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 $\sqrt[4]{}$ 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:

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Introduction

Congratulations on your purchase of Creative's latest audio revolution, Sound Blaster X-Fi[™]! With cutting edge technology from the leaders in PC audio, Sound Blaster X-Fi will give you years of reliable entertainment.

This User's Guide contains software installation and usage information for the Sound Blaster X-Fi series of audio devices.

Notes

• Some products in the Sound Blaster X-Fi series 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/X-Fi.

System Requirements

Basic Requirements

- Genuine Intel[®] Pentium[®] III 1 GHz, AMD[®] 1 GHz processor or faster
- Intel, AMD or 100% compatible motherboard chipset
- Microsoft[®] Windows Vista[®] 64-bit with Service Pack 1 (SP1), Windows Vista 32-bit with SP1, Windows[®] XP Professional x64 Edition, Windows XP Service Pack 2 (SP2), Windows XP Media Center Edition (MCE) 2005 or Windows XP MCE 2004.
- 256 MB RAM (512 MB for Windows Vista)
- 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 required for software installation
- Available USB port for the IR Receiver*
- Available 5 1/4-inch drive bay for the X-Fi I/O Drive*

Additional Requirements (where applicable)

Gaming

• DirectX[®] 9 and OpenGL[®] compliant 3D graphics accelerator with at least 32 MB of texture RAM

DVD-Video

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

Entertainment Center and Remote Control Usage*

• Microsoft Office PowerPoint[®] 97 or later to control PowerPoint presentations wirelessly using the remote control

Audio Creation

• 256 MB RAM and above is required for loading 24-bit SoundFont banks

Notes

• Other applications, especially games, may have higher system requirements. Refer to the applications' documentation for details.

• *Available with some models of your audio device, or as an upgrade accessory in some regions.

• **Available without additional charge for selected models.

More Help

Visit <u>www.soundblaster.com</u> 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 Sound Blaster X-Fi. To learn more about your product, refer to the relevant section below:

- Your Sound Blaster X-Fi audio card
- <u>Your Remote Control*</u>
- <u>Your IR Receiver*</u>
- Your Digital I/O Module*
- Your Sound Blaster X-Fi I/O Drive*
- Your Sound Blaster X-Fi I/O Console*

Notes

• *Available with some models of your audio device, or as an upgrade accessory in some regions.

Your Sound Blaster X-Fi 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:

SB046X Series



SB055X Series







	Connect the following inputs on powered analog speakers or a home theater receiver to this jack:
2. Line Out 3 jack	• On 5.1 systems: Front Center and Subwoofer
	• On 7.1 systems: Front Center, Subwoofer and Side Left

3.

Line Out 2 jack

Connect the following inputs on powered analog speakers or a home theater receiver to this jack:

- On 4.1 and 5.1 systems: Rear Left and Rear Right
- On 7.1 systems: Rear Left, Rear Right and Side Right

4.

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. 5.

FlexiJack

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For SB046X and SB055X series

Performs a 3-in-1 function, supporting Microphone-in, Line-in and Digital I/O connections. Connect one of the following to this jack:

- analog devices like cassette players and other line-level sources
- a microphone
- the Digital I/O Module*
- external digital audio devices that accept stereo PCM or compressed Dolby Digital/DTS Bitstream from the S/PDIF output

See Configuring your FlexiJack.

For SB073X series

Performs a 3-in-1 function, supporting Microphone-in, Line-in and Optical out connections. Connect one of the following to this jack:

- analog devices like cassette players and other line-level sources
- a microphone

• external digital audio devices that accept stereo PCM or compressed Dolby Digital/DTS Bitstream from the Optical output

On a SB073X series card, this jack does not have the Digital-in function to support the Digital I/O Module. 6.

Creative Proprietary connector

Provides a proprietary connection for Creative devices. Do not use this connector unless instructed to do so. 7.

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.

8.

Power connector

Powers the X-Fi I/O Console* via the <u>AD Link connector</u>. Connect a power cable from your computer's power supply to this connector.

9.

AD_EXT connector

Connect one end of the AD_EXT cable to this connector. Connect the other end to the <u>AD_EXT connector</u> on the X-Fi I/O Drive*.

10.

Front Panel Header Audio connector

Connect one end of the Intel[®] Front Panel Audio cable (available separately) to this connector. See <u>Front</u> <u>Panel Header (for SB073X series)</u> for specifications.

11. SPDIF I/O connector Connect the Optical Digital IO Card* to this connector.

Notes

• *Available with some models of your audio device, or as an upgrade accessory in some regions.

• Select the **Digital I/O** option when connecting digital audio devices to the Digital I/O Module (available with selected models or as an upgrade option). Also select the option if you want to connect external digital audio devices that accept stereo PCM or compressed Dolby Digital/DTS Bitstream from the S/PDIF output. See <u>Configuring your FlexiJack</u> for more information.

• Some models of your audio device come with a built-in 64 MB X-RAM. This special RAM is reserved for game developers to store a game's audio file on the audio card, for faster retrieval, processing and playback. Any game that supports X-RAM receives an even bigger performance boost.

Configuring your FlexiJack

Your audio card's <u>FlexiJack</u>* provides both analog and digital support. After connecting the device that you want to the FlexiJack, follow the instructions below to configure your FlexiJack for the following user modes:

Entertainment Mode

- 1. In Entertainment Mode, click the **Digital I/O** icon. The **Digital I/O** page appears.
- Click **Digital I/O** or **Mic-In/Line-In** to select the FlexiJack Mode that you want.

