

System Storage EXP5060 Quick Start Guide

This *Quick Start Guide* describes the basic procedure for installing, cabling, and configuring the IBM[®] System Storage $^{\text{TM}}$ EXP5060 storage expansion enclosure.

Related documentation

For detailed information about the storage expansion enclosure, see the *IBM System Storage EXP5060 Storage Expansion Enclosure Installation, User's, and Maintenance Guide.* For safety information, see the multilingual *IBM Safety Information* document on the *Documentation CD*.

For more information about how to use a lift tool to install the storage expansion enclosure, see the documentation that came with your lift tool.

For educational information about the EXP5060 and other IBM System Storage products, go to http://ibmdsseriestraining.com/. For the latest information about IBM System Storage disk storage systems, go to http://www.ibm.com/systems/support/storage/disk.

Installation overview

The installation of the storage expansion enclosure involves the following procedures:

- 1. "Installation guidelines"
- 2. "Ordering the lift tool" on page 3
- 3. "Unpacking the shipping box" on page 4
- 4. "Installing the support rails and rear brackets" on page 7
- 5. "Installing and removing the handles" on page 9
- 6. "Installing the storage expansion enclosure in the rack cabinet" on page 10
- 7. "Installing the DDMs" on page 12
- 8. "Installing the cables" on page 14
- 9. "Turning on the power" on page 19
- 10. "Installing the software" on page 20
- 11. "Obtaining information from the IBM Support Web site" on page 20
- 12. "Updating the storage subsystem controller firmware" on page 20
- 13. "Updating the storage expansion enclosure firmware" on page 20

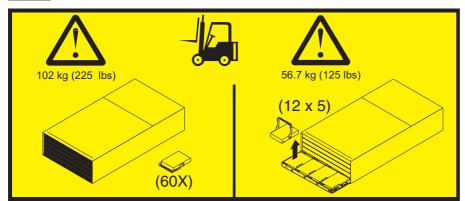
Installation guidelines

Before you install the storage expansion enclosure in a rack cabinet, review the following guidelines:

- This product is to be installed and serviced only by qualified IBM service representatives.
- Because of the size and weight of the storage enclosure as shipped, a lift tool and a minimum of two
 trained service technicians are required to push the enclosure out of its custom-designed package and
 onto the lift tool.
- The storage expansion enclosure must not be installed in a rack position where the top of the unit is above 32U or the bottom of the unit is above the 29U mark on the rack cabinet.
- Make sure that the room air temperature is below 25°C (77°F). The operating temperature for optimal performance is 22°C (72°F) or lower.
- Do not block any air vents; usually 15 cm (6 in.) of space provides proper airflow.

- Do not leave open spaces above or below an installed storage expansion enclosure in your rack cabinet. To help prevent damage to storage expansion enclosure components, always install a blank filler panel to cover the open space and to help ensure proper air circulation.
- Install the storage expansion enclosure only in a rack cabinet with perforated doors.
- Plan the device installation starting from the bottom of the rack cabinet.
- Install the heaviest device in the bottom of the rack cabinet.
- Do not extend more than one device out of the rack cabinet at the same time.
- Remove the rack doors and side panels to provide easier access during installation. Depending on the rack location where the storage expansion enclosure will be installed, you might need to remove the bracket that holds the door to the rack because the bracket might obstruct the storage expansion enclosure handles.
- Connect the storage expansion enclosure to a properly grounded outlet. The storage expansion
 enclosure accepts only 200 V 240 V input sources. In addition, you might need to purchase a special
 cable for the rack PDUs for the voltage and currents that the EXP5060 requires. If you do not have an
 IBM System Storage 2101-200 rack with the supported PDUs and 60 A power cords, check your PDUs
 or input sources to make sure that they can handle the EXP5060 voltage and currents.
- Do not overload the power outlet when you install multiple devices in the rack cabinet.
- Install the storage expansion enclosure in a rack cabinet that meets the following requirements:
 - Minimum depth of 70 mm (2.76 in.) between the front support flange and the inside of the front door.
 - Minimum depth of 157 mm (6.18 in.) between the rear support flange and the inside of the rear door.
 - Minimum depth of 762 mm (30 in.) between the front and rear support flanges to support the use of the cable-management arm.
- For more information about installing the storage expansion enclosure in a non-IBM rack, see the "Specifications for non-IBM rack installation" section in the *IBM System Storage EXP5060 Storage Subsystem Installation, User's, and Maintenance Guide.*





Attention:

- 1. Because of the size and weight of the storage expansion enclosure as shipped, a lift tool and a minimum of two trained service technicians are required to push the enclosure out of its custom-designed package and onto the lift tool. If a lift tool is not available, see Appendix G, "Component weights", in the IBM System Storage EXP5060 Storage Subsystem Installation, User's, and Maintenance Guide for additional information.
- 2. Before you move or relocate a rack that contains EXP5060 storage expansion enclosures, see "Relocating a populated rack" in the *IBM System Storage EXP5060 Storage Subsystem Installation, User's, and Maintenance Guide* for additional information.

