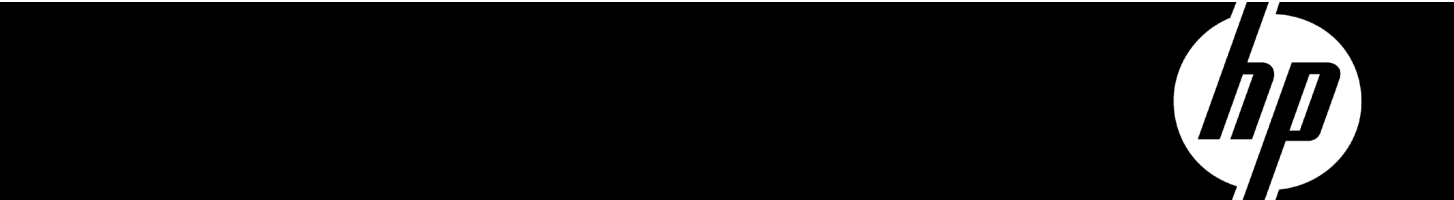


# HP ProLiant MicroServer Installation Sheet



# Important Safety Information

Before installation, read Important Safety Information on HP website <http://www.hp.com/support/importantssafetyinformation>

قبل التثبيت، اقرأ معلومات هامة حول السلامة في موقع HP على ويب.  
 Před zahájením instalace si přečtěte důležité bezpečnostní informace uvedené na webovém serveru společnosti HP.  
 进行安装前，请先参阅 HP 网站上的“重要安全信息”。  
 在安裝前，請參閱 HP 網站上的「重要安全資訊」。

Før installation, læs *Vigtige sikkerhedsoplysninger* på HPs websted.  
 Lesen Sie vor dem Installieren das Dokument *Wichtige Sicherheitshinweise* auf der HP Website.  
 Enne paigaldamist tutvuge olulise ohutusteabega HP veebisaidil.  
 Antes de la instalación, lea la sección *Información de seguridad importante* en la página web de HP.  
 Antes de proceder a la instalación, lea la información importante sobre seguridad en el sitio Web de HP.  
 Avant installation, lisez attentivement le document *Informations importantes relatives à la sécurité* sur le site Web HP.

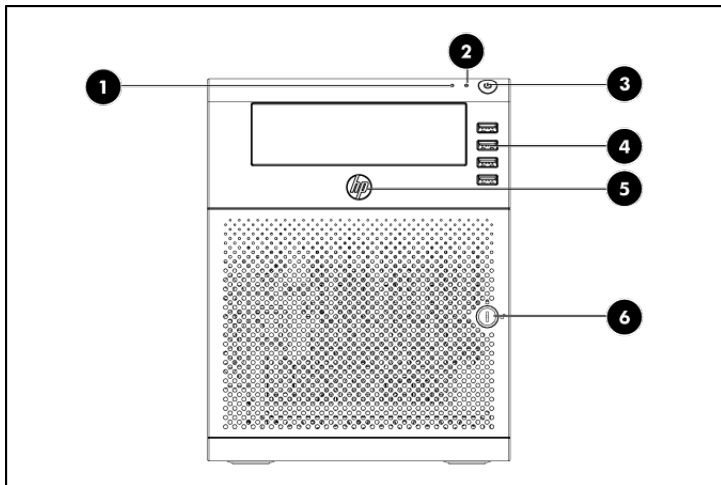
Πριν από την εγκατάσταση, διαβάστε τις *Σημαντικές πληροφορίες σχετικά με την ασφάλεια* στην τοποθεσία της HP στο web.  
 HP Important Safety Information באתר האינטרנט של HP.  
 Prije instaliranja pročitajte *važne informacije o sigurnosti* na HP-ovim web-stranicama.  
 Prima dell'installazione, consultare la sezione *Informazioni sulla sicurezza e sulle norme vigenti* del sito Web di HP.  
 インストール前にHPのWebサイトで『安全に使用していただくために』をお読みください。  
 설치를 시작하기 전에 HP 웹 사이트에서 주요 안전 수칙을 참조하십시오.  
 Pirms instalēšanas izlasiet sadaļu *Svarīga drošības informācija* HP mājas lapā.

Prieš įdiegdami perskaitykite *Svarbią saugos informaciją*, pateiktą HP tinklalapyje.  
 A telepítés előtt tekintse át a HP webhelyén található *fontos biztonosági tudnivalókat*.  
 Lees *Belangrijke veiligheidsinformatie* op de HP website, voordat u aan de installatie begint.  
 Les *Viktig informasjon om sikkerhet* på HPs nettsted før du installerer.

