



UPGRADING AND SERVICING GUIDE



HPTouchSmart⁶¹⁰ PC

Computer features may vary by model.

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Removing and replacing a CD-DVD drive



HP TouchSmart⁶¹⁰ PC

Computer features may vary by model.

Before You Begin

Observe the following requirements before removing and replacing the CD/DVD drive.

IMPORTANT: A CD/DVD drive is extremely sensitive to shock impact. Do not bang or drop it.



WARNING:

- **Never open the cover with the power applied. You might damage your computer or be injured by the spinning fan blades.**
- **Avoid touching sharp edge inside the computer.**
- **Keep your hands away from the moving fan.**
- **Keep fingers and tools clear of the fan when the power is applied.**



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.

Tools Needed

- Flathead or Torx screwdriver #15
- Phillips screwdriver #1

Small screws are easily lost. Remove screws over a surface that allows you to retrieve them if they fall.

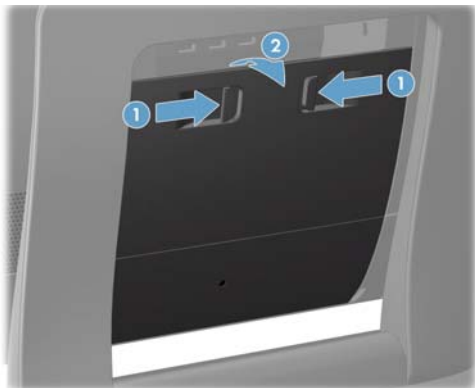
Removing and Replacing a CD/DVD Drive



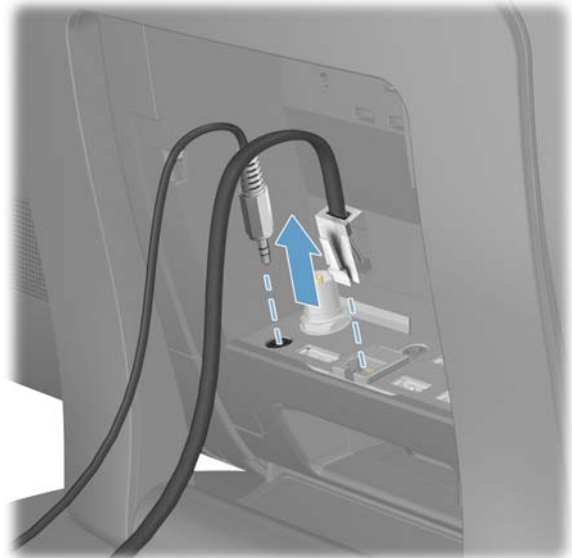
10 - 15 minutes

Removing the CD/DVD Drive

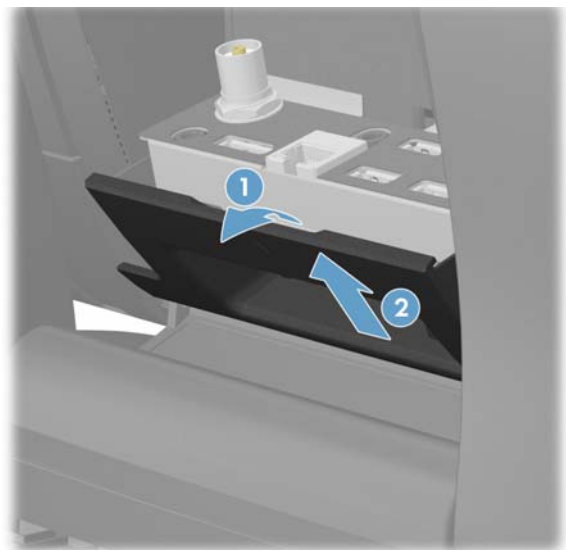
- 1 Remove items such as CDs, DVDs, and USB storage devices from the computer.
- 2 Close all open programs and shut down your operating system.
- 3 Open the rear port access door by squeezing the two tabs at the back of the computer (1) and then pulling the door open (2).



- 5 Unplug all attached cables from the back of the computer.



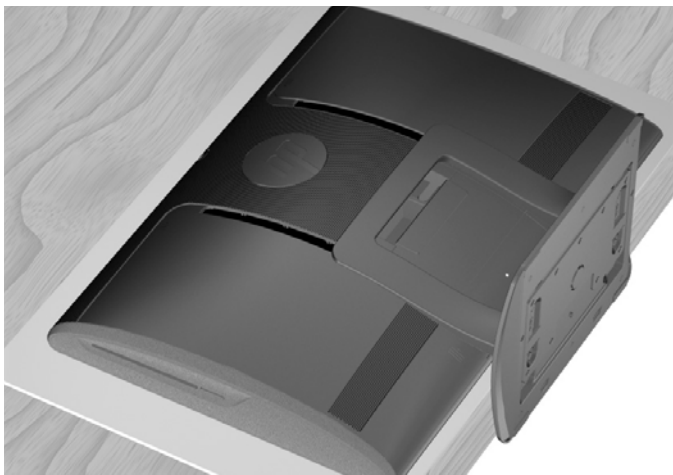
- 6 Remove the small center panel below the rear ports by pulling out the top of the panel (1) then lifting the panel off the computer (2).



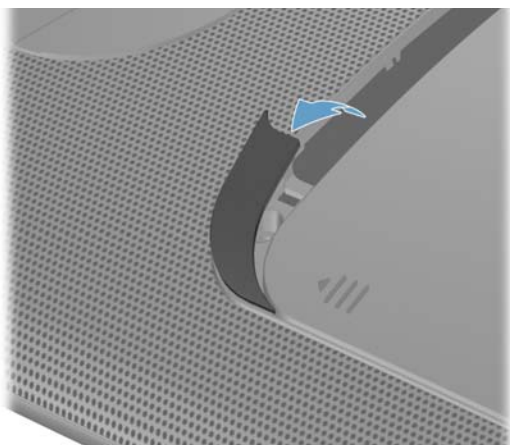
- 4 Unplug the computer by disconnecting the power cord from the back of the computer.



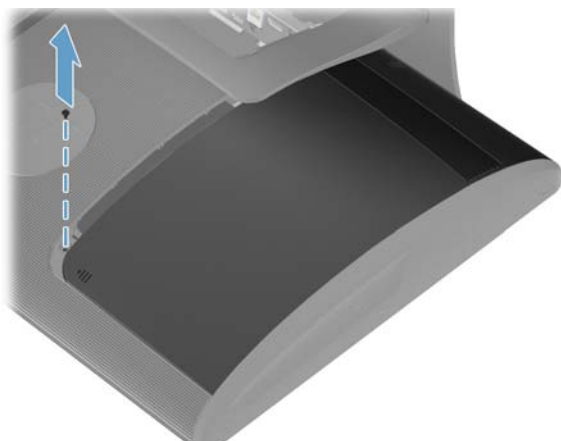
- 7** Lay the computer down on a flat surface, covered with a soft cloth to protect the screen from scratches or other damage. Make sure the stand extends beyond the edge of the flat surface.



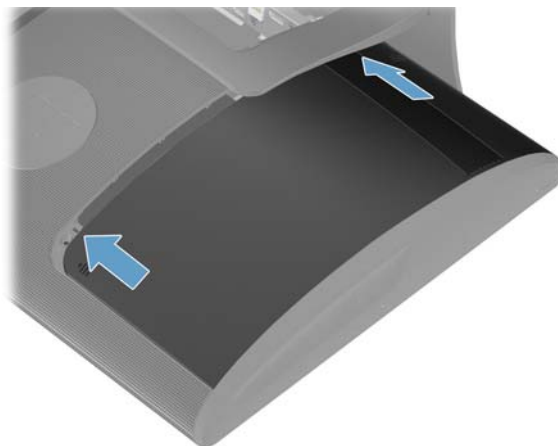
- 8** Remove the screw cover from the drive door by lifting it up and away from the computer.



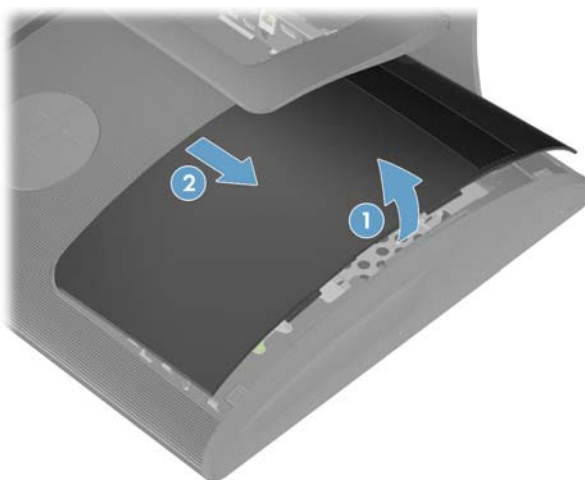
- 9** Remove the screw at the top of the drive door using a flathead or Torx screwdriver.