Ordering the lift tool

The use of a lift tool is required when you install an EXP5060 in a rack cabinet and when you remove the EXP5060 from a rack cabinet. Make sure that the lift tool is available on location at the time of the installation. The ordering procedure for the lift tool varies depending on your location. Direct your questions about these procedures to your regional representative.

World trade locations

The following ordering procedures are for world trade locations:

- · Order the lift tool by using the parts ordering system, as you would with any other part.
- Use the part number 09P2481 when you order.
- Do not record parts usage.
- Return the lift tool to the parts center after you complete the installation or removal of the EXP5060.

United States locations

In the United States, call UPS Logistics at 800-528-6070 to order the lift tool or visit the MTS/Test Equipment Service Center Web site on the IBM intranet at http://pokgsa.ibm.com/~tstesc/public/ for additional information.

Note: The MTS/Test Equipment Service Center Web site can be accessed only by IBM employees with access to the IBM intranet.

For the SSR branch and territory, the United States cannot order the lift tool through the parts ordering system. UPS Logistics is used to ship and return the lift tool. Use the part number 09P2481 when you order the lift tool.

You must provide the following information when you order the lift tool. This information is necessary to ensure that the lift tool is delivered when you need it. Failure to provide this information might delay the completion of the order request and the shipping request. It might also result in a time and date to return the tool that is different from what you need.

- Phone number and customer contact
- Account code: 98577
- Time and date of delivery
- Accurate destination address with zip code
- Time and date of return pickup

Note: When you order the lift tool, you will receive an 18-inch load plate.

You must return the lift tool at the time that you schedule with UPS Logistics. If you need to change the scheduled return time or date, contact UPS Logistics. You are responsible for ensuring that all of the paperwork and components are packed and restored in the lift tool shipping container. Make sure that the lift tool is functioning properly before you release the tool to UPS Logistics for return. You are accountable for the lift tool until UPS Logistics picks up the lift tool for return delivery to their parts storage facility. Contact your branch office tools coordinator or your region specialist if you have any questions or concerns.

Unpacking the shipping box

Important: Do not remove the storage expansion enclosure from the shipping box until the support rails are installed in the rack cabinet. You must install the support rails in the rack cabinet before you install the storage expansion enclosure.

The disk drive modules (DDMs) that come with the storage expansion enclosure are packaged in a smaller box inside the shipping box. To unpack the shipping box, complete the following steps:

- 1. Remove the following items from the shipping box. Do not remove the EXP5060 from the shipping box at this time.
 - · Box containing the mounting hardware kit
 - Six full or empty boxes of DDMs

Note: The DDMs are packaged ten per box. The minimum order is 20 DDMs, so at least two of the boxes are full. If you ordered less than the maximum number of 60 DDMs, one or more of the boxes are empty.

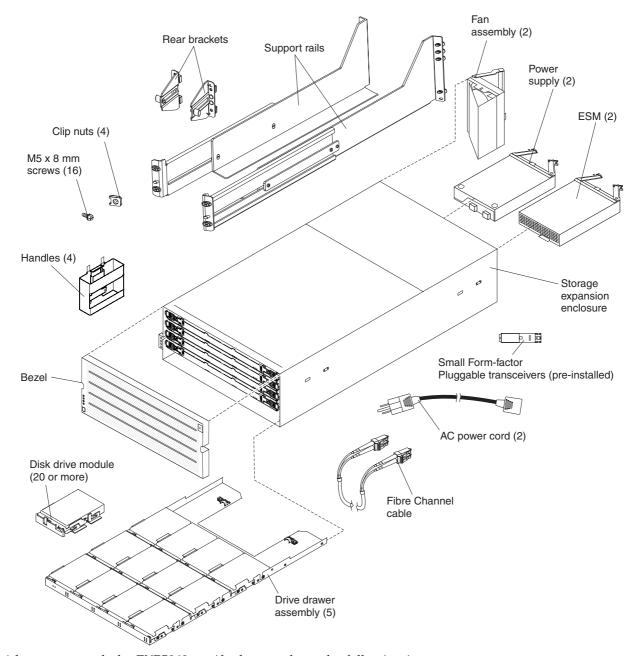
- · Box containing storage expansion enclosure handles
- Box containing the power cords, Fibre Channel signal cables, and documentation
- 2. Check the items in the preceding list to make sure that you received all the necessary parts. See the "Inventory list" on page 5 for the parts that are included with the storage expansion enclosure.

