA2P		Date: 2-Dec-03	No: R-C229-017
Subject: New Model SA2P information (China only)		Prepared by: M. Ohtsubo, Priport Service Planning Section	
Classification:	<input type="checkbox"/> Troubleshooting <input type="checkbox"/> Part information <input type="checkbox"/> Action required <input type="checkbox"/> Mechanical <input type="checkbox"/> Electrical <input type="checkbox"/> Service manual revision <input type="checkbox"/> Paper path <input type="checkbox"/> Transmit/receive <input type="checkbox"/> Retrofit information <input checked="" type="checkbox"/> Other (New model information)		
Model Name: PEARL/PEARL-MC: Ricoh JP5000, Gestetner 5450, RexRotary 1560, nashuatec CP450, Savin 3350DNP, Standard SD400 RUBY: Ricoh JP5600 SAPPHIRE: Ricoh JP8000, Gestetner 5490, RexRotary 1395, nashuatec CP490, Savin 3450DNP, Standard SD630 GARNET: Ricoh JP5500, Gestetner 5450+/5455, RexRotary1560+, nashuatec CP450+, Savin 3360DNP, Standard SD450, Lanier LDD150 SA2: Ricoh JP8500, Gestetner 5490+/5499, RexRotary1395+, nashuatec CP490+, Savin 3460DNP, Standard SD650, Lanier LDD180 SA2P (China only): Ricoh JP8510P, Gestetner 5500P			

This bulletin contains all service-related information unique to Model SA2P (C255), which is scheduled for official release in China in February 2004. Please add this information to your SA2/Garnet Service Manual.

Note: Please also see MB #M-C235-011 for a list of the components unique to the Model SA2P.

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1. OVERALL INFORMATION

1.1 SECTIONS CONTAINING DIFFERENCES BETWEEN THE C255 AND C244

Service Manual:

Section	Item	Remarks
1	Overall information	Some items added.
2	Detailed section descriptions	<i>(no differences)</i>
3	Installation	<i>(no differences)</i>
4	Service tables	<i>(no differences)</i>
5	Preventive maintenance	<i>(no differences)</i>
6	Replacement and adjustment	<i>(no differences)</i>
7	Point to point diagrams	<i>(no differences)</i>
CLT	Printer controller unit	New documents

1.2 SPECIFICATIONS

The following are the only differences in specification between this model and the C244. All other items are the same.

No.	Item	Remarks
1	Model names	JP8510P / 5500P (C255-33)
2	Printer controller unit	Embedded Printer Controller Unit fitted as standard
3	Printer drivers	Drivers support Chinese

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2. PRINTER CONTROLLER UNIT






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Symbols

This manual uses several symbols. The meanings of these symbols are as follows:

	See or Refer to
	Clip ring
	E-ring
	Screw
	Connector

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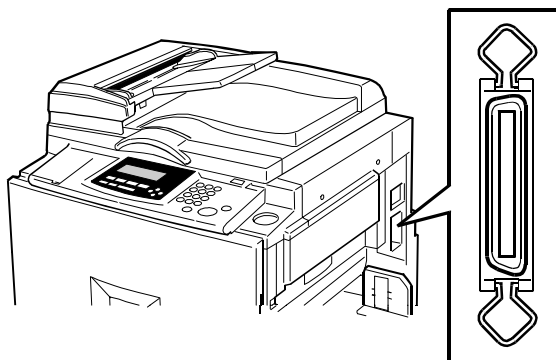
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INSTALLATION

The Model SA2P is equipped with a standard printer controller unit and Video I/F board. Connect the printer controller unit to the host computer with a parallel cable. Then, install the printer driver in the host computer.

Host computer	IBM PC/AT compatible PC
Interface	IEEE1284B (Compatible, Nibble, ECP)
Operating Systems Supported	Windows 95/98/Me, Windows NT4.0, Windows 2000/XP
Printer Driver	Digital Duplicator A3 600 GDI

NOTE: The Printer drivers for Windows NT4.0 are only for Intel x86 compatible platforms. There is no Windows NT4.0 printer driver for the PowerPC, Alpha, or MIPS platforms.



