

HP ProLiant ML150 Generation 5 Server Installation Sheet



⚠ Important Safety Information

Before installation, read *Important Safety Information* on the Documentation CD.

.Documentation CD قبل التثبيت، اقرأ معلومات هامة حول السلامة على القرص المضغوط

Před instalací si přečtěte příručku *Důležité bezpečnostní informace* na disku CD.

安裝之前，請閱讀文檔 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.

Prije ugradnje, pročitaite *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 수칙을 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».

Před instaláciou si prečítajte časť *Dôležité bezpečnostné informácie* na disku Documentation CD.

Pred nameštítvijo 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.

Part number: 457547-002

May 2008 Second edition

Configuring the server

Refer to the HP ProLiant ML150 Generation 5 Server Support CD contents for additional information and updates not provided in this installation sheet.

1. Connect the keyboard, mouse, and monitor
2. To determine the BIOS version:
 - a. Power up the server.
 - b. Press the **Esc** key at the HP logo screen, and then press the **Pause** key to halt screen movement.
 - c. Note the server BIOS version. Verify the server BIOS version against the latest BIOS version listed for this server on the HP website: <http://www.hp.com>
 - d. If necessary, update the BIOS (refer to the HP ProLiant ML150 Generation 5 Server Maintenance and Service Guide available on the HP website: <http://www.hp.com>)

Identifying server components

Figure 1 Front and rear panel components

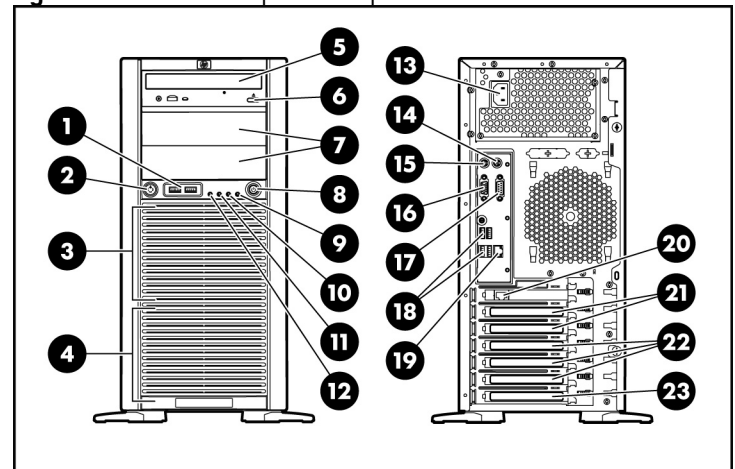


Table 1 Front and rear panel components

Item	Description	Item	Description
1	USB 2.0 ports (2)	13	AC input connector
2	Front key lock	14	Mouse connector
3	HDD bays 1-4	15	Keyboard connector
4	HDD bays 5-8	16	VGA monitor connector
5	Optical drive bay	17	Serial port connector
6	Media eject button	18	USB 2.0 ports (4)
7	Half-height drive bays	19	NIC connector
8	System power button	20	IPMI connector (slot7)
9	System power LED	21	PCIe x8 slots (2)
10	HD activity LED	22	PCIe x4 slots (3)
11	NIC LED	23	PCI 2.3-compliant slot
12	System health LED	--	--

