

# Multimedia 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 Multimedia features

Your computer includes multimedia features that allow you to listen to music and view pictures. Your computer may include the following multimedia components:

- Integrated speakers for listening to music
- Integrated microphone for recording your own audio
- Integrated webcam that allows you to capture and share video
- Preinstalled multimedia software that allows you to play and manage your music, movies, and pictures
- Hotkeys that provide fast access to volume control



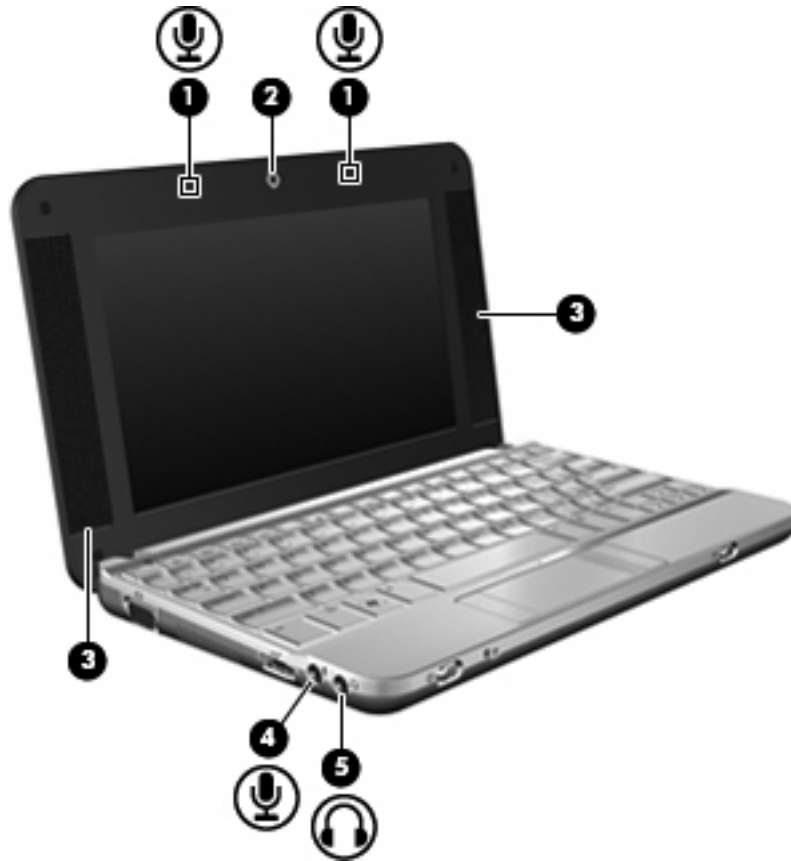
**NOTE:** Your computer may not include all of the components listed.

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The following sections explain how to identify and use the multimedia components included with your computer.

# Identifying your multimedia components

The following illustration and table describe the multimedia features of the computer.



Component	Description
(1) Internal microphones (2)	Record sound.
(2) Webcam (select models only)	Captures video.
(3) Speakers (2)	Produce sound.
(4) Audio-in (microphone) jack	Connects an optional computer headset microphone, stereo array microphone, or monaural microphone.
(5) Audio-out (headphone) jack	Produces sound when connected to optional powered stereo speakers, headphones, ear buds, or a headset.

