

HP ProLiant DL180 Generation 5 Server Installation Sheet



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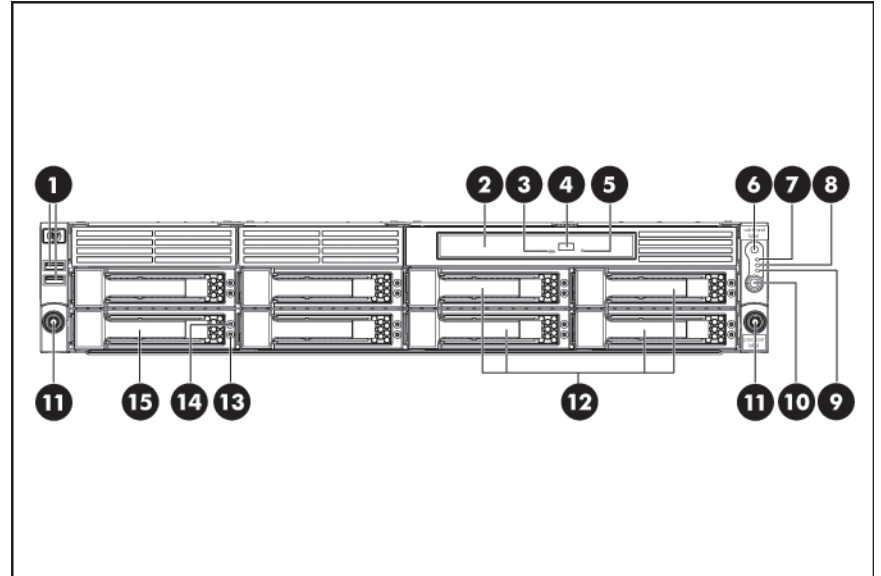
⚠ Important Safety Information

Before installation, read *Important Safety Information* on the Documentation CD.
 قبل التثبيت، اقرأ معلومات هامة حول السلامة على القرص المضغوط .Documentation CD
 Před instalací si přečtěte příručku *Důležité bezpečnostní informace* na disku CD.
 安装之前，请阅读文档 CD 上的 **重要安全信息**。
 安裝前，請閱讀說明文件光碟上的「**重要的安全性資訊**」。
 Læs dokumentet *Vigtige sikkerhedsoplysninger* på dokumentations-cd'en, før produktet installeres.
 Lesen Sie vor der Installation die *Sicherheitshinweise* auf der Documentation CD.
 Enne installimist vt dokumentatsiooni CD-lt peatükki „*Tähtis ohutusteave*“.
 Antes de la instalación, lea la sección *Información de seguridad importante* del CD Documentación.
 Avant l'installation, lisez les *informations importantes relatives à la sécurité* CD Documentation.
 Πριν την εγκατάσταση, διαβάστε *Σημαντικές πληροφορίες ασφαλείας* στο CD Documentation.
 לפני ההתקנה, קרא את המידע הבטיחותי החשוב שב-Documentation CD (תקליטור התיעוד).
 Prije ugradnje, pročitajte *Važne sigurnosne informacije* na dokumentacijskom CD-u.
 Prima dell'installazione, leggere sul CD le *informazioni importanti sulla sicurezza*.
 インストール前に、Documentation CDの『安全に使用していただくために』をお読みください。
 설치하기 전에 Documentation CD의 **주요 안전 수칙**을 읽으십시오.
 Pirms instalācijas, izlasiet drošības informāciju dokumentācijas CD.
 Prieš diegdami perskaitykite *Svarbią saugos informaciją* dokumentacijos CD.
 Telepítés előtt olvassa el a dokumentációs CD *Fontos biztonsági tudnivalók* dokumentumát.
 Lees de *Belangrijke veiligheidsinformatie* op de documentatie-cd voordat u de installatie uitvoert.
 Les "Viktig sikkerhetsinformasjon" på dokumentasjons-CDen før du installerer dette produktet.
 Przed instalacją przeczytaj *Ważne informacje dotyczące bezpieczeństwa* na dysku CD Documentation.
 Antes da instalação, leia as *Informações Importantes sobre Segurança* no CD da Documentação.
 Перед установкой ознакомьтесь с разделом *Указания по технике безопасности* на компакт-диске «Документация».
 Pred inštaláciou si prečítajte časť *Dôležité bezpečnostné informácie* na disku Documentation CD.
 Pred namestitvijo preberite *Pomembne varnostne informacije* na CD-ju Documentation.
 Tärkeisiin turvatietoihin" Documentation CD -levyllä ennen tuotteen asentamista.
 Läs dokumentet *Viktig säkerhetsinformation* på dokumentations-cd:n innan du installerar denna produkt.
 Yüklemeden önce, Documentation CD'sindeki *Önemli Güvenlik Bilgileri*'ni okuyun.
 Перед установкою прочитайте *Важливі відомості з безпеки* на CD документації.

