

Quick Start Guide

The Quantum internal GoVault for Linux, model QR 1201, and external GoVault Tabletop for Linux, model QR 1202, are cost-effective, high-performance data protection solutions. Quantum's removable disk technology, the Ruggedized Disk Cartridge (RDC), referred to in this document as the cartridge, together with the GoVault dock, serve as a two-component data storage system.

Each GoVault dock allows the cartridge to be hot plugged and available to the host Linux operating system and includes an LED indicator for power and activity status.

The Internal GoVault Dock:

- Attaches to the computer through a Serial ATA interface and is SATA II compliant at SATA 1.5 Gbytes/sec. speeds.
- Is compatible with SATA-equipped motherboards and SATA PCI host bus adapters. See the Quantum web page www.quantum.com for the latest list of SATA PCI adapters that are compatible with the Quantum GoVault.

The External GoVault Tabletop Dock:

- Attaches to the computer through a Universal Serial Bus (USB) 2.0 interface.
- Has a Serial ATA (SATA) I/O port for interfacing with the removable disk cartridge.

The Cartridge:

- Is a durable, removable disk that can withstand a one-meter drop to a hard surface and has an interconnection with the carrier that is rated at 5,000 insertions.
- Capacity varies from 40, 80, 120, and 160 Gbytes.
- Provides long-term safe data storage for up to 10 years.
- Has a write-protect switch to guard against accidental data overwrite.

Additionally:

- Each external GoVault Table top system includes the following:
 - Power adapter/converter
 - USB interface cable
 - GoVault Resource CD

Contents

This document is provided in the following languages:

- English
- French
- German
- Japanese
- Korean
- Simplified Chinese
- Spanish
- Traditional Chinese

Each language has the following sections:

- [Installing the GoVault for Linux](#)
- [Installing the Internal GoVault Dock](#)
- [Installing the External GoVault Tabletop Dock](#)
- [Preparing GoVault Cartridges for Linux Operations](#)
- [Installing the GoVault System Application Software](#)
- [Registering GoVault](#)
- [Inserting and Ejecting Cartridges](#)
- [Safety Compliance](#)
- [Electromagnetic Compatibility \(EMC\) Compliance](#)

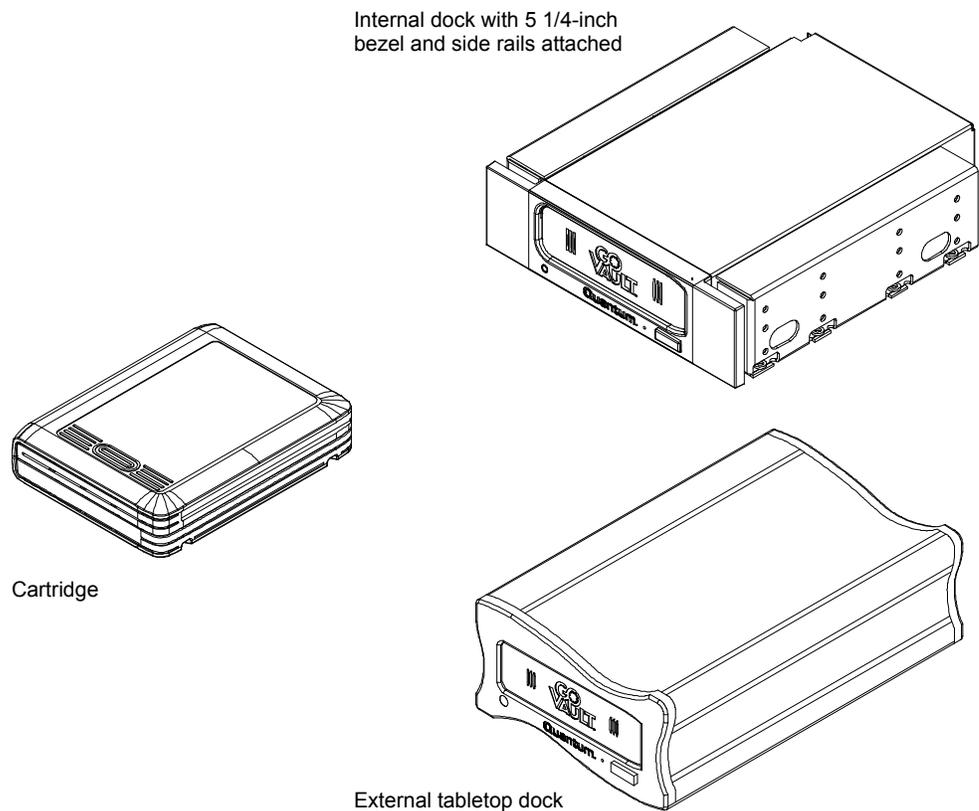
- Each internal GoVault system includes the following:
 - SATA data cable
 - SATA power supply conversion adapter cable
 - Dock/rail installation screws
 - 3.5-inch bezel
 - GoVault Resource CD

