

# HP ProLiant ML110 Generation 4 Server Installation Sheet



Read instructions completely before beginning installation procedure.

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

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

Před zahájením instalace si přečtěte *Důležité bezpečnostní informace* uvedené na disku CD-ROM s dokumentací.

安裝之前，請閱讀文檔 CD 上的 *重要的安全信息*。

安裝前，請閱讀說明文件光碟上的「*重要的安全性資訊*」。

För produktet installeras, skal du læse dokumentet med *Vigtige sikkerhedsoplysninger* på dokumentations-cd'en.

Lesen Sie vor der Installation die *Sicherheitshinweise* auf der Documentation CD.

Enne installimist vt dokumentatsiooni CD-lt peatükki „*Tähtis ohutusteave*“.

Antes de proceder con la instalación, lea la sección *Información de seguridad importante* del CD Documentación.

Avant l'installation, lisez les *informations importantes relatives à la sécurité* figurant sur le CD Documentation.

Πριν την εγκατάσταση, διαβάστε *Σημαντικές πληροφορίες ασφαλείας* στο CD Documentation.

לפני ההתקנה, קרא את *המידע הבטיחותי החשוב* שב-Documentation CD.

Prije ugradnje, pročitajte *Važne sigurnosne informacije* na dokumentacijskom CD-u.

Prima dell'installazione leggere le *Informazioni importanti sulla sicurezza* sul CD della documentazione.

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 veicat uzstādīšanu, izlasiet dokumentācijas kompaktdiskā iekļauto materiālu *Svarīga informācija par drošību*.

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.

For du installerer dette produktet, må du lese dokumentet *Viktig sikkerhetsinformasjon* på dokumentasjons-Cden.

Przed instalacją przeczytaj *Ważne informacje dotyczące bezpieczeństwa* na dysku CD Documentation.

Antes da instalação, leia as *Informações Importantes sobre Segurança* no CD da Documentação.

Antes de instalar, leia as *Informações Importantes de 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.

Tutustu ennen tuotteen asentamista Documentation CD -levyllä olevaan *Tärkeää turvatieloa* -oppaaseen.

Läs igenom dokumentet *Viktig säkerhetsinformation* som finns på cd-skivan Documentation, innan du installerar den här produkten.

Yüklemeden önce, Documentation CD'sindeki *Önemli Güvenlik Bilgileri*'ni okuyun.

Перед установкою прочитайте *Важливі відомості з безпеки* на CD документації.

Part number: 419978-001

First edition: September 2006

## Configuring the server

1. Connect all peripherals:
  - Keyboard
  - Mouse
  - Monitor



**NOTE:** Refer to the HP ProLiant ML110 Generation 4 Server Support CD contents for additional information and updates not provided in this installation sheet.

2. Determine the server 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.
  - d. Verify the server BIOS version against the latest BIOS version listed for this server on the HP website:
 

<http://www.hp.com>
  - e. If you do not have the latest BIOS, update the BIOS now. Refer to the *HP ProLiant ML110 Generation 4 Server Maintenance and Service Guide* available on the HP website: <http://www.hp.com>

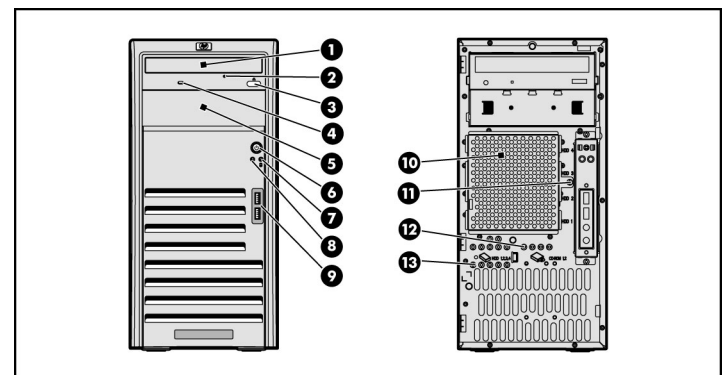
## Default boot priority

By default, the server searches for boot devices in the following order:

