



RS-422 INTERFACE BOARD  
**Installation Manual**

071-0519-01  
OCTOBER 2000

**PROFILE FAMILY**  
VIDEO FILE SERVERS

## Copyright

Copyright © 2000 Grass Valley Group Inc. All rights reserved. Printed in the United States of America.

This document may not be copied in whole or in part, or otherwise reproduced except as specifically permitted under U.S. copyright law, without the prior written consent of Grass Valley Group Inc., P.O. Box 59900, Nevada City, California 95959-7900

## Trademarks

Grass Valley, GRASS VALLEY GROUP, Profile and Profile XP are either registered trademarks or trademarks of Grass Valley Group in the United States and/or other countries. Other trademarks used in this document are either registered trademarks or trademarks of the manufacturers or vendors of the associated products. Grass Valley Group products are covered by U.S. and foreign patents, issued and pending. Additional information regarding

Grass Valley Group's trademarks and other proprietary rights may be found at [www.grassvalleygroup.com](http://www.grassvalleygroup.com).

## Disclaimer

Product options and specifications subject to change without notice. The information in this manual is furnished for informational use only, is subject to change without notice, and should not be construed as a commitment by Grass Valley Group. Grass Valley Group assumes no responsibility or liability for any errors or inaccuracies that may appear in this publication.

## U.S. Government Restricted Rights Legend

Use, duplication, or disclosure by the United States Government is subject to restrictions as set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.277-7013 or in subparagraph c(1) and (2) of the Commercial Computer Software Restricted Rights clause at FAR 52.227-19, as applicable. Manufacturer is Grass Valley Group Inc., P.O. Box 59900, Nevada City, California 95959-7900 U.S.A.

## Revision Status

Rev Date	Description
November, 1998	Original issue. Manual Part Number 071-0519-00.
October, 2000	Revised Product Support contact information. Part Number 071-0519-01.

# Contents

---

Grass Valley Group Product Support .....	5
General Safety Summary .....	6
Certifications and Compliances.....	9
Before You Start.....	11
Kit Contents .....	12
Tools Required .....	12
Electrostatic Precautions .....	13
Installation Procedures.....	14
Removing the Chassis Covers .....	15
Removing the Circuit Board Hold-down Brackets .....	16
Removing the RS-422 Interface Board.....	18
Removing the Genlock Board For RS-422 Board Removal .....	20
Installing the RS-422 Interface Board.....	22
Reinstalling Board Hold-down Brackets .....	24
Replacing the Profile Chassis Covers .....	27
Replacing the RS-422 Board Interface Cable .....	28
Installing the RS-422 Interface Board Device Driver .....	29
Removing the Existing RS-422 Device Driver .....	29
Installing the RS-422 Board Device Driver .....	30
Verifying Installation .....	34
Copying the Driver Diskette Contents to the System Drive .....	37



## Figures

1	Removing the front and rear chassis covers .....	15
2	Removing the circuit board hold-down brackets.....	17
3	Positioning SCSI cables away from slot J17 .....	18
4	Removing the mounting bracket screw and RS-422 Interface board. ....	19
5	Mounting screw location for full height board .....	21
6	RS-422 Interface board jumper and DIP switch settings.....	22
7	Installing the RS-422 Interface board and mounting bracket screw .....	23
8	Removing the board hold-down extender for slot J17 .....	24
9	Installing board hold-down brackets .....	25
10	Replacing the Profile chassis covers.....	27
11	Connecting the RS-422 Connector Panel interface cable .....	28
12	Typing the path to the device driver files. ....	30
13	Select OEM Option window .....	31
14	The RocketPort/RocketModem NT Setup window settings.....	32
15	The Advanced Board Options dialog box settings .....	33
16	PDR Diagnostics window example.....	35
17	RS-422 test results with a cable connecting ports P1 and P2.....	36

## Tables

1	RS-422 Interface board kit contents .....	12
2	Summary of installation procedures .....	14

---

# Grass Valley Group Product Support

You can get technical assistance, check on the status of problems, or report new problems by contacting our Product Support Group.

## United States and Canada

Monday–Friday 5:30AM–5:00PM Pacific Time  
(800) 547-8949

## Europe

Monday–Friday 9:00AM–5:30PM

France	01 45 29 73 00	United Kingdom	01628 405830
Germany	49 221 1791 234	Other	+44 1753 218 777
Italy	02 25086606		

## Asia and South America

Australia	02-9888 0100	Japan	81-3-3448-3111
- from overseas	61-2-9888 0100	Korea	82-2-528-5299
Beijing	86-10-62351230	Mexico	52-5-666-6333
	ext. 711	Singapore	65-356-3900
Brazil	55-11-3741-8422	Taiwan	886-2-27571571
Hong Kong	852-2585-6579		

## World Wide

**24-hour Emergency Hotline (530) 478-4148** (Contract and warranty customers)

**World Wide Web** <http://www.grassvalleygroup.com/support/>

**FTP Site** <ftp.grassvalleygroup.com>

**E-mail** [profile-users@grassvalleygroup.com](mailto:profile-users@grassvalleygroup.com)



## General Safety Summary



***WARNING: These instructions are for use by qualified service personnel only. To avoid personal injury, do not perform any servicing unless you are qualified to do so. Refer to all safety summaries before performing service.***

Review the following safety precautions to avoid personal injury and prevent damage to this product or any products connected to it.

While using this product, you may need to access other parts of the system. Read the general safety summary in other system manuals for warnings and cautions related to operating the system.

### Injury Precautions

- |   |  |
|---|--|
| <b>Do Not Service Alone</b>                           | Do not perform internal service or adjustment of this product unless another person capable of rendering first aid and resuscitation is present.                                     |
| <b>Disconnect Power</b>                               | To avoid electric shock while servicing, disconnect the main power by means of the power cord.   |
| <b>Use Care When Servicing With Power On</b>          | Dangerous voltages or currents may exist in this product. Disconnect power and remove battery (if applicable) before removing protective panels, soldering, or replacing components. |
| <b>Avoid Exposed Circuitry</b>                        | To avoid injury while servicing, remove jewelry such as rings, watches, and other metallic objects. Do not touch exposed connections and components when power is present.           |
| <b>Do Not Operate Without Product Covers in Place</b> | To avoid electric shock or fire hazard, do not operate this product with covers or panels removed.   |

**Do Not Operate in  
Wet/Damp  
Conditions**

To avoid electric shock, do not operate this product in wet or damp conditions.

**Do Not Operate in an  
Explosive  
Atmosphere**

To avoid injury or fire hazard, do not operate this product in an explosive atmosphere.

