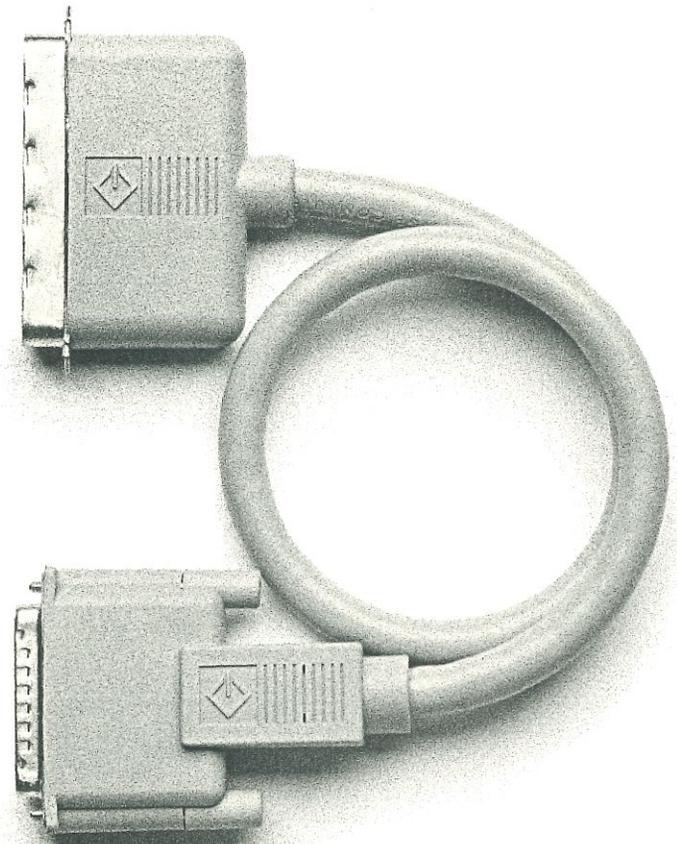




Apple® SCSI Cable System



LIMITED WARRANTY ON MEDIA AND REPLACEMENT

If you discover physical defects in the manuals distributed with an Apple product or in the media on which a software product is distributed, Apple will replace the media or manuals at no charge to you, provided you return the item to be replaced with proof of purchase to Apple or an authorized Apple dealer during the 90-day period after you purchased the software. In addition, Apple will replace damaged software media and manuals for as long as the software product is included in Apple's Media Exchange Program. While not an upgrade or update method, this program offers additional protection for up to two years or more from the date of your original purchase. See your authorized Apple dealer for program coverage and details. In some countries the replacement period may be different; check with your authorized Apple dealer.

ALL IMPLIED WARRANTIES ON THE MEDIA AND MANUALS, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO NINETY (90) DAYS FROM THE DATE OF THE ORIGINAL RETAIL PURCHASE OF THIS PRODUCT.

Even though Apple has tested the software and reviewed the documentation, **APPLE MAKES NO WARRANTY OR REPRESENTATION, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO SOFTWARE, ITS QUALITY, PERFORMANCE, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE. AS A RESULT, THIS SOFTWARE IS SOLD "AS IS," AND YOU THE PURCHASER ARE ASSUMING THE ENTIRE RISK AS TO ITS QUALITY AND PERFORMANCE.**

IN NO EVENT WILL APPLE BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY DEFECT IN THE SOFTWARE OR ITS DOCUMENTATION, even if advised of the possibility of such damages. In particular, Apple shall have no liability for any programs or data stored in or used with Apple products, including the costs of recovering such programs or data.

THE WARRANTY AND REMEDIES SET FORTH ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHERS, ORAL OR WRITTEN, EXPRESS OR IMPLIED. No Apple dealer, agent, or employee is authorized to make any modification, extension, or addition to this warranty.

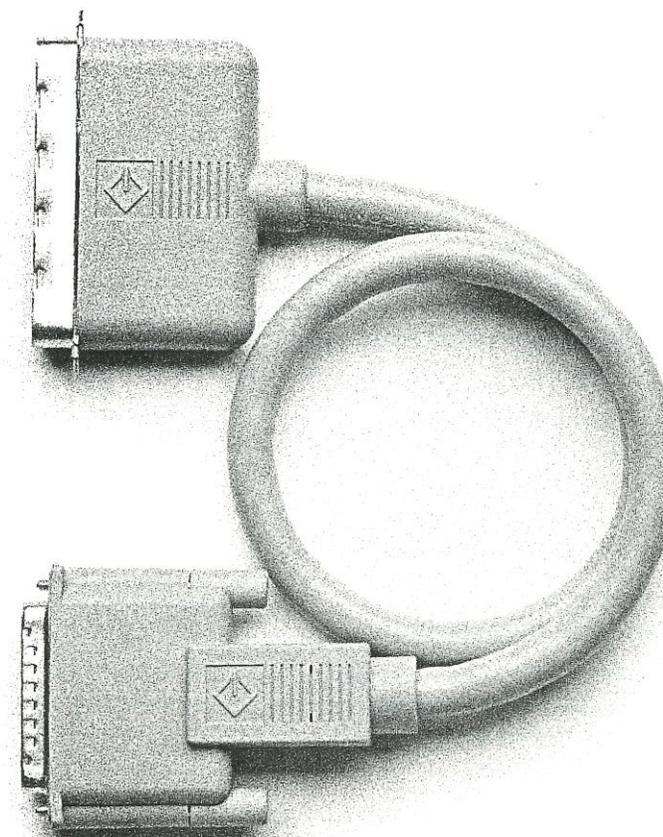
Some states do not allow the exclusion or limitation of implied warranties or liability for incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

