



HP TOUCHSMART

Upgrading and Servicing Guide



Copyright Information

The only warranties for Hewlett-Packard products and services are set forth in the express statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

HP assumes no responsibility for the use or reliability of its software on equipment that is not furnished by HP.

This document contains proprietary information that is protected by copyright. No part of this document may be photocopied, reproduced, or translated to another language without the prior written consent of HP.

Hewlett-Packard Company
P.O. Box 4010
Cupertino, CA 95015-4010
USA

Copyright © 2008 Hewlett-Packard Development Company, L.P.

May be licensed in the United States by one or both of U.S. Patents Nos. 4,930,158 and 4,930,160 until August 28, 2008.

Microsoft and Windows are U.S. registered trademarks of Microsoft Corporation. The Windows Vista is either a registered trademark or trademark of Microsoft Corporation in the United States and/or other countries/regions.

HP supports lawful use of technology and does not endorse or encourage the use of our products for purposes other than those permitted by copyright law. The information in this document is subject to change without notice.

Table of Contents

Safety Information	1
Before You Begin	1
Locating Components of the HP TouchSmart PC	2
Opening the HP TouchSmart PC.....	3
Adding Memory.....	7
Before you begin.....	7
Removing a memory module.....	8
Installing a memory module	10
Removing and Installing the Hard Disk Drive.....	12
Removing the hard disk drive.....	12
Installing a hard disk drive	18
Closing the HP TouchSmart PC.....	23

Upgrading and Servicing Guide

This guide provides instructions for upgrading the memory and the hard disk drive in your HP TouchSmart PC.



Safety Information

This product has not been evaluated for connection to an "IT" power system (an AC distribution system with no direct connection to the earth, according to IEC 60950).



WARNING: Please read "Additional Safety Information" in the *Limited Warranty, Support, and System Recovery Guide* before installing and connecting your system to the electrical power system.



WARNING: Avoid touching sharp edges inside the computer.

Before You Begin

Before you decide to upgrade or service the computer, refer to the product specifications for system upgradability information. Go to <http://www.hp.com/support> for product information.

Read the following items before attempting to upgrade or service the HP TouchSmart PC.

- These procedures assume familiarity with the general terminology associated with personal computers, and with the safety practices and regulatory compliance required for using and modifying electronic equipment.
- Write down and save the computer model and serial numbers, all installed options, and other information about the computer. It is easier to consult this information than to open and examine the computer.

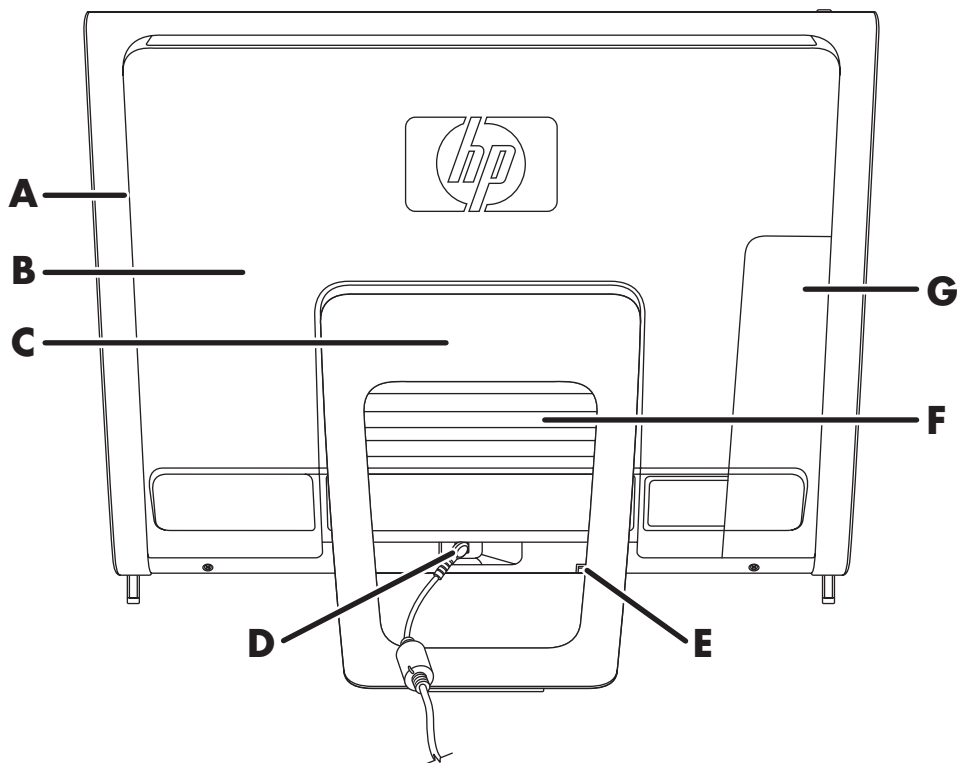
- It is recommended that you use an antistatic wrist strap and stand on a conductive foam pad when working on the computer.
- Hewlett-Packard recommends that you use a magnetic-tipped screwdriver when opening and closing the HP TouchSmart PC, to make it easier to remove and install the screws.



WARNING: Always disconnect the HP TouchSmart PC from the power source before removing the memory cover or the back cover. Failure to do so before you open the HP TouchSmart PC or perform any procedures can result in personal injury or equipment damage.

Locating Components of the HP TouchSmart PC

Refer to the following illustration to locate components of the HP TouchSmart PC.



A: Optical disc drive cover

B: Back cover

C: Computer stand

D: Power adapter connector

E: Wireless keyboard and mouse receiver

F: Memory cover

G: Connector cover

Opening the HP TouchSmart PC

To avoid injury and equipment damage, always complete the following steps in order, when opening the HP TouchSmart PC:

- 1 Remove any media (CD, DVD, memory cards, USB devices, and external hard disk drives) from the HP TouchSmart PC.
- 2 Disconnect any external devices that are connected to the computer.



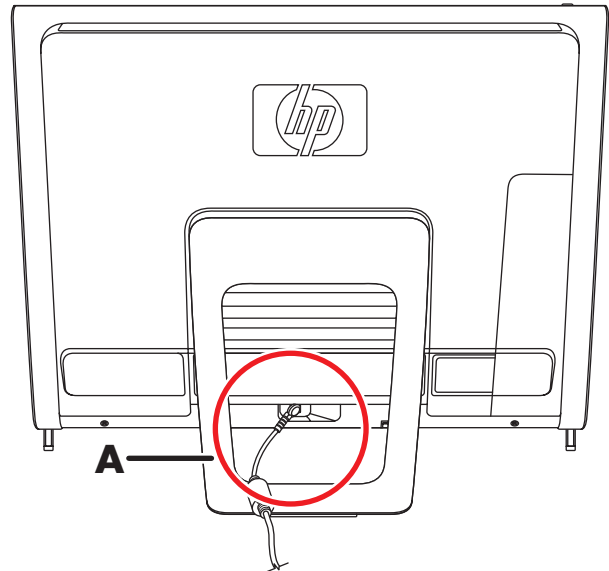
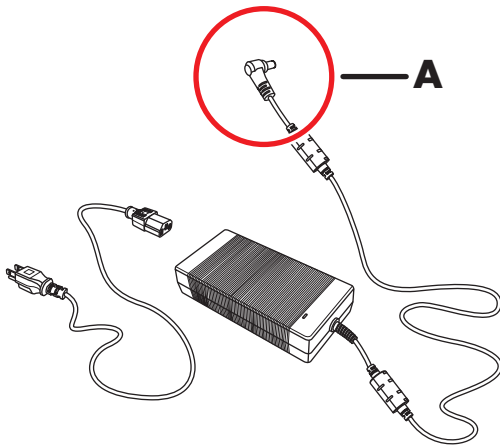
CAUTION: Static electricity can damage the electronic components of the HP TouchSmart PC or optional equipment. Ensure that you are discharged of static electricity by briefly touching a grounded metal object.

- 3 Tap the **Windows Vista start button**  , and then tap **Shut Down**.

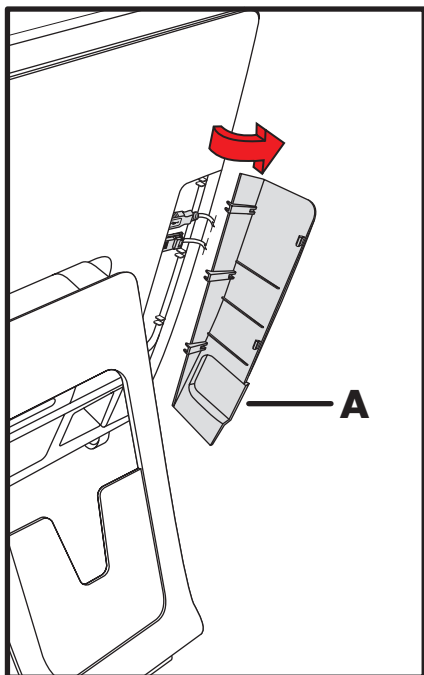


WARNING: To reduce the risk of personal injury from electrical shock or hot surfaces, disconnect the power cord from the wall outlet, and allow the internal system components to cool before touching them.

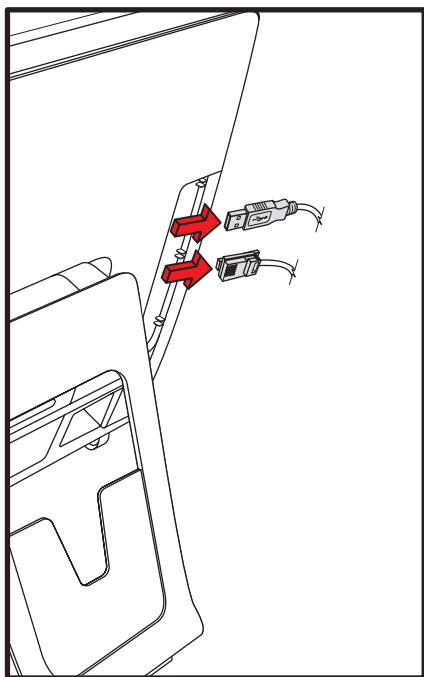
- 4 After the system has completely shut down, disconnect the power adapter (**A**) from the back of the HP TouchSmart PC.