Identifying Server Components

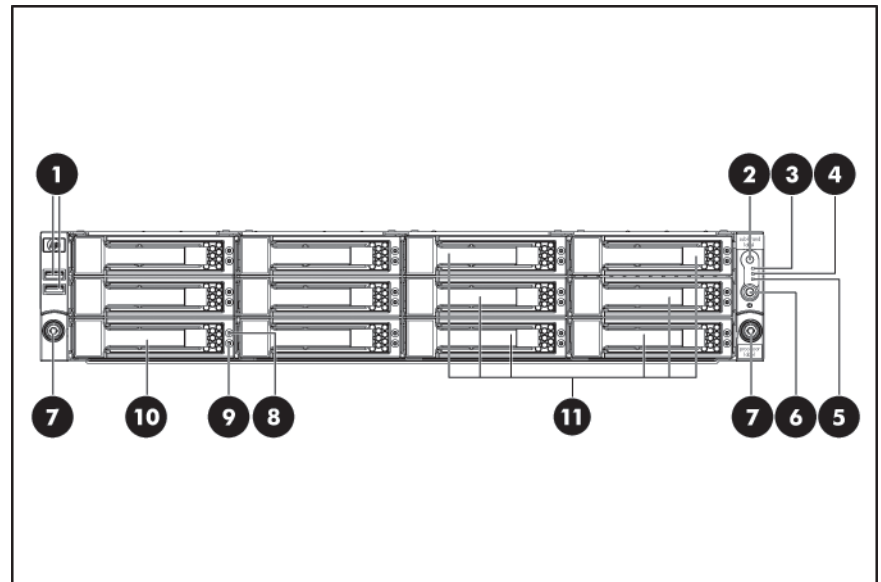
Front Panel Components

Figure 1 Front panel components of servers with 8 HDDs



Item	Description
1	Two front USB 2.0 ports
2	Optical drive
3	Optical drive activity indicator
4	Optical drive eject button
5	Optical drive manual eject hole
6	UID LED Button
7	System Health LED
8	NIC 1 LED
9	NIC 2 LED
10	Power button
11	Thumbscrews for the front bezel
12	Optional HDD
13	Online LED
14	Fault/UID LED
15	Hard disk drive (HDD) bay

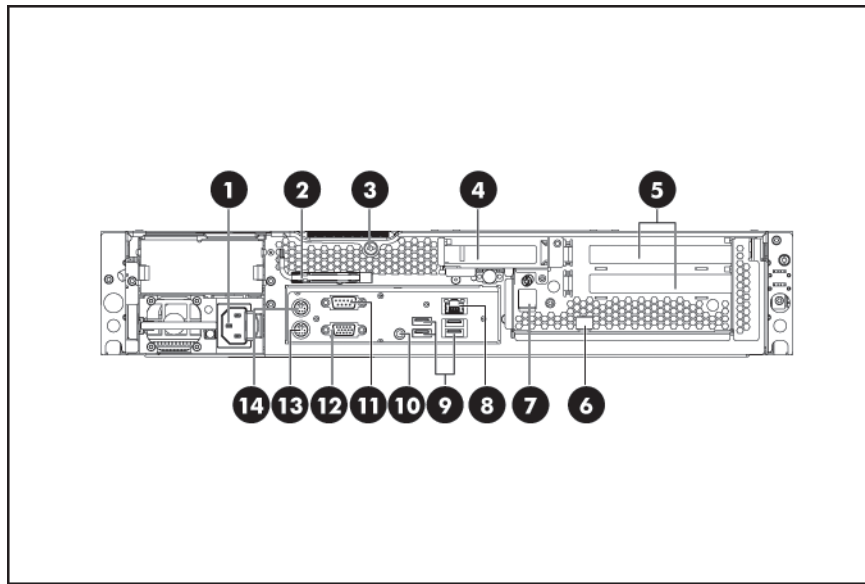
Figure 2 Front panel components of servers with 12 HDDs



