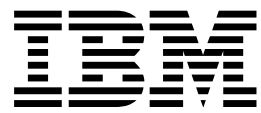


Power Systems

*Installing the IBM Power System  
S824L (8247-42L)*





Power Systems

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**Note**

Before using this information and the product it supports, read the information in “Safety notices” on page v, “Notices” on page 27, the *IBM Systems Safety Notices* manual, G229-9054, and the *IBM Environmental Notices and User Guide*, Z125-5823.

This edition applies to IBM Power Systems™ servers that contain the POWER8 processor and to all associated models.

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## Safety notices

Safety notices may be printed throughout this guide:

- **DANGER** notices call attention to a situation that is potentially lethal or extremely hazardous to people.
- **CAUTION** notices call attention to a situation that is potentially hazardous to people because of some existing condition.
- **Attention** notices call attention to the possibility of damage to a program, device, system, or data.

## World Trade safety information

Several countries require the safety information contained in product publications to be presented in their national languages. If this requirement applies to your country, safety information documentation is included in the publications package (such as in printed documentation, on DVD, or as part of the product) shipped with the product. The documentation contains the safety information in your national language with references to the U.S. English source. Before using a U.S. English publication to install, operate, or service this product, you must first become familiar with the related safety information documentation. You should also refer to the safety information documentation any time you do not clearly understand any safety information in the U.S. English publications.

Replacement or additional copies of safety information documentation can be obtained by calling the IBM Hotline at 1-800-300-8751.

## German safety information

Das Produkt ist nicht für den Einsatz an Bildschirmarbeitsplätzen im Sinne § 2 der Bildschirmarbeitsverordnung geeignet.

## Laser safety information

IBM® servers can use I/O cards or features that are fiber-optic based and that utilize lasers or LEDs.

### Laser compliance

IBM servers may be installed inside or outside of an IT equipment rack.

## DANGER

When working on or around the system, observe the following precautions:

Electrical voltage and current from power, telephone, and communication cables are hazardous. To avoid a shock hazard:

- If IBM supplied the power cord(s), connect power to this unit only with the IBM provided power cord. Do not use the IBM provided power cord for any other product.
- Do not open or service any power supply assembly.
- Do not connect or disconnect any cables or perform installation, maintenance, or reconfiguration of this product during an electrical storm.
- The product might be equipped with multiple power cords. To remove all hazardous voltages, disconnect all power cords.
- Connect all power cords to a properly wired and grounded electrical outlet. Ensure that the outlet supplies proper voltage and phase rotation according to the system rating plate.
- Connect any equipment that will be attached to this product to properly wired outlets.
- When possible, use one hand only to connect or disconnect signal cables.
- Never turn on any equipment when there is evidence of fire, water, or structural damage.
- Do not attempt to switch on power to the machine until all possible unsafe conditions are corrected.
- Assume that an electrical safety hazard is present. Perform all continuity, grounding, and power checks specified during the subsystem installation procedures to ensure that the machine meets safety requirements.
- Do not continue with the inspection if any unsafe conditions are present.
- Disconnect the attached power cords, telecommunications systems, networks, and modems before you open the device covers, unless instructed otherwise in the installation and configuration procedures.
- Connect and disconnect cables as described in the following procedures when installing, moving, or opening covers on this product or attached devices.

To Disconnect:

1. Turn off everything (unless instructed otherwise).
2. Remove the power cords from the outlets.
3. Remove the signal cables from the connectors.
4. Remove all cables from the devices.

To Connect:

1. Turn off everything (unless instructed otherwise).
2. Attach all cables to the devices.
3. Attach the signal cables to the connectors.
4. Attach the power cords to the outlets.
5. Turn on the devices.

Sharp edges, corners and joints may be present in and around the system. Use care when handling equipment to avoid cuts, scrapes and pinching.

(D005)

## DANGER



Observe the following precautions when working on or around your IT rack system:

- Heavy equipment—personal injury or equipment damage might result if mishandled.
- Always lower the leveling pads on the rack cabinet.
- Always install stabilizer brackets on the rack cabinet.
- To avoid hazardous conditions due to uneven mechanical loading, always install the heaviest devices in the bottom of the rack cabinet. Always install servers and optional devices starting from the bottom of the rack cabinet.
- Rack-mounted devices are not to be used as shelves or work spaces. Do not place objects on top of rack-mounted devices.



- Each rack cabinet might have more than one power cord. Be sure to disconnect all power cords in the rack cabinet when directed to disconnect power during servicing.
- Connect all devices installed in a rack cabinet to power devices installed in the same rack cabinet. Do not plug a power cord from a device installed in one rack cabinet into a power device installed in a different rack cabinet.
- An electrical outlet that is not correctly wired could place hazardous voltage on the metal parts of the system or the devices that attach to the system. It is the responsibility of the customer to ensure that the outlet is correctly wired and grounded to prevent an electrical shock.

#### CAUTION

- Do not install a unit in a rack where the internal rack ambient temperatures will exceed the manufacturer's recommended ambient temperature for all your rack-mounted devices.
- Do not install a unit in a rack where the air flow is compromised. Ensure that air flow is not blocked or reduced on any side, front, or back of a unit used for air flow through the unit.
- Consideration should be given to the connection of the equipment to the supply circuit so that overloading of the circuits does not compromise the supply wiring or overcurrent protection. To provide the correct power connection to a rack, refer to the rating labels located on the equipment in the rack to determine the total power requirement of the supply circuit.
- *(For sliding drawers.)* Do not pull out or install any drawer or feature if the rack stabilizer brackets are not attached to the rack. Do not pull out more than one drawer at a time. The rack might become unstable if you pull out more than one drawer at a time.
- *(For fixed drawers.)* This drawer is a fixed drawer and must not be moved for servicing unless specified by the manufacturer. Attempting to move the drawer partially or completely out of the rack might cause the rack to become unstable or cause the drawer to fall out of the rack.

(R001)

**CAUTION:**

Removing components from the upper positions in the rack cabinet improves rack stability during relocation. Follow these general guidelines whenever you relocate a populated rack cabinet within a room or building.

- Reduce the weight of the rack cabinet by removing equipment starting at the top of the rack cabinet. When possible, restore the rack cabinet to the configuration of the rack cabinet as you received it. If this configuration is not known, you must observe the following precautions:
  - Remove all devices in the 32U position (compliance ID RACK-001 or 22U (compliance ID RR001) and above.
  - Ensure that the heaviest devices are installed in the bottom of the rack cabinet.
  - Ensure that there are little-to-no empty U-levels between devices installed in the rack cabinet below the 32U (compliance ID RACK-001 or 22U (compliance ID RR001) level, unless the received configuration specifically allowed it.
- If the rack cabinet you are relocating is part of a suite of rack cabinets, detach the rack cabinet from the suite.
- If the rack cabinet you are relocating was supplied with removable outriggers they must be reinstalled before the cabinet is relocated.
- Inspect the route that you plan to take to eliminate potential hazards.
- Verify that the route that you choose can support the weight of the loaded rack cabinet. Refer to the documentation that comes with your rack cabinet for the weight of a loaded rack cabinet.
- Verify that all door openings are at least 760 x 230 mm (30 x 80 in.).
- Ensure that all devices, shelves, drawers, doors, and cables are secure.
- Ensure that the four leveling pads are raised to their highest position.
- Ensure that there is no stabilizer bracket installed on the rack cabinet during movement.
- Do not use a ramp inclined at more than 10 degrees.
- When the rack cabinet is in the new location, complete the following steps:
  - Lower the four leveling pads.
  - Install stabilizer brackets on the rack cabinet.
  - If you removed any devices from the rack cabinet, repopulate the rack cabinet from the lowest position to the highest position.
- If a long-distance relocation is required, restore the rack cabinet to the configuration of the rack cabinet as you received it. Pack the rack cabinet in the original packaging material, or equivalent. Also lower the leveling pads to raise the casters off of the pallet and bolt the rack cabinet to the pallet.

(R002)

(L001)



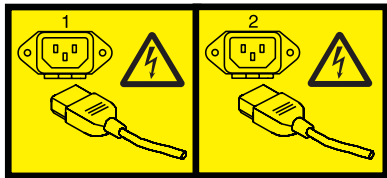
**DANGER:** Hazardous voltage, current, or energy levels are present inside any component that has this label attached. Do not open any cover or barrier that contains this label. (L001)

(L002)



**DANGER:** Rack-mounted devices are not to be used as shelves or work spaces. (L002)

(L003)



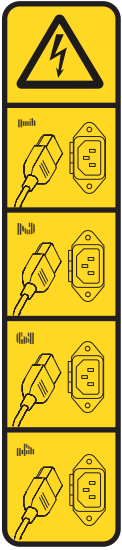
or



or



or



**DANGER:** Multiple power cords. The product might be equipped with multiple power cords. To remove all hazardous voltages, disconnect all power cords. (L003)

(L007)



**CAUTION:** A hot surface nearby. (L007)

(L008)



**CAUTION:** Hazardous moving parts nearby. (L008)

All lasers are certified in the U.S. to conform to the requirements of DHHS 21 CFR Subchapter J for class 1 laser products. Outside the U.S., they are certified to be in compliance with IEC 60825 as a class 1 laser product. Consult the label on each part for laser certification numbers and approval information.

**CAUTION:**

This product might contain one or more of the following devices: CD-ROM drive, DVD-ROM drive, DVD-RAM drive, or laser module, which are Class 1 laser products. Note the following information:

- Do not remove the covers. Removing the covers of the laser product could result in exposure to hazardous laser radiation. There are no serviceable parts inside the device.
- Use of the controls or adjustments or performance of procedures other than those specified herein might result in hazardous radiation exposure.

