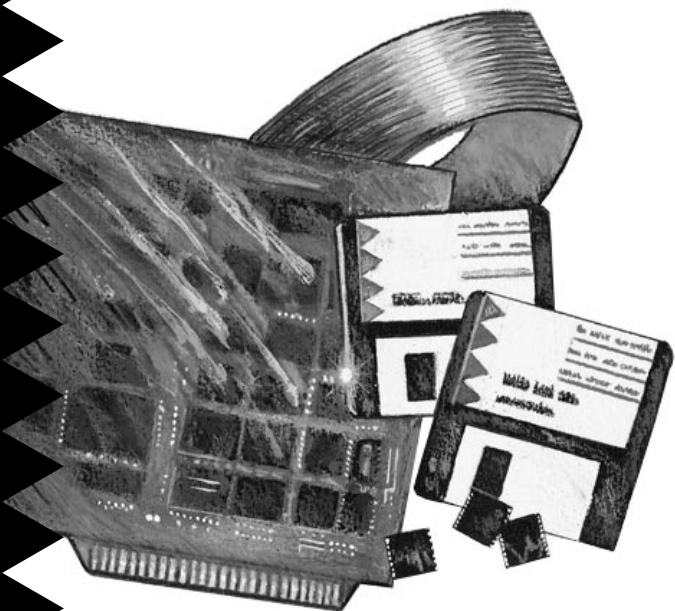# Installation Guide

AMM-1525M/1510M/525M

SCSI Audio Host Adapters and Sound Cards

adaptec®

1 Getting Started

This document provides the basic information needed to quickly configure and install the Adaptec AMM™-1525M, AMM-1510M, and AMM-525M SCSI Audio Host Adapters and Sound Cards.
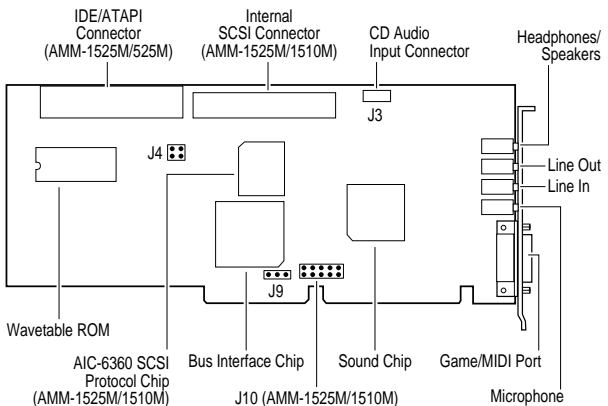
Each adapter provides multimedia capabilities with advanced audio features. In addition, the AMM-1525 allows you to connect up to seven internal SCSI devices, and up to two IDE devices (standard IDE hard disks and/or ATAPI CD-ROM drives); the AMM-1510M allows you to connect up to seven internal SCSI devices; and the AMM-525M allows you to connect up to two IDE devices.

Collectively, all three boards are referred to in this document as the AMM-1525M/1510M/525M; the two adapters that provide SCSI support are referred to as the AMM-1525M/1510M; and the two adapters that provide IDE support are referred to as the AMM-1525M/525M.

For more comprehensive instructions and illustrations, refer to the *AMM-1525M/1510M/525M User's Guide.*

2 Host Adapter Layout

The following figure identifies the major components of the AMM-1525M/1510M/525M.

IDE/ATAPI Connector (AMM-1525M/525M)
Internal SCSI Connector (AMM-1525M/1510M)
CD Audio Input Connector
Headphones/Speakers
J3
J4
Line Out
Line In
J9
Wavetable ROM
AIC-6360 SCSI Protocol Chip (AMM-1525M/1510M)
Bus Interface Chip
J10 (AMM-1525M/1510M)
Sound Chip
Game/MIDI Port
Microphone

3 Default Settings

The AMM-1525M/1510M/525M is already configured for use with the majority of computers. The default settings are listed below:

Description	Default Setting	Configured By
Sound Chip Base Address	220h	Jumper Block J9
Interrupt Channel (IRQ)[1]	11	Jumper Block J10
I/O Port Address[1]	340h	Jumper Block J10
IDE Port Address[2]	Secondary (170h - 177h)	Jumper Block J4
IDE Port Enable[2]	Enabled	Jumper Block J4
Host Adapter Termination[1]	Enabled[3]	—
Host Adapter SCSI ID[1]	7	*aspi2dos.sys*[4]

[1] For AMM-1525M/1510M only.
[2] For AMM-1525M/525M only.
[3] Host adapter termination is always enabled and cannot be changed.
[4] Configured through the *aspi2dos.sys* command line; see your *Adaptec EZ-SCSI User's Guide*.