## **Product Damage Precautions**

**Use the Proper  
Voltage Setting**

Ensure that the line selector is in the proper position for the power source before applying power.

**Provide Proper  
Ventilation**

Prevent product overheating by providing proper ventilation.

**Do Not Operate If  
You Suspect  
Product Failures**

If you suspect there is damage to this product, have it inspected by qualified service personnel.

## **Safety Terms and Symbols**

**Terms in This  
Manual**

These terms may appear in this manual:



**WARNING:** Warning statements identify conditions or practices that can result in personal injury or loss of life.



**CAUTION:** Caution statements identify conditions or practices that can result in damage to the equipment or other property.



---

## General Safety Summary

### Terms on the Product

These terms may appear on the product:

DANGER indicates a personal injury hazard immediately accessible as you read the marking.

WARNING indicates a personal injury hazard not immediately accessible as you read the marking.

CAUTION indicates a hazard to property, including the product.

### Symbols on the Product

The following symbols may appear on the product:



DANGER high voltage



Protective ground (earth) terminal



ATTENTION – refer to manual



## **Certifications and Compliances**

### **FCC Emission Control**

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with this installation manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his or her own expense. Changes or modifications not expressly approved by Grass Valley Group can affect emission compliance and could void the user's authority to operate this equipment.

### **Canadian EMC Notice of Compliance**

This digital apparatus does not exceed the Class A limits for radio noise emissions from a digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe A prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

### **EN55022 Class A Warning**

For products that comply with Class A. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.



## Certification

Category	Standard
Safety	<i>Designed/tested for compliance with:</i> <b>UL1950</b> – Safety of Information Technology Equipment, including Electrical Business Equipment (Third Edition, 1995) <b>IEC 950</b> – Safety of Information Technology Equipment, including Electrical Business Equipment (Second edition, 1991) <b>CAN/CSA C22.2, No. 950-95</b> – Safety of Information Technology Equipment, including Electrical Business Equipment <b>EN60950</b> – Safety of Information Technology Equipment, including Electrical Business Equipment (includes Appendix ZB)

# RS-422 Interface Board Installation

---

## Before You Start

Use these instructions to remove and replace the Profile Video File Server RS-422 Interface board with the new RS-422 Interface board included in this upgrade kit. This upgrade kit includes a new interface cable for connecting to the existing eight-port RS-422 Connector Panel. The device driver software required by Windows NT to access and operate the new board is also included.

You can install the board with the Profile chassis fully extended on the rack slides if the equipment rack is adequately mounted to prevent tipping, and if there is sufficient slack in the cables connected to the rear panel to allow the chassis to fully extend on the slides.

If it is necessary for you to remove the Profile chassis from the equipment rack to perform this installation, refer to the *Profile Installation Manual* for instructions on removing the Profile system from the rack. Bear in mind that the chassis with a full complement of disk drives weighs approximately 70 pounds. Observe the following warnings:



***WARNING: To prevent injury, two people are required to lift the Profile system. The Profile system is too heavy for one person to remove from the rack.***



***WARNING: To prevent injury, insure that the rack is anchored to the floor so that it cannot tip over when the Profile system is extended out of the rack.***



## Kit Contents

A list of kit contents is shown in Table 1.

**Table 1.** RS-422 Interface board kit contents

Qty.	Item
1	RS-422 Interface Board
1	Interface cable for 8-port RS-422 Connector Panel Grass Valley Group part number 174-4198-XX (Replaces existing interface cable.)
1	Windows NT Driver Diskette “Driver for the RocketPort Series/Windows NT (i386)”
1	Installation manual
1	Warranty card

## Tools Required

Tools required, but not supplied, to install this kit are:

- A Torx tool with T10 and T15 tips.
- Standard DB9 male-to-male cable (for loop-back diagnostic test)
- Electrostatic discharge (ESD) grounding straps.

## **Electrostatic Precautions**



***CAUTION:*** *This product contains components that are highly sensitive to electrostatic discharge. To protect these components from damage and to maintain product reliability, take the following precautions when handling the circuit boards:*

- *Handle all circuit boards in a static-protected area capable of controlling static charge on conductive materials, people, and nonconductive materials. Static-protected areas include nonstatic table tops and nonstatic floor mats.*
- *Handle the circuit boards only by the edges. Avoid touching the printed wires on the back of the circuit board as much as possible.*
- *Leave the board in its ESD static-shielded bag until you are ready to install the board.*



## Installation Procedures

This manual includes step-by-step instructions for removing and replacing the Profile system RS-422 Interface board. Refer to Table 2 for a summary of installation procedures.

**Table 2.** Summary of installation procedures

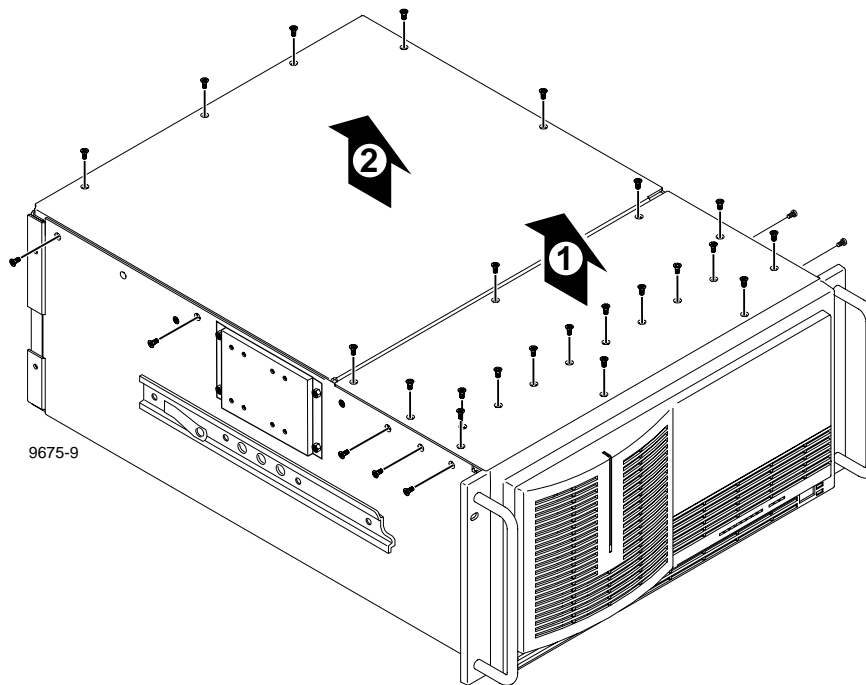
<b>Procedures</b>	<b>Page Number</b>
Removing the Chassis Covers	15
Removing the Circuit Board Hold-down Brackets	16
Removing the RS-422 Interface Board	18
Installing the RS-422 Interface Board	22
Reinstalling Board Hold-down Brackets	24
Replacing the Profile Chassis Covers	27
Replacing the RS-422 Board Interface Cable	28
Installing the RS-422 Interface Board Device Driver	29
Verifying Installation	34
Copying the Driver Diskette Contents to the System Drive	37

## Removing the Chassis Covers

Use the following procedure to remove the chassis covers:

1. Confirm that the Profile system power is switched off and the power cord is removed.
2. Use the Torx tool with the T10 tip to remove the top screws from the front chassis cover (❶ in Figure 1) and then use the T15 tip to remove the pan-headed screws from the side of the chassis. The front chassis cover must be removed first because it overlaps the rear chassis cover.

