Instruction Manual

Tektronix

Profile Family

CD-ROM

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Tektronix Product Support

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

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FTP Site	ftp.tektronix.com
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Users Group	profile-users@tektronix.com



General Safety Summary

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 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

Use Proper Power Cord	To avoid fire hazard, use only the power cord specified for this product.
Anchor Equipment Rack	To prevent serious injury, insure that the equipment rack is anchored to the floor so that it cannot tip over when the Profile Video File Server is extended out of the rack
Do Not Operate Without Covers	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 Proper Power Source	Do not operate this product from a power source that applies more than the voltage specified.	
Provide Proper Ventilation	To prevent product overheating, provide proper ventilation.	
Do Not Operate With Suspected 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:	
\wedge	WARNING: Warning statements identify conditions or practices that can result in personal injury or loss of life.	
\wedge	<i>CAUTION:</i> Caution statements identify conditions or practices that can result in damage to the equipment or other property.	
Terms on the Product	These terms may appear on the product: DANGER indicates a personal injury hazard immediately accessible as one reads 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.	



General Safety Summary

Symbols on the Product	Product The following symbols may appear on the product	
1	DANGER high voltage	
	Protective ground (earth) terminal	
\bigwedge	ATTENTION – refer to manual	

Certifications and Compliances

Canadian Certified Power Cords	Canadian approval includes the products and power cords appropriate for use in the North America power network. All other power cords supplied are approved for the country of use.
Canadian Certified AC Adapter	Canadian approval includes the AC adapters appropriate for use in the North America power network. All other AC adapters supplied are approved for the country of use.
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 the instruction 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 own expense. Changes or modifications not expressly approved by Tektronix can affect emission compliance and could void the user's authority to operate this equipment.



General Safety Summary

Canadian EMC Notice of Compliance	This digital apparatus does not exceed the Class A limits for radio noise emissions from 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 préscrites 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.

Service Safety Summary

\wedge	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.
Do Not Service Alone	Do not perform internal service or adjustment of this product unless another person capable of rendering first aid and resuscitation is present.
Disconnect Power	To avoid electric shock, disconnect the main power by means of the power cord. or, if provided, the power switch.
Use Care When Servicing With Power On	Dangerous voltages or currents may exist in this product. Disconnect power and remove battery (if applicable) before removing protective panels, soldering, or replacing components.
	To avoid electric shock, do not touch exposed connections



Service Safety Summary

Introduction

These instructions explain how to temporarily install the CD-ROM drive on your Profile system. Once you have installed the CD-ROM drive, you can perform software upgrades, such as upgrading the Windows NT operating system (see "Upgrading Windows NT" on page 15) or upgrading the Profile system software. You can find instructions for upgrading Profile system software in the *Profile Software Release Notes*.

Topics discussed in the section include:

- List of CD-ROM Drive Installation Procedures
- Kit Contents
- Tools Required
- Sharing the CD-ROM Drive On the Network
- Upgrading Windows NT

List of CD-ROM Drive Installation Procedures

This manual contains CD-ROM drive installation procedures for several Profile products. Refer to Table 1 to select the correct procedure to follow.

Table 1. List of CD-ROM drive installation procedures

CD-ROM Drive Installation Procedures	
PDR 200, PDR 300, and PDR 400 Installation	18
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Introduction

Kit Contents

- One CD-ROM drive
- One universal power supply
- Power supply cables: North American, Europe, Australia, and UK
- Windows NT Driver Diskette
- Parallel cable
- One L-bracket with parallel port connector
- Board identification labels
- This Instruction Manual

Tools Required

• Torx screwdriver with T10 and T15 tips is required if you need to open up your Profile system.

Sharing the CD-ROM Drive On the Network

Windows NT allows file and directory sharing over the network. If your Profile systems are connected by an Ethernet network, you can install the CD-ROM drive on one Profile system and then configure Windows NT to share the drive. In this way, other Profile systems on the network can have access to the same CD-ROM drive to perform software upgrades, such as Profile system software or Windows NT operating system. For more information on file sharing, refer to your Windows NT documentation or on-line help.

Upgrading Windows NT

The following sections contain information about using the CD-ROM drive to upgrade the Windows NT operating system.

NOTE: If you are upgrading to Windows NT 4.0, you must upgrade your Profile system software to version 2.0 or higher.

Upgrading Windows NT 3.50

The CD-ROM device driver software supplied with this kit is not supported by Windows NT 3.50. However, the driver is supported by the Windows NT Setup programs that come with Windows NT 3.51 and 4.0 upgrade packages. To use the CD-ROM in this way, boot your system from the Windows NT Setup floppy disks that come with your upgrade package. When the setup program asks for the CD-ROM driver, insert the *NT Driver Diskette* shipped with thus kit. For more information, refer to the instructions in the Windows NT upgrade package documentation that describe running Windows NT Setup from floppy disk.

Before you can attach the CD-ROM drive to your PDR 100 system, you may have to install and enable the parallel port. Refer to the procedures in "Installing the Parallel Port" on page 32. These procedures describe how to install and enable the parallel port on PDR 100 systems with the 486 System CPU board. After the parallel port is installed and enabled, the CD-ROM drive can be connected and used to upgrade Windows NT 3.50.