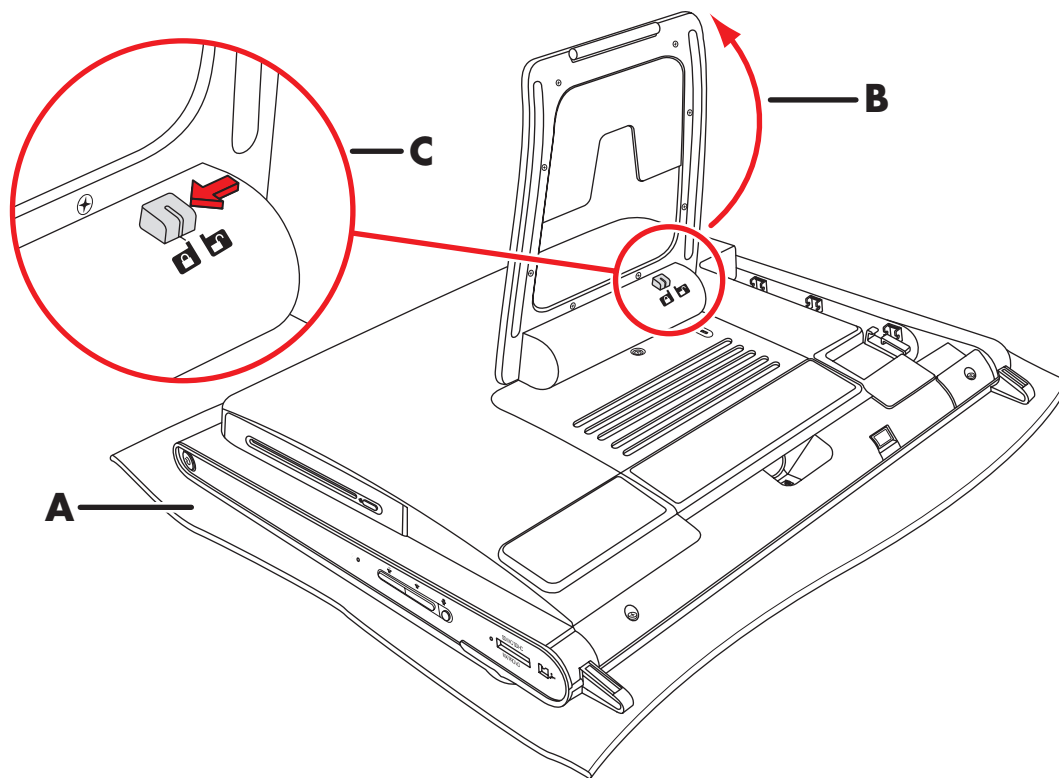
- 5 Remove the connector cover by inserting your finger under the gap on the bottom-left side of the cover (**A**), and then pulling gently.



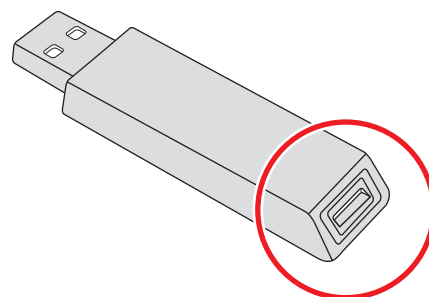
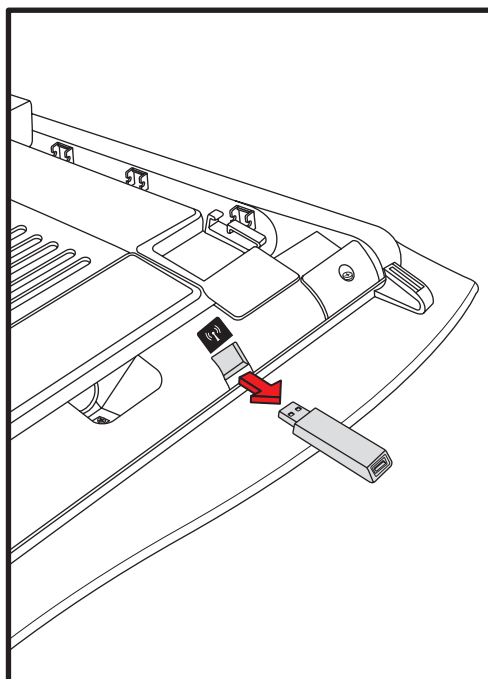
- 6 Disconnect all other attached cables from the back of the HP TouchSmart PC.



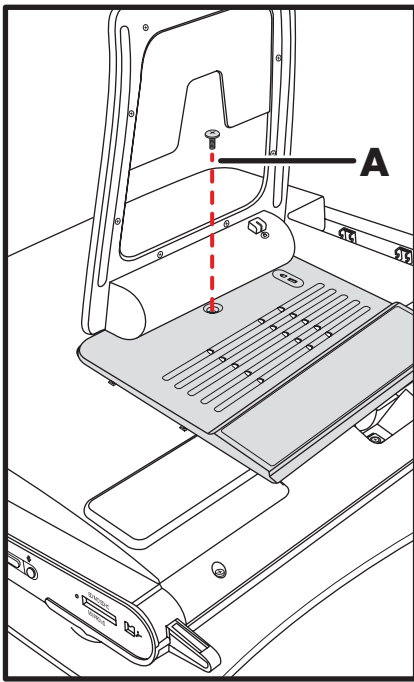
- 7 Place the computer face-down on a soft flat surface. HP recommends that you set down a blanket, towel, or other soft cloth **(A)** to protect the touch screen surface from scratches or other damage.
- 8 Apply additional pressure to lift the computer stand as far as it will go to an upright position, about 90 degrees **(B)** from the computer, and then move the latch to the left until it is in the locked position **(C)**.



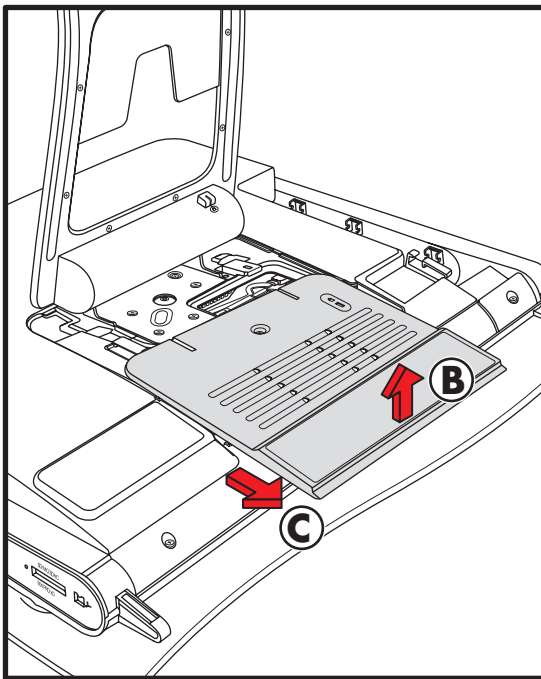
- 9 Using the notch on the wireless keyboard and mouse receiver, pull the receiver out of and away from the back of the computer.



10 Remove the screw **(A)** that secures the memory cover to the back of the computer.



11 Pull up the memory cover slightly on the bottom edge to release it **(B)**, then, gently slide the cover down toward the bottom of the computer **(C)**, and then remove it.



WARNING: Beware of sharp edges inside the chassis.

To upgrade your hard disk drive, see "Removing and Installing the Hard Disk Drive" on page 12.

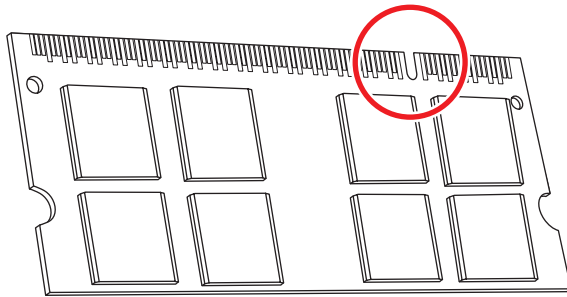
Adding Memory

Your HP TouchSmart PC comes with random access memory (RAM), which temporarily stores data and instructions on your computer. The HP TouchSmart PC ships with one or two memory modules that you can replace.

Before you begin

Observe the following requirements before removing and replacing the memory module.

The motherboard contains sockets for SO-DIMMs (small outline dual in-line memory modules). A memory module with the key slot circled is shown in the following illustration.



To determine which type and speed of memory module your HP TouchSmart PC uses, and for specific memory module information and specifications, go to <http://www.hp.com/support>



CAUTION: Using the wrong type of memory module could damage the computer.

Removing a memory module

- 1 Complete the procedures to prepare the HP TouchSmart PC. See "Opening the HP TouchSmart PC" on page 3.

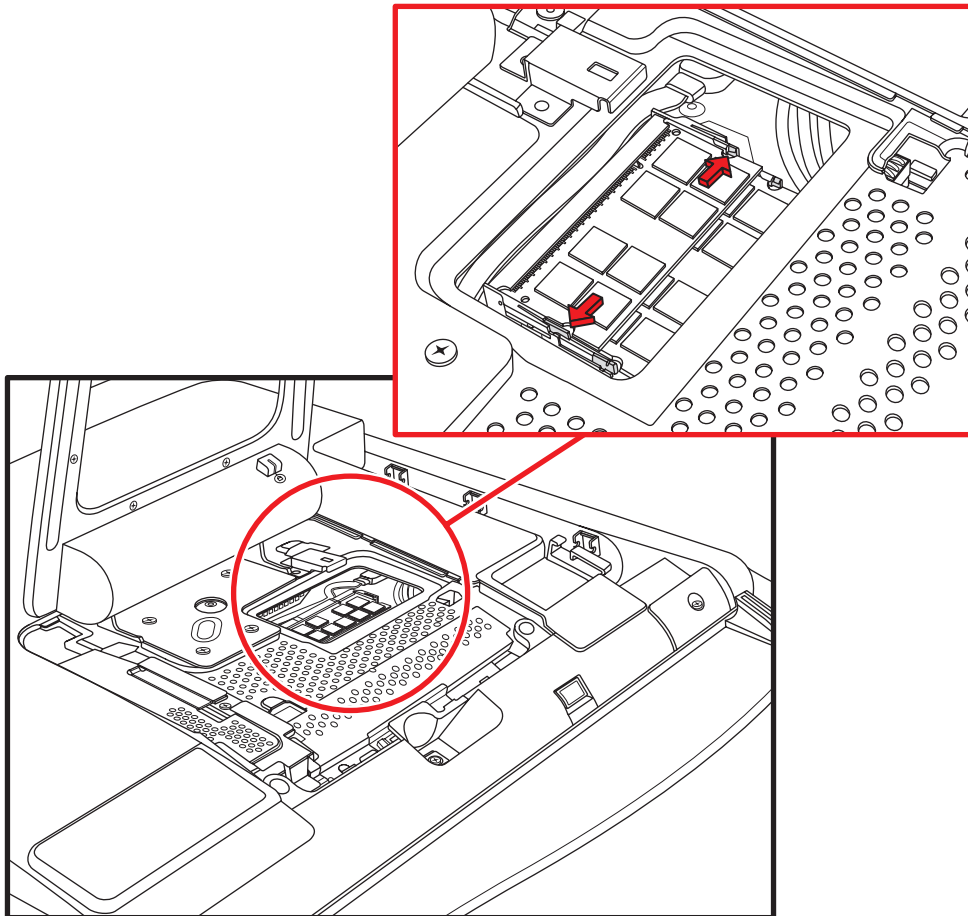


CAUTION: When handling a memory module, be careful not to touch any of the contacts. Doing so may damage the module.

