

Overview

The DVD-ROM/CD-RW combo drive is the next generation of optical drive for HP ProLiant servers. It is offered with an industry-standard ATAPI interface. A Combo drive is designed to read and write to CD-ROM discs and read DVD-ROM discs. It has a maximum speed of 8X with DVD and 24X when used with CD-ROM.

This drive supports major OSs for reading media. Software support is required for writing to media. For Microsoft® operating systems, this is available by using the included Roxio Media Creator. For other operating systems, an operating system-specific software utility is required for writing to media.

Models

HP Slimline CD-RW/DVD-ROM 24X Carbon Combo Drive

331903-B21

Kit Contents

- DVD-ROM drive with installation guide
- Warranty card
- Software disk

Compatibility

Servers

ProLiant DL (rack-optimized):

- HP ProLiant DL320 G2 (PN 343791-B21 only)
- HP ProLiant DL360 G2 (SCSI & SAS models only)
- HP ProLiant DL360 G3 (SCSI & SAS models only)
- HP ProLiant DL360 G4
- HP ProLiant DL360 G4p
- HP ProLiant DL360 G5
- HP ProLiant DL365
- HP ProLiant DL365 G5
- HP ProLiant DL380 G2
- HP ProLiant DL380 G2 Packaged Cluster
- HP ProLiant DL380 G3
- HP ProLiant DL380 G3 Packaged Cluster with MSA500
- HP ProLiant DL380 G3 Packaged Cluster with MSA1000
- HP ProLiant DL380 G4
- HP ProLiant DL380 G4 Packaged Cluster with MSA500 G2
- HP ProLiant DL380 G4 Packaged Cluster with MSA1000
- HP ProLiant DL380 G5
- HP ProLiant DL385
- HP ProLiant DL385 Packaged Cluster with MSA500 G2
- HP ProLiant DL385 G2
- HP ProLiant DL385 G5
- HP ProLiant DL560
- HP ProLiant DL580 G2
- HP ProLiant DL580 G3
- HP ProLiant DL580 G4
- HP ProLiant DL585
- HP ProLiant DL585 G2
- HP ProLiant DL585 G5
- HP ProLiant DL585 G6



Overview

- HP ProLiant DL785 G5
- HP ProLiant DL785 G6

ProLiant ML (expansion-optimized):

- HP ProLiant ML570 G3
- HP ProLiant ML570 G4

NOTE: This is a list of supported servers. Some may be discontinued.



Service and Support

Service and Support

HP Care Pack Services: Packaged server and storage services for increased uptime, productivity and ROI

When you buy HP server and storage products and solutions, it's also a good time to think about what levels of support you may need. Our portfolio of service options reduce deployment and management worries while helping you get the most out of your server and storage investments. We take a holistic approach to your environment, bridging servers, blades, storage, software and network infrastructures with our packaged HP Care Pack Services for servers and storage.

Protect your business beyond warranty

When it comes to robustness and reliability, standard computing equipment warranties have matured along with technology. Good news that can also create problems stemming from depending on standard warranties designed to only protect against product defects and some downtime causes. Using a standard approach to warranty uplifts, such as HP Care Pack Services, helps reduce downtime risks and provides operational consistency for mission-critical and standard business computing.

HP Care Pack Services: Upgrading or extending standard server and storage warranties cost effectively

HP Care Pack Services offer a standard reactive hardware and software support services suite sold separately, or combined with our Support Plus and Support Plus 24 services. The portfolio also provides a combination of integrated proactive and reactive services, such as Proactive 24 Service and Critical Service. In addition with HP Proactive Select, you can acquire the specific proactive constancy and technical services. HP Proactive Select menu offers a broad set of service options that you can mix and match depending on your specific requirements. Proactive service options include offers for server, storage, network, SAN device, software, environment and education services.

HP server and storage lifecycle support services offers a full spectrum of customer care-from technology support to complex migrations to complete managed services. HP Factory Express provides customization, integration and deployment services for turnkey solutions. HP Education Services offer flexible, comprehensive training on to help your IT staff get the most out of your server and storage investments. HP Financial solutions extend innovative financing and cost-effective asset management programs-from purchase to equipment retirement.

