
Installation Guide



VORTEX[®] PCI Sound Card

Vortex2 SQ2500

PCI Sound Card Installation Guide

- Powered by Aureal Vortex[®] 2 PCI audio processor
- Features Aureal A3D[™] 2.0 positional 3D sound

August 1999



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For technical support, please contact your PC system vendor for support. Aureal does not provide phone or e-mail support; however, you may refer to the Aureal website for the latest support FAQs and drivers for Aureal-based product.

This warranty does not cover any damage caused by negligence, non-authorized modifications, or parts installed without prior written permission from Aureal. This warranty does not apply if the product has been damaged by accident, abuse, misuse, or misapplication, nor as a result of service to the product by anyone other than by Aureal.

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FCC Compliance

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 any interference received, included interference that may cause undesired operation. This equipment generates and uses radio frequency energy and if not installed and used properly, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation.

System Requirements

- 100 MHz Pentium®-class processor
- 30 Megabytes (MB) of hard disk space
- Microsoft Windows® 95, Windows 98®, or Windows NT® 4.0 operating system
- An empty PCI expansion slot
- 32 MB of RAM

International Users!

International versions of this manual may be located on the Vortex driver CD.

1. Install the Adobe® Acrobat® Reader.

Double-click the ar40eng.exe file in the \Acrobat directory and follow the on-screen instructions.

2. Use the Acrobat Reader to open the Acrobat file (.pdf) for your language.

The files may be located in the \Manual directory of the Vortex driver CD. For example, the English version of the manual may be located in the following directory:

\Manual\English.pdf

Installing the Hardware

Before Installing

- Be sure that your operating system is installed and functioning properly.
- Determine which operating system you are running (Windows 98, Windows 95, or Windows NT 4.0) and which version.

Windows 95 has three versions. To determine which version you are running, right-click on the My Computer icon on your desktop and select Properties from the popup menu. Under System, your current operating system and version are displayed.

- Uninstall the drivers for any previously installed sound cards.

Consult the documentation that came with any previously installed sound cards for instructions on how to remove the drivers from your computer.

- Make sure Microsoft DirectX™ 6.0 is installed (Windows 95 only)

To install DirectX 6.0 see “Installing Microsoft DirectX” on page 16.

- Handle plug-in cards by their edges and do not directly touch exposed components or connector contacts.
- Please read the readme file on the installation CD. It contains the latest information about your Vortex PCI sound card.

Installing the Vortex PCI Hardware



WARNING: Static charges can damage electronic components. Ground yourself by touching the computer's metal case or back bracket before handling any card.

1. Shut down, turn off, and unplug your computer.

2. Remove the computer cover and any ISA or PCI sound cards.

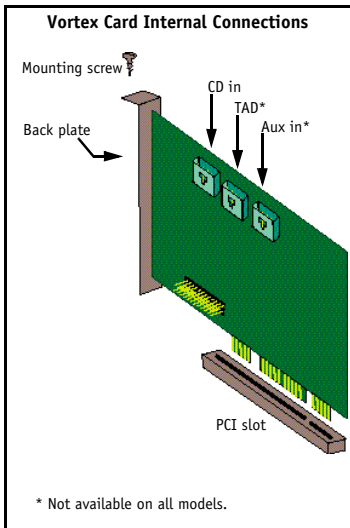
Be sure to save any mounting screws.