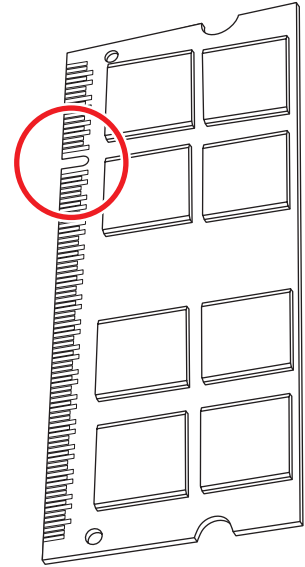
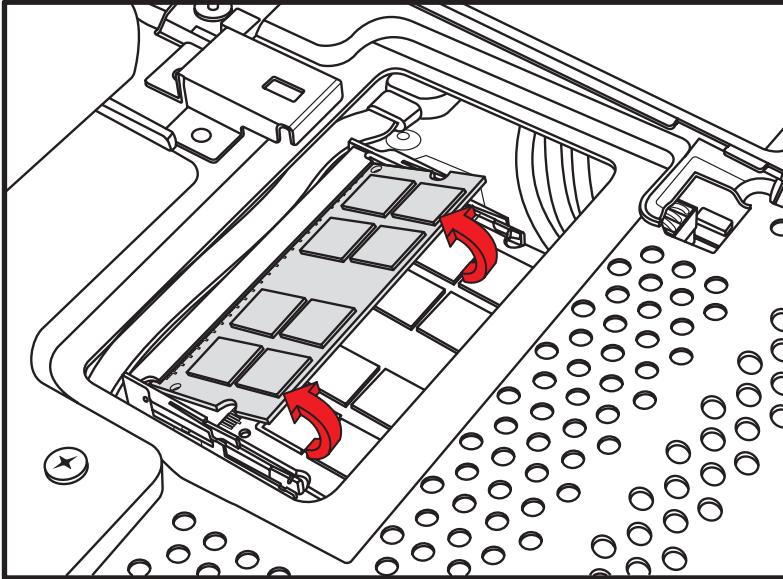


CAUTION: Do not pull the memory module out of the socket. Use the latches of the retaining clips to remove the module.

- 2 Push the two latches of the retaining clips away from the memory module. It may be easier to push one latch at a time. The memory module pops up at an angle. Both memory modules can be removed by using the same procedure.



- 3 Lift the memory module from the memory socket. Note the location of the key slot on the connector edge.



- 4 Store the memory module in antistatic packaging.

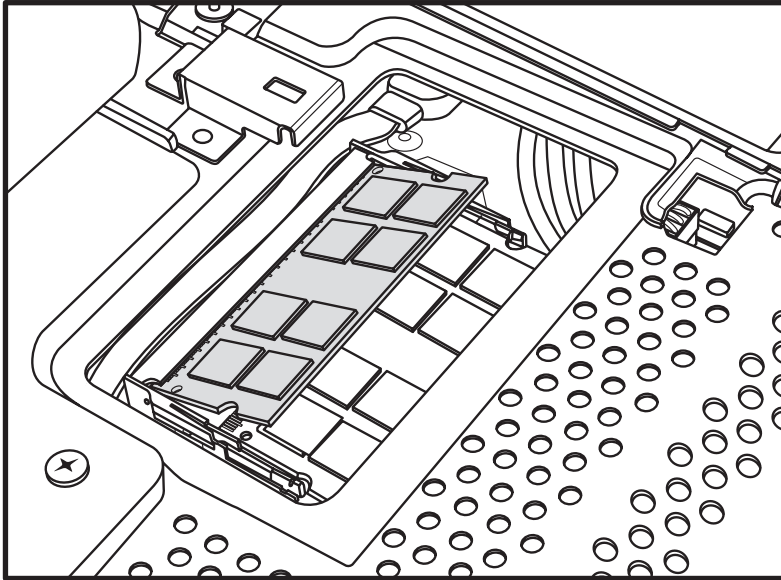
Installing a memory module

Upgrade the memory in your HP TouchSmart PC with memory of the same type and speed as the memory originally installed. The capacity for both memory modules must match for optimal performance. Both memory modules can be installed by using the same procedure listed below.



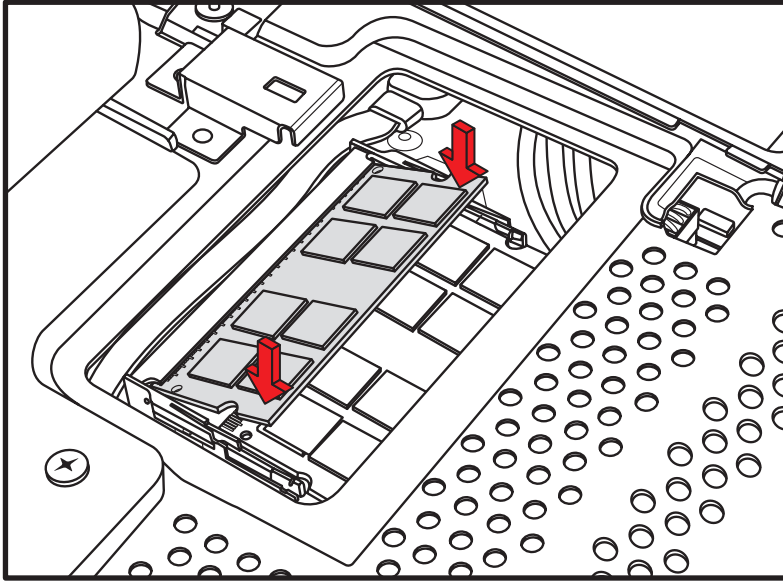
CAUTION: When handling a memory module, be careful not to touch any of the contacts. Doing so may damage the module.

- 1 Remove the memory module. See "Removing a memory module" on page 8.
- 2 Align the memory module with the socket, so that the key slot on the connector edge is same as the module that you removed.

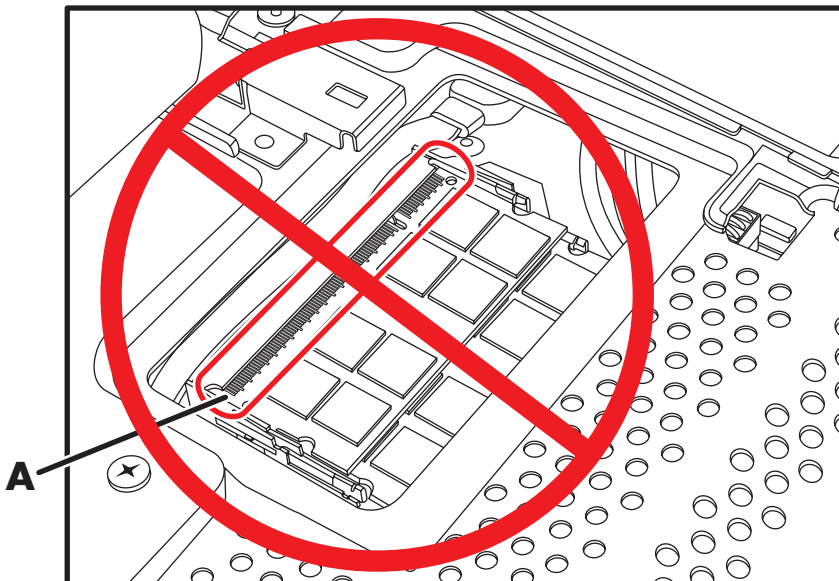


NOTE: The sockets are keyed. If the module slot does not match the socket, turn the memory module over.

- 3 Slide the memory module all the way into the memory slot, until the gold edge is almost completely hidden in the slot, and then push down the outer edge of the memory module until the retaining clips snap into place.



CAUTION: The memory module must be inserted all the way into the slot before it is snapped down into place; otherwise it will not work properly. In the following illustration, a memory module is installed incorrectly (A), with the gold edge showing.



- 4 Close the HP TouchSmart PC. See "Closing the HP TouchSmart PC" on page 23.

NOTE: If a blank screen is displayed after you replace or add a memory module, the memory is installed incorrectly, or it is the wrong type of memory. Remove and reinstall the memory module.

Removing and Installing the Hard Disk Drive

You can replace or upgrade the hard disk drive.

The hard disk drive is a Serial ATA (advanced technology attachment) drive, which uses a narrow data cable.



CAUTION: Before removing the hard disk drive, back up any personal files on the hard disk drive to an external storage device, such as a DVD. Failure to do so may result in data loss. After replacing the hard disk drive, you need to run System Recovery using recovery discs to load the factory-installed files. For details about the recovery procedure, refer to the *Limited Warranty, Support, and System Recovery Guide* included with your HP TouchSmart PC.

