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How to use this manual

This document is designed to provide you with direct access to vital product knowledge. You can resize the document window or print this document, access linked web sites and get information from specially prepared graphics.

- To jump to a linked topic or a web site, click the underlined blue text, or the hand symbol  whenever it appears.
- To show a short description (tooltip) of an object, move your mouse cursor over it. A tooltip appears after a few seconds.

You can choose to print portions of this document:

1. On the Contents tabbed page to your left, click a topic heading.
- On the menu, click the Print button.
 - In the dialog box that appears, click the option to print one topic only, or all topics under a heading.

Introduction

Congratulations on your purchase of Creative's latest audio revolution, Sound Blaster® X-Fi™ Xtreme Audio! With cutting edge technology from the leaders in PC audio, your audio card will provide you with years of entertainment.

This User's Guide contains software installation and usage information for your audio device.

Notes

- Some upgrade accessories are only available in certain regions. For more information on product availability and possible upgrade options, consult your local distributor or visit www.soundblaster.com.

System Requirements

Minimum Requirements

- Genuine Intel® Pentium® 4 1.6 GHz, AMD® Athlon XP 2000+ processor or faster (Pentium 4 2.2 GHz, AMD Athlon XP 2400+ processor or faster recommended)
- Intel, AMD or 100% compatible motherboard chipset
- Microsoft® Windows Vista™ 32-bit or 64-bit, Windows® XP Professional x64 Edition, Windows XP Service Pack 2 (SP2) or Windows XP Media Center Edition (MCE) 2004/2005
- 512 MB RAM
- 600 MB of free hard disk space
- Available PCI 2.1 slot for the audio card
- Headphones or amplified speakers (available separately)
- CD-ROM/CD-RW or CD/DVD-ROM drive required for software installation

Additional Requirements (where applicable)

DVD-Video

- 6x or faster DVD-ROM drive
- DVD player software such as InterVideo® WinDVD® or CyberLink® PowerDVD™ (latest version recommended) installed
- High-speed Internet connection to download the latest PowerDVD with Dolby® Digital and DTS® decoding codec*
- 5.1, 6.1 or 7.1 speakers for optimal listening experience**

Notes

- Other applications may have higher system requirements. Refer to the applications' documentation for details.
- *Additional charges may be incurred if you choose to upgrade PowerDVD and/or download codecs.
- **6.1 channel audio is not supported by Windows Vista.

More Help

Visit www.soundblaster.com for the latest Sound Blaster news and products. The site also includes information on making purchases, technical help, and the latest driver updates.

About Your Hardware

Refer to the Quick Start leaflet for instructions on installing your audio card. To learn more about your product, refer to the relevant section below:

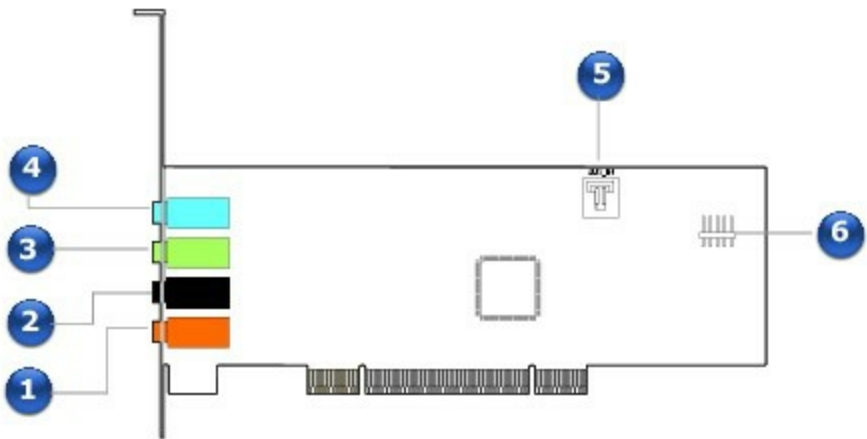
- [Your Sound Blaster audio card](#)
- [Your Digital I/O Module*](#)

Notes

- *Available as an upgrade accessory in some regions.

Your Sound Blaster audio card

Your audio card has the jacks and connectors below to enable the attachment of a wide variety of devices. The availability and position of the jacks and connectors may vary, as shown below:



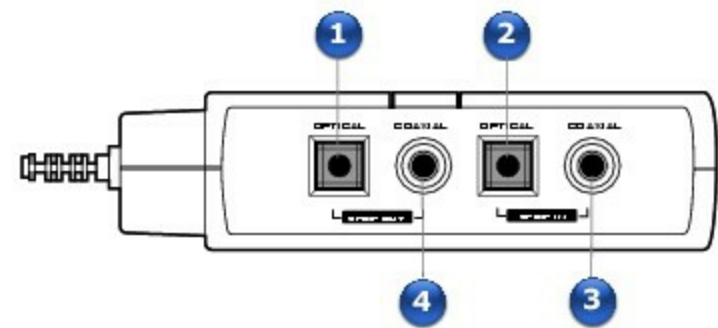
| Jack or Connector | Description |
|--|--|
| 1. Line Out 3 jack | Connect the following inputs on powered analog speakers or a home theater receiver to this jack: <ul style="list-style-type: none">On 5.1 systems: Front Center and SubwooferOn 6.1 systems: Front Center, Subwoofer and Rear CenterOn 7.1 systems: Front Center, Subwoofer and Side Left |
| 2. Line Out 2 jack | Connect the following inputs on powered analog speakers or a home theater receiver to this jack: <ul style="list-style-type: none">On 4.1, 5.1 and 6.1 systems: Rear Left and Rear RightOn 7.1 systems: Rear Left, Rear Right and Side Right |
| 3. Line Out 1 jack | Connect the Front Left and Front Right inputs on powered analog speakers or a home theater receiver to this jack. You can also connect your stereo headphones with a 3.50 mm (1/8-inch) plug to this jack. |
| 4. Digital I/O / Line In / Mic In jack | Performs a 3-in-1 function, supporting Microphone-in, Line-in and Digital I/O connections. Connect one of the following to this jack: <ul style="list-style-type: none">analog devices like cassette players and other line-level sourcesa microphonethe Digital I/O Module*external digital audio devices that accept stereo PCM or compressed Dolby Digital/DTS Bitstream from the Digital output See Configuring your Digital I/O module . |
| 5. Aux In connector | Connect an analog CD cable (available separately) from the analog output on an audio device like a TV tuner to this connector. |
| 6. Front Panel Header Audio connector | Connect one end of the Intel Front Panel Audio cable (available separately) to this connector. See Front Panel Header for specifications. |

Notes

- *Available as an upgrade accessory in some regions.
- 6.1 channel audio is not supported by Windows Vista.

Your Digital I/O Module*

The Digital I/O Module provides additional connectivity for a number of other devices.



| | Jack or Connector | Description |
|----|------------------------|--|
| 1. | Optical SPDIF Out jack | Connect recording devices with optical jacks (for example, MiniDisc recorders, Digital Audio Tape recorders or external hard disk recorders) to this jack. |
| 2. | Optical SPDIF In jack | Connect playback devices with optical jacks (for example, MiniDisc players, Digital Audio Tape players or DVD players) to this jack. |
| 3. | Coaxial SPDIF In jack | Connect playback devices with coaxial jacks (for example, MiniDisc players, Digital Audio Tape players or DVD players) to this jack. |
| 4. | Coaxial SPDIF Out jack | Connect recording devices with coaxial jacks (for example, MiniDisc recorders, Digital Audio Tape recorders or external hard disk recorders) to this jack. |




Notes

- *Available as an upgrade accessory in some regions.

Configuring your Digital I/O module

Your audio card provides both analog and digital support. After connecting your Digital I/O module to the Digital I/O / Mic In / Line In jack, connect the device that you want to your Digital I/O module and follow the instructions below to configure it:

1. In Entertainment Mode, click the **Speakers and Headphones**  icon.
- Select the **Digital Output Only** checkbox.
 - Click the **OK** button.

You can now enjoy X-Fi Technology enhanced stereo PCM from your audio card's digital output!

Installing and Uninstalling Software

- [Installing Drivers and Applications](#)
- [Using Creative Software AutoUpdate](#)
- [Updating DirectX](#)
- [Uninstalling and Reinstalling the Applications and Device Drivers](#)

Installing Drivers and Applications

You need to install device drivers and applications before using your audio card. The instructions below apply to all supported Windows operating systems.

1. After you have installed your audio card, turn on your computer. Windows automatically detects your audio card and searches for device drivers.
- When prompted for the audio drivers, click the **Cancel** button.
 - Insert the Installation and Applications CD into your CD/DVD-ROM drive. Your CD should start automatically. If it does not, follow the steps below:
 1. Double-click the **My Computer** icon.
Alternatively, click **Start** → **My Computer**.
 - Right-click the CD-ROM/DVD-ROM drive icon, and then click **AutoPlay**.
 - Follow the instructions on the screen to complete the installation.
 - When prompted, restart your computer.

Using Creative Software AutoUpdate

Locating, downloading and installing updates for your Creative products is now simpler and faster with the new web-based Creative Software AutoUpdate system.

When you connect to Creative Software AutoUpdate via the Internet, the web site will analyze your computer system to determine what operating system (OS), language and Creative products are installed in your system.

After the online analysis, you will be able to select from a list of only the most relevant software and driver updates. The files will then be retrieved and installed on your system for you.

To find out more about Creative Software AutoUpdate, go to

www.soundblaster.com/support/.

Notes

- First-time users of Creative Software AutoUpdate may be prompted to authorize the download of a browser component required for system inspection. Ensure that the content is signed by Creative Labs, Inc., and then click the **Yes** button.
- Ensure that all your Creative products are connected and installed on the same computer running Creative Software AutoUpdate.

Updating DirectX

To download the latest update for DirectX, go to www.microsoft.com.

Uninstalling and Reinstalling the Applications and Device Drivers

At times you may need to uninstall or reinstall some or all of the audio applications and device drivers to correct problems, change configurations, or upgrade outdated drivers or applications. The following instructions tell you how to do so in all Windows operating systems.