**NOTE:** Take care not to lose these chassis screws. They are required to meet the EMI specifications for the Profile system.



**Figure 1.** Removing the front and rear chassis covers

3. Use the Torx tool with the T10 tip to remove the rear chassis cover (❷ in Figure 1) which covers the circuit boards.



## **Removing the Circuit Board Hold-down Brackets**

There are two hold-down brackets located in the circuit board area of the chassis which must be removed in order to replace boards.

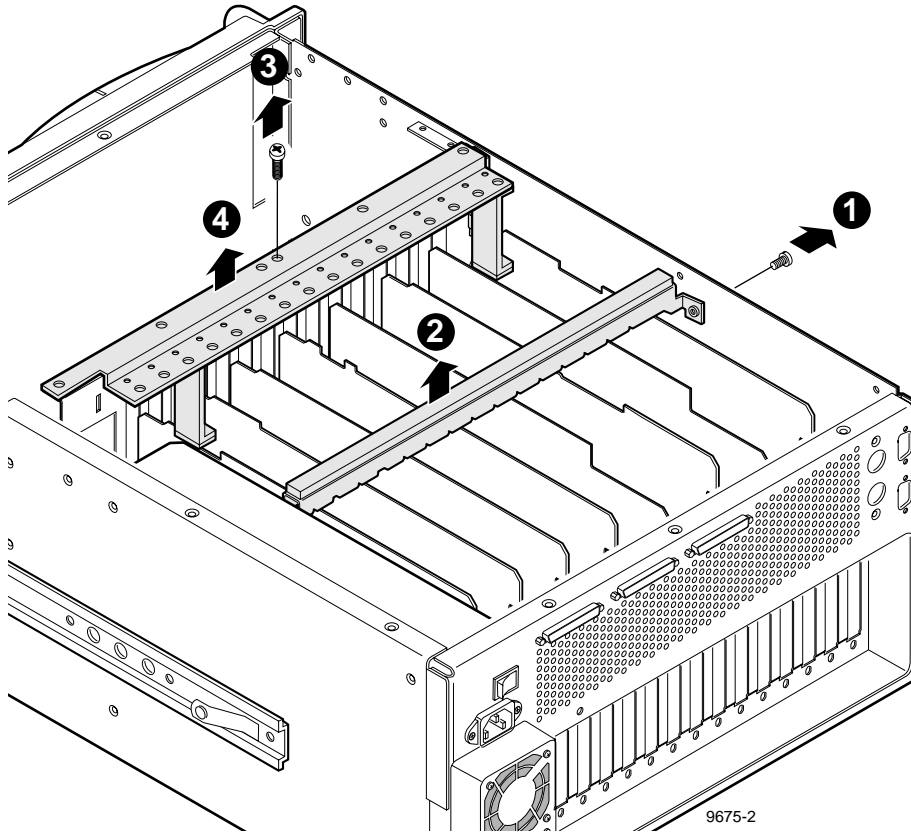
To remove the board hold-down brackets:

1. Use the Torx tool with the T10 tip to remove the exterior screw (❶ in Figure 2) that secures the rear board hold-down bracket.
2. Lift the bracket (❷ in Figure 2) up and out of the chassis and set it aside.
3. Use the Torx tool with the T10 tip to remove the interior screw (❸ in Figure 2) that secures the front board hold-down bracket.
4. Lift the bracket (❹ in Figure 2) up and out of the chassis and set it aside.



---

*Removing the Circuit Board Hold-down Brackets*



**Figure 2.** Removing the circuit board hold-down brackets



## Removing the RS-422 Interface Board

The RS-422 Interface board is a half-height board installed in motherboard slot J17 as shown in Figure 4.

To the remove the RS-422 board from slot J17:

1. Free the SCSI cables from the cable clamps mounted on the power supply (❶ in Figure 3) and position the cables away from slot J17 (❷ in Figure 3).

