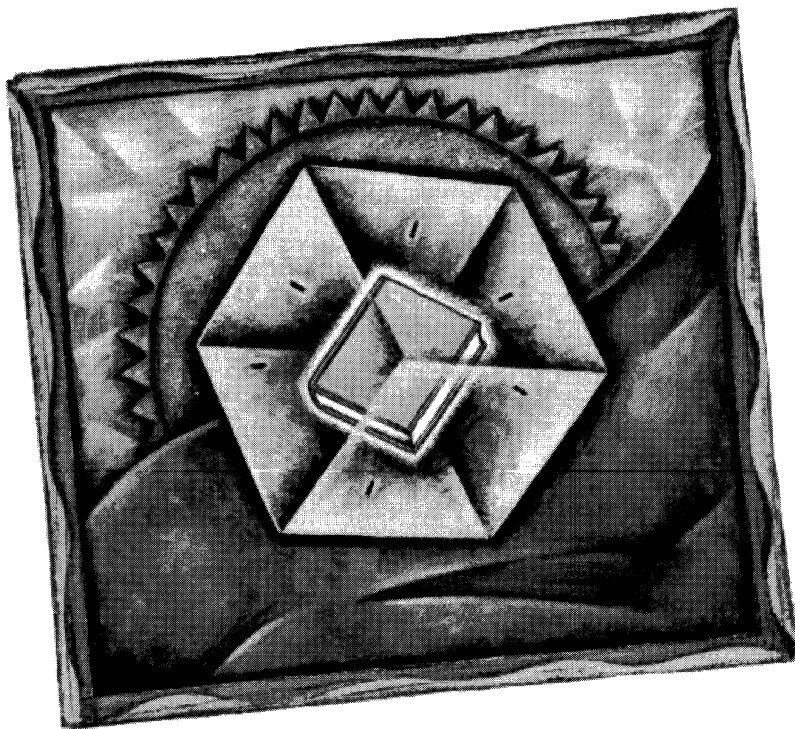


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Retrospect.®

Retrospect 2.1 Release Notes



Introduction

Welcome to Retrospect[®] 2.1! Retrospect 2.1 has been accelerated for Power Macintosh while maintaining full compatibility with the entire Macintosh line.

Retrospect 2.1 uses Apple's Installer software so that you may install the version appropriate for your 68K or Power Macintosh, or a "fat binary" version for both. These Release Notes contain information not found in the Retrospect User's Guide, and include the Retrospect Device Notes (formerly a separate document).

Table of Contents

• Changes to the product package	4
• Installing Retrospect 2.1	4
• New Features	5
• Strategy and Network Backup	6
• Retrospect Remote	7
• Updating to Retrospect 2.1	8
• Device Notes	9

Changes to the product package

Because Retrospect uses an installer utility, the disks are now labeled:

Retrospect Install 1

Retrospect 2

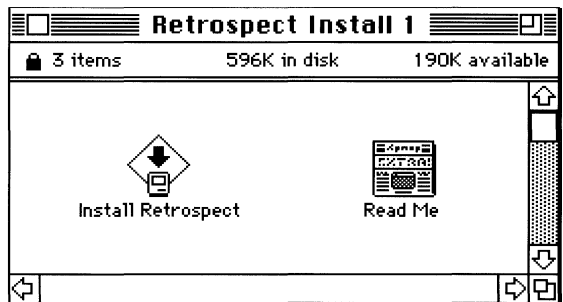
Retrospect 3

Version 2.1 of Retrospect Remote,[®] Remote 10-Pack, and Remote 50-Pack also contain a Remote Workstation disk with its own Installer. See the Read Me file on the Remote Workstation disk for instructions on setting up a network install of the °Remote client software.

Installing Retrospect 2.1

The Installer is easy to use and has a built-in Help function. To get started, just insert “Retrospect Install 1” and double-click “Install Retrospect”.

You should not install Retrospect on a Macintosh that is running an electronic mail server, Meeting Maker server, or AppleShare 2.0 server. (AppleShare 3.0 and later servers allow Retrospect to run concurrently.)

