



**Philips Harmonic Edge™**  
**2-Channel PCI Sound Card**  
**PSC602**

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Philips Consumer Electronics Company



## Philips Harmonic Edge™

### 2-Channel PCI Sound Card

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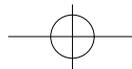
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8. **Applicable Law**  
This contract shall exclusively be governed by the laws of the Kingdom of The Netherlands without regard to its conflict of law provisions.
9. **Competent Court**  
The competent court for any dispute between you and Philips pursuant to this End User License Agreement is the court of 's-Hertogenbosch, the Netherlands.

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## Introduction

### CONGRATULATIONS ON YOUR PURCHASE OF THE PHILIPS HARMONIC EDGE™ SOUND CARD!

Thank you for enhancing your computer with the Philips Harmonic Edge™. PSC 602 is the stereo card for you! You have never heard your computer sound this good! You'll hear full, rich bass, and clear, crisp trebles from all your favorite games, music or websites. Experience your computer like never before!

The heart of your sound card is the powerful Allegro™ audio accelerator which combines advanced audio and Codec functionality in a highly integrated PCI solution for the multimedia PC. Plus!! PSC602 is compatible with all current Windows operating systems and supports the latest gaming standards, including EAX™ 1.0 & 2.0. Indulge yourself in full rich 16 bit CD quality sound with up to 512 voices.

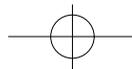
### KEY FEATURES

- Full-duplex, 48khz digital recording and playback
- Hardware DSP accelerated algorithms
- 512 Voice professional quality soft-synth with XG and GM compatibility
- DirectSound™, DirectSound3D™
- Stereo, 2 channel speaker or headphone output
- Multi-stream DirectSound and DirectSound 3D Acceleration
- Sensaura CRL Positional 3D
- High-quality sample rate conversion and digital mixing
- Direct Music support
- Realtime effects processing
- Full legacy DOS game support using PC/PCI, DDMA or TDMA hardware implementation methods

### MINIMUM SYSTEM REQUIREMENTS

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

- One available PCI 2.1 compliant slot
- Intel Pentium® class or 100% compatible 133MHz or faster processor



## Introduction

- Intel® or 100% compatible motherboard chip set
- 16MB system RAM
- CD ROM for driver installation
- Stereo, 2 channel powered speakers or headphones
- MS-DOS, Windows® 95, Windows® 98, Windows NT® 4.0 (SP3)\*, Windows® 2000, Windows® Me, Windows® XP

### WHAT'S INCLUDED

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

- 1 – Harmonic Edge™ sound card in a anti-static pouch
- 1 – Harmonic Edge™ installation CD
- 1 – Harmonic Edge™ user's manual
- 1 – Yamaha XG Certificate
- 1 – Warranty Card

\* Bundled applications are included in the installation CD driver

\* Please retain the Yamaha Certificate of Authenticity. The included serial number will be needed during software 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
- A Phillips screwdriver

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

## Before Installing Soundcard

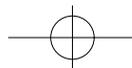
- Its essential to wipe out every trace of any existing soundcard software prior to installing the Harmonic Edge. Go to **Start/Settings/Control Panel** and choose **Add/Remove Programs**. Highlight the entry for the existing sound card software (if any) and click **Add/Remove**. Most sound card software will uninstall all files, drivers, and applications that relate to the sound card, but you might need to uninstall several different software components from the Add/Remove list. If you can't find anything that relates to the sound card in the Add/Remove Program list, check for un-install options in the sound card software. An alternate method is to go to the **Device Manager** and remove sound card entries under the **Sound, video and game controllers tab**.

If the PC has sound support built into the motherboard, you'll need to disable that sound support before the PSC can be installed. This is usually done through the PC's setup program (BIOS) and/or by setting a jumper on the motherboard. There might be as many as 3 setting in BIOS that may need to be disabled, check the motherboard user's guide for these settings.