(C026)

**CAUTION:**

Data processing environments can contain equipment transmitting on system links with laser modules that operate at greater than Class 1 power levels. For this reason, never look into the end of an optical fiber cable or open receptacle. Although shining light into one end and looking into the other end of a disconnected optical fiber to verify the continuity of optic fibers may not injure the eye, this procedure is potentially dangerous. Therefore, verifying the continuity of optical fibers by shining light into one end and looking at the other end is not recommended. To verify continuity of a fiber optic cable, use an optical light source and power meter. (C027)

**CAUTION:**

This product contains a Class 1M laser. Do not view directly with optical instruments. (C028)

**CAUTION:**

Some laser products contain an embedded Class 3A or Class 3B laser diode. Note the following information: laser radiation when open. Do not stare into the beam, do not view directly with optical instruments, and avoid direct exposure to the beam. (C030)

**CAUTION:**

The battery contains lithium. To avoid possible explosion, do not burn or charge the battery.

*Do Not:*

- \_\_\_ Throw or immerse into water
- \_\_\_ Heat to more than 100°C (212°F)
- \_\_\_ Repair or disassemble

Exchange only with the IBM-approved part. Recycle or discard the battery as instructed by local regulations. In the United States, IBM has a process for the collection of this battery. For information, call 1-800-426-4333. Have the IBM part number for the battery unit available when you call. (C003)

(C048)

**CAUTION regarding IBM provided VENDOR LIFT TOOL:**

- Operation of LIFT TOOL by authorized personnel only.
- LIFT TOOL intended for use to assist, lift, install, remove units (load) up into rack elevations. It is not to be used loaded transporting over major ramps nor as a replacement for such designated tools like pallet jacks, walkies, fork trucks and such related relocation practices. When this is not practicable, specially trained persons or services must be used (for instance, riggers or movers).
- Read and completely understand the contents of LIFT TOOL operator's manual before using. Failure to read, understand, obey safety rules, and follow instructions may result in property damage and/or personal injury. If there are questions, contact the vendor's service and support. Local paper manual must remain with machine in provided storage sleeve area. Latest revision manual available on vendor's web site.
- Test verify stabilizer brake function before each use. Do not over-force moving or rolling the LIFT TOOL with stabilizer brake engaged.
- Do not move LIFT TOOL while platform is raised, except for minor positioning.

- Do not exceed rated load capacity. See LOAD CAPACITY CHART regarding maximum loads at center versus edge of extended platform.
- Only raise load if properly centered on platform. Do not place more than 200 lb (91 kg) on edge of sliding platform shelf also considering the load's center of mass/gravity (CoG).
- Do not corner load the platform tilt riser accessory option. Secure platform riser tilt option to main shelf in all four (4x) locations with provided hardware only, prior to use. Load objects are designed to slide on/off smooth platforms without appreciable force, so take care not to push or lean. Keep riser tilt option flat at all times except for final minor adjustment when needed.
- Do not stand under overhanging load.
- Do not use on uneven surface, incline or decline (major ramps).
- Do not stack loads.
- Do not operate while under the influence of drugs or alcohol.
- Do not support ladder against LIFT TOOL.
- Tipping hazard. Do not push or lean against load with raised platform.
- Do not use as a personnel lifting platform or step. No riders.
- Do not stand on any part of lift. Not a step.
- Do not climb on mast.
- Do not operate a damaged or malfunctioning LIFT TOOL machine.
- Crush and pinch point hazard below platform. Only lower load in areas clear of personnel and obstructions. Keep hands and feet clear during operation.
- No Forks. Never lift or move bare LIFT TOOL MACHINE with pallet truck, jack or fork lift.
- Mast extends higher than platform. Be aware of ceiling height, cable trays, sprinklers, lights, and other overhead objects.
- Do not leave LIFT TOOL machine unattended with an elevated load.
- Watch and keep hands, fingers, and clothing clear when equipment is in motion.
- Turn Winch with hand power only. If winch handle cannot be cranked easily with one hand, it is probably over-loaded. Do not continue to turn winch past top or bottom of platform travel. Excessive unwinding will detach handle and damage cable. Always hold handle when lowering, unwinding. Always assure self that winch is holding load before releasing winch handle.
- A winch accident could cause serious injury. Not for moving humans. Make certain clicking sound is heard as the equipment is being raised. Be sure winch is locked in position before releasing handle. Read instruction page before operating this winch. Never allow winch to unwind freely. Freewheeling will cause uneven cable wrapping around winch drum, damage cable, and may cause serious injury. (C048)

## **Power and cabling information for NEBS (Network Equipment-Building System) GR-1089-CORE**

The following comments apply to the IBM servers that have been designated as conforming to NEBS (Network Equipment-Building System) GR-1089-CORE:

The equipment is suitable for installation in the following:

- Network telecommunications facilities
- Locations where the NEC (National Electrical Code) applies

The intrabuilding ports of this equipment are suitable for connection to intrabuilding or unexposed wiring or cabling only. The intrabuilding ports of this equipment *must not* be metalically connected to the interfaces that connect to the OSP (outside plant) or its wiring. These interfaces are designed for use as intrabuilding interfaces only (Type 2 or Type 4 ports as described in GR-1089-CORE) and require isolation from the exposed OSP cabling. The addition of primary protectors is not sufficient protection to connect these interfaces metalically to OSP wiring.

**Note:** All Ethernet cables must be shielded and grounded at both ends.

The ac-powered system does not require the use of an external surge protection device (SPD).

The dc-powered system employs an isolated DC return (DC-I) design. The DC battery return terminal *shall not* be connected to the chassis or frame ground.

The dc-powered system is intended to be installed in a common bonding network (CBN) as described in GR-1089-CORE.





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## Installing the IBM Power System S824L (8247-42L)

These instructions will help you install, cable, and set up your IBM Power® System S824L (8247-42L) server.

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### Installing the IBM Power System S824L (8247-42L)

Use this information to learn about installing the IBM Power System S824L (8247-42L).

You might need to read the following documents before you begin to install the server:

- The latest version of this document is maintained online. See Installing the IBM PowerLinux 8R2 (8247-42L) ([http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/p8egk/p8egk\\_kickoff.htm](http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/p8egk/p8egk_kickoff.htm)).
- To plan your server installation, see Planning for the system ([http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/p8had/p8had\\_8xx\\_kickoff.htm](http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/p8had/p8had_8xx_kickoff.htm)).

### Determining your server type

Determine whether you are installing a rack-mounted server, a server that arrived preinstalled in a rack, or a stand-alone server.

Determine which type of server you are installing. For more information, see the following table.

*Table 1. Determine the type of server you are installing and follow the instructions to find related information.*

Server type	Description	Where to find related information
Rack-mounted	Your system arrived without a rack, and you need to install the system into an existing rack.	"Installing a rack-based server"
Preinstalled	Your system arrived preinstalled in a rack.	"Setting up a preinstalled server" on page 14

### Installing a rack-based server

Use this information to learn about installing a rack-based server.

#### Prerequisite for installing the rack-mounted server

Use the information to understand the prerequisites that are required for installing the server.

You might need to read the following documents before you begin to install the server:

- The latest version of this document is maintained online. See Installing the IBM Power System S824L (8247-42L) ([http://www.ibm.com/support/knowledgecenter/POWER8/p8egk/p8egk\\_kickoff.htm](http://www.ibm.com/support/knowledgecenter/POWER8/p8egk/p8egk_kickoff.htm)).
- To plan your server installation, see Planning for the system ([http://www.ibm.com/support/knowledgecenter/POWER8/p8had/p8had\\_8xx\\_kickoff.htm](http://www.ibm.com/support/knowledgecenter/POWER8/p8had/p8had_8xx_kickoff.htm)).

Ensure that you have the following items before you start your installation:

- Phillips screwdriver
- Flat-head screwdriver
- Rack with four units of space

**Note:** If you do not have a rack that is installed, install the rack. For instructions, see Racks and rack features ([http://www.ibm.com/support/knowledgecenter/POWER8/p8hbf/p8hbf\\_8xx\\_kickoff.htm](http://www.ibm.com/support/knowledgecenter/POWER8/p8hbf/p8hbf_8xx_kickoff.htm)).

## Completing inventory for your server

Use this information to complete inventory for your server.

To complete the inventory, complete the following steps:

1. Verify that you received all the boxes you ordered.
2. Unpack the server components as needed.
3. Complete a parts inventory before you install each server component by following these steps:
  - a. Locate the inventory list for your server.
  - b. Ensure that you received all the parts that you ordered.

**Note:** Your order information is included with your product. You can also obtain order information from your marketing representative or the IBM Business Partner.

If you have incorrect, missing, or damaged parts, consult any of the following resources:

- Your IBM reseller.
- IBM Rochester manufacturing automated information line at 1-800-300-8751 (United States only).
- The Directory of worldwide contacts website <http://www.ibm.com/planetwide>. Select your location to view the service and support contact information.

