

Hardware Information

Service processor assembly,
service processor cable, and
time-of-day battery

ESCALA POWER5



REFERENCE
86 A1 38EW 00

ESCALA POWER5

Hardware Information

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Hardware

July 2006

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FRANCE

REFERENCE

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Service processor assembly, service processor cable, and time-of-day battery

Learn how to replace the service assembly, service processor cable, and time-of-day battery.

Replacing these features is a customer task. You can perform these tasks yourself, or contact an authorized service provider to perform these tasks for you. You might be charged a fee by the authorized service provider for this service.

Note: *Blue* on a part of the hardware indicates a touch point where you can grip the hardware to remove it from or install it in the server, open or close a latch, etc. *Terra-cotta* on a part of the hardware indicates that you can remove or install the hardware with the server powered on.

- [Remove and replace the model ESCALA PL 245T/R me-of-day battery](#)
 - [Remove and replace the model ESCALA PL 250R-VL or ESCALA PL 450R-XS time-of-day battery](#)
 - [Remove and replace the model ESCALA PL 250T/R service processor assembly and time-of-day battery](#)
 - [Remove and replace the model ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, ESCALA PL 450T/R, time-of-day battery](#)
 - [Remove and replace the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor assembly and time-of-day battery](#)
 - [Install a model ESCALA PL 850R/PL 1650R/R+ redundant service processor assembly](#)
 - [Remove and replace the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor cable](#)
 - [Remove and replace the model ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, or ESCALA PL 250R-L+ or ESCALA PL 450R-VL+ time-of-day battery](#)
 - [Remove and replace the model ESCALA PL 3250R service processor assembly and time-of-day battery](#)
This is not a customer task.
 - [Remove and replace the model ESCALA PL 6450R service processor assembly and time-of-day battery](#)
This is not a customer task.
 - [Restore the service processor settings](#)
 - [Related procedures](#)
View and print information related to the service processor assembly, service processor cable, and time-of-day battery.
-

Remove and replace the model ESCALA PL 245T/R me-of-day battery

These procedures describe how to remove and replace the time-of-day battery in a model ESCALA PL 245T/R .

- [Remove the model ESCALA PL 245T/R me-of-day battery](#)
- [Replace the model ESCALA PL 245T/R me-of-day battery](#)

Parent topic: [Service processor assembly, service processor cable, and time-of-day battery](#)

Remove the model ESCALA PL 245T/R me-of-day battery

When you remove the time-of-day battery from the model ESCALA PL 245T/R , the settings are lost. If you have custom settings, do the following before removing the battery, so that the settings can be restored:

1. If you have not done so, verify that the battery is the failing part. For instructions, see [Identify a failing part](#).
2. Check and record the server firmware level prior to replacing this part. Refer to [Server firmware fixes](#). You may need to update the system to the latest server firmware code level after you replace the battery.

To remove the time-of-day battery, complete the following steps:

1. Perform prerequisite tasks as described in [Before you begin](#) and return to this procedure.
2. [Stop the system or logical partition](#).
3. Check and record the settings you previously set using the [System Management Services](#). Refer to [Starting the System Management Services](#) for information about setting up the SMS menus, and [Using the System Management Services](#) for information about using the SMS.
4. Disconnect the power source from the system by unplugging the system.

(L003)

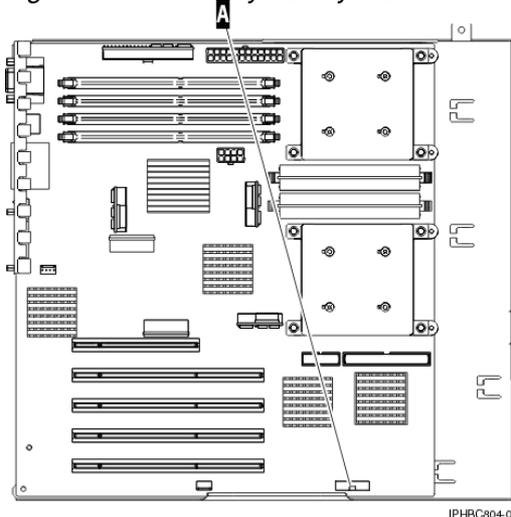


or



5. If you have a rack-mounted unit, place the system in the service position. See [Place the rack-mounted model ESCALA PL 245T/R in the service position or operating position](#).
6. Remove the side cover. See [Remove and replace the model ESCALA PL 245T/R side cover](#).
7. Remove the bottom two PCI cards to provide adequate room for a hand to grasp the battery. Refer to [Removing the PCI cards](#).
8. Locate the time-of-day battery **A** location.

Figure 1. Time-of-day battery location



9. Release the battery according to the type of battery mount:
 - ◆ If your system has the enclosed-style time-of-day battery mount shown in [Figure 2](#), push down on the battery release clip **B**.
 - ◆ If your system has the open-style time-of-day battery mount shown in [Figure 3](#), lift up on the outer edge of the battery.

Figure 2. Time-of-day battery release clip with the enclosed-style battery mount

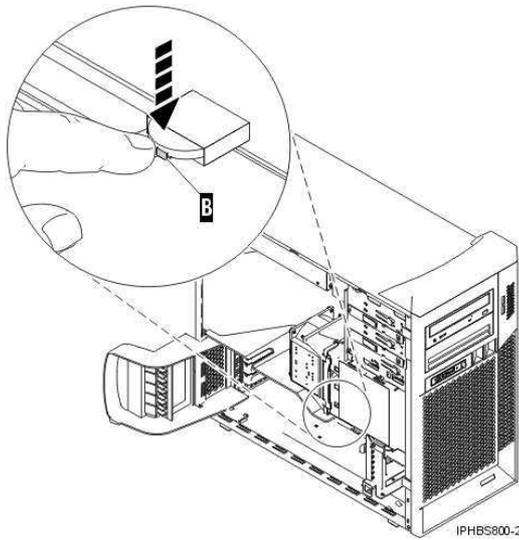
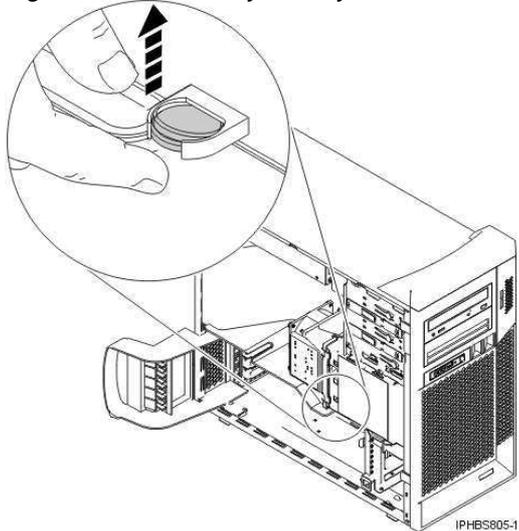


Figure 3. Time-of-day battery removal with the open-style battery mount



10. On the enclosed-style battery mount as shown in [Figure 4](#), after the bottom of the battery has cleared the battery release clip B, pull the clip up and slide the battery A away from the system backplane. On the open-style battery mount as shown in [Figure 5](#), continue to lift up on outer the edge of the battery A until the battery disengages from its socket and remove the battery from its mount.

Attention: The battery's plastic mount connections are soldered to the system board. If the battery mount is damaged or removed, the system board might be permanently damaged.

Figure 4. Time-of-day battery removal from the enclosed-style battery mount

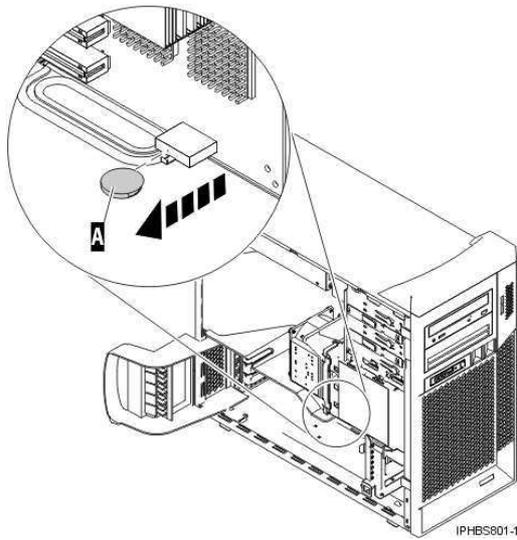
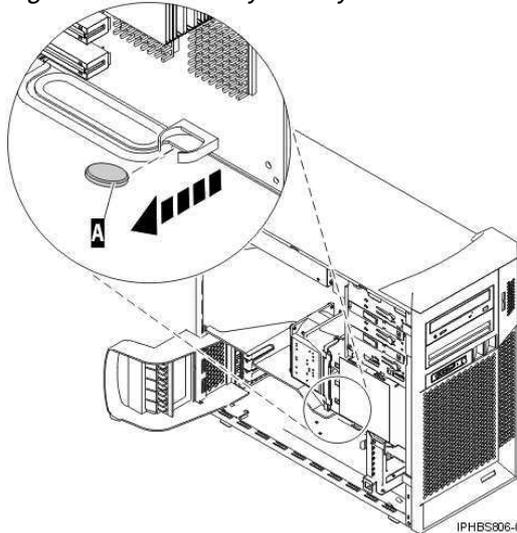


Figure 5. Time-of-day battery removal from the open-style battery mount



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 degrees C (212 degrees F)
- ◆ ___ Repair or disassemble

Exchange only with the approved part. Recycle or discard the battery as instructed by local regulations. (C003a)

11. [Replace the model ESCALA PL 245T/R me-of-day battery.](#)

Parent topic: [Remove and replace the model ESCALA PL 245T/R me-of-day battery](#)

Stop the system or logical partition

Learn how to stop a system or logical partition.

Attention: Using either the power-on button on the control panel or entering commands at the Hardware Management Console (HMC) to stop the system can cause unpredictable results in the data files. Also, the next time you start the system, it might take longer if all applications are not ended before stopping the system.

To stop the system or logical partition, select the appropriate procedure:

- [Stop the system that is not managed by a Hardware Management Console](#)
- [Stop the system or logical partition using the Hardware Management Console](#)

Parent topic: [Start or stop the system or logical partition](#)

Related tasks

[Start the system or logical partition](#)

Stop the system that is not managed by a Hardware Management Console

The following procedure describes how to stop a system that is not managed by a Hardware Management Console (HMC).

Prepare to stop the system

Before you stop the system, do the following:

1. Ensure that all jobs are completed and end all applications.
2. Ensure that the operating system is stopped. Failure to do so can result in the loss of data.
3. Write down the information displayed on the control panel if you are stopping your system due to an error or to make a repair. For more information, see [Collecting reference codes and system information](#).

Stop the system

To stop a system, follow these steps:

1. Log in to the system as a user with the authority to run the `shutdown` or `pwrdownsys` (Power Down System) command.
2. At the command line, enter one of the following commands:
 - ◆ If your system is running AIX, type `shutdown`.
 - ◆ If your system is running Linux, type `shutdown -h now`.The command stops the operating system. The system power turns off, the power-on light begins to slowly blink, and the system goes into a standby state.
3. Set the power switches of any devices connected to the system to off.

4. Unplug any power cables that are attached to the unit from electrical outlets. Ensure that you unplug power cables from peripheral devices, such as printers and expansion units.

Important: The system might be equipped with a second power supply. Before continuing with this procedure, ensure that all power sources to the system have been completely disconnected.

(L003)



or



Parent topic: [Stop the system or logical partition](#)

Stop the system or logical partition using the Hardware Management Console

You can use the Hardware Management Console (HMC) user interface to stop the system or a logical partition. For instructions on stopping the system, see [Powering off the managed system](#).

Parent topic: [Stop the system or logical partition](#)

Replace the model ESCALA PL 245T/R me-of-day battery

To replace the time-of-day battery in a model ESCALA PL 245T/R , complete the following steps:

1. Ensure that the positive (+) side of the battery is facing up as marked on the battery receptacle.
2. Insert the time-of-day battery into its mount.

Figure 1. Time-of-day battery insertion into the enclosed-style battery mount

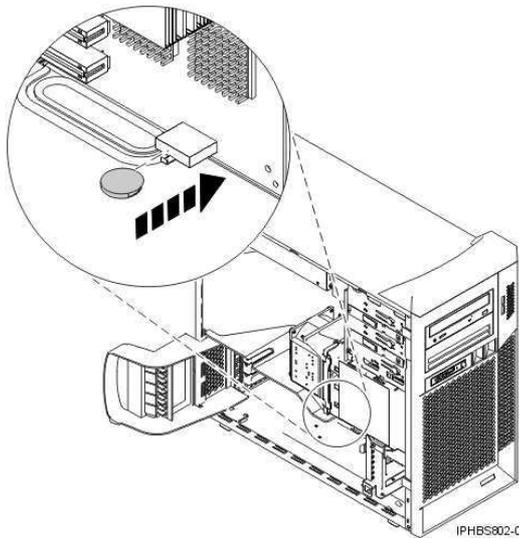
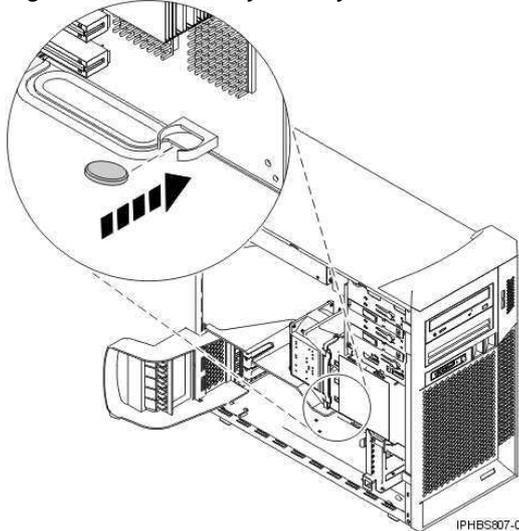


Figure 2. Time-of-day battery insertion into the open-style battery mount



3. Replace the side cover. For instructions, see [Remove and replace the model ESCALA PL 245T/R side cover](#).
4. If you have a rack-mounted unit, place the system in the operating position [Place the rack-mounted model ESCALA PL 245T/R in the service position or operating position](#).
5. Restore the settings using the System Management Services. For instructions, see [System Management Services](#).

Parent topic: [Remove and replace the model ESCALA PL 245T/R me-of-day battery](#)

Remove and replace the model ESCALA PL 250R-VL or ESCALA PL 450R-XS time-of-day battery

These procedures describe how to remove and replace the time-of-day battery in a server ESCALA PL 250R-VL or ESCALA PL 450R-XS.

1. [Remove the model ESCALA PL 250R-VL or ESCALA PL 450R-XS time-of-day battery](#)
2. [Replace the model ESCALA PL 250R-VL or ESCALA PL 450R-XS time-of-day battery](#)

Parent topic: [Service processor assembly, service processor cable, and time-of-day battery](#)

Remove the model ESCALA PL 250R-VL or ESCALA PL 450R-XS time-of-day battery

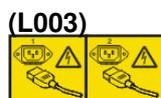
When you remove the time-of-day battery from the server, the settings are lost. If you have custom settings, do the following before removing the battery, so that the settings can be restored:

1. If you have not done so, verify that the battery is the failing part. For instructions, see [Identify a failing part](#).
2. Check and record the server firmware level prior to replacing this part. Refer to [Server firmware fixes](#). You may need to update the system to the latest server firmware code level after you replace the battery.
3. Check and record the service processor settings you previously set using the Advanced System Management Interface (ASMI). This can be done using a PC to access the ASMI. Refer to [Accessing the Advanced System Management Interface](#) for information about setting up the ASMI, and [Managing your server using the Advanced System Management Interface](#) for information about using the ASMI. You will need to reenter these service processor settings after you replace the service processor unless you want to use the default settings. Settings to check include the following:
 - ◆ System name setting. Refer to [Changing the system name](#).
 - ◆ System power settings. Refer to [Controlling the system power](#).
 - ◆ ASMI service aids settings. Refer to [Troubleshooting the system using system service aids](#).
 - ◆ System configuration settings. Refer to [Changing system configuration](#).
 - ◆ Network services settings. Refer to [Configuring network services](#).
 - ◆ Login profile settings. Refer to [Setting up login profile](#).
4. Record the processing unit power control network identifier using the ASMI; see [Changing processing unit power control network identifier](#).
5. Record any service processor settings you may have set using operating system commands.

To remove the time-of-day battery, do the following:

1. Perform prerequisite tasks as described in [Before you begin](#) and return to this procedure.
2. [Stop the system or logical partition](#).
3. Disconnect the power source from the system by unplugging the system.

Note: This system might be equipped with a second power supply. Before continuing with this procedure, ensure that all power sources to the system have been completely disconnected.



or



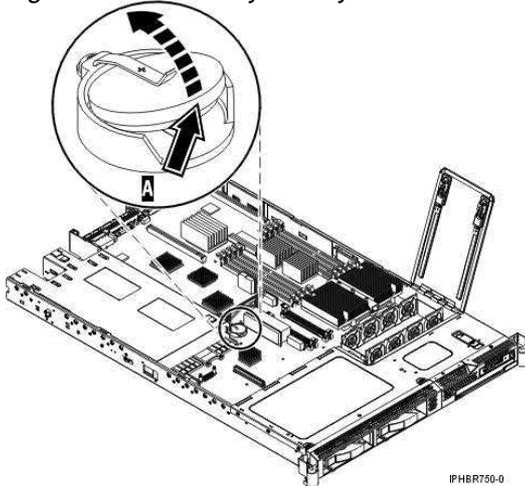
4. If you have a rack-mounted unit, [Place the model ESCALA PL 250R-VL or ESCALA PL 450R-XS in the service position](#).
5. [Remove the service access cover from the rack-mounted model ESCALA PL 250R-VL or ESCALA PL 450R-XS](#).

Attention:

- ◆ Attach a wrist strap to an unpainted metal surface of your hardware to prevent electrostatic discharge from damaging your hardware.
- ◆ When using a wrist strap, follow all electrical safety procedures. A wrist strap is 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 a 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.

6. Locate the time-of-day battery A as shown in the following figure.

Figure 1. Time-of-day battery location and removal



7. Slide the battery A out of its plastic mount. After the bottom of the battery has cleared the top edge of the plastic mount, pull it up and away from the system backplane.

Note: The battery's plastic mount connections are soldered to the system backplane. If the battery mount is damaged or removed, the system board might be permanently damaged.

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 degrees C (212 degrees F)
- ◆ ___ Repair or disassemble

Exchange only with the approved part. Recycle or discard the battery as instructed by local regulations. (C003a)

8. [Replace the model ESCALA PL 250R-VL or ESCALA PL 450R-XS time-of-day battery.](#)

Parent topic: [Remove and replace the model ESCALA PL 250R-VL or ESCALA PL 450R-XS time-of-day battery](#) **Next topic:** [Replace the model ESCALA PL 250R-VL or ESCALA PL 450R-XS time-of-day battery](#)

Replace the model ESCALA PL 250R-VL or ESCALA PL 450R-XS time-of-day battery

To replace the time-of-day battery in a model server, complete the following steps:

1. Ensure that the positive (+) side of the battery is facing up.
2. Insert the battery into its mount.
3. Replace the service access cover. For instructions, see [Install the service access cover on the rack-mounted model ESCALA PL 250R-VL or ESCALA PL 450R-XS](#).
4. If you have a rack-mounted unit, refer to [Place the model ESCALA PL 250R-VL or ESCALA PL 450R-XS in the operating position](#).
5. Restore the service processor settings. For instructions, see [Restore the service processor settings](#).

Note: Do not start the system at this time. You will be instructed when to start the system in the procedures to restore service processor settings.

Parent topic: [Remove and replace the model ESCALA PL 250R-VL or ESCALA PL 450R-XS time-of-day battery](#) **Previous topic:** [Remove the model ESCALA PL 250R-VL or ESCALA PL 450R-XS time-of-day battery](#)

Remove and replace the model ESCALA PL 250T/R service processor assembly and time-of-day battery

These procedures describe how to remove and replace the service processor assembly and time-of-day battery in a model ESCALA PL 250T/R .

- [Remove and replace the model ESCALA PL 250T/R service processor assembly to access another part](#)
- [Remove the model ESCALA PL 250T/R service processor assembly](#)
- [Replace the model ESCALA PL 250T/R service processor assembly](#)
- [Remove and replace the model ESCALA PL 250T/R time-of-day battery](#)

Parent topic: [Service processor assembly, service processor cable, and time-of-day battery](#)

Remove and replace the model ESCALA PL 250T/R service processor assembly to access another part

These procedures describe how to remove and replace the service processor assembly in a model ESCALA PL 250T/R to access another part.

1. [Remove the model ESCALA PL 250T/R service processor assembly to access another part](#)
2. [Replace the model ESCALA PL 250T/R service processor assembly after accessing another part](#)

Parent topic: [Remove and replace the model ESCALA PL 250T/R service processor assembly and time-of-day battery](#)

Remove the model ESCALA PL 250T/R service processor assembly to access another part

If your system is managed by a Hardware Management Console (HMC), use the HMC to complete the steps for removing the service processor assembly in a model ESCALA PL 250T/R . For instructions, see [Remove a part using the Hardware Management Console](#). If you do not have an HMC, do the following to remove the service processor:

1. [Stop the system or logical partition.](#)
2. Disconnect the power source from the system by unplugging the system.

Note: This system might be equipped with a second power supply. Before continuing with this procedure, ensure that all power sources to the system have been completely disconnected.