- 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.

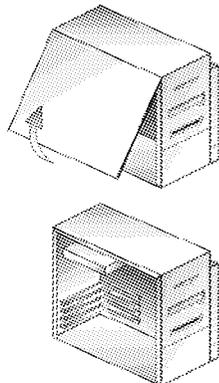


## Soundcard Installation

### TO INSTALL THE SOUND CARD:

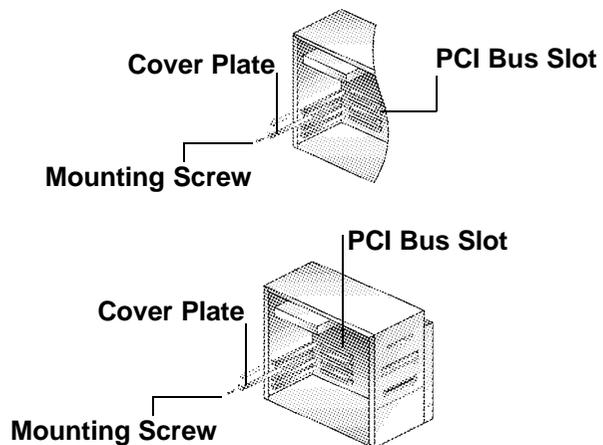
Turn off your computer, and disconnect the power cable. Disconnect all devices that are connected to the computer.

Remove the computer cover.

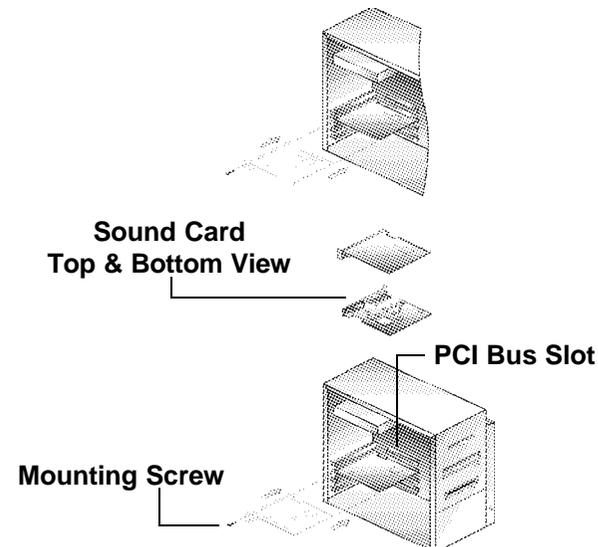


Select an available PCI slot and, if necessary, remove its cover plate.

Keep the mounting screw to secure your sound card later. Save the mounting plate for possible use later.

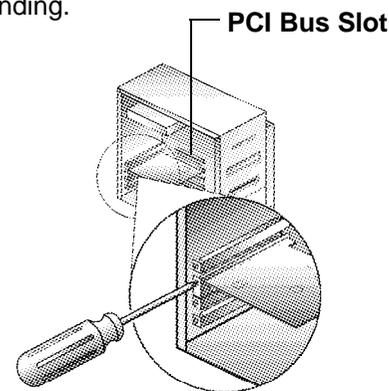


Remove the Harmonic Edge™ Sound Card from the anti-static bag. Align your sound card with the selected PCI Bus-Slot and firmly push it into the slot. Be sure the sound card is aligned properly and fits snugly into the slot.