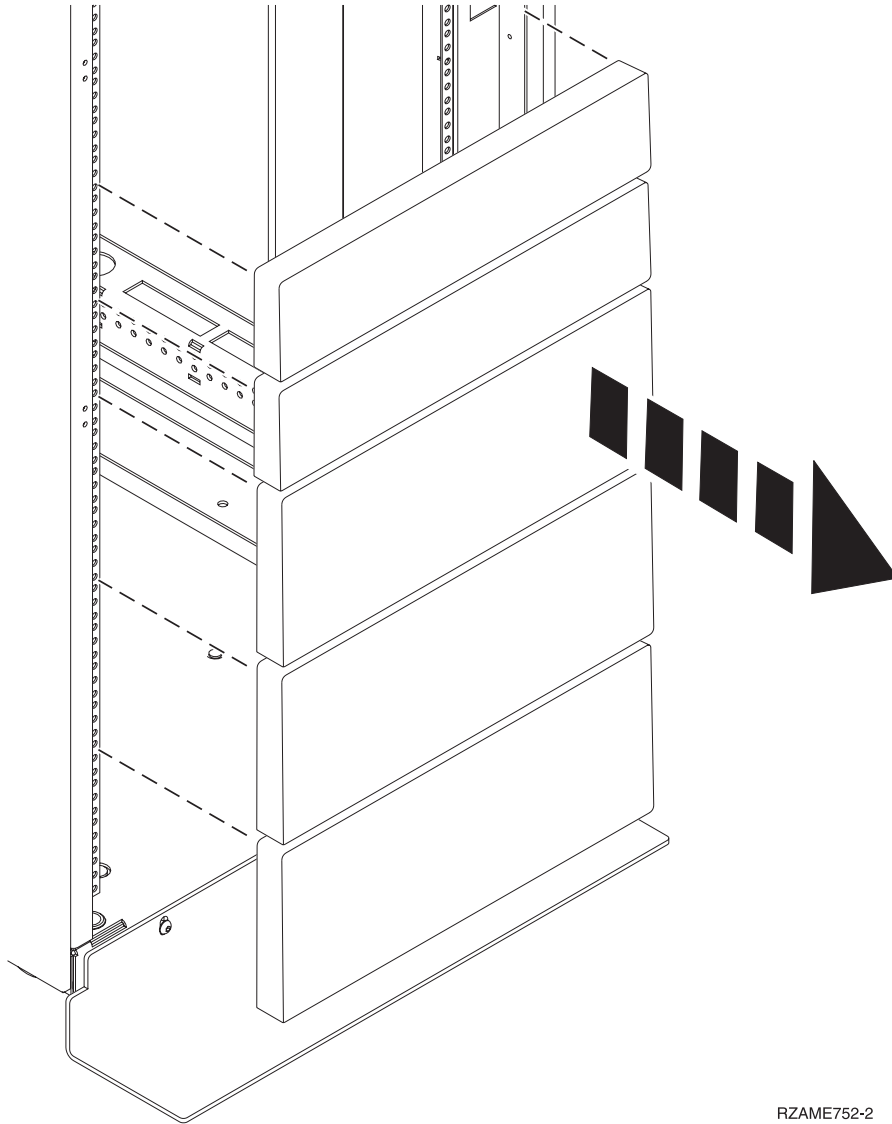
## Determining and marking the location in the rack

Learn how to determine where to install the PCIe Gen3 I/O expansion drawer (PCIe3 expansion drawer) into the rack.

If you received a mounting template, you can use the template to mark the locations. If you did not receive a mounting template, continue with the following steps.

To determine where to install the drawer into a rack, complete the following steps:

1. Read the Rack safety notices (<http://www.ibm.com/support/knowledgecenter/POWER8/p8hbf/racksafety.htm>).
2. Determine where in the rack to place the drawer in relation to other system hardware. As you plan for installing the drawer in a rack, keep in mind the following information:
  - Organize larger and heavier units into the lower part of the rack.
  - Plan to install units into the lower part of the rack first.
  - Record the Electronic Industries Alliance (EIA) locations in your plan.
3. If necessary, remove the filler panels to allow access to the inside of the rack enclosure where you plan to place the drawer.



RZAME752-2

*Figure 1. Removing the filler panels*

4. Face the front of the rack and work from the left side to complete the following steps:

**Remember:** If you received a mounting template, you can use the template to mark the locations instead of using the manual method.

- a. Make a note of both the lowest and highest EIA units to be used for the drawer.
- b. Use tape, a marker, or a pencil to mark the top mounting hole **(A)** of the third EIA unit. Insert a nut clip at this location.
- c. Mark the top mounting hole on the lowest EIA unit.

**Note:** Mark the rack so that these marks can also be seen from the rear of the rack.

- d. Count up two holes and place another mark **(B)** beside that mounting hole. You now have two **(B)** marks on the rack, with one mounting hole between the marks.

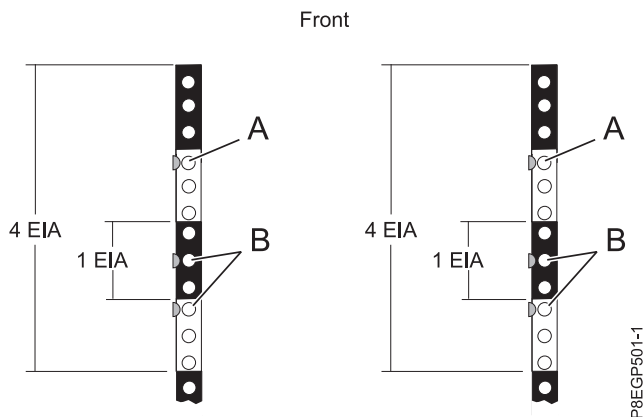


Figure 2. Marking the front installation locations

5. Repeat these steps to place three marks on the corresponding mounting holes on the front-right side of the rack. Insert a nut clip in the (A) mark.
6. Go to the rear of the rack and work from the left side to complete the following steps:
  - a. Find the EIA unit that corresponds to the lowest EIA unit marked on the front of the rack.
  - b. Use tape, a marker, or a pencil to mark the top mounting hole of this EIA unit.
  - c. Count up two holes and place another mark (C) beside that mounting hole. You now have two (C) marks on the rack, with one mounting hole between the marks.
  - d. Count up three mounting holes from where you placed your last mark, and place another mark next to that mounting hole.
  - e. Count up three holes and place another mark (D) beside that mounting hole. You now have two (D) marks on the rack. Insert nut clips in these two locations.

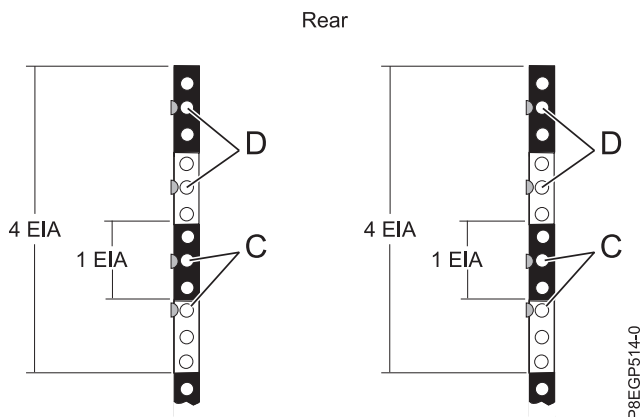


Figure 3. Marking the rear installation locations

**Note:** During this procedure, put nut clips in the (D) marks. Then, during the procedure to attach the mounting hardware to the rack, put rail pins in the (C) marks.

7. Repeat these steps to place four marks on the corresponding mounting holes on the rear-right side of the rack. Insert nut clips in the (D) marks.

### Attaching the 8247-42L mounting hardware to the rack

You might need to attach the mounting hardware to the rack. Use the procedure in this section to perform this task. This section also includes illustrations of the related hardware components and shows how these components relate to each other.

**Attention:** To avoid rail failure and potential danger to yourself and to the unit, ensure that you have the correct rails and fittings for your rack. If your rack has square support flange holes or screw-thread support flange holes, ensure that the rails and fittings match the support flange holes that are used on your rack. Do not install mismatched hardware by using washers or spacers. If you do not have the correct rails and fittings for your rack, contact your IBM reseller.

**Important:** To complete this procedure, it is suggested that you use two people to attach the rail assembly to the rack. Position one person in front of the rack and one person at the back of the rack.

To install the mounting hardware into the rack, complete the following steps:

1. Rotate down the front and back clamps (C) on the left and right rails as shown in

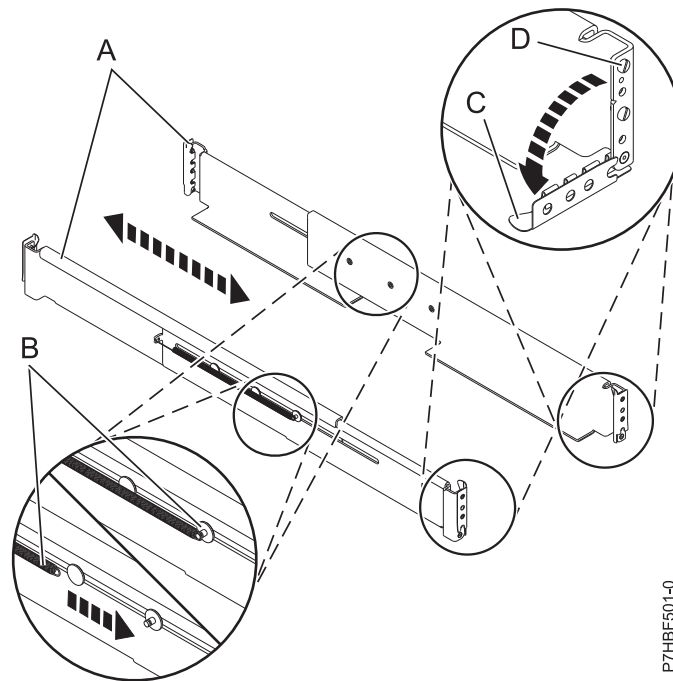


Figure 4. Installing the rails

2. On each rail, remove the tape that is holding the spring (B) to the rail. Hook the end of the spring around the circular standoff on the rail as shown in
3. Starting at the front of the rack, complete the following steps:
  - a. Extend the right rail and insert the rail pins (D) into the two lowest mounting holes that are marked on the rack so that the rail is facing upward as shown in
  - b. Rotate up the front clamp (C) to secure the rail in place as shown in

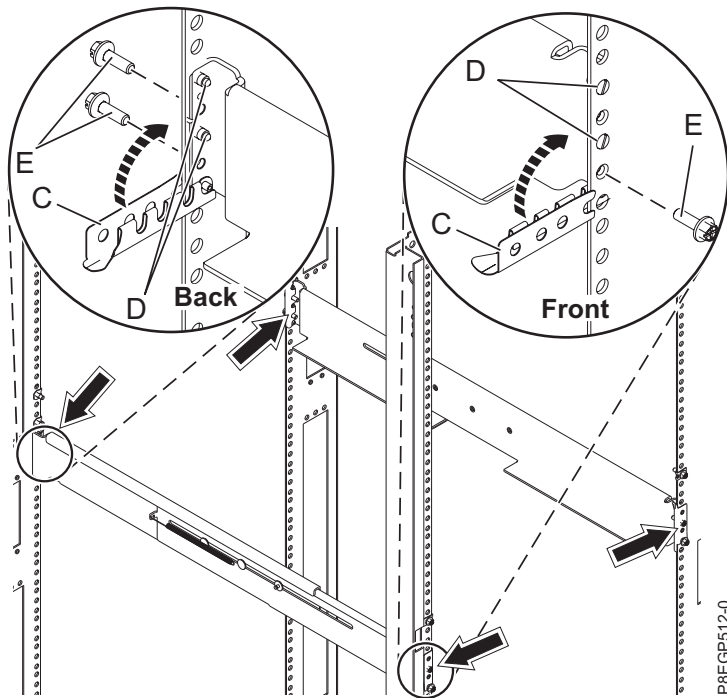


Figure 5. Attaching the rails

**Remember:** If your rack has square mounting holes, use the larger rail pins that are provided with the rack installation kit.