Przed instalacją przeczytaj *Ważne informacje dotyczące bezpieczeństwa* w witrynie sieci Web firmy HP.  
 Antes de instalar, leia o documento *Informações importantes de segurança* no siteo web da HP.  
 Antes de instalar, leia o documento *Informações importantes sobre segurança* no site da HP.  
 Перед установкой ознакомьтесь с документом «*Указания по технике безопасности*» на веб-узле HP.  
 Pred inštaláciou si prečítajte článok *Dôležité bezpečnostné informácie* na webovej lokalite spoločnosti HP.  
 Pred namestitvijo preberite razdelek *Pomembne varnostne informacije* na HP-jevem spletnem mestu.  
 Lue ennen asennusta *Tärkeitä turvallisuusohjeita* HP:n verkkosivuilta.  
 Innan du installerar ska du läsa *Viktig säkerhetsinformation* på HP:s webbplats.  
 Yüklemeden önce HP web sitesindeki *Önemli Güvenlik Bilgileri* bölümünü okuyun.  
 Перед встановленням прочитайте «*Важливу інформацію з безпеки*» на веб-сайті HP.

## Identifying server components

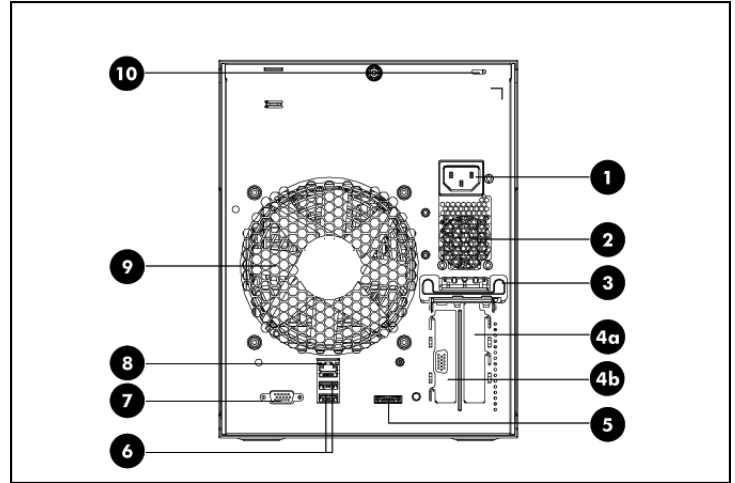
### Front panel components



Item	Component
1	NIC LED
2	Hard Disk Drive LED
3	Power Button
4	USB Ports

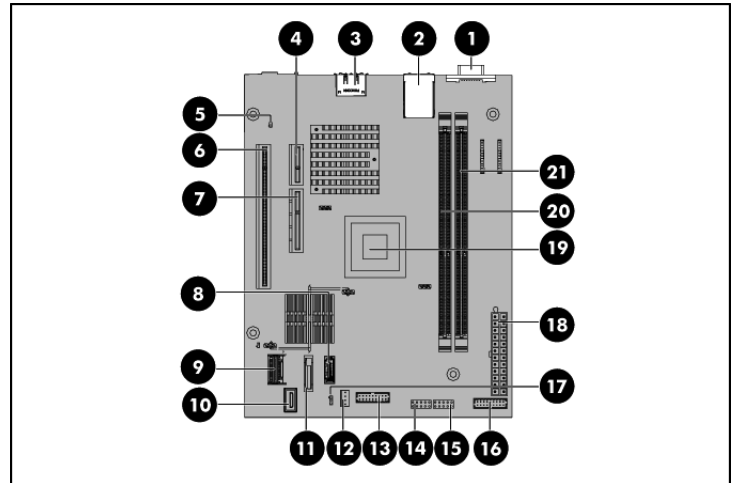
Item	Component
5	Health LED
6	Panel door lock

### Rear panel components



Item	Component	Item	Component
1	Power Supply Outlet	2	PSU Fan
3	PCI Holder	4a	PCI Bracket 1
4b	PCI Bracket 2	5	e-SATA Connector
6	Rear USB 2.0 Ports	7	VGA Port
8	Embedded NIC Port	9	Rear System Fan
10	Kensington Lock		

### System board components



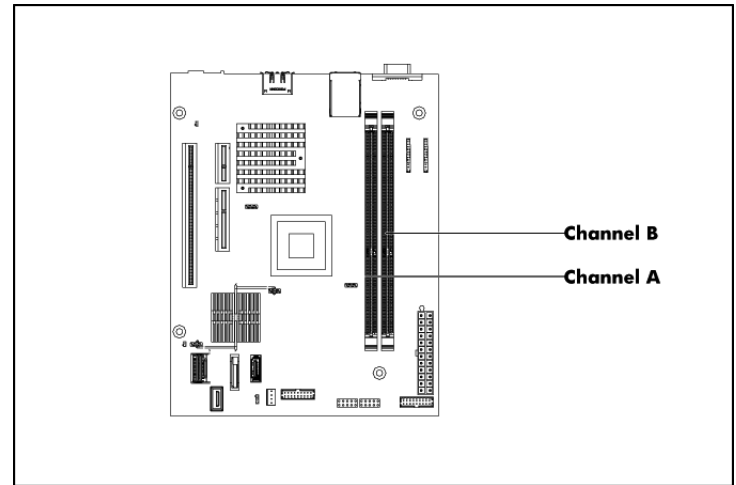
Item	Designator	Description
1	J16	VGA connector
2	J15	NIC1/USBx2 connector
3	J23	e-SATA Connector
4	J6	PCIe x1 slot