1. CD-ROM/DVD-ROM
2. Removable Devices
3. Hard Drive
4. Embedded NIC

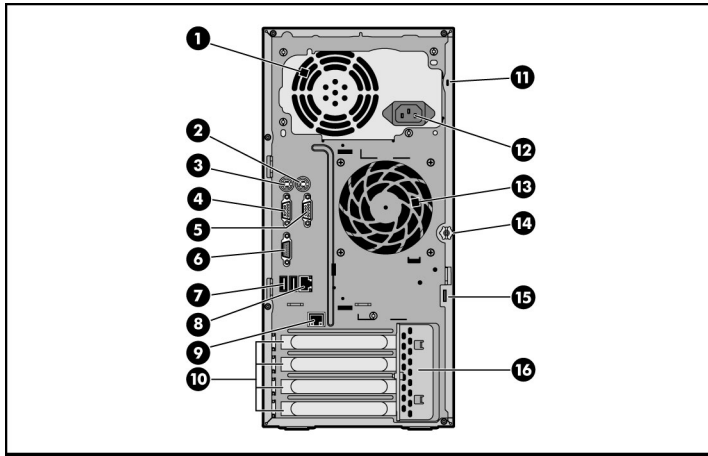
## Identifying server components

### Front panel components



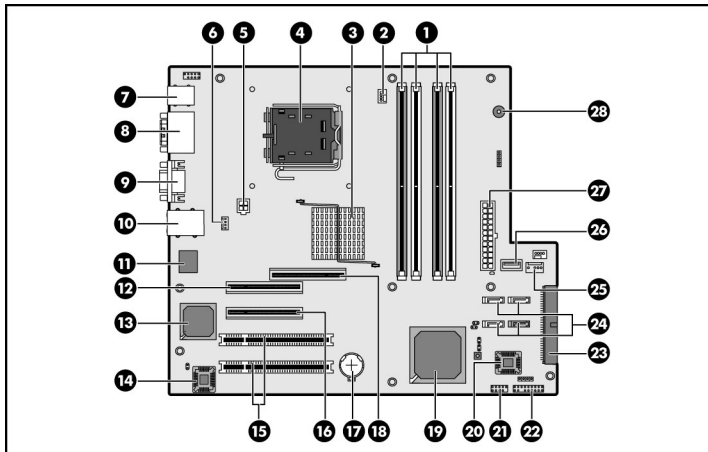
1	Optical drive	8	Drive activity indicator
2	Optical drive manual eject hole	9	Front USB 2.0 ports
3	Optical drive eject button	10	Hard drive EMI shield
4	Optical drive activity indicator	11	Hard drive EMI shield screw
5	Half-height common bay	12	Optical drive spare screws
6	Power button	13	Hard drive spare screws
7	Power LED indicator		

## Rear panel components



1	PSU fan	9	HP LO 100c Remote Management Card port
2	PS/2 mouse port	10	PCI slot covers
3	PS/2 keyboard port	11	Kensington lock notch
4	Serial port B	12	Power supply outlet
5	Serial port A	13	Rear system fan
6	VGA port	14	Thumbscrew for access panel
7	Rear USB 2.0 ports	15	Cable lock provision tab
8	LAN port (RJ-45)	16	PCI slot cover lock

## System board components



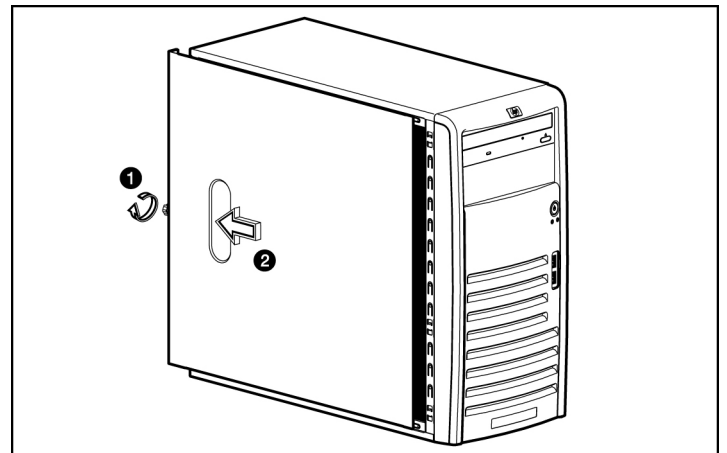
Item	Code	Description
1	DIMM1 - 4	DDRII slots
2	P70	4-pin CPU fan connector
3	U3	Intel Mukilteo 2 (MCH)
4	XU1	Intel LGA775 CPU socket
5	P3	4-pin ATX CPU power connector
6	P8	4-pin system fan connector (rear)
7	J68	Top: PS/2 mouse port Bottom: PS/2 keyboard port

