Philips Seismic Edge™
4-Channel PCI Sound Card

Users Manual

Philips Consumer Electronics Company
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Knoxville, TN 37914

Philips Seismic Edge™

Philips Seismic Edge™
4- Channel PCI Sound Card
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8. Applicable Law

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9. Competent Court

The competent court for any dispute between you and Philips pursuant to this End User License Agreement is the court of 's-Hertogenbosch, the Netherlands.

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Philips Seismic Edge^{TM}

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Congratulations on your purchase of the Philips Seismic Edge™ Sound Card!

Now, get ready to wake your senses . . .

. . . with high impact 3D sound from your new Seismic Edge™ sound card. Whether your PC passion is games, music or movies, Philips Seismic Edge™ will envelope you in vibrant 3D sound from stereo speakers, headphones or 4 channel surround speakers. Advanced audio algorithms running on the Seismic Edge™s high performance hardware accelerator support the latest 3D audio games and DVD movies, and will transform 2-channel stereo sources like MP3 files, music CD's, movies files, cut scenes and stereo games to deep-immersion-surround sound.

At the heart of Seismic Edge™ is a Philips ThunderBird Q3D™ audio accelerator. This powerful DSP (Digital Signal Processor) can process up to 128 sounds simultaneously with minimal consumption of your computer's power. This hardware acceleration assures high fidelity audio and frees your computer to concentrate its power on better graphics and game speed.

Advanced DSP algorithms from QSound Labs provide compelling 3-D for every application. If you have headphones or only two speak-ers, Seismic Edge™'s patented psycho-acoustic algorithms to enve-lope you in a virtual sound field created from up to sixty-four inde-pendent 3D voices.

Add rear speakers for true four-channel sound, and Seismic Edge™ will transform your PC into your personal home theatre, with 4-chan-nel output for 3-D games and DVDs. Plus a patented QSound algo-rithm will transform all of your stereo sources into four distinct audio channels including music CD's, MP3's, video files, cut scenes and stereo games.

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Seismic Edge™ truly revolutionizes PC sound. "Install your sound card", connect it to a 4-channel surround speaker system and try these:

• Listen to your favorite music in a whole new dimension. Stereo music CDs, MP3 files, MIDI files engulf you in 4 distinct channels of sound.

• Play a 3-D audio enabled game and experience virtual reality

• Rediscover your favorite old 2-D games and hear them take on new life in 3D

• Compare enhanced QMSS to Dolby Digital on DVD and hear the difference.

Thanks for giving your computer the Philips Seismic Edge™. Your PC will never sound the same once you've given it the edge.

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Key Features

- 128 streams of DirectSound acceleration and digital mixing
- 64 streams of 3D audio acceleration including positional reverb
- Full-duplex, 48khz digital recording and playback
- Philips ThunderBird Q3D high performance audio accelerator
- Hardware DSP accelerated QSound 3D algorithms including

  - QSound3DInteractive™ positional 3D
  - QSound Environmental Modeling for EAX™ and DS3D™ games
  - QSound Multi-Speaker System™ for quad output of stereo sources
  - QXpander™ and "2D to 3D remapping" for 3D enhance-ment of stereo

- 576 voice total wavetable synthesis music polyphony

  - 512 Voice professional quality soft-synth with XG and GM compatibility
  - 64 channel hardware wavetable synthesizer

- Dual gameport accelerator with legacy and digital joy-stick modes
- DirectSound™, DirectSound3D™, EAX™ 1.0 and A3D™ 1.0 compatibility
- Stereo or 4 channel surround output
- QMSS™ enhanced DVD playback mode (compatible SoftDVD player required)

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System Requirements

Installation of your Philips Seismic Edge™ requires the following hardware and operating system:

- One available PCI 2.1 compliant slot

- Intel Pentium® class or 100% compatible 133Mhz or faster processor

- Intel® or 100% compatible motherboard chip set
- 16MB system RAM
- CD ROM for driver installation
- Stereo or 4 channel surround powered speakers or head-phones
- Windows® 95, Windows® 98, Windows NT® 4.0 (SP3)*, Windows® 2000*

*Not all product features supported using this operating system. See Software Installation section for details.

What's Included

You will find the following items in your Seismic Edge™ package:

1-Seismic Edge™ sound card in a anti-static pouch

1-Seismic Edge™ installation CD

1-Analog audio cable to connect CD/DVD drive to sound card

1-Seismic Edge™ user's manual

1-Product registration card

Bundled applications may be included on the installation CD or on separate media depending on the Seismic Edge™ model

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Hardware Installation

What you need for installation

Computers come in different shapes and sizes. The installation procedures in this manual apply generally and you should compare the illustrations here with your computer before you start your sound card installation.

- Sound card

- Installation CD

- CD Analog Audio Cable

- A Phillips screwdriver

- Have your Windows® installation CD available as it may be needed to complete installation of common software components.

Installing the Sound Card

Uninstall the drivers for any previously installed sound cards. Consult your previous sound card documentation for details.

!!!!
STATIC ELECTRICITY CAN CAUSE PERMANENT DAMAGE TO YOUR SOUND CARD.

To prevent damage please:

1. Always hold your sound card by its edges. Avoid touching any electronic components on your sound card.

2. Use a grounding strap or touch any non-painted surface of your computer chassis before you begin installation to discharge static electricity

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To install the sound card:

1. Turn off your computer, and disconnect the power cable.
2. Disconnect all devices that are connected to the computer.
3. Remove the computer cover.
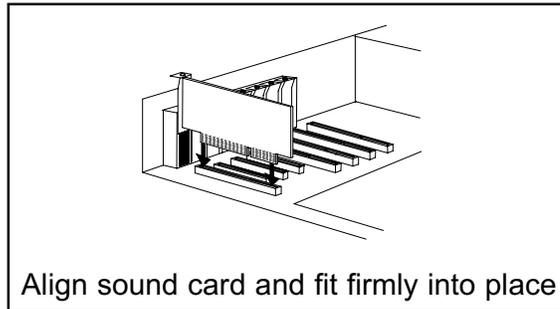

Remove the computer cover
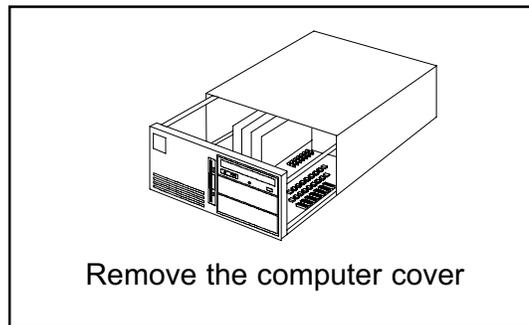
4. Select an available PCI slot and, if necessary, remove its cover plate. Keep the mounting screw to secure your sound card later. Save the mounting plate for possible use later.

Select available PCI slot

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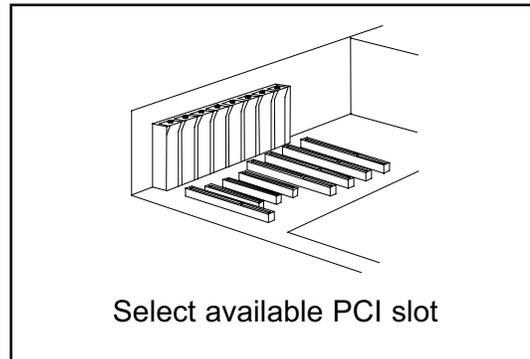
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5.   Remove the Seismic Edge™ Sound Card from the anti-static
      bag. Align your sound card with the selected PCI Bus-Slot and
      firmly push it into the slot. Be sure the sound card is aligned
      properly and fits snugly into the slot.