3. If you have a rack-mounted model ESCALA PL 250T/R, [Remove the front cover from the rack-mounted model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, and the 05/95 expansion unit.](#)
4. If you have a rack-mounted model ESCALA PL 250T/R, [Place the rack-mounted system or expansion unit in the service position.](#)
5. Remove the service access cover. For instructions, see [Remove the service access cover from the model 112/85, ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, .](#)
6. Locate the service processor assembly **C** as shown in the figure.

Figure 1. Stand-alone model ESCALA PL 250T/R

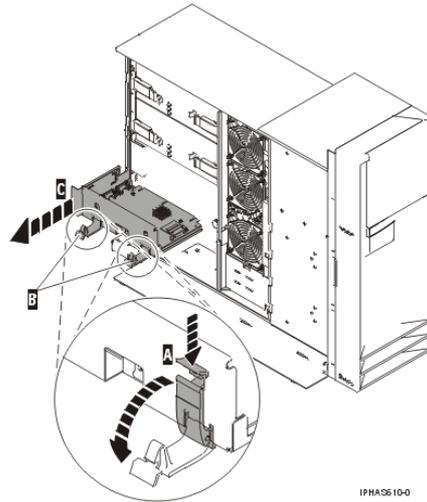
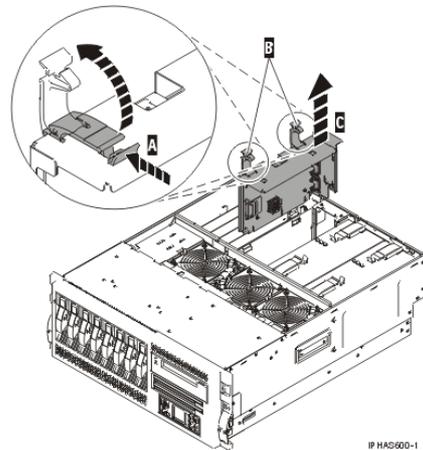


Figure 2. Rack-mounted model ESCALA PL 250T/R



7. Label and disconnect all cables connected to the service processor assembly.
8. Squeeze the tabs A on the end of each service processor assembly handle, and rotate the service processor handles to the open position B.
9. Pull the service processor assembly C out of the system.
10. Return to the procedures for the part that you need to access.

Parent topic: [Remove and replace the model ESCALA PL 250T/R service processor assembly to access another part](#) **Next topic:** [Replace the model ESCALA PL 250T/R service processor assembly after accessing another part](#)

Replace the model ESCALA PL 250T/R service processor assembly after accessing another part

If your system is managed by the Hardware Management Console (HMC), use the HMC to complete the steps for replacing the service processor assembly in a model ESCALA PL 250T/R . For instructions, see [Replace a part using the Hardware Management Console](#).

To replace the service processor assembly, do the following procedure:

1. Rotate the service processor assembly handles to the open position A.

Attention:

- ◆ Attach a wrist strap to an unpainted metal surface of your hardware to prevent electrostatic discharge from damaging your hardware.
- ◆ When using a wrist strap, follow all electrical safety procedures. A wrist strap is 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 a 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.

Figure 1. Stand-alone model ESCALA PL 250T/R

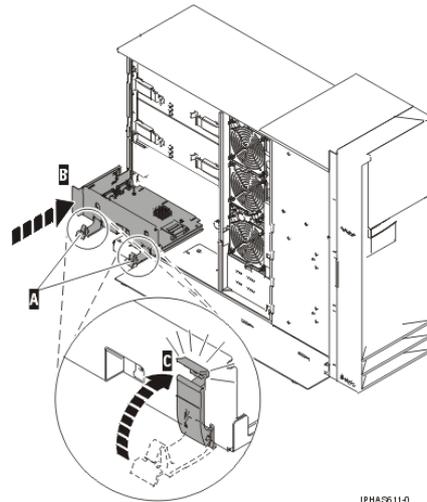
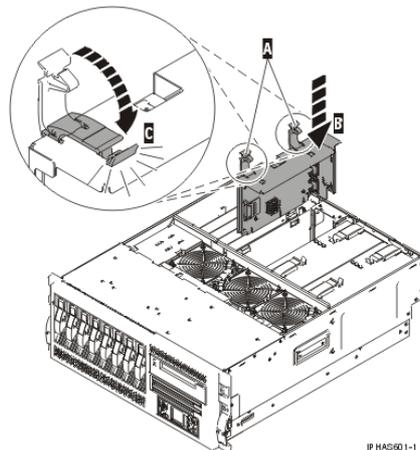


Figure 2. Rack-mounted model ESCALA PL 250T/R



2. Align the service processor assembly with the slot in the system frame.
3. While holding the service processor assembly by the handles, carefully push it into place B.

Note: Ensure that the two pins on the flange of the service processor assembly align with the corresponding alignment pin holes in the back plate while you carefully push the service processor assembly into place.

4. Carefully push firmly on the service processor assembly until you feel it lock into place.
5. Rotate the service processor assembly handles until they lock into place C.
6. Reconnect all cables to the service processor assembly.

7. Replace the service access cover. For instructions, see [Install the service access cover on the model 112/85, ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, .](#)
8. If you have a rack-mounted model ESCALA PL 250T/R. For instructions see [Place the rack-mounted system or expansion unit in the operating position.](#)
9. If you have a rack-mounted model ESCALA PL 250T/R, replace the front cover. For instructions, see [Install the front cover on the rack-mounted model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, , or the 05/95 expansion unit.](#)
10. Start the system or logical partition.

Parent topic: [Remove and replace the model ESCALA PL 250T/R service processor assembly to access another part](#) **Previous topic:** [Remove the model ESCALA PL 250T/R service processor assembly to access another part](#)

Start the system or logical partition

Use these instructions to start a system or logical partition.

- [Start a system that is not managed by a Hardware Management Console](#)
- [Start the system or logical partition using the Hardware Management Console](#)

Parent topic: [Start or stop the system or logical partition](#)

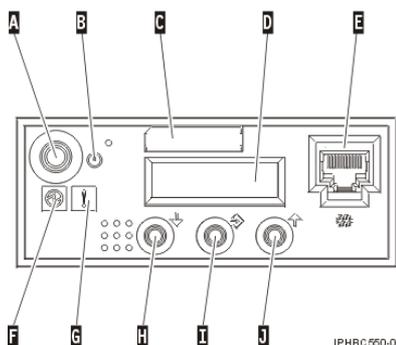
Related tasks

[Stop the system or logical partition](#)

Start a system that is not managed by a Hardware Management Console

To start a system that is not managed by a Hardware Management Console (HMC), follow these steps:

1. On a rack-mounted system unit, open the front rack door, if necessary. On a stand-alone system unit, open the front door.
2. Before you press the power button on the control panel, ensure that power is connected to the system unit as follows:
 - ◆ All system power cables are connected to a power source.
 - ◆ The power-on light F, as shown in the following figure, is slowly blinking.
 - ◆ The top of the display D, as shown in the following figure, contains 01 V=F.



Tip: The system attention light G, as shown in the previous figure, does not appear on the control panel on the model ESCALA PL 850R/PL 1650R/R+.

3. Press the power button A, as shown in the following figure, on the control panel.

Note: On the 7/10 or model ESCALA PL 250R-L, the power button is on the operations panel.

4. Observe the following after pressing the power button:
- ◆ The power-on light begins to blink visibly faster.
 - ◆ The system cooling fans are activated after approximately 30 seconds and begin to accelerate to operating speed.
 - ◆ Progress indicators, also referred to as checkpoints, appear on the control panel display while the system is being started. The power-on light on the control panel stops blinking and remains on, indicating that system power is on.

Tip: If pressing the power button does not start the system, use the following instructions to start the system using the Advanced System Management Interface (ASMI).

- Set up access to the ASMI. For instructions, see [Accessing the ASMI](#).
- Start the system using the ASMI. For instructions, see [Powering the system on and off](#).

Parent topic: [Start the system or logical partition](#)

Start the system or logical partition using the Hardware Management Console

After the required cables are installed and the power cables are connected to a power source, you can use the Hardware Management Console (HMC) user interface to start the system or logical partition.

For instructions on working with the HMC, see [Managing the Hardware Management Console](#). For instructions on starting a logical partition, see [Activating a partition profile](#). For instructions on starting the system, see [Powering on the managed system](#).

Progress indicators, also referred to as checkpoints, appear on the control panel display while the system is being started. The power-on light on the control panel stops blinking and remains on, indicating that system power is on.

Parent topic: [Start the system or logical partition](#)

Remove the model ESCALA PL 250T/R service processor assembly

If you are removing the service processor assembly from a model ESCALA PL 250T/R to replace another part, go to [Remove and replace the model ESCALA PL 250T/R service processor assembly to access another part](#).

When you remove the service processor assembly and time-of-day battery, you will lose the service processor settings. If you have custom settings, do the following before you remove the service processor assembly so that you can restore these settings:

1. Check and record the server firmware level prior to replacing this part. Refer to [Server firmware fixes](#). You may need to update the system to the latest server firmware code level after you replace the service processor.
2. Check and record the service processor settings you previously set using the Advanced System Management Interface (ASMI). Use a Hardware Management Console (HMC) or a PC to access the ASMI. Refer to [Accessing the Advanced System Management Interface](#) for information on setting up the ASMI, and [Managing your server using the Advanced System Management Interface](#) for information on using the ASMI. Reset these service processor settings after replacing the service processor or time-of-day battery unless you want to use the default settings. Settings to check include the following:
 - ◆ System name setting. Refer to [Changing the system name](#).
 - ◆ System power settings. Refer to [Controlling the system power](#).
 - ◆ ASMI service aids settings. Refer to [Troubleshooting ASMI](#).
 - ◆ System configuration settings. Refer to [Changing system configuration](#).
 - ◆ Network services settings. Refer to [Configuring network services](#).
 - ◆ Login profile settings. Refer to [Setting up login profile](#).
3. Record the processing unit power control network identifier using the ASMI. Refer to [Changing processing unit power control network identifier](#).
4. Also record any service processor settings you may have set using operating system commands.

If your system is managed by an HMC, use the HMC to complete the steps for removing the service processor assembly. If you have a redundant service processor, you must use the HMC to remove the service processor assembly. For instructions on removing a part using the HMC, see [Remove a part using the Hardware Management Console](#). If you do not have an HMC, do the following to remove the service processor:

1. Perform the prerequisite tasks as described in [Before you begin](#) and return to this procedure.
2. To identify a failing part, see [Identify a failing part](#).
3. [Stop the system or logical partition](#).
4. Disconnect the power source from the system by unplugging the system.

Note: This system might be equipped with a second power supply. Before continuing with this procedure, ensure that all power sources to the system have been completely disconnected.

(L003)



or



5. If you have a rack-mounted model ESCALA PL 250T/R, Remove the front cover from the rack-mounted model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, and the 05/95 expansion unit.
6. If you have a rack-mounted model ESCALA PL 250T/R, Place the rack-mounted system or expansion unit in the service position.
7. Remove the service access cover, see Remove the service access cover from the model 112/85, ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, .

Attention:

- ◆ Attach a wrist strap to an unpainted metal surface of your hardware to prevent electrostatic discharge from damaging your hardware.
- ◆ When using a wrist strap, follow all electrical safety procedures. A wrist strap is 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 a 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.

8. Locate the service processor assembly **C** as shown in the following figures.

Figure 1. Stand-alone model ESCALA PL 250T/R

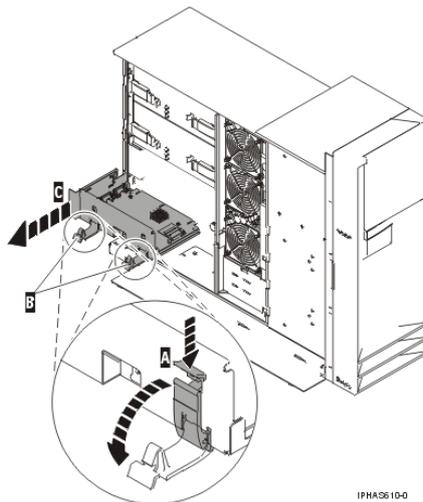
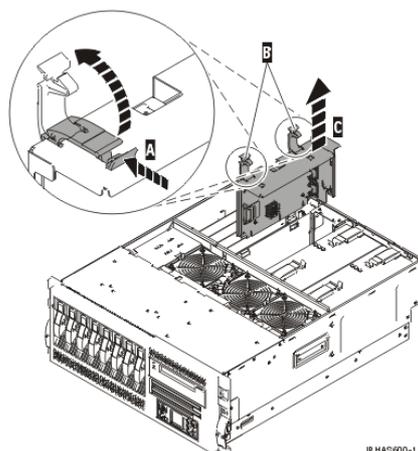


Figure 2. Rack-mounted model ESCALA PL 250T/R



9. Label and disconnect all cables connected to the service processor assembly.
10. Squeeze the tabs A on the end of each service processor assembly handle, and rotate the service processor handles to the open position B. Then pull the service processor assembly C out of the system.
11. If the time-of-day battery is the failing part, [Remove and replace the model ESCALA PL 250T/R time-of-day battery](#).
12. [Replace the model ESCALA PL 250T/R service processor assembly](#).

Parent topic: [Remove and replace the model ESCALA PL 250T/R service processor assembly and time-of-day battery](#)

Replace the model ESCALA PL 250T/R service processor assembly

If your system is managed by the Hardware Management Console (HMC), use the HMC to complete the steps for replacing the service processor assembly in a model ESCALA PL 250T/R . For instructions, see [Replace a part using the Hardware Management Console](#).

To replace the service processor assembly, do the following:

1. Rotate the service processor assembly handles to the open position A.

Attention:

- ◆ Attach a wrist strap to an unpainted metal surface of your hardware to prevent electrostatic discharge from damaging your hardware.
- ◆ When using a wrist strap, follow all electrical safety procedures. A wrist strap is 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 a 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.

Figure 1. Stand-alone model ESCALA PL 250T/R

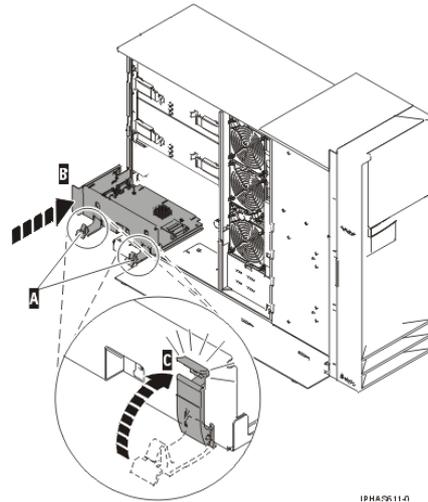
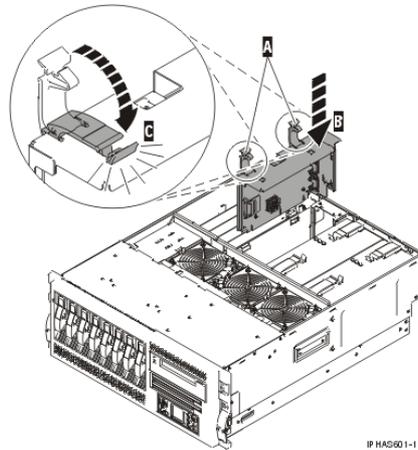


Figure 2. Rack-mounted model ESCALA PL 250T/R



2. Align the service processor assembly with the slot in the system frame.
3. While holding the service processor assembly by the handles, carefully push the assembly into place B.

Note: Ensure that the two pins on the flange of the service processor assembly align with the corresponding alignment pin holes in the back plate while you carefully push the service processor assembly into place.

4. Rotate the service processor assembly handles until they lock into place C.
5. Reconnect all cables to the service processor assembly.
6. Replace the service access cover. For instructions, see [Install the service access cover on the model 112/85, ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, .](#)
7. If you have a rack-mounted model ESCALA PL 250T/R, [Place the rack-mounted system or expansion unit in the operating position.](#)
8. If you have a rack-mounted model ESCALA PL 250T/R, replace the front cover. For instructions, see [Install the front cover on the rack-mounted model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, , or the 05/95 expansion unit.](#)
9. [Restore the service processor settings.](#)

Note: Do not start the system at this time. You will be instructed when to start the system in the procedures to restore service processor settings.

Parent topic: [Remove and replace the model ESCALA PL 250T/R service processor assembly and time-of-day battery](#)

Remove and replace the model ESCALA PL 250T/R time-of-day battery

To remove and replace the time-of-day battery in a model ESCALA PL 250T/R :

1. If you have not done so, [Remove the model ESCALA PL 250T/R service processor assembly](#).
2. Locate the battery on the service processor assembly.
3. Remove the time-of-day battery A from the service processor assembly as shown in [Figure 1](#).

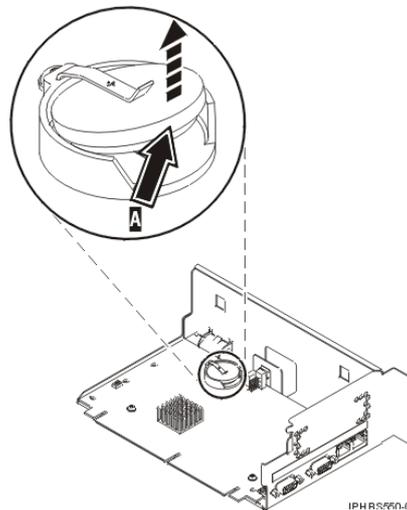
CAUTION:The battery contains lithium. To avoid possible explosion, do not burn or charge the battery.

Do Not:

- ◆ ___ Throw or immerse into water
- ◆ ___ Heat to more than 100 degrees C (212 degrees F)
- ◆ ___ Repair or disassemble

Exchange only with the approved part. Recycle or discard the battery as instructed by local regulations. (C003a)

Figure 1. Removing the time-of-day battery from the service processor assembly



4. Before replacing the battery, ensure that positive (+) side of the battery is facing up.
5. Insert the battery into its mount.
6. [Replace the model ESCALA PL 250T/R service processor assembly](#).

Parent topic: [Remove and replace the model ESCALA PL 250T/R service processor assembly and time-of-day battery](#)

Remove and replace the model ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, ESCALA PL 450T/R, time-of-day battery

These procedures describe the removal and replacement of the time-of-day battery in a model ESCALA PL 450T/R, server, ESCALA PL 450T/R, .

1. [Remove the model ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, ESCALA PL 450T/R, time-of-day battery](#)
2. [Replace the model ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, ESCALA PL 450T/R, time-of-day battery](#)

Parent topic: [Service processor assembly, service processor cable, and time-of-day battery](#)

Remove the model ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, ESCALA PL 450T/R, time-of-day battery

When you remove the time-of-day battery in an ESCALA PL 450T/R, server, ESCALA PL 450T/R, , the settings are lost. If you have custom settings, do the following before removing the battery, so that the settings can be restored:

1. If you have not done so, verify that the battery is the failing part. For instructions, see [Identify a failing part](#).
2. If you are not able to access the service network, check and record the server firmware level prior to replacing this part. Refer to [Server firmware fixes](#). You might need to update the system to the latest server firmware code level after you replace the battery.
3. Check and record the service processor settings you previously set using the Advanced System Management Interface (ASMI). This can be done using a PC to access the ASMI. Refer to [Accessing the Advanced System Management Interface](#) for information on setting up the ASMI, and [Managing your server using the Advanced System Management Interface](#) for information on using the ASMI. You will need to reenter these service processor settings after you replace the service processor unless you want to use the default settings. The settings to check include the following:
 - ◆ System name setting. Refer to [Changing the system name](#).
 - ◆ System power settings. Refer to [Controlling the system power](#).
 - ◆ ASMI service aids settings. Refer to [Troubleshooting the system using system service aids](#).
 - ◆ System configuration settings. Refer to [Changing system configuration](#).
 - ◆ Network services settings. Refer to [Configuring network services](#).
 - ◆ Login profile settings. Refer to [Setting up login profile](#).
4. Record the processing unit power control network identifier using the ASMI. Refer to [Changing processing unit power control network identifier](#).
5. Record any service processor settings you might have set using operating system commands.

If your system is managed by the Hardware Management Console (HMC), use the HMC to complete the steps for removing the time-of-day battery. For instructions, see [Remove a part using the Hardware Management Console](#). To remove the time-of-day battery, do the following:

1. Perform prerequisite tasks as described in [Before you begin](#) and return to this procedure.
2. [Stop the system or logical partition](#).
3. Disconnect the power source from the system by unplugging the system.

Note: This system might be equipped with a second power supply. Before continuing with this procedure, ensure that all power sources to the system have been completely disconnected.