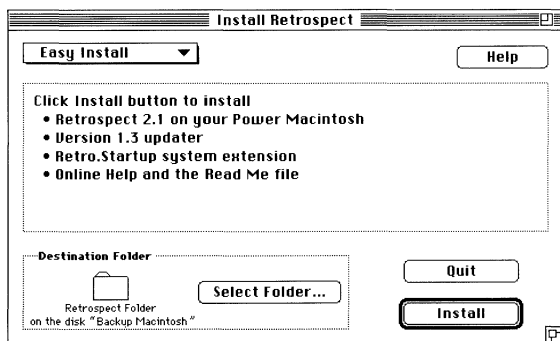


NOTE: We recommend disabling system extensions before running the Installer. (System 7 users can disable extensions by restarting with the Shift key held down.)

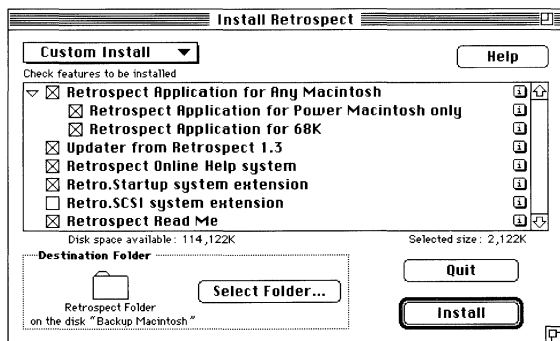
Easy Install is recommended for all users. It will install the correct 68K or Power Macintosh version of Retrospect to an internal hard disk, or install a version “for any Macintosh” (that contains both 68K and Power Macintosh software) to an external hard disk.

For optimized SCSI performance, Easy Install will also install the Retro.SCSI system extension on all 68K Macintosh models except the Centris, Quadra, and PowerBook Duo. Retro.SCSI is not needed on Power Macintosh or other models that use SCSI Manager 4.3.

NOTE: Do not use Retro.SCSI with third party hardware accelerators. If you have a 68K Macintosh with a third party hardware accelerator, delete Retro.SCSI from your System Folder.



Custom Install allows you to specify the version of your choice and to control installation of Retrospect's supporting files. Click the 'i' buttons to display information about each selection.



New Features

Native support for the Power Macintosh—Many of Retrospect's operations, such as Catalog access, compression and data encryption show dramatic performance improvements on a Power Macintosh.

NOTE: You must install "Retrospect Application for any Macintosh" or "Retrospect Application for Power Macintosh only" in order to run in native mode. The 68K version of Retrospect 2.1 will operate correctly on a Power Macintosh, but at a slower speed.

SCSI Manager 4.3—Introduced with the Centris 660AV and Quadra 840AV, and standard on the Power Macintosh, SCSI Manager 4.3 performs SCSI disconnect/reselect on an operating system level, making tape backup faster in most cases. Retrospect 2.1 supports SCSI Manager 4.3 (including multiple SCSI buses when appropriate) and third-party SCSI cards that are SCSI Manager 4.3 savvy.

Only Most Recent searching option—Found in *Immediate: Restore: Search & Retrieval: Options* and *Immediate: Copy: StorageSet Transfer: Options*, this option acts as a filter, displaying only the most recent version of each file in a StorageSet™. Files are considered versions of each other when they are located in the same folder and have the same name. The most recent file is the last version added to the StorageSet. **TIP:** While in a Browser, you can find all versions of a file, even in other folders, by highlighting it and choosing Cross Reference from the Browser menu.

Worldscript support—Retrospect supports the Roman and Japanese script systems of Worldscript. In the Japanese script system, Retrospect will automatically display all windows in the Osaka font and accept user input with Kotoeri.

Strategy and Network Backup

Your goal in using Retrospect is to effectively copy and store valuable data so it is available if a need arises. While Retrospect provides a powerful tool for safeguarding your data, there are some basic backup rules you should follow that will help you avoid data loss:

- Back up regularly. You can't restore what you haven't backed up. Retrospect is most efficient when you back up everything and back up often.
- Keep multiple copies of your data. The more copies you have, the less likely you will be to lose data. Consider keeping some copies off-site. An older copy is better than no copy at all.
- Take care of your backup media. Magnetic media can be damaged by dirt, liquids, smoke, magnetism, excessive humidity or high heat. Media can also wear out after a few hundred or few thousand passes.
- Periodically verify that your backups are working. Retrospect provides tools that allow you to verify media, and creates logs and reports that help ensure valid backups.
- If you make a mistake or see a problem, don't act out of panic. Instead, take a break and read the troubleshooting sections in the user's guides. If you can't find a solution, contact technical support.