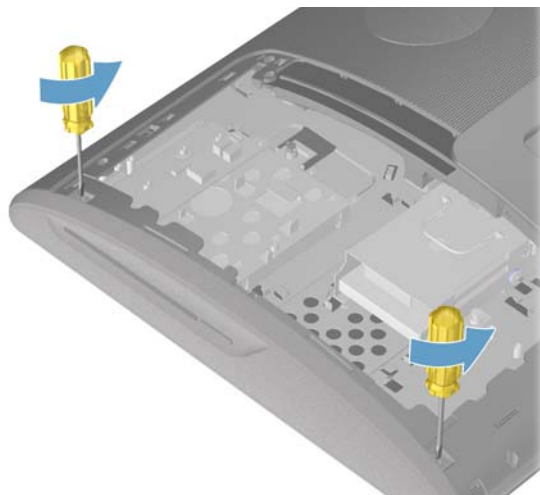
- 10** Slide the drive door toward the center of the computer until it stops (approximately 5 cm or 1/5 inch).



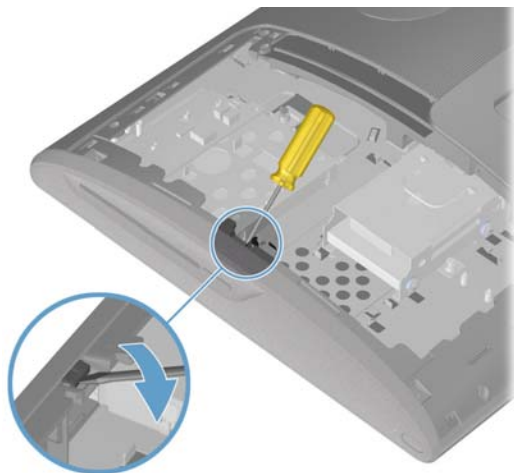
- 11** Lift (1) and remove (2) the drive door from the back of the computer.



- 12** Remove the two screws that secure the side panel to the computer.



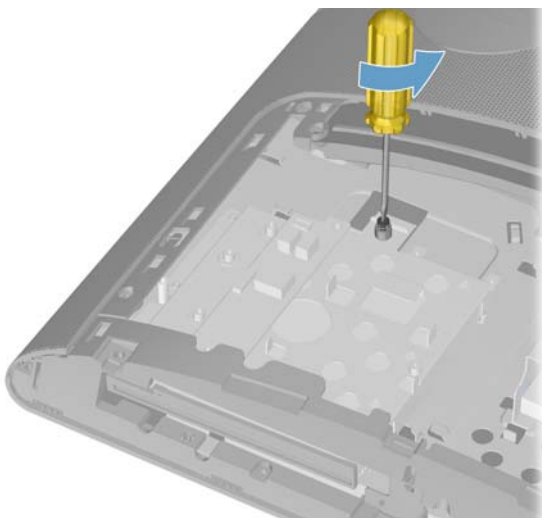
- 13** Insert a flathead screwdriver into the tab of the side panel to release it from the computer.



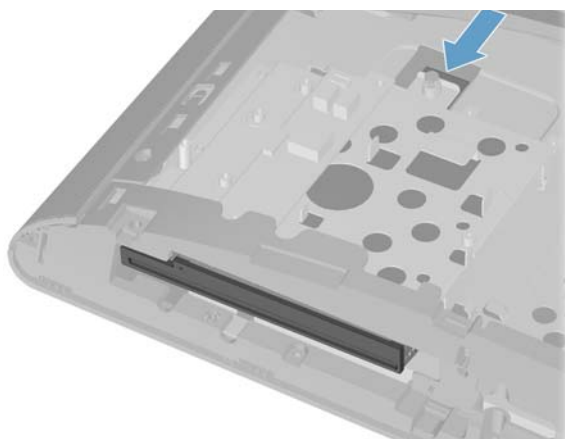
- 14** Remove the side panel from the computer.



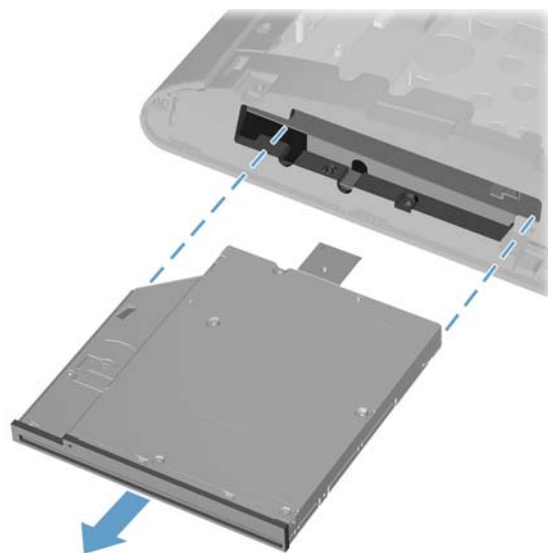
- 15** Loosen the captive screw on the top of the CD-DVD drive.



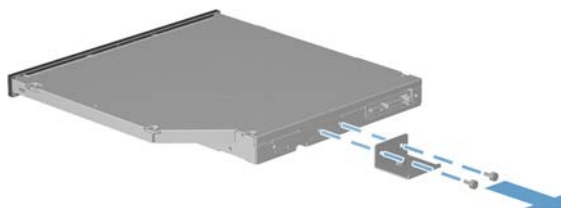
- 16** Push the CD-DVD drive out of the computer.



- 17** Remove the CD-DVD drive from the computer.



- 18** Remove the bracket on the back of the CD/DVD tray by removing the two screws with a Phillips screwdriver. Save the bracket and the two screws.

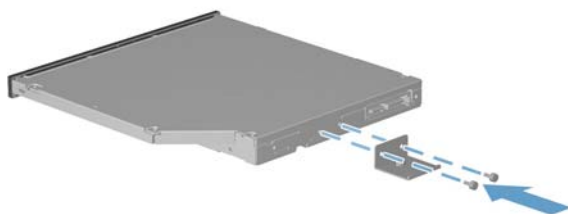


NOTE: Do not lose the CD/DVD bracket and screws. You will fasten the CD/DVD bracket to the new CD/DVD drive.

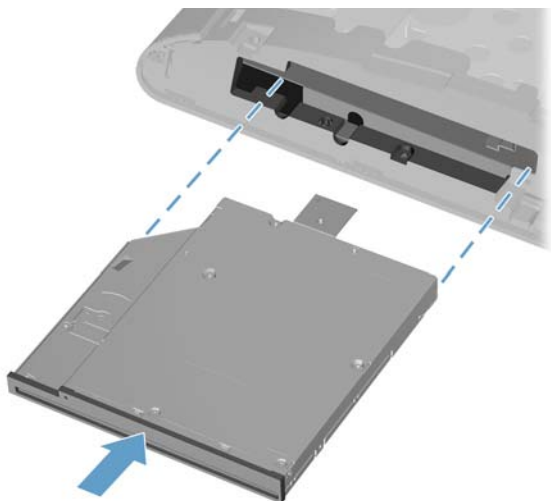
Installing a New CD/DVD Drive

NOTE: The replacement CD/DVD 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.

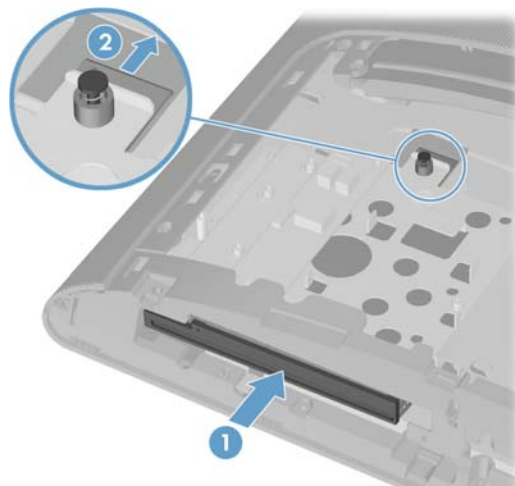
- 1 Install the screws that secure the bracket to the back of the CD/DVD drive with a Phillips screwdriver.



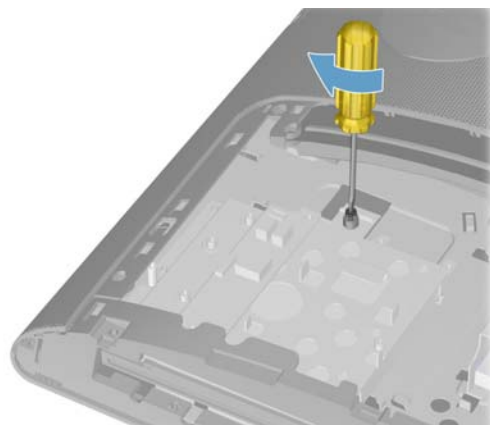
- 2 Insert the CD-DVD drive into the slot on the computer.



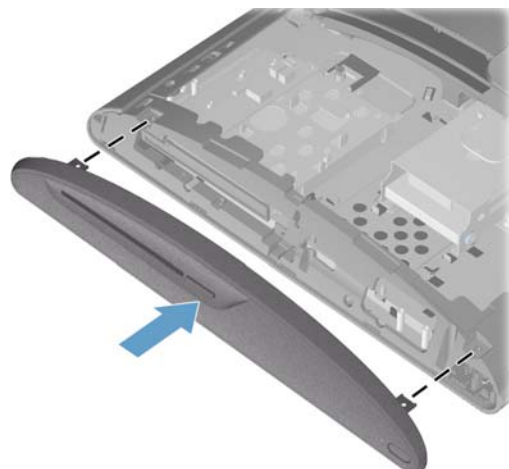
- 3 Push the CD-DVD drive (1) into the computer until the hole in the bracket aligns with the captive screw (2).



