COMPAQ

580407-001

Upgrading and Servicing Guide

Removing and Replacing the Front Bezel

Removing and Replacing the Front Bezel

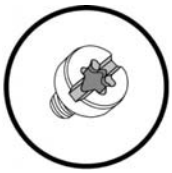
10–15 MINUTES

Before you begin

Tools Needed:

- Flathead screwdriver
- Phillips screwdriver

Flathead screwdrivers
A flathead screwdriver can be used with the screw seen in the following illustration.



CAUTION: Static electricity can damage the electronic components inside the computer. Discharge static electricity by touching the metal cage of the computer before touching any internal parts or electronic components.

WARNING:

- **Never open the cover with the power cord attached or power applied. You may damage your computer or be injured from the spinning fan blades.**
- **Avoid touching sharp edges inside the computer.**
- **Before you open the computer, allow the internal system components to cool before touching.**

IMPORTANT: Computer features may vary by model.

IMPORTANT: System board may vary.

Removing the Front Bezel

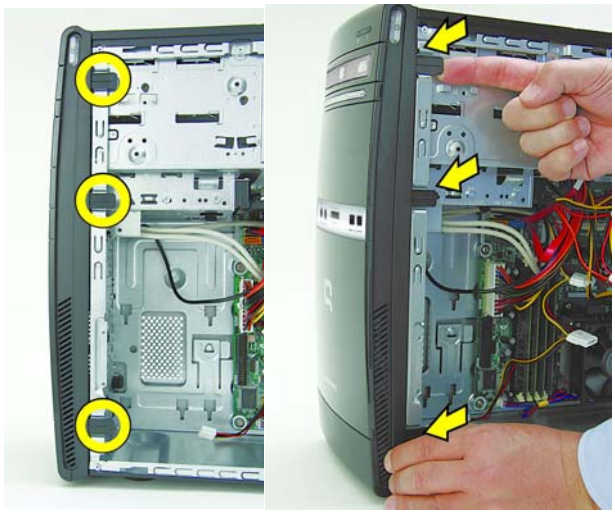
1. Press the Power button to turn off the computer.
2. Disconnect all cables and remove all items from the computer:
   - Disconnect cables for power, keyboard, mouse, monitor, etc.
   - Remove items such as memory cards, USB drives, etc.

3. Remove the side cover by loosening the screw that connects the cover to the computer.

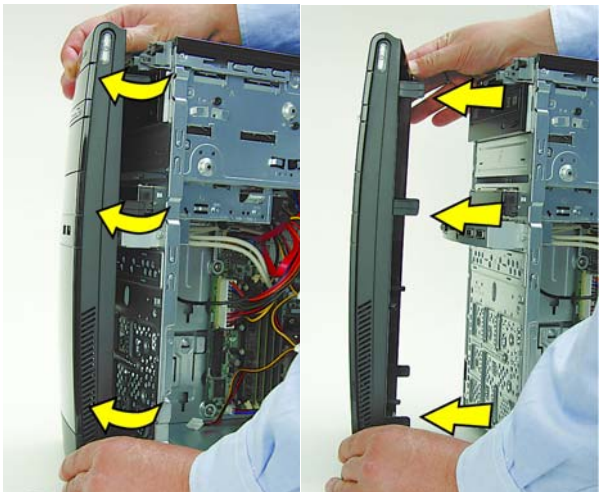
4. Grasp the handle on the side cover and pull towards the back of the computer. Slide the cover about 2.4 cm (1 inch) to remove it.

5. Remove the side panel by lifting it away from the computer.

6 Pull each of the three side tabs that secure the front bezel to the computer, to release the front bezel.



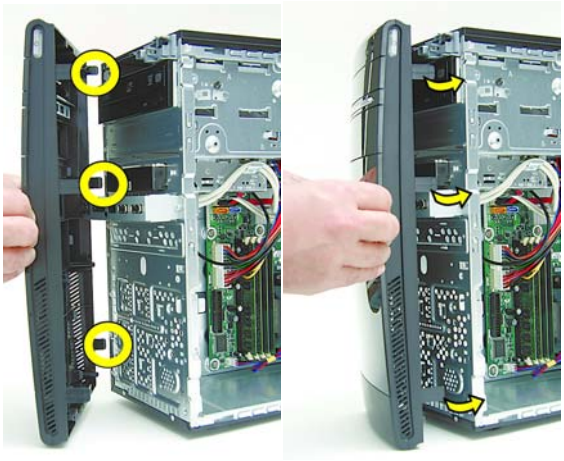
7 Swing the front bezel out to remove from the computer.



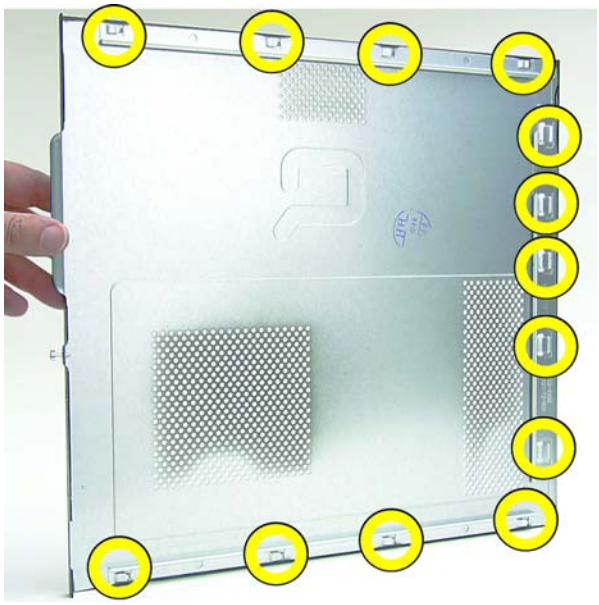
Replacing the Front Bezel

IMPORTANT: The new (replacement) part may not look the same as the original part, due to different manufacturers or models. Hewlett-Packard always provides quality parts that meet or exceed your original computer specifications.

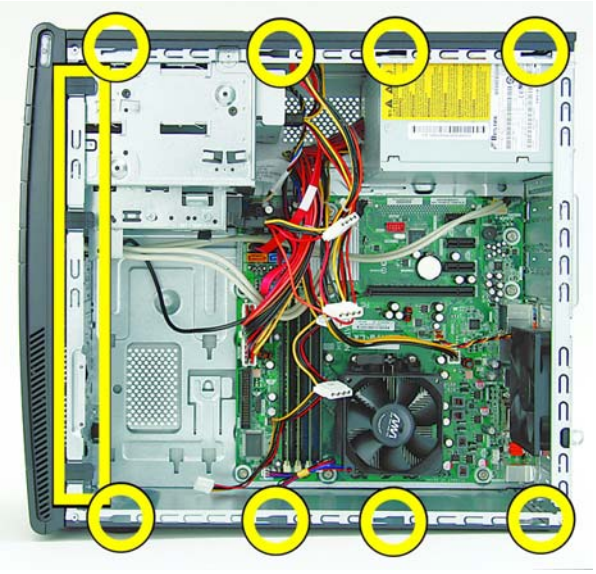
1 To replace the front bezel, align the left side of the bezel and swing the front bezel toward the computer to close it.



2 The side panel has several tabs on its top, bottom, and leading edges.



3 The tabs fit into slots and over the front lip of the computer.



4 To reattach the panel, align the tabs on the panel over the corresponding slots on the computer and lay the panel into place. Slide the side cover forward.

5 Reattach the thumb screw at the back of the computer.

6 Connect the cables, such as the keyboard, mouse, Ethernet, and monitor cables.

7 Reconnect the power cord.

8 Turn on the computer and all peripherals, such as the monitor.

Removing and Replacing Memory

Removing and Replacing Memory

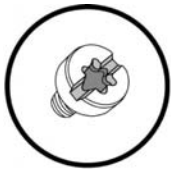
25–30 MINUTES

Before You Begin

Tools Needed:

- Flathead screwdriver
- Phillips screwdriver

Flathead screwdrivers
A flathead screwdriver can be used with the screw seen in the following illustration.



CAUTION: Static electricity can damage the electronic components inside the computer. Discharge static electricity by touching the metal cage of the computer before touching any internal parts or electronic components.

WARNING:

- **Never open the cover with the power cord attached or power applied. You may damage your computer or be injured from the spinning fan blades.**
- **Avoid touching sharp edges inside the computer.**
- **Before you open the computer, allow the internal system components to cool before touching.**

IMPORTANT: Computer features may vary by model.

Removing Memory

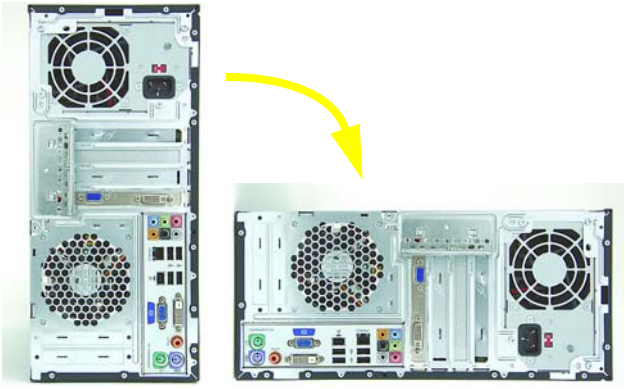
1. Press the Power button to turn off the computer.
2. Disconnect all cables and remove all items from the computer:
   - Disconnect cables for power, keyboard, mouse, monitor, etc.
   - Remove items such as memory cards, USB drives, etc.

3. Remove the side cover by loosening the screw that connects the cover to the computer.

4 Grasp the handle on the side cover and pull towards the back of the computer. Slide the cover about 2.4 cm (1 inch) to remove it.

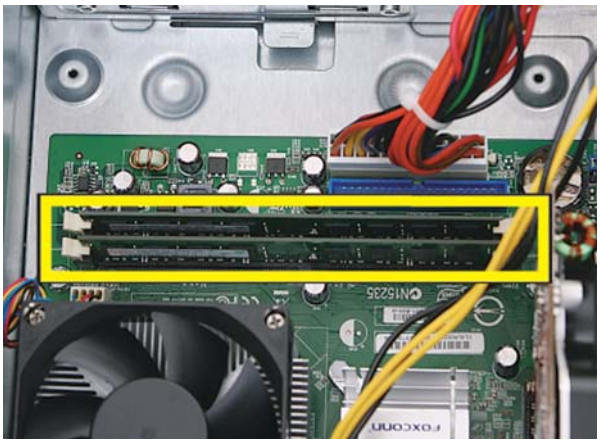
5 Remove the side panel by lifting it away from the computer.

