COMPAQ
White Paper

January 2002

Prepared by Customer Service Training and Development

Compaq Computer Corporation

Contents

Product Description 3
Features.....3
System and Mechanical Spare Parts List 4
Servicing Procedures.....8
Processor.....8
DVD-ROM/Diskette Combination Drive 13
Service Considerations.....16
References 17

Compaq ProLiant DL320

Service Update

Abstract: This service update white paper describes updates to the Compaq ProLiant DL320 Server. It provides option part numbers for the DVD/diskette combination assembly, spares part numbers for the 1.13 Ghz processor and service procedures for removing or replacing the DVD/diskette combination assembly and processor.

Help us improve our technical communication. Let us know what you think about the technical information in this document. Your feedback is valuable and will help us structure future communications. Please send your comments to: customerservicestdfeedback@compaq.com.

Compaq ProLiant DL320 Service Update© 2002 Compaq Computer Corporation

Compaq and the Compaq logo are registered in the U.S. Patent and Trademark Office. Microsoft and Windows are trademarks of Microsoft Corporation in the United States and other countries. All other product names mentioned herein may be trademarks of their respective companies.

Compaq shall not be liable for technical or editorial errors or omissions contained herein. The information in this document is provided “as is” without warranty of any kind and is subject to change without notice. The warranties for Compaq products are set forth in the express limited warranty statements accompanying such products. Nothing herein should be construed as constituting an additional warranty.

Product Description

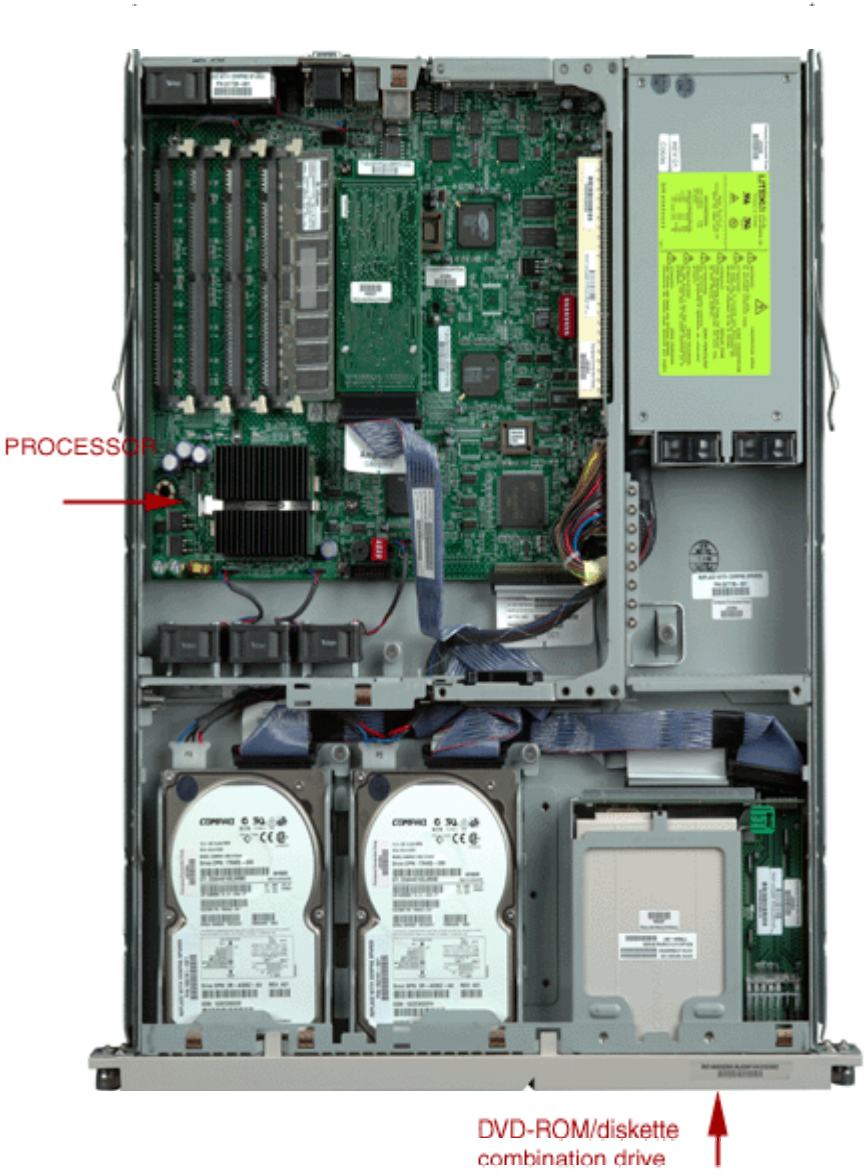
The ProLiant DL320 Server has a new option, a DVD/diskette combination drive and a new processor speed, 1.13Ghz. This document lists the new option and spares part numbers and reviews the corresponding procedures to service.