Figure 2 System board components

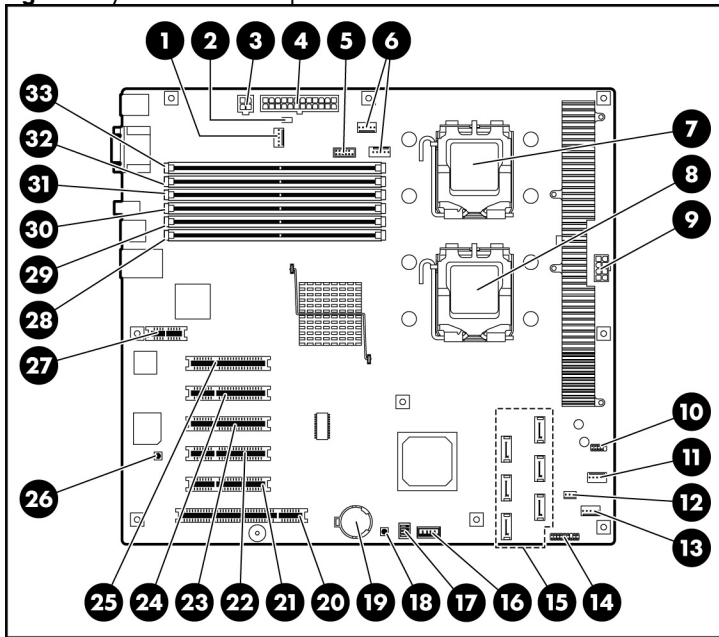


Table 2 System board components

Item	Description
1	Rear system fan connector
2	Auxiliary power LED
3	Power supply connector (4-pin)
4	Power supply connector (24-pin)
5	Redundant power supply connector (12-pin)
6	Processor fan connectors (2)
7	Processor 0 socket
8	Processor 1 socket
9	Power supply connector (8-pin)
10	Front panel USB 2.0 port connector
11	Internal USB 2.0 port connector
12	Thermal sensor connector
13	Front system fan connector
14	Front panel I/O connector
15	SATA connectors (6)
16	Chassis/board ID DIP switches
17	Internal USB 2.0 port connector
18	CMOS clear button
19	Battery
20	PCI 2.3-compliant slot 1 connector
21	PCIe x4 slot 2 connector
22	PCIe x4 slot 3 connector
23	PCIe x4 slot 4 connector
24	PCIe x8 slot 5 connector
25	PCIe x8 slot 6 connector
26	NMI reset button
27	IPMI slot 7 connector

Table 2 System board components

Item	Description
28	DIMM slot 6C (channel 0, single rank)
29	DIMM slot 5C (channel 1, single rank)
30	DIMM slot 4B (channel 0, single/dual rank)
31	DIMM slot 3B (channel 1, single/dual rank)
32	DIMM slot 2A (channel 0, single/dual rank)
33	DIMM slot 1A (channel 1, single/dual rank)

Opening the server

CAUTION: Power down the server and remove the power cord(s) before removing or replacing non-hot-pluggable hard disk drives, DIMMs, or processors.

If necessary, unlock the server with the supplied key.