WARNING

This equipment has been certified to comply with the limits for a Class B computing device, pursuant to Subpart J of Part 15 of FCC rules. See instructions if interference to radio or television reception is suspected.



Apple® Apple SCSI Cable System



🍏 APPLE COMPUTER, INC.

This manual is copyrighted by Apple or by Apple's suppliers, with all rights reserved. Under the copyright laws, this manual may not be copied, in whole or in part, without the written consent of Apple Computer, Inc. This exception does not allow copies to be made for others, whether or not sold, but all of the material purchased may be sold, given, or lent to another person. Under the law, copying includes translating into another language.

© Apple Computer, Inc., 1985, 1986, 1987
20525 Mariani Avenue
Cupertino, California 95014
(408) 996-1010

Apple, the Apple logo, AppleTalk, LaserWriter, and ProDOS are registered trademarks of Apple Computer, Inc.

Apple IIGS and Macintosh are trademarks of Apple Computer, Inc.

Microsoft is a registered trademark of Microsoft Corporation.

POSTSCRIPT is a trademark of Adobe Systems Incorporated.

ITC Garamond, ITC Avant Garde Gothic, and ITC Zapf Dingbats are registered trademarks of International Typeface Corporation.

Simultaneously published in the United States and Canada.



Contents



Radio and television interference	iv
Introducing the Small Computer System Interface	1
Benefits of the Small Computer System Interface	1
How the SCSI Cable System differs from AppleTalk	1
To get started	2
SCSI with your Macintosh computer	2
Positioning your devices	2
Laying out the cables	3
Adding Cable Terminators	4
Placing terminators—without a SCSI internal hard disk	5
Connecting a single Apple external device	6
Connecting multiple Apple external devices	7
Connecting non-Apple external devices	8
Placing terminators—with a SCSI internal hard disk	7
Connecting a single Apple external device	8
Connecting multiple Apple external devices	9
Connecting a single external non-Apple device	9
Connecting multiple external non-Apple devices	10
Attaching the cables	9
Setting priorities among devices	10
Turning on your devices	10
Checking the system	10
SCSI with your Apple II computer	11
Positioning your devices	11
Laying out the cables	12
Adding Cable Terminators	13
Attaching the cables	16
Setting priorities among devices	16
Changing the priority of your computer	17
Turning on your devices	17
Checking the system	17
Troubleshooting	18

Radio and television interference

The equipment described in this manual generates and uses radio-frequency energy. If it is not installed and used properly—that is, in strict accordance with Apple's instructions—it may cause interference with radio and television reception.

This equipment has been tested and complies with the limits for a Class B computing device in accordance with the specifications in Subpart J, Part 15, of FCC rules. These rules are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that the interference will not occur in a particular installation, especially if a "rabbit-ear" television antenna is used. (A rabbit-ear antenna is the telescoping-rod type usually found on television receivers.)

You can determine whether your computer is causing interference by turning it off. If the interference stops, it was probably caused by the computer or its peripheral devices.

If your computer system does cause interference to radio or television reception, you can try to correct the interference by using one or more of the following measures:

- Turn the television or radio antenna until the interference stops.
- Move the computer to one side or the other of the television or radio.
- Move the computer farther away from the television or radio.
- Plug the computer into an outlet that is on a different circuit than the television or radio. (That is, make certain the computer and the radio or television are on circuits controlled by different circuit breakers or fuses.)
- Consider installing a rooftop television antenna with a coaxial cable lead-in between the antenna and the television.

If necessary, consult your authorized Apple dealer or an experienced radio/television technician for additional suggestions.

You may find helpful the following booklet, prepared by the Federal Communications Commission: "How to Identify and Resolve Radio-TV Interference Problems." This booklet is available from the U.S. Government Printing Office, Washington, DC 20402.

Important

This product was FCC-certified under test conditions that included use of shielded cables and connectors between system components. It is important that you use shielded cables and connectors to reduce the possibility of causing interference to radios, television sets, and other electronic devices. For Apple peripheral devices, you can obtain the proper shielded cable from your authorized Apple dealer. For non-Apple peripheral devices, contact the manufacturer or dealer for assistance.

Introducing the Small Computer System Interface

The Small Computer System Interface (SCSI for short, commonly pronounced skuh'-zee) provides you with a new way of sending information between your computer and such peripherals as a hard disk drive or a tape drive. SCSI is a new standard, developed by engineers from many companies working together through the American National Standards Institute.