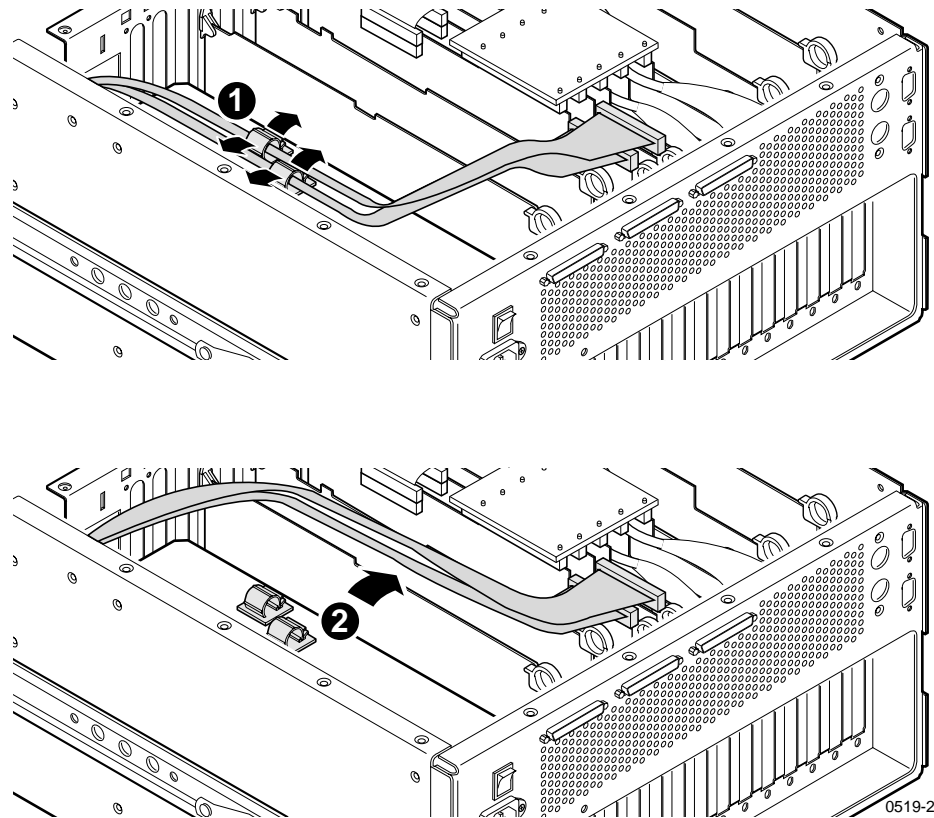
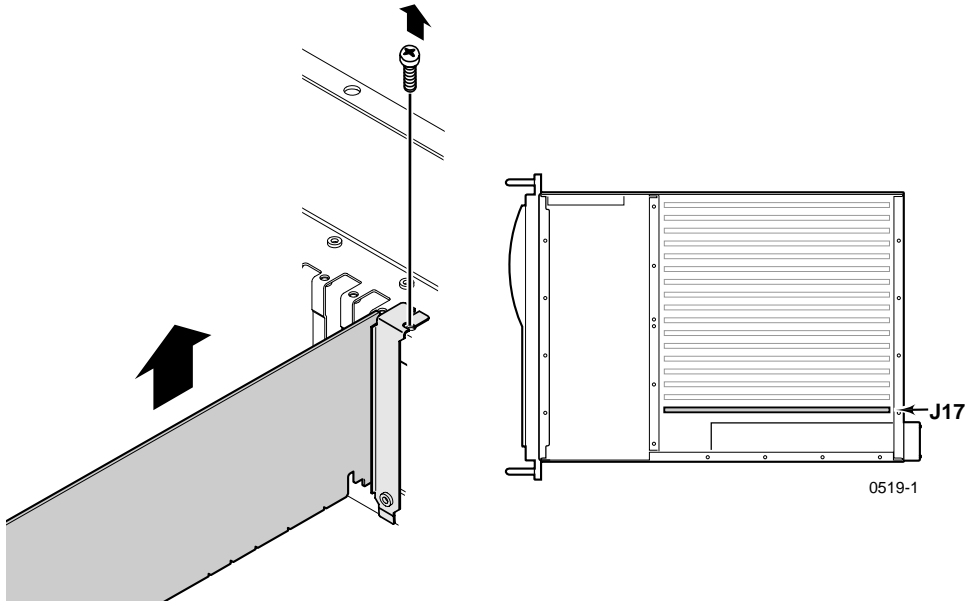


Figure 3. Positioning SCSI cables away from slot J17

---

## Removing the RS-422 Interface Board

2. Use the Torx tool with the T15 tip to remove the screw from the board mounting bracket inside the chassis. Refer to the example board in Figure 4.



**Figure 4.** Removing the mounting bracket screw and RS-422 Interface board.



3. Carefully remove the RS-422 Interface board by grasping the edge of the circuit board above the EISA connector and pulling up.

**NOTE:**

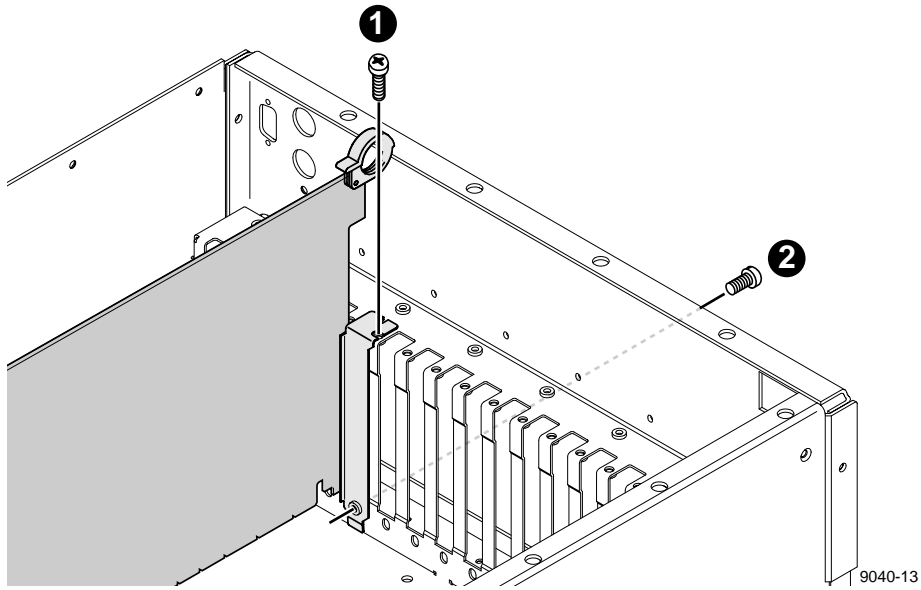
- *Do not grasp or pull on the rear-panel connectors when removing or installing the circuit boards.*
- *It may be necessary to loosen the screw mounting the Genlock board in slot J16.*
- *Some systems have full height Genlock boards which may have to be removed to allow a firm grasp of the RS-422 board. Refer to the following procedure.*

### **Removing the Genlock Board For RS-422 Board Removal**

Some Profile systems have full height Genlock boards in slot J16 which must be removed to allow a firm grasp of the RS-422 board.

To remove the Genlock board from slot J16 for RS-422 board removal:

1. Remove all external and internal cables from the Genlock board. Be sure to make a cabling diagram that you can use later to reinstall the cables.
2. Use the Torx tool with the T15 tip to remove the screws which secure the Genlock board to the rear panel (see ❶ and ❷ in Figure 5 as an example).
3. Use the extraction lever on the front of the board and the extraction ring at the back of the board to lift the circuit board free of the connectors on the motherboard.
4. Carefully remove the RS-422 Interface board by grasping the edge of the circuit board above the motherboard connector and pulling up.



