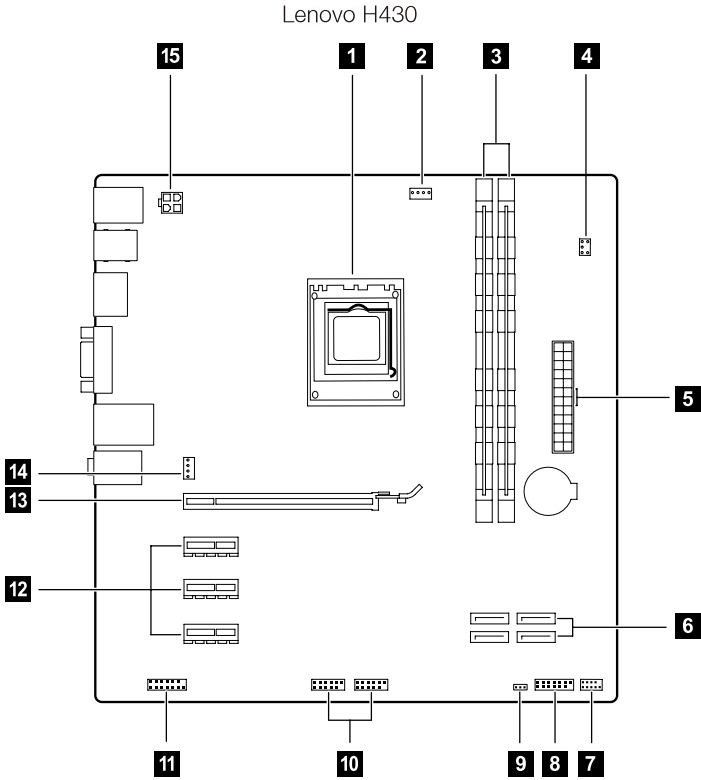


Identifying parts on the system board

The system board (sometimes called the motherboard) is the main circuit board in your computer. It provides basic computer functions and supports a variety of devices that are factory-installed or that you can install later.

The following illustrations show the locations of parts on the system board.



- 1** Microprocessor and heat sink
- 2** Microprocessor fan connector
- 3** Memory connectors (2)
- 4** Thermal sensor header connector
- 5** Power connector
- 6** SATA connectors (4)
- 7** Power supply fan connector
- 8** Front panel connector

2

Chapter

Replacing hardware



Attention:

Do not remove the computer cover or attempt any repair before reading the “Important safety information” in the *Safety and Warranty Guide* that was included with your computer or in the *Hardware Maintenance Manual (HMM)* for the computer. To obtain copies of the *Safety and Warranty Guide* or *HMM*, go to the Support Web site at <http://consumersupport.lenovo.com>



Note: Use only parts provided by Lenovo.