AppleShare 4.0—The differences between AppleShare 3.0 and 4.0 have no effect on backup or restore of Apple servers, and all references to AppleShare 3.0 in the *Retrospect User's Guide* hold true for AppleShare 4.0. See Appendix D, “Backing Up & Restoring Servers” in the *Retrospect User's Guide* for complete instructions on using Retrospect with Apple servers.

Retrospect Remote

If you use Retrospect to back up Remote Macintoshes over the network, the following notes may apply to you.



System 6—If you run Retrospect on a System 6 Macintosh, you will need to install ADSP (AppleTalk Data Stream Protocol) in order to communicate with your Remote Macintoshes. To install, insert the Remote Workstation Disk, drag the ADSP file into the System Folder of your start-up volume, and restart your Macintosh.

Mac Plus—If you run Retrospect on a Mac Plus, you will need to update your version of AppleTalk in order to communicate with your Remote Macintoshes. To install, insert the Remote Workstation disk, drag the AppleTalk file into the System Folder of your startup volume, and restart your Macintosh.

Updating to Retrospect 2.1

Delete the Retrospect application and the Retrospect Help file, then (using the set of Retrospect 2.1 installation disks) install Retrospect 2.1. After the installation is complete, move the new Retrospect files to the same folder in which the old copy of Retrospect had been kept. If you increased the memory allocated to Retrospect 2.0 from the default of 1700K, adjust Retrospect 2.1 to the same amount. Launch and quit Retrospect 2.1 one time to ensure continued automatic execution. All of your existing scripts and StorageSets are fully compatible with Retrospect 2.1.

Updating from Retrospect 1.2 or 1.3—Delete the Retrospect application file as described above, and the



Retro.Startup and Retro.SCSI files in your System Folder. Use the set of installation disks to install Retrospect 2.1, then run the “Update from 1.3” utility. Retrospect 2.1 will launch and an Updater dialog box will appear. Click OK to confirm that you wish to update. Once the Updater has completed, the “Update from 1.3” utility may be discarded—you will only need to use it once.

Changes to the Remote control panel—The following are changes to the Remote control panel since Retrospect 2.0:

- Retrospect Remote 2.0B and 2.1 make it easier to activate Remote Macintoshes. New style Activator Codes need only be entered once, regardless of how many Remotes are activated

(up to the license limit).

- Retrospect 2.1 is fully compatible with older Remote control panels and Activator Codes.

If you purchased a Remote 2.1 product, you can use a copy of the new Remote control panel to update all the Remote Macintoshes on your network by clicking *Configure: Remotes: Update*. See “Updating Remote control panels from the Backup Macintosh” in Chapter 3 of your Retrospect Remote User’s Guide for more information.

Device Notes

These Device Notes provide information regarding Retrospect and your storage device. For details on Retrospect operation, refer to the Retrospect User's Guide.

During a backup, Retrospect copies your files from one or more **source volumes** (hard disks, cartridges, or servers) to a **StorageSet** made up of tapes, disks, or a single file on a server or other volume. Retrospect uses a file called a **Catalog** that resides on a local hard disk as an index to the files in that StorageSet. Because the Catalog is maintained separately, finding files in the StorageSet is very fast.

Optical or Cartridge Drives Retrospect supports all volumes that appear on the desktop, including cartridge drives from Iomega and SyQuest, and magneto-optical drives from Epson, Maxtor, Ricoh, and Sony.

You may select a Macintosh Disks StorageSet if you wish to dedicate disks or cartridges exclusively to the StorageSet. All previous contents will be erased. This is the most common way to back up to disks using Retrospect.

To use a disk or cartridge to store general files as well as your backup, create a Macintosh File StorageSet (a backup contained within a single large file) on the cartridge. A Macintosh File StorageSet cannot grow beyond the available capacity of the disk or cartridge.

SCSI Tape Drives Retrospect is all the software required to support most tape drives sold in the Macintosh market. Use Retrospect whenever you need to erase, format, or retention tapes by choosing Devices from Retrospect's Configure Directory. For many tape drives, Retrospect's Retro.SCSI system extension can greatly improve backup performance. It is never required, and is not recommended if you have a third party hardware accelerator installed. The Quadra, Centris, Power Macintosh and PowerBook Duo families of Macintoshes do not use Retro.SCSI.

