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Apple
Interactive
Television Box

Setting up and using the equipment

Communications Regulation Information

FCC statement

This equipment has been tested and found to comply with the limits for a Class B digital device in accordance with the specifications in Part 15 of FCC rules. See instructions if interference to radio or television reception is suspected.

Radio and television interference

The equipment described in this manual generates, uses, and can radiate 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 found to comply with the limits for a Class B digital device in accordance with the specifications in Part 15 of FCC rules. These specifications are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation.

You can determine whether this device is causing interference by turning it off. If the interference stops, it was probably caused by this device or by another device connected to it.

If this device does cause interference to radio or television reception, 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 device to one side or the other of the television or radio.
■ Move the device farther away from the television or radio.
■ Plug the device into an outlet that is on a different circuit from the television or radio. (That is, make certain the device and the television or radio are on circuits controlled by different circuit breakers or fuses.)

If necessary, consult your service provider. See the service and support information that came with your Apple product. Or, consult an experienced radio/television technician for additional suggestions. You may find the following booklet helpful: *Interference Handbook* (stock number 004-000-00493-1). This booklet, prepared by the Federal Communications Commission, is available from the U.S. Government Printing Office, Washington, DC 20402.

IMPORTANT Changes or modifications to this product not authorized by Apple Computer, Inc., could void the FCC Certification and negate your authority to operate the product.

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

DOC statement

DOC Class B Compliance This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the interference-causing equipment standard entitled "Digital Apparatus," ICES-003 of the Department of Communications.

Observation des normes—Classe B Cet appareil numérique respecte les limites de bruits radioélectriques applicables aux appareils numériques de Classe B prescrites dans la norme sur le matériel brouilleur : "Appareils Numériques," NMB-003 édictée par le ministre des Communications.
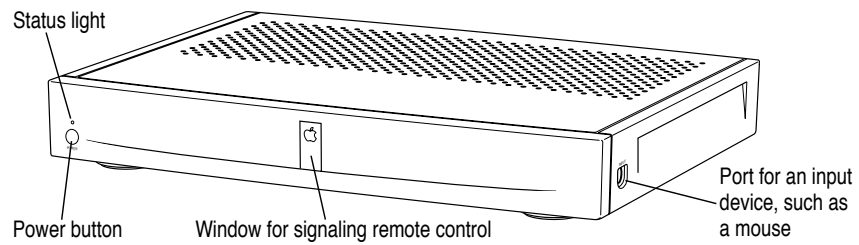
VCCI statement

情報処理装置等電波障害自主規制について

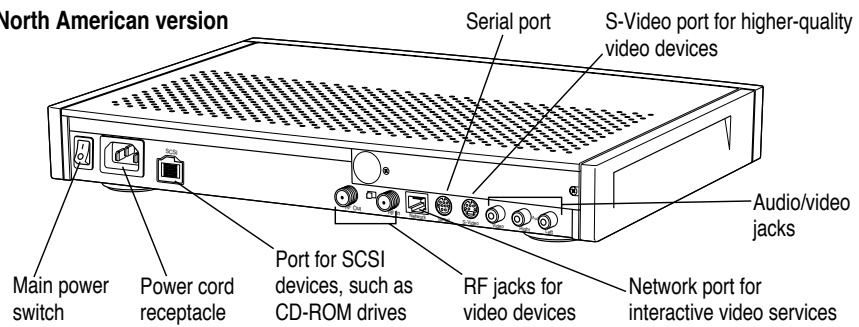この装置は、第二種情報装置（住宅地域又はその隣接した地域において使用されるべき情報装置）で住宅地域での電波障害防止を目的とした情報処理装置等電波障害自主規制協議会（VCCI）基準に適合しております。

しかし、本装置をラジオ、テレビジョン受信機に近接してご使用になると、受信障害の原因となることがあります。
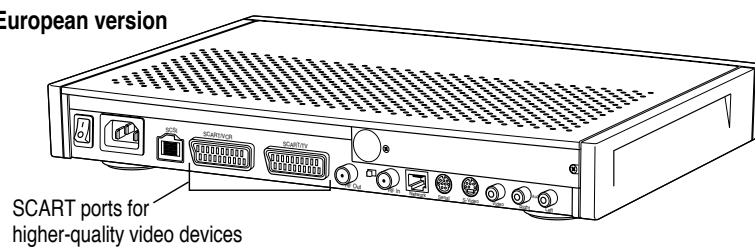
取扱説明書に従って正しい取り扱いをしてください。

The Apple Interactive Television Box at a Glance

Status light

Power button

Window for signaling remote control

Port for an input device, such as a mouse

North American version

Serial port

S-Video port for higher-quality video devices

Main power switch

Power cord receptacle

Port for SCSI devices, such as CD-ROM drives

RF jacks for video devices

Network port for interactive video services

Audio/video jacks

European version

SCART ports for higher-quality video devices

Other devices you may have received with the Apple Interactive Television Box

The Apple Interactive Television Box can be used in many ways. Different services require different sorts of equipment. Depending on the requirements of the service you're using, you may have received some of the following equipment. See the packing list to determine what you received.

Apple Interactive
Television Remote

Apple Multimedia
Remote

CD-ROM drive

Mouse
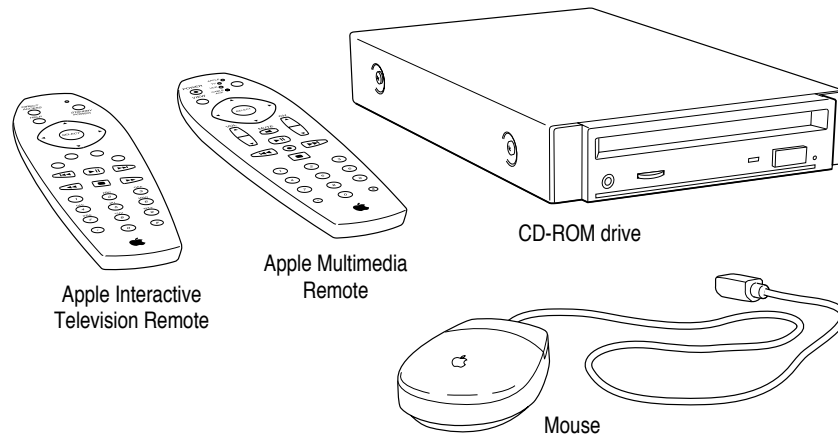
1 Setting Up the Apple Interactive Television Box

With the Apple Interactive Television Box (Apple Interactive TV Box) and the services of an interactive service provider, your TV is no longer something to just "watch." Now, you can take control of your TV set, using it in many exciting new ways.

This manual describes how to set up and use the Apple Interactive TV Box in combination with other audio-visual equipment you may own. For information on how to use your interactive services, please see your service provider's instructions.

Before you begin using the Apple Interactive TV Box, complete the following steps, each of which is explained in this chapter.

- *Step 1:* Decide where to put the Apple Interactive TV Box
- *Step 2:* Connect the Apple Interactive TV Box to your TV setup
- *Step 3:* Connect other devices
- *Step 4:* Plug in the Apple Interactive TV Box
- *Step 5:* Turn on the power and check connections
- *Step 6:* Set up the remote control (if you have one)
- *Step 7:* Lock the Apple Interactive TV Box (if you want to)

Safety First

For your own safety and that of your equipment, always take the following precautions.

Disconnect the power plug (by pulling the plug, not the cord) if any of the following conditions exists:

- the power cord or plug becomes frayed or otherwise damaged
- you spill something into the case
- the Apple Interactive TV Box is exposed to rain or any other excess moisture
- the Apple Interactive TV Box has been dropped or the case has been otherwise damaged
- you suspect that the Apple Interactive TV Box needs service or repair
- you want to clean the case (use only the cleaning instructions given in Chapter 2)

IMPORTANT The only way to disconnect power completely is to unplug the power cord. Make sure at least one end of the power cord is within easy reach so that you can unplug the Apple Interactive TV Box when you need to.

Be sure that you always do the following:

- Keep the Apple Interactive TV Box away from sources of liquids, such as wash basins, bathtubs, shower stalls, and so on.

- Protect the Apple Interactive TV Box from dampness or wet weather, such as rain, snow, and so on.

- Read all the installation instructions carefully before you plug the Apple Interactive TV Box into a wall socket.

- Keep these instructions handy for reference by you and others.

- Follow all instructions and warnings dealing with your system.

- If you plan not to use the remote control for a month or more, remove the batteries from it to avoid damage from battery leakage.

WARNING Electrical equipment may be hazardous if misused. Operation of this product, or similar products, must always be supervised by an adult. Do not allow children access to the interior of any electrical product and do not permit them to handle any cables.

WARNING Do not open the Apple Interactive TV Box or attempt to change the lithium battery inside the device. Doing so could be hazardous, and will void the warranty. Contact your installer or service provider for additional information about this or any other warranty question.

Step 1: Decide where to put the Apple Interactive Television Box

Remove the Apple Interactive TV Box from the shipping container and remove all packing materials. Keep the packing materials in case you need to ship the Apple Interactive TV Box later.

