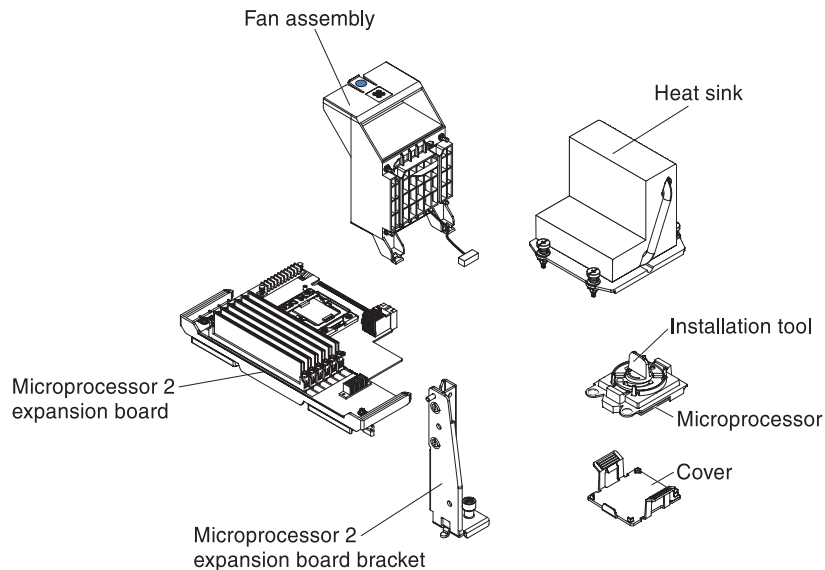




Second Microprocessor Upgrade Kit

See the server documentation for detailed instructions for installing this option in the server.



The option kit contains the following items:

- One microprocessor installation tool assembly, which consists of the following components:
 - Installation tool
 - Microprocessor
 - Microprocessor cover
- One heat sink
- One fan assembly
- One second microprocessor expansion board
- One second microprocessor expansion board bracket
- IBM warranty information document
- Important notices document
- This document

Use this microprocessor upgrade kit to add an additional microprocessor to the server. The installation of a microprocessor must be performed by a trained technician.

Note: The microprocessor installation tool assembly, shown in the illustration, consists of the installation tool, the microprocessor, and a microprocessor cover. The tool is designed to protect the microprocessor from damage during installation. Do not remove the microprocessor cover until you are instructed to do so. (Your installation tool might be slightly different from the one shown.)

Before you install the microprocessor, make sure that the latest level of code or firmware is installed in the server. To obtain the latest code or firmware and update instructions, go to <http://www.ibm.com/systems/support/>.

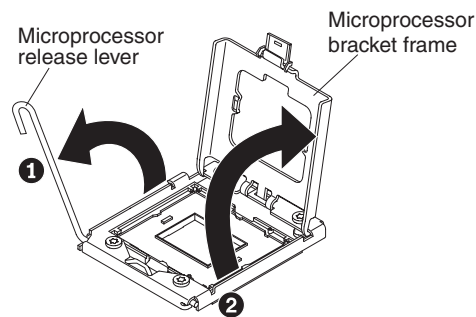
Store this document with your other product documentation for future reference.

The product-specific documentation is provided on the IBM *Documentation* CD that comes with your server. IBM maintains pages on the World Wide Web where you can get the latest technical information and download device drivers and updates. To access these pages, go to <http://www.ibm.com/systems/support/> and follow the instructions.

Installing the microprocessor on the microprocessor 2 expansion board

To install the microprocessor on the microprocessor 2 expansion board, complete the following steps:

1. Touch the static-protective package that contains the microprocessor 2 expansion board to any unpainted metal surface on the server; then, remove the microprocessor 2 expansion board from the package.
2. Locate microprocessor socket 2 on the microprocessor 2 expansion board.
3. Open the microprocessor socket release lever and retainer:



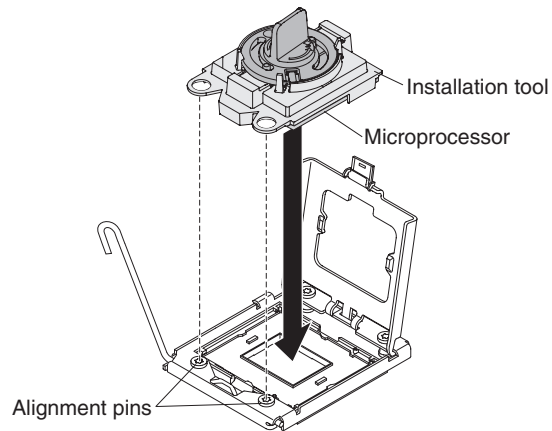
- a. Open the release lever on the microprocessor socket.
- b. Open the microprocessor retainer.