Before you begin, close all the audio applications. Applications that are still running during the uninstallation will not be removed.

Reinstalling Audio Drivers and Applications

1. For Windows Vista

Click **Start** → **Control Panel** → **Uninstall a program**.

For Windows XP

1. **Start** → **Settings** → **Control Panel** or **Start** → **Control Panel**.

- Double-click the **Add/Remove Programs** icon and click the **Change or Remove Programs** tab.

- Select your audio card's entry

• For Windows Vista

Click the **Add/Remove** button.

For Windows XP

Click the **Change/Remove** button.

- In the **InstallShield Wizard** dialog box, select the **Repair** option.

If prompted, insert the Installation and Applications CD into your CD/DVD-ROM, and click the **OK** button.

- To repair an application, select the application check box.

- Click the **Next** button.

- Restart your computer when prompted.

You can now check the computer to see if the reinstalled software works properly. If not, see [Troubleshooting and FAQs](#).

Uninstalling all Audio Drivers and Applications

1. For Windows Vista

Click **Start** → **Control Panel** → **Uninstall a program**.

For Windows XP

1. **Start** → **Settings** → **Control Panel** or **Start** → **Control Panel**.

- Double-click the **Add/Remove Programs** icon and click the **Change or Remove Programs** tab.

- Select your audio card's entry

• For Windows Vista

Click the **Add/Remove** button.

For Windows XP

Click the **Change/Remove** button.

- In the **InstallShield Wizard** dialog box, select the **Remove All** option.

- Click the **Yes** button.

- Restart your computer when prompted.

You may now install the original or updated Sound Blaster X-Fi device drivers or applications. For more information, see [Installing Drivers and Applications](#).

Installing/Uninstalling selected Audio Drivers or Applications

1. For Windows Vista

Click **Start** → **Control Panel** → **Uninstall a program**

For Windows XP

1. **Start** → **Settings** → **Control Panel** or **Start** → **Control Panel**.

- Double-click the **Add/Remove Programs** icon and click the **Change or Remove Programs** tab.

- Select your audio card's entry

• For Windows Vista

Click the **Add/Remove** button.

For Windows XP

Click the **Change/Remove** button.

- In the **InstallShield Wizard** dialog box, select the **Add** option to add new software components to your existing installation, or the **Remove** option to remove previously installed software components from your system.

- To install or uninstall an application, select the application check box.

- Click the **Next** button.

When prompted, insert the Installation and Applications CD into your CD/DVD-ROM, and click the **OK** button.

- Restart your computer when prompted.

To uninstall a selected component in Creative MediaSource:

1. For Windows Vista

Click **Start** → **Control Panel** → **Uninstall a program**.

For Windows XP

1. **Start** → **Settings** → **Control Panel** or **Start** → **Control Panel**.

- Double-click the **Add/Remove Programs** icon and click the **Change or Remove Programs** tab.

- Select your audio card's entry

• For Windows Vista

Click the **Add/Remove** button.

For Windows XP

Click the **Change/Remove** button.

- In the **InstallShield Wizard** dialog box, click the **Remove** button.

- Select the check box of the application you want to uninstall.

- Click the **Next** button.

- Restart your computer when prompted.

Connecting Peripherals

Your audio card works seamlessly with many external devices. To connect these peripherals, refer to the relevant sections below:

- [Watching DVDs](#)
- [Playing/Recording Music](#)
- [Creating Music](#)

Notes

- For more information on the Creative peripherals mentioned in this chapter, visit www.creative.com.
- The cables shown in these topics may be bundled with your peripheral and are available separately from your audio card package.

Watching DVDs

To decode Dolby Digital and DTS multichannel sound from DVDs, refer to the following sections:

- [Decoding from a software DVD player](#)
- [Decoding with an external decoder or a home theater receiver](#)
- [Connecting a multichannel home theater receiver](#)

Decoding from a software DVD player

To play Dolby Digital or DTS encoded DVDs on your computer, you need to install the latest version of a software DVD player such as WinDVD or PowerDVD.

You can download the following software and codecs:

- CyberLink PowerDVD player
- MPEG-2 decoder
- DTS decoding codec
- Dolby Digital decoding codec

Your product model enables you to upgrade PowerDVD, and download its codec, in the following ways:

- Click **Start** → **Programs** or **All Programs** → **Creative** → **Get PowerDVD**.

Notes

- Additional charges may be incurred if you choose to upgrade PowerDVD and/or download codecs.

Decoding with an external decoder or a home theater receiver

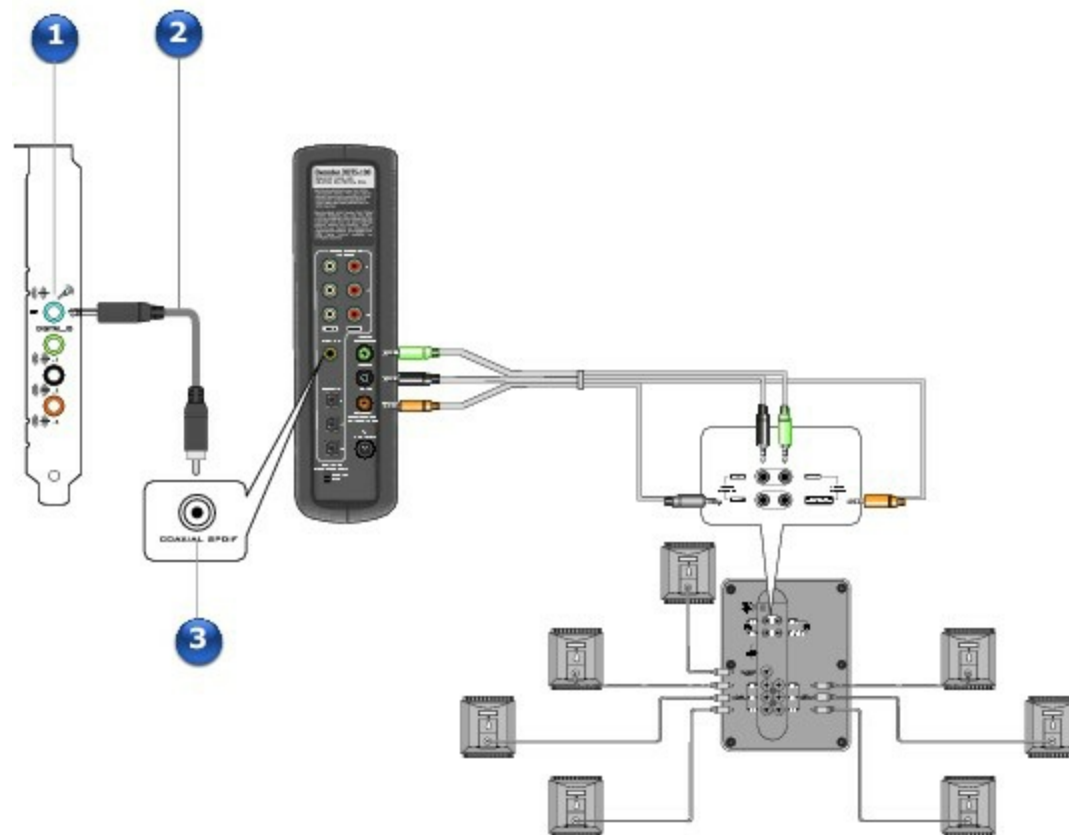
You can use an external decoder to process Dolby Digital, DTS, DTS-ES or Dolby Digital EX signals from your audio device (such as your audio card or Digital I/O Module*) and output the content to 5.1, 6.1 and 7.1 speakers.

Alternatively, you can use a home theater receiver to decode Dolby Digital or DTS signals to 5.1 speakers.

Notes

- *Available as an upgrade accessory in some regions.
- 6.1 channel audio is not supported by Windows Vista.

Connecting your external decoder to your audio card



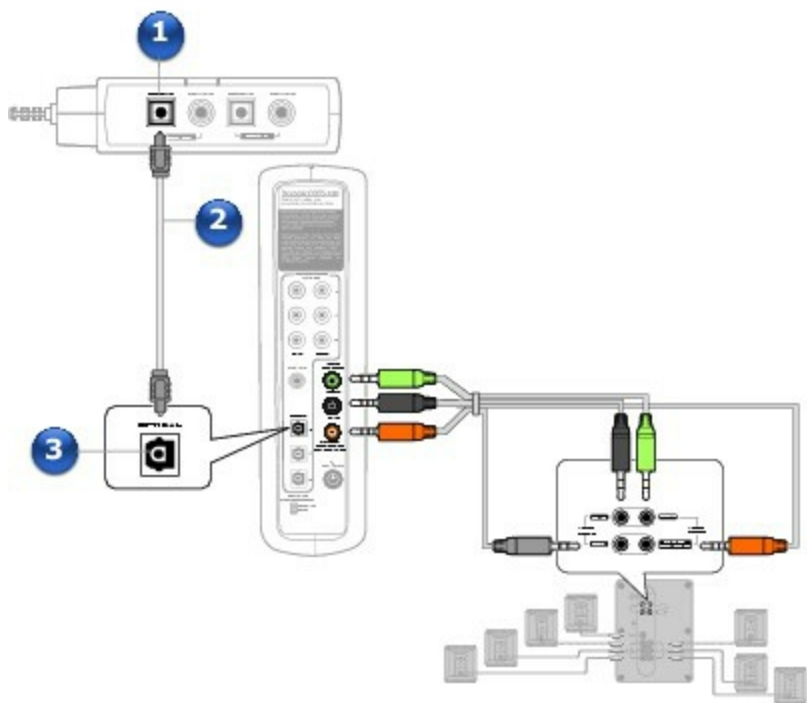
| Jack, Connector or Cable |
|--|
| 1. Digital I/O / Line In/ Mic In jack |
| 2. 3.50 mm (1/8-inch) mono-to-RCA cable (available separately) |
| 3. Coaxial SPDIF In jack |

Notes

- Actual products may differ slightly from those pictured.