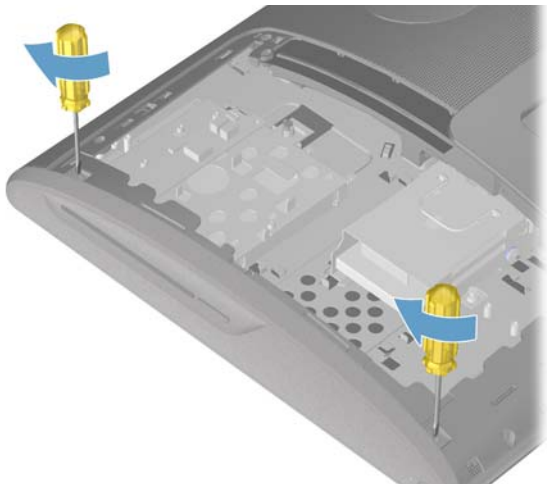
- 4 Tighten the captive screw on the top of the CD-DVD drive.



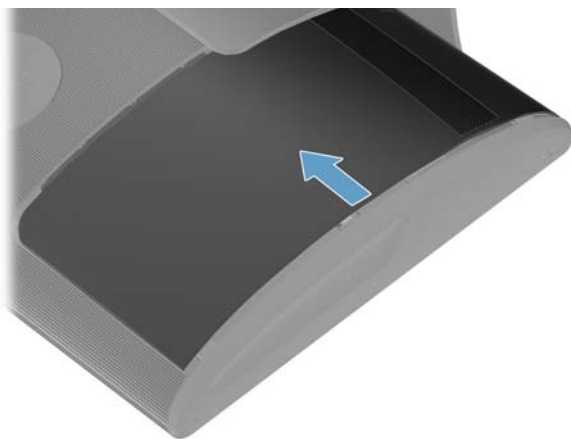
- 5 Reinstall the side panel on the side of the computer, aligning the screw holes on the panel with the screw holes on the computer. Press firmly on the center of the side panel until it snaps into place.



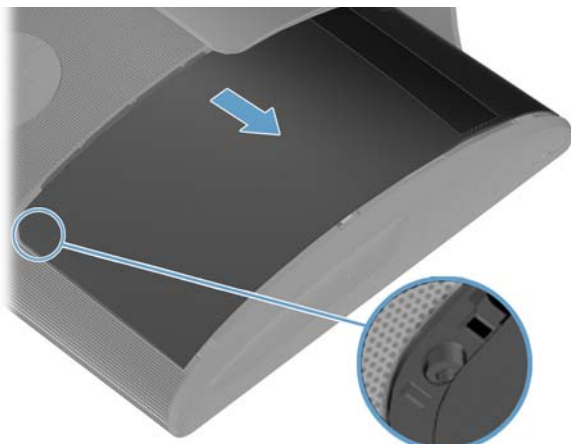
- 6** Install the two screws that secure the side panel to the computer.



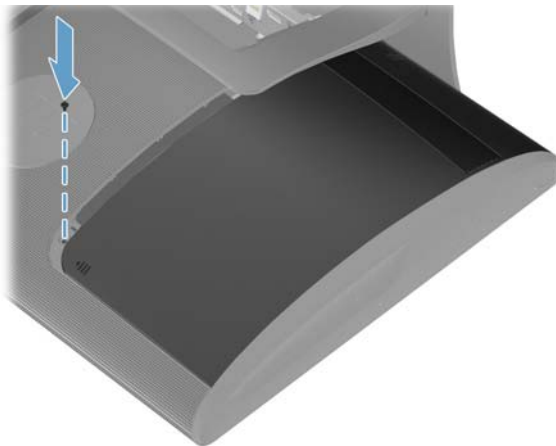
- 7** Reinstall the drive door by sliding it toward the center of the computer.



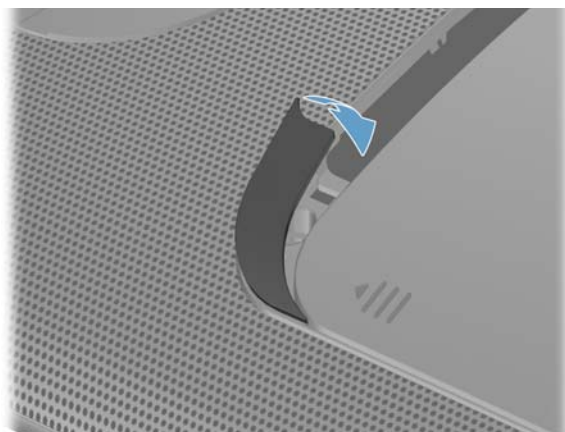
- 8** Slide the drive door to the edge of the computer making sure to align the screw hole in the drive door to the screw hole on the computer.



- 9** Install the screw securing the door to the back of the computer.



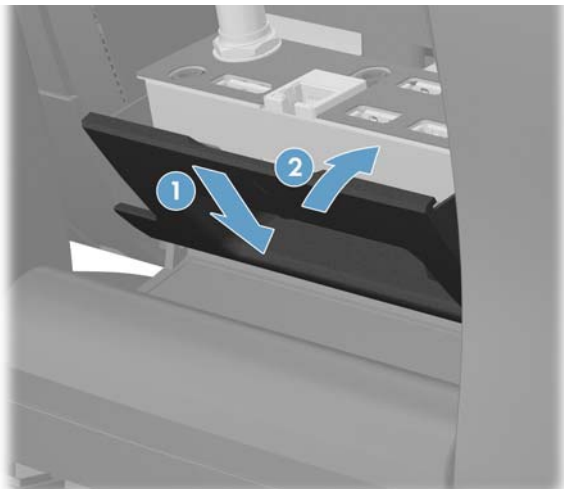
- 10** Press the top edge of the screw cover on to the drive door and then press down on the bottom edge of the screw cover until it snaps into place.



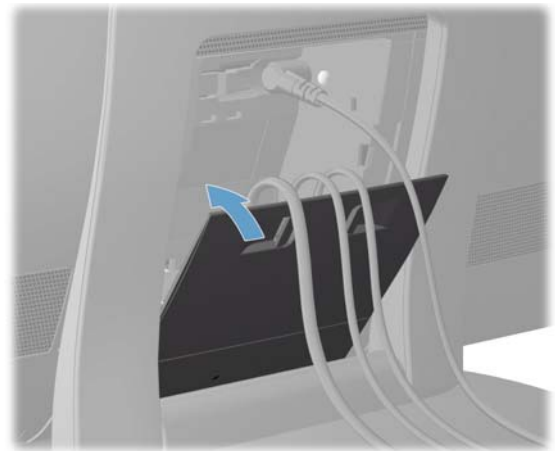
- 11** Place the computer in an upright position.



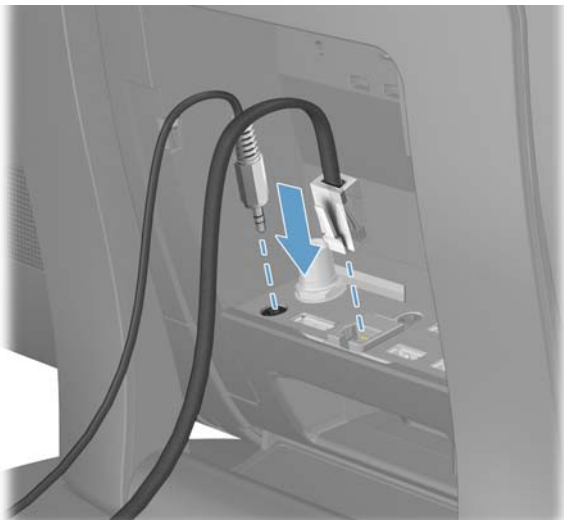
12 Replace the back cover on the computer.



15 Close the rear port access door at the back of the computer.



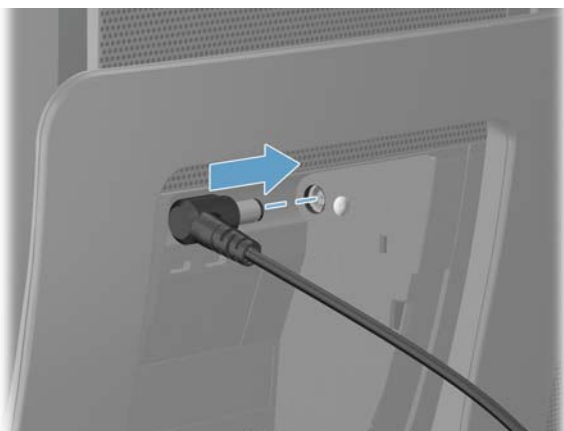
13 Reconnect all the cables at the back of the computer.