Item	Designator	Description
5	J21	The NMI jumper allows a user to inject a Non-Maskable Interrupt event into the system.
6	J5	PCIe x16 slot
7	J7	IPMI slot
8	J24	ODD connector
9	J8	Mini SAS connector
10	J33	Internal USB connector
11	B1	Battery
12	J22	Fan connector
13	J20	TPM connector
14	J13	Front USB header 1
15	J14	Front USB header 2
16	J50	Front panel connector
17	J19	Clear CMOS jumper_ 1-2, Normal Clear CMOS jumper_ 2-3, Clear CMOS
18	J12	24-pin power connector (ATXPWRCN)
19	U1	Processor
20	J3	DDR 3 DIMM slot 1
21	J4	DDR 3 DIMM slot 2

## External LED indicators

Item	Indicators	Status	Description
1	NIC LED	Blinking green	On going activity
2	HDD LED	Blinking green	On going activity
3	Power button	Amber/Green	Standby mode/Power on mode
4	Health LED	Amber/Blue/Red	Non-critical issue/Ongoing activity/Critical issue
5	Network port	Blinking green	On going network activity
6	Network port	Green	10/100/1000M connection

## Memory Configuration



## Power Supply Unit Cabling

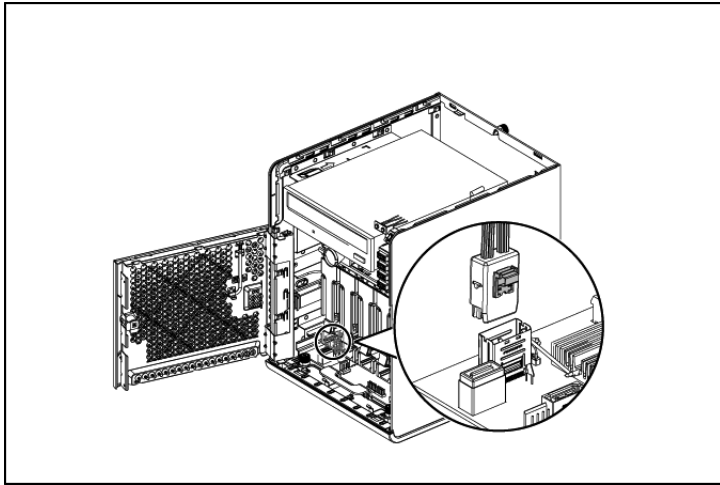
Item	PSU cable label	Connects to
1	P6	ODD and USB tape drive
2	P2	1 hard drive
3	P3	2 hard drive
4	P4	3 hard drive
5	P5	4 hard drive
6	P1	24-pin power connector(ATXPWRCN)

## Mass Storage Cabling

**Mini SAS Model**

Item	Description
1	Mini SAS cable

**NOTE:** Make sure the lock side of the Mini SAS cable faces the battery when installing the Mini SAS cable (see the picture below).



## Server Configuration Overview

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

1. Connect the AC power cord and peripheral devices.
2. Power up the server.
3. Press "F10" to enter BIOS setup.
4. Note the server BIOS version.
5. Verify the server BIOS version against the latest BIOS version listed for this server on the HP website: <http://www.hp.com>.
6. If you do not have the latest BIOS, update the BIOS now. Refer to the *HP ProLiant MicroServer Maintenance and Service Guide* available on the HP website: <http://www.hp.com>.
7. 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 MicroServer, please use the following procedures:

### Pre-installation procedures

1. Turn off the server and all the peripherals connected to it.
2. Unplug all cables from the power outlets to avoid exposure to high energy levels that may cause burns when parts are short-circuited by metal objects such as tools or jewelry.
3. Disconnect telecommunication cables to avoid exposure to shock hazard from ringing voltages.
4. Open the panel door by following the procedure described later in the "Opening the server" section.

### Post-installation procedures

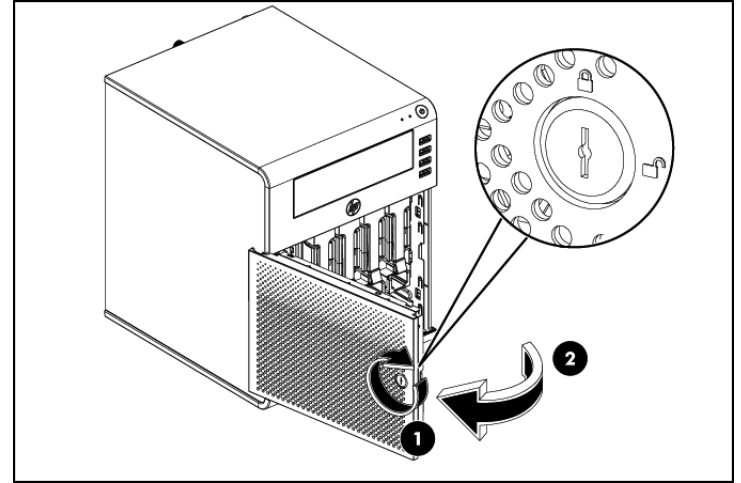
1. Make sure that all components are installed according to the described step-by-step instructions.
2. Verify that you have not left loose tools or other parts inside the server.