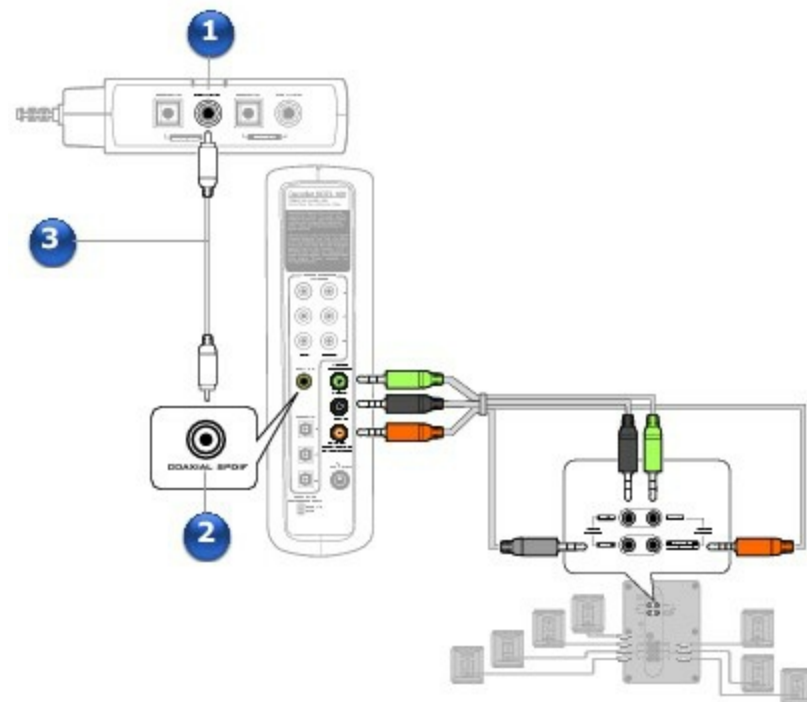
Connecting your external decoder to the Digital I/O Module

For optical connections:



| Jack, Connector or Cable |
|---|
| 1. Optical SPDIF Out jack |
| 2. Optical cable (available separately) |
| 3. Optical SPDIF In jack |

For coaxial connections:

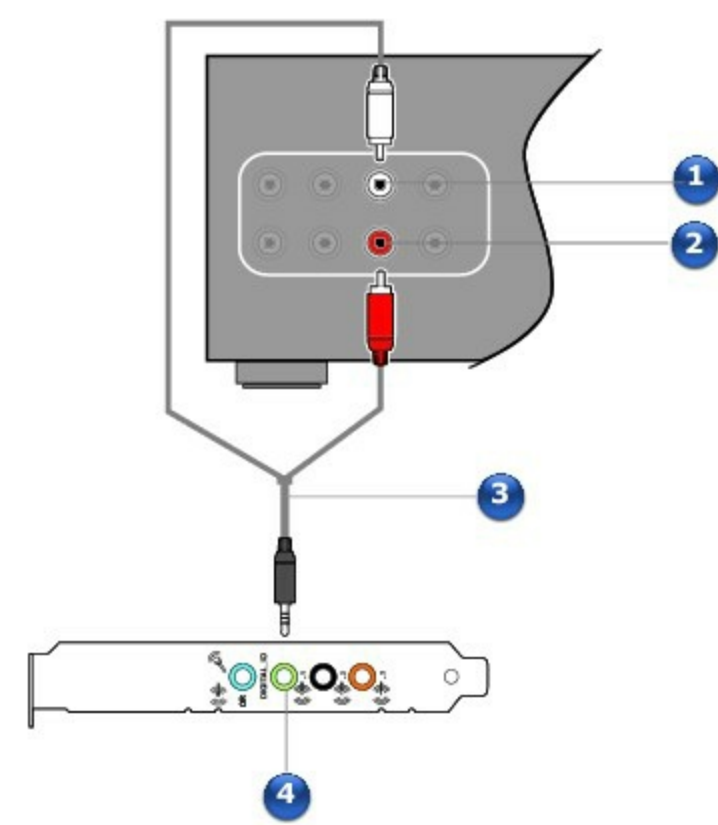


| Jack, Connector or Cable |
|---|
| 1. Coaxial SPDIF Out jack |
| 2. Coaxial SPDIF In jack |
| 3. Coaxial cable (available separately) |

Connecting a multichannel home theater receiver

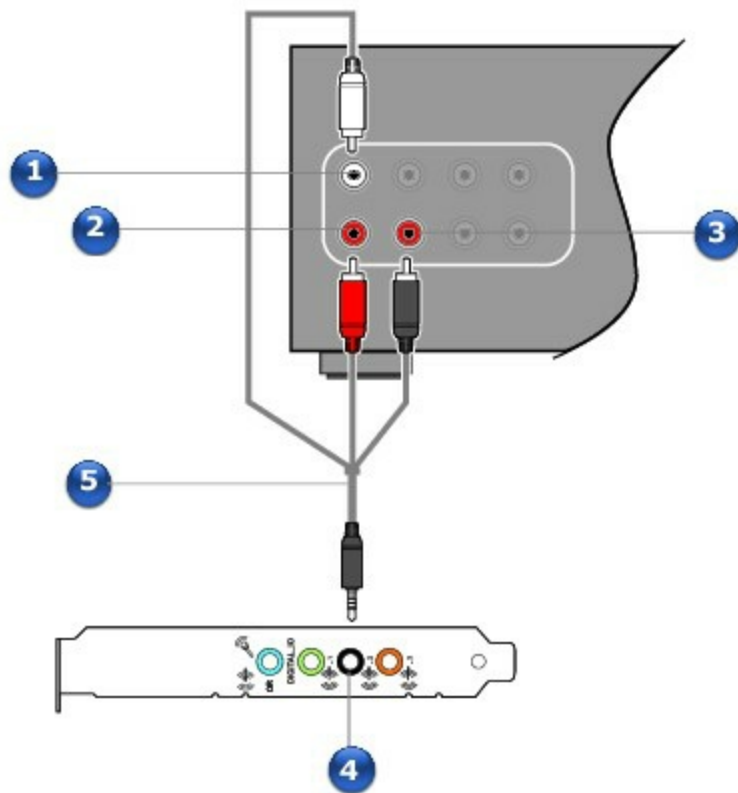
If you have a multichannel home theater receiver, you can connect it directly to your audio card's Line Out 1, Line Out 2 and Line Out 3 jacks as shown below. For more information on multichannel home theater receiver speaker connections, consult the User's Guide of your home theater receiver.

For more information on the appropriate jacks to use, see [Stereo and 4-Pole Jack Diagrams](#).



| Jack, Connector or Cable | | Description |
|--|--|---|
| 1. Front Left jack | | Connect this jack to the Line Out 1 jack on your audio card, using a 3.50 mm (1/8-inch) stereo-to-RCA cable (available separately). |
| 2. Front Right jack | | Connect this jack to the Line Out 1 jack on your audio card, using a 3.50 mm (1/8-inch) stereo-to-RCA cable (available separately). |
| 3. 3.50 mm (1/8-inch) stereo-to-RCA cable (available separately) | | Connects the audio card and home theater receiver. |
| 4. Line Out 1 jack | | Connect this jack to the Front Left and Front Right jacks on a multichannel home theater receiver, using a 3.50 mm (1/8-inch) stereo-to-RCA cable (available separately). |

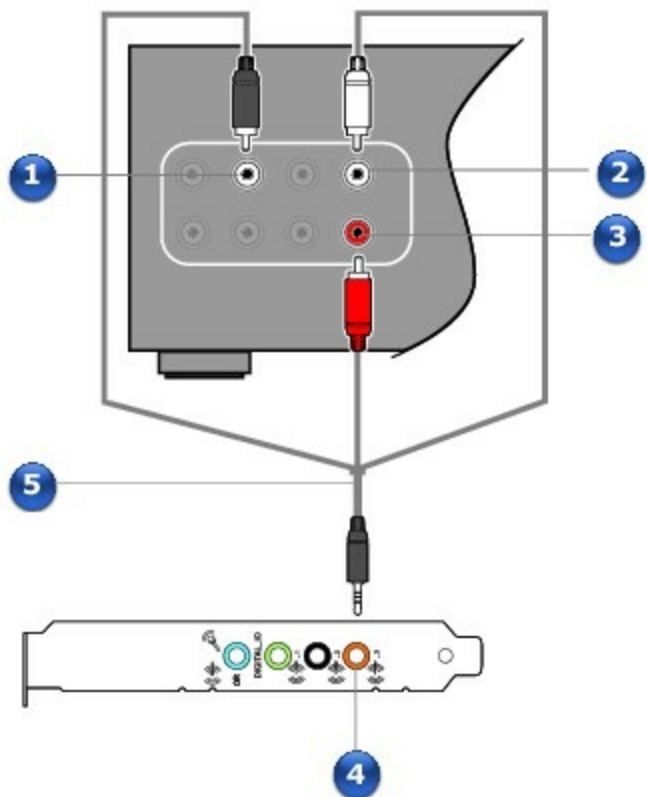




| Jack, Connector or Cable | Description |
|--------------------------|--|
| 1. Rear Left jack | Connect this jack to the Line Out 2 jack on your audio card, using a 3.50 mm (1/8-inch) 4-pole-to-RCA cable (available separately). |
| 2. Rear Right jack | Connect this jack to the Line Out 2 jack on your audio card, using a 3.50 mm (1/8-inch) 4-pole-to-RCA cable (available separately). |
| 3. Side Right jack | Connect this jack to the Line Out 2 jack on your audio card, using a 3.50 mm (1/8-inch) 4-pole-to-RCA cable (available separately). |
| 4. Line Out 2 jack | Connect the following jacks on a multichannel home theater receiver to this jack using a 3.50 mm (1/8-inch) 4-pole-to-RCA cable (available separately): <ul style="list-style-type: none"> On 4.1, 5.1 and 6.1 systems: Rear Left and Rear Right On 7.1 systems: Rear Left, Rear Right and Side Right. |

5.
 3.50 mm (1/8-inch) surround-to-RCA cable (available separately)
 Connects the audio card and home theater receiver.





| Jack, Connector or Cable | Description |
|--------------------------|---|
| 1. Side Left jack | Connect this jack to the Line Out 3 jack on your audio card, using a 3.50 mm (1/8-inch) 4-pole-to-RCA cable (available separately). |
| 2. Center jack | Connect this jack to the Line Out 3 jack on your audio card, using a 3.50 mm (1/8-inch) 4-pole-to-RCA cable (available separately). |
| 3. Subwoofer jack | Connect this jack to the Line Out 3 jack on your audio card, using a 3.50 mm (1/8-inch) 4-pole-to-RCA cable (available separately). |
| 4. Line Out 3 jack | Connect the following jacks on a multichannel home theater receiver to this jack using a 3.50 mm (1/8-inch) 4-pole-to-RCA cable (available separately): <ul style="list-style-type: none"> On 5.1 systems: Front Center and Subwoofer On 6.1 systems: Front Center, Subwoofer and Rear Center On 7.1 systems: Front Center, Subwoofer and Side Left. |

5.
3.50 mm (1/8-inch) surround-to-RCA cable (available separately)
Connects the audio card and home theater receiver.

