

Drives

User Guide

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Product notice


This user guide describes features that are common to most models. Some features may not be available on your computer.

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1 Identifying installed drives

To view the drives installed on the computer, select **Start > Computer**.

 **NOTE:** Windows® includes the User Account Control feature to improve the security of your computer. You may be prompted for your permission or password for tasks such as installing applications, running utilities, or changing Windows settings. Refer to Windows Help for more information.

2 Handling drives

Drives are fragile computer components that must be handled with care. Refer to the following cautions before handling drives. Additional cautions are included with the procedures to which they apply.

△ **CAUTION:** To reduce the risk of damage to the computer, damage to a drive, or loss of information, observe these precautions:

Before you move a computer or external hard drive from one location, initiate Sleep, and allow the screen to clear.

Before handling a drive, discharge static electricity by touching the unpainted metal surface of the drive.

Do not touch the connector pins on a removable drive or on the computer.

Handle a drive carefully; do not drop a drive or place items on it.

Before removing or inserting a drive, shut down the computer. If you are unsure whether the computer is off or in Hibernation, turn the computer on and then shut it down through the operating system.

Do not use excessive force when inserting a drive into a drive bay.

Do not type on the keyboard or move the computer while the optical drive is writing to a disc. The write process is sensitive to vibration.

When the battery is the only source of power, be sure that the battery is sufficiently charged before writing to media.

Avoid exposing a drive to temperature or humidity extremes.

Avoid exposing a drive to liquids. Do not spray the drive with cleaning products.

Remove media from a drive before removing the drive from the drive bay, or traveling with, shipping, or storing a drive.

If a drive must be mailed, place the drive in a bubble-pack mailer or other suitable protective packaging and label the package "FRAGILE."

Avoid exposing a drive to magnetic fields. Security devices with magnetic fields include airport walk-through devices and security wands. The airport security devices that check carry-on luggage, such as conveyor belts, use x-rays instead of magnetism and will not damage a drive.


3 Improving hard drive performance

Using Disk Defragmenter

As you use the computer, files on the hard drive become fragmented. Disk Defragmenter consolidates the fragmented files and folders on the hard drive so that the system can run more efficiently.

To run Disk Defragmenter:

1. Select **Start > All Programs > Accessories > System Tools > Disk Defragmenter**.
2. Click **Defragment now**.

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For additional information, access the Disk Defragmenter software Help.

Using Disk Cleanup

Disk Cleanup searches the hard drive for unnecessary files that you can safely delete to free up disk space and help the computer to run more efficiently.

To run Disk Cleanup:


1. Select **Start > All Programs > Accessories > System Tools > Disk Cleanup**.
2. Follow the on-screen instructions.

4 Using HP 3D DriveGuard (select models only)

HP 3D DriveGuard protects the hard drive by parking the drive and halting I/O requests under either of the following conditions:

- You drop the computer.
- You move the computer with the display closed while the computer is running on battery power.

A short time after the end of one of these events, HP 3D DriveGuard returns the hard drive to normal operation.


 **NOTE:** Hard drives that are in an optional docking device or are connected to a USB port are not protected by HP 3D DriveGuard.

For more information, refer to the HP 3D DriveGuard software Help.

Identifying HP 3D DriveGuard status

The drive light on the computer changes to an amber color to show that the drive is parked. To determine whether drives are currently protected or whether a drive is parked, use Mobility Center:

- If the software is enabled, a green check mark is superimposed over the hard drive icon.
- If the software is disabled, a red X is superimposed over the hard drive icon.
- If the drives are parked, a yellow moon is superimposed over the hard drive icon.


 **NOTE:** The icon in the Mobility Center may not show the most up-to-date status for the drive. For immediate updates after a change in status, you need to enable the notification area icon.

To enable the notification area icon:

1. Select **Start > Control Panel > Hardware and Sound > HP 3D DriveGuard**.
2. Under **Icon in System Tray**, click **Show**.
3. Click **Apply**.

If HP 3D DriveGuard has parked the drive, the computer will behave in the following ways:

- The computer will not shut down.
- The computer will not initiate Sleep or Hibernation, except as described in the following Note.

 **NOTE:** If the computer is running on battery power and reaches a critical battery level, HP 3D DriveGuard allows the computer to initiate Hibernation.


- The computer will not activate battery alarms set on the Alarms tab in Power Options properties.

Before you move the computer, HP recommends that you either shut it down or initiate Sleep or Hibernation.

Using HP 3D DriveGuard software

The HP 3D DriveGuard software enables you to perform the following tasks:

- Enable and disable HP 3D DriveGuard.

 **NOTE:** Depending on your user privileges, you may not be able to enable or disable HP 3D DriveGuard. Additionally, members of an Administrator group can change the privileges for non-Administrator users.

- Determine whether a drive in the system is supported.

To open the software and change settings, follow these steps:

1. In Mobility Center, click the hard drive icon to open the HP 3D DriveGuard window.

– or –

Select **Start > Control Panel > Hardware and Sound > HP 3D DriveGuard**.