1 **If there are any advice labels on top of the Apple Interactive TV Box, read and remove them.**

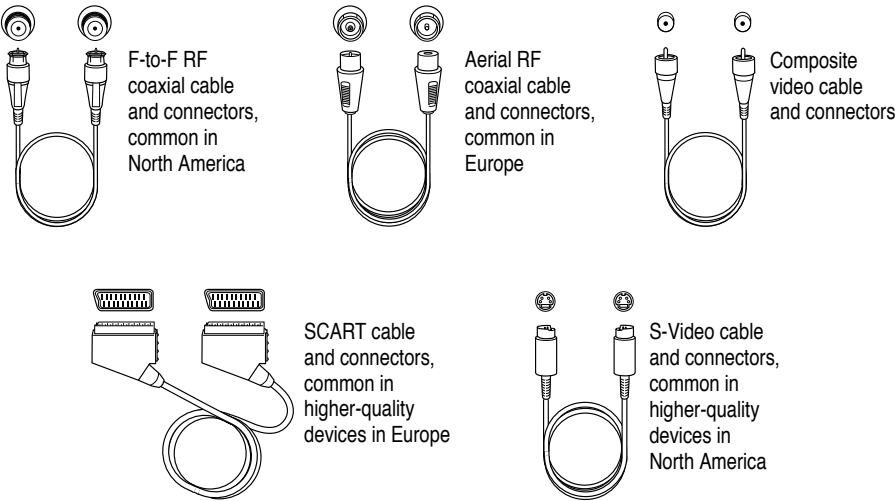**2** **Decide where to put the equipment, taking into account the following:**
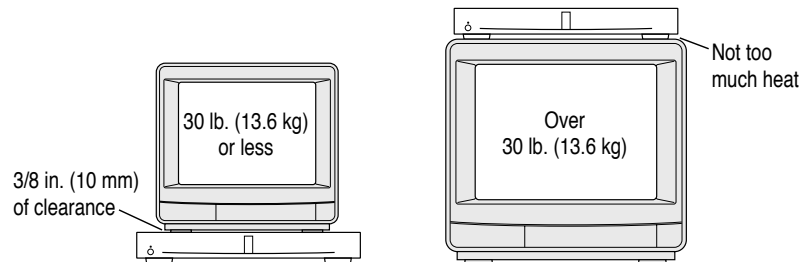
- Apple recommends that you place the Apple Interactive TV Box on top of the television set.

- If you want to put another device on top of the Apple Interactive TV Box, make sure the device weighs no more than 30 pounds (13.6 kilograms) and that it stands on legs that allow at least 3/8 inch (10 millimeters) between the Apple Interactive TV Box and the other device.

- Don't put the Apple Interactive TV Box on top of anything that generates a lot of heat, such as an audio amplifier.

Step 2: Connect the Apple Interactive Television Box to your TV setup

Televisions and other video devices use a variety of connection schemes (configurations). The Apple Interactive TV Box fits easily into many of the most popular configurations.

To determine how to connect the Apple Interactive TV Box to your audio-visual setup:

1 **Note the types of cables and connectors used on your devices.**

F-to-F RF coaxial cable and connectors, common in North America

Aerial RF coaxial cable and connectors, common in Europe

Composite video cable and connectors

SCART cable and connectors, common in higher-quality devices in Europe

S-Video cable and connectors, common in higher-quality devices in North America

To see other names used for these cables and connectors, refer to Appendix B.

2 **Use the table below to decide which hookup diagram you need.**

Detailed diagrams appear in Appendix C.

Equipment you have	Only aerial or F-connectors	Composite video or S-Video on all devices	SCART on all devices (Europe only)
TV only (cable box optional)	Hookup 1	Hookup 2	Hookup 3
TV and VCR (cable box optional)	Hookup 4	Hookup 5A, 5B	Hookup 6
Other equipment	Start with the hookup diagram closest to your situation. Also, see "Other Hookups" in Appendix C, which shows how audio and video signals enter and exit the Apple Interactive TV Box.		

3 **Turn to Appendix C and find the hookup diagram that applies to you.**

4 **Return to this chapter to finish setting up.**

Step 3: Connect other devices

This section describes how to connect your Apple Interactive TV Box to:

- an interactive video service using a network connection

- a CD-ROM drive or other SCSI device

- a mouse or other input device

- a printer, modem, or other serial device

You will probably not have all of these devices. See the packing list that came with your Apple Interactive TV Box to see which devices you have. Read the section for the devices you have, and skip the others.
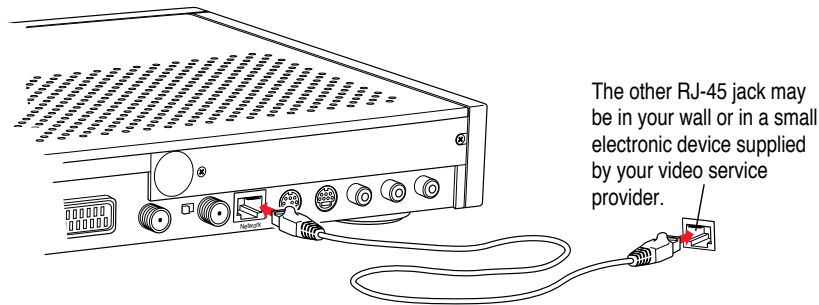
Connecting the Apple Interactive Television Box to an interactive video service

If your Apple Interactive TV Box is part of an interactive video service, you'll need to connect the Apple Interactive TV Box to the service using an RJ-45 cable supplied by your service provider.

1 **If you've already plugged in the Apple Interactive TV Box, make sure the main power is turned off.**

The main power switch is on the back of the Apple Interactive TV Box. The off position is marked with a ○.

2 **Connect the Apple Interactive TV Box to the interactive video service using the RJ-45 cable.**

The other RJ-45 jack may be in your wall or in a small electronic device supplied by your video service provider.

Despite its similar appearance, the RJ-45 cable is not a telephone cable. Do not attempt to connect the Apple Interactive TV Box to your telephone system.

Connecting the Apple Interactive Television Box to a CD-ROM drive or other SCSI device

SCSI stands for Small Computer System Interface, a standard used for many computer devices such as CD-ROM drives and hard disk drives. If you did not receive a SCSI device with your Apple Interactive TV Box, skip this section.

Note: Not all CD-ROM drives work with the Apple Interactive TV Box. Special software is needed for this equipment to work with a CD-ROM drive.

To connect a SCSI device, you'll need an HDI-30 SCSI cable and a SCSI terminator. Check the packing list to see if the cable and terminator came with your Apple Interactive TV Box. If not, you can obtain them from most places that sell computer supplies.

1 **If you've already plugged in the Apple Interactive TV Box, make sure the main power is switched off.**

The main power switch is on the back of the Apple Interactive TV Box. The off position is marked with a ○.

2 **Connect the Apple Interactive TV Box to the SCSI device as shown here:**
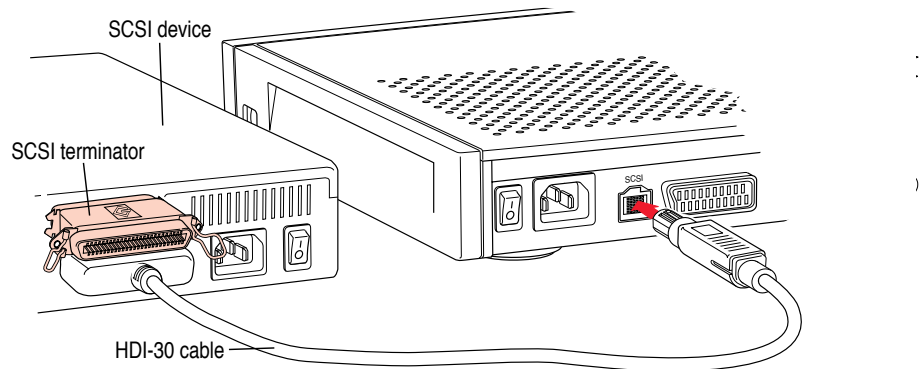
Connecting the Apple Interactive Television Box to a mouse or other input device
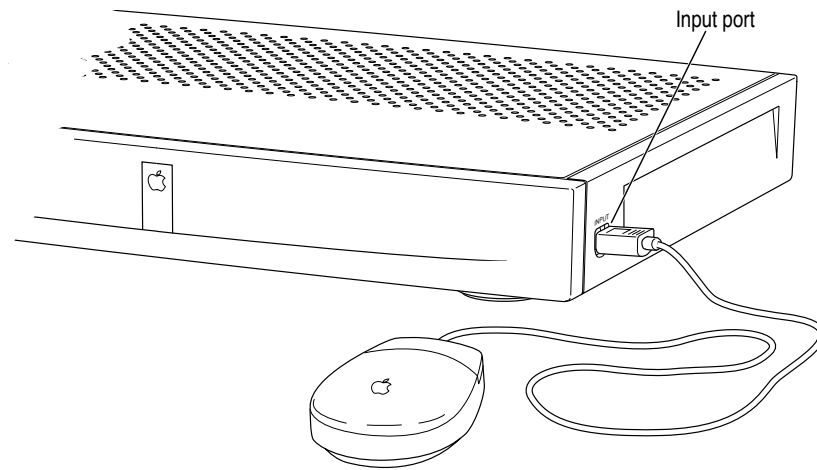
If you received an input device such as a mouse or joystick with your Apple Interactive TV Box, follow the instructions in this section. If not, skip this section.