Note: Do not touch the connectors on the microprocessor and the microprocessor socket.

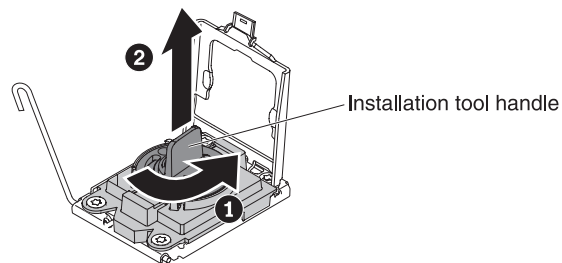
4. Install the microprocessor in the microprocessor socket:
 - a. Touch the static-protective package that contains the new microprocessor to any *unpainted* on the chassis or any *unpainted* metal surface on any other grounded rack component; then, carefully remove the microprocessor from the package.
 - b. The microprocessor is preinstalled on the installation tool. Release the sides of the cover and remove the cover from the installation tool.

Note: Do not touch the microprocessor contacts. Contaminants on the microprocessor contacts, such as oil from your skin, can cause connection failures between the contacts and the socket.

- c. Align the installation tool with the microprocessor socket. The installation tool rests flush on the socket only if properly aligned.

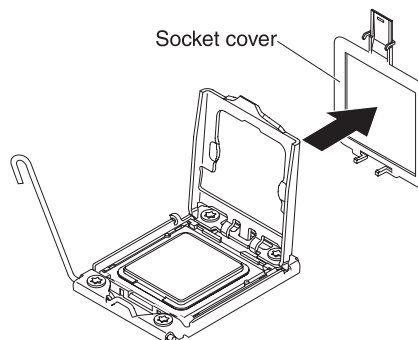


- d. Twist the handle on the microprocessor tool counterclockwise to insert the microprocessor into the socket. The microprocessor is keyed to ensure that the microprocessor is installed correctly. The microprocessor rests flush on the socket only if properly installed.

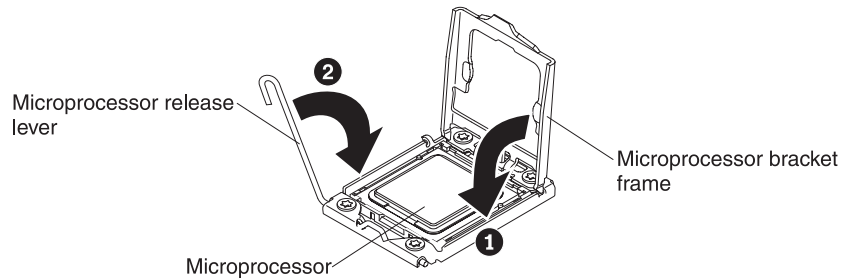


Attention:

- Do not press the microprocessor into the socket.
 - Do not touch exposed pins of the microprocessor socket.
 - Make sure that the microprocessor is oriented and aligned correctly in the socket before you try to close the microprocessor retainer.
 - Do not touch the thermal grease on the bottom of the heat sink or on top of the microprocessor. Touching the thermal grease will contaminate it.
5. Remove the socket cover, if one is present. Keep the socket cover in a safe place for potential future use.



6. Close the microprocessor socket release lever and retainer:



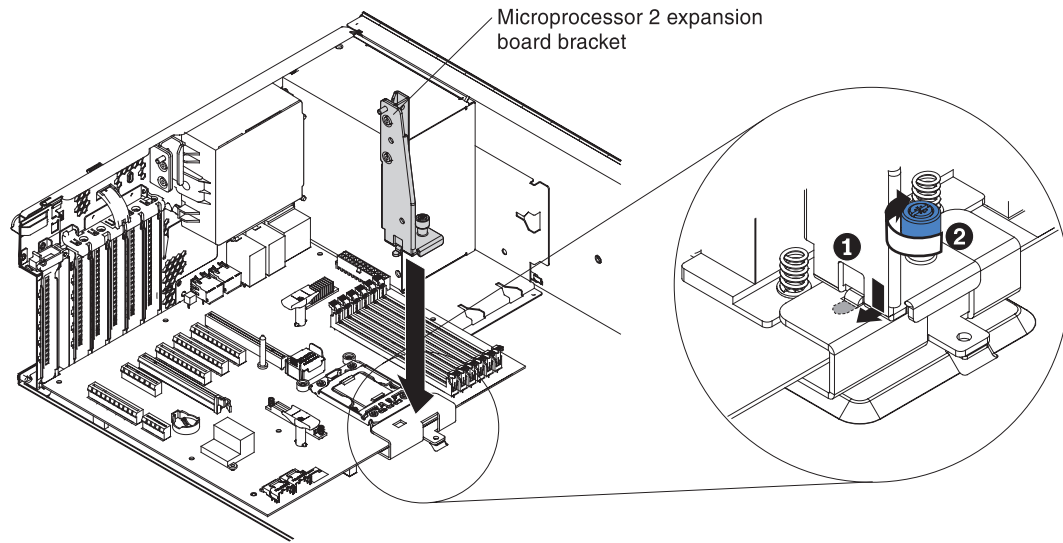
- a. Close the microprocessor retainer on the microprocessor socket.
- b. Close the release lever on the microprocessor socket.