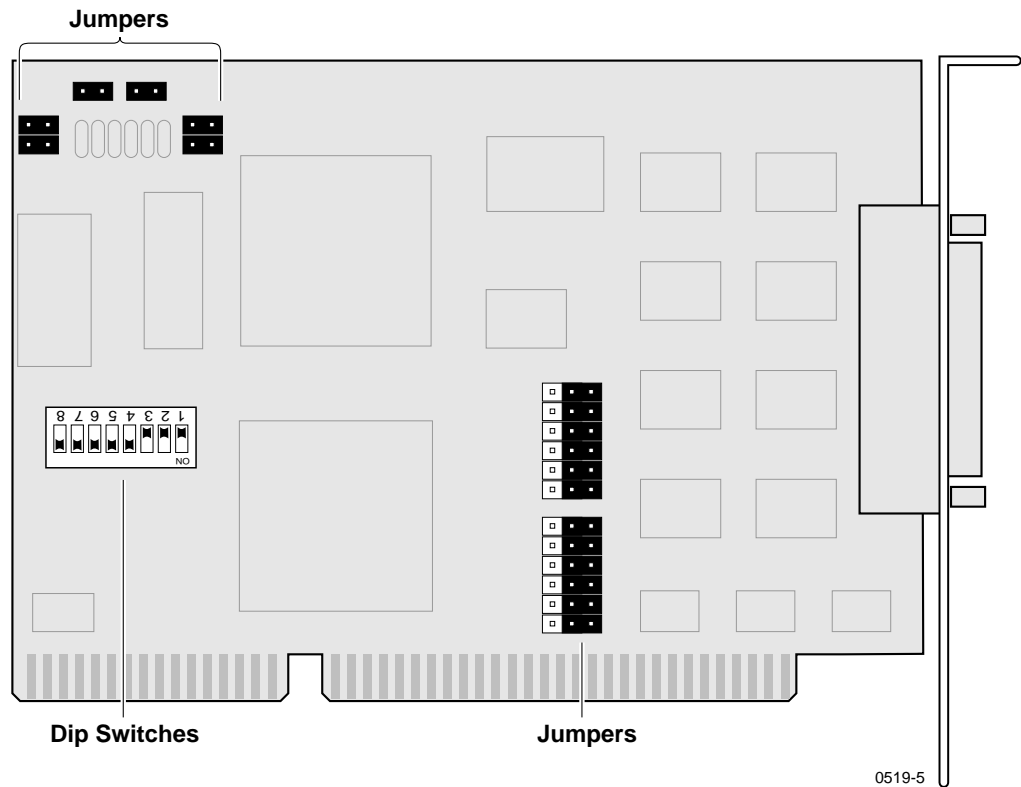
**Figure 5.** Mounting screw location for full height board



## Installing the RS-422 Interface Board

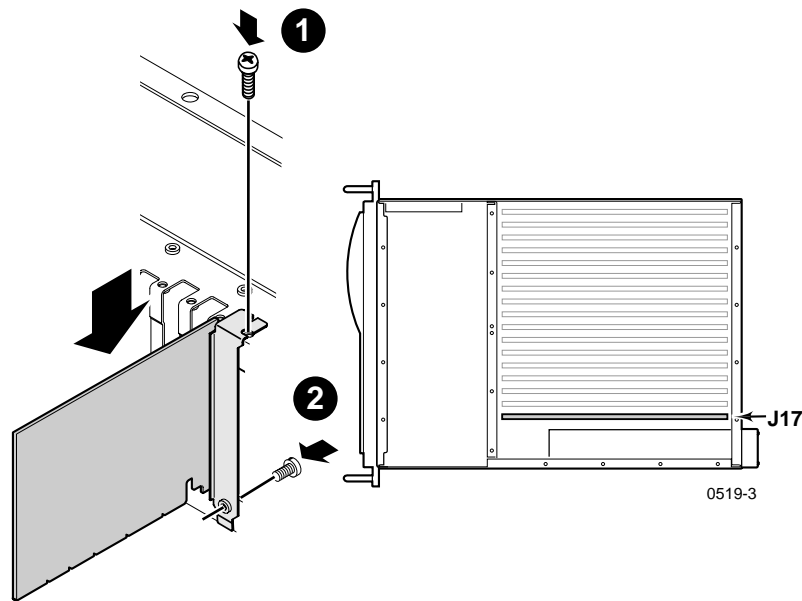
To install the RS-422 interface board:

1. Verify the RS-422 Interface board jumper and DIP switch settings (refer to Figure 6).



**Figure 6.** RS-422 Interface board jumper and DIP switch settings

2. Align the RS-422 board with the mother board connector in slot J17 (see Figure 7). Firmly press down on the board until the board seats. The board is properly seated when the top of the rear mounting bracket is resting on the rear chassis wall shelf.
3. Use the Torx tool with the T15 tip to reinstall the screws which secure the RS-422 board to the rear panel (see ❶ and ❷ in Figure 7).



**Figure 7.** Installing the RS-422 Interface board and mounting bracket screw

4. If you removed the Genlock board earlier, reinstall it now by aligning it with the connectors on the motherboard slot, making sure the extractor on the front end of the board is in the up position. Firmly press down on the board until the board seats and then reinstall the mounting screws (see Figure 5 on page 21). Reconnect any internal cables removed earlier (refer to your cabling diagram).
5. Place the SCSI cables back in the cable clamps mounted on the power supply. (Refer to Figure 3 on page 18.)

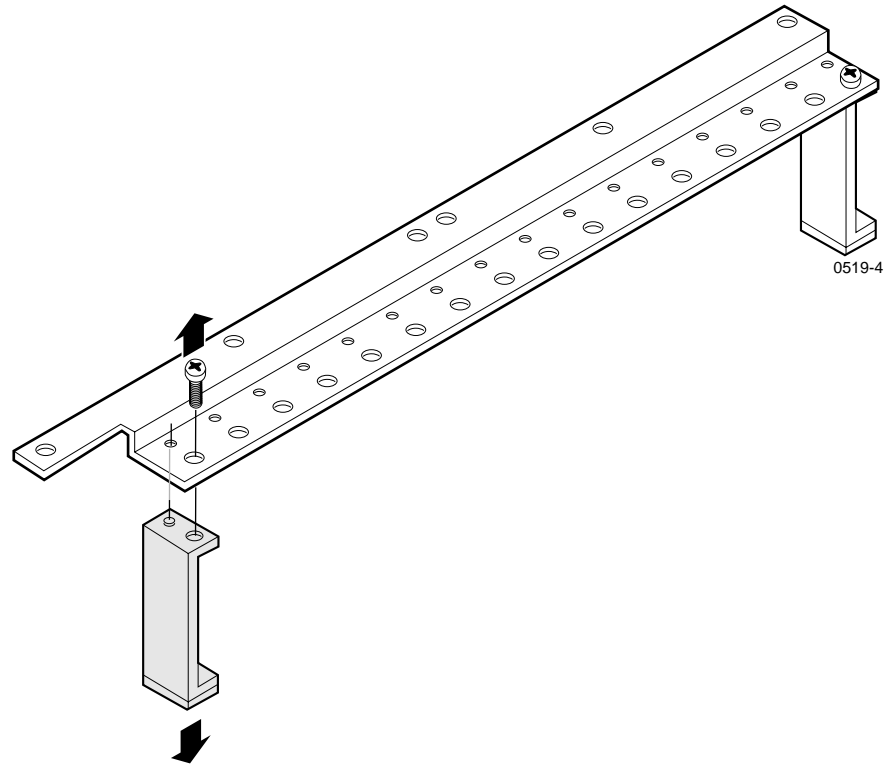


## Reinstalling Board Hold-down Brackets

Now that the RS-422 Interface board is installed, you are ready to reinstall the board hold-down brackets. This involves modifying the front hold-down bracket by removing the bracket extender for slot J17, since it is no longer needed.