Align sound card and fit firmly into place

6.   Use the screw from the slot cover to secure the sound card to
      the frame of the computer chassis, but do not over-tighten.
      Securing the card assures proper grounding**.**

Secure card with mounting screw
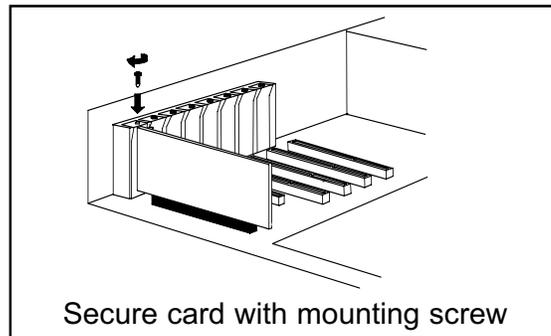
7.   Connect the CD audio cable from your CD-ROM/DVD-ROM
      drive to the sound card CD audio connector.

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Connecting Your Sound Card
Card Diagram

CD-IN   **TAD**   **AUX In**

J10

LINE IN → J1   J13   J12

MIC IN → J2

Front Speaker → J3

Rear Speaker → J4

MIDI/ JOYSTICK → J5

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AC 97
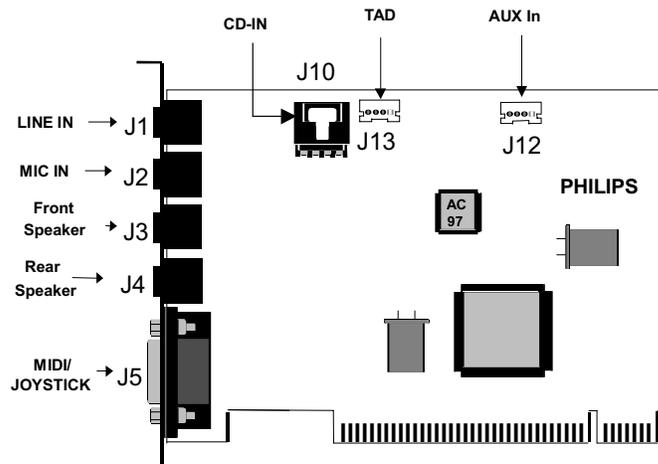
Connectors for Philips Seismic Edge™ Sound Card

EXTERNAL CONNECTORS:

J1:   3.5mm Stereo Jack for LINE IN
J2:   3.5mm Stereo Jack for MIC IN
J3:   3.5mm Stereo Jack for FRONT SPEAKER
J4:   3.5mm Stereo Jack for REAR SPEAKER
J5:   Connector for MIDI/JOYSTICK

INTERNAL CONNECTORS:

J10:   Connector for CD AUDIO IN (ATAPI)
J12:   Connector for AUX IN (optional)
J13:   Connector for TAD/VOICE MODEM

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8. Connect your audio devices to the panel of your sound card as indicated below:
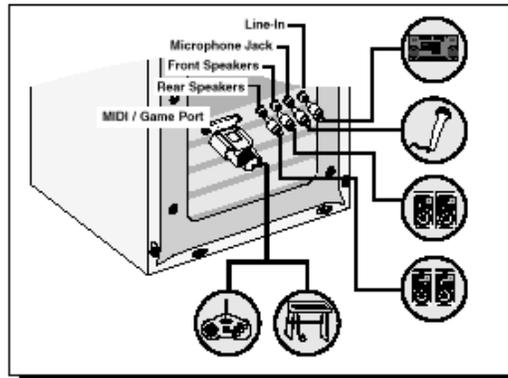
LINE IN:
Connect from any external sound source such as external CD-ROM, cassette, CD player, etc.

MICROPHONE JACK:
Connect to external microphone.

FRONT OUT:
Connect a set of powered speakers or stereo headphones to the FRONT OUT speaker jack.

REAR OUT (optional):
Connect a pair of powered speakers to REAR OUT speaker jack.

MIDI/GAME PORT:
Connect Joystick or MIDI device.

9. Replace computer cover and reconnect the power cable, monitor, and other devices.

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Software Installation

Windows® 95/98/2000 Installation

Now that the hardware is installed, it is time to configure the drivers. Plug and Play uses your system's BIOS and the Plug and Play features of Windows® 95/98 to allocate resources for Philips Seismic Edge™.

WHICH VERSION OF WINDOWS DO YOU HAVE?

Microsoft issued a maintenance release of Windows® 95 referred to as OSR2. This version shipped as the stock operating system on many PC's. Newer and recently upgraded PC's will have the Windows® 98 operating system. Other systems will have the original Windows® 95 version. The following procedure describes installation using Windows® 98/98SE. Windows® 2000 screens are slightly different but the procedure is the same as described. If you have older versions of Windows® 95 then the installation will be slightly different than described below.

Product Features by Operating System

Features	Win 95 / 98	Win NT	Win 2000
Headphones	✓	✓	✓
2 Speaker	✓	✓	✓
4 Speaker	✓	✓(Except CD)	
EAX1.0/A3D 1.0	✓		
DirectSound3D™	✓	✓	✓
Analog Joysticks	✓	✓	✓
Digital Joysticks	✓		

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TO INSTALL THE DRIVERS FOR WINDOWS® 95/98/2000:

1. Turn on the computer and place the Philips Seismic Edge™ CD in your CD-ROM drive.

    When the Add New Hardware Wizard dialog box reports that a new PCI Multimedia Audio Device has been detected, click **NEXT**.

2. Select **Search for the best driver for your device (Recommended)**. Click **NEXT**.

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3. If you are installing from the install CD or if you have copied the install to any other location, select **Specify a location** and browse to your directory where the setup files are located. For Windows® 95/98, select Win9x directory then choose a language. For Windows® 2000, select WDM directory. Click **NEXT**.

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4. Select **NEXT** to install the drivers.
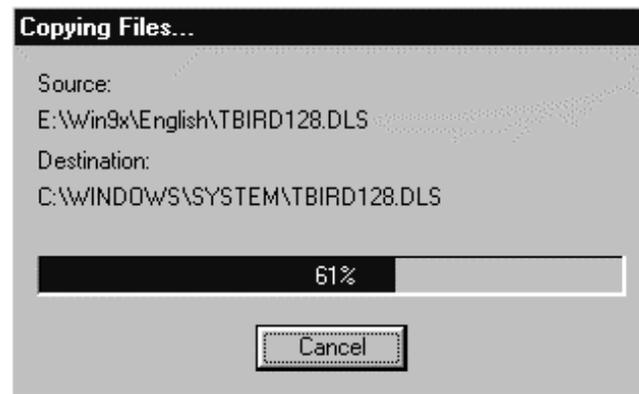

5.   Windows® then copies the files. You may be prompted to insert
your Windows® CD or floppy, as the core sound components of
the operating system may need to be copied as well. These
include audio Codecs, the Mixer and the Sound Recorder pro-
gram. If you are prompted with a "Version Conflict" window
regarding **COMCTL32.dll**, click **YES** to keep your existing file.

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```
Copying Files...