Introduction

Upgrading Windows NT 3.51

To upgrade Windows NT 3.51, you must first follow the procedures for installing the CD-ROM drive on your Profile system using the existing operating system. After the CD-ROM drive is installed, you can insert the Windows NT upgrade CD-ROM and run Windows NT Setup. For more information, refer to the instructions located in the Windows NT upgrade package documentation that describe running Windows NT Setup from CD-ROM.

Installing Windows NT Service Packs

You must install the correct service pack and hotfix after upgrading your Windows NT operating system. The correct service pack and possible hotfix is specified in the software release notes of the Profile system software you are using. Access the Tektronix web site to view *Profile System Software Release Notes* or contact your Tektronix representative. The correct service pack and hotfix are available directly from Microsoft.

General Installation Instructions

The Profile system can be configured when 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 cabinet to fully extend on the slides.



WARNING: Unless the equipment rack is adequately anchored, the rack could tip when the cabinet is extended on the rack slides. To avoid possible injury, make sure the rack is firmly anchored before extending the cabinet on the rack slides.

If it is necessary for you to remove the Profile system from the equipment rack to perform this installation, refer to the system's *Installation Manual* for instructions.



CAUTION: The video disk recorder 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 non-conductive materials. Static-protected areas include non-static table tops and non-static floor mats.
- Handle circuit boards only by the edges. Avoid touching the printed wires on the back of the circuit board as much as possible.



PDR200, PDR300, and PDR400 Installation

PDR 200, PDR 300, and PDR 400 Installation

This section provides instructions for connecting the CD-ROM drive to your Profile system and installing the CD-ROM driver in Windows NT 4.0.

Connecting the CD-ROM Drive

To connect the CD-ROM drive:

- 1. Shut down your Windows NT session and power off the Profile system.
- 2. Connect one end of the parallel cable to the CD-ROM drive's **TO COMPUTER** connector and the other end to the parallel port on the Profile system as shown in Figure 1.
- 3. Connect power to the CD-ROM drive using the universal power supply and one of the four power supply cables provided with the kit.
- 4. Turn on the CD-ROM drive power switch and power up the Profile system.



Figure 1. CD-ROM drive cabling for the PDR200, PDR300, and PDR400

Installing the CD-ROM Driver In Windows NT 4.0

Installing the CD-ROM Driver In Windows NT 4.0

To install the driver:

- 1. Power up the Profile system and logon as *administrator* using these steps:
 - a. 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*.
- 2. Open the Control Panel by choosing **Start | Settings | Control Panel**.
- 3. Double-click SCSI Adapters.
- 4. Choose the **Drivers** tab and the click then **Add** button.
- 5. Choose **Have Disk** in the resulting dialog box, then insert the *NT Driver Diskette* in the Profile system's floppy drive.
- 6. Ensure that $A: \setminus$ appears in the path text box, then click **OK**.
- 7. Confirm that the F.I.T. Parallel-Port Trans-Series NT Driver is selected in the SCSI Adapter list, then click OK.
- 8. When prompted, change the path to A: \, then click **Continue**.
- 9. Select Yes to restart the system and logon again as *administrator*.

NOTE: The message, "At least one service or driver failed during start-up" displayed during start-up, may indicate a parallel port problem. Refer to "PDR200, PDR300 and PDR400 Troubleshooting" on page 21.

10. Choose **Start | Programs | Windows NT Explorer** and verify that the CD-ROM drive is listed as a drive. If the CD-ROM drive doesn't appear, refer to "PDR 200, PDR 300 and PDR 400 Troubleshooting" on page 21 to help find the cause.

If the CD-ROM drive does appear, you have successfully installed the CD-ROM drive for use with Windows NT 4.0 on your Profile system.

NOTE: The CD-ROM drive is not intended to be a permanent part of the Profile system. Remove the CD-ROM drive when it is no longer needed using the instructions in "Removing the CD-ROM Drive" on page 20.



PDR200, PDR300, and PDR400 Installation

Removing the CD-ROM Drive

When you have finished using the CD-ROM drive you should remove it from the system. To do this, you must first remove the CD-ROM driver from Windows NT and then disconnect the CD-ROM drive from the Profile system.

To remove the CD-ROM driver:

- 1. Power up the Profile system and logon as *administrator* using the following steps:
 - a. 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*.
- 2. Open Control Panel by choosing Start | Settings | Control Panel.
- 3. Double-click SCSI Adapters, then choose the Drivers Tab.
- 4. Select F.I.T. Parallel-Port Trans-Series NT Driver in the list.
- 5. Click the **Remove** button.
- 6. Click Yes, then OK.
- 7. Shut down Windows NT and power down the Profile system and CD-ROM drive.
- 8. Disconnect the CD-ROM drive from the system.
- 9. Power up the Profile system and logon as *administrator* or as *profile*.

Logging on as *profile* will enable the auto-logon feature the next time the Profile system boots. The factory default password for the *profile* account is *profile*.

PDR 200, PDR 300 and PDR 400 Troubleshooting

If, after installing the CD-ROM drive, Windows NT doesn't indicate that the drive is present or the message "At least one service or driver failed during start-up" is displayed during start-up, try the following simple steps.

- 1. Check that the parallel cable is securely connected to both the CD-ROM drive and the Profile system.
- 2. Check that the CD-ROM drive has power applied.