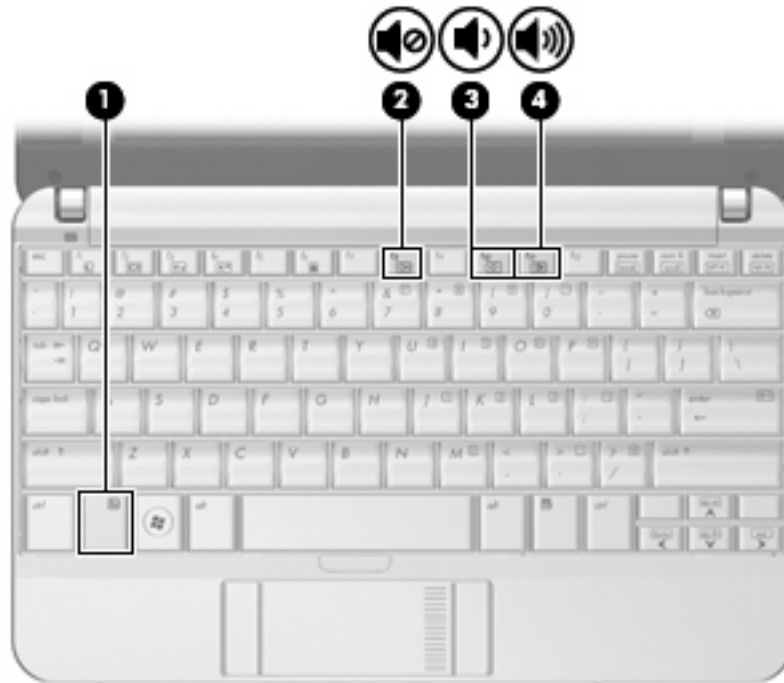
**NOTE:** When a device is connected to the headphone jack, the computer speakers are disabled.



# Adjusting the volume

You can adjust the volume using the following controls:

- Computer volume hotkey—A combination of the **fn** key (1) and either the **f8** (2), **f10** (3), or **f11** (4) function key:
  - To mute or restore volume, press **fn+f8**.
  - To decrease volume, press **fn+f10**.
  - To increase volume, press **fn+f11**.



- Windows® volume control:
  - a. Click the **Volume** icon in the notification area, at the far right of the taskbar.
  - b. Increase or decrease the volume by moving the slider up or down. Select the **Mute** check box to mute the volume.– or –
  - a. Double-click the **Volume** icon in the notification area.
  - b. In the Speakers column, you can increase or decrease the volume by moving the **Volume** slider up or down. You can also adjust the balance or mute the volume.

If the Volume icon is not displayed in the notification area, follow these steps to add it:

- a. Select **Start > Control Panel > Sounds, Speech, and Audio Devices > Sounds and Audio Devices > Volume** tab.
  - b. Select the **Place volume icon in the taskbar** check box.
  - c. Click **Apply**.
- Program volume control:  
Volume can also be adjusted within some programs.

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## 2 Multimedia software


Your computer includes preinstalled multimedia software that allows you to play music and view pictures. The following sections provide details about preinstalled multimedia software and installing multimedia software from a disc.

## Using preinstalled multimedia software

To locate preinstalled multimedia software:

- ▲ Select **Start > All Programs**, and then open the multimedia program you want to use.


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 **NOTE:** Some programs may be located in subfolders.

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## Installing multimedia software from a disc

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 **NOTE:** To install multimedia software from a disc, you must have an external optical drive connected to the computer. The computer provides one powered USB port on the left side of the computer. This port provides power to the external optical drive when used with a powered USB cable. An external optical drive connected to the other USB port on the computer must be connected to AC power.

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To install any multimedia software from a CD or DVD, follow these steps:

1. Insert the disc into a connected external optical drive.
2. When the installation wizard opens, follow the on-screen instructions.
3. Restart the computer if you are prompted to do so.

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 **NOTE:** For details about using software included with the computer, refer to the software manufacturer's instructions, which may be provided with the software, on disc, or on the manufacturer's Web site.

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## 3 Audio

Your computer enables you to use a variety of audio features:

- Play music using your computer speakers and/or connected external speakers
- Record sound using the internal microphone or connect an external microphone
- Download music from the Internet
- Create multimedia presentations using audio and images
- Transmit sound and images with instant messaging programs
- Stream radio programs (select models only) or receive FM radio signals
- Create or “burn” audio CDs using an external optical drive


# Connecting external audio devices

 **WARNING!** To reduce the risk of personal injury, adjust the volume before putting on headphones, earbuds, or a headset. For additional safety information, refer to the *Regulatory, Safety and Environmental Notices*.