- c. Extend the left rail and insert the rail pins (D) into the two lowest mounting holes that are marked on the rack. Rotate up the front clamp (C) to secure the rail in place.
4. Move to the rear of the rack, and complete the following steps:
  - a. Extend the right rail, and insert the rail pins (D) into the two lowest mounting holes that are marked on the rack. Rotate up the back clamp (C) to secure the rail in place.
  - b. Extend the left rail and insert the rail pins (D) into the two lowest mounting holes that are marked on the rack. Rotate up the back clamp (C) to secure the rail in place.
  - c. Use two M5 screws (E), one below each rail pin (D) to secure the left rail to the back of the rack.
  - d. Use two M5 screws (E), one below each rail pin (D) to secure the right rail to the back of the rack.
5. Move to the front of the rack and complete the following steps:
  - a. Use one M5 screw (E) below the lower rail pin (D) to secure the left rail to the front of the rack.
  - b. Use one M5 screw (E), below the lower rail pin (D) to secure the right rail to the front of the rack.

## Installing the server into a rack

Learn how to install the system into the rack.

### CAUTION:

This system requires three people to install the system into the rack.

**Attention:**

- Attach an electrostatic discharge (ESD) wrist strap to an unpainted metal surface of your hardware to prevent the electrostatic discharge from damaging your hardware.
- When using an ESD wrist strap, follow all electrical safety procedures. An ESD wrist strap is used for static control. It does not increase or decrease your risk of receiving electric shock when using or working on electrical equipment.
- If you do not have an ESD wrist strap, just prior to removing the product from ESD packaging and installing or replacing hardware, touch an unpainted metal surface of the system for a minimum of 5 seconds.

To install the system into the rack, complete the following steps:

1. Extend the slide rails forward (1) until they click twice into place. Carefully lift the server and tilt it into position over the slide rails so that the rear nail heads (2) on the server line up with the rear slots (3) on the slide rails. Slide the server down until the rear nail heads slip into the two rear slots. Then, slowly lower the front of the server (4) until the other nail heads slip into the other slots on the slide rails. Ensure that the front latch (5) slides over the nail heads.

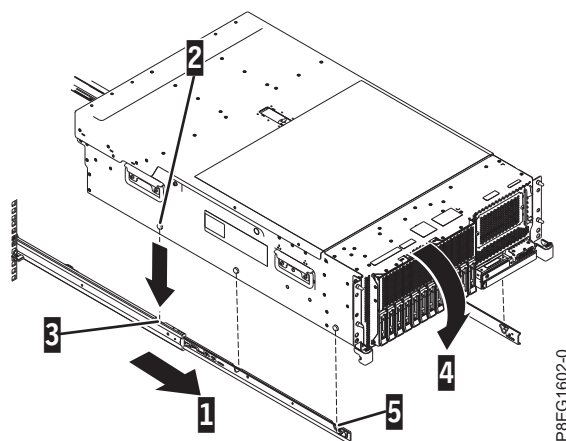


Figure 6. Extending slide rails and aligning server nail heads with the slots on the rail

2. Lift the blue release latches (1) on the slide rails and push the server (2) all the way into the rack until it clicks into place.

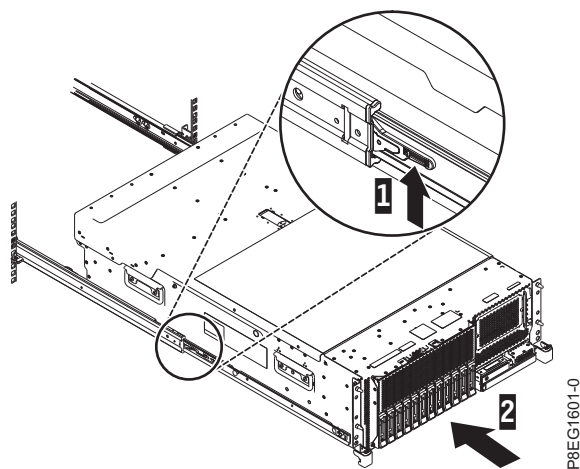


Figure 7. Release latches and server

## Installing the cable-management arm

The cable-management arm is used to efficiently route cables so that you have proper access to the rear of the system. Use the procedure to install the cable-management arm.

To install the cable-management arm, complete the following steps:

1. Ensure that you have the following parts.

- A** Support arm
- B** Cable-management stop bracket
- C** Mounting bracket
- D** Cable-management arm
- E** Extension bracket

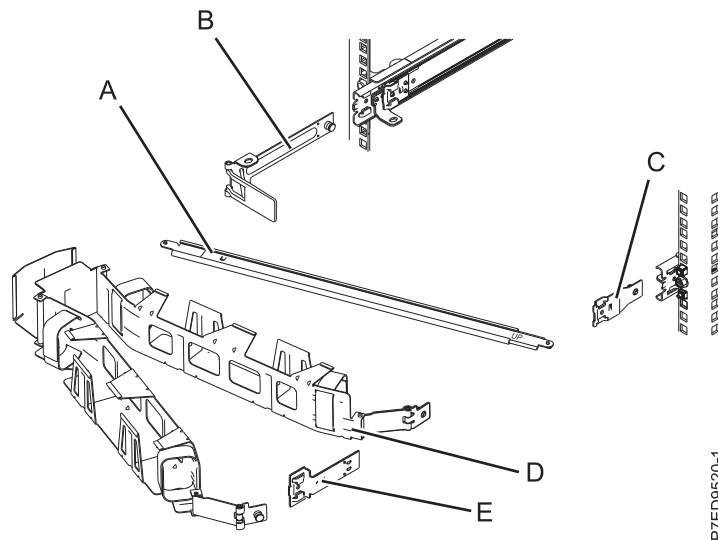


Figure 8. Relative positions of the cable-management arm parts before assembly

2. The cable-management arm can be installed on either side of the server. For this procedure, it is illustrated that you are installing it on the right side, while you are facing the server from the rear. Connect one end of the support arm (**A**) to the right slide rail (**1**) so that you can swing the other end of the support arm toward the left side of the rack (**2**).

**Note:** The support arm (**A**) is labeled UP and DOWN. Ensure that the side labeled UP is facing upward and to the right.



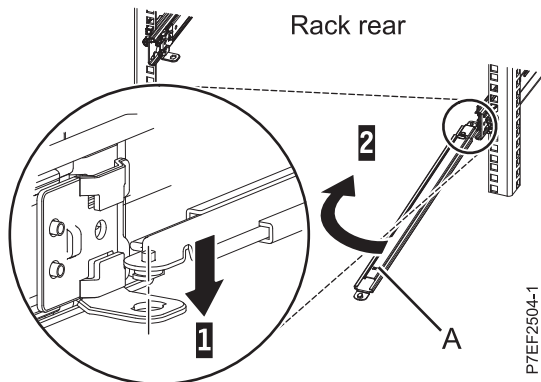


Figure 9. Connecting the support arm

3. Locate the hole at the bottom inside corner of the L-shaped cable-management stop bracket (**B**). Position the unattached end of the support arm so that the locking tab on the underside of its tip aligns with the bracket hole. Insert the tab into the hole (1) and turn the bracket (2) to secure it to the support arm. For details, see Figure 10.

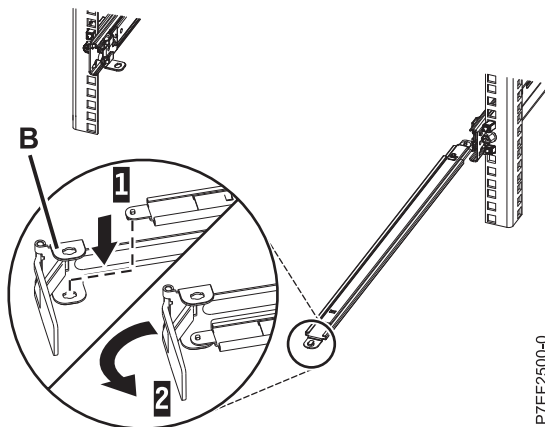


Figure 10. Securing the cable-management stop bracket to the support arm

4. Attach the cable-management stop bracket (**B**) to the slot on the inside of the left slide by sliding the stop bracket (**B**) into the slide rail until the spring-loaded pin snaps into place. For details, see Figure 11 on page 10.

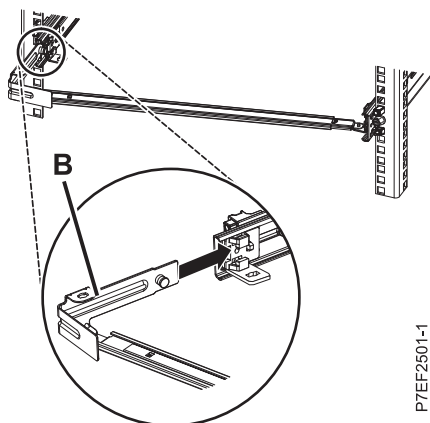


Figure 11. Extending the pin, and installing the bracket into the slide rail

5. Slide the extension bracket (**E**) into the right slide rail until the spring-loaded pin snaps into place. For details, see Figure 12.

