

SoundBLASTER®
X-Fi® Surround 5.1 Pro v3
USER GUIDE

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1. Creative Sound Blaster X-Fi Surround 5.1 Pro v3 User's Guide

1.1 How to use this manual

This document is designed to provide 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 hand symbol  whenever it appears.

You can choose to print portions of this document:

1. On the toolbar, click File.
2. On the menu, click the Print button.
3. In the dialog box that appears, click the option to print one page only, or all pages in the User's Guide.

1.2 Introduction

Congratulations on your purchase of Sound Blaster® X-Fi™ Surround 5.1 Pro v3! Featuring SBX® Pro Studio™ technology USB audio solution will give you an unparalleled audio experience and provide you with years of entertainment.

1.2.1 Minimum System Requirements

- Intel Core™2 Duo processor 2.2 GHz, AMD Athlon 64x2 Dual Core or equivalent processor
- Intel, AMD or 100% compatible motherboard chipset
- Microsoft® Windows® 10 32-bit or 64-bit, Windows 8 32-bit or 64-bit, Windows 7 32-bit or 64-bit, Windows Vista® 32-bit or 64-bit
- 1 GB RAM
- 600 MB of free hard disk space
- Headphones or amplified speakers (available separately)
- Available USB port (USB 2.0 recommended)
- Internet connection

1.2.2 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.

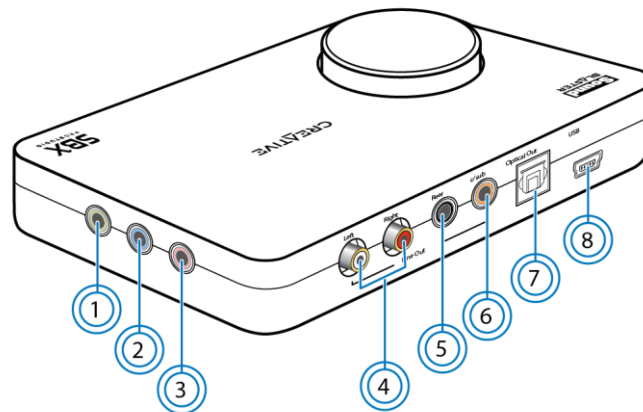
1.3 About Your Hardware

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

- Your Audio Device
- Your Remote Control

1.3.1 Your Audio Device

Your USB audio device has the following indicators and control dials to adjust and monitor operational status.



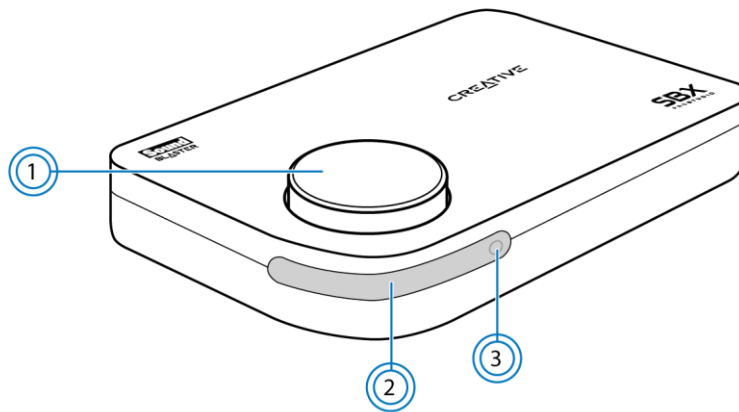
	Jack or Connector	Description
1	Headphone Jack	Connects to stereo headphones using a 3.5mm (1/8-inch) stereo jack. Speaker output is muted when the jack is detected
2	Line In Jack	Connects to the line output of external stereo sources (such as an MP3 player or CD player)
3	Mic In Jack	Connects to a microphone using a 3.5mm (1/8-inch) mono jack
4	RCA Front Out Jacks	Connects to amplified stereo or multi-channel speaker systems, or to an external amplifier
5	Rear Out Jack	Connects to rear or surround channel inputs of an amplified multi-channel speaker system or to the multi-channel inputs of a home theater receiver
6	Center/Subwoofer Out Jack	Connects to center/subwoofer channel inputs on an amplified 5.1 speaker system or to the multi-channel inputs of a home theater receiver
7	Optical S/PDIF Out Connector	Connects to the Optical In connector of recording/playback devices with optical connectors (for example, MiniDisc recorders, Digital Audio Tape recorders or external amplifiers)
8	USB Port	Connects to the computer with the USB cable

Notes:

- Mic In will override Line In if both are connected simultaneously

1.3.1.1 Using Display Indicators and Control Dials

Your USB audio device has the following indicators and control dials to adjust and monitor operational status.