1 **If you've already plugged in the Apple Interactive TV Box, make sure the main power is turned off.**

The main power switch is on the back of the Apple Interactive TV Box. The off position is marked with a ○.

2 **Connect the Apple Interactive TV Box to the input device.**

Plug the device's cable into the Input port on the right side of the Apple Interactive TV Box as shown here.

Input port

Connecting the Apple Interactive Television Box to a printer, modem, or other serial device

If you received a serial device such as a printer or modem with your Apple Interactive TV Box, follow the instructions in this section. If not, skip this section.

To connect a serial device, you'll need an Apple System/Peripheral 8 cable. Check the packing list to see if it came with your equipment. If not, you can obtain one from most places that sell computer supplies.

1 **If you've already plugged in the Apple Interactive TV Box, make sure the main power is turned off.**

The main power switch is on the back of the Apple Interactive TV Box. The off position is marked with a ○.

2 **Connect the Apple Interactive TV Box to the serial device as shown here:**

Printer

Apple System/Peripheral 8 cable
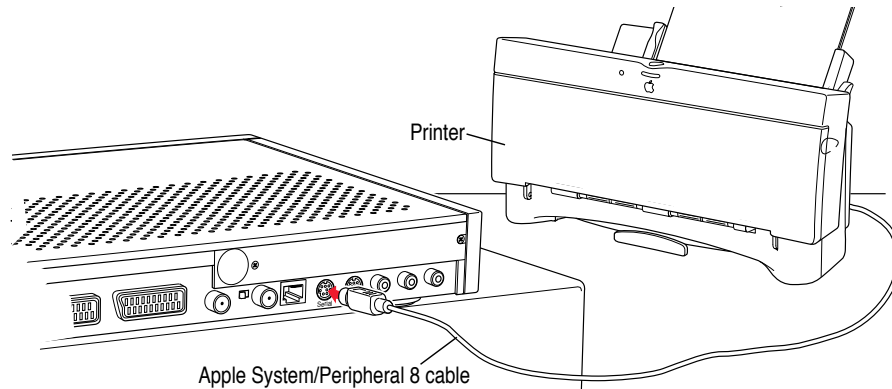
Step 4: Plug in the Apple Interactive Television Box

Plug one end of the power cord into the back of the Apple Interactive TV Box, as shown, and the other end into the wall. Do not turn on the Apple Interactive TV Box yet.

Power cord
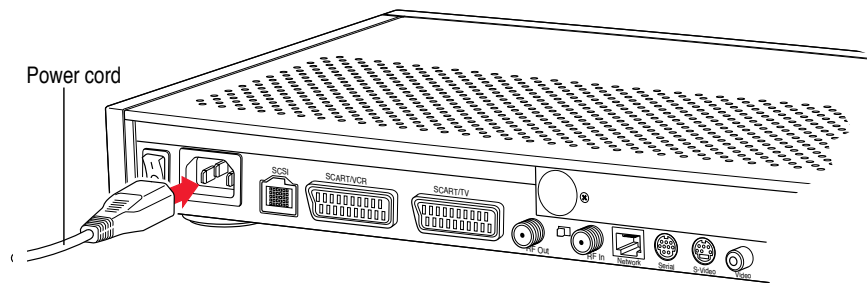
WARNING This equipment is intended to be electrically grounded. Your Apple Interactive TV Box may have come equipped with a three-wire grounding plug—a plug that has a third (grounding) pin. If so, this plug will fit only a grounded AC outlet. This is a safety feature. If you are unable to insert the plug into the outlet because the outlet is not grounded, contact a licensed electrician to replace the outlet with a properly grounded outlet. Do not defeat the purpose of the grounding plug!

## Step 5: Turn on the power and check the connections

The Apple Interactive TV Box has two on/off switches:

- a main power switch in the back, which you can leave on all the time except when connecting devices to the Apple Interactive TV Box or disconnecting devices from it

Main power switch
(I is on, O is off)
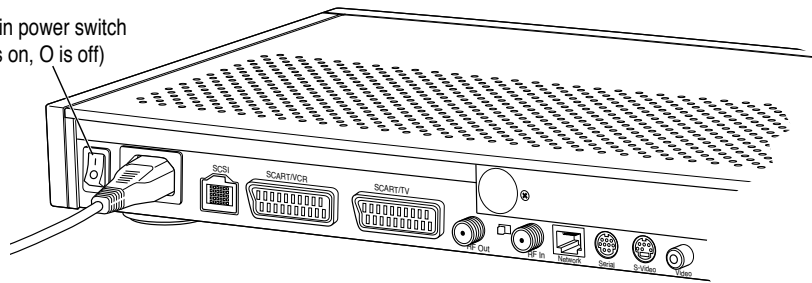
- a Power button in the front, which you use to turn the Apple Interactive TV Box on and off for everyday use

Status light

Power button
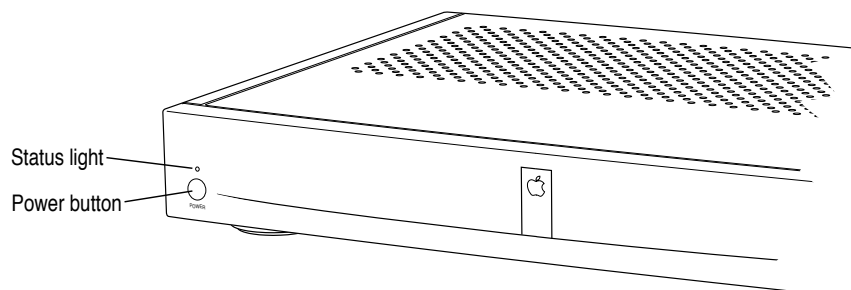
To switch on the Apple Interactive TV Box for the first time:

1 **Switch on the main power at the back of the Apple Interactive TV Box and watch the status light on the front.**

A steady red light comes on for several seconds after the device is switched on. The light then turns yellow. If the red light begins flashing, the Apple Interactive TV Box is not working correctly.

2 **Once the light turns yellow, press the Power button on the front of the device and watch the status light.**

A green light means the Apple Interactive TV Box is in use.

You may also turn on the equipment using your Apple remote control. The Power button on the Apple remote control is equivalent to the Power button on the front of the Apple Interactive TV Box.

3 **Make sure the message from your service provider appears on your TV screen.**

The particular message depends on what service you have. If you don't see a message, check the following:

- Make sure your connection matches the appropriate diagram in Appendix C.
- See the usage notes for your particular hookup in Appendix C. They will tell you whether your VCR (if you have one) should be on or off, the proper channel setting for your TV and VCR, and whether you might have to switch your TV to a special setting.
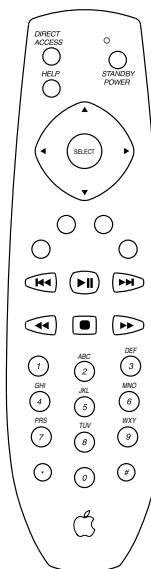
Step 6: Set up the remote control (if you have one)

If you received a remote control with your Apple Interactive TV Box, read this section to learn how to set it up. If not, skip to the next section, "Step 7: Lock the Apple Interactive TV Box."

Device lights

Device button

Select button
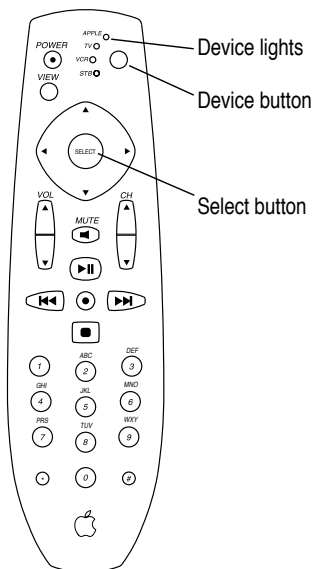
Apple Multimedia Remote
- Can control four types of devices
- Requires programming

Apple Interactive Television Remote
- Controls only the Apple Interactive TV Box
- Does not require programming

Note: If your remote came with its own instructions, you can ignore them; the same information is contained in this manual.

1 **Install the two AAA alkaline batteries included with the remote control.**

The battery cover on the back of the remote slides off for easy installation.

Note: When you change batteries in the Apple Multimedia Remote, you must reprogram the remote.

> **WARNING** When you install the batteries, make sure you orient the positive and negative (+/–) poles correctly, as indicated in the battery compartment. Use only non-rechargeable alkaline, nicad, or lithium batteries. Do not mix old and new batteries; do not mix battery types (for example, do not use a mix of carbon and alkaline batteries). Do not short-circuit the batteries.

2 **Determine whether your remote control requires programming.**

If you have the Apple Multimedia Remote, you must program it, as described in the next section, "Programming the Apple Multimedia Remote."

If you have the Apple Interactive Television Remote, you don't need to program it. Skip ahead to "Step 7: Lock the Apple Interactive TV Box."

Programming the Apple Multimedia Remote

The Apple Multimedia Remote can control not only the Apple Interactive TV Box, but also many TVs, VCRs, and cable boxes. Before you can use the remote, you must tell it what devices you have, as described below. For information on how to use the remote control, see Chapter 2.