If neither of these solves the problem, use the following sections to find another solution.

NOTE: You must logon as Administrator to perform the procedures that follow. To logon as administrator see step 1 of "Installing the CD-ROM Driver In Windows NT 4.0" on page 19.

Checking the Windows NT CD-ROM Device Status

To check the Windows NT Cdrom device status:

- 1. Start Control Panel and select Devices.
- 2. Scroll down in the list to **Cdrom** and verify that start-up is set to **System**. If it is not set correctly, perform the following:
 - a. Select Cdrom, then click the Start-up button.
 - b. Select the System option.
 - c. Click **OK**, then **Close**.
- 3. Shutdown and restart Windows NT.

If this procedure did not correct the problem, the Profile system's parallel port may not be enabled. The following procedure describes how to check this.



PDR200, PDR300 and PDR400 Troubleshooting

Checking the Parallel Port Status

To determine if the parallel port is enabled:

- 1. Chose Start | Programs | Administrative Tools | Windows NT Diagnostics.
- 2. Click the **Resources** tab.
- 3. Click the **I/O Port** button.
- 4. Verify that the parallel port (Parport) addresses of 0378 037A are present.
- 5. If these addresses do not appear in the list, you must verify the parallel port configuration using one of two procedures depending what hardware version you have installed. Refer to Table 1 to determine which procedure you should follow to verify the parallel port configuration.

Table 1. Verifying the parallel port configuration

Rear Panel View	Procedure To Follow	Page Number
J5 J4 J3 J2 J1 Parallel Port only	"Running Load CMOS to Configure the Parallel Port"	23
J5 J4 J3 J2 J1 S-VGA Port Parallel Port	"Setting VGA-I/O Board Switches to Configure the Parallel Port"	23

Running Load CMOS to Configure the Parallel Port

Running Load CMOS to Configure the Parallel Port

Use this procedure to configure the parallel port when the parallel port addresses do not appear as they should in the "Checking the Parallel Port Status" procedure on page 22. In this version of hardware, the parallel port is configured by running a batch file called Load CMOS.

To run Load CMOS to enable the parallel port:

- 1. Chose Start | Programs | PDR Debug Tools| Load CMOS.
- 2. Shut down and restart Windows NT. Logon on as administrator.
- 3. Choose Start | Programs | Windows NT Explorer and verify that the CD-ROM drive is listed as a drive.

Setting VGA-I/O Board Switches to Configure the Parallel Port

Use this procedure to configure the parallel port when the parallel port addresses do not appear as they should in the "Checking the Parallel Port Status" procedure on page 22.

In this version of hardware, the parallel port circuitry is located on the system VGA-I/O board. The parallel port is configured by setting the configuration switches on the VGA-I/O board. This procedure provides instructions for removing the VGA-I/O board and checking the parallel port configuration switches.

To check the VGA-I/O board switches:

- 1. Confirm that the Profile system power is switched off and the power cord is removed.
- 2. Power down the CD-ROM drive and disconnect it from the Profile system.
- 3. Remove the top covers from the Profile system.

NOTE: In some units the parallel port configuration switches may be visible without removing the VGA-I/O board from the unit. If you have access to the switches without removing the VGA-I/O board, go to step 7 and check the switch positions.



PDR200, PDR300 and PDR400 Troubleshooting



4. Remove the circuit board retainer as shown in Figure 2.

Figure 2. Removing the circuit board retainer

5. The VGA-I/O board is located in slot 2. Remove the circuit board mounting screw as shown in Figure 3. If the VGA monitor cable is connected to the board disconnect it now.



Figure 3. Location of circuit board mounting screw

NOTE: See "General Installation Instructions" on page 17 for proper circuit board handling warnings.

6. Carefully grasp the board and lift upward to free the circuit board from the motherboard connector. In some cases, it may be necessary to remove the board in the adjacent slot J3 before removing the VGA-I/O board.



PDR200, PDR300 and PDR400 Troubleshooting

7. Set the switches on your VGA-I/O board as shown in Figure 4 for the CEX595 or Figure 5 for the CEX585.



Figure 4. CEX595 VGA-I/O board switch settings to enable parallel port



Figure 5. CEX585 VGA-I/O board switch settings to enable parallel port

8. Reinstall the VGA-I/O board by aligning it with the connectors on the motherboard and then pressing down firmly until the board is seated. The board is properly seated when the top of the rear mounting bracket is resting on the rear cabinet wall shelf. Reinstall the board mounting screw.



PDR200, PDR300 and PDR400 Troubleshooting

- 9. Reinstall the circuit board retainer.
- 10. Reinstall the top covers; install the rear cover first, then the front cover.
- 11. Reinstall the Video File Server in the rack and reconnect all cables previously removed.
- 12. Reconnect the CD-ROM drive to the Profile system parallel port and then, power up the CD-ROM drive.
- 13. Power up the Profile system and logon on as *administrator*.
- 14. Choose **Start | Programs | Windows NT Explorer** and verify that the CD-ROM drive is listed as a drive.

PDR100 Installation

This section contains procedures for installing the CD-ROM drive on PDR 100 systems. Procedures are included for all PDR 100 System CPU board hardware versions. Which installation procedure you follow is determined by your System CPU board hardware version.

