Performance PCI128 32X and SBS20

User Guide

On-line Version

CREATIVE®

Getting Started

Sound Blaster® PCI 128Audio Card
Creative CD-ROM Drive
Creative Audio Software
Creative Speakers

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Version 1.1 CLI
November 1998

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Introduction



The colored insert in this manual gives you the latest information about your audio card and CD-ROM drive, and contact information for Creative Labs.

Welcome to the world of multimedia, as it should be experienced, with advanced, wave-table audio, and high-speed CD-ROM data delivery.

Sound Blaster PCI128 uses the latest music synthesis technology to play many notes simultaneously, creating a new dimension for musical and multimedia applications. Creative's Sound Blaster PCI128 is upgradeable with user-selectable banks for loading wave-table samples (digital instrument and sound samples).

After installing the Creative audio software, refer to the on-line *User's Guide*, located in the audio card group, and on-line Help for detailed information about the Creative Mixer and other utilities.

The Creative CD-ROM drive delivers high-speed capabilities to your computer when transferring data, playing educational and entertainment software titles, or running business applications. The internal design and enhanced IDE connector offers uncompromising performance and compatibility.

Your multimedia kit includes a variety of utilities so that you can get the most from your audio card and CD-ROM drive. After installing the Creative audio software, refer to the on-line *User's Guide* located in the audio card group for detailed information about each of the applications.



A slower PC or ISA/VL-Bus interface may work, however, CD-ROM access time and transfer rate may be reduced.

For the best results from this multimedia kit, you need:

- An IBM-compatible PC with an Intel® 133 MHz Pentium®, or AMD K5™ series processor
- 16 MB RAM (Random Access Memory)
- 12 MB of storage space on your hard disk (for the Creative software)
- Microsoft® Windows® 95, Windows 98, or Windows NT 4.0
- SVGA display card that supports 640x480 resolution and a minimum of 256 colors
- 3½-inch, 1.44 MB floppy disk drive
- PCI 2.1 compliant expansion slot for the audio card

- Enhanced IDE connector on your motherboard
- 5¼-inch half-height drive bay for the CD-ROM drive

Latest Information

The README file on the CD-ROM Installation Disk and the Creative audio software CD contains information and changes not available at the time of printing. Read the files before you continue.

Backup

Before you start, make a backup copy of the original CD-ROM Installation Disk. Use the backup; keep the original in a safe place.

Document Conventions

The following typographical conventions are used throughout this document:

Bold — Bold face type identifies words and phrases that are to be entered exactly as shown. For example:

```
SET SOUND=C:\SB16
```

Italic — Italic type identifies words and phrases that are to be replaced by you. For example:

```
DEVICE=C:\SBCD\DRV\SBIDE.SYS /D:MSCD001 /P:xxx,yy
```

In the example, you must supply a value for *xxx* and *yy*.
Italic in the text emphasizes or identifies a word or phrase that is being defined. In this document, it is also used to identify a button or menu item that you are to select; for example, "Select the *Play* button on the main menu."

ALL CAPS — A word in all capital letters identifies a key you are to press. For example, "Select *Yes* and press ENTER."



The notepad icon indicates information that is of particular importance and should be considered before continuing.



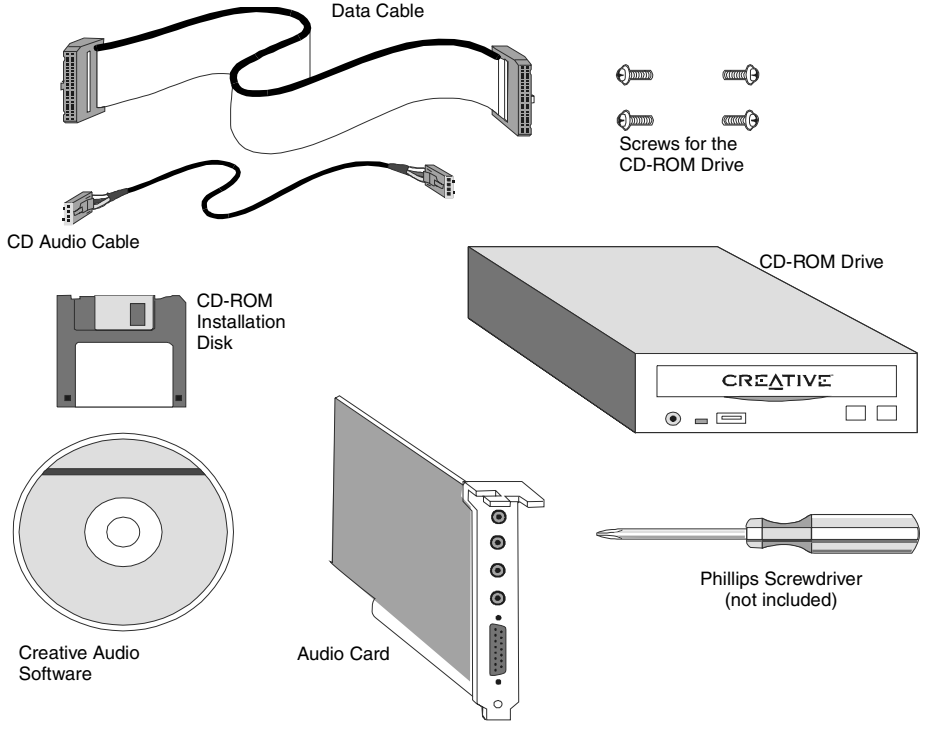
Designates a caution or warning that can help you avoid situations involving risk.

1

Installing Your Multimedia Kit

What You Need

Most items you need for installation are included in the kit. Some items, such as speakers and software, may vary depending upon the type of kit you purchased. The following illustration shows the basic components necessary for a complete installation.