	Feature	Description
1	Volume Control Dial	Turn clockwise or counterclockwise to increase or decrease the volume. Press down to mute
2	Infrared Receiver	Receives infrared commands from the remote control
3	Power LED	Lights up in blue when USB power is detected. Blinks intermittently when audio is muted

1.3.1.2 Adjusting Volume

Besides using the Volume control dial, you can also adjust or mute volume using:

- Your remote control
- Creative Entertainment Console or Volume Panel

Notes:

- If you mute the volume in the software applications, you will not hear any sound output even if the Volume control dial is set to the maximum

1.3.2 Your Remote Control

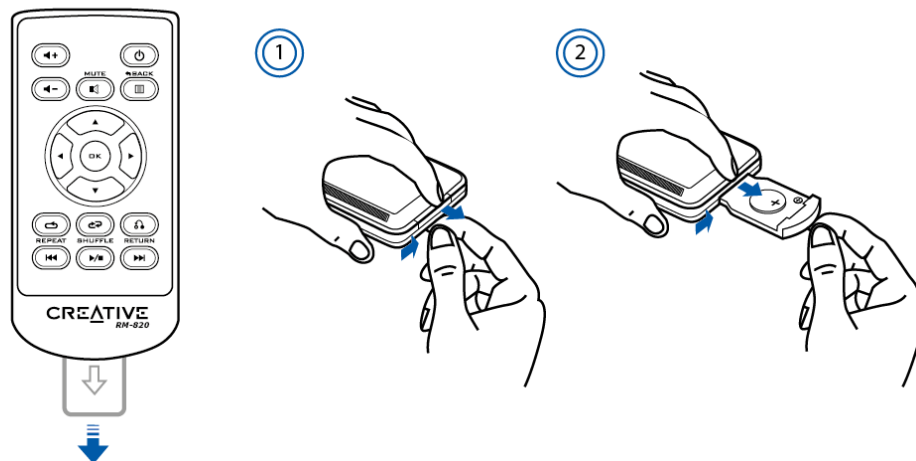
Your USB audio device has an infrared receiver for your Creative remote control. Your remote control lets you operate your computer from the comfort of your sofa or bed, at a distance of three meters (9.8 feet).

Notes:

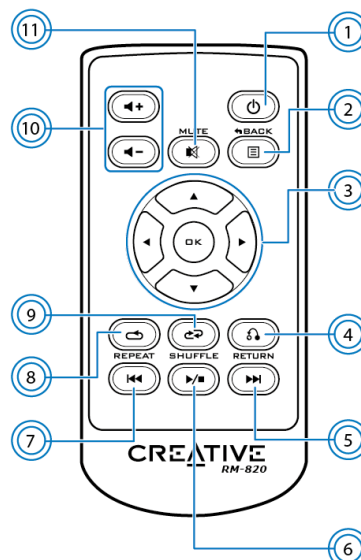
- The Creative remote control is available with selected models only.

1.3.2.1 Replacing The Battery

Remove the plastic strip before using the remote control. To replace the battery, refer to the diagram below.



1.3.2.2 Using Your Remote Control



	Button	Description
1	Shutdown	Displays Shutdown options
2	Back / Menu	Not applicable
3	Menu Navigation	Scrolls up or down in a menu. Press OK to execute selected menu option
4	Return	Returns to a previous submenu or function
5	Next / Fast Forward	Plays the next track. Press and hold to fast forward
6	Play / Pause	Starts, pauses or resumes current playback
7	Previous / Rewind	Plays the previous track. Press and hold to rewind
8	Repeat	Repeats the current track or playlist
9	Shuffle	Plays the tracks of the current playlist in random order. Press to toggle shuffle ON or OFF
10	Volume Up / Down	Volume Up (+) and Volume Down (-) control the master volume of your audio output
11	Mute On / Off	Mutes or unmutes audio

Notes

- The On-Screen Display (OSD) appears on your computer monitor when you press certain buttons (like Volume Up/Down) on your remote control
- To select an option on the OSD, press the **Up ▲** or **Down ▼** buttons to scroll to the option, and then press the **OK** button
- Depending on where you purchased your product, the actual remote control may vary from the one shown here

1.4 Installing and Uninstalling Software

- Installing Drivers and Applications
- Uninstalling Drivers and Applications
- Using Creative Software AutoUpdate

1.4.1 Installing Drivers and Applications

Your audio device is operational without any software installation. However, to enjoy all the advanced features of your audio device, install the drivers and applications provided on the software download page.

Download at creative.com/SBXF51P

1.4.2 Uninstalling Drivers and Applications

At times you may need to uninstall some or all of the audio applications and device drivers to correct problems, change configurations, or upgrade outdated drivers or applications.

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

For Windows 8/10

1. Click the **Desktop** tile on the start screen. At the right toolbar, click **Settings → Control Panel → Uninstall a Program**.
2. Select your audio device's entry.
3. Click the **Uninstall/Change** button.
4. **To remove all drivers and applications:** In the **InstallShield Wizard** dialog box, select the **Remove All** option, and then click the **Yes** button.
To remove selected drivers or applications:
 - i. In the **InstallShield Wizard** dialog box, click the **Remove** button.
 - ii. Select the check box of the application you want to uninstall, and then click the **Next** button.
5. Restart your computer when prompted.