Figure 3 Removing the access panel

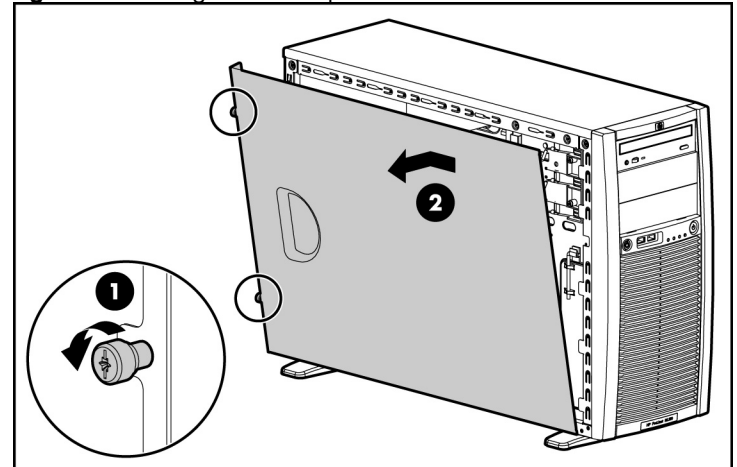


Figure 4 Removing the front bezel

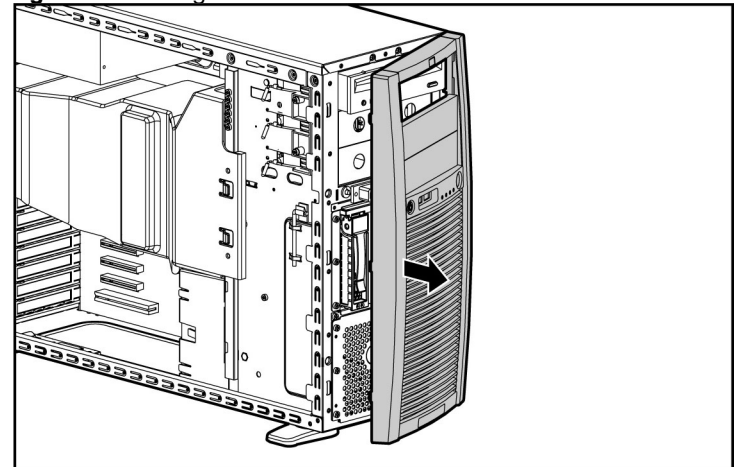
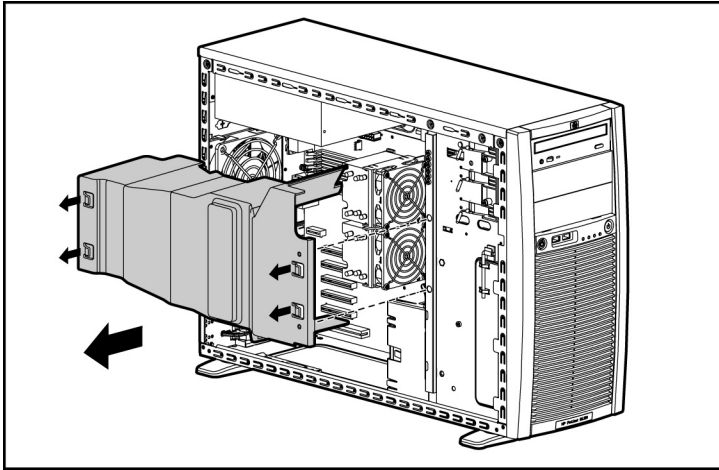
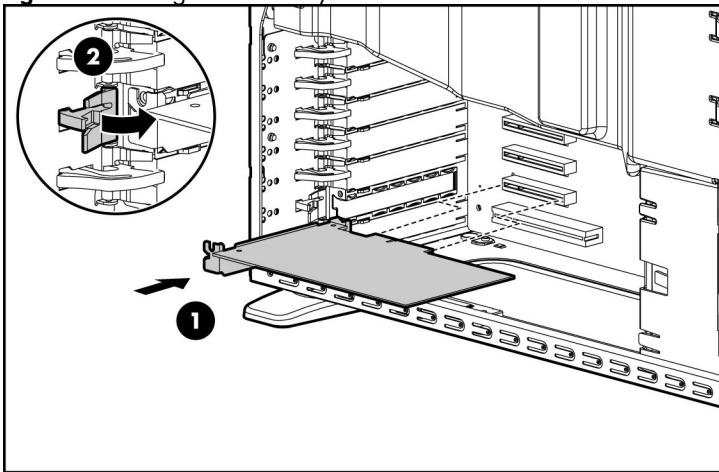


Figure 5 Removing the air baffle



Installing an accessory card

Figure 6 Installing an accessory card



Installing hard drives

This system can support SATA drives and SAS drives in non-hot-plug and hot-pluggable hard disk drive cages.

Non-hot-plug drive installation

Figure 7 Removing a non-hot plug HDD cage

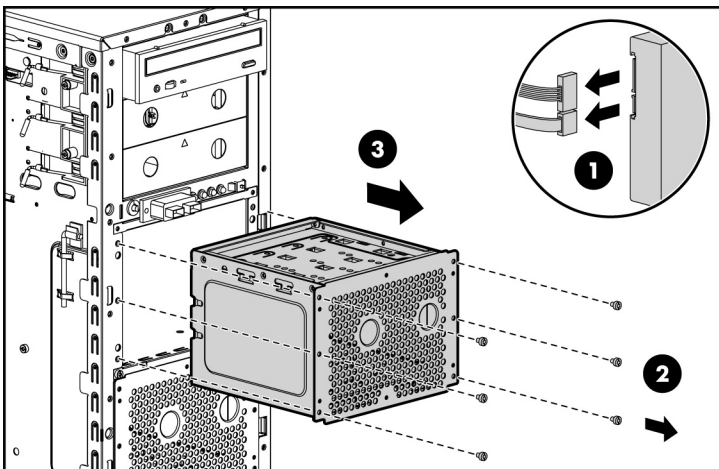
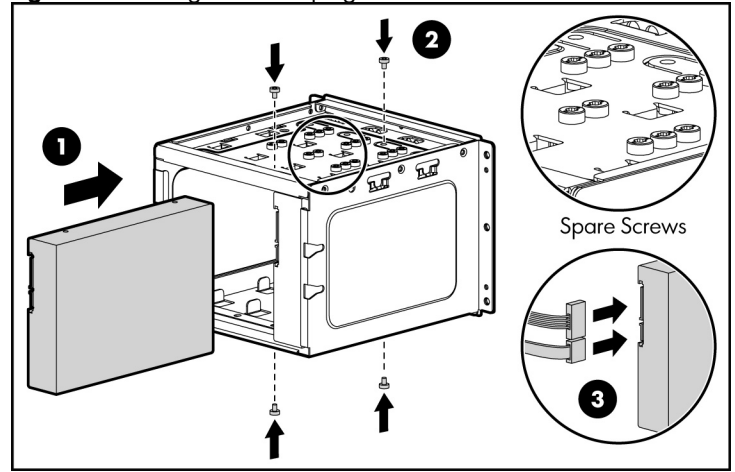
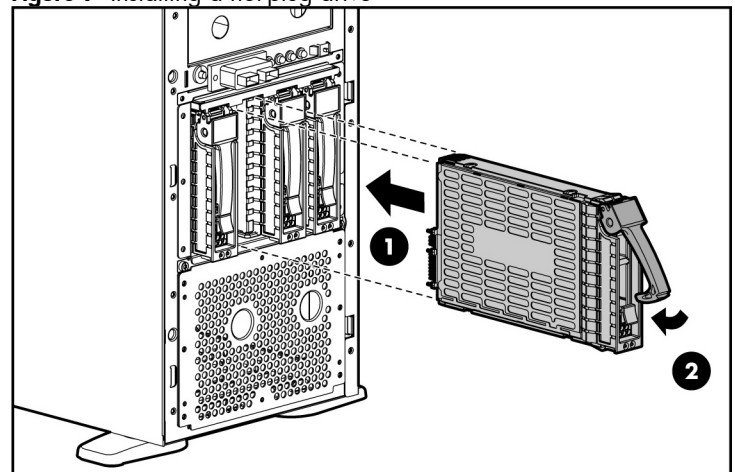


