

# VXA-172 AND VXA-320 (VXA-3) SCSI TAPE DRIVE QUICK START GUIDE

Use these instructions to get your VXA-172 or VXA-320 (VXA-3) tape drive up and running quickly. For additional information, refer to the VXA-172 Product Manual or VXA-320 (VXA-3) Product Manual at [www.tandberg.com/tandberg\\_7.html](http://www.tandberg.com/tandberg_7.html).

Your VXA-172 or VXA-320 (VXA-3) tape drive has a wide Ultra160 low-voltage differential (LVD) SCSI interface. The drive is available in two models: an internal model for installation into an enclosure or an external model that can be placed on a flat surface.

## 1 | PREPARING FOR INSTALLATION

Make sure you have the required equipment, as described below.

Internal Model	<ul style="list-style-type: none"> <li>▪ LVD SCSI host bus adapter and any necessary drivers installed in the host computer (do <i>not</i> use a SCSI RAID controller or an HVD controller)</li> <li>▪ SCSI cable, wide LVD, 68-pin connector</li> <li>▪ LVD/SE terminator, if necessary</li> <li>▪ VXAtape cartridges, available from Tandberg</li> </ul>
External Model	<ul style="list-style-type: none"> <li>▪ LVD SCSI host bus adapter and any necessary drivers installed in the host computer (do <i>not</i> use a SCSI RAID controller or an HVD controller)</li> <li>▪ Power cord (included)</li> <li>▪ LVD/SE terminator (included)</li> <li>▪ SCSI cable, wide LVD, 68-pin male connector</li> <li>▪ VXAtape cartridges (included)</li> </ul>

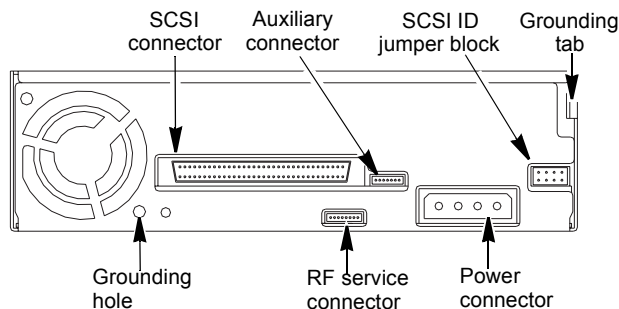
**Important!** Both VXA-172 and VXA-320 SCSI tape drives are Ultra 160 SCSI devices and require a minimum Ultra 160 non-RAID SCSI adapter card, Ultra 160 rated SCSI cabling, and an Ultra 3 Active SCSI terminator.

Before beginning the installation:

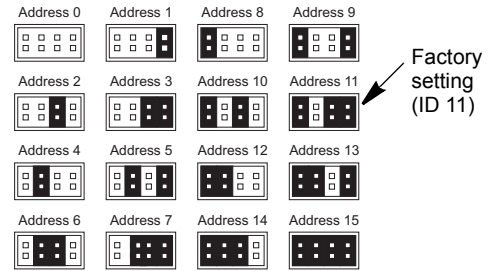
- ▶ Inspect the shipping box for damage. If you find any damage, report it to the shipping company immediately. Save the packing materials in case you need to move or ship the tape drive. You must ship the tape drive in the original or equivalent packing materials to preserve your warranty.
- ▶ Ensure that the work area is free from conditions that could cause electrostatic discharge (ESD). Discharge static electricity from your body by touching a known grounded surface, such as your computer's metal chassis.
- ▶ Power OFF the host computer and any peripheral devices on the SCSI bus.

## 2 | INSTALLING THE INTERNAL TAPE DRIVE

When installing the internal model of the tape drive, refer to the following illustration for back-panel component locations.