Audio Creation Mode

1. In Audio Creation Mode, click the **Settings** button. The **Settings** dialog box appears.

• Under **Digital I/O**, click **Digital I/O** or **Mic-In/Line-In** to select the FlexiJack Mode that you want.

Game Mode

1. In Game Mode, click the **Settings** button. The **Settings** dialog box appears.

• Under **Digital I/O**, click **Digital I/O** or **Mic-In/Line-In** to select the FlexiJack Mode that you want.

Notes

• *Applicable only to FlexiJacks with Digital I/O functions.

Your Remote Control*

Designed for use with the IR Receiver*, X-Fi I/O Drive* or X-Fi I/O Console*, your remote control lets you operate your computer from the comfort of your sofa or bed, at a distance of up to 3 meters (approximately 9.8 feet).

Notes

- *Available with some models of your audio device, or as an upgrade accessory in some regions.
- To select an option on a menu, press the **Up**, **Down**, **Left** and **Right** buttons to scroll to the option, and then press the **Select/OK** button on your remote control.

• The remote control included with your product may vary from the one shown here, depending on the region where it was originally purchased.



	Button or Scroller	Description
1.	Number pad	Use to select tracks for playback. To access a two-digit track such as track 10, press the 1 button followed by the 0 button (in quick succession).
2.	Return	Returns to a previous menu.
3.	Options	Displays the options menu.
4.	Display	Displays Entertainment Center when minimized or displays the Now Playing screen when it is maximized.

5.	EAX	Press repeatedly to progressively cycle through available EAX effects. Scroll forward or backward to adjust the amount of EAX effect applied.
6.	X-Fi Crystalizer	Turns the X-Fi Crystalizer effect on or off when pressed. Scroll forward or backward to adjust the amount of X-Fi Crystalizer effect applied.
7.	Power	Turns Entertainment Center on or off when pressed.
8.	X-Fi CMSS- 3D	Turns X-Fi CMSS-3D on or off when pressed. Scroll forward or backward to adjust the amount of stereo envelopment between the front and surround channels on a multispeaker system, or the amount of virtualization on a pair of stereo speakers.
9.	3DMIDI	Turns 3DMIDI on or off when pressed. Scroll forward or backward to adjust the pan spread of the MIDI source in relation to the Front direction on the horizontal plane.
10.	Volume Up (+) and Volume Down (-)	Control the master volume of your computer.
11.	Mute	Mutes audio.
12.	Cancel	Minimizes Entertainment Center or closes any application that you are controlling with your remote control.
13.	Start	Displays Entertainment Center's main menu.
14.	Left	Scrolls left.
15.	Up	Scrolls up.
16.	Select/OK	Executes a selected option in a menu.
17.	Right	Scrolls right.
18.	Down	Scrolls down.
19.	Rec	Records the track that is being played back.
20.	Rewind/Left	Moves back within a track during playback or scrolls left.
21.	Previous	Goes to the previous track or scrolls up.
22.	Next	Goes to the next track or scrolls down.
23.	Fast Forward/Right	Moves ahead within a track during playback or scrolls right.
24.	Slow	Enables Time Scaling for CD Audio played back using a digital format, or MP3, WAV and VCD files. Press repeatedly to select the speed. To resume normal playback, press the Play/Pause button.
25.	Play/Pause	Starts, pauses or resumes current playback.
26.	Stop/Eject	Stops the current playback. Ejects your CD/DVD-ROM drive tray when no track is being played back.

Your IR Receiver*

Your IR Receiver receives infrared signals from the remote control* and transmits them to your computer. Connect the IR Receiver to a USB port on your computer.



Notes

• *Available with some models of your audio device, or as an upgrade accessory in some regions.

Your Digital I/O Module*

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

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	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 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 with some models of your audio device, or as an upgrade accessory in some regions.

Your Sound Blaster X-Fi I/O Drive*

The X-Fi I/O Drive provides additional connectivity for a number of other devices.

Front panel



	Jack or Connector	Description
1.	Coaxial SPDIF In/Out jacks	Connect digital audio recording/playback devices with coaxial jacks (for example, MiniDisc recorders, Digital Audio Tape recorders or external hard disk recorders) to these jacks.
2.	Optical SPDIF In/Out jacks	Connect recording/playback devices with optical jacks (for example, MiniDisc recorders, Digital Audio Tape recorders or external hard disk recorders) to these jacks.
3.	Auxiliary 2 Line In jacks	Connect one end of an RCA cable to these jacks. Connect the other end to the RCA outputs on analog devices like VCRs, TVs and CD players.
4.	Infrared receiver	Receives infrared signals from the remote control* and transmits them to your computer.
5.	Mini MIDI In/Out connectors	Connect MIDI devices to these connectors using mini-MIDI-to-standard-MIDI adapter cables*.

6.	Headphone volume dial	Controls the volume to your headphones. Turn clockwise to increase the volume, and counterclockwise to decrease the volume.
7.	Headphone jack	Connect stereo headphones with a 6.35 mm (1/4-inch) stereo plug to this jack. Speaker output will be muted if the Automatically mute speakers check box is selected in Audio Console or Entertainment Mode. For more information, refer to their online Help.
8.	Line In 2/Mic In 2 jack	Connect a line-level source (for example, a cassette player or an electric guitar running through a Pre-amp FX Box) or a microphone to this jack.
9.	Line In 2/Mic In 2 dial	Selects Line In 2 or Mic In 2. Also controls the input gain. Turn the dial clockwise to increase the input gain, and counterclockwise to decrease the input gain.
10.	Line In 2/Mic In 2 separator mark	To select Line In 2 for line-level sources, turn the dial counterclockwise over the Line In 2/Mic In 2 separator mark until you hear a "click". To select Mic In 2, turn the dial clockwise over the separator mark until you hear a "click".