3. Insert the Vortex PCI sound card firmly into an empty PCI slot.

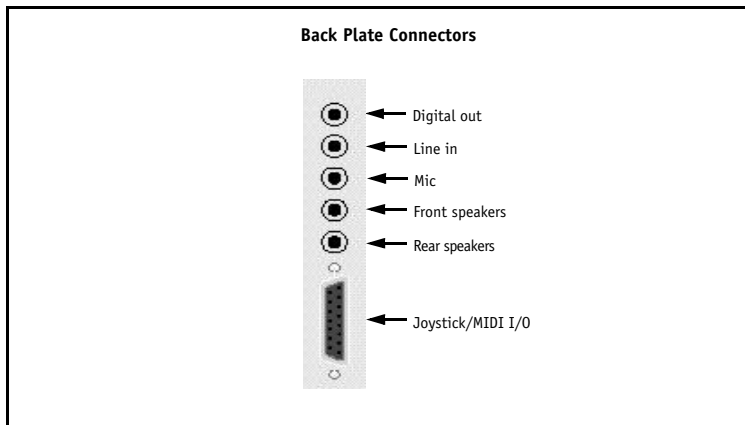
Carefully press it evenly and snugly into the slot. Secure it with a mounting screw.

4. If you have a CD-ROM drive, connect the CD-ROM cable to the connector labeled "CD_IN" on your Vortex PCI card.

Typically this is a black connector along the top edge of your sound card.



5. Replace the computer cover and plug the computer power cable back in.
6. Attach any external speakers, joystick, and microphone connections to the Vortex PCI card.
7. Restart your computer.



Installing the Software

This section describes the software installation procedure for your Vortex PCI sound card. Review the following procedures carefully and choose the procedure for the operating system you are using on your computer. If you are unsure of which operating system you are using, see “Before Installing” on page 2.

Windows 95 (version 4.00.950) Driver Installation

After starting your computer, the New Hardware Found dialog box appears.

1. **Insert the Vortex PCI installation CD into your CD-ROM drive.**
2. **Select the option “Driver from disk provided by hardware manufacturer” and click OK.**
3. **In the space “Copy manufacturers files from”, type the letter of your CD-ROM drive and the directory name “:\win9x\english” and click OK.**

For example: D:\win9x\english.

If you don't have DirectX installed on your computer, the DirectX installation program interrupts the driver installation and installs DirectX. After DirectX is installed you must restart your computer and continue driver installation from step 1.

Windows installs the drivers onto your hard disk.

NOTE: Windows may request the original Windows CD to update or install some necessary files. Insert the Windows CD when prompted into the CD-ROM drive. You may have to direct Windows to the \win95 directory of the Windows CD. Reinsert the Vortex PCI installation CD, when prompted by Windows.

4. **Restart your computer.**

Windows 95 OSR2.x (version 4.00.950 B or 4.00.950 C) Driver Installation

After starting your computer, Windows starts the Update Device Driver Wizard.

1. Insert the Vortex PCI installation CD into your CD-ROM drive and click Next.

Windows now searches for the location of the driver files. Wait a few moments until you see the Other Locations button before continuing.

2. Click Other Locations.

3. Type the letter of your CD-ROM drive and the directory name “:\win9x\english” and click OK.

For example: D:\win9x\english.

4. Click Finish.

At this point an error message “Insert Disk” may appear. This is an error with some versions of the Windows 95 operating system. Click OK and enter the same drive letter and directory you entered in step 3 in the space labeled “Copy files from:”.

If you don't have DirectX installed on your computer, the DirectX installation program interrupts the driver installation and installs DirectX. After DirectX is installed you must restart your computer and continue driver installation from step 1.

Windows installs the drivers onto your hard disk.

NOTE: Windows may request the original Windows CD to update or install some necessary files. Insert the Windows CD when prompted into the CD-ROM drive. You may have to direct Windows to the \win95 directory of the Windows CD. Reinsert the Vortex PCI installation CD, when prompted by Windows.

5. Restart your computer.

Windows 98 Driver Installation

After starting your computer, Windows starts the Add New Hardware wizard.

1. **Insert the Vortex PCI installation CD into your CD-ROM drive and click Next.**

Windows prompts you with two options for finding the drivers.

2. **Select “Search for the best driver for your device” and click Next.**

You are offered several search options.