Item	Description
1	Two front USB 2.0 ports
2	UID LED button
3	System Health LED
4	NIC 1 LED
5	NIC 2 LED
6	Power button
7	Thumbscrews for the front bezel
8	Online LED
9	Fault/UID LED
10	Hard disk drive (HDD) bay
11	Optional HDD

Rear Panel Components

Figure 3 Rear panel components



Item	Description
1	Power supply cable socket
2	T-15/T-10 screwdriver
3	Thumbscrew for top cover
4	Low profile card slot cover
5	PCI expansion card slot
6	Thumbscrew for PCI cage
7	HP LO100c management card port (Optional)
8	LAN port
9	4 USB 2.0 ports
10	UID LED button
11	Serial port
12	VGA port
13	PS/2 mouse port (green)
14	PS/2 keyboard port (purple)

Server configuration resources

In addition to this Installation Sheet, other resources are available for more information regarding the configuration and maintenance of your server:

- For safety information and detailed procedures relating to installation of options, refer to any installation instructions that came with the option, as well as the *HP ProLiant DL180 Generation 5 Server Maintenance and Service Guide*.
- For safety information and detailed procedures related to the rest of the steps listed in the "Server Configuration Overview" section, refer to relevant chapter of the *HP ProLiant DL100 Series Server User Guide*.
- For information relating to system BIOS configuration and operating system installation, refer to relevant section of the *HP ProLiant DL180 Generation 5 Server Software Configuration Guide*.
- Refer to the *HP ProLiant DL180 Generation 5 Server Support and Documentation CD* for additional information and updates not provided in this installation sheet. You can also access additional information and documentation from the HP website at <http://www.hp.com/>, either by connecting directly or through the Support CD.

Server Configuration Overview

The steps listed below give an overview of the necessary setup procedures for preparing the HP ProLiant DL180 G5 Server for operation:

1. Unpack the server and rack mounting hardware.
2. Install other options, such as additional memory, hard drives, or expansion boards.
3. Install the rack rails.
4. Mount the server in the rack.
5. Connect the AC power cord and peripheral devices.
6. Power up the server.
7. Press the Esc key at the HP logo screen, and then press the Pause key to halt screen movement.

8. Note the server BIOS version.
9. Verify the server BIOS version against the latest BIOS version listed for this server on the HP website: <http://www.hp.com>.
10. If you do not have the latest BIOS, update the BIOS now. Refer to the HP ProLiant DL180 Generation 5 Server Maintenance and Service Guide available on the HP website: <http://www.hp.com>.
11. Install a supported operating system of your choice. For detailed procedures, refer to the documentation provided by the operating system vendor. For a list of operating systems supported by your ProLiant server, go to <http://www.hp.com/go/supportos>.

Pre- and post-installation procedures

When installing additional options in your HP ProLiant DL180 G5 Server, observe the following procedures:

Pre-installation procedures

1. Turn off the server and all the peripherals connected to it.
2. Disconnect the AC power cord from the power supply connector located on the server rear panel to reduce the risk of electrical shock.
3. If server is installed in a rack, remove server and place it on a flat surface.
4. Remove the top cover by following the procedure described later in the "Opening the server" section.

Post-installation procedures

1. Be sure all components are installed according to the described step-by-step instructions.
2. Check to make sure you have not left loose tools or parts inside the server.
3. Reinstall the rear cage, air baffle, peripherals, and system cables that you have removed.
4. Reinstall the top cover.
5. Reinstall server into rack.
6. Connect all external cables and the AC power cord to the system.
7. Press the power button on the front panel to turn on the server.