6 Lay the computer on its side.

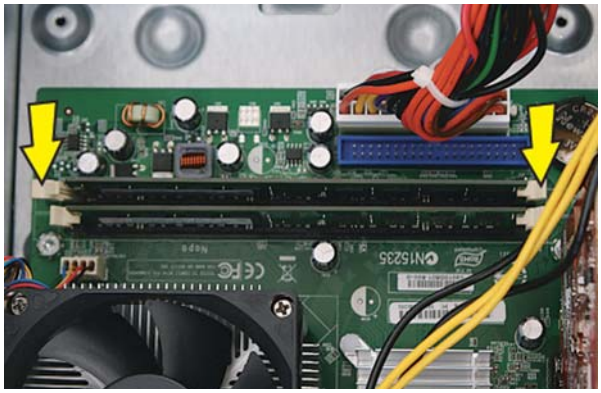


7 Locate the memory sockets on your computer motherboard.

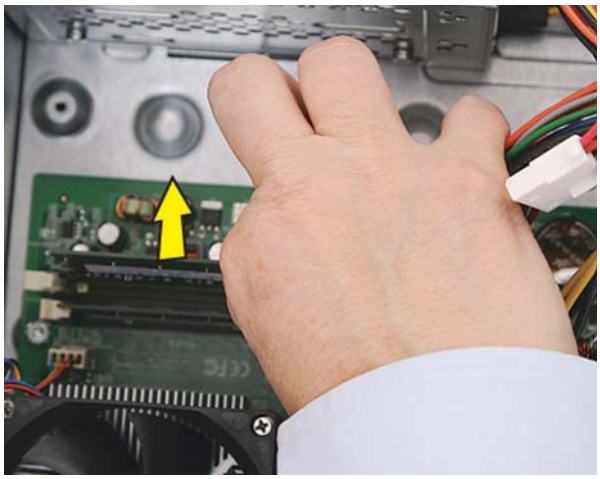
NOTE: The location and number of memory sockets may vary with the motherboard model in your computer.



8 Push down the retaining clip on each end of the memory socket to release the memory module.



9 Touching only the memory module, lift it out of the socket.

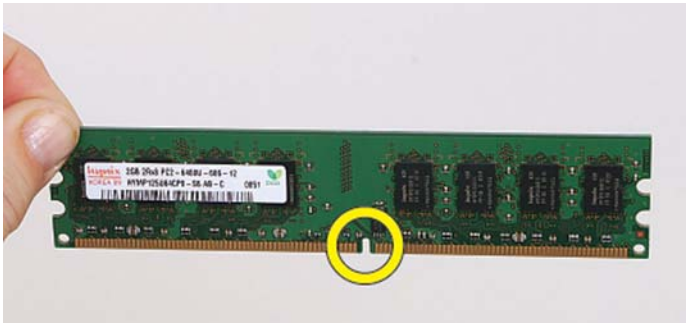


Replacing Memory

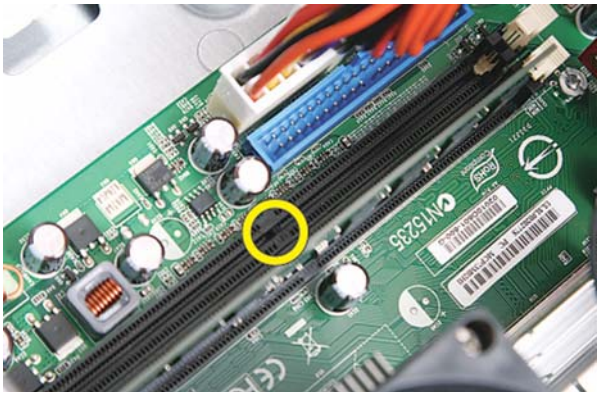
NOTE: The new (replacement) part may not look exactly the same as the original part, due to different manufacturers or models. Hewlett-Packard always provides quality parts that meet or exceed your original computer specifications.

1 Touching only the top edge of the memory module, locate the notch at the bottom edge.

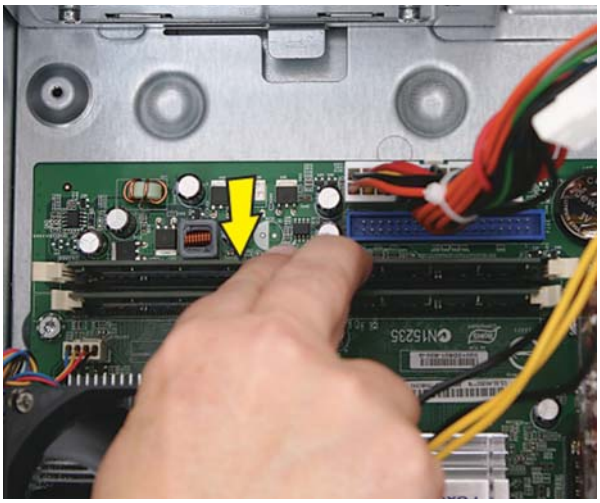
NOTE: Each type of memory has a different notch position. Incompatible memory modules cannot be installed in the memory socket.



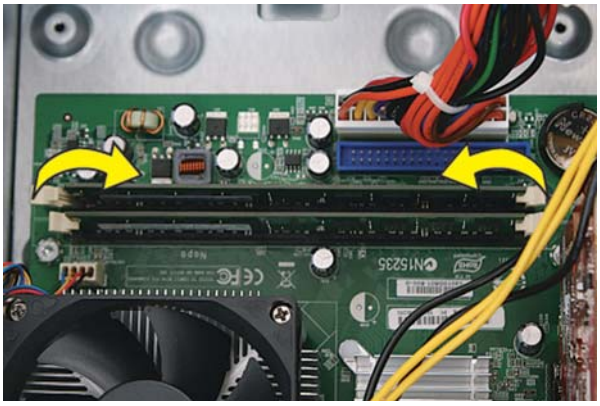
2 Look at the memory module socket for the tab that matches the notch on the memory module.



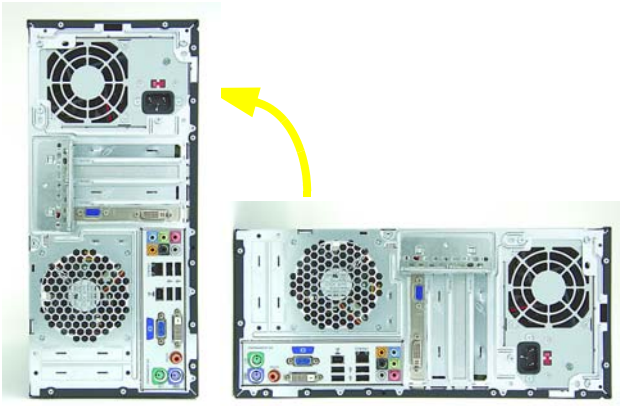
3 Position the memory module over the socket, aligning the notch with the tab in the socket, and then firmly press the module down into the socket.



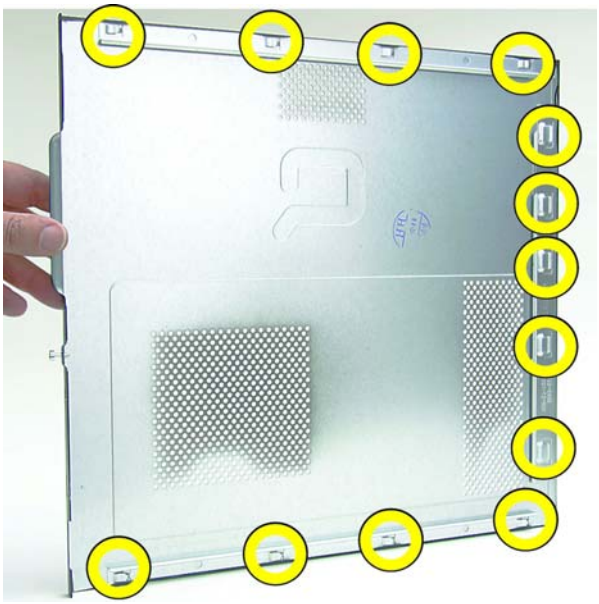
...until the retaining clips at the ends of the socket lock the module into place.



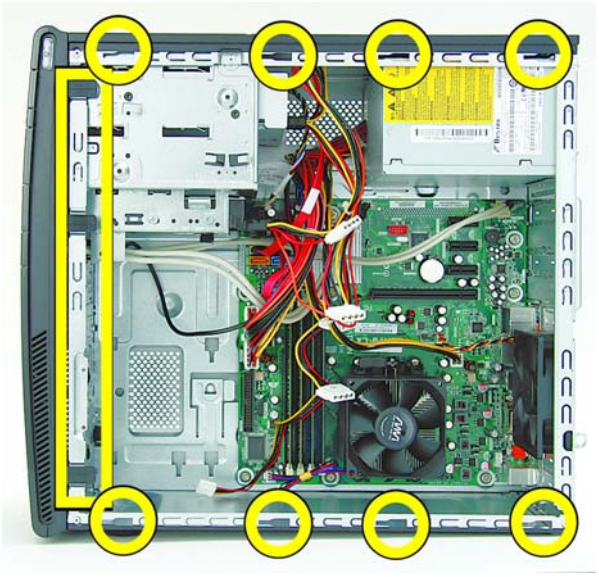
4 Set the computer upright.



5 The side panel has several tabs on its top, bottom, and leading edges.



6 The tabs fit into slots and over the front lip of the computer.



7 To reattach the panel, align the tabs on the panel over the corresponding slots on the computer. Slide the side cover forward.