Installing your multimedia kit requires you to perform the following steps:

- Install the CD-ROM drive
- Install the audio card
- Install the Creative audio software
- Test the installation

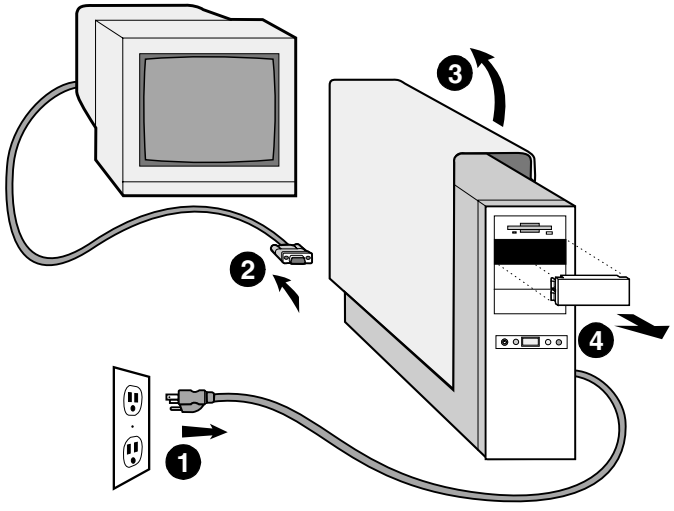
Refer to the colored insert for specific information about the audio card and CD-ROM drive.

Installing the CD-ROM Drive

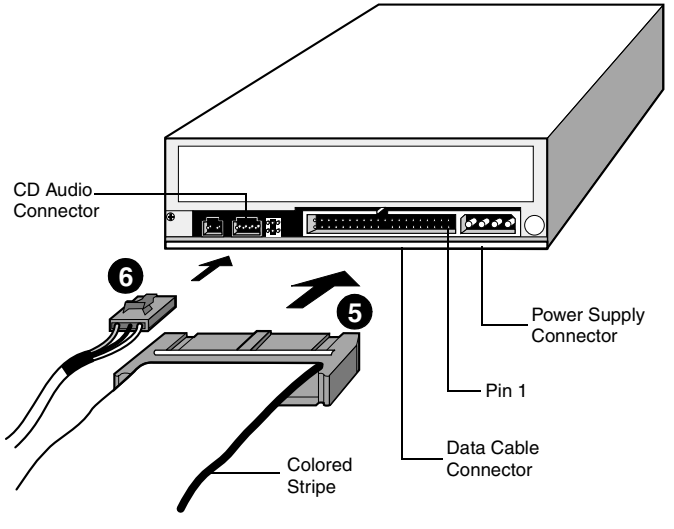
Before you remove the computer cover, touch a grounded metal surface to discharge static electricity.

To install the CD-ROM drive:

1. Turn off your computer, and disconnect the power cable.
2. Disconnect the monitor and other devices that are connected to the back of the computer.
3. Remove the computer cover.
4. Remove the cover from an available 5¼" bay for the CD-ROM drive.

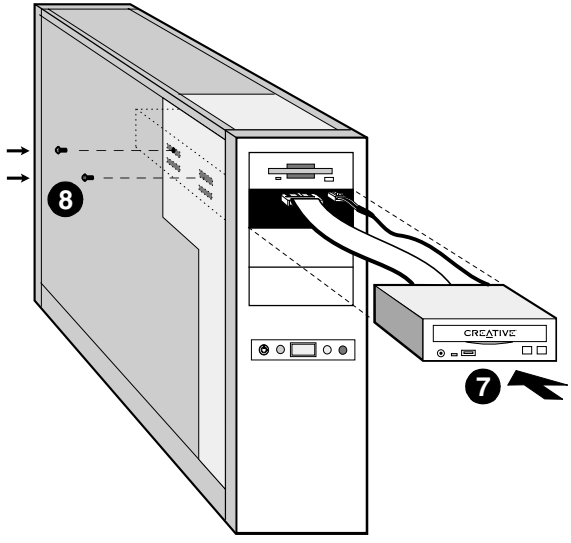


5. Connect the data cable to the rear of the CD-ROM drive.
6. Connect the audio cable to the rear of the CD-ROM drive.



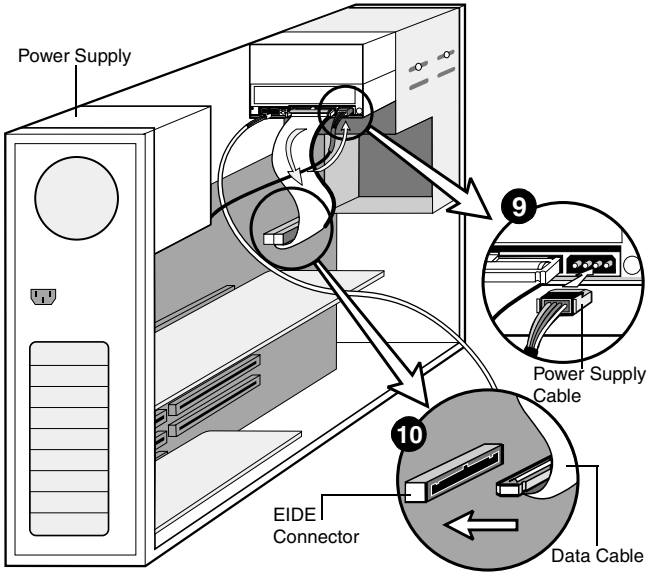
- When connecting the data cable, align the cable's colored stripe to pin 1 on the CD-ROM drive.
- See "Daisy-chaining a CD-ROM Drive" on page 20 if you connect the CD-ROM drive with an existing hard drive or CD-ROM drive.

7. Insert the drive into the open 5¼" bay, feeding the cables through the bay.
8. Secure the CD-ROM drive to your computer's frame using the supplied screws.



The power supply is generally located in a rear corner of your computer, housed in a metallic box with several cables protruding from it. If you do not have a spare power supply cable, a splitter can be purchased from your local computer retailer.

9. Locate an available power supply cable, and attach it to the rear of the CD-ROM drive.
10. Connect the data cable to an available enhanced IDE connector on your motherboard, with the cable's colored stripe connecting to pin 1.



Review your computer's documentation if you have difficulty locating an enhanced IDE connector on your motherboard.

Installing the Audio Card



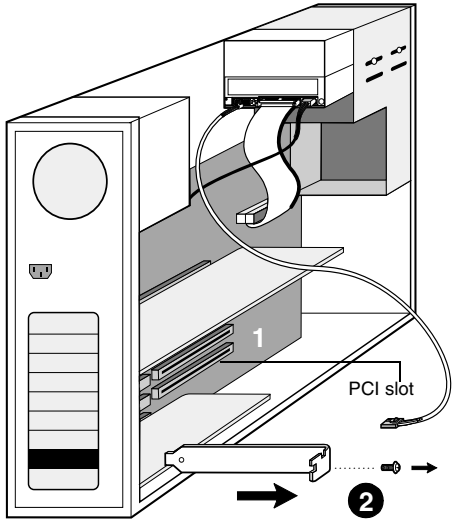
Remove or disable any existing audio card and its drivers from your computer. Refer to the manufacturer's documentation for details.