Installing the GoVault for Linux

Installing GoVault for Linux is quick and easy. Be sure to follow these procedures in the order presented:

- 1 Install the GoVault dock by either:
 - [Installing the Internal GoVault Dock](#)
 - [Installing the External GoVault Tabletop Dock](#)
- 2 [Preparing GoVault Cartridges for Linux Operations](#)
- 3 [Installing the GoVault System Application Software](#)
- 4 [Registering GoVault](#)

Figure 1 GoVault Components



Before Installing GoVault

Installation of your GoVault requires the following computer hardware, software, and tools:

- Hardware
 - CPU, either:
 - Intel Pentium 4 or above
 - AMD K6 or above
 - CD-ROM drive
 - 2 Mbytes of hard disk storage
 - For the internal GoVault dock:
 - One empty 3.5-inch or 5.25-inch drive bay
 - One empty PCI card slot (if SATA host bus adapter is needed)
 - SATA II compliant interface
 - For the external GoVault Tabletop dock, one available USB port
- Software, one of the following operating systems:
 - Red Hat Enterprise Linux v3 Update 7 (kernel v2.4.21-40.Elsmp) or greater
 - Red Hat Enterprise Linux v4 Update 3 (kernel v2.6.9-34Elsmp) or greater
 - Novell SUSE 10.0 (kernel v2.6.13-15smp) or greater
- Tools, for the internal GoVault dock:
 - Phillips screwdriver

Note: The standard configuration of the internal GoVault dock includes side brackets and a 5.25-inch bezel for installation in a 5.25-inch drive bay. If you need to install the dock in a 3.5-inch drive bay, use the procedure in appendix A of the *GoVault for Linux User's Guide* to remove the side brackets and change the bezel before installing the GoVault dock.

Installing the Internal GoVault Dock

To install the internal GoVault dock and cartridge disk drive, complete the following procedures in the order presented:

- 1 [Installing the SATA Card](#), if required
- 2 [Installing the Internal GoVault Dock](#)

Installing the SATA Card

If your workstation or server system does not already have either a SATA-equipped motherboard or a SATA-compliant host bus adapter PCI card, you should follow the

procedures provided by the manufacturer of the SATA card and your computer reference manual.

If the procedures presented in this subsection do not appear to be appropriate for your workstation or server system, stop the installation attempt and seek assistance from the appropriate hardware manufacturer.

Note: This procedure is only necessary if your workstation or server system does not have a SATA-equipped motherboard or a SATA-compliant host bus adapter PCI card installed.

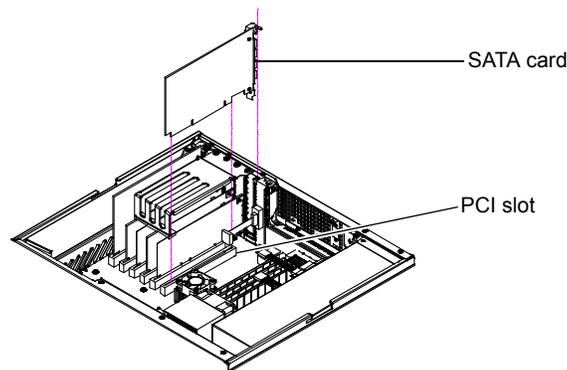
Procedure

- 1 As required:
 - a Save and close your open files and terminate all running applications.
 - b Shut down the workstation or server system.
 - c Disconnect the AC power cord from the facility AC power receptacle.
- 2 Remove the cover from the workstation or server system.

Note: See your computer manufacturer's instructions for the proper procedures to remove the cover.

- 3 Install the SATA card in an empty PCI slot and fasten the card to the computer using one screw (see [figure 2](#)).

Figure 2 Installing the SATA Card



Installing the Internal GoVault Dock

After you have installed the SATA card, or if your computer workstation or server system already has either a SATA-equipped motherboard or a SATA-compliant host bus adapter PCI card, use the following procedure to install the internal GoVault dock and cartridge.

Procedure

- 1 If you have just installed a SATA card, then you already have shut down the computer and removed the cover. In this case, skip to step 4 of this procedure.