Notes

- Actual products may differ slightly from those pictured.
- 6.1 channel audio is not supported by Windows Vista.

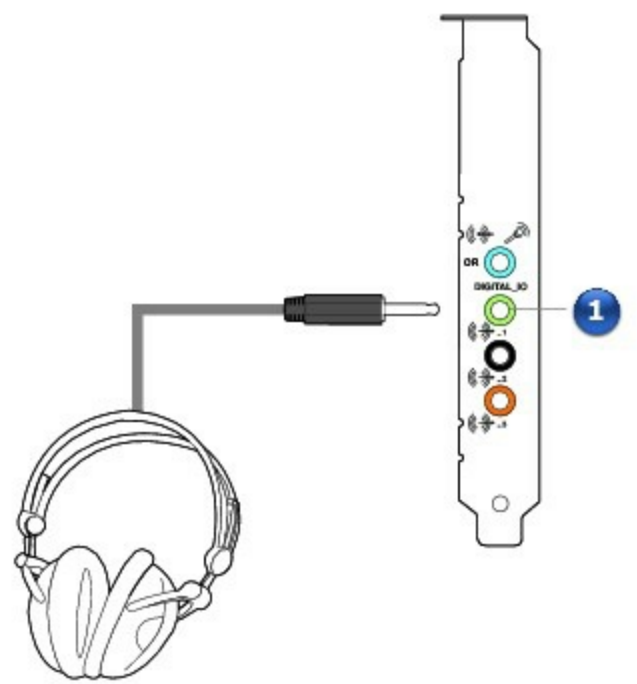


Playing/Recording Music

You can connect stereo headphones to your audio card to listen to the music you are playing or recording.

Connecting stereo headphones to your audio card

You can connect stereo headphones to the Line Out 1 jack on your audio device.



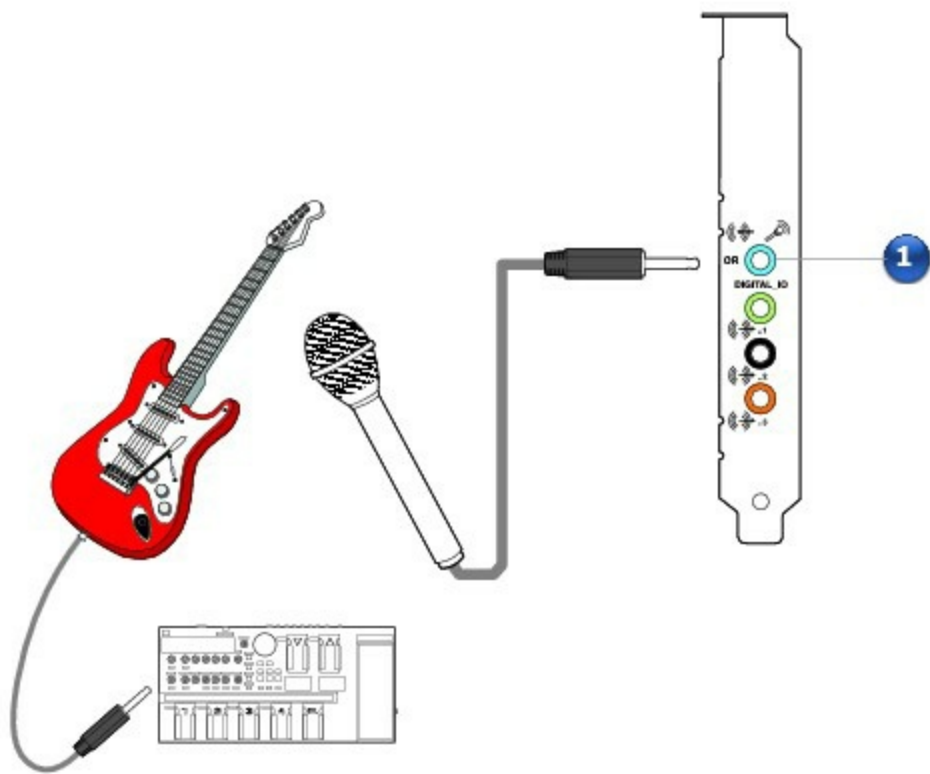
| Jack, Connector or Cable | Description |
|--------------------------|--|
| 1. Line Out 1 jack | Connect stereo headphones with a 3.50 mm (1/8-inch) plug to this jack. Use a converter if your headphones come with a larger plug. |

Creating Music

You can set up a home music studio using your audio card.

Connecting instruments to your audio card

Connect a microphone or a line-level source (such as an electric guitar running through a Pre-amp FX Box) to the Digital I/O / Line In / Mic In jack.



| Jack, Connector or Cable | Description |
|--|--|
| 1. Digital I/O / Line In / Mic In jack | Connect a microphone or a line-level source to this jack. Use a convertor if your microphone or line-level source come with a larger plug. |

Connecting Speakers

The connectors and associated components shown here may be different from that of your speaker system. Consult the User's Guide of your speaker system to identify similar input connectors. The cables shown here are available separately.

For interactive help on speaker connectivity, visit the Knowledge Base at www.creative.com.

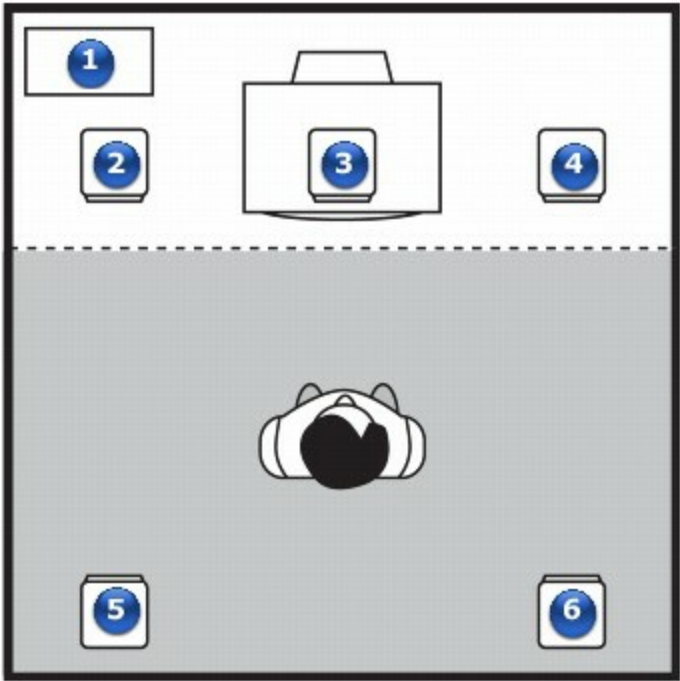
Positioning your speakers

Good speaker placement can enhance your listening experience, while careless placement can make good audio systems sound bad. Below are our recommendations for 5.1, 6.1 and 7.1 channel speakers. For detailed speaker placement tips, refer to the User's Guide of your speaker system.

Notes

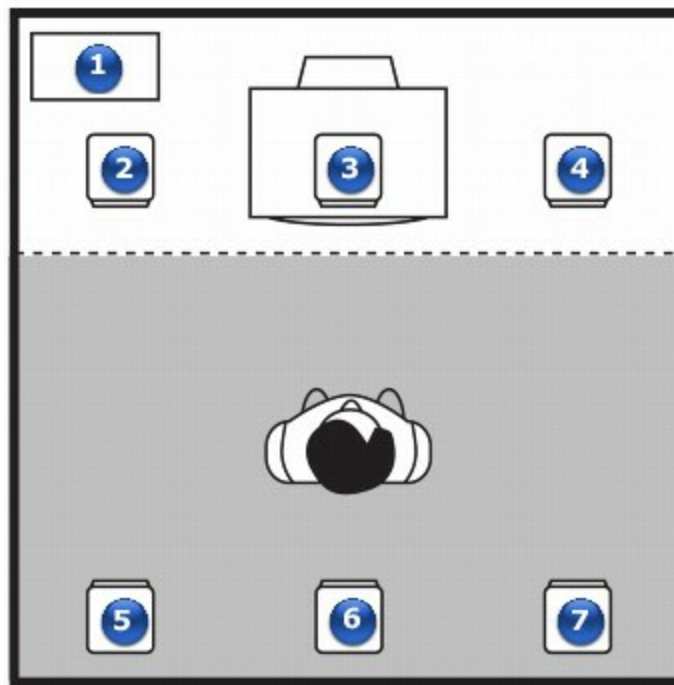
- 6.1 channel audio is not supported by Windows Vista.