For Windows 7 and Windows Vista

1. Click **Start** → **Control Panel** → **Uninstall a program**.
2. Select your audio device's entry.
3. Click the **Uninstall/Change** button.
4. **To remove all drivers and applications:** In the **InstallShield Wizard** dialog box, select the **Remove All** option, and then click the **Yes** button.
To remove selected drivers or applications:
 - i. In the **InstallShield Wizard** dialog box, click the **Remove** button.
 - ii. Select the check box of the application you want to uninstall, and then click the **Next** button.
5. Restart your computer when prompted.

1.4.3 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.

1.5 Using Your Audio Device

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

- Features and Benefits
- Playing Music
- Recording Music
- Creating Music
- Watching DVDs

1.5.1 Features and Benefits

SBX Pro Studio

SBX Pro Studio is specially designed to bring the same great audio experience found in live performances, films, and recording studios - to the PC.

SBX Pro Studio Surround provides immersion control of sounds not just around you, but also above and below for a full 3D audio experience. Hear the natural sense of audio depth, spaciousness and stunning 3D surround effects from your audio content. Enjoy an unbelievably true-to-life audio experience, whether it's over stereo speakers or headphones.

SBX Pro Studio Crystalizer restores the dynamic range that is lost when iTunes and MP3 music gets compressed. This makes the music sound as good as the artist originally intended, and adds an enhanced level of realism for movies and games.

SBX Pro Studio Bass fills in the low frequency tones and gives the extra impact for a better entertainment experience. It dramatically improves the sound experience without a subwoofer.

SBX Pro Studio Dialog Plus enhances the voices in movies for clearer dialog, allowing the listener to hear the dialog over the rest of the soundtrack and over ambient noise in the listening environment.

SBX Pro Studio Smart Volume addresses the problem of abrupt volume level changes during playback and between songs by automatically and continuously measuring volume, and intelligently applying gain and attenuation to compensate for those changes.

Dolby Digital Live

Dolby Digital® Live is a real-time encoding technology from Dolby Laboratories that converts any audio signal into a Dolby Digital bitstream for transport and playback through your home theater or digital speaker system.

Transform your gameplay into an exciting and realistic experience using Dolby Digital Live. Audio cues and effects that follow the onscreen action are reproduced, immersing you in 5.1 channel surround sound that puts you at the center of the action.

With Dolby Digital Live, a single digital cable is all that is needed to connect your computer to your home theater system, simplifying setup and eliminating the confusion of multiple cables.

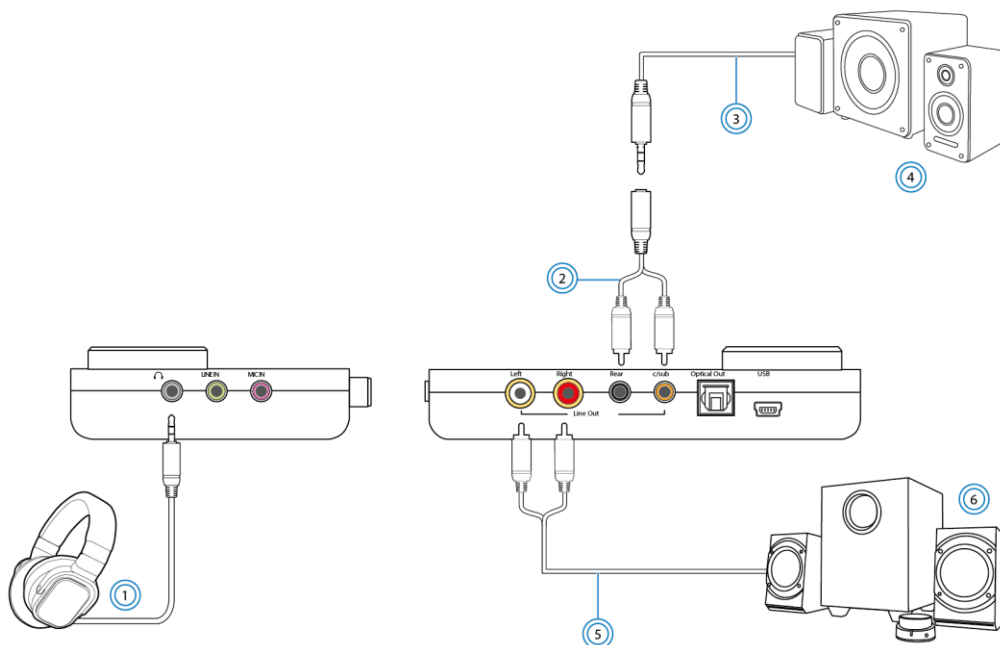
To learn how to connect your A/V receiver or digital speaker system to your audio device, consult the following sections:

- Connecting Digital Speaker Systems
- Connecting Home Theater Systems

To learn more about Dolby Digital Live, visit www.dolby.com.