3. Reinstall the peripherals and system cables that you have previously removed.
4. Reinstall the system board into the chassis.
5. Connect all external cables to the system.
6. Press the power button on the top panel to turn on the server.

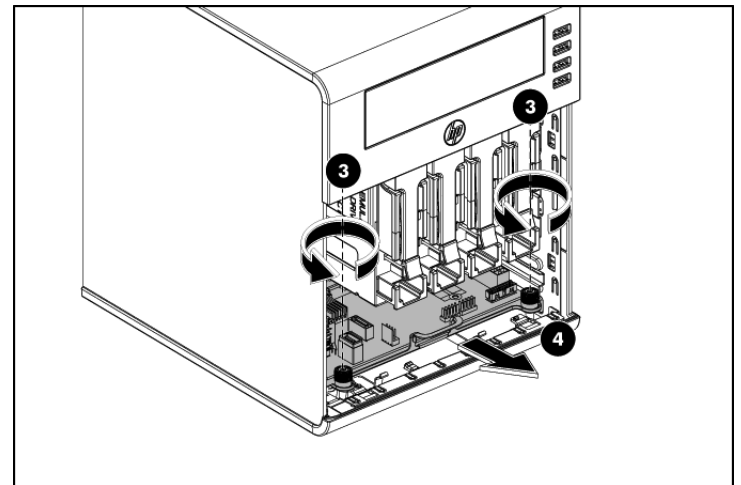
## Opening the server

Open the panel door before removing or replacing a server component.

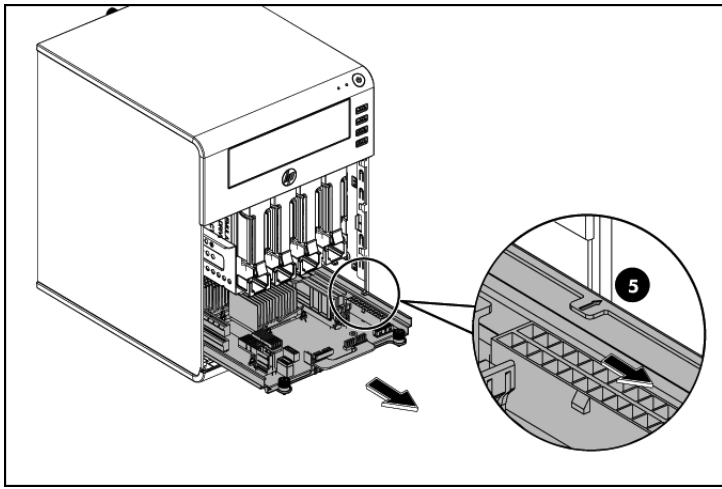
1. Use the HP ProLiant MicroServer's key to unlock the panel door.
2. Open the panel door of the server. If necessary, remove any components or cables that prevent access to the slot.



3. Unfasten the screws to release the system tray.
4. Pull out the system tray.



5. When the system tray reaches the place that the arrow shows (once the cables catch), disconnect all cables on the system board.



**NOTE:** Completely remove the system tray from the chassis before attempting to remove or replace the component on the system board.

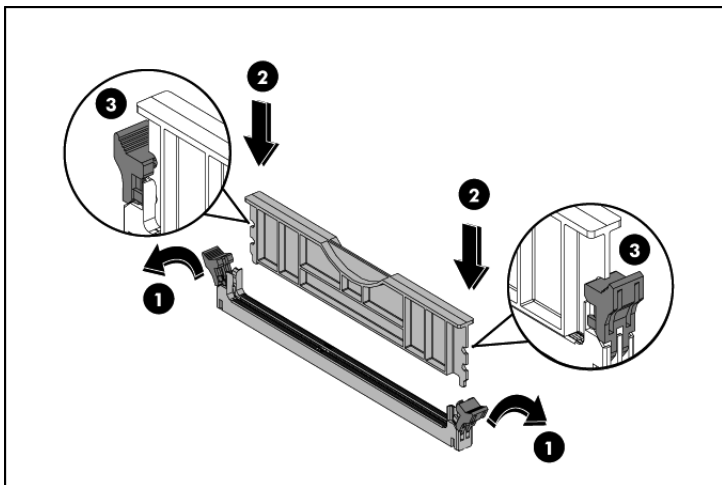
## Installing a memory module

The system has two DIMM slots that support up to 8 GB maximum system memory (4 GB in each of the two DIMM slots).

## Memory installation guidelines

Observe the following important guidelines when installing memory modules:

- Use only HP supported unbuffered ECC DDR3 DIMM in 1 GB, 2 GB or 4 GB DIMM capacities.
  - For optimal performance, all DIMMs installed must be of the same speed.
1. Completely open the holding clips securing the module.
  2. 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.
  3. Lock the holding clips to secure the memory module in place.