3. **Select the “Specify a location” option.**

4. **Type the letter of your CD-ROM drive and the directory name “:\win9x\english” and click OK.**

For example: D:\win9x\english

5. **Click Next.**

Windows confirms it has located the drivers for the Vortex PCI.

NOTE: If the drivers could not be located, click Back and verify that the correct path to the Vortex PCI installation CD has been entered.

6. **Click Next.**

Windows installs the drivers onto your hard disk.

7. **Click Finish.**

8. **Restart your computer.**

Windows NT 4.0 Driver Installation

Windows NT 4.0 does not support Plug and Play. The Vortex PCI hardware drivers must be installed manually. Please follow the instructions below.

- 1. Insert the Vortex PCI installation CD into your CD-ROM drive and open the Control Panel.**

From the Windows task bar, click Start | Settings | Control Panel. The Control Panel window opens.

- 2. Double-click Multimedia and select the Devices tab.**

- 3. Click Add.**

This opens the Add dialog box.

- 4. Select Unlisted or Updated Driver from the list box and click OK.**

You are requested to insert or locate the vendor-provided driver disk.

- 5. Type the letter of your CD-ROM drive and the directory name “:\nt40\english” and click OK.**

The Add Unlisted or Updated Driver dialog box appears.

- 6. Select the Vortex PCI driver and click OK.**

The Aureal Vortex PCI Audio AU88x0 dialog box appears.

- 7. Click OK.**

Windows installs the drivers onto your hard disk.

- 8. Restart your computer.**

NOTE: Windows NT does not support A3D positional 3D sound or SuperQuad 4-speaker output.

Uninstalling the Vortex PCI Sound Card

If you want to install another sound card or if there is a problem with the installation, you may need to uninstall the Vortex PCI sound card. This is a two part process. First you remove the drivers, then remove the hardware.

Removing the Drivers

To uninstall the Vortex PCI software, choose the uninstall procedure appropriate to your computer's operating system.

NOTE: Do not use the Windows Device Manager to remove the drivers.

Uninstalling Vortex Drivers from Windows 95/98

- 1. Open the Control Panel window.**

Click Start | Settings | Control Panel on the task bar.

- 2. Double-click the Add/Remove Programs icon.**

- 3. Select the Vortex driver from the list.**

- 4. Click Add/Remove...**

This opens the Vortex Setup dialog box.

- 5. Click Uninstall Vortex.**

The driver is removed from your computer.

- 6. Shutdown your computer.**

Now you can remove the hardware. See "Removing the Vortex PCI Hardware" on page 11.

Uninstalling Vortex Drivers from Windows NT 4.0

1. Open the Control Panel window.

Click Start | Settings | Control Panel on the task bar.

2. Double-click the Multimedia icon.

3. Click the audio tab.

4. Select Aureal Vortex under the Audio device.

5. Click Remove.

The driver is removed from your computer.

6. Shutdown your computer.

Now you can remove the hardware. See “Removing the Vortex PCI Hardware” on page 11.

Removing the Vortex PCI Hardware

After removing the drivers and shutting down your computer, you can safely remove the Vortex PCI hardware.

1. **Shut down, turn off, and unplug your computer.**
2. **Unplug any external cables connected to your Vortex PCI sound card.**
Such as a joystick or powered speakers. See the back plate connections illustration on page 4.
3. **Remove the computer cover.**
4. **Disconnect any internal connector cables connected to your Vortex PCI sound card.**
Such as the CD audio cable. See the internal connections illustration on page 2.
5. **Remove the Vortex PCI sound card.**
You can now put your computer back together and restart.

Additional Software

Your Vortex PCI sound card comes with additional software programs to install and use. Included are a bundled audio software program (depending on your hardware configuration) and A3D positional 3D sound demo software.

Bundled Audio Software

Depending on your audio hardware's configuration your installation CD may include a bundled audio software program. Please refer to the readme.txt file in the root directory of the Vortex driver installation CD for availability and installation instructions.