1.5.2 Playing Music

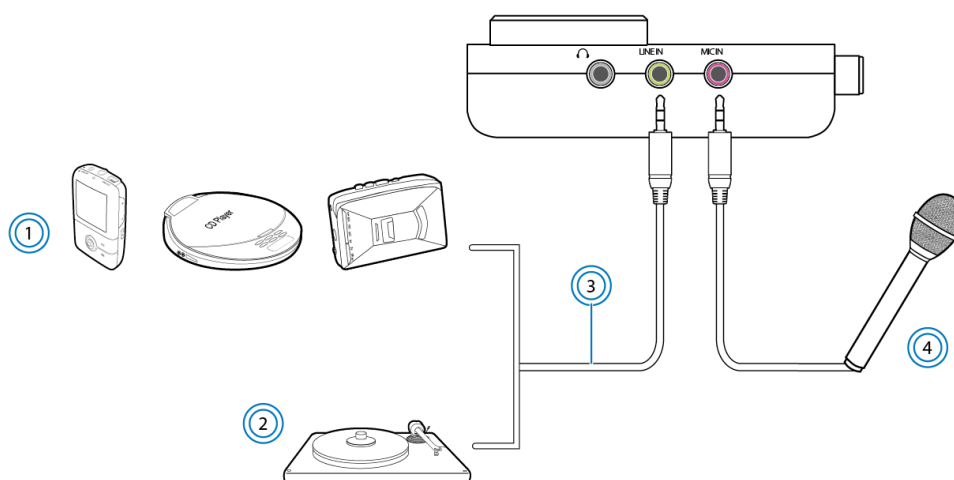
You can connect stereo headphones to the Headphone jack of your audio device. The following diagram also shows the connection for analog stereo or 2.1 channel speakers. For connection to analog 5.1 channel speakers, see **Connecting Speakers**.



	Component
1	Headphones
2	Y-Splitter Cable
3	Analog Speaker Cable (Available separately)
4	Analog Stereo Speakers
5	RCA-to-RCA Stereo Cable (Available separately)
6	Analog Stereo Speakers with RCA Audio Input Jacks

1.5.3 Recording Music

To record audio **from** external sources like MP3 or CD players, connect the source to the Line In jack of your audio device. Connect a microphone to the Mic In jack.

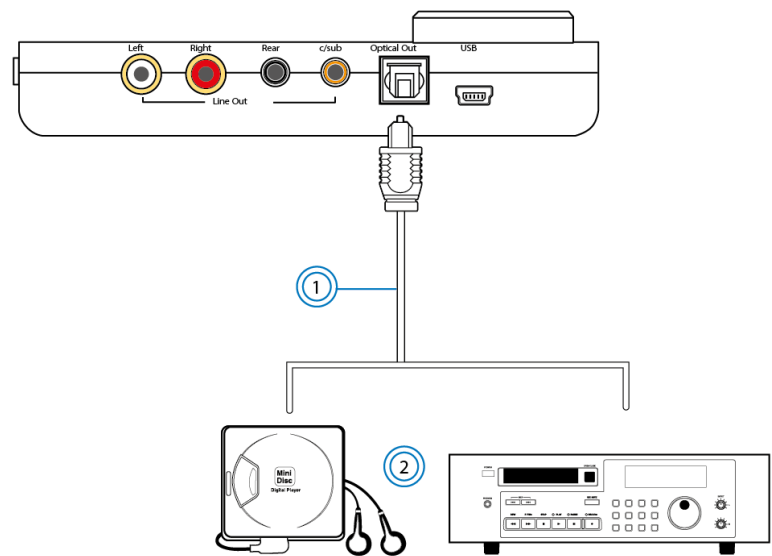


	Component
1	External Audio Sources (MP3 players, CD players, cassette players, etc.)
2	Turntable (At line level)
3	Analog Audio Cable (Available separately)
4	Microphone

Notes:

- Mic In will override Line In if both are connected simultaneously.
- To listen to the audio from the source connected to the Line In or Mic In jacks:
 - i. In the **Mixer** selection of Entertainment Console, unmute the **Line In/Mic In** input.