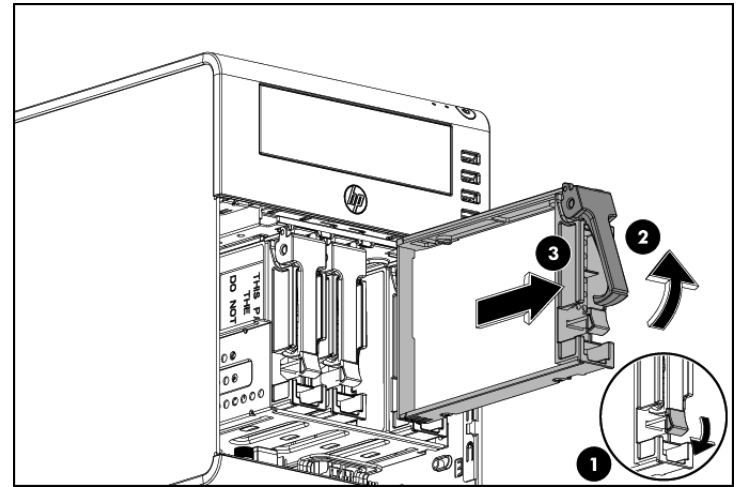


## Installing a hard drive

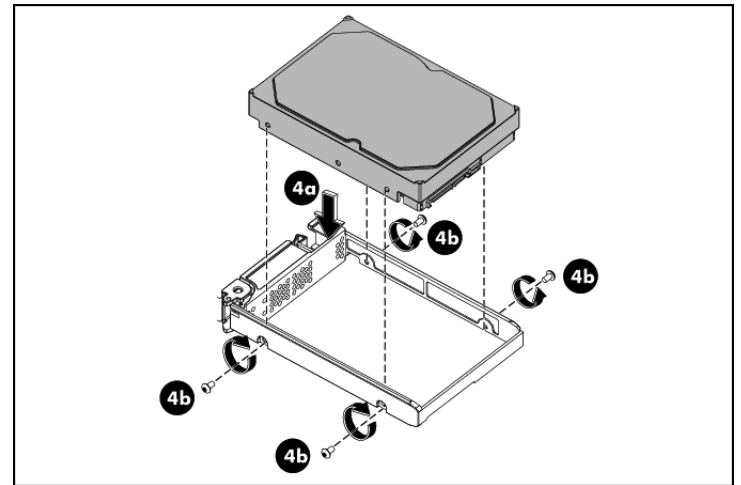
The server has four 3.5" hard disc drive bays that support non-hot-plug SATA drives. The basic system comes with one single hard drive. The type and capacity of drives vary based on the server model.

## Hard drive installation

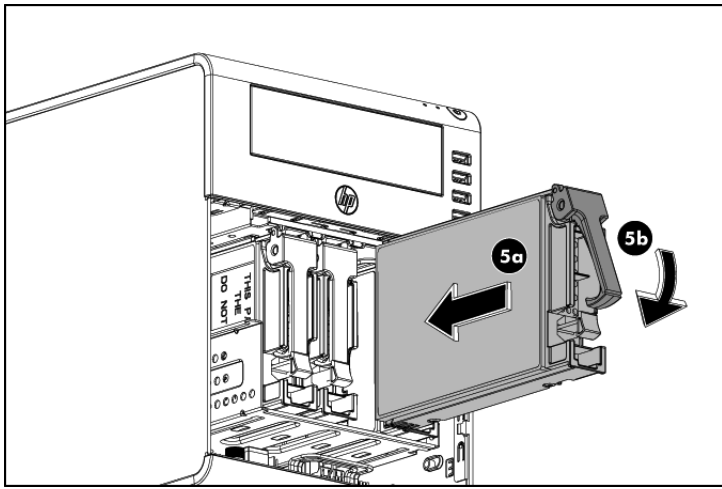
1. Press the hard disk carrier latch to release the handle.
2. Lift the handle.
3. Use the handle to pull the hard disk carrier out of the hard disc drive bay.



4. Install the new hard drive:
  - 4a. Align the new hard drive on the carrier.
  - 4b. Secure the hard drive assembly with four mounting screws.



5. Install the new hard drive assembly in the chassis:
  - 5a. Insert the new hard drive assembly in the hard disc drive bay.
  - 5b. Lock the hard disc drive carrier handle.

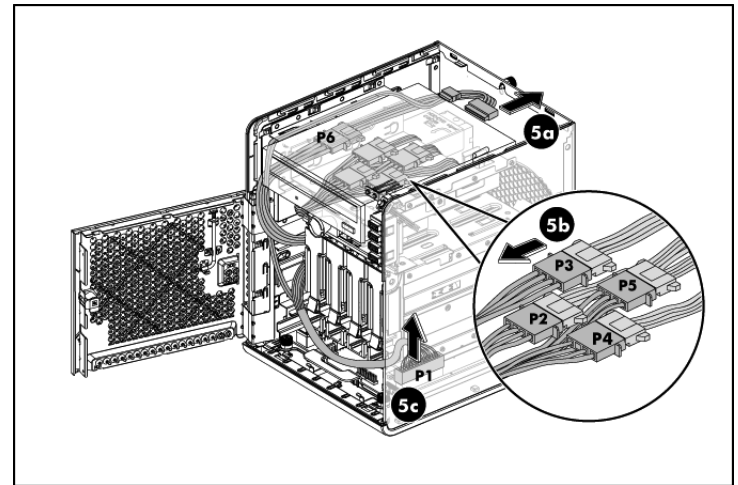


**NOTE:** Repeat similar steps as indicated for the other hard disc drives installation.



**IMPORTANT:** Pull out the system tray by following the procedure step 3, 4, 5 described in the “Opening the server” section.