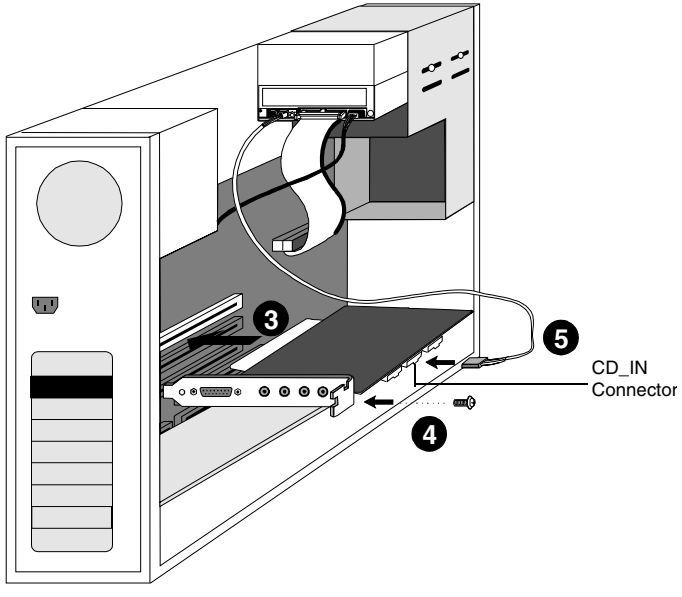
Refer to the colored insert for specific information concerning your audio card.

To install the audio card:

1. With the computer cover removed (see "Installing the CD-ROM Drive" on page 2), locate a PCI slot to accommodate the audio card.
2. Remove the slot cover from your computer—save the screw to secure the audio card.

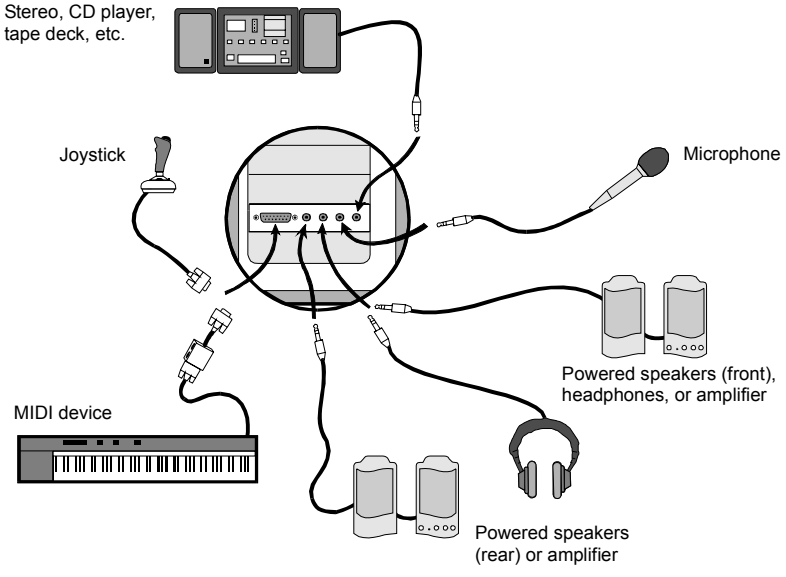


3. Align the gold-striped tabs on the bottom of the audio card with the PCI slot, and firmly press the card into place until it fits snugly.
4. Use the screw from the slot cover to secure the audio card to the frame of the computer—securing the card assures proper grounding.
5. Connect the CD audio cable from your CD-ROM drive to the audio card CD_IN connector.



You may connect passive speakers to the Sound Blaster PCI128 but you must first enable the amplifier on the audio card. See the colored insert for details.

6. Replace the computer cover.



MIDI devices require a MIDI adapter cable.

7. Connect your speakers, headphones, microphone, joystick, MIDI devices, or other devices to the back panel of the audio card.
8. Reconnect the power cable, monitor, and other devices.

Installing the Creative Software

The Sound Blaster PCI128 Software CD contains drivers necessary for operation and utilities to make the most of the audio card. The software installation varies according to your computer's operating system:

- Windows 95
- Windows 98
- Windows NT

Windows 95

When you turn on your computer, Windows 95 automatically detects the new hardware, and prompts you for the software installation disk. The installation may vary from the instructions below based upon previously installed software and hardware.



This manual reflects a software installation in an unmodified version of the operating system. Your installation screens and procedure may vary slightly from what is shown and described. The variations may be caused by other software/hardware installed on your computer, or the version of the Windows 95 operating system.

To install in Windows 95:

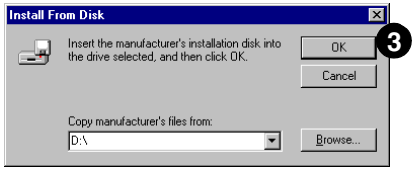
1. Turn on your computer for Windows 95 to automatically detect your new hardware. The New Hardware Found dialog appears.
2. Select the *Driver from disk provided by hardware manufacturer* option, and click OK. The Install From Disk dialog appears.





If the Sound Blaster software installation screen appears, click on Exit. You must install the audio card drivers before insalling the applications.

3. Insert the Sound Blaster PCI128 Software CD in your CD-ROM drive. Enter the path for your CD-ROM drive and the software on the disk. For example, use the Browse button to locate, or type, the following: **D:\PCI128\AUDIO\ENGLISH\WIN95DRV\EAPCI95.INF** (**D:** represents your CD-ROM drive). Click OK to install the Windows 95 drivers.



4. When prompted, install the gameport/joystick drivers from the installation CD. For example, use the Browse button to locate, or type, the following: **D:\DIRECTX\DIRECTX\DRIVERS\USA.** Click OK to install the gameport/joystick drivers.