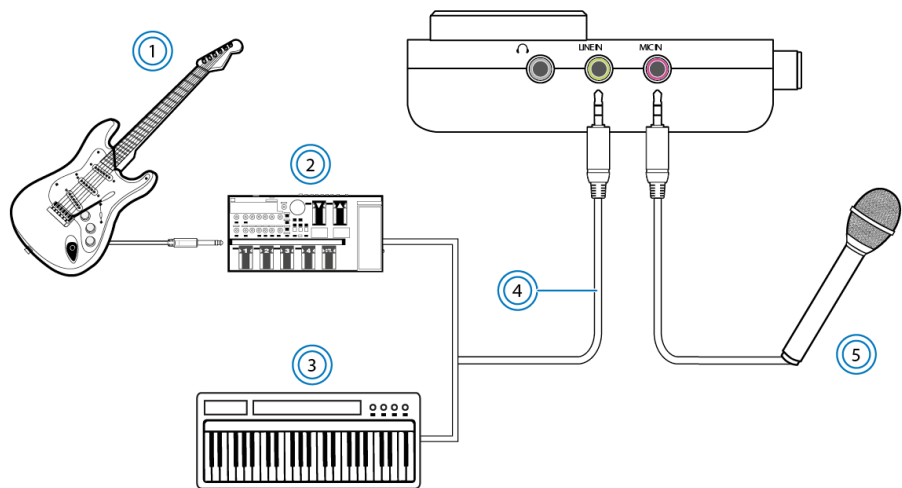
To record audio **to** external devices like MD(MiniDisc) or DAT(Digital Audio Tape) recorders, connect the recording device to the Optical SPDIF Out connector.



	Component
1	Optical Cable (Available separately)
2	External Recording Devices (MD recorders, DAT recorders, etc.)

1.5.4 Creating Music

Put together your own compositions consisting of audio inputs from an electric guitar, a synthesizer or a microphone. You can also connect a Pre-amp FX Box for your electric guitar to the Line In jack.



	Component
1	Electric Guitar
2	Pre-amp FX Box

3	Synthesizer
4	Analog Audio Cable (Available separately)
5	Microphone

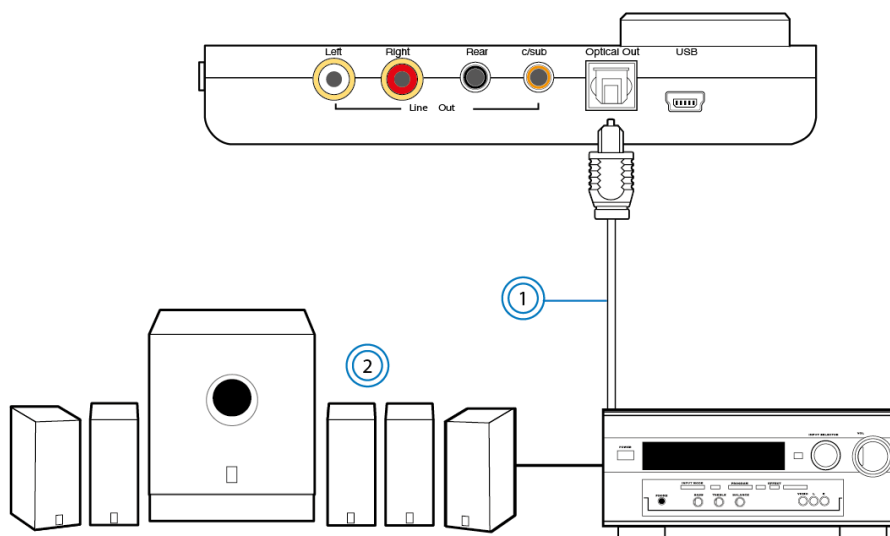
Notes:

- Mic In will override Line In if both are connected simultaneously.
- To listen to the audio from the source connected to the Line In or Mic In jacks:
 - In the **Mixer** selection of Entertainment Console, unmute the **Line In/Mic In** input.

1.5.5 Watching DVDs

You can set up a PC home entertainment system using your audio device. Watch DVDs on your PC and decode Dolby Digital signal from your audio device through a Dolby Digital external decoder or an AV Amplifier.

Connect the digital input of your external decoder or AV Amplifier to the Optical SPDIF Out connector of your audio device. For more information on external decoder or AV Amplifier speaker connection settings, consult the User's Guide of your external decoder or AV Amplifier.



	Component
1	Optical Cable (Available separately)
2	External Decoder, AV Amplifier or Home Theatre Receiver

1.5.5.1 Decoding with a Software DVD Player

You can use a software DVD player to decode Dolby Digital encoded signal from your DVDs, and output multichannel audio through your audio device to your speakers.

1.6 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.