(L003)



or

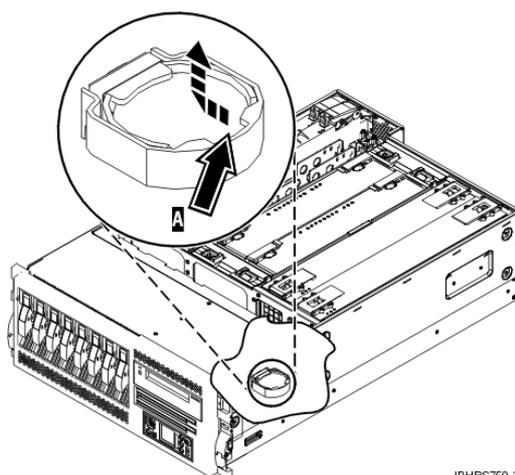


4. If you have a rack-mounted unit, [Remove the front cover from the rack-mounted model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, and the 05/95 expansion unit.](#)
5. If you have a rack-mounted unit, [Place the rack-mounted system or expansion unit in the service position.](#)
6. Remove the service access cover, [Remove the service access cover from the model 112/85, ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, .](#)

Attention:

- ◆ Attach a wrist strap to an unpainted metal surface of your hardware to prevent electrostatic discharge from damaging your hardware.
 - ◆ When using a wrist strap, follow all electrical safety procedures. A wrist strap is 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 a 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.
7. Remove the power supply or filler bracket. For instructions, see [Model ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, ESCALA PL 450T/R, power supply.](#)
 8. Locate the time-of-day battery as shown in [Figure 1.](#)

Figure 1. Time-of-day battery in a ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, ESCALA PL 450T/R,



IPHBS750-2

9. With one hand, reach through the opening created by removing power supply or filler bracket, and hold the battery in place.

Important: The battery is spring-loaded into the socket. If you do not hold down the battery when you remove it, the battery can shoot into the chassis, requiring additional disassembly.

10. Use a flat-head screwdriver or other tool to gently lift up on the exposed side of the battery.
11. Slide the battery out of its plastic mount A as shown as in the previous figure. After the bottom of the battery has cleared the top edge of the plastic mount, pull it up and away from the system backplane.

Attention: The battery's plastic mount connections are soldered to the system backplane. If the battery mount is damaged or removed, the system board might be permanently damaged.

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 degrees C (212 degrees F)
- ◆ ___ Repair or disassemble

Exchange only with the approved part. Recycle or discard the battery as instructed by local regulations. (C003a)

12. [Replace the model ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, ESCALA PL 450T/R, time-of-day battery.](#)

Parent topic: [Remove and replace the model ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, ESCALA PL 450T/R, time-of-day battery](#) **Next topic:** [Replace the model ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, ESCALA PL 450T/R, time-of-day battery](#)

Replace the model ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, ESCALA PL 450T/R, time-of-day battery

If your system is managed by the Hardware Management Console (HMC), use the HMC to complete the steps for removing the time-of-day battery in an ESCALA PL 450T/R, server, ESCALA PL 450T/R, . For instructions, see [Remove a part using the Hardware Management Console](#). To replace the time-of-day battery:

1. Ensure that positive (+) side of the battery is facing up.
2. Insert the battery into its mount.
3. Replace the power supply or filler bracket. For instructions, see [ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, ESCALA PL 450T/R, power supply](#).
4. Replace the service access cover. For instructions, see [Install the service access cover on the model 112/85, ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, .](#)
5. If you have a rack-mounted unit, [Place the rack-mounted system or expansion unit in the operating position](#).
6. If you have a rack-mounted unit, replace the front cover. For instructions, see [Install the front cover on the rack-mounted model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, , or the 05/95 expansion unit](#).
7. [Restore the service processor settings](#).

Note: Do not start the system at this time. You will be instructed when to start the system in the procedures to restore service processor settings.

Parent topic: [Remove and replace the model ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, ESCALA PL 450T/R, time-of-day battery](#) **Previous topic:** [Remove the model ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, ESCALA PL 450T/R, time-of-day battery](#)

Remove and replace the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor assembly and time-of-day battery

These procedures describe how to remove and replace the service processor assembly and time-of-day battery in a model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+.

- [Remove and replace the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor assembly to access another part](#)
- [Remove the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor assembly](#)
- [Replace the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor assembly](#)
- [Remove and replace the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ time-of-day battery](#)

Parent topic: [Service processor assembly, service processor cable, and time-of-day battery](#)

Remove and replace the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor assembly to access another part

Attention: Before continuing with this procedure, check the SMP processor cable connections and the service processor cable connections. Reference codes, which can be caused by an SMP processor cable or a service processor cable connection, might instruct you to unnecessarily replace the service processor card. Before replacing a service processor card, check the SMP processor cable and the service processor cable connections (if the cables are installed) by using the following procedure:

1. If the server is started, stop all the system units that are connected by SMP processor cables and service processor cables.
2. Check each connection by removing the cable connectors from the server and checking for any damage to the connectors or cables.
3. Reconnect the SMP processor cables and service processor cables. Ensure that each connector is fully seated and secured into position.
4. Verify the server operation. If the problem is not corrected, continue with this procedure.

If you need to remove the service processor assembly to access another part, follow the appropriate instructions.

1. [Remove the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor assembly to access another part](#)
2. [Replace the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor assembly after accessing another part](#)

Parent topic: [Remove and replace the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor assembly and time-of-day battery](#)

Remove the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor assembly to access another part

If your system is managed by an HMC, use the HMC to complete the steps for removing the service processor assembly in a model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+. For instructions, see [Remove a part using the Hardware Management Console](#). If you do not have an HMC, do the following to remove the service processor:

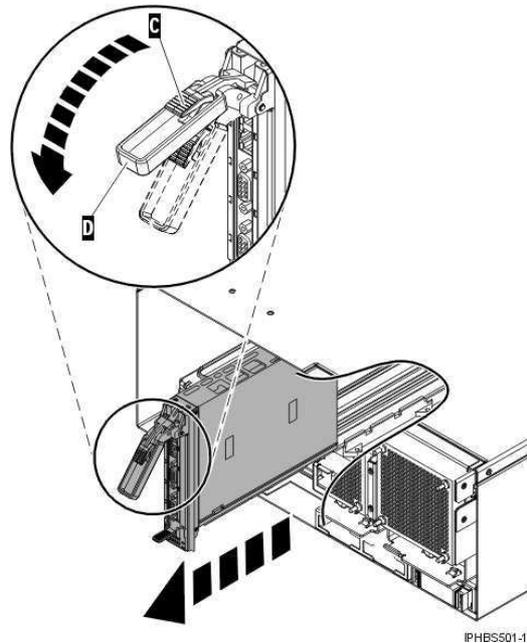
1. [Stop the system or logical partition.](#)
2. Disconnect the power source from the system by unplugging the system.

Note: This system might be equipped with a second power supply. Before continuing with this procedure, ensure that all power sources to the system have been completely disconnected.



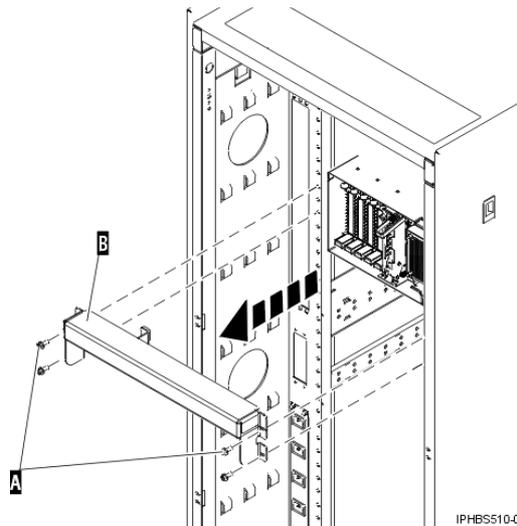
3. Locate the service processor assembly as shown in the following figure.

Figure 1. Model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor



4. Remove the thumbscrews A from the service processor bracket B and remove the bracket, if necessary. See [Figure 2](#).

Figure 2. Service processor bracket removal



5. Label and disconnect the all cables connected to the service processor assembly. For more information, see [Remove the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor cable](#).
6. Press the thumb release C on the blue service processor assembly handle D and rotate the handle down to disengage the service processor assembly from the card slot as shown in [Figure 1](#).
7. After the service processor assembly is disengaged from the card slot, use the handle to pull the service processor assembly from the card enclosure.
8. If the time-of-day battery is the failed part, [Remove and replace the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ time-of-day battery](#).
9. Return to the procedures for the part you need to access.

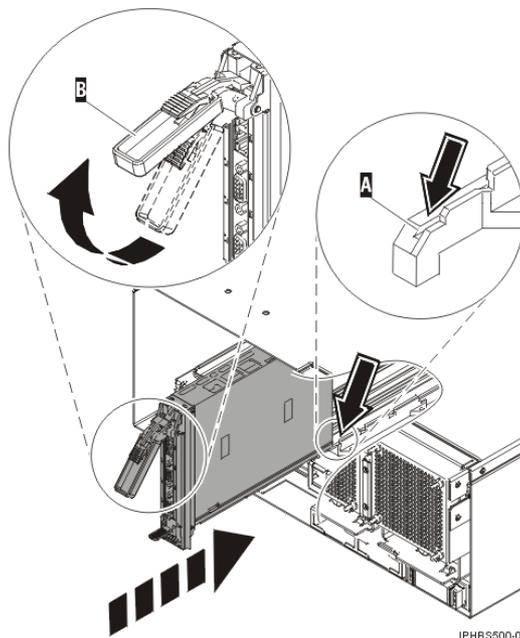
Parent topic: [Remove and replace the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor assembly to access another part](#) **Next topic:** [Replace the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor assembly after accessing another part](#)

Replace the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor assembly after accessing another part

If your system is managed by an HMC, use the HMC to complete the steps for replacing the service processor assembly. For instructions, see [Replace a part using the Hardware Management Console](#). If you do not have an HMC, do the following to replace the service processor:

1. Align the service processor assembly with card slot A. Slide the service processor assembly all of the way into the card slot in the card enclosure.

Figure 1. Service processor assembly installation in a model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+



2. Rotate the handle B up to lock the service processor assembly into the card slot.
3. Reconnect all cables to the service processor assembly. For more information, see [Replace the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor cable](#).
4. Reconnect the power source.
5. [Start the system or logical partition](#).

Parent topic: [Remove and replace the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor assembly to access another part](#) **Previous topic:** [Remove the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor assembly to access another part](#)

Remove the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor assembly

Attention: Before continuing with this procedure, check the SMP processor cable connections and the service processor cable connections. Reference codes, which can be caused by an SMP processor cable or a service processor cable connection, might instruct you to unnecessarily replace the service processor card. Before replacing a service processor card, check the SMP processor cable and the service processor cable connections (if the cables are installed) by using the following procedure:

1. If the server is started, stop all the system units that are connected by SMP processor cables and service processor cables.
2. Check each connection by removing the cable connectors from the server and checking for any damage to the connectors or cables.
3. Reconnect the SMP processor cables and service processor cables. Ensure that each connector is fully seated and secured into position.
4. Verify the server operation. If the problem is not corrected, continue with this procedure.

When you remove the service processor assembly, service processor settings are lost. If you have custom settings, do the following before removing the service processor assembly so that the settings can be restored:

1. Check and record the server firmware level prior to replacing this part. Refer to [Server firmware fixes](#). You may need to update the system to the latest server firmware code level after you replace the service processor.
2. Check and record the service processor settings you previously set using the Advanced System Management Interface (ASMI). This can be done using a Hardware Management Console (HMC) or a PC to access the ASMI. Refer to [Accessing the Advanced System Management Interface](#) for information on setting up the ASMI, and [Managing your server using the Advanced System Management Interface](#) for information on using the ASMI. Reset these service processor settings after replacing the service processor or time-of-day battery unless you want to use the default settings. Settings to check include the following:
 - ◆ System name setting. Refer to [Changing the system name](#).
 - ◆ System power settings. Refer to [Controlling the system power](#).
 - ◆ ASMI service aids settings. Refer to [Troubleshooting ASMI](#).
 - ◆ System configuration settings. Refer to [Changing system configuration](#).
 - ◆ Network services settings. Refer to [Configuring network services](#).
 - ◆ Login profile settings. Refer to [Setting up login profile](#).
3. Record the processing unit power control network identifier using the ASMI. Refer to [Changing processing unit power control network identifier](#).
4. Also record any service processor settings you may have set using operating system commands.

If your system is managed by an HMC, use the HMC to complete the steps for removing the service processor assembly. If you have a redundant service processor, you must use the HMC to remove the service processor assembly. For instructions on removing a part using the HMC, see [Remove a part using the Hardware Management Console](#).

If you do not have an HMC, do the following to remove the service processor:

1. Perform prerequisite tasks as described in [Before you begin](#) and return to this procedure.
2. To identify a failing part, see [Identify a failing part](#).
3. [Stop the system or logical partition](#).
4. Disconnect the power source from the system by unplugging the system.

Note: This system might be equipped with a second power supply. Before continuing with this procedure, ensure that all power sources to the system have been completely disconnected.

(L003)



or

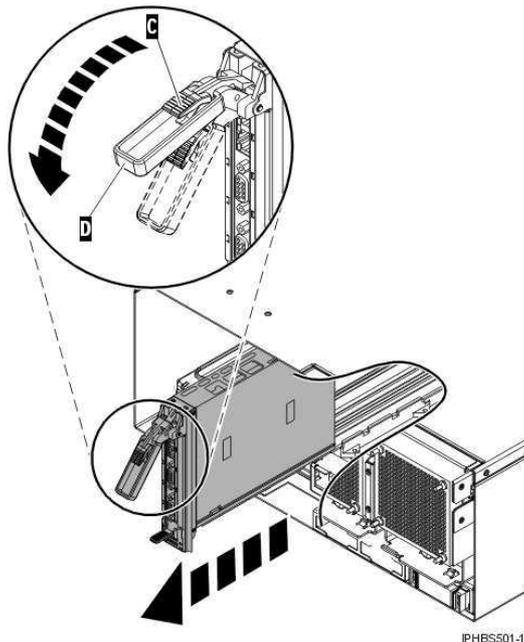


5. Locate the service processor assembly as shown in [Figure 1](#).

Attention:

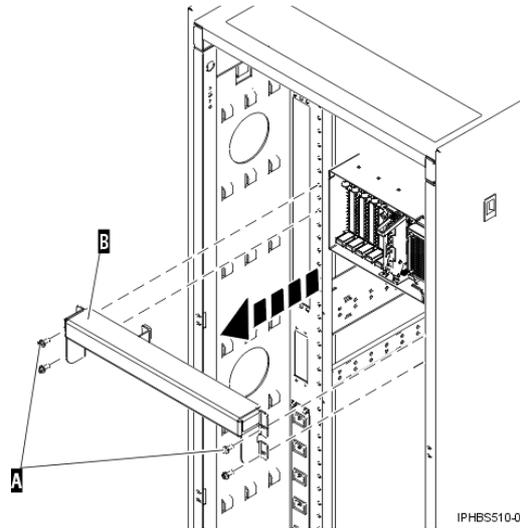
- ◆ Attach a wrist strap to an unpainted metal surface of your hardware to prevent electrostatic discharge from damaging your hardware.
- ◆ When using a wrist strap, follow all electrical safety procedures. A wrist strap is for static control. It does not increase or decrease your risk of receiving electric shock when using or working on electrical equipment.
- ◆ If you do not have a 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.

Figure 1. Model ESCALA PL 850R/PL 1650R/R+ service processor



6. Remove the thumbscrews from the service processor bracket and remove the bracket, if necessary. See [Figure 2](#).

Figure 2. Service processor bracket removal



7. Label and disconnect all cables connected to the service processor assembly. For more information, see [Remove the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor cable](#).
8. Press the thumb release C on the blue service processor assembly handle D and rotate the handle down to disengage the service processor assembly from the card slot as shown in [Figure 1](#).
9. After the service processor assembly is disengaged from the card slot, use the handle to pull the service processor assembly from the card enclosure.
10. If the time-of-day battery is the failed part, [Remove and replace the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ time-of-day battery](#).
11. [Replace the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor assembly](#).

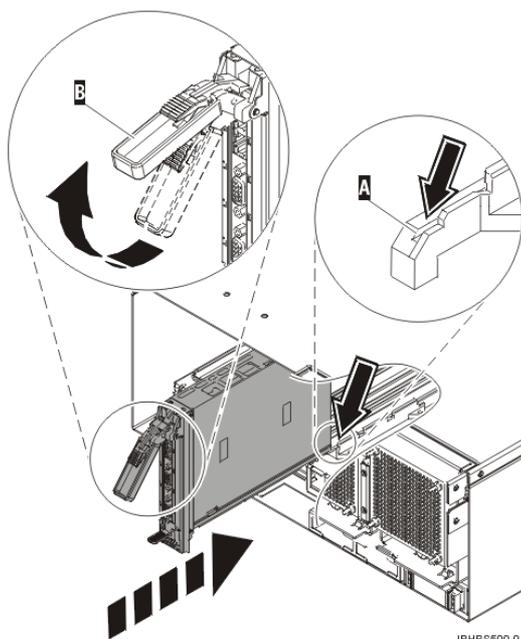
Parent topic: [Remove and replace the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor assembly and time-of-day battery](#)

Replace the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor assembly

If your system is managed by an Hardware Management Console, use the HMC to complete the steps for replacing the service processor assembly in a model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+. If you have a redundant service processor, you must use the HMC to remove the service processor assembly. For instructions on removing a part using the HMC, see [Replace a part using the Hardware Management Console](#). If you do not have an HMC, do the following to replace the service processor:

1. Align the service processor assembly with the card slot A.
2. Slide the service processor assembly all of the way into the card slot in the card enclosure.

Figure 1. Model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor installation



3. Rotate the handle B up to lock the service processor assembly into the card slot.
4. Reconnect all cables to the service processor assembly. For more information, see [Replace the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor cable](#).
5. Reconnect the power source.
6. Restore the service processor settings. For instructions, see [Restore the service processor settings](#).

Note: Do not start the system at this time. You will be instructed when to start the system in the procedures to restore service processor settings.

Parent topic: [Remove and replace the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor assembly and time-of-day battery](#)

Remove and replace the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ time-of-day battery

To remove and replace the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ time-of-day battery:

1. If you have not done so, [Remove the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor assembly](#).
2. Locate the battery on the service processor assembly.
3. Remove the time-of-day battery A from the service processor assembly as shown in [Figure 1](#).

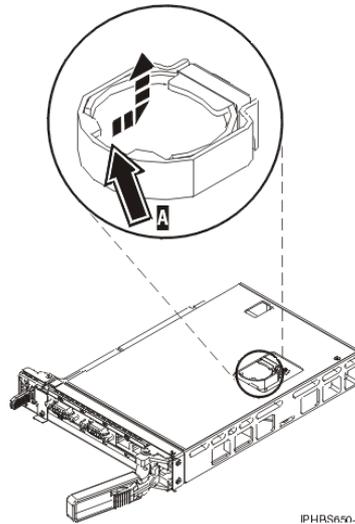
CAUTION:The battery contains lithium. To avoid possible explosion, do not burn or charge the battery.

Do Not:

- ◆ ___ Throw or immerse into water
- ◆ ___ Heat to more than 100 degrees C (212 degrees F)
- ◆ ___ Repair or disassemble

Exchange only with the approved part. Recycle or discard the battery as instructed by local regulations. (C003a)

Figure 1. Time-of-day battery removal from the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor assembly



4. Before replacing the battery, ensure that positive (+) side of the battery is facing up.
5. Insert the battery into its mount.
6. [Replace the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor assembly.](#)

Parent topic: [Remove and replace the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor assembly and time-of-day battery](#)

Install a model ESCALA PL 850R/PL 1650R/R+ redundant service processor assembly

To install a model ESCALA PL 850R/PL 1650R/R+ redundant service processor assembly, complete the following steps:

1. Install the HMC, if the HMC has not been installed. For instructions, see [Setting up the HMC](#). Verify that the HMC is working correctly before attempting to install the redundant service processor.

Important: The minimum HMC level for which you can use redundancy is version 5.1. To view the HMC machine code version and release, see [Determining your HMC machine code version and release](#).

2. Perform the prerequisite tasks described in [Before you begin](#).
3. Physically add and connect a service processor assembly. See [Replace the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor assembly](#).
4. Use the HMC to install the redundant service processor assembly. See [Install a feature using the Hardware Management Console](#).
5. [Verify the installed part](#).

Parent topic: [Service processor assembly, service processor cable, and time-of-day battery](#)

Remove and replace the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor cable

Attention: When replacing the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor cable, ensure that the identical cable part number is replaced. Replacing the cable with a dissimilar cable can cause the control panel to stop functioning.

1. [Remove the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor cable](#)
2. [Replace the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor cable](#)

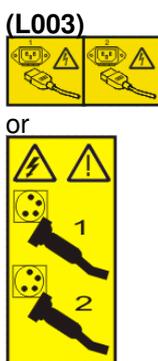
Parent topic: [Service processor assembly, service processor cable, and time-of-day battery](#)

Remove the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor cable

To remove the service processor cable, do the following:

1. Perform prerequisite tasks as described in [Before you begin](#).
2. To identify a failing part, see [Identify a failing part](#).
3. [Stop the system or logical partition](#).
4. Disconnect the power source from the system units by unplugging the system units.

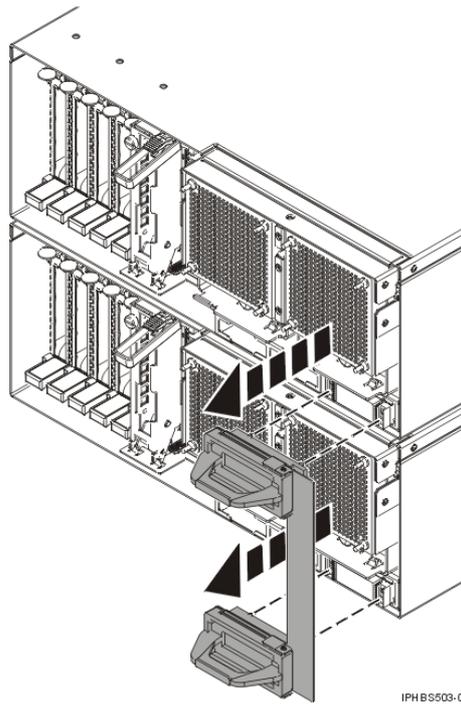
Note: The system units might be equipped with secondary power supplies. Before continuing with this procedure, ensure that all power sources to the system units have been completely disconnected.



