

hp surestore dlt vs tape drive

getting started guide

external model

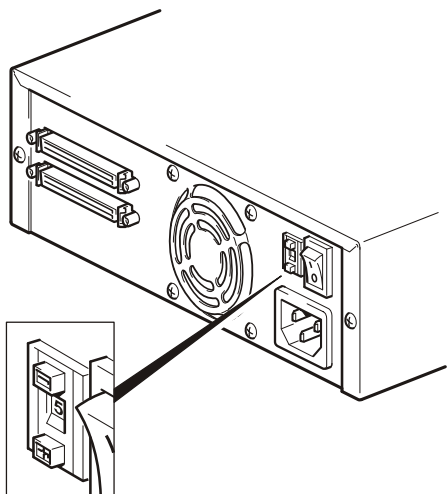


VSTAPE™
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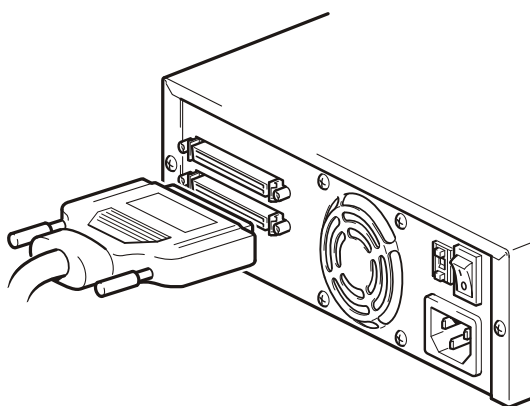
dlt vs80e



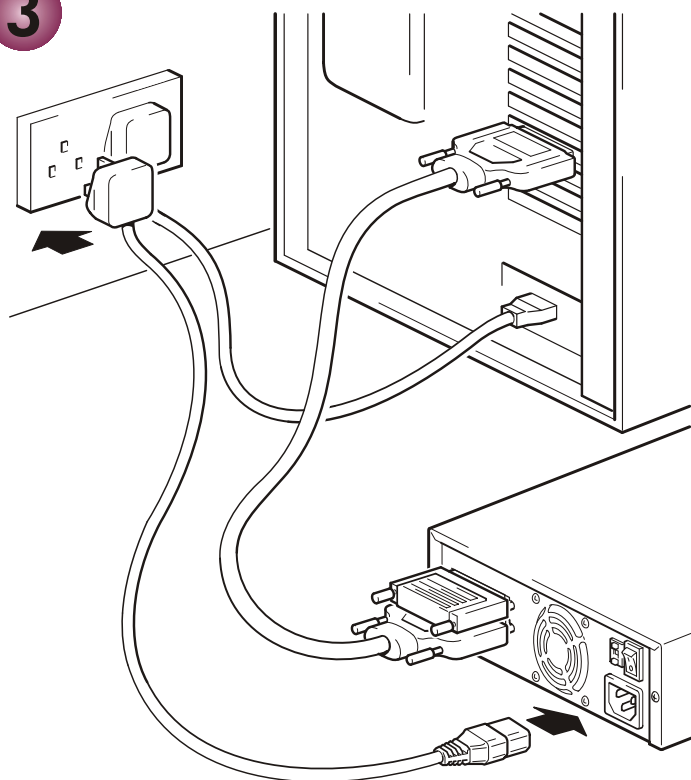
1



2



3



External drives - overview

For further details, see:

Before you start, registration, and using the CD-ROM

Check system prerequisites. (Always connect to a wide, Ultra SCSI-2 Low-Voltage Differential (LVD) or Single-Ended (SE) SCSI bus.) Visit the HP Surestore DLT VS80 web page: [//www.hp.com/support/dltvs80](http://www.hp.com/support/dltvs80) and download HP Library & Tape Tools to help you install your drive (if applicable to your operating system).

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Register your tape drive.

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Insert the *HP Surestore Tape* CD-ROM and check the contents

page 7

Step 1: Check the drive's SCSI ID

Check the tape drive's SCSI ID on the SCSI ID switch on the rear panel of drive. If necessary, change it from the default of 5 by pressing the + or - buttons above and below the SCSI ID number. Use a ball-point pen or similar pointed object. To prevent particle contamination, do not use a pencil.

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Step 2: Connect the SCSI cable

Power off the computer. Attach one end of the SCSI cable (supplied with the drive) to the computer's external SCSI connector and connect the other end to the SCSI connector on the rear of the tape drive.

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Step 3: Connect the power cable

Plug the power cable securely into the socket on the rear panel of the drive. Plug the other end of the power cable into the power outlet.

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Your tape drive

Find out what the LEDs on your tape drive indicate.

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Use the correct media

Find out how to use and care for DLTtape IV cartridges and how to use DLT VS and DLT1 cleaning cartridges.

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Operating the tape drive

Power on the drive, then the computer. Check operation and carry out a trial backup and restore.

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Diagnostics

Find out more about the free diagnostic and troubleshooting tools available for your tape drive.

page 20

Troubleshooting

If you experience problems during installation, check this section first. The *HP Surestore Tape* CD-ROM also contains detailed troubleshooting information.

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Product Details

Write your tape drive details here so you can find them easily if you need them.

| | |
|---------------------------|--|
| Model (type of drive): | |
| Model number: | |
| Serial number: | |
| Date purchased/installed: | |
| SCSI ID: | |

Before you start

To install and use your new tape drive, you will need the following:

- A wide, Ultra SCSI-2 LVD or SE-SCSI bus
- LVDS compliant SCSI cable (supplied with the tape drive)
- Backup software that supports the HP Surestore DLT VS80 tape drive

SCSI host bus adapter

You need a properly installed and configured SCSI host bus adapter or a built-in SCSI controller on your computer's motherboard (SCSI-2 or SCSI-3 compliant). Connectivity information can be found on our World Wide Web site: [//www.hp.com/go/connect](http://www.hp.com/go/connect). Check the server documentation for the specification of any built-in SCSI channels. Do not connect to a RAID controller channel; these are for disk drives only.

If you are installing on a Windows 98, Windows NT 4, Windows 2000 or Novell NetWare system, you can use HP Library & Tape Tools to check your computer's SCSI configuration, see page 20.

HP Surestore DLT VS80 drives are Ultra SCSI-2 wide SCSI devices designed to operate on an LVD-SCSI bus with a burst transfer rate of 20 MB/sec. Using the drive on a single-ended SCSI bus restricts performance. Do not use on the same bus as other single-ended devices as this will switch the LVDS host adapter into single-ended mode and restrict performance. HP recommends that a dedicated host bus adapter is used for the tape drive. A suitable adapter is available from HP as an accessory. For ordering information, SCSI specifications, and information on how to configure your SCSI bus, refer to the online *User's Guide* on the *HP Surestore Tape* CD-ROM.