Features

This is a review of the features pertinent to this update.

- New, faster processor speed: 1.13Ghz
- New DVD-ROM/diskette drive assembly

ProLiant DL320 Server– Internal View



System and Mechanical Spare Parts List

As a review, Figure 1 and 2 illustrate an exploded views of the mechanical and system spare component parts. Table 1 lists the option and spare part numbers. Part numbers for new processor and DVD/diskette combination assembly are highlighted in yellow.

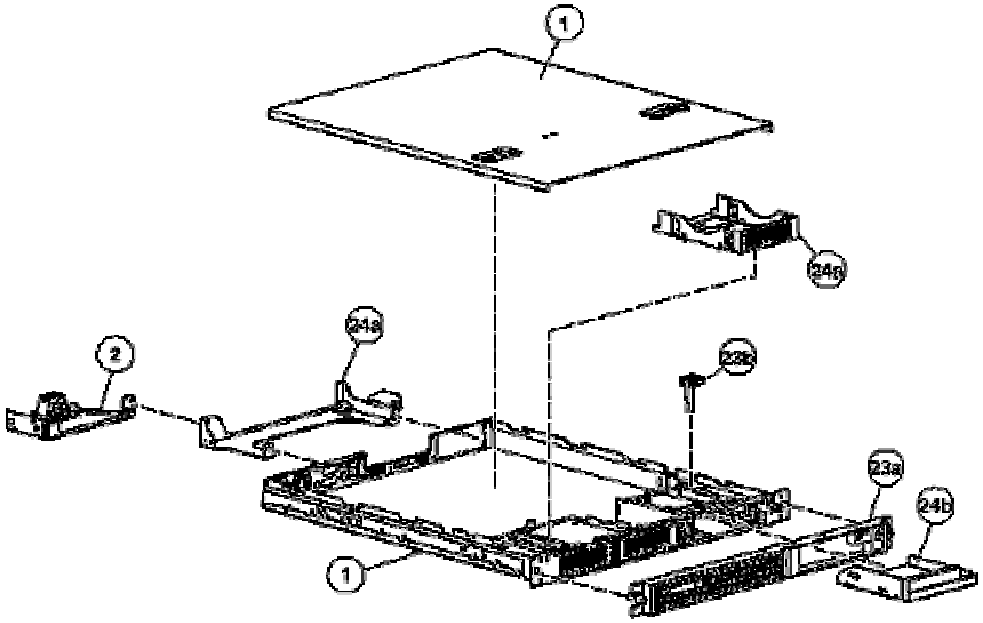


Figure 1. Mechanical parts exploded view

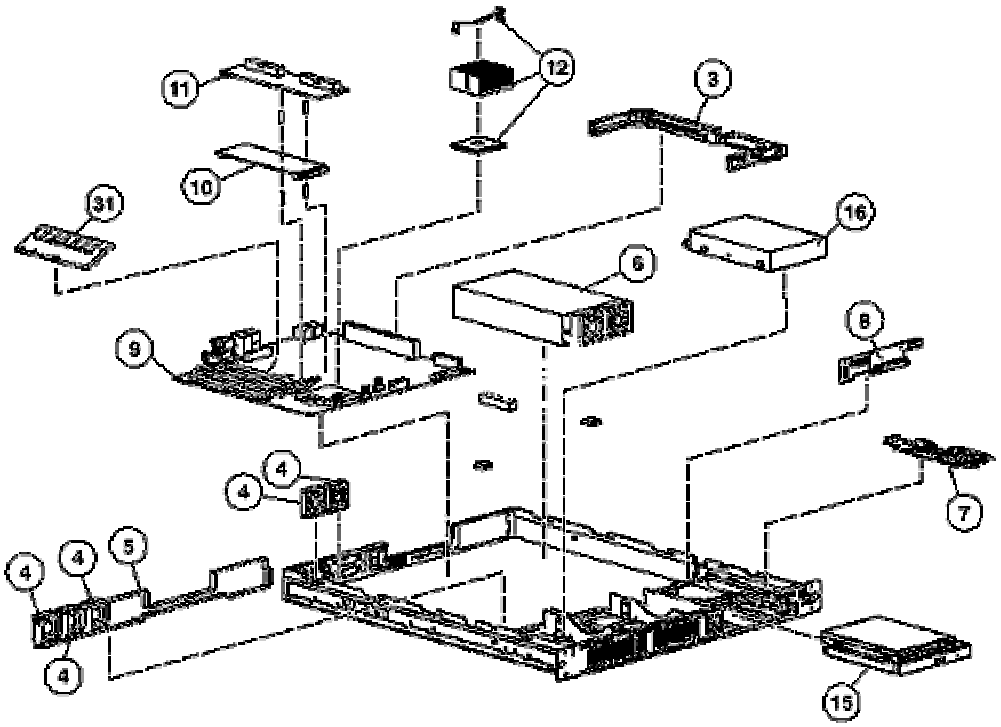


Figure 2. System components exploded view

Table 1: System and Mechanical Spare Parts List

Item	Description	Spare Parts List
	Mechanical Components	
1a	Chassis	207735-001
1b	Access panel	
2	Fixed cable tray	173839-001
3	PCI riser board assembly	207727-001
4	Fan	207729-001
5	Center wall and bracket with fans	213288-001
6	Power supply, 180 W	207728-001

Item	Description	Spare Parts List
	Boards	
7	User interface board	207725-001
8	CD-ROM (DVD-ROM)/diskette drive assembly backplane	207726-001
9a	System board	207723-001
9b	System board for 1.13-Ghz processors or greater	260142-001
10	Single Channel Wide Ultra2 SCSI controller module and support posts (SCSI models only)	207724-001