16 Press the power button to turn on the computer.



14 Plug the power cord into the back of the computer.



TASK COMPLETED



Removing and replacing a Hard Disk Drive



HP TouchSmart⁶¹⁰ PC

Computer features may vary by model.

Before You Begin

Observe the following requirements before removing and replacing the 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.



WARNING:

- **Never open the cover with the power applied. You might damage your computer or be injured by the spinning fan blades.**
 - **Avoid touching sharp edges inside the computer.**
 - **Keep your hands away from the moving fan.**
 - **Keep fingers and tools clear of the fan when the power is applied.**
-



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.

Tools Needed

- Flathead/Torx screwdriver #15

Small screws are easily lost. Remove screws over a surface that allows you to retrieve them if they fall.

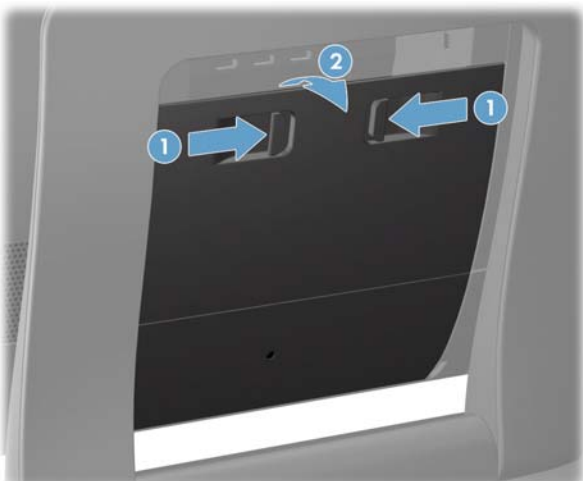
Removing and Replacing a Hard Disk Drive



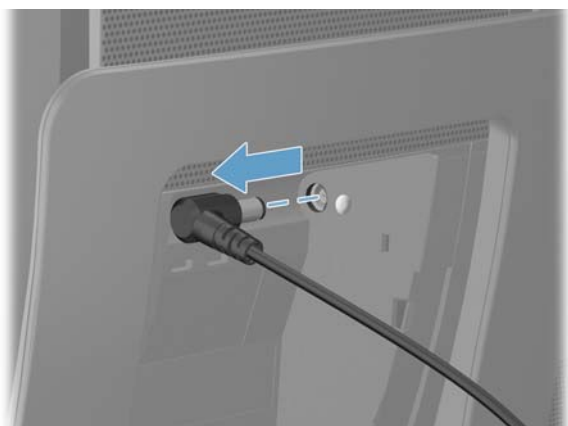
15-20 MINUTES

Removing the Hard Disk Drive

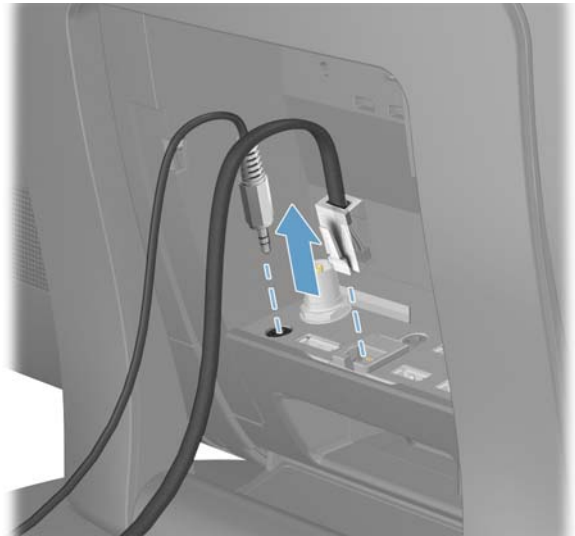
- 1 Remove items such as CDs, DVDs, and USB storage devices from the computer.
- 2 Close all open programs and shut down your operating system.
- 3 Open the rear port access door by squeezing the two tabs at the back of the computer (1) and then pulling the door open (2).



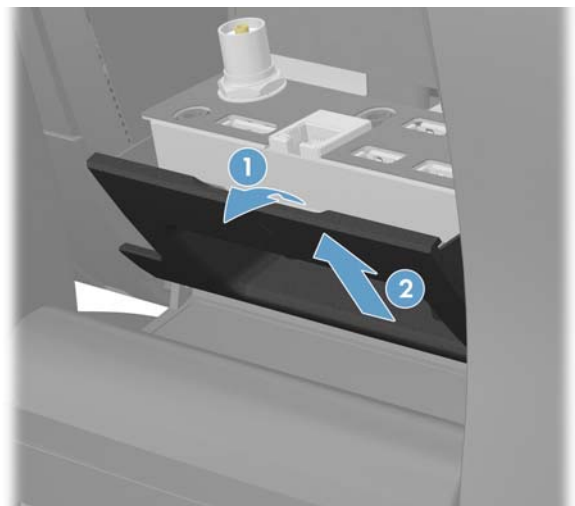
- 4 Unplug the computer by disconnecting the power cord from the back of the computer.



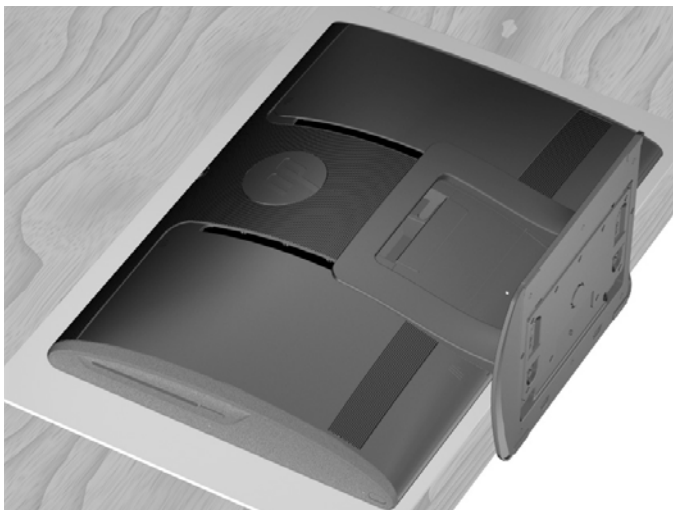
- 5 Unplug all attached cables from the back of the computer.



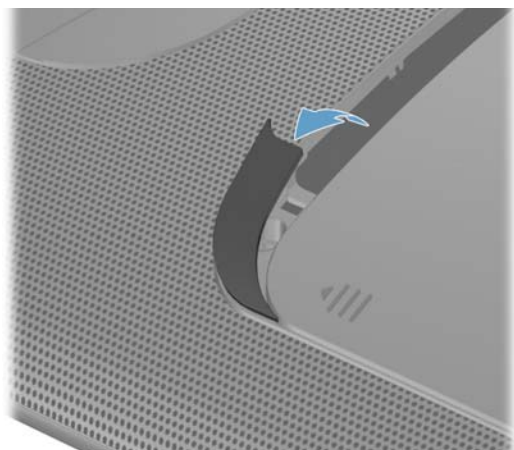
- 6 Remove the small center panel below the rear ports by pulling out the top of the panel (1) then lifting the panel off the computer (2).



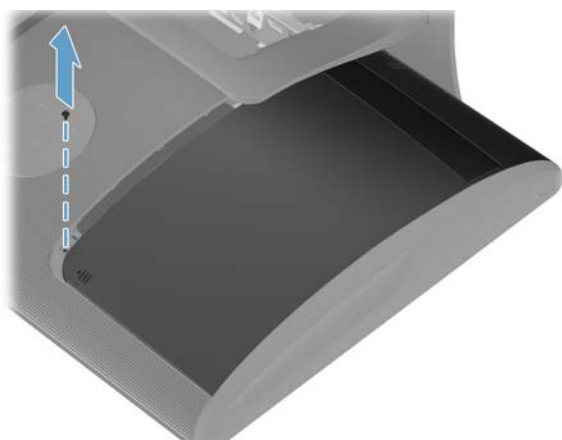
- 7** Lay the computer down on a flat surface, covered with a soft cloth to protect the screen from scratches or other damage. Make sure the stand extends beyond the edge of the flat surface.



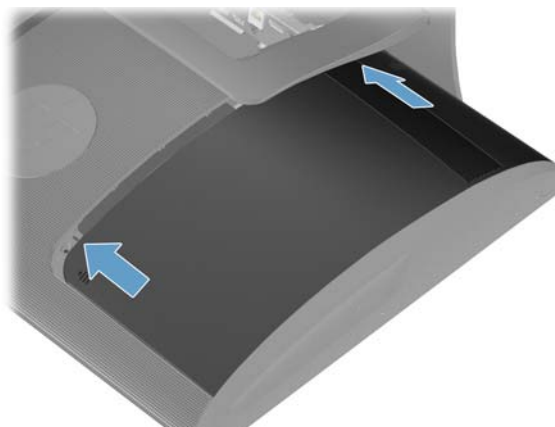
- 8** Remove the screw cover from the drive door by lifting it up and away from the computer.