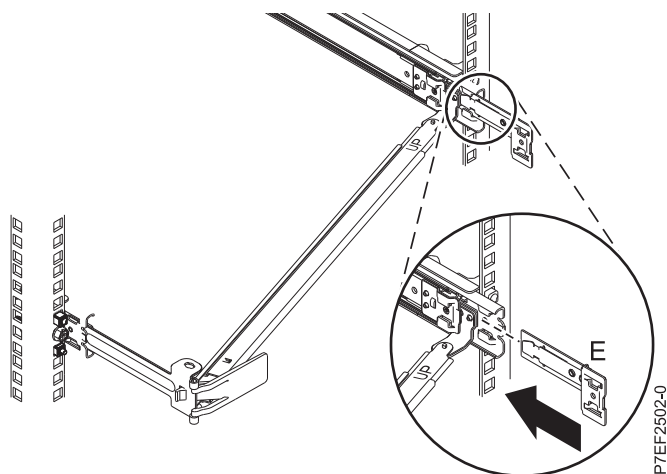


Figure 12. Installing the extension bracket into the slide rail

6. Attach the cable-management stop bracket (**B**) to the slot on the inside of the left slide by sliding the stop bracket (**B**) into the slide rail until the spring-loaded pin snaps into place. For details, see Figure 13 on page 11.

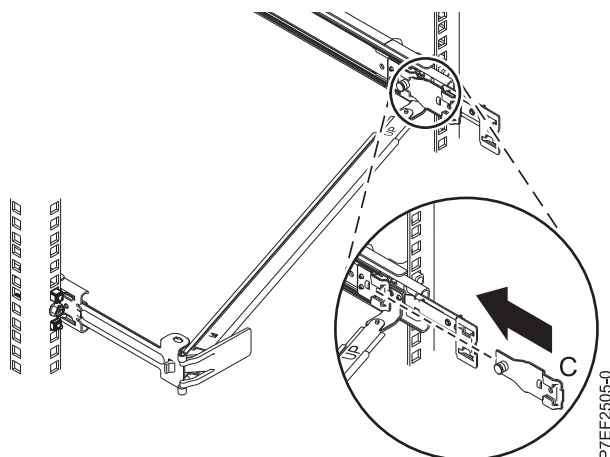


Figure 13. Installing the mounting bracket into the slide rail

7. Place the cable-management arm (D) on the support arm (A). Slide the first cable-management arm tab into the slot on the mounting bracket (C). Push the tab until the spring-loaded latch snaps into place. Slide the other cable-management arm tab into the extension bracket (E) on the outside of the right slide rail (2). Push the tab until the spring-loaded latch snaps into place. For details, see Figure 14 and Figure 15 on page 12.

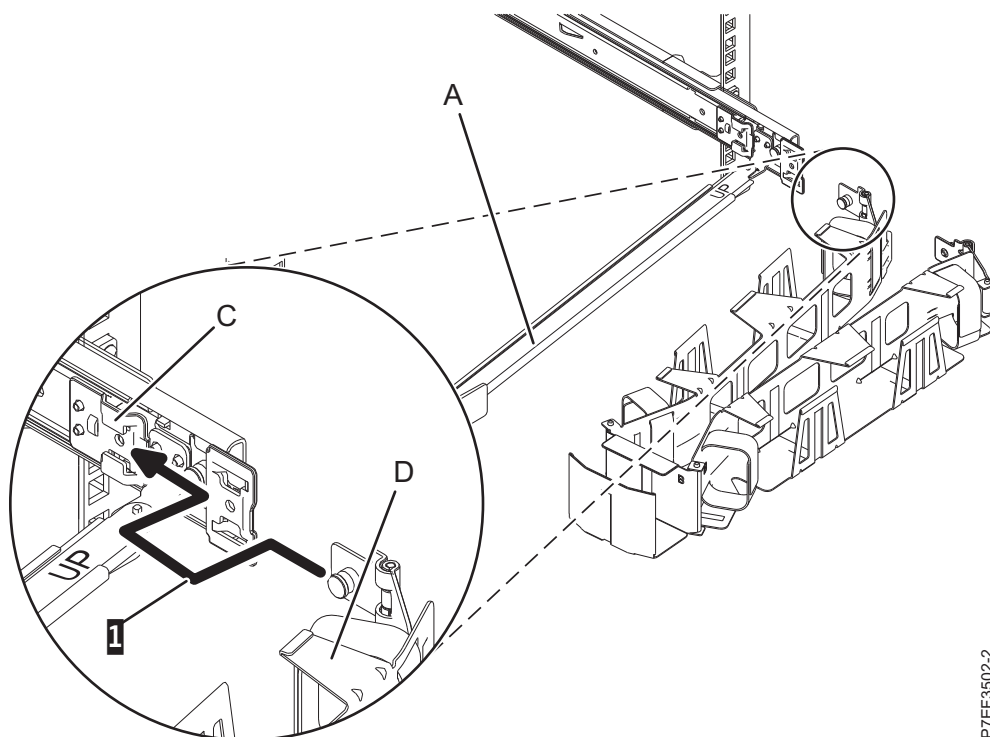


Figure 14. Sliding the cable-management arm tab into the mounting bracket slot

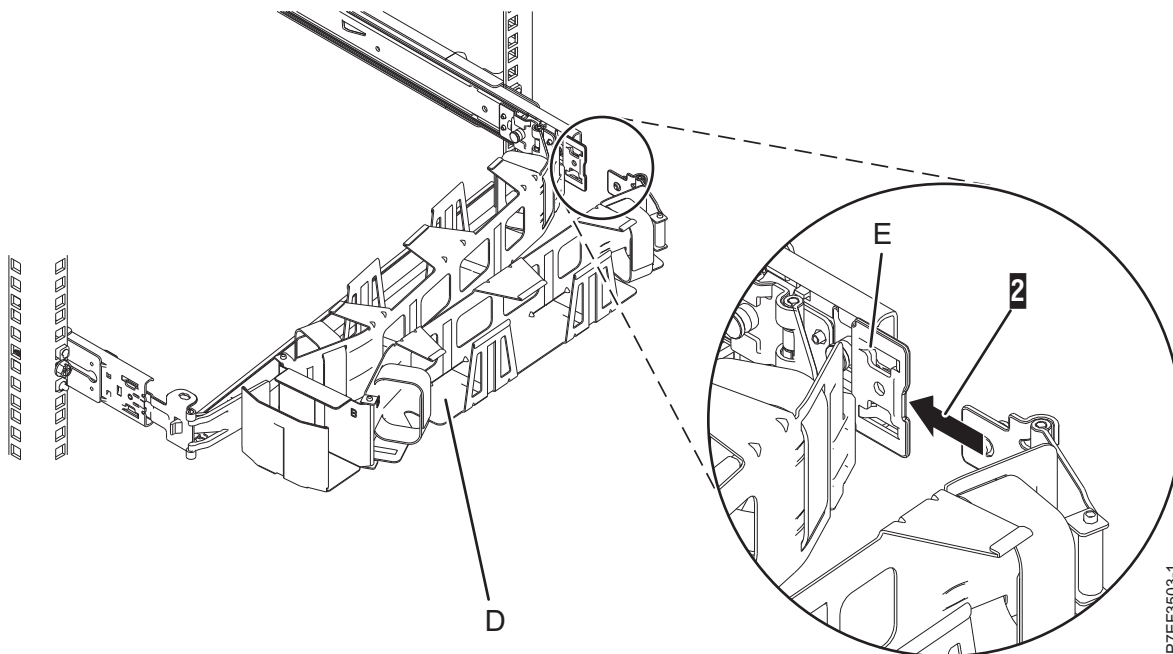


Figure 15. Sliding the other cable-management arm tab into the extension bracket

## Cabling the server with an ASCII terminal

You can use an ASCII terminal to manage a server that is running the Linux operating system. From the ASCII terminal, you can access the Advanced System Management Interface (ASMI) to complete more installation tasks.

The ASCII terminal is connected to the server through a serial link. The ASCII interface to the ASMI provides a subset of the web interface functions. The ASCII terminal for the ASMI interface is available only when the system is in the standby state. It is not available during the initial program load (IPL) or run time.

**Note:** If you are using a serial connection to the ASMI terminal, you must use a conversion cable. This cable (part number 46K5108) is used to convert the ASCII terminal 9-pin Dshell connector to an RJ45 serial port connector on the system. For information about the locations of the connectors on the system, see Part locations and location codes ([http://www.ibm.com/support/knowledgecenter/POWER8/p8ecs/p8ecs\\_locations.htm](http://www.ibm.com/support/knowledgecenter/POWER8/p8ecs/p8ecs_locations.htm)).

To cable an ASCII terminal to the server, complete the following steps:

1. Using a serial cable that is equipped with a null modem, connect the ASCII terminal to the serial port on the rear of the server.
2. Complete the following steps:
  - a. Plug the power cord into the power supply.
  - b. Plug the system power cords and the power cords for any other attached devices into the power source.
  - c. If your system uses a power distribution unit (PDU), complete the following steps:
    - 1) Connect the system power cords from the server and I/O drawers to the PDU with an IEC 320 type receptacle.
    - 2) Attach the PDU input power cord and plug it into the power source.
    - 3) If your system uses two PDUs for redundancy, complete the following steps:

- If your system has two power supplies, attach one power supply to each of the two PDUs.
- If your system has four power supplies, plug E1 and E2 to **PDU A** and E3 and E4 to **PDU B**.

**Note:** Confirm that the system is in standby mode. The green power status indicator on the front control panel is flashing, and the dc out indicator lights on the power supplies are flashing. If none of the indicators are flashing, check the power cord connections. For details, see “Common system attention LEDs and system reference codes” on page 21.

3. Wait for the green light on the control panel to start flashing.
4. Ensure that your ASCII terminal is set to the following general attributes.

These attributes are the default settings for the diagnostic programs. Be sure that your terminal is set according to these attributes before proceeding to the next step.

*Table 2. Default settings for the diagnostic programs*

General setup attributes	3151 /11/31/41 settings	3151 /51/61 settings	3161 /64 settings	Description
Line speed	19,200	19,200	19,200	Uses the 19,200 (bits per second) line speed to communicate with the system unit.
Word length (bits)	8	8	8	Selects 8 bits as a data word length (byte).
Parity	No	No	No	Does not add a parity bit and is used together with the word length attribute to form the 8-bit data word (byte).
Stop bit	1	1	1	Places a bit after a data word (byte).