Top panel



	Jack or Connector	Description
1.	Jumper JP1	Connect the shunt supplied with your X-Fi I/O Drive to this jumper if you want to use a dynamic microphone. Do not connect the shunt if you want to use a condenser microphone or computer microphone.
2.	Power connector	Connect the power splitter cable supplied with your X-Fi I/O Drive to this connector.
3.	AD_EXT connector	Connect one end of the AD_EXT cable to this connector. Connect the other end to the <u>AD_Link</u> <u>connector</u> on the Sound Blaster X-Fi audio card.

Notes

• *Available with some models of your audio device, or as an upgrade accessory in some regions.

Your Sound Blaster X-Fi I/O Console*

The X-Fi I/O Console provides additional connectivity for a number of other devices.

Front panel



	Jack or Dial	Description
1.	Headphone jack	Connect stereo headphones with a 6.35 mm (1/4-inch) stereo plug to this jack. Speaker output will be muted if the Automatically mute speakers check box is selected in Audio Console or Entertainment Mode. For more information, refer to their online Help.
2.	Line In 3/Hi- Z jack	Connect a line-level source (such as a cassette, DAT or MiniDisc player) to this jack. You can also connect a low output impedance device such as an electric guitar when Hi-Z is enabled. Hi-Z offers high input impedance to match the load delivered by low output impedance devices. This eliminates the need to run such devices through pre-amp equipment.
3.	Line In 2/Mic In 2 jack	Connect a line-level source (such as a cassette, DAT or MiniDisc player, or an electric guitar running through a Pre-amp FX Box) or a microphone to this jack.
4.	Line In 3/Hi- Z dial	 Selects Line In 3 or Hi-Z. Also controls the input gain. Turn the dial clockwise to increase the input gain, and counterclockwise to decrease the input gain. To select Line In 3 for line-level sources, turn the dial counterclockwise over the separator mark until you hear a "click". To select Hi-Z for low output impedance devices such as an electric guitar, turn the dial clockwise over the separator mark until you hear a "click".
5.	Line In 2/Mic In 2 dial	Selects Line In 2 or Mic In 2. Also controls the input gain. Turn the dial clockwise to increase the input gain, and counterclockwise to decrease the input gain. To select Line In 2 for line-level sources, turn the dial counterclockwise over the separator mark until you hear a "click". To select Mic In 2, turn the dial clockwise over the separator mark until you hear a "click".
6.	3DMIDI dial	Turns 3DMIDI on or off when pressed. Turn the dial clockwise or counterclockwise to adjust the pan spread of the MIDI source in relation to the Front direction on the horizontal plane.

7.	EAX dial	Turns EAX on or off when pressed. Turn the dial clockwise or counterclockwise to adjust the amount of EAX effect applied.
8.	X-Fi CMSS- 3D dial	Turns X-Fi CMSS-3D on or off when pressed. Turn the dial clockwise or counterclockwise to adjust the amount of stereo envelopment between the front and surround channels on a multispeaker system, or the amount of virtualization on a pair of stereo speakers.
9.	X-Fi Crystalizer dial	Turns the X-Fi Crystalizer effect on or off when pressed. Turn the dial clockwise or counterclockwise to adjust the amount of X-Fi Crystalizer effect applied.
10.	Master Volume/Mute dial	Controls the combined level of all audio handled through the X-Fi I/O Console. Cuts off all audio when pressed.
11.	Infrared Light Emitting Diode (LED)	Lights up when infrared signals are received from the remote control*.
12.	Power LED	Lights up and remains constant when power is supplied to the X-Fi I/O Console. Blinks when the Mute function is enabled.
13.	Infrared receiver	Receives infrared signals from the remote control* and transmits them to your computer.

Rear panel



	Jack or Connector	Description
1.	Auxiliary 2 Line In/Phono In switch	Switches between line level or phono sources.
2.	Auxiliary 2 Line In/Phono In jacks	 Supports line level or phono sources, depending on which setting is currently selected using the Auxiliary 2 Line In/Phono In switch. When Auxiliary 2 Line In is selected: Connect one end of an RCA cable to these jacks. Connect the other end to the RCA outputs on line level devices like VCRs, TVs and CD players.

When Phono In is selected:

• Connect one end of a phono cable to these jacks. Connect the other end to a vinyl record player.

3.

DIN jack

Connect Creative analog speaker systems that have a **Volume Control** jack (9-pin DIN jack). For more information, see <u>About the DIN Jack</u>.

4.

MIDI In/Out connectors

Connect MIDI devices to these connectors using standard MIDI cables.

5.

Optical SPDIF In/Out jacks

Connect recording/playback devices with optical jacks (for example, MiniDisc recorders, Digital Audio Tape recorders or external hard disk recorders) to these jacks.

6.

Coaxial SPDIF In/Out jacks

Connect digital audio recording/playback devices with coaxial jacks (for example, MiniDisc recorders, Digital Audio Tape recorders or external hard disk recorders) to these jacks. 7.

AD_Link (26 pin) connector

Connect one end of the AD_Link cable to this connector. Connect the other end to the <u>AD_Link connector</u> on your Sound Blaster X-Fi audio card.

1

Notes

• *Available with some models of your audio device, or as an upgrade accessory in some regions.