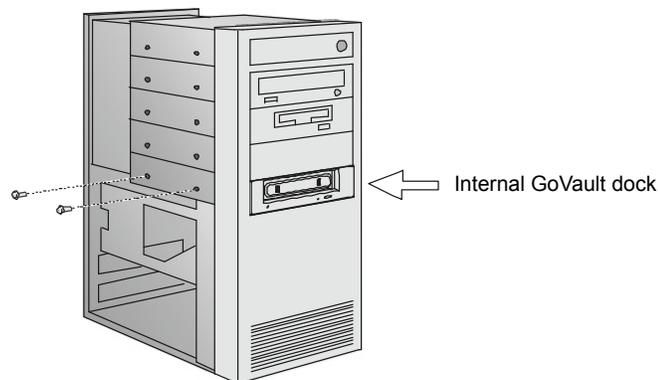
If your computer workstation or server system already had either a SATA-equipped motherboard or a SATA-compliant host bus adapter PCI card, then proceed to step 2 of this procedure.

- 2 As required:
 - a Save and close your open files and terminate all running applications.
 - b Shut down the workstation or server system.
 - c Disconnect the AC power cord from the facility AC power receptacle.
- 3 Remove the cover from the workstation or server system.

Note: See your computer manufacturer's instructions for the proper procedures to remove the cover.

- 4 Select an available internal drive bay and, if required, remove the bay cover.
- 5 Slide the internal GoVault dock into the bay and secure it to the computer chassis with two mounting screws on each side (see [figure 3](#)).

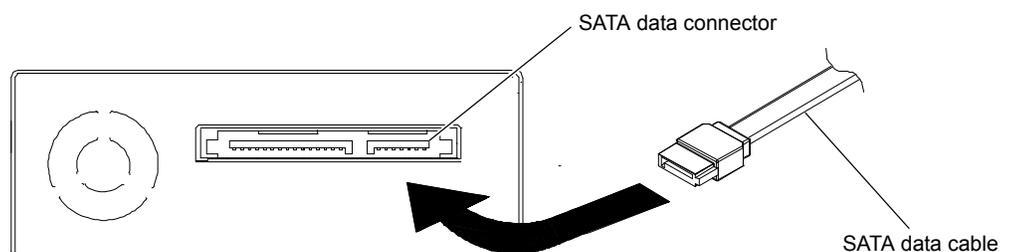
Figure 3 Installing and Securing the GoVault Dock



- 6 Connect one end of the SATA data cable to the SATA data connector on the back of the internal GoVault dock (see [figure 4](#)).

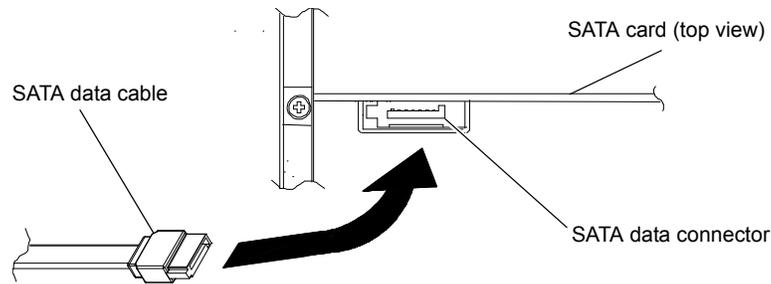
Caution: Do not force SATA connections. SATA connectors are designed to fit one way only. If you encounter any difficulty in making the SATA cable connection, rotate the cable and try again.

Figure 4 Connecting the SATA Data Cable to the Dock



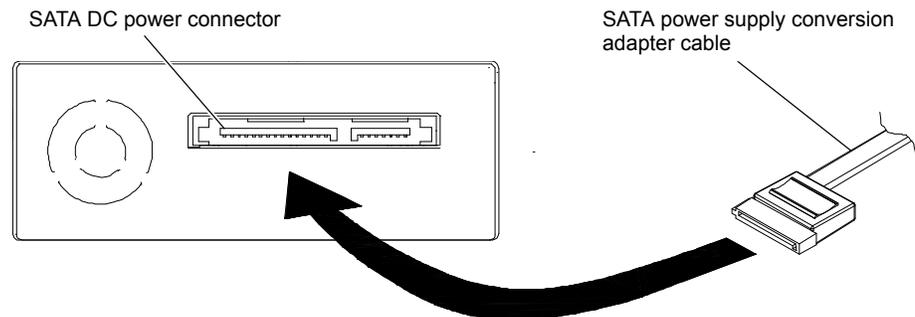
- 7 Carefully route the SATA data cable from the internal GoVault dock and connect the other end to either the SATA-equipped motherboard or the SATA card (see [figure 5](#)).