Inventory list

The following illustration and inventory list show the items that you need to install the storage expansion enclosure in the rack cabinet. If any items are missing or damaged, contact your place of purchase.

Notes:

- 1. The illustration might differ slightly from your hardware.
- 2. Depending on your EXP5060 order, your shipping box might contain additional materials that are not shown in the following illustration.



After you unpack the EXP5060, verify that you have the following items:

- 4U-high storage expansion enclosure (1)
 - Drive drawer assemblies (5)
 - Fan assemblies (2)
 - Power supplies (2)

- ESMs (2)
- Handles (4), packaged in a smaller box inside the shipping box
- DDMs (20 or more, depending on your EXP5060 order), packaged in a smaller box inside the shipping box
- Bezel (1)
- Fibre Channel signal cables (2 or more, depending on your EXP5060 order)
- SFP transceivers (2)
- Rack-mounting hardware kit (1), packaged in a smaller box inside the shipping box, including:
 - Rails (2), right and left assembly
 - Rear brackets (2)
 - M5 black hex-head slotted screws (16)

Note: The screws are either preinstalled in the support rails or packaged in a plastic bag.

- Washers (8)
- Clip nuts (4)

Important: The EXP5060 does not ship with region-specific ac power cords. You must obtain the IBM-approved power cords for your region. See the *IBM System Storage EXP5060 Storage Subsystem Installation, User's, and Maintenance Guide* for more information.

Tools

Before you install the storage expansion enclosure, the installation area must have an Internet connection, and you must have the following tools:

- A cart to hold the storage expansion enclosure and its components
- · Labels for the cable connectors
- · A medium flat-blade screwdriver
- A No. 2 Phillips screwdriver or an M5 hex driver
- Anti-static protection

Installing the support rails and rear brackets

Notes:

- 1. For proper weight distribution, install the support rails as low in the rack cabinet as possible.
- 2. The rack cabinet must have a minimum depth of 100 cm (40 in.).

To install the left and right support rails in the rack cabinet, complete the following steps. Use the front and rear rack-mounting templates on pages 21 and 23 to align the support rails and rear brackets with the correct rack holes. If the support rails will be installed above an existing storage subsystem or storage expansion enclosure, position the EXP5060 support rails directly above it. If the support rails will be installed below an existing storage subsystem or storage expansion enclosure, allow 178 mm (7 in.) of vertical clearance for the EXP5060.

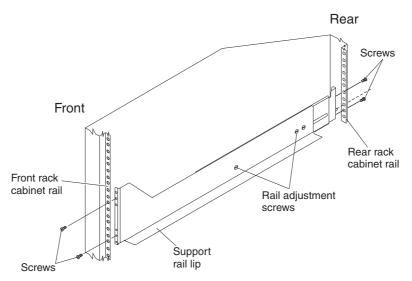
- 1. Make sure that the rack has already been installed.
- 2. Make sure that a stabilizer has been attached correctly to the bottom front of the rack to prevent the rack from tipping forward while the storage expansion enclosure is being installed.

 Refer to the installation and service guide, or equivalent, for the rack as required.
- 3. Locate the two support rails, eight M5 screws, and eight washers that are supplied with the storage expansion enclosure.

Note: The screws and washers might already be attached to the support rails. If so, remove them from the support rails.

4. Starting with the left support rail, loosen the two rail adjustment screws with a medium flat-blade screwdriver. The adjustment screws are used to lock the support rails at a certain length.

Note: The support rails are not marked as left or right. However, each rail can be mounted correctly on only one side of the rack cabinet. The rails should be mounted with the alignment pin at the rear of the rack.



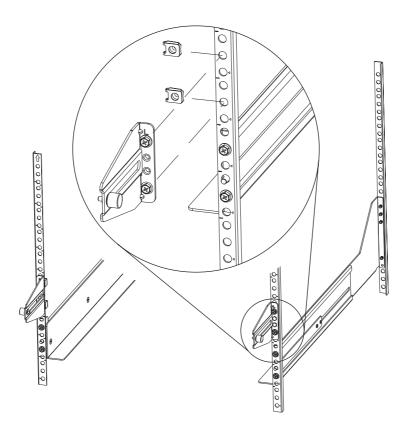
- 5. Hold the front of the left support rail against the inside of the front rack cabinet support flange, and extend the rear of the support rail until it makes contact with the rear rack cabinet support flange. The alignment pins at the rear of the support rail slide into the mounting holes at the rear of the rack cabinet. The wider end of the support rail must be positioned at the front of the rack cabinet.
- 6. From the front of the rack cabinet, with the support-rail flanges positioned inside the rack cabinet support rail assemblies, insert two M5 screws with washers through the front of the cabinet and screw them into the support rail front flange. Make sure that you use a washer when you install an M5 screw through a square hole on a rack-mounting flange.