Installing and Uninstalling Software

Installing Drivers and Applications

You need to install device drivers and applications before using your Sound Blaster X-Fi. 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** \rightarrow **Computer** or **My Computer**.
- Right-click the CD-ROM/DVD-ROM drive icon, and then click **Open Autoplay** or **AutoPlay**.
- Select the **Always do this for software and games** checkbox and double-click the **Install** or **Run Program** option. (For Windows Vista only)
- 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 <u>www.soundblaster.com/support/</u>.

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 <u>www.microsoft.com</u>.

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. Click Start \rightarrow Control Panel \rightarrow Uninstall a program or Add or Remove Programs.
- Select the **Sound Blaster X-Fi** entry.
- Click the **Uninstall/Change** or 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 <u>Troubleshooting and FAQs</u>.

Uninstalling all Audio Drivers and Applications

- 1. Click Start \rightarrow Control Panel \rightarrow Uninstall a program or Add or Remove Programs.
- Select the **Sound Blaster X-Fi** entry.
- Click the **Uninstall/Change** or 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 <u>Installing Drivers and Applications</u>.

Installing/Uninstalling selected Audio Drivers or Applications

- 1. Click Start \rightarrow Control Panel \rightarrow Uninstall a program or Add or Remove Programs.
- Select the **Sound Blaster X-Fi** entry.
- Click the **Uninstall/Change** or 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. Click Start \rightarrow Control Panel \rightarrow Uninstall a program or Add or Remove Programs.
- Select the **Creative MediaSource** entry.
- Click the **Uninstall/Change** or the **Change/Remove** button.
- In the **InstallShield Wizard** dialog box, click the **Remove** button, and then click the **Next** button.
- Select the check box of the application you want to uninstall.
- Click the **Next** button.
- Restart your computer when prompted.

Connecting Peripherals

Your Sound Blaster X-Fi works seamlessly with many external devices to give you endless hours of listening and music authoring pleasure. To connect these peripherals, refer to the relevant sections below:

- <u>Watching DVDs</u>
- <u>Playing/Recording Music</u>
- <u>Creating Music</u>

Notes

- For more information on the Creative peripherals mentioned in this chapter, visit <u>www.creative.com</u>.
- The cables shown in these topics are available separately.

Watching DVDs

Using an external decoding device or software, your Sound Blaster X-Fi can decode Dolby Digital and DTS multichannel sound from DVDs . For more information, refer to the relevant sections below:

- Decoding with an external decoder or home theater receiver
- Decoding from a software DVD player
- Connecting a multichannel home theater receiver

Decoding with an external decoder or home theater receiver

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

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

For more information on external decoders or home theater receivers, the associated speaker connection settings, or how to set up your DVD player software to use the digital output, please consult the relevant User's Guide.

Connecting your external decoder to the Sound Blaster X-Fi audio card





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:



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

Connecting your external decoder to the Sound Blaster X-Fi I/O Drive

For optical connections:



Jack, Connector or Cable

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

For coaxial connections:



Jack, Connector or Cable

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

Connecting your external decoder to the Sound Blaster X-Fi I/O Console

For optical connections


Notes

• Actual products may differ slightly from those pictured.

For coaxial connections



Jack, Connector or Cable

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

Notes

- *Available with some models of your audio device, or as an upgrade accessory in some regions.
- Actual products may differ slightly from those pictured.

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

Some product models enable you to upgrade PowerDVD, and download its codec, in the following ways:

• Click Start → Programs or All Programs → Creative → Get PowerDVD.

Notes

• *Available without additional charge for some models of your audio card.

Connecting a multichannel home theater receiver

If you have a multichannel home theater receiver, you can connect it directly to the Sound Blaster X-Fi 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 <u>Stereo and 4-Pole Jack</u> <u>Diagrams</u>.



	Jack, Connector or Cable	Description
1.	Front Left jack	Connect this jack to the Line Out 1 jack on your Sound Blaster X-Fi 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 Sound Blaster X-Fi 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 Sound Blaster X-Fi 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 Sound Blaster X-Fi 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 Sound Blaster X-Fi 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 Sound Blaster X-Fi 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): On 4.1 and 5.1 systems: Rear Left and Rear Right On 7.1 systems: Rear Left, Rear Right and Side Right
5.		

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3.50 mm (1/8-inch) surround-to-RCA cable (available separately) Connects the Sound Blaster X-Fi 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 Sound Blaster X-Fi 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 Sound Blaster X-Fi 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 Sound Blaster X-Fi 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): On 5.1 systems: Front Center and Subwoofer 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 Sound Blaster X-Fi audio card and home theater receiver.

Notes

O

• Actual products may differ slightly from those pictured.

• Use the Sound Blaster 7.1 Multichannel cable (available separately), which is a 3 x 3.50 mm (1/8 inch) jack-to-8 x RCA adapter cable, to connect the Sound Blaster X-Fi audio card to your 7.1 channel home theater receiver. Visit <u>www.creative.com</u> for more information.

Playing/Recording Music

You can connect stereo headphones to the Line Out 1 jack on your Sound Blaster X-Fi audio card.



1. Line Out 1 jack

Connect stereo headphones with a 3.50 mm (1/8-inch) plug to this jack. Use a convertor if your headphones come with a larger plug.

You can also connect headphones to the X-Fi I/O Drive* or X-Fi I/O Console*.



Jack,	
Connector	Description
or Cable	

1. Headphone jack

Connect stereo headphones with a 6.35 mm (1/4-inch) stereo plug to this jack. Speaker output will be muted if the **Automatically mute speakers** check box is selected in Audio Console or Entertainment Mode. For more information, refer to their online Help.