Figure 5 Connecting the SATA Data Cable to the SATA Card



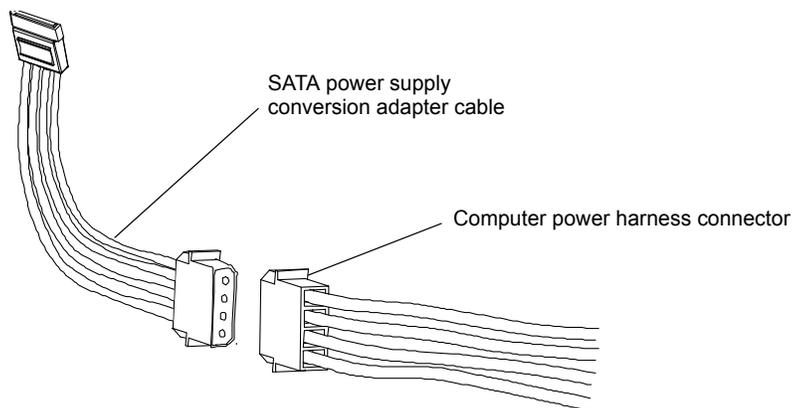
- 8 Connect the drive end of the SATA power supply conversion adapter cable to the SATA power connector on the back of the internal GoVault dock (see [figure 6](#)).

Figure 6 Connecting the SATA Power Cable to the Dock



- 9 Connect the power supply end of the of the SATA power supply conversion adapter cable to the computer power harness connector (see [figure 7](#)).

Figure 7 Connecting the SATA Power Cable to the PC



- 10 Reinstall the system cover and reconnect the AC power cord to the facility AC power receptacle.
- 11 Restart the workstation or server system.
- 12 Verify that the LED on the front panel of the GoVault dock illuminates when the system starts.

- 13 To verify that the operating system recognizes the GoVault dock:
 - a Open a terminal window.
 - b Use the following command to list the devices on your system:


```
cat /proc/scsi/scsi
```
 - c Verify that the listing shows the GoVault dock.

Note: If the SG module has been installed, then you can map the GoVault dock path as follows:

```
sg_map -i
```

In this case, use the corresponding `/dev/sdx` in place of `/dev/sdb` for all of the procedures in this guide.

- 14 Proceed to [Preparing GoVault Cartridges for Linux Operations](#) and complete the following procedures in the order presented:
 - a [Partitioning Cartridges](#)
 - b [Formatting Cartridges](#)
 - c [Mounting the Drive File System](#)
 - d [Browsing GoVault](#)

Installing the External GoVault Tabletop Dock

Install the external GoVault Tabletop dock and cartridge as follows:

- 1 Connect the drive-end (Mini-B) connector of the USB interface cable to the Mini-B USB port on the rear panel of the GoVault Tabletop dock (see [figure 8](#)).
- 2 Connect the DC power output plug of the power adapter/converter to the DC power jack on the rear panel of the dock.
- 3 Carefully position the dock in a secure location that provides adequate circulation for the rear panel air vent (see [figure 8](#)).
- 4 Plug the power adapter/converter into a 115/230 VAC facility power receptacle and verify that the LED on the front panel of the GoVault Tabletop dock illuminates.
- 5 Connect the system-end (standard) connector of the USB interface cable to an available USB port on your workstation or server system and verify that the system finds and configures the device driver and assigns a device descriptor (example, `/dev/sdb`).
- 6 To verify that the operating system recognizes the GoVault dock:
 - a Open a terminal window.
 - b Use the following command to list all of the devices on your system:


```
cat /proc/scsi/scsi
```

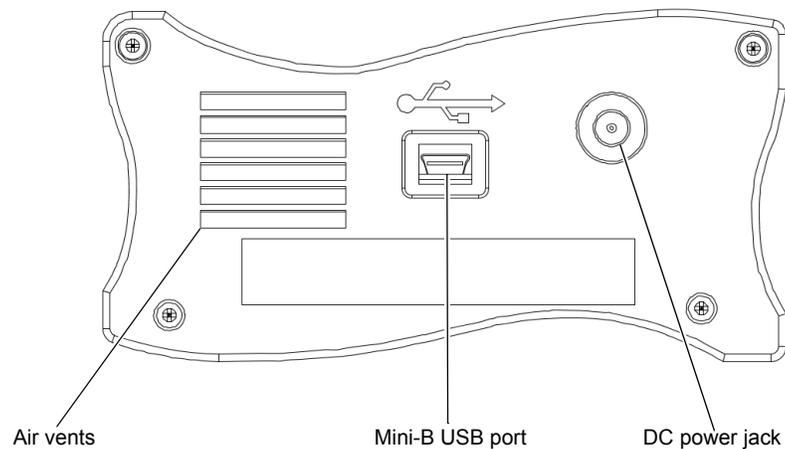
- c Verify that the listing shows the GoVault dock.

Note: If the SG module has been installed, then you can map the GoVault dock path as follows:

sg_map -i

In this case, use the corresponding **/dev/sdx** in place of **/dev/sdb** for all of the procedures in this guide.