Benefits of the Small Computer System Interface

SCSI offers you several advantages over earlier methods:

- Speed:** You can transfer information between your computer and SCSI peripheral devices much faster than you can with devices that use other interfaces.
- Flexibility:** SCSI is a standard, so you can use your existing system software to communicate with any of the many SCSI devices from different manufacturers.
- Expandability:** You can connect as many as seven peripheral devices to your Macintosh computer, or as many as four peripheral devices to one SCSI card in your Apple® II computer. And you can put more than one SCSI card in an Apple II.

How the SCSI Cable System differs from AppleTalk

The Apple SCSI Cable System is your personal cable. It gives you a high-speed connection between *your* computer and *your* peripheral devices. The maximum length of the Cable System is 20 feet.

On the other hand, AppleTalk® is a public link. It's a network that can connect *many* computers, as well as printers and hard disks, across much greater distances.

To get started

To start your data moving through the SCSI Cable System, you need to do the following:

1. Position your devices.
2. Lay out the cables.
3. Determine where to put the Cable Terminators.
4. Attach everything.
5. Assign a priority to each device.
6. Turn on the devices.
7. Check the system.

The following two sections explain how to carry out these steps. If you're connecting a SCSI device to a Macintosh, see the next section, "SCSI with Your Macintosh Computer." If you're connecting to an Apple II, see the section after that, "SCSI with Your Apple II Computer."

SCSI with your Macintosh computer

You can connect a SCSI cable to any Macintosh computer that has a SCSI port. This section explains how to connect the SCSI cables and devices to your computer.

Positioning your devices

Your computer is a device. So is a hard disk drive, a printer, or a tape drive. Any device that has a SCSI connector can be attached to your cable to exchange data with your computer.

Before you start connecting any cables, place your computer where you need it. The computer *begins* the chain.

Position your peripheral devices where convenient—but not too far apart. Order is unimportant to the SCSI Cable System, but cable length matters. The total length of cables in your system should not be more than 20 feet (6.5 meters).

Warning

Don't plug in any cables until you have completely laid out the system and attached the required terminators. If you try to use the system before the terminators are properly attached, you could damage one of the devices.

Laying out the cables

Here's how to lay out the cables.

1. Put the System Cable behind your Macintosh.

The System Cable is the short one. Notice that one end has 25 gold pins embedded in plastic. This connector, called a DB-25 connector, will plug into the SCSI port on your computer. The other end of the System Cable has an open connector with fifty gold bands. (See Figure 1.)

2. Position a Peripheral Interface Cable between each device in the chain *after* the first two (your computer and the first peripheral device).

If you have more than one SCSI peripheral device, you connect the additional devices with Peripheral Interface Cables. A Peripheral Interface Cable is about 3 feet (1 meter) long and has the same kind of connector at each end. (See Figure 1.)

- ❖ *Note:* Do not put a Peripheral Interface Cable between your Macintosh and the device next to it. They are connected by the System Cable.

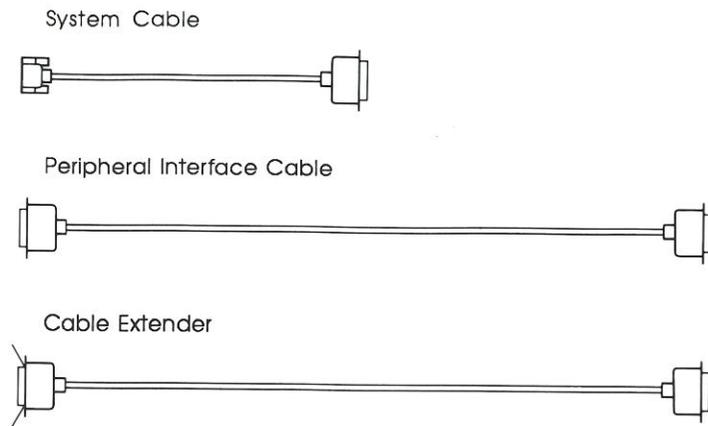


Figure 1
System Cable, Peripheral Interface Cable, and Cable Extender

3. Add Cable Extenders if necessary.

A Cable Extender is the same length as the Peripheral Interface Cable, but has different connectors at each end. (See Figure 1.) You can add Cable Extenders at any point in the chain if the devices are too far apart for the System Cable or Peripheral Cable to connect them. You can also connect several extenders together, if you need to, as long as the *total* cable length is not more than 20 feet (6.5 meters).

Adding Cable Terminators

A Cable Terminator acts as a noise damper in your SCSI Cable System. Terminators keep signals from bouncing off one end of the line and rippling back, interfering with new messages.