To record music to your DAT or MiniDisc recorder, connect your recording device to the Optical or Coaxial SPDIF Out connector on the Digital I/O Module*, X-Fi I/O Drive or X-Fi I/O Console.

You can play back music from your DAT or MiniDisc player by connecting it to the Optical or Coaxial SPDIF In jack.

Connecting your DAT or MiniDisc recording device to the Digital I/O Module



	Jack, Connector or Cable	Description
1.	3.50 mm (1/8-inch) optical miniplug-to- optical SPDIF cable (available separately)	Connects to the Optical SPDIF Out jack on your Digital I/O Module and to the Optical In jack on your portable MiniDisc player/recorder.
2.	Optical SPDIF Out jack	Connect the Optical SPDIF In jack on recording devices to this jack.
3.	Optical SPDIF In jack	Connect the Optical SPDIF Out jack on playback devices to this jack.

Connect to the Optical SPDIF In/Out jacks on your Digital I/O Module and your playback/recording device.

Connecting your DAT or MiniDisc recording device to the Sound Blaster X-Fi I/O Drive



	Jack, Connector or Cable	Description
1.	Optical cables (available separately)	Connect to the Optical SPDIF In/Out jacks on your X-Fi I/O Drive and your playback/recording device.
2.	3.50 mm (1/8-inch) optical miniplug-to- optical SPDIF cable (available separately)	Connects to the Optical SPDIF Out jack on your X-Fi I/O Drive and to the Optical In jack on your portable MiniDisc player/recorder.
3.	Optical SPDIF In/Out jacks	Connect the Optical SPDIF In/Out jacks on recording/playback devices to these jacks.
4.	Headphone jack	Connect stereo headphones with a 6.35 mm (1/4-inch) plug to this jack.

5.	Coaxial SPDIF In/Out jacks	Connect the Coaxial SPDIF In/Out jacks on recording/playback devices to these jacks.
6.	Coaxial cables (available separately)	Connect to the Coaxial SPDIF In/Out connectors on your X-Fi I/O Drive and your playback/recording device.

Connecting your DAT or MiniDisc recording device to the Sound Blaster X-Fi I/O Console



	Jack, Connector or Cable	Description
1.	Optical cables (available separately)	Connect to the Optical SPDIF In/Out jacks on your X-Fi I/O Console and your playback/recording device.
2.	3.50 mm (1/8-inch) optical miniplug-to- optical SPDIF cable (available separately)	Connects to the Optical SPDIF Out jack on your X-Fi I/O Console and to the Optical In jack on your portable MiniDisc player/recorder.
3.	Coaxial SPDIF In/Out jacks	Connect the Coaxial SPDIF In/Out jacks on recording/playback devices to these jacks.
		Connect to the Coaxial SPDIF In/Out jacks on your X-Fi I/O Console and

4.	Coaxial cables (available separately)	your playback/recording device.
5.	Optical SPDIF In/Out jacks	Connect the Optical SPDIF In/Out jacks on recording/playback devices to these jacks.

Notes

- *Available with some models of your audio device, or as an upgrade accessory in some regions.
- Actual products may differ slightly from those pictured.

Creating Music

You can set up a home music studio using your Sound Blaster X-Fi.

The comprehensive array of connectivity options offered by the X-Fi I/O Drive* and X-Fi I/O Console* enable you to put together your own productions consisting of multiple music tracks from a MIDI Synthesizer, an electric guitar or a microphone.

Connecting instruments to your Sound Blaster X-Fi audio card

Connect a microphone or a line-level source (such as an electric guitar running through a Pre-amp FX Box) to the FlexiJack.



Connecting instruments to your Sound Blaster X-Fi I/O Drive

If you have installed the X-Fi I/O Drive, you can also connect a MIDI Synthesizer, an electric guitar or a microphone to it.



	Jack, Connector or Cable	Description
1.	Optical cable (available separately)	Connects to the Optical SPDIF Out jack on the X-Fi I/O Drive and the SPDIF In jack on your MiniDisc recorder.
2.	Optical SPDIF Out jack	Connect recording devices with optical jacks to this jack.
3.	3.50 mm (1/8-inch) optical miniplug-to- optical SPDIF cable (available separately)	Connects to the Optical SPDIF Out jack on your X-Fi I/O Drive and to the Optical In jack on your portable MiniDisc player/recorder.
4.	Line In 2/Mic In 2 jack	Connect a microphone, an electric guitar running through a Pre-amp FX Box, or other line-level devices to this jack.
5.	Mini-MIDI-to-standard-MIDI adapter cables	Connect to the MIDI In/Out connectors on the X-Fi I/O Drive and two standard MIDI cables (available separately).
6.	Standard MIDI cables (available separately)	Connect to the MIDI In/Out connectors on your MIDI keyboard and the two mini-MIDI-to-standard-MIDI adapter cables provided.

Connecting instruments to your Sound Blaster X-Fi I/O Console

The X-Fi I/O Console hosts all the connectors necessary to meet every conceivable music creation need. It features a Hi-Z connector which offers high input impedance to match the load delivered by low output impedance devices such as electric guitars, eliminating the need to run such devices through preamp equipment.



Front Panel

	Jack, Connector or Cable	Description
1.	Line In 3/Hi-Z jack	Connect a line-level source to this jack when Line In 3 is enabled. Connect a low output impedance device, such as an electric guitar with no preamplification, to this jack when Hi-Z is enabled. Use the Line In 3/Hi-Z dial on your X-Fi I/O Console to toggle between Line In 3 and Hi-Z.
2.	Line In 2/Mic In 2 jack	Connect a microphone, an electric guitar running through a Pre-amp FX Box, or other line-level devices to this jack.