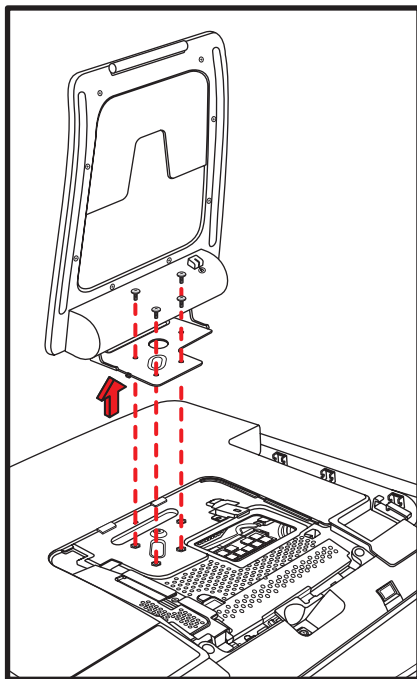
Removing the hard disk drive

- 1 Complete the procedures to prepare the HP TouchSmart PC. See "Opening the HP TouchSmart PC" on page 3.

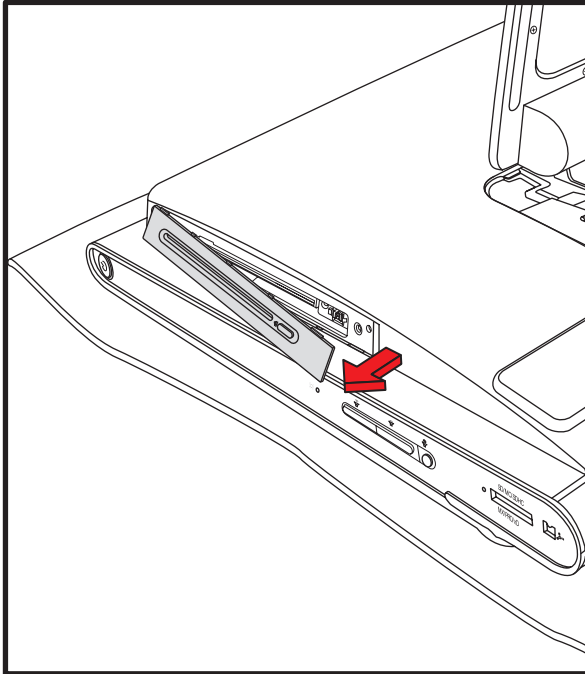


WARNING: To reduce the risk of personal injury from electrical shock or hot surfaces, disconnect the power cord from the wall outlet, and allow the internal system components to cool before touching them.

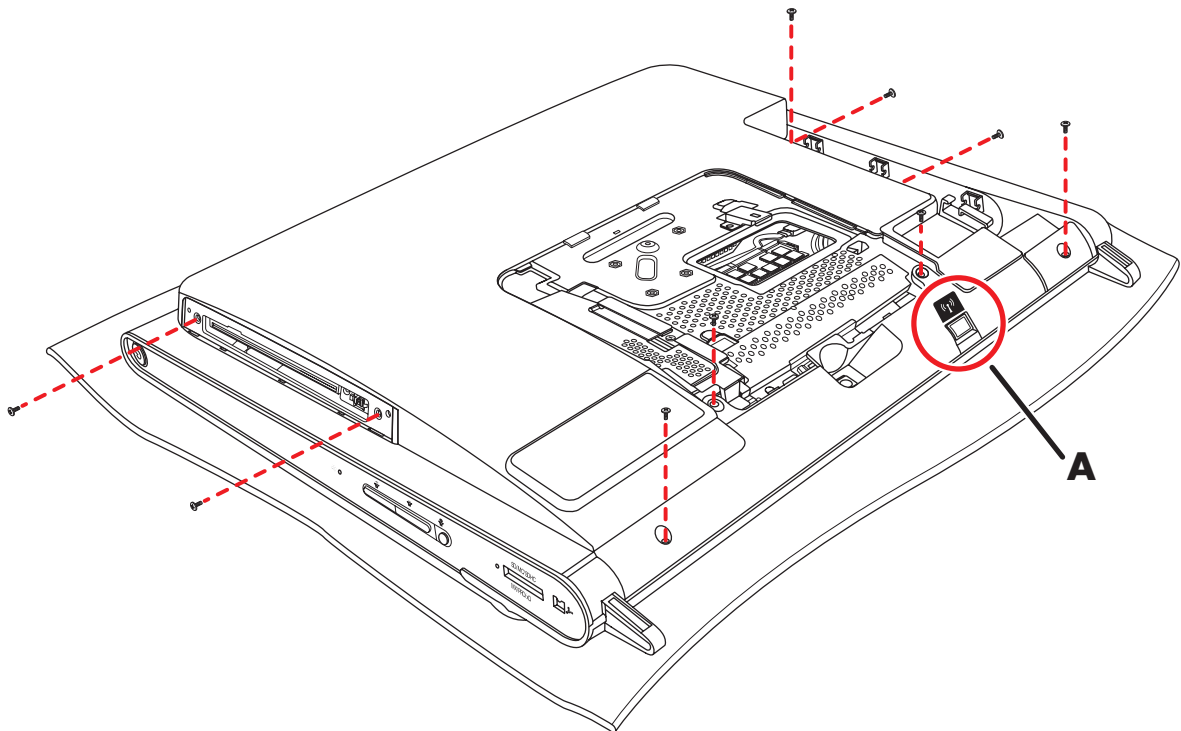
- 2 Remove the computer stand by removing the four screws that secure it to the back of the computer.



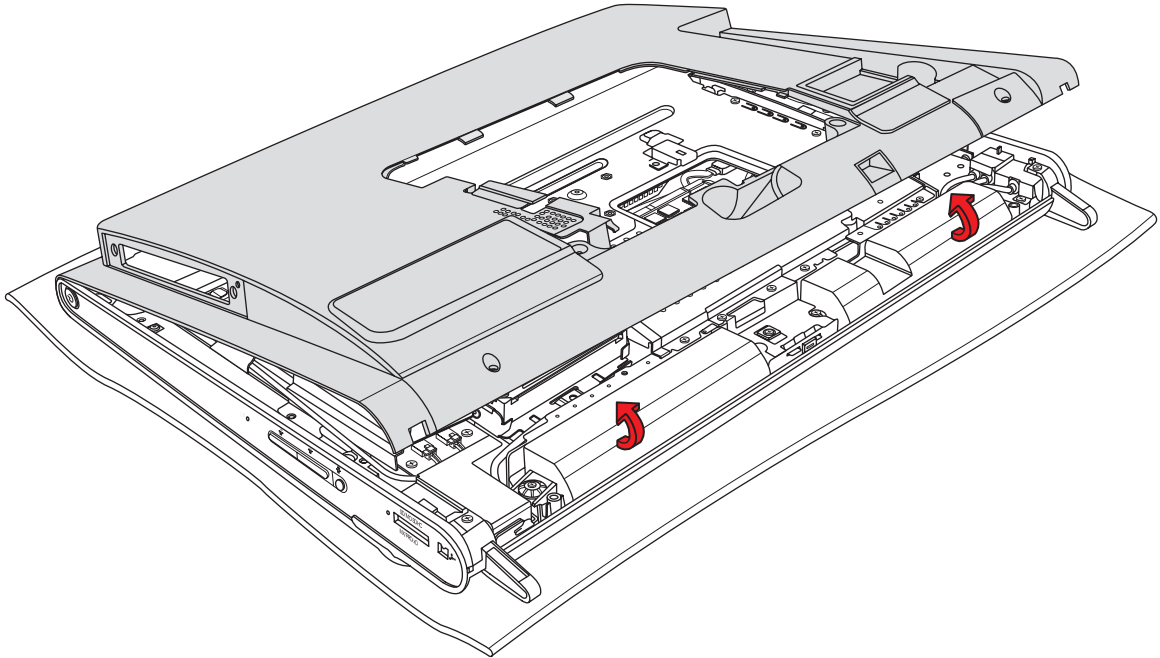
- 3 Remove the optical disc drive cover by lifting the bottom edge with your finger or a screwdriver, and then rotating the cover out and away from the computer. There are several tabs and two guide pins holding the cover in place, so be careful not to break the cover by applying too much force.



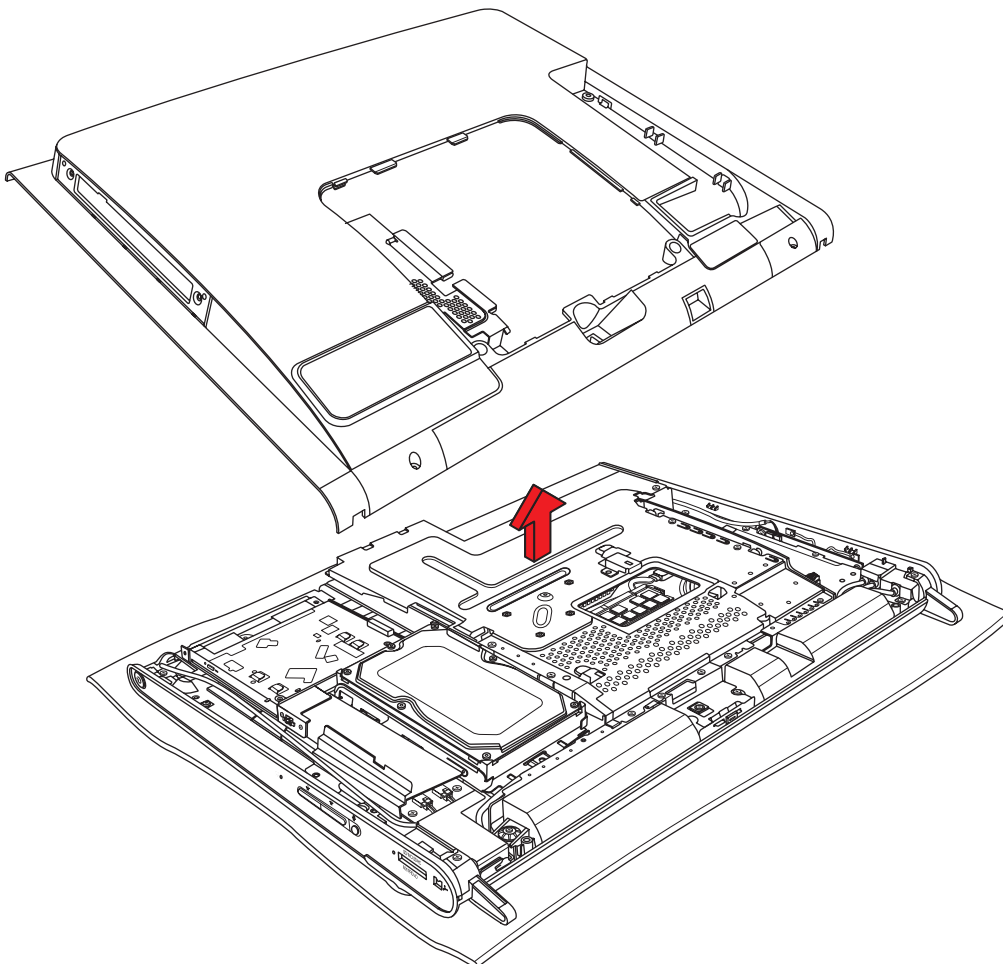
- 4 Make sure the wireless keyboard and mouse receiver (A) has been removed. See "Opening the HP TouchSmart PC" on page 3. Remove the nine screws that secure the back cover to the chassis. Four of the screws are located along the bottom edge of the back cover, two are located on the sides of the optical drive, and three are located in the connector area.