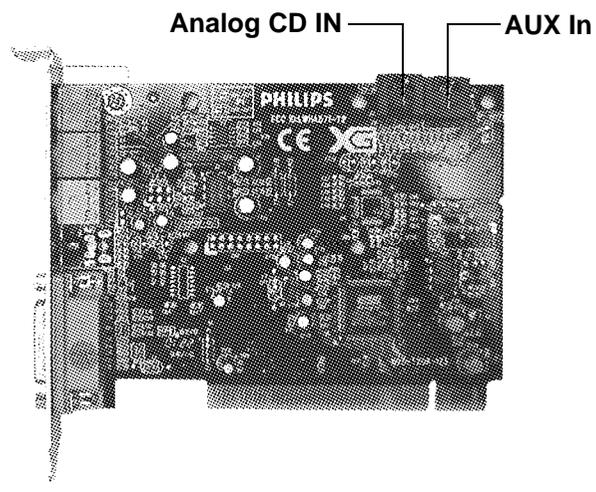
*Align sound card and fit firmly in place*

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.

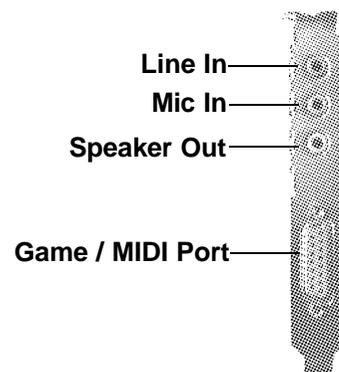


## Soundcard Cable Connections

### SOUND CARD CONFIGURATION (ACTUAL CARD LAYOUT MAY VARY)



### END BRACKET CONFIGURATION



### Speakers

Connect your stereo speakers or headphones to the SPEAKER OUT stereo jack on the end bracket.

### Line In, Mic In and MIDI/Joystick

External analog stereo sources with line level output can be connected to light blue 3.5mm Line In jack at the top of the sound card bracket. A microphone can be connected to the pink 3.5mm Mic In jack. An analog or digital joystick and/or MIDI devices can be connected to the Midi/Joystick connector at the bottom of the bracket.

### Internal Connections

Connectors for two line level analog inputs (Aux In, CD In) are provided along the top of the sound card as indicated in the picture on page 10. Use the 4 pin CD audio cable to connect the analog audio output of your internal CD or DVD drive to the sound cards "Analog CD In" connector.

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

## Driver Installation

### WINDOWS® 95/98/98SE/2000 INSTALLATION

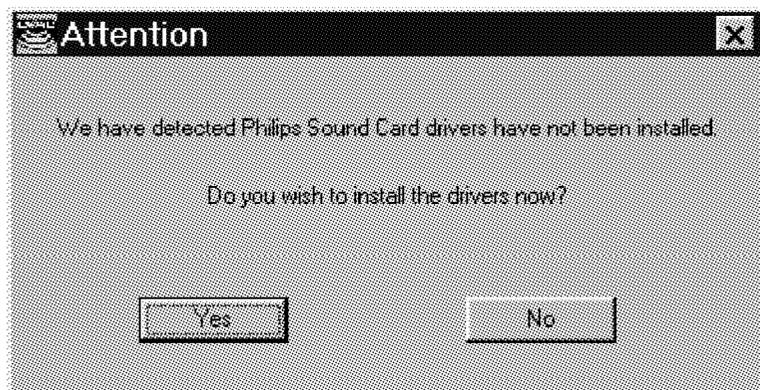
See below for **WINDOWS® ME AND XP** installation instructions.

After the PSC602 has been installed power on the PC.

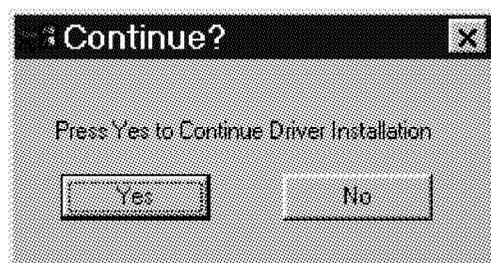
Windows will find the PSC602 and run the "New Hardware Wizard", select cancel to abort the OS hardware installation.

## Driver Installation

Insert the Philips Driver Installation CD into your CD drive. In a few moments the Philips Auto Install application will run. Click on the **Yes** button to begin the driver install process.