1 **Press and release the unmarked Device button at the top right of the remote until the Apple light comes on.**

2 **Press and hold the Device button again until the Apple light blinks. Then release the Device button.**

3 **Press the numbers 003 on the remote control.**

The device number for the remote is 003. Using that number tells the remote that the device you want to control is the Apple Interactive TV Box.

4 **Press and release the Select button.**

The Apple light blinks again and then goes off, indicating that the remote is now programmed to control the Apple Interactive TV Box. To test the remote, press its Power button and watch the status light on the Apple Interactive TV Box. If the light comes on, you have programmed the remote correctly.

You can program the remote for the other devices you wish to control by following a similar procedure, as described in the next topic.

Programming the remote for other devices

For each of the other devices you wish to control with this remote, do the following:

1 **Look up the brand name of the device from the lists of codes in Appendix A.**

2 **Press and release the Device button until the appropriate light comes on: TV, VCR, or Cable/Aux.**

3 **Press and hold the Device button again until the light flashes.**

4 **Enter the three-digit code from Appendix A.**

If there's more than one code for the device, try the first one first. If you accidentally press the wrong numbers, you can correct the mistake simply by pressing the correct three-digit code—the remote pays attention only to the last three digits you enter.

5 **Press and release the Select button.**

The light blinks again and then goes off. If the light doesn't blink, you entered an invalid code. Check the brand name and code in Appendix A and try again.

To test the remote, point it at the device and press the Power button. If the device comes on, you found the right code. If the device doesn't come on, try programming the device using the next appropriate code in Appendix A.

Troubleshooting for programming the remote

- If you don't see your brand of device in the list of codes, try the other codes in the list for that type of device. Many devices share the same codes, even though the devices are sold under different brand names.

- After 30 seconds of inactivity, the remote control assumes you don't want to program it anymore. The device light goes out. You can continue programming the remote by following the steps above.
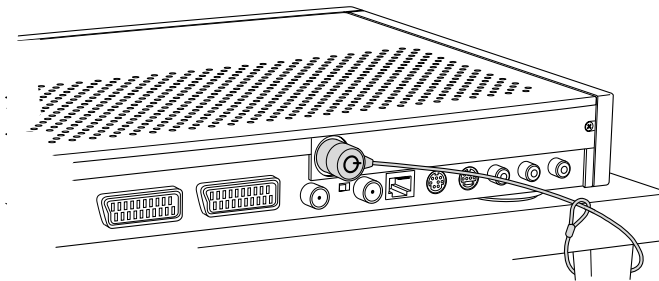
Step 7: Lock the Apple Interactive Television Box

If you're concerned about security, you can purchase a security cable from a computer store (for example, a Kensington brand kit) and lock the Apple Interactive TV Box as shown here:

1 **Use your fingernail to remove the rubber insert from Apple Interactive TV Box locking port.**

Rubber insert
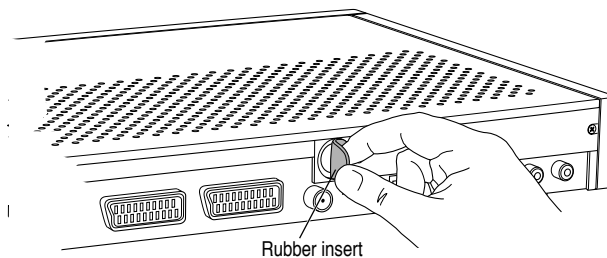
2 **Follow the instructions that came with the security cable to lock the Apple Interactive TV Box to a secure object.**
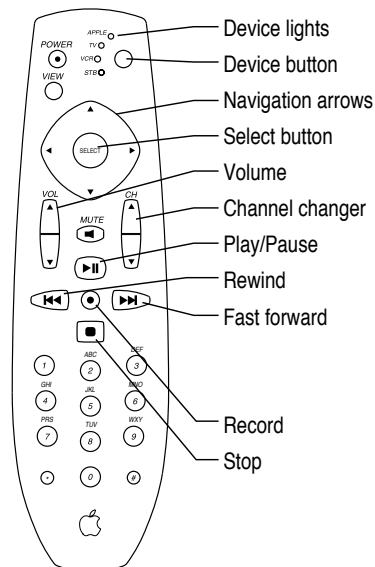
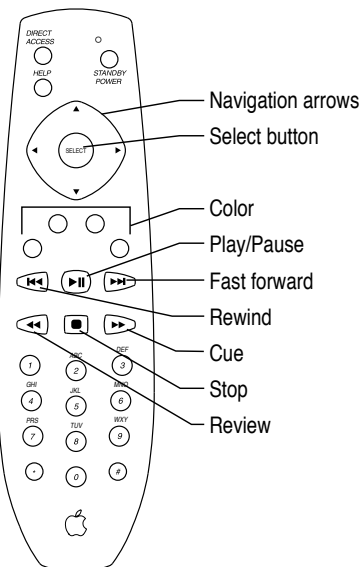# 2 Using the Apple Interactive Television Box

Using your interactive video service

The interactive video service is controlled by your interactive service provider. See the service provider's instructions for information.

Using the remote control

Apple Multimedia Remote
- Device lights
- Device button
- Navigation arrows
- Select button
- Volume
- Channel changer
- Play/Pause
- Rewind
- Fast forward
- Record
- Stop

Apple Interactive Television Remote
- Navigation arrows
- Select button
- Color
- Play/Pause
- Fast forward
- Rewind
- Cue
- Stop
- Review

Apple Multimedia Remote
■ Can control four types of devices

Apple Interactive Television Remote
■ Controls only the Apple Interactive TV Box

To use either remote control, point it at the Apple Interactive TV Box and press the button you want. (See the table that follows for a description of the different buttons.) Each time the Apple Interactive TV Box receives a command from the remote control, the status light on the Apple Interactive TV Box blinks yellow.

Button	Action
Stby/Power or Power	Turns the device on or off.
Direct Access	See the interactive service provider's instructions.
Help/View	See the interactive service provider's instructions.
Device	Determines which device the remote will control; the lights indicate which device is selected; see "How to use the Apple Multimedia Remote to control several devices" later in this chapter.
Navigation arrows	See the interactive service provider's instructions.
Select	See the interactive service provider's instructions.
Fast-key color buttons	See the interactive service provider's instructions.
Volume	No effect on the Apple Interactive TV Box; increases the volume of the TV.
Channel changer	No effect on the Apple Interactive TV Box; changes the channel of other devices.
Mute	No effect on the Apple Interactive TV Box; turns the sound of the TV on or off.
Play/Pause	Alternately plays and pauses a program.
Fast Forward or Cue	See the interactive service provider's instructions.
Rewind or Review	See the interactive service provider's instructions.
Stop	Stops the program.
Record	No effect on the Apple Interactive TV Box; tells the VCR to start recording.
Numbers	For an ITV service, they are used to indicate choices; for other devices, they change channels.
# and *	See the interactive service provider's instructions.

How to use the Apple Multimedia Remote to control several devices

To control devices with the Apple Multimedia Remote:

1 **Press the unmarked Device button in the upper right to select which device you want to control.**

2 **Use the buttons as you normally would for the device you're controlling.**

Example: To turn your TV on or off, use the Device button to select TV, and then press the Power button.

Notes:

■ A few buttons operate a specific device regardless of which device you've selected. For example, the Volume and Mute buttons always control your TV and the Record button always controls your VCR.

■ Some features on the original remote that came with your TV may not be available with the Apple Multimedia Remote.

■ Some functions may have different names. For example, the original remote that came with your TV may say On/Off, but this remote says Power.

Using the Apple Interactive Television Box's Power button to watch different devices

This light glows while the Apple Interactive TV Box is on.
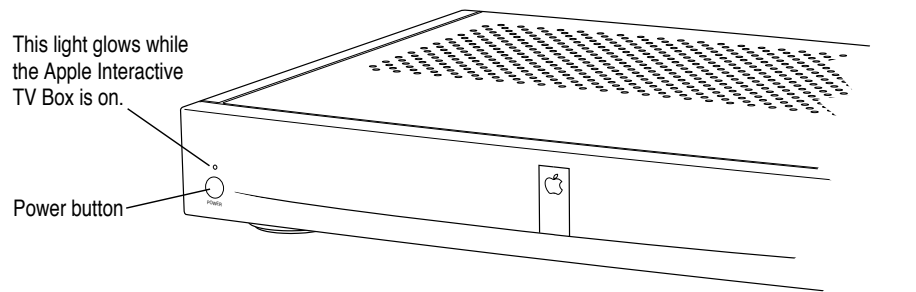
Power button

Use the Power button on the front of the Apple Interactive TV Box (or the equivalent button on the remote control) to choose the video source you want to watch.

IMPORTANT Use the Power button on the front of the Apple Interactive TV Box or on the remote control to turn the Apple Interactive TV Box on or off. Do not use the switch on the back of the device.

■ To use interactive TV, use the front Power button to turn on the Apple Interactive TV Box. You know the Apple Interactive TV Box is in use when the status light is green.

■ To watch programs from your antenna, cable system, VCR, or similar device, use the front Power button to turn off the Apple Interactive TV Box. You know the Apple Interactive TV Box is off when the status light is yellow.

To determine how to choose among the other devices you may have connected to your TV set, see the manuals that came with those devices. You may also want to read the usage notes for various configurations in Appendix C in this manual.