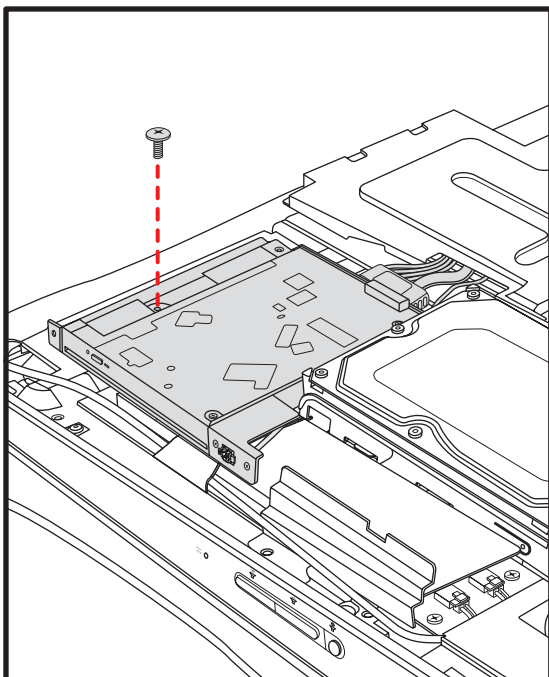
- 5 Lift the back cover up from the bottom inside edge of the memory cover area to release it, place both hands under the bottom edge of the cover and lift it up, and then rotate the back cover up as far as it will go.



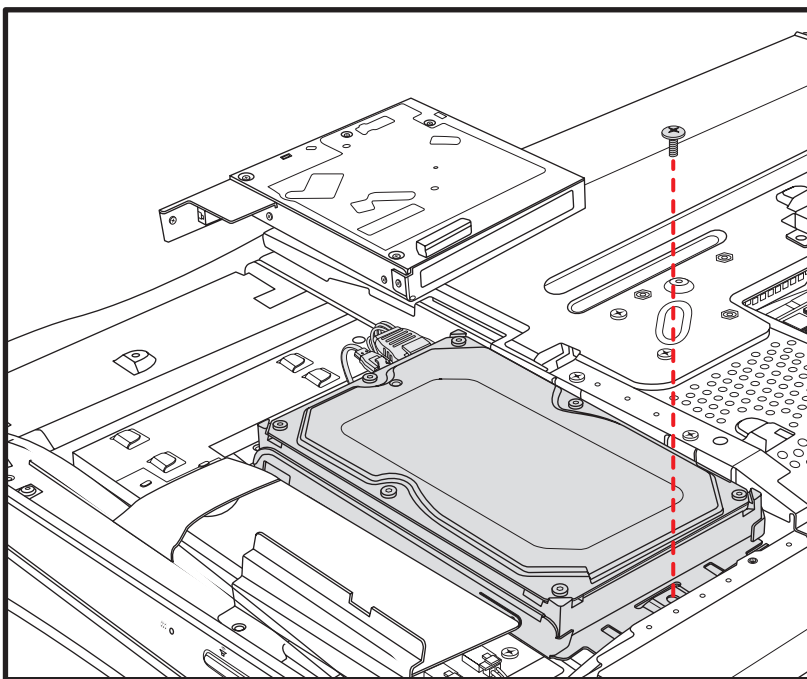
- 6 Lift away the back cover from the computer.



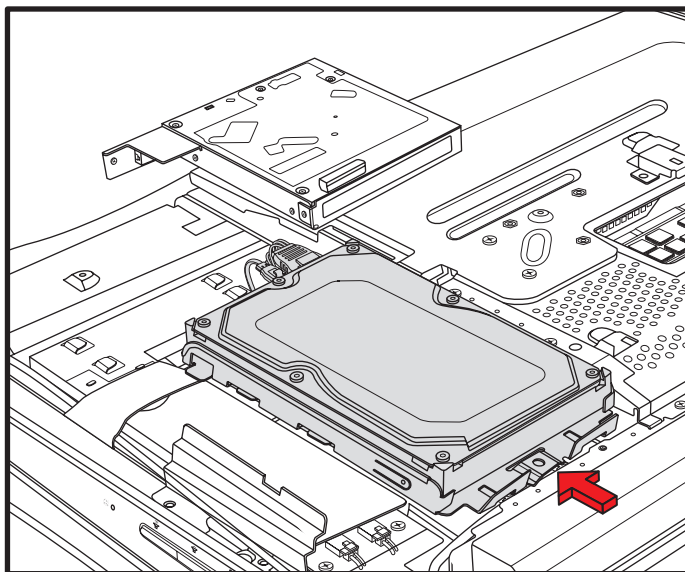
- 7 Remove the screw that secures the optical disc drive to the chassis, and then slide the drive toward the center of the computer to move it out of the way. You do not need to remove the optical drive cables.



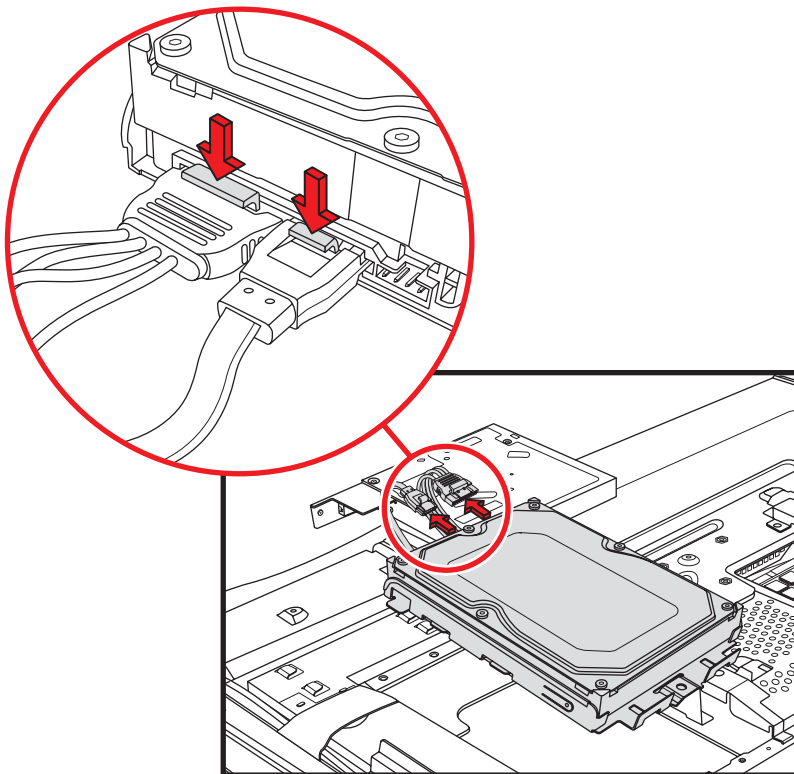
- 8 Remove the screw that secures the hard disk drive cage to the chassis.



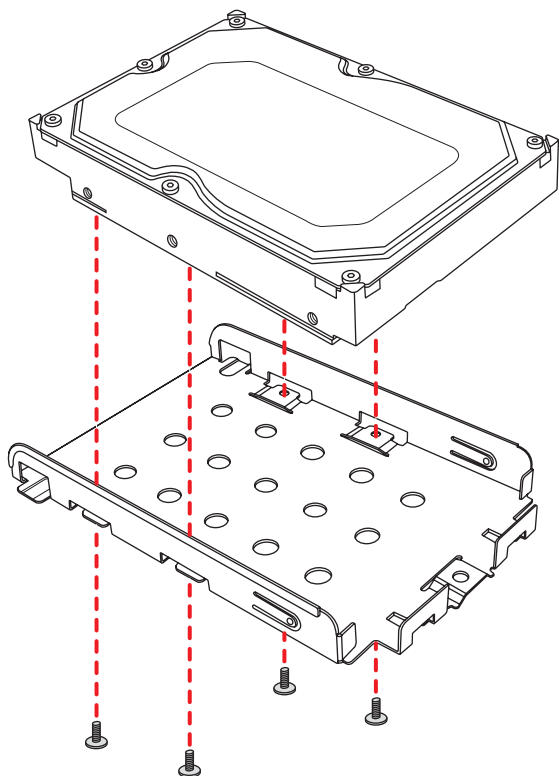
- 9 Slide the hard disk drive cage toward the top of the computer, and then pull it away from the computer.



- 10 Disconnect the power and data cables by pressing the latches and then removing them from the drive.

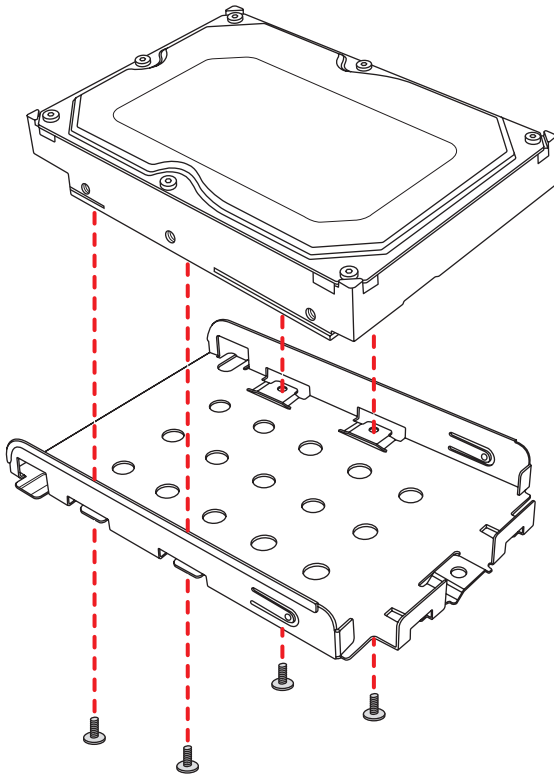


- 11 Remove the four screws that secure the hard disk drive to the cage, and then slide the hard disk drive out of the cage.