Figure 8 Installing a non-hot-plug drive



Hot-plug drive installation

Figure 9 Installing a hot-plug drive



Installing optical drives

The lower two half-height drive bays are shipped with drive bay shields. Remove a shield by pulling it away from the front of the chassis (Figure 10).

Figure 10 Removing an optical drive bay shield

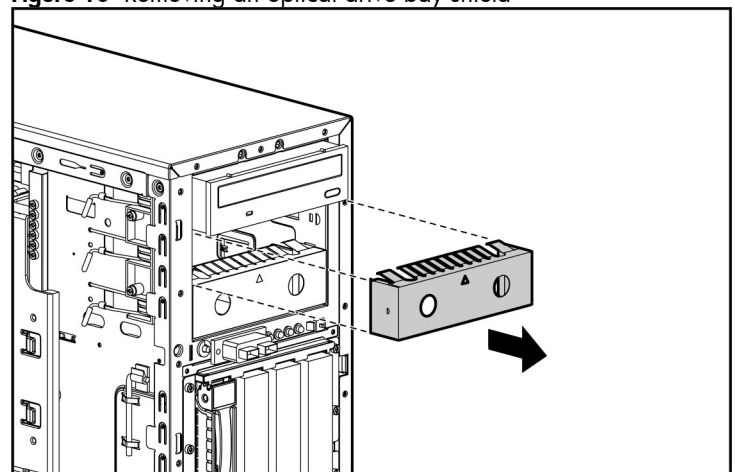
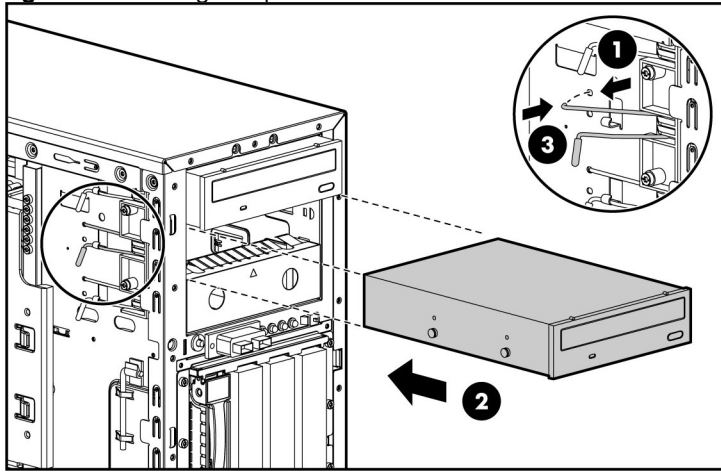


Figure 11 Installing an optical drive



Installing memory

Memory installation guidelines are as follows:

- Use only registered ECC DDR2 533-/667-MHz DIMMs
- Install DIMMs in identical pairs for best performance
- A single DIMM can be installed in DIMM slot 1A or 2A.
- Slot 5C and 6C can not be populated with a configuration using four dual-rank DIMMs.