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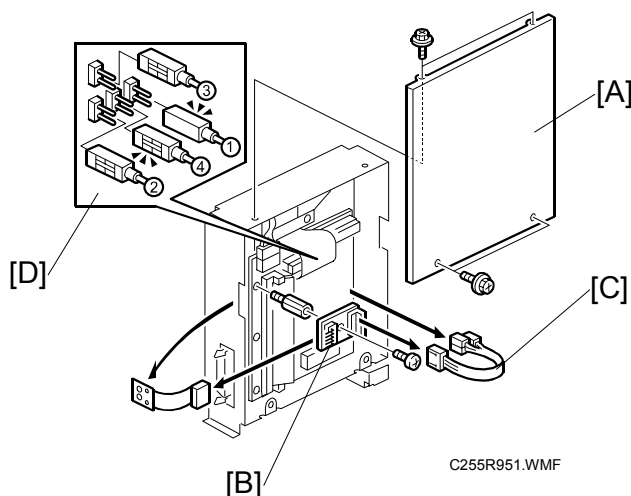
REPLACEMENT AND ADJUSTMENT

⚠ CAUTION

Before removing any of the controller components, make sure to do the following:

1. Turn off the machine main power.
Note: However if the “Data-in” lamp on the operation panel is blinking or lit, wait until the document or report is printed before turning the power off.
2. After the power is off, disconnect the power cord from the outlet and the cable from the machine.

CONTROLLER BOARD MEMORY



C255R951.WMF

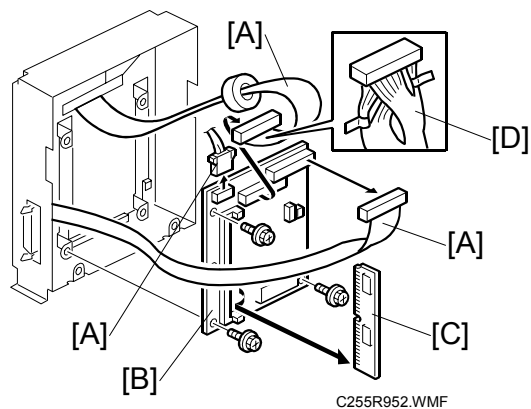
[A]: Cover

[B]: Keypad board

NOTE: When you attach the connector [C], make sure to attach it in the correct position and orientation [D].

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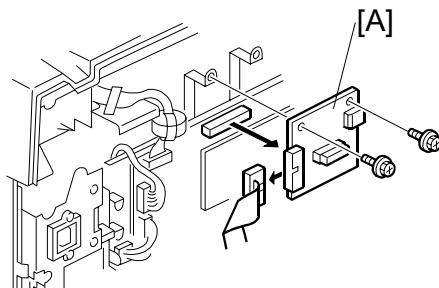
[A]: Connector

[B]: Printer controller board

[C]: SIMM module

NOTE: The twisted end of the harness [D] should be connected to the controller board.

VIDEO I/F BOARD



[A]: Video I/F Board

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LOAD PROGRAM

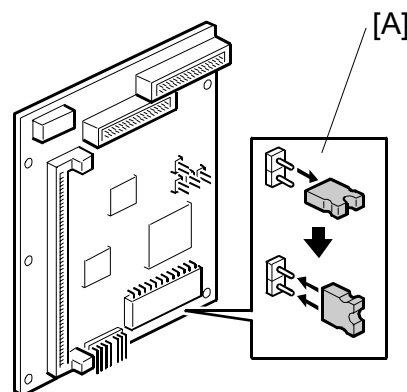
This procedure is for upgrading the system firmware for the controller.

NOTE: If the controller does not start up after a firmware update, try downloading the firmware again. If it still does not work, replace the flash ROM on the printer controller board.