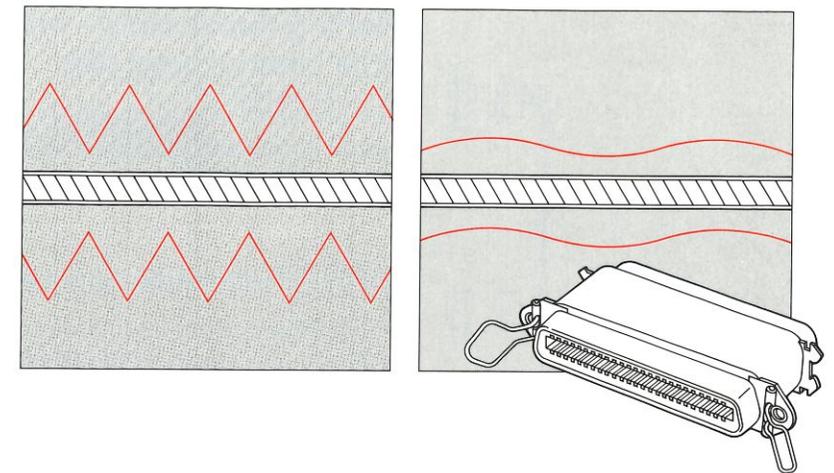


Figure 2 Noisy without Cable Terminator **Figure 3** Quiet with Cable Terminator

The SCSI chain must be properly terminated or you risk damaging the SCSI chip inside the computer and having files corrupted because of noise in the system.

Important The general rule to follow is that there must be two terminators, one at each end of the SCSI chain. One terminator goes on the large end of the System Cable; the other goes on the last cable, right before it plugs into the last device.

Some devices, however, have built-in terminators, so unless you're careful, you can put together a system with too many terminators. And that's as dangerous as having too few.

The examples in the next two sections show where to put the terminators on your SCSI cables and what to do about built-in terminators. Find the example that matches your system.

Refer to the first section if your computer *does not have* a SCSI internal hard disk drive; refer to the second section if it *does*.

Placing terminators—without a SCSI internal hard disk

The examples in this section show where to put terminators when you're connecting devices to a Macintosh that *does not have* a SCSI internal hard disk drive.

Connecting a single Apple external device

This example is the exception to the "two terminator rule." If you're connecting a single Apple-labeled SCSI device, and it's close enough for the System Cable to reach, you need only one Cable Terminator. It goes on the end of the System Cable, between the cable and the device.

❖ *This applies to Apple-labeled SCSI devices only:* If you're connecting a device from another manufacturer, read the example about non-Apple devices.

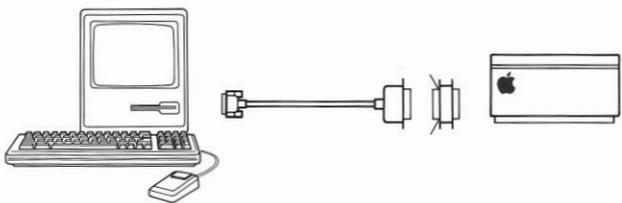


Figure 4
No SCSI internal hard disk; one Apple device

Once you add a Cable Extender, you risk more noise on the line and you need a second Cable Terminator: one for each end of the chain. (See Figure 5.)

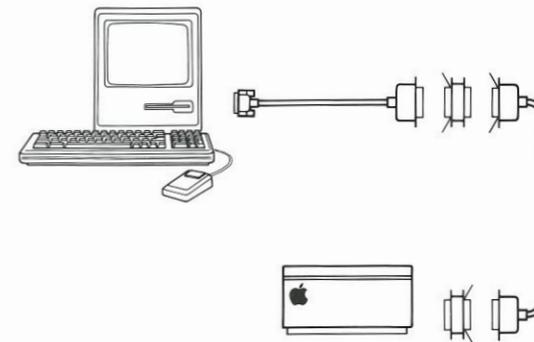


Figure 5
No SCSI internal hard disk; Cable Extender and one Apple device

Connecting multiple Apple external devices

Whether or not you use Cable Extenders, put one terminator on the large end of the System Cable and the other immediately before the last device.

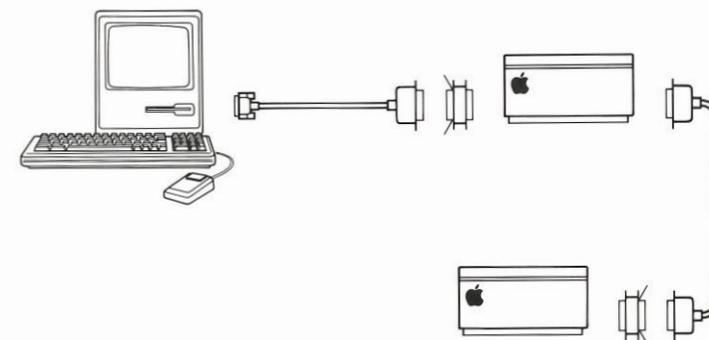


Figure 6
No SCSI internal hard disk; several Apple devices

Connecting non-Apple external devices

Although external SCSI devices from Apple *do not* have built-in terminators, devices from other manufacturers may. Check the manual to make sure. If you plan to connect only one device, and it *does not* have a built-in terminator, connect it the same way you connect an Apple device. (See Figure 4 or Figure 5.)

If you have several devices to connect, and *one* of them has a built-in terminator, place that device at the end of the chain. Put the first terminator on the System Cable and eliminate the second terminator.