Attention: Make sure that the screws are tight enough to support the weight of the storage expansion enclosure, but do not completely tighten the screws yet.

- 7. Make sure that the holes in the rail above and below the top mounting screw are visible through the holes of the rack flange and tighten the two M5 screws to secure the front of the rail to the rack flange.
- 8. From the rear of the rack cabinet, insert two M5 screws with washers through the rear of the cabinet and screw them into the support rail rear flange.
- 9. Tighten the two rail adjustment screws with a medium flat-blade screwdriver.
- 10. Repeat steps 4 on page 7 through 9 for the right support rail.

Note: Because the mounting holes on the rack are not always the same size as the mounting screws, the lip of each of the support rails might not line up evenly. Make minor adjustments as needed to make sure that the lip of the left and right support rails are lined up evenly on the racks. Failure to do so will cause the storage expansion enclosure to fit unevenly in the rack.

- 11. Locate the two rear brackets, four M5 screws, four washers, and four clip nuts that are supplied with the storage expansion enclosure.
- 12. Install the rear brackets at the rear of the rack as shown in the following illustration, using the M5 screws, washers, and clip nuts to secure the brackets to the rack mounting holes.



Installing and removing the handles

Install the handles on the storage expansion enclosure before you move the unit onto the lift tool. After you install the storage expansion enclosure in the rack cabinet and remove the handles, store the handles for future use.

Installing the handles

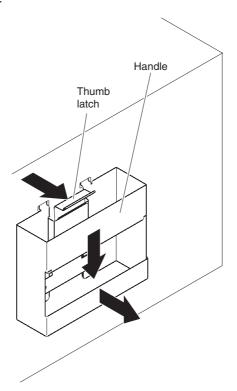
Complete the following steps to install the handles on the storage expansion enclosure:

- 1. Locate the box of handles.
- 2. To install a handle on the storage expansion enclosure, place notch at the bottom of the handle in the opening in the storage expansion enclosure chassis, and push the handle in and up until the latch at the top of the handle secures the handle to the chassis.
- 3. Repeat step 2 for the three remaining handles.

Removing the handles

Before you install the storage expansion enclosure completely into a rack cabinet, you must remove the handles. Complete the following steps to remove the handles from the storage expansion enclosure:

- 1. To remove a handle to the storage expansion enclosure, release the latch with your thumb and pull down and away from the unit.
- 2. Repeat step 1 for the three remaining handles.
- 3. Store the handles for future use.



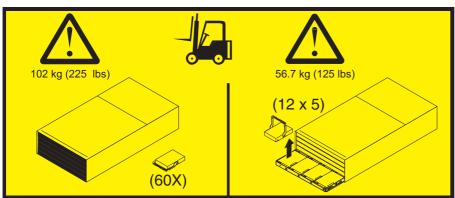
Installing the storage expansion enclosure in the rack cabinet

To install the storage expansion enclosure, complete the following steps.

Note: For more information about how to use a lift tool, see the documentation that came with the lift tool.

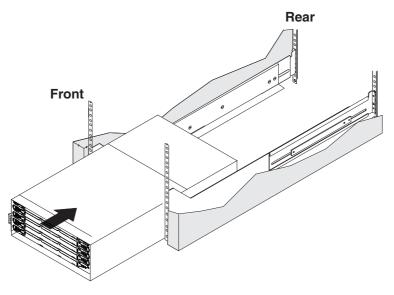
- 1. Prepare the storage expansion enclosure for installation:
 - a. Position the lift tool so that it is facing one side of the shipping box.
 - b. Remove the foam shipping material from the sides and ends of the storage expansion enclosure.
 - **c**. If necessary, cut away sides of the shipping box so that the lift tool has access to the storage expansion enclosure.
 - d. Open the plastic bag and tuck it under the storage expansion enclosure. The plastic bag reduces friction and makes it easier to slide the unit off of the shipping box onto the lift tool, and off of the lift tool and into the rack cabinet.
 - **e**. Install the four handles on the sides of the storage expansion enclosure. See "Installing and removing the handles" on page 9 for detailed instructions.