Table 3 Dual-Rank DIMM Configurations

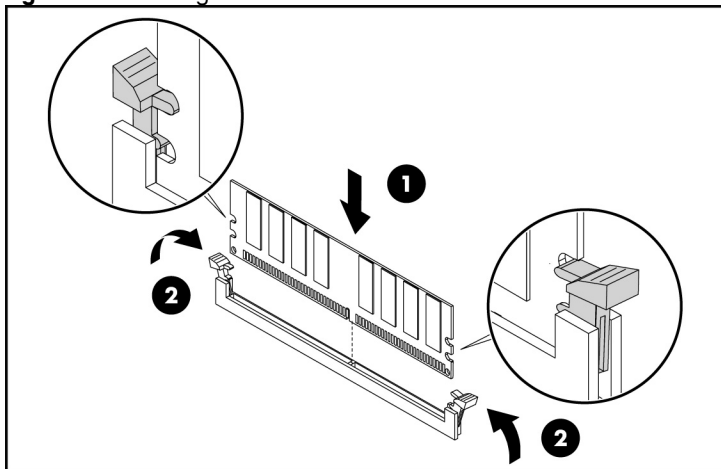
1A & 2A	3B & 4B	5C & 6C
Dual Rank	-	-
Dual Rank	Single Rank	-
Dual Rank	Single Rank	Single Rank
Dual Rank	Dual Rank	-

To access DIMM slots, remove the air baffle as shown previously.

CAUTION: To prevent damage to DIMMs, always use an anti-static wrist strap and grounding mat, and discharge static electricity before touching DIMMs.

If a DIMM does not fit completely or easily into the socket, remove the DIMM, reverse the orientation, and reinsert.

Figure 12 Installing a DIMM



Installing a processor

This system supports Intel Xeon Dual Core 5200 series processors and Intel Xeon Quad Core 5400 series processors. For a 2P system, both processors must be of the same type. To access the processor sockets, remove the air baffle as shown previously.

NOTE: When installing the processor, ensure that pin 1 of the processor is aligned with pin 1 of the socket.

Figure 13 Installing the processor

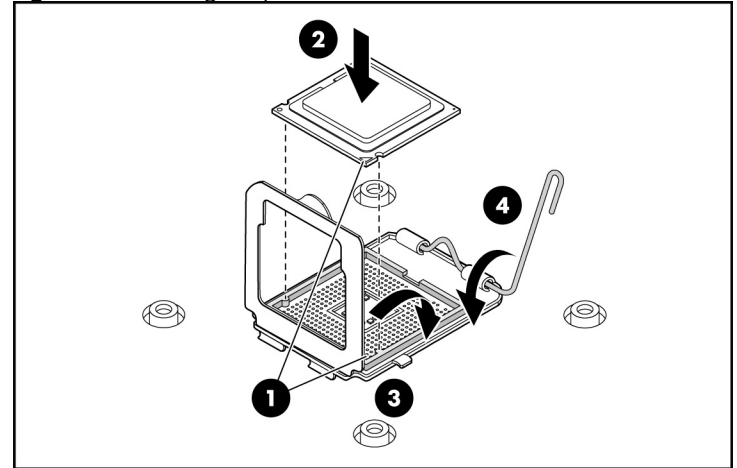
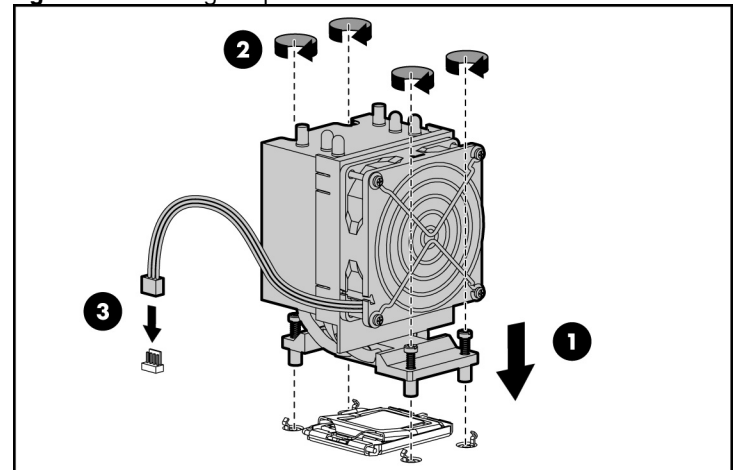


Figure 14 Installing the processor heatsink



NOTE: Ensure that the air flow arrow on top to the heatsink is pointing toward the rear of the chassis.

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