Using other devices with the Apple Interactive Television Box

For information on using other devices—such as a CD-ROM drive or a mouse—see the instructions provided with the device or check the interactive service provider's manual.

Cleaning the Apple Interactive Television Box

From time to time you may need to clean or dust your Apple Interactive TV Box.

To clean the case:

1 Disconnect the power plug. (Pull the plug, not the cord.)

2 Wipe the surfaces lightly with a clean, soft cloth dampened with water.

> **WARNING** Don't use ammonia-based or alcohol-based cleaners on or around the Apple Interactive TV Box. These cleaners can damage the case.

3 Troubleshooting

This chapter offers solutions to some problems you may encounter while using the Apple Interactive TV Box and remote control. For troubleshooting tips on using your interactive video service, see the instructions given to you by your service provider.

> **WARNING** Do not attempt to repair the Apple Interactive TV Box yourself. Do not open the Apple Interactive TV Box or attempt to change the lithium battery inside the device. Attempting to repair the equipment yourself could be hazardous, and will void the warranty. Contact your service provider for additional information about this or any other warranty question.

I just switched on the main power on the back of the Apple Interactive TV Box, but the front Power button isn't working.

- It takes a few seconds after the main power is switched on before the Apple Interactive TV Box is ready. When the status light on the front of the Apple Interactive TV Box is yellow, push the front Power button and begin using the equipment.

My TV isn't getting signals from the antenna, cable source, VCR, or similar device.

- First, make sure the main power switch on the back of the Apple Interactive TV Box is on. Then check to see that the Power button on the front of the equipment is turned off. The status light must be yellow.

I can't record a program on my VCR.

- Some pay-per-view programs are copy-protected. This means that the programs may be scrambled if you record them.
- Compare your configuration to hookup diagrams 4, 5A and 5B, and 6 in Appendix C. If you're using video cables, S-Video cables, or RF cables (also called coaxial cables or aerial leads), it's especially important to make sure that your antenna or cable is plugged into the Apple Interactive TV Box and that the output of the Apple Interactive TV Box is plugged into your VCR.
- Check your VCR manual for other troubleshooting tips.

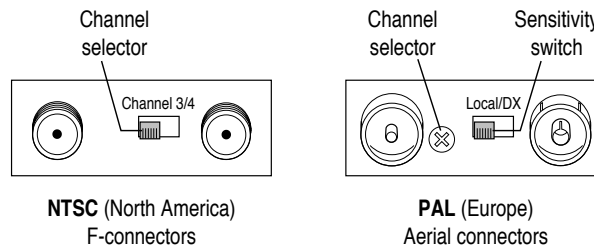**The remote control isn't working.**

■ If the remote works only when you're close to the device, the batteries may be weak.

  Note: When you change batteries in the Apple Multimedia Remote, you will have to reprogram it.

■ If you're using the Apple Multimedia Remote, make sure you've programmed it correctly as described in Chapter 1 and that you've selected the device you want using the unmarked Device button in the upper-right corner.

■ If you just changed the batteries in the Apple Multimedia Remote, you will have to reprogram the remote again by following the instructions in Chapter 1.

■ Try resetting the Apple Interactive TV Box by turning it off using the main power switch on the back. Wait 5 seconds before turning the equipment on again.

The picture on my TV is unclear.

■ Make sure your connections are secure. The best way to make sure a plug is in all the way is to remove it and then put it back in.

■ Your equipment may be incorrectly connected and you are seeing a scrambled signal from a pay-per-view, copy-protected program.

■ If your hookup uses RF cables, try adjusting the RF signal. Depending on which RF connectors you have, you can make different adjustments. In North America, try switching between channels 3 and 4; in Europe, adjust the sensitivity or use a Phillips screwdriver to adjust the channel between 32–40.

Channel selector   Channel selector   Sensitivity switch

Channel 3/4   Local/DX

NTSC (North America)   **PAL** (Europe)
F-connectors   Aerial connectors

The Apple Interactive TV Box won't turn off when I use the remote control.

■ First try turning the device off by using the front Power button.

■ If that doesn't work, try resetting the Apple Interactive TV Box by turning it off using the switch on the back. Wait 5 seconds before turning it on again.

The Apple Interactive TV Box doesn't respond to any commands.

■ Try resetting the Apple Interactive TV Box by turning it off using the switch on the back. Wait 5 seconds before turning it on again.

Appendix A
Device Codes for the Apple Multimedia Remote

Device Table

TV Codes

Anam	016	Marantz	057	Scott	015
AOC	000	Memorex	051	Scott	016
Candle	006	MGA	058	Scott	016
Citizen	009	Mitsubishi	000	Scott	021
Contec	016	Mitsubishi	044	Sears	015
Craig	016	Mitsubishi	057	Sears	041
CXC	016	Mitsubishi	058	Sears	079
Daewoo	000	MTC	000	Sharp	083
Daewoo	009	Multitech	090	Signature	051
Daewoo	012	NEC	000	Sony	084
Emerson	015	NEC	045	Soundesign	016
Emerson	016	Onwa	016	SSS	000
Emerson	017	Panasonic	059	SSS	016
Emerson	019	Panasonic	060	Sylvania	088
Emerson	021	Penney	000	Tandy	090
Emerson	022	Penney	029	Teknika	000
Fisher	027	Penney	040	Teknika	009
Fujitsu	015	Penney	041	Teknika	015
Funai	015	Philco	000	Teknika	016
Funai	016	Philips	061	Teknika	051
Futuretech	016	Pioneer	062	Toshiba	041
GE	029	Portland	000	Toshiba	079
GE	030	Pulsar	051	Toshiba	091
GE	031	Quasar	065	Universal	029
GE	092	Radio Shack	016	Universal	030
Goldstar	000	Radio Shack	075	Vidtech	000
Goldstar	032	RCA	000	Wards	000
Hitachi	033	RCA	040	Wards	015
Hitachi	038	RCA	066	Wards	029
JVC	046	RCA	067	Wards	030
JVC	048	RCA	068	Wards	051
KTV	016	RCA	092	Wards	092
Logik	051	Samsung	000	Yamaha	000
LXI	079	Samsung	075	Zenith	051
Magnavox	006	Sanyo	027	Zenith	093
Magnavox	053	Sanyo	077		

Device Table *(continued)*

VCR Codes

Akai	000	Magnavox	039	Realistic	058
Audio	004	Memorex	040	Realistic	061
Canon	009	MGA	080	Realistic	062
Craig	061	Minolta	029	Samsung	061
Curtis	012	Mitsubishi	042	Sanyo	062
Daewoo	014	Mitsubishi	043	Scott	063
Emerson	000	Mitsubishi	044	Sears	028
Emerson	016	Mitsubishi	045	Sears	029
Emerson	017	Mitsubishi	080	Sears	062
Emerson	020	MTC	061	Sears	064
Emerson	021	NAD	054	Sharp	065
Emerson	029	NEC	050	Sony	067
Fisher	022	Panasonic	009	Sony	068
Funai	024	Penney	028	STS	028
GE	025	Penney	061	Sylvania	080
GE	026	Pentax	028	Teknika	078
Goldstar	027	Pentax	029	Toshiba	063
Harmon/Kardon	044	Pioneer	054	Toshiba	080
Hitachi	026	Pulsar	040	Totevision	061
Hitachi	028	Quartz	062	Unitech	061
Hitachi	029	RCA	025	Wards	028
Hitachi	030	RCA	026	Wards	033
JVC	034	RCA	029	Wards	061
JVC	037	RCA	055	Zenith	040
Kenwood	062	RCA	056	Zenith	082
Magnavox	038	RCA	057	Zenith	083

Cable Codes

Eagle	000	Panasonic	031	Scientific Atlanta	049
Hosptnet	006	Pioneer	033	Skypix	053
Jerrold	017	Pioneer	035	Sylvania	054
Jerrold	019	Pioneer	039	Tocom	055
Jerrold	022	Samsung	041	Zenith	058
Oak	025	Scientific Atlanta	043	Zenith	059
Oak	027	Scientific Atlanta	044	Zenith	060
Oak	029				

Apple Codes

|	
Apple combination (Apple TV system, CD-ROM drive)	000
Apple TV systems	001
Apple CD-ROM drive	002
Apple Interactive TV Box	003

Appendix B
Cables and Connectors

This appendix shows many of the cables and connectors you might use with the Apple Interactive TV Box and lists the different names each might be called.

RF cables and connectors

Though RF stands for radio frequency, RF cables today are widely used to carry television signals. Chances are, your cable company uses RF cables to connect to your TV or VCR. RF cable is rated at 75 ohms. North America and Europe have different standards for RF cables and jacks.