If several devices in the chain have built-in terminators, remove the extra ones or have your Apple dealer remove them.

Warning You can have no more than two terminators in the entire SCSI chain.

Placing terminators—with a SCSI internal hard disk

The Apple-labeled SCSI internal hard disk has a built-in terminator. The examples in this section show where to place the other terminator when you're connecting devices to a Macintosh with an Apple-labeled internal hard disk.

Important If you plan to use a SCSI internal hard disk from another manufacturer, make sure it has a built-in terminator.

Connecting a single Apple external device

Add a terminator to the large end of the System Cable (see Figure 7) or immediately before the device if you're using a Cable Extender.

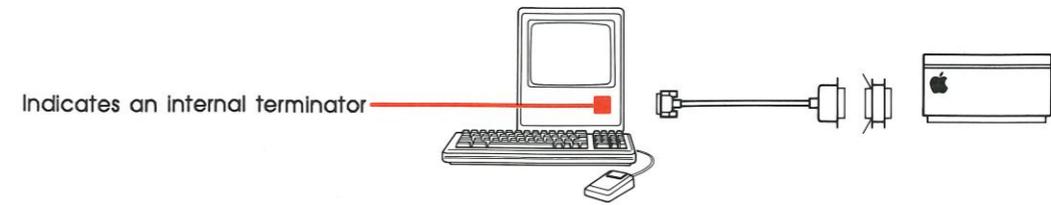


Figure 7
SCSI internal hard disk; one Apple device

Connecting multiple Apple external devices

Add a terminator immediately before the last device. (See Figure 8.)

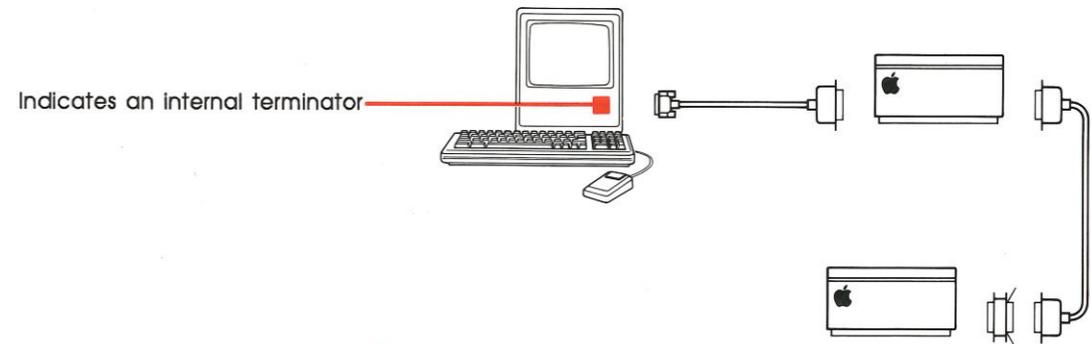


Figure 8
SCSI internal hard disk; several Apple devices

Connecting a single external non-Apple device

If the external device has no built-in terminator, treat it like an Apple device by adding a terminator immediately before the device. If the external device has a built-in terminator, don't add one.

Connecting multiple external non-Apple devices

If none of the devices in the chain has a built-in terminator, add a terminator immediately before the last device. If one device has a built-in terminator, move that device to the end of the chain and don't add any terminators.

If several devices have built-in terminators, remove the extra terminators or have your Apple dealer remove them.

Warning You can have no more than two terminators in the entire SCSI chain.

Attaching the cables

Start the chain with your computer and plug the System Cable's small end into the SCSI port on its back. Be sure you are using the SCSI port; it's the only 25-pin port.

Warning The SCSI System Cable is the only cable you should plug into the SCSI port. You could damage your computer if you plug a non-SCSI cable into the SCSI port.

In most cases, the first Cable Terminator plugs into the large end of the System Cable. Plug the rest of your cables and devices together, and fasten any wire clips to secure the connections.

If you've laid out a chain that requires a second Cable Terminator, and you have reached the last device, put the terminator on the end of the last cable and then plug it into the last device.

Setting priorities among devices

In the SCSI system, your Macintosh gets top priority. That way, whenever you send or retrieve a file, you interrupt communication between any other devices, so your message gets through first. Your computer comes set up with top priority—it's number 7 in a scheme that runs from 7 down to 0. You cannot change that priority.

You must assign a separate priority number to every peripheral device in your SCSI chain: one device, one number. That way, you're sure that you don't have two devices trying to send data at the same time.

You can set the priority of most peripheral devices using some physical mechanism. For some devices you set the number on a wheel against a mark; for other devices, you set one of eight switches. Occasionally, you use software to set the priority. For exact instructions, consult the manual for each device.

In general, you should assign the lower priorities to the least-used equipment. For instance, a backup tape drive, which you use once a day, would be 0. A hard disk, used frequently, might rank just after the Macintosh. The computer has priority 7; so the hard disk would be priority 6.

Turning on your devices

You need to turn on the peripheral devices that have terminators attached (the first and last peripheral devices) in order to pass information through the cable system. If you aren't using a device in the middle of the chain, you can leave it switched off.

