

Audiomedia III Installation Guide

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Introducing Audiomeia III

The Digidesign Audiomeia III provides your computer with digital input and output capability, 24-bit digital signal processing (DSP), and professional-quality analog-to-digital and digital-to-analog converters. When combined with Digidesign audio applications or other compatible audio production software, the Audiomeia III transforms your computer into a professional-quality, multitrack digital audio workstation.

About This Installation Guide

This Installation guide provides instructions for installing the Audiomeia III card in two different types of computer systems:

- PCI-equipped Macintosh® computers
- PCI-equipped Windows-compatible computers

To learn how to use Audiomeia for direct-to-disk recording and playback, please refer to the User's Guide that accompanies your Audiomeia III-compatible audio production software.

Audiomeia III Features

- Up to 4 tracks of simultaneous recording, using both analog and digital inputs
- Up to 24 tracks of simultaneous playback (actual track count depends on software and CPU limitations)
- Supports multiple sample rates: 11.025 kHz, 22.05 kHz, 44.1 kHz and 48 kHz

Audiomeia III Specifications

- ◆ 2 analog inputs (–10dBV, unbalanced RCA connections)
- ◆ 2 analog outputs (–10dBV, unbalanced RCA connections)
- ◆ Stereo digital input and output: S/PDIF RCA connections, 24-bit output
- ◆ Analog-to-digital-converter: 1-bit Delta-Sigma; 128x oversampling; 18-bit output
- ◆ Digital-to-analog-converter: 18-bit output
- ◆ THD: 0.008% @ 1kHz
- ◆ Signal-to-noise ratio (A/D/A): 88dB unweighted, band-limited (22 Hz –22 kHz); 90 dB “A” weighted
- ◆ Frequency response: 20 Hz to 20 kHz

System Requirements

- Slot requirements: 7" PCI card, slot independent
- Recommended CPU speed: 75 MHz or greater

Refer to your Pro Tools or other audio software documentation for additional hardware or CPU speed requirements.

chapter 2

Installing Audiomeia III: Macintosh

Installing the Audiomeia Card

To install an Audiomeia III card:

- 1 Turn off your computer. Leave it plugged in so that it is grounded.
- 2 Open the computer case. Figure 1 shows a Blue & White Macintosh G3 computer; your installation should be similar.
- 3 Remove the screw and the rear slot cover of an available PCI expansion slot in your computer.
- 4 Discharge any static electricity that may be on your clothes or body by touching a grounded metal surface such as the power supply case inside the computer.
- 5 Remove the card from its anti-static bag.
- 6 Push the card firmly but gently into the PCI slot until the card's connector clicks into place. Make sure the audio connectors at the rear of the card go through the rear slot of the computer.
- 7 Attach the rear bracket of the card to the computer, using the screw from the rear slot cover.
- 8 Close the computer case.

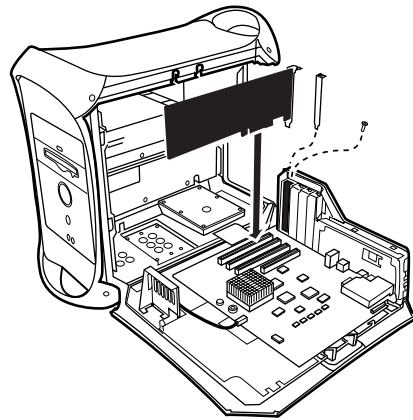


Figure 1. Installing an Audiomeia III card

Making Connections to the Audiomeia III card

The Audiomeia III card provides the following connectors:

S/PDIF Digital Audio Input/Output

The Audiomeia III card S/PDIF digital audio input and output jacks are standard RCA connectors. They are the top pair of connectors on the rear of the card. The yellow jack is for digital audio input and the black jack is for digital audio output.

Analog Audio Inputs

The Audiomeia III analog audio inputs are standard -10 dBV unbalanced RCA connectors. They are the middle pair of connectors on the rear of the card. The white jack is for left-channel input and the red jack is for right-channel input.

If your mixer accepts only 1/4 inch phone cables for audio connections, use RCA-to-1/4 inch adapters, available at most audio dealers.