To learn how to connect different types of speaker systems to your audio device, consult the following sections:

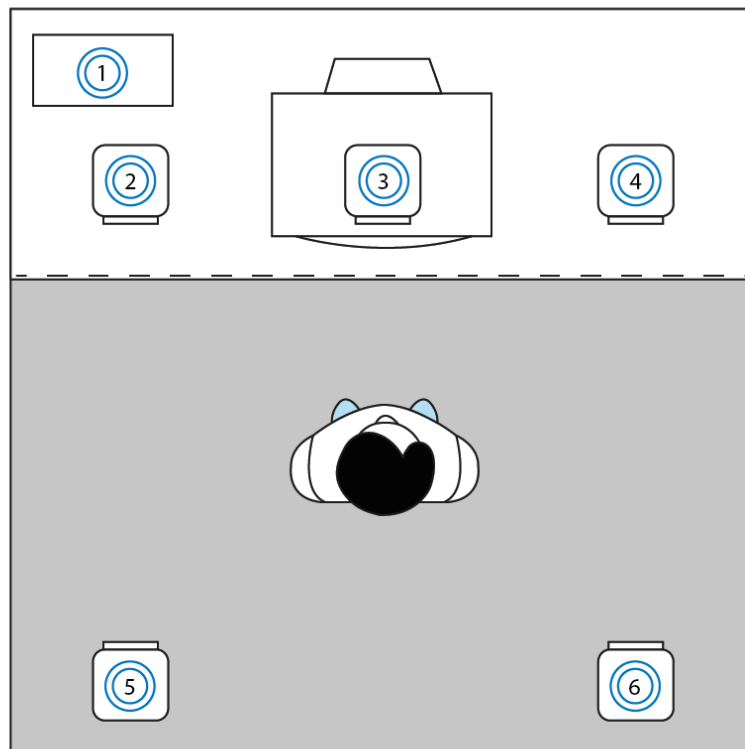
- Connecting Analog Speaker Systems
- Connecting Home Theater Systems

For a list of supported Creative speaker systems or interactive help on speaker connectivity, visit www.creative.com.

Positioning Your Speakers

Good speaker placement can enhance your listening experience, while careless placement can make good audio systems sound bad. For detailed speaker placement tips, refer to the User's Guide of your speaker system.

For 5.1 Channel Speakers:



	Speaker Component
1	Subwoofer
2	Front Left
3	Front Center
4	Front Right
5	Rear Left
6	Rear Right

1.6.1 Connecting Analog Speakers Systems

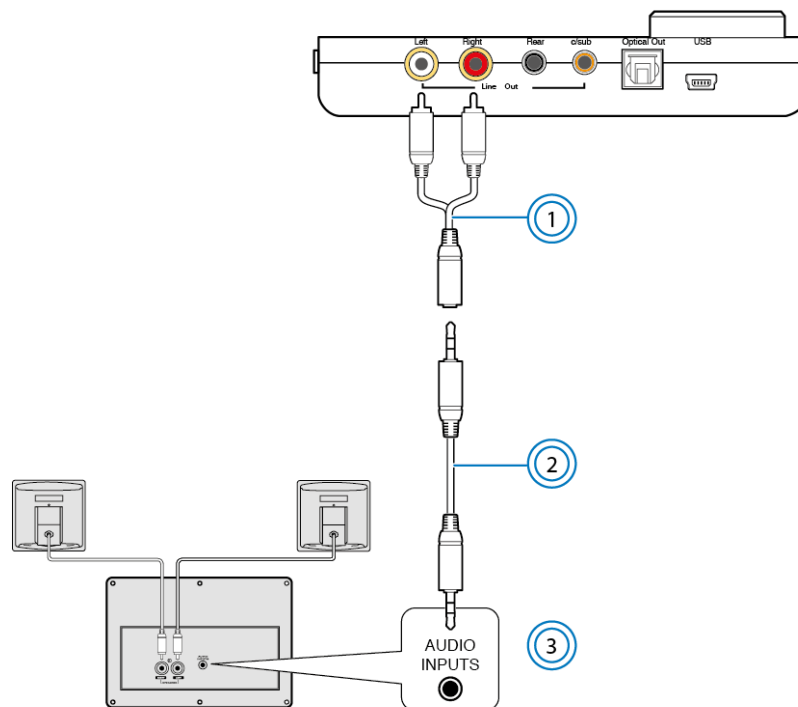
You can connect analog speaker systems for up to 5.1 channels. For more information on the appropriate jacks and cables to use for your speaker system, refer to the following speaker configurations:

- 2.1 channel analog speakers
- 5.1 channel analog speakers

Notes:

- Visit www.creative.com for a list of supported Creative speaker systems.