Rear Panel

	Jack, Connector or Cable	Description
1.	Optical cable (available separately)	Connects to the Optical SPDIF Out jack on the X-Fi I/O Console and the SPDIF In jack on your MiniDisc recorder.
2.	3.50 mm (1/8-inch) optical miniplug-to- optical SPDIF cable (available separately)	Connects to the Optical SPDIF Out jack on your X-Fi I/O Console and to the Optical In jack on your portable MiniDisc player/recorder.
3.	Optical SPDIF Out jack	Connect recording devices with optical jacks to this jack.
4.	Standard MIDI cables (available separately)	Connect to the MIDI In/Out connectors on the X-Fi I/O Console and to the MIDI In/Out connectors on your MIDI keyboard.

Notes

- *Available with some models of your audio device, or as an upgrade accessory in some regions.
- Actual products may differ slightly from those pictured.

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 <u>www.creative.com</u>.

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 and 7.1 channel speakers. For detailed speaker placement tips, refer to the User's Guide of your speaker system.

For 5.1 channel speakers:





For 7.1 channel speakers:



Notes

• If you have a 5.1 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 or Game Mode. For more information, refer to their respective online Help.

Connecting Digital Speaker Systems

Select the **Digital I/O** option in Entertainment Mode, Game Mode and Audio Creation Mode when connecting external digital speakers that accept stereo PCM or compressed Dolby Digital/DTS Bitstream from the S/PDIF output.

Notes

• Visit <u>www.creative.com</u> for more information.

2.1 channel digital speakers

Connecting your 2.1 channel digital speakers to the Sound Blaster X-Fi audio card



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:



For coaxial connections:



Connecting your 2.1 channel digital speakers to the Sound Blaster X-Fi X-Fi I/O Drive*

For optical connections:



Device/Cable

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

For coaxial connections:



3. Coaxial SPDIF Out jack

Connecting your 2.1 channel digital speakers to the Sound Blaster X-Fi X-Fi I/O Console*

For optical connections:



For coaxial connections:



Notes

• *Available with some models of your audio device, or as an upgrade accessory in some regions.

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 <u>Stereo and 4-Pole Jack</u> <u>Diagrams</u>.

Notes

• Visit <u>www.creative.com</u> for more information.



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.



Notes

• Actual products may differ slightly from those pictured.



Notes

• Actual products may differ slightly from those pictured.



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 in <u>Entertainment Mode</u>, <u>Audio Creation</u> <u>Mode</u> or <u>Game Mode</u> to experience 7.1 channel audio.

About the DIN Jack

Your X-Fi I/O Console* features a DIN jack on its rear panel. In order to enjoy integrated speaker control functions, you can connect this jack to selected Creative analog speaker systems that have a wired remote control or Audio Control Pod.

You can, for example, adjust the volume of your speakers, or mute them, using the <u>Master Volume/Mute dial</u> on your X-Fi I/O Console.



Notes

• *Available with some models of your audio device, or as an upgrade accessory in some regions.

• Visit <u>www.creative.com</u> for more information.

Creative Sound Blaster X-Fi Applications and Modes

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, please refer to its online help. Depending on the application, you can do this by clicking and the toolbar of the application, or selecting **Help Topics** from the **Help** menu.

- 3DMIDI Player
- Audio Control Panel
- AutoMode Switcher
- Console Launcher
 - Mode Switcher
- Entertainment Mode
- <u>Audio Creation Mode</u>
- <u>Game Mode</u>
- Creative ALchemy (for Windows Vista only)
- Creative Entertainment Center
- Creative Karaoke Player
- Creative MediaSource
- Creative Media Toolbox
- Creative Smart Recorder
- Creative WaveStudio
- Sound Blaster Plugin (for Windows Media Center Edition)
- SoundFont Bank Manager
- Speaker Setup Console
- Volume Panel

Diagnostic and troubleshooting utilities

• Diagnostics

Notes

• The applications included with Creative Sound Blaster X-Fi may differ from those described here. Creative Sound Blaster X-Fi may also come

with third party applications.

Modes

Sound Blaster X-Fi is built around the most powerful audio processor in the world! To ensure that different types of user have access to the full power of the audio processor, Sound Blaster X-Fi provides 3 different modes of operation: Entertainment, Audio Creation and Gaming. Each mode focuses the power of the audio processor for that operation and optimizes the audio processor's features for the best possible experience.

• Select **Game Mode** when you require the full power of the audio processor for the best gaming experience.

• Select **Audio Creation Mode** when you want to record audio with full fidelity ASIO support.

• Select **Entertainment Mode** for optimized movie soundtrack and music playback.

Select a mode that suits your usage or stick to your favorite mode. Your computer remembers the last selected mode, even after you restart your computer. The modes are not exclusive to one type of operation. For example, you will still be able to play games in the other modes, but you will not get the full benefits of the card when the best mode is not selected for that usage.

Select a mode that best suits your needs in the Mode Switcher or Audio Console application. For information on each mode, refer to its online Help.

- Entertainment Mode
- <u>Audio Creation Mode</u>
- Game Mode
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, bass and treble levels.
- Adjust volume mixer settings.
- Configure playback settings for your speakers or headphones.
- Adjust equalizer settings.
- Enable environment effects.
- Enable multichannel upmixing.
- Enable virtual surround sound.
- Enhance detail and impact of audio with X-Fi Crystalizer.