⚠ CAUTION

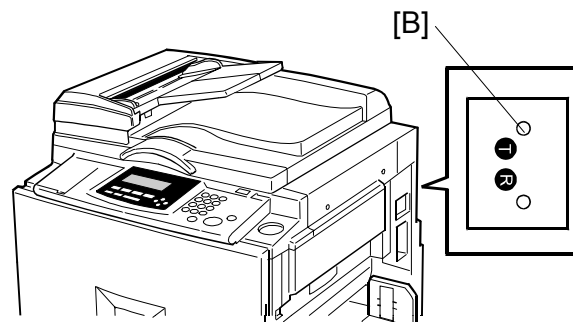
Do not turn off the machine while downloading the firmware.

1. Before downloading new firmware, print the test page and check the current version.
2. Turn off the machine.
3. Remove the rear cover and controller cover.
4. Set the jumper next to the flash ROM to the ON position [A].
5. Turn on the machine.
6. Boot up the PC and access an MS-DOS prompt or Command prompt.
7. Use the COPY command to update the flash ROM, . e.g.
"copy file_name LPT1:" (where LPT1 is the connected port).



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8. While the flash ROM is updating, the left LED [B] on the control button board remains lit.

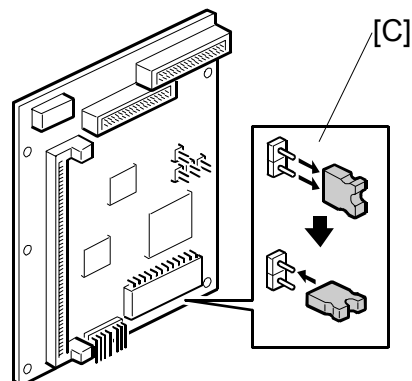


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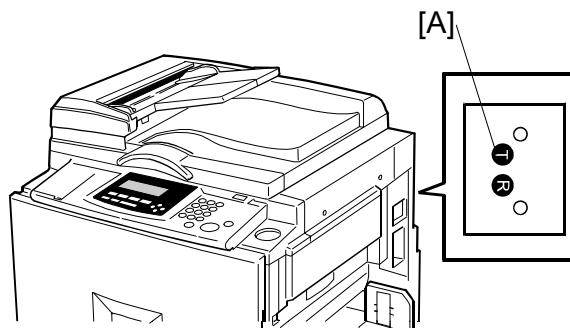
9. When the left LED flashes rapidly, the update is complete.
10. Turn off the machine.
11. Set the jumper back to the OFF position [C].
12. Turn on the machine and print out the test page using the test page button. Then check to see that the new version has been successfully installed.



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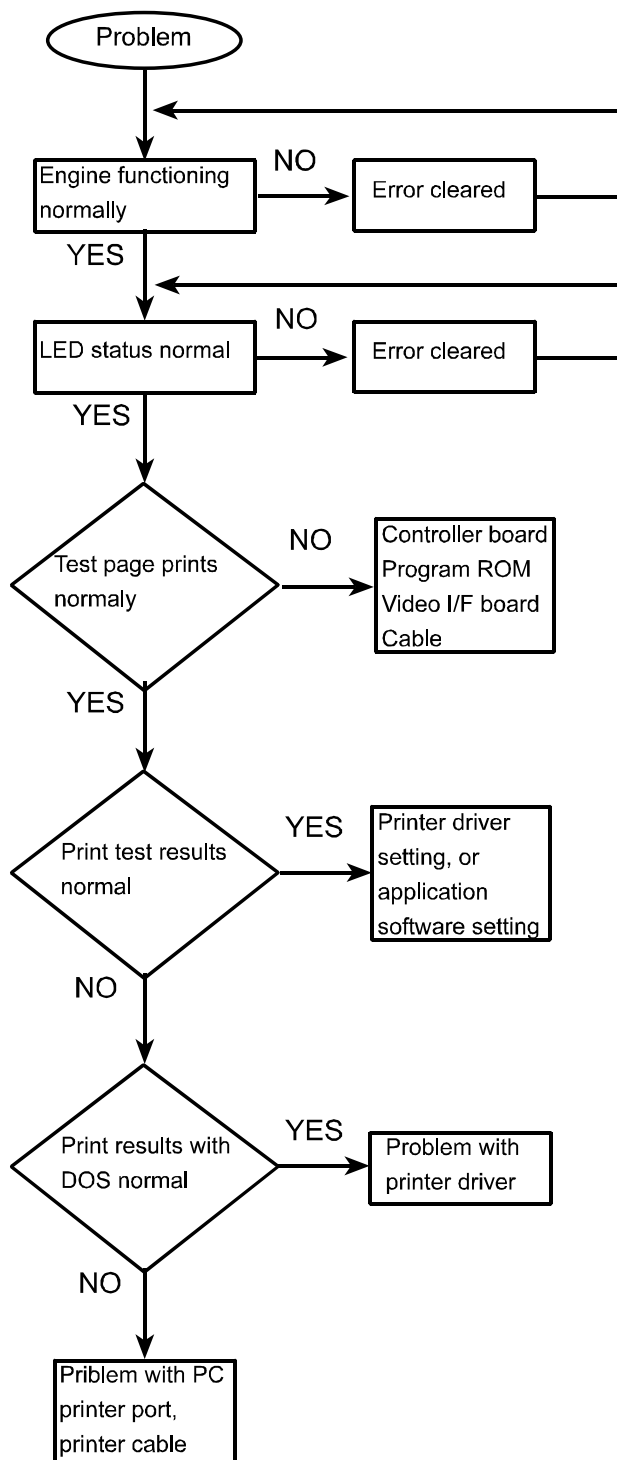
TEST PAGE