Learn more: www.hp.com/services/servers and www.hp.com/services/storage

NOTE: Care Pack Services availability may vary by product and country.

HP Care Pack Services are sold by HP and HP Authorized Service Partners:

- Services for customers purchasing from HP or an enterprise reseller are quoted using HP order configuration tools.
- Customers purchasing from a commercial reseller can find HP Care Pack Services at <http://www.hp.com/go/lookuptool>



Service and Support

Recommended HP Care Pack Services for optimal satisfaction with your HP product

Recommended Services **Hardware Options Support**

HP Care Packs provide support for all HP-branded hardware options qualified for inclusion in your server or storage solution. Any additional HP-qualified options installed within the server are covered at the same service level and for the same period as the server and no additional cost.

- Help improve or maintain system uptime
- Convenient onsite support
- Committed response time

<http://h20195.www2.hp.com/V2/GetPDF.aspx/5982-6547EEE>

3-Year HP Hardware Support Onsite Service, 4-hour response, 24x7

Provides you with rapid remote support and if required an HP authorized representative who will arrive on site any time and day of the year to begin hardware maintenance service within 4 hours of the service request being logged.

This service provides a trained HP service specialist to perform an installation that meets HP quality standards, for:

- Help improve or maintain system uptime
- Convenient onsite support
- Committed response time

<http://h20195.www2.hp.com/V2/GetPDF.aspx/5982-6547EEE>

HP Installation and Startup of HP ProLiant Servers

Provides for the installation of your new HP ProLiant server and operating system to assist you in bringing your new HP ProLiant server and operating system into operation in a timely and professional manner.

This service provides a trained HP service specialist to perform an installation that meets HP quality standards, for:

- Delivery of the service at a mutually scheduled time convenient to your organization
- Availability of an HP service specialist to answer basic questions during the onsite delivery of this service
- Custom installation as detailed in "Delivery specifications" or in a Statement of Work (SOW)
- Verification prior to installation that all service prerequisites are met

<http://h20195.www2.hp.com/V2/GetPDF.aspx/5982?7572ENN>



Service and Support

Optional HP Care Pack Services that will enhance your HP product experience

Optional Services

3-Year HP Hardware Support Onsite Call-to-Repair (CTR) Service, 6- or 24-hour

As an alternative to our recommended support level, for customers who need committed call-to-repair for server hardware.

Provides your IT manager with a team of support specialists who will quickly begin troubleshooting the system to help return the hardware to operating condition within 6 or 24 hours of the initial service request to the HP Global Solution Center.

<http://h20195.www2.hp.com/V2/GetPDF.aspx/5982-6547EN.pdf>

3-Year HP Support Plus 24

As an alternative to our recommended support level, for customers who need access to responsive 24x7 hardware and software support plus software updates on HP and selected third party products:

For a higher return on your server and storage technology, our 3-year combined reactive support service delivers integrated onsite hardware/software support services available 24x7x365, including access to HP technical resources, 4-hour response onsite hardware support and software updates.

<http://h20195.www2.hp.com/V2/GetPDF.aspx/5981-6638EEE>

HP Proactive Select Service

Customer needs on demand access to consulting, technical proactive services and education courses

Provides a flexible way to purchase HP best-in-class consultancy and technical services. You can buy Proactive Select Service Credits when you purchase your hardware and then use the credits over the next 12 months.

<http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA2-3842ENN>

eSupport

HP eSupport is a portfolio of technology-based services that assist you with managing your business environment - from the desktop to the data center.

Support Portal

The HP support portal provides one-stop access to the information, tools and services you need to manage the daily operations of your IT environment.