4 Installing the Host Adapter

Changing Jumper Settings

In most cases, you will never have to change the default jumper settings; however, if you need to change jumper settings, do it before you install the AMM-1525M/1510M/525M in your computer.

> **Note:** Installing a jumper (On) means to install a small plastic jumper connector so that it covers both pins of the jumper pin pair. Removing the jumper connector or having it cover only one pin is the same as having no jumper installed (Off).
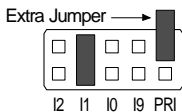

On	Off	Off

IRQ Channel and I/O Port Address (AMM-1525M/1510M Only)
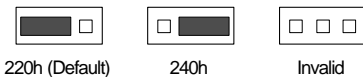Jumper block J10 configures the IRQ channel and I/O port address for SCSI. The default configuration is

Extra Jumper ⟶

I2 I1 I0 I9 PRI

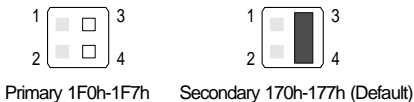| Pin Pair	Description
I2, I1, I0, I9	Determines the host adapter IRQ channel. IRQ 12 = jumper I2 IRQ 11* = jumper I1 IRQ 10 = jumper I0 IRQ 9 = jumper I9 (not recommended with Windows 3.x)
PRI	Determines I/O port address range. 340h-35Eh* = no jumper 140h-15Eh = jumper

* Default configuration

Sound Chip Base Address
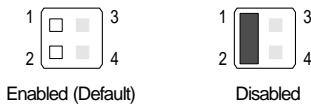Jumper block J9 configures the sound chip base address. The available settings are

220h (Default)   240h   Invalid

IDE Port Address (AMM-1525M/525M Only)
Pins 3 and 4 of jumper block J4 configures the IDE port address. The available settings are

1 ⬜⬜ 3
2 ⬜⬜ 4
Primary 1F0h-1F7h

1 ⬛ 3
2 ⬛ 4
Secondary 170h-177h (Default)

A *primary* and *secondary* IDE port address is available for your AMM-1525M/525M. If you are using an existing IDE controller (the IDE controller may be on a separate I/O card or on the computer mother-board; see the computer documentation), and wish to also use the IDE controller on your AMM-1525M/525M, select the *secondary* IDE Port Address. If you are using only the IDE controller on your AMM-1525M/525M, select the *primary* IDE Port Address.

IDE Port Enable (AMM-1525M/525M Only)
Pins 1 and 2 of jumper block J4 enables or disables
the IDE port address. The available settings are

Enabled (Default)   Disabled

If you are using the IDE controller on the host
adapter, leave this setting enabled. If you are not
using the IDE controller on the host adapter, disable
this setting.

Inserting the Host Adapter in an Expansion Slot

> **WARNING:** Turn OFF and disconnect power
> to the computer and external equipment
> before removing the chassis cover.

1 Remove the computer's chassis cover to expose
   the expansion slots and external access covers.

2 Locate an available 16-bit expansion slot and
   remove the corresponding expansion slot screw
   and cover.

3 Align the bus connector on the bottom of the host
   adapter with the expansion slot and carefully
   press it down into the slot.

4 Secure the host adapter bracket to the computer
   chassis with the screw from the removed expan-
   sion slot cover.

5 Connecting SCSI Devices (AMM-1525M/1510M Only)

SCSI devices are connected to the host adapter by a
50-pin SCSI ribbon cable with a 50-pin header con-
nector. They are cabled together in a single, con-
nected series called the *SCSI bus*. Connecting SCSI
devices also involves terminating the SCSI bus and
setting SCSI IDs.

To connect internal SCSI devices, follow these steps:

1 Attach the connector at one end of the 50-pin SCSI ribbon cable to the AMM-1525M/1510M SCSI connector. Make sure to align pin 1 of the cable with pin 1 of the connectors on the host adapter and internal SCSI device.

> **Note:** On ribbon cables, pin 1 is usually marked with a contrasting color on one edge of the cable; a small arrow, a delta symbol (▴), or a "1" usually marks pin 1 on the SCSI connector.

2 Attach the connector at the other end of the cable to the connector on the first SCSI device; maintain pin-1 orientation.

3 To connect additional internal SCSI devices, you will need to obtain a 50-pin SCSI ribbon cable with enough connectors to accommodate all of your internal SCSI devices.

Terminating SCSI Devices

The devices at the ends of the SCSI bus must have a set of resistors called *terminators* either installed or enabled. All other SCSI devices installed between the ends of the SCSI bus must have their terminators either removed or disabled.

Since the AMM-1525M/1510M is always at one end of the SCSI bus, SCSI termination on the adapter is *always* enabled and cannot be changed.

To enable or disable termination on your SCSI device, refer to your SCSI device documentation.