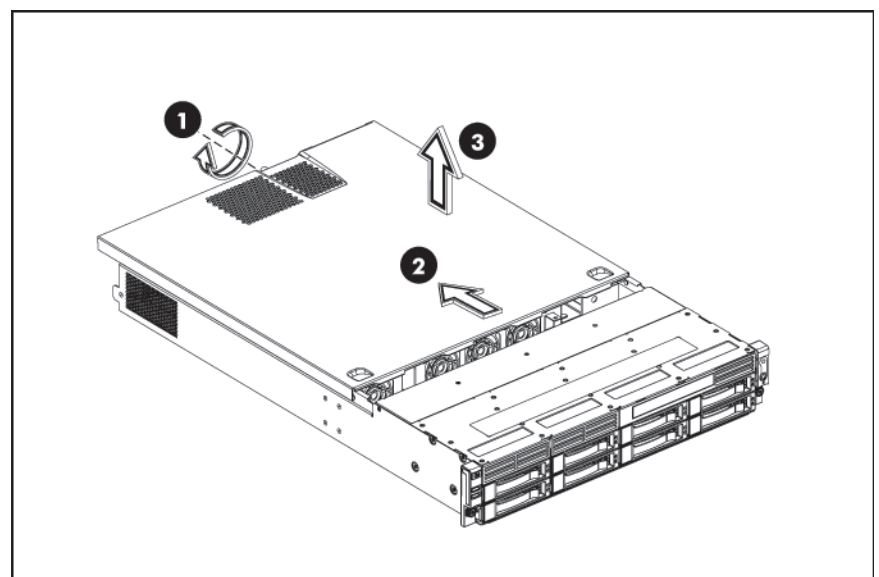
Opening the Server

The top cover and the top middle cover are detachable. You need to remove the top cover before you can remove or replace a server component. The top middle cover is removed to service the HDD backplane board.

To remove the top cover:

1. Loosen the captive screw on the rear panel with a T-15 screwdriver.
2. Slide the cover approximately 1.25 cm (0.5 in) toward the rear of the unit and then lift the cover to detach it from the chassis.
3. Lift the top cover away from the chassis.

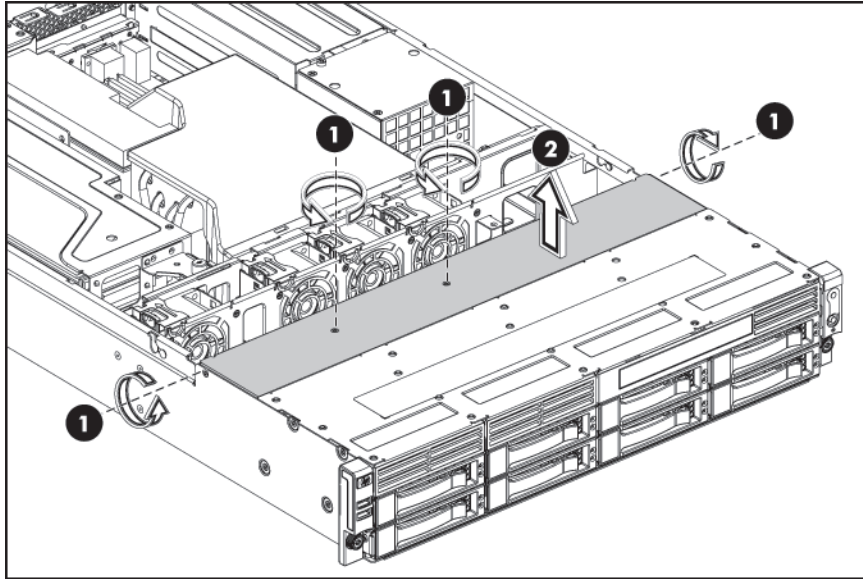
Figure 4 Removing the top cover



To remove the top middle cover:

1. Remove the four screws (one on each side of the chassis and two on the top middle cover) that secure the top middle cover to the chassis.
2. Lift the top middle cover away from the chassis.

Figure 5 Removing the top middle cover



Installing a Hard Drive

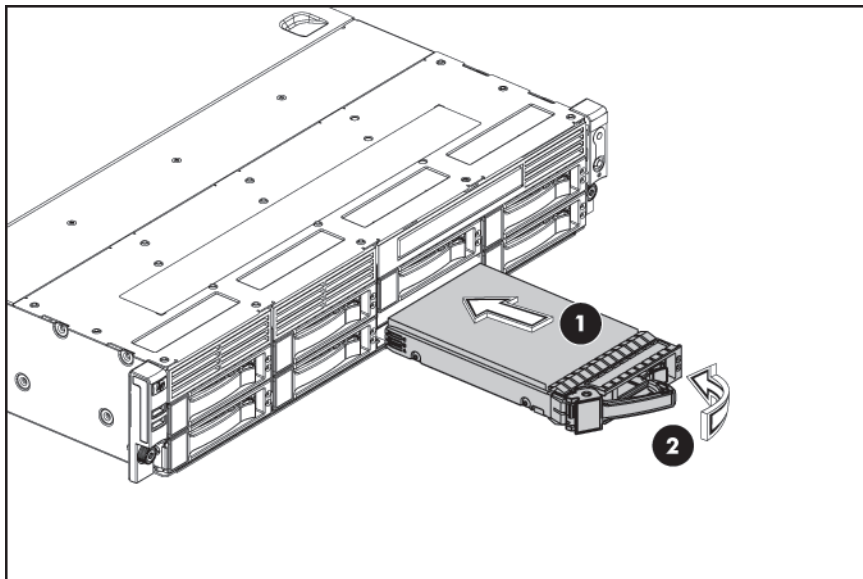
The drive bays on the front panel can accommodate up to 12 hard drives, depending on selected options. The server supports both SAS and SATA hard drives.