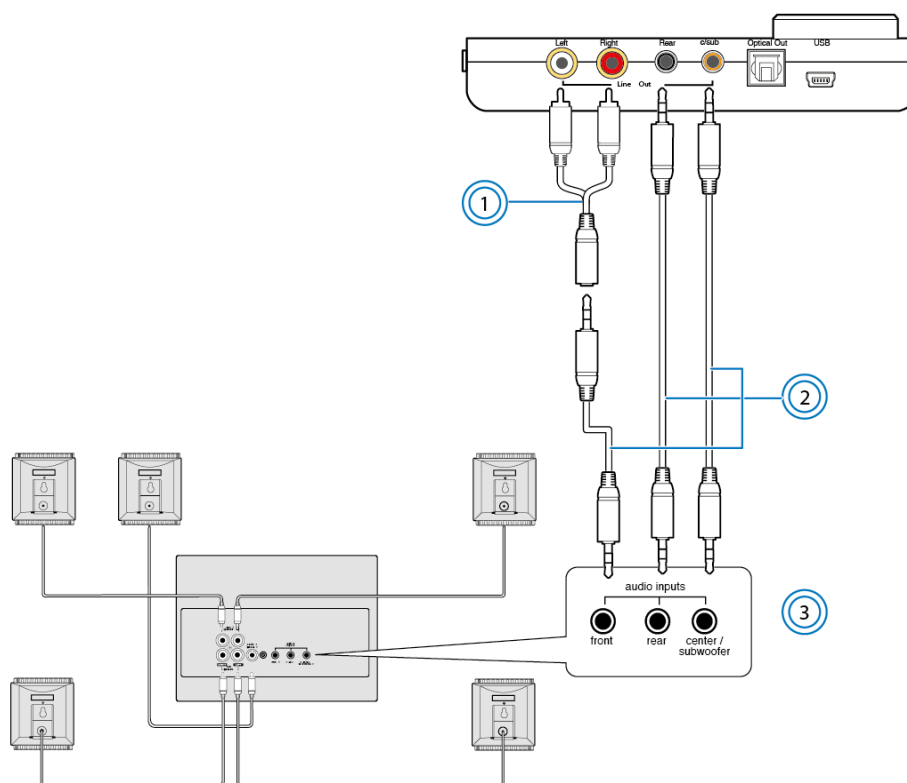
2.1 Channel Analog Speakers



	Jack, Connector or Cable
1	Y-Splitter Cable
2	Analog Speaker Cable (Available separately, see Notes below)
3	Audio Input Jack of Analog Stereo Speakers

Notes:

- You may use the speaker cables that were bundled with your speakers.

5.1 Channel Analog Speakers

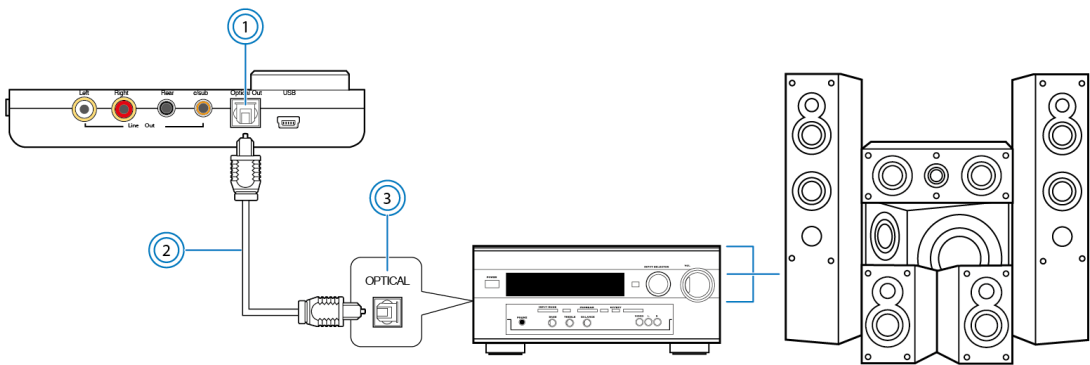
	Jack, Connector or Cable
1	Y-Splitter Cable
2	Analog Speaker Cable (Available separately, see Notes below)
3	Front, Rear and Center/Subwoofer Audio Input Jacks of Analog 5.1 Channel Speakers

Notes:

- You may use the speaker cables that were bundled with your speakers.

1.6.2 Connecting Home Theatre Systems

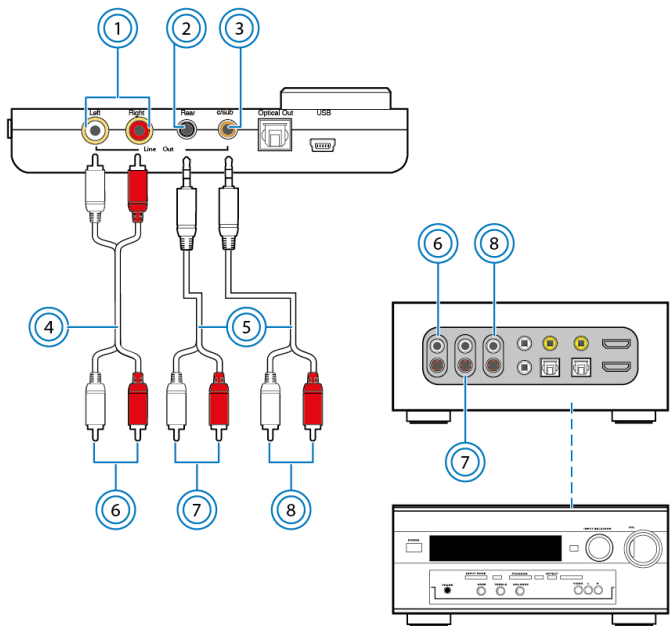
Your audio device comes with an Optical S/PDIF Out connector which allows you to connect your home theater system. For more information on your A/V receiver's speaker connections, consult its documentation.



