Priport Controller UC5

Service Manual

Contents

IMPORTANT SAFETY NOTICES

PREVENTION OF PHYSICAL INJURY

1. Before disassembling or assembling parts of the printer and peripherals, make sure that the power cord is unplugged.
2. The wall outlet should be near the controller and easily accessible.
3. If any adjustment or operation check has to be made with exterior covers off or open while the main switch is turned on, keep hands away from electrified or mechanically driven components.

OBSERVANCE OF ELECTRICAL SAFETY STANDARDS

The controller must be installed and maintained by a customer service representative who has completed the training course on those models.

SAFETY AND ECOLOGICAL NOTES FOR DISPOSAL

Dispose of replaced parts in accordance with local regulations.

General Remarks

The following table shows the conversion of the model names for each manufacturer:

Model Code	*Company*	*Model Name*
C229	Ricoh	JP5000
	Gestetner	5450
	RexRotary	1560
	Nashuatec	CP450
	Savin	3350DNP
C231	Ricoh	JP1010/1030/1045/1050
	Gestetner	5306(L/b)/5000/5001
	RexRotary	1224(B)
	Nashuatec	CP306(b)
	Savin	3150DNP
C217	Ricoh	VT1730
	Gestetner	5303
	RexRotary	1220
	Nashuatec	CP303
C225	Ricoh	VT1800
	Gestetner	5304
	RexRotary	1222
	Nashuatec	CP304
	Savin	3100DNP
C226	Ricoh	VT2250/VT2240
	Gestetner	5329(L)
	RexRotary	1254(L)
	Nashuatec	CP329(L)
	Savin	3250DNP
C224	Ricoh	VT2200
	Gestetner	5327
	RexRotary	1252
	Nashuatec	CP327
	Savin	3200DNP
C216	Ricoh	VT2105
	Gestetner	5325
	RexRotary	1250
	Nashuatec	CP32
C211	Ricoh	VT2100/VT2130/VT2150
	Gestetner	5310/5315/5320
	RexRotary	1240/1241/1242
	Nashuatec	CP310/CP315

Model Code	*Company*	*Model Name*
C212	Ricoh	VT2300
	Gestetner	5330
	RexRotary	1260
	Nashuatec	CP330
C210	Ricoh	VT3500
	Gestetner	5375
	RexRotary	1280
	Nashuatec	CP375
C218	Ricoh	VT3600
	Gestetner	5380
	RexRotary	1285
	Nashuatec	CP380
C223	Ricoh	VT3800
	Gestetner	5385
	RexRotary	1290
	Nashuatec	CP385
	Savin	3300DNP
C219	Ricoh	VT2600/VT2630
	Gestetner	5360
	RexRotary	1270
	Nashuatec	CP360
C222	Ricoh	VT2400
	Gestetner	5340
	RexRotary	1255
	Nashuatec	CP340
C228	Ricoh	VT6000
	Gestetner	5390
	RexRotary	1295
	Nashuatec	CP390
	Savin	3400DNP
C214	Gestetner	5305/5330
	RexRotary	1230
	Nashuatec	CP305
C237	Ricoh	JP1210/1230/1250
	Gestetner	5308/5308L/5308B
	RexRotary	1225/1225B
	Nashuatec	CP308/CP308B
	Savin	3150eDNP
	Standard	SD330

Model Code	Company	Model Name
C235	Ricoh	JP8000
	Gestetner	5490
	RexRotary	1395
	Nashuatec	CP490
	Savin	3450DNP
	Standard	SD630

1. OVERALL INFORMATION

1.1 HOST SYSTEMS

Priport Controller UC5 is external box GDI raster image processor for PRIPORTs. The following are the target computer hosts for this controller.

Target Host Computer Systems

- IBM PC/AT compatible PC with Windows 3.11 for workgroups, ME, 2000, 95 with Internet Explorer 4.01 SP1, Windows 98, or Windows NT4.0 with SP3 operating systems.

There are no minimum system hardware requirements, other than those imposed by the operating systems.

1.2 BASIC SPECIFICATION

Contents	Description
Configuration	External Box Type Controller Unit
Priport Models	JP8000, JP5000, JP1210, JP1230, JP1250, JP1010, JP1030, JP1045, JP1050, VT6000, VT2200, VT2105, VT2150, VT2600, VT2400, VT1730,VT1800
I/O Interfaces	Host: • Parallel I/F (ECP/EPP Bi-directional) Video: RSVI Interface
Page Description Upgrade	PostScript® P LEVEL 2
Network (Upgrade)	10 Baset 100 Baset (RJ45) Ethernet
Fonts	True Type
Image Resolution	300 dpi, 400 dpi, 600 dpi
RAM	Standard:16MB, (72-pin 60ns EDO SIMM, non-parity, at 5 volts with 2K maximum refresh rate)
Paper Size	A3, A4, B4, B5, A5, Custom size (Operating System Depending), US Letter, US Legal, US Tabloid

Table 1.2. Basic Controller Specifications.

1.3 FONTS

All fonts reside with in the host computer. Systems fonts are all True Type Fonts.

1.4 VIDEO INTERFACE KITS

Description	Contents
PC Controller I/F Kit Type-600	For the connection to all VT Series
PC Controller I/F Kit Type-10	For the connection to JP1010, JP1030, JP1045, JP1050, and JP5000 (Asian version only) * The interface kit is originally installed for JP5000, except for the Asian version machines.

Table 1.4. Interface Kits for use with the Controller.

2. BASIC FUNCTION

2.1 BASIC CONFIGURATION

2.1.1. MAIN BOARD SPECIFICATIONS

Main Printed Circuit Board specifications are listed in the table below.

Description	UC5 Controller
CPU	A.D.S.P. CHIP
RAM	16MB (SIMM)
Flash ROM	1Mb Programable Eprom

Table 2.1. Main Board Specifications.

2.1.2. MAIN BOARD LAYOUT

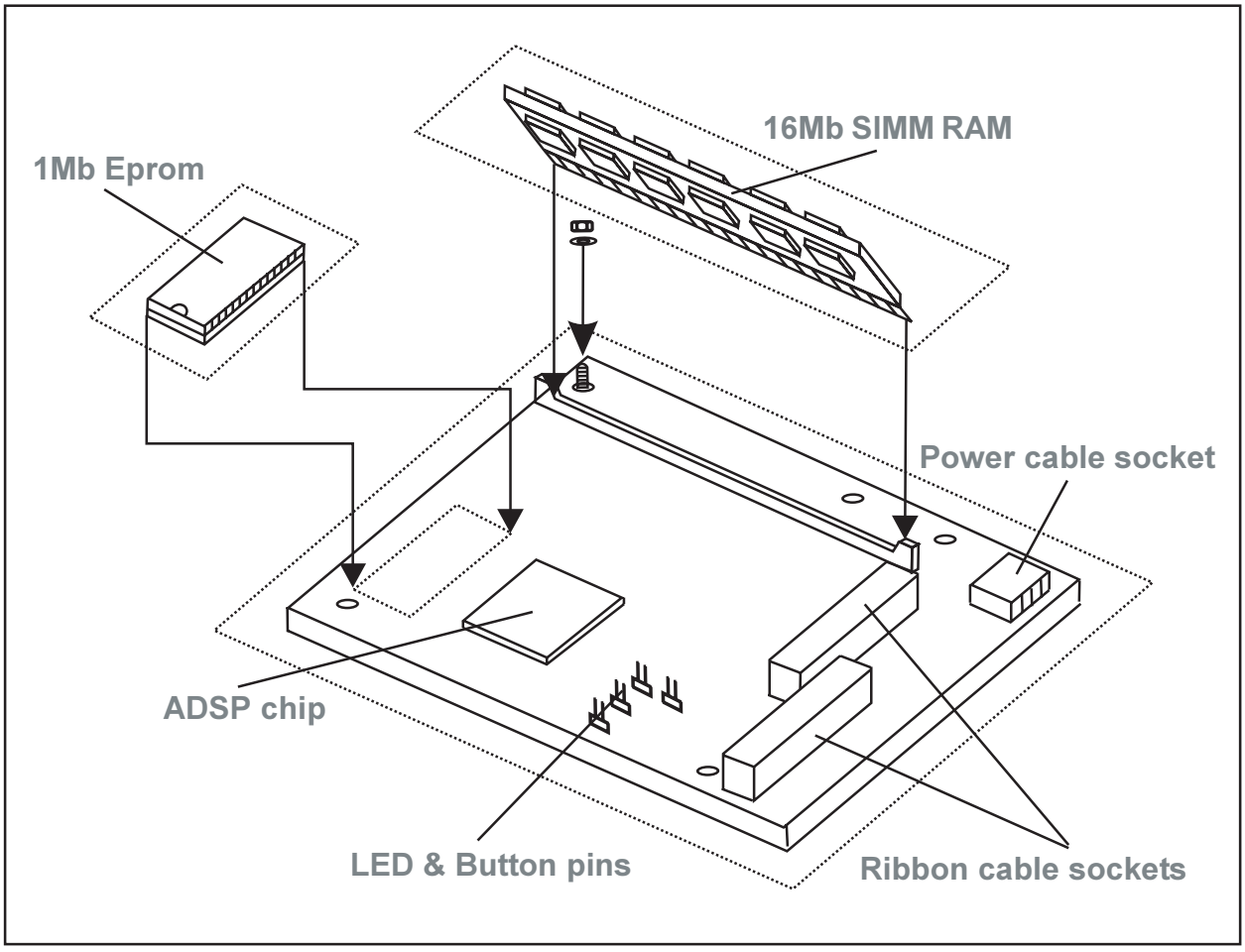


Figure 2.1.2. Main Board Layout

2.2 SPECIFICATIONS AND CONFIGURATIONS OF I/O PORT

The ZipRip UC5 Controller supports connection to a computer for printing from the following port:

- Parallel Port (IEEE 128 , ECP/EPP Bi-directional)

2.2.1 PARALLEL MINI CENTRONICS INPUT PORT

2.2.1.1 DESCRIPTION

The high-performance parallel input/output port on the controller utilizes the IEEE 1284 – 1994 design, for high-speed communication between the computer and controller. Be sure to use a cable conforming to this design standard to realize the full data speed benefit from this interface.

2.2.1.2 IEEE 1284 PARALLEL PORT CHARACTERISTICS

Maximum data speed: 2 MBytes/sec.
Maximum cable length: 1 metre (3.5 feet).
Chassis connector type: IEEE 1284 Type B (Centronics).
Design standard: IEEE 1284 – 1994 .
To use this interface at the highest data rate, the parallel port (e.g., LPT1:) on the user's computer must be configured as an ECP or ECP/EPP (not EPP) Printer Port.

2.2.1.3 IEEE 1284 PARALLEL PORT PIN OUT

IEEE 1284 Type B Centronics

<= in => out	DB25pin	Cent Signal	Name of Bit	Reg Function Notes
=>	1	1	-Strobe C0-	Set Low pulse >0.5 us to send
=>	2	2	Data 0 D0	Set to least significant data
=>	3	3	Data 1 D1	
=>	4	4	Data 2 D2	
=>	5	5	Data 3 D3	
=>	6	6	Data 4 D4	
=>	7	7	Data 5 D5	
=>	8	8	Data 6 D6	
=>	9	9	Data 7 D7	Set to most significant data
<=	10	10	-Ack S6+	IRQ Low Pulse ~ 5 uS, after accept
<=	11	11	+Busy S7-	High for Busy/Offline/Error
<=	12	12	+PaperEnd S5+	High for out of paper
<=	13	13	+SelectIn S4+	High for printer selected
=>	14	14	-AutoFd C1-	Set Low to autofeed one line
<=	15	32	-Error S3+	Low for Error/Offline/ PaperEnd
=>	16	31	-Init C2+	Set Low pulse > 50uS to init
=>	17	36	-Select C3-	Set Low to select printer
==	18-25	19-30	Ground	
	33,17,		Ground	
	16		Ground	

3. VIDEO I/F INSTALLATION PROCEDURES

3.1 VIDEO I/F KIT TYPE-600 PARTS LIST (NOT SUPPLIED WITH UC5)

3.1.1 COMMONASSEMBLIES

No.	Description	Qty.
1	IC – Interface	1
2	Interface Board	1
3	Insulating sheet – 145 x 200	1
4	Interface Cable – Interface Board	1

Table 3.1.1. Common Assemblies.