Procedures in this section will help you:

- Determine your System CPU hardware version.
- Determine your starting point in the procedures depending on your System CPU board hardware version.
- Install and test the CD-ROM drive.

Use following section to determine your System CPU board hardware version.

Determining the System CPU Board Hardware Version

You can determine the hardware version of your PDR 100 by looking at the PDR 100 rear panel and observing the text displayed by the System CPU board BIOS at power up, and then referring to Table 2.

To determine System CPU board hardware version:

- 1. Power On the SVGA Monitor connected to the PDR 100.
- 2. Power On the PDR 100, and then press the **Pause** key on keyboard when the first screen of text appears.
- 3. Compare your BIOS boot screen text and PDR 100 rear panel to those shown in Table 2 to determine your starting procedure.



PDR100 Installation

Rear Panel View	BIOS Boot Screen Text ^a	Hardware Description	Starting Procedure and Page Number
J2 J1 	DTI Advanced BIOS Software Version 1.X Copyright (C)1993-1994 Diversified Technology,Inc All Rights Reserved (C) 1984-90, Award Software Inc. Power On Self Test Results ESP2002 - Tektronix Release 1.X	486 System CPU board Ultimate VGA board No parallel port installed.	"Installing the Parallel Port" on page 32.
J2 J1 Parallel Port © © © ♥	DTI Advanced BIOS Software Version 1.X Copyright (C)1993-1994 Diversified Technology,Inc All Rights Reserved (C) 1984-90, Award Software Inc. Power On Self Test Results ESP2002 - Tektronix Release 1.X	486 System CPU board Ultimate VGA board System CPU board parallel port installed. (Connector may be located in another slot)	"Connecting the CD-ROM Drive to the PDR 100" on page 42.
J2 J1	DTI Advanced BIOS Software Version 1.X Copyright (C)1993-1994 Diversified Technology,Inc All Rights Reserved (C) 1984-90, Award Software Inc. Power On Self Test Results ESP2002 - Tektronix Release 1.X	486 System CPU board CEX585 or CEX 595 VGA-I/O ^b board No parallel port installed.	"Installing the Parallel Port" on page 32.

Table 2. Procedure selection table

Determining the System CPU Board Hardware Version

Rear Panel View	BIOS Boot Screen Text ^a	Hardware Description	Starting Procedure and Page Number
J2 J1 Parallel Port ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○	DTI Advanced BIOS Software Version 1.X Copyright (C)1993-1994 Diversified Technology,Inc All Rights Reserved (C) 1984-90, Award Software Inc. Power On Self Test Results ESP2002 - Tektronix Release 1.X	486 System CPU board CEX585 or CEX 595 VGA-I/O ^b board System CPU board parallel port installed. (Connector may be located in another slot)	"Connecting the CD-ROM Drive to the PDR 100" on page 42.
	PhoenixBIOS Version 4.x Copyright 1985-1995 Phoenix Technologies Ltd. Copyright 1996, Diversified Technology, Inc. All Rights Reserved. ESP3520B Rls. 1.X Press <f2> to enter SETUP</f2>	Pentium System CPU board CEX585 or CEX 595 VGA-I/O board with parallel port enabled.	"Connecting the CD-ROM Drive to the PDR 100" on page 42.
J2 J1 ○ ○ ○ ○ ○ ○ ○ ● ●	PhoenixBIOS Version 4.x Copyright 1985-1995 Phoenix Technologies Ltd. Copyright 1996, Diversified Technology, Inc. All Rights Reserved. ESP3521 Rls. 1.X Press <f2> to enter SETUP</f2>	Pentium System CPU board CEX585 or CEX 595 VGA-I/O board with parallel port enabled.	"Connecting the CD-ROM Drive to the PDR 100" on page 42.

Table 2. Procedure selection table (Continued)

a. Press the keyboard **Pause** key to pause BIOS during bootup; press any other key to continue.

b. The VGA-I/O board parallel port (in slot J2) is disabled when used with the 486 System CPU board.



PDR100 Installation

Installing the Parallel Port

This procedure describes how to install the parallel port on PDR 100 systems with the 486 System CPU board. The parallel port will provide a 25-pin D-connector for attaching the CD-ROM drive to the PDR 100.

This procedure has three parts:

- Removing the Top Covers
- Verifying Switch Settings On the VGA-I/O Board (if installed)
- Installing the Parallel Port L-bracket
- Enabling the System CPU Board Parallel Port

Removing the Top Covers

To remove both chassis covers:

- 1. Confirm that the PDR 100 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 (1 in Figure 6).

NOTE: Take care not to lose these chassis screws. They are required to meet the EMI specifications for the PDR 100.

3. Use the Torx tool with the T10 tip to remove the rear chassis cover(2) in Figure 6) which covers the circuit boards.



Figure 6. Removing the top covers



PDR100 Installation

Verifying Switch Settings On the VGA-I/O Board (if installed)

Some PDR 100 units have the VGA-I/O board installed which includes a parallel port. If this board is installed with the 486 System CPU board, you must make sure the parallel port on the VGA-I/O board is *disabled* by verifying the configuration switch settings. (If you need to determine your System CPU board hardware version, refer to "Determining the System CPU Board Hardware Version" on page 29.)