5. Locate the service processor cable as shown in [Figure 1](#). The cable connects the back of one ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ system unit to another ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ system unit.

Note: The service processor cable might also connect three or four model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ system units together.

Figure 1. Model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor cable



6. Grasp the service processor cable handle on one system unit and pull the cable from the system unit. Then repeat the process for any other ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ system units that are connected to the service processor cable.
7. [Replace the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor cable.](#)

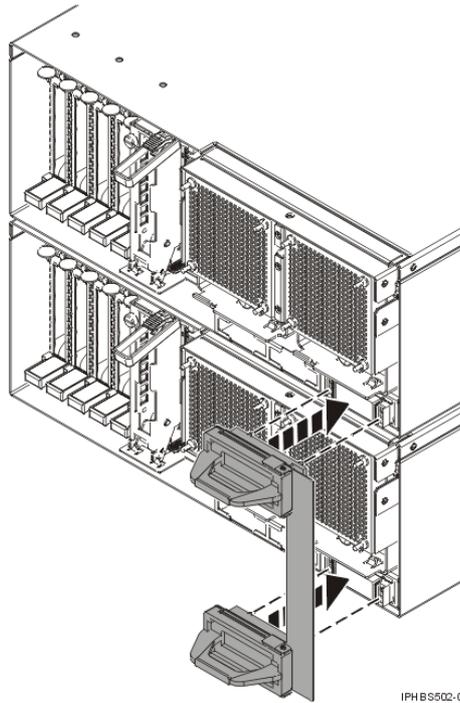
Parent topic: [Remove and replace the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor cable](#) **Next topic:** [Replace the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor cable](#)

Replace the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor cable

To replace the service processor cable, complete the following steps:

1. Align the pins on the back of the service processor cable handle with the alignment holes on the back of one of the system units as shown in the following figure. Using the handle, push the cable connector in place. Repeat the process for any other ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ system units.

Figure 1. Model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor cable



For assistance, use the following tables as a guide:

Table 1. Replacing cables when adding a redundant FSP to the ESCALA PL 850R/PL 1650R/R+ on the Primary Service Processor (#1)

Service processor ports	One SP and one HMC	One SP and two HMCs	Two SP and one HMC	Two SP and two HMCs
T1 (HMC)	to HMC #1 from hub #1***	to HMC #1 from hub #1	to HMC #1 from hub #1	to HMC #1 from hub #1
T2 (HMC)		to HMC #2 from hub #1	jumper to SP#2 T2	to HMC #2 from hub #2
T3 (SPCN)	to first I/O device*	to first I/O device*	to first I/O device*	to first I/O device*
T4 (SPCN)	to last I/O device**	to last I/O device**	jumper to SP#2 T3	jumper to SP#2 T3

Table 2. Replacing cables when adding a redundant FSP to the ESCALA PL 850R/PL 1650R/R+ on the Secondary Service Processor (#2)

Service processor ports	One SP and one HMC	One SP and two HMCs	Two SP and one HMC	Two SP and two HMCs
T1 (HMC)			to HMC #1 from hub #1	to HMC #1 from hub #1
T2 (HMC)			jumper to SP#1 T2	to HMC #2 from hub #2
T3 (SPCN)			jumper to SP#1 T4	jumper to SP#1 T4
T4 (SPCN)			to last I/O device**	to last I/O device**

* First I/O system in a single loop configuration with jumpered links.

** Last I/O system in a single loop configuration with jumpered links.

*** The Ethernet hub is optional. You can choose to connect the service processor directly to the HMC.

2. Reconnect all system power cables.
3. [Start the system or logical partition.](#)
4. [Verify the installed part.](#)

Parent topic: [Remove and replace the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor cable](#) **Previous topic:** [Remove the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor cable](#)

Remove and replace the model ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, 7/10, or ESCALA PL 250R-L+ or ESCALA PL 450R-VL+ time-of-day battery

These procedures describe how to remove and replace the time-of-day battery in a model ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, 7/10, or ESCALA PL 250R-L+ or ESCALA PL 450R-VL+.

1. [Remove the model ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, or ESCALA PL 250R-L+ or ESCALA PL 450R-VL+ time-of-day battery](#)
2. [Replace the model ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, or ESCALA PL 250R-L+ or ESCALA PL 450R-VL+ time-of-day battery](#)

Parent topic: [Service processor assembly, service processor cable, and time-of-day battery](#)

Remove the model ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, 7/10, or ESCALA PL 250R-L+ or ESCALA PL 450R-VL+ time-of-day battery

When you remove the time-of-day battery from a model ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, 7/10, or ESCALA PL 250R-L+ or ESCALA PL 450R-VL+, you will lose settings. If you have custom settings, do the following before you remove the battery, so that you can restore these settings:

1. If you have not done so, verify that the battery is the failing part. Refer to [Identify a failing part](#).
2. Check and record the server firmware level prior to replacing this part. Refer to [Server firmware fixes](#). You may need to update the system to the latest server firmware code level after you replace the battery.
3. Check and record the service processor settings you previously set using the Advanced System Management Interface (ASMI). This can be done using a PC to access the ASMI. Refer to [Accessing the Advanced System Management Interface](#) for information about setting up the ASMI, and [Managing your server using the Advanced System Management Interface](#) for information on using the ASMI. You will need to reenter these service processor settings after you replace the service processor unless you want to use the default settings. Settings to check include the following:
 - ◆ System name setting. Refer to [Changing the system name](#).
 - ◆ System power settings. Refer to [Controlling the system power](#).
 - ◆ ASMI service aids settings. Refer to [Troubleshooting the system using system service aids](#).
 - ◆ System configuration settings. Refer to [Changing system configuration](#).
 - ◆ Network services settings. Refer to [Configuring network services](#).
 - ◆ Login profile settings. Refer to [Setting up login profile](#).
4. Record the processing unit power control network identifier using the ASMI. Refer to [Changing processing unit power control network identifier](#).
5. Also record any service processor settings you may have set using operating system commands.

To remove the time-of-day battery, do the following:

1. Perform prerequisite tasks as described in [Before you begin](#) and return to this procedure.
2. [Stop the system or logical partition](#).

3. Disconnect the power source from the system by unplugging the system.

Note: This system might be equipped with a second power supply. Before continuing with this procedure, ensure that all power sources to the system have been completely disconnected.

(L003)



or



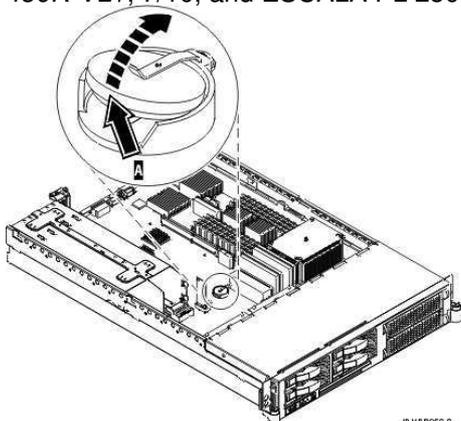
4. If you have a rack-mounted unit, [Remove the front cover from the model ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+](#) .
5. If you have a rack-mounted unit, [Place the model ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+ in the service position.](#)
6. Remove the service access cover, see [Remove the service access cover from the model 112/85, ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, .](#)

Attention:

- ◆ Attach a wrist strap to an unpainted metal surface of your hardware to prevent electrostatic discharge from damaging your hardware.
- ◆ When using a wrist strap, follow all electrical safety procedures. A wrist strap is 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 a 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.

7. Remove the PCI adapter enclosure. Refer to [Remove a ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, 7/10, and ESCALA PL 250R-L+ or ESCALA PL 450R-VL+ PCI adapter.](#)
8. Locate the time-of-day battery as shown in [Figure 1.](#)

Figure 1. Time-of-day battery location and removal in a ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, 7/10, and ESCALA PL 250R-L+ or ESCALA PL 450R-VL+



9. Slide the battery out of its plastic mount. After the bottom of the battery has cleared the top edge of the plastic mount, pull it up and away from the system backplane as shown as A in [Figure 1.](#)

Note: The battery's plastic mount connections are soldered to the system backplane. If the battery mount is damaged or removed, the system board might be permanently damaged.

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 degrees C (212 degrees F)
- ◆ ___ Repair or disassemble

Exchange only with the approved part. Recycle or discard the battery as instructed by local regulations. (C003a)

10. [Replace the model ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, or ESCALA PL 250R-L+ or ESCALA PL 450R-VL+ time-of-day battery.](#)

Parent topic: [Remove and replace the model ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, or ESCALA PL 250R-L+ or ESCALA PL 450R-VL+ time-of-day battery](#) **Next topic:** [Replace the model ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, or ESCALA PL 250R-L+ or ESCALA PL 450R-VL+ time-of-day battery](#)

Replace the model ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, 7/10, or ESCALA PL 250R-L+ or ESCALA PL 450R-VL+ time-of-day battery

To replace the time-of-day battery in a ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, 7/10, or ESCALA PL 250R-L+ or ESCALA PL 450R-VL+, complete the following steps:

1. Ensure that the positive (+) side of the battery is facing up.
2. Insert the battery into its mount.
3. Replace the PCI adapter enclosure. Refer to [Replace a ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, 7/10, and ESCALA PL 250R-L+ or ESCALA PL 450R-VL+PCI adapter.](#)
4. Replace the service access cover. Refer to [Install the service access cover on the model 112/85, ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, .](#)
5. If you have a rack-mounted unit, [Place the model ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+ ___ in the operating position.](#)
6. If you have a rack-mounted unit, replace the front cover. For instructions, see [Install the front cover on the model ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+ .](#)
7. [Restore the service processor settings.](#)

Note: Do not start the system at this time. You will be instructed when to start the system in the procedures to restore service processor settings.

Parent topic: [Remove and replace the model ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, or ESCALA PL 250R-L+ or ESCALA PL 450R-VL+ time-of-day battery](#) **Previous topic:** [Remove the model ESCALA PL](#)

Remove and replace the model ESCALA PL 3250R service processor assembly and time-of-day battery

This is not a customer task.

Removing and replacing the ESCALA PL 3250R service processor is not a customer task. Contact an authorized service provider to make arrangements for them to perform this task.

Parent topic: [Service processor assembly, service processor cable, and time-of-day battery](#)

Remove and replace the model ESCALA PL 6450R service processor assembly and time-of-day battery

This is not a customer task.

Removing and replacing the ESCALA PL 6450R service processor is not a customer task. Contact an authorized service provider to make arrangements for them to perform this task.

Parent topic: [Service processor assembly, service processor cable, and time-of-day battery](#)

Restore the service processor settings

After you replace the service processor assembly or time-of-day battery, complete the following procedure to restore service processor settings:

Note: If you are servicing a model ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, ESCALA PL 450T/R, , refer to [Troubleshooting HMC setup](#) for additional service processor settings.

1. Enable network access to the service processor by doing the following steps:
 - ◆ If the network connection uses the Dynamic Host Configuration Protocol (DHCP) to establish an IP address, and uses a Hardware Management Console (HMC) as the DHCP server, then no additional configuration is necessary to enable network access to the service processor.
 - ◆ If configuration is necessary, complete the following steps:
 - a. Ensure that the service processor is connected to the existing service network by verifying that the HMC cable is connected to the HMC port on the service processor assembly.
 - b. Connect all system power cables by plugging them into power outlets.

Note: Do not start the system at this time.

- c. Can the service network be accessed?
 - No: Continue with the next step.
 - Yes: Go to step 3.
- ◆ If the network connection uses DHCP to establish an IP address, but does not use an HMC as the DHCP server, do the following steps:
 - a. Complete any network configuration necessary to allow the DHCP server to recognize and assign an IP address to the service processor.
 - b. Ensure that the service processor is connected to the existing service network by verifying that the network cable is connected to the network port on the service processor assembly.
 - c. Connect all system power cables by plugging them into power outlets.

Note: Do not start the system at this time.

- d. Can the service network be accessed?
 - No: Continue with the next step.
 - Yes: Go to step 3.
- ◆ If the network connection uses static IP address assignments, do the following steps:
 - a. Connect a client with a Web browser directly to the service processor network port using one of the following URLs:
 - <https://192.168.2.147>
 - <https://192.168.3.147>
 - b. Connect all system power cables by plugging them into power outlets.

Note: Do not start the system at this time.

- c. Log on to the Advanced System Management Interface (ASMI) with the user ID admin and the default password admin .
- d. Change the admin user ID's password and the general user ID's password when prompted. Refer to [Changing the password](#).
- e. Configure network access using the static IP address. Refer to [Configuring network access](#).
- f. Can you access the service network?
 - No: Continue with the next step.
 - Yes: Go to step 3.

Important: The next step is applicable only for the removable service processors in a model ESCALA PL 250T/R, ESCALA PL 250T/R, or ESCALA PL 850R/PL 1650R/R+ with customer-installed service processor cards, and is not used during a battery replacement.

2. If you are not able to access the service network, reset the service processor network interfaces (and passwords) by doing the following:
 - a. Remove the service processor assembly. Do not remove the time-of-day battery. Refer to [Remove the model ESCALA PL 250T/R service processor assembly](#), or [Remove the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor assembly](#).
 - b. Move both service processor reset toggle switches A from their current position to the opposite position.

Figure 1. Model ESCALA PL 250T/R service processor reset toggle switches

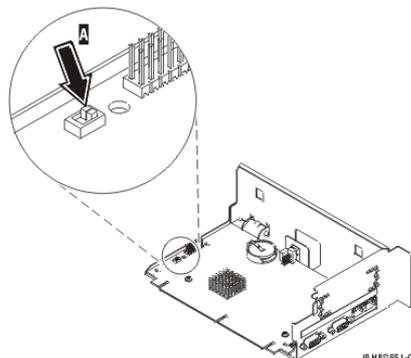
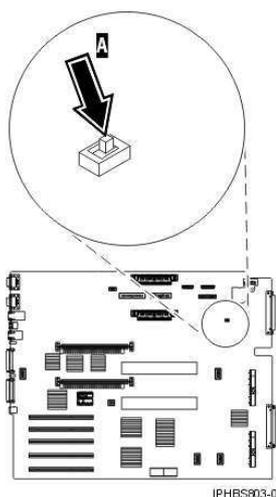


Figure 2. Model ESCALA PL 450T/R service processor switch



- c. [Replace the model ESCALA PL 250T/R service processor assembly](#), or [Replace the model ESCALA PL 850R/PL 1650R/R+ or ESCALA PL 1650R-L+ service processor assembly](#).
- d. Go to step 1.
3. Log in to the ASMI with the user ID *admin* and the default password *admin* and do the following:
 - a. When prompted, change admin user ID's password and the general user ID's password. Refer to [Changing the password](#).
 - b. Set the system name. Refer to [Viewing system name](#).
 - c. Set the time of day. If this server uses an HMC, set the time of day using the ASMI. Refer to [Viewing time of day](#). If this server does not use an HMC, set the time of day using the appropriate operating system command.
 - d. Reenter any of the following settings that you previously changed through the ASMI, unless you want to use the default settings. Setting to check include the following:
 - ◇ System power settings. Refer to [Controlling the system power](#).
 - ◇ ASMI service aids settings. Refer to [Troubleshooting the system using system service aids](#).
 - ◇ System configuration settings. Refer to [Changing system configuration](#).
 - ◇ Network services settings. Refer to [Configuring network services](#).
 - ◇ Login profile settings. Refer to [Setting up login profile](#).
 - e. Reset the processing unit power control network identifier using the ASMI. Refer to [Changing the processing unit identifier](#).
4. Reenter any service processor settings that you may have set using operating system commands. You recorded these settings before removing the service processor.
5. If your system is managed by an HMC, reset the HMC access password by doing the following:

From the HMC command line, type:

```
chsyspwd -m managed system -t access --passwd --newpasswd newpassword
```

where:

- ◆ The value for *managed system* is the new service processor's managed system name.
- ◆ No value for *passwd* to allow authentication.
- ◆ The value for *newpassword* is the new password value.

6. If necessary, update to the latest server firmware level. Refer to [Server firmware fixes](#).
7. If your system is managed by an HMC and runs logical partitions, restore the logical partition profiles. Refer to [Restoring profile data using the HMC](#).
8. [Start the system or logical partition](#).
9. If your system runs logical partitions, verify the time of day for each partition after the system is powered on and the partitions are activated. If necessary, set the time of day using the appropriate operating system command for each logical partition.
10. [Verify the installed part](#).

Parent topic: [Service processor assembly, service processor cable, and time-of-day battery](#)

Related procedures

View and print information related to the service processor assembly, service processor cable, and time-of-day battery.

- [Before you begin](#)
Understand prerequisites for installing, removing, or replacing features and parts.
- [Start or stop the system or logical partition](#)
Learn how to start or stop a system or logical partition.
- [Place the rack-mounted system or expansion unit in the service position or operating position](#)
- [Place the model ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+ in the service position](#)
Learn how to place the unit into the service position.
- [Place the model ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+ in the operating position](#)
Learn how to place the unit into the operating position.
- [Place the rack-mounted model ESCALA PL 245T/R in the service position or operating position](#)
- [Remove and replace model ESCALA PL 245T/R covers and doors](#)
Learn how to remove and replace covers and doors.
- [Open the model ESCALA PL 250R-VL or ESCALA PL 450R-XS service access panel](#)
- [Place the model ESCALA PL 250R-VL or ESCALA PL 450R-XS in the service position](#)
- [Place the model ESCALA PL 250R-VL or ESCALA PL 450R-XS in the operating position](#)
Learn how to place the unit into the operating position.
- [Model 112/85, ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, service access cover](#)
This topic describes how to remove and install the service access cover for the model 112/85, ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, 7/10, .
- [Remove the service access cover from the rack-mounted model ESCALA PL 250R-VL or ESCALA PL 450R-XS](#)
- [Install the service access cover on the rack-mounted model ESCALA PL 250R-VL or ESCALA PL 450R-XS](#)
- [Front cover](#)
The following procedures describe how to remove and install the front cover of the system or expansion unit.
- [Model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, door](#)
Learn how to remove and replace the front door of the stand-alone model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, .
- [Verify the installed part](#)
- [Install a feature using the Hardware Management Console](#)
- [Remove a part using the Hardware Management Console](#)
- [Replace a part using the Hardware Management Console](#)
- [Identify a failing part](#)
The following procedures describe how to locate and identify a failing part on your system or expansion unit.
- [Remove the front cover from the model ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+](#)
- [Install the front cover on the model ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+](#)
- [Gain access to the model ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+ control panels](#)

Parent topic: [Service processor assembly, service processor cable, and time-of-day battery](#)

Start or stop the system or logical partition

Learn how to start or stop a system or logical partition.

- **Start the system or logical partition**
Use these instructions to start a system or logical partition.
- **Stop the system or logical partition**
Learn how to stop a system or logical partition.

Parent topic: [Related procedures](#)

Before you begin

Understand prerequisites for installing, removing, or replacing features and parts.

DANGERWhen 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:

- Connect power to this unit only with the provided power cord. Do not use the 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.
- 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.

(D005)

DANGERObserve 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)

Before you begin a replacement or installation procedure, perform these tasks:

1. If you are installing a new feature, ensure that you have the software required to support the new feature and determine if there are any existing PTF prerequisites.
2. If you are performing an installation or replacement procedure that might put your data at risk, ensure, wherever possible, that you have a current backup of your system or logical partition (including operating systems, licensed programs, and data).

For information on backing up your system or logical partition, select from the following:

- ◆ [AIX backup](#)
- ◆ [Linux backup](#)

3. Review the installation or replacement procedure for the feature or part.
4. Note the significance of color on your system.

Blue or terra-cotta on a part of the hardware indicates a touch point where you can grip the hardware to remove it from or install it in the system, open or close a latch, and so on. Terra-cotta might also indicate that the part can be removed and replaced with the system or logical partition power on.

5. Ensure that you have access to a medium, flat-blade screwdriver.
6. If parts are incorrect, missing, or visibly damaged, do the following:
 - ◆ If you are replacing a part, contact your service provider or next level of support.
 - ◆ If you are installing a feature, contact one of the following:
 - ◇ Your service provider or next level of support.
7. If you encounter difficulties during the installation, contact your service provider, or your next level of support.
8. If you are installing new hardware in a logical partition, you need to understand and plan for the implications of partitioning your system. For information, see [Partitioning the server](#), and then return to

these instructions.

Parent topic: [Related procedures](#)

Place the rack-mounted system or expansion unit in the service position or operating position

Learn how to place a rack-mounted system or expansion unit into the service position or the operating position.

- **Place the rack-mounted system or expansion unit in the service position**
By placing the rack-mounted system or expansion unit in the service position, you can access the inside of the unit.
- **Place the rack-mounted system or expansion unit in the operating position**
By placing the rack-mounted system or expansion unit in the operating position, you make the unit available for use.

Parent topic: [Related procedures](#)

Place the rack-mounted system or expansion unit in the service position

By placing the rack-mounted system or expansion unit in the service position, you can access the inside of the unit.