---

To connect external devices such as external speakers, headphone, or a microphone, refer to the information provided with the device. For best results, remember the following tips:

- Be sure that the device cable is securely connected to the correct jack on your computer. (Cable connectors are normally color-coded to match the corresponding jacks on the computer.)
- Be sure to install any drivers required by the external device.

 **NOTE:** A driver is a required program that acts like a translator between the device and the programs that use the device.

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## Checking your audio functions

To check the system sound on your computer, follow these steps:


1. Select **Start > Control Panel**.
2. Click **Sounds, Speech, and Audio Devices > Sounds and Audio Devices**.
3. When the Sounds and Audio Devices Properties window opens, click the **Sounds** tab. Under **Program events**, select any sound event, such as a beep or alarm, and click the test button.

You should hear sound through the speakers or through connected headphones.

To check the record functions of the computer, follow these steps:

1. Select **Start > All Programs > Accessories > Entertainment > Sound Recorder**.
2. Click the Record button and speak into the microphone. Save the file to your desktop.
3. Open Windows Media Player and play back the sound.

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 **NOTE:** For best results when recording, speak directly into the microphone and record sound in a setting free of background noise.

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- ▲ To confirm or change the audio settings on your computer, right-click the **Sound** icon on the taskbar, or select **Start > Control Panel > Sounds, Speech, and Audio Devices > Sounds and Audio Devices**.



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## 4 Video

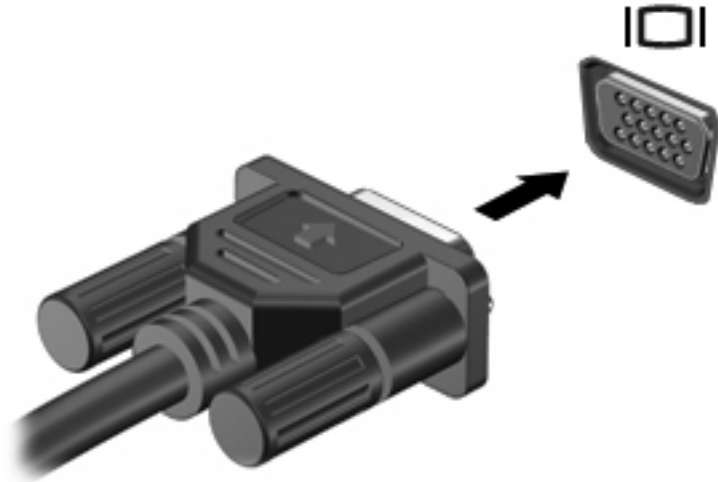
Your computer enables you to use a variety of video features:

- Play games over the Internet
- Edit pictures and video to create presentations
- Connect external video devices


## Connecting an external monitor or projector

The external monitor port connects an external display device such as an external monitor or a projector to the computer.

- ▲ To connect a display device, connect the device cable to the external monitor port.



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 **NOTE:** If a properly connected external display device does not display an image, press **fn+f2** to transfer the image to the device. Repeatedly pressing **fn+f2** alternates the screen image between the computer display and the device.

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## 5 Optical drive (select models only)

Your computer may come with an external optical drive that expands the functionality of the computer. The external optical drive allows you to read data discs, play music, and watch movies.

### Identifying the installed optical drive


- ▲ Select **Start > My Computer**.

The type of optical drive installed in the computer is displayed under Devices with Removable Storage.

## Using optical discs


An optical drive, such as a DVD-ROM drive, supports optical discs (CDs and DVDs). These discs store information, such as music, photos, and movies. DVDs have a higher storage capacity than CDs.

The external optical drive can read standard CD and DVD discs.