	Jack, Connector or Cable
1	Optical S/PDIF Out Connector
2	Optical Cable (Available Separately)
3	Optical S/PDIF In Connector of Digital Speaker System

Connecting Your A/V Receiver Using Line Level Inputs

If your A/V receiver supports multichannel line-level inputs, you can connect them directly to your audio device's Line Out jacks instead of the Optical S/PDIF Out connector as shown below.



	Jack, Connector or Cable
1	RCA Front Out Jacks
2	Rear Out Jack
3	Center / Subwoofer Out Jack
4	RCA-to-RCA Stereo Cable (Available separately)
5	Stereo-to-RCA Cable (Available separately)
6	Front Left and Right Input Jacks of A/V Receiver
7	Rear Left and Right Input Jacks of A/V Receiver
8	Center and Subwoofer Input Jacks of A/V Receiver

1.7 Creative 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.

- Audio Control Panel
- Entertainment Console
- Volume Panel
- On-Screen Display (OSD) with Remote Control Support
- Creative System Information

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.

1.7.1 Entertainment Console

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

With Entertainment Console, you can:

- Adjust master volume levels
- Adjust volume mixer settings
- Configure playback settings for your speakers or headphones
- Adjust equalizer settings
- Enable Dolby Digital Live encoding
- Enhance audio playback with SBX Pro Studio enhancements such as immersion control, dynamic range restoration, low-frequency boost, dialog boost, and automatic volume leveling.

1.8 General Specifications

High Definition Audio Quality

- Signal-to-Noise Ratio (SNR) exceeding 100 dB using high linearity, low distortion 24-bits converters with resolutions of up to 96 kHz
- 24-bit Digital-to-Analog conversion of digital sources during playback in 24-bit with sampling rate of up to 96 kHz in 5.1 mode without audio monitoring
- 24-bit Analog-to Digital conversion of analog sources during recording in 24-bit with sampling rates up to 96 kHz without audio monitoring

1.8.1 Connectivity

Inputs

- One 3.5 mm (1/8") jack for mono analog Microphone input
- One 3.5 mm (1/8") jack for stereo line-level analog input

Outputs

- One 3.5 mm (1/8") jack for stereo analog Headphones
- Optical jack for optical SPDIF output
- Pair of RCA jacks for stereo line-level analog output
- One 3.5 mm (1/8") jack for Rear output
- One 3.5 mm (1/8") jack for Center/Subwoofer output

Interfaces

- One mini USB port
- One infrared receiver for use with the remote control (available with selected models only)

Interfaces

- One Volume Control knob
- One blue LED to indicate USB link

1.9 Troubleshooting

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

- Problems with Sound
- Problems with Simultaneous Playback/Recording

1.9.1 Problems with Sound

No sound from headphones.

Check the following:

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

OR

In the speakers and headphone selection of Entertainment Console, 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 Console, if necessary.
- The powered speakers or external amplifier are connected to the Line Out jacks.
- The speakers and headphone selection in Entertainment Console corresponds to your speaker or headphone configuration.

No audio can be heard from the Line In or Mic In jack source when doing recording.

Do the following:

- In the **Mixer** selection of Entertainment Console, unmute the **Line In/Mic In** input.

1.9.2 Problems with Simultaneous Playback/Recording

An error message appears when recording and playing back simultaneously.

This may occur due to data transfer limitations if your computer is using a USB 1.1 connection. It may not be possible to playback or simultaneously record and play back, content at the highest bit rate and/or frequency supported (24-bit, 96 kHz). Select lower bit depth and sampling rates for reduced CPU consumption and lower USB bandwidth requirements. Select lower settings if you encounter performance problems or if you run out of USB bandwidth. Lower sampling and bit depth rates, however, usually result in lower audio quality.

This should not be a problem if you are using a USB 2.0 connection.

1.10 License and Copyright

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This product is covered by one or more of the following U.S. patents:

4,506,579; 4,699,038; 4,987,600; 5,013,105; 5,072,645; 5,111,727; 5,144,676;
5,170,369; 5,248,845; 5,298,671; 5,303,309; 5,317,104; 5,342,990; 5,430,244;
5,524,074; 5,596,644; 5,698,803; 5,698,807; 5,729,612; 5,748,747; 5,763,800;
5,790,837; 5,802,180; 6,405,163; 6,549,884; 6,577,736; 6,772,021; 6,798,889;
6,819,732; 6,858,790; 6,868,377; 6,917,686; 6,978,027; 7,099,482; 7,107,401;
7,149,314; 7,167,567; 7,219,194; 7,231,054.

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