SCSI cable

You need a SCSI cable that connects to your computer's external connector. For optimum performance, always use the cable supplied with the tape drive. The cable provided with HP Surestore DLT VS80 tape drives will attach to a computer with a wide LVDS-SCSI connector (68 pins) or a SE-SCSI connector. If your server or host bus adapter is equipped with a very high density (VHD) wide SCSI connector, you will need to order a VHD-to-HD cable. For ordering information refer to: [//www.hp.com/support/dltvs80](http://www.hp.com/support/dltvs80).

Backup software

You need a backup application that supports the HP Surestore DLT VS80 drive. A TapeWare CD-ROM containing backup software by Yosemite Technologies is supplied with your tape drive.

As a general rule, native backup applications (such as NTBackup and tar) do not provide the data streaming rate required to support the full performance of your HP Surestore DLT VS80 tape drive. We recommend using a backup application that can provide the required data streaming rate as well as other useful features, such as TapeAlert. Computer Associates, HP, Veritas, Legato, and Yosemite all provide suitable products that have been tested with HP Surestore drives. For the latest list of backup applications that support HP Surestore DLT VS80, please consult our World Wide Web site (www.hp.com/go/connect).

Suitable backup applications will include driver software that establishes the interface between your tape drive and the software. It is recommended that you install the backup application before installing your tape drive to ensure the drivers are available.

Details of how to best optimize your tape drive to achieve the maximum performance with your chosen backup application can be obtained from our World Wide Web Site: [// www.hp.com/support/dltvs80](http://www.hp.com/support/dltvs80).

Applications usually recognize tape drives by their manufacturers' internal identifiers rather than their model numbers, so check the table below for the appropriate reference for your model.

| Drive Model | Internal Identifier |
|-----------------------|---------------------|
| HP Surestore DLT VS80 | BNCHMARKDLT1 |

Register your tape drive

Once you have installed and tested your HP Surestore DLT VS80 tape drive, please take a few minutes to register your product. This will give you the opportunity to receive up-to-date information about our products, services and support, firmware updates and drivers.

Please register via the web (www.hp.com/go/tapereg) or by using the Customer Care card in the box.

To ensure your registration is complete, there are a number of questions on the Customer Care card and electronic form that are mandatory. Other questions are optional. However, the more you feel able to complete, the better we can meet your needs.

Note HP and its subsidiaries are committed to respecting and protecting your privacy. For further information, please visit our World Wide Web site (www.hp.com) and click on Privacy Statement.

If you have internet access, register electronically

- 1 Select the Product Registration topic on the *HP Surestore Tape* CD-ROM.
- 2 Select the Product Registration web link. This links you to HP's Product Registration web site.
- 3 Complete the registration form. Mandatory questions are shown in red text.
- 4 Click on the Submit button to forward your registration immediately to HP.

If you do not have internet access

- 1 Complete the Customer Care card supplied with the drive. Mandatory questions are shown in black, bold text.
- 2 Mail or fax the completed form to HP.

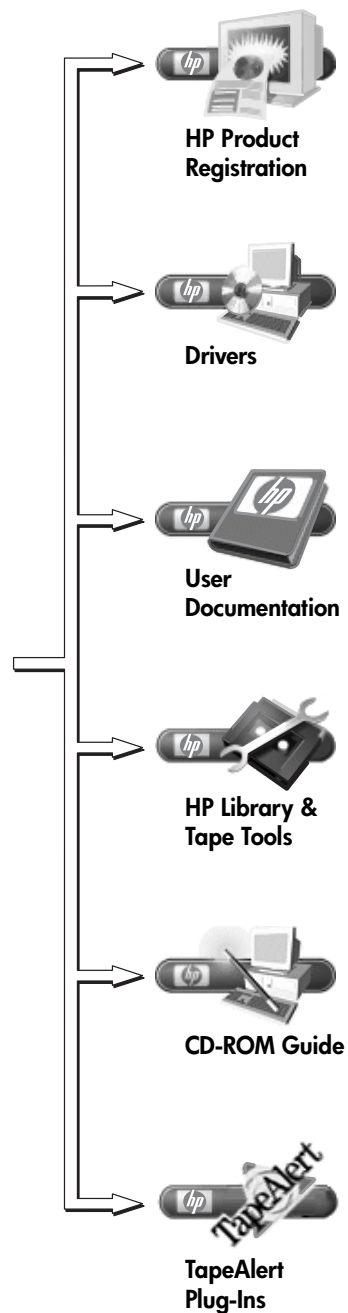


Figure 1: the *HP Surestore Tape* CD-ROM

Using the CD-ROM

The *HP Surestore Tape* CD-ROM contains drivers, useful utilities and information to help you install and use your tape drive.

HP product registration

To register your new tape drive electronically via the web, use the “Product Registration” link on the *HP Surestore Tape* CD-ROM.

Drivers

For detailed information about drivers, refer to the appropriate README file in the DRIVERS directories on the *HP Surestore Tape* CD-ROM. There is a separate sub-directory for each operating system. The tape drive must be installed before installing the driver.

User documentation

For more information about using your HP Surestore DLT VS80 tape drive, refer to the “User Documentation” topic on the *HP Surestore Tape* CD-ROM.

Refer to your backup application’s documentation for instructions on how to back up and restore data.

HP Library & Tape Tools

The CD-ROM provides a web link to HP Library & Tape Tools. HP Library & Tape Tools software provides diagnostic and troubleshooting utilities. It allows you to identify your product correctly, check SCSI ID information on the SCSI bus, run tests, carry out firmware upgrades and, if necessary, generate comprehensive troubleshooting information for support calls. For further details see page 20.

CD-ROM Guide

The CD-ROM guide provides:

- an overview of the CD directory structure
- information about the languages in which the contents of the CD-ROM are available
- a set of URLs and links for further information
- a web link to HP Instant Support. HP Instant Support is a web-based automated problem identification, diagnosis and resolution tool. For further details see page 20.

TapeAlert plug-ins

TapeAlert is a tape drive status monitoring and messaging utility that makes it easy to detect problems that could have an impact on backup quality. From the use of worn-out tapes to defects in the drive hardware TapeAlert provides easy-to-understand warnings of errors as they arise, and suggests a course of action to remedy the problem.

To take advantage of TapeAlert, you need a TapeAlert-compatible tape drive, such as the HP Surestore DLT VS80 drive, and TapeAlert-compatible backup software. The *HP Surestore Tape* CD-ROM contains plug-ins for leading network management consoles, such as TapeAlert for OpenView, to monitor your tape drive across the network.