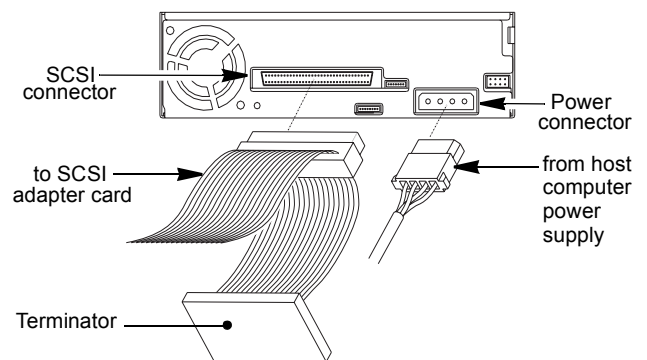
1. Remove the cover plate from the host computer's drive bay, according to the system manufacturer's instructions.
2. Set the SCSI ID by using flat-nosed pliers to position the jumpers for the desired ID, as shown. Select a SCSI ID for the drive which is unique. The host bus adaptor and any peripherals attached to the SCSI bus must all be set to unique SCSI IDs. (The terminator does not use a SCSI ID.)



3. If desired, provide additional chassis grounding for the drive. Connect an M3 (0.25 in.) female spade connector from the host to the grounding tab; or, connect an M3 x 0.5 x 4mm machine screw to the grounding hole.
4. Slide the VXA-172 or VXA-320 tape drive into the drive bay, but do not install the mounting screws yet. Ensure that the ventilation fan on the back of the tape drive is not obstructed.
5. Connect the host computer's internal SCSI cable to the drive's SCSI connector. Check the connector for bent or pushed in pins before connecting it to the tape drive.
6. If the tape drive is the last device on the SCSI bus, install an LVD/SE terminator at the physical end of the bus, as shown below.

**Important!** Both VXA-172 and VXA-320 tape drives require an Ultra 3 or LVD 160 terminator to function properly on the SCSI bus. An inadequate terminator will result in various SCSI bus issues, including bus hangs and Read/Write failures.

**Note:** If the cable provided with your adapter has a built-in terminator, do not add another terminator to the bus. If the tape drive is not the last device on the SCSI bus, make sure that the last device is properly terminated.



7. Connect the host's internal power cable to the tape drive's power connector.



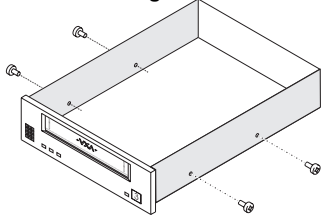
- Using the Phillips screws provided with the tape drive, secure the tape drive in one of the screw-mounting configurations, as shown below.



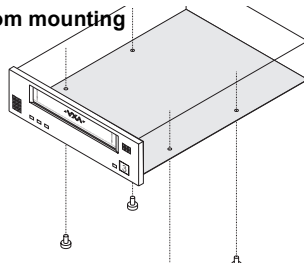
Use only the Phillips screws provided with the drive.