To determine if a VGA-I/O Board is installed and to verify switch settings:

- 1. Compare your PDR 100 to Figure 7, which shows VGA boards with and without a parallel port. Then do one of the following:
 - a. If you have a VGA board without a parallel port, proceed with "Installing the Parallel Port L-bracket" on page 39.
 - b. If you have a VGA I/O board with a parallel port you must verify the switch settings by continuing with the next step in this procedure.



Figure 7. PDR100 VGA board with and without a parallel port

2. Verify that your VGA-I/O board switch settings match Figure 8 for the CEX595 or Figure 9 for the CEX585, then proceed to "Installing the Parallel Port L-bracket" on page 39.

NOTE: In some cases, you may have to remove the VGA-I/O board to gain access to configuration switches. Continue with step 3 on page 37 of this procedure to remove the VGA-I/O board.



Figure 8. CEX595 VGA-I/O board switch settings when used with the 486 System CPU board



PDR100 Installation



Figure 9. CEX585 VGA-I/O board switch settings when used with the 486 System CPU board

- 3. To remove the VGA-I/O board to gain access the configuration switches:
 - a. Remove the circuit board retainer as shown in Figure 10.



Figure 10. Removing the circuit board retainer

b. The VGA-I/O board is located in slot J2. Remove the circuit board mounting screw as shown in Figure 11.



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Figure 11. Location of circuit board mounting screw

c. If the VGA monitor cable is connected to the board, disconnect it now.

NOTE: See "General Installation Instructions" on page 17 for proper circuit board handling warnings.

- d. Carefully grasp the board and lift upward to free the circuit board from the motherboard connectors. In some cases, it may be necessary to remove the board in the adjacent slot J3 before removing the VGA-I/O board.
- e. Verify your VGA-I/O board switch settings match Figure 8 on page 35 for the CEX595 board or Figure 9 on page 36 for the CEX585 board.
- f. Reinstall the VGA-I/O board by aligning it with the connectors on the motherboard and then pressing down firmly until the board is seated. The board is properly seated when the top of the rear mounting bracket is resting on the rear cabinet wall shelf.
- g. Reinstall the circuit board mounting screw and then proceed to the next section "Installing the Parallel Port L-bracket".

Installing the Parallel Port L-bracket

To install the parallel port L-bracket:

- 1. Remove the blank L-bracket from any empty rear panel slot.
- 2. Install the parallel port L-bracket supplied with the CD-ROM drive kit. See **1** in Figure 12.



Figure 12. Installing the parallel port L-bracket and cabling

3. Connect the CPU parallel port cable between the processor board and the parallel port L-bracket. See ② in Figure 12.



PDR100 Installation

- 4. Apply the parallel port identification label to the rear panel of the PDR 100 as follows:
 - a. Locate the Parallel Port/System CPU label on the label sheet shipped with this CD-ROM drive.
 - b. Using a pair of scissors, trim off the System CPU half of the label.
 - c. Place the Parallel Port label on the board identification strip in front of the newly installed parallel port.
- 5. Reinstall the circuit board retainer (refer to Figure 10 on page 37).
- 6. Reinstall the top covers; install the rear cover first, then the front cover.
- 7. If the PDR 100 was removed from the rack, you may now reinstall it.

Enabling the System CPU Board Parallel Port

PDR 100 systems with the 486 System CPU board were shipped from the factory with the parallel port disabled. You must run a batch file to enable the parallel port. If you are using Profile system software 2.0 or higher, the batch file is already on your the PDR 100 system hard drive. If you are using Profile system software 1.4.X or lower, the batch file is located on the *NT Driver Diskette* shipped with the CD-ROM drive.

To enable the 486 System CPU board parallel port:

- 1. Power up the Profile system and logon as *administrator* using the following steps:
 - a. 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*.
- 2. Determine the version of Profile system software you are using by following these instructions:
 - a. Start the VdrPanel application located in the Profile Applications program group (in Windows NT 3.51) or folder (in Windows NT 4.0).
 - b. From the VdrPanel menu bar select Help | About VdrPanel.
 - c. Record the version number shown as **Product Version**.
 - d. Quit VdrPanel and any other Profile applications.

3. Locate your Profile system software version in Table 3, then follow the instructions listed for your software version.

Table 3. Procedures to enable parallel port settings in CMOS	
IF your Profile software version is	THEN perform these instructions

IF your Profile software version is	THEN perform these instructions
2.0 or higher	If Windows NT 3.51:
	1. Open PDR Debug Tools program group.
	2. Double-click LOAD CMOS icon.
	3. Shut down and restart Windows NT, then logon as <i>Administrator</i> .
	If Windows NT 4.0:
	1. Select Start Programs PDR Debug Tools Load CMOS.
	2. Shut down and restart Windows NT and then logon as <i>Administrator</i> .
1.4.15 or higher, but lower than 2.0	1. Place CD-ROM drive <i>NT Driver Diskette</i> in the floppy disk drive.
	2. If Windows NT 3.51, chose Run in the Program Manager File menu.
	If Windows NT 4.0, select Start Run
	3. Type A:\newcmos\loadcmos, then press Enter.
	4. Shutdown and restart Windows NT, then logon as <i>Administrator</i> .
1.4.14 or lower	1. Place CD-ROM drive <i>NT Driver Diskette</i> in the floppy disk drive.
	2. If Windows NT 3.51, chose Run in the Program Manager File menu.
	If Windows NT 4.0, select Start Run
	3. Type A:\oldcmos\loadcmos, then press Enter.
	4. Shutdown and restart Windows NT and then, logon as <i>Administrator</i> .