Some storage devices need to be formatted before you use them for the first time; some devices also need installation software. Consult the manuals that came with your devices for specific instructions.

Checking the system

To make sure your cable system is working properly, create a short file on your Macintosh and send it to one of the connected SCSI peripheral devices; then retrieve it.

When you choose Save As from the File menu within an application, you see the last place from which you opened a document, or the last place to which you saved a document. Click Drive until the name of your SCSI device appears. Then name your document, and click Save.

Within an application, when you choose Open from the File menu, you can see the folders and documents on any SCSI storage device, just as you can on an internal or external disk drive. In the Open dialog box, click Drive to move from one storage device to another. For each device you'll see a list of files that can be read by the application you're using.

Any SCSI storage device—a hard disk, or a tape backup unit, for instance—will show up on your desktop. By double-clicking its icon, you can get a list of the documents and folders it contains.

SCSI with your Apple II computer

You can insert an Apple II SCSI card in any Apple IIGS, Apple IIe, or Apple II Plus computer. This section explains how to connect your SCSI cables and devices to your computer.

Be sure to read the *Apple II SCSI Card* manual for instructions on inserting the card. That manual also provides general information about using SCSI peripheral devices with ProDOS® applications.

Positioning your devices

Almost any peripheral device that has a SCSI connector can be attached to your cable to exchange data with your computer. (Check the manual to be sure that the manufacturer has followed the SCSI standards—deviations can make for trouble on the line).

Before you start connecting any cables, place your computer where you need it. The computer *begins* the chain.

Position any peripheral devices where convenient—but not too far apart. Order is unimportant to the SCSI cable system, but cable length matters. The total length of cables in your system should not be more than 20 feet (6.5 meters).

References in this section to "computer" or "Apple II computer" mean any Apple IIGS, Apple IIe, or Apple II Plus computer unless otherwise specified.

Warning

Don't plug in any cables until you have completely laid out the system and attached the required terminators. If you try to use the system before the terminators are properly attached, you could damage one of the devices or the SCSI Card.

Laying out the cables

Here's how to lay out the cables.

1. Put the System Cable behind your computer.

The System Cable is the short one. Notice that one end has 25 gold pins embedded in plastic. This connector, called a DB-25 connector, will plug into the SCSI Card. The other end of the System Cable has an open connector with fifty gold bands. (See Figure 9 on the next page.)

2. Position a Peripheral Interface Cable between each device in the chain *after* the first two (your computer and the first peripheral device).

If you have more than one SCSI peripheral device, you connect the additional devices with Peripheral Interface Cables. A Peripheral Interface Cable is about 3 feet (1 meter) long and has the same kind of connector at each end. (See Figure 9.)

- ❖ *Note:* Do not put a Peripheral Interface Cable between your computer and the device next to it. They are connected by the System Cable.

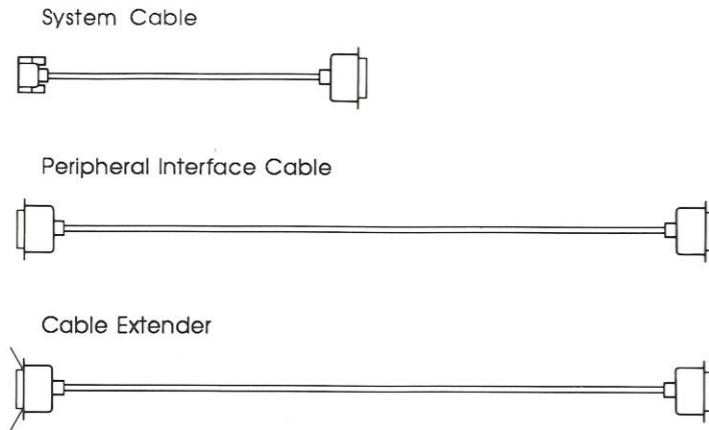


Figure 9
System Cable, Peripheral Interface Cable, and Cable Extender

3. Add Cable Extenders if necessary.

A Cable Extender is the same length as the Peripheral Interface Cable, but has different connectors at each end. (See Figure 9.) You can add Cable Extenders at any point in the chain if the devices are too far apart for the System Cable or Peripheral Cable to connect them. You can also connect several extenders together, if you need to, as long as the total cable length is not more than 20 feet (6.5 meters).

Adding Cable Terminators

A Cable Terminator acts as a damper in your SCSI Cable System. Terminators keep signals from bouncing off one end of the line and rippling back, interfering with new messages.