Item	Code	Description
8	P53	Serial port A Serial port B
9	J69	VGA port
10	J9	Top: LAN port Bottom: USB 2.0 ports
11	U1033	Broadcom 5721 GbE chip
12	J32	PCI-Express x 8 line with x 8 slot
13	U11	ServerEngines Chip
14	J5	SMC FW
15	J20, J21	32-bit/33-MHz 3.3V PCI bus slot
16	J33	PCI-Express x 4 line with x 8 slot
17	XBT2	Battery
18	J10	HP LO 100c Remote Management Card slot
19	U38	Intel ICH7R
20	J2	System BIOS
21	P24	Front USB connector
22	P5	Front panel connector
23	P23	IDE channel UDMA-100
24	P60, P61, P62, P64	SATA 1-4 connector
25	J4	Internal USB connector for Tape
26	J3	Internal USB connector
27	P2	24-pin ATX system board power connector

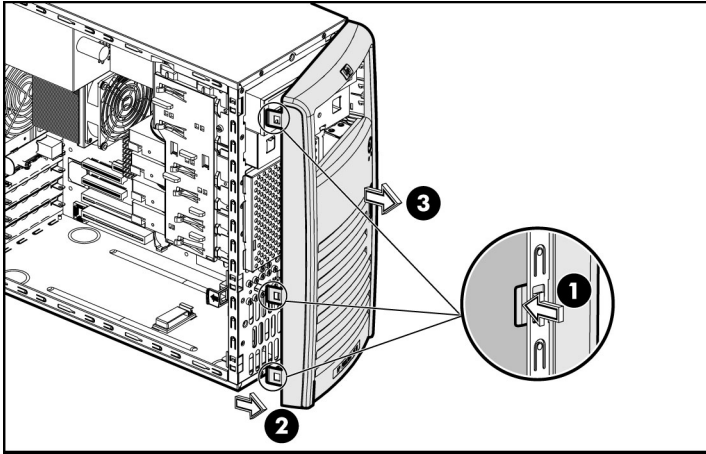
## Opening the server

The access panel and the front bezel are both detachable. You need to remove these system covers before you can remove or replace a server component.

## Removing the access panel



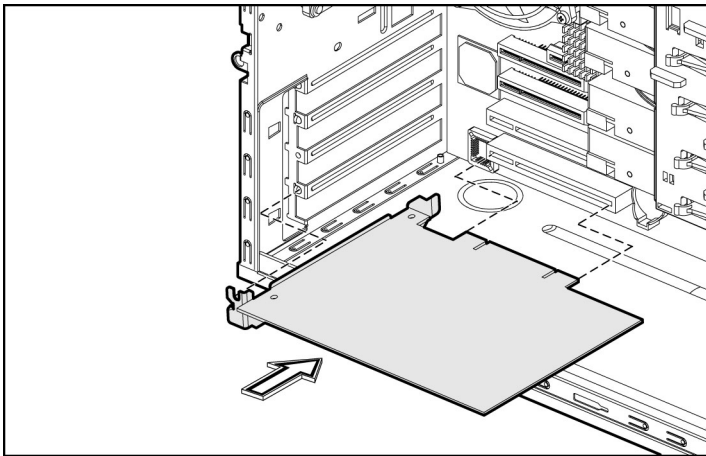
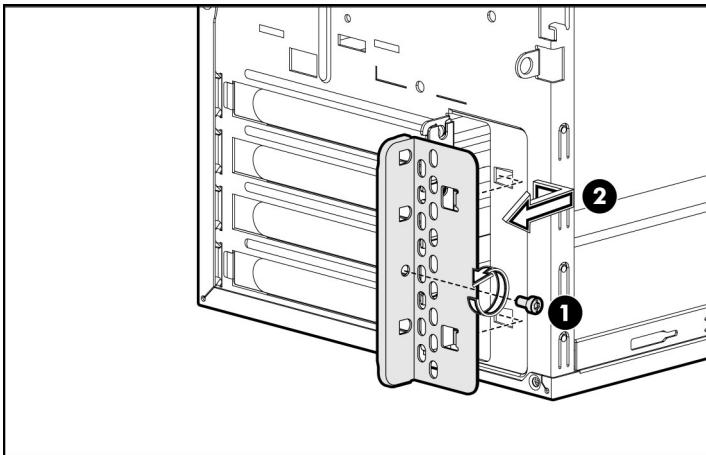
## Removing the front bezel



## Installing the PCI accessory board

The server supports four PCI bus slots.