CAUTION: Drives can be damaged by static electricity. Before handling drives, touch an unpainted metal surface to discharge static electricity.

To install a hard drive in the server:

1. Push the hard drive assembly into the drive bay until it stops.
2. Press the HDD carrier latch inward until it clicks.

Figure 6 Installing the hard drive assembly



Installing a Memory Module

The following guidelines must be followed when memory modules are being added or replaced:

- For 2P system, both physical processors must be of the same type and speed.
- 533/667 MHz Registered ECC DDR2 memory.
- 256MB, 512MB, 1GB, 2GB, or 4GB DDR2 SDRAM memory technologies for x 4 and x 8 devices
- Memory configuration guidelines:
 - o DIMMs are populated in identical pairs, starting with the pair of slots 1 and 2, then slots 3 and 4, and finally slots 5 and 6.
 - o Dual-rank DIMMs are only supported in slots 1 and 2.



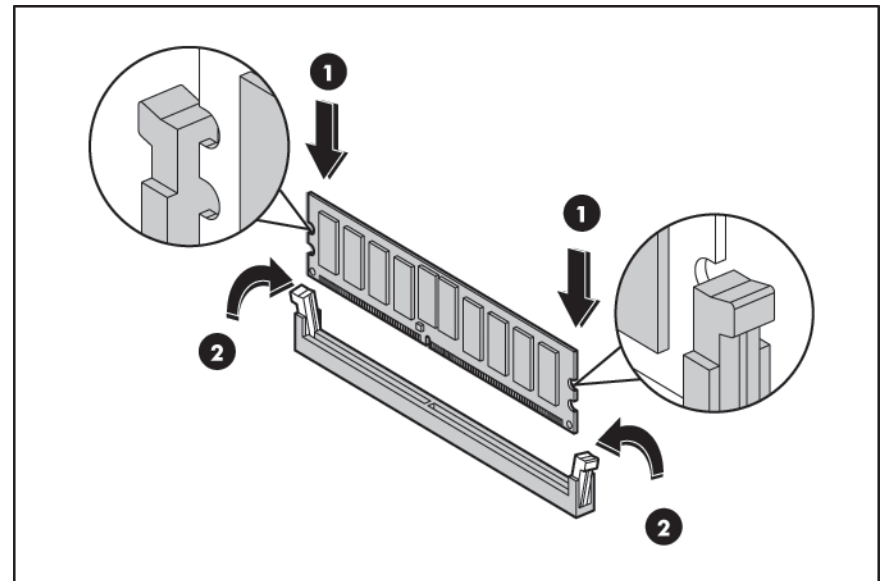
CAUTION: DIMMs can be damaged by improper handling. Always use an anti-static wrist strap and grounding mat, and discharge static electricity before touching DIMMs.

NOTE: Refer to the hood label for DIMM locations.

To install a memory module:

1. Align the notch on the bottom edge of the module with the keyed surface of the DIMM slot and then press the module fully into the slot.
2. Firmly press the holding clips inward to secure the memory module in place.

Figure 7 Installing a memory module



DIMM slots are structured to ensure proper installation. If you insert a DIMM but it does not fit easily into the slot, you may have inserted it incorrectly. Reverse the orientation of the DIMM and insert it again.