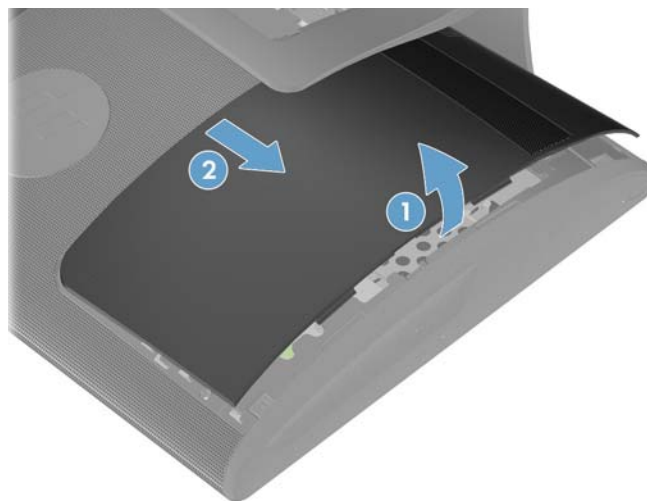
- 9** Remove the screw at the top of the drive door using a flathead or Torx screwdriver.



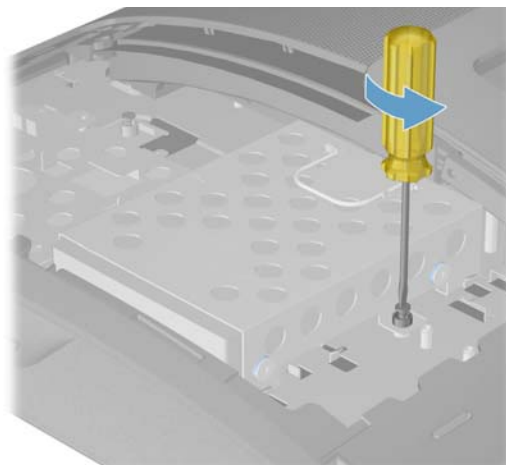
- 10** Slide the drive door toward the center of the computer until it stops (approximately 5 cm or 1/5 inch).



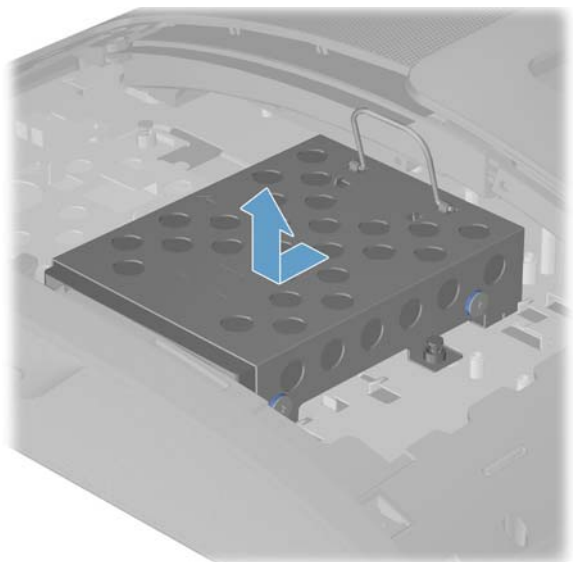
- 11** Lift (1) and remove (2) the drive door from the back of the computer.



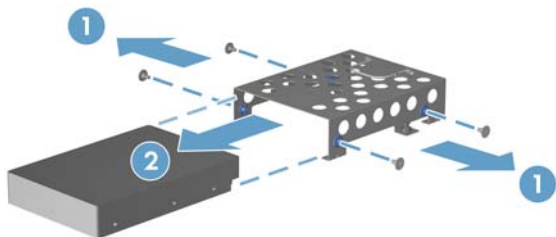
- 12** Loosen the captive screw on the side of the hard drive cage that secures the cage to the computer using a flathead or Torx screwdriver.



- 13** Grasp the handle on top of the hard drive cage and slide the cage toward the outer edge of the computer, then lift the cage out of the computer.



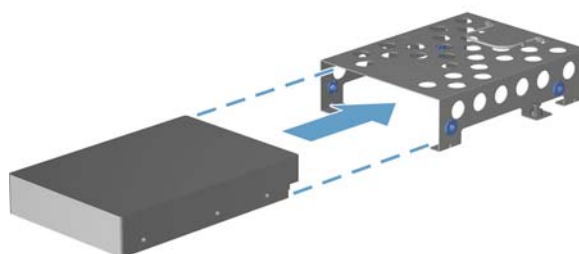
- 14** To remove the hard drive from the hard drive cage, remove the four screws on the sides of the cage that secure the drive to the cage (1), using a flathead or Torx screwdriver. Slide the drive out of the cage (2).



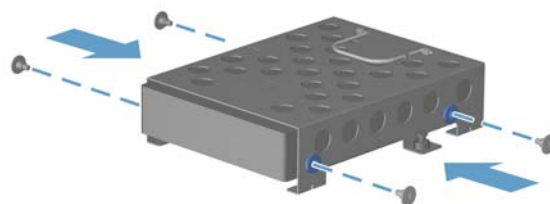
Installing a New Hard Disk Drive

NOTE: The replacement hard disk 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 new hard drive into the hard drive cage making sure that the connectors on the hard drive are on the same end of the cage as the handle.

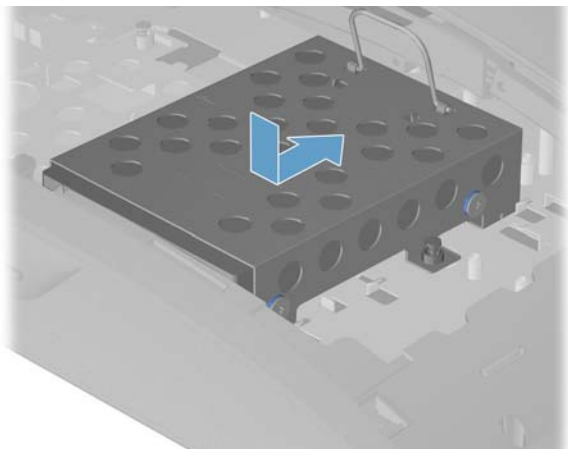


- 2** Install the four screws that secure the drive to the cage.

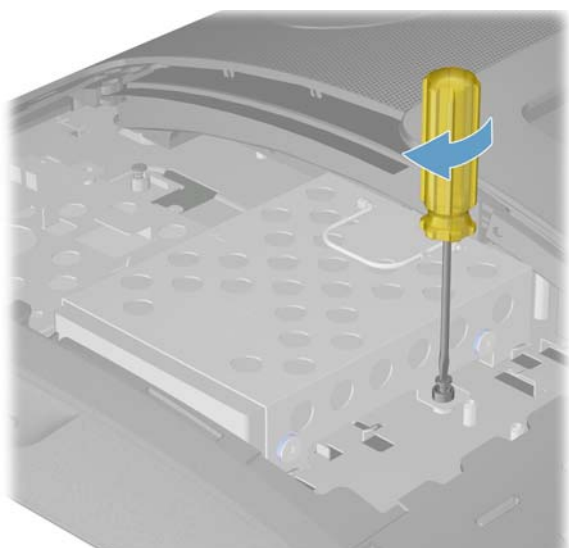


NOTE: The four screws that secure the hard disk drive to the hard-disk drive cage may have had rubber grommets. These grommets can fall off when you remove the hard drive from the hard-drive cage. Replacement grommets might be included with the new hard drive. If so, place a new grommet over each hole before fastening the screw.

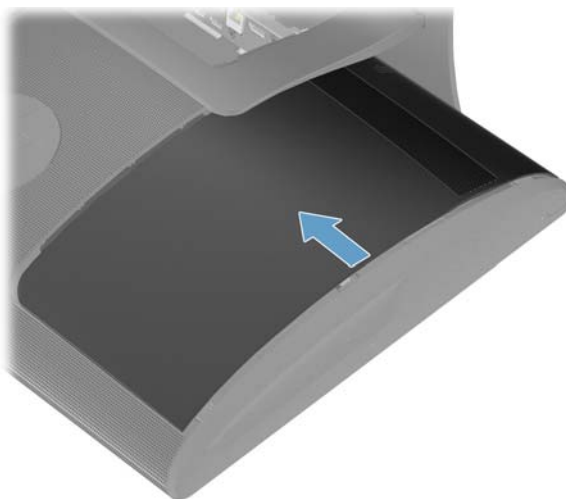
- 3** Set the hard drive cage down into the bay, aligning the tabs on the bottom of the cage with the tabs on the chassis. Slide the drive back toward the center of the computer until it stops, ensuring that the connector on the end of the drive is properly seated.



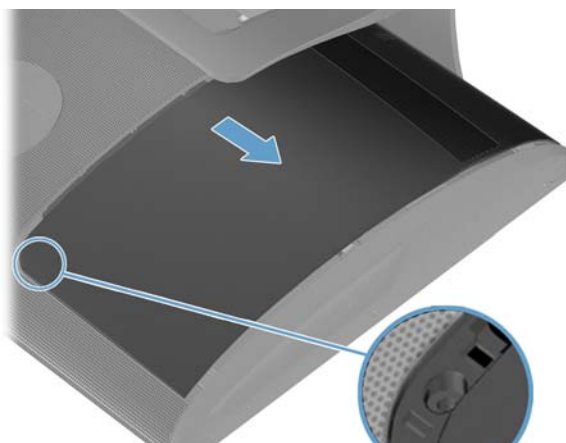
- 4** Tighten the captive screw with a flathead or Torx screwdriver, to secure the hard drive cage in place.