NOTE: Regular cleaning of your tape drive is essential for reliable performance. For many drives, a cleaning tape that automatically cleans the drive when inserted can be purchased from the manufacturer. In any case, follow the manufacturer's suggestions for cleaning frequency and method. Remember: failure to keep tape heads clean is the number one cause of tape drive problems.

Tape Capacity The actual capacity of any tape will vary due to many factors and can be greatly influenced by the relative speeds of the backup Macintosh and the tape drive. If you attempt to back up a slow source (a slow Macintosh or a slow network) to a fast tape drive, your capacity will be reduced by the source's inability to supply the tape drive with a steady flow of data. When the tape drive runs out of data while backing up, it must stop writing, reposition the tape and begin writing again at the correct section of the tape. Each reposition reduces the capacity of the tape, and excessive repositioning can lead to accelerated device wear.

Compression Hardware compression is now common on tape drives. Retrospect uses hardware compression whenever possible, automatically turning off software compression (if selected). Hardware compression increases the capacity of tapes by an amount that varies depending on the type of data being backed up. Text files, for example, compress well, while applications and system files do not.

NOTE: Hardware compression is disabled when Encryption is specified because encrypted data compresses poorly. Use Retrospect's built-in software data compression if both compression and encryption are desired. (This compresses data before encryption, which is not possible with hardware compression.)

In these Device Notes, when a drive offers hardware compression, we list it showing its uncompressed capacity. Using compression will, on average, achieve capacities of 50% greater than the uncompressed capacity shown.

These notes on SCSI Tape drives are divided into 6 categories by the type of media used by each drive. To find the name of your drive mechanism, select Devices in Retrospect's Configure Directory.

NOTE: If your tape drive is not mentioned in these notes, please check the Read Me file on your Retrospect Install 1 disk for more information.

DAT Drive Mechanisms Except as noted, these drives support 4mm DAT cartridges in 60 and 90 meter lengths. The new DDS-2 drives also support 120 meter tapes. Tapes created on one drive can typically be read by drives of another manufacturer, provided they are of the same format.

Most DAT drives use the DDS format. Drives from JVC and Gigatrend use the DataDAT format which is compatible only with other DataDAT drives. With either format, an individual file may be accessed within a few minutes from anywhere in a StorageSet.

The capacity of DAT tapes varies depending on many factors. Typically, a 60 meter tape will hold around 1000 MB of uncompressed data. A 90 meter tape will hold around 1500 MB, and a 120 meter tape, used only with DDS-2 format drives, will hold around 3000 MB. Hardware compression (default on) or software compression (default off, and ignored if hardware compression is turned on) can almost double these capacities if your data compresses well.

NOTE: If you wish to exchange tapes with people who do not have compression drives, uncheck the hardware compression option when creating a StorageSet.

Supported Drive Mechanisms All drives support hardware compression and 90 meter tapes unless specified otherwise. All DDS-2 drives also support 120 meter tapes.

Archive Python - Also available without hardware compression.

Archive Turbo Python

Conner DDS-2 - DDS-2 drive.

Exabyte EXB 4200/4200c - Available with and without hardware compression.

Hewlett-Packard 35450A, 35470A - No hardware compression.

Hewlett-Packard 35480A

Hewlett-Packard C1533A - DDS-2 drive.

Gigatrend Turbo SL - Supports DataDAT or DDS format (depending on the version of firmware contained in your drive). No hardware compression.

JVC - DataDAT format only. No hardware compression.

Sony SDT-1000, SDT-1020, SDT-2000 - No hardware compression.

Sony SDT-4000

Sony SDT-5000 - DDS-2 drive.

Sony SDT-5200 - DDS-2 drive, no hardware compression.

Wangtek 6130FS, 6130HS - Supports 60 meter tapes only. No hardware compression.

Wangtek 6200HS - No hardware compression.

WangDAT 1300 - Supports 60 meter tapes only. No hardware compression.

WangDAT 2000, 2600 - Non-standard hardware compression—compressed tapes cannot be read by other hardware compression drives. The WangDAT 2600 supports 60 meter tapes only.

WangDAT 1300XL, 3100 - no hardware

compression.