Press the test page button [A] on the keypad board. The right LED will start flashing quickly, indicating that the controller is in the process of creating the test page.



TROUBLESHOOTING

TROUBLESHOOTING FLOWCHART

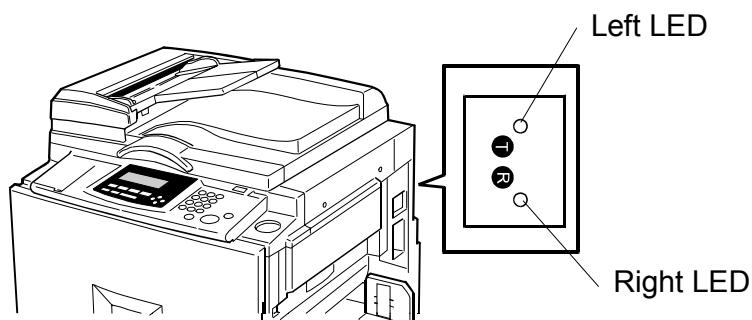


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LED STATUS LIGHT SEQUENCE AND CONDITIONS



Power on and activation

STATUS	DESCRIPTION	CHECK POINT
All LEDs are off	No power supply	-No AC power supplied. -AC cord not properly connected. -Power supply failure in the controller.
Right LED is on	Power on	-
Left LED is flashing	Performing self-diagnostic test before Ready condition	-
Left LED is flashing rapidly	Receiving data	-
Left LED remains on	-Transferring data -Creating a master	-
Left LED remains off	Idle	-
Left LED flashing slowly at regular intervals	Engine error	Check the message on the operation panel.

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Test Page Button

STATUS	DESCRIPTION	CHECK POINT
Left LED is flashing	Receiving data	-
Left LED is on	Creating a master	-
Left LED remains on	Printing	-
Left LED flashes then remains off.	No response from the engine.	-Turn the engine Off/On. -Check if the controller is properly connected to the engine. -Check if the engine is online. -Check if the SIMM card is positioned correctly.
Left LED flashes slowly at regular intervals	Engine error	-Check the error message on the engine control panel. -Check if the controller is properly connected to the engine.

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PRINTER DRIVER OPERATION

If the Windows test page does not print or does not look right, check the printer driver operation using these steps:

1. Select the Details tab in the Properties menu of the printer driver.
2. Change the port connection to "File:".
3. Click the Apply button. Then select the General tab and click the Print Test Page button.
4. Set the file name (e.g. test.prn), then set the disk/directory location and save the file.
5. Click "YES" when the message pops up and asks whether the test page printed correctly.
6. Access an MS-DOS prompt or command prompt.
7. Check to see that the engine and controller are ready for printing. Then execute the following command at the MS-DOS prompt or command prompt. "copy /b test.prn lpt1".

NOTE: 1) Always input "/b" after the Copy command.