3.1.2 SET FOR PART 1A

No.	Description	Qty.
5	Stud – 50mm	2
6	Spacer – 10mm	2
7	PCB Stud – 64mm	2
8	Harness Support Bracket	1
9	Philips Pan Head Screw – M3 x 35	1
10	Philips Flange Screw – M3 x 8	3
11	Philips Flange Screw – M4 x 8	3
12	Flat Cable – N810/NA33/NA3/NB2/RN925/N850	1
13	Wire Band	1
14	PCB Collar	1

Table 3.1.2. Set for Part 1A.

3.1.3 SET FOR PART 1B

No.	Description	Qty.
15	Flat Cable – NA2	1
16	Main Board Spacer	1
17	Stud – Bracket – Interface	2
18	Interface Board Bracket	1
19	Philips Screw with Flat Washer – M3 x 25	1
20	Stud – Main Board	1
21	Philips Screw with Flat Washer – M4 x 6	1
22	Philips Screw – M4 x 8	2
23	Philips Screw with Flat Washer – M3 x 6	2

Table 3.1.3. Set for Part 1B.

3.1.4SET FOR PART 1C

No.	Description	Qty.
24	Interface Board Stud	2
25	Main Board Stud – Long	4
26	Philips Screw – M4 x 8	2
27	Philips Screw with Flat Washer – M3 x 6	4
28	Flat Cable – N865	1

Table 3.1.4. Set for Part 1C.

3.1.5 PARTS FOR 1D

No.	Description	Qty.
29	Stud – 35mm	3
30	Philips Screw with flat Washer – M3 x 6	3
31	Philips Screw – M4 x 8	2

Table 3.1.5. Set for Part 1D.

3.2 VIDEO I/F KIT TYPE-10 PARTS LIST

No.	Description	Qty.
32	Interface Board	1
33	Relay Harness	1
34	Stepped Screw – M2.6	2
35	Tapping Screw – M3 x 6	2

Table 3.2.1. Video I/F kit Type-10.

3.3 INSTALLATION PROCEDURES FOR INTERFACE KITS

NOTE: 1) The UC5 Controller is designed for the JP1010/1030/1045/1050, JP5000, and all Series. The installation procedures for the other models are just for reference for the other controllers.

2) Numbers in parentheses ( ) in the installation procedures correspond to the part numbers in Tables 3.1 through 3.2.

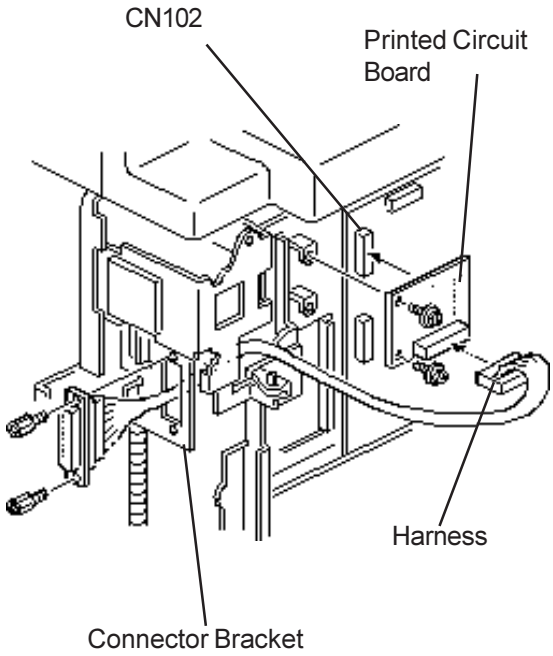
3.3.1 MODEL C229

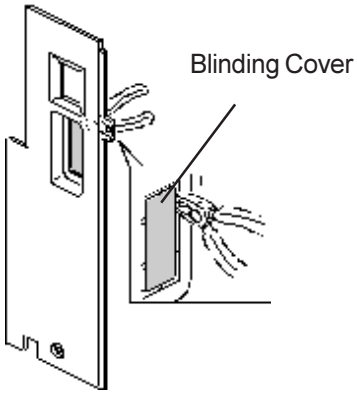
NOTE:

The interface kit is originally installed for the JP5000, except for the Asian version machines. You must perform step 3 only to connect the controller if the kit is installed.

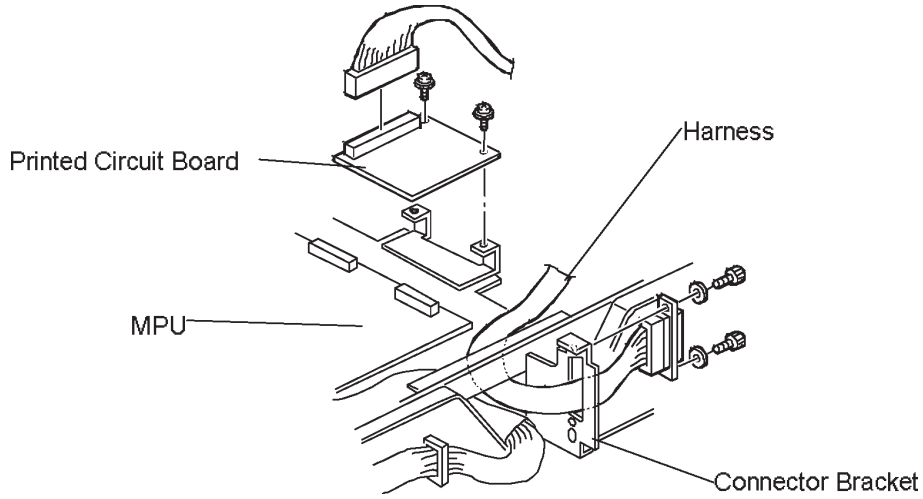
1. Remove the rear cover and right side panel of the Priport.
2. Mount Printed Circuit Board (32) on connector CN102 of the MPU board using two M3x6 screws (35). Mount the cable (33) on the Connector Bracket using two stepped screws (34).
3. Remove the blinding cover in the right side panel.

NOTE: If SP Mode 2-6 (PC Controller Settings) is set at "AUTO" (i.e. the default setting), the On-line key is enabled automatically when the controller and interface kit are installed.





3.3.2 MODEL C231



1. Turn off the main switch and unplug the power cord.
2. Remove the upper rear cover.
3. Remove the MPU cover.
4. Connect CN102 of the printed circuit board (32) to CN110 of the MPU board and secure it using two screws (35).
5. Connect the harness (33) to CN101 of the printed circuit Board, and secure it to the connector bracket using two stepped screws (34).
6. Remove the communications port cover plate (blinding cover) from the upper rear cover.
7. Reinstall the MPU cover.
8. Reinstall the upper rear cover.

NOTE: The On-line key on the operation panel is enabled automatically when the controller and interface kit are installed.

3.3.3 MODELS C228/C223/C218/C210/C219

1. Remove the rear cover and front side panel of the Priport.
2. Mount the Shielded Cable Interface (2).

a) Mount a Stud (17) on the rear chassis of the Priport.

b) Thread the Shielded Cable (4) from rear chassis to the front chassis under the Priport body.
Note for the VT3600/3500/2600: first remove the bottom plate, then re-attach it.

c) Attach the Shielded Cable (4) on the Stud (17) using two M4x8 Screws (26).

> **NOTE:**
>
> Before mounting Printed Circuit Board Interface (2), attach one end of the Ribbon Cable (12) to the IPU board ribbon cable connector.

3. Mount the Printed Circuit Board Interface (2).

   a) Mount a Stud (20) on the Priport.

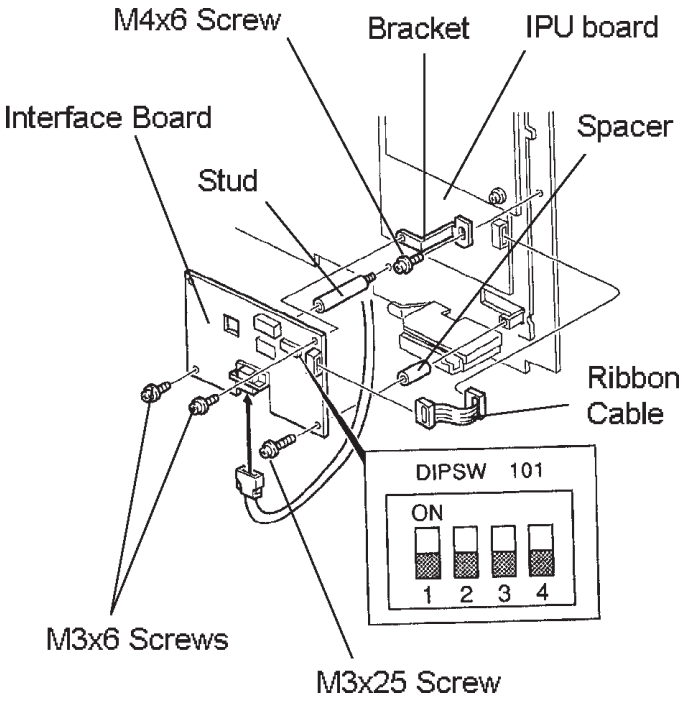
   b) Mount the Bracket (18) on the chassis using a M4x6 screw and washer (21).

   c) Attach the Printed Circuit Board (2) using 2, M3x6 screws (27). Attach the bottom of the right hand side of the Printed Circuit Board to the Spacer (16) using a M3x25 screw (19).

   d) Attach the connector of the Printed Circuit Board (2) to the Shielded Cable (4).

   e) Attach free end of the Ribbon Cable (21) to the Printed Circuit

   f) Board Interface (2).



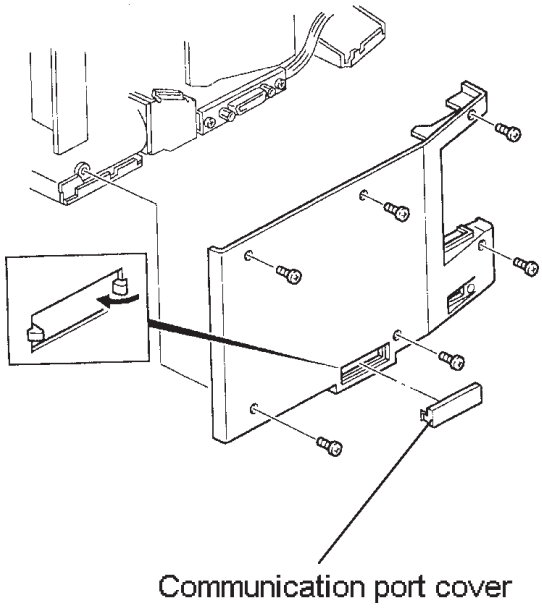
4. Set the Printed Circuit Board interface switches.

   a) Set all switches on DIPSW 101 to OFF

5. Re-attach the side cover panels of the Priport.

   a) Pop out the communication port cover plate from the lower center of the rear cover panel.

   b) Reinstall the rear and front cover panels.



6. Connect the Priport and AC power to the Controller.

   a) Connect a Video Cable between the Priport and the Controller.

   b) Connect an AC cable to the Controller.

7. Set SP Mode 1 (for the Online Key On/Off) to ON.

3.3.4 MODEL C222

1. Remove the rear cover and front side panel of the Priport.
2. Mount Shielded Cable Interface (4).
3. Mount Printed Circuit Board Interface (2).

   a) Remove the three screws attaching the mainframe MPU Board to the chassis (two screws upper and lower side of CN109, and one screw lower side of the CN111).

   b) Replace the screws removed in a) above with Studs (29).

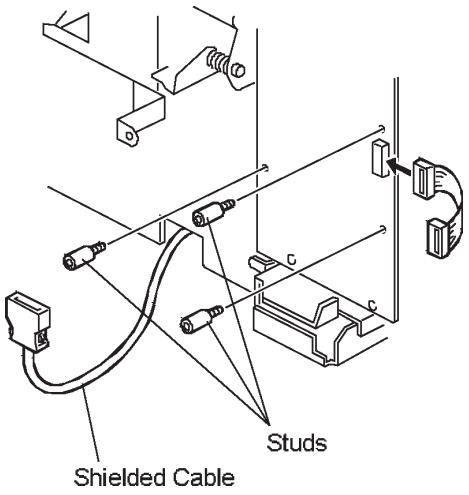
   c) Connect one side of the Ribbon Cable (12) to the connector of Mainframe MPU Board.