Source:

E:\Win9x\English\TBIRD128.DLS

Destination:

C:\WINDOWS\SYSTEM\TBIRD128.DLS


                        61%


                    [ Cancel ]
```

6.   The installation will continue to install the files to your system.
      For Windows® 95/98, Click FINISH.

For Windows® 2000, you must install the **Philips Seismic Edge
Audio**, **Philips Seismic Edge GamePort Enumerator** and **Philips
Seismic Edge Support Registers** devices. Browse to the Driver
disk directory **WDM\English** to install these files. You will find these
files in the same WDM install directory and Windows® will finish
installing the drivers for Philips Seismic Edge™ automatically. Click
FINISH 3 times on each screen to install each of these devices.

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7.   After clicking '**Finish**' the Philips Seismic Edge GamePort will be
      installed. It is possible during gameport installation, Windows®
      will detect newer versions of **msanalog.vxd**, **vjoyd.vxd** and
   **msjstick.drv**. It is recommended that you keep your existing
      files. Click **YES** on all 3 screens that appear.

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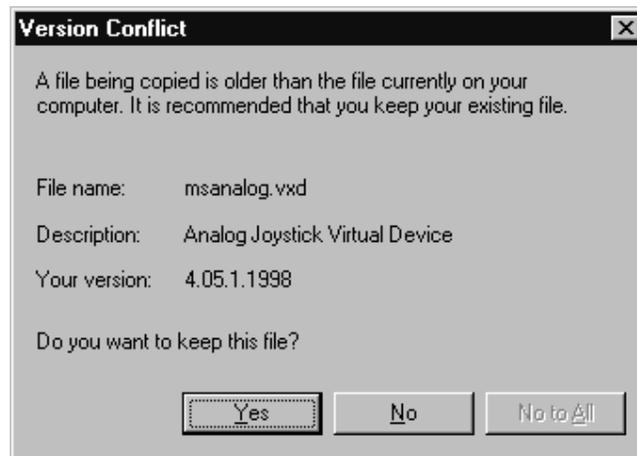
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8. Next, the software launcher will allow you to open the Seismic Edge control panel and configure your speaker settings if desired. Select **YES** to modify these settings now, or select **NO** to modify later. Speaker settings are described under the Control Panel Settings Page in this manual.
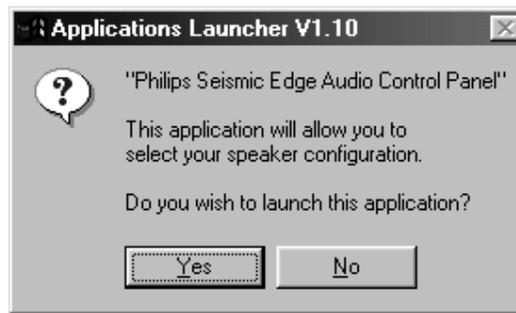
Note: Any time you say No to a Applications Launcher dialog box like the one shown above, a second box will appear asking if you want launch the next time Windows is started. Answer Yes or No as desired.

9. Next, the DirectX® Setup dialog box will appear. Click **OK**.

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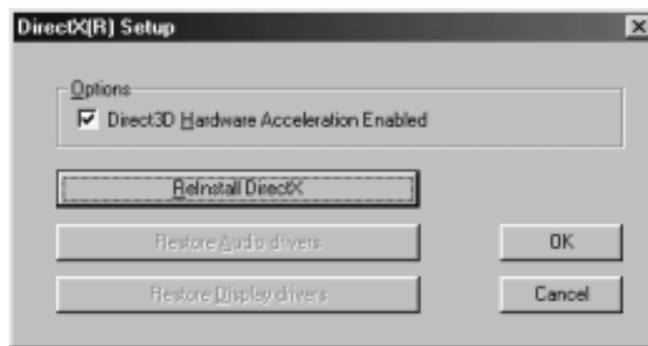
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Yamaha SoftSynthesizer Installation

10. After Seismic Edge™ driver installation, the software launcher will prompt you to install the Yamaha SoftSynthesizer. Click **YES**.
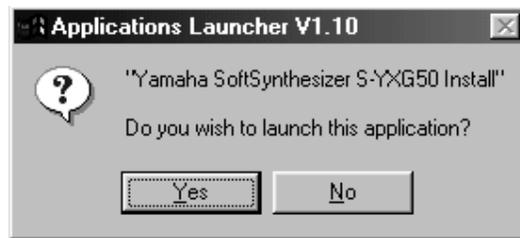
11. The Yamaha SoftSynthesizer Welcome page appears. Click **NEXT**.

12. Enter the serial number located on the Yamaha Corporation Certificate of Authenticity included with your documentation. This serial number is case sensitive! Click **NEXT**.

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13. The Choose Destination Location dialog box appears. Follow the instructions in this box . Click **NEXT.**

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14.   Select A Program Folder dialog box appears. Click **NEXT**.

15.   The Yamaha Software License Agreement dialog box is dis-
      played. If you accept the terms and conditions, Click **YES**.

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16. You must restart your computer at this time. Click **OK.**

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17. Next, the software launcher allows you to install Sonic Foundry SIREN Jukebox Xpress. This application allows you to play and organize music. Click **YES** on the dialog box and follow the installation screens to install this software.   See section About SIREN Jukebox Express to learn more about this application.

18. Product Registration If you are connected to the internet, you can register your product now by clicking **YES** in the dialog window shown below. If you prefer to register your product at a later time, go to:
www.philipsusa.com/prod_reg_bounce.html and follow the instructions.

CONGRATULATIONS! You have successfully installed your Philips Seismic Edge.

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Windows NT® Installation

Installation of the drivers for your Philips Seismic Edge PCI Audio in a Windows NT® environment are as follows (note: you must have the appropriate privileges in order to install the drivers):

- Boot the system to the Windows NT® desktop.

- Go to D:\ NT40\ English\ and double click on Setup.exe (D: represents your CD-ROM drive.)

- Wait a couple of minutes while the data transfers. Once it finishes the Philips Seismic Edge Settings window will appear. Click **OK** on the settings page and then when the "**System Settings Change**" page comes up and prompts you to restart, click the "**Restart Computer Now**" button.

That's it! Once the system reboots to Windows NT® your Philips Seismic Edge™ should be fully functional as will be indicated by the Windows® Startup sound.

Yamaha SoftSynthesizer Installation for Windows NT®

Follow these steps to install the Yamaha SoftSynthesizer from your install CD:

1) Insert your install CD into your CD drive
2) Go to **D:\S-yxg50\Nt40\Disk1** (D: represents your CD-ROM drive)
3) Double Click on **Setup.exe**
4) Follow the on-screen instructions for installation. The required serial number is located on the Yamaha Corporation Certificate of Authenticity included with your documentation.

Siren XPress Installation for Windows NT®

Follow these steps to install the Siren XPress. This application allows you to play and organize music.

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1) Insert your install CD into your CD drive
2) Go to **D:\Applications\Sonic Foundry\Siren**
   (D: represents your CD-ROM drive)
3) Double Click on **SirenSetup.exe**
4) Follow the on-screen instructions for installation

Real Mode DOS Installation (Optional)

This step is only required if you intend to run DOS applications under real DOS mode by restarting your computer in "MS-DOS mode". This step is not required to run DOS applications in a DOS box (MS-DOS prompt).

In real DOS mode, you must have your DOS CD-ROM drivers loaded for access to the install CD. Another way to do this is to simply run INST_DOS.BAT from a DOS box in Windows.

Run INST_DOS.BAT from the DOS directory on the CD. This installation program will create the TBird directory on any drive you desire. Follow the screen prompts to install the files to your hard drive. The install program will edit your autoexec.bat file to perform automatic initialization of Philips Seismic Edge™ for use in real mode DOS.