Figure 8 GoVault Tabletop Rear Panel



- 7 Proceed to [Preparing GoVault Cartridges for Linux Operations](#) and complete the following procedures in the order presented:
 - a [Partitioning Cartridges](#)
 - b [Formatting Cartridges](#)
 - c [Mounting the Drive File System](#)
 - d [Browsing GoVault](#)

Preparing GoVault Cartridges for Linux Operations

After installing the GoVault dock, use the procedures in the following subsections to prepare GoVault cartridges and mount the drive file system for Linux operations.

Partitioning Cartridges

New GoVault cartridges are preformatted with the Microsoft New Technology File System (NTFS). Before you can use them in a Linux workstation or server system, you must partition and reformat them for Linux.

To partition a new GoVault cartridge for Linux:

- 1 Insert the cartridge into the GoVault dock (see [Inserting Cartridges](#) on page 13).
- 2 Log in as root.

- 3 Determine the device descriptor for the GoVault drive (example, `/dev/sdb`) by:
 - For Red Hat systems – Viewing the **Disk Drives** entry in the **System Tools/ Hardware Browser/Hardware Drives** tool
 - For SUSE systems – Using the YaST utility and selecting **Hardware ==> Hardware Information==> Disk ==> GoVault ==> dev_names**
- 4 Open a terminal window and, from the `/root` directory, use the Linux `fdisk` command with the appropriate options to create partition `/dev/sdb1`, which is used each time the cartridge is accessed.

For example, if `/dev/sdb` is your device descriptor, type:

```
fdisk /dev/sdb
```

Substitute your own device descriptor for `/dev/sdb` if it is different.

Note: If you see the message “Unable to read `/dev/sdb`,” then manually eject and reinsert the cartridge.

Note also: The full syntax of the `fdisk` command is:

```
fdisk [options] [device]
```

Where *options* are:

- **m**, to display the main (help) menu.
- **p**, to print the partition table.
- **d**, to delete the four existing partitions.
- **n**, to create a new partition, specifying number 1 to make it a primary partition, and accepting all other defaults.
- **w**, to print a summary, save changes, and exit.

And *device* is the drive device descriptor that you determined in step 3 of this procedure.

- 5 Respond to the prompts as follows:
 - a At the **Command (m for Help):** prompt, type the letter **n** and press **Enter**.
 - b At the partition prompt, type the letter **p** for primary partition and press **Enter**.
 - c At the partition number prompt, type the number **1** and press **Enter**.
 - d At the first cylinder prompt, press **Enter** to accept the default value.
 - e At the last cylinder prompt, press **Enter** to accept the default value.
 - f Enter **w** to partition the cartridge.

After partitioning the GoVault cartridge, proceed to [Formatting Cartridges](#) in the following subsection.

Formatting Cartridges

After you have partitioned the GoVault cartridge, as described in the preceding subsection ([Partitioning Cartridges](#)):

- 1 From the `/root` directory, use the Linux `mkfs` command with the `-t` option to format the partition with the Linux EXT3 file system:

```
mkfs -t ext3 /dev/sdb1
```

Where `/dev/sdb1` is the device partition.

- 2 Proceed to [Mounting the Drive File System](#) in the following subsection.

Mounting the Drive File System

After you have partitioned and reformatted the GoVault cartridge, as described in the preceding subsections ([Partitioning Cartridges](#) and [Formatting Cartridges](#)):

- 1 Use a `mkdir` command to create mount points for each GoVault drive. For example, from a terminal window in the `/root` directory, type:

```
mkdir /root/GoVault_Drives
mkdir /root/GoVault_Drives/GoVault_1
```

- 2 Use the Linux `mount` command with the `-t` option to mount the drive file system on the device:

```
mount -t ext3 /dev/sdb1 /root/GoVault_Drives/GoVault_1
```

where:

`/dev/sdb1` is the device partition

`/GoVault_1` is the device

- 3 If you want to make the mount automatic, with GoVault visible every time you log on, then change directory to `/etc` and add the following line at the end of the `/etc/fstab` file:

```
/dev/sdb1 /root/GoVault_Drives/GoVault_1 ext3 defaults 0 0
```

where:

`/dev/sdb1` is the device partition

`/GoVault_1` is the device

Without this line in the `/etc/fstab` file, you will have to manually remount the drive file system each time you restart the system and log on.

- 4 Log out.
- 5 Browse the GoVault cartridge to verify the partition, format, and mount operations, as described in the following subsection.

Note: Whenever you eject and reinsert the cartridge, you will have to manually remount the drive file system.

Browsing GoVault

To verify the GoVault partition, format, and mount operations:

- 1 Log in as root.
- 2 Change directory to `/root/GoVault_Drives/GoVault_1`, where `/GoVault_1` is the device.
- 3 The presence of a *lost-and-found* directory signifies that you are accessing GoVault and you can perform all normal directory functions.
If you do not see a *lost-and-found* directory, then check the drive file system mount.
- 4 After browsing GoVault, perform a number of file copy operations to and from the GoVault cartridge to verify the disk write/read functions.
- 5 Proceed to [Installing the GoVault System Application Software](#).