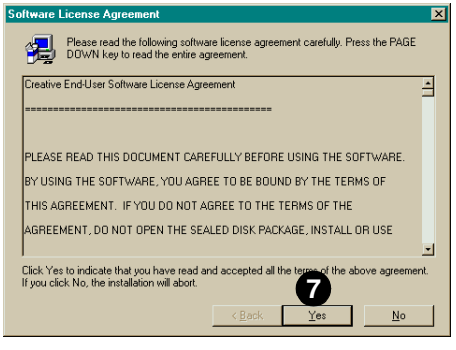
Double-click the *My Computer* icon on your desktop, right-click your CD-ROM drive icon, and click on AutoPlay to start the Creative audio software install if the CD is in the drive.

5. You may be prompted to restart your computer—restart your computer for the drivers to take effect.
6. If Autorun is enabled and the Sound Blaster PCI128 disk is in the drive, the Creative Software Installation screen appears. The software included with your Sound Blaster PCI128 is listed on the screen. Select Creative Audio Software and any other applications that you want to install and click on OK.

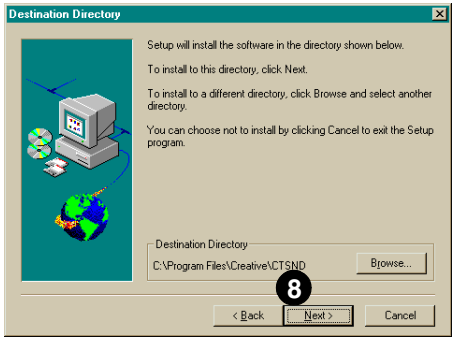


7. Next, the Software License Agreement appears. Read the text and click on the Yes button if you accept the terms of the agreement.

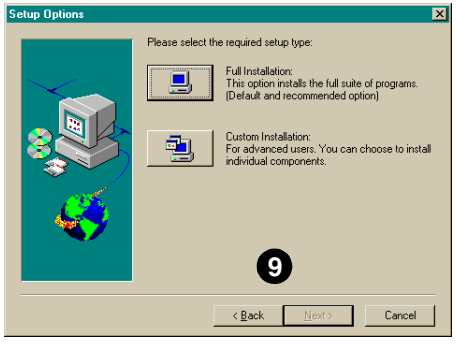
   The README file follows. Please read the file for any last minute information not included in this manual. Click Next when finished.



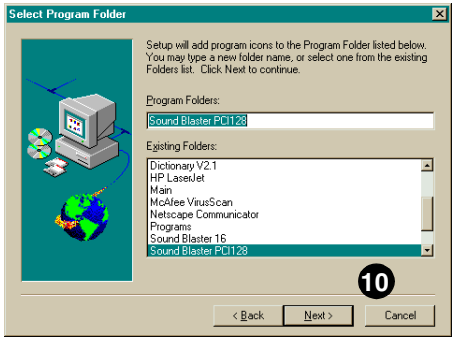
8. Next, you are asked to accept the default destination directory, or enter a new directory. When the directory is correct, click the Next button.



9. Next, the Setup Options are displayed. When you select an option, the installation continues.



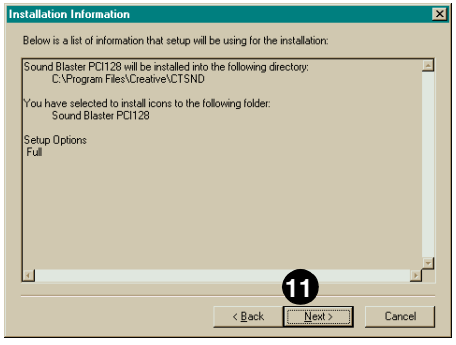
10. The Select Program Folder dialog allows you to select the folder to which the audio software is to be installed, or you may confirm the default selection. Click the Next button when the Program Folder is correct.



11. The Installation Information dialog lists the installation selections you have made.

    To make changes to your selections, click on the Back button until you reach the screen with the option to be changed. Then, click Next until you are returned to the Installation Information dialog.

    If the information is correct, click the Next button to continue.



12. The Creative Sound Blaster PCI128 installation screen, similar to that shown to the right, appears to inform you of the progress of the installation.

13. You may be prompted to restart your computer—restart your computer for the drivers to take effect.



Windows 98

The following instructions describe the Sound Blaster PCI128 installation in Windows 98.

To install in Windows 98:

1. The Windows 98 Add New Hardware Wizard automatically detects the Sound Blaster PCI128 and attempts to locate the driver media provided by the manufacturer. Insert the Sound Blaster PCI128 installation CD and click the Next button.
2. Select the Search For The Best Driver For Your Device (Recommended) option and click the Next button.
3. Clear all check boxes and check only the Specify a Location check box. Type or click the Browse button and point to the driver path: **D:\AUDIO\ENGLISH\WIN95DRV** (**D:** represents your CD-ROM drive). Click the Next button.
4. Click the Next button to install the Windows 98 drivers.
5. Click the Finish button when the installation is complete.
6. Restart your computer for the changes to take effect.
7. Follow the software installation instructions for Windows 95.

Windows NT

The following instructions describe the Sound Blaster PCI128 installation in Windows NT 4.0.

To install in Windows NT 4.0

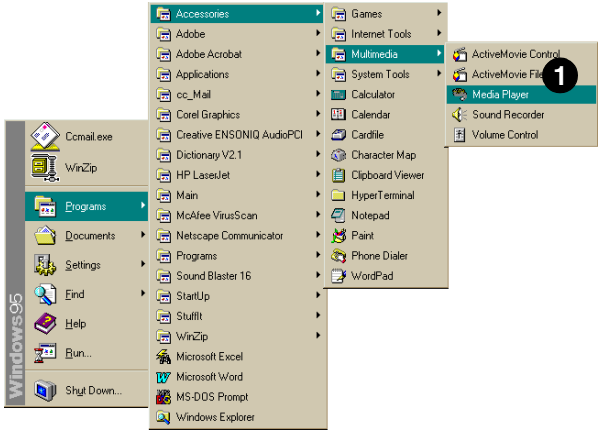
To install in Windows NT 4.0

1. Click the Start button on the Taskbar, select Settings, and click on Control Panel.
2. On the Control Panel, double-click the Multimedia icon.
3. On the Audio Devices tab page, click the Add option, and choose the Unlisted or Updated Driver option. Click the OK button.
4. Insert the Sound Blaster PCI128 installation CD and follow the instructions for each screen to complete the installation.