8 Reattach the screw at the back of the computer.

9 Connect the cables, such as the keyboard, mouse, Ethernet, and monitor cables.

10 Reconnect the power cord.

11 Turn on the computer and all peripherals, such as the monitor.

12 Verify that the replacement memory works properly.

Removing and Replacing an Optical Disc Drive

Removing and Replacing an Optical Disc Drive

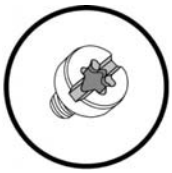
15–20 MINUTES

Before you begin

Tools Needed:

- Flathead screwdriver
- Phillips screwdriver

Flathead screwdrivers
A flathead screwdriver can be used with the screw seen in the following illustration.



CAUTION: Static electricity can damage the electronic components inside the computer. Discharge static electricity by touching the metal cage of the computer before touching any internal parts or electronic components.

WARNING:

- **Never open the cover with the power cord attached or power applied. You may damage your computer or be injured from the spinning fan blades.**
- **Avoid touching sharp edges inside the computer.**
- **Before you open the computer, allow the internal system components to cool before touching.**

IMPORTANT: Computer features may vary by model.

IMPORTANT: System board may vary.

Removing an Optical Disc Drive

1. Press the Power button to turn off the computer.
2. Disconnect all cables and remove all items from the computer:
   - Disconnect cables for power, keyboard, mouse, monitor, etc.
   - Remove items such as memory cards, USB drives, etc.

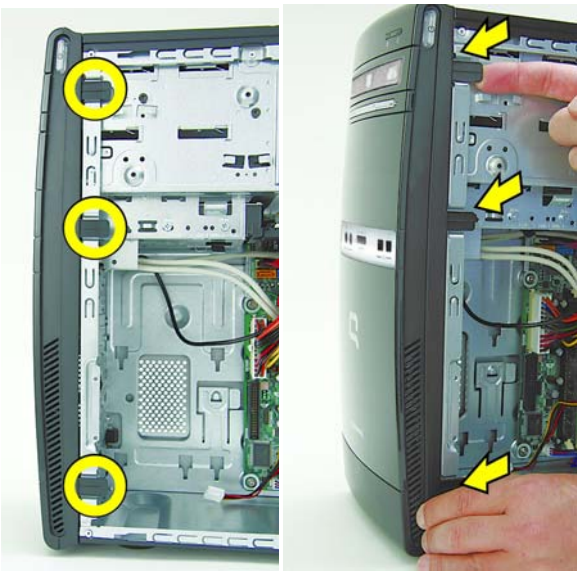
3. Remove any discs in the drive.

4. Remove the side cover by loosening the screw that connects the cover to the computer.

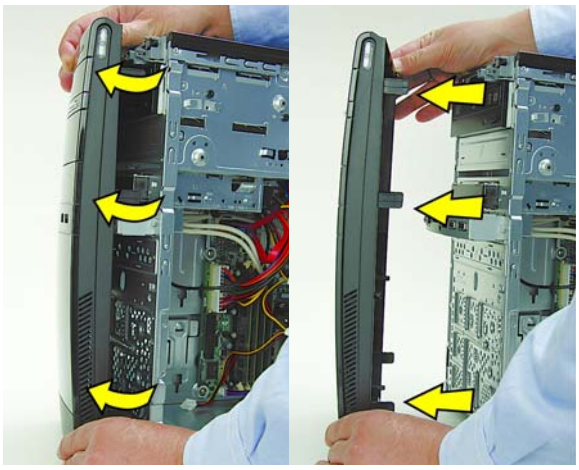
5. Grasp the handle on the side cover and pull towards the back of the computer. Slide the cover about 2.4 cm (1 inch) to remove it.

6 Remove the side panel by lifting it away from the computer.

7 Pull each of the three side tabs that secure the front bezel to the computer, to release the front bezel.

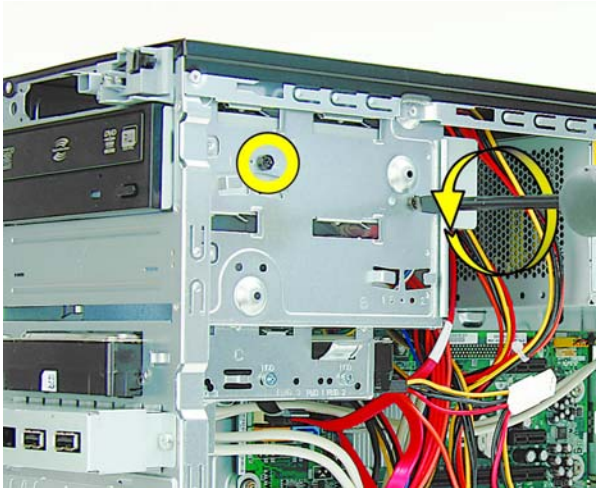


8 Swing the front bezel out to remove from the computer.



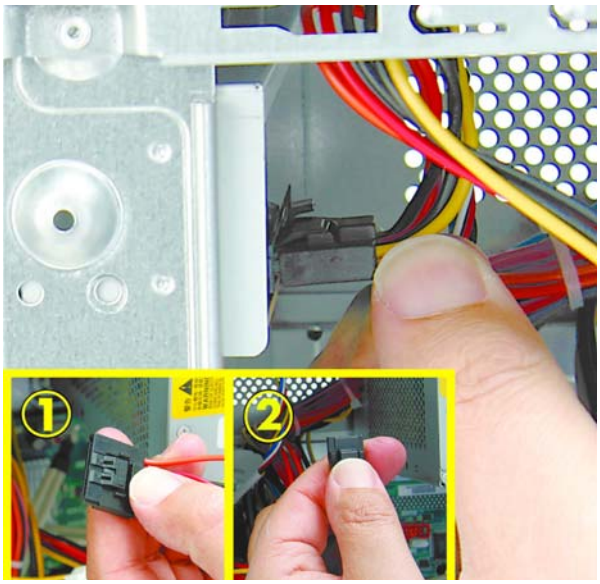
9 Locate the optical disc drives at the top front of the computer.

10 Remove the screws that fasten the disc drive in the computer.

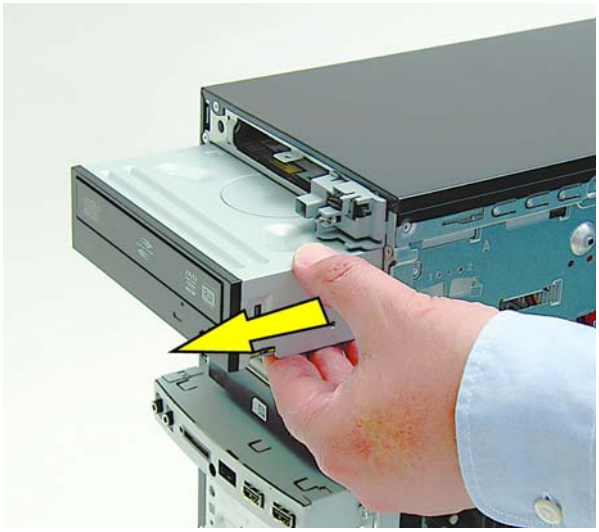


11 Push the drive slightly forward.

12 Disconnect the power (**1**) and data (**2**) cables by squeezing the latch on the connector and pulling to remove.



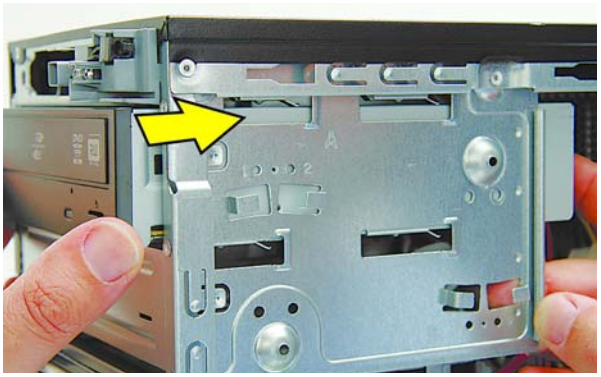
13 Pull the disc drive out through the front of the computer.



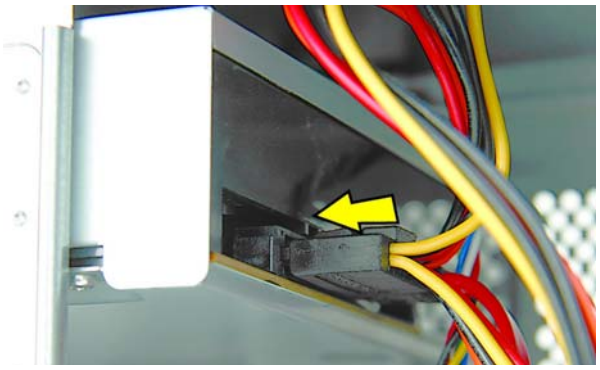
Replacing an Optical Disc Drive

IMPORTANT: The new (replacement) part may not look the same as the original part, due to different manufacturers or models. Hewlett-Packard always provides quality parts that meet or exceed your original computer specifications.

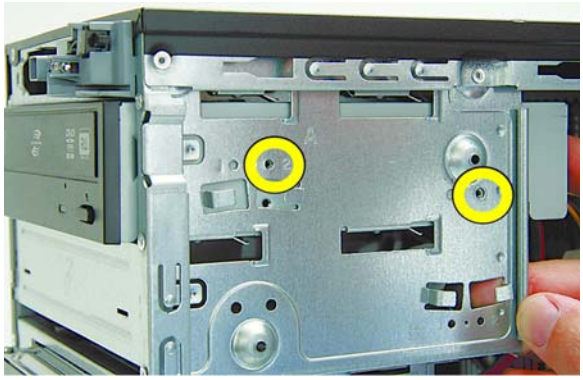
1 Push the replacement disc drive partially into the drive bay in the computer.