 **NOTE:** Some of the optical drives listed may not be supported by your computer. The listed drives are not necessarily all of the supported optical drives.


Some optical drives can also write to optical discs as described in the following table.

Optical drive type	Write to CD-RW	Write to DVD $\pm$ RW/R	Write to DVD+R DL	Write label to LightScribe CD or DVD $\pm$ RW/R	Write to HD DVD
DVD $\pm$ RW/R and CD-RW Combo Drive	Yes	Yes	No	No	No
DVD $\pm$ RW/R and CD-RW Combo Drive with DL support	Yes	Yes	Yes	No	No
HD DVD-R Drive with SuperMulti DVD $\pm$ R/RW DL support	Yes	Yes	Yes	No	Yes
HD DVD-ROM Drive with SuperMulti DVD $\pm$ R/RW DL support	Yes	Yes	Yes	No	No
LightScribe DVD $\pm$ RW/R and CD-RW Combo Drive with DL support	Yes	Yes	Yes	Yes	No

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

# Selecting the right disc

An optical drive supports optical discs (CDs and DVDs). CDs, used to store digital data, are also used for commercial audio recordings and are convenient for your personal storage needs. DVDs are used primarily for movies, software, and data backup purposes. DVDs are the same form factor as CDs but have 6 to 7 times the storage capacity.

 **NOTE:** The external optical drive connected to your computer may not support all the types of optical discs discussed in this section.

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## CD-R discs

Use CD-R (write-once) discs to create permanent archives and to share files with virtually anyone. Typical uses include the following:

- Distributing large presentations
- Sharing scanned and digital photos, video clips, and written data
- Making your own music CDs
- Keeping permanent archives of computer files and scanned home records
- Offloading files from your hard drive to free up disk space

After data is recorded, it cannot be erased or written over.

## CD-RW discs

Use a CD-RW disc (a rewritable version of a CD) to store large projects that must be updated frequently. Typical uses include the following:

- Developing and maintaining large documents and project files
- Transporting work files
- Making weekly backups of hard drive files
- Updating photos, video, audio, and data continuously

## DVD±R discs

Use blank DVD±R discs to permanently store large amounts of information. After data is recorded, it cannot be erased or written over.


## DVD±RW discs

Use DVD±RW discs if you want to be able to erase or write over data that you saved earlier. This type of disc is ideal for testing audio or video recordings before you burn them to a CD or DVD that cannot be changed.

## LightScribe DVD+R discs


Use LightScribe DVD+R discs for sharing and storing data, home videos, and photos. These discs are read-compatible with most DVD-ROM drives and set-top DVD video players. With a LightScribe-enabled drive and LightScribe software, you can write data to the disc and then add a designer label to the outside of the disc.

## Playing music

 **NOTE:** Be sure that the external optical drive is connected to your computer before beginning these steps.

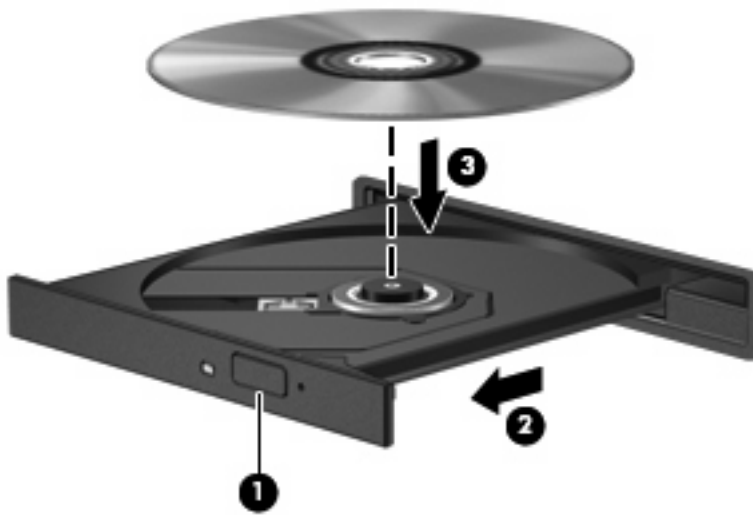
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1. Turn on the computer.
2. Press the release button **(1)** on the external optical drive bezel to release the disc tray.
3. Pull out the tray **(2)**.
4. Hold the disc by the edges and position the disc label-side up over the tray spindle.