Using the Philips Seismic Edge Control Panel for DOS

To launch the DOS control panel:

1. Go to C:\Seismic\ (C: represents your hard drive)
2. Type **VOLCNTRL.EXE**

This application allows you to adjust volume levels, balance, input levels, synthesizer modes, speaker modes, and midi effects in real DOS.

In DOS games that have music settings, if you select FM synthesis in the game, make sure the synth control in the control panel is set to **OPL3**. For games that support MIDI (mpu-401), select the **WVTBL** (wavetable) option. The game publisher normally has this information in the program documentation.

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NOTE: This application is for real MS-DOS mode only and should not be run under windows. In Windows®, use the Windows® mixer for adjusting playback and recording levels.

Joystick Configuration for Windows® 95/98/2000:

1. Open the Control Panel and double-click on the **Game Controllers** icon. Select the **Advanced** tab and under **Port Driver Assignment** and select Philips Seismic Edge GamePort.

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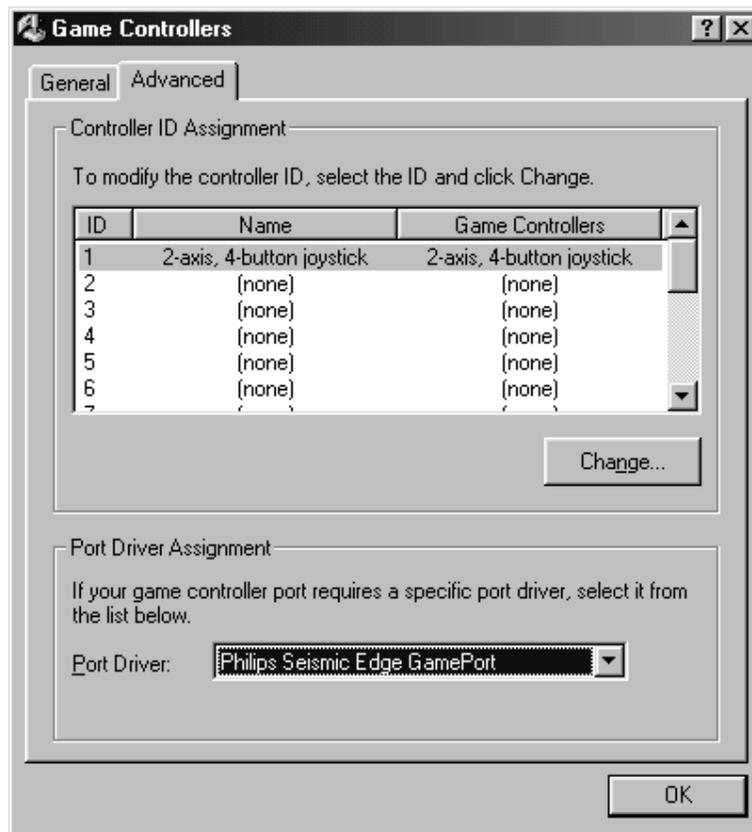
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2. Select the **General** tab and click the **Add** button. You may select any one of the **Game Controllers** listed, then click **OK**.

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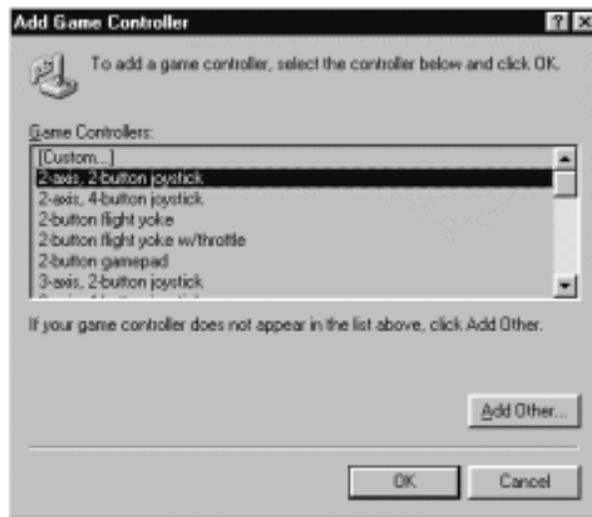
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3. After making your selection, highlight the selected controller in
    Game Controllers and click the **Properties** button. Select
    Calibrate and calibrate your joystick. Your joystick should be
    installed and ready for flight!

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TECHNICAL SUPPORT

Before calling the technical support number please make sure you have the following information available:

- Model and serial number (located on the inside front cover of the user manual or on the warranty card) and date of purchase.
- Computer type, processor speed, and memory available.
- Computer Operating System (IE: Windows® 95, Windows® 98, etc.)
- On-screen error information.
- Other hardware sound card is connected to.

Technical Support Information:
.

- Toll-Free Telephone Number: 1-800-835-3506
- Operating Hours (US Central Time):
  - Monday through Friday   7:00am -11:00pm
  - Saturday & Sunday   8:00am -10:00pm

- · Internet Address: www.philipsusa.com

Product Return

Before returning the Philips sound card, you must first contact the Philips Technical Support group to determine the nature of product defect. Once the nature of the problem has been determined, a Return Authorization number and address will be supplied. A RETURN AUTHORIZATION NUMBER MUST ACCOMPANY THE RETURN OF THIS PRODUCT.

When returning the product for service:

- The cost of shipment is at your expense and you assume all the risk. It is recommended to ship the product through a carrier that provides proof of delivery and product should be insured.
- Return Authorization number must be clearly marked on the outside of the package.
- Use proper packing materials for shipment
- A dated proof of purchase proving the product is still under Warranty

Warranty: 3-year limited warranty

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Philips Seismic Edge™ Control Panel

1. Control Panel Tab Windows® Audio Applications

Just click on the desired Windows® applet to launch.

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2. Demo Tab

These are links to the applications found on the installation CD, so make sure the CD is inserted in your CD-ROM drive before launching.

Space Junk
A 3D audio application that demonstrates QSound Q3D™ technology.

Wumpus
A 3D audio game that also demonstrates QSound's technology.

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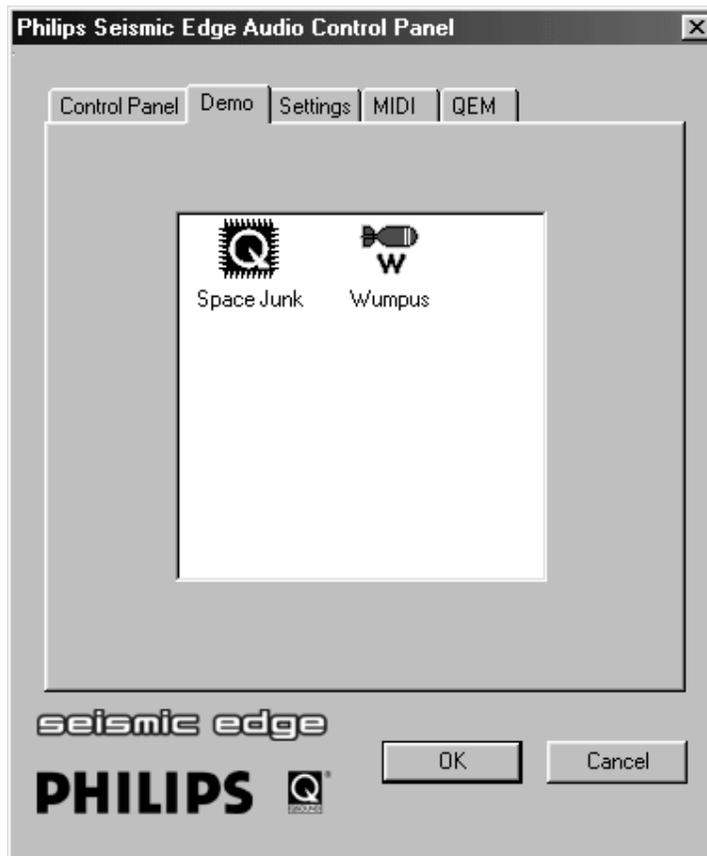
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3. Settings Tab
This control allows you to select what output mode to use.

Headphone Mode
Utilizes the Q3D™ for headphones algorithm for a personal 3D audio experience.

2 Speaker Mode
Default mode, this setting is for 2 speaker setups and uses the Q3D 2 speaker algorithm.

> **2D to 3D Remapping**
> This feature affects DirectSound and MIDI WaveTable sources. Converts 2D stereo panning to 3D audio output.
>
> **QXpander™**
> This feature enhances CD and DVD audio by converting normal stereo sources to expanded 3D audio.

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Philips Seismic Edge Audio Control Panel ☒

| Control Panel | Demo | Settings | MIDI | QEM |

Output Mode

○ Headphone

◉ 2 Speaker

☐ 2D to 3D (DirectSound/WaveTable)

☐ QXpander for Audio CD's

○ Quad

☑ Quad for DVD and Audio CD's

seismic edge

PHILIPS Ⓠ

[OK]   [Cancel]

For 4 speaker setups (left front, right front, left rear, right rear) select "Quad output mode". This will enable quadraphonic playback for 3D applications. Stereo (2D) will also be automatically converted to quadraphonic including games, cut scenes, midi files, sound (.wav) files and movie (.avi) files using QSound Multi-Speaker System™ (QMSS™).

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Audio CD's and audio DVD's can also be played in quad if the Quad for DVD and Audio CD's box is checked. The QMSS box does not have to be checked for other stereo and 3D sources, it only must be checked for audio CD/DVD's.

Philips Seismic Edge Audio Control Panel ☒

| Control Panel | Demo | Settings | MIDI | QEM |

Output Mode

○ Headphone

○ 2 Speaker

☐ 2D to 3D (DirectSound/WaveTable)

☐ QXpander for Audio CD's

⊙ Quad

☑ Quad for DVD and Audio CD's

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| OK | | Cancel |

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4. **MIDI Tab**

NOTE!: When your card is initially installed the SXG Softsynth is selected as your MIDI engine. The SXG IS <u>NOT</u> CON-TROLLED ON THIS TAB BUT IN A SEPARATE CONTROL PANEL. See details below.

