



Instructions for use



Let's make things better.



PHILIPS

Congratulations and thanks for buying Philips product! Your TV set has the added value of the unique M-Link™ feature—a new standard that will streamline your home cinema experience. Gone is the need to use a bunch of remote controls to run your entertainment equipment. M-Link™ will allow you to command everything with your TV remote! Control up to five input devices (a cable box, satellite, VCR [video cassette recorder], DVD [digital video disc player], LD [laser disc player], VCD [video compact disc player], or an STB [set top box]) and one output device (external amplifier [stereo hi-fi]) with just the one remote. Use the colored macro buttons to automate the running of movies and videos, to record programs on your VCR, or to have your devices automatically perform a series of functions of your choice.

FOLLOW SOME SIMPLE STEPS, AND M-LINK™ WILL BE READY TO GO

This *Instructions for Use* manual will show you how to hook up the (infrared) IR Blaster (hook up the IR Blaster before turning the TV ON, see page 4 for details) and accessory devices, set up accessory devices to work with M-Link™, have M-Link™ learn remote control functions of the accessory devices, review and test accessory-device functions, delete accessory devices from the M-Link™ system, and program your Personal macro.

START YOUR ENTERTAINMENT FUN WITH A TOUCH OF A BUTTON

By pushing one of the colored macro buttons on the remote control, you can set in motion a series of accessory-device functions that will be performed automatically, one after another.

- **Home Video macro button**—will automatically turn the TV and VCR ON, make the VCR begin playing, and then turn ON an external amplifier (stereo hi-fi system), if one is connected and set up with M-Link™. The TV Incredible Surround and TV V. Dolby (if present in your model of TV) sound features will be turned ON if no external amplifier is present.
- **Home Movie macro button**—will automatically turn the TV and a DVD/LD/VCD player ON, make the DVD/LD/VCD player begin playing, and then turn ON an external amplifier (stereo hi-fi system) if one is connected and set up with M-Link™. The TV Multimedia feature will be turned ON. The TV Incredible Surround and TV V. Dolby (if present in your model of TV) sound features will be turned ON if no external amplifier is present.
- **ITR/REC macro button**—will automatically turn the TV and a VCR ON and allow you to begin recording a program, or to set a time to record a program on the VCR.
- **Personal macro button**—will activate a series of accessory-device functions that you creatively program yourself. If you want, automate the functions that you use often. For example, you can set up the macro to record DVD movies to your VCR. Or You may want to use it to automatically turn ON or OFF all of the accessory devices connected to your TV. You can program the macro in a variety of ways

In addition to the automation capability offered by the macros, M-Link™ will enable you to use buttons on your TV remote control to work the various functions of the accessory devices (Stop, Pause, Rewind, Scan Next, etc.).

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FEATURES

Intelligent Control • the feature that allows your TV to “talk” to the external multimedia devices.

Learning • the ability of the M-Link™ microprocessor to “learn” and store one set of code per accessory device, up to a maximum of six different devices.

Macro Buttons • buttons on the TV’s remote control (ITR/REC, HOME VIDEO, HOME MOVIES, and PERSONAL) that when pressed, enable you to set in motion a series of accessory-device functions. You can program the Personal macro key to carry out a series of functions of your choice.

Navi Menu • the easy-to-read and easy-to-navigate, onscreen M-Link™ menu.

This owner’s manual is used with several different television models. Therefore, the ways in which features are discussed and illustrated here may not match exactly with your particular model. This is normal and does not require that you contact your dealer or request service. The basic operation of M-Link™ is the same among all models.

NOTE: It is recommended that you read each section of this manual to familiarize yourself with its content before attempting to perform the instructional steps.



HOOKING UP THE IR BLASTER

The (infrared) IR Blaster is a small transmitter that enables you to use your TV remote control to work the various functions of your VCRs, DVDs, or other accessory devices. Follow these steps to properly set up the IR Blaster.

BEGIN

- 1 Connect the IR Blaster plug into the M-Link input located on the rear jack panel of the TV.
- 2 Place the IR Blaster on top of the TV with the remote sensor window facing into the room.