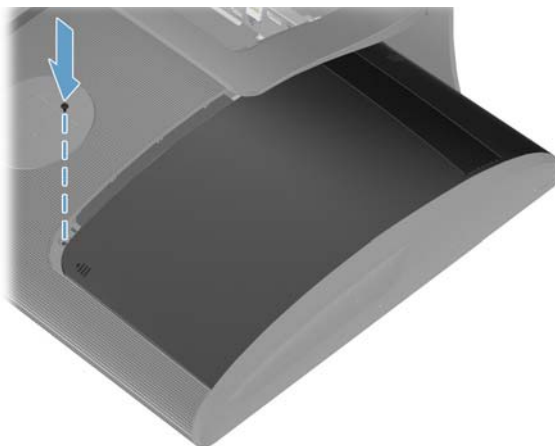
- 5** Reinstall the drive door by sliding it toward the center of the computer.



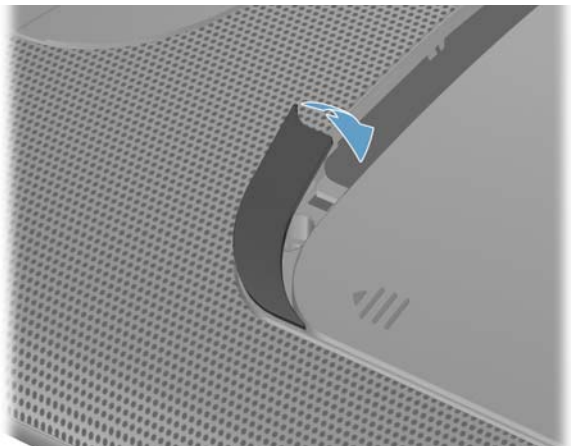
- 6** Slide the drive door to the edge of the computer making sure to align the screw hole in the drive door to the screw hole on the computer.



- 7** Install the screw securing the door to the back of the computer.



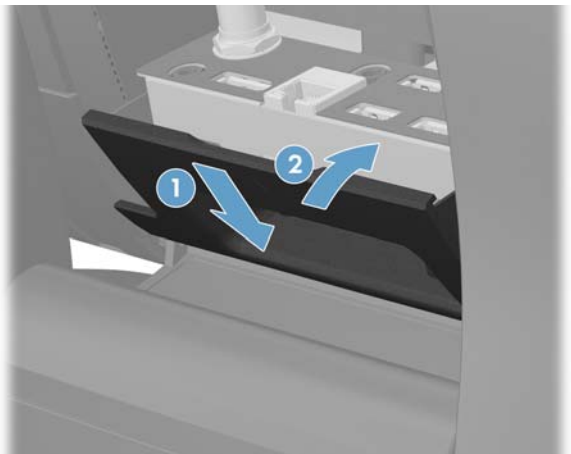
- 8** Press the top edge of the screw cover on to the drive door and then press down on the bottom edge of the screw cover until it snaps into place.



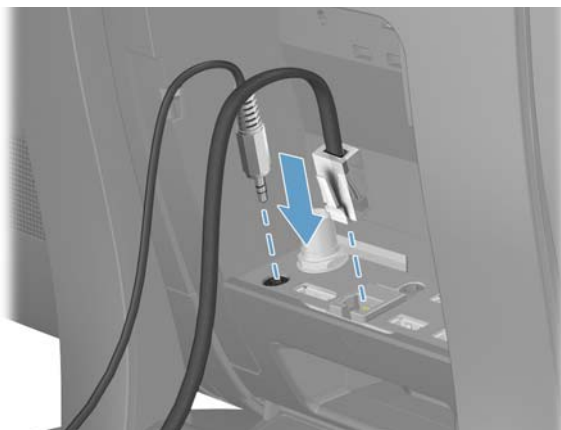
- 9** Place the computer in an upright position.



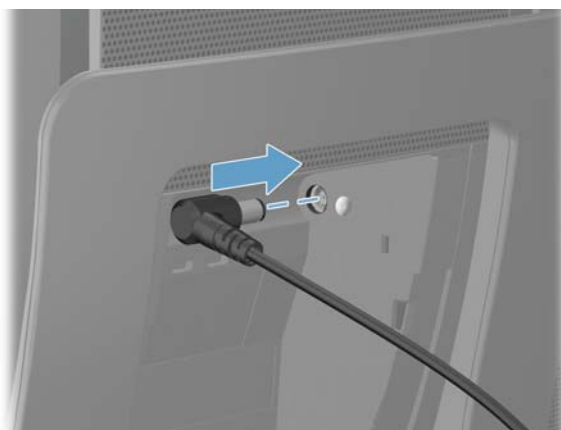
- 10** Replace the back cover on the computer.



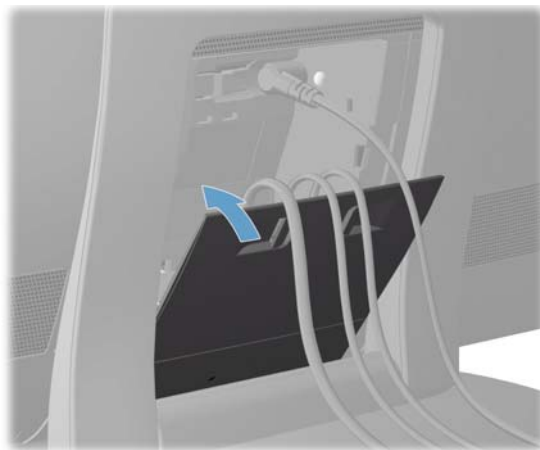
- 11** Reconnect all the cables at the back of the computer.



- 12** Plug the power cord into the back of the computer.



- 13** Close the rear port access door at the back of the computer.



14 Press the power button to turn on the computer.



NOTE: If your hard disk drive was shipped without an operating system installed, you will need to reinstall it using the system recovery discs.

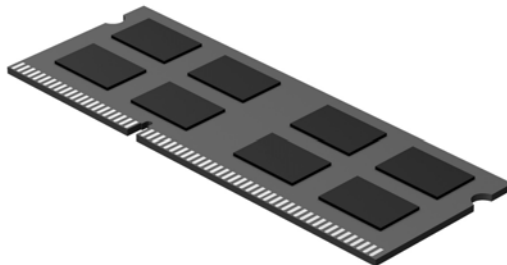
To install the operating system, refer to the instructions included with your system recovery discs, or available from the HP support site (www.hp.com/support).

After the operating system has been installed, you will need to reinstall any applications and restore any data you backed up.





Upgrading or replacing Memory



HP TouchSmart⁶¹⁰ PC

Computer features may vary by model.

Before You Begin

Observe the following requirements before removing and replacing memory.

IMPORTANT: A memory card is extremely sensitive to shock impact. Do not bang or drop it. Static electricity can damage the card.



WARNING:

- **Keep your hands away from the moving fan.**
 - **Keep fingers and tools clear of the fan when the power is applied.**
 - **Never open the cover with the power applied. You might damage your computer or be injured by the spinning fan blades.**
 - **Avoid touching sharp edges inside the computer.**
-



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.

Tools Needed

- Flathead or Torx screwdriver #15

Small screws are easily lost. Remove screws over a surface that allows you to retrieve them if they fall.

Memory Compatibility

Verify that the memory installed is compatible with this computer. SO-DIMMs are small outline dual inline memory modules. They are smaller and thinner than most other DIMMs, so that they take less space in the case.

SO-DIMM modules must meet the following requirements:

- 204-pin DDR3-DIMM
- PC3-10600 (1333 MHz) DDR3-SDRAM
- Unbuffered, non-ECC (64-bit) DIMMs
- 1.5 V memory only
- 16.0 GB maximum installable memory using 4GB Modules. Actual available memory that can be used in Windows will be less.

Because the memory uses dual channels, you should use the same DIMM type for both sockets.

NOTE: The actual memory transfer speed can vary based on the CPU used in your computer.