Your Seismic Edge™ sound card includes <u>two</u> distinct wavetable music synthesis engines. The Yamaha SXG is an extremely high quality, high polyphony (512 simultaneous voices) MIDI synthesis engine with both GM and XG compatibility. Select the SXG for the richest music experience. The Seismic Edge WaveTable Synth is a pure hardware synthesis engine designed for use with games or other applications where low CPU consumption is critical. Select the Seismic Edge WaveTable Synth <u>only</u> for games that utilize MIDI for music. Note that most current PC games do not use MIDI music so typically the SXG Softsynth can be left selected even when playing games. These games use digital sound recordings exclusively and are not effected by MIDI output selection.

When your card is initially installed the SXG Softsynth is selected as your MIDI engine. To view or change your selection:

1.   Select "Start" then "Settings" on the Windows® Taskbar.
2.   Double click on the Multimedia properties icon.
3.   Select the MIDI tab.
4.   "Single instrument" will be selected
5.   Look at the box under "Single instrument" to determine what MIDI output (engine) is currently selected.
6.   To change to a different MIDI output select it then select "Apply" or "OK". You can select either "Yamaha SXG Driver" (typical), "Seismic Edge WaveTable Synth" (games <u>with</u> MIDI) or Seismic Edge External (if you have an external synthesizer connected to the Game/MIDI port of the card).

To adjust the SXG Softsynth:

1.   The SXG is <u>not</u> affected by the controls under the MIDI tab of the Seismic Edge <u>control</u> panel.
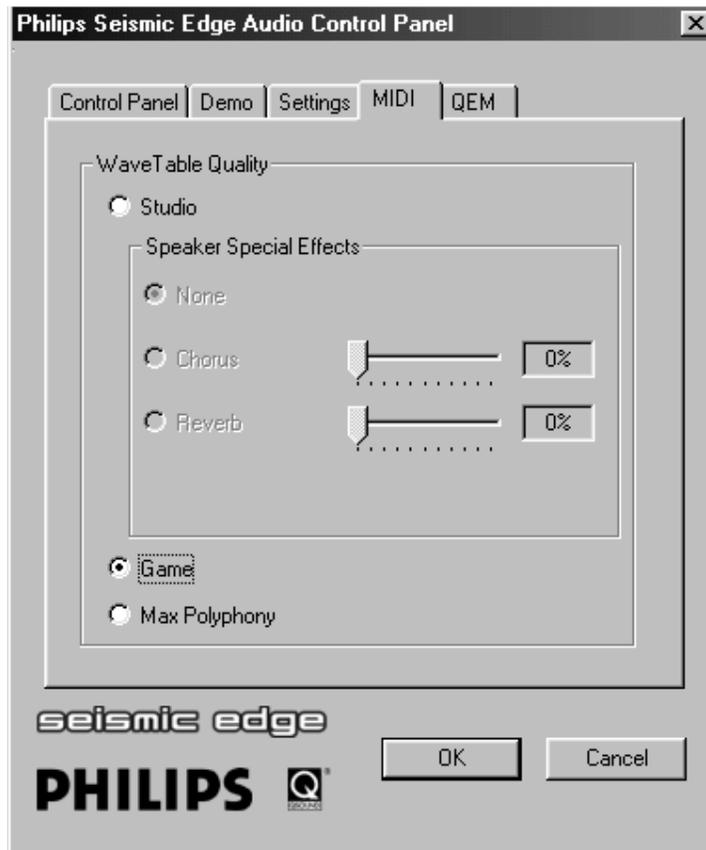
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Philips Seismic Edge™

2. Right click on the "XG Soft" icon in the systray or in the control panel.
3. Select "SoftSynthesizer Setup" or "Open" if in the control panel.

To adjust Seismic Edge WaveTable synth:

1. Open the Seismic Edge control panel by double clicking on the "Edge" icon in the systray.
2. Select the MIDI Tab
3. Selected the desired mode.

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Game Mode (Default, Recommended)

Best setting for Windows® DirectSound® and DirectSound3D Gaming. Maximum hardware acceleration for games.

Studio Mode

Setting for improved MIDI WaveTable playback with effects.
Moderate DirectSound acceleration.

Max Polyphony Mode

Setting for the best MIDI WaveTable polyphony.
Minimum DirectSound Acceleration.
You will only notice an effect if your file is high polyphony (i.e. using a large number of voices simultaneous).

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5. QEM Tab

Philips Seismic Edge Audio Control Panel

Control Panel | Demo | Settings | MIDI | QEM

QSound Environment Modeling

☑ QEM

Default Environment

- none -

seismic edge

PHILIPS Ⓠ

OK   Cancel

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WHAT IS QEM?

QEM (QSound Environmental Modeling) is an environmental audio rendering engine providing reverberation and other special audio effects. It is compatible with the EAX™ API (Application Programming Interface) provided to software developers by Creative Labs, Inc.

WHAT DOES QEM DO?

In real life, every room, or "environment" you enter has some sort of reverberant quality, depending on different factors like its size, and the material the surrounding objects (e.g. walls, mountains, etc.) are made of.

QEM attempts to model this in a game world, by applying reverb effects to DirectSound audio streams, by way of presets that can be either set manually, or called automatically from within an "EAX-enabled" game.

How QEM Works
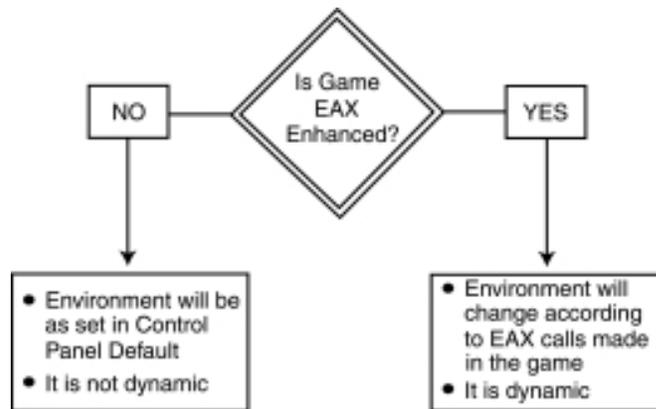
From a game player's perspective, this means that they can get ambi-ent reverb effects on all the Direct Sound games they play. With the Philips Seismic Edge, there are 2 ways they could get this:

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QEM FOR A "EAX-ENABLED" DIRECT SOUND GAME

Follow these simple steps to enable EAX:

1. Open the Philips Seismic Edge control panel
2. Click on the QEM tab
3. Make sure the QEM checkbox is selected. From the Default Environment list, if None is selected, the title will automatically adjust reverb qualities and no other end-user adjustments are necessary.
4. Click "OK"
5. Start game
6. If required, select EAX in game set-up options
7. Disable QEM checkbox after exiting game to avoid QEM from affecting other applications.

QEM FOR A NON-EAX DIRECT SOUND GAME

If your game does not support QEM (i.e. non EAX-Enabled Direct Sound games), select a suitable reverb from the Default Environment list in the Philips Seismic Edge control panel, and run the game. Follow these simple steps.

1. Open the Philips Seismic Edge control panel.
2. Click on the QEM tab.
3. Select the QEM check box.
4. Select a preset from the Default Environment list.
5. Click "OK".
6. Play your game.
7. Disable QEM checkbox after exiting game to avoid QEM from affecting other applications.

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DVD Playback Modes

Using 4 channel surround speakers your Seismic Edge™ sound card can deliver true multi-channel surround sound from a compatible soft-DVD player application even if the player only supports stereo output. If the soft-DVD player is capable of providing a true 4 channel Dolby Digital™ downmix Seismic Edge will output 4 channels. Even if the soft-DVD player supports 4 channel Dolby Digital™ you may prefer using QMSS™ playback of DVD's because of the enhanced rear channel content it provides. If you have only stereo speakers Seismic Edge can also provide virtual surround using it's 2D to 3D remapping feature.

To enable 4 speaker QMSS™ DVD enhancement:

1)   Make sure "4 Speakers" is selected in the Seismic Edge control panel settings tab.
2)   Open the "control panel" or settings menu for the soft-DVD player.
3)   Select the menu or tab that controls the player's audio settings.
4)   Look for a panel that allows you to select the number and type audio channels
5)   Select either 2 speaker "Stereo" or 2 speaker "Dolby Surround or ProLogic" Either option will work well as the QMSS™ DSP algorithm does not depend on Dolby encoding. (Effectively you should follow the soft-DVD player instructions for playing back over stereo speakers even though you have quad speakers connected).
6)   Close the control panel and play a DVD. Seismic Edge will detect that it is in 4 speaker mode but is only receiving two channels of audio from the DVD and automatically generate 4 distinct channels of surround sound using QMSS™.