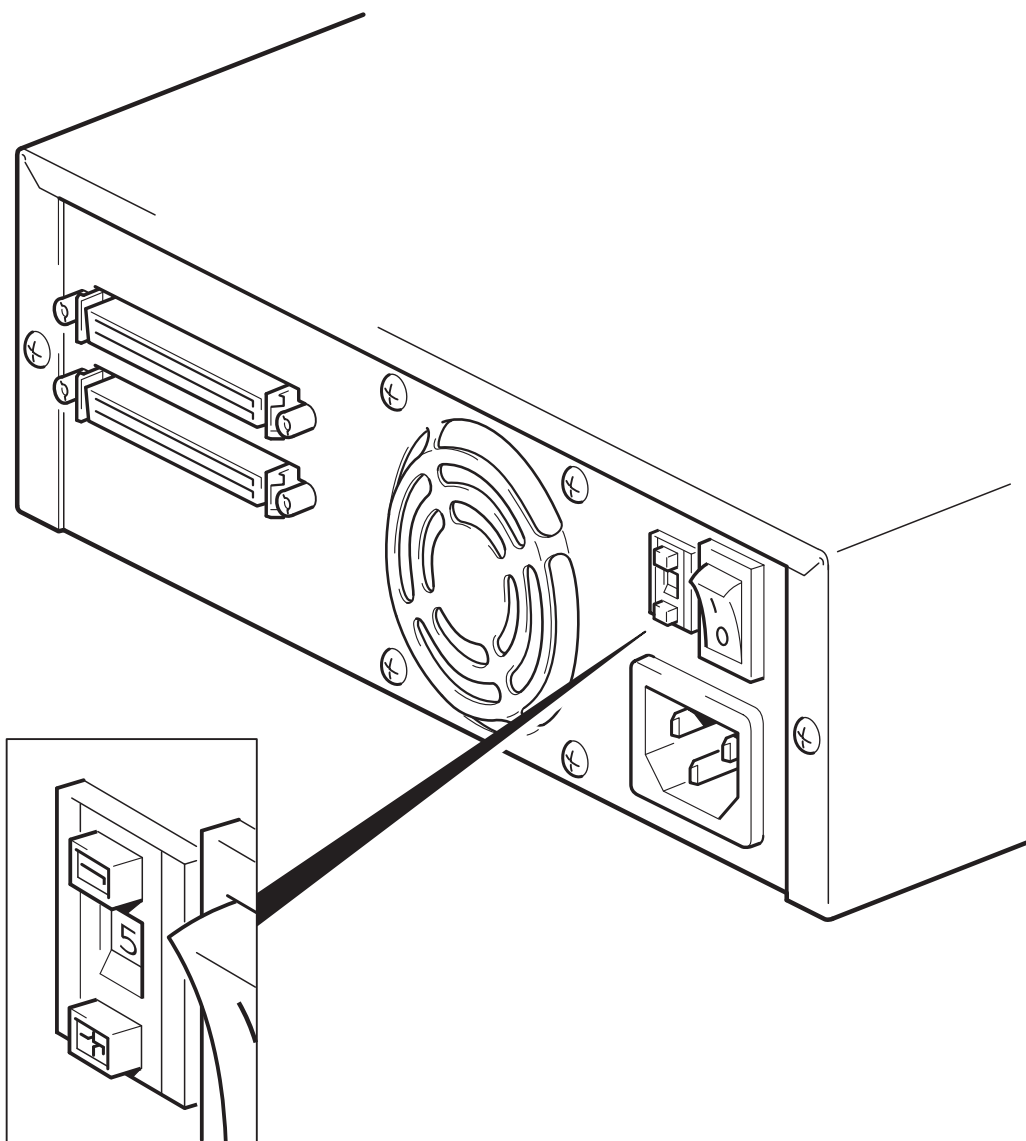


Figure 2: checking the SCSI ID

Step 1: Check the drive's SCSI ID

Note Your HP Surestore DLT VS80 drive is shipped with a default SCSI ID of 5, but it can be assigned any *unused* ID between 0 and 15. Do not use SCSI ID 7, which is usually reserved for the SCSI controller, or SCSI ID 0, which is typically assigned to the boot disk. We do not recommend installing the drive onto a narrow SCSI bus, as this will restrict performance. (See "SCSI host bus adapter" on page 3.)

- 1 Determine whether you need to change the SCSI ID from the default of 5.

If you are installing on a Windows 98, Windows NT 4, Windows 2000 or NetWare system, you can install HP Library & Tape Tools from the web site: [//www.hp.com/support/tapetools](http://www.hp.com/support/tapetools) and run the "Install Check" to check your computer's current SCSI configuration (see page 20).

If you are installing on a UNIX® system, check the online *User's Guide* on the *HP Surestore Tape* CD-ROM for instructions on how to determine the SCSI IDs of existing devices.

- 2 Change the tape drive's SCSI ID, if necessary.

Use a small screwdriver or a ball-point pen to press the SCSI ID selector buttons on the rear panel (see figure 2) until the required value is displayed. Do not use a pencil because small bits of lead could contaminate the drive.

Note The computer and the tape drive SCSI IDs are only checked at power-on. To change the SCSI ID after installation, power down both the computer and the tape drive, change the drive's SCSI ID, power up the tape drive, and then power up the computer.