For 5.1 channel speakers:



| Speaker component | |
|-------------------|--------------|
| 1. | Subwoofer |
| 2. | Front Left |
| 3. | Front Center |
| 4. | Front Right |
| 5. | Rear Left |
| 6. | Rear Right |

For 6.1 channel speakers:

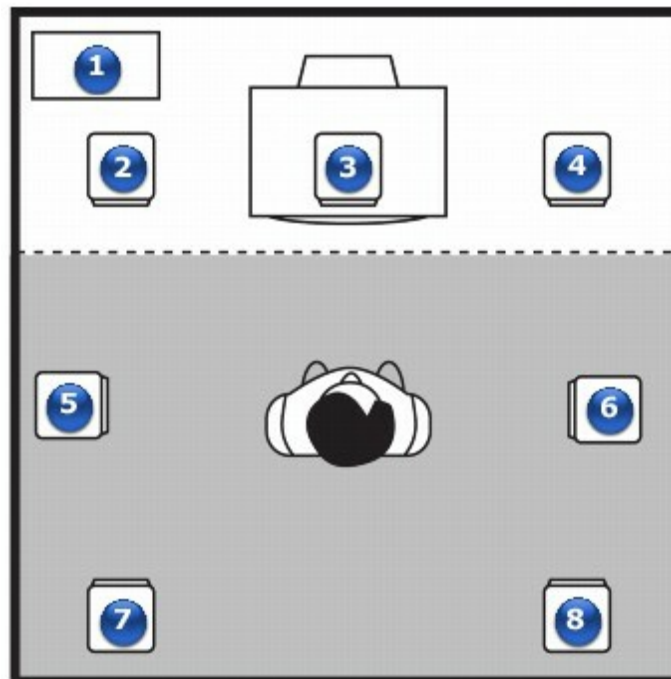


Speaker component

1. Subwoofer
2. Front Left
3. Front Center
4. Front Right
5. Rear Left
6. Rear Center
7. Rear Right



For 7.1 channel speakers:



Speaker component

1. Subwoofer

| | | |
|----|--------------|---|
| 2. | Front Left | |
| 3. | Front Center | |
| 4. | Front Right | |
| 5. | Side Left | |
| 6. | Side Right | |
| 7. | Rear Left | |
| 8. | Rear Right |  |

Notes

- If you have a 5.1 channel, 6.1 channel or 7.1 channel speaker system, you can upmix your stereo sources (for example, CD Audio, MP3, WMA, MIDI, and Wave) to the respective channels by using X-Fi CMSS-3D technology. To upmix, you need to enable the X-Fi CMSS-3D feature in [Entertainment Mode](#). For more information, refer to their respective online Help.
- 6.1 channel audio is not supported by Windows Vista.

Connecting Digital Speaker Systems

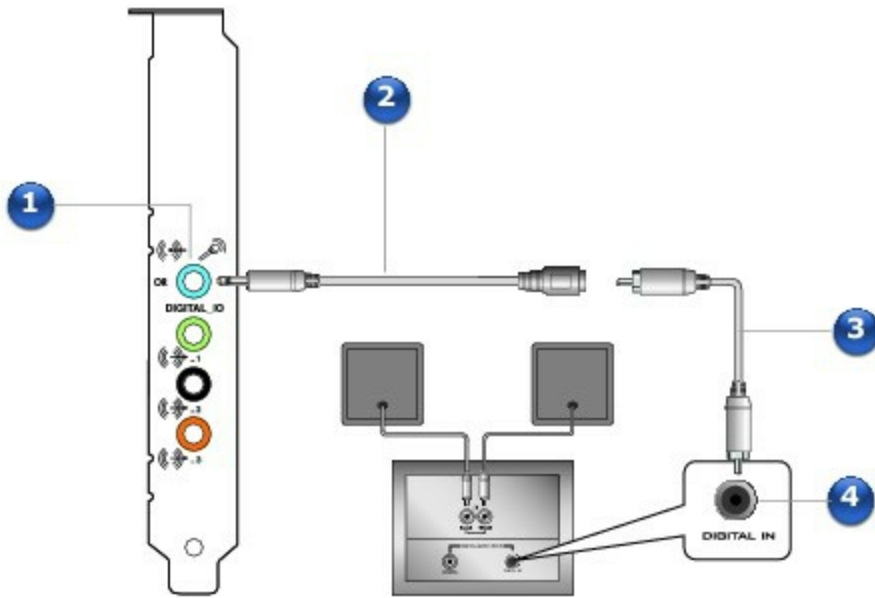
Select the **Digital Output Only** checkbox in [Entertainment Mode](#) when connecting external digital speakers that accept stereo PCM or compressed Dolby Digital/DTS Bitstream from the S/PDIF output.

Notes

- Visit www.creative.com for more information.

2.1 channel digital speakers

Connecting your 2.1 channel digital speakers to your audio card



| Device/Cable |
|---|
| 1. Digital I/O / Line In / Mic In jack |
| 2. RCA-to-miniplug cable (available separately) |
| 3. RCA-to-RCA cable (available separately) |
| 4. Digital In jack |

- | |
|---|
| 1. Digital I/O / Line In / Mic In jack |
| 2. RCA-to-miniplug cable (available separately) |
| 3. RCA-to-RCA cable (available separately) |
| 4. Digital In jack |

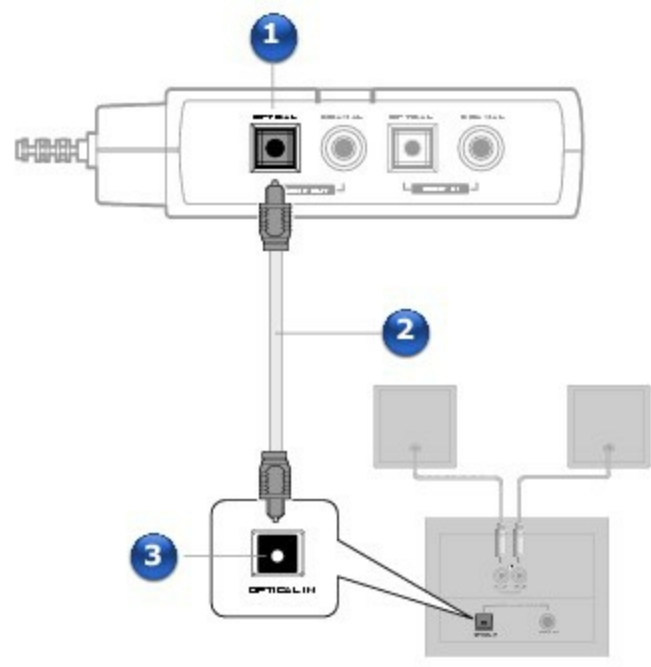


Notes

- Actual products may differ slightly from those pictured.

Connecting your 2.1 channel digital speakers to the Digital I/O Module*

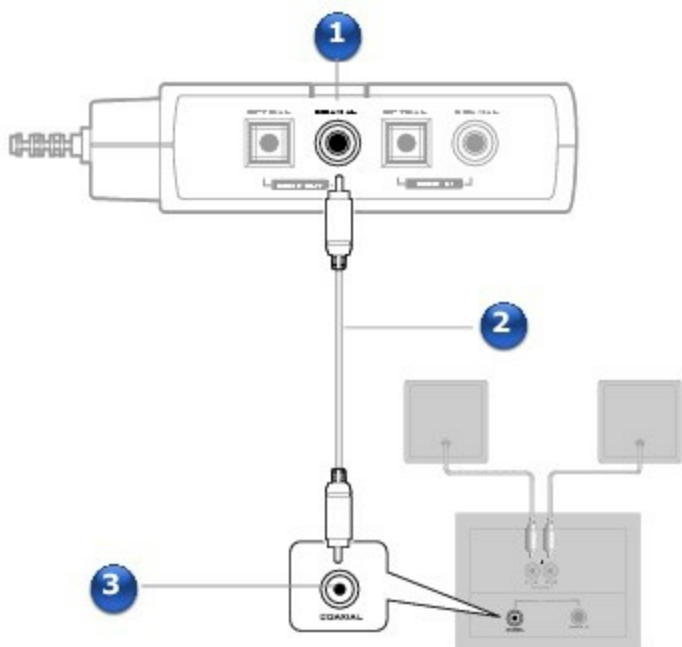
For optical connections:



Device/Cable

1. Optical SPDIF Out jack
2. Optical cable (available separately)
3. Optical SPDIF In jack

For coaxial connections:



Device/Cable

1. Coaxial SPDIF Out jack
2. Coaxial cable (available separately)
3. Coaxial SPDIF In jack

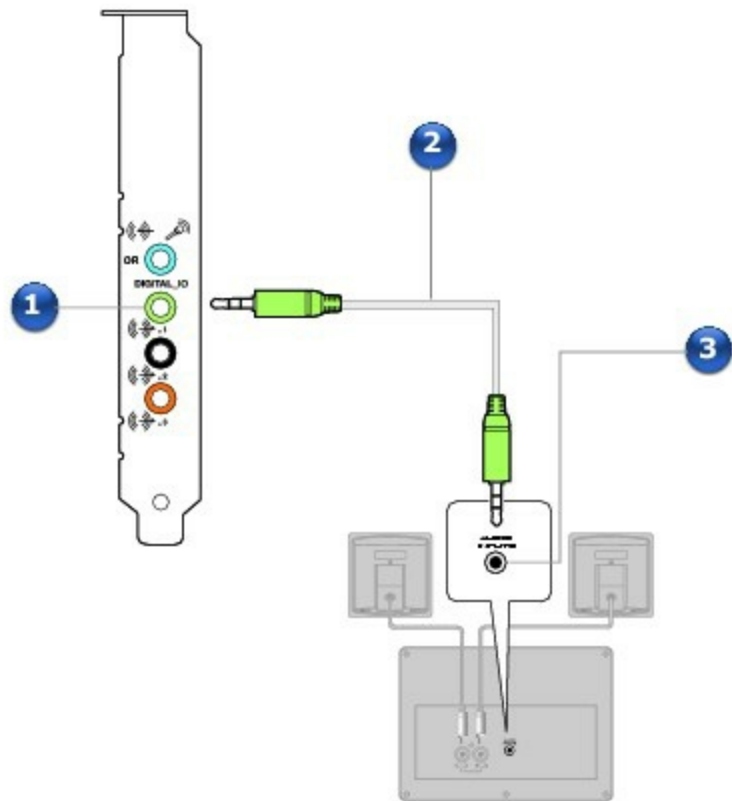
Connecting Analog Speaker Systems

You can connect analog speaker systems of up to 7.1 channels. For more information on the appropriate jacks to use, see [Stereo and 4-Pole Jack Diagrams](#).