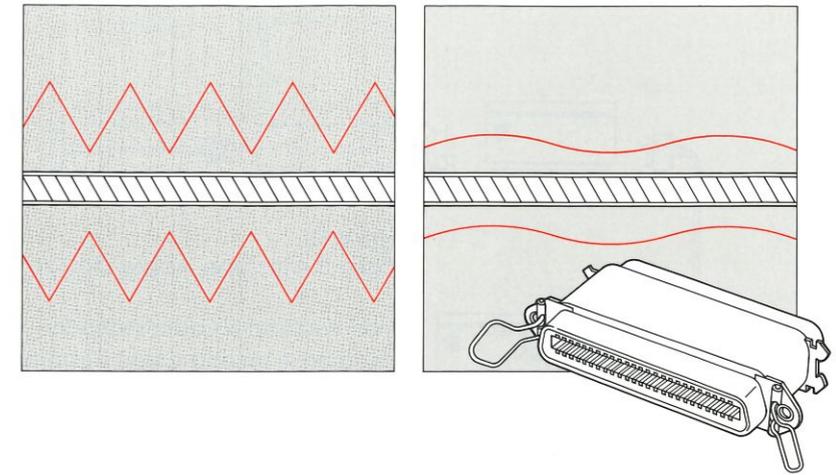


Figure 10 Noisy without Cable Terminator **Figure 11** Quiet with Cable Terminator

The SCSI chain must be properly terminated or you risk damaging the SCSI card and having files corrupted because of noise in the system.

The general rule to follow is that there must be two terminators, one at each end of the SCSI chain. One terminator goes on the large end of the System Cable; the other goes on the last cable, right before it plugs into the last device (See Figure 12 on the next page.).

Connecting a single Apple device

This example is the exception to the "two terminator rule." If you're connecting a single Apple-labeled SCSI device, and it's close enough for the System Cable to reach, you need only one Cable Terminator. It goes on the end of the System Cable, between the cable and the device. (See Figure 12 on the next page.)

❖ *This applies to Apple-labeled SCSI devices only:* If you're connecting a device from another manufacturer, read the example about non-Apple devices.

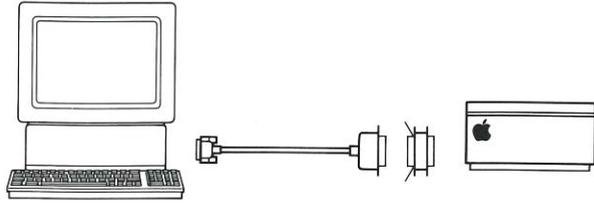


Figure 12
Apple II with one Apple device

The diagrams for laying out the cables feature the Apple IIGS; the procedures are identical for the Apple IIe and Apple II Plus.

Once you add a Cable Extender, you risk more noise on the line and you need a second Cable Terminator: one for each end of the chain. (See Figure 13.)

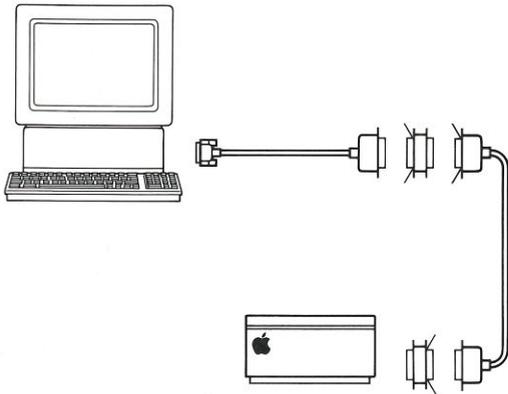


Figure 13
Apple II with Cable Extender and one Apple device

Connecting multiple Apple devices

Whether or not you use Cable Extenders, put one terminator on the large end of the System Cable and the other immediately before the last device.

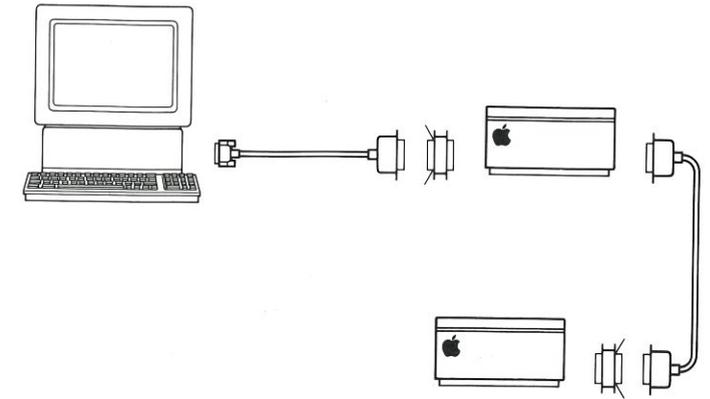


Figure 14
Apple II with several Apple devices

Connecting non-Apple devices

Although SCSI devices from Apple *do not* have built-in terminators, devices from other manufacturers may. Check the manual to make sure. If you plan to connect only one device and it *does not* have a built-in terminator, connect it the same way you connect an Apple device. (See Figure 12 or Figure 13.)

If you have several devices to connect, and *one* of them has an internal terminator, place that device at the end of the chain. Put the first terminator on the System Cable and eliminate the second terminator.

If several of the non-Apple devices in the chain have internal terminators, remove the extra ones or have your Apple dealer remove them.

Warning You can have no more than two terminators in the entire SCSI chain.

Attaching the cables

Start the chain with your computer and plug the System Cable's small end into the SCSI card connector on the computer's back panel. Be sure you are using the SCSI connector.