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

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5. Gently press the disc **(3)** down onto the tray spindle until the disc snaps into place.



6. Close the disc tray.
7. If you have not yet configured AutoPlay, the AutoPlay dialog box opens and asks how you want to use the media content. Choose Windows Media Player, which is preinstalled on your computer.

 **NOTE:** After you insert a disc, a short pause is normal.


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If Standby or Hibernation is accidentally initiated during playback of a disc:

- 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 playback.


## Watching a movie

An external optical drive allows you to watch movies from a disc.

 **NOTE:** Be sure that the external optical drive is connected to your computer before beginning these steps.

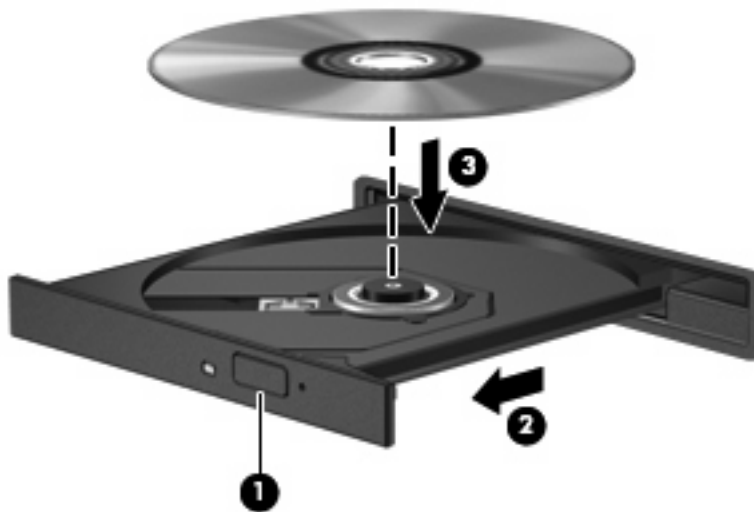
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1. Turn on the computer.
2. Press the release button **(1)** on the external optical drive bezel to release the disc tray.
3. Pull out the tray **(2)**.
4. Hold the disc by the edges and position the disc label-side up over the tray spindle.


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

---

5. Gently press the disc **(3)** down onto the tray spindle until the disc snaps into place.



6. Close the disc tray.

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

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## Changing DVD region settings

Most DVDs that contain copyrighted files also contain region codes. The region codes help protect copyrights internationally.

You can play a DVD containing a region code only if the region code on the DVD matches the region setting on your DVD drive.

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△ **CAUTION:** The region settings on your DVD drive can be changed only 5 times.

The region setting you select the fifth time becomes the permanent region setting on the DVD drive.

The number of region changes remaining is displayed on the DVD Region tab.

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To change settings through the operating system:

1. Select **Start > My Computer**.
2. Right-click in the window and select **Properties > Hardware tab > Device Manager**.
3. Click the "+" sign next to **DVD/CD-ROM drives**, right-click the DVD drive for which you want to change region settings, and then click **Properties**.
4. Make the desired changes on the **DVD Region** tab.
5. Click **OK**.



## Creating or “burning” a CD or DVD

If your external optical drive is a CD-RW, DVD-RW, or DVD±RW optical drive, you can use software such as Windows Media Player to burn data and audio files, including MP3 and WAV music files. To burn video files to a CD or DVD, use MyDVD.