Notes

- Visit www.creative.com for more information.

2.1 channel analog speakers



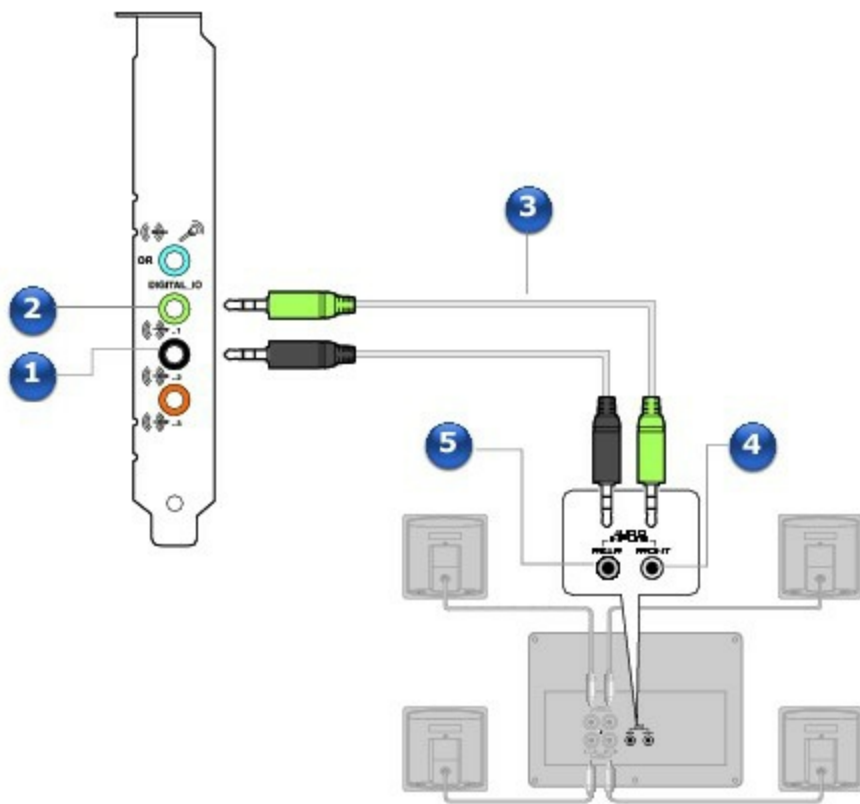
Jack, Connector or Cable

1. Line Out 1 jack
2. 2 channel audio cable (available separately)
3. Audio Input jack

Notes

- Actual products may differ slightly from those pictured.

4.1 channel analog speakers



Jack, Connector or Cable

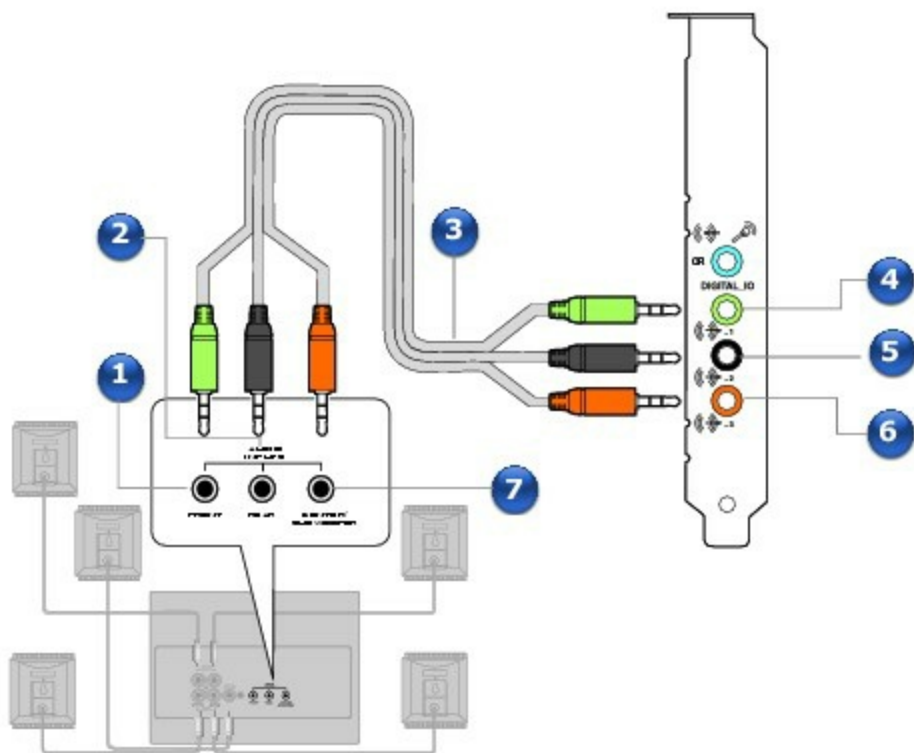
1. Line Out 2 jack
2. Line Out 1 jack
3. 4 channel audio cable (available separately)
4. Front (Audio Input) jack
5. Rear (Audio Input) jack



Notes

- Actual products may differ slightly from those pictured.

5.1 channel analog speakers



Jack, Connector or Cable

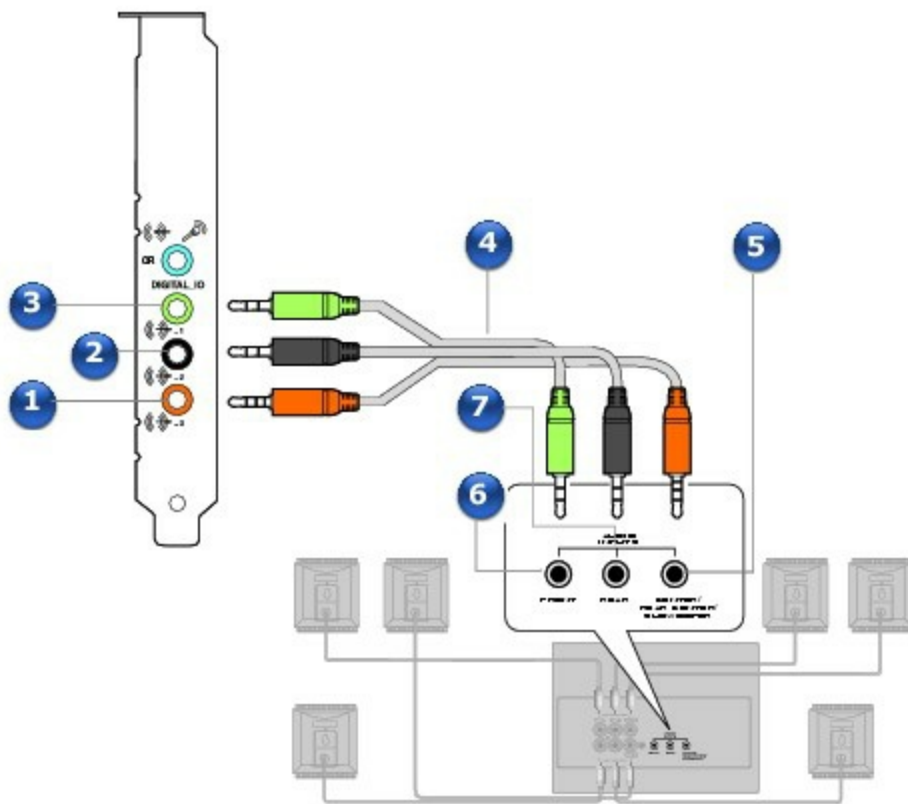
| | | |
|----|--|--|
| 1. | Front (Audio Input) jack | |
| 2. | Rear (Audio Input) jack | |
| 3. | 5.1 channel audio cable (available separately) | |
| 4. | Line Out 1 jack | |
| 5. | Line Out 2 jack | |
| 6. | Line Out 3 jack | |
| 7. | Center/Subwoofer (Audio Input) jack | |



Notes

- Actual products may differ slightly from those pictured.