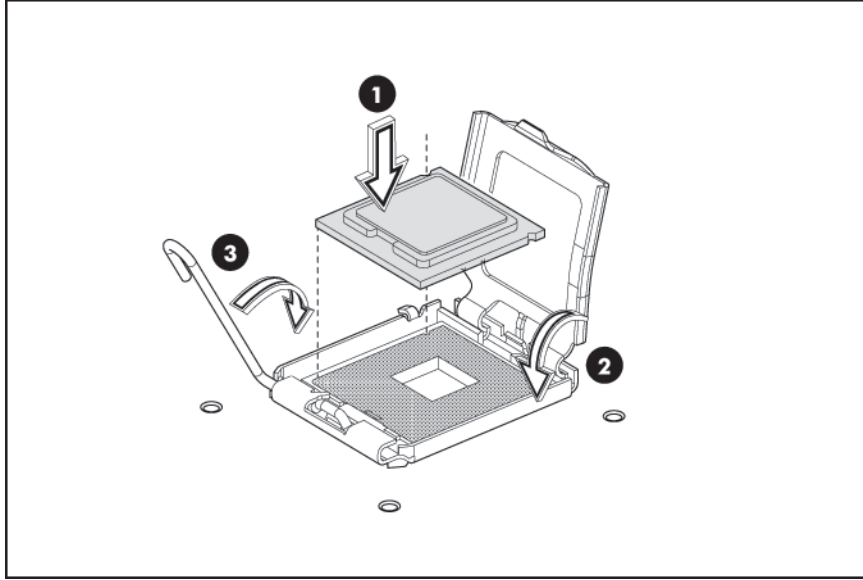
Installing a Processor

The HP ProLiant DL180 G5 server supports Dual-Core Intel® Xeon® 5100 Series processors and Quad-Core Intel® Xeon® 5300 Series processors.

To install the processor:

1. Insert the processor into the socket, using the key on the processor.
2. Engage the retention plate and the load lever.

Figure 8 Installing a processor

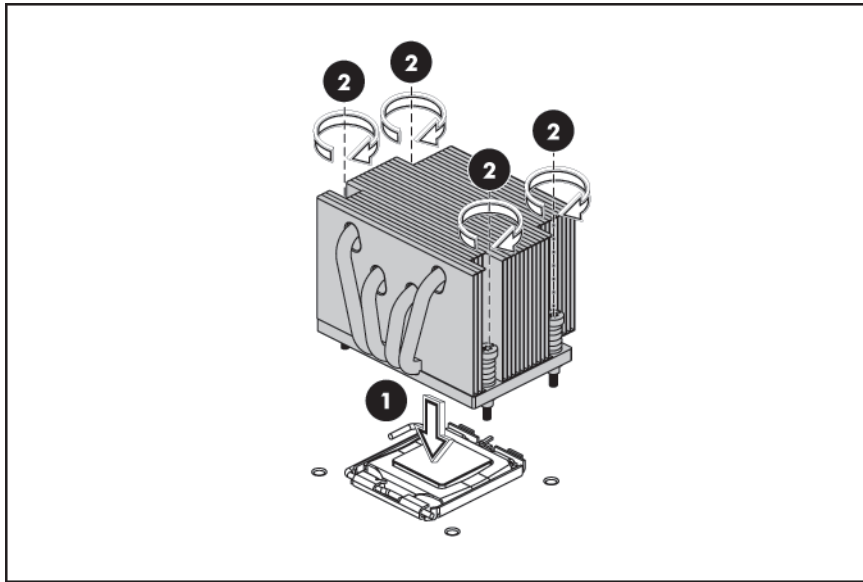


For processor removal, reverse the above installation procedures.



CAUTION: Align pin 1 on the processor with pin 1 on the processor socket, or pin damage will occur.

Figure 9 Installing the heat sink assembly



CAUTION: Be sure that the heat sink sits squarely on the processor, or overheating and damage to the processor may occur.



IMPORTANT: If the heat sink has been removed for any reason, it is critical that you apply more thermal interface material to the integrated heat spreader on the processor to ensure proper thermal bonding between the processor and the heat sink. Clean the contact surface of both the processor and heat sink with an alcohol pad, then re-apply an HP-approved thermal interface material before reinstalling the processor. Use a pattern of five dots when applying the thermal interface material—one dot in the center, and one dot at each corner.

NOTE: To prevent the heat sink from tilting to one side during installation removal procedures, use a diagonally opposite pattern (an "X" pattern) when tightening the four spring-loaded screws. Do not over tighten the heat sink's spring-loaded screws to prevent them from breaking off.

Additional Documentation

For additional documentation, refer to the *HP ProLiant DL180 Generation 5 Server Support and Documentation CD*. You can also access additional information and documentation from the HP external website, either by connecting directly or through the Support CD.

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