On Windows 95 systems you will see the following Install message.

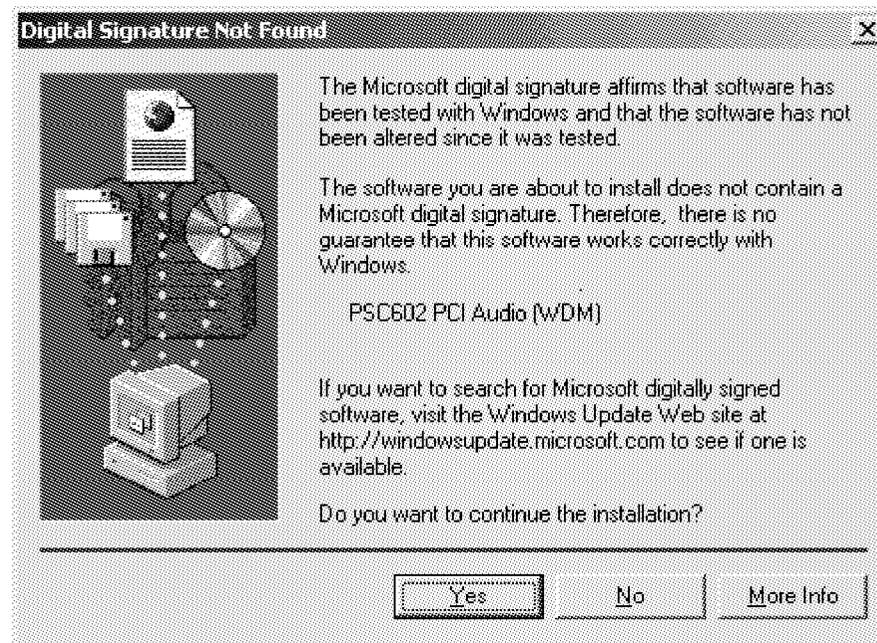


If after a minute or two, one of the panels above do not appear on your screen go to D:\setup.exe on the Philips Driver Installation CD (D: Represents your CD rom drive). Double click on **Setup.exe**, this will start the Philips driver Install application.

When the driver install process begins click on the **Yes** button to continue.

Follow the on-screen instructions to complete the driver install process.

**NOTE:** During the Windows 2000 install process the following Panel will be displayed:



### PANEL 1

You must click on the **Yes** button to properly complete the driver install process. **NOTE:** PSC602 drivers are not Microsoft certified but have been thoroughly tested and qualified by Philips to work reliably with all Microsoft operating systems.

## Driver Installation

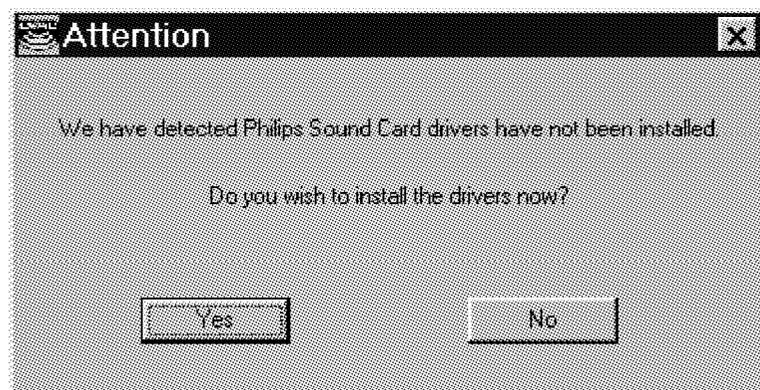
### WINDOWS® ME AND XP INSTALLATION

#### ATTENTION

The Windows ME and Windows XP operating systems automatically install a default audio driver when the Harmonic Edge is first detected. **You must** install the Philips Harmonic Edge drivers from the installation CD for proper audio card operation.

After the PSC602 has been installed power on the PC.

