

MPC-1 Toshiba SCSI CD-ROM Kit

Installation Procedures

Package Contents:

Media Vision Pro Audio Spectrum sound card
Toshiba 3201 CD-ROM drive
SCSI Cable
CD-Audio Cable
Driver / Installation software (2 diskettes)
This installation guide

Hardware:

Pro Audio Spectrum - Use installation procedures on the following pages to set jumpers for the sound card

Toshiba CD-ROM - Standard installation into 1/2 height drive bay. Jumpers should remain in their factory default positions. Installation of SCSI cable follows standard Pin 1 to Red Strip connection. The audio cable can only be inserted in the correct position

Software:

Software should be installed in DOS first, using the install program located on Disk 1.

Windows OEMSETUP information is located on Disk 1 for the sound card.

Using the Windows *Drivers* applet (in Control Panel) select *Add Drivers*, then *New or Updated Drivers*. Select Disk 1 as the source (A: or B:) and click on install. Each driver must be installed separately. You may have to reboot for as each driver is installed. You can check to see if each driver is installed by looking at the drivers list when *Drivers* is opened. After all 4 of the listed drivers are installed and Windows is rebooted, sound card installation is complete.

The CD-ROM drivers are not loaded automatically. Please set up the following in your startup files:

First, copy the TSLCDR.SYS file (located on disk 1) into the PROAUDIO directory on the hard drive.

CONFIG.SYS - add the following line:
`device=c:\proaudio\tslcdr.sys /d:mvcd001`

AUTOEXEC.BAT - add the following line:
`c:\dos\mscdex.exe /d:mvcd001 /m:10 /v`

Please refer to your DOS manual for more information on the MSCDEX program.

Overview

The Pro AudioSpectrum supplies a complete audio package for PC multimedia: digital audio, MIDI sequencing, automated mixing, music, speech, ambience, and sound effects. Completely contained in your personal computer, Pro AudioSpectrum gives you this capability in a convenient, reliable, and inexpensive way. The Pro AudioSpectrum even includes a built-in SCSI controller so you can add a Media Vision internal or external CD-ROM drive at low cost.

Business Presentations



Pro AudioSpectrum gives you the power to record, edit, and play back all the elements of a dynamic and effective sound track synchronized to your presentation, product demo, or support graphics.

When you prepare your presentation, AudioMate, a special Pro AudioSpectrum software application program, tells the presentation when to play the sound file. The sound is right there when your presentation needs it. Your audience gets the message with a direct and personal impact they won't forget.

MIDI



Pro AudioSpectrum gives you a recording studio in your PC. Bundled with the Pro AudioSpectrum is SP Spectrum, a software sequencer that uses MIDI (the standardized Musical Instrument Digital Interface) to play musical compositions.

Sp Spectrum plays the music on Pro AudioSpectrum's two built-in FM digital synthesizers. For added impact, it can also be combined

with the Media Vision MIDI Mate to play one or more external MIDI instruments. The music that Sp Spectrum plays is in the form of MIDI files, which you can store, load and even edit, just like any other computer file.

Games



The Pro AudioSpectrum comes with the PAS utility, an on-screen mixer control panel. You can adjust volume, bass, treble & stereo enhancement from your keyboard for optimum playing fun.

When you turn on real sound support you get the best sound ever on your PC speaker. Since the Pro AudioSpectrum is AdLib compatible, you can run your favorite games today.

MPC Compatible

The Pro AudioSpectrum sound card is the first sound card to meet all the specifications for the Multimedia PC (MPC) platform. It is fully compatible with Microsoft's Multimedia Extensions to Windows and all the applications that require an MPC audio adapter.

Audio Mixer

Pro AudioSpectrum's specially-designed, high fidelity audio mixer ties together all the sounds the Pro AudioSpectrum can tap – CD audio, sequenced MIDI synthesizers, digitally sampled audio samples, external audio – and plays them through whatever playback system you want. You can mix all your sound sources to a single stereo output; make various sounds grow louder and softer, fade in and out; play sounds together, and solo or pan them from one side of the stereo field to the other.

World of Sounds

Access to all these sounds is simple. You can record your own samples with Pro AudioSpectrum in a number of ways, and you can use a variety of equipment to output your complete sound track.

The following figures detail what kind of equipment you can connect to your Pro AudioSpectrum board.