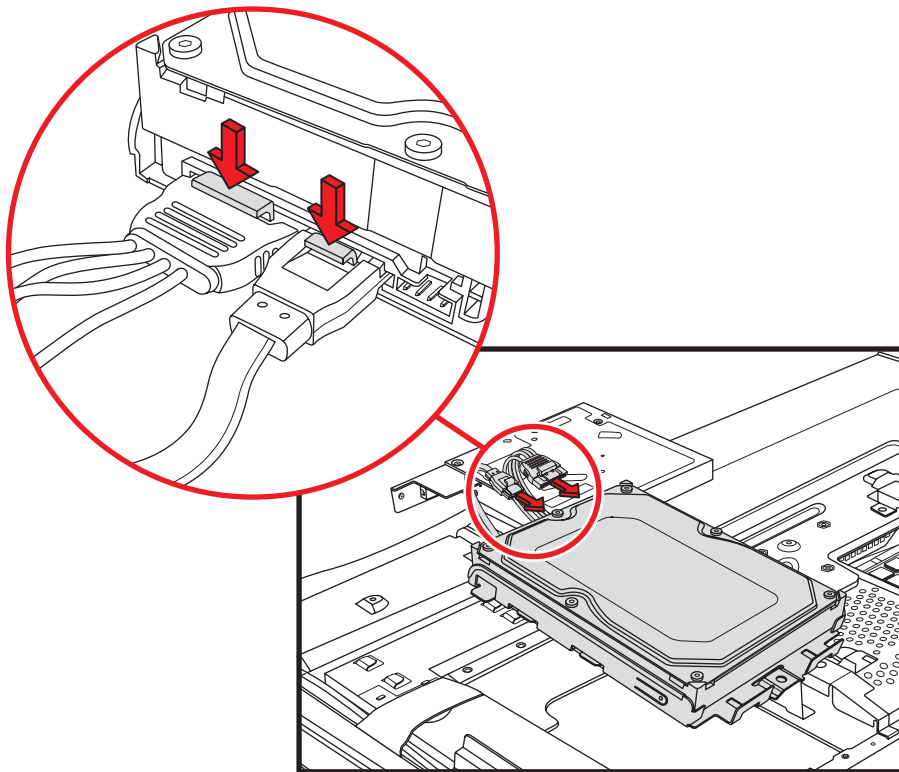


Installing a hard disk drive

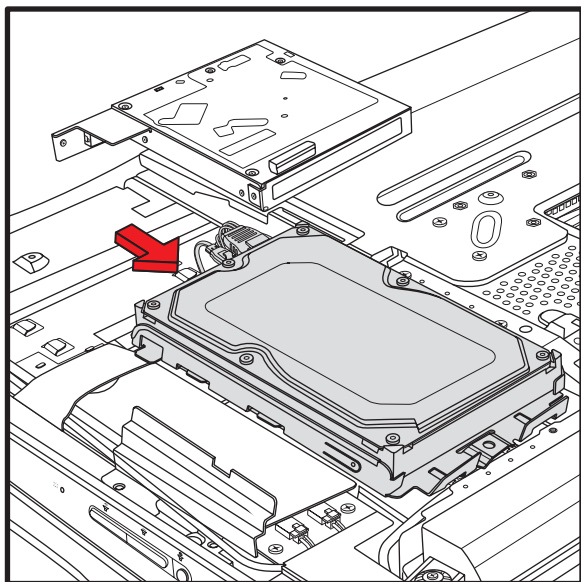
- 1 If necessary, remove the hard disk drive. See “Removing the hard disk drive” on page 12.
- 2 Slide the hard disk drive into the cage, and then replace the four screws.



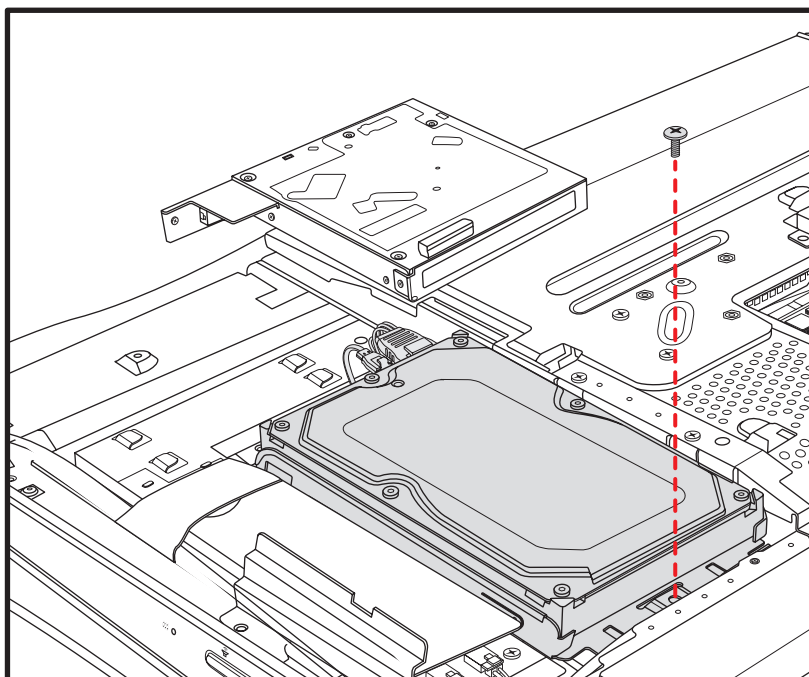
- 3 Connect the power and data cables to the hard disk drive.



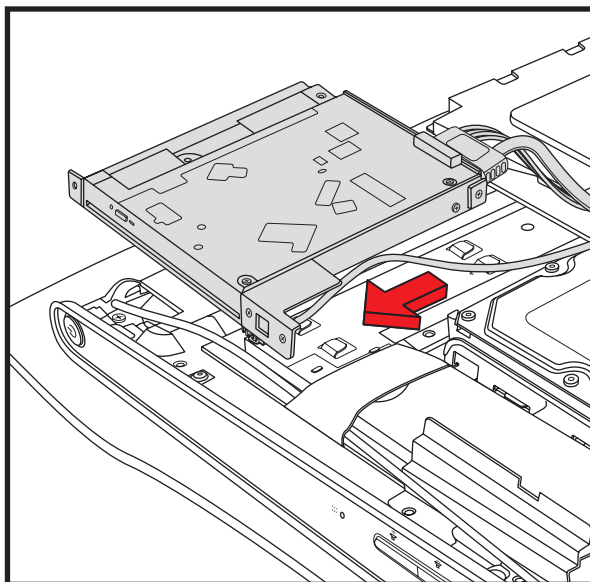
- 4 Lower the hard disk drive cage straight down, align the four hooks on the cage with the four holes on the back of the chassis, and then slide the cage toward the bottom of the computer until it rests against the bracket on the chassis.



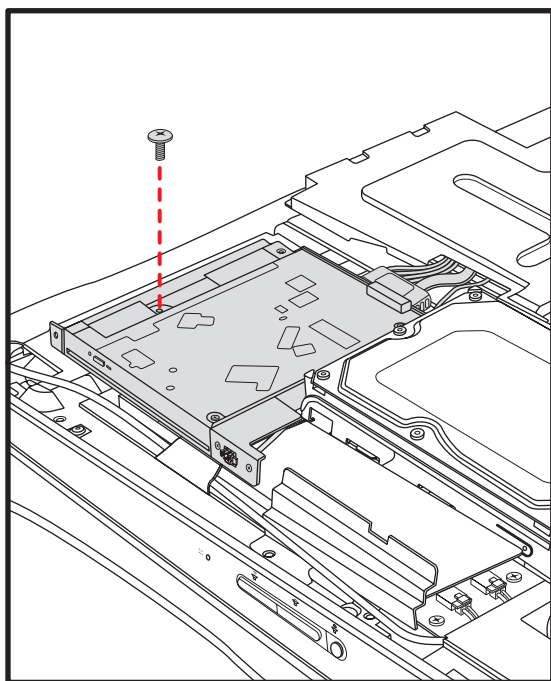
- 5 Replace the screw that secures the hard disk drive cage to the chassis.



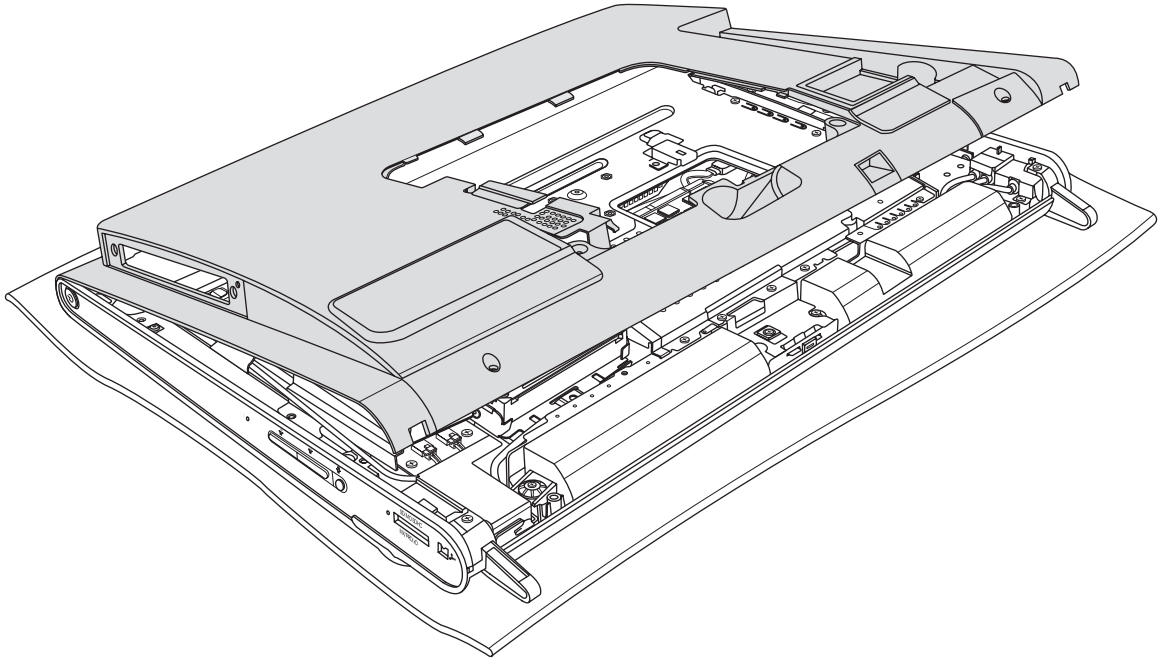
- 6 Align the hooks on the optical disc drive with the holes on the computer, and then slide the optical disc drive toward the outer edge of the computer.