6.1 channel analog speakers



Jack, Connector or Cable

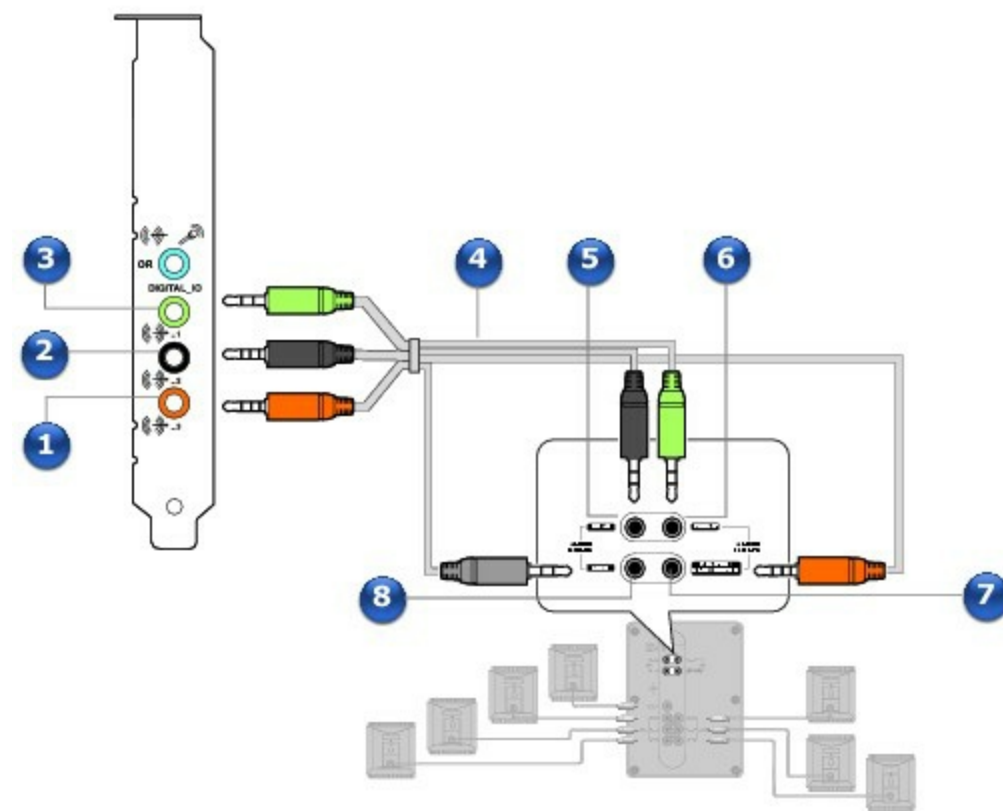
1. Line out 3 jack
2. Line Out 2 jack
3. Line Out 1 jack
4. 6.1 channel audio cable (available separately)
5. Center/Subwoofer/Rear Center (Audio Input) jack
6. Front (Audio Input) jack
7. Rear (Audio Input) jack



Notes

- Actual products may differ slightly from those pictured.
- 6.1 channel audio is not supported by Windows Vista.

7.1 channel analog speakers



Jack, Connector or Cable


- | | |
|----|--|
| 1. | Line Out 3 jack |
| 2. | Line Out 2 jack |
| 3. | Line Out 1 jack |
| 4. | 7.1 channel audio cable (available separately) |
| 5. | Rear (Audio Input) jack |
| 6. | Front (Audio Input) jack |
| 7. | Center/Subwoofer (Audio Input) jack |
| 8. | Side (Audio Input) jack |

Notes

- Actual products may differ slightly from those pictured.
- When you are using 7.1 channel analog speakers with your audio card, make sure you select the **7.1 Speakers** option to experience 7.1 channel audio.
- If you want 6.1 channel audio with 7.1 channel analog speakers, select the **6.1 Speakers** option and move your Side Left speaker to the Rear Center position.
- 6.1 channel audio is not supported by Windows Vista.

Creative Sound Blaster X-Fi Software Suite

The following software enables you to access the rich features of your audio device.

To learn more about each application, refer to its online Help. Depending on the application, you can do this by clicking  on the toolbar of the application, or selecting **Help Topics** from the **Help** menu.

- [Entertainment Mode](#)
- Audio Console
- Creative MediaSource
- Creative Sound Blaster Media Center Edition (MCE) Plugin
- Volume Panel

Diagnostic and troubleshooting utilities

- Diagnostics

Notes

- The applications included with your audio device may differ from those described here. Your audio device may also come with third party applications.
- Some applications are available for certain operating systems only.

Entertainment Mode

In Entertainment Mode, your audio device is optimized for movie soundtrack and music playback.

With the Entertainment Mode console, you can:

- Adjust master volume levels
- Adjust volume mixer settings
- Configure playback settings for your speakers or headphones
- Adjust equalizer settings
- Enable realistic environment effects
- Enable advanced multichannel upmixing with X-Fi CMSS-3D Surround
- Enable virtual surround sound with X-Fi CMSS-3D Headphone and X-Fi CMSS-3D Virtual
- Enhance detail and impact of audio with X-Fi Crystalizer.



General Specifications

This section displays the specifications of your audio card and Digital I/O Module*.

PCI Bus Mastering

- PCI Specification up to Version 2.3 compliant
- Bus mastering reduces latency and speeds up system performance

Professional Digital Audio Processing

- 24-bit Analog-to-Digital conversion of analog inputs at 96 kHz sample rate
- 24-bit Digital-to-Analog conversion of digital sources at 96 kHz to analog 7.1 speaker output
- 24-bit Digital-to-Analog conversion of stereo digital sources at 192 kHz to stereo output
- 16-bit to 24-bit recording sampling rates: 8, 11.025, 16, 22.05, 32, 44.1, 48 and 96 kHz
- Supports Sony/Philips Digital Interface (SPDIF) format of up to 24-bit/96 kHz quality
- SPDIF output at selectable sampling rate of 44.1, 48 or 96 kHz
- SPDIF output not available during playback of protected digital audio content authored with DRM (Digital Rights Management) technology

Flexible Mixer Control

- Selectable input source or mixing of various audio sources for recording
- Adjustable master volume control
- Independent volume control

X-Fi CMSS-3D

- X-Fi CMSS-3D Surround: Upmixes stereo sources to 4, 5.1, 6.1 or 7.1 channels
- X-Fi CMSS-3D Headphone: Provides a multichannel playback experience over headphones for all types of content
- X-Fi CMSS-3D Virtual: Provides a multichannel playback experience over two loudspeakers for all types of content

Notes

- 6.1 channel audio is not supported by Windows Vista.

Connectivity

Sound Blaster X-Fi Xtreme Audio

Audio Inputs

- Digital In via 3.50 mm (1/8-inch) jack on rear bracket (sharing with the Line In/Microphone In jack)

Audio Outputs

- Line-level analog output via stereo 3.50mm (1/8-inch) jack on rear bracket: Front Line-Out 1
- Two line-level three channel analog output via 4-pole 3.50 mm (1/8-inch) minijack on rear bracket: Rear Left, Rear Right, Side Right, Center, Subwoofer and Side Left channel

Interfaces

- 2 x 5 pin Front Panel Header for connections with Intel HD Front Panel Audio standard header

Digital I/O Module*

Audio Inputs

- Optical jack for optical SPDIF input
- Coaxial jack for coaxial SPDIF input

Audio Outputs

- Optical jack for optical SPDIF output
- Coaxial jack for coaxial SPDIF output
- Two RCA jacks for coaxial SPDIF input and output

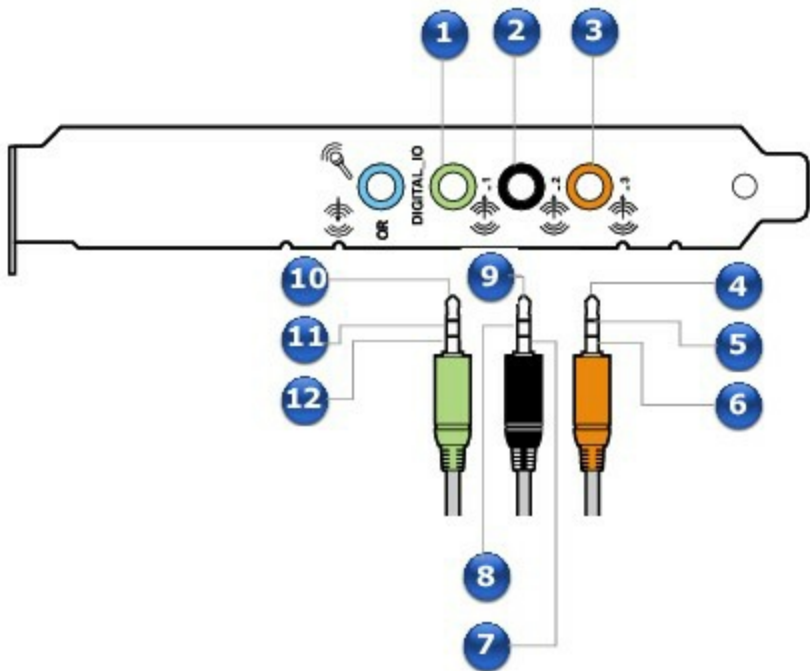
Notes

- *Available as an upgrade accessory in some regions.

Stereo and 4-Pole Jack Diagrams

For analog audio

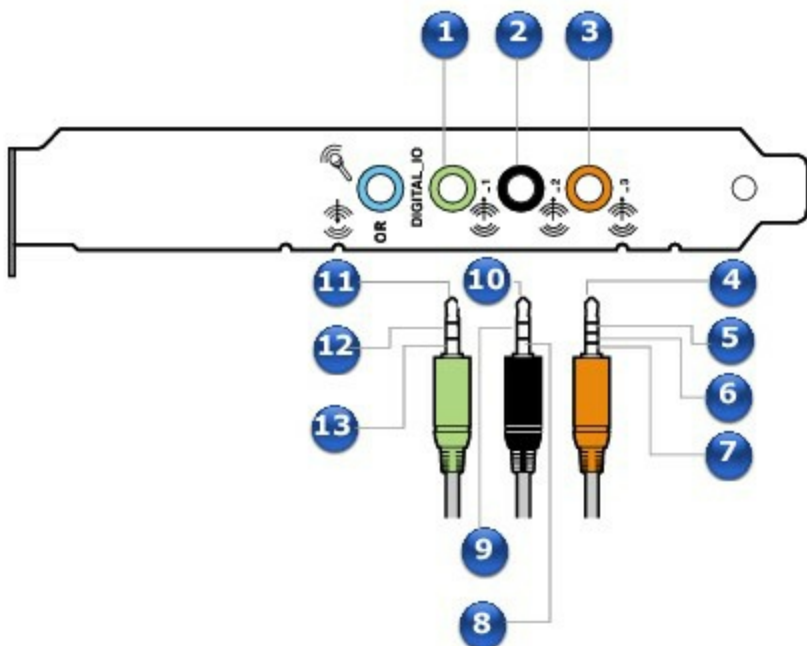
5.1 channel analog audio



| | 5.1 channel analog audio |
|-----|--------------------------|
| 1. | Line Out 1 jack |
| 2. | Line Out 2 jack |
| 3. | Line Out 3 jack |
| 4. | Center |
| 5. | Subwoofer |
| 6. | Ground |
| 7. | Ground |
| 8. | Rear Right |
| 9. | Rear Left |
| 10. | Front Left |
| 11. | Front Right |
| 12. | Ground |