2 Connect the power and data cables to the back of the disc drive.

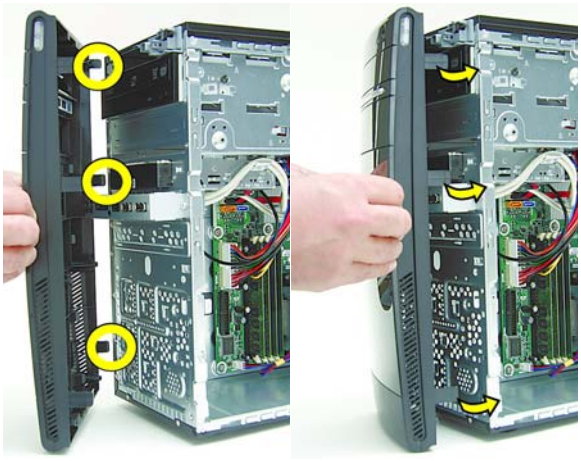


3 Align the disc drive screw holes with the drive bay holes (marked "2").

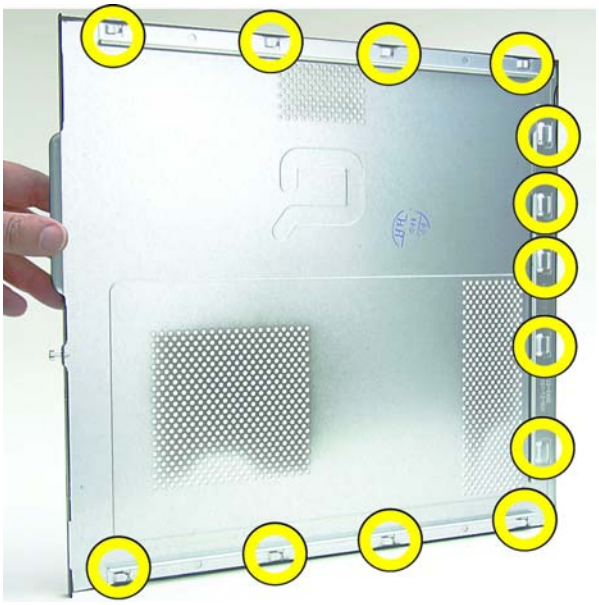


4 Replace the drive screws.

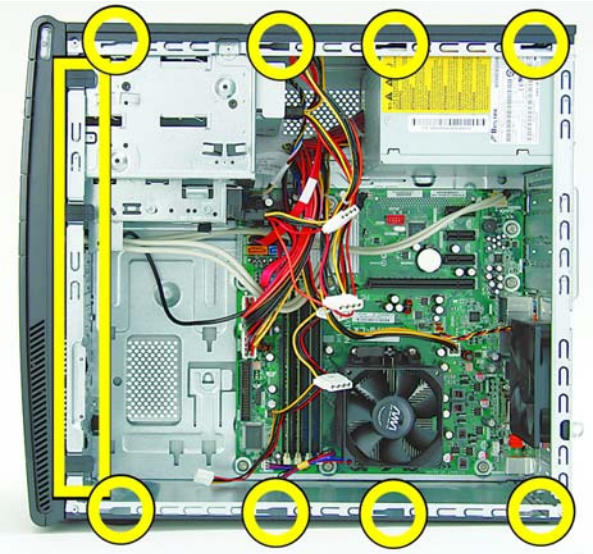
5 To replace the front bezel, align the left side of the bezel and swing the front bezel toward the computer to close it.



6 The side panel has several tabs on its top, bottom, and leading edges.



7 The tabs fit into slots and over the front lip of the computer.



8 To reattach the panel, align the tabs on the panel over the corresponding slots on the computer. Slide the side cover forward.

9 Reattach the screw at the back of the computer.

10 Connect the cables, such as the keyboard, mouse, Ethernet, and monitor cables.

11 Reconnect the power cord.

12 Turn on the computer and all peripherals, such as the monitor.

13 Verify the new optical disc drive operates correctly.

Removing and Replacing a Hard Disk Drive

Removing and Replacing a Hard Disk Drive

25–30 MINUTES

Before You Begin

Observe the following requirements before removing and replacing a hard disk drive.

IMPORTANT: A hard disk drive is extremely sensitive to shock impact. Do not bang or drop it. Do not touch the circuit board. Static electricity can damage the drive.

Tools Needed:

- Flathead screwdriver
- Phillips screwdriver

Flathead screwdrivers
A flathead screwdriver can be used with the screw seen in the following illustration.

CAUTION: Static electricity can damage the electronic components inside the computer. Discharge static electricity by touching the metal cage of the computer before touching any internal parts or electronic components.

WARNING:

- **Never open the cover with the power cord attached or power applied. You may damage your computer or be injured from the spinning fan blades.**
- **Avoid touching sharp edges inside the computer.**
- **Before you open the computer, allow the internal system components to cool before touching.**

IMPORTANT: Computer features may vary by model.

IMPORTANT: System board may vary.

Removing a Hard Disk Drive

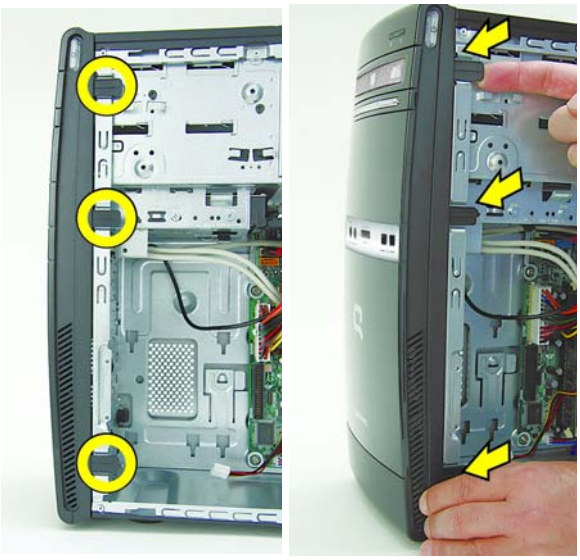
1. Press the Power button to turn off the computer.
2. Disconnect all cables and remove all items from the computer:
   - Disconnect cables for power, keyboard, mouse, monitor, etc.
   - Remove items such as memory cards, USB drives, etc.

3. Remove the side cover by loosening the screw that connects the cover to the computer.

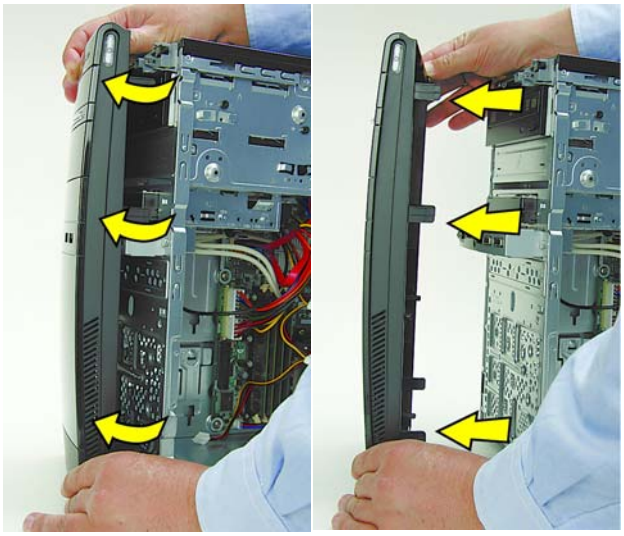
4. Grasp the handle on the side cover and pull towards the back of the computer. Slide the cover about 2.4 cm (1 inch) to remove it.

5. Remove the side panel by lifting it away from the computer.

6 Pull each of the three side tabs that secure the front bezel to the computer, to release the front bezel.

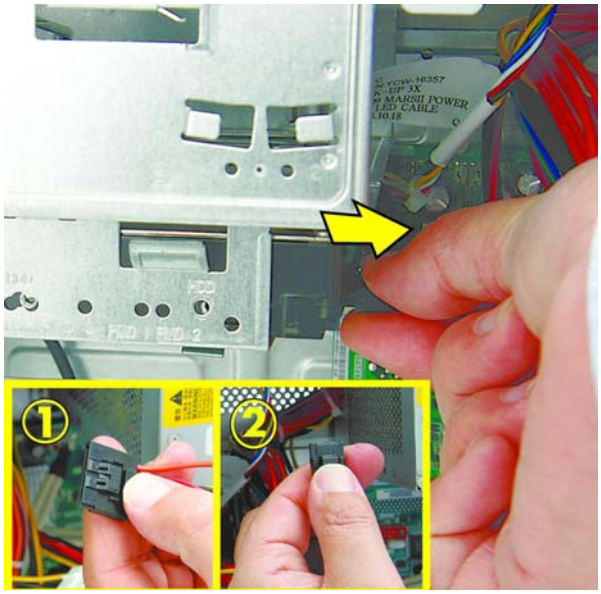


7 Swing the front bezel out to remove from the computer.

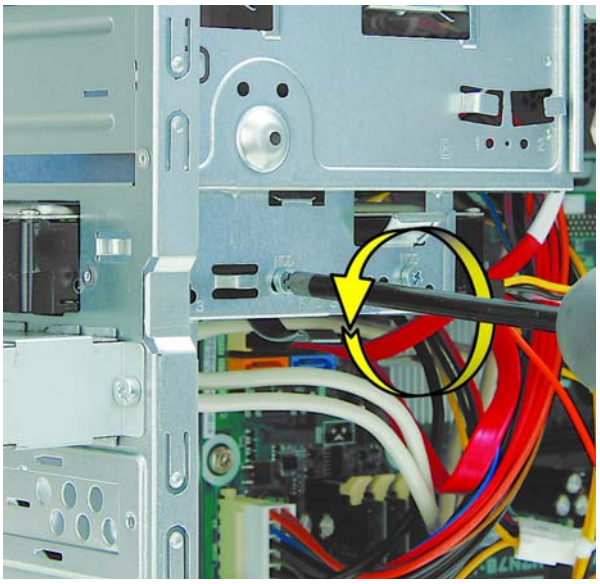


8 Locate the external drive bay at the front of the computer, below the optical drive bays.

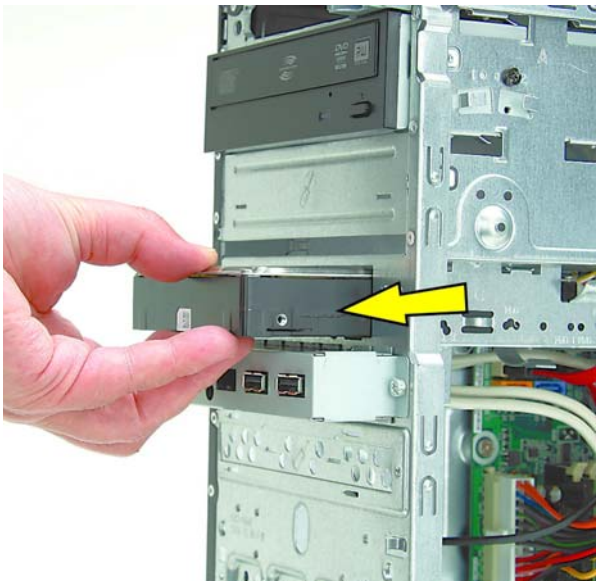
9 Disconnect the power (**1**) and data (**2**) cables by squeezing the latch on the connector and pulling to remove.