11	Ultra ATA/100 controller module with support posts (ATA models only))	207738-001
	Processors	
12a	800-MHz Intel Pentium III processor with heat sink	207720-001
12b	866-MHz Intel Pentium III processor with heat sink	207721-001
12c	933-MHz Intel Pentium III processor with heat sink	207722-001
12d	1-GHz Intel Pentium III processor with heat sink	235446-001
12e	1.13-GHz Intel Pentium III processor with heat sink	260141-001
	Mass Storage Devices	
13a	CD-ROM/diskette drive assembly	173834-001
	Low-profile 1.44-MB diskette drive	
	Low-profile IDE CD-ROM drive	
13b	DVD-ROM/diskette drive assembly	269046-001
	Low-profile 1.44-MB diskette drive	
	Low-profile IDE DVD-ROM drive	
14	ATA hard drive, 10 GB	207737-001
15	ATA hard drive, 20 GB *	207736-001
16	SCSI hard drive, 9 GB *	152189-001
17	SCSI hard drive, 18 GB *	152191-001
	Miscellaneous	
18	IEC power cord *	142258-004
Item	**Description**	**Spare Parts List**
19	Hard drive cable kit *	207731-001

	CD-ROM (DVD-ROM)/diskette drive assembly cable *	
	ATA hard drive cables (2) *	
20	Two-device terminated SCSI cable (Ultra3) *	207730-001
Note: * Not shown		

Refer to the *QuickSpecs* for a more complete list of options. (See *References*.)