**Caution**

**Side mounting**

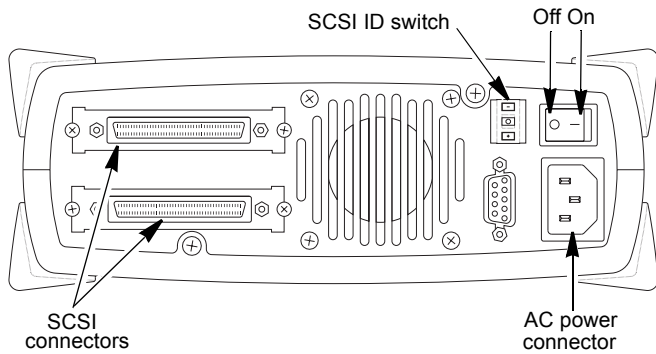


**Bottom mounting**



### 3 | INSTALLING THE EXTERNAL TAPE DRIVE

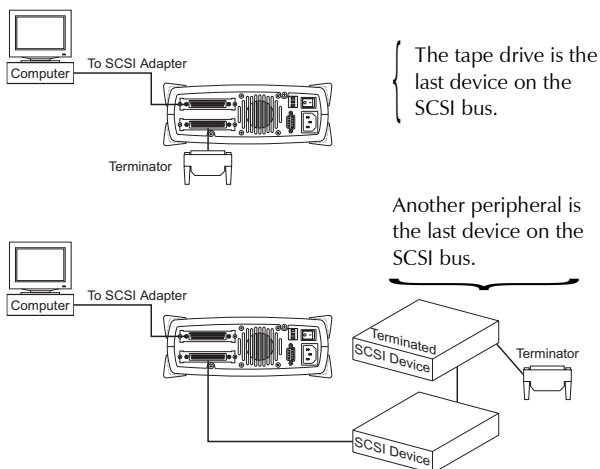
When installing the external model of the drive, refer to the following illustration for the location of back-panel components.



- Set the SCSI ID by using the + and – tabs on the SCSI ID switch. The drive is shipped with a default ID of 11. Select a SCSI ID for the drive which is unique. The host bus adaptor and any peripherals attached to the SCSI bus must all be set to unique SCSI IDs. (The terminator does not use a SCSI ID.)
- Connect a SCSI cable from the host computer to one of the SCSI connectors. Check the connector for bent or pushed in pins before connecting to the tape drive.
- If the drive is at the physical end of the SCSI bus, install a terminator on the unused SCSI connector. If there is another device on the bus after the drive, make sure the last device is terminated.

**Important** Both VXA-172 and VXA-320 tape drives require an Ultra 3 or LVD 160 terminator to function properly on the SCSI bus. An inadequate terminator will result in various SCSI bus issues, including bus hangs and Read/Write failures.

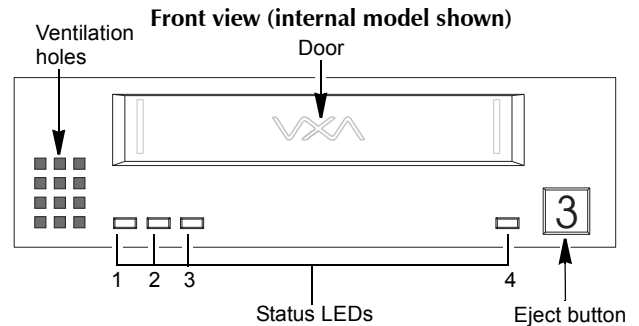
- Connect the power cord to the back of the drive.



### 4 | POWERING ON AND TESTING THE DRIVE

- For the internal model:** Power on the host computer.  
**For the external model:** Press the power switch on the back of the tape drive, then power on the host computer.

The LEDs on the front scroll sequentially right to left, then left to right in amber and green. LED 4 illuminates in red and green. When the sequence is complete, LED 4 illuminates in green.



- Insert a VXAtape cartridge in the drive door. The tape drive loads the tape in less than one minute (LED #2 flashes green). When LED #2 stops flashing, and is solid green, the drive is ready for read and write operations.
- Perform a small write and read operation. Install VXATool and use it to run a write/read test. VXATool is available for several operating systems. Check the Support section of Tandberg's web site, [www.tandberg.com/tandberg\\_7.html](http://www.tandberg.com/tandberg_7.html), for the VXATool for your operating system.

### 5 | PREPARING FOR BACKUP

- Select and install a backup application.

Software compatibility information is available at: [www.tandberg.com](http://www.tandberg.com).

- If your backup application does not support the VXA-172 or VXA-320 (VXA-3) tape drive, you can use VXATool to change the product identification information (Inquiry String) that the tape drive returns to the software. Changing the tape drive's identification information does not affect the tape drive's speed or capacity. For instructions on using VXATool to change the tape drive's Inquiry String, refer to the help or readme file provided with VXATool.