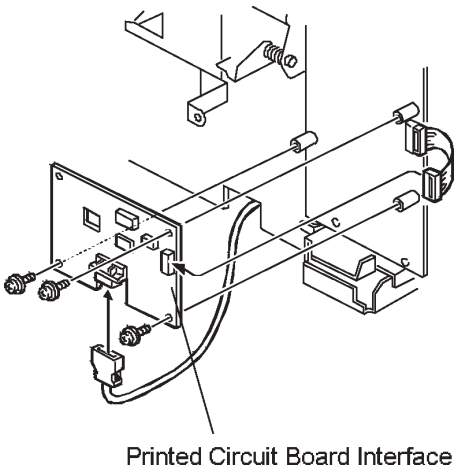
   d) Attach the Printed Circuit Board Inter face (2) to the Studs (29) using M3x6 Screws (27).

   e) Connect the free end of the Ribbon Cable (12) to the CN102 connector of Printed Circuit Board Interface (2).

   f) Set all switches of DIPSW 101 on the Printed Circuit Board Interface (2) to OFF.

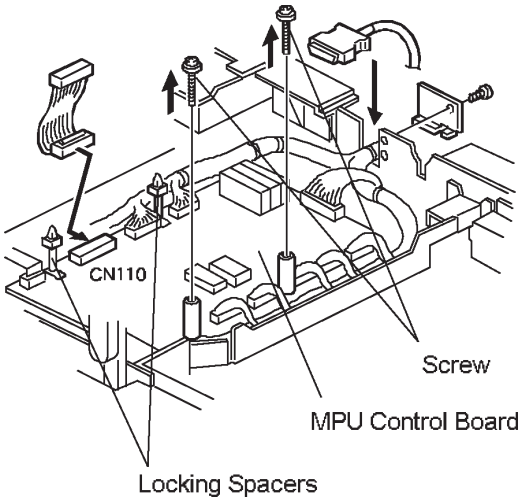
4. Pop out the communication port cover plate from the lower center of the rear cover panel. Reinstall the rear and front cover panels.
5. Set SP Mode 2-1 (Online Key On/Off) to ON



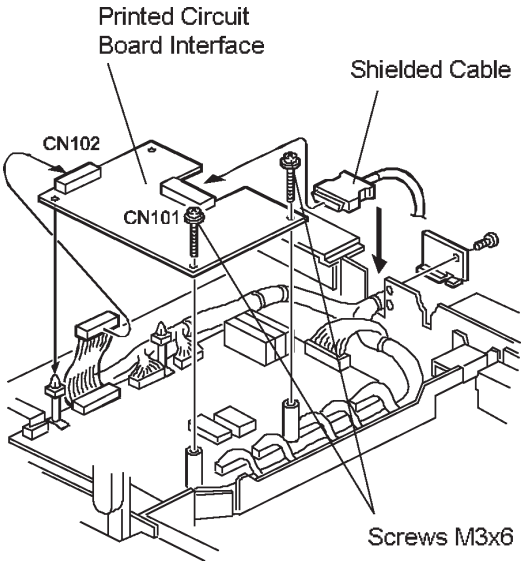


3.3.5 MODEL C226

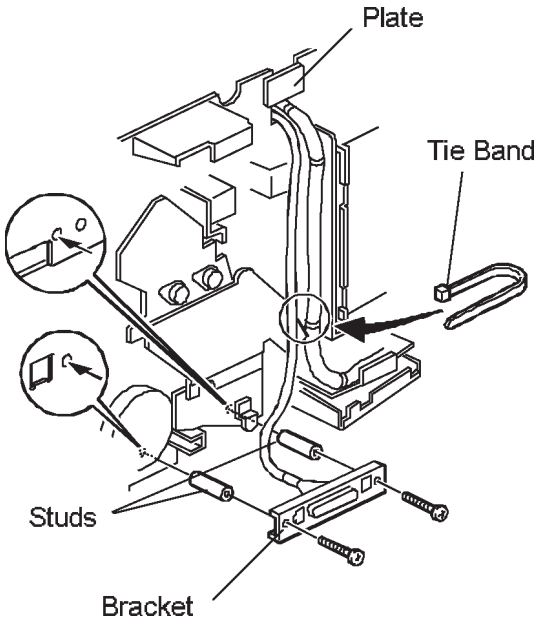
1. Remove the top cover of the Mainframe MPU Board.
2. Remove screws attached to the two studs on the top of MPU Control Board.
3. Connect the free end of the Ribbon Cable (12) to the connector marked CN110 located at the left edge of the MPU Control Board.
4. Position the MPU Control Board and Printed Circuit Board Interface (2) on the Studs.
5. Attach the Printed Circuit Board Interface (2) to the MPU Control Board, taking care to align the left edge with the locking spacers.



6. Attach the right side edge of the Printed Circuit Board (2) to the mounting Studs on the MPU Control Board using three M3x6 screws.
7. Connect the free end of the Ribbon Cable (12) to the connector marked CN102 on the Printed Circuit Board Interface (2).
8. Attach the Shielded Cable to the Printed Circuit Board Interface (2).

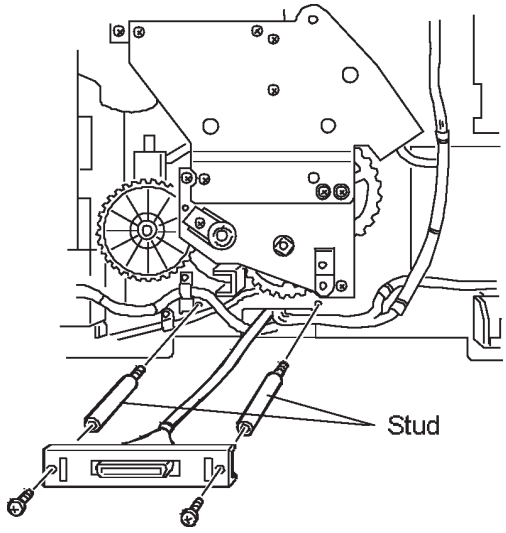


9. Remove the rear cover panel of the Priport.
10. Remove the Plate attached to the channel for the Main Harness in the rear upper of the Chassis.
11. Route the Shielded Cable (4) along side the Main Harness.
12. Re-attach the Plate.
13. Mount the Studs (24) on the rear chassis of the Priport.
14. Mount the Bracket end of the Shielded Cable (4) onto the Studs (24) using two M4x8 screws (26).
15. Tie the Shielded Cable (4) to Main Harness using the Tie Band (13).
16. Pop out the communication port cover plate from the lower center of the rear cover panel.
17. Reinstall the rear cover panel of the Priport.
18. Set all switches on DIPSW 101 of the Printed Circuit Board Interface (2) to OFF.
19. Re-install the top cover of the Priport.
20. Set SP Mode 1 (Online Key On/Off) to ON.

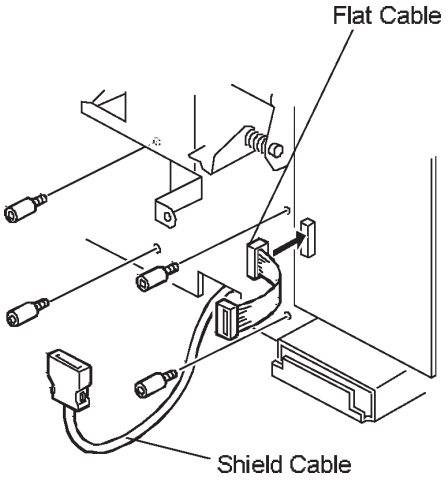


3.3.6 MODEL C224

1. Remove the rear and front covers of the Priport.
2. Mount Shielded Cable Interface (4).
   a) Mount two Studs (24) on the rear chassis of the Priport.
   b) Remove bottom plate of the Priport.
   c) Thread the Shielded Cable (4) from the rear chassis to the front chassis under the Priport body.
   d) Reinstall the bottom plate.
   e) Mount the Bracket of the Shielded Cable (4) on the Studs (8) using two Phillips Screws M4x8 (26).



3. Mount Printed Circuit Board Interface (2).
   a) Mount four Studs (25) on the front chassis of the Priport.
   b) Connect the Ribbon Cable (12) to the MPU board of the Priport.



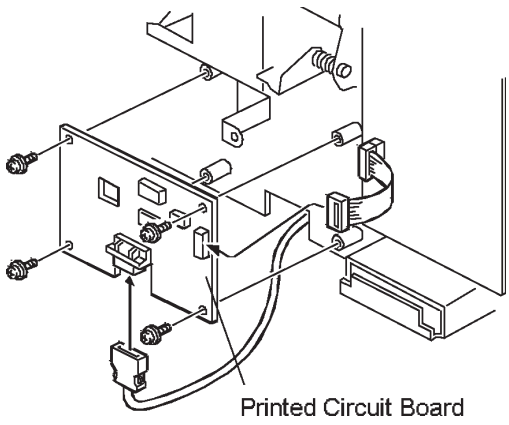
c) Attach the Printed Circuit Board Interface (2) to the Studs (25) using four M3x25 Screws(20).

b) Connect the free end of the Ribbon Cable (27) to CN102 of the Printed Circuit Board Interface (2).

e) Connect the Shielded Cable (4) to CN101 of the Printed Circuit Board Interface (2).

f) Set all switches on DIPSW 101 of the Printed Circuit Board Interface (2) to OFF.

g) Set DIPSW 103-8 of the Mainframe MPU Board (Online On/Off) to ON.



4. Pop out the communication port cover plate from the lower center of the rear cover panel.

5. Reinstall the rear and front cover panels of the Priport.

4. OPERATION VERIFICATION

Operation verification of the Controller consists of using the Controller with a computer and a PRIPORT to verify that all I/O ports function properly.

4.1 TOOLS

The following items are needed to perform an operational verification of the UC5.

1) A Priport
2) A UC5 Controller and all items parts
3) A PC running any of the specified operating systems listed in 1.1. of this manual.

4.2 TESTS

Verification of correct operation of all ports and status lights verifies that the Controller is operating normally.

4.2.1 PRELIMINARY VERIFICATION OF PRIPORT AND VIDEO INTERFACE OPERATION

1) Verify that the following parts are properly connected:
   a) I/F Board to the Priport Main Board (IPU Board),
   b) Shielded Cable to the I/F Board,
   c) All other parts of the I/F Kit.
2) Turn the Priport on and, while it is offline (i.e., Online OFF is selected), verify that,
   a) It can produce a good master from a scanned original, and
   b) It can print from the master made of the scanned original.
3) Enable the “Online Mode” while the Priport is in the SP-MODE, and verify that the
   a) The Online LED illuminates when the Online Key is pressed, and
   b) No error is displayed on LCD of Priport. If so, recover from the error.

4.2.2 PROCEDURE TO VERIFY CONTROLLER POWER ON SEQUENCE AND PRIPORT INTERFACE

1) If not previously done, perform operation verification procedure 4.1.1.
2) Properly attach a parallel cable supplied in the UC5 Kit (see Section **5.1.2**) between the Controller and Priport.
3) Power on the Priport.

4) Power on the Controller.

4) Put the Priport ONLINE.

6) Wait while the Controller conducts its turn-on self-diagnostic test (takes about 6 seconds.)

7) Check the Controller LED status lights:

   a) The right green light stays on when the power-on switch is processed.

   b) The left red LED flashes for approximately 6 seconds, and is the Rip activity LED

   c) The Controller is ready, for printing when the self-diagnostic test is finished and the left red light goes out.

. **NOTE:** A solid green left status light with the right status light off verifies correct Controller power on process.

8) When the Controller is ready for printing, put paper into the Priport input tray and set Auto Cycle ON.

9) Press the green Test Page button on the back of the controller. The right red light will start to flash quickly, indicating the controller is in the process of creating a Test Page.

10) Master making should begin when the right red light stops on.

11) Printing should begin when the right red light stops on.

NOTE: A correctly generated/printed Test Page verifies correct operation of the Controller's digital duplicator port.

4.2.3 PROCEDURE TO VERIFY THE CONTROLLER'S PARALLEL PORTS

1) If not previously done, perform operation verification procedures 4.2.1 and 4.2.2.

2) Connect a parallel cable such as that supplied in UC5 Kit between the PC and the Controller.

3) If not previously done, install the Controller drivers onto the PC. Make sure to install the printer drivers specific to the digital duplicator (Priport) model with which you are working. Make sure the port to which the printer is attached is LPT1:.

4) Select the printer driver for the Priport and print the Windows Test Page from the Printer Properties of the printer driver:

   a) Put paper into the input tray of the Priport and set Auto Cycle on,

   b) In the Printers Folder, right-click on the Priport printer driver, select Properties, then locate and click on Print Test Page,

NOTE: A correct printout of the Windows Test Page verifies correct operation of the Controller's parallel port.