Testing the Installation

To test the installation:

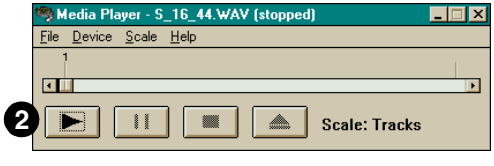
1. Click Start in the task bar; select *Programs*, *Accessories*, *Multimedia*, and *Media Player* from the menus. The Windows Media Player appears.





If no sound is heard, see page 27 in the troubleshooting section for tips.

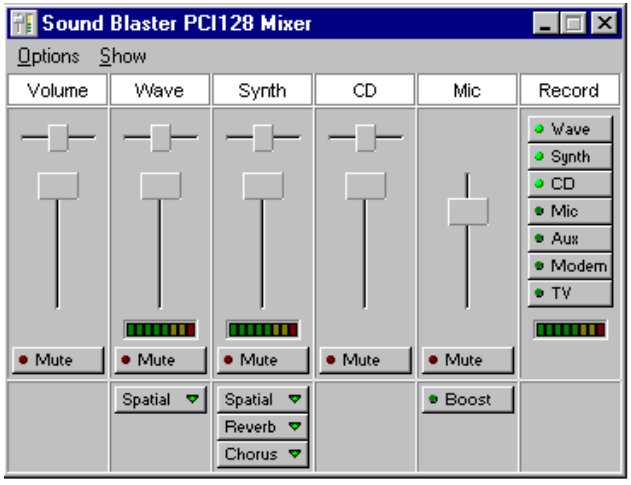
2. Open a wave file, such as THE MICROSOFT SOUND.WAV, and select the *Play* (▶) button. You should hear the wave file being played.



3. Open a MIDI file, such as CANYON.MID, and select the *Play* (▶) button. You should hear the MIDI file being played.

Creative Mixer

The Mixer is installed with the Sound Blaster PCI128 drivers and other software; an icon is added to the Taskbar in the right corner. You may open the Mixer by double-clicking on the icon in the Taskbar.



The Show menu allows you to customize the Mixer display to include only those panels you select. Additional panels not included in the figure above include sliders for Auxiliary, Modem, and TV devices, and a list of Voice input devices.

Real-Time Effects

Sound Blaster PCI128 supports these real-time effects:

- *Spatial*, surround sound, is available for the Wave and Synthesizer devices
- *Reverb* is available for the Synthesizer
- *Chorus* adds depth to music files played back by the Synthesizer

Recording

The audio sources available for recording are indicated by a green light in the list below Record. The record volume is adjusted by the slider for each input device.

Microphone

Boost and *Mute* are microphone controls available on the Mixer.

- *Boost* adds a 20-dB audio gain to the microphone.
- *Mute* can eliminate feedback when you are using a full-duplex telephone application. When *Mute* is selected, microphone input is heard from speakers (or headphones) attached to the audio card.

If only Mic (microphone) is selected in the Record panel, *Mute* does not affect input.

Options

- *Always on Top* places the Mixer on top of other active windows. This feature allows you to dynamically adjust the settings for sound currently being input/output.
- *Voice Control Only* limits the Mixer display to only the main volume control. You can select the panels to be included in the display from the list on the Options menu.
- *Save Options Now/On Exit* allow you to use the Save command to suit your needs.

Advanced Configurations

Windows 95

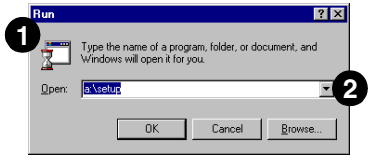
Using the CD-ROM Drive in MS-DOS Mode

See page 28 if the audio card does not play in MS-DOS mode.

Some of your applications may require that you configure the CD-ROM drive to function in MS-DOS mode. The SETUP program on the CD-ROM Installation Disk modifies the DOSSTART.BAT file located in the Windows directory to load your CD-ROM drivers when you shutdown and select the "Restart the computer in MS-DOS mode" option.

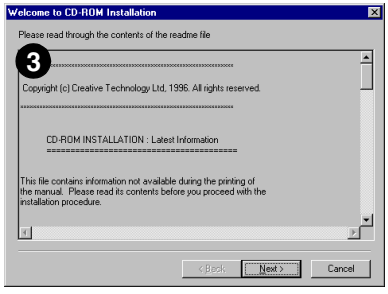
To install the CD-ROM drive software for MS-DOS mode:

1. Insert the CD-ROM Installation Disk into your 3½" disk drive, click Start on the task bar, and select *Run...*.

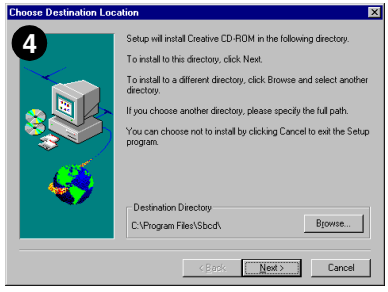


2. In the Run dialog, type **A:\SETUP** (where **A:** represents your 3½" disk drive), and press ENTER.

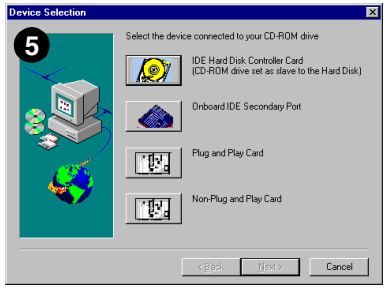
3. A dialog with important information appears. Read the information and select *Next* to continue. The Choose Destination Location dialog appears.



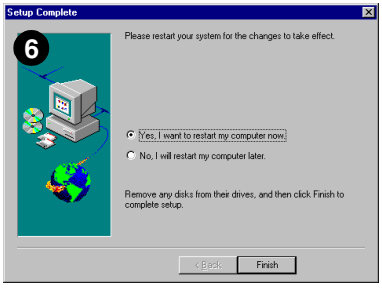
4. Select *Next* to accept the default path **C:\Program Files\Sbcd**. Or, choose *Browse* to change the destination directory.