To enable a 4 speaker Dolby Digital™ downmix :

1)   Make sure "4 Speakers" is selected in the Seismic Edge control panel settings tab.

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2) Follow the soft-DVD players instructions for 4 speaker playback. (Some players will not offer this feature)

3) Play a DVD and Seismic edge will output the 4 channel Dolby Digital downmix provided by the soft-DVD player.

4) Seismic Edge supports Microsoft's standards for multichannel playback however some soft-DVD players may not. If this mode does not work with your soft-DVD player then use QMSS DVD enhancement mode described in the preceding section.

If you only have stereo speakers:

1) Make sure "2 speakers" is selected in the Seismic Edge control panel settings tab.

2) Select "2D to 3D" under "2 speakers" in the Seismic Edge control panel.

3) Follow the soft-DVD players instructions for "stereo" playback. Do not select the 3D option if it exists as it may interfere with the 2D to 3D remapping feature. (Alternatively do not select 2D to 3D in the Seismic Edge control panel and select the soft-DVD players 3D option to use the players built in 3D virtualization capability)

4) Play a DVD and Seismic Edge will virtualize surround effects coming from the DVD.

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About SIREN™ XPress

Transform your PC into the ultimate music entertainment center with SIREN XPress music jukebox. SIREN XPress lets you "rip" your CD collection onto one convenient location-our hard drive. Let SIREN XPress help you surf the net and find more great music to add to your collection-MP3, WAV, and WMA files are all supported. Use SIREN XPress' advanced organizational features to create custom playlists of the songs you want to hear. SIREN XPress maximizes your audio experience with dazzling, colorful eye candy real-time computer animation that pulses and interacts with your songs. And when you're ready to hit the road with your portable MP3 player,* SIREN XPress is the fun, easy way to upload your custom playlists.

* Supported MP3 players do not currently run under Windows NT® or Windows®2000. You must be running SIREN XPress on Windows® 9x to upload songs to portable players.

SIREN XPress includes 20 free MP3 encodes, with unlimited MP3 playback.

SIREN XPress makes it easy to organize your music:

- SIREN XPress includes a powerful, database-driven music management engine.
- The Sort, Group, and Filter tools provide you with superior control over your music library.
- Use the Field Chooser window to view your collection the way *you* want to see it.

SIREN XPress brings powerful functionality to your desktop:

- Use Search for Music to find music on a network or removable drive.
- Export custom playlists to your Rio or Nomad II portable MP3 device.
- Use your Microsoft Internet Keyboard hotkeys to control SIREN XPress's functions.

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Siren™ XPress Quick Start

Welcome to Sonic Foundry's Siren XPress! This guide is designed to provide you with information that will allow you to immediately begin taking advantage of the powerful features of Siren XPress.

Siren XPress allows you to operate in Philips compact mode or normal mode. The compact mode includes only the Transport buttons (Play, Stop, Pause, etc.). The normal mode displays the entire Siren XPress window, and allows access to all Siren XPress functionality. You can toggle between the Philips compact mode and normal mode using any of the following methods:

- Click the **Compact/Skin Mode** button.
- Choose the **Compact/Skin Mode** option from the View menu.
- Press **Ctrl + M** on your keyboard.

You can expand the Philips compact mode to display the current and next songs, the **Compact/Skin Mode button**, and the **Select Playlist** button. To expand the compact mode, click the **Expand** control on the right end of the player. You can also use this control to collapse the compact mode. The Siren XPress expanded compact mode is shown below:
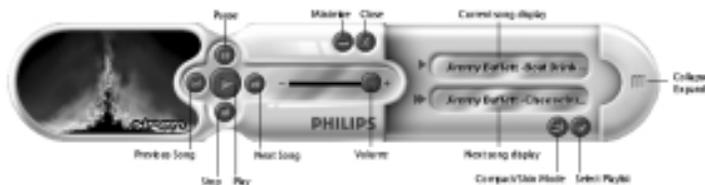
Music Files
A music file refers to any audio file that Siren will play from your computer. Siren supports the following music file formats: *.wav, *.mp3, *.wma.

<u>Finding Music</u>
After you install Siren XPress, a configuration wizard will scan your local hard drives for any *.mp3, *.wma, and *.wav files, and add them to your Siren XPress music library. If you are unable to play music or use the transport controls for Siren XPress after the installation process, you can manually run the Configuration Wizard from Siren's normal mode by choosing Configuration Wizard from the **Options** menu.

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You can also search your hard drive(s) for music to add to your music library any time by choosing Search Computer for Music from the **Options** menu.

Playing Music
Siren will allow you to play *.mp3, *.wma, and *.wav files, as well as audio CDs. You can start playing music immediately by clicking on the **Play** button in either compact or normal mode.

Playing music by type
With the compact mode expanded, click on the **Select Playlist** button. From the menu that displays, you can select your music by Album, Artist, Genre, or Playlist, or choose to play an Audio CD.

Transport Controls
Depending on your recent activities the transport controls (**Play**, **Pause**, **Next Song** . . .) will effect either music file playback or CD playback. To switch all the transport controls to CD playback click the **Select Playlists** button, select **Audio CD**, then click **Play** to start CD playback. To switch the transport controls to music file playback click the **Select Playlists** button, select **My Music** or **My Playlists** and then the desired music files. Playback will start immediately and all the transport buttons will now effect music file playback except for the **Play** button. The **Play** button will continue to start CD playback until you go into normal (full window) mode and select a different icon than **Play or Record Music CDs**.

Graphic Effects
Siren XPress displays dazzling visual effects during audio playback. Siren XPress defaults to random visual effects. To choose a particular effects pattern, right-click on the visual display and choose from the list of available graphic effects.