5. Press a key on the ASCII terminal to allow the service processor to confirm the presence of the ASCII terminal.
6. When the login display appears for the ASMI, enter admin for the user ID and password.
7. Change the default password when you are prompted.
8. Press Enter until the server information appears. You have completed the setup for an ASCII terminal, and have started the ASMI.
9. Continue with “Completing server setup” on page 18.

## Cabling the server

Learn how to cable the server.

To cable the server, complete the following steps:

1. Complete the following steps:
  - a. Plug the power cord into the power supply.
  - b. Plug the system power cords and the power cords for any other attached devices into the power source.
  - c. If your system uses a power distribution unit (PDU), complete the following steps:
    - 1) Connect the system power cords from the server and I/O drawers to the PDU with an IEC 320 type receptacle.
    - 2) Attach the PDU input power cord and plug it into the power source.
    - 3) If your system uses two PDUs for redundancy, complete the following steps:
      - If your system has two power supplies, attach one power supply to each of the two PDUs.
      - If your system has four power supplies, plug E1 and E2 to **PDU A** and E3 and E4 to **PDU B**.

**Note:** Confirm that the system is in standby mode. The green power status indicator on the front control panel is flashing, and the dc out indicator lights on the power supplies are flashing. If none of the indicators are flashing, check the power cord connections. For details, see “Common system attention LEDs and system reference codes” on page 21.

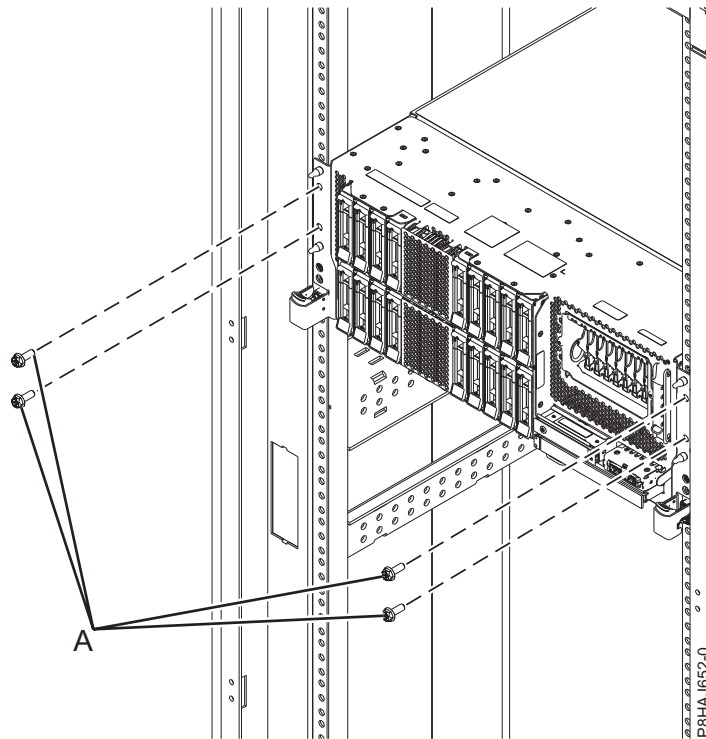
2. For information about connecting enclosures and expansion units, see Enclosures and expansion units ([http://www.ibm.com/support/knowledgecenter/POWER8/p8ham/p8ham\\_kickoff.htm](http://www.ibm.com/support/knowledgecenter/POWER8/p8ham/p8ham_kickoff.htm)).

## Completing server setup

Use this procedure to complete your server setup.

To complete the server setup, complete the following steps:

1. Attach the server to the rack using the shipping screws (A) that were provided with your system.



2. Configure your server to use the Ubuntu operating system. To perform the following tasks, see Ubuntu on Power Systems servers (<http://www-01.ibm.com/support/knowledgecenter/linuxonibm/liabu/liabuoverview.htm>).
  - a. Install and configure Ubuntu
  - b. Update system firmware
  - c. Update the Ubuntu operating system
  - d. Configure and use the NVIDIA CUDA toolkit
3. You have now completed the steps to install your server.

## Setting up a preinstalled server

Learn how to set up a server that arrives preinstalled in a rack.

### Prerequisite for installing the preinstalled server

Use the information to understand the prerequisites that are required for setting up the preinstalled server.

You might need to read the following documents before you begin to install the server:

- The latest version of this document is maintained online. See Installing the IBM Power System S824L (8247-42L) ([http://www.ibm.com/support/knowledgecenter/POWER8/p8egk/p8egk\\_roadmap.htm](http://www.ibm.com/support/knowledgecenter/POWER8/p8egk/p8egk_roadmap.htm)).
- To plan your server installation, see Planning for the system ([http://www.ibm.com/support/knowledgecenter/POWER8/p8had/p8had\\_8xx\\_kickoff.htm](http://www.ibm.com/support/knowledgecenter/POWER8/p8had/p8had_8xx_kickoff.htm)).

Consider the following prerequisites before you install the server:

Ensure that you have the following items before you start your installation:

- Phillips screwdriver
- Flat-head screwdriver

## **Completing inventory for your preinstalled server**

Use this information to complete inventory for your server.

To complete the inventory, complete the following steps:

1. Verify that you received all the boxes you ordered.
2. Unpack the server components as needed.
3. Complete a parts inventory before you install each server component by following these steps:
  - a. Locate the inventory list for your server.
  - b. Ensure that you received all the parts that you ordered.

**Note:** Your order information is included with your product. You can also obtain order information from your marketing representative or the IBM Business Partner.

If you have incorrect, missing, or damaged parts, consult any of the following resources:

- Your IBM reseller.
- IBM Rochester manufacturing automated information line at 1-800-300-8751 (United States only).
- The Directory of worldwide contacts website <http://www.ibm.com/planetwide>. Select your location to view the service and support contact information.

## **Removing the shipping bracket and connecting power cords and power distribution unit (PDU) for your preinstalled server**

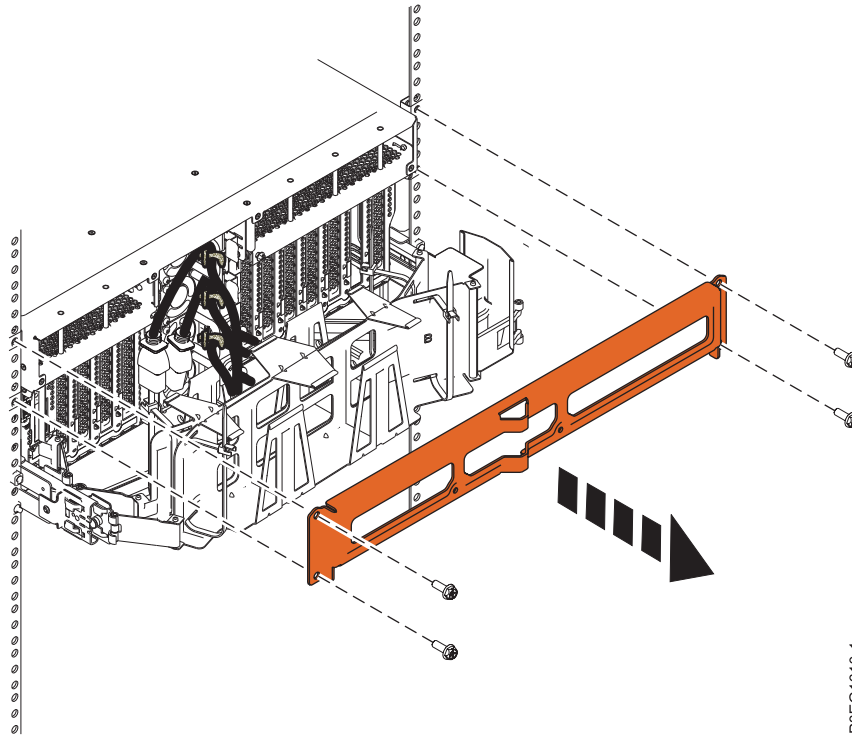
Before you set up a console, you must remove the shipping bracket and connect power cords.

### **Attention:**

- Attach an electrostatic discharge (ESD) wrist strap to an unpainted metal surface of your hardware to prevent the electrostatic discharge from damaging your hardware.
- When using an ESD wrist strap, follow all electrical safety procedures. An ESD wrist strap is used for static control. It does not increase or decrease your risk of receiving electric shock when using or working on electrical equipment.
- If you do not have an ESD wrist strap, just prior to removing the product from ESD packaging and installing or replacing hardware, touch an unpainted metal surface of the system for a minimum of 5 seconds.

To remove the shipping bracket and connect power cords, do the following:

1. Remove the four screws that secure the shipping bracket to the chassis.



P8EG1610-1

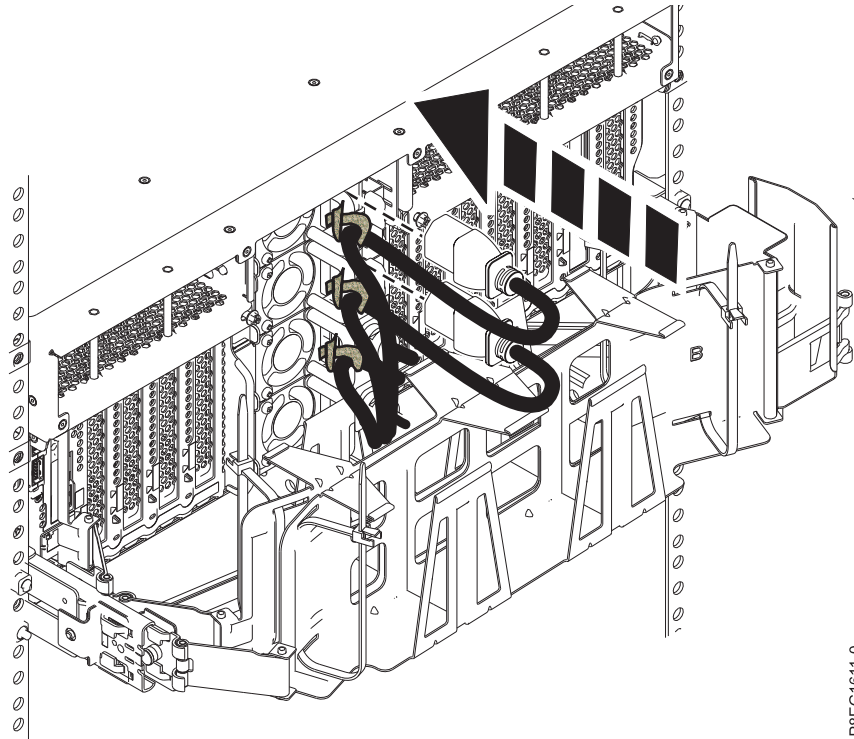
*Figure 16. Removing the shipping bracket from the rear of the chassis*

Store the shipping bracket if you want to move your system at a later date.