5. The Device Selection dialog appears. Select the method you used to connect the CD-ROM drive to your computer.
   - Choose *IDE Hard Disk Controller Card* if you daisy-chain the CD-ROM drive to the primary port on your motherboard or hard disk controller card.
   - Choose *Onboard IDE Secondary Port* if the CD-ROM drive connects to an available secondary IDE port on your motherboard.
   - Choose *Plug and Play Card* if the CD-ROM drive connects to a Plug and Play interface card.
   - Choose *Non-Plug and Play Card* if the drive connects to a non-Plug and Play interface card.



6. The Setup Complete dialog appears. Remove the disk from the drive, and select *Finish* to restart your computer.



See "Daisy-chaining a CD-ROM Drive" on page 20 for more information about daisy-chaining your CD-ROM drive.

The following lines are added to the DOSSTART.BAT file:

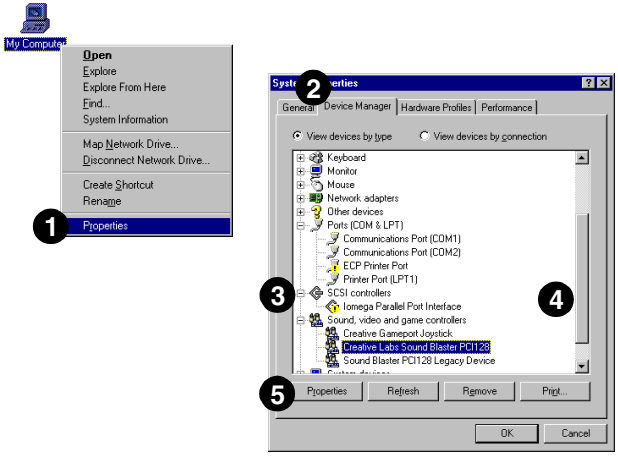
```
C:\WINDOWS\CTCM
C:\PROGRA~1\SBCD\DOSDRV\CTLOAD C:\PROGRA~1\SBCD\DOSDRV\SBIDE.SYS /D:MSCD001 /V /P:170,15
C:\WINDOWS\COMMAND\MSCDEX /MSCD001 /V /M:8
```

The **/P:*xxx,yy*** setting may differ depending on the CD-ROM drive connection. See "SBIDE.SYS" on page 18 for more information.

Resolving Hardware Conflicts with the Device Manager

Hardware conflicts occur when two or more devices contend for the same resources. Conflicts between your audio card and another device may occur regarding the I/O address, IRQ line, or DMA channel.

To resolve hardware conflicts:



1. Right-click the *My Computer* icon on your desktop, and select *Properties*. The System Properties dialog appears.
2. Click the *Device Manager* tab.
3. Double-click *Sound, video, game controllers*. A list of multimedia devices appears.
4. Select your audio card, for example, Creative Labs PCI128.
5. Choose the *Properties* button.
6. Click the *Resources* tab.
7. Uncheck the *Use automatic settings* option.
8. Change "Settings based on:" if alternate settings are available.
9. Determine the conflict by reviewing the "Conflicting device list."
10. Select the conflicting item in the "Resource Settings" list.
11. Click the *Change Settings* button.
12. Use the mouse to select a new setting.
13. Select OK to close each of the properties windows, and restart your computer.

In the Device Manager, a [+] represents an expandable list of items. A [-] represents an expanded list. A yellow, circled exclamation mark denotes a conflict.

SBIDE.SYS



Primary and secondary ports are generally available on your motherboard. Tertiary and quaternary ports are generally available on an interface card.

SBIDE.SYS configures the resources for the CD-ROM drive. Table 1 describes the command parameters. The statement may appear as:

```
DEVICE=C:\SBCD\DRV\SBIDE.SYS
 /D:MSCD001 /V /P:170,15
```

Table 1: SBIDE.SYS parameter settings.

Parameter	Description		
/D:*device_name*	Name of the CD-ROM drive; must be identical to the device name in the MSCDEX.EXE command. Default is **/D:MSCD001**.		
/P:*xxx,yy*	*xxx* is the base I/O address and *yy* is the IRQ setting of the enhanced IDE interface that connects the CD-ROM drive to the motherboard. SBIDE.SYS supports primary, secondary, tertiary, and quaternary IDE ports.		
	IDE Port	**I/O Address (*xxx*)**	**IRQ Settings (*yy*)**
	Primary	1F0	14
	Secondary	170	15
	Tertiary	1E8	11 or 12
	Quaternary	168	10 or 11
/V	Displays drive type, version, port address, and IRQ setting of your CD-ROM drive when the computer starts.		

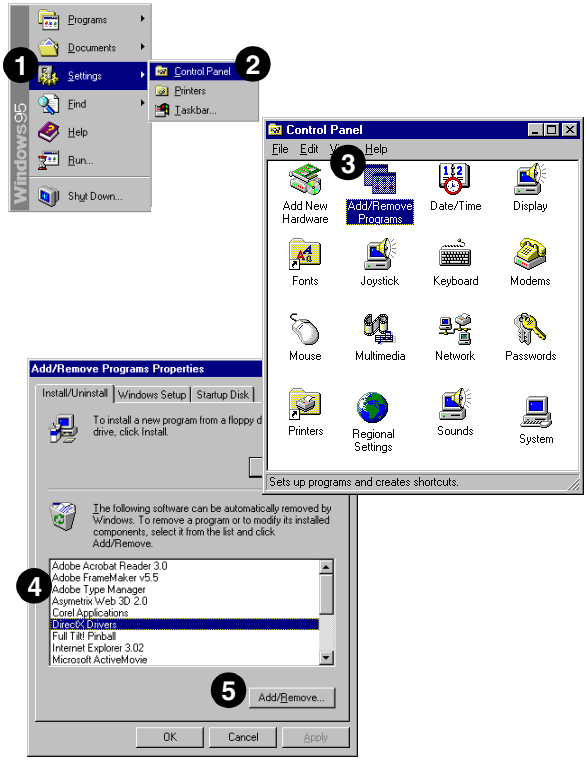
Uninstalling the Software

Close all audio card applications before running the uninstall procedure. If a card's application is running during the uninstall procedure, that application is not uninstalled.

The Windows 95 Uninstall utility allows you to remove applications and to re-install them to correct problems, change configurations, or make upgrades.

To uninstall the software:

1. Click Start on the taskbar, and select *Settings* from the Start menu.
2. Select *Control Panel.* The Control Panel group appears.
3. Double-click the *Add/Remove Program* icon. The Add/Remove Programs Properties dialog appears.
4. Select the software to uninstall from the list.
5. Select the *Add/Remove* button.
6. Follow the instructions on-screen to complete the uninstall procedure.