Audio Creation Mode

In Audio Creation Mode, your audio device is optimized to handle sophisticated audio operations such as bus routing, multichannel wave recording and stereo balancing.

With the Audio Creation Mode console, you can:

- Mix and record multiple audio sources.
- Route audio to specific bus destinations.
- Apply studio-quality effects to all sources.
- Position MIDI output in three-dimensional space.
- Enhance detail and impact of audio with X-Fi Crystalizer.



Game Mode

In Game Mode, your audio device is optimized for 3D audio and EAX performance in games.

With the Game Mode console, you can:

- Adjust the master volume or mute all audio.
- Configure playback settings for your speakers or headphones.
- Adjust the Bass Boost and Bass Management settings.
- Enable multichannel upmixing.
- Enable virtual surround sound.
- Enhance detail and impact of audio with X-Fi Crystalizer.
- Adjust equalizer settings.
- Adjust basic controls for common mixer sources.



Summary of Software Features

	Entertainment	Audio Creation	Game
3DMIDI Playback	Yes	Yes	Yes
3DMIDI Interaction	No	Yes	No
EAX ADVANCED HD 5.0	Limited	Limited	Yes
EAX ADVANCED HD 4.0	Limited	Limited	Yes
EAX ADVANCED HD 3.0	Yes	Yes	Yes
Number of Auxiliary Effects	2	4	4
Maximum Number of Reverbs	1	2	4
Insert Effects	No	4	No
ASIO Out Channels: Dry	1 Pair	5 Pairs	1 Pair
ASIO Out Channels: FX	No	4 Pairs	No
ASIO In Channels: WUH	8	8	8
ASIO In Channels: Basic	2 (1 Pair)	2 (1 Pair)	2 (1 Pair)
ASIO 2.0 Support	Limited	Yes	Limited
ASIO 2.0 Direct Monitoring	0	12 (6 pairs)	0
Bit-Matched Playback	No	Yes	No
Bit-Matched Recording	No	Yes	No
X-Fi CMSS-3D Surround	Yes	No	Yes
X-Fi CMSS-3D Headphone	Yes	No	Yes
X-Fi CMSS-3D Virtual	Yes	No	Yes
X-Fi Crystalizer	Yes	Yes	Yes
Graphic EQ	10 Bands	10 Bands	10 Bands
Smart Volume Management	Yes	Yes	Yes
Bass Management	Advanced	No	Advanced

Notes

• Sound Blaster X-Fi can support Dolby Digital and DTS bitstream out at 48 kHz only in Entertainment and Game Modes.

General Specifications

This section displays the specifications of your Sound Blaster X-Fi audio card, Digital I/O Module*, X-Fi I/O Drive* and X-Fi I/O Console*.

PCI Bus Mastering

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

Sound Blaster X-Fi Audio Processor

- Advanced hardware accelerated digital effects processing
- All new dedicated DSP capable of both time and frequency domain audio processing
- 128 3D voices with advanced 3D positional audio rendering algorithms
- Professional quality digital mixing and equalization maintaining 24-bit accuracy
- User-selectable Master Sampling Rate for bit-matched professional audio applications

• Ultra-high quality sample rate conversion for gaming and professional audio applications

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, 24, 32, 44.1, 48 and 96 kHz
- ASIO 2.0 support at 16-bit/44.1kHz, 16-bit/48kHz, 24-bit/44.1kHz 24-bit/48kHz and 24-bit/96kHz
- 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

- ASIO 2.0 with direct monitoring
- Accelerated ASIO for ultra low latency
- Enhanced SoundFont support of up to 24-bit resolution

X-RAM

• 64 MB of dedicated X-RAM for processing a game's audio that supports this feature (available only with some models of your audio device)

Flexible Mixer Control

- Selectable input source or mixing of various audio sources for recording
- Adjustable master volume control
- Separate bass and treble control
- Front and rear balance control
- Muting, soloing and panning control for mixer sources

Mode Selector Control

• Three exclusive working modes (<u>Entertainment Mode</u>, <u>Audio Creation</u> <u>Mode</u> and <u>Game Mode</u>), optimized to perform key tasks within each category of usage

Creative MultiSpeaker Surround (CMSS)

- X-Fi CMSS-3D Surround: Upmixes mono or stereo sources to 4, 5.1 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

• *Available with some models of your audio device, or as an upgrade accessory in some regions.

Connectivity

Sound Blaster X-Fi audio card

Audio Inputs

- One analog input via stereo jack on rear bracket (selectable from line-level analog line input or mono microphone analog input)
- AUX_IN line-level analog input via 4-pin Molex connector on card

Audio Outputs

- Three line-level analog outputs via 4-pole 3.50 mm (1/8-inch) jacks on rear bracket: Front Left, Front Right, Rear Left, Rear Right, Side Right, Center, Subwoofer and Side Left channels
- Stereo headphone (32-ohm load) support on Line Out 1 jack
- For SB046X and SB055X series: Digital Out via 3.50 mm (1/8-inch) jack on rear bracket (sharing with the Line In/Microphone In jack)
- For SB073X series: Optical Out via 3.50 mm (1/8-inch) jack on rear bracket (sharing with the Line In/Microphone In jack)

Interfaces

- 4-pin power supply header for connection to the system power supply unit, supplying power to the X-Fi I/O Console*
- 2 x 20 pin AD_EXT header for connection to the X-Fi I/O Drive*
- 2 x 5 pin Front Panel Header for connections with Intel HD Front Panel Audio standard header (For SB073X series only)
- One AD_Link (26 pin) connector for linking to the X-Fi I/O Console*

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

Sound Blaster X-Fi I/O Drive*

Inputs and outputs on front panel

- Two RCA jacks for coaxial SPDIF input and output
- Headphone output and volume control with auto detection via 6.35 mm (1/4-inch) stereo jack
- Shared line-level analog Line/Microphone input via 6.35 mm (1/4-inch) stereo jack. Shared input selectable via dial with gain control for microphone.
- Two mini MIDI female connectors for MIDI input and output
- Two RCA jacks for Auxiliary input
- Two optical connectors for optical SPDIF input and output
- Infrared receiver for receiving infrared signals from the remote control. Transmission range within four meters (13 feet) with 15-degree deviation from the center axis.