A3D™ Positional 3D Sound Demo Software

The A3D positional 3D sound demo software is designed to show the capabilities of Aureal's A3D technology on Windows 95/98 systems. There is no support currently for A3D positional 3D sound technology under Windows NT 4.0.

There are 6 demos:

- Bee demo
- Helicopter demo
- Player Demo
- Race demo
- Web demo
- A3D 2.0 Rooms demo (Vortex2 and Vortex2 SQ2500 sound cards only)

You can run these demos by double-clicking the Aureal icon in the system tray on the task bar. Then double-click the demo icon from under the A3D Demos tab.

Installing the A3D Positional 3D Sound Demos

The Vortex sound card installation program automatically installs the A3D positional 3D sound demo software. Should you ever need to reinstall this software, follow the procedure below.

- 1. Open the Run dialog box.**

Click Start | Run on the task bar.

- 2. Enter the drive letter of your CD-ROM drive followed by the directory name “:\A3DDemos\setup.exe”.**

For example: D:\A3DDemos\setup.exe

The demo files are installed automatically.

Uninstalling the A3D Positional 3D Sound Demos

- 1. Open the Control Panel window.**

Click Start | Settings | Control Panel on the task bar.

- 2. Double-click the Add/Remove Programs icon.**

- 3. Select the Aureal Vortex A3D positional 3D sound demo application from the list.**

- 4. Click Add/Remove...**

The Confirm File Deletion dialog box appears.

- 5. Click Yes.**

- 6. Click OK.**

The demos are removed from your computer.

Troubleshooting

Please read the readme file located on your Vortex PCI installation CD. It contains the latest information and known issues regarding your Vortex PCI card. If the Vortex PCI sound card fails to function properly after installation, check the following:

- Are the speaker cables connected correctly? Are your speakers on?

Powered speakers are required, unless your computer manufacturer has already integrated speakers with your system. Try another pair of speakers.

- Check the Windows volume and mixer settings.
- Check that Vortex PCI is selected as the preferred playback and recording device.

To check your preferred playback and recording device, click Start | Settings | Control Panel. In the Control Panel window, double-click Multimedia Properties. Click the Audio properties tab. Vortex PCI Playback should be selected for playback, and Vortex PCI Record for recording.

- Is there a resource conflict with another device? Use the Windows Device Manager to check for a conflict.

To open the Device Manager (Windows 95/98), right-click the My Computer icon on your desktop and select Properties from the popup menu. Click the Device Manager tab, then double-click both the Multi-function adapters and the Sound, video and game controllers sections.

An exclamation icon next to a Vortex PCI device indicates a problem. Select the device and click Properties. The Device status box indicates the source of the problem.

- Check the settings for your PCI BIOS. Make sure that the PCI slot used by Vortex PCI is properly configured and enabled. If you have an older PCI BIOS you may need to obtain an upgrade from your system or BIOS manufacturer.
- Make sure PCI bus mastering is enabled.

Customer Support

For customer support, please contact your computer system vendor for support. Aureal does not provide phone or e-mail support; however, you may refer to the Aureal website for the latest support FAQs and drivers for Aureal-based products.

World Wide

Web: www.A3D.com

Installing Microsoft DirectX

If you are running Windows 95, you need to install DirectX 6.0 before you install your Vortex PCI sound card. If you are unsure of which operating system you are running, see “Before Installing” on page 2.

- 1. Open the Run dialog box.**

Click Start | Run... on the task bar to open the Run dialog box.

- 2. Type the letter of your CD-ROM drive and the directory name “:\DirectX\setup” and click OK.**

For example: D:\DirectX\setup

This runs the DirectX installation program.

- 3. Follow the on-screen instructions for installing DirectX.**

The installation program leads you step-by-step through the installation procedure. When the installation is complete you are prompted to restart your computer.

- 4. Restart your computer.**

You are now ready to install your Vortex PCI sound card.



AUREAL