If you are not going to install the GoVault system application software, then skip to [Registering GoVault](#) on page 13.

Installing the GoVault System Application Software

After installing the GoVault dock and cartridge disk drive and verifying that your operating system recognizes the drive, install the GoVault system application software as follows:

- 1 Log in as root.
- 2 Insert the GoVault Resource CD into the CD-ROM drive.
- 3 Copy the following GoVault system application software files from the CD-ROM drive to a directory named `/root/GoVault`:

```
GoVault-x.y.z.i386.rpm
AddPackage
RemovePackage
Readme.txt
```

where *x.y.z* is the version number of the GoVault system application software.

- 4 Remove the GoVault Resource CD from the CD-ROM drive.
- 5 Open a terminal window and change directory to:

```
/root/GoVault
```

- 6 Execute the following commands:

```
dos2unix ./AddPackage
dos2unix ./RemovePackage
```

Note: Depending on how you typically move files to your Linux workstation or server system (by a USB flash stick or over a network), you might have to add the execute privilege to your Linux batch files. If you typically use a USB flash stick, this step is not necessary. However, if you typically use a network to move the files, add the execute privilege as follows:

- a. Open a terminal window.
- b. Change directory to `/root/GoVault`.
- c. Execute the following commands:
`chmod a+x AddPackage`
`chmod a+x RemovePackage`

7 Install the GoVault system application software on your system by typing:

```
./AddPackage
```

8 Start the GoVault system application software by typing:

```
StartGoVault
```

9 From the `/root` directory, use a text editor to add the following line at the end of the `.bash_profile` file:

```
StartGoVault
```

Note: For Novell SUSE, the `.bash_profile` file does not exist. Instead, for SUSE, change directory to `/etc` and edit the `profile.local` file by adding the following line at the end:

```
StartGoVault
```

If the `profile.local` file does not exist, then create it before adding the `StartGoVault` line to it.

10 Log out.

11 Log in again as root, and verify that the following GoVault icons have been added to your desktop display (see [figure 9](#)):

- A single yellow **GoVault Control** icon for management and control of all your GoVault drives
- A black GoVault icon for browsing the installed GoVault drive (**GoVault_1**)

Figure 9 GoVault System Icons



- 12 To verify successful installation of the GoVault system application software, click/open the **GoVault Control** icon and select **QUANTUM GoVault** to see the GoVault **Eject**, **Set Password**, **Help**, and **Properties** options on the menu display.
- 13 Proceed to [Registering GoVault](#).

Registering GoVault

After installing GoVault, register it via the Quantum website at:

www.quantum.com/registration

Registering GoVault ensures that you will receive the latest technical information about the drive, as well as other product, service, and support information.

Inserting and Ejecting Cartridges

You can insert and eject GoVault cartridges without shutting down the workstation or server system.

Inserting Cartridges

To insert a cartridge into the GoVault dock:

- 1 Verify that the activity LED indicator is on continuously, and not flashing, to signify that the GoVault dock is functioning correctly.

Caution: Do not insert a cartridge when the activity LED indicator is either off or flashing. Doing so might require a manual eject procedure to remove the cartridge.

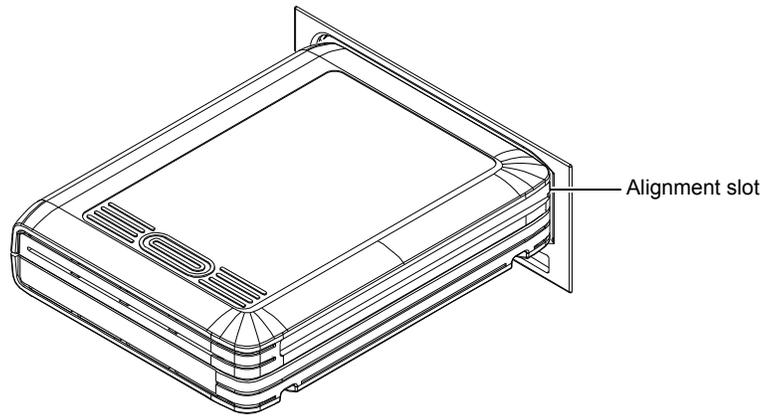
- 2 Carefully slide the cartridge into the GoVault dock until you feel a slight resistance as the cartridge engages the internal mechanical load/eject mechanism.

Note: The GoVault dock has an internal alignment tab that engages a matching alignment slot on the upper-right side of the cartridge. This design feature makes it impossible to insert the cartridge either upside-down or backwards (see [figure 10](#)).