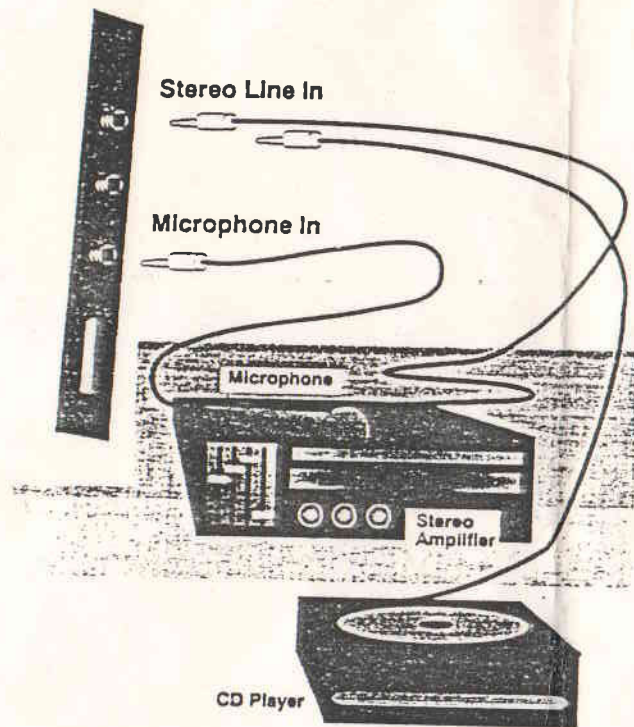


Figure 1. Stereo & Microphone In

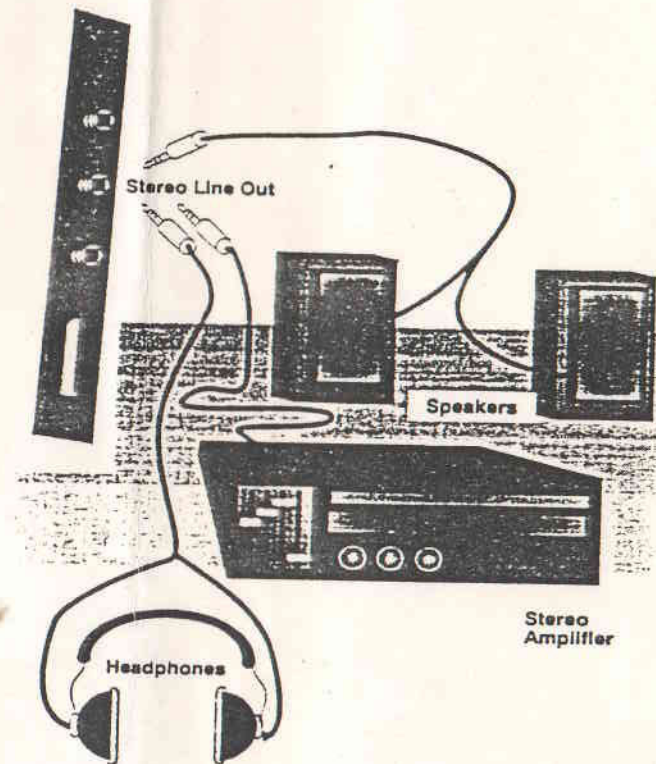


Figure 2. Stereo Out Options

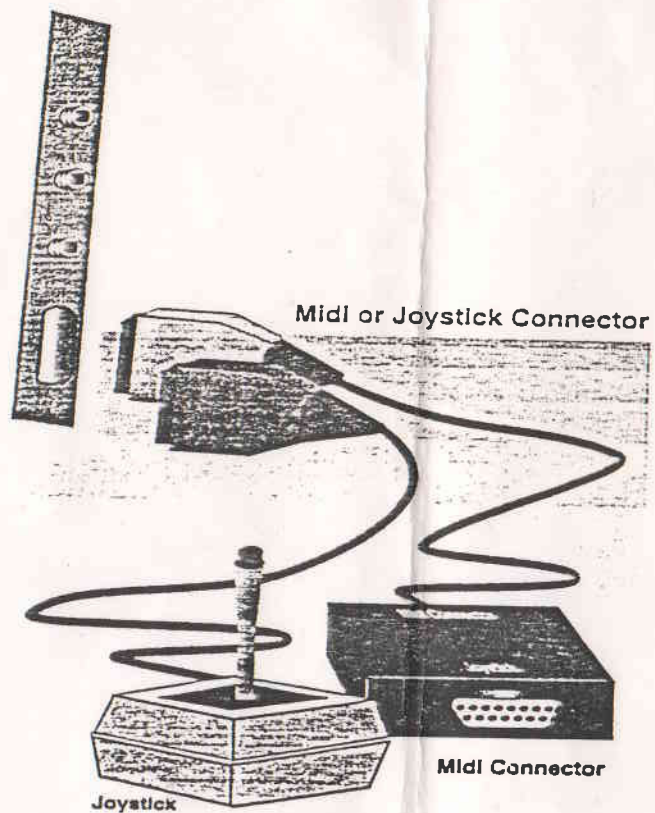


Figure 3. MIDI & Joystick

System Requirements

Your machine must meet the following minimum specifications for your Pro AudioSpectrum to work:

- IBM XT, IBM AT; PS/2 Model 25 and 30; IBM-compatible Tandy (except 1000 EX & HX); and 100% compatible 286, 386, and 486 machines.
- 640K RAM memory
- DOS 3.0 or higher
- Hard Disk with 3 MB free space

Hardware Installation Setup

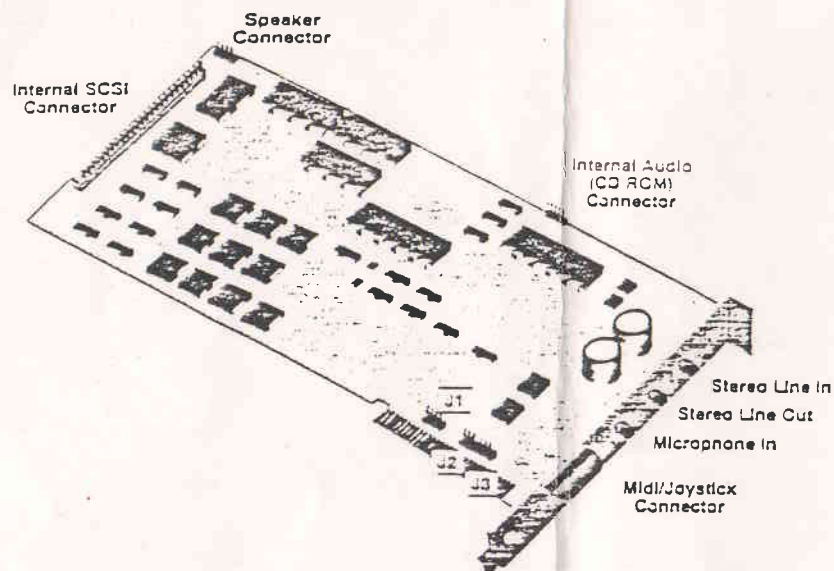


Figure 4. Connectors & Jumpers

Jumpers

Caution! Avoid accidental static damage. If you are about to do a first-time installation, please refer to the Hardware Installation Instructions on page 14 for proper handling of this board.

In most cases the Pro AudioSpectrum is ready to run right out of the box. The software installation will automatically revise your CONFIG.SYS file to reflect the default Pro AudioSpectrum settings. If you are a power user, or your system has non-standard settings, you may need to configure the Pro AudioSpectrum board to work properly in your PC. Configuration includes setting the IRQ level

and the DMA channel by placing jumper shunts on jumper blocks. If you change the jumper settings before running the installation program, the installation program will revise CONFIG.SYS to complete the software installation for you. If you change the jumper shunt positions from what you specified during the installation program you must edit your CONFIG.SYS to reflect these settings.

Setting the Direct Memory Access (DMA) Channel

Your PC has either 3 (XT class machine) or 6 (AT class machine) DMA channels for rapid transfer of data between peripherals (including your hard drive) and memory. The Pro AudioSpectrum must reserve one DMA channel for high speed transfer of waveform (PCM digitized audio) sound data. Waveform files are used to add special effects, such as the sound of a bell or a voice-over, to the background melody. The AudioMate software package, provided with your Pro AudioSpectrum, records and plays back waveform files.

The two jumper blocks labeled J2 and J3 in Figure 4 (and Figure 5 below) select the DMA channel. You can set the Pro AudioSpectrum board to DMA channel 1, 2, or 3. The default factory setting is DMA channel 1.