WangDAT 3200

WangDAT 3300 - DDS-2 drive, no hardware compression.

WangDAT 3400 - DDS-2 drive.

Exabyte 8mm Drive Mechanisms These drives, all made by Exabyte Corp., use 8mm data cartridges that store from 2 to 5 GB, uncompressed. No formatting is required. The longest time required to access an individual file on a restore is about 7 minutes.

Retrospect supports use of the Exabyte hardware compression chip. If a new tape is inserted into the compression drive, it will always be written in compressed format. Tapes formatted by earlier model drives will retain their original format.

Supported Drive Mechanisms

Exabyte EXB-8200 - 2 GB capacity.

Exabyte EXB-8205 - 2 GB capacity with hardware compression.

Exabyte EXB-8200 SX - 2 GB capacity (Retrospect does not use this drive's high speed search capability).

Exabyte EXB-8500 - 5 GB capacity.

Exabyte EXB-8500c, 8505 - 5 GB capacity with hardware compression.

Exabyte 10i, 10e - See the following section on Autoloaders.

Autoloaders Retrospect supports the following autoloaders in full random access mode. Tapes can be loaded in any order and Retrospect will deter-

mine which tape it needs in order to perform an unattended backup. When a loader is used with Retrospect, a Loader pop-up menu appears in the Devices and Media Request windows, allowing you to scan and select tapes for interactive use. Loaders that use a separate SCSI address for the loader mechanism and the tape drive may require the SCSI addresses to follow a specific order for the device to function properly. Please refer to the section on your autoloader for more information.

Supported Drive Mechanisms

ADIC - contains an HP 35480A drive at one SCSI ID and a loader mechanism at a separate SCSI ID. This loader will hold up to 10 tapes. The tape mechanism's SCSI address must be set to 0, 1, 2, or 3, and the loader's address must be **three** higher, at 3, 4, 5, or 6 respectively.

Valid SCSI ID combinations:

Tape Drive	Loader Mechanism
0	3
1	4
2	5
3	6

Archive Python Autoloader - loader integrated with Python DAT drive at a single SCSI address. Supports 5 or 12 tape magazines.

Archive DiamondBack Autoloader - loader integrated with Turbo Python DAT drive at a single SCSI address. Supports 4 or 12 tape magazines.

Exabyte 10i, 10e - contains an EXB-8200, 8200SX, 8500, or 8500C drive at one SCSI address and a loader mechanism at a separate SCSI address. This loader will hold up to 10 tapes. The tape mechanism's SCSI address must be set to 0, 1, 2, or 3, and the loader's address must be **three** higher, at 3, 4, 5, or 6 respectively .

Valid SCSI address combinations:

Tape Drive	Loader Mechanism
0	3
1	4
2	5
3	6

HP C1553A Autoloader - loader integrated with an HP C1533A DDS-2 drive at a single SCSI address. Hold 6 tapes.

WangDAT LD4 - loader integrated with a WangDAT 3200 drive at a single SCSI address. Holds 4 tapes.

TEAC Cassette Drive Mechanisms TEAC devices use streaming tape cassettes that look like audio cassettes with a large notch on top. Tape capacities include 50, 60, 150, and 600 MB. The manufacturer, TEAC, has ensured that any tape may be written to by a drive of the same capacity and can be read by any drive of the same or higher capacity.

A separate formatting step is not required, though the first time Retrospect uses one of these tapes, it performs a long erase, retensioning and erasing all previous data and determining format and capacity.

Supported Drive Mechanisms

TEAC 45S - 50 or 60 MB capacity. Does not support Quick Locate. Operations that require seeking through the tape will take longer. Retro.SCSI and SCSI Manager 4.3 have no effect on this drive.

TEAC 45S2 - 50 or 60 MB capacity.

TEAC N50 - 150 MB capacity.

CAUTION: *TEAC N50 drives with Rev. B firmware occasionally corrupt data when copying to the tape. Drives with Rev. E firmware do not exhibit this problem. To determine your firmware version, use Devices under the Configure icon and click SCSI Status.*

If you do have Rev. B firmware, turn on verification! Retrospect will then be able to detect the problem and notify you if it occurs.

This problem is stimulated by a slow source. To minimize the chances that it will occur, 1) turn off compression if possible, or 2) if you must use compression, then remove Retro.SCSI.