If you feel any mechanical resistance as you slide the cartridge into the dock, stop and make sure the cartridge is oriented properly, with the connector to the rear and the alignment slot to the upper-right.

- 3 Firmly push the cartridge the rest of the way into the dock.

Figure 10 Inserting a Cartridge



Ejecting Cartridges

You can eject a cartridge from the GoVault dock by either:

- Pressing the front panel cartridge eject button (see [Power Cartridge Eject Procedure](#))
- Using the Linux software eject function (see [Software Cartridge Eject Procedure](#)) or your backup application software

If neither of those procedures ejects the cartridge, and you must remove the cartridge from the dock, you could also:

- Force an emergency cartridge eject by pressing and holding the front panel cartridge eject button (see [Emergency Cartridge Eject Procedure](#))
- Use the front panel manual cartridge eject hole (see [Manual Cartridge Eject Procedure](#))

Power Cartridge Eject Procedure

- 1 Verify that the front panel activity LED indicator is not flashing, which would signify that the cartridge is being accessed.

Caution: Ejecting the cartridge while it is being accessed can result in a loss of data.

- 2 Press and hold the front panel cartridge eject button for a second or longer, and watch the activity LED to confirm that the cartridge eject operation is underway:

This LED indication . . .	Signifies . . .
continuous fast flashing	a normal cartridge eject operation, which can take up to ten seconds to complete.
five flashes and then stop	that either the operating system or your backup application software inhibited the cartridge eject operation. In this case, see Software Cartridge Eject Procedure in the following subsection, or refer to the documentation for your backup application software.

- 3 Remove the cartridge from the dock after the eject operation completes and store it in its protective case.

Software Cartridge Eject Procedure

If you *have not* installed the GoVault system application software, then use the Linux **eject** command (example: **eject /dev/sdb1**) to eject the GoVault cartridge.

If you *have* installed the GoVault system application software, then use Linux to perform the cartridge eject function as follows:

- 1 Verify that the front panel activity LED indicator is not flashing, which would signify that the cartridge is being accessed.

Caution: Ejecting the cartridge while it is being accessed can result in a loss of data.

- 2 Click/open the **GoVault Control** icon on the Linux desktop and select the GoVault device to display its context menu.
- 3 Click **Eject** to eject the cartridge.
- 4 Remove the cartridge from the dock after the eject operation completes and store it in its protective case.

Emergency Cartridge Eject Procedure

Caution: Avoid using this procedure. Ejecting a cartridge in this manner can result in a loss of data and directory corruption.

If neither the power nor software cartridge eject procedure is successful, and you absolutely must have the cartridge ejected from the dock:

- 1 Verify that the front panel activity LED indicator is not flashing, which would signify that the cartridge is being accessed.

Caution: Ejecting the cartridge while it is being accessed can result in a loss of data.

- 2 Press and hold the front panel cartridge eject button until the cartridge ejects. This could take from fifteen to thirty seconds or more.

Disregard any displayed error messages.

Note: If the cartridge still does not eject, remove power from the GoVault dock by either shutting down your workstation or server system (internal GoVault dock), or unplugging the power adapter/converter from the DC power jack on the rear panel of the external GoVault Tabletop dock and use the manual cartridge eject procedure (see [Manual Cartridge Eject Procedure](#)).

- 3 Remove the cartridge from the dock after the eject operation completes.
- 4 Restart your workstation or server system to reset the GoVault dock firmware.
- 5 Before using the cartridge again, verify the integrity of its directory and file system as follows:
 - a Insert the cartridge into the GoVault dock.
 - b Use the Linux **fsck** command (example: **fsck /dev/sdb1**) or a third-party utility to check the cartridge file system.
 - c If the integrity check fails, reformat the cartridge before using it again (see [Formatting Cartridges](#) on page 10).