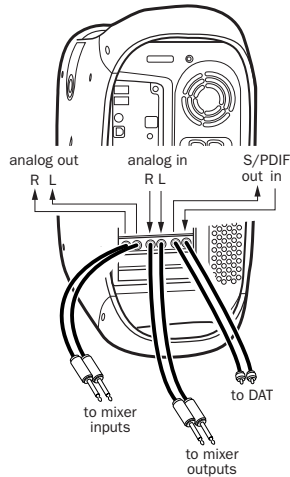
Analog Audio Outputs

The Audiomeia III analog audio outputs are standard -10 dBV unbalanced RCA connectors. They are the bottom pair of connectors on the rear of the card. The white jack is for left-channel output and the red jack is for right-channel output.

If your mixer accepts only 1/4 inch phone cables for audio connections, use RCA-to-1/4 inch adapters, available at most audio dealers.

To make audio connections to the Audiomeia card:

- 1 Turn down the volume on your audio playback system.
- 2 Connect the Audiomeia III card's analog audio outputs to your mixer's inputs.
- 3 Connect the Audiomeia III card's analog audio inputs to your mixer's outputs.
- 4 If you have a DAT deck, connect the Audiomeia III card S/PDIF output to the DAT recorder S/PDIF input, and the Audiomeia III card S/PDIF input to the DAT recorder S/PDIF output.

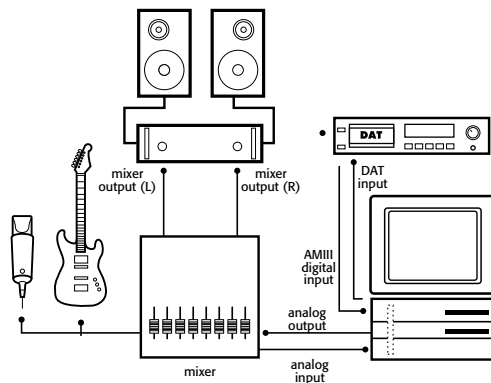


Making audio connections to an Audiomeia III card

You can use the Audiomeia III in a variety of audio setups, including:

- ◆ a mixer, power amplifier, and speakers
- ◆ a mixer and self-powered speakers
- ◆ a stereo receiver and speakers

Your setup will differ depending on which of these audio configurations you use. The illustration that follows shows a typical setup with mixer, amplifier and speakers.



A typical studio setup

5 If you plan to run Pro Tools on your Audiomedia III system, you can now install Pro Tools software. Refer to the *Pro Tools LE System Installation Guide* for details.

If you are using the Audiomedia III with third party software, refer to the documentation for that software.

chapter 3

Installing Audiomeia III: Windows

Disabling Advanced Power Management

Before you begin using the Audiomeia III card and Digidesign software, it is very important that you disable Advanced Power Management. If you do not disable this option, you may experience dropouts or clicks when recording and playing audio with the Audiomeia III card and Digidesign software.

Refer to the documentation that came with your computer for details on disabling its power management feature.

Installing the Digidesign Audiomeia III Card

Before installing the Audiomeia III wave driver, first install the card in your PCI bus-equipped PC-compatible computer.

To install the Audiomeia III card in your computer:

- 1 Turn off your computer. Leave it plugged in so that it is grounded.
- 2 Open the computer case. Figure 2 illustrates installation for a typical PCI Windows-compatible computer; your

installation should be very similar. If you are unsure how to open and install a card in your particular model of PC, refer to your computer's User Guide before going any further.

- 3 Remove the screw and the rear slot cover of an available PCI expansion slot in your computer.
- 4 Discharge any static electricity that may be on your clothes or body by touching a grounded metal surface such as the power supply case inside the computer.
- 5 Remove the card from its anti-static bag.
- 6 Push the card firmly but gently into the PCI slot until the card's connector clicks into place. Make sure the audio connectors at the rear of the card go through the rear slot of the computer.

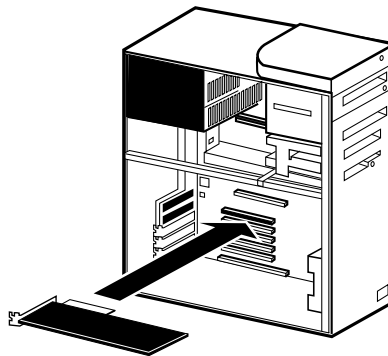


Figure 2. Installing the Audiomeia III card

7 Attach the rear bracket of the card to the computer, using the screw from the rear slot cover.

8 Close the computer case and turn on the computer.

Installing the Windows 98 Wave Driver

Once you've installed your Audiomeia III card and turned on your computer, the Add New Hardware Wizard will prompt you to install the necessary Windows 98 drivers.

For details on installing the wave driver for Windows 95 or Windows NT, see *Appendix A: Wave Drivers for Windows 95 and Windows NT*.