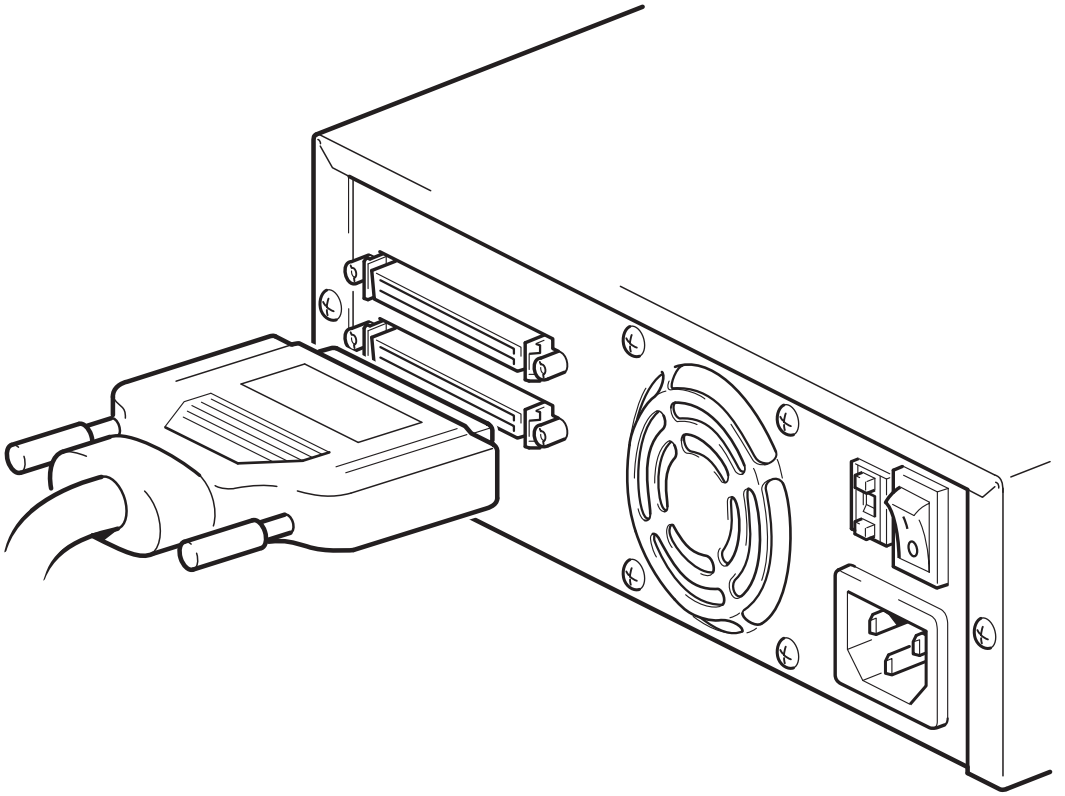


Figure 3: connecting the SCSI cable

Step 2: Connect the SCSI cable

Caution To avoid damaging the computer or tape drive, ensure that both are powered off while you attach the SCSI cable.
For optimum performance, we recommend that your HP Surestore DLT VS80 drive is installed on a dedicated SCSI bus.

- 1 Perform a normal system shutdown and turn off the computer and any connected peripherals.

A 68-pin wide LVDS SCSI cable is provided. Do not connect the supplied cable to a VHD SCSI port - this port can be used, but you will need to order a new cable.

If your computer's SCSI connector does not match the cable supplied with your drive, you will need to order the appropriate cable or adapter. See "SCSI cable" on page 3 for more details about SCSI cabling. For ordering information, refer to the online *User's Guide* on the *HP Surestore Tape* CD-ROM or our web site: [//www.hp.com/support/dltvs80](http://www.hp.com/support/dltvs80).

- 2 Attach one end of the SCSI cable to the connector on the SCSI host adapter and secure it by tightening the screws.
- 3 Attach the other end of the SCSI cable to one of the connectors on the rear panel of the tape drive and secure it by tightening the screws, as shown on figure 3.

Note If your HP Surestore DLT VS80 drive is the only SCSI device (other than the SCSI host adapter) or if it is the last device on the selected computer's bus, it must be terminated. If your HP Surestore DLT VS80 drive is at the end of the SCSI cable, it is the last device on the SCSI bus.

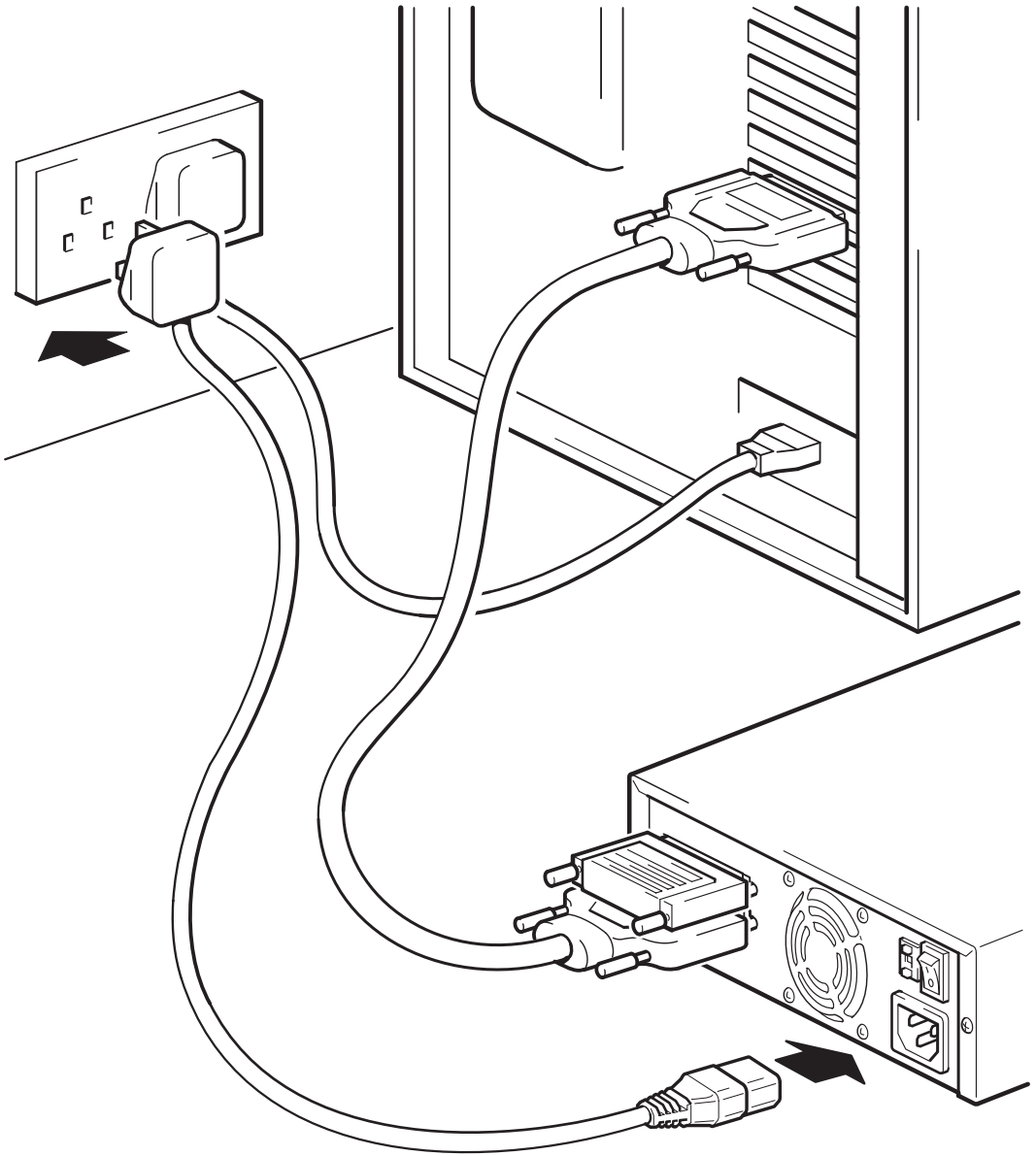


Figure 4: connecting the power cable

Step 3: Connect the power cable

An external HP Surestore DLT VS80 drive will operate using any voltage in the range 100–240 volts (50-60 Hz). No adjustment is needed. To connect your drive to the power supply, proceed as follows:

- 1 Plug the power cable securely into the socket on the rear panel of the drive. (See figure 4.)
- 2 Plug the other end of the power cable into the power outlet.

Write the model name, product number, serial number, and SCSI ID of your drive at the front of this guide for future reference. The model name is on the front of the drive and the product and serial numbers are on a label on the bottom of the drive.