5c. Disconnect the power cable from the system tray.



6. Remove the standard power supply unit out of the chassis:
  - 6a. Unfasten the three screws on the back of chassis to release the power supply unit.
  - 6b. Pull the standard power supply unit out of the chassis.

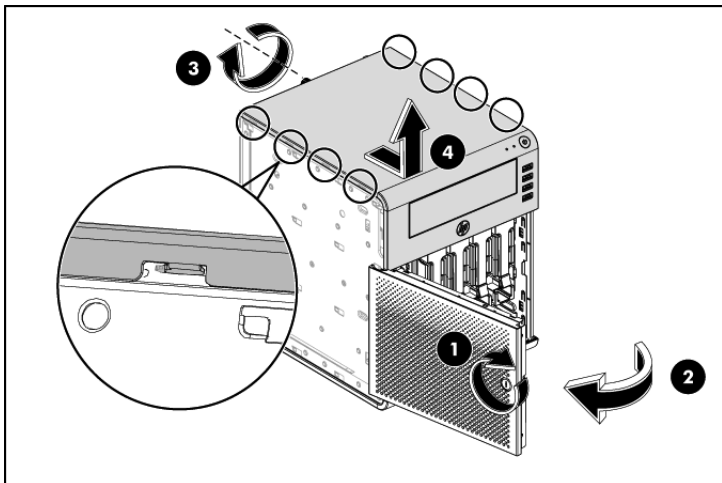
## Installing the power supply unit

The system supports Server Standard & Compliant supplies, along with any other compatible supplies that may be developed.

## Power supply unit installation guidelines

Installation instructions for the MicroServer standard multi-outputs power supply. To simplify the standard power supply unit installation, the user must de-install and re-install the ODD.

1. Use the HP ProLiant MicroServer’s key to unlock the panel door.
2. Open the panel door of the server and remove any components or cables that prevent access to the slot.
3. Loosen the back screw which locks the top panel on the chassis.
4. Slide the top panel forward and then lift to remove it from the chassis.

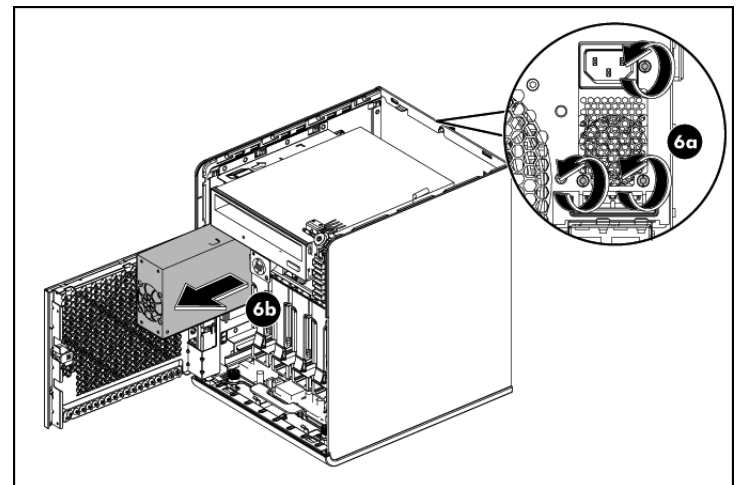


5. Disconnect the power cables:
  - 5a. Disconnect the SATA ODD power cable and ODD cable.



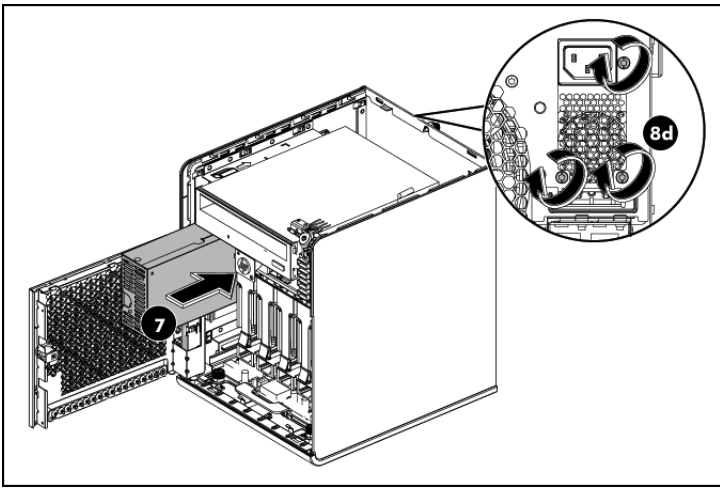
**IMPORTANT:** Slide the ODD out of chassis before disconnecting the 4 hard drive power cables.