Additional information is available at [www.tandberg.com/tandberg\\_7.htm](http://www.tandberg.com/tandberg_7.htm).

- The CD included with the tape drive provides device drivers for use with Windows operating systems.

The most current version of these drivers is available at: [www.tandberg.com](http://www.tandberg.com).

**Important** Do not install these drivers unless you are using the Windows native backup application or unless your backup application instructs you to do so.

**Note:** Driver installation for the tape drive may not be necessary and depends on the backup application that you use in your system. Refer to the installation instructions for your backup application for verification.

Driver installation information is available at: [www.tandberg.com](http://www.tandberg.com).

- Contact your software provider with questions regarding the software installation, configuration, and operation.

## Quick Reference—VXA-172 and VXA-320 (VXA-3) LEDs

(Keep this sheet close to your tape drive for reference)

Operation	LED Pattern	LED #1	LED #2	LED #3	LED #4
<b>Operational Conditions</b>					
Power-on self-test	LEDs illuminate sequentially <sup>a</sup>				
No tape loaded		Off	Off	Off	Green
Interface activity; (LED 4 may flash with other LED operations)		Off	Off	Off	Flashing Green
Tape loading or unloading		Off	Flashing Green	Off	Off
Tape ready; idle		Off	Green	Off	Off
Reading		Off	Off	Green	Off or Flashing Green
Writing		Off	Amber or Green <sup>b</sup>	Amber	Off or Flashing Green
Space forward		Off	Off	Flashing Green	Off
Space reverse or rewinding		Flashing Green	Off	Off	Off
Cleaning in process		Flashing Green	Off	Flashing Green	Off
<b>Service Notification</b>					
Cleaning required		Off	Flashing Amber	Off	Off
Cleaning tape used up		Off	Flashing Green/Amber	Off	Off
Recoverable error <sup>c</sup>		Amber	Green	Amber	Off or Green
Unrecoverable error <sup>c</sup>		Amber	Off	Amber	Off or Green
Factory service required <sup>d</sup>		Flashing Green or Amber			Flashing Red
Broken tape		Flashing Green/Amber	Off	Flashing Green/Amber	Green
Format recovery <sup>e</sup>		Off	Off	Flashing Green/Amber	Green
Temperature too high in tape path <sup>f</sup>		Off	Off	Off	Flashing Orange
Boot Block Mode <sup>g</sup>		Flashing Green	Flashing Amber	Flashing Orange	Flashing Green
<b>Self Test</b>					
Self-test running		Fast scrolling green			Off or Flashing Green
Self-test passed		Green	Green	Green	Off
Self-test failed <sup>h</sup>		Amber	Amber	Amber	Off
<b>Firmware Load</b>					
Loading firmware		Flashing Amber	Flashing Green	Flashing Amber	Orange
Loading firmware		Flashing Green/Amber	Flashing Green/Amber	Flashing Green/Amber	Orange
<b>KEY:</b> Flashing LEDs =  On =  Off =					

<sup>a</sup> For the power-on self-test, the LEDs scroll sequentially right to left then left to right in amber and green. LED 4 illuminates in red and green. When POST is completed, LED 4 is illuminated in green.

<sup>b</sup> When LED 2 is amber, hardware compression is enabled. When LED 2 is green, hardware compression is disabled.

<sup>c</sup> Retry the operation with another tape, making sure that the tape is not written in VXA-1 format. If the problem persists, try power cycling the drive to clear the error. If you cannot resolve the problem yourself, contact Tandberg Technical Support (see [www.tandberg.com/contact/view.html](http://www.tandberg.com/contact/view.html)). To capture a log of a problem, use VXATool, which is available as a free download from [www.tandberg.com/tandberg\\_7.html](http://www.tandberg.com/tandberg_7.html).

<sup>d</sup> You may need to return the tape drive for service; contact Tandberg Technical Support. To get a log of the problem, use VXATool, which is available as a free download from [www.tandberg.com/tandberg\\_7.html](http://www.tandberg.com/tandberg_7.html).