2. Click the appropriate button to change settings.
3. Click **OK**.

5 Replacing a hard drive

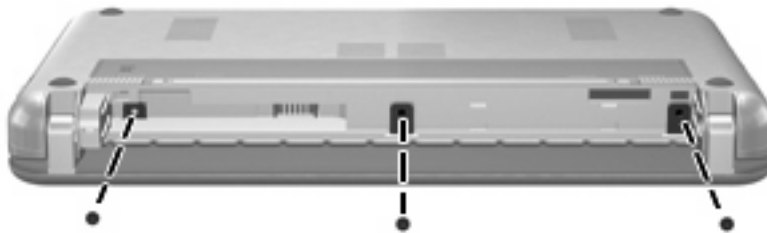
△ **CAUTION:** To prevent information loss or an unresponsive system:

Shut down the computer before removing the hard drive from the hard drive bay. Do not remove the hard drive while the computer is on, in the Sleep state, or in Hibernation.

If you are not sure whether the computer is off or in Hibernation, turn the computer on by briefly sliding the power switch. Then shut down the computer through the operating system.

To remove a hard drive:

1. Save your work.
2. Shut down the computer and close the display.
3. Disconnect all external hardware devices connected to the computer.
4. Unplug the power cord from the AC outlet.
5. Turn the computer upside down on a flat surface, with the battery bay toward you.
6. Remove the battery from the computer.
7. Remove the 3 screws from the back edge of the computer.

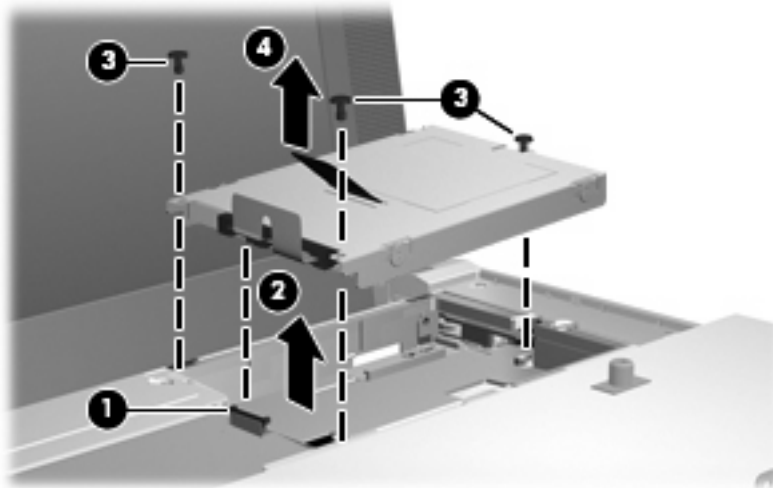


8. Turn the computer display-side up, with the front toward you, and open it.

9. Lift the top edge of the keyboard up **(1)** and remove the keyboard from the computer **(2)** to expose the hard drive.



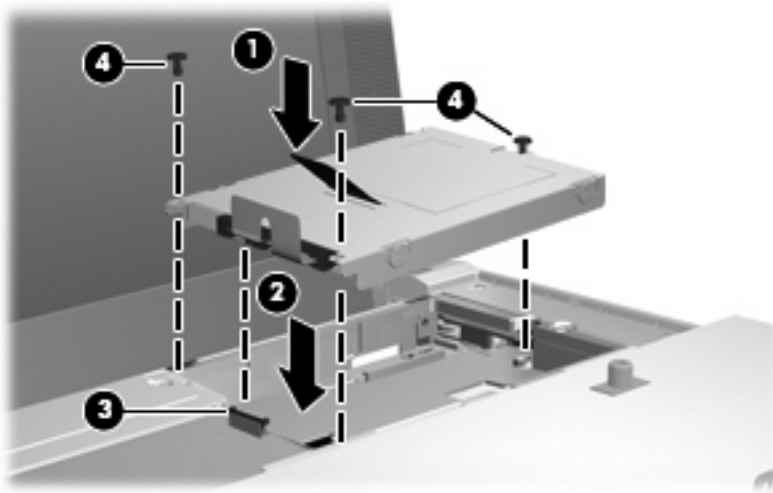
10. Release the zero insertion force (ZIF) connector **(1)** to which the hard drive cable is attached, and then disconnect the hard drive cable **(2)** by pulling upward.
11. Loosen and remove the 3 hard drive screws **(3)**.
12. Use the tab **(4)** on the hard drive to lift the hard drive out of the hard drive bay.



To install a hard drive:

1. Insert the hard drive into the hard drive bay **(1)**.
2. Insert the hard drive cable into the ZIF connector **(2)**.
3. Press the ZIF connector down **(3)** to secure the hard drive cable.

4. Insert and tighten the 3 hard drive screws (4).



5. Insert the front of the keyboard into the keyboard tray (1), and then press the keyboard into place (2).



6. Close the computer display and turn the computer upside down on a flat surface.

7. Replace the 3 screws on the back edge of the computer.



8. Replace the battery.

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