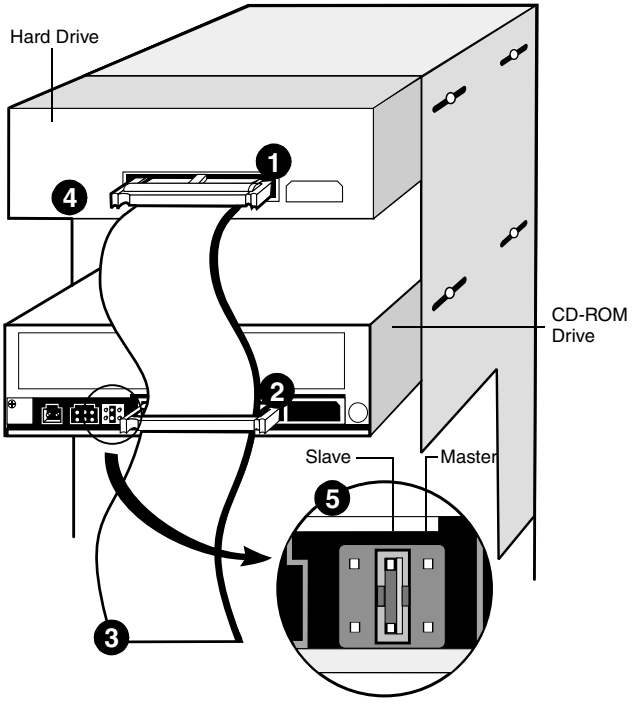


Daisy-chaining a CD-ROM Drive

Daisy-chaining your CD-ROM drive allows you to operate more than one device from the same IDE interface. For example, you can daisy-chain your existing hard drive with your CD-ROM drive, or daisy-chain two CD-ROM drives together.

To daisy-chain your hard drive with the CD-ROM drive:

1. Using a three-connector IDE data cable, connect one end to your hard drive or CD-ROM drive.
2. Connect the middle connector to your CD-ROM drive.
3. Connect the last connector to the enhanced IDE interface.
4. Ensure your hard drive jumper setting is set as the Master.
5. Set your CD-ROM drive jumper setting to Slave.



- The cable required for this connection is not included in your kit. Please see your computer retailer for the appropriate cable.
- When daisy-chaining devices, set one as Master and the other as Slave using the jumpers on the devices. Consult the other device's manual for Master/ Slave jumper information.
- When connecting the data cable, align the colored stripe to pin 1 on the CD-ROM drive, hard drive, and IDE interface.

Configuring in Windows 95

After connecting the CD-ROM drive, turn on your computer for Windows 95 to automatically detect the hardware. No further configuration is necessary, unless you wish to use the CD-ROM drive in MS-DOS mode (see "Using the CD-ROM Drive in MS-DOS Mode" on page 15).

Connecting a Joystick

The joystick port on the audio card is a standard PC game control adapter or game I/O port. You can connect most joysticks with a 15-pin D-sub connector to the port; it works with any application that is compatible with standard PC joysticks.

If you need to run two joysticks, a Y-cable is available from Creative Labs' Customer Service (Y-cables from other sources may not work). Some sophisticated joysticks may require the MIDI adapter or Y-cable to work with the audio card.

Connecting a MIDI Device

The audio card supports the following MIDI standards:

- MPU-401 UART
- Sound Blaster MIDI

To connect a MIDI device to the audio card, you need a MIDI cable adapter. The MIDI cable adapter allows you to attach both a MIDI instrument and a joystick at the same time. Contact your local dealer or Creative Labs' Customer Service for more information.



Another manufacturer's MIDI adapter cable may not work properly.

Troubleshooting

This chapter provides solutions for problems you may encounter during installation or normal use of your audio card and CD-ROM drive. Hardware and Windows 95 troubleshooting is provided in this chapter.

Hardware

"No drives found, aborting installation"

Your computer requires SBIDE.SYS to access the CD-ROM drive. In DOS, check the CONFIG.SYS file for a statement similar to **C:\SBCD\SBIDE.SYS /D:MSCD001 /P:170,15 /V**. This statement identifies the CD-ROM drive connected to the secondary enhanced IDE port. See "SBIDE.SYS" on page 18 for detailed information about the device driver.

"Not enough drive letters"

Add or modify the LASTDRIVE statement in your CONFIG.SYS file to reflect the maximum number of drives you can access. For example, if you have five drives (hard drive, floppy drive, CD-ROM, etc.) installed in your system, your current LASTDRIVE statement in your CONFIG.SYS should be **LASTDRIVE=E**. Change this statement to **LASTDRIVE=F** if you want to install an additional drive. See your MS-DOS manual for further details.

No sound is heard from audio (music) CDs

Various conditions may be responsible. To troubleshoot, check the following:

- Creative Mixer or Microsoft Volume Control mute options and volume sliders. (Refer to the on-line Creative *User's Guide* or Windows 95 on-line help, respectively, for detailed information.)
- Connect headphones to the stereo phone jack on the CD-ROM drive's front panel, and adjust the volume control settings on the drive. If there is sound from your headphones, check the CD audio cable connection from the CD-ROM drive to the audio card.
- Ensure the speakers are properly connected to the audio card's output connector. (See the colored insert for detailed connection information.)

Joystick port is not working

To troubleshoot, check the following:

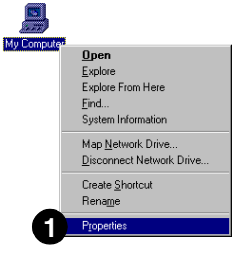
- The audio card joystick port conflicts with another joystick port in the system. Disable the audio card joystick port, and use the system's joystick port. See "Resolving Hardware Conflicts with the Device Manager" on page 17.
- The joystick drivers, MSJSTICK.DRV and VJOYD.VXD, may not be installed. Uninstall the joystick, then reinstall to load the drivers. The drivers are located on the Sound Blaster PCI128 installation disk in the **\DIRECTX\DRIVERS\USA** directory. See Sound Blaster PIC128 on-line help for detailed information.