In North America, RF cables and connectors look like this:
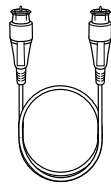
RF cable with F-connectors
also known as
Coaxial cable with F-connectors,
coax cable,
F-to-F antenna connecting cable,
F-to-F VCR hookup cable,
CATV (cable TV) wires

RF connector
also known as
RF In, RF Out
CATV (cable TV)

In Europe, RF cables and connectors look like this:
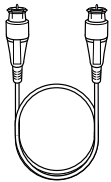
RF cable with aerial connectors
also known as
TV-to-VCR aerial cables,
aerial leads

RF connector
also known as
RF In, RF Out
aerial connector

North America: Higher-quality audio-visual connections

In North America, higher-quality equipment uses specialized cables to carry the audio and visual signals between different components. Equipment like this uses two cables (sometimes attached to each other for convenience) to carry the left and right audio signals, and another cable to carry the video signal—either a composite video cable or an S-Video cable. Many people think S-Video offers a superior picture.
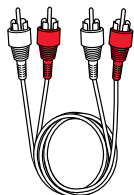
Audio cables
also known as
RCA-to-RCA video/audio cable,
dubbing cable
(the right cable is usually red)

Left/right audio jacks
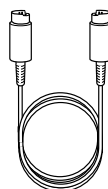
S-Video cable
also known as
separate video cable,
separate VHS dubbing cable

S-Video jack
also known as
separate video jack
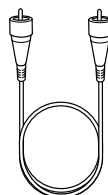
Video cable
also known as
composite video cable,
RCA-to-RCA video/audio cable,
dubbing cable
(this cable is identical to the left
and right audio cables)

Video jack
also known as
composite video jack

Europe: Higher-quality audio-visual connections

In Europe, higher-quality equipment uses a single SCART cable to carry both the audio and visual signals, as well as other information. (SCART is a French acronym for the name of the society that created the standard on which the cable is based.) Unlike other systems, a single SCART connector and cable can send and receive information.
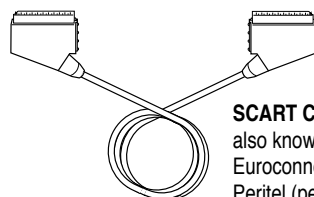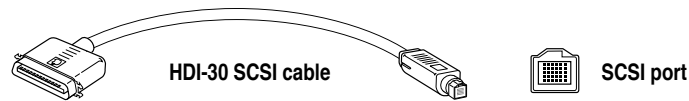
SCART Cable
also known as
Euroconnector cable,
Peritel (peripheral television) cable
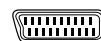
SCART connector
also known as
Euroconnector,
Peritel connector

Other cables

The HDI-30 cable is used to connect CD-ROM drives and other computer devices to the Apple Interactive TV Box:

HDI-30 SCSI cable   **SCSI port**

The Apple Desktop Bus (ADB) cable is used to connect computer mouse devices, joysticks, and other input devices to the Apple Interactive TV Box:

ADB cable
also known as
Apple Desktop Bus cable,
Input cable   **ADB port**
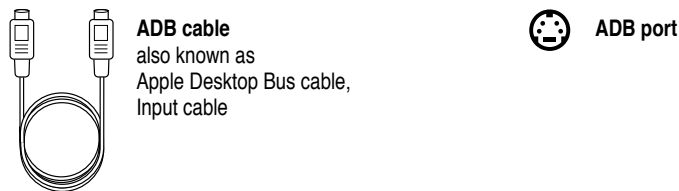
The serial cable is used to connect printers, modems, and other serial devices to the Apple Interactive TV Box:

Serial cable
also known as
Apple System/Peripheral 8 cable   **Serial port**
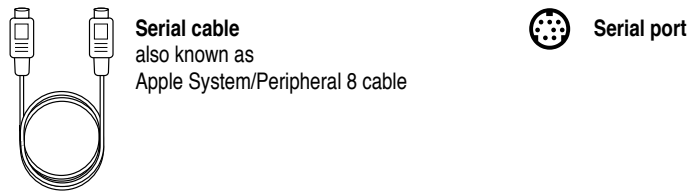
The RJ-45 cable is used to connect the Apple Interactive TV Box to an interactive service:

RJ-45 cable   **RJ-45 connector**

Appendix C
Hookup Diagrams

This appendix contains a number of diagrams that show how to connect the Apple Interactive TV Box to your TV set and other video devices you may have. It also gives usage notes on how to use the different devices in each arrangement (configuration).
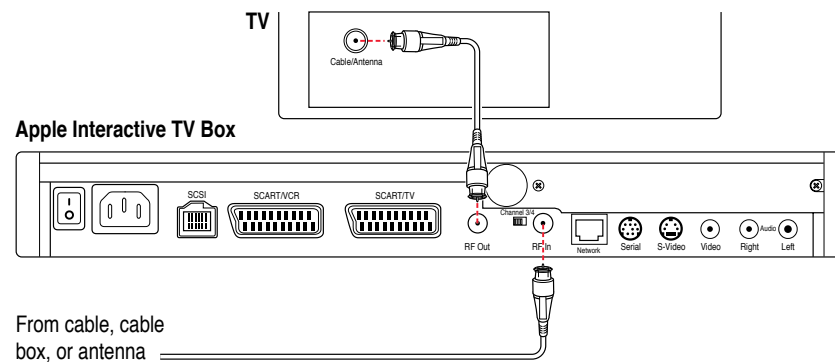
- *Hookup 1:* TV with an aerial or F-connector
- *Hookup 2:* TV with a composite video or an S-Video connector
- *Hookup 3:* TV with a SCART connector
- *Hookup 4:* TV and VCR with aerial or F-connectors
- *Hookup 5A:* TV and VCR with composite video connectors
- *Hookup 5B:* TV and VCR with composite video and S-Video connectors
- *Hookup 6:* TV and VCR with SCART connectors
- Other hookups

After you finish connecting your equipment, remember to return to Chapter 1.

Hookup 1: TV with an aerial or F-connector

Cables you need:

- the cable from your antenna or cable system

- either a coaxial cable with F-connectors (common in North America) *or* a VCR-to-TV aerial cable (common in Europe/Australia); see "How to Tell Which RF Connectors You Have" at the end of this appendix

TV

Cable/Antenna

Apple Interactive TV Box

SCSI   SCART/VCR   SCART/TV

Channel 3/4

RF Out   RF In   Network   Serial   S-Video   Video   Right   Left
Audio

From cable, cable
box, or antenna

Connection notes: (1) SCART connectors are used only in Europe. SCART ports shown in the illustration may not appear on North American versions of the Apple Interactive TV Box. (2) This illustration shows F-connectors, which are common in North America; aerial connectors are common in Europe/Australia.

Usage notes:

To watch the Apple Interactive TV Box:

- Make sure the main power on the back of the Apple Interactive TV Box is switched on and the front status light is yellow.

- In North America, turn on the Apple Interactive TV Box (using the Power button on the front panel or on the remote control) and tune your TV to channel 3 or 4.
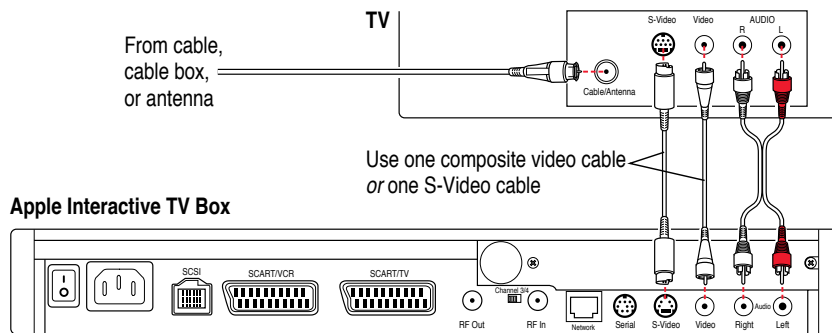
- In Europe, turn on the Apple Interactive TV Box (using the Power button on its front panel or on the remote control) and tune your TV to channel 32–40.

To watch TV:

- Turn off the Apple Interactive TV Box, using the Power button on the front panel or on the remote control.

After you finish with your hookup, remember to return to Chapter 1.

Hookup 2: TV with a composite video or an S-Video connector

Cables you need:

- the cable from your antenna or cable system

- two audio cables (if they come in pairs, you'll need one pair)

- one composite video cable *or* one S-Video cable; S-Video cables deliver a better picture

Connection notes: (1) SCART connectors are used only in Europe. SCART ports shown in the illustration may not appear on North American versions of the Apple Interactive TV Box. (2) This illustration shows F-connectors, which are common in North America; aerial connectors are common in Europe/Australia. (3) You can use either S-Video or composite video cables. You don't need both.

Usage notes:

To watch the Apple Interactive TV Box:

- Make sure the main power on the back of the Apple Interactive TV Box is switched on and the front status light is yellow.