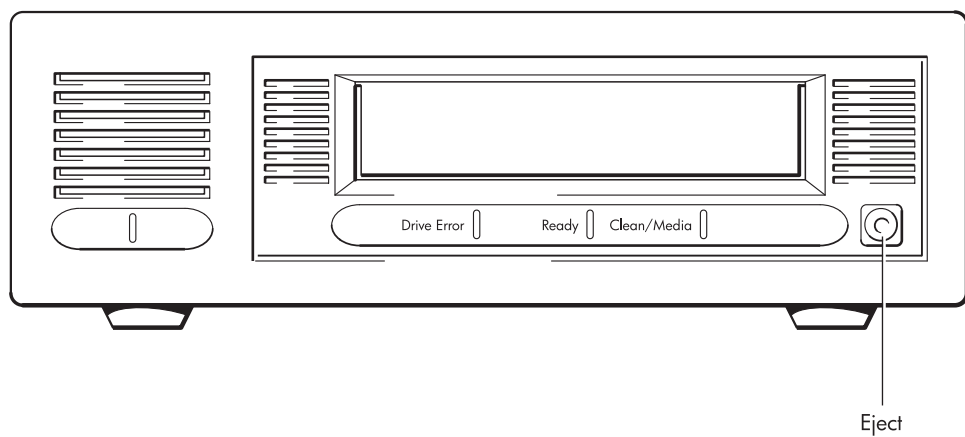


Figure 5: tape drive front panel

Your tape drive

There are three LEDs and an eject button on the front panel of your tape drive. For more information about using the eject button, see “To unload a cartridge” on page 19.

Front panel LEDs

There are three LEDs as illustrated in figure 5.

Drive Error (first light)

- Off: no fault has been detected.
- Flashing: an unrecoverable or hard error has occurred. Contact Technical Support (refer to the web site: [//www.hp.com/support/dltvs80](http://www.hp.com/support/dltvs80)).

Ready (second light)

- On, steady: the power to the drive is on.
- On, regular flashing: the tape is in motion.
- Off: there is no power to the drive.

Clean/Media (third light)

- On, steady: cleaning cartridge in use.
- On, flashing: the media needs replacing or the heads need cleaning. Try cleaning the drive with a DLT VS or DLT1 cleaning tape. If after cleaning, this indicator is flashing again when you load a DLTape cartridge: it is probably the DLTape cartridge that is causing problems. Try a new DLTape cartridge. If this condition persists with other cartridges, you can use HP Library and Tape Tools (downloadable from the web site: [//www.hp.com/support/tapetools](http://www.hp.com/support/tapetools)) to help you diagnose the problem. If the condition still continues, contact Technical Support (refer to the web site: [//www.hp.com/support/dltvs80](http://www.hp.com/support/dltvs80)).
- Off: cleaning is complete or the drive does not require cleaning.

All three LEDs

This indicates the status of the Power On Self Test (POST)

- On, steady: POST is starting.
- On, flashing: A POST error has occurred. For more information, see “Troubleshooting” on page 21.

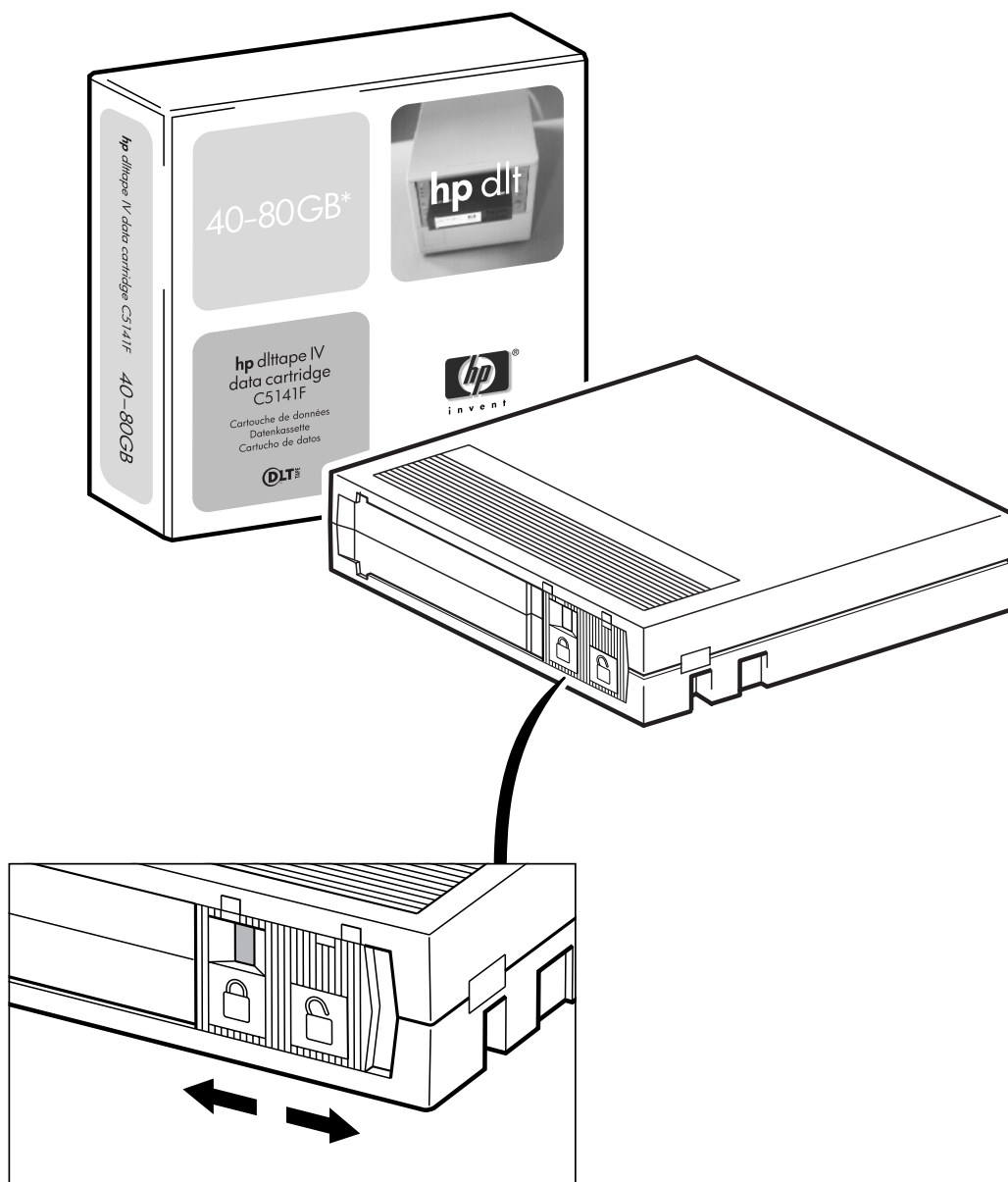


Figure 6: write protecting cartridges

Use the correct media

HP Surestore DLT VS80 drives use only DLTape IV cartridges. These can be cartridges that have previously been used on other HP Surestore DLT VS80 or DLT1 tape drives. DLTape IV cartridges previously used on certain other DLT-format tape drives can be read but not written to. For further information on media compatibility, refer to the online *User's Guide* on the *HP Surestore Tape* CD-ROM.