5. TROUBLESHOOTING

5.1 BASIC STEPS FOR TROUBLESHOOTING

5.1.1 CATEGORIZING PROBLEMS

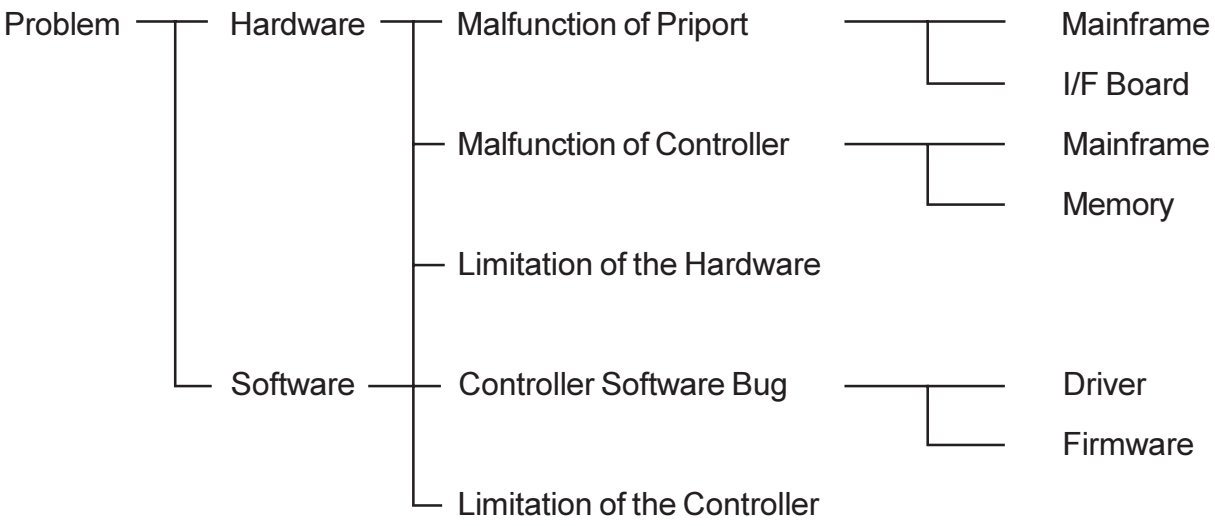
When a problem is reported, it should be categorized according to the data or information collected from the customer regarding its occurrence. This data falls into three categorie.s:

1) the steps required to generate the problem,

2) the conditions under which the problem occurs, and

3) the frequency of occurrence.

The process of categorization should proceed as follows:



5.1.2 EQUIPMENT NECESSARY FOR TROUBLESHOOTING

The following items are needed, as well as a working Priport and Win95/98 computer.

NOTE: The following items are available as the UC5 Kit. Refer to section **7** for the part number.

1) Cables for operational verification of the controller.

   a) 1, PRIPORT-to-controller video cable.

   b) 1, computer-to-controller parallel cable.

2) Installation CDROM (all mfr Installation CDs) allowing setup of any PRIPORT and any controller model number.

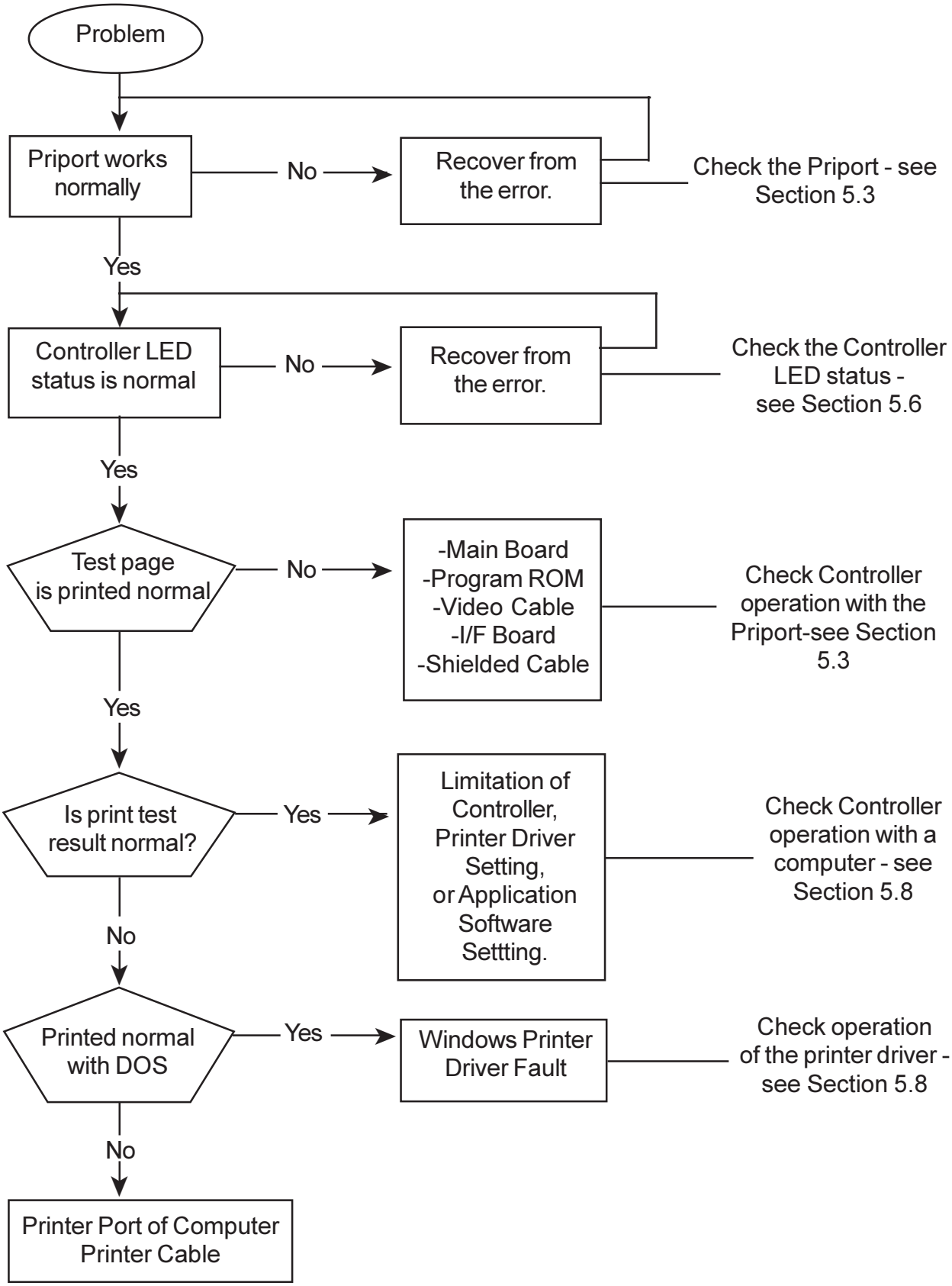
5.1.3 INFORMATION NECESSARY FOR TROUBLESHOOTING

The following information should be collected before troubleshooting begins:

- A Test Page from the controller,
- The name and version of the printer driver,
- A print sample showing the problem,
- The printer settings of the computer, and
- The name and version of the application software that generated the page.

5.2 TROUBLESHOOTING FLOW

5.2.1 TROUBLESHOOTING FLOWCHART



5.3 PRIPORT/CONTROLLER FAILURE IDENTIFICATION

For each of the following failure modes, see the corresponding operation verification procedure to assist with the troubleshooting process:

Apparent Failure Mode	Operation Verification Procedure
Priport operation *without the Controller.*	Section 4.2.1
Priport/Controller operation *without a computer.*	Section 4.2.2
Priport/Controller operation *with a computer.*	For operation with a PC: Section 4.2.3.

Use the operation verification procedure indicated to help identify in which component the problem lies.

5.4 SUBASSEMBLY TROUBLESHOOTING

Once you have positively identified a problem with the Controller, it will be necessary to troubleshoot the problem to the assembly level, and replace the faulty assembly.

5.4.1 IDENTIFYING THE FAULTY ASSEMBLY

A problem or fault must be traced to one of the subassemblies of the Controller. As a general rule, it is best to check the subassemblies in order according to their respective expected failure rates, keeping in mind the failure symptoms. Therefore it is generally recommended that the boards be checked in the following order:

1) The 16MB SIMM

2) The Main Board itself

IMPORTANT: The procedures to identify in which component the problem lies may be used to verify the operation of the indicated subassembly. If operation of any particular subassembly cannot be verified, replace the entire subassembly – do not attempt component-level repair.

5.5 MEMORY TROUBLESHOOTING

For the memory replacement, refer to section 6.5.

5.6 LED STATUS LIGHT SEQUENCE AND CONDITIONS

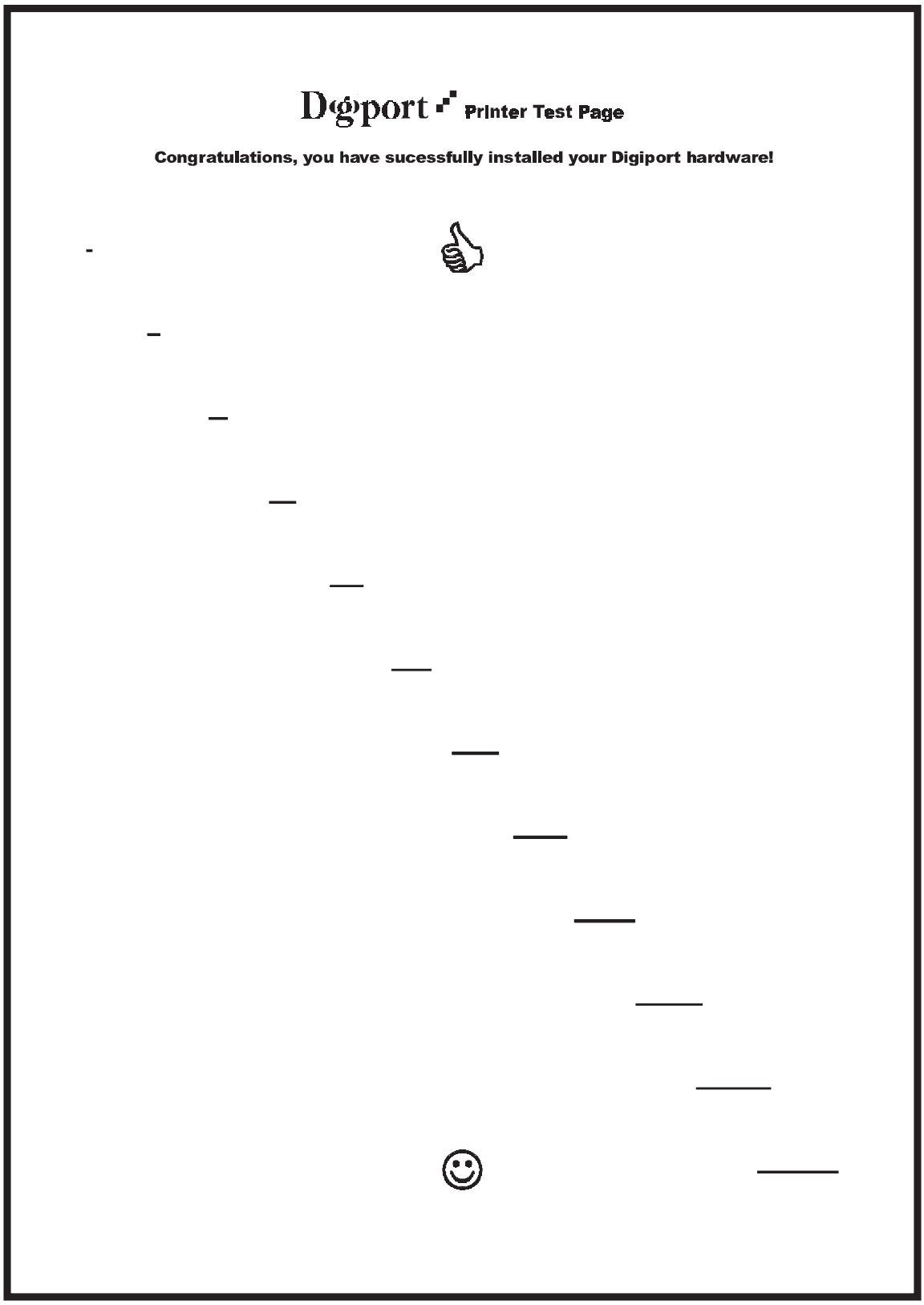
5.6.1 EVENT: POWER ON AND ACTIVATION

Status	Contents	Check Point
All LEDs are off.	No power supply	• No AC power, AC cord not properly connected, or power supply failure in the Controller.
Red LED is flashing	Self-diagnostic test before ready	• This occurs for 6 seconds Right-green LED is on
Green LED is on	Power on.	_____
Red LED is flashing rapidly	UC5 is receiving data.	• Check to see if there is a print job in the print queue of the network server, the print manager, or the print spooler in computer (option)
Red LED is on continously	UC5 is transfering data / making a master.	• Check to see if there is a print job in the print queue of the network server, the print manager, or the print spooler in computer.(option)
Is continuously off	The UC5 is idle	_____
Red LED flashing slowly and evenly	Error on Priport	• Check message on operation panel.