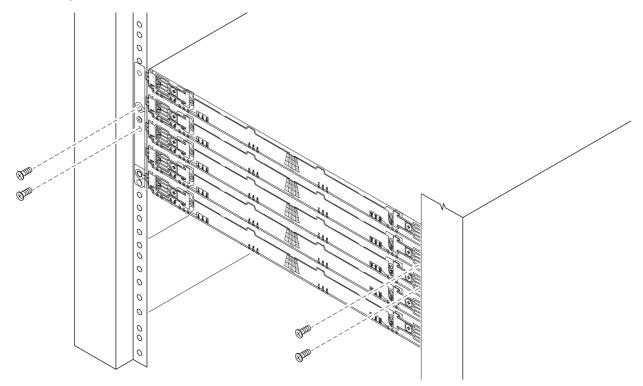


Attention:

- a. Because of the size and weight of the storage expansion enclosure as shipped, a lift tool and a minimum of two trained service technicians are required to push the enclosure out of its custom-designed package and onto the lift tool. If a lift tool is not available, see Appendix G, "Component weights", in the IBM System Storage EXP5060 Storage Subsystem Installation, User's, and Maintenance Guide for additional information.
- b. Before you move or relocate a rack that contains EXP5060 storage expansion enclosures, see "Relocating a populated rack" in the *IBM System Storage EXP5060 Storage Subsystem Installation, User's, and Maintenance Guide* for additional information.
- 2. With the help of a lift tool and a minimum of two trained service technicians, or a lift tool and professional movers, slide the storage expansion enclosure off of the side of the shipping box and onto the lift tool. Align it in front of the rack.
- 3. Put the rear edge of the storage expansion enclosure on the support rails.
- 4. Remove the two handles (one on each side) at the rear of the storage expansion enclosure. Do not remove the front handles on the sides of the unit.
- 5. Slide the storage expansion enclosure halfway into the rack. Remove the remaining two handles at the front of the unit.



6. Install and tighten two M5 screws on each side of the rack, above and below the top M5 screws, in the front of the storage expansion enclosure to secure the storage expansion enclosure chassis to the rack flanges.

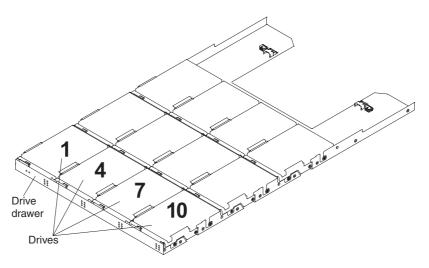


- 7. Tighten all of the M5 screws to secure the rear of the storage expansion enclosure to the rack cabinet.
- 8. Turn the rear-bracket thumbscrews to attach the rear brackets to the sides of the storage expansion enclosure. The screw holes are located about 51 mm (2 in.) from the rack flange.

Note: To align the thumbscrews with the holes in the unit, you might need to loosen the screws that attach the rear brackets to the rack cabinet.

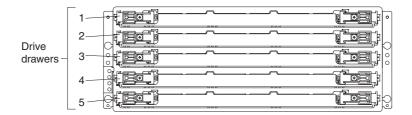
Installing the DDMs

Important: The installation order within each drawer is from left to right in each row if you are facing the front of the EXP5060. You must install DDMs in slots 1, 4, 7, and 10. Make sure that the four DDMs in each row are adjacent to each other. The long edge of each DDM should touch the DDM next to it. To maintain a uniform airflow across all drawers, the storage expansion enclosure must be configured with a minimum of four DDMs in the front row of each drive drawer.



Notes:

- 1. The drive drawers are preinstalled in the EXP5060, but the DDMs are shipped separately from the drive drawers.
- 2. Make sure that you install the storage expansion enclosure in the rack cabinet before you install DDMs in the storage expansion enclosure.

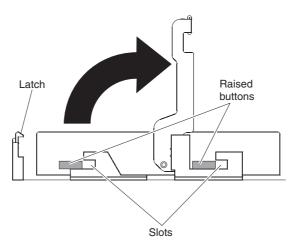


To install the DDMs in the drive drawers, complete the following steps:

1. Starting with the top drive drawer in the storage expansion enclosure, pull the levers on each side of the drive drawer towards the center to release the drawer.



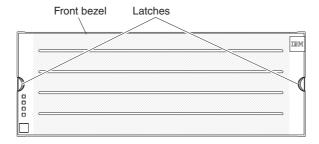
- 2. Pull the levers out from the storage expansion enclosure until the drawer is fully extended, but do not remove it from the enclosure
- 3. Starting with the first DDM, raise the DDM handle to the vertical position.



4. Align the raised buttons on the sides with the matching slots in the DDM channel on the drawer. Lower the DDM down onto the drawer, and rotate the DDM handle until the DDM snaps into place under the DDM release lever.