▲ Version 1.5 of the Audiomeia III wave driver will not function if an earlier version of this driver is currently installed, or if Session for Windows or the Digidesign Audio Engine (DAE) are installed. For details on removing this software, refer to the "Read Me" file on your Audiomeia III CD.

To install the Windows 98 wave driver:

1 When the Add New Hardware Wizard appears, click Next.



Add New Hardware Wizard, Windows 98

2 When Windows asks what you want to do, select the option for "Display a list of all the drivers in a specific location" and click Next.

3 From the list of device types, select "Sound, video & game controllers," then click Next.

4 Insert the provided Audiomeia III CD-ROM and click Have Disk.

5 Click Browse and navigate to and select the file DALWDM.INF (in the wave driver installation directory of the CD-ROM). Click OK.

6 Click OK to close the Install from Disk dialog.

7 In the Select Device dialog, select “Show compatible devices” and then choose the Digidesign Audiomedia III as your device.

8 Click Next to install the necessary driver components.

▲ If you are prompted that “DigiProx: Cannot run with this version of XXXXX.dll,” follow the instructions in this dialog.

9 Once Windows has finished installing the software for your new hardware device, click Finish.

▲ If you encountered the DigiProx dialog, you’ll need to restart Windows now.

To set the your preferred audio device to the Audiomedia III:

1 From the Start menu, choose Settings > Control Panel > Multimedia.

2 Click the Audio tab.

3 Select “Digidesign AMIII: Ch 1–2” as your preferred device for both playback and recording.

4 Click OK to close the Multimedia Control Panel and restart Windows.

You are now ready to use the Audiomedia III with your favorite audio applications. For information on recommended settings for Windows and various audio applications, refer to the ReadMe file on your Audiomedia III CD-ROM.

For details on configuring the various Digidesign Wave Driver settings, see “Wave Driver Settings” on page 10.

Removing the Windows 98 Wave Driver

You can remove the Wave Driver software from your computer with the Add/Remove Control Panel in Windows.

To remove the Windows 98 wave driver:

1 Open the System Control Panel and click the Device Manager tab.

2 Make sure “View devices by type” is selected.

3 Under “Sound, video and game controllers,” select Digidesign Audiomedia III and click Remove.

4 When prompted, confirm that you want to remove the device. Click OK to close the System Control Panel.

5 Using Windows Explorer, locate and delete the following file:

- Windows\Inf\Other\
DigidesignDALWDM.inf

6 Restart Windows.

Not all installed files are automatically deleted when removing the wave driver. For a complete list of these files, see the “Read Me” file on your Audiomedia III CD-ROM.

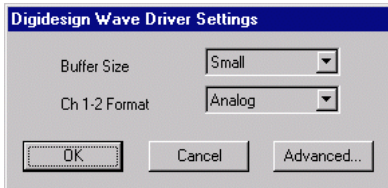
▲ Of the files that *are* installed with the Audiomedia III Wave Driver, it is not recommended that you delete Mfc42.dll or Msvcrt.dll, since these DLLs are shared with other applications.

Wave Driver Settings

Wave driver settings for the Audiomeia III include Buffer Size, Ch 1-2 format, Sync Mode, Input/Output Gain, and S/PDIF format, and can be accessed from the Multimedia Control Panel.

To adjust the wave driver settings for the Audiomeia III:

- 1 From the Start menu, choose Settings > Control Panel > Multimedia.
- 2 Click the Devices Tab.
- 3 Open “Digidesign Multimedia Devices” and click Properties.
- 4 In the Digidesign Wave Driver Properties dialog, click Settings to access the following dialog.



Wave Driver Settings

Buffer Size Determines the size of the buffers used for playing audio. Choices include Small (512 samples) and Medium (1024 samples).

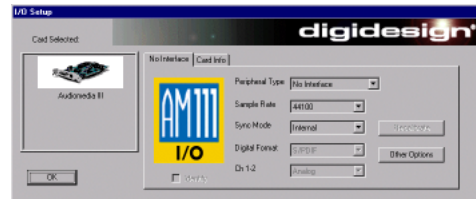
Small buffers have the advantage of low latency in the record monitor path. Larger buffers have the advantage of making the wave driver more immune to audio drop-outs during playback and recording. The Medium buffer size is the default and recommended setting.

Ch 1–2 Format Determines whether you will record from the Audiomeia III’s analog inputs (Analog) or digital inputs (S/PDIF). Regardless of this setting, the Audiomeia III can always play or record monitor through both the analog and digital outputs.