5.6.2. EVENT: PUSH THE DIAGNOSTIC TEST PAGE BUTTON

Status	Contents	Check Point
Red LED is flashing.	Receiving data	
Red LED is on	Master making.	
Red LED continuously on	Printing.	
Red LED flashes on then off. Stays off.	No response from the PRIPORT.	• Check to see that the PRIPORT is turned on. • Check to see that the Controller is properly connected to the PRIPORT. • Turn the PRIPORT on first, then turn on the Controller. • Check to see that the PRIPORT is Online. • Check 16MB Simm card is positioned correctly
Red LED is flashing slowly and evenly	PRIPORT Error.	• Check for an error message on the PRIPORT. • Check to make sure the Controller is properly connected to the PRIPORT.

5.7 TEST PAGE


Digiport
Printer Test Page
Congratulations, you have sucessfully installed your Digiport hardware!

5.8 CHECKING PRINTER DRIVER OPERATION

If the Windows Test Page does not print, or doesn't look right, check printer driver operation using the following steps.

1) Select the Details tab in the Properties Menu of the Printer Driver,
2) Change Port connection to "File :",
3) Click on the Apply button, select the General Tab and click on the Print Test Page button,
4) Set the file name (e.g., "test"), set the disk/directory location, and save the file,
5) Click 'YES' when the message pops up asking whether the test page printed correctly,
6) Open an MSDOS session (Start-Programs-MSDOS Prompt).
7) Check that the Priport and Controller are ready for printing, then execute the following command at the MS DOS Prompt.

   copy /b test.prn lpt1 "entre"

   NOTE: a) Always input "/b" after "copy".

   b) The above example is if the file name saved in the step d) is "test.prn".

   c) If the controller is connected to the second port of the computer, replace "lpt1" with "lpt2."
8) Input "exit "and exit from MS DOS prompt.
9) If the image is printed correctly, reset the printer driver to print to the printer port by doing the following:

   a) select the Details tab in Properties Menu of the Printer Driver

   b) change the Port back to the original setting (e.g., LPT1: or LPT2:),

   c) click Apply.

   Failure to do this will result in subsequent print jobs using this printer driver will be sent to a file on the hard drive instead of the printer.

If the image did not print correctly, there is a problem with the printer driver – it may be corrupt or out-of-date. Delete the printer driver and replace with a version from the Installation CD. Then repeat this process.

5.9 COLLECTING INFORMATION FOR A PROBLEM REPORT

The Problem Report should include the following items:

- A Diagnostic Test Page printed by the Controller.
- The name of computer manufacturer, and the model.
- The type of CPU, CPU speed and number of megabytes of RAM in the compu ter.
- The model name and number of the PRIPORT.
- The name and version of the printer driver being used.
- The port to which the Printer Driver is connected (i.e. LPT1).
- The EPROM version of the PC Controller I/F Kit Printed Circuit Board (for the JP series, the serial number of the Priport).
- The colour and flashing pattern of both the Controller status lights at time the problem is observed.
- The name and version of the application software (i.e., Microsoft Word 97, Adobe PageMaker, etc.).
- The paper size and orientation selected in the application software's Print menu.
- A sample printout showing the problem

6. DISASSEMBLY / ASSEMBLY

6.1 REQUIRED TOOLS AND PRECAUTIONS

- Anti-static wrist strap.
- #1 Phillips screwdriver.
- 5.5mm Spanner.
- Long nose pliers

DANGER

The Controller's power supply becomes hazardous with the chassis opened. It exposes you to severe electrical shock if you do not disconnect the power cord before opening.

CAUTION

The electronic components in this unit can be damaged by static discharge. Please ensure that you are properly grounded before touching any portion of the electronics. Also, touch the chassis with your finger before connecting test cables, setting switches or reattaching components.

6.2 DISASSEMBLY PROCEDURES

6.2.1 PREPARATION

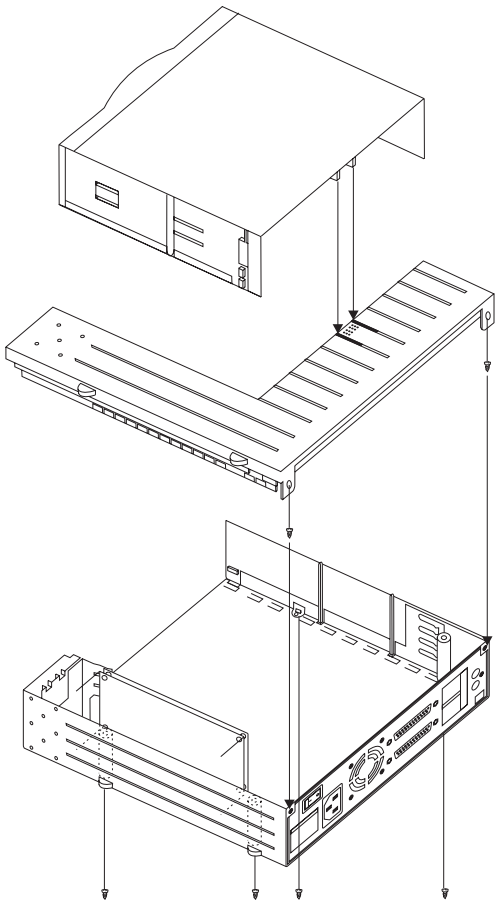
1. Identify a static-safe area for storage of the electronic components to be removed.
2. Disconnect the power cable.

6.2.2 REMOVING THE TOP PANEL COVERS

1. Turn the Controller over and lay it on its back.
2. Remove the four rubber feet located on either side of the Controller.
3. Use the #1 Phillips screwdriver to remove the 4 self tapping screws located inside the holes. If you only want to remove the U-shaped cover then only un screw the front shallow screw.

   Set the screws and feet aside for later re-assembly.
3. Turn the Controller onto its front.
4. Locate the latch tab at the top, towards the back of the Controller.
5. Press down the latch tab and at the same time slide the U-Shaped cover off.
6. Use the # 1 Phillips screwdriver to remove the 2 screws located on the back panel, top left and top right of the Controller .
7. Gently unhook the L-shaped cover.

   Caution: The end of the L-shaped cover near the LED's is latched inside.



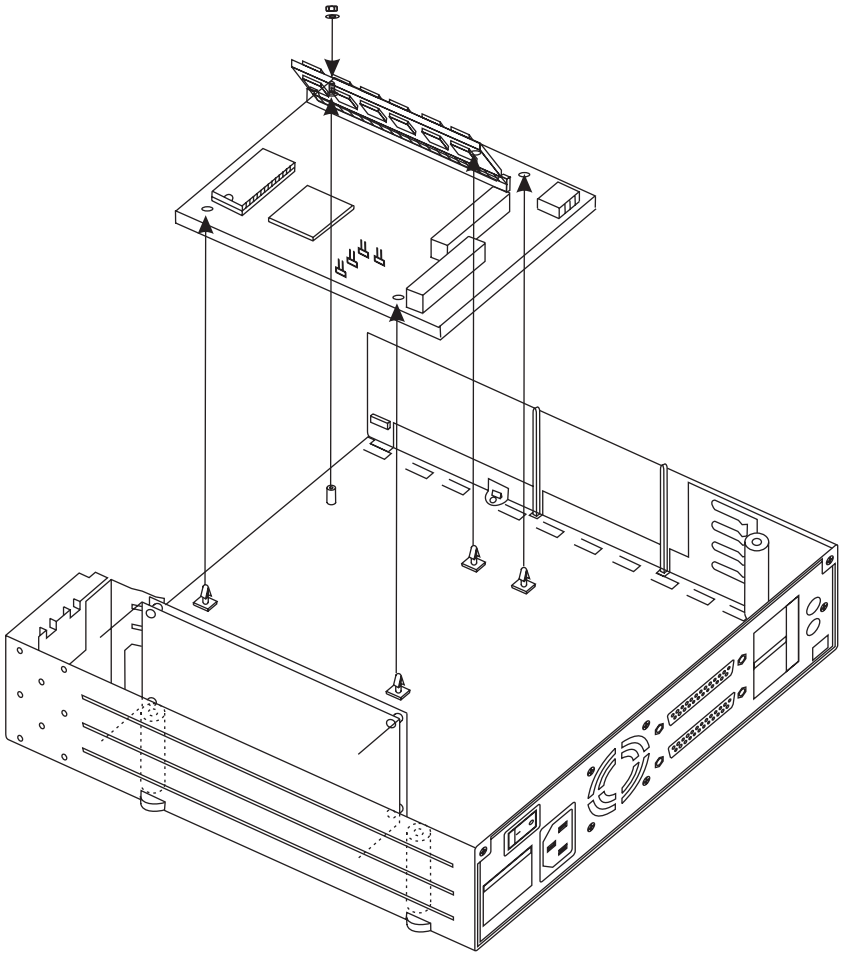
NOTE: Use caution not to break the latch tab

6.2.3 REMOVING THE MAIN BOARD

1. Remove the top U-shaped top cover (see Section 6.2.2)
2. Unplug the two ribbon cables connected to the board, taking care to note which cable goes to which outer DB25 connector.
3. Unplug the power supply cable to the main board.
4. Unplug the two grey leads that go to the buttons.
5. Unplug the black and orange lead that goes to the RED Activity LED.
6. Locate the screw on the bottom of the chassis. Use the #1 Phillips screw driver and the 5.5mm spanner to undo the nylock nut located on the one corner of the main board and set aside for re-assembly.
7. Use the Long nose pliers to squeeze each of the four plastic barbed stand offs.

   CAUTION: BE CAREFUL NOT TO DAMAGE THE BOARD.

   Squeezing one and lifting the main board and then moving onto the next standoff.



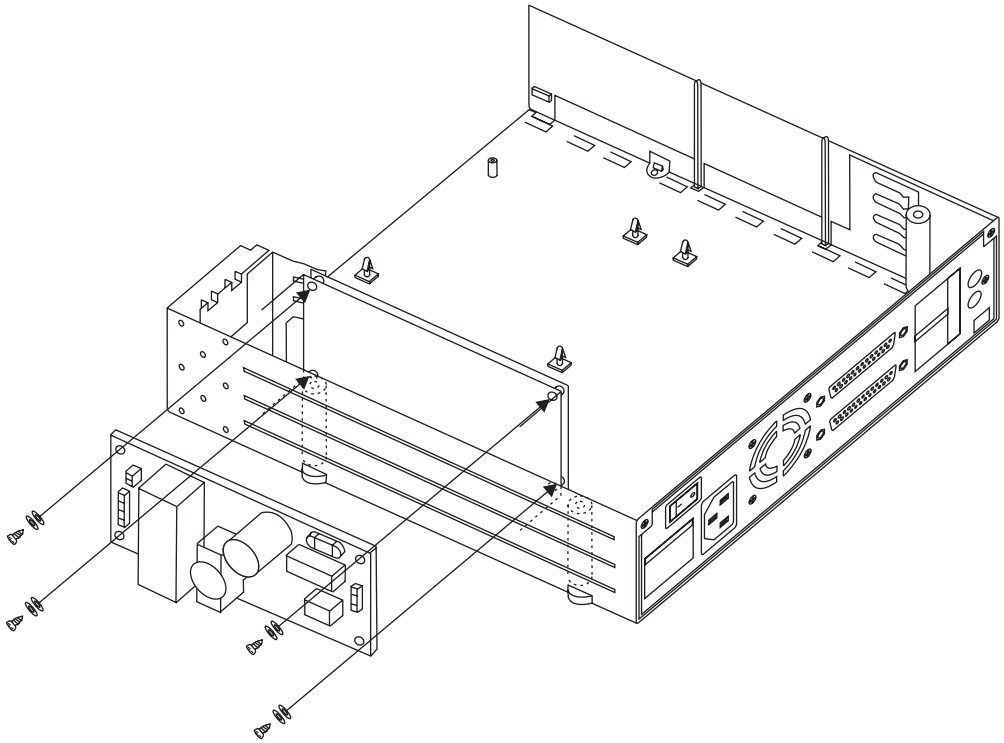
8. Remove the main board and place onto static-free surface.