Observe the following guidelines when burning a CD or DVD:

- Before burning a disc, save and close any open files and close all programs.
- A CD-R or DVD-R is usually best for burning audio files because after the information is copied, it cannot be changed.
- Because some home and car stereos will not play CD-RWs, use CD-Rs to burn music CDs.
- A CD-RW or DVD-RW is generally best for burning data files or for testing audio or video recordings before you burn them to a CD or DVD that cannot be changed.
- DVD players used in home systems usually do not support all DVD formats. Refer to the user guide that came with your DVD player for a list of supported formats.
- An MP3 file uses less space than other music file formats, and the process for creating an MP3 disc is the same as the process for creating a data file. MP3 files can be played only on MP3 players or on computers with MP3 software installed.

To burn a CD or DVD, follow these steps:

1. Download or copy the source files into a folder on your hard drive.
2. Insert a blank CD or DVD into the external optical drive.
3. Select **Start > All Programs** and the name of the software you want to use.
4. Select the kind of CD or DVD you want to create—data, audio, or video.
5. Right-click **Start**, click **Explore**, and navigate to the folder where the source files are stored.
6. Open the folder, and then drag the files to the drive that contains the blank optical disc.
7. Initiate the burning process as directed by the program you have selected.

For specific instructions, refer to the software manufacturer's instructions, which may be provided with the software, on disc, or on the manufacturer's Web site.


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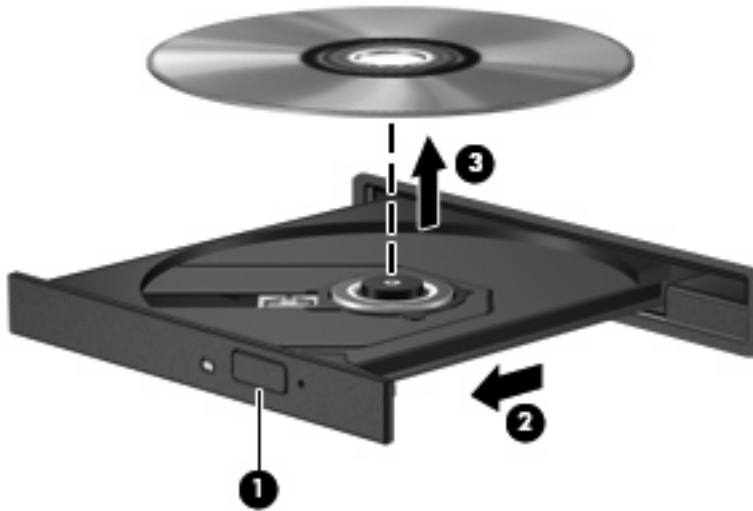
△ **CAUTION:** Observe the copyright warning. It is a criminal offense, under applicable copyright laws, to make unauthorized copies of copyright-protected material, including computer programs, films, broadcasts, and sound recordings. Do not use this computer for such purposes.

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## Removing an optical disc (CD or DVD)

1. Press the release button (1) on the drive bezel to release the disc tray, and then gently pull out the tray (2) until it stops.
2. Remove the disc (3) 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.

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



3. Close the disc tray and place the disc in a protective case.


---

## 6 Webcam (select models only)

Select computer models include an integrated webcam, located at the top of the display. The webcam can be used with a variety of software for the following functions:

- Capturing video
- Streaming video with instant message software
- Taking still photos

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 **NOTE:** For information about using software designed for use with the integrated webcam, refer to the online Help for that software.

---

For optimum performance, observe the following guidelines while using the integrated webcam:

- Be sure that you have the latest version of an instant message program before attempting a video conversation.
- Your integrated webcam may not work properly across some network firewalls. If you are having trouble viewing or sending video to someone on another LAN or outside your network firewall, contact your Internet service provider for assistance.
- Whenever possible, place bright light sources behind the webcam and out of the picture area.