Caution! You must choose a channel that is not used by another device in your PC while the Pro AudioSpectrum board is in use.

Ideally, your Pro AudioSpectrum does not share a DMA channel with another device in your PC. If you run out of DMA channels, you can share one, but you MUST NOT use the Pro AudioSpectrum (in particular the PCM feature for digitized audio) and the other device simultaneously. For example, it is reasonable for the Pro AudioSpectrum board to share a DMA channel with an optical scanner since it is improbable that both would be used at the same time. You MUST NOT share a DMA channel with a hard drive or a

network card since it is almost certain that one or both of these would be active while you operate your sound board.

Channel	XT Machine	AT Machine
*1	**Available	**Available
2	Floppy Disk	Floppy Disk
3	Fixed Disk	**Available

*Recommended (factory default) setting
 **Check for conflicts with other devices

Table 1. Typical DMA assignments

Table 1 lists *typical* DMA assignments. This may differ from your setup. DMA 1 is the DMA channel most likely to be available. Note that all of the devices listed below require a DMA channel and may already use DMA channel 1:

- network card
- tape backup unit controller
- proprietary printer card (such as a PostScript controller)
- SCSI or other storage device controller
- scanner card
- SDLC controller

The jumper shunts for selecting a DMA channel are arranged as shown in Figure 5. You must move the jumper shunts on *both* jumper blocks if you are making a change.

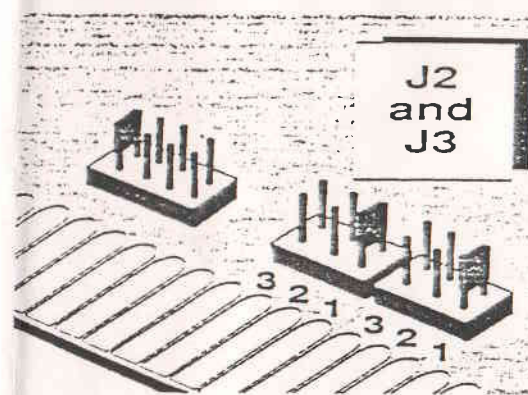


Figure 5. DMA Jumper Settings

Setting the Interrupt Request (IRQ) Level

The Pro AudioSpectrum board uses an interrupt to communicate with your PC system board. When the Pro AudioSpectrum needs your computer's attention, such as when it needs more MIDI sound data to play, it issues an interrupt to grab the attention of your computer's CPU (central processing unit).

The jumper block labeled J1 in Figures 4 and 6 selects the interrupt request level for the Pro AudioSpectrum audio circuitry. You must select an IRQ from among the following choices: 3, 5, 6, 7. The default factory setting is IRQ 7.

Caution! You must choose an interrupt level that no other device in your PC is using.

There are several possible conflicts. IRQ assignments vary but the following are most common:

Interrupt	XT Machine	AT Machine
IRQ 3	COM2: 2nd Serial Port	COM2: 2nd Serial Port
IRQ 4	COM1: 1st Serial Port	COM1: 1st Serial Port
IRQ 5	Hard Disk Controller	**Available
IRQ 6	Floppy Disk Controller	Floppy Disk Controller
*IRQ 7	**Available LPT1: (PRN:) 1st parallel printer port but usually sharable	**Available LPT1: (PRN:) 1st parallel printer port but usually sharable

*Recommended (factory default) setting

**Check for conflicts with other devices

Table 2. Typical IRQ Assignments

The jumper for selecting the IRQ level is arranged as shown in Figure 6.

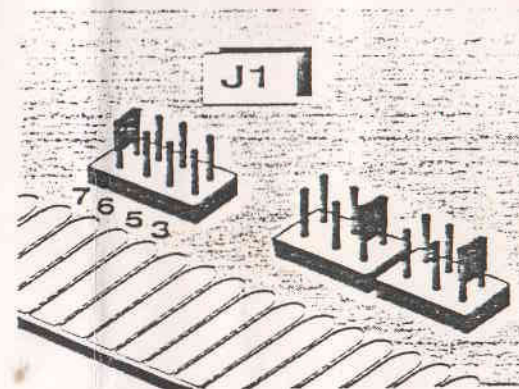


Figure 6. Select IRQ Level