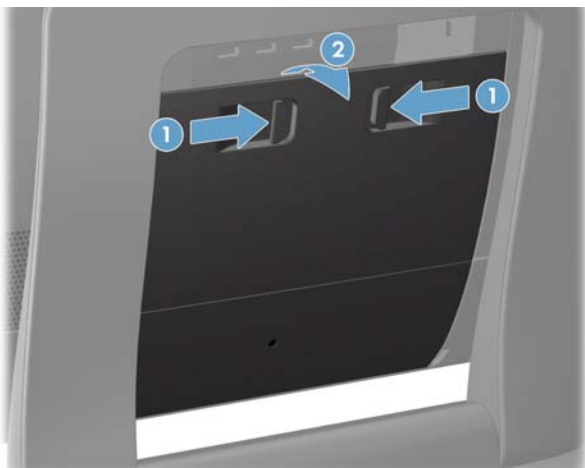
Upgrading or Replacing Memory



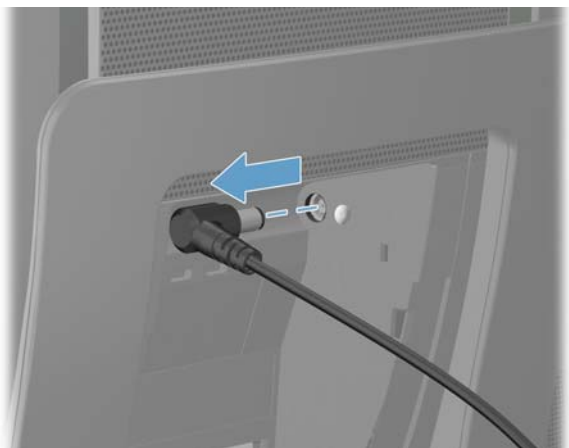
10 - 15 minutes

Removing the Memory

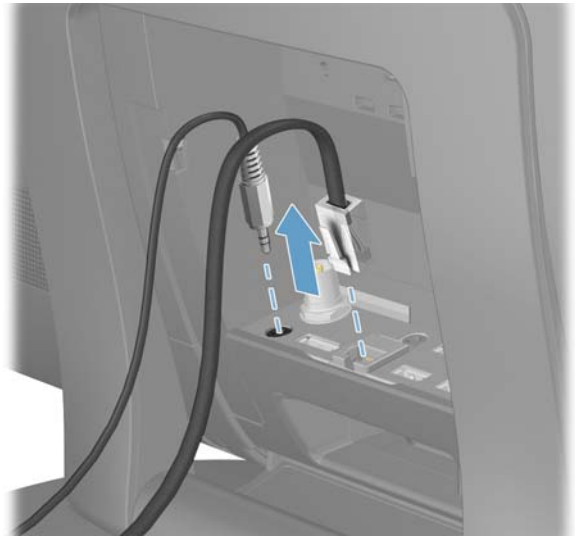
- 1 Remove items such as CDs, DVDs, and USB storage devices from the computer.
- 2 Close all open programs and shut down your operating system.
- 3 Open the rear port access door by squeezing the two tabs on the at the back of the computer (1) and then pulling the door open (2).



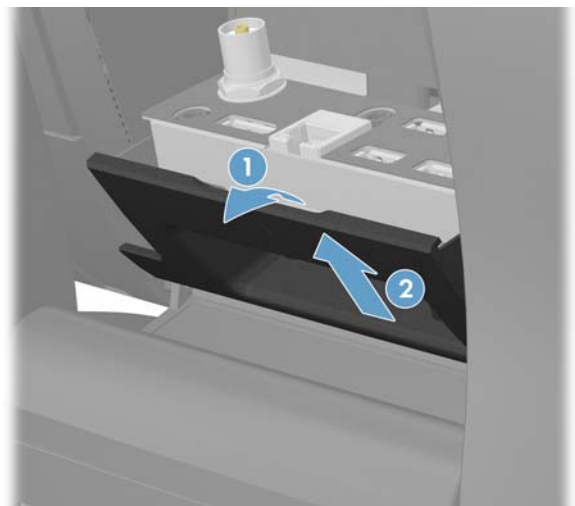
- 4 Unplug the computer by disconnecting the power cord from the back of the computer.



- 5 Unplug all attached cables from the back of the computer.



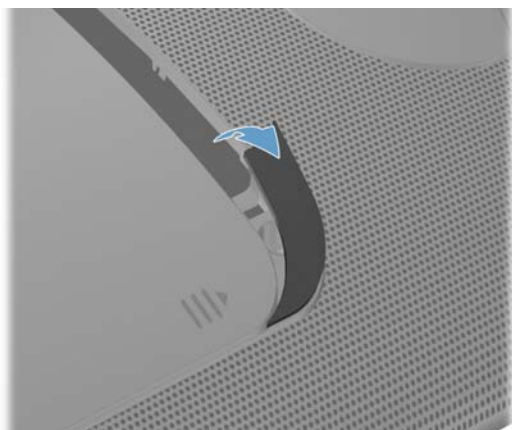
- 6 Remove the small center panel below the rear ports by pulling out the top of the panel (1) then lifting the panel off the computer (2).



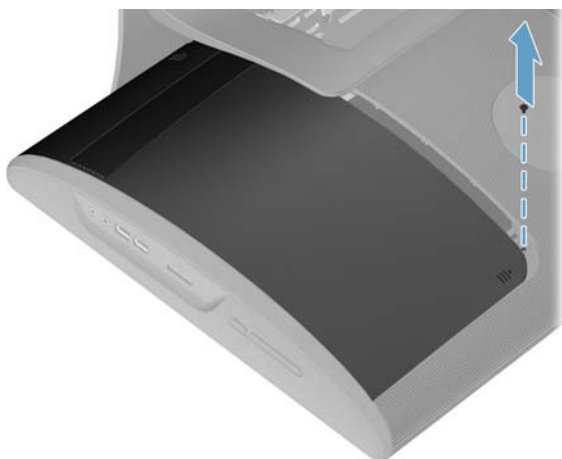
- 7** Lay the computer down on a flat surface, covered with a soft cloth to protect the screen from scratches or other damage. Make sure the stand extends beyond the edge of the flat surface.



- 8** Remove the screw cover from the memory access panel by lifting it up and away from the computer.



- 9** Remove the screw at the top of the memory access panel using a flathead or Torx screwdriver.



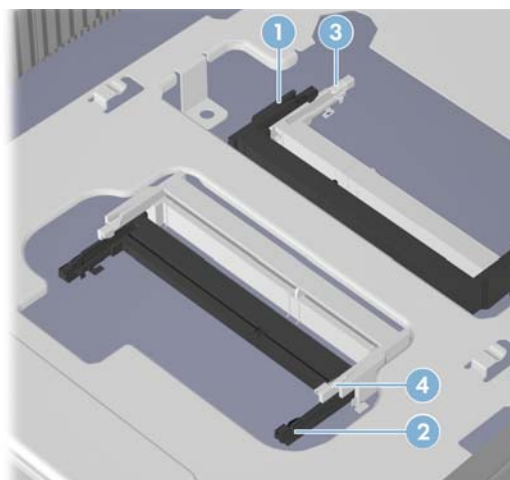
- 10** Slide the memory access panel toward the center of the computer until it stops (approximately 5 cm or 1/5 inch).



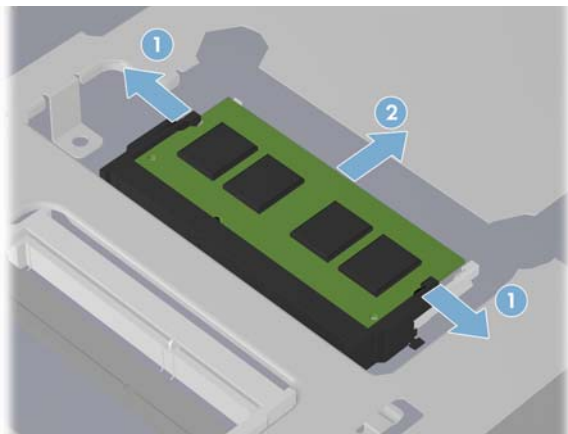
- 11** Lift up the outside edge of the panel approximately 2.5 cm (1 inch) (1) and slide the panel toward the outside edge of the computer (2) to remove it.



IMPORTANT: If you are removing both cards on one side, you must remove the upper one before removing the lower one. Remove 1 before 3. Remove 4 before 2.



- 12** Use your fingers to press outwards on the retaining clips at the left and right sides of the top memory card (1) to release it. Holding the memory card by its edges, remove it from the compartment (2).



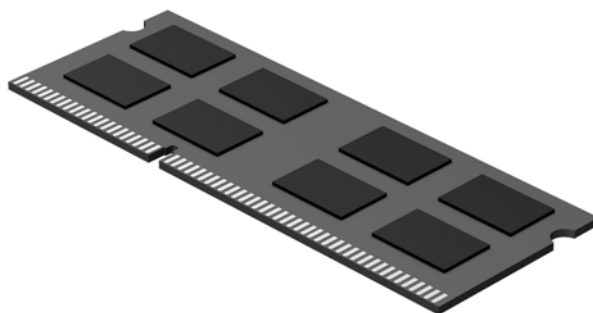
- 13** If you need to remove additional memory cards, repeat step 12.

Installing a New Memory Card

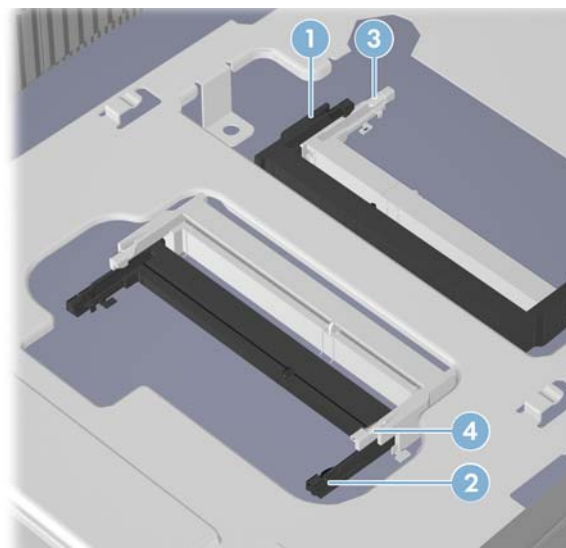
NOTE: The replacement memory card may not look exactly the same as the original drive due to different manufacturers or models. Hewlett-Packard always provides quality parts that meet or exceed your original computer specifications.