To reinstall the board hold-down brackets:

1. Use the Torx tool with the T15 bit to remove the extender retaining screw from the front hold-down bracket as shown in Figure 8. Discard the extender and screw.



**Figure 8.** Removing the board hold-down extender for slot J17



## Reinstalling Board Hold-down Brackets

2. Insert front hold-down bracket (❶ in Figure 9) into the board area and ensure that the extenders are on the top edge of all short boards.

**NOTE:** To prevent damage to the Analog Composite Monitor board, if installed, ensure that an extender is not installed at the Analog Composite Monitor board location.

3. Use the Torx tool with the T10 bit to replace bracket retaining screw (❷ in Figure 9).

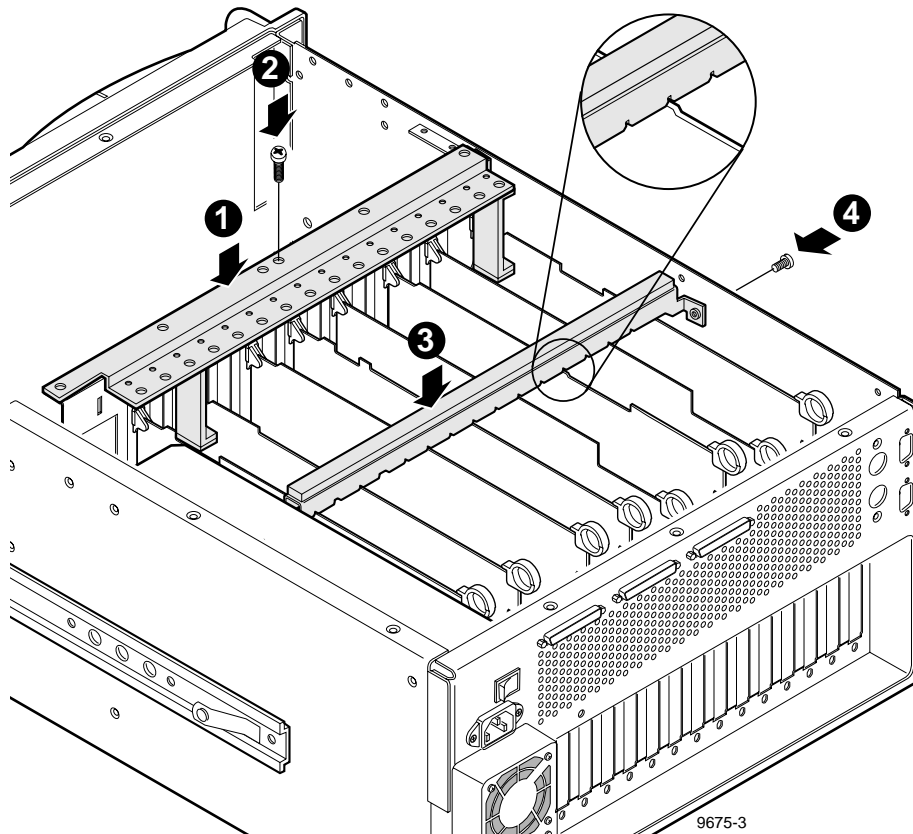


Figure 9. Installing board hold-down brackets



---

## *Installation Procedures*

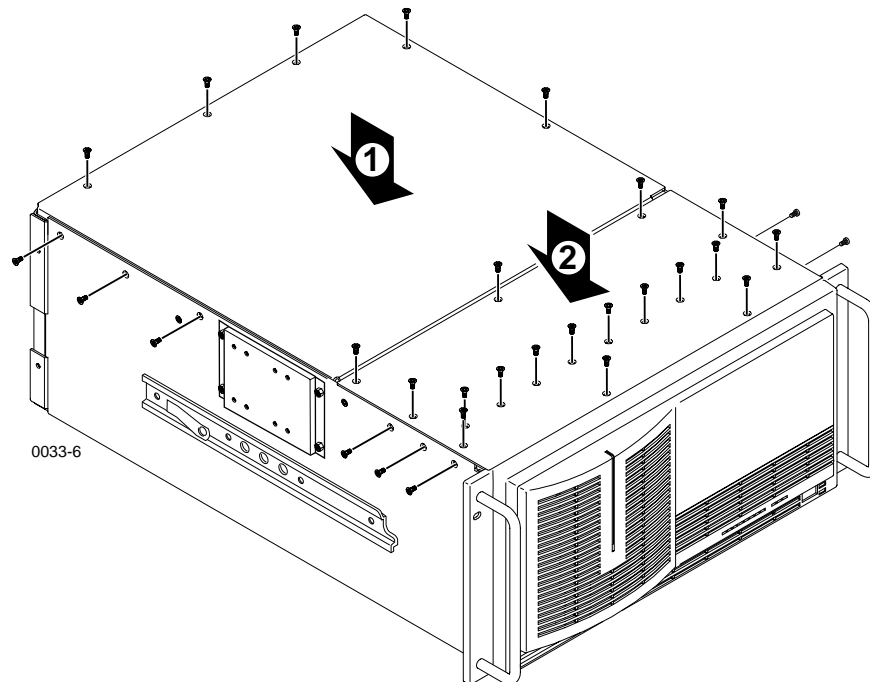
4. Place rear hold-down bracket (❸ in Figure 9 on page 25) over the boards.
5. Align the full size boards to the correct bracket slots (see insert in Figure 9) and carefully seat the bracket onto the boards.
6. Use the Torx tool with the T10 bit to replace bracket retaining screw (❹ in Figure 9) at the side of the Profile system.

## Replacing the Profile Chassis Covers

To replace the Profile chassis covers:

1. Set the rear chassis cover in place (❶ in Figure 10) and use the Torx tool with the T10 bit to secure the cover to the chassis with the screws previously removed.

**NOTE:** When reinstalling chassis covers, start all the screws before tightening them. This ensures that the screw threads are properly aligned, and will help avoid stripping threads or breaking screws.



**Figure 10.** Replacing the Profile chassis covers

2. Set the front chassis cover in place (❷ in Figure 10) and use the Torx tool with the T10 bit to install the screws which secure the cover to the top of the chassis. Use the T15 tip to install the screws which secure the cover to the side of the chassis.