## Adjusting webcam properties

You can adjust webcam properties using the Properties dialog box, which is accessible from various programs that use the integrated webcam, usually from a configuration, settings, or properties menu:

- **Brightness**—Controls the amount of light that is incorporated into the image. A higher brightness setting creates a brighter image; a lower brightness setting creates a darker image.
- **Contrast**—Controls the difference between lighter and darker areas on the image. A higher contrast setting intensifies the image; a lower contrast setting maintains more of the original information's dynamic range but leads to a flatter image.
- **Hue**—Controls the aspect of color that distinguishes it from another color (what makes a color red, green, or blue). Hue is distinct from saturation, which measures the intensity of the hue.
- **Saturation**—Controls the strength of color in the final image. A higher saturation setting creates a bolder image; a lower saturation setting creates a more subtle image.
- **Sharpness**—Controls the definition of edges in an image. A higher sharpness setting creates a more defined image; a lower sharpness setting creates a softer image.
- **Gamma**—Controls the contrast affecting the mid-level grays or midtones of an image. Adjusting the gamma of an image allows you to change the brightness values of the middle range of gray tones without dramatically altering the shadows and highlights. A lower gamma setting makes grays look black, and makes dark colors even darker.

For information about using the webcam, select **Start > Help and Support**.


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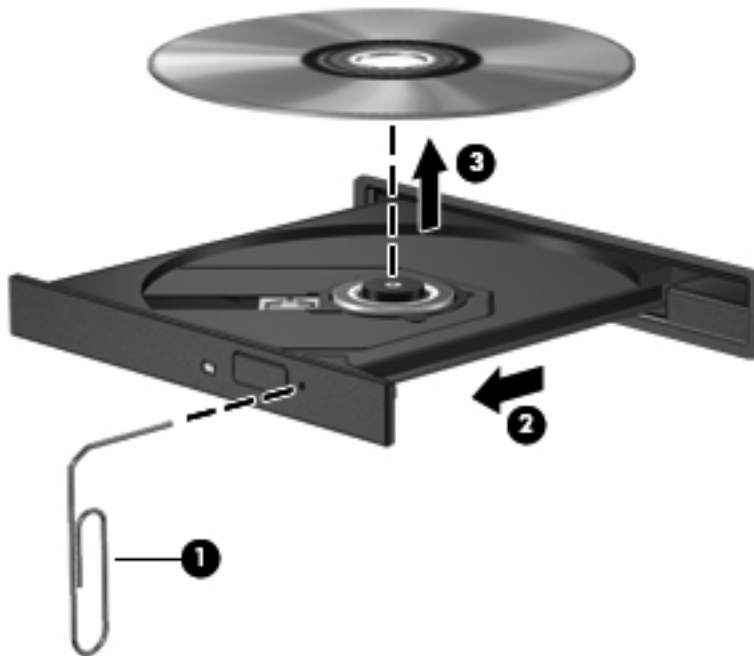
# 7 Troubleshooting

The following sections describe several common issues and resolutions.

## The optical disc tray does not open for removal of a CD or DVD

1. Insert the end of a paper clip (1) into the release access in the front bezel of the drive.
2. Press in gently on the paper clip until the disc tray is released, and then pull out the tray (2) until it stops.
3. Remove the disc (3) 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.

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



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

## The computer does not detect the external optical drive

If Windows does not detect the external optical drive, use the Device Manager to troubleshoot the device and update, uninstall, or roll back the device driver.

To check your device and drivers in Device Manager, follow these steps:

1. Remove any discs from the optical drive.
2. Select **Start > My Computer**.
3. Right-click in the window and select **Properties > Hardware** tab, and then click **Device Manager**.
4. In the Device Manager window, click the plus sign (+) next to **Disc Drives** or **DVD/CD-ROM drives**, unless a minus sign (-) is already showing. Look for an optical drive listing.
5. Right-click the optical device to perform the following tasks:
  - Update the driver.
  - Uninstall the device.
  - Scan for hardware changes. Windows scans your system for installed hardware and installs any required default drivers.
  - Click **Properties** to see if the device is working properly.
    - Click **Troubleshoot** to fix problems.
    - Click the **Driver** tab to update, roll back, or uninstall drivers for this device.