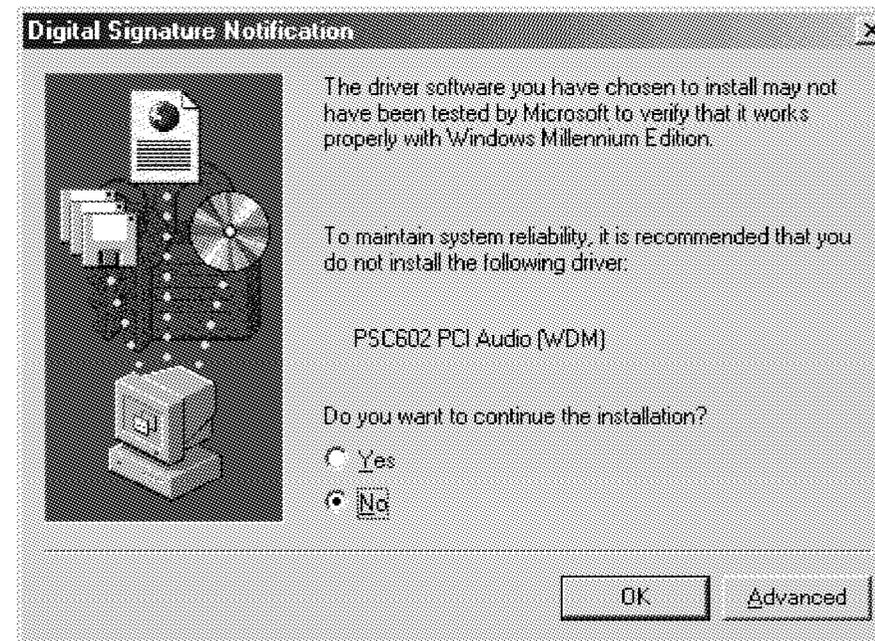
Windows ME and Windows XP will find the PSC602 and run the "Found New Hardware Wizard" (**You will not be able to abort this process**). At the completion of the hardware installation process, insert the Philips Driver Installation CD into your CD drive. In a few moments the Philips Auto Install application will run. Click on the **Yes** button to begin the driver install process.



If after a minute or two the panel above does not appear on your screen go to D:\setup.exe on the Philips Driver Installation CD (D: Represents your CD rom drive). Double click on **Setup.exe**, this will start the Philips driver Install application.

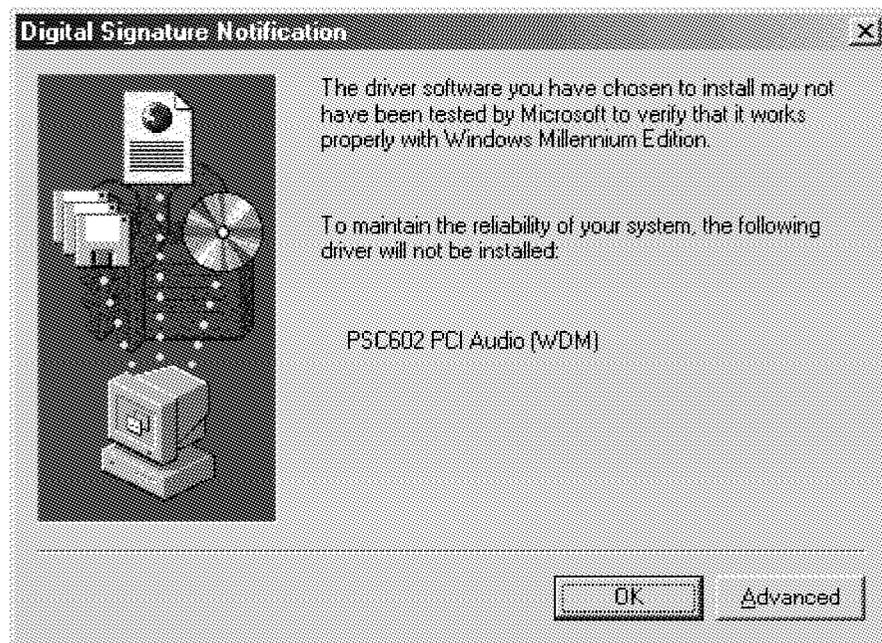
When the driver install process begins click on the **Yes** button to continue. Follow the on-screen instructions to complete the driver install process.