Warning The SCSI System Cable is the only cable you should plug into the SCSI Card. You could damage your computer if you plug a non-SCSI cable into the SCSI Card.

The first Cable Terminator plugs into the large end of the System Cable. Plug the rest of your cables and devices together, and fasten any wire clips to secure the connections.

If you've laid out a chain that requires a second Cable Terminator, and you have reached the last device, put the terminator on the end of the last cable and then plug it into the last device.

Setting priorities among devices

In the SCSI system, your computer gets top priority. That way, whenever you send or retrieve a file, you interrupt communication between any other devices, so your message gets through first. Your computer comes set up with top priority—it's number 7 in a scheme that runs from 7 down to 0.

You must assign a separate priority number to every peripheral device in your SCSI chain: one device, one number. That way you're sure that you don't have two devices trying to send data at the same time.

You can set the priority of most peripheral devices using some physical mechanism. For some devices you set the number on a wheel against a mark; for other devices, you set one of eight switches. Occasionally, you use software to set the priority. For exact instructions, consult the manual for each device.

In general, you should assign the lower priorities to the least-used equipment. For instance, a backup tape drive, which you use once a day, would be 0. A hard disk, used frequently, might rank just after the computer. The computer has priority 7; so the hard disk would be priority 6.

The priority you assign to each peripheral device will determine which slot and drive ProDOS thinks it is connected to. The device with the highest priority will appear in drive 1 of the slot containing the SCSI Card. The next highest device will appear in drive 2. If your card is in slot 5, and you have more than two devices attached, the third highest priority device will seem (to ProDOS) to be in slot 2, drive 1; and the lowest priority device in slot 2, drive 2.

If you want to start all programs from a hard disk, assign it priority 6 and make sure your SCSI Card is in a higher numbered slot than any other disk controller card, so that your computer will find it first.

❖ *Apple IIGS*: With the Apple IIGS you can designate which slot you want the computer to startup from. It doesn't have to be the card in the highest numbered slot unless you leave the startup slot set to Scan.

Changing the priority of your computer

You can change the priority assigned to your computer by moving a jumper block on the Apple II SCSI Card, but unless you have a very good reason to do it, you ought not to. For details about how to move the jumper block, see "If You Ever Want to Change the Priority of Your Computer" in the *Apple II SCSI Card* manual.

Turning on your devices

You need to turn on the peripheral devices that have terminators attached (the first and last peripheral devices) in order to pass information through the cable system. If you aren't using a device in the middle of the chain, you can leave it switched off.

Most storage devices need to be formatted before you use them for the first time. Consult the manuals that came with your devices.

Checking the system

To make sure your cable system is working properly, use the *System Utilities* disk, the *ProDOS User's Disk*, or the *Apple IIGS System Disk* to make sure that your SCSI storage devices show up in the list of peripherals attached to your computer.

Then use any application to create a short file on your computer and send it to one of the connected SCSI peripheral devices; if it's a hard disk, retrieve the file, too. Carry out any other startup tests the manufacturer recommends.

Troubleshooting

If you have any difficulty, here are some actions to take:

- Make sure each connection is tight.
- Make sure all the SCSI peripheral devices you want to use, and all the devices with terminators, are turned on.
- If you have more than 3 feet (1 meter) of cable, make sure you have one Cable Terminator attached to the System Cable coming out of your computer, and one attached to the last device on the chain.
- If you have more than one SCSI peripheral device connected to your computer, make sure you have one Cable Terminator attached to the System Cable (unless you have a SCSI internal hard disk), and one attached to the last device on the chain.
- Confirm that each peripheral device has its own assigned priority: 6, 5, 4, 3, 2, 1, or 0.
- Make sure that you have run any required installation programs for your peripheral devices, and that you have formatted any storage devices such as hard disks.
- Read the manual to be sure that the manufacturer of the SCSI peripheral device has in fact followed the SCSI interface exactly; any deviations could cause difficulties.
- Confirm that you have connected the SCSI System Cable to your computer's SCSI port. Do not put any other cable in that port! If you have another cable attached to the SCSI port, you may have damaged your computer. If so, please see your dealer.

THE APPLE PUBLISHING SYSTEM

This Apple manual was written, edited, and composed on a desktop publishing system using the Apple Macintosh™ Plus and Microsoft® Word. Proof and final pages were created on the Apple LaserWriter® Plus. POSTSCRIPT™, the LaserWriter page-description language, was developed by Adobe Systems Incorporated.

Text type is ITC Garamond® (a downloadable font distributed by Adobe Systems). Display type is ITC Avant Garde Gothic®. Bullets are ITC Zapf Dingbats®. Program listings are set in Apple Courier, a monospaced font.



Apple Computer, Inc.

20525 Mariani Avenue
Cupertino, California 95014
(408) 996-1010
TLX 171-576

030-0955-B
Printed in the U.S.A.

Return address: _____

Apple Computer, Inc.
P.O. Box 1143
Cupertino, CA 95014
USA

Place
First Class
Postage
Here

