Drives

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This guide explains the computer hard drive and optical disc drive.

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Drive care

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

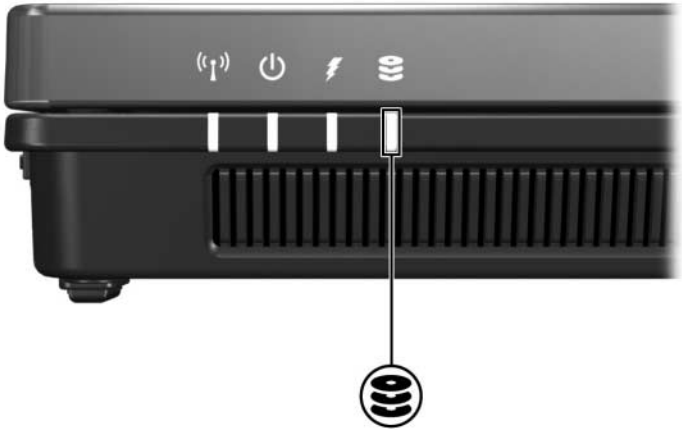
CAUTION: To reduce the risk of damage to the computer, damage to a drive, or loss of information, observe these precautions:

- Initiate Sleep and allow the display to turn off before you move a computer or external hard drive from one location to another.
- Before handling a drive, discharge static electricity by touching the unpainted metal surface of the drive.
- Do not touch the drive connector pins on a removable drive or on the computer.
- Handle the drive carefully; do not drop or compress the drive.
- 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 when the drive is writing to media. The write process is sensitive to vibration.
- When the battery pack is the only source of power, ensure that the battery pack 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 it with cleaning products.
- Remove the 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.

2

IDE drive light

The drive light blinks when either the primary hard drive or an optical drive is being accessed. The drive light changes to amber when the computer is dropped or moved while on battery power. The amber color indicates that the hard drive has been temporarily parked by HP Mobile Data Protection 3D.



3

Hard drive

HP Mobile Data Protection 3D with Digital Accelerometer

HP Mobile Data Protection 3D with digital accelerometer protects your disk drive by parking the drive and halting I/O requests when you

- Drop your computer.
- Move your 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 Mobile Data Protection 3D returns the disk drive to normal operation.

Internal disk drives and optional MultiBay II hard drives (select models only) are protected by HP Mobile Data Protection 3D. Disk drives that are connected to a USB port or in an optional docking device are not protected.

For more information, refer to the HP Mobile Data Protection 3D online Help.

HP Mobile Data Protection 3D status

The drive light on your computer changes to an amber color to show that the drive is parked. You can use Mobility Center to check whether drives are currently protected and whether a drive is parked:

- 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.

If HP Mobile Data Protection 3D has parked the drive, the computer

- Will not shut down.
- Will not initiate Sleep or Hibernation except as noted below.

  ✎ If your computer is running on battery power and reaches a critical battery level, HP Mobile Data Protection 3D allows the computer to initiate Hibernation.

- Will not activate battery alarms set on the Alarms tab in Power Options Properties.

HP recommends that you wait for your computer to completely shut down, or initiate Sleep or Hibernation before you move it.

HP Mobile Data Protection 3D software

The HP Mobile Data Protection 3D software enables you to

- Enable and disable HP Mobile Data Protection 3D.

  ✎ Depending on your user privileges, you may not be able to enable or disable HP Mobile Data Protection 3D.

- Determine whether a drive in the system is supported.

To open the software and change settings:

1. In the Mobility Center, click the hard drive icon to open the HP Mobile Data Protection 3D System window.
2. Click the appropriate button to change settings.
3. Click **OK**.

Replacing the hard drive

CAUTION: To prevent system lockup and loss of information:

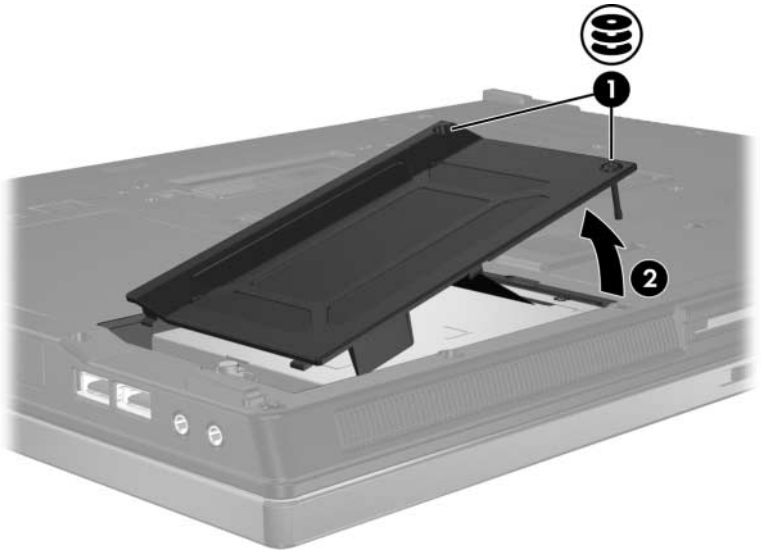
- Shut down the computer before removing the hard drive from the hard drive bay. Do not remove the hard drive while the computer is on, in the Sleep state, or in Hibernation.
- If you are not sure whether the computer is off or in Hibernation, turn the notebook on by pressing the power button. Then shut down the computer through the operating system.