Servicing Procedures

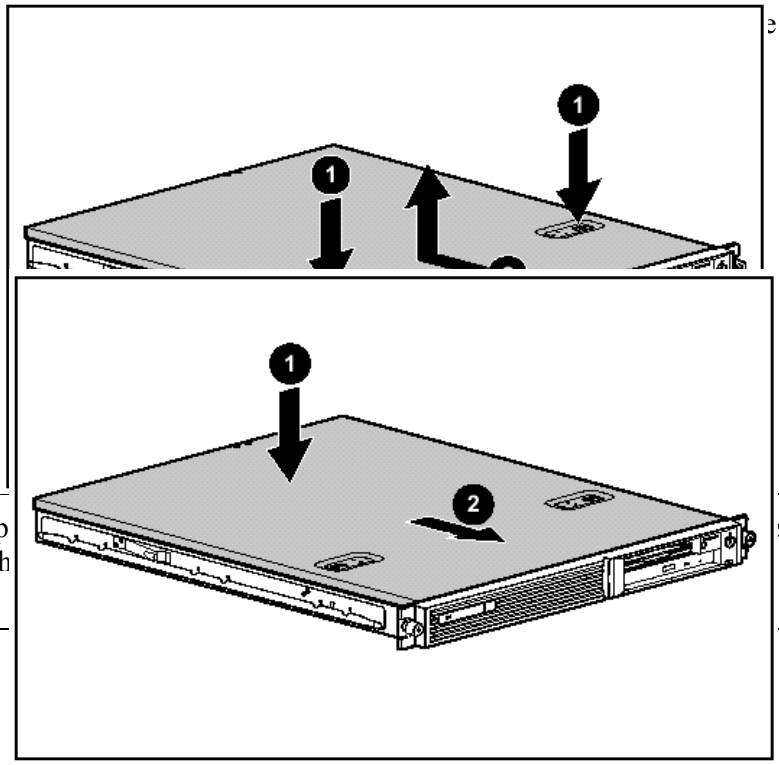
Processor

Power down the server

Step	Action
1.	Press the server Power On/Off switch to power down the server. When the server is off, the power LED deactivates.
2.	Verify that the fan is off by listening for the fan noise to stop.
3.	Disconnect the power cord first from the AC outlet and then from the server.
4.	Disconnect all remaining cables on the server rear panel, including cables extending from external connectors on expansion boards.
5.	For stability and safety, position the server securely on a workbench or other solid surface.

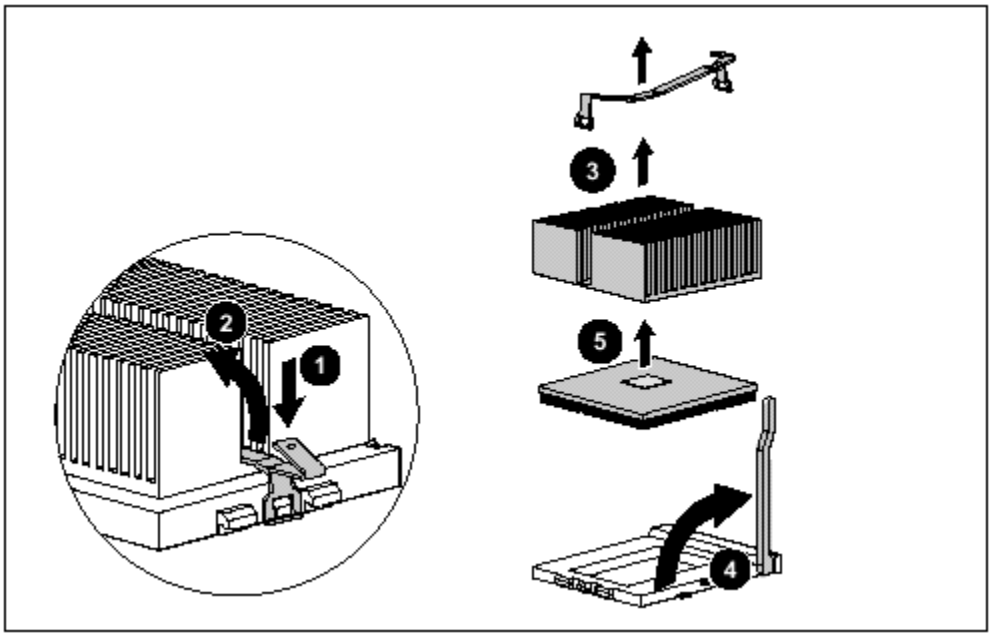
Remove and replace the access panel

Step	Action
1.	Press and hold down the locking latches ❶.
2.	Slide the ac e unit and lift the
	Reverse step s snap into place, th



Remove and replace the processor

CAUTION: Always use a new thermal pad and a new heatsink when replacing processors. Failure to use new components can cause damage to the processor.