10 Remove the two screws that secure the hard disk drive to the computer.



11 Pull the hard drive out of the front of the computer.



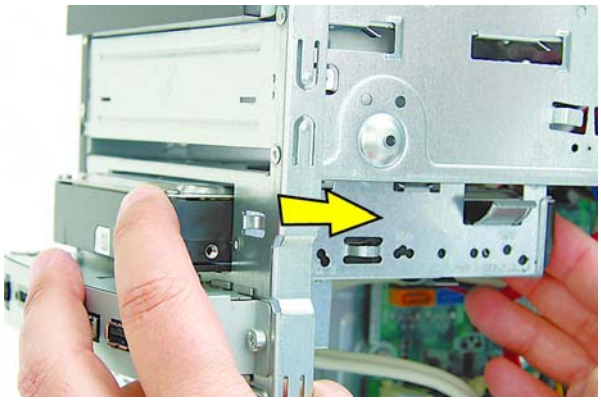
12 Remove the hard drive from the computer.

13 Carefully remove the replacement hard disk drive from the electrostatic bag and place the failed hard disk drive into the bag.

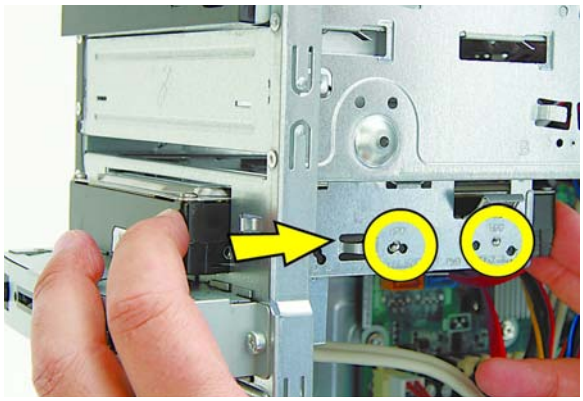
Replacing a Hard Disk Drive

NOTE: The replacement hard drive may not look exactly the same as the original drive due to different manufacturers or models. Hewlett-Packard always provides quality parts that meet or exceed your original computer specifications.

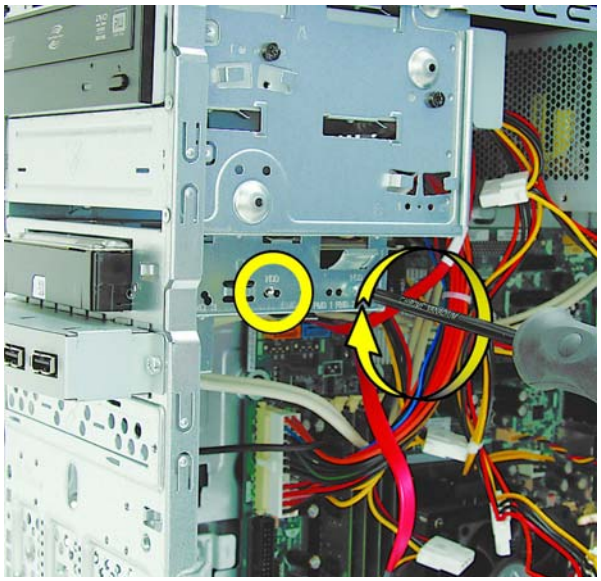
1 Slide the replacement hard disk drive into the bay.



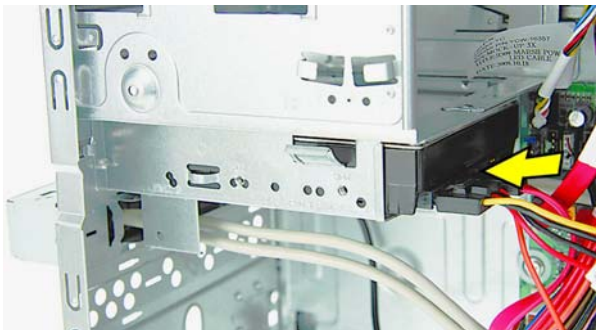
2 Align the screw holes on the side of the hard drive with the holes marked "HDD" on the bay.



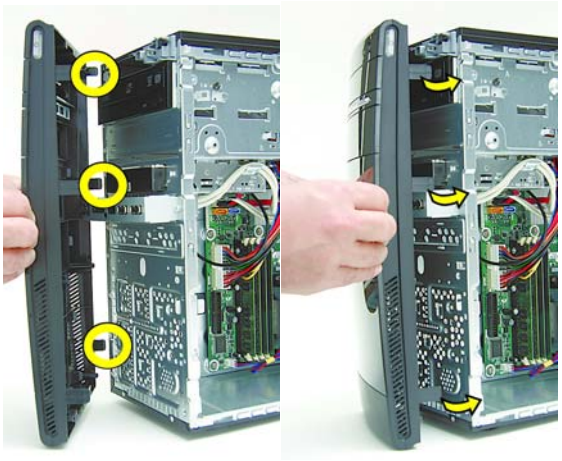
3 Attach the two screws to secure the hard disk drive to the bay.



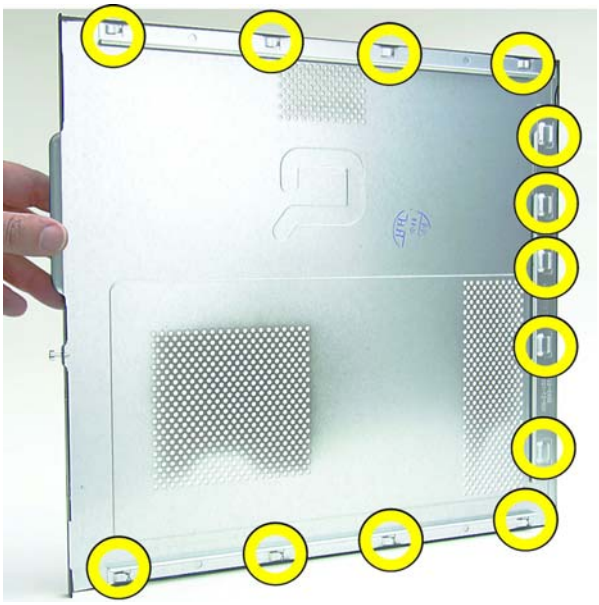
4 Attach the power and data connectors to the back of the drive.



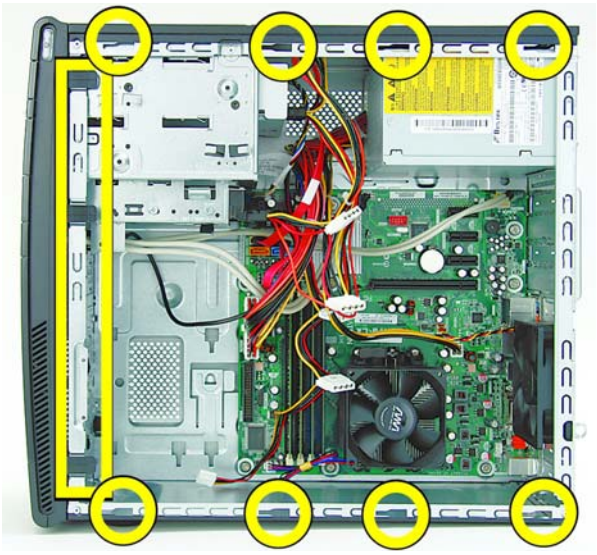
5 To replace the front bezel, align the left side of the bezel and swing the front bezel toward the computer to close it.



6 The side panel has several tabs on its top, bottom, and leading edges.



7 The tabs fit into slots and over the front lip of the computer.



8 To reattach the panel, align the tabs on the panel over the corresponding slots on the computer. Slide the side cover forward.

9 Reattach the screw at the back of the computer.

10 Connect the cables, such as the keyboard, mouse, Ethernet, and monitor cables.

11 Reconnect the power cord.

12 Turn on the computer and all peripherals, such as the monitor.

13 Verify that the replacement hard disk drive works properly.

Removing and Replacing an Add-In Card

Removing and Replacing an Add-In Card

15–20 MINUTES

Before you begin

Tools Needed:

- Flathead screwdriver
- Phillips screwdriver

Flathead screwdrivers
A flathead screwdriver can be used with the screw seen in the following illustration.

CAUTION: Static electricity can damage the electronic components inside the computer. Discharge static electricity by touching the metal cage of the computer before touching any internal parts or electronic components.

WARNING:

- **Never open the cover with the power cord attached or power applied. You may damage your computer or be injured from the spinning fan blades.**
- **Avoid touching sharp edges inside the computer.**
- **Before you open the computer, allow the internal system components to cool before touching.**

IMPORTANT: Computer features may vary by model.

IMPORTANT: System board may vary.

Removing an Add-In Card

1. Press the Power button to turn off the computer.
2. Disconnect all cables and remove all items from the computer:
   - Disconnect cables for power, keyboard, mouse, monitor, etc.
   - Remove items such as memory cards, USB drives, etc.

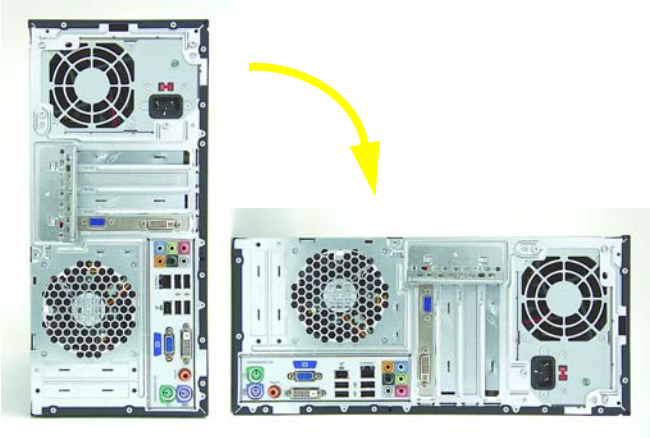
3. Remove the side cover by loosening the screw that connects the cover to the computer.