Notes:

- a. If the DDM does not seem not fully seated into the drive connector on the disk drawer, apply downward pressure to the rear of the drive as you install it.
- b. If the storage expansion enclosure is turned on, you must wait at least 90 seconds after you install each DDM in the drive drawer. Otherwise, the storage expansion enclosure might not recognize the new DDM, recognize the DDM as failed, or recognize the drive as incompatible. If this happens, unlatch the DDM, wait 90 seconds, and latch the DDM again.
- 5. Install the other DDMs in rows from left to right until the drive drawer has a minimum of four DDMs in the front row of the drive drawer.
- 6. Push the drive drawer into the storage expansion enclosure until it clicks and close the levers on each side of the drawer.
 - **Attention:** Make sure you push both levers back against the drive drawer completely so that the drive drawer is closed. If the drive drawer is not completely closed, excess airflow through the unit might cause damage to the DDMs. If the drive drawer is not completely closed, you will not be able to open another drawer. If you try to force open another drawer, both drawers might be damaged.
- 7. Repeat steps 1 on page 12 through 6 for each drive drawer in the configuration.
- 8. Position the bezel in front of the storage expansion enclosure as shown in the following illustration.



9. Align the tabs on the top and bottom of the bezel with the slots on the front of the storage expansion enclosure, and align the pins on the side of the bezel with the holes in the storage expansion enclosure. Push the bezel into the front of the unit until the latches on the sides of the bezel lock it in place.

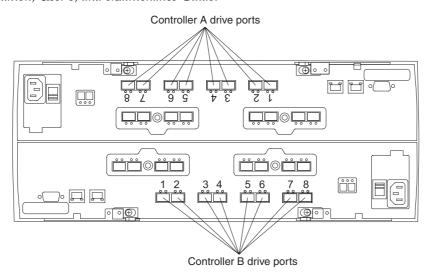
Installing the cables

Use the information in this section to cable one or two storage expansion enclosures and a storage subsystem, with or without drive-side trunking.

For more information about cabling configurations, see either the *IBM System Storage EXP5060 Installation*, *User's*, and *Maintenance Guide* that came with the storage expansion enclosure or the *IBM System Storage DS5100 and DS5300 Installation*, *User's*, and *Maintenance Guide*.

The EXP5060 is compatible with DS5100 and DS5300 storage subsystems. The following cabling instructions are shown with the assumption that the EXP5060 will be connected to a DS5100 or DS5300 storage subsystem.

The following illustration shows the drive ports on each controller in the DS5100 and DS5300 storage subsystems. If you have not already installed the DS5100 or DS5300 storage subsystem, you must do so now. For more information about installing these storage subsystems, see the *IBM System Storage DS5100 and DS5300 Installation, User's, and Maintenance Guide.*



Cabling two storage expansion enclosures and a storage subsystem

Statement 3:



CAUTION:

When laser products (such as CD-ROMs, DVD drives, fiber optic devices, or transmitters) are installed, note the following:

- 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 controls or adjustments or performance of procedures other than those specified herein might result in hazardous radiation exposure.



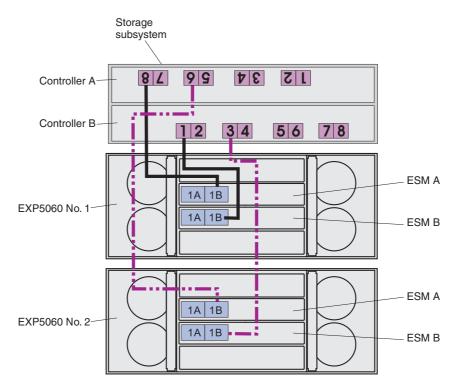
DANGER

Some laser products contain an embedded Class 3A or Class 3B laser diode. Note the following.

Laser radiation when open. Do not stare into the beam, do not view directly with optical instruments, and avoid direct exposure to the beam.

To cable two storage expansion enclosures to a storage subsystem, complete the following steps:

1. The Small Form-factor Pluggable transceivers (SFPs) are preinstalled in the Fibre Channel host ports in the storage subsystem and the EXP5060. Make sure the SFPs are seated completely in the host ports.



- 2. Connect a fiber-optic cable from drive port 8 on controller A in the storage subsystem to port 1B on ESM A in EXP5060 one.
- 3. Connect a fiber-optic cable from drive port 1 of controller B in the storage subsystem to port 1B on ESM B in EXP5060 one.
- 4. Connect a fiber-optic cable from drive port 6 on controller A in the storage subsystem to port 1B on ESM A in EXP5060 two.
- 5. Connect a fiber-optic cable from drive port 3 on controller B in the storage subsystem to port 1B on ESM B in EXP5060 two.

Note: For more information about cabling configurations, see the *IBM System Storage EXP5060 Installation, User's, and Maintenance Guide* that came with the storage expansion enclosure.