- Two 32-bit/33-MHz 3.3V PCI bus slots (J20 to J21)
- One PCI-Express x4 line with x8 slot (J33)
- One PCI-Express x8 line with x8 slot (J32)



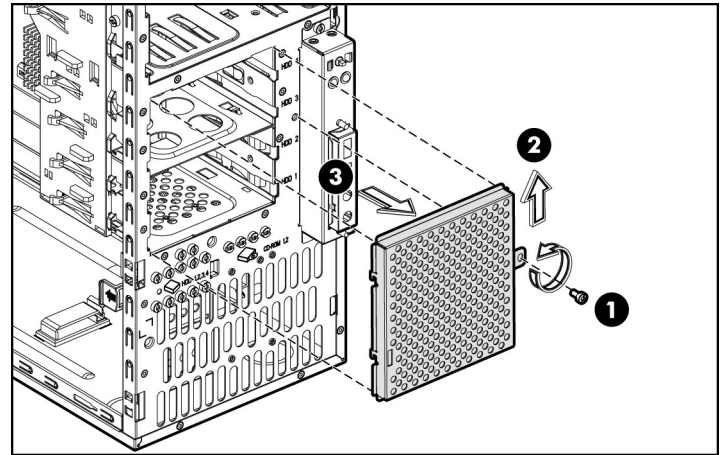
## Installing mass storage devices

The four lower drive bays on the front panel can accommodate up to four hard drives. The server supports both SATA and SAS drives.

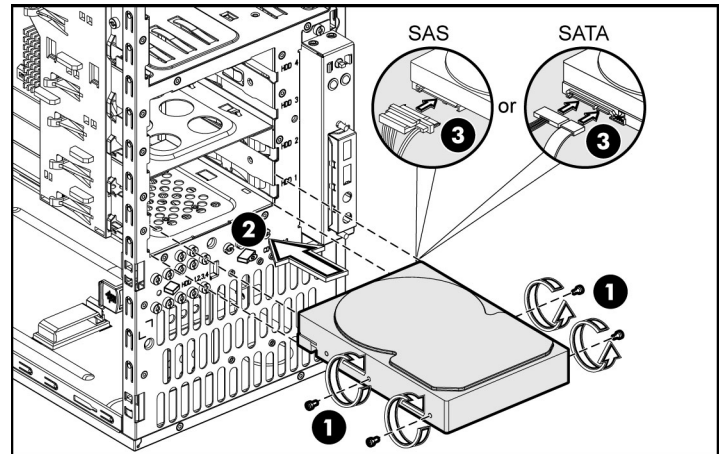
**WARNING!** Power down the server before installing hard drives.

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

## Hard drive – shield removal



## Hard drive – SATA/SAS



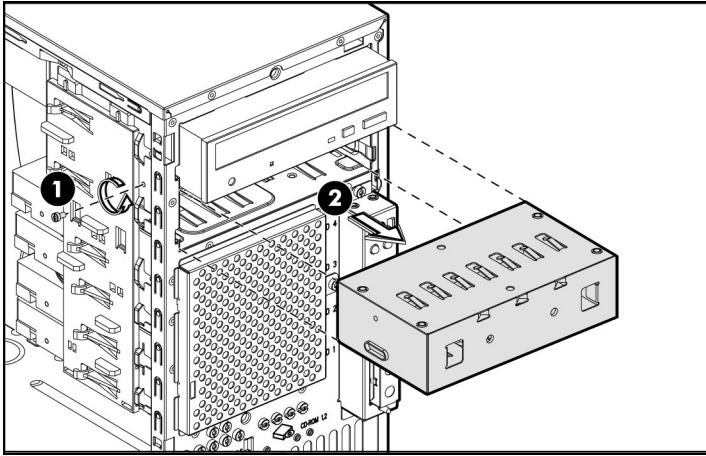
## Installing optical drives

The two upper drive bays on the front panel can accommodate up to two optical drives.

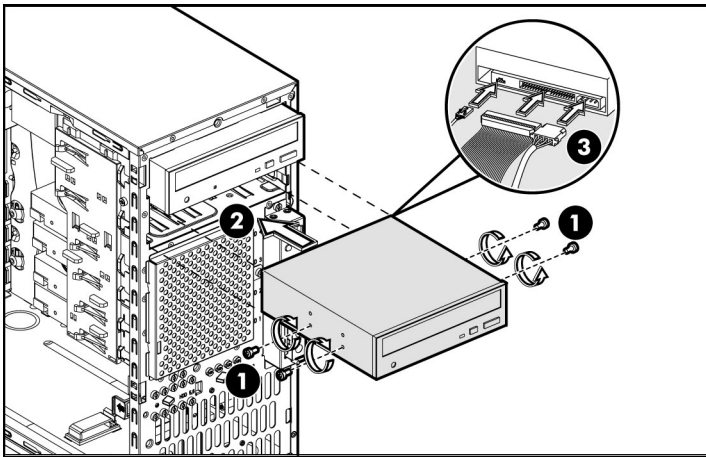
**WARNING!** Power down the server before installing optical drives.