Note: Some of the figures in these procedures might not look exactly like the system or expansion unit that you have. However, the steps to perform the task are the same.

DANGERWhen 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:

- Connect power to this unit only with the provided power cord. Do not use the 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.
- 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.

(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.

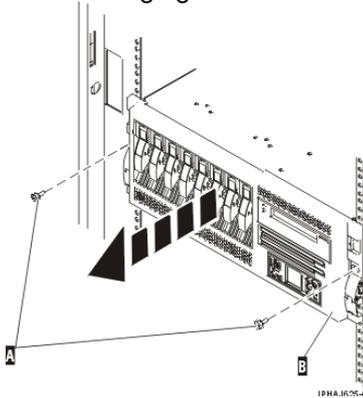
CAUTION

- 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.

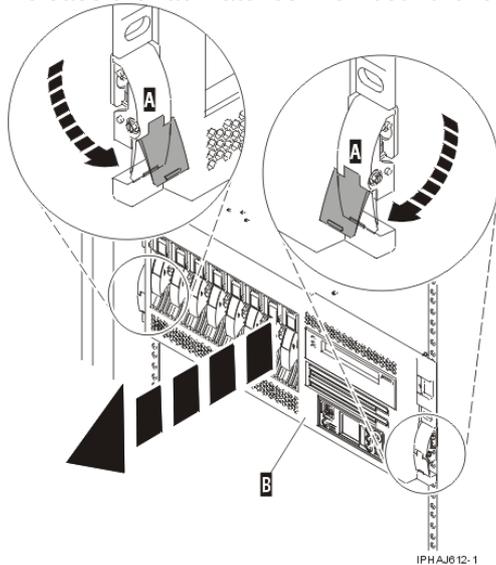
(R001)

To place the rack-mounted system or expansion unit into the service position, follow these steps:

1. If necessary, open the front rack door.
2. Remove the two thumbscrews A that secure the system or expansion unit B to the rack as shown in the following figure.



3. Release the rack latches A on both the left and right sides as shown in the following figure.



4. Review the following note, and then slowly pull the system or expansion unit out from the rack until the rails are fully extended and locked.

Note:

- ◆ If the procedure you are performing requires you to unplug cables from the back of the system or expansion unit, do so before you pull the unit out from the rack.
- ◆ Ensure that the cables at the rear of the system or expansion unit do not catch or bind as you pull the unit out from the rack.
- ◆ Ensure the rails are fully extended. When the rails are fully extended, the rail safety latches lock into place. This action prevents the system or expansion unit from being pulled out too far.

Parent topic: [Place the rack-mounted system or expansion unit in the service position or operating position](#)

Place the rack-mounted system or expansion unit in the operating position

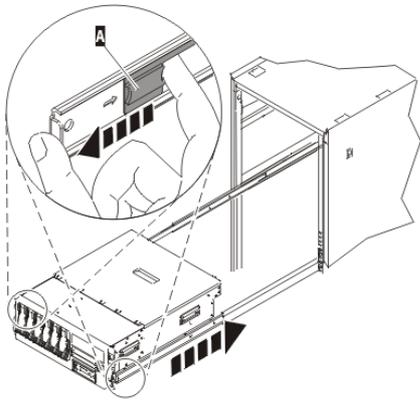
By placing the rack-mounted system or expansion unit in the operating position, you make the unit available for use.

Tip: Some of the figures in these procedures might not look exactly like the system or expansion unit that you have. However, the steps to perform the task are the same.

To place the rack-mounted system or expansion unit into the operating position, follow these steps:

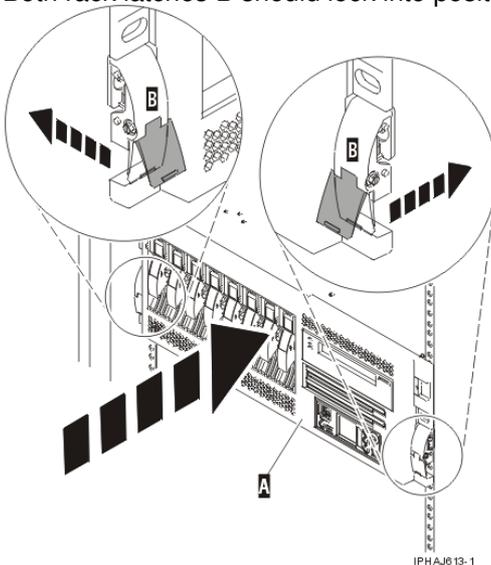
1. Simultaneously release the blue rail safety latches A, located near the front of each rail, and push the system or expansion unit into the rack as shown in the following figure.

Note: Ensure that the cables at the rear of the system or expansion unit do not catch or bind as you push the unit back into the rack.

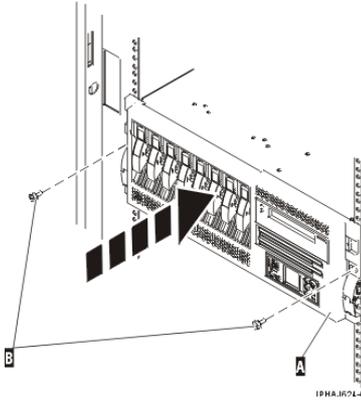


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- a. Both rack latches B should lock into position as shown in the following figure.



2. Replace and tighten the two thumbscrews B that secure the system or expansion unit A to the rack as shown in the following figure.



3. Close the front rack door.

Parent topic: [Place the rack-mounted system or expansion unit in the service position or operating position](#)

Place the model ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+ or 7/10 in the service position

Learn how to place the unit into the service position.

Note: Some of the figures in these procedures might not look exactly like the system unit that you have. However, the steps to perform the task are the same.

DANGERWhen 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:

- Connect power to this unit only with the provided power cord. Do not use the 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.
- 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.

(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.

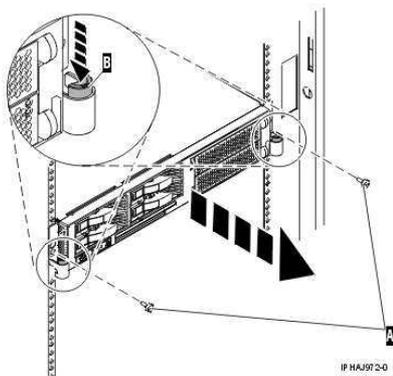
CAUTION

- 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)

To place the rack-mounted system unit into the service position, follow these steps:

1. If necessary, open the front rack door.
2. Remove the two thumbscrews A that secure the system unit to the rack as shown in the following figure.



3. Release the rack latches B on both the left and right sides as shown in the previous figure.
4. Review the following note, and then slowly pull the system unit out from the rack until the rails are fully extended and locked.

Note:

- ◆ If the procedure you are performing requires you to unplug cables from the back of the system unit, do so before you pull the unit out from the rack.
- ◆ Ensure that the cables at the rear of the system unit do not catch or bind as you pull the unit out from the rack.
- ◆ Ensure the rails are fully extended. When the rails are fully extended, the rail safety latches lock into place. This action prevents the system unit from being pulled out too far.

Parent topic: [Related procedures](#)

Place the model ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+ or 7/10 in the operating position

Learn how to place the unit into the operating position.

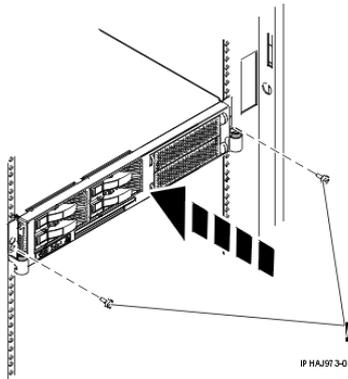
Tip: Some of the figures in these procedures might not look exactly like the system unit that you have. However, the steps to perform the task are the same.

To place the system unit into the operating position, follow these steps:

1. Simultaneously release the blue rail safety latches, located near the middle of each rail, and push the system unit into the rack. Both rack latches should lock into position.

Important: Ensure that the cables at the rear of the system unit do not catch or bind as you push the unit back into the rack.

2. Replace and tighten the two thumbscrews A that secure the system unit to the rack as shown in the following figure.



3. Close the front rack door.

Parent topic: [Related procedures](#)

Place the rack-mounted model ESCALA PL 245T/R in the service position or operating position

Learn how to place a rack-mounted model ESCALA PL 245T/R into the service position or the operating position.

- **Place the rack-mounted model ESCALA PL 245T/R in the service position**
By placing the rack-mounted system unit in the service position, you can access the inside of the unit.
- **Place the rack-mounted model ESCALA PL 245T/R in the operating position**
By placing the rack-mounted system unit in the operating position, you make the unit available for use.

Parent topic: [Related procedures](#)

Place the rack-mounted model ESCALA PL 245T/R in the service position

By placing the rack-mounted system unit in the service position, you can access the inside of the unit.

Tip: Some of the figures in these procedures might not look exactly like the system unit that you have. However, the steps to perform the task are the same.

To place the rack-mounted system unit into the service position, follow these steps.

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:

- Connect power to this unit only with the provided power cord. Do not use the 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.
- 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.

(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.

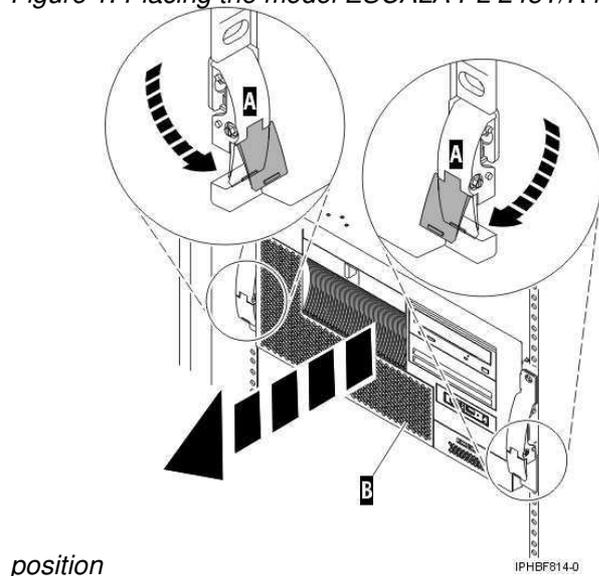
(R001)

1. If necessary, open the front rack door.
2. Release the rack latches A on both the left and right sides as shown in the following figure.
3. Review the following note, and then slowly pull the system unit B out from the rack until the rails are fully extended and locked.

Note:

- ◆ If the procedure you are performing requires you to unplug cables from the back of the system unit, do so before you pull the unit out from the rack.
- ◆ Ensure that the cables at the rear of the system unit do not catch or bind as you pull the unit out from the rack.
- ◆ Ensure the rails are fully extended. When the rails are fully extended, the rail safety latches lock into place. This action prevents the system unit from being pulled out too far.

Figure 1. Placing the model ESCALA PL 245T/R in the service



Parent topic: [Place the rack-mounted model ESCALA PL 245T/R in the service position or operating position](#)

Place the rack-mounted model ESCALA PL 245T/R in the operating position

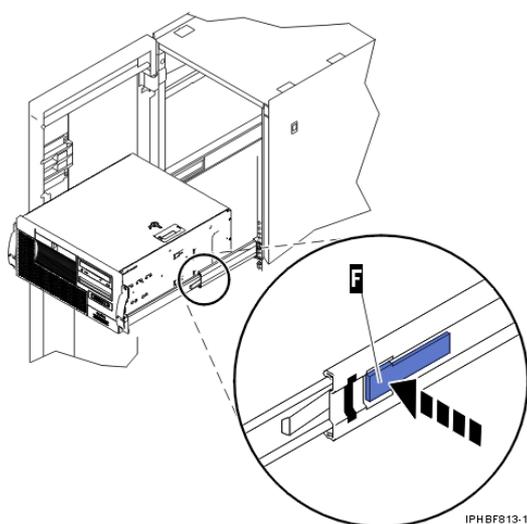
By placing the rack-mounted system unit in the operating position, you make the unit available for use.

Note: Some of the figures in these procedures might not look exactly like the system unit that you have. However, the steps to perform the task are the same.

To place the rack-mounted system unit into the operating position, follow these steps:

1. Simultaneously release the blue rail safety latches F located near the front of each rail, and push the system or expansion unit into the rack as shown in the following figure.

Note: Ensure that the cables at the rear of the unit do not catch or bind as you push the unit back into the rack.



- a. Both rack latches should lock into position.
2. Replace and tighten the two thumbscrews that secure the system unit to the rack.
 3. Close the front rack door.

Parent topic: [Place the rack-mounted model ESCALA PL 245T/R in the service position or operating position](#)

Remove and replace model ESCALA PL 245T/R covers and doors

Learn how to remove and replace covers and doors.

- [Remove and replace the model ESCALA PL 245T/R front cover](#)
- [Remove and replace the model ESCALA PL 245T/R acoustic-feature back cover](#)
The model ESCALA PL 245T/R has a removable back cover only if you have ordered the acoustic covers feature.
- [Remove and replace the model ESCALA PL 245T/R side cover](#)

Parent topic: [Related procedures](#)

Service processor assembly, service processor cable, and time-of-day battery

Remove and replace the model ESCALA PL 245T/R front cover

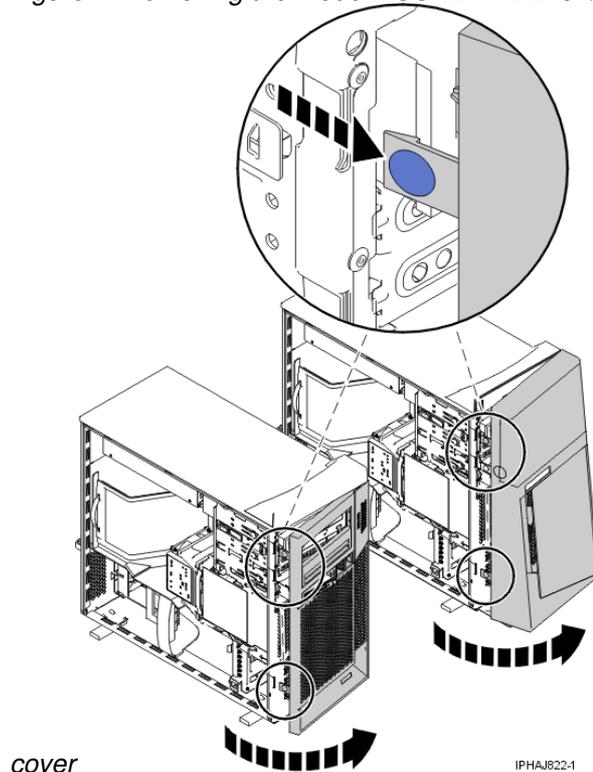
To remove the front cover from the model ESCALA PL 245T/R, follow these steps:

1. Remove the side cover. See, [Remove and replace the model ESCALA PL 245T/R side cover](#)
2. Lift each of the tabs on the front cover until it is released from the system unit, as shown in the following figure.

Tip: On the open face cover there are two tabs to release. On the acoustic feature front cover there are three tabs to release.

3. Pull the cover open until it can be removed from the system unit.

Figure 1. Removing the model ESCALA PL 245T/R front



Parent topic: [Remove and replace model ESCALA PL 245T/R covers and doors](#)

Remove and replace the model ESCALA PL 245T/R acoustic-feature back cover

The model ESCALA PL 245T/R has a removable back cover only if you have ordered the acoustic covers feature.

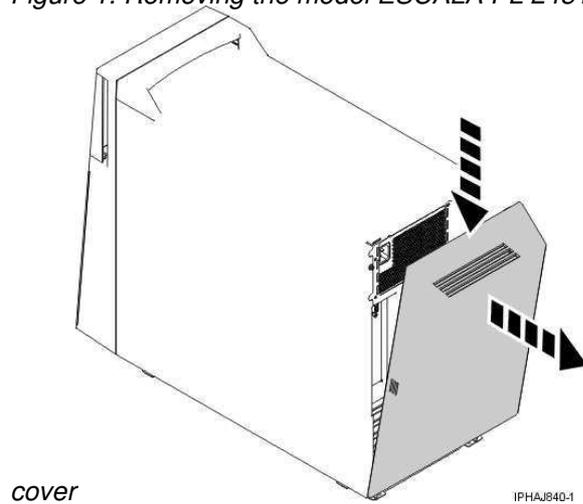
To remove the back cover from the model ESCALA PL 245T/R, follow these steps:

1. Press down on the center tab of the cover until you unseat it from the back of the system unit, as shown in the following figure.

Remember: Use care not to dislodge any of the cables or cords attached to the system unit during this procedure.

2. Lift the top of the cover until the pins on the bottom clear the holes and the cover can be removed.

Figure 1. Removing the model ESCALA PL 245T/R back

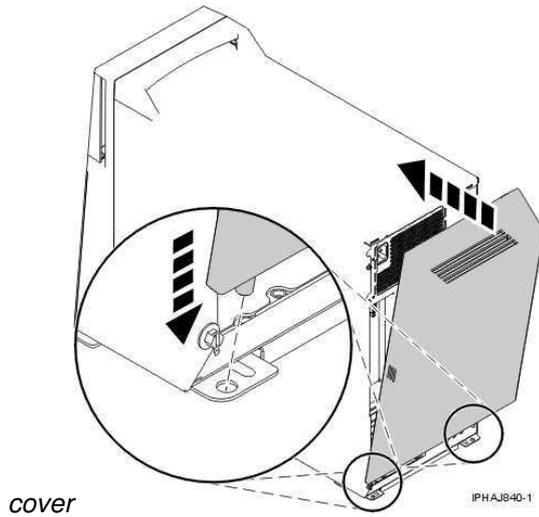


To replace the back cover from the model ESCALA PL 245T/R, follow these steps:

1. Attach all cables and cords.
2. Place the pins on the bottom of the cover into the slot at the bottom of the system unit, as shown in the following figure.
3. Rotate the cover until it snaps into place on the back of the system unit.

Remember: Use care not to dislodge any of the cables or cords attached to the system unit during this procedure.

Figure 2. Replacing the model ESCALA PL 245T/R back



Parent topic: [Remove and replace model ESCALA PL 245T/R covers and doors](#)

Remove and replace the model ESCALA PL 245T/R side cover

To remove the side cover from the model ESCALA PL 245T/R, follow these steps:

1. Unlock the security lock A if it is locked, as shown in the following figure.
2. Press down on the latch B to open the cover and pull it away from the system unit.
3. Lift the panel out of the ledge on the bottom of the system unit.

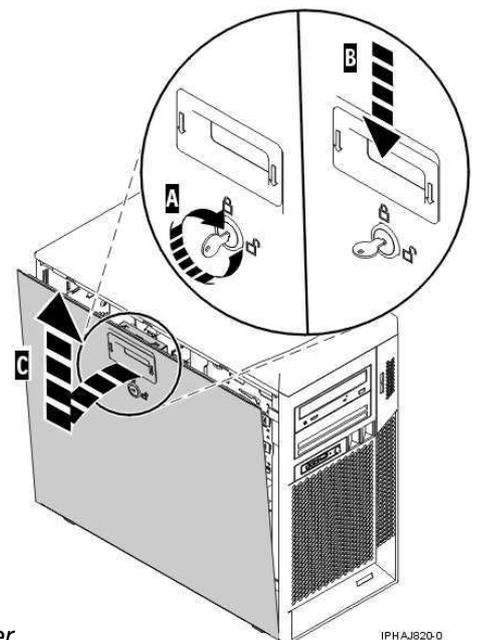


Figure 1. Removing the model ESCALA PL 245T/R side cover

Parent topic: [Remove and replace model ESCALA PL 245T/R covers and doors](#)

Replace the side cover in a model ESCALA PL 245T/R

To replace the side cover on the model ESCALA PL 245T/R, follow these steps:

1. Insert the bottom lip of the cover into the ledge on the bottom of the system unit.
2. Rotate the panel up A until the latch snaps into place B, as shown in the following figure.

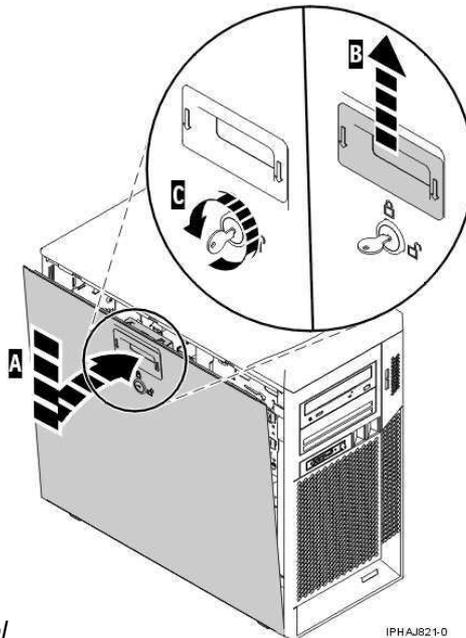


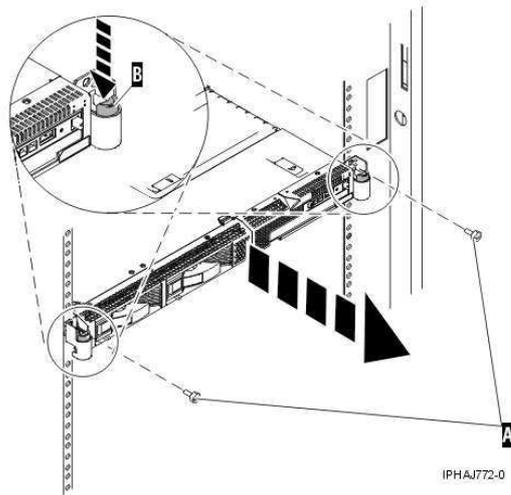
Figure 2. Replacing the service panel
3. Lock the security lock C if needed.