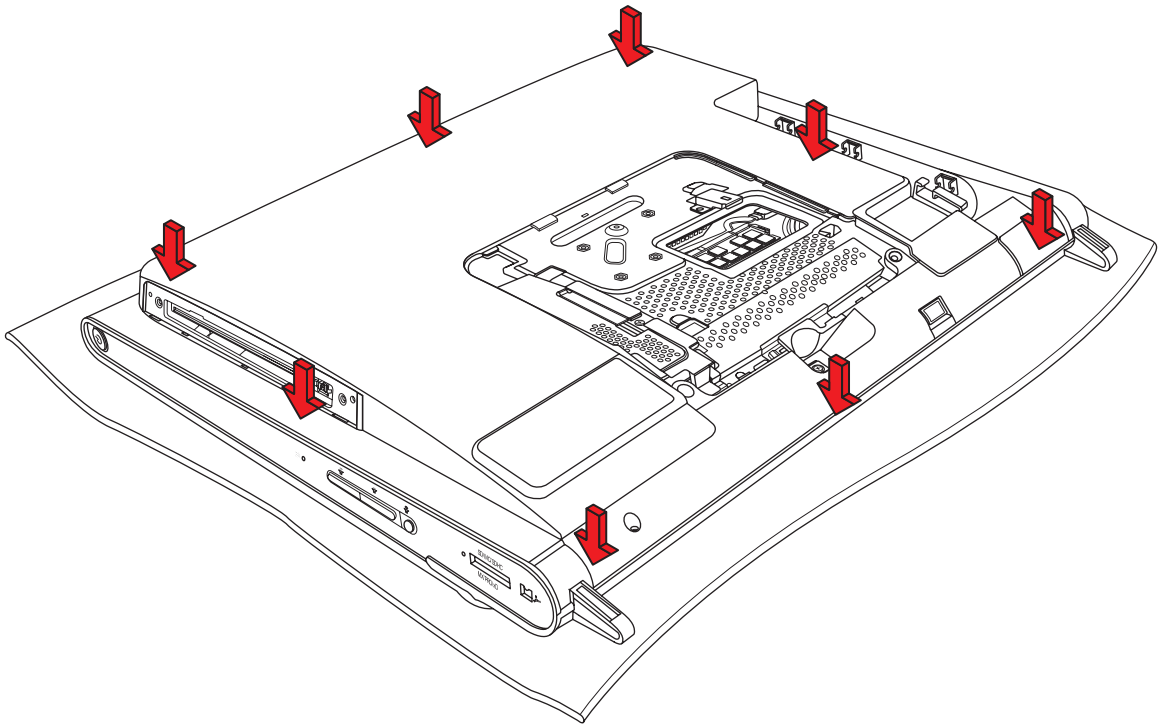
- 7 Replace the screw that secures the optical disc drive to the chassis.



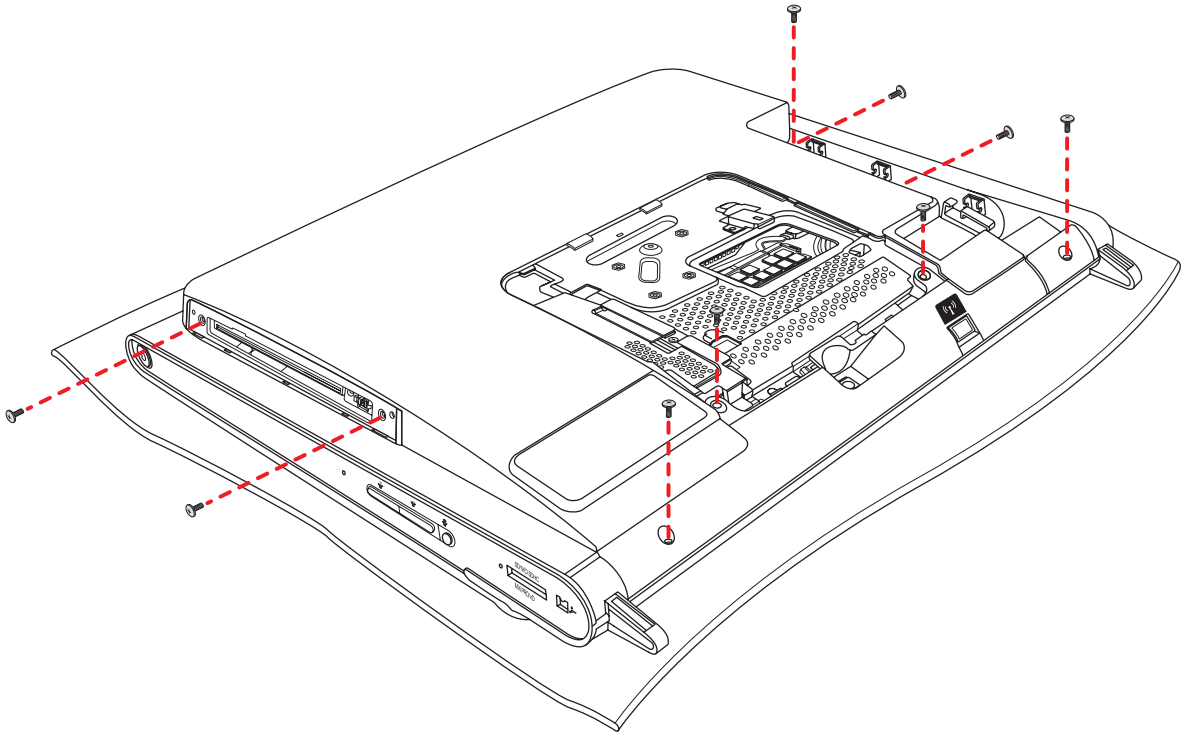
- 8 Replace the back cover. Align the hooks at the top edge of the back cover with the holes on the top of the computer. The screw holes on the back cover should be aligned with the screw holes on the back of the computer.



- 9 Press the top, side, and then bottom edges to snap the cover into place.

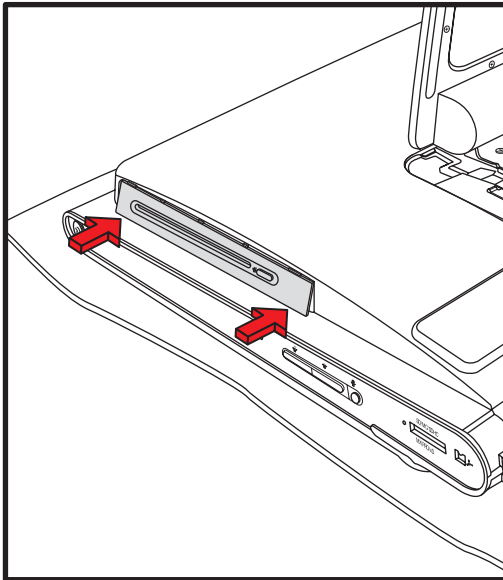


- 10 Replace the nine screws that secure the back cover to the computer. Four of the screws are located along the bottom edge of the back cover, two are located on the sides of the optical drive, and three are located in the connector area.



CAUTION: You must replace the screws on each side of the optical disc drive to ensure that the drive slot is aligned properly with the back cover.

- 11 Replace the optical disc drive cover by aligning the tabs on the bottom edge of the optical drive cover with the hole on the computer, and then snapping the top edge into place.

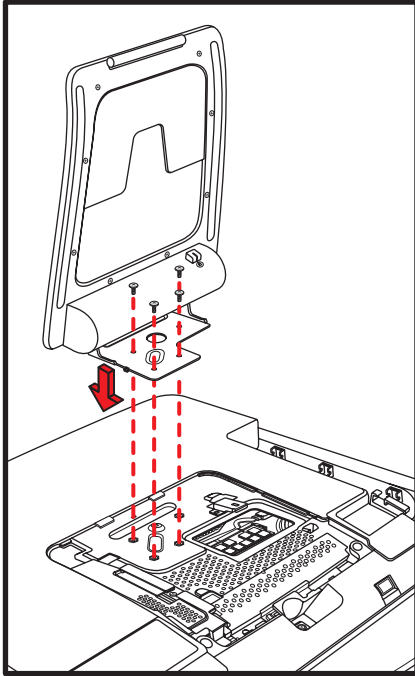


- 12 Follow the steps in "Closing the HP TouchSmart PC" on page 23.