## A disc does not play

- Save your work and close all open programs before playing a CD or a DVD.
- Log off the Internet before playing a CD or a DVD.
- Be sure that you insert the disc properly.
- Be sure that the disc is clean. If necessary, clean the disc with filtered water and a lint-free cloth. Wipe from the center of the disc to the outer edge.
- Check the disc for scratches. If you find scratches, treat the disc with an optical disc repair kit available at many electronics stores.
- Disable Standby mode before playing the disc.

Do not initiate Hibernation or Standby while playing a disc. Otherwise, you may see a warning message asking if you want to continue. If this message is displayed, click **No**. After you click No, the computer may behave in either of the following ways:

- Playback may resume.

– or –

- The playback window in the multimedia program may close. To return to playing the disc, click the **Play** button in your multimedia program to restart the disc. In rare cases, you may need to exit the program and then restart it.
- Increase system resources:
  - Turn off external devices, such as printers and scanners, and unplug cameras and portable handheld devices. Disconnecting these devices frees up valuable system resources and results in better playback performance.
  - Change desktop color properties. Because the human eye cannot easily tell the difference between colors beyond 16 bits, you should not notice any loss of color while watching a movie if you lower system color properties to 16-bit color, as follows:
    1. Right-click on a blank area of the computer desktop, and select **Properties > Settings** tab.
    2. Set **Colors** to **Medium (16 bit)**, if this setting is not already selected.




## A DVD movie stops, skips, or plays erratically

- Check to be sure the disc is not scratched or damaged.
- Clean the disc.
- Conserve system resources by trying the following suggestions:
  - Log off the Internet.
  - Change the color properties of the desktop:
    1. Right-click on a blank area of the computer desktop, and select **Properties > Settings** tab.
    2. Set **Colors to Medium (16 bit)**, if this setting is not already selected.
  - Disconnect external devices, such as a printer, scanner, camera, or handheld device.

## A DVD movie is not visible on an external display

1. If both the computer display and an external display are turned on, press **fn+f2** one or more times to switch between the 2 displays.
2. Configure the monitor settings to make the external display primary:
  - a. Right-click on a blank area of the computer desktop, and select **Properties > Settings** tab.
  - b. Specify a primary display and a secondary display.

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 **NOTE:** When using both displays, the DVD image will not appear on any display designated as the secondary display.

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To get information about a multimedia question not covered in this guide, select **Start > Help and Support**.

## The process of burning a disc does not begin, or it stops before completion

- Be sure that all other programs are closed.
- Turn off Standby and Hibernation.
- Be sure that you are using the right kind of disc for your drive. See Chapter 5, “Optical drive,” for more information about disc types.
- Be sure that the disc is inserted properly.
- Select a slower write speed and try again.
- If you are copying a disc, save the information on the source disc to your hard drive before trying to burn the contents to a new disc, and then burn from your hard drive.
- Reinstall the disc-burning device driver located in the DVD/CD-ROM drives category in Device Manager.

# A new device driver is needed

## Obtaining Microsoft device drivers

Your computer is set to automatically check for and install updates for the most recent Windows operating system and other Microsoft products.

## Obtaining HP device drivers

Follow these steps to obtain HP device drivers:

1. Select **Start > All Programs > HP Update**.
2. On the HP Welcome screen, click **Settings**, and then select a time when the utility should check for software updates on the Web.
3. Click **Next** to immediately check for HP software updates.

To use the HP Web site:

1. Open your Internet browser and go to <http://www.hp.com/support>.
2. Select your country or region.
3. Click the option for software and driver downloads, and then type your computer model number in the Search box.
4. Press **enter**, and then follow the on-screen instructions.

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