Step	Action
1.	Locate the processor on the system board.
2.	**WARNING:** To reduce the risk of personal injury from hot surfaces, allow the internal system components to cool before touching them. **CAUTION:** The processor socket must be populated at all times. Failure to replace the processor results in the system failing to boot and halting during the POST. This error prevents the system from functioning properly. Disengage the heatsink retaining clip ❶, ❷.
3.	Remove the heatsink from the top of the processor ❸. **CAUTION:** Always use a new thermal pad and a new heatsink when replacing processors. Failure to use new components may result in damage to the processor.
4.	Lift the ejecting lever ❹ to disengage the processor from the system board ❺. 

Step	Action
5.	**CAUTION:** Scrape thermal interface material off of the processor carefully to avoid damaging the processor. Store the processor in a static-free environment after removing it from the server. **CAUTION:** Remove the plastic cover to expose the adhesive side of the thermal pad on the new heatsink before placing the heatsink on the processor. The system will not continue to operate if the plastic cover is left in place. **If you intend to reuse the processor, carefully scrape the thermal pad from the processor surface and apply a new thermal pad and heatsink before reseating the processor.**
	Reverse steps 1 through 6 to reinstall the processor and heatsink.

DVD-ROM/Diskette Combination Drive

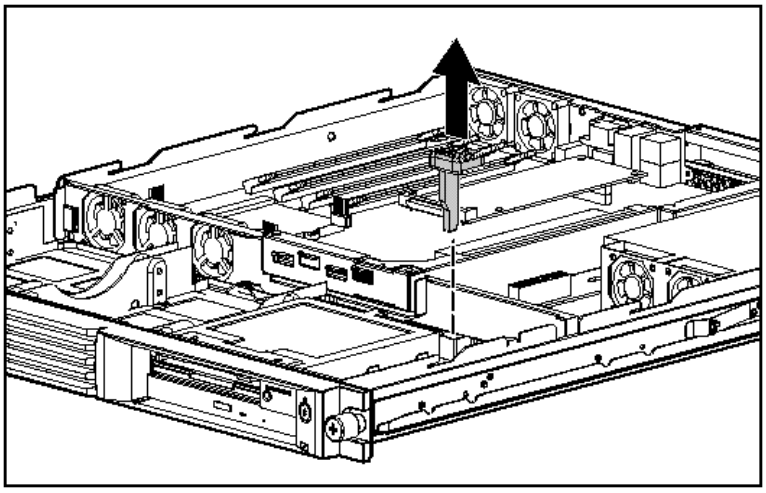
Power down the server

Step	Action
1.	Press the server Power On/Off switch to power down the server. When the server is off, the power LED deactivates.
2.	Verify that the fan is off by listening for the fan noise to stop.
3.	Disconnect the power cord first from the AC outlet and then from the server.
4.	Disconnect all remaining cables on the server rear panel, including cables extending from external connectors on expansion boards.
5.	For stability and safety, position the server securely on a workbench or other solid surface.

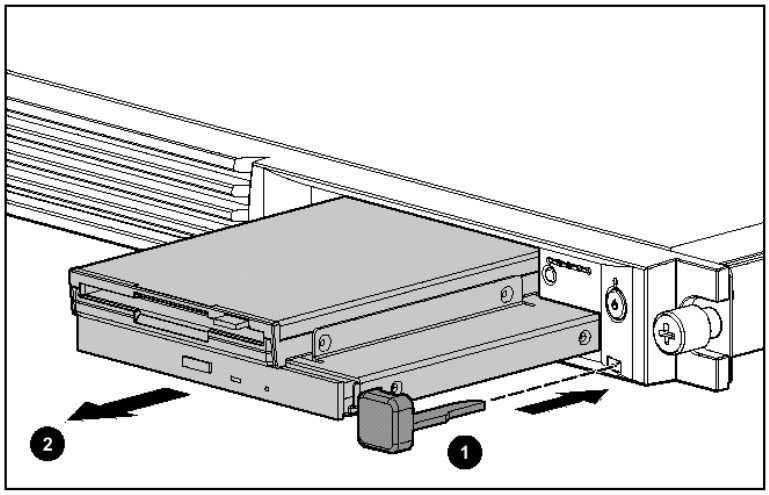
Shipping/ejector key

Compaq ProLiant DL320 servers include a shipping/ejector key that secures the DVD-ROM/diskette drive assembly or the bezel blank during shipping. This key should be removed before server deployment. The key is also used to eject an assembly or the blank.