Open the model ESCALA PL 250R-VL or ESCALA PL 450R-XS service access panel

To open the service access panel on a rack-mounted model ESCALA PL 250R-VL or ESCALA PL 450R-XS follow these steps:

1. If necessary, open the front rack door.
2. If they are present, remove the two thumbscrews A that secure the system unit to the rack as shown in the following figure.

Figure 1. Remove thumbscrews from model ESCALA PL 250R-VL or ESCALA PL



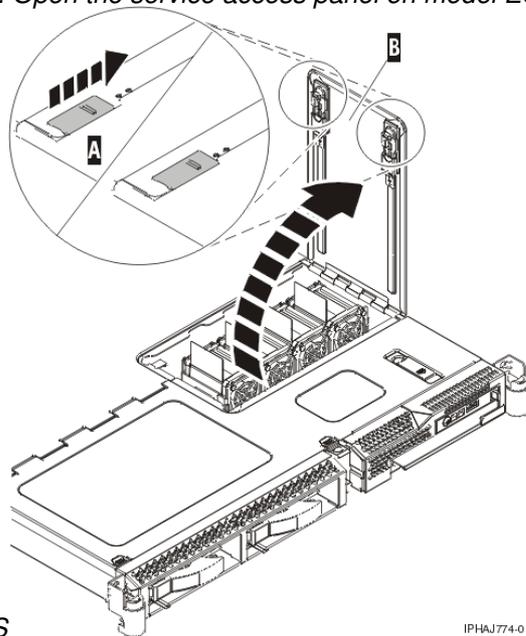
3. Release the rack latches B on both the left and right sides as shown in the previous figure.

Note:

- ◆ Ensure that the cables at the rear of the system unit do not catch or bind as you pull the unit out from the rack.
- ◆ When the rails are fully extended, the rail safety latches lock into place. This action prevents the system unit from being pulled out too far.

4. Slowly pull the system unit out from the rack until the service access panel is completely exposed.
5. Push the panel release tabs A until you can open the panel lid, as shown in the following figure.
6. Lift the panel lid B to its fully opened position.

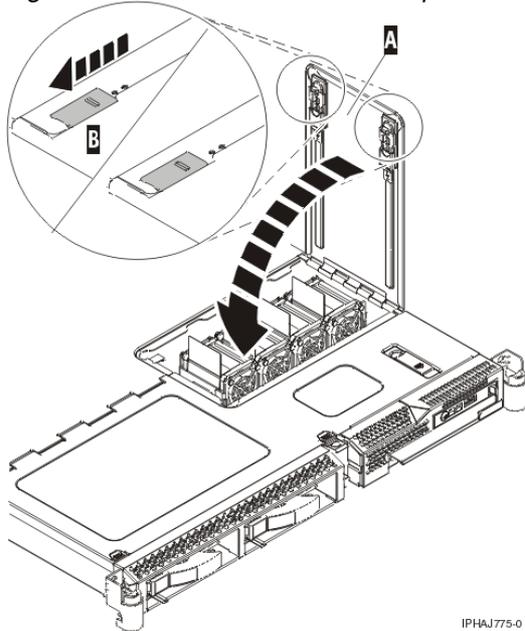
Figure 2. Open the service access panel on model ESCALA PL 250R-VL or ESCALA PL



Complete the following steps to close the service access panel:

1. Close the panel lid A, as shown in the following figure.

Figure 3. Close the service access panel on model ESCALA PL 250R-VL or ESCALA PL 450R-XS.



2. Push the panel release tabs B back into the locked position.
3. Gently push the server back into the rack until the rack latches lock into place.
4. Replace the thumbscrews if necessary.

Parent topic: [Related procedures](#)

Place the model ESCALA PL 250R-VL or ESCALA PL 450R-XS in the service position

If you are servicing the fans or control panel see: [Open the model ESCALA PL 250R-VL or ESCALA PL 450R-XS service access panel.](#)

Important: To place the model ESCALA PL 250R-VL or ESCALA PL 450R-XS in the service position you will need to remove the system unit from the rack.

Note: Some of the figures in these procedures might not look exactly like the system unit that you have. However, the steps to perform the task are the same.

DANGERWhen 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:

- Connect power to this unit only with the provided power cord. Do not use the 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.
- 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.

(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

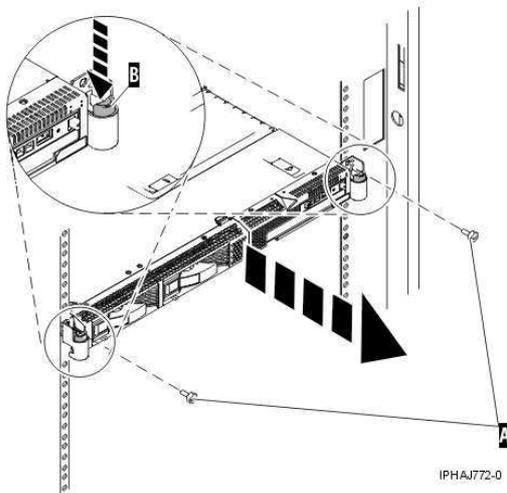
- Do not install a unit in a rack where the internal rack ambient temperatures will exceed the manufacturer's recommended ambient temperature for all your rack-mounted devices.
- Do not install a unit in a rack where the air flow is compromised. Ensure that air flow is not blocked or reduced on any side, 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)

To place the rack-mounted system unit into the service position, follow these steps:

1. Record any error or log messages before you stop the system.
2. Stop the system. For instructions see, [Stop the system or logical partition](#).
3. If necessary, open the front rack door.
4. Carefully label and remove all cables and cords from the unit.
5. Remove the cable management arm from the system by doing the following:
 - a. Pull the release latch in the lower-left corner into the unlocked position.
 - b. Slide the cable management arm to the right detaching it from the system unit.
6. Remove the two screws A that secure the system unit to the rack as shown in the following figure.

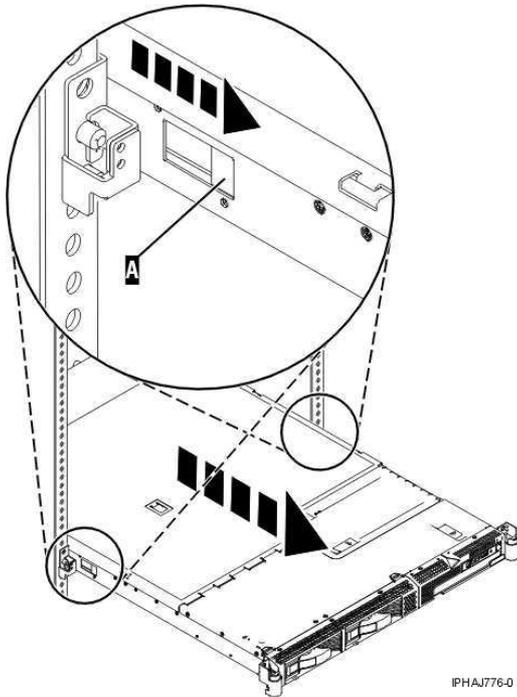


7. Release the rack latches B on both the left and right sides as shown in the previous figure.
8. Review the following notes, and then slowly pull the system unit out from the rack until the system unit is fully extended and locked.

Note:

- ◆ Ensure that the cables at the rear of the system unit do not catch or bind as you pull the unit out from the rack.
- ◆ Ensure the rails are fully extended. When the rails are fully extended, the rail safety latches lock into place. This action prevents the system unit from being pulled out too far.

9. Press the rail safety latches A to release the system from the rack, as shown in the following figure.



10. Grasp each side of the system unit and pull the system unit out of the rack.

CAUTION:This unit weighs approximately 17 kg (37 pounds). Be sure you can safely support this weight when removing the system unit from the rack.

11. Place the system unit on a sturdy flat surface capable of safely supporting the system unit while you are servicing it.

Parent topic: [Related procedures](#)

Place the model ESCALA PL 250R-VL or ESCALA PL 450R-XS in the operating position

Learn how to place the unit into the operating position.

Tip: Some of the figures in these procedures might not look exactly like the system unit that you have. However, the steps to perform the task are the same.

To place the system unit into the operating position, follow these steps:

1. Lift the system unit, and position over the rails.

CAUTION:This unit weighs approximately 17 kg (37 pounds). Be sure you can safely support this weight when placing the system unit from the rack.

2. Simultaneously release the safety latches, located near the middle of each side of the system, and push the system unit into the rack. Both rack latches should lock into position.

Note: Ensure that the cables at the rear of the system unit do not catch or bind as you push the unit back into the rack.

3. Replace and tighten the two screws A that secure the system unit to the rack as shown in the following figure.

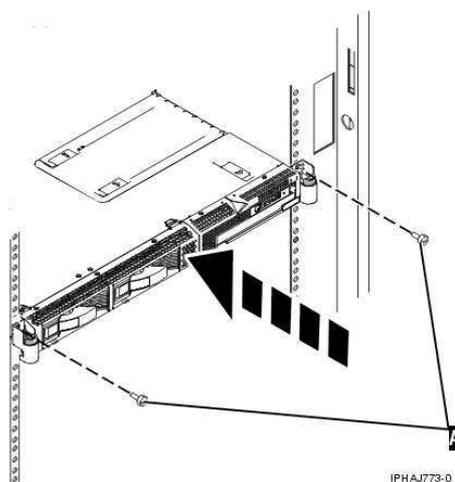


Figure 1. Replace the thumbscrews

4. Connect the cables and cords.
5. Replace the cable management arm.
6. Close the front rack door.

Parent topic: [Related procedures](#)

Model 112/85, ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, 7/10, service access cover

This topic describes how to remove and install the service access cover for the model 112/85, ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, 7/10, .

- **Remove the service access cover from the model 112/85, ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+,**

The following procedures describe how to remove the service access cover for the rack-mounted and stand-alone model 112/85, ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, 7/10, .

- **Install the service access cover on the model 112/85, ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+,**

The following procedures describe how to install the service access cover on the rack-mounted and stand-alone model 112/85, ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, 7/10, .

Parent topic: [Related procedures](#)

Remove the service access cover from the model 112/85, ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, 7/10,

The following procedures describe how to remove the service access cover for the rack-mounted and stand-alone model 112/85, ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, 7/10, .

Tip: Some of the figures in these procedures may not look exactly like the system unit that you have. However, the steps to perform the task are the same.

- Remove the service access cover from the rack-mounted model ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+,
- Remove the service access cover from the stand-alone model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+,

Parent topic: [Model 112/85, ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, service access cover](#)

Remove the service access cover from the rack-mounted model ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, 7/10,

To remove the service access cover from a rack-mounted model ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, 7/10, , refer to [Figure 1](#) and [Figure 2](#) , and follow these steps:

1. Place the rack-mounted system or expansion unit in the service position.
2. Loosen the two thumbscrews located at the back of the cover.
3. Slide the cover toward the back of the system unit. When the front of the service access cover clears the upper frame ledge, lift the cover up and off the system unit.

Attention: For proper cooling and airflow, install the cover before starting the system. Operating the system without the cover for more than 30 minutes could damage the system components.

Figure 1. Remove the service access cover from the rack-mounted ESCALA PL 250T/R, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+,

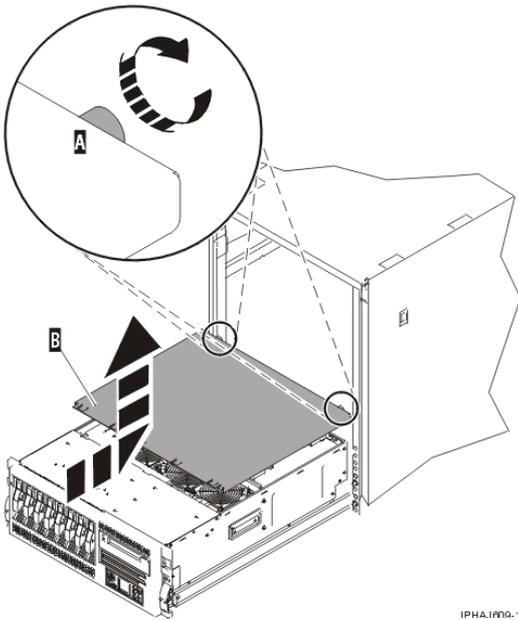
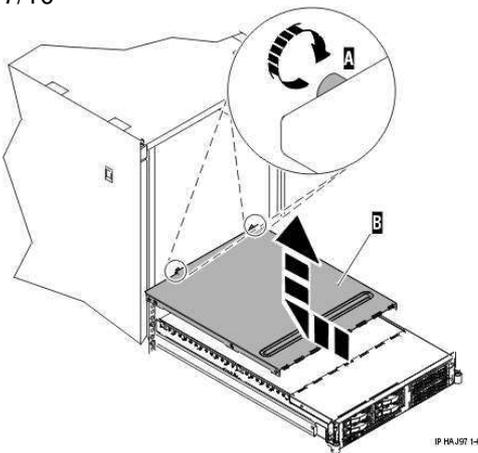


Figure 2. Remove the service access cover from the ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+ or 7/10

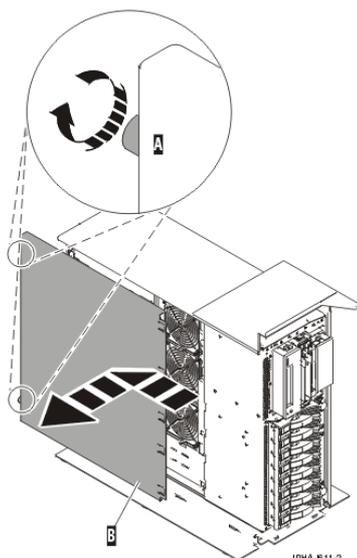


Parent topic: [Remove the service access cover from the model 112/85, ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+,](#)

Remove the service access cover from the stand-alone model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+,

To remove the service access cover from a stand-alone model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, , do the following:

1. Loosen the two thumbscrews located at the back of the service access cover as shown in the following figure.



2. Slide the service access cover toward the back of the system unit. When the front of the cover clears the front frame ledge, lift the cover off the system unit.

Attention: For proper cooling and airflow, install the cover before starting the system. Operating the system without the cover for more than 30 minutes could damage the system components.

Parent topic: [Remove the service access cover from the model 112/85, ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+,](#)

Install the service access cover on the model 112/85, ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, 7/10,

The following procedures describe how to install the service access cover on the rack-mounted and stand-alone model 112/85, ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, 7/10, .

- **Install the service access cover on the rack-mounted model ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+,**
- **Install the service access cover on the stand-alone model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+,**

Parent topic: [Model 112/85, ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, service access cover](#)

Install the service access cover on the rack-mounted model ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, 7/10,

To install the service access cover on a rack-mounted model ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, 7/10, , refer to [Figure 1](#) and [Figure 2](#), and follow these steps:

1. Place the service access cover A on the top of the system unit, approximately 25 mm (1 in.) from the front of the system unit.
2. Hold the service access cover against the system unit, and slide it toward the front of the system. Ensure that the fan LED cables do not get caught on the front edge of the service access cover as you move it forward. The tabs on the service access cover slide beneath the upper chassis ledge, and the two thumbscrews align with the screw holes at the back of the system unit.
3. Tighten the thumbscrews B located at the back of the cover.

Figure 1. Install the service access cover on the rack-mounted model ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+,

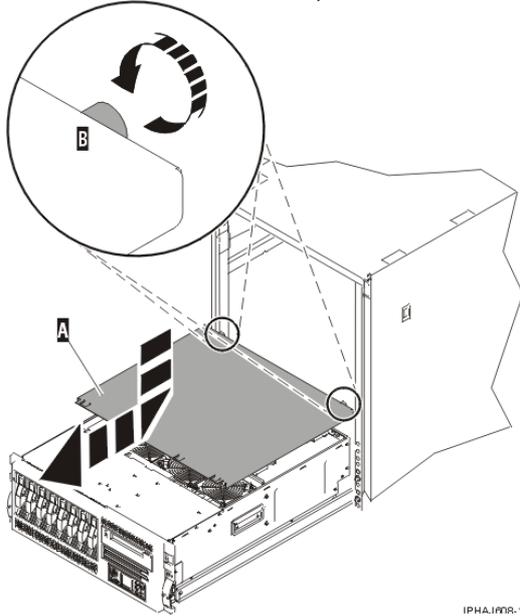
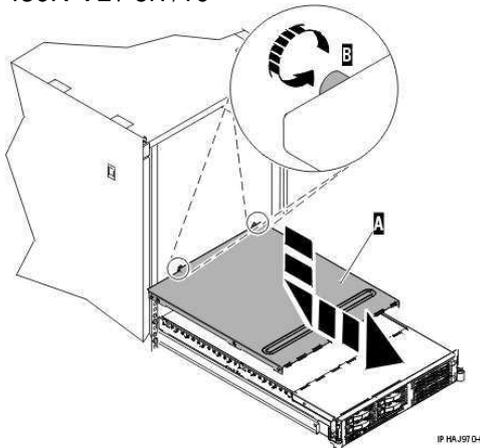


Figure 2. Install the service access cover on the model ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+ or 7/10

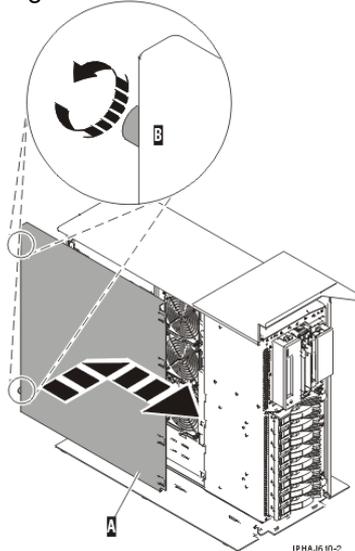


Parent topic: [Install the service access cover on the model 112/85, ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+,](#)

Install the service access cover on the stand-alone model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+,

To install the service access cover on a stand-alone model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, , follow these steps:

1. Align the service access cover pins with the slots in the system. The flanges on the top and bottom of the cover wrap around the system frame, as shown in the following figure.
2. Hold the service access cover against the system unit A and slide it toward the front of the system.
3. Tighten the two thumbscrews B located at the back of the cover.



Parent topic: [Install the service access cover on the model 112/85, ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+,](#)

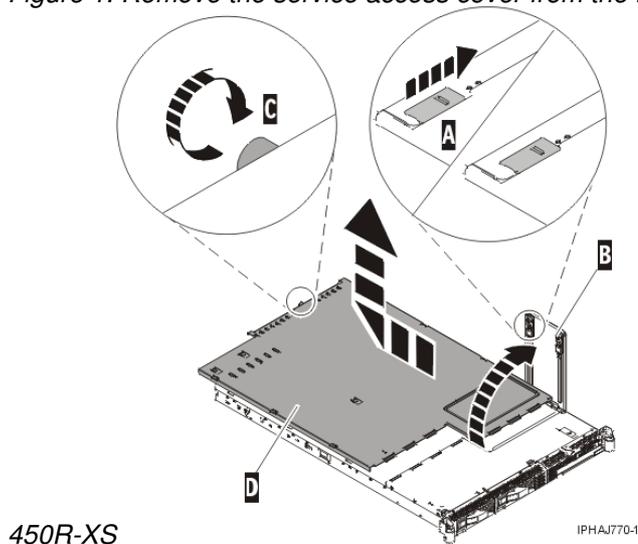
Remove the service access cover from the rack-mounted model ESCALA PL 250R-VL or ESCALA PL 450R-XS

To remove the service access cover from a rack-mounted model ESCALA PL 250R-VL or ESCALA PL 450R-XS and follow these steps:

1. [Place the model ESCALA PL 250R-VL or ESCALA PL 450R-XS in the service position.](#)
2. Push the release tab A to open the service access panel B, as shown in the following figure.
3. Loosen the thumbscrew located at the back of the cover C.
4. Slide the cover D toward the back of the system unit. When the front of the service access cover clears the upper frame ledge, lift the cover up and off the system unit.

Attention: For proper cooling and airflow, install the cover before starting the system. Operating the system without the cover for more than 30 minutes could damage the system components.

Figure 1. Remove the service access cover from the model ESCALA PL 250R-VL or ESCALA PL



Parent topic: [Related procedures](#)

Install the service access cover on the rack-mounted model ESCALA PL 250R-VL or ESCALA PL 450R-XS

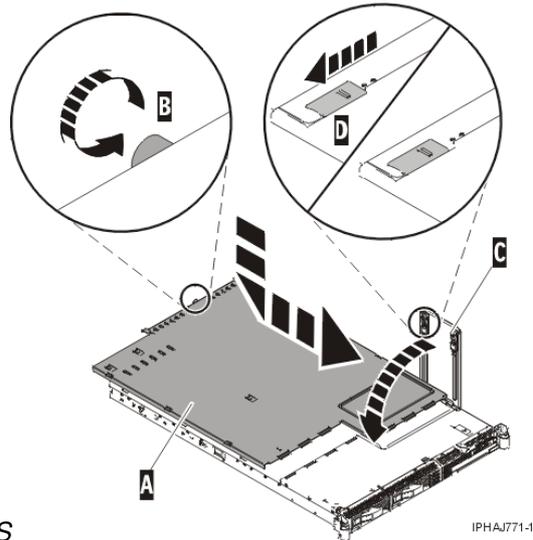
To install the service access cover on a rack-mounted model ESCALA PL 250R-VL or ESCALA PL 450R-XS and follow these steps:

1. Ensure that the service access panel C is open while installing the service access cover.
2. Place the service access cover A on the top of the system unit, approximately 25 mm (1 in.) from the front of the system unit, as shown in the following figure.
3. Hold the service access cover against the system unit, and slide it toward the front of the system. Ensure that the fan LED cables do not get caught on the front edge of the service access cover as you move it forward.