SMART HELP

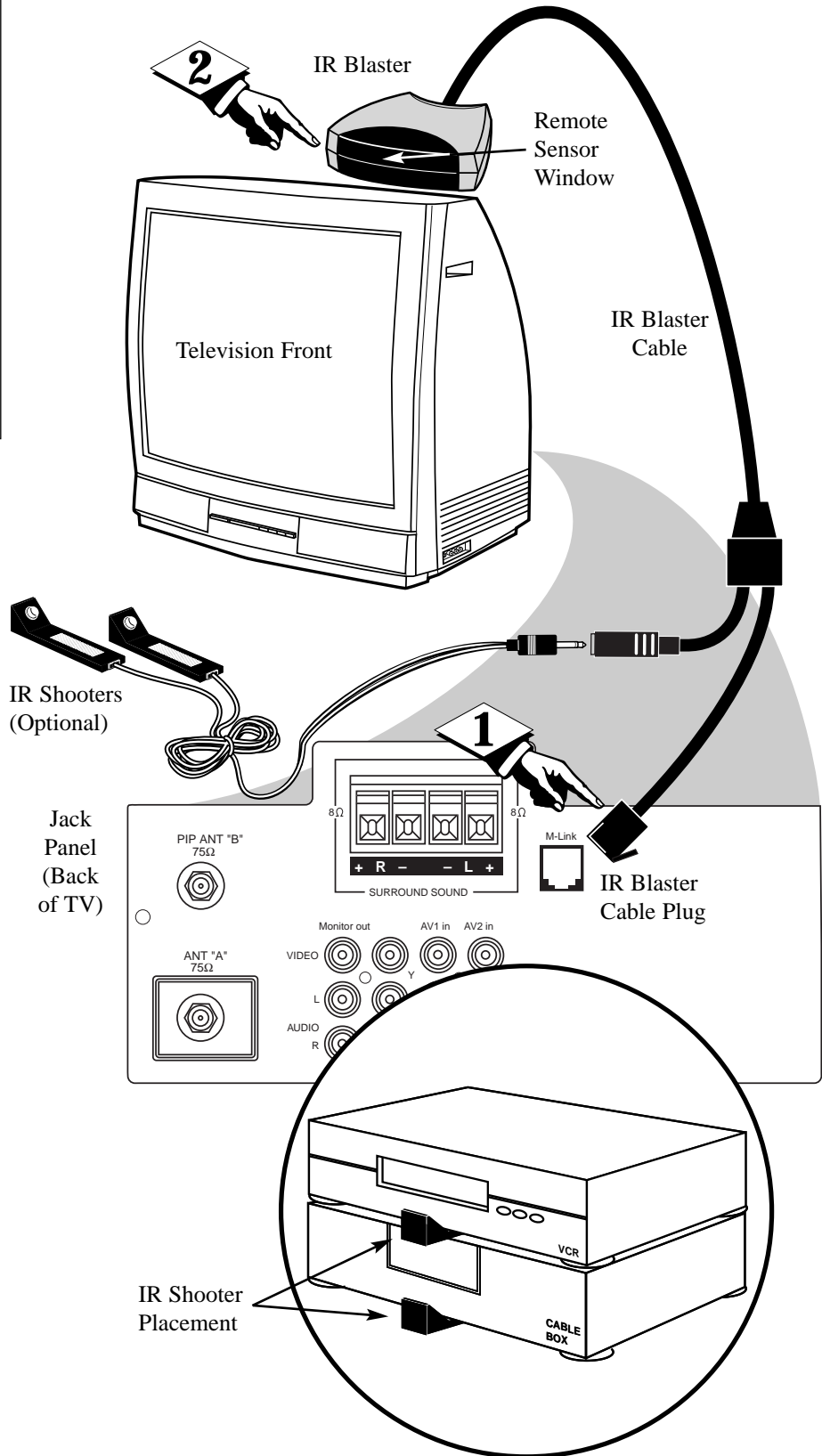


The IR Blaster transmits a signal that bounces off of walls or objects in the room and then to the IR sensor windows of the accessory devices you have connected to your TV. After accessory devices have been set up to work with M-Link™, the transmission from the IR Blaster will enable you to use your TV remote control to work the accessory devices.

IR Shooters are used to more directly transfer the IR signal from the IR Blaster to the accessory devices. You may need IR Shooters if you are using your TV set in a room decorated in light colors, for example, because the soft colors may prevent the IR signal from effectively bouncing and reaching the IR remote sensor windows of your accessory devices. You also may need the shooters if you store your accessory devices in a cabinet with a glass cover, because the cover may deflect the IR signal from the devices.

To order the optional (infrared) IR Shooters, contact your dealer, or call our Parts Information Center at 1-800-851-8885.

NOTE: For M-Link™ to work, the IR Blaster must be connected to the TV (as shown below) before the TV is turned ON.





The M-Link™ system can handle up to five input devices (choose from cable box, satellite, VCR, DVD, LD, VCD, or an STB) and one output device (external amplifier [stereo hi-fi]) at one time. This page presents only hookup examples; the order of hookup and devices you choose may vary. Also, please refer to the owner's manual for each device for proper connections.