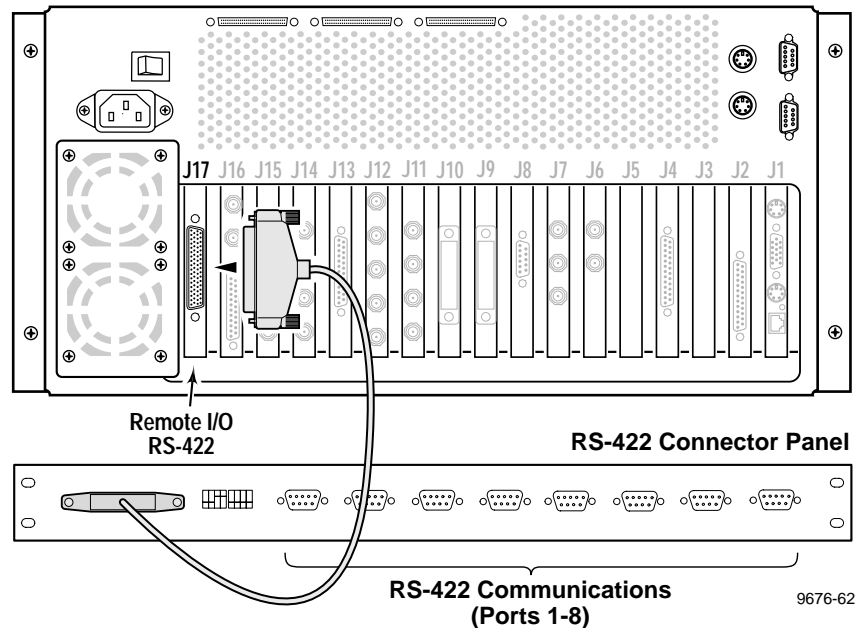


## Replacing the RS-422 Board Interface Cable

The kit includes a new interface cable for the RS-422 Connector Panel.

To replace the RS-422 Board interface cable:

1. Reinstall the Profile system in the rack. If necessary, refer to the *Profile Installation Manual* for rack mounting instructions.
2. Replace the cable connecting the RS-422 Connector Panel to the RS-422 Interface board with the cable supplied with this kit as shown in Figure 11.



**Figure 11.** Connecting the RS-422 Connector Panel interface cable

3. Reconnect all other external cables previously removed.
4. Connect power to the Profile system and proceed with “Installing the RS-422 Interface Board Device Driver” on page 29.

## **Installing the RS-422 Interface Board Device Driver**

Now that you have installed the RS-422 Interface board, you are ready to install the device driver software. The device driver software is the support software Windows NT uses to access and operate the board. Before installing the new device driver, you must remove the device driver for RS-422 board you removed.

### **Removing the Existing RS-422 Device Driver**

1. Power On the Profile system and logon as *Administrator* using these steps.
  - a. Power On the Profile system and hold the **Shift** key down during start-up to prevent auto-logon as user *profile*. Be sure to hold down the shift key until the logon dialog box appears.
  - b. Logon as *administrator*. The factory default *administrator* password on a Profile system is *triton*.

***NOTE: Ignore the message “At least one service or driver failed during system start-up. Use Event Viewer to examine the event log for details.” The failed driver is for the old RS-422 board you have already removed.***

2. Open Control Panel by choosing **Start | Settings | Control Panel**
  3. Double-click the **Network** icon.
  4. The Network dialog box appears. Click the **Adapters** tab.
  5. Highlight the **Digi ACL/Avanstar Family Adapter** and then click the **Remove** button.
  6. When prompted “*Do you wish to continue?*”, click **Yes**.
  7. Close the Network dialog box.
  8. When prompted, restart the system and logon again as *Administrator*.
- You are now ready to install the new device driver.

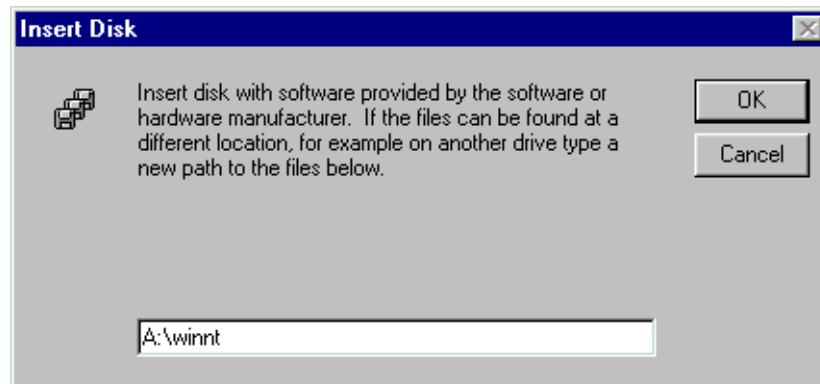


## Installing the RS-422 Board Device Driver

After removing the old RS-422 board device driver and re-starting the system, you are ready to install the driver for the new RS-422 board. Locate the Windows NT driver diskette labeled *Driver for the RocketPort Series*, then use the following instructions to install the driver.

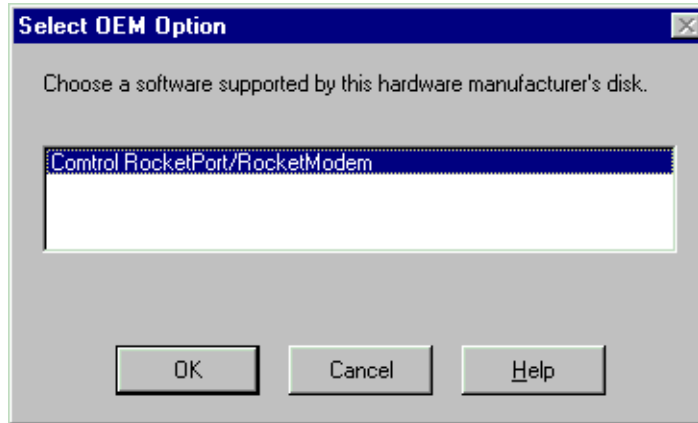
To install the RS-422 device driver:

1. Make sure you are logged on as *Administrator*. The factory default password on the Profile system for *Administrator* is *triton*.
2. Open the Control Panel by choosing **Start | Settings | Control Panel**
3. Double-click the **Network** icon.
4. The Network dialog box appears. Click the **Adapters** tab.
5. Click the **Add** button, and then the **Have Disk...** button.
6. When you are prompted, insert the Windows NT driver diskette. Type **A:\winnt** as the path of the directory containing the driver files (see Figure 12) and click **OK**.