Now that the PDR 100 parallel port is installed and enabled, you are ready to connect the CD-ROM drive. The next section, "Connecting the CD-ROM Drive to the PDR 100" on page 42, describes how to do this.



PDR 100 Installation

Connecting the CD-ROM Drive to the PDR100

This section provides instructions for connecting the CD-ROM drive to your PDR 100 system and local power source.

To connect the CD-ROM drive:

- 1. Shut down your Windows NT session and power off the PDR 100.
- 2. Connect one end of the parallel cable to the CD-ROM drive's **TO COMPUTER** connector and the other end to the parallel port on the PDR 100. Table 4 shows examples of CD-ROM drive parallel port connections for different PDR 100 hardware versions.
- 3. Connect power to the CD-ROM drive using the universal power supply and one of the four power supply cables provided with the kit.
- 4. Turn on the CD-ROM drive power switch and power up the PDR 100.

Now that your CD-ROM drive is connected to your PDR 100, you must install the Windows NT device driver. The next section describes how to do this.

Connecting the CD-ROM Drive to the PDR100



Table 4. Connecting the CD-ROM drive to the PDR100 parallel port

a. Refer to "Determining the System CPU Board Hardware Version" on page 29 to verify your hardware version.

b. The VGA-I/O board parallel port (in slot J2) is disabled when used with the 486 System CPU board.



PDR100 Installation

Installing the Windows NT CD-ROM Driver

This section contains instructions for installing the CD-ROM device driver. Procedures are included for Windows NT 3.51 and Windows NT 4.0. Locate the *NT Driver Diskette* shipped with CD-ROM drive and then use one of the following procedures to install the CD-ROM driver.

NOTE: No Windows NT 3.50 compatible driver is available for this CD-ROM drive. However, the CD-ROM drive may be used to upgrade Windows NT 3.50. See "Upgrading Windows NT 3.50" on page 15 for more information.

Installing the CD-ROM Driver in Windows NT 3.51

Installing the CD-ROM driver in Windows NT 3.51 on the PDR 100 also involves enabling the Scsicdrm device. The procedures that follow describe how to do this.

To enable the Scsicdrm device and install the CD-ROM driver:

- 1. Power up the PDR 100 and logon as *administrator* using these steps:
 - a. 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 PDR 100 is *triton*.
- 2. Open the Control Panel, then double-click Devices.
- 3. Scroll down in the list to **Scsicdrm** and verify that it is set to **System**. If it is not set correctly:
 - a. Highlight Scsicdrm and then click Start-up.
 - b. Select the System option.
 - c. Click **OK** and then **Close**.
- 4. In the Main Program Group, start the Windows NT Setup application.
- 5. In Windows NT Setup, choose Options | Add/Remove SCSI Adapters.
- 6. Click Add.
- 7. When the Setup Message appears, read it and then click **OK**.

- 8. Select Other in the drop down list of drivers.
- 9. When the Insert Disk dialog box appears, insert the *NT Driver Diskette* in the PDR 100 floppy drive and then click **OK**.
- 10. Select the F.I.T. Parallel-Port Trans-Series NT Driver, then click OK.
- 11. When the Select SCSI Adapter Option dialog box appears, verify that **F.I.T.** is selected and then click **Install**.
- 12. When Windows NT Setup dialog box appears verify path is A: \, then chose Continue.
- 13. Chose Close.
- 14. Remove the *NT Driver Diskette* and then shutdown and restart Windows NT. Logon as Administrator.

NOTE: The message, "At least one service or driver failed during start-up" displayed during start-up, may indicate a parallel port problem. Refer to "PDR100 Troubleshooting" on page 49.

15. Open **File Manager** and verify that the CD-ROM drive is listed as a drive. If the CD-ROM drive doesn't appear, refer to "PDR 100 Troubleshooting" on page 49 to help find the cause.

If the CD-ROM drive does appear, you have successfully installed the CD-ROM drive for use with Windows NT 3.51 on your PDR 100.

NOTE: The CD-ROM drive is not intended to be a permanent part of the Profile system. Remove the CD-ROM drive when it is no longer needed using the instructions in "Removing the CD-ROM Drive" on page 47.

Installing the CD-ROM Driver in Windows NT 4.0

To install the CD-ROM driver in Windows NT 4.0:

- 1. Power up the PDR 100 and logon as *administrator* using these steps:
 - a. 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 PDR 100 is *triton*.



PDR100 Installation

- 2. Open Control Panel by choosing Start | Settings | Control Panel.
- 3. Double-click SCSI Adapters.
- 4. Choose the **Drivers** tab and then click the **Add** button.
- 5. Choose **Have Disk** in the resulting dialog box and then insert the *NT Driver Diskette* in the PDR 100 floppy drive.
- 6. Ensure that $A: \$ appears in the path text box, then click **OK**.
- 7. Confirm that the F.I.T. Parallel-Port Trans-Series NT Driver is selected in the SCSI Adapter list, then click OK.
- 8. When prompted, change the path to $A: \$, then click **Continue**.
- 9. Select **Yes** to restart the system and logon again as *administrator*.