2. Cable the server.

- a. Plug the power cords into the power supplies and attach the cables to the handles on the power supplies using cable ties or hook-and-loop fasteners.





P8EG1611-0

Figure 17. Plugging the power cords into the power supplies and attaching cables to the power supplies handles

- b. Connect the system power cords from the server and I/O drawers to the PDU with an IEC 320 type receptacle.
- c. Attach the PDU input power cord and plug it into the power source.

### Cabling the server with an ASCII terminal

You can use an ASCII terminal to manage a server that is running the Linux operating system. From the ASCII terminal, you can access the Advanced System Management Interface (ASMI) to complete more installation tasks.

The ASCII terminal is connected to the server through a serial link. The ASCII interface to the ASMI provides a subset of the web interface functions. The ASCII terminal for the ASMI interface is available only when the system is in the standby state. It is not available during the initial program load (IPL) or run time.

**Note:** If you are using a serial connection to the ASMI terminal, you must use a conversion cable. This cable (part number 46K5108) is used to convert the ASCII terminal 9-pin Dshell connector to an RJ45 serial port connector on the system. For information about the locations of the connectors on the system, see Part locations and location codes ([http://www.ibm.com/support/knowledgecenter/POWER8/p8ecs/p8ecs\\_locations.htm](http://www.ibm.com/support/knowledgecenter/POWER8/p8ecs/p8ecs_locations.htm)).

To cable an ASCII terminal to the server, complete the following steps:

1. Using a serial cable that is equipped with a null modem, connect the ASCII terminal to the serial port on the rear of the server.
2. Complete the following steps:
  - a. Plug the power cord into the power supply.
  - b. Plug the system power cords and the power cords for any other attached devices into the power source.
  - c. If your system uses a power distribution unit (PDU), complete the following steps:

- 1) Connect the system power cords from the server and I/O drawers to the PDU with an IEC 320 type receptacle.
- 2) Attach the PDU input power cord and plug it into the power source.
- 3) If your system uses two PDUs for redundancy, complete the following steps:
  - If your system has two power supplies, attach one power supply to each of the two PDUs.
  - If your system has four power supplies, plug E1 and E2 to **PDU A** and E3 and E4 to **PDU B**.

**Note:** Confirm that the system is in standby mode. The green power status indicator on the front control panel is flashing, and the dc out indicator lights on the power supplies are flashing. If none of the indicators are flashing, check the power cord connections. For details, see “Common system attention LEDs and system reference codes” on page 21.

3. Wait for the green light on the control panel to start flashing.
4. Ensure that your ASCII terminal is set to the following general attributes.  
These attributes are the default settings for the diagnostic programs. Be sure that your terminal is set according to these attributes before proceeding to the next step.

*Table 3. Default settings for the diagnostic programs*

General setup attributes	3151 /11/31/41 settings	3151 /51/61 settings	3161 /64 settings	Description
Line speed	19,200	19,200	19,200	Uses the 19,200 (bits per second) line speed to communicate with the system unit.
Word length (bits)	8	8	8	Selects 8 bits as a data word length (byte).
Parity	No	No	No	Does not add a parity bit and is used together with the word length attribute to form the 8-bit data word (byte).
Stop bit	1	1	1	Places a bit after a data word (byte).

5. Press a key on the ASCII terminal to allow the service processor to confirm the presence of the ASCII terminal.
6. When the login display appears for the ASMI, enter admin for the user ID and password.
7. Change the default password when you are prompted.
8. Press Enter until the server information appears. You have completed the setup for an ASCII terminal, and have started the ASMI.
9. Continue with “Completing server setup.”

## Routing cables through the cable-management arm and connecting expansion units

Use this procedure to route cables through the cable-management arm and to connect expansion units.

To route cables through the cable-management arm and to connect expansion units, complete the following steps:

1. Route the console cable through the cable management arm.
2. Continue with “Completing server setup.”

## Completing server setup

Use this procedure to complete your server setup.

To complete the server setup, complete the following steps:

1. Configure your server to use the Ubuntu operating system. To perform the following tasks, see Ubuntu on Power Systems servers (<http://www-01.ibm.com/support/knowledgecenter/linuxonibm/liabu/liabuoverview.htm>).
  - a. Install and configure Ubuntu
  - b. Update system firmware
  - c. Update the Ubuntu operating system
  - d. Configure and use the NVIDIA CUDA toolkit
2. You have now completed the steps to install your server.



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## Common information for installing servers

Use this information to learn more about the tasks associated with a system installation.

---

### Common system attention LEDs and system reference codes

Find LED and system reference code (SRC) information for recovering recover from common installation problems.

The following table describes light-emitting diode (LED) status behaviors and describes the meaning of each behavior.

*Table 4. Common installation system attention LEDs*

Front power status LED (green)	ac in (green)	dc out (green)	Fault (yellow)	Description
On	On	On	Off	Power is being supplied to the system and the system is powered on.
Flashing	On	Flashing	Off	Power is being supplied to the system.
Flashing	Off	Flashing	Off	Power is not being supplied to one of the power supplies, but power is being supplied to the second power supply, and the system is in standby mode.
On	Off	Flashing	Off	Power is not being supplied to one of the power supplies, but power is being supplied to the second power supply, and the system is powered on.
Off	Off	Off	Off	Power is not being supplied to either power supply.
Flashing	On	Off or flashing	On	Power is being applied, but the power supply is not functioning properly and the system is in standby mode.
On	On	Off or flashing	On	Power is being applied, but the power supply is not functioning properly and the system is powered on.
Flashing	On	On	On	110 volts are being applied. This system requires 220 volts.

The following table describes system reference codes (SRCs) that you might encounter during installation.

Table 5. Common installation SRCs

SRC	Error description	Recovery steps
1000xxx 1100xxx 509Axxx 509Dxxx 50A4xxx 50ADxxx 50B1xxx	ac input and power supply connections	<ol style="list-style-type: none"> <li>1. Verify that power cords are plugged in correctly in the following locations: <ul style="list-style-type: none"> <li>• Drawer</li> <li>• Power distribution unit (PDU), if applicable</li> <li>• Battery backup unit (BBU), if applicable</li> <li>• Input source power receptacle</li> </ul> </li> <li>2. Verify that the power supplies are seated and latched into position.</li> </ol>
11002613	Your power voltages do not match	Ensure that you are using the correct power voltage. Refer to your server's specifications to learn more about the power voltage that your server requires.
Starts with 27xxx, 28xx, 57xxx  and ends with xxxx3120, xxxx3121	Fibre Channel port failure	These errors are often caused by ports that are not used. Every port must have a cable or wrap plug installed. Whenever a cable is not installed, ensure that a wrap plug is installed for each unused port. Wrap plugs are shipped automatically when a Fibre Channel feature code is ordered.
B1A38B24	Network configuration	Ensure that you have entered the correct IP address.

## Best practices for integrating cable and system placement

These guidelines ensure that your system and its cables have optimal clearance for maintenance and other operations. The guidelines also provide guidance in correctly cabling your system and using the appropriate cables.

The following guidelines provide cabling information for installing, migrating, relocating, or upgrading your system:

- Position drawers in racks to allow enough space, where possible, for routing cables on the bottom and top of the rack, and between drawers.
- Shorter drawers are not placed between longer drawers in the rack (for example, do not place a 19-inch drawer between two 24-inch drawers).
- When a specific cable plugging sequence is required, for example, for concurrent maintenance (symmetric multiprocessing cables), label the cables appropriately and note the sequence order.
- To facilitate cable routing, install cables in the following order:
  1. System power control network (SPCN) cables
  2. Power cables
  3. Communications (serial-attached SCSI, InfiniBand, remote input/output, and peripheral component interconnect express) cables

**Note:** Install and route the communications cables, starting with the smallest diameter first and then progressing to the largest diameter. This applies to installing them into the cable management arm and retaining them to the rack, brackets, and other features that may be provided for cable management.

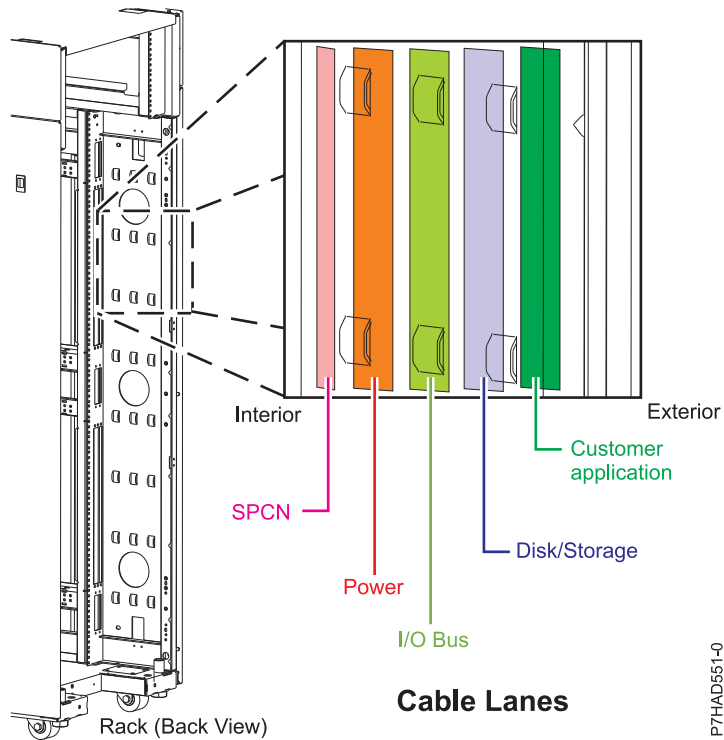


Figure 18. Cable management cable lanes

- Use the innermost cable-management bridge lanes for SPCN cables.
- Use the middle cable-management bridge lanes for power and communications cables.
- The outermost row of cable-management bridge lanes are available for use when routing cables.
- Use the cable lanes on the sides of the rack to manage excess SPCN and power cables.
- Four cable-management bridge lanes on the top of the rack. Use these bridge lanes to route the cables from one side of the rack to the other, by routing to the top of the rack, where possible. This routing helps to avoid having a cable bundle that blocks the cable exit opening at the bottom of the rack.
- Use the cable-management brackets that are provided with the system to maintain concurrent maintenance routing.