Note Your HP Surestore DLT VS80 tape drive automatically ejects any cartridges whose format it cannot read. If you want to reuse DLTape IV cartridges that have been formatted with a drive other than DLT VS80 or DLT1, use a magnetic bulk eraser.

Only rely on the best media to protect your valuable data. Thanks to HP's rigorous testing programs, HP Surestore DLT VS data and cleaning cartridges are the safest investment you can make. Order online at: [//www.hp.com/go/storagemedia](http://www.hp.com/go/storagemedia). If you do not have internet access, refer to the *HP Surestore Tape* CD-ROM for ordering information.

Write-protecting cartridges

If you want to protect the data on a cartridge from being altered or overwritten, you can write-protect the cartridge. To write-protect a cartridge, slide the switch to the left before insertion into the drive. Note a small orange rectangle is visible, indicating that the cartridge is write-protected. To write-enable a cartridge, slide the switch to the right to allow your HP Surestore DLT VS80 tape drive to write data to the cartridge. Figure 6 illustrates the location of the write-protect switch.

Cleaning cartridges

When the Clean/Media LED is on, your HP Surestore DLT VS80 tape drive's read/write head may need to be cleaned. It is good practice to clean the drive once every two weeks to ensure optimal performance. Each cleaning cartridge can be used up to 20 times. Always place a check mark in a box each time you use the cartridge to clean the drive. Replace the cleaning cartridge when all the boxes are checked.

Caution You must use *only* DLT VS or DLT1 cleaning cartridges with HP Surestore DLT VS80 tape drives. Be aware that cleaning cartridges that do not specify DLT VS or DLT1 on the cartridge may be accepted by the drive but will not clean the drive.

A cleaning cartridge is supplied with each tape drive. Insert the cleaning cartridge and the drive will carry out its cleaning cycle. When the cleaning cartridge has cleaned the read/write head, the Cleaning/Media LED turns off to indicate that you should remove the cleaning cartridge.

Looking after cartridges

- Do not touch the tape media.
- Do not attempt to clean the tape path or tape guides inside the cartridge.
- Do not leave cartridge tapes in excessively dry or humid conditions. Do not leave cartridges in direct sunlight or in places where magnetic fields are present (for example, under telephones, next to monitors or near transformers).
- Do not drop cartridges or handle them roughly.
- Place identification labels only in the slide-in slot on the front of the cartridge.
- Store the cartridges in their storage cases in a dust-free environment in which temperatures are always between 16°C and 32°C (60°F to 90°F).

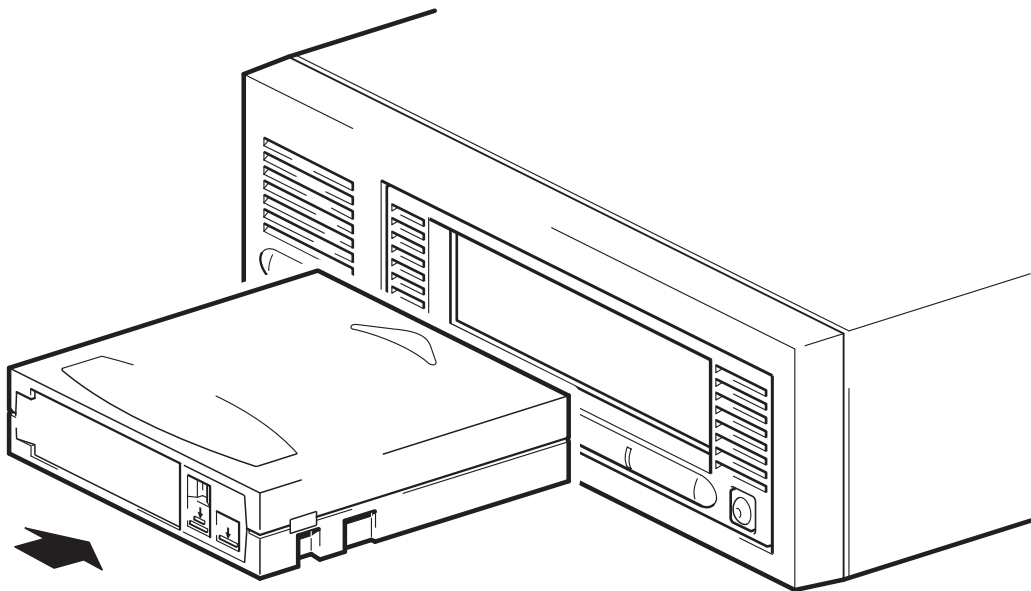


Figure 7a: loading a DLTtape cartridge

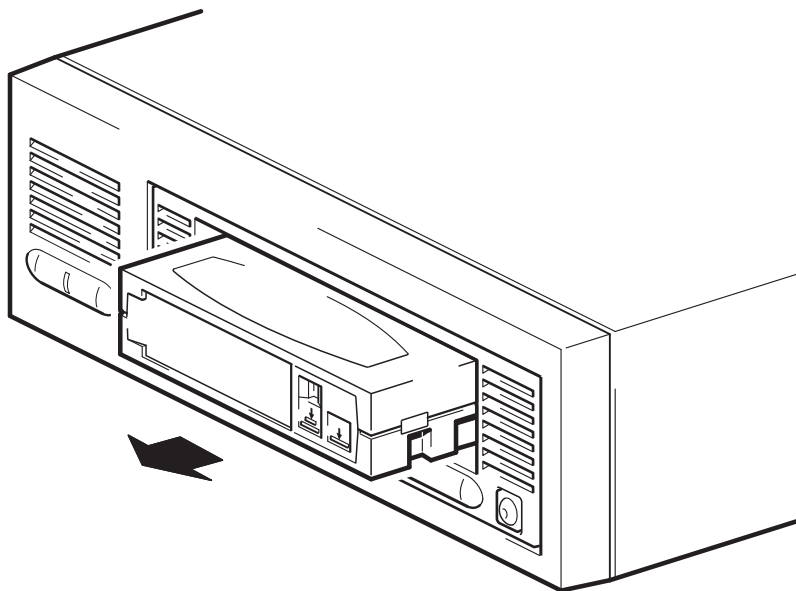


Figure 7b: unloading a DLTtape cartridge

Operating the tape drive

Check operation

Once you have installed the drive hardware, you should verify that it is functioning properly before you store your valuable data.

- 1 Switch on the drive and the computer. Every time you turn on the tape drive it runs a Power On Self Test (POST) which takes several seconds to complete. At the end of POST, all LEDs turn off. Read more about the self-test and front panel lights in the online *User's Guide* on the *HP Surestore Tape* CD-ROM.
- 2 Verify that the tape drive installation was successful.