NOTE: The message, "At least one service or driver failed during start-up" displayed during start-up, may indicate a parallel port problem. Refer to "PDR100 Troubleshooting" on page 49.

10. Choose **Start | Programs | Windows NT Explorer** and verify that the CD-ROM drive is listed as a drive. If the CD-ROM drive doesn't appear, refer to "PDR 100 Troubleshooting" on page 49 to help find the cause.

If the CD-ROM drive does appear, you have successfully installed the CD-ROM drive for use with Windows NT 4.0 on your PDR 100.

NOTE: The CD-ROM drive is not intended to be a permanent part of the Profile system. Remove the CD-ROM drive when it is no longer needed using the instructions in "Removing the CD-ROM Drive" on page 47.

Removing the CD-ROM Drive

When you have finished using the CD-ROM drive, you should remove it from the PDR 100. To do this, you must first remove the CD-ROM driver from Windows NT, then disconnect the CD-ROM drive from the PDR 100. Procedures are included here for Windows NT 3.51 and 4.0. Use one of the following procedures to remove the CD-ROM drive.

Removing the CD-ROM Driver From Windows NT 3.51

To remove the CD-ROM driver from Windows NT 3.51.

- 1. Power up the PDR 100 and logon as *administrator* using the following steps:
 - a. 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 PDR 100 is *triton*.
- 2. In the Main Program Group, start the Windows NT Setup application.
- 3. In Windows NT Setup, choose Options | Add/Remove SCSI Adapters.
- 4. Highlight F.I.T. Parallel-Port Trans-Series NT Driver in the list.
- 5. Click **Remove**.
- 6. When the Setup Message appears, read it, then click **OK**.
- 7. Read the second Setup Message, then click **OK**.
- 8. Click Close.
- 9. Shut down Windows NT, power down the PDR 100 and CD-ROM drive.
- 10. Disconnect the CD-ROM drive from the system.
- 11. Power up the PDR 100 and logon as *administrator* or as *profile*.

Logging on as *profile* will enable the auto-logon feature the next time the PDR 100 boots. The factory default password for the *profile* account is *profile*.



Removing the CD-ROM Driver From Windows NT 4.0

To remove the CD-ROM driver from Windows NT 4.0.

- 1. Power up the PDR 100 and logon as *administrator* using the following steps:
 - a. 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 PDR 100 is *triton*.
- 2. Open Control Panel by choosing Start | Settings | Control Panel.
- 3. Double-click SCSI Adapters, then choose the Drivers Tab.
- 4. Select F.I.T. Parallel-Port Trans-Series NT Driver in the list.
- 5. Click the **Remove** button.
- 6. Click Yes, then OK.
- 7. Shut down Windows NT, and power down the PDR 100 and CD-ROM drive.
- 8. Disconnect the CD-ROM drive from the system.
- 9. Power up the PDR 100 and logon as *administrator* or as *profile*.

Logging on as *profile* will enable the auto-logon feature the next time the PDR 100 boots. The factory default password for the *profile* account is *profile*.

PDR100 Troubleshooting

If, after installing the CD-ROM drive, Windows NT does not indicate that the drive is present or the message, "At least one service or driver failed during start-up", is displayed during start-up, try the following simple steps.

- 1. Check that the parallel cable is securely connected to both the CD-ROM drive and the PDR 100.
- 2. Check that the CD-ROM drive has power applied.

If neither of these solves the problem, use the following sections to find another solution.

NOTE: The procedures that follow require you to be logged on as Administrator. Refer to "Installing the Windows NT CD-ROM Driver" on page 44 for instructions on logging on as Administrator.

Checking the Windows NT Device Status

These procedures provide instructions for checking that the Windows NT CD-ROM device status is properly set. Procedures are included for Windows NT 3.51 and 4.0. Use one of the following procedures to check the CD-ROM device status.

Checking the CD-ROM Device Status In Windows NT 3.51

To check the CD-ROM device status:

- 1. Open the **Control Panel**, then double-click **Devices**.
- 2. Scroll down in the list to **Scsicdrm** and verify that it is set to **System**. If it is not set correctly:
 - a. Highlight Scsicdrm, then click the Start-up button.
 - b. Select the System option.
 - c. Click \mathbf{OK} and then $\mathbf{Close.}$
- 3. Shutdown and restart Windows NT, then logon as administrator.
- 4. Open File Manager and verify that the CD-ROM drive is listed as a drive.

If this procedure did not correct the problem, the PDR 100 parallel port may not be enabled. Continue with "Checking the Parallel Port Status" on page 50.



PDR100 Troubleshooting

Checking the CD-ROM Device Status In Windows NT 4.0

To check the CD-ROM device status:

- 1. Start Control Panel by selecting Start | Settings | Control Panel.
- 2. Double-click on the **Devices** icon.
- 3. Scroll down in the list to **Cdrom** and verify that start-up is set to **System**. If it is not set correctly, perform the following:
 - a. Select **Cdrom**, then click the **Start-up** button.
 - b. Select the **System** option.
 - c. Click $\mathbf{OK},$ then $\mathbf{Close}.$
- 4. Shutdown and restart Windows NT.

If this procedure did not correct the problem, the PDR 100 parallel port may not be enabled. Continue with "Checking the Parallel Port Status".