Recording from a CD

1.   Place an audio CD in your computer's CD-ROM drive.
2.   In normal mode, choose **Play or Record Music CDs** from the **View** menu. Your computer's CD drives are displayed in the Explorer panel.
3.   In the drop-down list in the Explorer panel, specify the CD drive containing the audio CD. The CD's tracks are displayed in the Explorer panel, and Siren attempts to access information for the CD. If the CD information does not appear, you can obtain the CD information by clicking the **CDDB** button, or you can add the information manually in the Explorer panel. If the

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CD information is not accessed or added manually, Siren records the songs as "Unknown" and numbers them sequentially.
4.   Select the song(s) to be recorded.
5.   From the **File** menu, choose **Record to Library.** Siren begins recording files to the folder specified in the Preferences dialog, and a meter in the Status panel depicts the progress of the recording.
6.   To halt recording at any time, choose **Cancel Recording** from the File menu.
7.   To monitor the recording progress, select **Recording List** from the Explorer panel drop-down list, or, if Tree View is enabled, double-click on the **Recording List** folder.

Note: You can play music from the music library while you are recording CDs, but you cannot listen to the CD itself during recording.

Additional Help
For more detailed information about Siren XPress features, please refer to the online Help file accessible from Siren's normal mode by clicking the Help menu and choosing Contents and Index.

For additional information on other Sonic Foundry products, visit **www.sonicfoundry.com**.

Upgrading to Siren Jukebox
If you like Siren XPress, but want more powerful options, get these additional features when you upgrade to Sonic Foundry's Siren Jukebox:

● CD burning
● Unlimited MP3 ripping
● Advanced audio effects

To upgrade, choose Instant Upgrade from the Help menu.

About AudioPix™

AudioPix™ makes it easy to combine digital images with MP3 sound to get the ultimate multimedia presentation. In just three simple steps you will have an exciting new MPEG format that can be played back in either of the popular players, RealPlayer® or Windows® Media™ Player. Now for the first time, you don't have to be a Web Master to create your own unique presentations - just grab an MP3 file, some of your most treasured images and let your imagination go.

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- Turn your wedding photos and special occasions into a creative slideshow for friends and family
- Keep your vacation memories alive forever. Go on vacation without going on vacation!
- Create an "Internet Commercial" to promote your business

To install AudioPix, follow these simple steps:

1) Insert your install CD into your CD drive
2) Go to **D:\Applications\QSound Labs\AudioPix** (D represents your CD-ROM drive)
3) Double click on apixfree.exe
4) Follow the on-screen instructions for installation. The required serial number is located at **D:\Applications\QSound Labs\AudioPix** Open the apixfree.txt file.

Recording Source Configuration

Philips Seismic Edge™ allows you to record sounds and music from various input sources (i.e. microphone, audio CD, line in, etc). Before you start recording, you need to configure the recording source as follow:
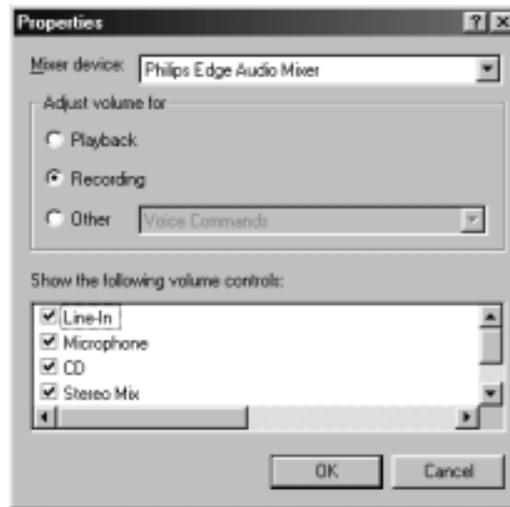
- Open the Volume Mixer, go to Options, and select Properties.
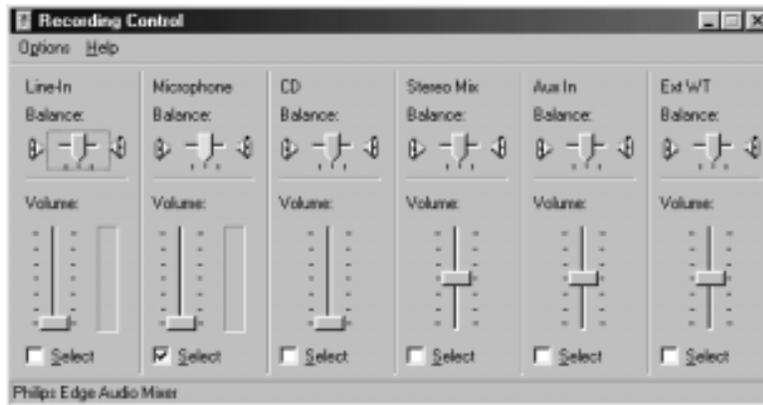

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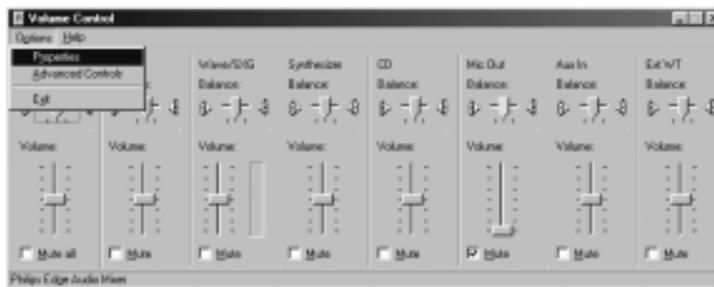
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- Choose Recording under "Adjust Volume for", and check the recording source that you want to display in the Recording Mixer.

- Click **OK**, and the Recording Mixer window will open. Now you can select the recording source you intend to use and adjust the recording volume level.

- Open your favorite recording application and start recording.

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Frequently Asked Questions

This section highlights some of the more commonly asked questions and their possible solutions. Reviewing this chapter can help you solve many problems and often eliminate the need for telephone assistance.

Will Philips Seismic Edge™ work on all motherboards ?

Philips Seismic Edge™ is a PCI based solution for audio acceleration and requires a Pentium class motherboard with one available PCI slot for operation. Most chipsets found on commercially available motherboards and in pre-built systems are compatible with Philips Seismic Edge™ Audio. See Minimum System Requirements in this manual.

Is Philips Seismic Edge™ full-duplex capable?

Full duplex is the ability for a sound card to record and playback audio at the same time. Philips Seismic Edge™ is able to do this while maintaining full 16-bit 48KHz sound quality.

What wave file types is Philips Seismic Edge™ compatible with (ie. what wave types can it playback)?

Basically all wave file types you are likely to encounter will work fine. Most of the supported sample rates of audio applications such as SoundForge or the Windows® Media Player are supported, although it is possible that in a very rare instance you might encounter a non-standard file format that may not work.

What version of DirectX should be installed?

For most applications and particularly for games, it is recommended that you run DirectX 6.0 or higher.

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Do I need to connect all 4 speakers at the same time?

You do not need to connect all 4 speakers to enable your sound output. You can have only the front speakers connected. This will however reduce the feel of the positional 3D sound sensations.

Why isn't there any sound from the speakers?

Go through the following steps:

1. Make sure your speakers are connected to your computer is as described in Hardware Installation - External Connections.

2. Your speakers should be active speakers (speakers with external power supply). Passive speakers may result in unacceptably low volume and distortion.