6.2.4 REMOVING THE POWER SUPPLY UNIT.

1. Remove the top U-shaped top cover (see Section 6.2.2)
2. Remove the top L-shaped top cover (see Section 6.2.2)
3. Locate the power supply unit. Note the unit is mounted on a metal bracket.
4. Use a #1 Phillips screwdriver to unscrew the earth lead from the PSU bracket. Set screw aside for re-assembly.
5. Locate the latch to the left of the bracket.
6. While unclipping the latch pull the PSU up and to the right.

   CAUTION: THE PSU IS STILL CONNECTED
7. Unplug all the connectors to the PSU.
8. Remove the RED LED from its mount on the main chassis.
9. Use the #1 Phillips and unscrew the three screws holding the PSU onto its bracket.

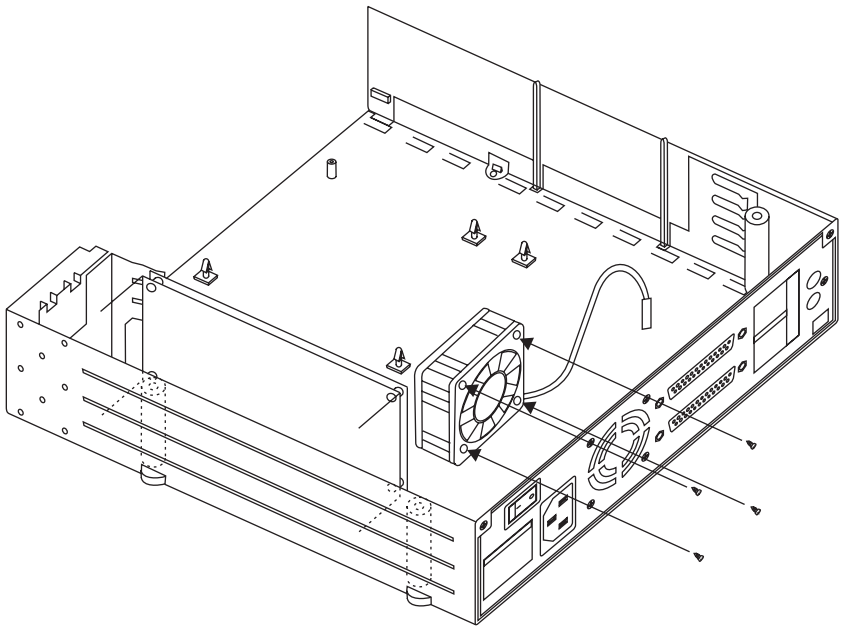
   Set aside the screws and the washers for reassembly.



10. Set aside the plastic PSU guard and set PSU aside on a static-free surface.

6.2.5 REPLACING THE FAN

1. Remove the top U-shaped cover. (see Section 6.2.2)
2. Remove the top L-shaped cover. (see Section 6.2.2)
3. Remove the PSU (see Section 6.2.4)
4. Unplug the Fan connecting cable on the PSU.
5. Use the #1 Phillips screwdriver to unscrew the four screws holding the Fan onto the back chassis panel. Set aside for re-assembly.
6. Remove the Fan and connecting cable.
7. Install the new Fan and cable, using the four screws removed in 5 above.
8. Reinstall the PSU (see Section 6.3.2)



9. Reinstall the top covers. (see Section 6.3.3)

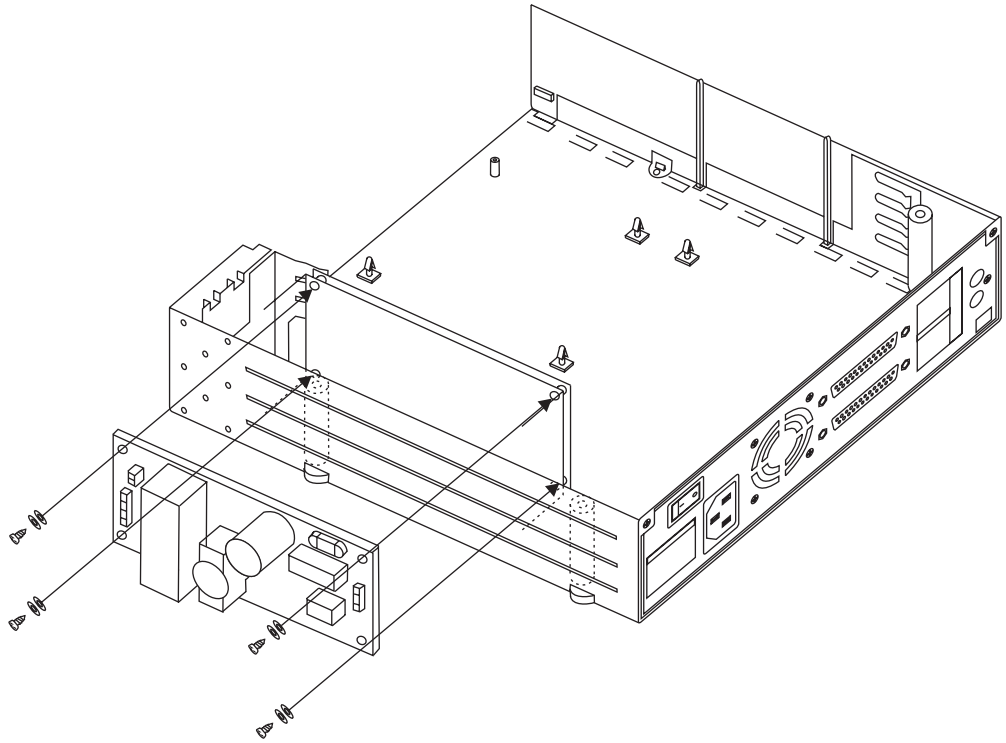
6.3 ASSEMBLY PROCEDURES

Assembly procedures are essentially the reverse of disassembly.

6.3.1 INSTALLING THE PSU

1. Place the chassis on a flat, stable surface.
2. Orientate the PSU Board so that the fuse is facing the top right.
3. Connect all the plugs onto the PSU.
4. Fit the RED LED into its mounting position on the chassis.
5. Place the RED and BLACK LED lead onto the mounting bracket and the lead for the power to the main board onto the mounting bracket.
6. Place the mounting bracket flat with the standoffs facing up and fit the plastic guard over the standoffs and the two leads.
7. Use the #1 Phillips screwdriver to screw in the three mounting screws.

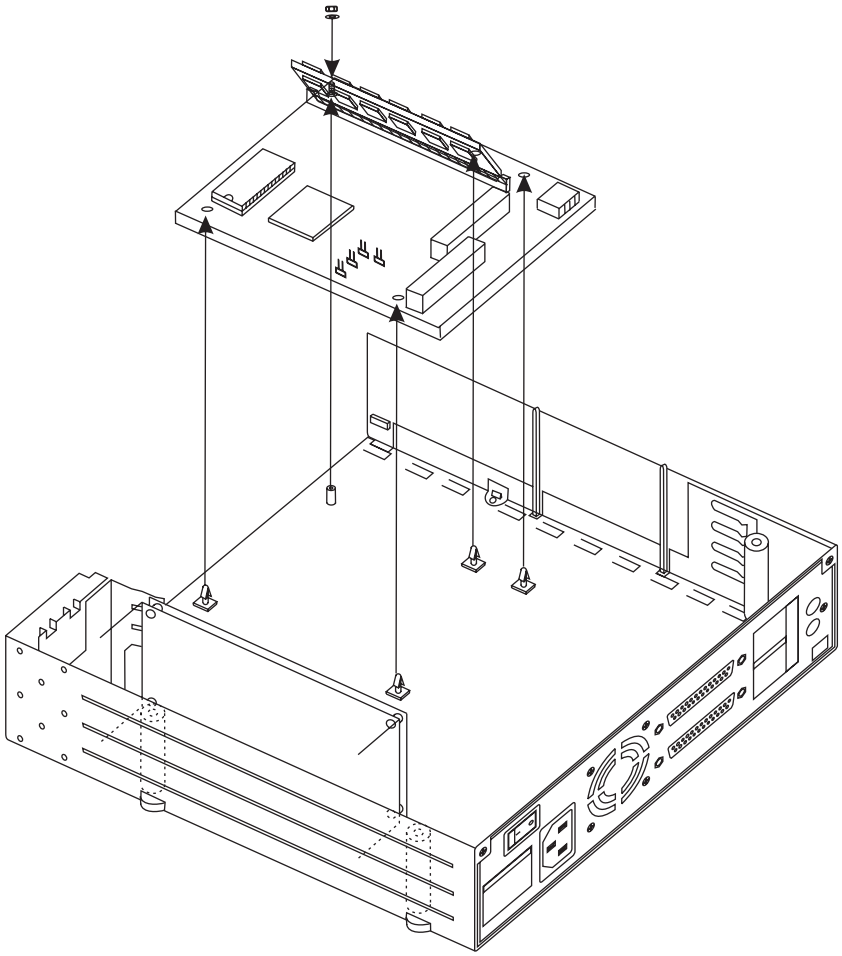
   NOTE: DO NOT FORGET THE WASHERS.
8. Screw in the Earth lead.
9. Place the PSU assembly on its side and clip the right end into its mounting latch.
10. Gently slide it down until it clips into position.
11. Replace the top covers. (see Section 6.3.3)



6.3.2 INSTALLING THE MAIN BOARD

1. Orientate the main board over the chassis so that the two ribbon cable plugs are facing the back of the Controller.
2. Gently push the main board into the barbed plastic standoffs.

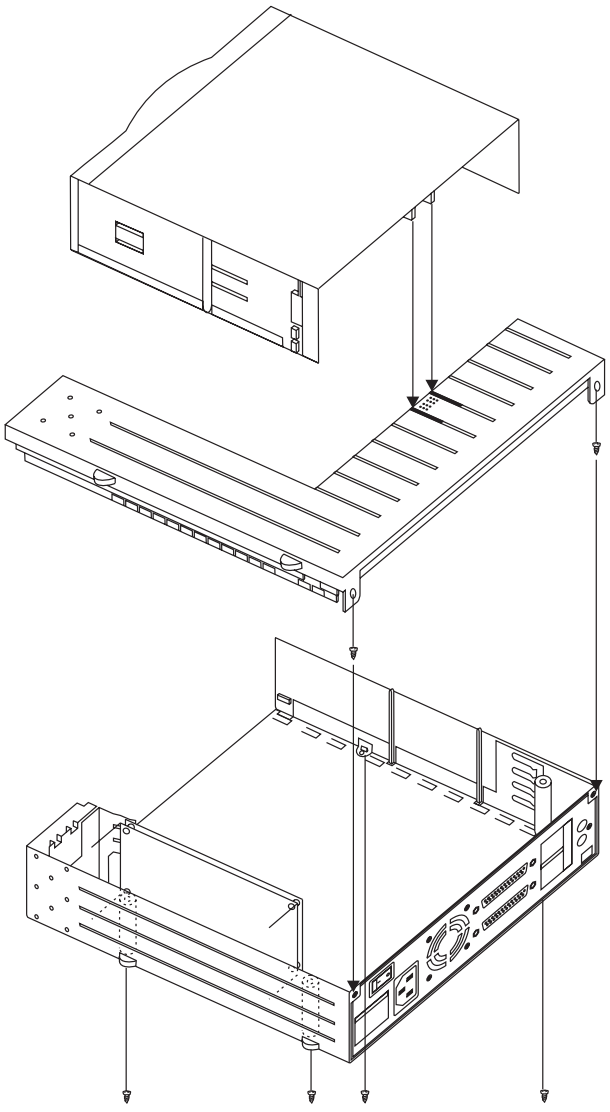
   CAUTION: DO NOT DAMAGE THE MAIN BOARD.
3. Use the 5.5mm spanner and fit the nylock nut onto the standoff.
4. Tighten the nylock nut while holding the screw tight on the bottom of the chassis.
5. Plug in all the connectors. (Refer to Figure 2.1.2 for cable positions).
5. Replace top covers. (see Section 6.3.3)



6.3.3 INSTALLING THE TOP PANEL COVERS

1. Place the chassis on a flat, stable surface.
2. Take the L-Shaped cover and position it with the one end of the L at the LED's and the other end of the L running along the back chassis panel.
3. Tilt the L-Shaped cover at an angle to the side of the chassis and slide in the lip of the cover into its position.
4. Push the L-Shaped panel down and it will clip into position.