2) The above example applies if the file name saved in Step 4 is "test.prn".

3) If the controller is connected to the second PC port, replace "lpt1" with "lpt2".

8. Input "exit," then exit from the MS-DOS prompt or command prompt.
9. If the test page has printed correctly, change the printer driver port from "File:" back to its previous setting.

SERVICE TABLES

There are no SP modes for the printer controller unit.

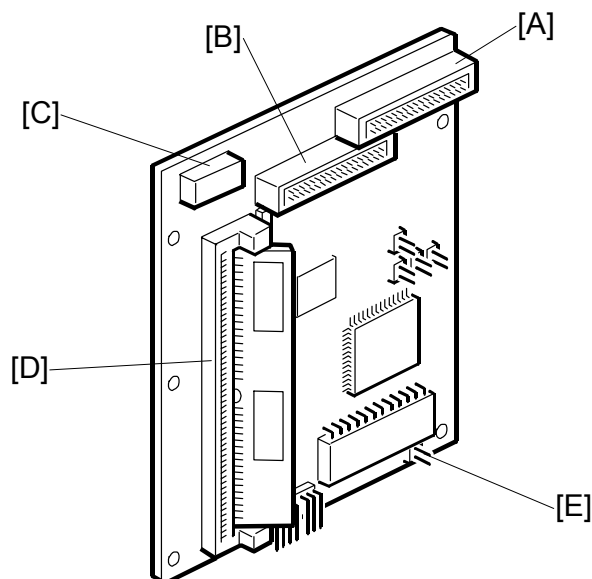
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DETAILED DESCRIPTIONS

OVERVIEW



C249D950.WMF

DESCRIPTION	CONTROLLER
CPU	Analog Devices ADSP chip
RAM	16MB (SIMM)
Flash ROM	1MB EPROM

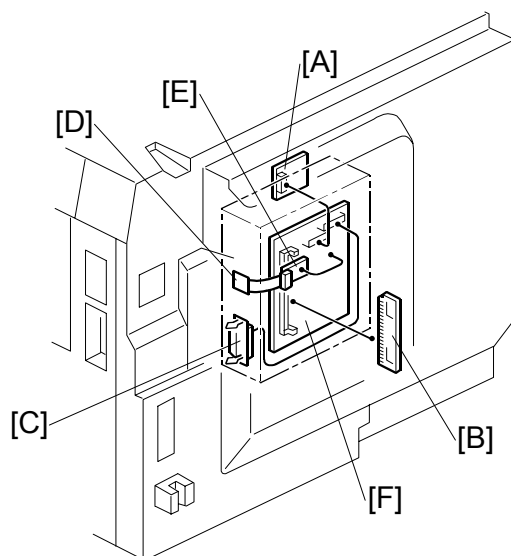
REF.	CONNECTOR		DESCRIPTION
	Name	Configuration	
A	IEEE1284 I/F	26-pin socket	To IEEE1284 Interface
B	Engine Interface	26-pin socket	To video I/F board
C	Power connector	4-pin socket	To power cable
D	SIMM Interface	72-pin SIMM	For connecting the SIMM module
E	Upgrade firmware jumper	2-pin	Upgrading controller firmware

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MACHINE LAYOUT



REF.	COMPONENT
A	Video Interface Board
B	SIMM Module
C	IEEE1284 Interface
D	Control Button Board
E	Keypad Board
F	Printer Controller Board

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SEPECIFICATIONS

Controller Type	Embedded
Configuration	Internal embedded controller
Printer Language	GDI
Print Resolution	600dpi
Memory (RAM)	16MB (SIMM)
Resident Fonts	None
Host Interface	IEEE1284B (Compatible, Nibble, ECP)
Host PC	IBM PC/AT compatible PC
Operating Systems Supported	Windows 95/98/Me, Windows NT4.0 (*1), Windows 2000/XP
Printer Driver	Digital Duplicator A3 600 GDI

NOTE: The Printer drivers for Windows NT4.0 are only for Intel x86 compatible platforms. There is no Windows NT4.0 printer driver for the PowerPC, Alpha, or MIPS platforms.