To remove the hard drive:

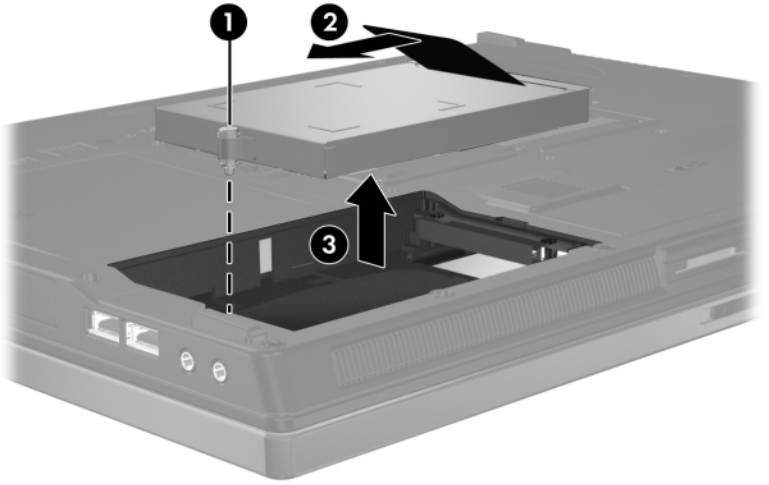
1. Save your work.
2. Shut down the computer and close the display.

   If you are not sure whether the computer is off or in Hibernation, turn the computer on by pressing the power button. Then shut down the computer through the operating system.
3. Disconnect all external devices connected to the computer.
4. Unplug the power cord from the AC outlet.
5. Turn the computer upside down.
6. Remove the battery pack from the computer.

7. With the hard drive bay toward you, loosen the 2 hard drive cover screws ❶.
8. Lift the hard drive cover away from the computer ❷.

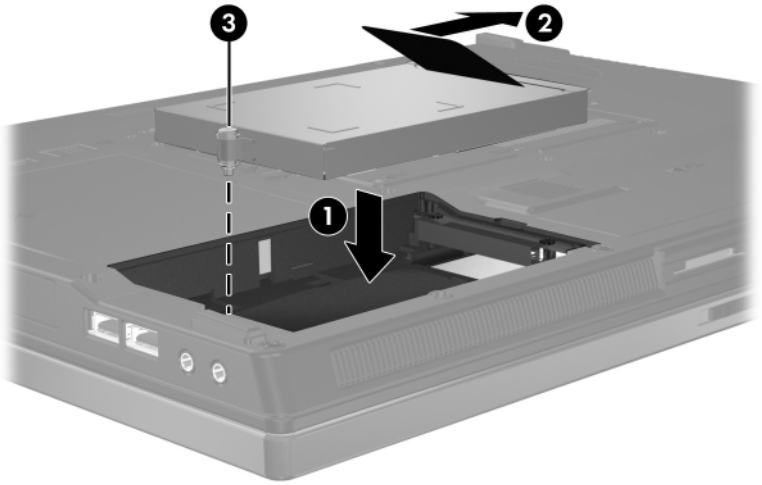


9. Loosen the hard drive screw ❶.
10. Pull the hard drive tab ❷ to the left to disconnect the hard drive.
11. Lift the hard drive ❸ from the computer.

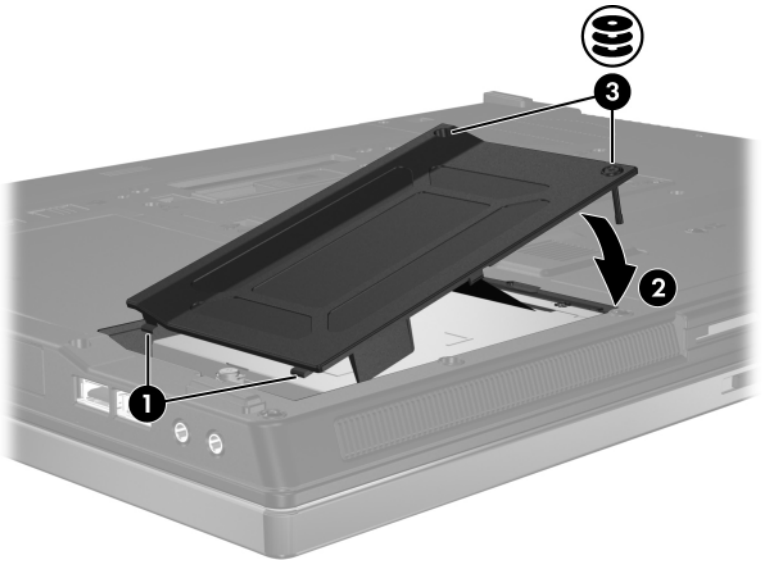


To install a hard drive:

1. Insert the hard drive into the hard drive bay on the bottom of the computer ❶.
2. Pull the hard drive tab ❷ to the right to connect the hard drive.
3. Tighten the hard drive screw ❸.