Features include:

- Access to self-solve tools (including search technical knowledge base)
- Efficient logging and tracking of support cases
- Collaboration with other business and IT professionals
- Download of patches and drivers
- Access to diagnostic tools
- Proactive notification of relevant information

Access to certain features of the support portal requires an HP service agreement. To access the support portal, visit: <http://www.hp.com/support>

HP Insight Remote Support software delivers secure remote support for your HP Servers and Storage, 24



Service and Support

X 7, so you can spend less time solving problems and more time focused on your business. You can have your systems remotely monitored for hardware failure using secure technology that's been proven at thousands of companies around the world. In many cases, you can avoid problems before they occur.

Customer Technical Training

In today's cost-conscious business environment, IT professionals, developers, consultants and users face an interesting challenge: how to keep up with the latest technologies and expand important skills while delivering profitable results on current projects. To help address this challenge, HP offers innovative training solutions that help keep you up-to-date on virtualization, server, storage, Insight Control, Citrix, Microsoft® and open source/Linux-related topics-while spending less time away from business-critical activities.

HP Services Awards

HP Technology Services continues to be recognized for service and support excellence by customers, partners, industry organizations and publications around the world. Recent honors and award reflect our services team's dedications, technical expertise, professionalism and uncompromising commitment to customer satisfaction.

Additional Services Information

To learn more on HP ProLiant servers, HP BladeSystem servers and HP storage products, please contact your HP sales representative or HP Authorized Channel Partner. Or visit: www.hp.com/services/proliant or www.hp.com/services/bladesystem or <http://www.hp.com/hps/storage>



Technical Specifications

Dimensions (H x W x D, maximum)	0.5 x 5.04 x 5.1 in (12.7 x 128 x 129.4 mm)		
Shipping Dimensions	13.88 x 11.38 x 9.25 in (35.26 x 28.91 x 23.50 cm)		
Shipping Weight	5 lb (2.27 kg)		
Disk	Applicable Disk	DVD-ROM DVD-R and -RW DVD+R and +RW 5.2 GB/side DVD-RAM CD-ROM Mode-1 data disc CD-ROM Mode-2 data disc CD Audio disc CD-Extra CD-RW CD-R CD Text PhotoCD CD-I (mode 2) CD-I Ready CD-Bridge	
	Capacity	DVD-ROM	DVD-SL 4.7 GB/side DVD-DL 8.5 GB/side Double Sided 9.40 GB DVD Rewritable 4.7 GB/side DVD-RAM 5.2 GB/side CD-ROM Mode-1 650 MB (550 MB) Mode-2 742 MB (640 MB)
	Block Size	DVD	2,048 bytes
		CD	2,352 (Mode-0) 2352, 2340, 2336, 2048 bytes (Mode-1) 2352, 2340, 2336, 2048 bytes (Mode-2)
	Diameter	120 mm, 80 mm (with adapter at vertical mounting mode)	
Loading Mechanism	Tray type		
Interface	EIDE (ATAPI)		
Access Times (typical)	Random	DVD-ROM < 120 ms, CD-ROM < 110 ms	
	Full-Stroke	DVD-ROM < 240 ms, CD-ROM < 160 ms	
Audio Output Level (typical)	Line-out	CD 0.7 Vrms at 47 Kohms Load	
Data Transfer Rate (sustained)	DVD-ROM	22 MB/sec. Max	
	DVD-RAM	2.77 MB/sec. Max	
	CD-ROM	6 MB/sec. Max.	
Cache Buffer	2 MB		
Spin-up Time (typical)	less than 10 seconds		



Technical Specifications

MTBF	120,000 Power On Hours (POH)
Ambient Temperature	Operating 41° to 113° F (5° to 45° C)
	Storage/Transportation -22° to 140° F (-30° to 60° C)
Relative Humidity	Operating 10% to 80%
	Storage/Transportation 5% to 95%

Environment-friendly Products and Approach	End-of-life Management and Recycling	Hewlett-Packard offers end-of-life HP product return, trade-in, and recycling programs in many geographic areas. For trade-in information, please go to http://www.hp.com/go/green . To recycle your product, please go to: http://www.hp.com/go/green or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner.
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The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: <http://www.hp.com/go/green>. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.

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