Setting SCSI IDs

Verify that each SCSI device (including the host adapter) located on the SCSI bus is set to a unique SCSI ID (0-7).

The default value for your host adapter is SCSI ID 7. Normally, the host adapter should always be set to SCSI ID 7. To change the host adapter SCSI ID, refer

to *The aspi2dos ASPI Manager* of the *Adaptec EZ-SCSI User's Guide.*

To change the SCSI ID on your SCSI device, refer to your SCSI device documentation.

6 Connecting IDE Devices (AMM-1525M/525M Only)

IDE devices (standard IDE hard disk drives and/or ATAPI CD-ROM drives) are connected to the host adapter by a 40-pin IDE ribbon cable with a 40-pin header connector.

The 40-pin IDE ribbon cable included in your kit has connectors at each end. One end of the cable is attached to the 40-pin IDE connector on the host adapter, and the other end is attached to an IDE device. To connect a second IDE device, obtain a 40-pin IDE ribbon cable with a middle connector.

> **Note:** If you are using the IDE controller on the AMM-1525M/525M as the only IDE controller in your computer, you must disable any existing IDE controller; see your computer's documentation.

To connect IDE devices, follow these steps:

1 Set the first IDE device as the master device and the second (if any) as the slave device. See your IDE device documentation for details.

2 Attach the connector at one end of the 40-pin IDE ribbon cable to the AMM-1525M/525M IDE connector. Make sure to align pin 1 of the cable with pin 1 of the connectors on the host adapter and IDE device.

> **Note:** On ribbon cables, pin 1 is usually marked with a contrasting color on one edge of the cable; a small arrow, a delta symbol (▲), or a "1" usually marks pin 1 on the IDE connector.

3 Attach the connector at the other end of the cable to the connector on the first IDE device; maintain pin-1 orientation.

4 To connect a second IDE device, plug the middle connector of the cable to the connector on the second IDE device; maintain pin-1 orientation.

Keep these points in mind when installing IDE devices:

- For each IDE hard disk drive installed in your computer, drive type and parameters must be specified in the computer's CMOS setup. ATAPI CD-ROM drives are not specified in the computer's CMOS setup.

- If your computer has only IDE hard disk drives, or both IDE drives and SCSI drives, it always boots from the IDE drive designated as drive *C*.

- IDE hard disk drives larger than 528 MBytes may require a disk partitioning utility for use under DOS. The utility is usually available from the drive manufacturer or the dealer.

- If your computer has an ATAPI CD-ROM drive, be sure the ATAPI CD-ROM driver (*adatapi.sys*) is installed by running the Adaptec Installation Manager.
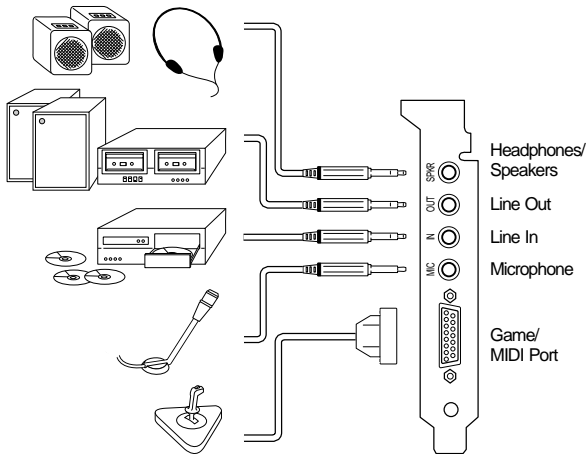
Using Multiple IDE Controllers

Up to four IDE devices can be installed in your computer by utilizing two IDE controllers. Keep these points in mind when installing two IDE controllers:

- One IDE controller must be designated as the *primary* and the other as the *secondary*. Typically, most IDE controllers can be designated as the *primary* only; however, the AMM-1525M/525M can be designated as either the *primary* or *secondary*. See *IDE Port Address (AMM-1525M/525M Only)* on page 3.

- Typically, the CMOS setup of most computers can configure only two IDE hard disk drives connected to the *primary*; however, some of the newer computers can configure up to four IDE hard disk drives connected to both the *primary* and *secondary*. See your computer's documentation.

■ For each IDE controller, the first IDE device must be configured as the master device, and the second (if any) as the slave device. See your IDE device documentation for details.

7 Connecting Audio Equipment

You can connect a variety of audio equipment to the AMM-1525M/1510M/525M, such as a microphone, headphone, powered or nonpowered internal/external speakers, tape deck, CD player, joystick, and MIDI devices, etc. The following figure shows some of the audio equipment you can use and where to connect the equipment on the bracket of the AMM-1525M/1510M/525M.