The tabs on the service access cover slide beneath the upper chassis ledge, and the thumbscrew aligns with the screw hole at the back of the system unit.

4. Tighten the thumbscrew B located at the back of the cover.

Figure 1. Install the service access cover on the rack-mounted model ESCALA PL 250R-VL or



ESCALA PL 450R-XS

5. Close the service access panel C and ensure the tabs D lock into place.

Parent topic: [Related procedures](#)

Front cover

The following procedures describe how to remove and install the front cover of the system or expansion unit.

- **Front cover for models ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, and the 05/95 expansion unit**

The following procedures describe how to remove and install the front cover of the model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, , or the 05/95 expansion unit.

Parent topic: [Related procedures](#)

Front cover for models 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, and the 05/95 expansion unit

The following procedures describe how to remove and install the front cover of the model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, , or the 05/95 expansion unit.

- **Remove the front cover from the model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, or the 05/95 expansion unit**
The following procedures describe how to remove the front cover of the model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, or the 05/95 expansion unit.
- **Install the front cover on the model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, or the 05/95 expansion unit**
The following procedures describe how to install the front cover for the rack-mounted and stand-alone model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, or the 05/95 expansion unit.

Parent topic: [Front cover](#)

Remove the front cover from the model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, or the 05/95 expansion unit

The following procedures describe how to remove the front cover of the model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, or the 05/95 expansion unit.

- **Remove the front cover from the rack-mounted model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, and the 05/95 expansion unit**
- **Remove the front cover from the stand-alone model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+,**

Parent topic: [Front cover for models ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, and the 05/95 expansion unit](#)

Remove the front cover from the rack-mounted model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, and the 05/95 expansion unit

To remove the rack-mounted system or expansion unit front cover, follow these steps:

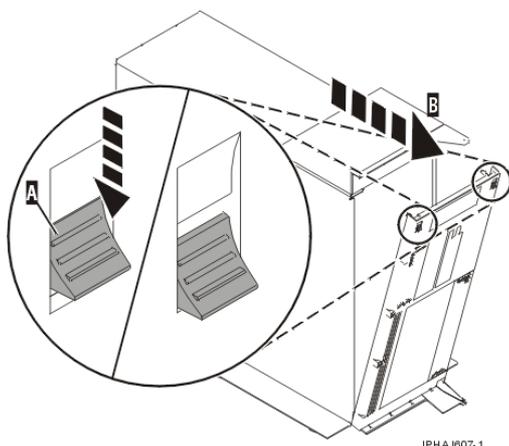
1. Open the front rack door.
2. Remove the two thumbscrews A that secure the system or expansion unit B to the rack as shown in the following figure.
3. Push both cover-release latches C in the direction of the arrows to release the cover from the system or expansion unit.
4. Pull the cover out and away from the system or expansion unit.

Parent topic: [Remove the front cover from the model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, or the 05/95 expansion unit](#)

Remove the front cover from the stand-alone model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+,

To remove the stand-alone model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, front cover, follow these steps:

1. [Remove the door from the model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, .](#)
2. Press down on the two cover-release levers.
3. Pull the top of the cover out and away from the system as shown in the following figure.



4. Gently pull the cover up and off the base, releasing the lower cover-locking tabs.

Parent topic: [Remove the front cover from the model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, or the 05/95 expansion unit](#)

Install the front cover on the model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, or the 05/95 expansion unit

The following procedures describe how to install the front cover for the rack-mounted and stand-alone model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, or the 05/95 expansion unit.

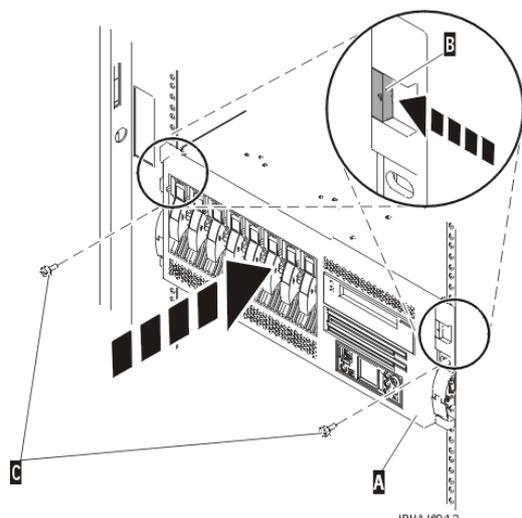
- [Install the front cover on the rack-mounted model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, , or the 05/95 expansion unit](#)
- [Install the front cover on the stand-alone model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+,](#)

Parent topic: [Front cover for models ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, and the 05/95 expansion unit](#)

Install the front cover on the rack-mounted model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, , or the 05/95 expansion unit

To install the front cover on a rack-mounted model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, or the 05/95, follow these steps:

1. Position the cover on the front of the system or expansion unit so that the two thumbscrews C align with the screw holes on the front of the system or expansion unit A, as shown in the following figure.
2. Push the cover-release latches B in the direction of the arrows to attach the cover to the front of the system or expansion unit. The latches will hold the cover in place.



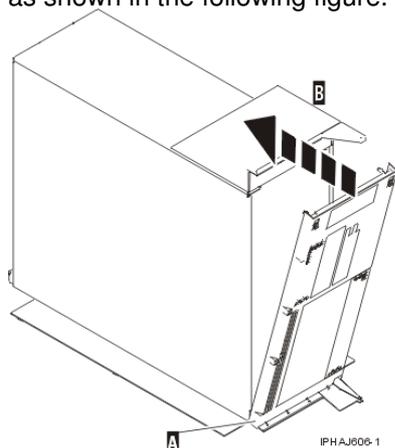
3. Tighten the thumbscrews.
4. Close the front rack door.

Parent topic: [Install the front cover on the model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, or the 05/95 expansion unit](#)

Install the front cover on the stand-alone model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+,

To install the stand-alone model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, front cover, follow these steps:

1. Place the two lower cover-locking tabs into the retaining slots located on the base of the system unit as shown in the following figure.



2. Rotate the cover up toward the top of the system, ensuring that the aligning pins are aligned with their matching slots located on the system.
3. Gently push the cover in until the two cover-release levers are seated in their respective slots.
4. [Install or replace the door on the model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, .](#)

Parent topic: [Install the front cover on the model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, or the 05/95 expansion unit](#)

Model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, door

Learn how to remove and replace the front door of the stand-alone model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, .

- [Remove the door from the model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+,](#)
- [Install or replace the door on the model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+,](#)

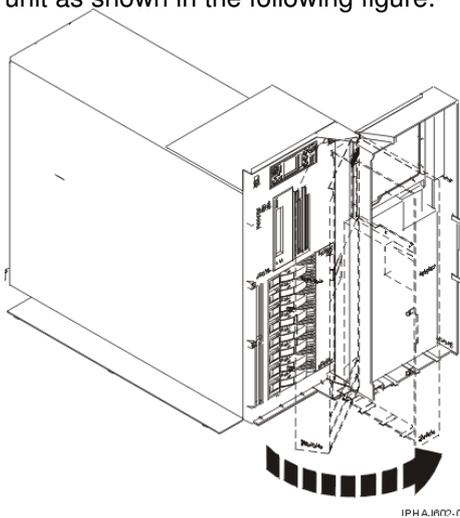
Parent topic: [Related procedures](#)

Remove the door from the model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+,

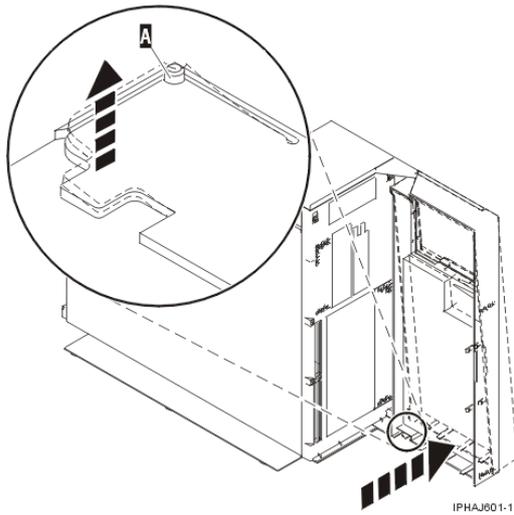
To remove the door from the model 112/85 or ESCALA PL 250T/R+ or ESCALA PL 450T/R-L+ see, [Remove the door from the model ESCALA PL 250T/R+ or ESCALA PL 450T/R-L+](#).

To remove the ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, door, do the following:

1. Open the front door by grasping the door handle and pulling the door out and away from the system unit as shown in the following figure.



2. To remove the door, press down on the top back edge of the door.
3. Gently swivel the top back edge of the door forward and out past the top of the system unit.
4. Lift the door up to release it from the lower retaining post.



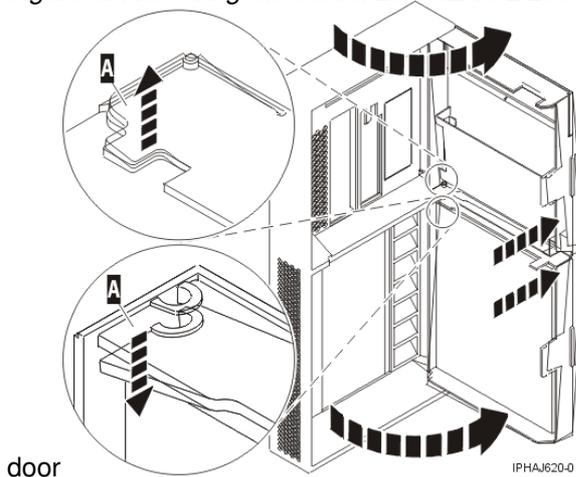
Parent topic: [Model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, door](#)

Remove the door from the model ESCALA PL 250T/R+ or ESCALA PL 450T/R-L+

The model 112/85 or ESCALA PL 250T/R+ or ESCALA PL 450T/R-L+ has two doors. The top door allows access to the media and the bottom allows access to the DASD. Use the following procedure for removing both doors.

1. Open the door that you want to remove and release the tab at the center hinge point as shown in the following figure.
 - a. Lift up the bottom tab at hinge A to release the top door.
 - b. Press down on the top tab at the hinge A to release the bottom door
2. Gently swivel the top back edge of the door forward until it releases from the system unit.

Figure 1. Removing the model ESCALA PL 250T/R+ or ESCALA PL 450T/R-L+

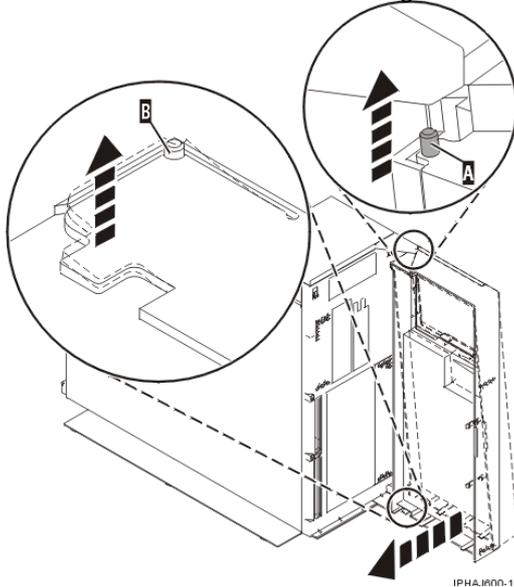


Install or replace the door on the model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+,

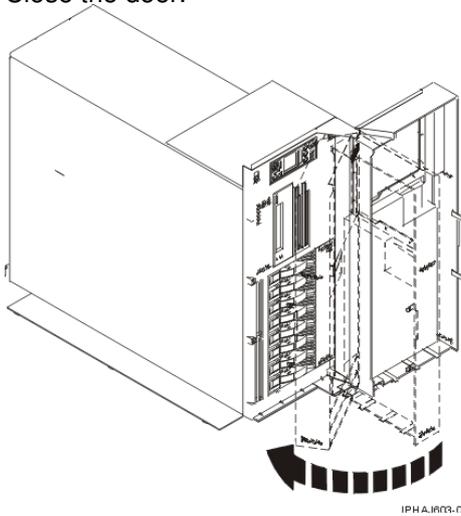
To install the model ESCALA PL 250T/R+ or ESCALA PL 450T/R-L+ with acoustic feature front door see, [Install the door on the model ESCALA PL 250T/R+ or ESCALA PL 450T/R-L+](#)

To install the model ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, front door, do the following:

1. Set the door on the lower retaining post B, as shown in the following figure.
2. Rotate the door toward the top of the system unit.
3. Press down on the lower back edge of the door, and seat the top post A into its matching slot.



4. Close the door.



Parent topic: [Model 112/85, ESCALA PL 250T/R, PL 250T/R+ or PL 450T/R-L+, ESCALA PL 450T/R, PL 450T/R+ or PL 850T/R-L+, door](#)

Install the door on the model ESCALA PL 250T/R+ or ESCALA PL 450T/R-L+

The model 112/85 or ESCALA PL 250T/R+ or ESCALA PL 450T/R-L+ has two doors. The top door covers the media bays, and the bottom door covers the DASD bays.

1. Set the door into the retaining post A.

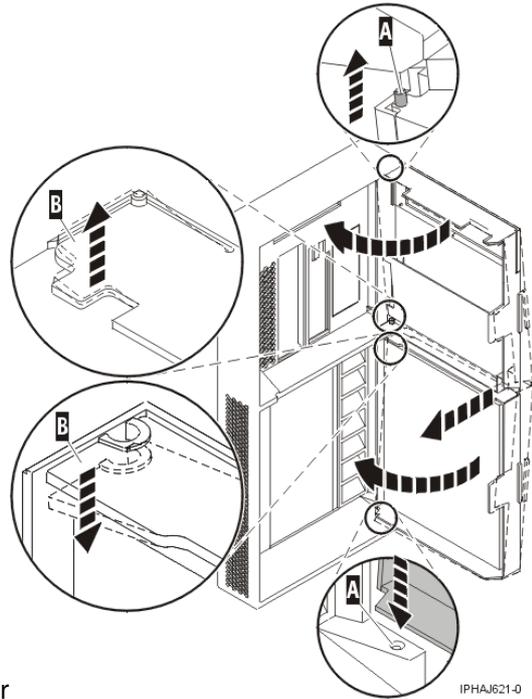


Figure 1. Installing the model 112/85 door

2. Rotate the door toward the system unit.
3. Press down on the back edge of the door, and seat the post B into its matching slot.
4. Close the door.

Verify the installed part

This topic describes how to verify a newly installed or replaced part on your system, logical partition, or expansion unit. Verify an installed feature or replaced part by selecting the appropriate procedure for the operating system or for the console as follows.

- **Verify an installed feature or replaced part on an AIX system or logical partition**
- **Verify the installed part on a Linux system or logical partition (run AIX diagnostics)**
- **Verify the presence of an installed part using Hardware Management Console (HMC)**
Use these instructions to verify an installed part using the Hardware Management Console (HMC). If you have reference codes, symptoms, or location codes that you used during the service action, locate the records to use during this procedure.
- **Verify the presence of an installed part using the Advanced System Management Interface (ASMI)**
Use these instructions to verify a newly installed part or replaced part using the Advanced System Management Interface (ASMI).

Parent topic: [Related procedures](#)

Verify an installed feature or replaced part on an AIX system or logical partition

To verify the operation of a newly installed feature or replacement part, select the appropriate procedure:

- [Verify the installed feature using AIX](#)

- [Verifying the replaced part using AIX](#)

Verify the installed feature using AIX:

1. Log in as root user.
2. At the command line, type `diag` and press Enter.
3. Select **Advanced Diagnostics Routines**. Press Enter.
4. From the **Diagnostic Mode Selection** menu, select **System Verification**. Press Enter.
5. When the **Advanced Diagnostic Selection** menu appears, do one of the following:
 - ◆ To test a single resource, select the resource that you just installed from the list of resources and press Enter.
 - ◆ To test all the resources available to the operating system, select **All Resources** and press Enter.
6. Select **Commit**, and wait until the diagnostic programs run to completion, responding to any prompts that appear.
7. Did the diagnostics run to completion and display the message `No trouble was found`?
 - ◆ **No:** If a service request number (SRN) or other reference code is displayed, suspect a loose adapter or cable connection. You can learn more about these codes in [Reference codes](#). Review the installation procedures to ensure that the new feature is installed correctly. If you cannot correct the problem, collect all SRNs or any other reference code information that you see. If the system is running in LPAR mode, note the logical partition in which you installed the feature. Contact your service provider for assistance.
 - ◆ **Yes:** The new device is installed correctly. Exit the diagnostic programs and return the system to normal operations.

Verify the replacement part using AIX

To verify the operation of a newly installed feature or replacement part, follow these steps:

1. Did you replace the part using either AIX or the online diagnostics service aid's concurrent (hot-swap) service operation?
 - ◆ **No:** Go to step 2.
 - ◆ **Yes:** Go to step 5.
2. Is the system powered off?
 - ◆ **Yes:** If the system supports slow boot, set the system to perform a slow boot. For information, see [Performing a slow boot](#).
 - ◆ **No:** Go to step 4.
3. Start the system and wait until the AIX operating system login prompt displays or until apparent system activity on the operator panel or display has stopped.

Did the AIX login prompt display?

 - ◆ **Yes:** Go to step 4
 - ◆ **No:** If an SRN or other reference code is displayed, suspect a loose adapter or cable connection. You can learn more about these codes in the [Reference codes](#). Review the procedures for the part that you replaced to ensure that the new part is installed correctly. If you cannot correct the problem, collect all SRNs or any other reference code information that you see. If the system does not start or you have no login prompt, see: [Problems with loading and starting the operating system](#).

If the system is partitioned, note the logical partition in which you replaced the part. Contact your service provider for assistance.
4. At the command prompt, type `diag a` and press Enter to check for missing resources. If you see a command prompt, go to step 5.

If the **Diagnostic selection** menu is shown with **M** appearing next to any resource, follow these steps:

- a. Select the resource and press Enter.
 - b. Select **Commit**.
 - c. Follow any instructions that are shown.
 - d. If a *Do you want to review the previously displayed error?* message is shown, select **Yes** and press Enter.
 - e. If an SRN is shown, suspect a loose card or connection. If no obvious problem is shown, record the SRN .
 - f. If no SRN is shown, go to 5.
5. Test the part by doing the following:
 - a. At the command line, type `diag` and press Enter.
 - b. From the **Function Selection** menu, select **Advanced Diagnostics Routines**. Press Enter.

- c. From the **Diagnostic Mode Selection** menu, select **System Verification**. Press Enter.
- d. Select **All Resources**, or select the diagnostics for the individual part to test only the part you replaced, and any devices that are attached to the part you replaced. Press Enter.

Did the **Resource Repair Action** menu appear?

- ◆ **No:** Go to step 6.
- ◆ **Yes:** Go to step 7.

6. Did the *Testing Complete, No trouble was found* message appear?
 - ◆ **No:** There is still a problem. Contact your service provider. **This ends the procedure.**
 - ◆ **Yes:** Select **Log Repair Action**, if not previously logged, from the **Task Selection** menu to update the AIX error log. If the repair action was reseating a cable or adapter, select the resource associated with that repair action. If the resource associated with your action is not displayed on the Resource List, select **sysplanar0**. Press Enter.

Tip: This action changes the indicator light for the part from the fault state to the normal state.

Go to step 9

7. When a test is run on a resource in system verification mode, and that resource has an entry in the AIX error log, if the test on the resource was successful, the *Resource Repair Action* menu appears. After replacing a part, you must select the resource for that part from the *Resource Repair Action* menu. This updates the AIX error log to indicate that a system-detectable part has been replaced.

Note: On systems with a indicator light for the failing part, this changes the indicator light to the normal state.

Follow these steps:

- a. Select the resource that has been replaced from the *Resource Repair Action* menu. If the repair action was reseating a cable or adapter, select the resource associated with that repair action. If the resource associated with your action does not appear on the Resource List, select **sysplanar0**. Press Enter.
- b. Select **Commit** after you make your selections. Did another *Resource Repair Action* display appear?
 - ◆ **No:** If the *No Trouble Found* display appears, go to step 9
 - ◆ **Yes:** Go to step 8.
8. The parent or child of the resource you just replaced may also require that you run the Resource Repair Action option on it. When a test is run on a resource in system verification mode, and that resource has an entry in the AIX error log, if the test on the resource was successful, the *Resource Repair Action* menu appears. After replacing that part, you must select the resource for that part from the *Resource Repair Action* menu. This updates the AIX error log to indicate that a system-detectable part has been replaced.

Note: This changes the indicator light for the part from the fault state to the normal state.