3. The Output Mode (Philips Seismic Edge™ Control Panel Applet Settings tab) must be set to Speaker if you are using only the 2 front speakers. It must be set to Quad if you are using 4 speakers.

How do I uninstall the audio drivers?

See **Uninstalling Software Drivers** of this user manual.

My system does not detect the sound card when I boot up for the first time. What's wrong?

Windows® 95/98:
Make sure your sound card is fully inserted into the PCI Bus slot.

1. From the Windows task bar, click Start>Settings>Control Panel.
2. Double-click System icon.
3. Click the Device Manager tab.
4. Click on Sound, Video and Game Controllers
5. Check whether there is any yellow exclamation mark (error) on each of the Philips Seismic Edge™ devices. If there is, remove all devices (by highlighting the device and clicking Remove) and re-install the sound card drivers.

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<u>Windows NT</u>®

Not applicable.

I don't hear any music in my DOS game

In DOS games that have music settings, if you select FM synthesis in the game, make sure the synth control in the control panel is set to **OPL3**. For games that support MIDI (mpu-401), select the **WVTBL** (wavetable) option.

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RESOLVING I/O CONFLICTS

Conflicts between your audio card and another device may occur if
they are set to use the same I/O address. To resolve I/O conflicts,
change the resource settings of your Philips Seismic Edge™ card or
the conflicting device using Device Manager in Windows® 95/98.

If you are still unable to determine which card is causing the conflict,
remove all cards except the Philips Seismic Edge™ card and other
essential cards (for example, disk controller and graphics cards).
Add each card back until Device Manager indicates that a conflict
has occurred.

To resolve conflicts in Windows® 95/98

1.   Click the Start button, point to Settings, and then click Control
      Panel.
2.   In the Control Panel window, double-click the System icon.
3.   In the System Properties dialog, click the Device manager tab.
4.   Under the Sound, Video and Game Controllers entry, select the
      conflicting audio card driver, indicated by an exclamation mark
      (!), and click the Properties button.
5.   In the Properties dialog, click the Resources tab.
6.   Select Use Automatic Settings and click the OK button.
7.   Restart your computer to allow Windows® 95/98 to reassign
      resources to the devices.

Uninstalling Software Drivers
Windows® 95/98 Uninstall

1.   Select Control Panel, Add/Remove Programs and select Philips
      Seismic Edge Audio Support Files. Click the **Add/Remove** button.

2.   You will be prompted to shutdown your computer after uninstall
      for the changes to take effect. Click Yes to shutdown your com-
      puter and then remove Philips Seismic Edge™ from your system.

Philips Seismic Edge™

Windows NT® Uninstall

Browse to the Multimedia page in the Control Panel, click on the "Devices" tab, under "Audio Devices" select "Philips Seismic Edge Audio", and then click the "Remove" button. Shutdown your computer and remove Philips Seismic Edge™ from your system.

Windows® 2000 Uninstall

1. Open the **Add/Remove Hardware** control panel applet
2. Select "**Uninstall/Unplug a Device**". Click **Next**.
3. Select "**Uninstall a Device**". Click **Next**.
4. Choose **Philips Seismic Edge Audio** from the list. Click **Next**.
5. Click **Yes** on confirm screen. Click **Next**.
6. Open the **Add/Remove** Hardware control panel applet
7. Select "**Uninstall/Unplug a Device**". Click **Next**.
8. Select "**Uninstall a Device**". Click **Next**.
9. Choose **Philips Seismic Edge Game Port Enumerator** from the list. Click **Next**.
10. Click **Yes** on the confirm screen. Click **Next**.
11. Open the **Add/ Remove Hardware** control panel applet
12. Select "**Uninstall/Unplug a Device**". Click **Next**.
13. Select "**Uninstall a Device**". Click **Next**.
14. Choose **Philips Seismic Edge Support Registers** from the list. Click **Next**.
15. Click **Yes** on the confirm screen. Click **Next**.
16. Open the **Add / Remove Programs** control panel applet
17. Click on **Philips Seismic Support Files**. Click **Change/Remove**.
18. Power down your computer and remove your sound card.

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Certification Information

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, this notice is not a guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try one or more of the following measures:

1.   Reorient or relocate the receiving antenna

2.   Increase the separation between the equipment and receiver.

3.   Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.

4.   Consult the dealer or an experienced radio/TV technician.

CAUTION: To comply with the limites for the Class B digital device, pursuant to Part 15 of the FCC Rules, this device must be installed in computer equipment certified to comply with the Class B limits.

All cables used to connect the computer and peripherals must be shielded and grouded. Operation with non-certified computers or non-shielded cables may result in interference to radio or television reception.

Modifications

Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the device.

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Declaration of Conformity

FCC ID: LWHA481P2

According to the FCC96 208 and ET95-19

Name   **Labway Corporation**

Address: **7F, 150, Jian Yi Road
            Chung Ho City,
            Taipei Hsien,
            Taiwan, R.O.C.**

declares under its sole responsibility that the product

Trade Name: **Philips Consumer Electronics Company / Labway Corporation**

Model Number: **PSC70417 / A481-P20**

has been tested according to the FCC / CISPR22/85 requirement for Class B devices and found compliant with the following standards:

EMI/EMC: ANSI C63.4 1992, FCC Part 15 Subpart B

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1.   This device may not cause harmful interference, and

2.   This device must accept an interference received, including interference that may cause undesirable operation.

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Notes:

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