   CAUTION: DO NOT CATCH ANY LEADS IN THIS PROCESS.
5. Take the U-Shaped cover and slide it from the front of the chassis towards the back.
6. Clip it into position at the latch on the top of the L-Shaped bracket.
7. Turn the Controller over.
8. Use #1 Phillips screwdriver to screw in the four self-tapping screws.
9. Replace the rubber feet.



6.4 UPGRADING CONTROLLER FIRMWARE

6.4.1 MAIN BOARD FIRMWARE UPDATE INSTRUCTIONS

1) The firmware (resides in an on-board FLASH ROM chip on the Main Board).

The instructions below describe the procedure to perform this update.

Loaded Firmware Revision is indicated at power up by the number of rapid flashes.

6.4.1.1 PREPARE THE CONTROLLER AND COMPUTER.

DANGER

The Controller's power supply becomes hazardous with the chassis opened. It exposes you to severe electrical shock if you do not disconnect the power cord before opening.

CAUTION

The electronic components in this unit can be damaged by static discharge. Please ensure that you are properly grounded before touching any portion of the electronics. Also, touch the chassis with your finger before connecting test cables, setting switches or reattaching components.

6.4.1.2 FLASH UPDATE

1. Obtain latest flash file, **www.ziprip.com**
2. Confirm number of left red LED start up flashes from UC5
3. Switch of the Digital Duplicator and unplug from the wall
4. Locate the jumper next to the eeprom chip.
5. Put the jumper into the on position.
6. Power up Duplicator.
7. Boot up PC and go into DOS.
8. Use "copy" command to update flash, e.g. copy latest .fla Lpt1: (where Lpt1 is the connected port) Command is copy filename.fla lpt1 entre.
9. While the flash update is in progress the RED LED is continuously ON.
10. Wait for Indication that flash has been completed. The RED LED flashes rapidly.
11. Reset UC5E and confirm the number of start up flashes is more than in step 2, to verify new flash has loaded, i.e. 4 flashes means version 4 has loaded.
12. Switch off the UC5 and put the jumper back to the off position. Switch on.

6.5 MEMORY REPLACEMENT

The Controller is fitted with 16mb RAM as standard. This is more than sufficient to image an A3 at 600 dpi. Faster processing can only be achieved by upgrading the PC that the Controller is connected to.

The only event that would lead to memory replacement would be if the factory supplied memory were to fail.

RAM Installed: 16mb 72 pin simm.

6.5.1 REPLACEMENT PROCEDURE

1) Turn the Controller off and disconnect it from the mains.

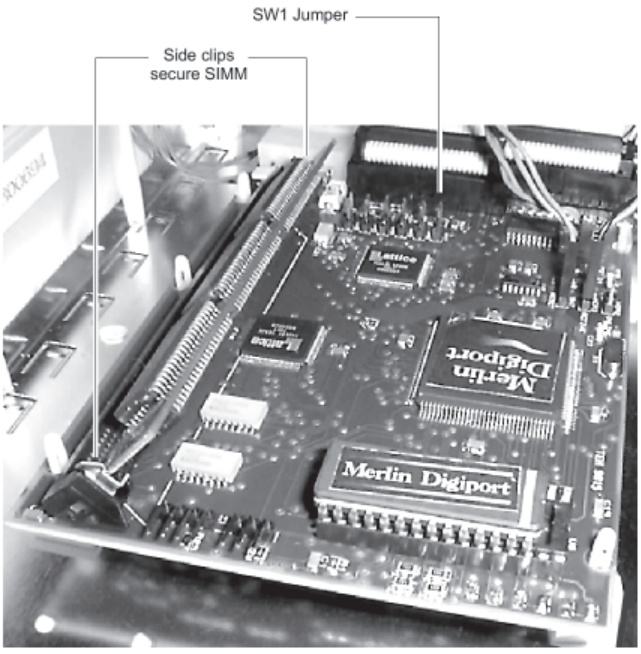
2) In a static-safe environment, remove the retaining screw on the Controller and then remove the covers. (see Section 6.2.2)

3) Remove the existing RAM SIMM by easing apart the side clips on the SIMM socket.

4) Insert the new RAM SIMM. Ensure the correct orientation and make sure the SIMM is correctly held by the retaining clips.

5) The jumper SW1 should be in the closed position.

6) Replace the lid and retaining screw (see Section 6.3.3)



RICOH PARTS PRICE LIST
ZipRip UC5 (VU5S 00 000)
May 15 2001 Rev 13

			Item No	Description	Quan
Metal Chassis Assembly VU5S 01 000	VU5S 01 001		1	Removable Top Cover	1
	VU5S 01 005		2	Top Cover	1
	VU5S 01 050		3	Chassis Assembly with Standoffs	1
Main Board Assembly VU5S 05 000	Processor Board Assy VU5S 05 200	VU5S 05 001	8	Board	1
		VU5S 05 005	9	SIMM 16 MB	1
		VU5S 05 010	10	Flash ROM (Programmed)	1
	VU5S 05 300		11	Power Cable	1
	VU5S 05 375		12	Centronix to 26 way header	1
	VU5S 05 400		12	DB25 to 26-way header Ribbon Cable	2
Control Button Assy VU5S 10 000	VU5S 10 001		13	2-pin Cable	2
	VU5S 10 050		14	Control Button Board	1
Indicator Assembly VU5S 20 000	VU5S 20 010		15	2-pin Cable (LED)	2
	VU5S 20 020		16	LED-Green	1
	VU5S 20 021		17	LED-Red	1
Power Supply Assembly VU5S 40 000	VU5S 40 010		18	Power Supply	1
	VU5S 40 075		19	Power Cord (UK) or	1
	VU5S 40 076		20	Power Cord (Euro) or	1
	VU5S 40 077		21	Power Cord (USA) or	1
Fan Assembly VU5S 50 000	VU5S 50 010		22	Fan	1
	VU5S 50 099			Securing Bolts	4
Model UC5S Assembly VU5S 00 999	**Case Assy VU5S 03 000**	VU5S 01 000		Metal Chassis Assembly	1
		VU5S 10 000		Control Button Assembly	1
		VU5S 20 000		Indicator Assembly	1
		VU5S 40 000		Power Supply Assembly	1
		VU5S 50 000		Fan Assembly	1
	VU5S 05 001			Main Board Assembly	1
	VU5S 00 035		23	Interface Harness C235	1
	VU5S 00 040		24	Stepping Screws (Jackposts) C235	2
	VU5S 00 041		24	Washer (Stepping Screw) C235	2
	VU5S 00 050		4	PC Parallel Cable (Centronics)	1
	VU5S 00 055		5	PriPort Parallel	1
	VU5S 00 065		6	CD	1
	VU5S 00 075		7	Manual English or	1
	VU5S 00 077		7	French or	1
	VU5S 00 078		7	German or	1
	VU5S 00 079		7	Italian or	1
	VU5S 00 080		7	Spanish or	1