▲ Playback and record monitoring of 11025 Hz files through the digital outputs is not supported. If you set the Ch 1–2 Format to Digital and play an 11025 Hz file, you will not hear anything.

I/O Setup

From the Driver Settings dialog, click Advanced to access the following dialog.



I/O Setup

Peripheral Type Since the Audiomeia III does not have a separate audio interface, this option does not apply.

Sample Rate Supported sample rates include 48000 Hz, 44100 Hz, 22050 Hz, and 11025 Hz. You will generally not need to adjust the Sample Rate setting. When playing an audio file, the Audiomeia III will play the file at the correct sample rate. When recording an audio file, select the desired sample rate using the audio application’s Preferences or Record Options dialog.

Sync Mode When recording from the Audiomeia III's analog inputs, select Internal. When recording from the digital inputs, such as from a DAT player, make sure to select Digital.

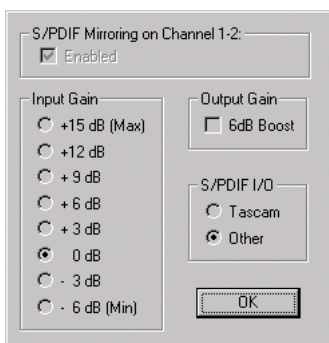
If the Sync Mode is set to Digital and you attempt to switch the Audiomeia III's sample rate to 11025 Hz or 22050 Hz, or if you attempt to record or play a file at either of these rates (such as when playing Windows system sounds), the Sync Mode will automatically switch to Internal.

Digital Format Defaults to S/PDIF, which is the only available option for the Audiomeia III.

Ch 1–2 This option does not apply to the Audiomeia III.

Other Options

From the I/O Setup dialog, click Other Options to access the following dialog.



Other Options

Input Gain Determines the Input Gain for the Audiomeia III's analog inputs, ranging from -6 dB to +15 dB. The Input Gain defaults to a setting of 0 dB.

Output Gain Select this option to boost the Audiomeia III's Output Gain for the analog outputs by 6 dB. When unchecked, the Output Gain remains at 0 dB.

S/PDIF I/O Make sure this option is set to Tascam when recording from Tascam digital devices, such as the DA-30. If recording from S/PDIF devices from other manufacturers, set this option to Other.

S/PDIF Mirroring Though this option cannot be adjusted, you can see whether mirroring is active or not. When the Ch 1–2 Format is set to Analog, S/PDIF mirroring is enabled (which means the signal sent to the analog outputs is also sent to the digital outputs).

Making Connections to the Audiomeia III Card

The Audiomeia III card provides the following connectors:

S/PDIF Digital Audio Input/Output

The Audiomeia III card S/PDIF digital audio input and output jacks are standard RCA connectors. They are the top pair of connectors on the rear of the card. The yellow jack is for digital audio input and the black jack is for digital audio output.

Analog Audio Inputs

The Audiomeia III analog audio inputs are standard -10 dBV unbalanced RCA connectors. They are the middle pair of connectors on the rear of the card. The white jack is for left-channel input and the red jack is for right-channel input.

If your mixer accepts only 1/4 inch phone cables for audio connections, use RCA-to-1/4 inch adapters, available at most audio dealers.

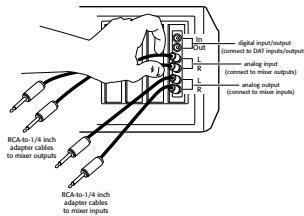
Analog Audio Outputs

The Audiomeia III analog audio outputs are standard -10 dBV unbalanced RCA connectors. They are the bottom pair of connectors on the rear of the card. The white jack is for left-channel output and the red jack is for right-channel output.

If your mixer accepts only 1/4 inch phone cables for audio connections, use RCA-to-1/4 inch adapters, available at most audio dealers.

To make audio connections to the Audiomeia III card:

1 Connect your Audiomeia III card's analog audio outputs to your mixer's inputs. The Audiomeia III card's analog audio output jacks are standard -10 dBV unbalanced RCA connectors. Use the RCA cables provided with your Audiomeia III card. If your mixer requires a 1/4-inch phone jack, use RCA to 1/4-inch adapters, available at most audio dealers.



Making audio connections to an Audiomeia III card

2 Connect the Audiomeia III card's analog audio inputs to your mixer's outputs. The Audiomeia III card's analog audio inputs are standard -10 dBV unbalanced RCA connectors. Use the RCA cables provided with your Audiomeia III card. If your mixer requires a 1/4-inch phone jack, use RCA to 1/4-inch adapters, available at most audio dealers.