For Windows and NetWare systems, use HP Library & Tape Tools as described on page 20.

For UNIX systems, the configuration instructions in the online *User's Guide* on the *HP Surestore Tape* CD-ROM include a verification procedure.

Note If you encounter a problem during this verification procedure, turn to "Troubleshooting" on page 21 for help in diagnosing and fixing the problem.

- 3 You are now ready to install backup software, as required (see page 4), and carry out a backup and restore test to check that the drive can write data to tape. Use a blank cartridge, and follow the instructions given in your backup application documentation.

To load a cartridge

- 1 Insert the cartridge into the slot in front of the drive, oriented as shown in Figure 7a. Apply gentle pressure until the drive takes the cartridge and loads it. (The label and write-protect switch are on the rear face of the cartridge.)
- 2 The Ready LED flashes while the drive performs its load sequence. When the cartridge is loaded, the Ready LED is steadily illuminated.

To unload a cartridge

Note Remove the cartridge from your HP Surestore DLT VS80 tape drive before turning off the drive. Leaving a cartridge in the drive when power is off can result in cartridge and drive damage. This will also cause tape log information to be lost which can significantly affect the next load and operation times for that tape cartridge.

- 1 Press the Eject button on the front panel or use your backup software to eject the cartridge (see Figure 7b). The Ready LED flashes while the drive rewinds the tape.
- 2 The drive completes any task it is currently performing, winds the tape to the beginning, and ejects the cartridge. The sequence can take up to two minutes.

Diagnostics

HP offers a choice of diagnostic tools, available free of charge. Full details, including further advice on how to choose which tool to use, are given in the User's Guide's diagnostics section on the *HP Surestore Tape* CD-ROM.

HP Instant Support (requires online internet connection)

HP Instant Support is a web-based diagnostic tool that provides easy-to-use online solutions. For example, it can automate downloads of software utilities and repair patches direct to your system. We recommend that you use it for ongoing, online support.

It incorporates a "smart search" feature that allows you to describe your problem in non-technical language. The system searches the HP knowledge database and suggests a range of possible solutions.

HP Instant Support also incorporates an "automated self-service" feature. This powerful tool requires that you download the HP Instant Support Tuner, a small program very much like a software plug-in. This will scan your computer, gather and analyze your system data, and suggest automated solutions.

In many cases, HP Instant Support will enable you to resolve problems yourself. However, should you require assistance at any time, clicking on the HP Support Specialist link will automatically transfer your details to an HP Support Specialist, who may wish to work with you to run additional diagnostics. You can use online active messaging (like Web chat) to communicate more detail to the Support Specialist.

You can access HP Instant Support from [//www.hp.com/go/instant-support](http://www.hp.com/go/instant-support).

Currently, HP Instant Support is only available in North America, Europe, Africa and the Middle East (English only) and only for systems running on Windows NT 4.0 or Windows 2000. The service will be expanded worldwide and across further operating systems during 2001.

HP Library and Tape Tools (does not require internet connection to run)

HP Library & Tape Tools is a stand-alone diagnostic tool that provides a number of utilities for gathering information about your tape drive, for troubleshooting problems, and for downloading firmware updates over the SCSI bus. It checks for the presence of a SCSI controller and its driver software, and identifies the SCSI IDs of existing SCSI devices. You can then select the required device from the device list and run a diagnostic utility for that device. We recommend that you use it to help install and test your tape drive.

You can install HP Library & Tape Tools from [//www.hp.com/support/tapetools](http://www.hp.com/support/tapetools).

Installation is simply a question of selecting the required option and following the instructions on the screen.

HP Library & Tape Tools does not work on all operating systems. Compatibility information, updates, and latest version of this software can be found on the HP Library and Tape Tools web site.

Troubleshooting

The first step in problem-solving is establishing whether the problem lies with the cartridge, the drive, the host computer and its connections, or with the way the system is being operated. If none of the advice below helps you solve the problem, refer to the section "Other sources of information" that follows the troubleshooting tables.

Most modern SCSI host bus adapters locate and display attached devices when the system is booting up. If you swap or connect a product when your system is running, you will need to reboot the system. If the device is not detected on boot up, there is probably a problem with the physical hardware: cables, termination, connections, power or the host bus adapter itself. If the device is displayed during boot up but cannot be found in the operating system, this is more likely to be a software problem.

If you encounter a problem during installation and need further clarification, refer to the section below. If a problem arises during testing after you have installed the drive, refer to the symptom-based section "Testing after installation" on page 23.

Problems encountered during installation

Unpacking

| Description | Further information |
|---|--|
| Some parts appear to be missing or damaged. | Contact your vendor if any parts need replacing. |

The SCSI cable shipped with the drive is not correct

| Description | Further information |
|---|--|
| The SCSI cable shipped with the drive does not plug into the SCSI host adapter of the server. | The cable provided will connect to the majority of systems (those with a 68-pin high density SCSI host adapter. If a different cable is required, refer to the ordering supplies section in the online HP Surestore DLT VS80 User's Guide on the HP Surestore Tape CD-ROM. |

It is unclear which SCSI ID to use

| Description | Further information |
|---|--|
| It is uncertain which ID numbers are available. | Use HP Library and Tape Tools (see page 20) to provide information on your current SCSI settings. The HP Surestore DLT VS80 external drive has its SCSI ID set to 5 by default. This should be left unchanged unless this number is already in use. Full instructions on how to change the SCSI ID are given on page 9. |

How should the SCSI bus be configured?

| Description | Further information |
|---|---|
| Correct configuration of the SCSI bus with multiple drives can be a complex area and more help is required. | Refer to the SCSI Configuration section in the online HP Surestore DLT VS80 User's Guide on the HP Surestore Tape CD-ROM. |

How should the SCSI bus be terminated?

| Description | Further information |
|--|--|
| It is unclear if the bus is already terminated or where an additional terminator should be placed. | <p>Refer to the SCSI Configuration section in the online HP Surestore DLT VS80 User's Guide on the HP Surestore Tape CD-ROM.</p> <p>Both ends of a SCSI bus must be terminated. Assuming that the host bus adapter is already correctly terminated, there are typically three possibilities:</p> <ul style="list-style-type: none">• The tape drive is the only external device on the SCSI bus. It should be terminated with the terminator provided.• The tape drive is being added to the end of a chain of one or more existing external devices. Remove the terminator from the last device on the existing chain, connect the tape drive to the chain, and terminate the tape drive with the terminator provided.• The tape drive is being added to the middle of a chain of existing external devices. Insert the tape drive into the chain and do not use the terminator provided. <p>The terminator plugs directly onto either SCSI connection on the rear of the tape drive.</p> |

Is the correct SCSI host bus adapter installed?