IMPORTANT: If you are replacing more than one card, you must replace cards into the two black slots first and then into the two white slots.

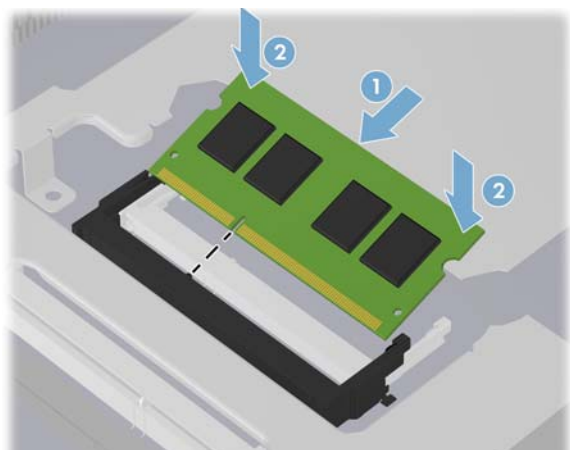
- 1** Orient the new memory card so that the notch on the edge of the card faces forward and is on the right.



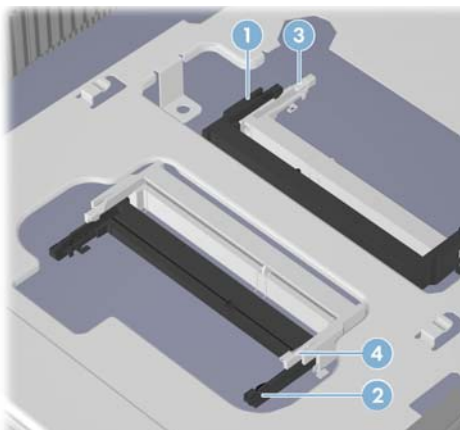
- 2** If using two memory cards, they will go into the black slots in the order shown. The first memory card goes into a black slot (1), the second memory card goes into a black slot (2).



- 3** Holding the card by its edges, slide it all the way into the slot (1). Make sure the card is pressed all the way into the socket and then gently push down on the card to snap it into place (2).



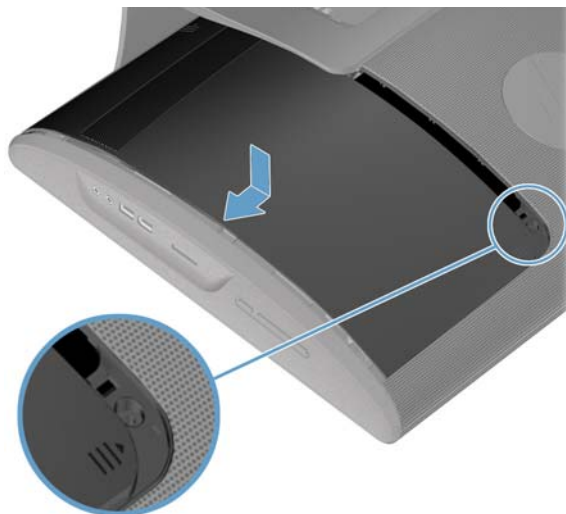
- 4** If you are replacing more than one memory card, repeat step 3 with each card.



- 5** Reinstall the memory access panel by sliding it in toward the center of the computer.



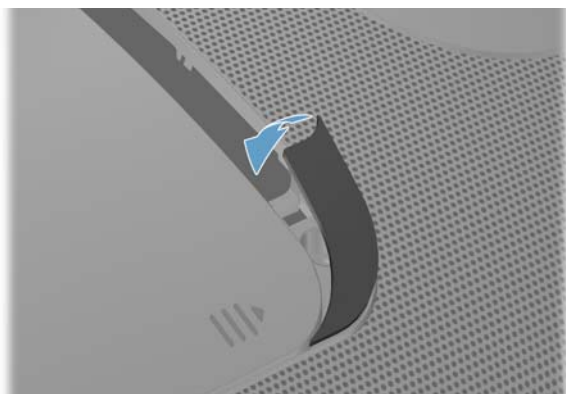
- 6** Slide the memory access panel toward the edge of the computer, so that the screw hole on the panel aligns with the screw hole on the computer.



- 7** Install the screw securing the memory access panel to the back of the computer.



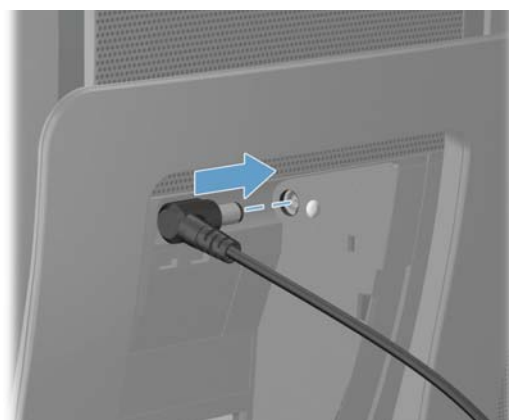
- 8** Press the top edge of the screw cover on to the memory access panel and then press down on the bottom edge of the screw cover until it snaps into place.



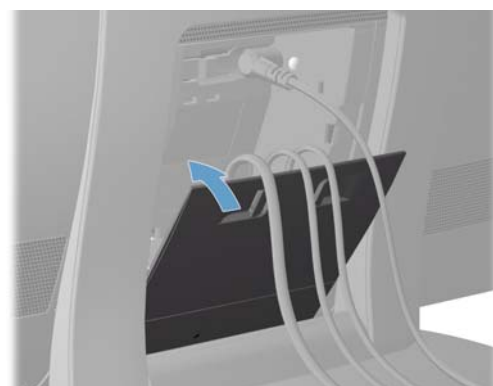
9 Place the computer in an upright position.



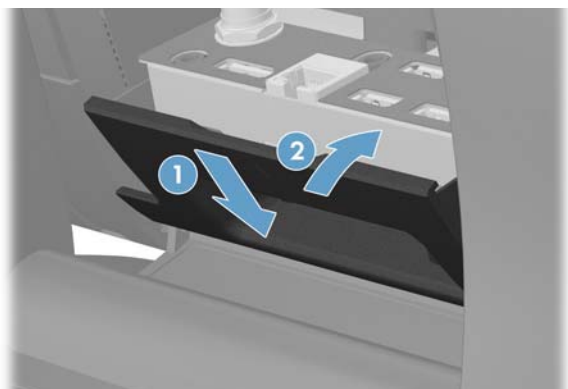
12 Plug the power cord into the back of the computer.



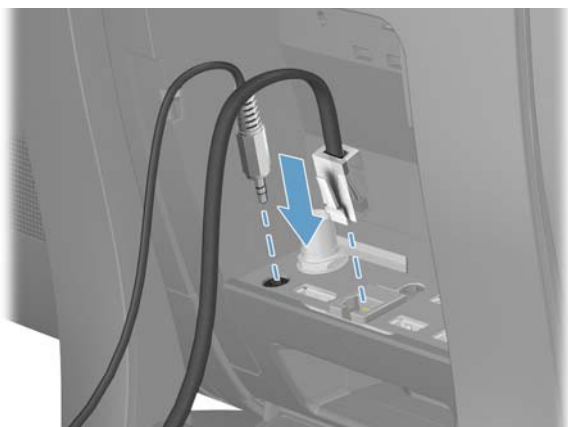
13 Close the rear port access door at the back of the computer.



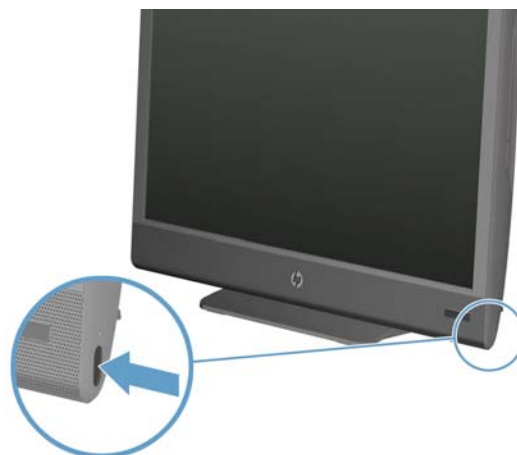
10 Replace the back cover on the computer.



11 Reconnect all the cables at the back of the computer.



14 Press the power button to turn on the computer.



TASK COMPLETED

Troubleshooting

If the computer displays a memory error after you have turned it back on, turn the computer off and unplug the power cord, then open up the memory compartment and make sure the memory card is firmly seated. To install it correctly, make sure it inserted all the way into the compartment and then push down on it to snap it into place.