- Turn on the Apple Interactive TV Box (using the Power button on the front panel or on the remote control) and set your TV to the Video or S-Video source. On many TVs, this means selecting LINE as your source.
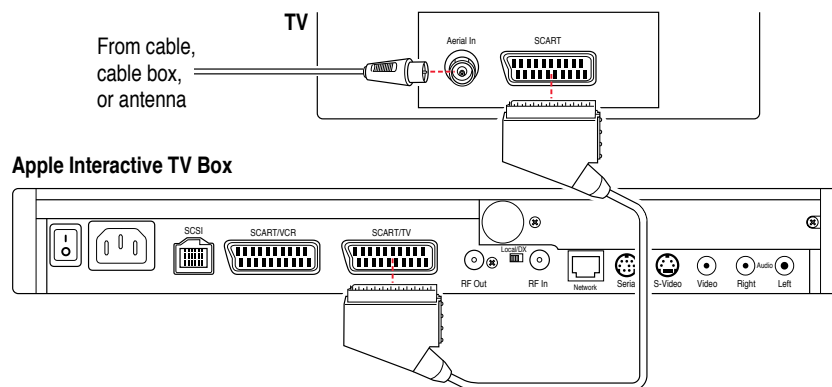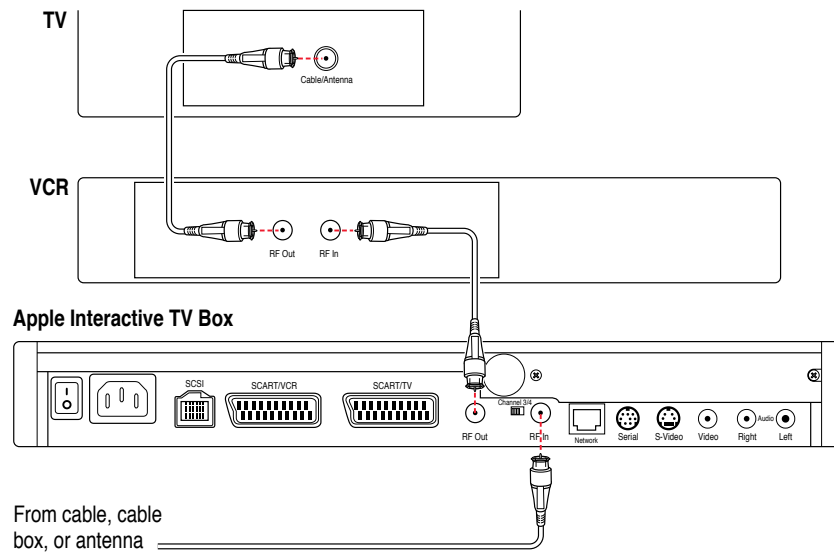
To watch TV:

- Follow the instructions that came with your TV. On many TVs, this means selecting ANTENNA as the source.

After you finish with your hookup, remember to return to Chapter 1.

Hookup 3: TV with a SCART connector

Cables you need:

- the cable from your antenna or cable system
- one SCART cable

TV

From cable,
cable box,
or antenna

Aerial In   SCART

Apple Interactive TV Box

SCSI   SCART/VCR   SCART/TV   Local/DX   RF Out   RF In   Network   Serial   S-Video   Video   Right   Left   Audio

Connection notes: (1) SCART connectors are used in Europe.

Usage notes:

To watch the Apple Interactive TV Box:

- Make sure the main power on the back of the Apple Interactive TV Box is switched on and the front status light is yellow.
- Turn on the Apple Interactive TV Box (using the Power button on its front panel or on the remote control).

To watch TV:

- Turn off the Apple Interactive TV Box.

After you finish with your hookup, remember to return to Chapter 1.

Hookup 4: TV and VCR with aerial or F-connectors

Cables you need:

■ the cable from your antenna or cable system

■ either two coaxial cables with F-connectors (common in North America) *or* two VCR-to-TV aerial cables (common in Europe/Australia); see "How to Tell Which RF Connectors You Have" at the end of this appendix

TV

Cable/Antenna

VCR

RF Out   RF In

Apple Interactive TV Box

SCSI   SCART/VCR   SCART/TV   Channel 3/4

RF Out   RF In   Network   Serial   S-Video   Video   Right   Left
                                                                  Audio

From cable, cable box, or antenna

Connection notes: (1) SCART connectors are used only in Europe. SCART ports shown in the illustration may not appear on North American versions of the Apple Interactive TV Box. (2) This illustration shows F-connectors, which are common in North America; aerial connectors are common in Europe/Australia.

Usage notes:

To watch the Apple Interactive TV Box:

■ Make sure the main power on the back of the Apple Interactive TV Box is switched on and the front status light is yellow.

■ Turn on the Apple Interactive TV Box (using the Power button on the front panel or on the remote control) and tune your TV to channel 3 or 4 in North America, or to channel 32–40 in Europe.

To watch TV or the VCR:

■ Turn off the Apple Interactive TV Box (using the Power button on its front panel or on the remote control).

To record a program from the Apple Interactive TV Box:

■ Press Record on your VCR while watching the program. (*Note:* Some pay-per-view programs are copy-protected. This means that the programs may be scrambled if you record them. To watch these programs, turn off your VCR.)

After you finish with your hookup, remember to return to Chapter 1.

Hookup 5A: TV and VCR with composite video connectors

Cables you need:

■ the cable from your antenna or cable system

■ one coaxial cable with F-connectors

■ three Y-adapter cables
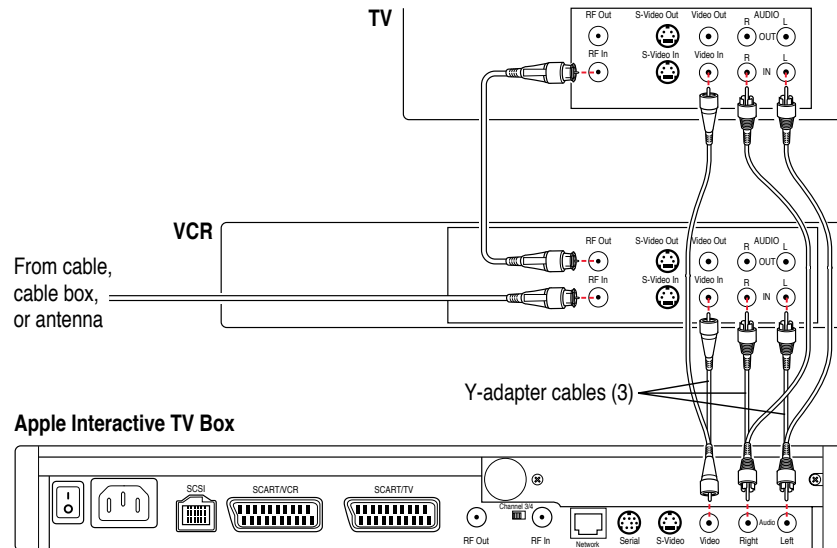
Connection notes: (1) SCART connectors are used only in Europe. SCART ports shown in the illustration may not appear on North American versions of the Apple Interactive TV Box. (2) This illustration shows F-connectors, which are common in North America; aerial connectors are common in Europe/Australia.

Usage notes:

To watch the Apple Interactive TV Box:

■ Make sure the main power on the back of the Apple Interactive TV Box is switched on and the front status light is yellow.

■ Turn on the Apple Interactive TV Box (using the Power button on the front panel or on the remote control).

■ Turn off the VCR.

■ Switch the TV's source input selector to the Apple Interactive TV Box. For example, if you connected the Apple Interactive TV Box to the Video 1 source, switch to Video 1.

To watch your VCR:

■ Turn on the VCR and switch its VCR/TV selector to VCR.

■ Switch the TV's source input selector to TV, and tune the TV to channel 3 or 4.

To watch TV:

■ Turn off the VCR (or switch its VCR/TV selector to TV).

■ Switch the TV's source input selector to TV.

To record a program from the Apple Interactive TV Box:

■ Press Record on the VCR while the program is on.

■ To watch the program on TV while you're recording, switch the VCR's VCR/TV selector to VCR. Set the TV's source input selector to TV.

Note: Some pay-per-view programs are copy-protected. Such programs may be scrambled if you record them. To watch these programs, switch the TV's source input selector to the Apple Interactive TV Box.

After you finish with your hookup, remember to return to Chapter 1.

Hookup 5B: TV and VCR with composite and S-Video connectors

Cables you need:

■ the cable from your antenna or cable system

■ two audio cables (if they come in pairs, you'll need two pairs)

■ two composite video cables and one S-Video cable

■ two Y-adapter cables
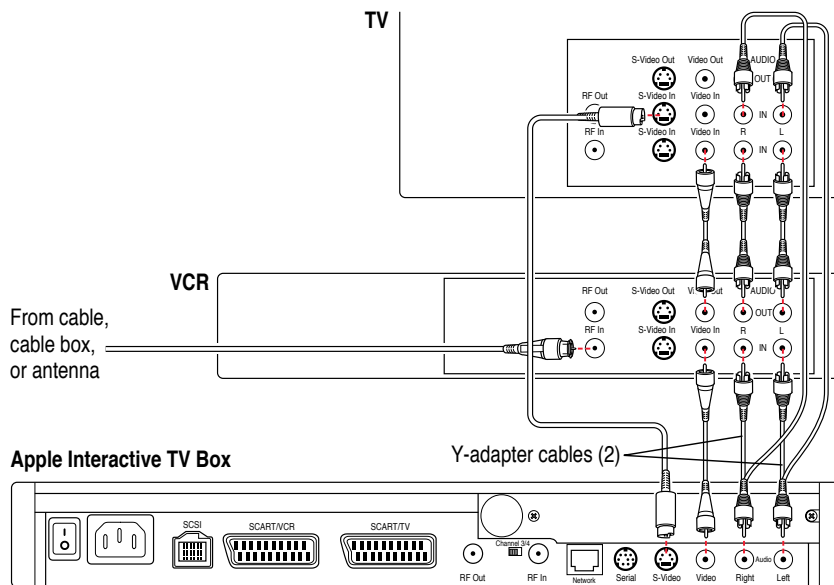
Connection notes: (1) SCART connectors are used only in Europe. SCART ports shown in the illustration may not appear on North American versions of the Apple Interactive TV Box. (2) This illustration shows F-connectors, which are common in North America; aerial connectors are common in Europe/Australia.