Removing the computer cover

Important




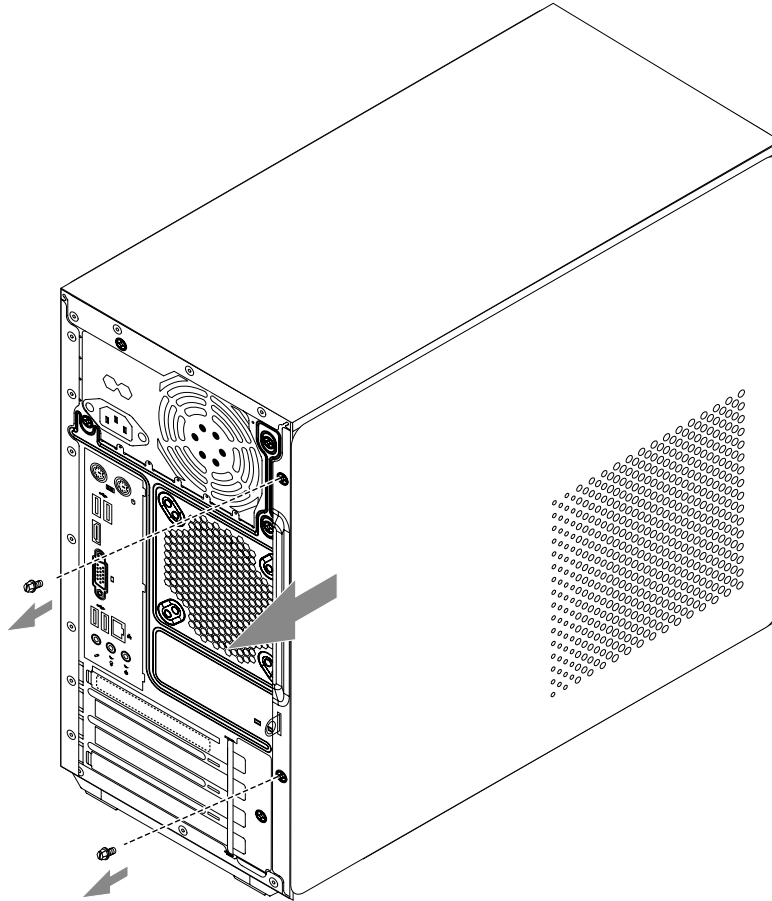
Turn off the computer and wait three to five minutes to let it cool down before removing the cover.

To remove the computer cover:

1. Remove any media (disks, CDs, or memory cards) from the drives, shut down the operating system, and turn off the computer and all attached devices.
2. Unplug all power cords from electrical outlets.
3. Disconnect all cables attached to the computer. This includes power cords, input/output (I/O) cables, and any other cables that are connected to the computer. Refer to “Locating connectors on the rear of the computer”.
4. Remove the two screws that secure the computer cover at the rear of the chassis.

5. Slide the computer cover to the rear of the chassis to remove it.

 **Note:** For this procedure, it helps to lay the computer on its side.



Replacing a PCI or AGP adapter

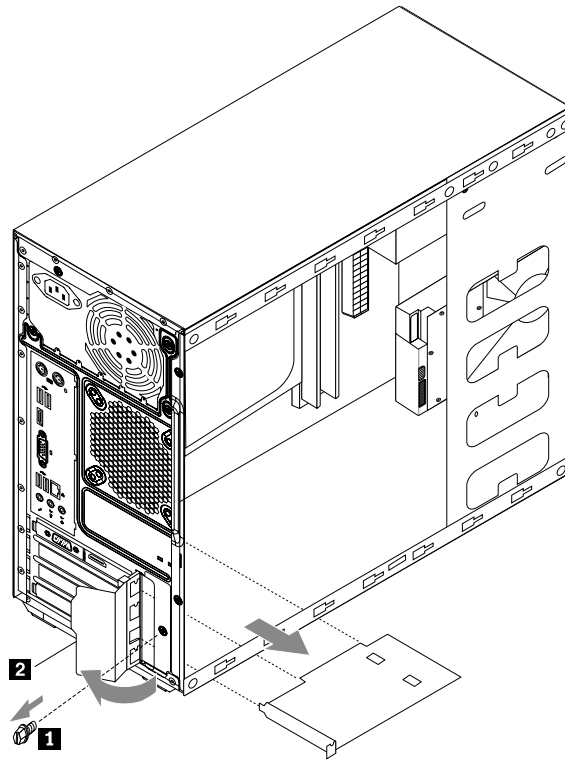


Attention:

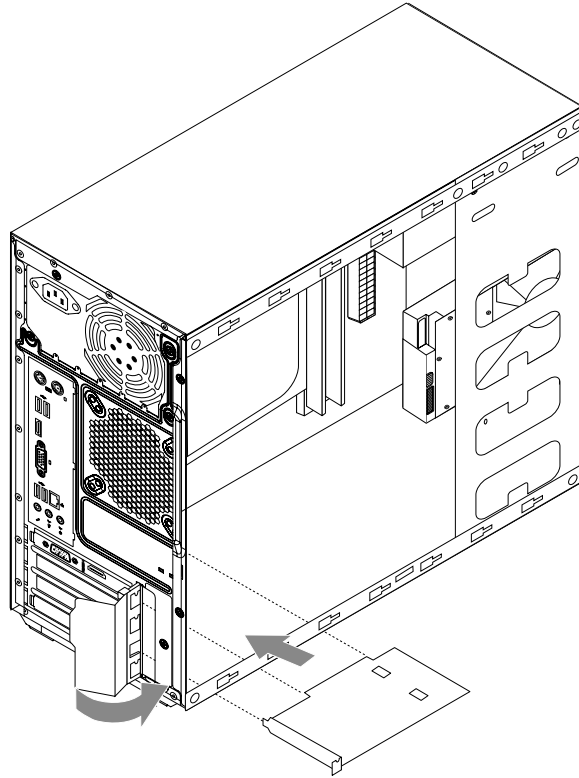
Do not remove the computer cover or attempt any repair before reading the “Important safety information” in the *Safety and Warranty Guide* that was included with your computer or in the *Hardware Maintenance Manual (HMM)* for the computer. To obtain copies of the *Safety and Warranty Guide* or *HMM*, go to the Support Web site at: <http://consumersupport.lenovo.com>.

To replace an adapter:

1. Remove the computer cover. Refer to “Removing the computer cover”.
2. Remove the screw that secures the latch to the chassis, **1** open the adapter latch **2** and remove the adapter by pulling it straight out of the adapter connector.



3. Install the new adapter into the same adapter connector.



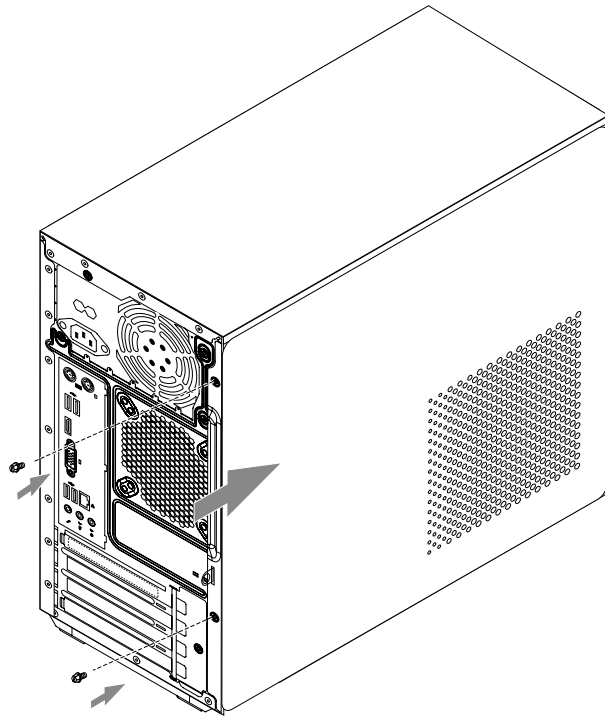
4. Ensure the adapter is fully seated into the adapter connector.
5. Screw the latch into the chassis.
6. Refer to “Completing the installation”.

Completing the installation

After replacing a part or parts, you must close the computer cover and reconnect all the cables, including telephone lines and power cords. Some parts will require confirming updated information in the Setup Utility program. Refer to “Starting the Setup Utility” in the *Hardware Maintenance Manual*.

To complete the installation:

1. Ensure that all components have been reassembled correctly and that no tools or loose screws are left inside your computer. Refer to “Locating components” for the location of the various components.
2. Make sure that the cables are routed correctly before replacing the computer cover.
3. Position the computer cover on the chassis so that the rail guides on the bottom of the computer cover engage the rails. Then, push the computer cover closed until it snaps into position. Screw back the two screws on the chassis.



4. Reconnect the external cables and power cords to the computer. Refer to “Locating connectors on the front of the computer” and “Locating connectors on the rear of the computer”.



Note: In most areas of the world, Lenovo requires the return of the defective CRU. Information about this will come with the CRU or will come a few days after the CRU arrives.