Cabling two storage expansion enclosures and a storage subsystem with drive-side trunking

Statement 3:



CAUTION:

When laser products (such as CD-ROMs, DVD drives, fiber optic devices, or transmitters) are installed, note the following:

- 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 controls or adjustments or performance of procedures other than those specified herein might result in hazardous radiation exposure.



DANGER

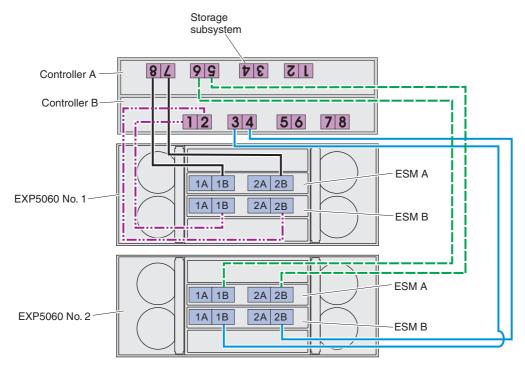
Some laser products contain an embedded Class 3A or Class 3B laser diode. Note the following.

Laser radiation when open. Do not stare into the beam, do not view directly with optical instruments, and avoid direct exposure to the beam.

Drive-side trunking uses the right side of the expansion ports on the rear of the storage expansion enclosure to allow the full bandwidth potential of the EXP5060 storage expansion enclosure.

To cable two storage expansion enclosures to a storage subsystem with drive-side trunking, complete the following steps:

1. The Small Form-factor Pluggable transceivers (SFPs) are preinstalled in the Fibre Channel host ports in the storage subsystem and the EXP5060. Make sure the SFPs are seated completely in the host ports.



- 2. Connect a fiber-optic cable from drive port 8 on controller A in the storage subsystem to port 1B on ESM A in EXP5060 one.
- 3. Connect a fiber-optic cable from drive port 7 on controller A in the storage subsystem to port 2B on ESM A in EXP5060 one.
- 4. Connect a fiber-optic cable from drive port 1 of controller B in the storage subsystem to port 1B on ESM B in EXP5060 one.
- 5. Connect a fiber-optic cable from drive port 2 of controller B in the storage subsystem to port 2B on ESM B in EXP5060 one.
- 6. Connect a fiber-optic cable from drive port 6 on controller A in the storage subsystem to port 1B on ESM A in EXP5060 two.
- 7. Connect a fiber-optic cable from drive port 5 on controller A in the storage subsystem to port 2B on ESM A in EXP5060 two.
- 8. Connect a fiber-optic cable from drive port 3 on controller B in the storage subsystem to port 1B on ESM B in EXP5060 two.
- 9. Connect a fiber-optic cable from drive port 4 on controller B in the storage subsystem to port 2B on ESM B in EXP5060 two.

Note: For more information about cabling configurations, see the *IBM System Storage EXP5060 Installation, User's, and Maintenance Guide* that came with the storage expansion enclosure.

Turning on the power

Statement 5:





CAUTION:

The power control button on the device and the power switch on the power supply do not turn off the electrical current supplied to the device. The device also might have more than one power cord. To remove all electrical current from the device, ensure that all power cords are disconnected from the power source.



Important: You must follow the power sequence in the order shown in the following procedure. To establish power redundancy for enclosures with two power supplies, use at least two power distribution units (PDUs) in the rack cabinet. Split the power connections from each enclosure into the separate PDUs. Then, connect the PDUs to external power receptacles that are on different circuits.

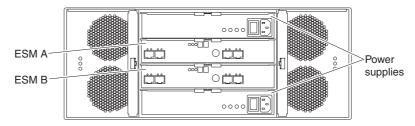
The storage expansion enclosure accepts only 200 V - 240 V input sources. In addition, you might need to purchase a special cable for the rack PDUs for the voltage and currents that the EXP5060 requires. If you do not have an IBM System Storage 2101-200 rack with the supported PDUs and 60 A power cords, check your PDUs or input sources to make sure that they can handle the EXP5060 voltage and currents.

To turn on the storage expansion enclosure power, complete the following steps:

- 1. Turn off all the power switches on the rear of the storage expansion enclosure. Make sure all of the power cords are connected.
- 2. If the main circuit breaker switches in the rack cabinet are turned off, turn them on.
- 3. Turn on the power switch on each storage expansion enclosure.
- 4. Turn on both power switches on the storage subsystem.

Note: When you turn off the power to the storage subsystem and storage expansion enclosure, complete the preceding steps in reverse order. Turn off the power to the storage subsystem first; then, turn off the power to the storage expansion enclosures.

The following illustration shows the power supplies and the rear view of the EXP5060.



Installing the software

For information about installing the DS Storage Manager software, see the *IBM System Storage DS5100 and DS5300 Installation, User's, and Maintenance Guide.*

Note: The DS Storage Manager version must be 10.60.x5.11 or higher.