4. Align the tabs ❶ on the hard drive cover with the notches on the computer.
5. Close the cover ❷.
6. Tighten the hard drive cover screws ❸.



4

Optical drives

Using optical discs

An *optical drive*, such as a DVD-ROM drive, supports optical discs (DVDs and CDs). These discs are used to store or transport information and to play music and movies. DVDs have a higher capacity than CDs.

The computer can read or write to optical drives as described in the following table.

Type of Optical Drive	Read CD and DVD-ROM	Write to CD-RW	Write to DVD±RW/R	Write to DVD±RW DL	Write label to LightScribe CD or DVD±RW/R
DVD-ROM Drive	Yes	No	No	No	No
DVD/CD-RW Combo Drive	Yes	Yes	No	No	No
DVD±RW/R Drive and CD-RW Combo Drive	Yes	Yes	Yes	No	No
DVD±RW and CD-RW Combo Drive with Double Layer support	Yes	Yes	Yes	Yes	No
LightScribe DVD±RW and CD-RW Combo Drive with Double Layer support	Yes	Yes	Yes	Yes	Yes

✎ Some of the optical drives listed may not be supported by the computer. The listed drives are not necessarily all of the supported optical drives.

Inserting an optical disc

1. Turn on the computer.
2. Press the release button ❶ on the drive bezel to release the media tray.
3. Pull out the tray ❷.
4. Hold the CD or DVD by the edges to avoid touching the flat surfaces and position the disc over the tray spindle with the label side up.

   ✎ If the tray is not fully accessible, tilt the disc carefully to position it over the spindle.

5. Gently press the disc ❸ down onto the tray spindle until the disc snaps into place.

6. Close the media tray.

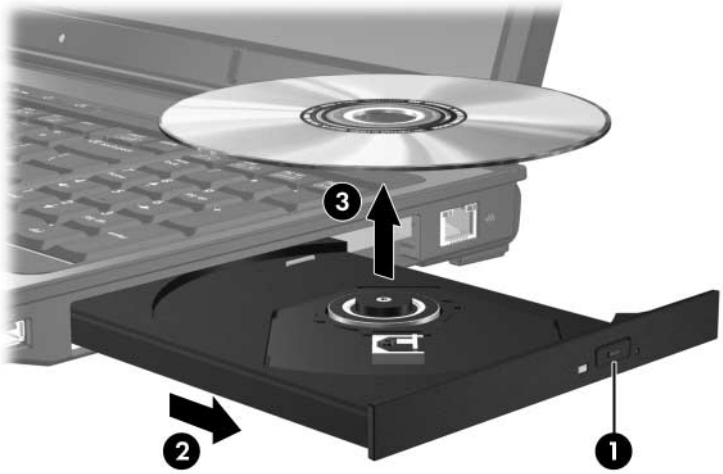
✎ After you insert a disc, a short pause is normal. If you have not selected a default media player, an AutoPlay dialog box opens. It prompts you to select how you want to use the media content.

Removing an optical disc (with power)

If the computer is running on external or battery power:

1. Turn on the computer.
2. Press the release button ❶ on the drive bezel to release the media tray, and then pull out the tray ❷.
3. Remove the disc ❸ from the tray by gently pressing down on the spindle while lifting the outer edges of the disc. Hold the disk by the edges and avoid touching the flat surfaces.

   ✎ If the tray is not fully accessible, tilt the disc carefully as you remove it.



4. Close the media tray and place the disc in a protective case.

Removing an optical disc (without power)

If external or battery power is not available:

1. Insert the end of a paper clip ❶ into the release access in the front bezel of the drive.
2. Press gently until the media tray is released, and then pull out the tray ❷.
3. Remove the disc ❸ from the tray by gently pressing down on the spindle while lifting the outer edges of the disc. Hold the disc by the edges and avoid touching the flat surfaces.

   ✎ If the tray is not fully accessible, tilt the disc carefully as you remove it.

4. Close the media tray and place the disc in a protective case.

Avoiding the Sleep state or Hibernation

CAUTION: To prevent possible audio and video degradation, or loss of audio or video playback functionality, do not initiate Sleep or Hibernation while reading or writing to a CD or DVD.

To prevent loss of information, do not initiate Sleep or Hibernation when writing to a CD or DVD.

If Sleep or Hibernation is initiated during playback of drive media (such as a CD or DVD), the computer will behave in one of the following ways:

- Your playback may be interrupted.
- You may see a warning message asking if you want to continue. If this message is displayed, click **No**.
- You may need to restart the CD or DVD to resume audio or video playback.

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