| Description | Further information |
|--|---|
| The server already has a SCSI host bus adapter but it is difficult to determine what type it is. | If your server is in its original configuration (no SCSI adapters have been added or removed) then use www.hp.com/go/connect to check the compatibility of your system. |
| The server may not have a SCSI host bus adapter installed. | Use HP Library and Tape Tools (see page 20) to check whether you have a SCSI host adapter on your system. If not, you will need to purchase one. Refer to the ordering supplies section in the online HP Surestore DLT VS80 User's Guide on the HP Surestore Tape CD-ROM. |

Do drivers need to be installed and, if so, which ones

| Description | Further information |
|--|---|
| It is unclear whether there is a need to install drivers onto the system, and more help is required. | Detailed information specific to your system can be found on the www.hp.com/go/connect web site. Typically, if you are using backup software that states support for HP Surestore DLT VS80 tape drives, then all the required drivers will be provided. For support on Windows NT/2000, drivers can be obtained from the HP Surestore Tape CD-ROM or from www.hp.com/support/dltvs80 . For support on UNIX systems, see the UNIX Configuration section in the online HP Surestore DLT VS80 User's Guide on the HP Surestore Tape CD-ROM. |
| The required drivers do not appear to be available. | Future drivers will be provided via the support web site when they become available. |

Testing after installation

The server does not boot

| Possible reason | Recommended action |
|---|--|
| The HP Surestore DLT VS 80 tape drive has been connected to an existing SCSI bus that has other devices connected to it, and the SCSI address of the tape drive is identical to the address used by another device. | Make sure that each device on the SCSI bus has an unique ID. We recommend that the HP Surestore DLT VS80 tape drive is connected to a dedicated host bus adapter. Do not connect the drive to a disk RAID controller as this is not supported. |
| An additional SCSI host bus adapter has been installed and its resources are clashing with an existing adapter. | Remove the new host bus adapter and check the server documentation. |

There is no power at the tape drive

| Possible reason | Recommended action |
|---|--|
| The power cable is not connected properly. | If the green "ready" LED is not on, check that the power cable to the tape drive is firmly connected. Replace the cable if necessary. You can use the power cable from your monitor or another device to check that the connection is working. |
| The power switch, either on the drive or at the power outlet, is at the off position. | Toggle the switch. |
| There is a drive fault. | If the power supply is present and all front panel lights remain off, call for assistance |

The "Drive Error" front panel light is illuminated

| Possible reason | Recommended action |
|---|---|
| The tape drive is experiencing internal problems. | Reset by switching the power off then on. |
| There is a drive fault. | Call for assistance. |

The system does not recognize the drive

| Possible reason | Recommended action |
|--|---|
| The SCSI cable is not connected properly. | Check that the cables to the tape drive are firmly connected. Ensure that the SCSI cable is LVDS-compliant and that it does not have any bent pins. Replace if necessary. |
| The tape drive's SCSI ID is not unique. | Identify the SCSI IDs of existing devices by using HP Library and Tape Tools. Change the ID as described on page 9. |
| The SCSI host bus adapter may be incorrectly configured. | Refer to the SCSI host bus adapter documentation for details on how to check the configuration. |
| The SCSI terminator might not be at the end of the SCSI bus or more than two terminators might be present on the SCSI bus. | Make sure the terminators are placed only at each end of the SCSI bus—one at the host adapter and one on the open SCSI connector on the last device of the SCSI bus. |
| The SCSI terminator might be loose or missing. | Ensure that the terminator provided is securely seated on the open SCSI connector on the last device of the SCSI bus. |
| The SCSI host bus adapter might be in a defective expansion slot. | Move the SCSI host bus adapter to a different expansion slot. |

Other sources of information

Diagnostic tools

If you experience problems using your tape drive after installation, use HP Instant Support or HP Library & Tape Tools to help you diagnose the problem. See page 20 for information on these diagnostic tools.

You can access HP Instant Support or HP Library and Tape Tools from:

- the product support web page ([//www.hp.com/support/dltvs80](http://www.hp.com/support/dltvs80))
- the HP Instant Support web page ([//www.hp.com/go/instantsupport](http://www.hp.com/go/instantsupport))
- the HP Library and Tape Tools web page ([//www.hp.com/support/tapetools](http://www.hp.com/support/tapetools))

Further troubleshooting information

You will also find further troubleshooting information on the *HP Surestore Tape* CD-ROM and the HP web site. In particular:

- The online User's Guide on the *HP Surestore Tape* CD-ROM contains an extensive troubleshooting topic.
- The CD-ROM Guide topic on the *HP Surestore Tape* CD-ROM contains a number of useful links, for example, to support and media web sites.
- The HP support website for HP Surestore DLT VS80 ([/www.hp.com/support/dltvs80](http://www.hp.com/support/dltvs80)) takes you to HP's Customer Care website for a wide range of up-to-date information about your product.

How to contact HP

You can also use the HP Customer Call Centers for specialist technical help. Contact details can be found at [/www.hp.com/cposupport/mail_support](http://www.hp.com/cposupport/mail_support). To make the best use of this service, we ask that you work with our Support Specialists to resolve any issues with your drive. This may include downloading diagnostic software, that will assist in the rapid resolution of your problems. If you do not have web access, a full listing of HP Customer Call Centers, correct at time of printing, is given in the online User's Guide on the *HP Surestore Tape* CD-ROM.

The first part of the paper discusses the importance of the research and the objectives of the study. It highlights the need for a comprehensive understanding of the subject matter and the role of the researcher in this process. The second part of the paper presents the methodology used in the study, including the selection of participants, the data collection methods, and the analysis techniques. The third part of the paper discusses the results of the study and the conclusions drawn from the data. The final part of the paper provides a summary of the findings and discusses the implications for future research.

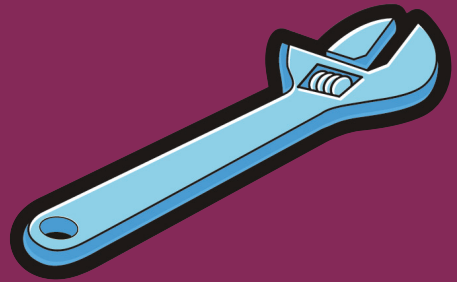
The research was conducted in a systematic and rigorous manner, following the principles of scientific inquiry. The data collected was analyzed using statistical methods to ensure the validity and reliability of the findings. The results of the study indicate that there is a significant relationship between the variables studied, and this relationship is consistent across the different groups of participants.

The findings of this study have important implications for the field of research. They provide a new perspective on the subject matter and suggest areas for further investigation. The results also have practical implications for the application of the findings in real-world settings.

In conclusion, this study has provided valuable insights into the subject matter and has contributed to the body of knowledge in the field. The findings suggest that there is a need for further research in this area, and the results of this study can be used to inform future studies.



<http://www.hp.com/go/storagemedia>



<http://www.hp.com/support/dlts80>



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