4. Grasp the handle on the side cover and pull towards the back of the computer. Slide the cover about 2.4 cm (1 inch) to remove it.

5. Remove the side panel by lifting it away from the computer.

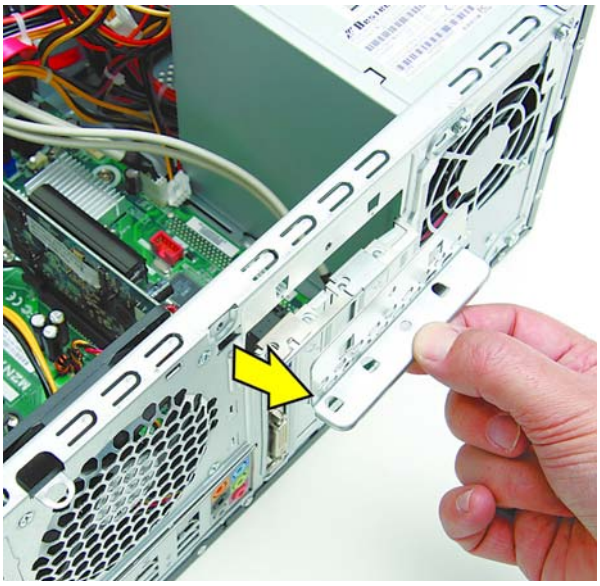
6 Locate the add-in cards at the back of the computer.

7 Lay the computer on its side.

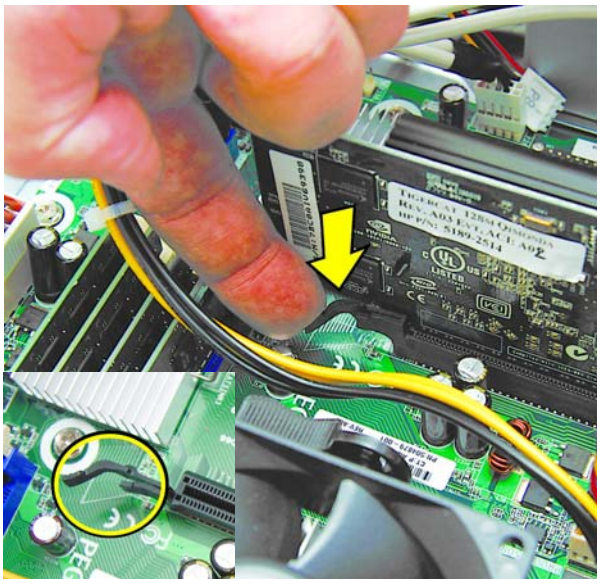


8 On the back of the computer, remove the screw from the bracket cover for the add-in cards.

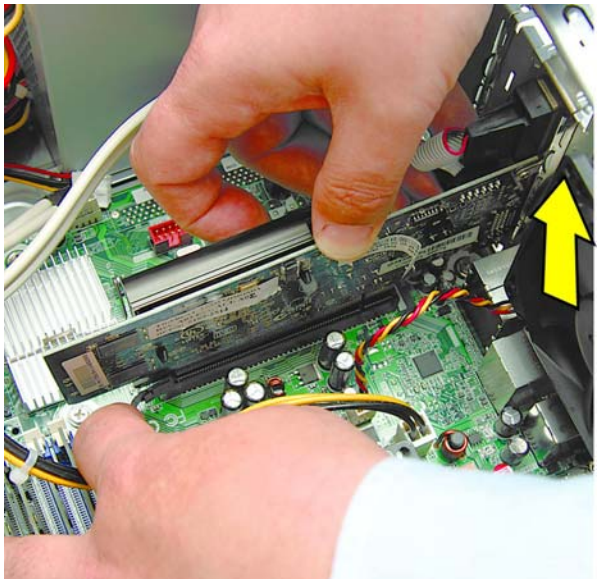
9 Remove the bracket cover.



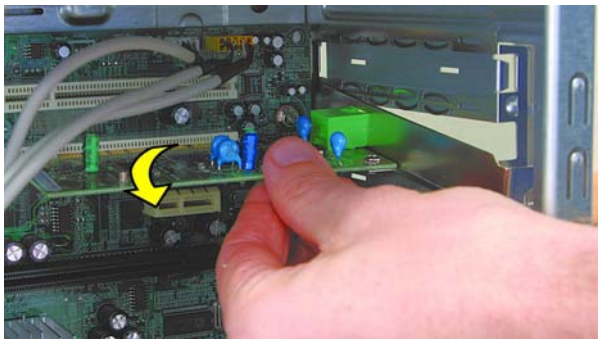
10 If you are removing a graphics card, press on the latch to release it.



11 Remove the graphics card from the card slot.

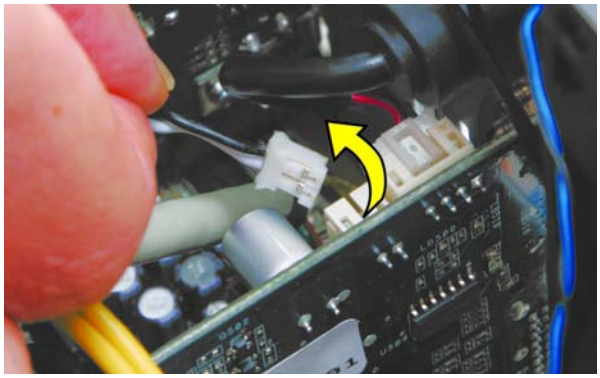


12 For other add-in cards, move the card back and forth gently to free it from the card slot in the computer.



13 Lift the card out of the computer.

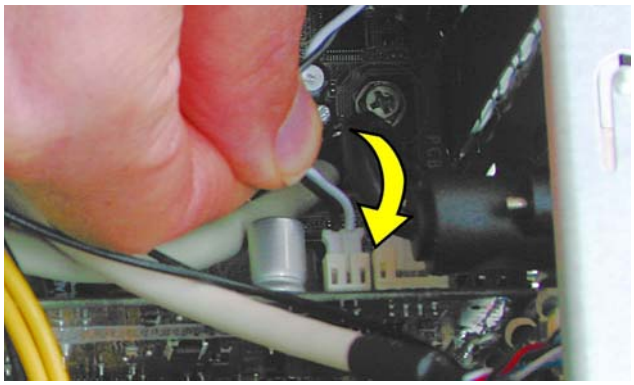
14 If present, remove any cables connected to the add-in card.



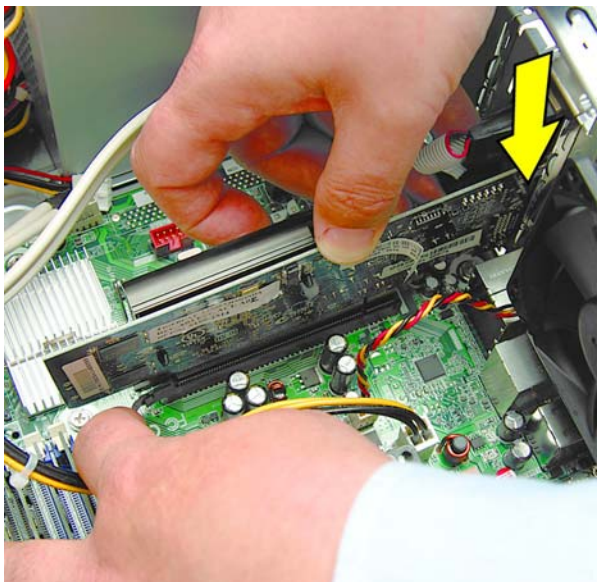
Replacing an Add-In Card

IMPORTANT: The new (replacement) part may not look the same as the original part, due to different manufacturers or models. Hewlett-Packard always provides quality parts that meet or exceed your original computer specifications.