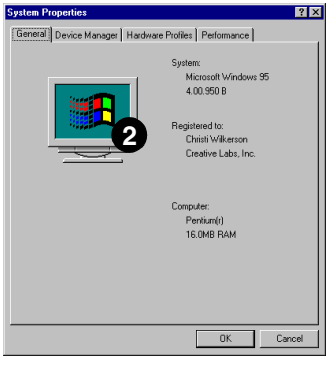
Windows 95

Determining your Windows version

To determine your Windows 95 version number:

1. Right-click the *My Computer* icon, and select *Properties*. The System Properties dialog appears.
2. On the *General* tab, note your Windows 95 version number. Possible version numbers are:
   - 4.00.950
   - 4.00.950A
   - 4.00.950B





Computer hangs or restarts during installation

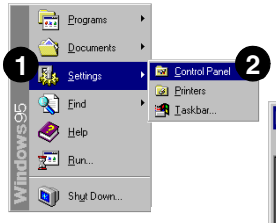
A hardware conflict may cause the computer to hang or restart during the installation procedure. Check the following to resolve the conflict:

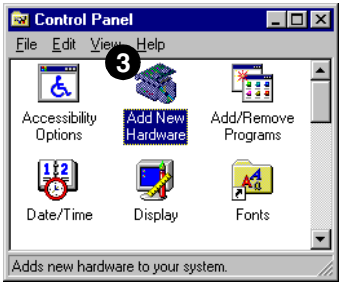
- A hardware conflict with another device in your system (see "Resolving Hardware Conflicts with the Device Manager" on page 17).
- Previously installed audio card hardware or software needs to be removed (see "Uninstalling the Software" on page 19).
- The audio card is not seated in the slot properly (see "Installing the Audio Card" on page 4).
- PCI bus mastering devices may be interfering with the operation of the ISA audio card. Temporarily remove non-essential PCI bus mastering devices.

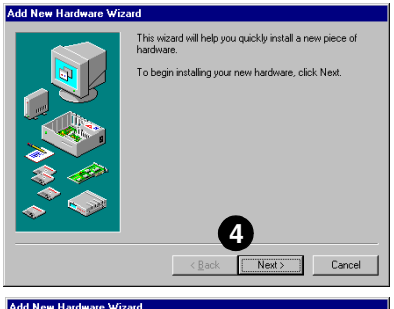
Audio card is not automatically detected

To manually configure your audio card for Windows 95:

1. Click Start on the taskbar, and select *Settings* from the Start menu.
2. Click on *Control Panel.* The Control Panel group appears.
3. Double-click the *Add New Hardware* icon. The Add New Hardware Wizard dialog appears.
4. Select *Next* to continue.
5. Choose *Yes* to have Windows search for new hardware, then select *Next*.









6. Select *Next* to continue.



7. Select *Finish*, and follow the prompts to complete the new hardware installation.



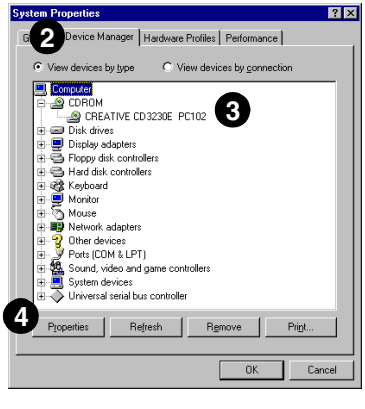
CD does not automatically run when you insert it in the drive

Double-click the *My Computer* icon on your desktop, then double-click your CD-ROM drive icon to start the Creative audio software install if the CD is in the drive and auto insert notification is on.

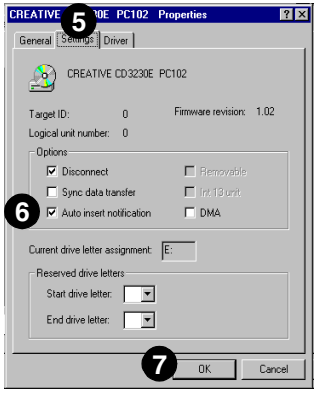
To enable the "Auto insert notification" feature:

1. Right-click the *My Computer* icon on your desktop, and select *Properties*. The System Properties dialog appears.
2. Click the *Device Manager* tab. A list of devices appears.
3. Double-click *CD-ROM*, and select your CD-ROM drive.
4. Choose the *Properties* button. The CD-ROM drive properties dialog appears.





5. Choose the *Settings* tab.
6. Click the "Auto insert notification" option to enable.
7. Select OK until all Properties dialogs are closed, and restart Windows for the changes to take effect.



No sound is heard from speakers

To troubleshoot, please verify the following:

- Check the Mixer or Microsoft Volume Control mute options and volume sliders. (Refer to the on-line Sound Blaster PCI128 *User's Guide* or Help, or Windows on-line help for detailed information.)
- Ensure the speakers are properly connected to the audio card's output connector. (See the colored insert for detailed connection information.)
- Check the volume control and power connection of the speakers, if they are amplified. (Refer to the speakers documentation for detailed information.)
- Ensure a hardware conflict does not exist between your audio card and another device in your system. (Refer to "Resolving Hardware Conflicts with the Device Manager" on page 17, or the Windows on-line help for detailed information.)
- PCI bus mastering devices may be interfering with the operation of the audio card. Temporarily remove non-essential PCI bus mastering devices. If the device is a display card, upgrade the display card drivers, or set the card to the default Windows VGA mode.

If you are experiencing no sound only during audio CD playback, see "No sound is heard from audio (music) CDs" on page 23.

Audio card does not play in MS-DOS mode

If the audio card is not operating in MS-DOS mode:

- Ensure *Restart in MS-DOS mode* is selected on the Shut Down menu.
- Download **95DOSAPP.EXE** from Creative's web site or BBS. 95DOSAPP.EXE contains basic DOS-level utilities for use in Windows 95 MS-DOS mode. After downloading the file, refer to the README file for installation instructions.

Static sounds are heard in wave files

Ensure the static (*crackly)* sounds are heard in all wave files. If the difficulty occurs only with certain games, refer to the software manufacturer's documentation. To troubleshoot static sounds heard in all wave files:

- Try different resource settings for the audio card, or set the card to use low DMA (see "Resolving Hardware Conflicts with the Device Manager" on page 17).
- Move the audio card to another 16-bit ISA slot. Feedback from the power supply or another device may be responsible.