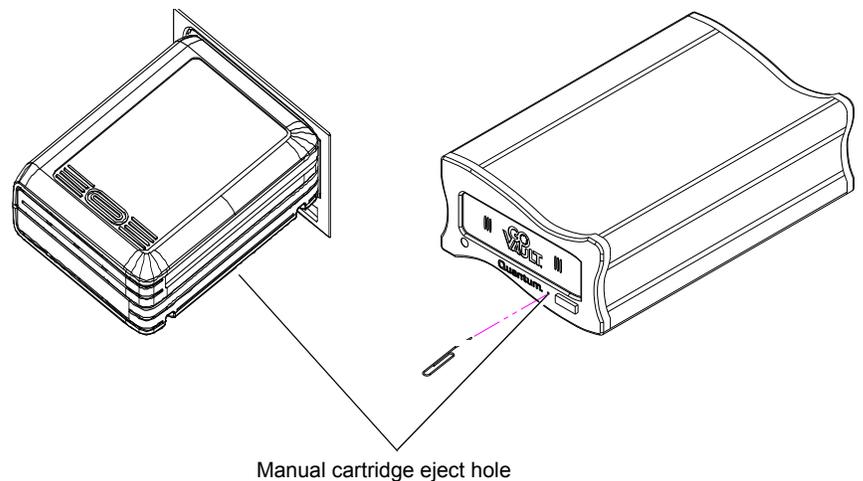
Manual Cartridge Eject Procedure

In case of a power loss or other unusual situation that prevents a normal power or software cartridge eject operation, you can manually eject the cartridge from the GoVault dock by straightening a large paper clip and inserting it into the front panel manual cartridge eject hole (see [figure 11](#)).

Do not use a pencil or other breakable items.

Caution: Do not use the manual cartridge eject procedure while power is applied to the GoVault dock. Data can be lost or corrupted if you eject the cartridge while power is applied to the dock.

Figure 11 Manual Cartridge Eject Hole



Safety Compliance

GoVault drives are safety compliant with the following regulatory organizations and codes in the countries indicated.

Country	Regulatory Organization	Compliant to:
Canada	Canadian Standards Association (CSA)	UL/CSA 60950-1
EU member nations	Comité Européen de Normalisation Electrotechnique – the European Committee for Electrotechnical Standardization (CENELEC)	EN 60950-1, 1st edition
Germany	Bauart	EN 60950-1, 2001
IECEE* member nations	IECEE* International Electrotechnical Commission on Electrical Equipment (IECEE) for Mutual Recognition of Test Certificates for Electrical Equipment “CB Scheme”	CB Scheme per IEC 60950-1 with details and exceptions for each member country
Taiwan	BSMI	BSMI certification, CNS 14336
United States	Nationally Recognized Testing Laboratory (NRTL)	UL/CSA 60950-1

*IECEE member nations include: Argentina, Austria, Australia, Belgium, Brazil, Canada, China (PR), Czech Republic, Denmark, Finland, France, Germany, Hungary, India, Ireland, Israel, Italy, Japan, (South) Korea, Montenegro, Netherlands, Norway, Poland, Russian Federation, Serbia, Singapore, Slovakia, Slovenia, South Africa, Spain, Switzerland, Turkey, United Kingdom, and USA.

Electromagnetic Compatibility (EMC) Compliance

GoVault drives are EMC compliant with the following regulatory organizations and codes in the countries indicated.

Country	Regulatory Organization	Compliant to:
Australia	Australian Communications and Media Authority (ACMA)	AS/NZS 3548 (same as CISPR 22)
Canada	Industry Canada Digital Apparatus - Interference-Causing Equipment Standard (ICES-003)	ICES-003 Digital Apparatus
EU member nations	CE	Emissions per CISPR 22, EN55022 and Immunity per CISPR 24, EN55024
Japan	Voluntary Control Council for Interface (VCCI)	VCCI

Country	Regulatory Organization	Compliant to:
New Zealand	Australian Communications and Media Authority (ACMA)	AS/NZS 3548 (same as CISPR 22)
South Korea	MIC	CISPR 22 and CISPR 24
Taiwan	Bureau of Commodity Inspection and Quarantine (BSMI)	BSMI EMC certification, CNS 14338
United States	Federal Communications Commission (FCC)	Title 47: Code of Federal Regulations, Part 15, Subpart B (47CFR15B),

Note: Use internal GoVault drives only in equipment where the combination has been determined to be suitable by an appropriate certification organization (for example, Underwriters Laboratories Inc. or the Canadian Standards Association in North America).

You should also consider the following safety points:

- Install the drive in an enclosure that limits the user’s access to live parts, gives adequate system stability and provides the necessary grounding for the drive.
- Provide the correct voltages (+5 VDC and +12 VDC) based on the regulation applied – Extra Low Voltage (SEC) for UL and CSA, and Safety Extra Low Voltage for BSI and VDE (if applicable).



For assistance contact Quantum Technical Assistance center:
 North America **+1-800-284-5101**
 UK, France, and Germany **00800 4 QUANTUM**
 EMEA **+44 1256 848 766**

For worldwide support: www.quantum.com/contactsupport

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Backup. Recovery. Archive. It's What We Do.

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Quantum Corp. (NYSE: QTM) is the leading global storage company specializing in backup, recovery and archive. Combining focused expertise, customer-driven innovation, and platform independence, Quantum provides a comprehensive range of disk, tape, media, and software solutions supported by a world-class sales and service organization. As a long-standing and trusted partner, the company works closely with a broad network of resellers, OEMs, and other suppliers to meet customer’s evolving data protection needs.