When installing PSC602 drivers on the **WinME Operating System** one of the following panels will appear:



PANEL 2

## Driver Installation



**PANEL 3**

If **PANEL 2** appears you must click on the **Yes** button to properly complete the driver install process. **NOTE:** PSC602 drivers are not Microsoft certified but have been thoroughly tested and qualified by Philips to work reliably with all Microsoft operating systems

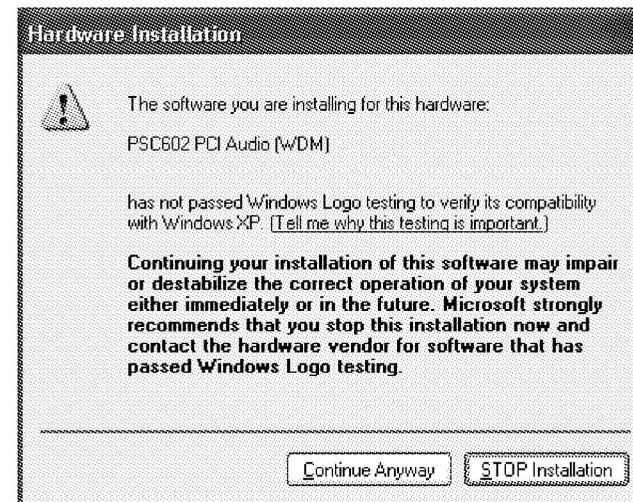
If **PANEL 3** appears (Panel 3 does not have Yes No buttons) you must click on the **Advanced Button** and select:

- Ⓒ Warn when installing unsigned devices.

Click **OK** to return to **PANEL 2**.

Click **Yes** to continue driver installation.

When installing PSC602 drivers on the **WinXP Operating System** the following panel will appear:



**PANEL 4**

Click **Continue Anyway** to continue driver installation. **NOTE:** PSC602 drivers are not Microsoft certified but have been thoroughly tested and qualified by Philips to work reliably with all Microsoft operating systems.

Follow the on screen instructions to complete the install process.

### **Congratulations!**

You have successfully installed your Philips Harmonic Edge™.

### **YAMAHA SOFTSYNTHESIZER INSTALLATION**

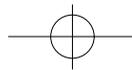
Insert your install CD into your CD drive.

For Win 95, 98, and 98 SE,

Go to D:\S-yxg50\Win9x\S-YXG50 V3.13.56\setup.exe, where D: represents your CD-ROM drive

For Win NT, ME, XP

Go to D:\S-yxg50\WIN2000-NT\S-YXG50 V3.13.15\setup.exe, where D: represents your CD-ROM drive



## Driver Installation

Double click the setup.exe and follow the on-screen instructions (Note: Your Yamaha Certificate of Authenticity is included with your product documentation).

To use the Yamaha Application as the MIDI playback set **YAMAHA SXG Driver** as the MIDI playback device.

For Win95, Win98, & Win98SE go to Windows control panel, Multimedia, Midi Tab to set the Midi Playback device.

For WinME, & Win2000 go to Windows control panel, Sounds and Multimedia, Audio Tab to set the Midi Playback device.

For WinXP, go to Windows control panel, Sounds and Audio Devices, Audio Tab to set the Midi Playback device.