5b. Disconnect the 4 hard drive power cables.

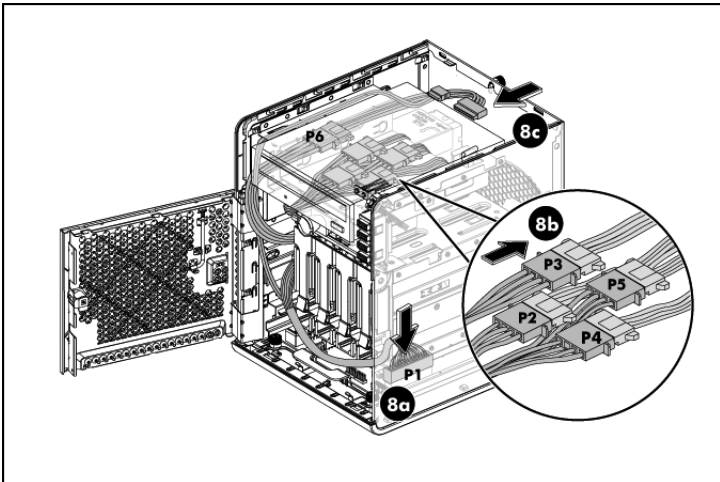


**IMPORTANT:** Reinstall the ODD by following the procedure step 5a, 5b, 5c described in the “Installing the Optical Disc Drive” section.

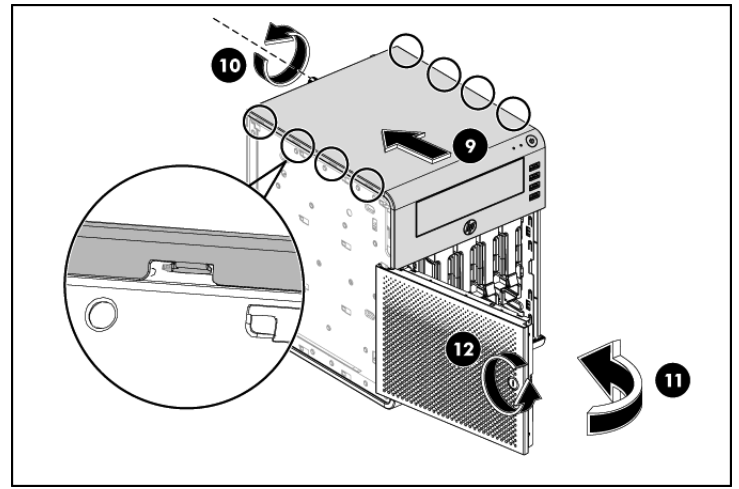
7. Install the replacement power supply unit in the chassis.



8. Connect the power cables:
  - 8a. Connect the power cable P1 to the 24-pin power connector on the system board (J12).
  - 8b. Connect the power cable P2, P3, P4, P5 to Hard drive 1, Hard drive 2, Hard drive 3, Hard drive 4.
  - 8c. Connect the power cable P6 to the ODD and connect the ODD cable.
  - 8d. Fasten the three screws on the back of chassis to secure the power supply unit (see the above picture).

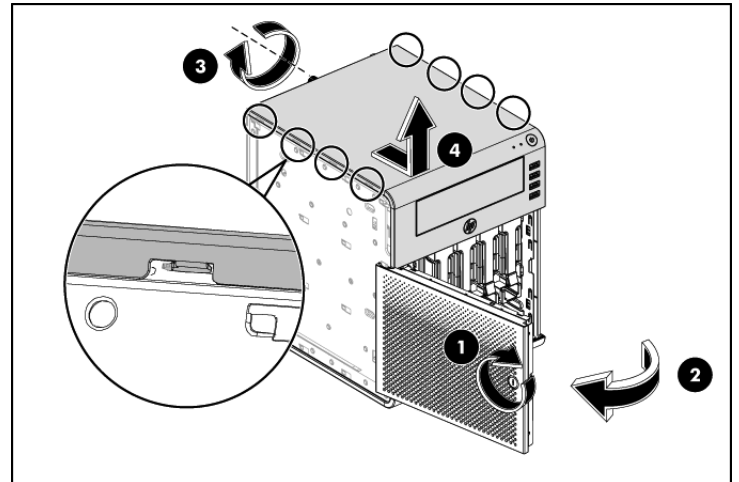


9. After installing the power supply and connecting the power cables, slide the top panel to reinstall it into the chassis.
10. Fasten the back screw to secure the top panel on the chassis.
11. Close the front panel door of the server.
12. Use the HP ProLiant MicroServer's key to lock the panel door.