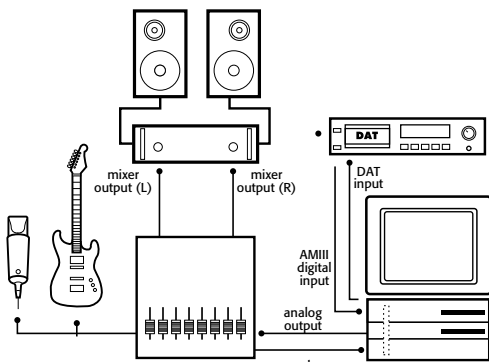
3 If you own a DAT recorder, connect your Audiomeia III card's S/PDIF-format digital audio output to your DAT recorder's S/PDIF input connector using digital audio-grade cable. (S/PDIF cables are 70Ω impedance RCA cables.)

4 Using digital audio-grade cable, connect your DAT recorder S/PDIF output to your Audiomeia III card digital input connector. (S/PDIF cables are 70Ω impedance RCA cables.)

You can use Audiomeia III in a variety of audio playback setups, including:

- a mixer, power amplifier, and speakers
- a mixer and a pair of amplified, self-powered, speakers
- a stereo receiver and speakers
- a pair of amplified, self-powered speakers

Your exact setup will differ depending on which of these systems you use with Audiomeia III. The illustration that follows show a typical home studio setup consisting of a mixer, power amplifier and speakers.



A typical studio setup

To begin using your new system, refer to the User's Guide that came with your digital audio production software.

Wave Drivers for Windows 95 and Windows NT

If you are using Windows 95 or Windows NT, Audiomedica III wave drivers for these systems are included on separate diskettes. If you are using Windows 98, install from the Audiomedica III CD-ROM (for details, see “Installing the Windows 98 Wave Driver” on page 8).

Windows 95

Installing version 1.3 of the Wave Driver

If you have a previous version of the Digidesign Audiomedica III Wave Driver installed, you should remove it before installing the new driver (see “Disabling the Windows 95 Wave Driver” on page 16).

To install the 1.3 Wave Driver for Windows 95:

- 1 Insert the diskette labeled “AMIII Wave Driver Version 1.3 PC.”
- 2 From the Start Menu, choose Run.
- 3 Enter the path to run the Audiomedica III installer (for instance, A:\setup.exe).
- 4 Follow the on-screen instructions in the installer. Windows will automatically check for Plug and Play devices.

5 A dialog will appear listing Plug and Play devices in your system. Make sure to specify that “No, the device is not on the list” and click No.

6 In the next dialog, select “No, I want select the hardware from a list” and click Next.

7 Select “Sound, video and game controllers” from the list and click Next.

8 In the Add New Hardware dialog, click Have Disk, then click Browse.

9 Locate the oemsetup.inf file so that it appears in the left-hand window, then click Next.

10 In the next dialog, select “Windows 95/98 Wave Driver” and click OK, then click Finish.

Once the necessary driver files are copied to your system, close the Hardware Setup dialog and restart Windows.

For details on configuring the various wave driver settings, see “Configuring the Audiomedica III Wave Driver” on page 16.

Disabling the Windows 95 Wave Driver

To remove the 1.1 Wave Driver for Windows 95:

- 1 From the Start menu, choose Settings > Control Panels > Multimedia.
- 2 Click the Devices tab.
- 3 Open Audio devices and double click the Digidesign Wave Driver to open the Advanced Properties.
- 4 Click Remove and confirm that you want to remove the driver.
– or –

To disable the Digidesign Wave Driver, select “Do not use audio features on this device” and click OK.

- 5 Close the Multimedia Control Panel and restart Windows.

Installing the Windows NT Wave Driver

To install the 1.0 Wave Driver for Windows NT:

- 1 Insert the diskette labeled “AMIII Wave Driver Windows NT Version 1.0.”
- 2 From the Start menu, choose Settings > Control Panel > Multimedia.
- 3 Click the Devices tab.
- 4 Select “Audio Devices” and then click Add.
- 5 Double-click the option for “Unlisted or Updated Driver.” Enter the path for your diskette drive (for instance, A:\) and click OK.

6 When the option for the “Digidesign NT Wave Driver 1.0” appears, click OK to copy the necessary driver files to your system.