Obtaining information from the IBM Support Web site

The IBM System Storage documentation that is described in this *Quick Start Guide* and other IBM System Storage information is on the IBM support Web site. To access the latest documentation, downloads, and other technical updates on the IBM support Web site, complete the following steps.

Note: Changes are made periodically to the IBM Web site. Procedures for locating firmware and documentation might vary slightly from what is described in this document.

- 1. Go to http://www.ibm.com/systems/storage/support/.
- 2. Under Select your product, in the Product Family field, click Disk systems.
- 3. In the Product field, click EXP5060, and then click Go.
- 4. Under **Support & downloads**, click the applicable support category.

Note: For detailed information about device-driver and firmware versions, make sure that you read the readme files that are posted with each package.

Updating the storage subsystem controller firmware

The storage controller firmware must be version 7.60.13.05 or later. For the latest firmware version, go to the IBM Systems Storage support Web site at http://www.ibm.com/systems/support/storage/disk/.

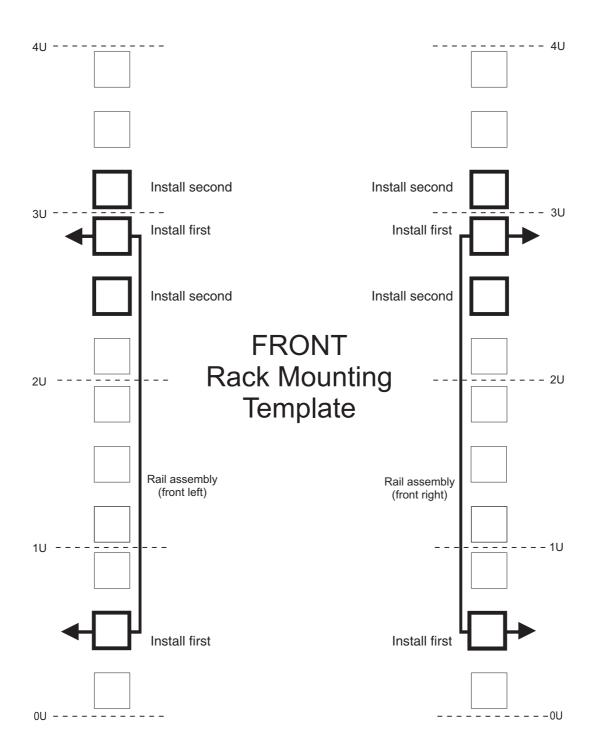
In the DS Storage Manager Subsystem Management Window, in the **Physical** tab, click **Advanced > Maintenance > Download > Controller Firmware**.

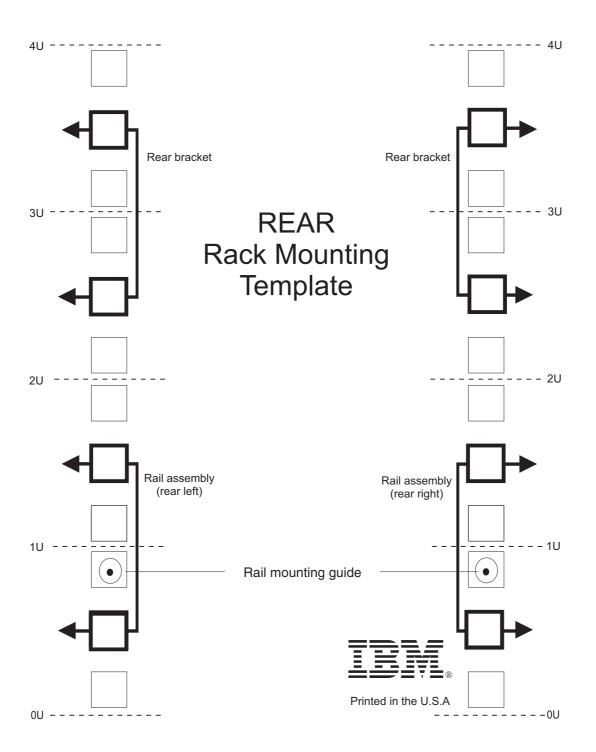
Updating the storage expansion enclosure firmware

For the latest firmware version, go to the IBM Systems Storage support Web site at http://www.ibm.com/systems/support/storage/disk/.

In the DS Storage Manager Subsystem Management Window, in the **Physical** tab, click **Advanced > Maintenance > Download**. From the **Download** menu, update the firmware in the following order:

- 1. To update the ESM firmware, select **ESM Firmware**.
- 2. To update the ATA translator firmware, select **Download Drive Firmware**.
- 3. To update the drive firmware, select **Download Drive Firmware**.





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