## Cable bend radius

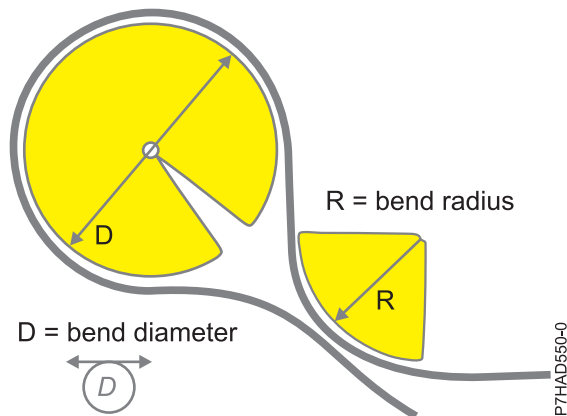


Figure 19. Cable bend radius

- Maintain a minimum bend diameter of 101.6 mm (4 in.) for communications (SAS, IB, RIO, and PCIe) cables.
- Maintain a minimum bend diameter of 50.8 mm (2 in.) for power cables.
- Maintain a minimum bend diameter of 25.4 mm (1 in.) for SPCN cables.
- Use the shortest-length cable available for each point-to-point connection.
- If cables must be routed across the rear of a drawer, leave enough slack to reduce the tension on the cables for maintenance of the drawer.
- When routing cables, leave enough slack around the power connection on the power distribution unit (PDU) so that the wall-to-PDU line cord can be attached to the PDU.
- Use hook-and-loop fasteners where necessary.

---

## Supporting information for setting up consoles

Use this information if you need to access the Advanced System Management Interface by using a web browser if you need to set IP addresses on your notebook, or if you need to troubleshoot a connection.

### Accessing the ASMI by using a web browser

If your system is not managed by a Hardware Management Console (HMC), you can connect a PC or notebook to the server to access the Advanced System Management Interface (ASMI). You need to configure the Web browser address on the PC or notebook to match the manufacturing default address on the server.

To set up the Web browser for direct or remote access to the ASMI, complete the following steps:

1. If the server is not powered on, perform the following steps:
  - a. Connect your power cord or cords to the server.
  - b. Plug the power cord or cords into the power source.
  - c. Wait for the control panel to display 01. A series of progress codes are shown before 01 appears.

#### Notes:

- The system is powered on if the light on the control panel is green.
- To view the control panel, press the blue switch to the left, then pull out the control panel all the way, and then pull it down.

**Important:** Do not connect an Ethernet cable to either the HMC1 port or the HMC2 port until you are directed to do so later in this procedure.

2. Select a PC or notebook that has Netscape 9.0.0.4, Microsoft Internet Explorer 7.0, Opera 9.24, or Mozilla Firefox 2.0.0.11 to connect to your server.

**Note:** If the PC or notebook on which you are viewing this document does not have two Ethernet connections, another PC or notebook needs to be connected to your server to access the ASMI.

If you do not plan to connect your server to your network, this PC or notebook is your ASMI console.

If you plan to connect your server to your network, this PC or notebook temporarily connects directly to the server for setup purposes only. After setup, you can use any PC or notebook on your network that is running Netscape 9.0.0.4, Microsoft Internet Explorer 7.0, Opera 9.24, or Mozilla Firefox 2.0.0.11 as your ASMI console.

**Note:** Complete the following steps to disable the TLS 1.0 option in Microsoft Internet Explorer to access the ASMI using Microsoft Internet Explorer 7.0 running on Windows XP:

- a. From the **Tools** menu in Microsoft Internet Explorer, select **Internet Options**.
- b. From the Internet Options window, click the **Advanced** tab.
- c. Clear the **Use TLS 1.0** check box (in the Security category) and click **OK**.



3. Connect an Ethernet cable from the PC or notebook to the Ethernet port labeled **HMC1 (T4)** on the back of the managed system. If **HMC1 (T4)** is occupied, connect an Ethernet cable from the PC or notebook to the Ethernet port labeled **HMC2 (T5)** on the rear of the managed system.

**Important:** If you attach an Ethernet cable to the service processor before the system reaches power off standby, the IP address shown in Table 6 might not be valid. For details, see “Correcting an IP address” on page 26.

4. Use Table 6 to help you determine and record the information needed to set the IP address of the service processor on the PC or notebook. The Ethernet interface on the PC or notebook needs to be configured within the same subnet mask as the service processor so that they can communicate with each other. For example, if you connected your PC or notebook to HMC1, the IP address for your PC or notebook could be 169.254.2.140 and the subnet mask would be 255.255.255.0. Set the gateway IP address to the same IP address as the PC or notebook

*Table 6. Network configuration information for the service processor in a POWER8 processor-based system*

POWER8® processor-based systems	Server connector	Subnet mask	IP address of the service processor	Example of an IP address for your PC or notebook
Service processor A	HMC1	255.255.255.0	169.254.2.147	169.254.2.140
	HMC2	255.255.255.0	169.254.3.147	169.254.3.140

5. Set the IP address on your PC or notebook by using the values from the table. For details, see “Setting the IP address on your PC or notebook.”
6. To access the ASMI by using a web browser, complete the following steps:
  - a. Use Table 6 to determine the IP address of the service processor Ethernet port that your PC or notebook is connected to.
  - b. Type the IP address in the **Address** field on the Web browser of your PC or notebook and press Enter. For example, if you connected your PC or notebook to HMC1, type <https://169.254.2.147> in the Web browser on your PC or notebook.

**Note:** It might take up to 2 minutes for the ASMI login display to be shown in the Web browser after the Ethernet cable is plugged into the service processor in step 3. During this time, if you use control panel function 30 to view the IP addresses on the service processor, incomplete or inaccurate data is shown.

7. When the Login display appears, enter admin for the user ID and password.
8. Change the default password when prompted.
9. Choose from the following options:
  - If you do not plan to connect your PC or notebook to your network, this ends this procedure. You can now perform tasks such as changing the time of day or changing the altitude setting.
  - If you plan to connect your PC or notebook to your network, see Accessing the ASMI without an HMC ([http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/p8hby/connect\\_asmi.htm](http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/p8hby/connect_asmi.htm)).

## Setting the IP address on your PC or notebook

To access the Advanced System Management Interface (ASMI) through a web browser, you first need to set the IP address on a PC or notebook. The following procedures describe setting the IP address on a PC or notebook that is running the Linux operating system and the Microsoft Windows XP, 2000, and Vista operating systems.

You need the information that you recorded in step 4 in the “Accessing the ASMI by using a web browser” on page 24 topic to complete the following procedure.

## Windows Vista

To set the IP address within Windows Vista, complete the following steps:

1. Click **Start > Control Panel**.
2. Ensure **Classic View** is selected.
3. Click **Network and Sharing Center**.
4. Click **View status** in the Public network area.
5. Click **Properties**.
6. If the Security window is shown, click **Continue**.
7. Highlight **Internet Protocol Version 4** and click **Properties**.
8. Select **Use the following IP address**.
9. Complete the **IP address**, **Subnet mask**, and **Default gateway** fields by using the values that you recorded in the “Accessing the ASMI by using a web browser” on page 24 topic.
10. Click **OK > Close > Close**.

## Windows 7

To set the IP address within Windows 7, complete the following steps:

1. Click **Start > Control Panel > Network and Internet > Network and Sharing Center**.
2. Click **Change adapter settings** to choose your network adapter.
3. Right-click the adapter and choose **Properties** to open up the properties window.
4. Select **Internet Protocol Version 4(TCP/IPv4)**, and then click **Properties**.  
**Attention:** Record the current settings before you make any changes. Use this information to restore these settings if you disconnect the PC or notebook after you set up the ASMI web interface.
5. Select **Use the Following IP Address**.
6. Complete the **IP address**, **Subnet mask**, and **Default gateway** fields by using the values that you recorded in the “Accessing the ASMI by using a web browser” on page 24 topic.
7. In the Local Area Connection Properties window, click **OK**. It is not necessary to restart your PC.

## Correcting an IP address

If you attach an Ethernet cable to the service processor before the system reaches power off standby, the IP address shown in the service processor network configuration table might not be valid.

If a cable is attached and not connected to anything, nothing happens. The address could potentially change if an Ethernet cable that is attached to a network is connected to that port and if the system is turned on. If you are unable to access the Advanced System Management Interface (ASMI) by using a network connection, complete one of the following tasks:

- Using a serial cable that is equipped with a null modem, connect the ASCII terminal to the serial port on the rear of the server.
- Determine the current IP address. For details, see Function 30: Service processor IP address and port location(<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/p8hb5/func30.htm>).
- Move the reset toggle switches on the service processor from their current position to the opposite position. To perform this task, you must remove and replace the service processor. For details, contact your next level of support.

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Properly shielded and grounded cables and connectors must be used in order to meet FCC emission limits. IBM is not responsible for any radio or television interference caused by using other than recommended cables and connectors or by unauthorized changes or modifications to this equipment. Unauthorized changes or modifications could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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Tele: +49 (0) 800 225 5423 or +49 (0) 180 331 3233  
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高調波ガイドライン準用品

## Electromagnetic Interference (EMI) Statement - People's Republic of China

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- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
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