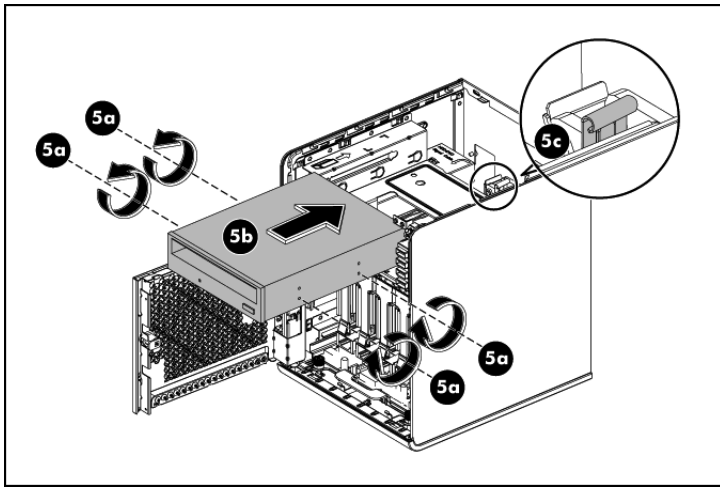


## Installing the Optical Disc Drive

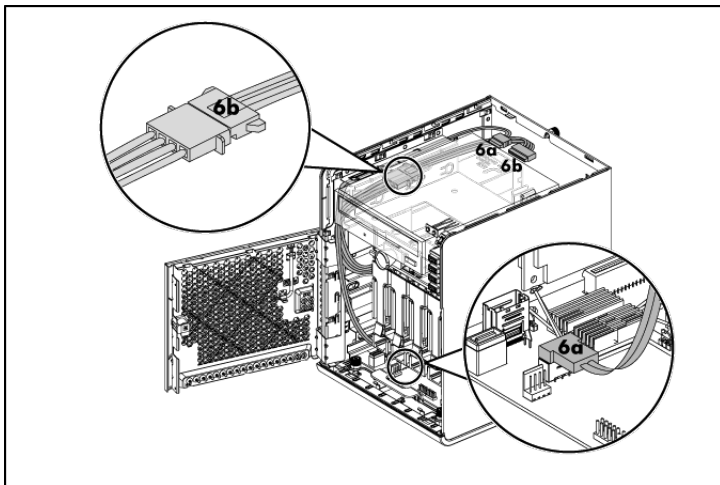
1. Use the HP ProLiant MicroServer's key to unlock the panel door.
2. Open the panel door of the server. If necessary, remove any components or cables that prevent access to the slot.
3. Loosen the back screw which locks the panel on the chassis.
4. Slide the top panel forward and then lift to remove it from the chassis.



5. Install the ODD module into the chassis:
  - 5a. Use the 4 screws to secure the ODD.
  - 5b. Slide the ODD module into the chassis.
  - 5c. Push the ODD (in the direction shown below) until it clicks into place.

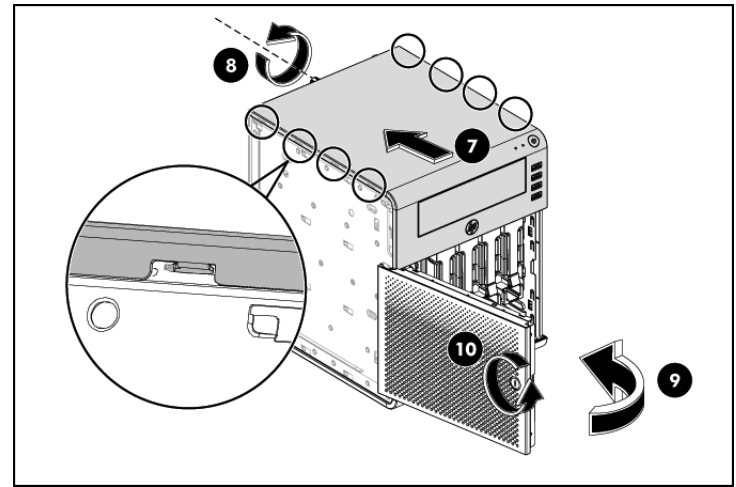


6. ODD cable routing:
- 6a. ODD cable connects the ODD to the system board ODD connector (J24).
  - 6b. SATA connector connects the SATA ODD cable to the power cable P6.



- 7. After installing the ODD module and connecting the ODD cables, slide the top panel to reinstall into the chassis.
- 8. Fasten the back screw to secure the top panel on the chassis.
- 9. Close the panel door of the server.
- 10. Use the HP ProLiant MicroServer's key to lock the panel door.

**NOTE:** Using ODD or USB Key are customer options for HP ProLiant MicroServer OS installation.



## Additional Documentation

For translated instructions, see <http://www.hp.com/support>

Si desea consultar las instrucciones traducidas, visite <http://www.hp.com/support>

Pour accéder aux instructions traduites, visitez le site Web HP <http://www.hp.com/support>

Per istruzioni tradotte, vedere il sito all'indirizzo <http://www.hp.com/support>

Übersetzte Anweisungen finden Sie unter <http://www.hp.com/support>

Para obter informações traduzidas consulte <http://www.hp.com/support>

有关说明的翻译版本，请参见 <http://www.hp.com/support>

翻訳された手順については、HPのWebサイト

<http://www.hp.com/support>を参照してください。

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