## About Sensaura Technology

- The Philips Harmonic Edge takes PC audio to the next level of realism with Sensaura's groundbreaking ZoomFX™, MacroFX™ and EnvironmentFX™ technologies.
- Sensaura ZoomFX simulates the acoustic energy that sound emitting objects radiate from large scale areas, strips and volumes. This provides 'big sound realism', and is useful for example, for an extended railway train passing a stationary individual.
- Sensaura MacroFX creates 'near-field proximity effects' as experienced in real-life when objects move very close to the listener, such as bees buzzing around your head or bullets flying past your ear.
- Sensaura Environment FX acoustically renders 3D audio environments. Up to 26 different pre-set environments are provided such as underwater effects, sewer-pipe and so on. This technology is compatible with Creative Labs EAX 1.0, EAX 2.0 and also I3DL2 as prescribed by IA-SIG.
- Sensaura technology is specifically engineered to enhance the industry standard Microsoft's DirectSound3D™ API (DS3D). Interactive games will now come alive as the acoustic environment engulfs you. The technology is also compatible with all A3D 1.0.
- Complete 360° horizontal and vertical positional audio above and below you, to your left and right, in front and behind you, so now you can hear your enemies coming at you from any direction long before you see them.



## 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 - your 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.

**To install Siren XPress, follow these simple instructions:**

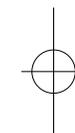
1. Insert your install CD into your CD drive
2. Go to D:\Applications\Sonic Foundry\Siren where D: represents your CD-ROM drive.
3. Double click on SirenSetup.exe and follow the on-screen instructions.

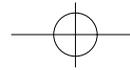
## About ACID XPress

ACID™ XPress is a tool for producing, arranging, and editing loop-based music. ACID XPress allows you to take the tedious hours of loop and sample matching out of the music-making equation and opens the doors wide for creativity. ACID's power stems from its ability to take any audio loop and make it fit into the tempo of a project. You no longer need to lock yourself into a tempo and go through great pains to make your loops and samples fit that tempo. ACID will take all of your audio and make it match any tempo you choose in real time!

**To install Acid XPress, follow these simple instructions:**

1. Insert your install CD into your CD-ROM drive
2. Go to D:\Applications\Sonic Foundry\Acid where D: represents your CD-ROM drive
3. Double click on AcidXpress.exe and follow the on-screen instructions.





## 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.

### To install AudioPix, follow these simple instructions:

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 apixinst.exe
4. Follow the on-screen instructions for installation.

## Microsoft DirectX Installation

1. Insert your install CD into your CD drive
2. For Win95, 98 and 98 SE,  
Go to D:\DirectX\_8\Win9X where D: represents your CD-ROM drive
3. Double click on the appropriate language icon and follow the instructions
4. For Win2k, ME, and XP,  
Go to D:\DirectX\_8\WinNT\ where D: represents your CD-ROM drive
5. Double click on the appropriate language icon and follow the instructions

## Recording Source Configuration

**Philips Harmonic 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.
- 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.

## Uninstalling Software Drivers

### Windows® 95/98 Uninstall

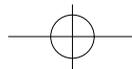
To un-install the PSC602 drivers when using the Windows 95 or 98 Operating System go to the **Drivers\Win95\Uninstall** or **Drivers\Win98\Uninstall** folder on the Philips Installation CD. Double click on **uninstal.exe** to start the uninstall program.

Follow the on-screen instructions to complete the driver un-install process.

### Windows® 98SE,ME,2000,XP Uninstall

To un-install the PSC602 drivers when using the Windows 98SE,ME,2000, or XP Operating System remove the **Philips PSC602 Audio Driver** entry from the **Add/Remove Programs** utility located in the Windows **control panel**.

Follow the on-screen instructions to complete the driver un-install process.



## Technical Support

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

- Model number 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 connected to your sound card.

### Technical Support Information:

- **Before calling for technical support make sure the PSC602 Harmonic Edge drivers have been loaded. Refer to pages 11-17 for installation instructions.**
- 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.pcsound.philips.com](http://www.pcsound.philips.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