6.1 channel analog audio

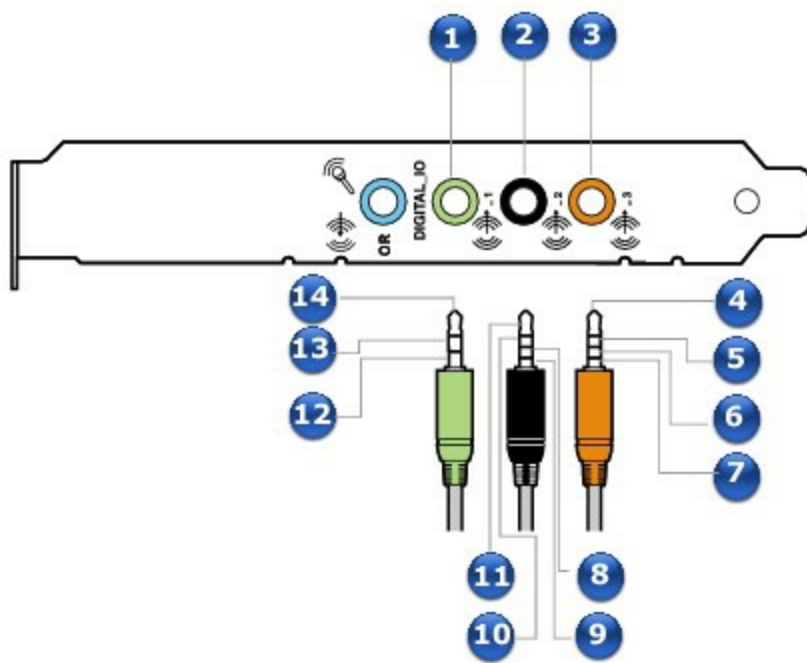


6.1 channel analog audio

1. Line Out 1 jack
2. Line Out 2 jack
3. Line Out 3 jack
4. Center
5. Subwoofer
6. Ground
7. Rear Center
8. Ground
9. Rear Right
10. Rear Left
11. Front Left
12. Front Right
13. Ground



7.1 channel analog audio



7.1 channel analog audio

1. Line Out 1 jack
2. Line Out 2 jack
3. Line Out 3 jack
4. Center
5. Subwoofer
6. Ground
7. Side Left
8. Ground
9. Side Right
10. Rear Right
11. Rear Left
12. Ground
13. Front Right
14. Front Left



Notes

- Actual products may differ slightly from those pictured.
- 6.1 channel audio is not supported by Windows Vista.

Front Panel Header

Connection compatibility

- Intel HD Front Panel Audio standard only

Notes

- Not compatible with AC97 or Intel-compatible HD Front Panel Audio.

Microphone limitation

- Rear microphones are automatically disabled when both front and rear microphones are connected

Pin configuration

| Pin | Signal Name | Description |
|-----|---------------|---|
| 1 | PORT 1L | Analog Port 1 - left channel (Microphone) |
| 2 | GND | Ground |
| 3 | PORT 1R | Analog Port 1 - right channel (Microphone) |
| 4 | PRESENCE# | Active low signal that signals BIOS that an Intel HD Audio dongle is connected to the analog header. PRESENCE# = 0 when an Intel HD Audio dongle is connected |
| 5 | PORT 2R | Analog Port 2 - right channel (Headphone) |
| 6 | SENSE1_RETURN | Jack detection return for front panel (JACK1) |
| 7 | SENSE_SEND | Jack detection sense line from the Intel HD Audio CODEC jack detection resistor network |
| 8 | KEY | Connector Key |
| 9 | PORT 2L | Analog Port 2 - left channel (Headphone) |
| 10 | SENSE2_RETURN | Jack detection return for front panel (JACK2) |

Troubleshooting and FAQs

This section provides solutions to problems you may encounter during installation or normal use. This includes:

- [Problems with Sound](#)
- [Problems with Sound and CD-ROMs](#)
- [Problems with Multiple Audio Devices](#)
- [Problems with Older Sound Blaster Audio Devices](#)
- [Problems with Digital Audio Devices](#)

Problems with Sound

No sound from the headphones.

Check the following:

- The headphones are connected to the Headphone jack.
- In the **Speakers** tab of Audio Console, the **Headphones** option is selected in the **Speaker/Headphone Selection** box.

OR

In the speakers and headphone selection of Entertainment Mode, the **Headphones** option is selected.

No audio output when playing digital files such as .WAV, MIDI files or AVI clips.

Check the following:

- The speakers' volume control knob, if any, is set at mid-range. Adjust the volume mixer settings in [Entertainment Mode](#), if necessary.
- The powered speakers or external amplifier are connected to the card's Line Out jacks.
- There is no hardware conflict between the card and a peripheral device. See [Problems with Digital Audio Devices](#).
- The speakers and headphone selection in Entertainment Mode corresponds to your speaker or headphone configuration.

Problems with Sound and CD-ROMs

No audio output when playing audio CDs.

To solve this problem:

- Enable digital CD playback (for Windows XP only):
 1. Click **Start** → **Settings** → **Control Panel** or **Start** → **Control Panel**.
- In the **Control Panel** dialog box, double-click the **System** icon.
- In the **System Properties** dialog box, click the **Hardware** tab.
- Click the **Device Manager** button.
- Double-click the **DVD/CD-ROM drives** icon.

Your computer drives appear.

- Right-click the disk drive icon. A menu appears.
- Click **Properties**.
- In the **Digital CD Playback** box of the next dialog box, click the **Enable digital CD audio for this CD-ROM device** check box to select it.

Notes

- This feature is enabled in Windows Vista by default.

Problems with Multiple Audio Devices

The other installed audio card is not working well.

You may have an existing audio device installed in your computer. The audio device may be an audio card or an onboard audio chipset. Before you install your audio device, you are advised to disable or completely uninstall and remove your existing audio device. Operating multiple audio devices in your computer may introduce usability issues.

Alternatively, during the installation of your audio card, do the following:

- If your computer detects an installed Sound Blaster Audigy series, Sound Blaster Live! series or Sound Blaster PCI512 audio card, a message box recommending that you completely uninstall and remove the older audio device will appear. Click the **Yes** button and follow the instructions on the screen to complete the removal of the old audio device. Remove the old audio card from your computer.
- If your computer detects any other installed audio card, a message box recommending that you completely uninstall and remove the older audio device will appear. Click the **Yes** button to continue with the installation of the audio card.

After the installation of the audio card, completely uninstall the existing card and remove the audio card from your computer.

The onboard audio chipset is not working well.

Disable your computer's onboard audio chipset. See your computer's motherboard documentation for details.

Problems with Older Sound Blaster Audio Devices

Applications installed with older Sound Blaster audio devices are not working.

Apart from normal playback and recording functions, older Sound Blaster audio devices may not work well when your new audio card is installed.

To solve this problem:

Uninstall and remove the older audio device from the computer. Or you can choose to disable it:

For Windows Vista

1. Click **Start** → **Control Panel** → **Hardware and Sound** → **Sound**.
If a **User Account Control** dialog box appears, asking you for permission to continue with the action, click the **Continue** button.
- Right-click the name of the audio device you would like to disable and select the **Disable** option.
- Click the **OK** button. The audio device's entry disappears from the list.

To enable the audio device again, right-click the list of audio devices, select **Show Disabled Devices**, right-click the disabled audio device's entry, and select the **Enable** option.

For Windows XP

1. Click **Start** → **Settings** → **Control Panel** or **Start** → **Control Panel**.
- In the **Control Panel** dialog box, double-click the **System** icon.
 - In the **System Properties** dialog box, click the **Hardware** tab.
 - Click the **Device Manager** button.
 - Double-click **Sound, Video And Game Controllers**, and then select the name of the audio device you would like to disable.
 - In the **Device usage** list, select the **Do not use this device (disable)** option.
 - Click **OK** to restart Windows and for the change to take effect.

When the audio device is disabled, the entry in Device Manager shows a red cross.

Problems with Digital Audio Devices

Intermittent hissing or no sound is heard from my digital speakers.

Make sure you select the sampling rate of the PCM SPDIF output of your Digital I/O connector to match the requirements of the receiving device. You may need to select a lower digital output sampling rate. The choices available are 48 kHz and 96 kHz.

To solve this problem:

- In Creative MediaSource Go! Launcher:
 1. Click **Start** → **Control Panel**.
- Double-click the **Audio Console** icon.
- Click the **SPDIF I/O** tab.
- Click the required sampling rate from the **Digital Output (PCM) Sampling Rate** list.
- In Entertainment Mode, click the **Digital I/O** button, and click the required sampling rate from the **Digital Output Sampling Rate** list.

Popping noises are heard during playback.

The DMA feature may not be enabled for your computer's drives.

To solve this problem:

For Windows Vista

1. Click **Start** → **Control Panel** → **Hardware and Sound** → **Device Manager**.
If a **User Account Control** dialog box appears, asking you for permission to continue with the action, click the **Continue** button.
- Double-click the **IDE ATA/ATAPI Controllers** icon.
 - For each ATA Channel in the list, right-click and select **Properties**.
 - Click the **Advanced Settings** tab and select the **Enable DMA** checkbox.
 - Click the **OK** button.

For Windows XP

1. Click **Start** → **Settings** → **Control Panel**.
- In the **Control Panel** dialog box, double-click the **System** icon.
 - In the **System Properties** dialog box, click the **Hardware** tab.
 - Click the **Device Manager** button.
 - Double-click the **ATA/ATAPI IDE Controllers** icon.
Your IDE channels will appear.
 - Right-click the **Primary IDE Channel** icon.
 - Click **Properties**.
 - In the **Properties** dialog box, click the **Advanced Settings** tab.
 - Click the **DMA if available** check box to select it.
 - Click the **OK** button.

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