FIGURE 1. EXTERNAL PARTS

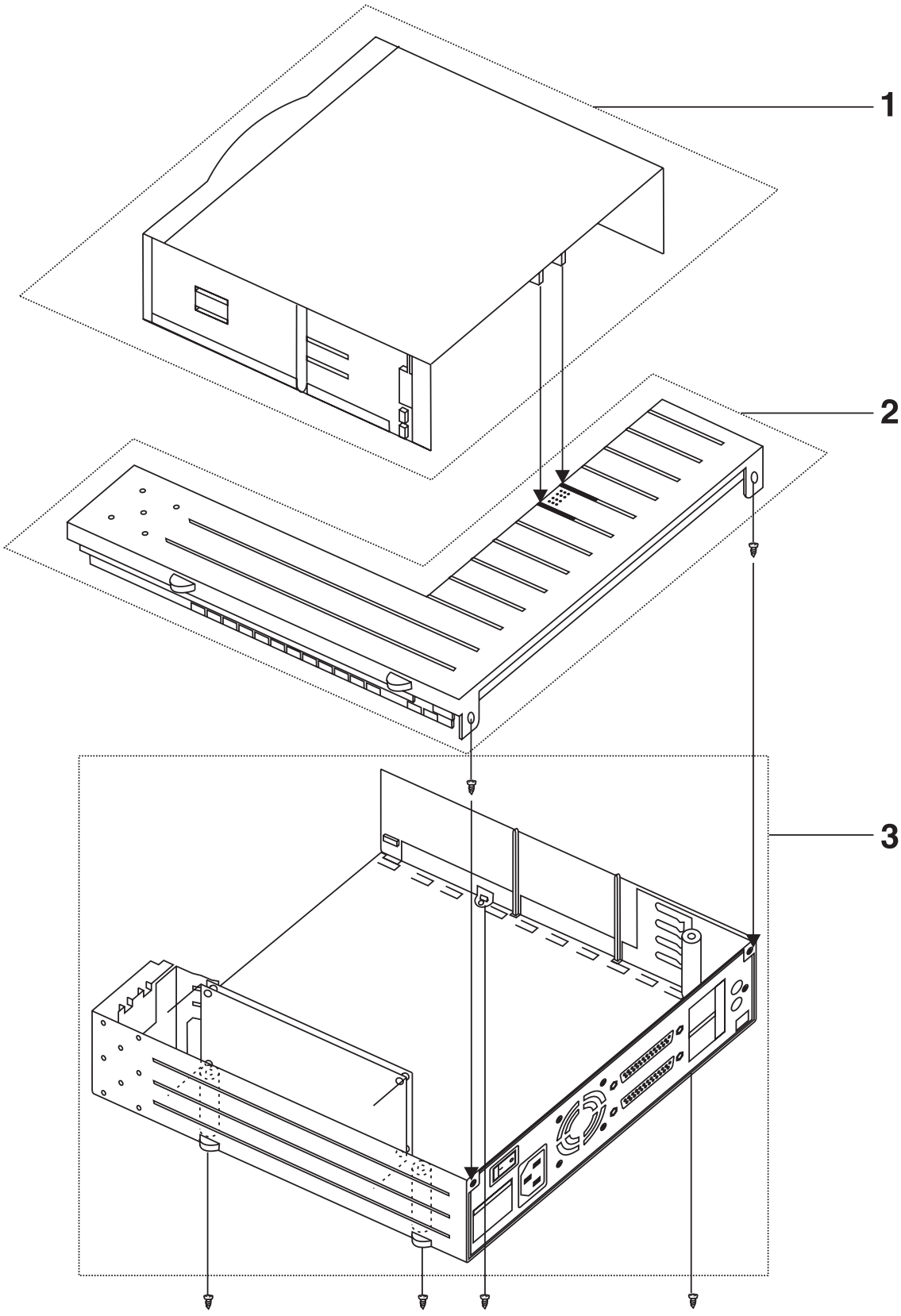


FIGURE 2. INTERNAL PARTS

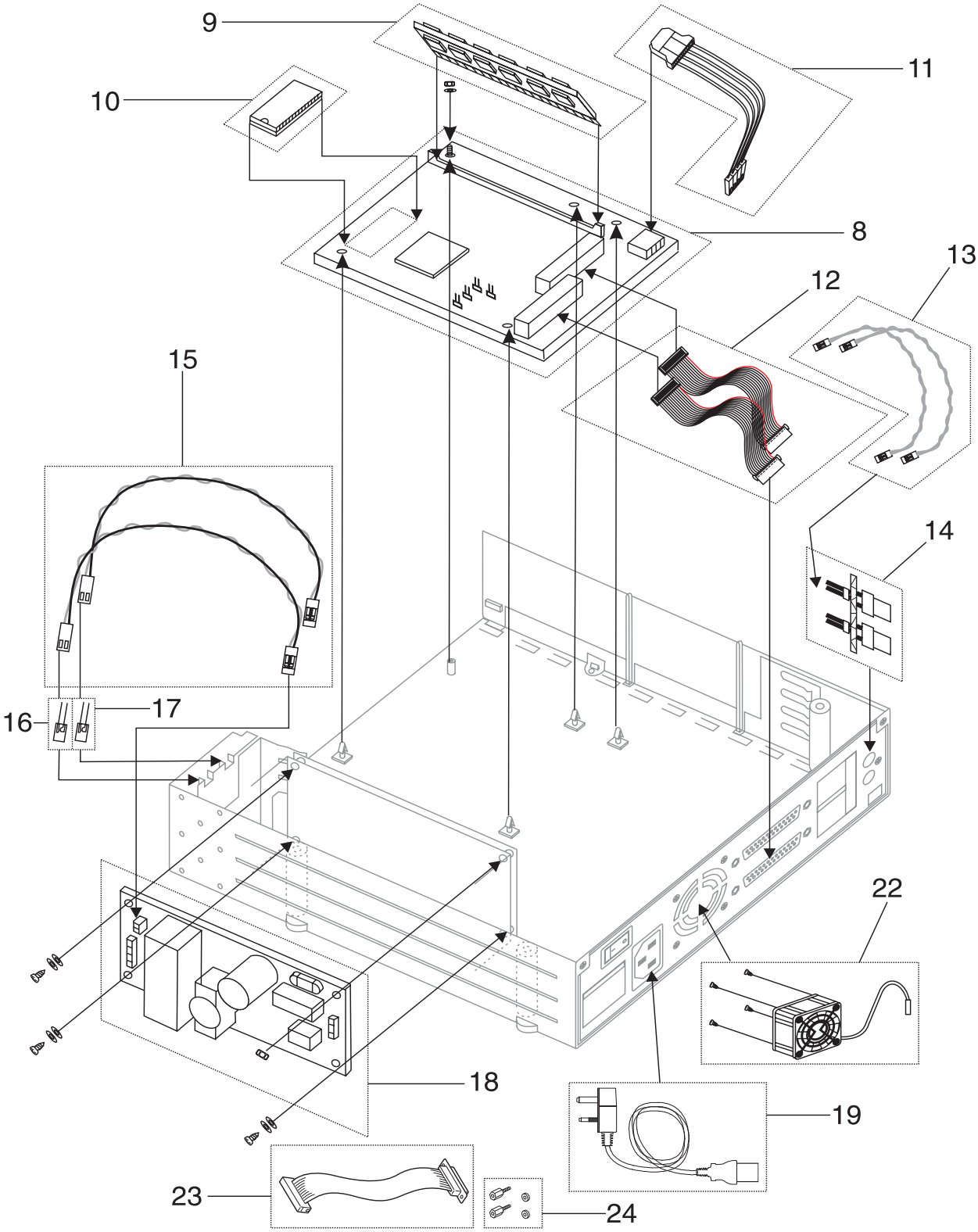
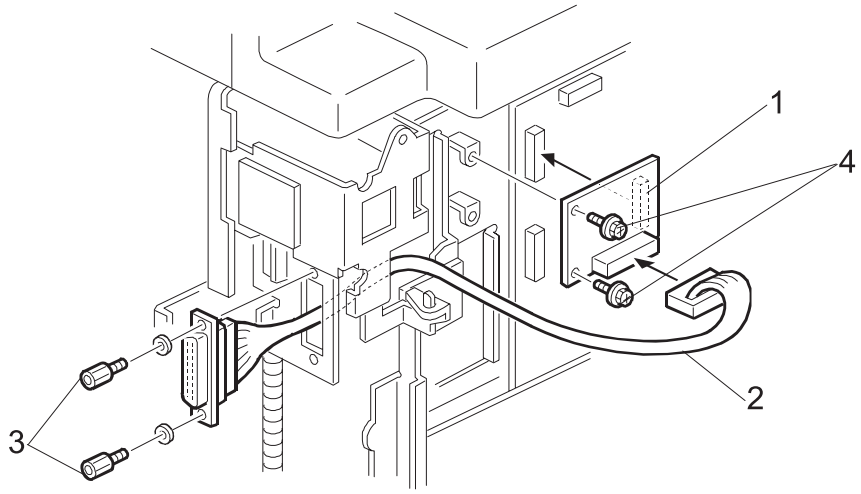
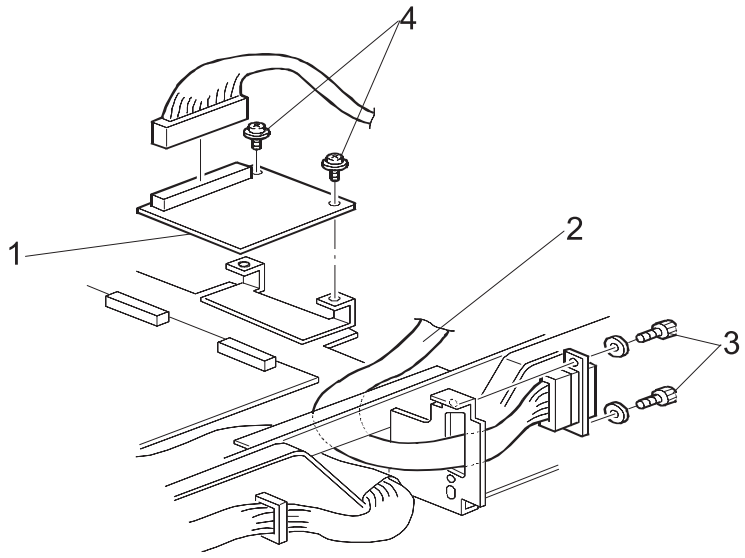


FIGURE 3. PC CONTROLLER I/F KIT TYPE-10



JP5000 / 5800 / 8000
JP1010 / 1030 / 1050 / 1210 / 1250



Index No.	Part No.	Description	Q'ty Per Assembly
1	C580 1011	Interface Board	1
2	C580 1500	Relay Harness	1
3	C580 1550	Stepped Screw – M2.6	2
4	0451 3006B	Tapping Screw – M3 x 6	2

General Remarks

The following table shows the conversion of the model names for each manufacturer:

Model Code	*Company*	*Model Name*
C229	Ricoh	JP5000
	Gestetner	5450
	RexRotary	1560
	Nashuatec	CP450
	Savin	3350DNP
C231	Ricoh	JP1010/1030/1045/1050
	Gestetner	5306(L/b)/5000/5001
	RexRotary	1224(B)
	Nashuatec	CP306(b)
	Savin	3150DNP
C217	Ricoh	VT1730
	Gestetner	5303
	RexRotary	1220
	Nashuatec	CP303
C225	Ricoh	VT1800
	Gestetner	5304
	RexRotary	1222
	Nashuatec	CP304
	Savin	3100DNP
C226	Ricoh	VT2250/VT2240
	Gestetner	5329(L)
	RexRotary	1254(L)
	Nashuatec	CP329(L)
	Savin	3250DNP
C224	Ricoh	VT2200
	Gestetner	5327
	RexRotary	1252
	Nashuatec	CP327
	Savin	3200DNP
C216	Ricoh	VT2105
	Gestetner	5325
	RexRotary	1250
	Nashuatec	CP32
C211	Ricoh	VT2100/VT2130/VT2150
	Gestetner	5310/5315/5320
	RexRotary	1240/1241/1242
	Nashuatec	CP310/CP315

1. OVERALL INFORMATION

1.1 HOST SYSTEMS

Priport Controller UC5 is external box GDI raster image processor for PRIPORTs. The following are the target computer hosts for this controller.

Target Host Computer Systems

- IBM PC/AT compatible PC with Windows 3.11 for workgroups, ME, 2000, 95 with Internet Explorer 4.01 SP1, Windows 98, or Windows NT4.0 with SP3 operating systems.

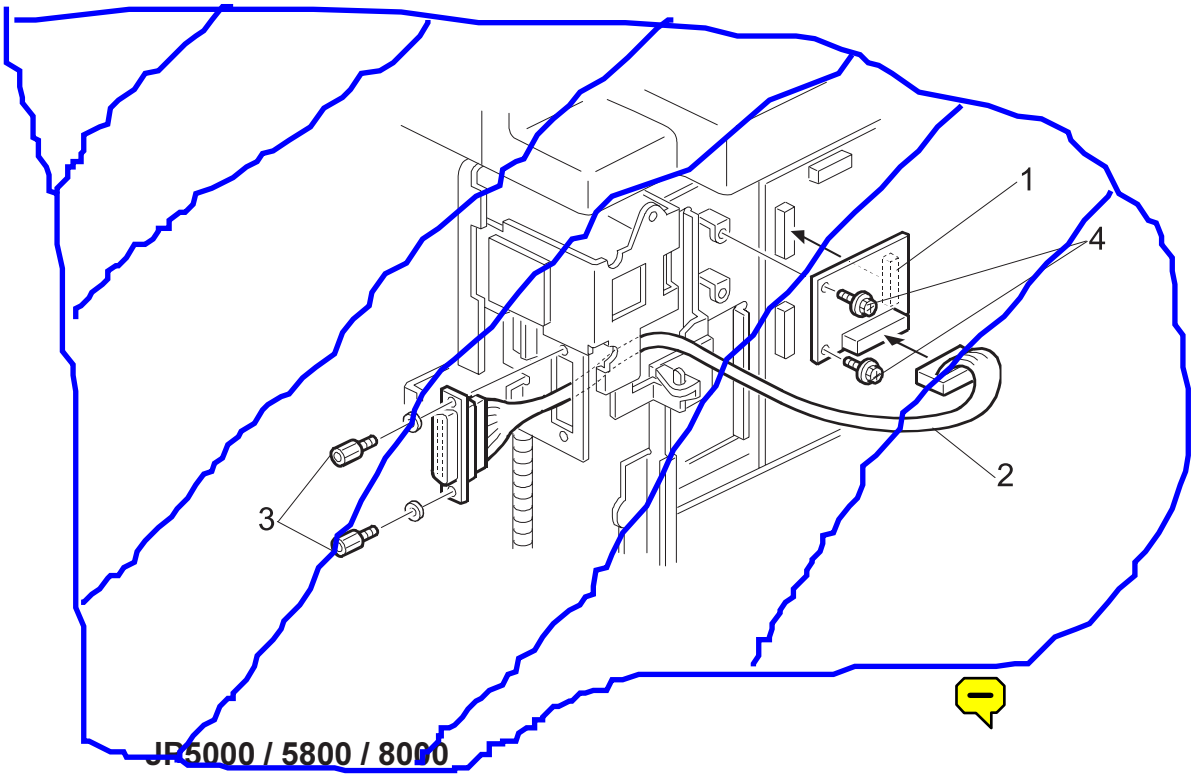
There are no minimum system hardware requirements, other than those imposed by the operating systems.

1.2 BASIC SPECIFICATION

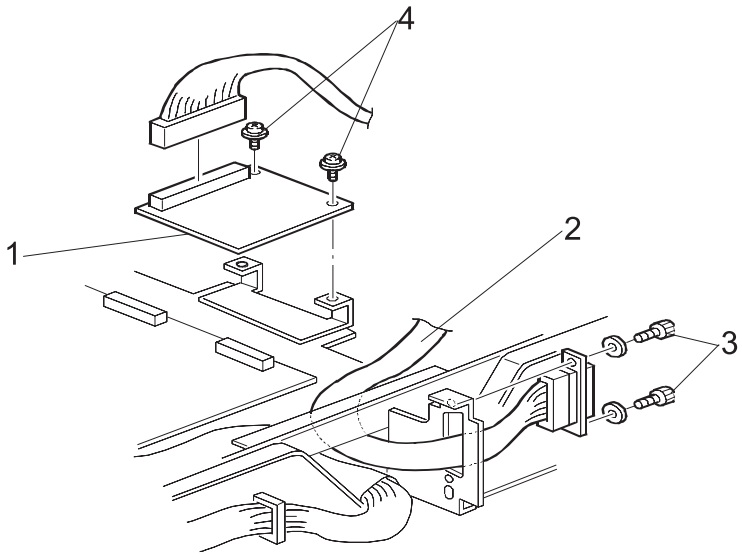
Contents	Description
Configuration	External Box Type Controller Unit
Priport Models	JP8000, JP5000, JP1210, JP1230, JP1250, JP1010, JP1030, JP1045, JP1050, VT6000, VT2200, VT2105, VT2150, VT2600, VT2400, VT1730,VT1800
I/O Interfaces	Host: • Parallel I/F (ECP/EPP Bi-directional) Video: RSVI Interface
Page Description Upgrade	PostScript® P LEVEL 2
Network (Upgrade)	10 Baset 100 Baset (RJ45) Ethernet
Fonts	True Type
Image Resolution	300 dpi, 400 dpi, 600 dpi
RAM	Standard:16MB, (72-pin 60ns EDO SIMM, non-parity, at 5 volts with 2K maximum refresh rate)
Paper Size	A3, A4, B4, B5, A5, Custom size (Operating System Depending), US Letter, US Legal, US Tabloid

Table 1.2. Basic Controller Specifications.

FIGURE 3. PC CONTROLLER I/F KIT TYPE-10



JP5000 / 5800 / 8000
JP1010 / 1030 / 1050 / 1210 / 1250



Index No.	Part No.	Description	Q'ty Per Assembly
1	C580 1011	Interface Board	1
2	C580 1500	Relay Harness	1
3	C580 1550	Stepped Screw – M2.6	2
4	0451 3006B	Tapping Screw – M3 x 6	2