Follow these steps:

- a. From the *Resource Repair Action* menu, select the parent or child of the resource that has been replaced. If the repair action was to reseat a cable or adapter, select the resource associated with that repair action. If the resource associated with your action does not appear on the Resource List, select **sysplanar0**. Press Enter.
- b. Select **Commit** after you make your selections.
- c. If the *No Trouble Found* display appears, go to step 9.
9. If you changed the service processor or network settings, as instructed in previous procedures, restore the settings to the value they had prior to servicing the system.
10. Did you do any hot-plug procedures before doing this procedure?

- ◆ **No:** Go to step 11.
 - ◆ **Yes:** Go to step 12.
11. Start the operating system, with the system or logical partition in normal mode. Were you able to start the operating system?
- ◆ **No:** Contact your service provider. **This ends the procedure.**
 - ◆ **Yes:** Go to step 12.
12. Are the indicator lights still on?
- ◆ **No. This ends the procedure.**
 - ◆ **Yes.** Turn off the lights. See one of the following for instructions:
 - ◇ [Identify a failing part using stand-alone diagnostics](#)
 - ◇ [Running the stand-alone diagnostics from a Network Installation Management server](#)
 - ◇ [Changing service indicators with the ASMI menus](#)

Parent topic: [Verify the installed part](#)

Verify the installed part on a Linux system or logical partition (run AIX diagnostics)

To verify the newly installed or replaced part, choose one of the following:

- [Verify the presence of an installed part using the Advanced System Management Interface \(ASMI\)](#)

- [Verify an installed part using the stand-alone diagnostics](#)
Use these instructions to verify an installed part in a Linux system, expansion unit, or logical partition.

Parent topic: [Verify the installed part](#)

Verify an installed part using the stand-alone diagnostics

Use these instructions to verify an installed part in a Linux system, expansion unit, or logical partition.

You can use stand-alone diagnostics to verify an installed part in a Linux system, expansion unit, or logical partition. You access these diagnostics from a CD-ROM or from the Network Installation Management (NIM) server. This procedure describes how to use the diagnostics from a CD-ROM. For information on running diagnostics from the Network Installation Management (NIM) server, see [Running the stand-alone diagnostics from a Network Installation Management server](#).

Prerequisites

- If this server is directly attached to another server or attached to a network, be sure communication with the other servers is stopped.
- stand-alone diagnostics require use of all of the logical partition resources. No other activity can be running on the logical partition.
- stand-alone diagnostics require access to the system console.

To use stand-alone diagnostics, follow these steps:

1. Stop all jobs and applications and then stop the operating system on the system or logical partition.
2. Remove all tapes, diskettes, and CD-ROM.
3. Turn off the system unit power. The next step boots the server or logical partition from the stand-alone diagnostics CD-ROM. If the optical drive is not available as the boot device on the server or logical

partition on which you are working, follow these steps:

- a. Access the ASMI. See [Managing your server using the Advanced System Management Interface](#) for information on using the ASMI.
 - b. On the ASMI main menu, click on **Power/Restart Control**.
 - c. Click on Power On/Off System.
 - d. Select the **Service mode boot from default boot list** option in the AIX/Linux logical partition mode boot drop-down menu.
 - e. Click on **Save settings and power on**. As soon as the optical drive has power, insert the standalone diagnostic CD-ROM.
 - f. Go to step 5.
4. Turn on the system unit power and immediately insert the diagnostics CD-ROM into the optical drive.
 5. After the **keyboard** POST indicator displays on the system console and before the last POST indicator (**speaker**) displays, press the numeric 5 key on the system console to indicate that a service mode boot should be initiated using the default service mode boot list.
 6. Enter any requested password.
 7. At the *Diagnostic Operating Instructions* display, press Enter.

Note: If an SRN or other reference code is displayed, suspect a loose adapter or cable connection. Review the procedures for the part that you replaced to ensure that the new part is installed correctly. If you cannot correct the problem, collect all SRNs or any other reference code information that you see. If the system will not boot or you have no login prompt go to [Problems with loading and starting the operating system](#).

Note: If you received an SRN or any other reference code when you attempted to start the system, you can learn more about these codes in [Reference codes](#).

8. If the terminal type is requested, you must use the **Initialize Terminal** option on the *Function Selection* menu to initialize the operating system before you can continue.
9. From the Function Selection menu, select **Advanced Diagnostics Routines**. Press Enter.
10. From the Diagnostic Mode Selection menu, select **System Verification**. Press Enter.
11. When the Advanced Diagnostic Selection menu appears, select **All Resources**, or test only the part you replaced, and any devices that are attached to the part you replaced, by selecting the diagnostics for the individual part. Press Enter.
12. Did the *Testing Complete, No trouble was found* message appear?
 - ◆ **No:** There is still a problem. Contact your service provider.
 - ◆ **Yes:** Go to step 13.
13. If you changed the service processor or network settings, as instructed in previous procedures, restore the settings to the value they had prior to servicing the system.
14. If the indicator lights are still on, follow these steps:
 - a. Select **Identify and Attention Indicators** from the *Task Selection* menu to turn off the system attention and indicator lights. Press Enter.
 - b. Select **Set System Attention Indicator to NORMAL** and press Enter.
 - c. Select **Set All Identify Indicators to NORMAL** and press Enter.
 - d. Choose **Commit**.

Note: This changes the system attention and identify indicators from the *Fault* state to the *Normal* state.

- e. Exit to the command line.

Parent topic: [Verify the installed part on a Linux system or logical partition \(run AIX diagnostics\)](#)

Verify the presence of an installed part using Hardware Management Console (HMC)

Use these instructions to verify an installed part using the Hardware Management Console (HMC). If you have reference codes, symptoms, or location codes that you used during the service action, locate the records to use during this procedure.

Use this procedure to update your HMC records after you have completed a service action on your server. If you have reference codes, symptoms, or location codes that you used during the service action, locate the records to use during this procedure.

1. At the HMC, examine the service action event log for any open service action events. See [Viewing serviceable events](#) for details.
2. Are there any service action events that are open?
 - ◆ **No:** If the system attention LED is still on, use the HMC to turn off the LED. See [Activating and Deactivating LEDs](#). **This ends the procedure.**
 - ◆ **Yes:** Continue with the next step.
3. Record the list of open service action events.
4. Examine the details of the open service action event. Is the error code associated with this service action event the same as you gathered earlier.
 - ◆ **Yes:** Continue with the next step.
 - ◆ **No:** Choose from the following options:
 - ◇ Review the other serviceable events and find one that does match and continue with the next step.
 - ◇ If the log does not match what you had gathered earlier, contact your service provider.
5. Select and highlight the service action event from the Error Associated With This Serviceable Event window.
6. Click **Close Event**.
7. Add comments for the serviceable event. Include any unique additional information. Click **OK**.
8. Did you replace, add, or modify a FRU of the open service action event?
 - ◆ **No:** Select the **No FRU Replaced for this Serviceable Event** option and click **OK** to close the service action event.
 - ◆ **Yes:** Perform the following steps:
 - a. From the FRU list, select a FRU that you need to update.
 - b. Double-click the FRU and update the FRU information.
 - c. Click **OK** to close the service action event.
9. If you continue to have problems, contact your service provider.

Parent topic: [Verify the installed part](#)

Verify the presence of an installed part using the Advanced System Management Interface (ASMI)

Use these instructions to verify a newly installed part or replaced part using the Advanced System Management Interface (ASMI).

To verify the newly installed or replaced part, follow these steps:

1. If the unit ID does not match the label on the system or expansion unit, update the configuration information.
 - ◆ For information on accessing up the ASMI, refer to [Accessing the Advanced System Management Interface](#)
 - ◆ For information on using the ASMI [Managing your server using the Advanced System Management Interface](#).

2. Turn off the failing part indicator light. For instructions, see [Changing service indicators](#).

Parent topic: [Verify the installed part](#)

Install a feature using the Hardware Management Console

To use the Hardware Management Console user interface to install a feature in a system or expansion unit that is managed by a Hardware Management Console (HMC), follow these steps:

1. In the navigation area, expand **Management Environment**.
2. Expand the managed system into which you are installing a feature.
3. Expand **Service Applications**.
4. Select **Service Focal Point**.
5. In the contents area, select **Install/Add/Remove Hardware**.
6. In the **Install/Add/Remove Hardware** window, highlight system or unit into which you are installing a feature.
7. Click **Selected**.
8. From the Selected menu, select **Add FRU**.
9. In the **Enclosure type** field, select the system or expansion unit into which you are installing a feature.
10. In the FRU types for selected enclosure, select the feature you are installing.
11. Click **Next**.
12. Follow the instructions to install the feature.

Note: The HMC might open the ESCALA Power5 Hardware Information instructions for installing the feature. If so, follow these instructions to install the feature.

Parent topic: [Related procedures](#)

Remove a part using the Hardware Management Console

To use the Hardware Management Console user interface to remove a part in a system or expansion unit that is managed by a Hardware Management Console (HMC), follow these steps:

1. In the navigation area, expand the **Management Environment**.
2. Expand the managed system in which you are replacing a part.
3. Expand **Service Applications**.
4. Select **Service Focal Point**.
5. In the contents area, select **Install/Add/Remove Hardware**.
6. In the **Install/Add/Remove Hardware** window, click System Processor.
7. From the Selected menu, select **Remove FRU**.
8. In the **Installed enclosure types** field, select the system or expansion unit from which you are removing a part.
9. In the Available FRU types for selected enclosure, select the part you are removing.
10. Click **Next**.
11. Follow the instructions to remove the part.

Note: The HMC might open the ESCALA Power5 Hardware Information instructions for removing the part. If so, follow these instructions to remove the part.

Parent topic: [Related procedures](#)

Replace a part using the Hardware Management Console

To use the Hardware Management Console user interface to replace a part in a system or expansion unit that is managed by a Hardware Management Console (HMC), follow these steps:

1. In the navigation area, expand the **Management Environment**.
2. Expand the managed system in which you are replacing a part.
3. Expand **Service Applications**.
4. Select **Service Focal Point**.
5. In the contents area, select **Repair Serviceable Event**.
6. Select the system and click **OK**.
7. In the window, click the problem number for the part you want to replace.
8. Follow the instructions to replace the part.

Note: The HMC might open the ESCALA Power5 Hardware Information instructions for replacing the part. If so, follow these instructions to replace the part.

Parent topic: [Related procedures](#)

Identify a failing part

The following procedures describe how to locate and identify a failing part on your system or expansion unit.

- [Identify a failing part on an AIX system or logical partition](#)
- [Identify a failing part on a Linux system or logical partition](#)
- [Identify a failing part using the Advanced System Management Interface](#)
Use this task to identify a failing part if the Linux operating system is running on the system or logical partition.

Parent topic: [Related procedures](#)

Identify a failing part on an AIX system or logical partition

To identify a failing part on a system or logical partition running AIX, you must locate the failing part, and then activate the indicator light for that part.

- [Locate a failing part in an AIX system or logical partition](#)
- [Activate the indicator light for the failing part](#)

Parent topic: [Identify a failing part](#)

Locate a failing part in an AIX system or logical partition

To locate the failing part in a system or logical partition running AIX, follow these steps:

1. Log in as root user or `celogin-`.
2. At the command line, type `diag` and press Enter.
3. From the **Function Selection** menu, select Task Selection and press Enter.
4. Select Display Previous Diagnostic Results and press Enter.
5. From the **Display Previous Diagnostic Results** display, select Display Diagnostic Log Summary. A **Display Diagnostic Log** display appears. This display contains a chronological list of events.
6. Look in the T column for the most recent S entry. Select this row in the table and press Enter.
7. Choose Commit. The details of this log entry are shown.
8. Record the location information and the SRN value shown near the end of the entry.
9. Exit to the command line.

Use the location information for the failing part to activate the indicator light that identifies the failing part. For instructions, see [Activate the indicator light for the failing part](#).

Parent topic: [Identify a failing part on an AIX system or logical partition](#)

Activate the indicator light for the failing part

The indicator light helps you locate which part to replace. To activate the indicator light, follow these steps:

1. Log in as root user.
2. At the command line, type `diag` and press Enter.
3. From the **Function Selection** menu, select Task Selection. Press Enter.
4. From the **Task Selection** menu, select Identify and Attention Indicators. Press Enter.
5. From the list of lights, select the location code for the failing part and press Enter.
6. Select Commit. This turns on the system attention and indicator light for the failing part.
7. Exit to the command line.

Parent topic: [Identify a failing part on an AIX system or logical partition](#)

Identify a failing part on a Linux system or logical partition

There are a number of methods to identify a failing part on a system or logical partition running Linux.

- [Locate a failing part and activate the indicator light](#)
Use this task to locate a failing part if the service aids have been installed.
- [Activate the indicator light for the failing part](#)
Use these instructions to activate the indicator light. The indicator light helps you locate which part to

replace.

- **Deactivate the failing-part indicator light**

After replacing a failing part, use this task to deactivate the failing-part indicator light.

- **Identify a failing part using stand-alone diagnostics**

Use this task if the operating system is stopped or if you need to stop the system or logical partition to replace the failing part.

Parent topic: [Identify a failing part](#)

Locate a failing part and activate the indicator light

Use this task to locate a failing part if the service aids have been installed.

To identify a failing part on a system or logical partition running Linux, you must locate the failing part, and then activate the indicator light for that part.

- **Locate a failing part in a Linux system or logical partition**

Use these instructions if you do not know the location code of the failing part. If you know the location code proceed to the next task to activate the indicator light.

Parent topic: [Identify a failing part on a Linux system or logical partition](#)

Locate a failing part in a Linux system or logical partition

Use these instructions if you do not know the location code of the failing part. If you know the location code proceed to the next task to activate the indicator light.

To locate the failing part in a system or logical partition running Linux, follow these steps:

1. Log in as root user.
2. At the command line, type `grep diagela /var/log/platform` and press Enter.
3. Look for the most recent entry that contains a system reference code (SRC).
4. Record the location information.

Parent topic: [Locate a failing part and activate the indicator light](#)

Activate the indicator light for the failing part

Use these instructions to activate the indicator light. The indicator light helps you locate which part to replace.

To activate the indicator light, follow these steps:

1. Log in as root user.
2. At the command line, type `/usr/sbin/usysident -s identify -l<location code>` and press Enter. Substituting the location code of the failing unit for `<location code>`.
3. Look for the system attention light to identify the enclosure that contains the failing part.

Parent topic: [Identify a failing part on a Linux system or logical partition](#)

Deactivate the failing-part indicator light

After replacing a failing part, use this task to deactivate the failing-part indicator light.

After replacing a failing part, follow these steps to deactivate the failing-part indicator light:

1. Log in as root user.
2. At the command line, type `/usr/sbin/usysident -s normal -l<location code>` and press Enter. Substitute the location code of the failing unit for **<location code>**.
3. Look for the system attention light to identify the enclosure that contains the failing part.

Parent topic: [Identify a failing part on a Linux system or logical partition](#)

Identify a failing part using stand-alone diagnostics

Use this task if the operating system is stopped or if you need to stop the system or logical partition to replace the failing part.

You can use stand-alone diagnostics to identify a failing part in a Linux system, expansion unit, or logical partition. You access these diagnostics from a CD-ROM or from the Network Installation Management (NIM) server. This procedure describes how to use the diagnostics from a CD-ROM. For information on running diagnostics from the Network Installation Management (NIM) Server, see [Running the stand-alone diagnostics from a Network Installation Management server](#).

Prerequisites:

- If this server is directly attached to another server or attached to a network, be sure communications with the other servers are stopped.
- Ensure that no other activity is running on the logical partition. Stand-alone diagnostics require use of all of the logical partition resources. No other activity can be running on the logical partition.
- You must have access to the system console to use stand-alone diagnostics.

To use stand-alone diagnostics from a CD-ROM, follow these steps:

1. Stop all jobs and applications, and then stop the operating system on the system or logical partition.
2. Remove all tapes, diskettes, and CD-ROM.
3. Turn off the system unit power.

Note: The next step starts the server or logical partition from the stand-alone diagnostic CD-ROM. If the CD-ROM or DVD-ROM drive is not available as the startup device on the server or logical partition on which you are working, follow these steps:

- a. Access the Advanced System Management Interface (ASMI). See [Managing your server using the Advanced System Management Interface](#) for information on using the ASMI.
 - b. On the ASMI main menu, click **Power/Restart Control**.
 - c. Click **Power On/Off System**.
 - d. Select the **Service mode boot** from **default boot list** option in the AIX or Linux logical partition mode boot list.
 - e. Click **Save settings** and power on the system. As soon as the optical drive has power, insert the AIX diagnostic diskette.
 - f. Go to step 5.
4. Turn on the system unit power and insert the diagnostics CD-ROM into the CD-ROM drive.
 5. After the keyboard POST indicator displays on the firmware console and before the last POST indicator (speaker) displays, press the 5 key on either the directly attached keyboard or the ASCII terminal. This indicates that a service mode boot should be initiated using the default service mode boot list.
 6. Enter any requested password.
 7. At the Diagnostic Operating Instructions display, press Enter.

Tip: If the Diagnostic Operating Instructions display does not appear, contact your support center for assistance.

8. If the terminal type is requested, use the **Initialize Terminal** option on the **Function Selection** menu to initialize the operating system.

Parent topic: [Identify a failing part on a Linux system or logical partition](#)

Identify a failing part using the Advanced System Management Interface

Use this task to identify a failing part if the Linux operating system is running on the system or logical partition.

To activate the indicator light for a failing part, follow these steps:

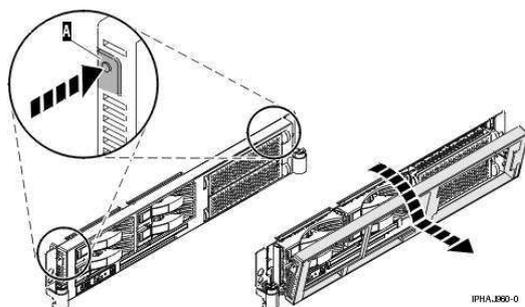
1. If the unit ID does not match the label on the system or expansion unit, update the configuration information.
 - ◆ For information on setting up the ASMI refer to [Accessing the Advanced System Management Interface](#).
 - ◆ For information on using the ASMI, refer to [Managing your server using the Advanced System Management Interface](#)
2. Turn on the failing part indicator light. For instructions, see [Changing service indicators](#).

Parent topic: [Identify a failing part](#)

Remove the front cover from the model ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+ or 7/10

To remove the front cover, follow these steps:

1. If necessary, open the front rack door.
2. Push both cover-release latches A down to release the cover as shown in the following figure.



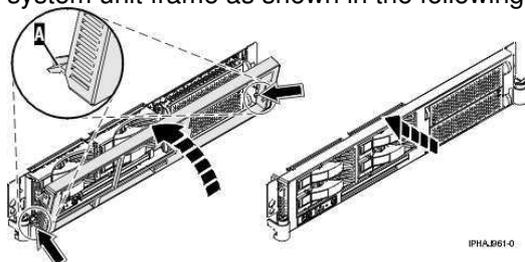
3. Pivot the cover from the bottom and swing the top of the cover out.
4. Pull the bottom of the cover up and then away from the system unit. This releases the two tabs located on the bottom of the cover.
5. Put the cover in a safe place.

Parent topic: [Related procedures](#)

Install the front cover on the model ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+ or 7/10

To install the front cover, follow these steps:

1. If necessary, open the front rack door.
2. Insert the two tabs A located on the bottom edge of the cover into their locking slots, located on the system unit frame as shown in the following figure.



3. Pivot the front cover up toward the top of the system unit frame.
4. Align the tabs to the matching slots located on the front of the system unit frame.
5. Gently push the tabs into the slots until the cover seats against the front of the system unit.
6. Close the front rack door.

Parent topic: [Related procedures](#)

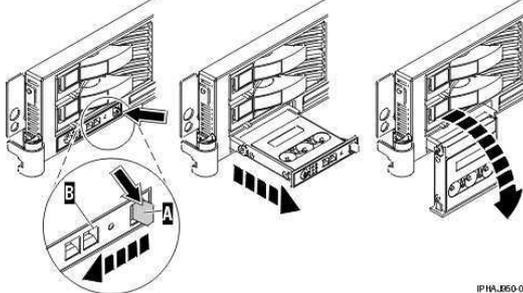
Gain access to the model ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+ control panels

Because only part of the model ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+ control panels control panel is visible from the front of the server, the following procedure describes how to gain access to all of the control panel's features, including the display.

To access all of the control panel's features, complete the following steps:

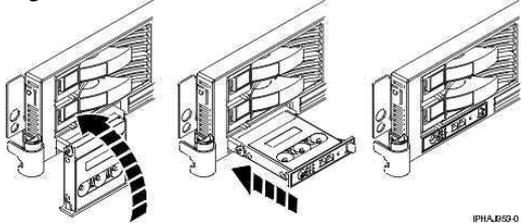
1. Press inward on the spring-loaded tab A located on the right side of the control panel B so that it pops out slightly, as shown in the following figure.

Figure 1. Gain access to the model ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+ control panels



2. Pull the control panel out, toward the front of the system, until it can be pivoted downward on its hinge.
3. To move the control panel back into the device enclosure, lift the control panel up to align it with the opening and push it into place until you feel the tab lock, as shown in the following figure.

Figure 2. Close the model ESCALA PL 250R-L, PL 250R-L+ or PL 450R-VL+ control panels



Parent topic: [Related procedures](#)

Service processor assembly, service processor cable, and time-of-day battery

Technical publication remarks form

Title :	ESCALA POWER5 Hardware Information Service processor assembly, service processor cable, and time-of-day battery
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