**Figure 12.** Typing the path to the device driver files.

7. The Select OEM Option dialog box appears (see Figure 13). Click **OK**. File copying starts.



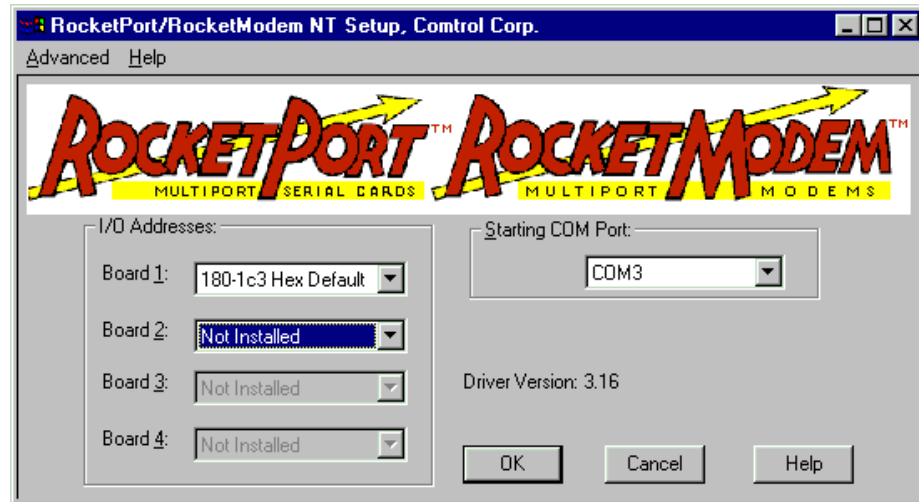
**Figure 13.** Select OEM Option window



## Installation Procedures

- When the RocketPort/RocketModem NT Setup window appears, shown in Figure 14, set **Starting COM Port** to **COM3** using the drop-down list.

Leave the I/O Address at the default value: 180-1c3 Hex.



**Figure 14.** The RocketPort/RocketModem NT Setup window settings



---

## Installing the RS-422 Interface Board Device Driver

9. From the **Advanced** menu (see Figure 14), select **Options** to open the Advanced Board Options dialog box as shown in Figure 15.
  - a. Set the **Scan Rate(ms)** to 2ms by selecting the text in the text box and entering 2. Note that 2 is not in the drop down list, you must enter it using the keyboard.
  - b. Click **OK** to close the Advanced Board Options dialog box.



**Figure 15.** The Advanced Board Options dialog box settings

10. In the RocketPort/RocketModem NT Setup window, select **OK** to accept your changes, and then **OK** again to make a new program group.

**NOTE:** *If necessary, close the Explorer window showing the new program folder contents in order to see the remaining dialog boxes.*

11. Chose **OK** to make changes to the *modem.inf* file.
12. Chose **OK** to save new configuration settings.
13. Click **Close** in the Network dialog box.
14. Remove the floppy disk from the drive and, when prompted, restart the system. Logon as *Profile*. The factory default password for the *Profile* user account is *profile*.



## Verifying Installation

Now you are ready to verify the RS-422 Interface board installation using diagnostics resident on the Profile system. The RS-422 interface board diagnostic performs a loop-back test using a standard DB9 male-to-male cable. When the loopback test is run, a simple communication routine is executed between ports P1 to P2, P3 to P4, and so on. With a single cable, you can test one port pair at a time.

To verify installation:

1. Power On the Profile system and logon using the user account called *Profile*. The factory default password the *Profile* user account is *profile*.
2. Quit **all** Profile applications and then start Profile Diagnostics by selecting **Start | Programs | PDR Debug Tools | PDR Diagnostics**.

When the diagnostics window is first opened, you may see the following message:

**Checking availability of VDR Services. Please wait.**

Wait approximately one minute for this message to clear from the screen before proceeding. If the message does not clear, cancel diagnostics and make sure that you have quit all other Profile applications, then restart diagnostics.

3. If the dialog box with the message “About to re-start VDRSVC in test mode” appears, click **OK**.
4. In the Diagnostics window, click the **RS-422** test button (see Figure 16).

Slot J1	Pentium CPU
Slot J2	Non-EISA slot
Slot J3	SMCA010
Slot J4	BUS4202
Slot J5	
Slot J6	
Slot J7	Serial Cmpnt I/O (Rev x)
Slot J8	Audio
Slot J9	Audio
Slot J10	Serial Cmpnt I/O (Rev x)
Slot J11	Audio
Slot J12	Audio
Slot J13	
Slot J14	Master EDR (Rev x)
Slot J15	
Slot J16	Ref Gen (4 LTC) (Rev x)
Slot J17	RS422, if installed
Mother Bd	Mother Board (Rev x)
	Quit

← RS-422  
Test Button

Figure 16. PDR Diagnostics window example



## Installation Procedures

- When the RS422 Test window appears as shown in Figure 17, follow the on-screen instructions for performing the loop-back test.

**NOTE:** Make a note of the switch positions on the RS-422 Connector Panel before changing them to run the RS-422 diagnostic test.

Figure 17 shows the correct test results when a cable is connected between ports P1 and P2.

```
MS-DOS 422 Test
Connect Port1 to Port2, Port3 to Port4 etc.
Set the breakout box even switches to CONTROLLER, and odd to DEVICE.
Do you wish to continue <Y/N>. y

Transmitting out port 1 and receiving in port 2 ... PASSED
Transmitting out port 3 and receiving in port 4 ... FAILED
Transmitting out port 5 and receiving in port 6 ... FAILED
Transmitting out port 7 and receiving in port 8 ... FAILED
Transmitting out port 2 and receiving in port 1 ... PASSED
Transmitting out port 4 and receiving in port 3 ... FAILED
Transmitting out port 6 and receiving in port 5 ... FAILED
Transmitting out port 8 and receiving in port 7 ... FAILED
Testing is completed. Press <Enter> to quit.
```

**Figure 17.** RS-422 test results with a cable connecting ports P1 and P2

- After you have finished verifying RS-422 board installation, shutdown and restart Windows NT.

Now that you have completed installation verification, proceed with “Copying the Driver Diskette Contents to the System Drive” on page 37.

## **Copying the Driver Diskette Contents to the System Drive**

In this procedure you will copy the contents of the Windows NT driver diskette onto the system drive. This will make it convenient if you need access to these files in the future.

To copy the contents of the Windows NT Driver Diskette:

1. Create a new folder under *c:\profile\drivers* called **control**.

***NOTE: Some Profile systems already have the device driver software in the “control” directory. If the device driver software is already on the system hard drive, you can skip the rest of this procedure.***

2. Copy all the files from the driver diskette **A:\winnt** directory to the new **control** directory you just created.
3. Remove the Windows NT driver diskette.

This completes the RS-422 Interface board installation procedure.



---

*Installation Procedures*