Checking the Parallel Port Status

Use the following procedures to determine if the parallel port is enabled. Procedures are included for Windows NT 3.51 and 4.0. Use one of the following procedures to check the parallel port status.

Checking the Parallel Port Status In Windows NT 3.51

To check the parallel port status:

- 1. Open the Administrative Tools group.
- 2. Double click the Windows NT Diagnostics icon.
- 3. Click IRQ/Port Status button.
- 4. Scroll through the **Ports** list and verify the parallel port is listed as follows:

0x378 0x3 \Device\Parallel\Port0

If the parallel port address does not appear in the list, you must verify the parallel port configuration using "Verifying the Parallel Port Configuration" on page 52.

Checking the Parallel Port Status In Windows NT 4.0

To check the parallel port status:

- 1. Chose Start | Programs | Administrative Tools | Windows NT Diagnostics.
- 2. Click on the **Resources** tab.
- 3. Click the **I/O Port** button.
- 4. Verify that the parallel port (Parport) addresses of 0378 037A are present.

If the parallel port address does not appear in the list, you must verify the parallel port configuration using "Verifying the Parallel Port Configuration" on page 52.



PDR100 Troubleshooting

Verifying the Parallel Port Configuration

If the parallel port addresses do not appear in the list of resources in the previous procedure, "Checking the Parallel Port Status", you must verify the parallel port configuration using one of three procedures depending on what hardware version you have installed. Refer to Table 5 and follow the instructions for your hardware version.

Hardware Description ^a	Procedure To Follow
486 System CPU board Ultimate VGA board System CPU board parallel port installed.	Check that you have enabled the parallel port on the System CPU board. Follow the procedures in "Enabling the System CPU Board Parallel Port" on page 40.
486 System CPU board CEX585 or CEX 595 VGA I/O board with parallel port <u>disabled</u> . System CPU board parallel port installed.	 Check that you have disabled the parallel port on the VGA-I/O board. Follow the procedures in "Verifying Switch Settings On the VGA-I/O Board (if installed)" on page 34. Check that you have enabled the parallel port on the System CPU board. Follow the procedures in "Enabling the System CPU Board Parallel Port" on page 40.
Pentium System CPU board CEX585 or CEX 595 VGA I/O board with parallel port <u>enabled</u> .	Check for correct switch settings on the VGA-I/O board. Follow the procedures in "Verifying the VGA-I/O Board Configuration Switches" on page 52.

Table 5. Instructions for verifying parallel port configuration

a. To verify your hardware version, refer to "Determining the System CPU Board Hardware Version" on page 29.

Verifying the VGA-I/O Board Configuration Switches

This procedure provides instructions for verifying the parallel port configuration switches on VGA-I/O boards used in PDR 100 systems with Pentium System CPU boards.

To check the VGA-I/O board switches:

1. Confirm that the PDR 100 power is switched off and the power cord is removed.

2. Power down the CD-ROM drive and disconnect it from the PDR 100.

3. Use the Torx tool with the T10 tip to remove the top screws from the front chassis cover (● in Figure 13). The front cover must be removed before the rear cover.

NOTE: Take care not to lose these chassis screws. They are required to meet the EMI specifications for the PDR 100.

4. Use the Torx tool with the T10 tip to remove the rear chassis cover(② in Figure 13) which covers the circuit boards.



Figure 13. Removing the top covers



PDR100 Troubleshooting

NOTE: In some units the parallel port configuration switches may be visible without removing the VGA-I/O board from the unit. If you have access to the switches without removing the VGA-I/O board, go to step 8 on page 55 and check the switch positions.

5. Remove the circuit board retainer as shown in Figure 14.



Figure 14. Removing the circuit board retainer

6. The VGA-I/O board is located in slot J2. Remove the circuit board mounting screw as shown in Figure 15. If the VGA monitor cable is connected to the board disconnect it now.



Figure 15. Location of circuit board mounting screw

NOTE: See "General Installation Instructions" on page 17 for proper circuit board handling warnings.

- 7. Carefully grasp the board and lift upward to free the circuit board from the motherboard connector. In some cases, it may be necessary to remove the board in the adjacent slot J3 before removing the VGA-I/O board.
- 8. Set the switches on your VGA-I/O board as shown in Figure 16 for the CEX595 or Figure 17 for the CEX585.



PDR100 Troubleshooting



Figure 16. CEX595 VGA-I/O board switch settings when used with the Pentium System CPU board



Figure 17. CEX585 VGA-I/O board switch settings when used with the Pentium System CPU board.

- 9. Reinstall the VGA-I/O board by aligning it with the connectors on the motherboard and then pressing down firmly until the board is seated. The board is properly seated when the top of the rear mounting bracket is resting on the rear cabinet wall shelf. Reinstall the board mounting screw.
- 10. Reinstall the circuit board retainer.
- 11. Reinstall the top covers; install the rear cover first, then the front cover.
- 12. Reinstall the Video File Server in the rack and reconnect all cables previously removed.
- 13. Reconnect the CD-ROM drive to the PDR 100 parallel port and then, power up the CD-ROM drive.
- 14. Power up the PDR 100 and then logon as *administrator*.
- 15. Open File Manager (in Windows NT 3.51) or Explorer (in Windows 4.0) and verify that the CD-ROM drive is listed as a drive.



PDR100 Troubleshooting