Note: To connect audio input from an internal CD-ROM drive to the CD Audio Input connector (J3) on the AMM-1525M/1510M/525M, a special cable is needed (refer to your CD-ROM documentation and the *AMM-1525M/1510M/525M User's Guide*). The pinouts for J3 are listed as follows:

Pin	Signal Name
1	Ground
2	Right
3	Ground
4	Left

8 Installing Software

Adaptec Installation Manager

Adaptec Installation Manager is a software utility that runs and installs the following Adaptec software needed to operate your host adapter (for more information, refer to the *Adaptec Installation Manager User's Guide*):

- **DeMucker**™–avoids conflicts by disabling references to sound boards currently and previously installed in your computer. (Windows only.)

- **EZ-SCSI**™–provides SCSI capabilities by installing SCSI device drivers and other programs. (AMM-1525M/1510M only.)

- **Install ATAPI CD-ROM Driver**–provides ATAPI CD-ROM support by installing either an Adaptec or third party ATAPI CD-ROM device driver. (AMM-1525M/525M only.)

- **EZ-Audio**™–provides advanced audio capabilities by installing audio device drivers.

- If Windows is installed in your computer, the Installation Manager also allows you to install Microsoft's **Windows Sound System**™.

Adaptec Installation Manager is available in a Windows or MS-DOS® version. To run the Windows version of Installation Manager, follow these steps:

1 Insert the Adaptec Installation Manager diskette in your floppy disk drive, and select **Run** from the File menu in the Windows Program Manager.

2 In the Run dialog box, enter a:\setup if you are using the *A* drive or b:\setup if you are using the *B* drive. Click **OK**. A series of screens guide you through installation and configuration.

To run the DOS version of Installation Manager, insert the Adaptec Installation Manager installation diskette in your floppy disk drive, and type Install at the appropriate DOS prompt. A series of screens guide you through installation and configuration.

9 Troubleshooting

If you are having problems with your adapter or configuration, make sure the AMM-1525M/1510M/525M is firmly seated and secured in the expansion slot, then check the following:

Audio

- To play audio CDs while in Windows, the [MCI] CD Audio driver must be installed. Use the Drivers option in Control Panel to install the driver.

SCSI (AMM-1525M/1510M only)

- Are all SCSI devices powered with the SCSI bus cables and power cables properly connected?
- Since the AMM-1525M/1510M does not support booting from a SCSI drive, is either a bootable IDE drive installed in your computer or a bootable SCSI subsystem present?
- Does the host adapter and all devices on the SCSI bus have unique SCSI IDs?
- Is the SCSI bus properly terminated with only the last SCSI device at the end of the bus terminated?
- If your computer has multiple expansion boards installed, did you assign each board a unique I/O port address and IRQ channel?

IDE/ATAPI (AMM-1525M/525M only)

- If you cannot access your IDE drives, try changing the master IDE drive to the slave, and the slave IDE drive to the master. Be sure to correctly configure the drives in your computer's CMOS setup.
- If the previous step did not work, disconnect one drive at a time from the IDE ribbon cable. When either drive works correctly by itself, this probably indicates that the two drives are incompatible.

10 Adaptec Customer Support

- For information on software upgrades, new releases, technical advice, and other topics, call Adaptec's Electronic Bulletin Board Service (BBS) 23 hours a day at 408-945-7727; 1200/2400/9600/14400 baud, 8 data bits, 1 stop bit, no parity. The BBS is out of service 1 hour each day. If you cannot reach the BBS, wait an hour and try again.

- For the latest online information about Adaptec products and services, call the Interactive Fax Service 23 hours a day, 7 days a week, at 408-957-7150. The Fax line is out of service 1 hour each day.

- For technical assistance, call Adaptec's Technical Support Hot Line at 800-959-SCSI (7274), or 408-945-2550. M–F: 6:00 a.m.–5:00 p.m., Pacific Time.

- To order Adaptec software and SCSI cables, call 800-442-SCSI (7274), M–F: 6:00 a.m. to 5:00 p.m., Pacific Time. If you are calling from outside the U.S. and Canada, the number is 408-957-SCSI (7274).

- To request additional documentation for Adaptec products, call 800-934-2766, M–F: 6:00 a.m. to 5:00 p.m., Pacific Time.

FCC Compliance Statement

NOTE: 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 residential installations. 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, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause interference to radio or television equipment reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna

- Move the equipment away from the receiver

- Plug the equipment into an outlet on a circuit different from that to which the receiver is powered

- If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions

CAUTION: Only equipment certified to comply with Class B (computer input/output devices, terminals, printers, etc.) should be attached to this equipment, and must have shielded interface cables.

Finally, any changes or modifications to the equipment by the user not expressly approved by the grantee or manufacturer could void the user's authority to operate such equipment.

Each host adapter is equipped with an FCC compliance label which shows only the FCC Identification number. The full text of the associated label follows:

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, including interference that may cause undesired operation.