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

## Optical drive – shield removal



## Optical drive – installation



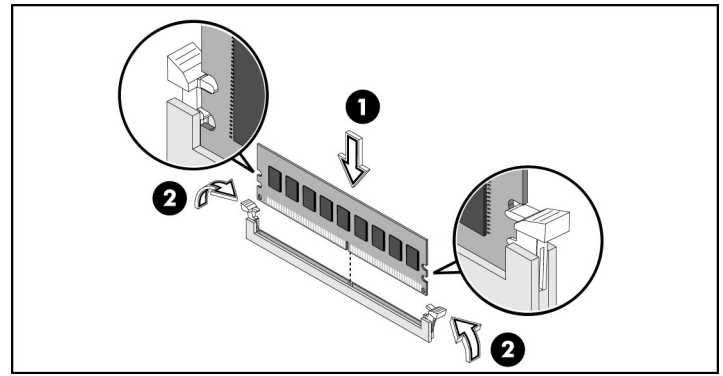
## Installing memory

The server has four DIMM slots that support up to 8 GB maximum system memory (2 GB in each of the four DIMM slots).

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

- Use only DDR II 533/667 unbuffered ECC DIMMs in 512 MB, 1 GB or 2 GB module.
- Up to two DIMMs per channel, single-sided and/or double-sided. Channel A corresponds to the DIMM1 and DIMM2 slots, while channel B corresponds to the DIMM3 and DIMM4 slots.
- For optimal 2 DIMMs configuration, populate slot 1 and slot 3. Identical DIMMs are recommended.

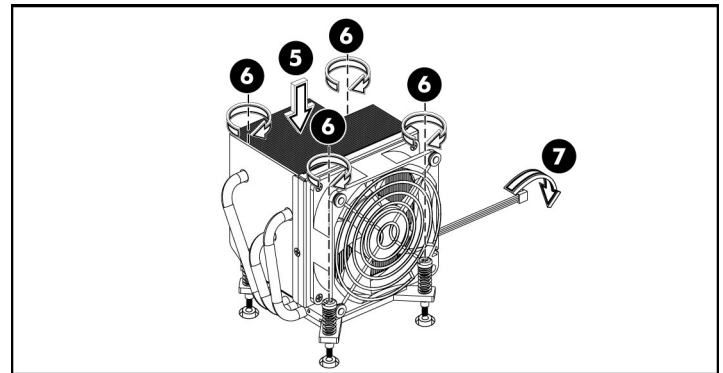
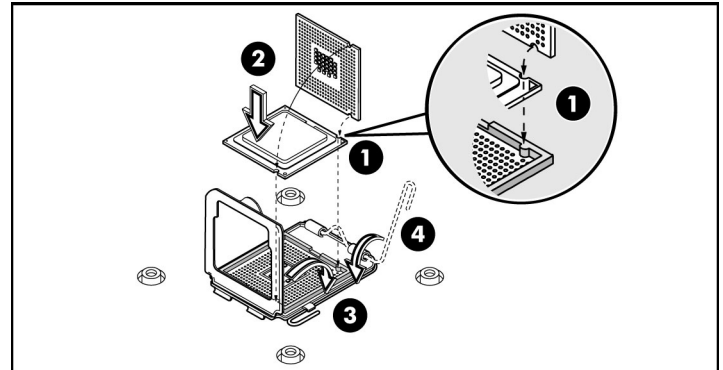
**CAUTION:** DIMMs can be damaged by improper handling. Always use an anti-static wrist strap and grounding mat, and discharge static electricity before touching DIMMs.



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.

## Replacing the processor

The LGA775 CPU socket in HP ProLiant ML110 Generation 4 server supports Intel® Pentium® 4, Intel® Pentium®-D, Celeron®-D processors and Xeon® 3000 series processors.



## Getting additional documentation

For additional documentation, refer to HP ProLiant ML110 Generation 4 Server Support CD. You can also access additional information and documentation from the HP website, [www.hp.com](http://www.hp.com) either by connecting directly or through the Support CD.

© Copyright 2006 Hewlett-Packard Development Company, L.P.

The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

Intel, Pentium, Xeon and Celeron are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.

## Free Manuals Download Website

<http://myh66.com>

<http://usermanuals.us>

<http://www.somanuals.com>

<http://www.4manuals.cc>

<http://www.manual-lib.com>

<http://www.404manual.com>

<http://www.luxmanual.com>

<http://aubethermostatmanual.com>

Golf course search by state

<http://golfingnear.com>

Email search by domain

<http://emailbydomain.com>

Auto manuals search

<http://auto.somanuals.com>

TV manuals search

<http://tv.somanuals.com>