1 Replace any cables previously removed from the card.

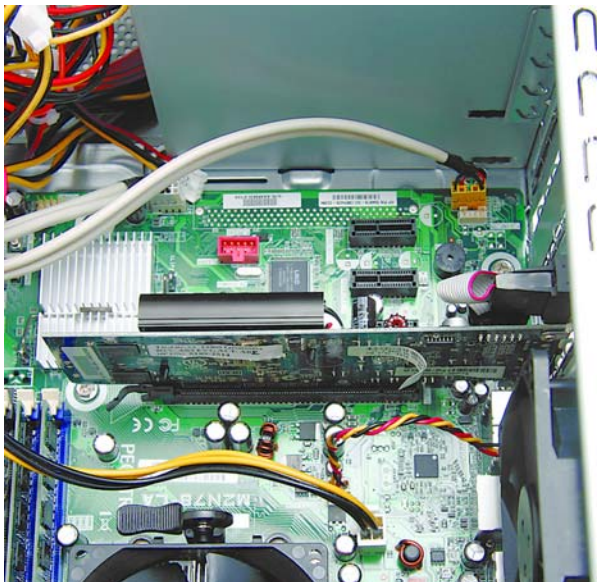


2 Align the edge of the card with the slot on the computer.

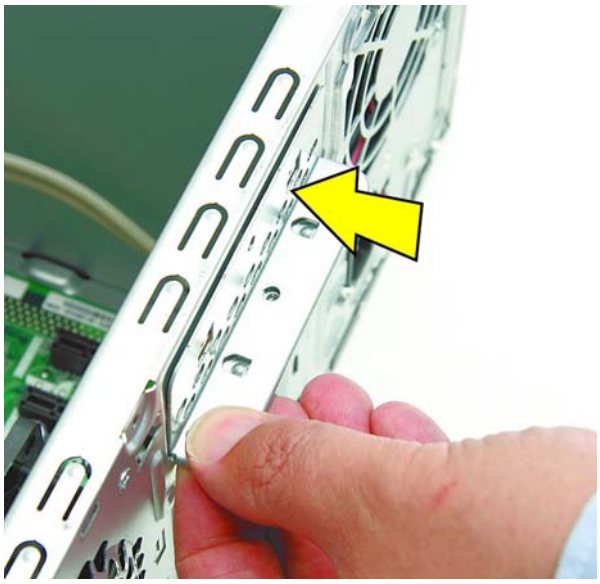


3 If you are replacing a graphics card, verify that the latch in the computer snaps back into place.

4 Press straight down until the card is fully seated in the card slot.

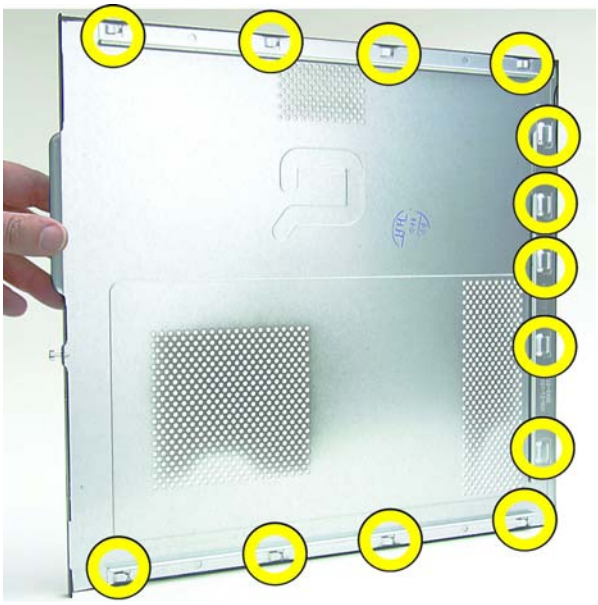


5 Replace the bracket cover on the back of the computer.

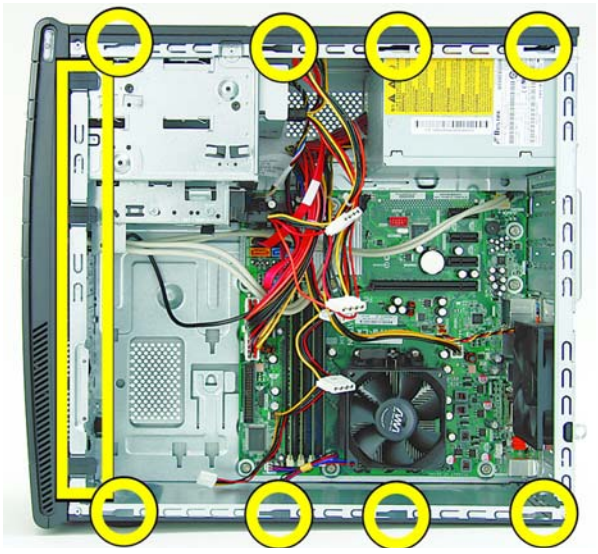


6 Replace the screw to secure the bracket to the back of the computer.

7 The side panel has several tabs on its top, bottom, and leading edges.



8 The tabs fit into slots and over the front lip of the computer.



9 To reattach the panel, align the tabs on the panel over the corresponding slots on the computer. Slide the side cover forward.

10 Reattach the screw at the back of the computer.

11 Reconnect all attached cables, such as the keyboard, mouse, Ethernet, and monitor cables.

12 Reconnect the power cord.

13 Turn on the computer and all peripherals, such as the monitor.

14 Verify that the new add-in card is working properly.

Removing and Replacing a Power Supply

Removing and Replacing a Power Supply

20–25 MINUTES

Before you begin

Tools Needed:

- Flathead screwdriver
- Phillips screwdriver

Flathead screwdrivers
A flathead screwdriver can be used with the screw seen in the following illustration.

CAUTION: Static electricity can damage the electronic components inside the computer. Discharge static electricity by touching the metal cage of the computer before touching any internal parts or electronic components.

WARNING:

- **Never open the cover with the power cord attached or power applied. You may damage your computer or be injured from the spinning fan blades.**
- **Avoid touching sharp edges inside the computer.**
- **Before you open the computer, allow the internal system components to cool before touching.**

IMPORTANT: Computer features may vary by model.

IMPORTANT: System board may vary.

Removing a Power Supply

1. Press the power button to turn off the computer.
2. Disconnect all cables and remove all items from the computer:
   - Disconnect cables for power, keyboard, mouse, monitor, etc.
   - Remove items such as memory cards, USB drives, etc.

3. Remove the side cover, by loosening the screw that connects the cover to the computer.

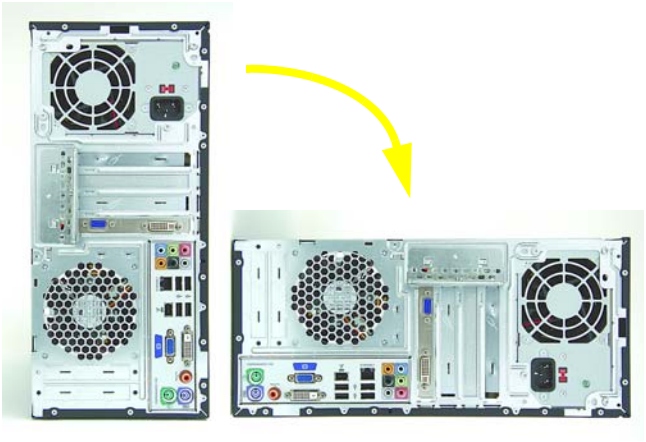
4. Grasp the handle on the side cover and pull towards the back of the computer. Slide the cover about 2.4 cm (1 inch) to remove it.

5. Remove the side panel by lifting it away from the computer.

6 Before removing the power supply carefully note its orientation in the computer.

IMPORTANT: The replacement power supply will need to be placed in the same position.

7 Place the computer on its side.



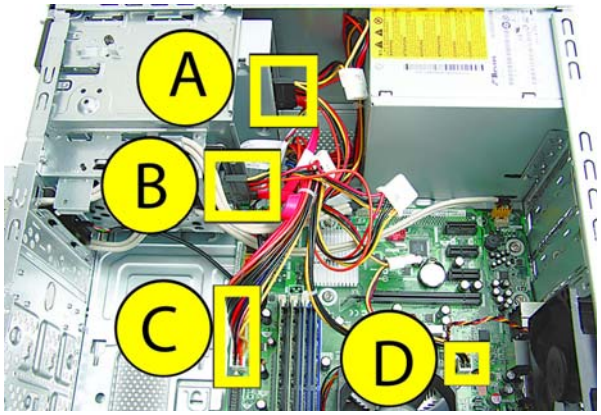
8 Locate the power supply at the top of the computer.

IMPORTANT: Noting the location, type and orientation of the power connectors is extremely important! Failure to correctly restore all power connectors appropriately will prevent the computer or components from working successfully.

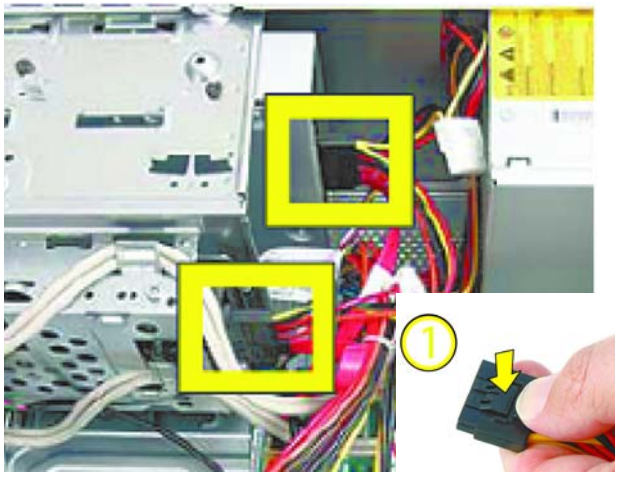
NOTE: The location of the power connectors on the motherboard may vary from the ones shown below.

9 Trace the power supply cables to the system components:

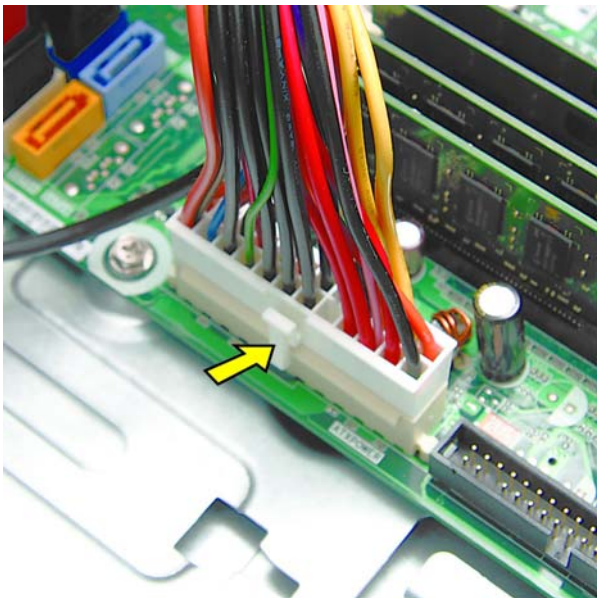
- Optical disc drives (**A**)
- Hard disk drives (**B**)
- Motherboard main power (**C**)
- Motherboard fan (**D**).



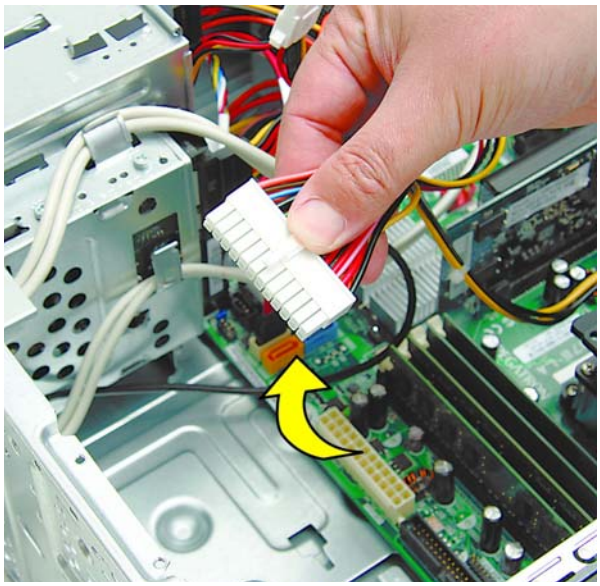
10 Disconnect the power cable from the optical disc and hard disk drives by squeezing the latch (**1**) on the connectors and pulling to remove.