Usage notes:

To watch the Apple Interactive TV Box:

■ Make sure the main power on the back of the Apple Interactive TV Box is switched on and the front status light is yellow.

■ Turn on the Apple Interactive TV Box (using the Power button on the front panel or on the remote control).

■ Switch the TV's source input selector to the Apple Interactive TV Box. For example, if you connected the Apple Interactive TV Box to the Video 1 source, switch to Video 1.

To watch your VCR:

■ Turn on the VCR and switch its VCR/TV selector to VCR. Switch the VCR line selector to Line.

■ Switch the TV's source input selector to VCR.

To watch TV:

■ Turn off the VCR (or switch its VCR/TV selector to TV).

■ Switch the TV's source input selector to TV.

To record a program from the Apple Interactive TV Box:

■ Press Record on the VCR while the program is on.

■ To watch the program on TV while you're recording, switch the VCR's VCR/TV selector to VCR. Set the TV's source input selector to VCR.
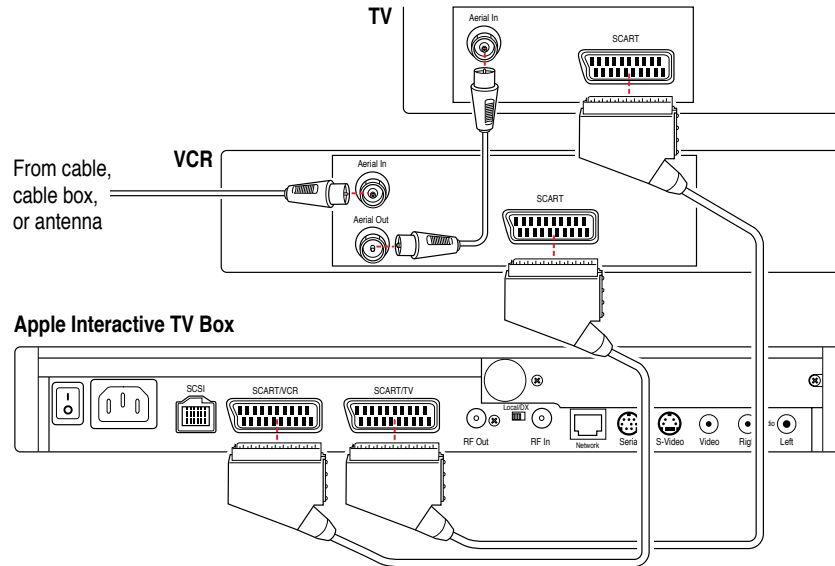
Note: Some pay-per-view programs are copy-protected. Such programs may be scrambled if you record them. To watch these programs, switch the TV's source input selector to the Apple Interactive TV Box.

After you finish with your hookup, remember to return to Chapter 1.

Hookup 6: TV and VCR with SCART connectors

Cables you need:

■ the cable from your antenna or cable system

■ one VCR-to-TV aerial cable

■ two SCART cables

TV

Aerial In

SCART

VCR

From cable, cable box, or antenna

Aerial In

SCART

Aerial Out

Apple Interactive TV Box

SCSI   SCART/VCR   SCART/TV   Local/DX   RF Out   RF In   Network   Serial   S-Video   Video   Right   Left

Connection notes: SCART connectors are used only in Europe.

Usage notes:

To watch the Apple Interactive TV Box:

- Make sure the main power on the back of the Apple Interactive TV Box is switched on and the front status light is yellow.

- Turn on the Apple Interactive TV Box (using the Power button on the front panel or on the remote control).

To watch TV or the VCR:

- Turn off the Apple Interactive TV Box.

To record a program:

- Press Record on your VCR while watching the program. *Note:* Some pay-per-view programs are copy-protected. Such programs may be scrambled if you record them.

After you finish with your hookup, remember to return to Chapter 1.

Other hookups

If you want to connect other sorts of equipment, you may need to know how different sorts of signals enter and exit the Apple Interactive TV Box.
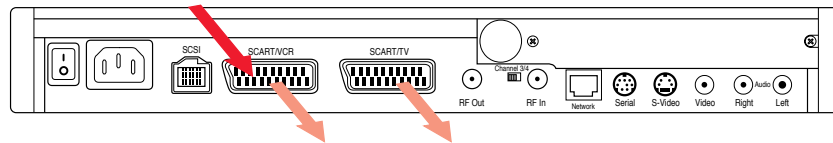
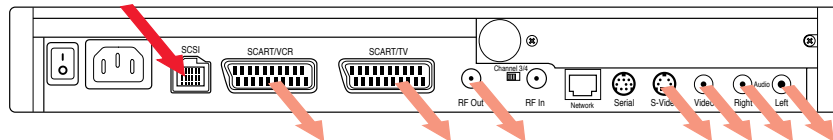■ If the signal comes into the RF In port, it exits only from the RF Out port.
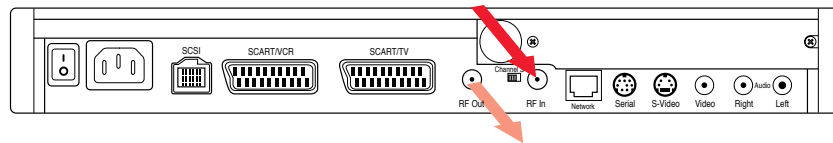
■ If the program originates from the Network port, it is available from any of the output ports.
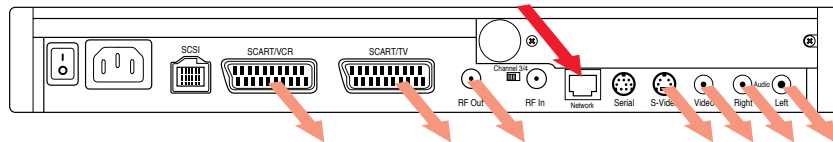
■ If the signal comes into the SCART ports, it exits only from the SCART ports.

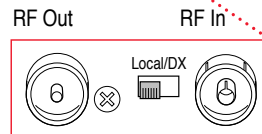■ If the program originates from the SCSI port, it is available from any of the output ports.

Connection notes: (1) SCART connectors are used only in Europe. SCART ports shown in the illustration may not appear on North American versions of the Apple Interactive TV Box.

How to tell which RF connectors you have
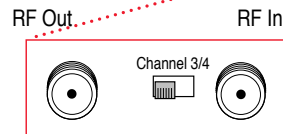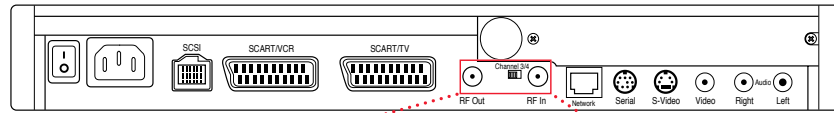
F-connectors
- Common in North America
- In and Out connectors are the same
- Both have threads
- Indicates this Apple Interactive TV Box is set up to receive NTSC broadcasts

Aerial connectors
- Common in Europe / Australia
- In and Out connectors differ
- Neither has threads
- Indicates this Apple Interactive TV Box is set up to receive PAL broadcasts

Connection notes: (1) SCART connectors are used only in Europe. SCART ports shown in the illustration may not appear on North American versions of the Apple Interactive TV Box.

Appendix D
Technical Specifications

Status light

- Red (steady): main power is switched on; the Apple Interactive TV Box is undergoing self-test checks

- Yellow: main power is switched on, but the Apple Interactive TV Box is not currently in use

- Green: the Apple Interactive TV Box is on and in use

- Red (flashing): the Apple Interactive TV Box is not working correctly

Power

Universal power supply:

- From 90 volts to 240 volts

- From 50 Hertz to 60 Hertz

Weight

- 7 lbs. (2.6 kg)

Dimensions

- 15.6 in. wide x 11.4 in. deep x 2.2 in. high (395 mm x 290 mm x 56 mm)

Operating temperatures

Temperature is given in Celsius (C) and Fahrenheit (F).

- 10° C to 40° C (50° F to 104° F)

Storage temperatures

- –40° C to 47° C (–40° F to 116° F)

TV Standards for RF Ports

- If RF ports have aerial connectors: PAL

- If RF ports have F connectors: NTSC

Video decompression standard

- MPEG-2 Transport containing ISO11172 (MPEG-1) bit streams

Input and output ports

- *INPUT:* Apple Desktop Bus (ADB)

- *SCART:* two 21-pin EURO-SCART

- *RF IN and RF OUT:* 75 ohms; either PAL aerial connectors tuned to channels 32–40 or NTSC F-connectors tuned to channel 3 or 4

- *Network:* RJ-45 connector for either E1 data stream on PAL devices or T1 data stream on NTSC devices

- *Serial:* requires Apple System/Peripheral 8 Cable

- *S-Video:* Separate Video output

- *Video:* RCA jack, composite video output

- *Audio:* RCA jacks, left and right stereo output

- *SCSI:* HDI-30

Design and specifications are subject to change without notice.