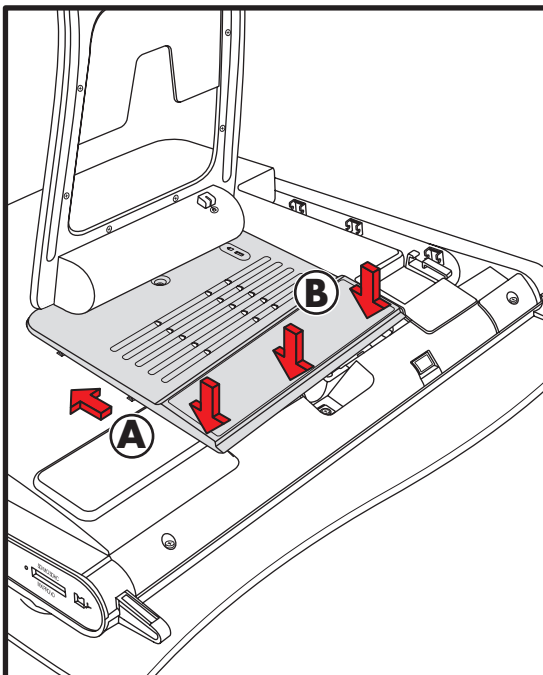
Closing the HP TouchSmart PC

To avoid injury and equipment damage, always complete the following steps in order, after closing the HP TouchSmart PC:

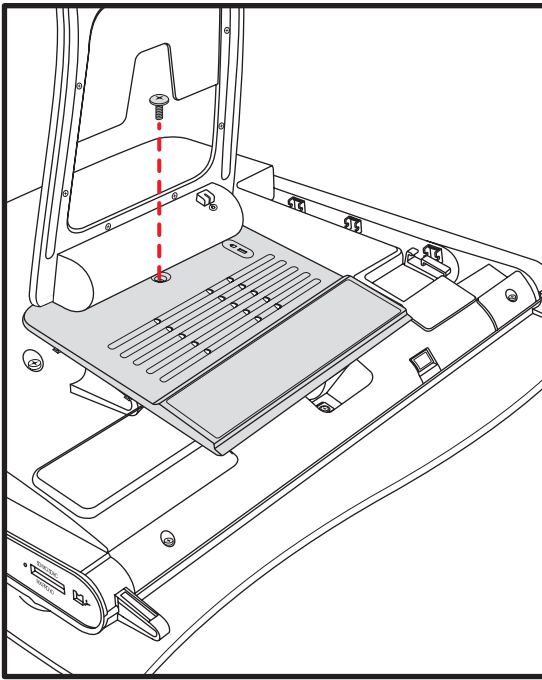
- 1 If you removed it, replace the computer stand. Align the four screw holes of the stand over the four holes on the back of the computer, and then replace the four screws that secure the stand to the computer.



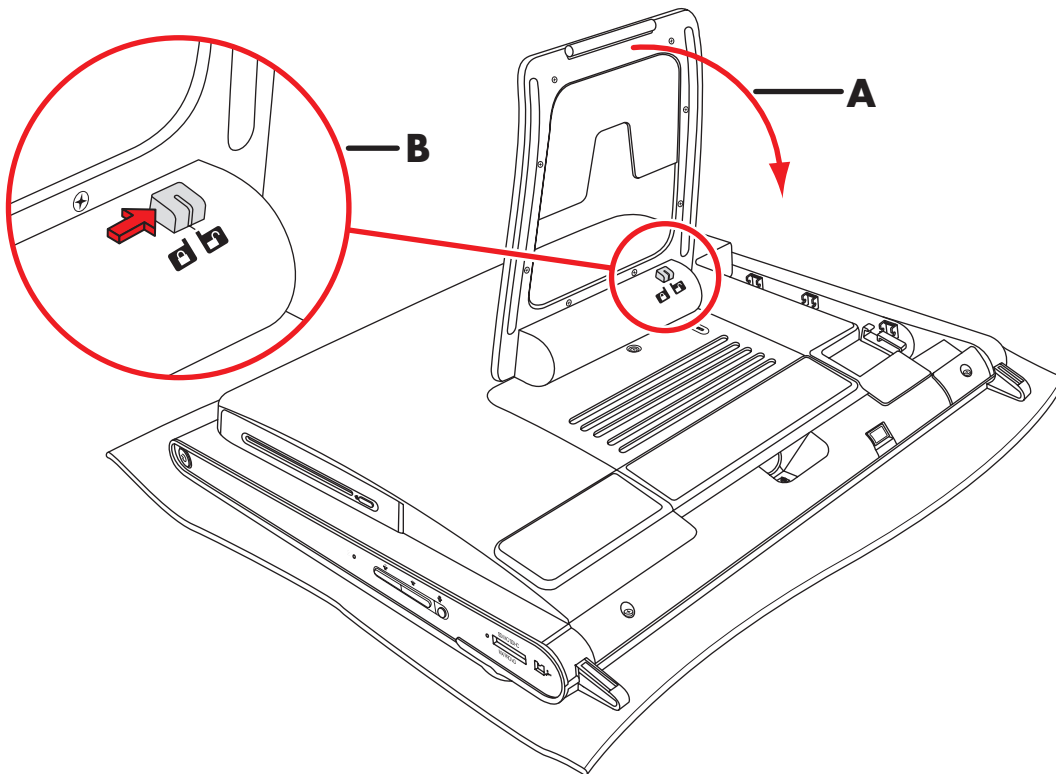
- 2 Replace the memory cover. Align the memory cover over the two legs of the computer stand and the screw hole and slide toward the stand and into place **(A)**. Push down on both sides of the bottom edge of the memory cover to snap it into place **(B)**. Push in the middle of the bottom edge to make sure the entire cover is pushed all the way down.



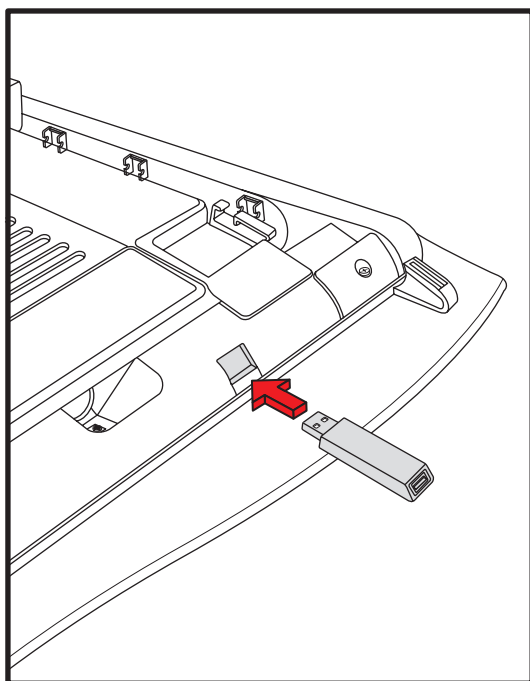
- 3 Replace the screw that secures the memory cover to the computer.



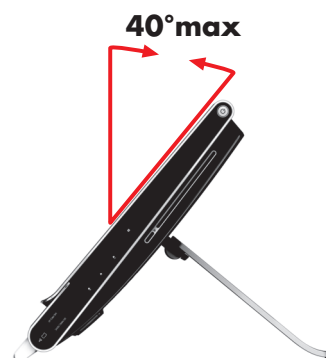
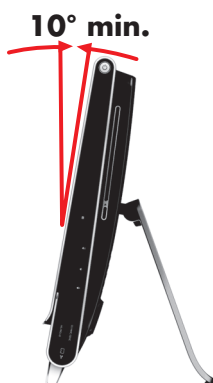
- 4 Push the computer stand back slightly beyond the locked position (A), holding it with one hand so it does not snap back when the lock is released, and then release the lock on the computer stand (B) with the other hand.



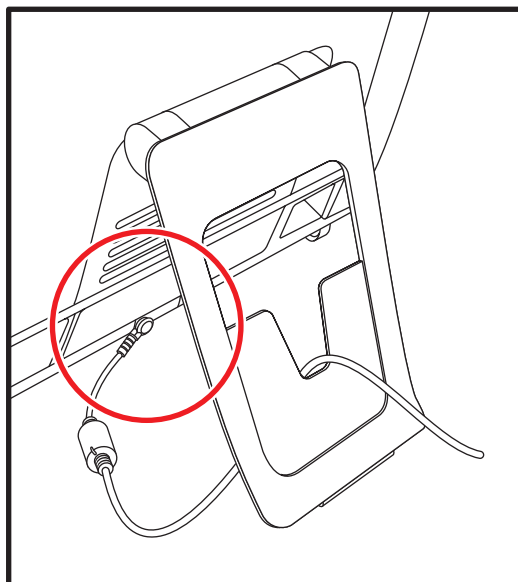
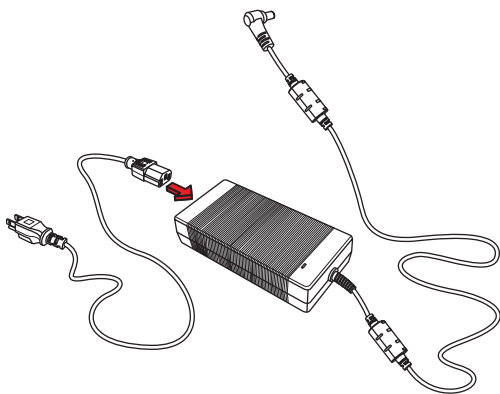
- 5 Replace the keyboard and mouse receiver.



- 6 Place the computer upright on a flat surface with the stand in a safe and open position.

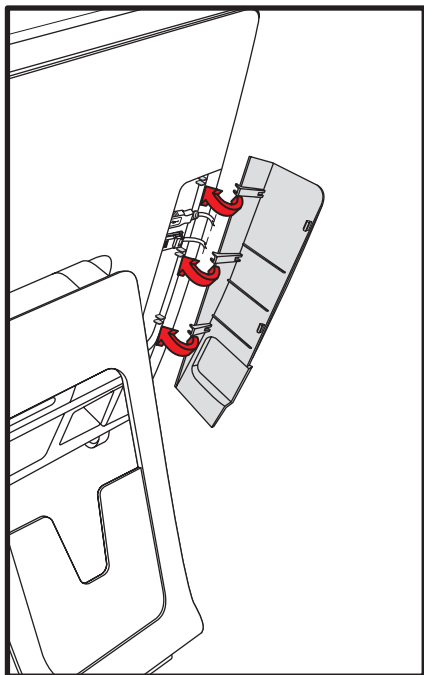


- 7 Attach the power adapter to the back of the computer and then reconnect the power cord to the power source.



WARNING: To reduce the risk of electrical shock, fire, or equipment damage, do not plug telecommunications or telephone cables into the network interface card (NIC) (labeled as LAN).

- 8 Reconnect all other cables, and then replace the connector cover by aligning the three tabs on the side edge of the cover with the holes on the computer, and then rotating inward to snap it into place.



- 9 Reconnect external devices.
- 10 Turn on the HP TouchSmart PC and all devices connected to it.



Copyright © 2008 Hewlett-Packard Development Company, L.P.

Printed in xxxxx



i n v e n t