TEAC F50 - 600 MB capacity.

TEAC F50B - 600 MB capacity and larger buffer.

TEAC F50C - 600 MB capacity, larger buffer, and hardware compression.

NOTE: *Although the TEAC 45S2, N50, and F50 series drives support Quick Locate commands, the locate operation sometimes fails. In this case, retrieving files and incremental backups take considerably longer.*

NOTE: *If you experience media failures (error 206) with the TEAC F50, it is recommended that you retension your tapes with 30 passes before performing backups. With Retrospect, you can perform this operation using the Retension button in the Configure Devices window. Each retension counts for 2 passes on the tape, so these tapes would require 15 retensions.*

DC6000 Drive Mechanisms DC6000 tape drives have nominal capacities of 120, 150, 250, 320, 525, 1000, and up to 5000 MB. Tapes written by one drive can typically be read by another.

DC6000 drives do not require a separate formatting step. However, the first time Retrospect uses one of these tapes, it performs a long erase which retensions and erases all previous data and determines the tape's format and capacity.

Supported Drive Mechanisms

Archive 2060/2150S Viper - Capacities of 60/120/150/250 MB.

Sankyo CP150 - Capacities of 120/150/250 MB.

Sankyo CP525 - Capacities of 120/150/320/525 MB.

Sankyo CP1000 - Capacities of 120/150/320/525/1000 MB.

Shinwa SDX-85 - Capacities of 120/150 MB.

Tandberg 3660 - Capacities of 120/150/250 MB.

Tandberg 3800 - Capacities of 120/150/250/320/525 MB.

Tandberg 4100 - Capacities of 120/150/250/320/525/1000 MB.

Tandberg 4200 - Capacities of 120/150/250/320/525/1000/2000/2500 MB.

Wangtek 5150ES - Capacities of 150/250 MB. Does not support block locate, so operations that require seeking through the tape will take longer than on other drives.

Wangtek 5525ES - Capacities of 120/150/250/320/525 MB.

DC2000 Drive Mechanisms DC2000 type drive mechanisms typically require formatted tapes. To save time spent formatting, we suggest that you purchase pre-formatted tapes. To format your own tapes, select Devices from the Configure Directory and click Format. If Retro.SCSI is installed you can put Retrospect in the background during the format.

The DC2000 drives can be broken down into three subgroups:

QIC-100 is a standard followed by a number of manufacturers, allowing tapes to be read/write compatible as long as the same interleave is used. Some QIC-100 drives support a higher performance tape interleave, 1:1 Overlap, in addition to the more standard 2:1 Interchange. Included in this category are:

3M MCD-40 2:1 - 40 MB capacity, supports only 2:1 interleave format. Uses DC2000 cartridges.

3M MCD-40 1:1 - 40 MB capacity, supports both 2:1 and 1:1 interleave formats. Uses DC2000 cartridges.

3M MCD Series II - 80 or 120 MB capacity, supports both 2:1 and 1:1 interleave formats. Uses DC2000, DC2080, DC2110, or DC2165 cartridges.

Tallgrass MC40 - 40 MB capacity, supports both 2:1 and 1:1 interleave formats. Uses DC2000 cartridges.

Braemar QB525S/QB350S - 40 MB capacity, supports both 2:1 and 1:1 interleave formats. 1:1 format not compatible with 3M or Tallgrass. Not supported by SCSI Manager 4.3. Uses DC2000 or DC2165 (QB525S only) cartridges.

Irwin drives require specially formatted tapes which are not compatible with other DC2000 drives. Retro.SCSI and SCSI Manager 4.3 provide no performance benefit for these drives.

Irwin 5040 - 40 MB capacity. Uses DC2000 cartridges.

Irwin 5080 - 80 or 120 MB capacity. Uses DC2000, DC2080, or DC2120 cartridges.

Sequential Mode DC2000 drives are similar to DC6000 drives in that they are not block addressable, and do not require time-consuming formatting. These drives belong to a new generation of DC2000 drives and include:

TEAC MT-01N - 150 MB capacity. Uses DC2155 cartridges.

TEAC MT-01F - 520 MB capacity. Uses DC2555 cartridges.

Exabyte EXB-2501/2501c - 530 or 720 MB capacity. Available with and without hardware compression. Uses DC2300 or DC2750 cartridges.



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