7 Next the Audiomedia III Configuration screen will appear. Click OK to accept the default values or change the settings to fit your needs. For more information, see “Configuring the Audiomedia III Wave Driver” on page 16.

After successfully installing the driver, restart Windows NT when prompted.

Configuring the Audiomedia III Wave Driver

(Windows 95/NT)

Once the Digidesign Wave Driver is properly installed on your computer, you must configure the interface options in the Digidesign Wave Driver’s Hardware Setup dialog before using it with third-party audio applications.

▲ Some digital audio applications do not allow you to open the Hardware Setup while the application is running. Quit any audio applications before opening Hardware Setup.

Opening Wave Driver Hardware Setup

The Digidesign Wave Driver’s Hardware Setup can be accessed from the Windows Control Panel, and during the installation of the Digidesign Wave Driver.

To open the Hardware Setup dialog for the Digidesign Wave Driver:

- 1 From the Start menu, choose Settings > Control Panel > Multimedia.
- 2 Click the Advanced tab.
- 3 Double-click Audio Devices to reveal the “Digidesign Wave Driver” option.
- 4 Double-click Digidesign Wave Driver, then click Settings to open the following dialog.



Wave Driver Hardware Setup

Choosing Interface Options

You can configure the following three option in the Hardware Setup dialog. These settings may apply to third-party audio applications written for use with standard wave drivers. Refer to your audio application User Guide for complete instructions.

Sync Mode

Setting the Sync Mode switch to the Internal position causes the Digidesign Wave Driver to run from the internally-generated clock signal from the Audiomediam III card. In most cases, this is the appropriate setting.

This switch should be set to the Digital position only while you are recording from an external digital device powered on and connected to the digital inputs of the Audiomediam III card such as a DAT recorder. In all other cases, this switch should stay in the Internal position.

Ch1-2 Input

This switch sets the input format (Digital or Analog) for channels 1 and 2 of the Audiomediam III card. In the Digital position, the digital inputs of the Audiomediam III card are automatically routed to channels 1 and 2.

When you set it to the Analog position, any analog sound source routed to input channels 1 and 2 can be recorded. Whenever one input format (Digital or Analog) is configured as channels 1 and 2 inputs, the other input format is automatically configured as channels 3 and 4 inputs. This allows for a total of four simultaneous inputs (in digital and analog pairs) into the Audiomediam III card.

DAT Type

This switch sets the digital I/O type. If you are planning to mix down to or record from a Tascam DAT recorder, you must first set the DAT Type switch to Tascam. This allows the Audiomediam III card’s S/PDIF data stream to match that of Tascam devices. If the DAT Type switch is not set to Tascam, a noise burst or click may result when attempting S/PDIF transfers to or from the Audiomediam III card.

If you are planning to mix down to or record from a DAT recorder other than a

Tascam, the DAT Type switch should be set to Other (this is the default position).

* To adjust the volume of Windows system sounds, use another audio application that uses the Digidesign Wave Driver to set the volume controls to the desired level.

Troubleshooting Windows Installation

If you are experiencing problems with your Audiomeia III card on a Windows computer, you may need to configure the computer's IRQ settings.

About Plug-and-Play and IRQs

The Audiomeia III card is a Plug and Play device, meaning that it does not require a hardware jumper set on the card for the Interrupt Request Line (IRQ) or Port Address, and does not require that the IRQ and Port Address be set in the Windows Control Panel. Instead, these are managed in the computer's BIOS, which is accessed through the CMOS Setup.

IRQs and Port Addresses are a way for devices in your PC (such as a MIDI interface) to tell the system processor to stop what it's doing and take care of something that can't wait (like reading incoming MIDI messages).

Resolving IRQ Conflicts

In PCI-equipped PC systems, IRQ conflicts can arise when you use older ISA devices. You may need to reserve IRQs so the BIOS doesn't allocate them to both ISA and PCI devices. If you don't specify IRQs that are used by ISA devices as "used by ISA device" in the system's CMOS/BIOS, the BIOS may allocate the same IRQ to a PCI device (such as the Audiomeia III card), which can cause errors in operation. By specifying which IRQs are used by ISA devices, the remaining IRQs will be automatically assigned to Plug and Play cards.

You can typically access the computer's CMOS/BIOS settings by holding down the F1, F2, or the Delete key while powering on the computer, but this procedure may vary with different computers. Most computers will tell you how to access these settings during startup. Refer to your computer manual or consult your computer dealer to learn how to properly access the computer's CMOS/BIOS and check the IRQs.