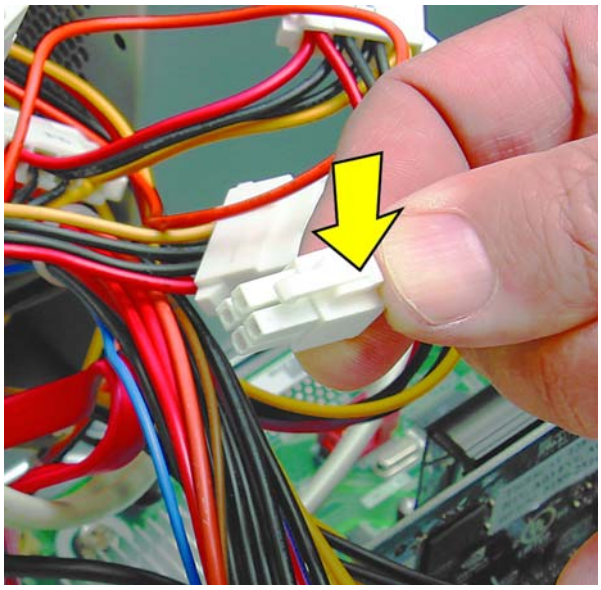
11 The motherboard power connector has a latch that must be pressed to detach the connector from the motherboard.



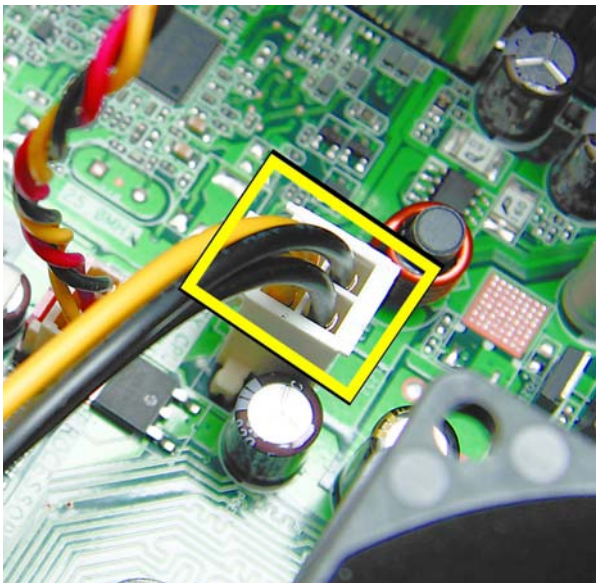
12 Detach the motherboard power connector from the motherboard.



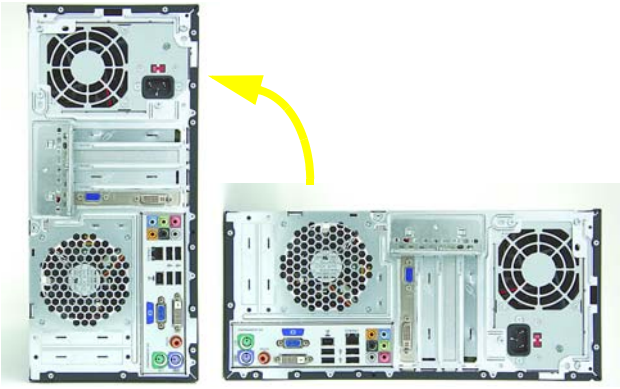
13 Some connectors may have latches that must be pressed to remove them.



14 Remove all other power connectors from the motherboard.

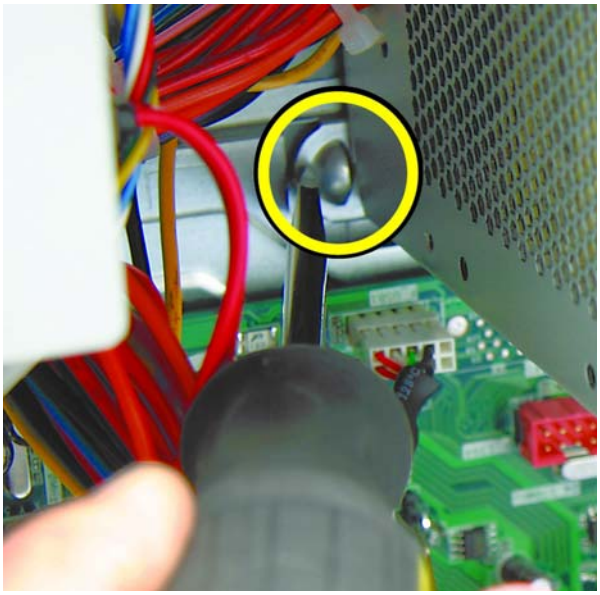


15 Set the computer upright.



16 Detach the four screws that connect the power supply to the computer.

17 Use a screwdriver to press the latch at the bottom of the power supply to release it.



18 Pull the power supply back and tilt it out of the computer.

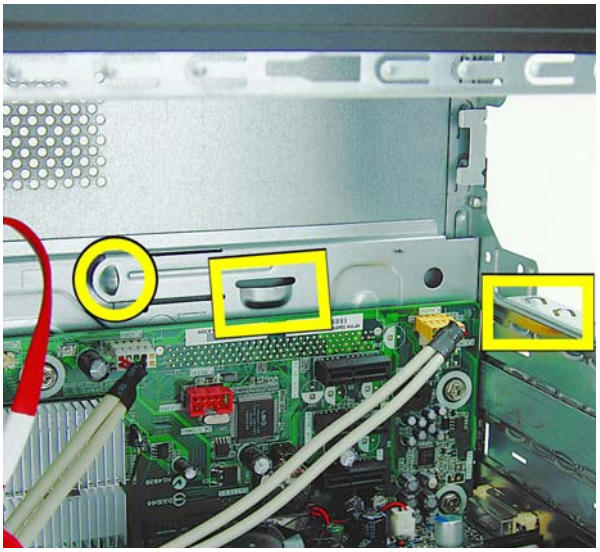
REMOVAL COMPLETED

Replacing a Power Supply

IMPORTANT: Always replace the entire power supply. Never attempt to work within the power supply unit.

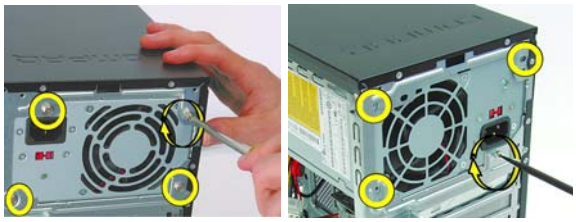
IMPORTANT: The new (replacement) part may not look the same as the original part, due to different manufacturers or models. Hewlett-Packard always provides quality parts that meet or exceed your original computer specification.

1 There is a latch, a guide, and a ledge on the computer that help secure the power supply in the computer.



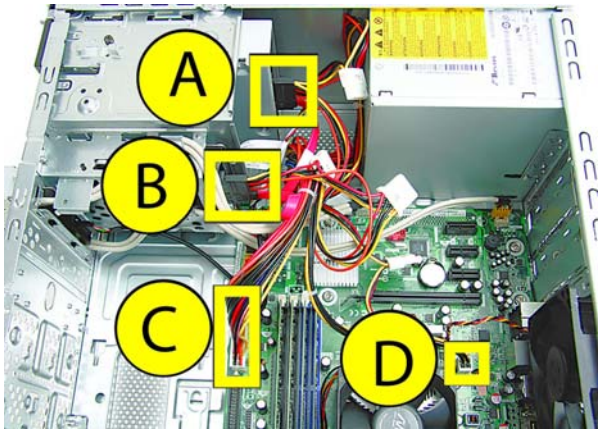
2 Make sure the replacement power supply is oriented the same way as the original power supply. Align it towards the guide and the ledge, then slide it back until it locks into place next to the latch.

3 Reattach the four screws on the rear of the computer.

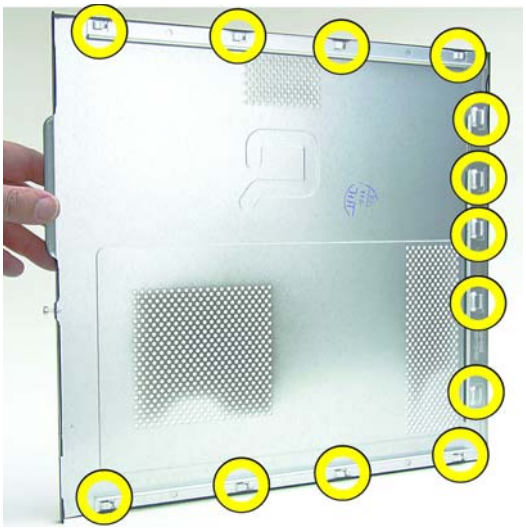


4 Reconnect all power connectors to system components and the motherboard:

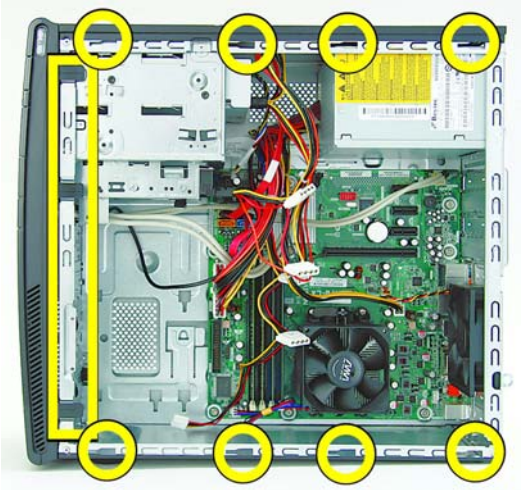
- Optical disc drive (**A**)
- Hard disk drive (**B**)
- Motherboard main power (**C**)
- Motherboard fan (**D**)



5 The side panel has several tabs on its top, bottom, and leading edges.



6 The tabs fit into slots and over the front lip of the computer.



7 To reattach the panel, align the tabs on the panel over the corresponding slots on the computer. Slide the side cover forward.

8 Reattach the screw at the back of the computer.

9 Connect all attached cables, such as the keyboard, mouse, Ethernet, and monitor cables.

10 Reconnect the power cord.

11 Turn on the computer and all peripherals, such as the monitor.

12 Verify the power supply operates correctly.

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