Installing the microprocessor 2 expansion board

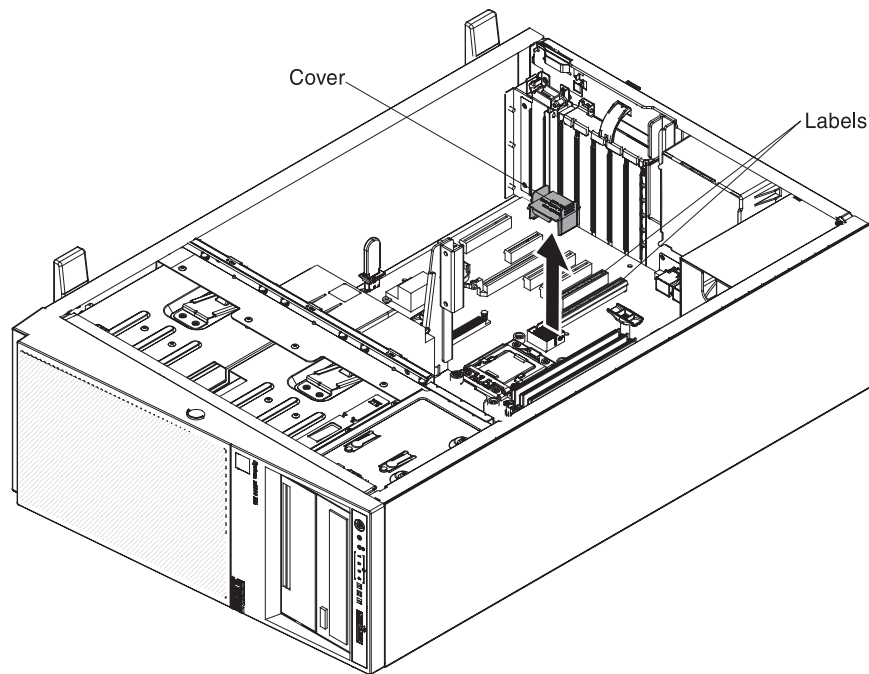
To install the microprocessor 2 expansion board, complete the following steps:

1. See the server *Installation and Service Guide* for installation guidelines and additional safety information.
2. If the server is operating, turn off the server and peripheral devices and disconnect the power cords and all external cables.
3. Carefully turn the server on its side so that it is lying flat, with the cover facing up.
Attention: Do not allow the server to fall over.
4. Unlock and remove the left-side cover, using the instructions in your server documentation.
5. Remove the air baffle, using the instructions in your server documentation.
6. Touch the static-protective package that contains the microprocessor 2 expansion board to any unpainted metal surface on the server; then, remove the microprocessor 2 expansion board from the package.
7. Install the microprocessor on the microprocessor 2 expansion board (see “Installing the microprocessor on the microprocessor 2 expansion board” on page 2).
8. Install the additional DIMMs, using the instructions in your server documentation.
9. Install the heat sink, using the instructions in your server documentation.

10. Install the microprocessor 2 expansion board side bracket.
 - a. Align the side bracket with the holes on the chassis and install the side bracket on the system board.

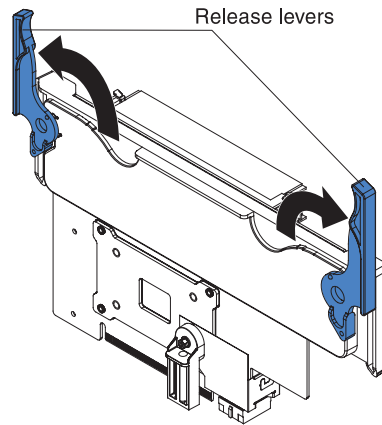


- b. Fasten the thumbscrew on the side bracket.
11. Remove the cover and the label on the microprocessor 2 expansion board connector from the system board.