Interfaces

- 4-pin power supply header for connection to system power supply unit
- 2 x 20 pin AD_EXT header for connection to Sound Blaster X-Fi audio card

Sound Blaster X-Fi I/O Console*

Inputs and outputs on front panel

- Headphone output and volume control with auto detection via 6.35 mm (1/4-inch) stereo jack
- Shared line-level analog Line/Hi-Z input via 6.35 mm (1/4-inch) stereo jack. Shared input selectable via dial with gain control for Hi-Z input.
- Shared line-level analog Line/Microphone input via 6.35 mm (1/4-inch) stereo jack. Shared input selectable via dial with gain control for microphone.

• Infrared receiver for receiving infrared signals from the remote control. Transmission range within four meters (13 feet) with 15-degree deviation from the center axis.

Inputs and outputs on rear panel

- Two RCA jacks for Auxiliary input
- DIN jack for connection to supported Creative analog speaker systems with the wired remote control or Audio Control Pod that comes with the speakers
- Two standard MIDI female connectors for MIDI input and output
- Two optical connectors for optical SPDIF input and output
- Two RCA jacks for coaxial SPDIF input and output

Interfaces

• One AD_LINK connector for linking to the audio card

Notes

• *Available with some models of your audio device, or 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. Front Left
- 5. Front Right
- 6. Ground
- 7. Rear Left
- 8. Rear Right
- 9. Ground
- 10. Center
- 11. Subwoofer
- Ground 12.

7.1 channel analog audio



Notes

• Actual products may differ slightly from those pictured.

Front Panel Header (for SB073X series)

Connection compatiblity

• Intel HD Front Panel Audio standard only 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
- Insufficient SoundFont Cache
- <u>Problems with Multiple Audio Devices</u>
- <u>Problems with Digital Audio Devices</u>
- Known Issues

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, Game Mode or Audio Creation 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 <u>Entertainment Mode</u> or <u>Game Mode</u>, 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 <u>Problems with Digital Audio Devices</u>.

• The speakers and headphone selection in Audio Console, Entertainment Mode, Game Mode or Audio Creation 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 \rightarrow Settings \rightarrow Control Panel or Start \rightarrow 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.

Insufficient SoundFont Cache

There is insufficient memory to load SoundFont banks.

This may occur when a SoundFont-compatible MIDI file is loaded or played while insufficient memory has been allocated to SoundFont Bank Manager.

To have sufficient SoundFont cache memory:

- Remove one or more SoundFont banks from your SoundFont cache. Do the following:
- 1. Click the **Bank** button.
 - The **Configure Bank** panel appears.
- In the **Select Bank** box, click a bank location. If the selected bank location contains a bank, the bank will appear in the **Bank Stack** box.
- Click the bank you want to remove in the **Bank Stack** box and click the **Remove** button.
- Click the **OK** button to finish configuring your banks.
- Load smaller SoundFont banks instead; or add more RAM to your system. Do one of the following:
 - In the **Configure Bank** panel of SoundFont Bank Manager, select a smaller SoundFont bank, if available, from the **Select Bank** box.
- Increase the system RAM on your computer. For more details, visit <u>www.soundblaster.com</u> for technical help.

Notes

• The amount of SoundFont cache you can allocate depends on the system RAM available. Your computer may slow down if the amount of cache used is too high.

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 Sound Blaster X-Fi audio card, 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 Sound Blaster X-Fi audio card.

After the installation of the Sound Blaster X-Fi 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 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 the **Product Settings** tab.
- 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 \rightarrow Control Panel \rightarrow Hardware and Sound \rightarrow 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 \rightarrow Settings \rightarrow Control Panel or Start \rightarrow 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 **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 **DMA if available** checkbox.
- Click the **OK** button.

Known Issues

When playing MIDI files in Creative MediaSource with X-Fi Synth A or B settings selected, volume cannot be adjusted through Creative MediaSource.

Adjust the volume control knob in Audio Creation Mode, Entertainment Mode or Game Mode, if necessary.

There is a "click" sound when I switch modes.

This may occur when you switch modes or restore the mode settings to their factory default. The sound comes from the relays of your uniquely designed Sound Blaster X-Fi audio card.

Sound is heard from my center analog speaker only.

This may occur when you are playing a 2D MIDI file.

When playing 2D MIDI content without the "pan" parameter or SoundFontcompatible MIDI content with zero panning, Sound Blaster X-Fi may channel sound through your analog center speaker only.

Speaker	Audio output with older	Audio output with Sound Blaster
2.1	Stereo	Stereo
5.1	Stereo	Front Left / Front Right / Center
7.1	Stereo	Front Left / Front Right / Center

Notes

• 2D MIDI content is equivalent to the standard MIDI format. Use the 3DMIDI Player application to convert your 2D MIDI file to a 3D MIDI file.

• By configuring the MIDI pan parameter of a SoundFont-compatible MIDI content, you can channel sound through your front left and front right speakers other than the center speaker.

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