CAUTION: Always install the shipping/ejector key in its storage location inside the chassis before shipping the server. Failure to do so can result in damage to the CD-ROM/diskette drive assembly.

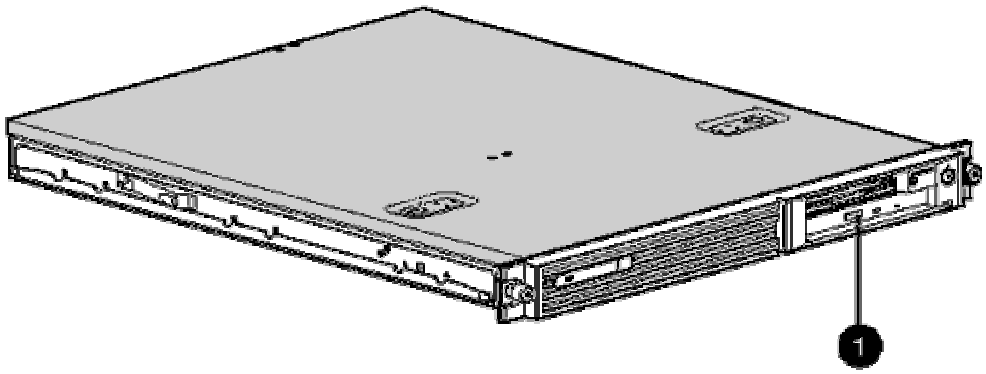
Step	Action
1.	Identify and lift the shipping/ejector key from its storage location. 
2.	If you intend to use the DVD-ROM/diskette drive assembly ejection feature frequently, leave the key in the ejector port for easy access, as shown in the following illustration. Otherwise, store the shipping/ejector key for future use.

Remove and replace the DVD-ROM/combination drive

Step	Action
1.	Remove the shipping/ejector key from the chassis if you have not already done so.
2.	Insert the shipping/ejector key approximately 1.25 cm (0.5 inch) into the DVD-ROM/diskette drive assembly ejector port on the lower right corner of the server front panel ❶ to eject the DVD-ROM/diskette drive assembly ❷.  **CAUTION**: To reduce the risk of thermal damage, do not operate the server without either the DVD-ROM/diskette drive assembly or the bezel blank installed.
	To replace the assembly, slide the assembly into the bay until it is fully seated.

Service Considerations

As with the CD-ROM/diskette combination assembly, the DVD-ROM/diskette combination assembly is a one-piece unit.



Item	Description
Bay 1	DVD-ROM and Diskette drive assembly
Note: Expansion Bays are not available in this server. The DVD-ROM and Diskette drive are a single assembly	

References

For information on servicing and troubleshooting the Compaq ProLiant DL320 Server refer to the:

Install Guide

Compaq ProLiant DL320 Setup and Installation Guide
This guide is designed to be used as step-by-step instructions for installation and as a reference for operation, troubleshooting, and future upgrades.

203836-001 (PDF,BM) 7210 KB *ARCHIVE* Internal Link
http://www3.compaq.com/support/reference_library/selectproduct.asp External Link

Service Guide

Compaq ProLiant DL320 Maintenance and Service Guide
This Maintenance and Service Guide is a troubleshooting guide that can be used for reference when servicing Compaq ProLiant DL320 servers.

203834-001 (PDF,BM) 3165 KB *ARCHIVE* Internal Link
http://www3.compaq.com/support/reference_library/selectproduct.asp External Link

QuickSpec

Compaq ProLiant DL320 QuickSpec
http://www.compaq.com/products/quickspecs/10692_na/10692_na.html

Training (Internal Links)

Compaq ProLiant Server Family WEB Based Training
Link to Web Based Course
http://enterprisetraining.qweb.cpqcorp.net/training/proliantfulllinewbt/welcome.htm

Compaq ProLiant DL320 WEB Service Overview
Link to Web Based Course
/wbt/CSZZ78-EWB/DL320_Service_Overview_IG_Web.htm

Compaq ProLiant DL320 WEB Service Overview
Link to Web Based Training Course
http://learning1.americas.cpqcorp.net/mcsl_abs/cszz78-ewb.asp