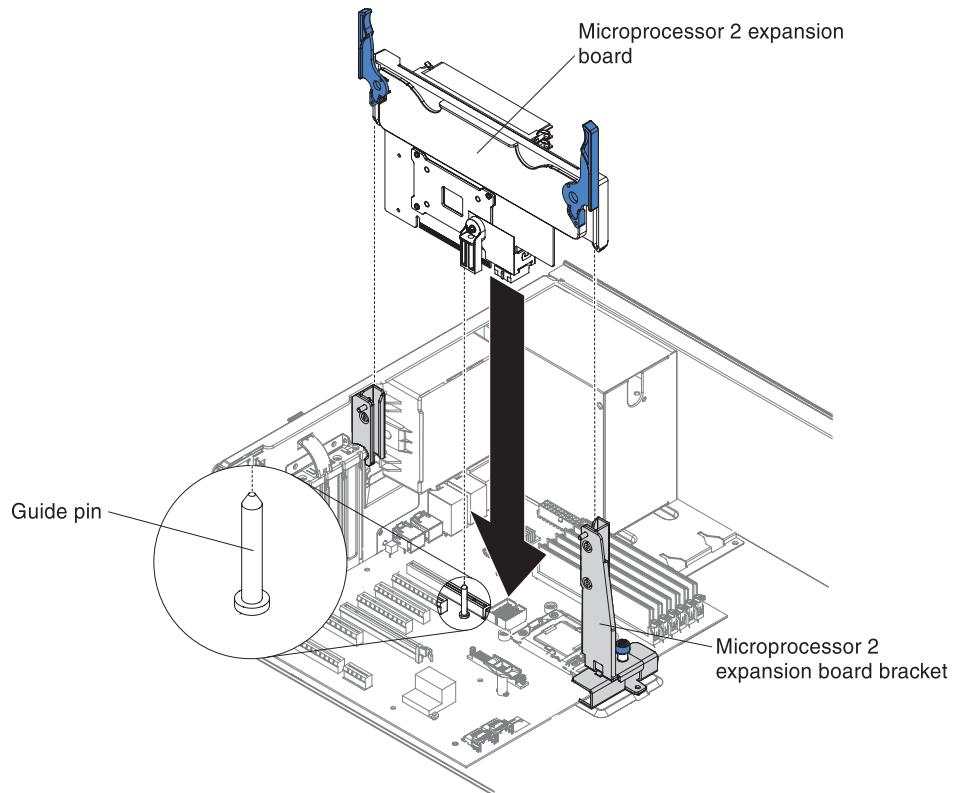


Note: PCI slot 1 is enabled when the microprocessor 2 expansion board is installed. You have to remove the label on PCI slot 1 before using it.

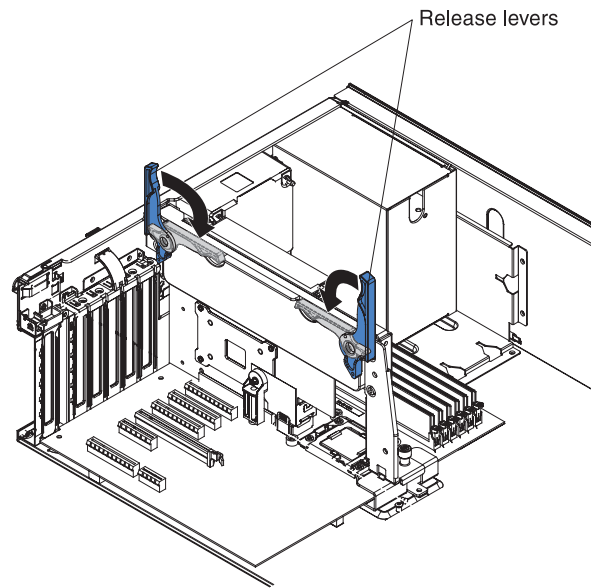
12. Make sure the microprocessor 2 expansion board release levers are in the open position.



13. Align the microprocessor 2 expansion board to the guide pin and the bracket on the system board. Install the microprocessor 2 expansion board on the system board.



14. Rotate the release levers inwardly to secure the microprocessor 2 expansion board in place.



Note: Make sure the release levers are seated securely.

15. Install fan assembly 3, using the instructions in your server documentation.
16. Replace the air baffle, using the instructions in your server documentation.
17. Replace the cover, using the instructions in your server documentation.
18. Reconnect the power cords and any cables that you removed.
19. Turn on the peripheral devices and the server.

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