<sup>e</sup> The tape was written without a valid end-of-data mark, which often occurs if you power-down the tape drive while the tape drive was writing. The tape drive will perform a format recovery, which involves reading the data to determine where the end of data is located. This may take as long as 2 to 3 hours.

<sup>f</sup> Refer to the *VXA-172 Tape Drive Product Manual* or the *VXA-320 Tape Drive Product Manual*, Chapter 4, the “LED 4 is Flashing Orange” section for troubleshooting information.

<sup>g</sup> If the tape drive is in Boot Block Mode, try power cycling the drive. If it remains in Boot Block Mode, load new firmware. VXA-172 and VXA-320 (VXA-3) firmware is available at [www.tandberg.com/tandberg\\_7.html](http://www.tandberg.com/tandberg_7.html).

<sup>h</sup> If a self-test fails, clean the tape drive with a VXAtape cleaning cartridge. If the failure still occurs, try a new tape.

## ADDITIONAL INFORMATION

- ▶ For information about operating the tape drive and specifications for the drive, refer to the *VXA-172 Product Manual* or the *VXA-320 (VXA-3) Product Manual* at [www.tandberg.com/tandberg\\_7.html](http://www.tandberg.com/tandberg_7.html).
- ▶ Register your tape drive online at [www.tandberg.com/register](http://www.tandberg.com/register). If you need to speak with a Customer Service representative, see Tandberg's web site at [www.tandberg.com/contact/view.html](http://www.tandberg.com/contact/view.html).

## DATA CARTRIDGE COMPATIBILITY

This table shows the cartridge compatibility for the VXA-172 and VXA-320 tape drives. You can purchase data cartridges and cleaning cartridges from Tandberg. Use only cartridges designed specifically for VXA tape drives.

VXA Tape Drive	Cartridge Compatibility (Tandberg VXAtape)	Length (m)	Capacity
VXA-172	X10	120	86 GB native capacity (172 GB compressed 2:1)
	X6	62	40 GB native capacity (80 GB compressed 2:1)
VXA-320 (VXA-3)	X23 V23	230	160 GB native capacity (320 GB compressed 2:1)
	X10	120	86 GB native capacity (172 GB compressed 2:1)
	X6	62	40 GB native capacity (80 GB compressed 2:1)

**Notes:** The VXA-172 tape drive does *not* support VXAtape V6, V10, V17, V23, or X23.  
The VXA-320 (VXA-3) tape drive does *not* support VXAtape V6, V10, or V17.  
To clean your tape drive, use only Tandberg VXAtape Cleaning Cartridges (20+ uses).

## CONTACT TANDBERG DATA

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[www.tandberg.com](http://www.tandberg.com)

## LIMITED PRODUCT WARRANTY STATEMENT

Tandberg Data ASA warrants to the original purchaser that the product purchased is free from defects in material and workmanship for the period stated as the warranty period enclosed with the product documentation, and valid from the date of the original purchase. This warranty period includes both express and implied warranties. Any products found to be defective within that period will be repaired or replaced, at the option of Tandberg Data ASA, without charge, provided that: 1) the product was not misused or improperly maintained or repaired by any person not authorized by Tandberg Data ASA, 2) the product's failure resulted from a defect in material or workmanship and was not damaged in transit, by accident or due to use other than its intended use; and 3) the product is delivered prepaid to Tandberg Data's designated service centre. This warranty is valid in the country of purchase.

THERE ARE NO WARRANTIES OTHER THAN EXPRESSED HEREIN. FURTHER THERE ARE NO IMPLIED WARRANTIES, INCLUDING THE WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, BEYOND THE STATED WARRANTY PERIOD SPECIFICALLY SET FORTH ABOVE. THIS WARRANTY DOES NOT COVER UNITS USED FOR LOAN OR RENTAL.

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