BEGIN

- 1 For a basic hookup, connect the signal coming from your antenna, satellite, or cable company to any of the following: directly to the TV antenna input(s); through a cable converter box to the TV antenna input(s); through a cable converter box and a VCR to the TV antenna input(s); or through a VCR to the TV antenna input(s).

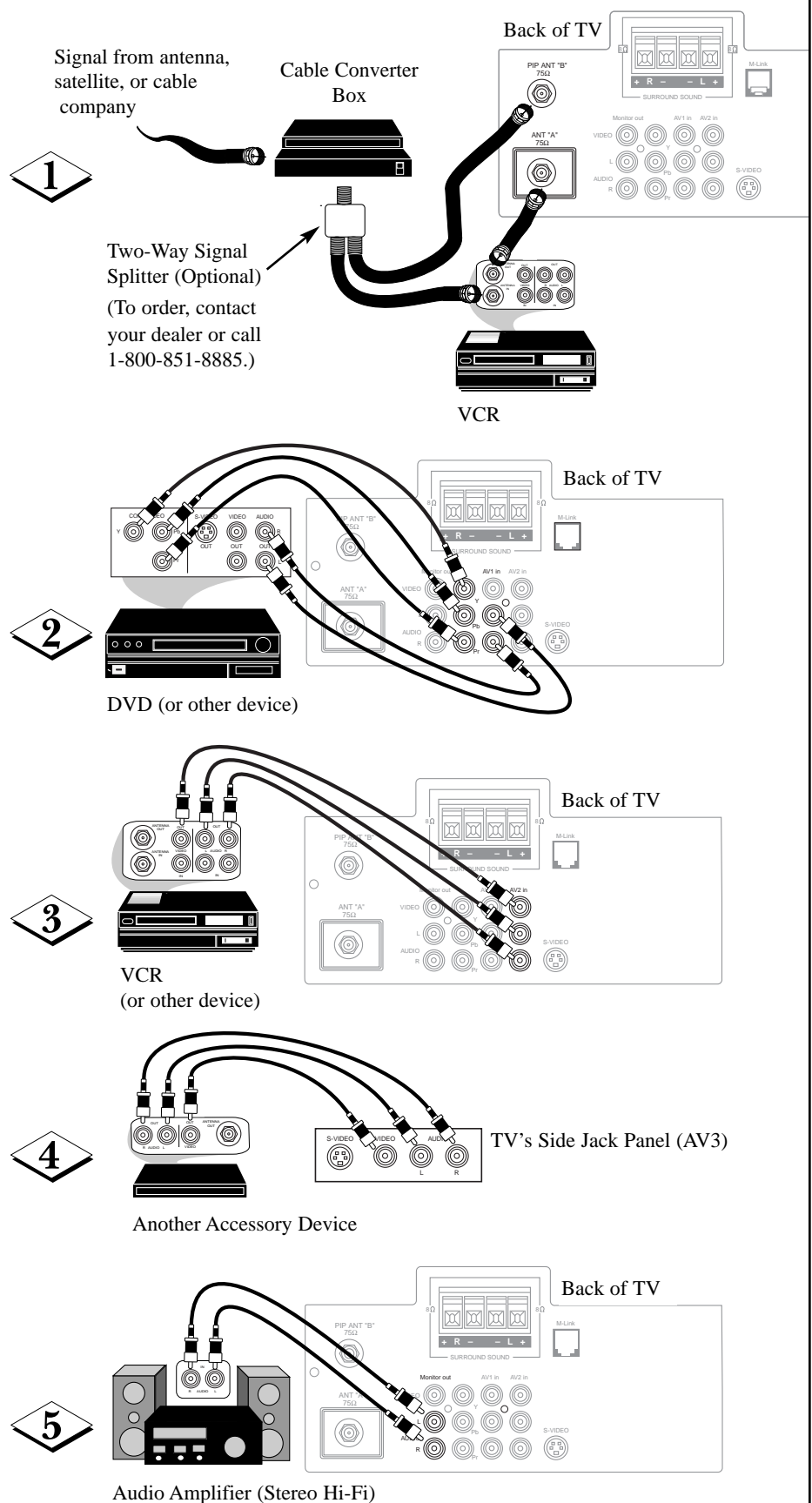
NOTE: For more information on basic hookups, please see page 1 of the *Quick Use and Installation Guide* that came with your TV.

- 2 You could hook up a DVD to the component video inputs (Y, Pb, Pr) and the AV1 AUDIO inputs. Those inputs are referred to as the "CVI" source in the M-Link™ menu (you'll learn about selecting a source within the M-Link™ menu when following the instructions for setting up an accessory device with M-Link™).

- 3 Connect a second VCR to an AV input; AV 2, for example.

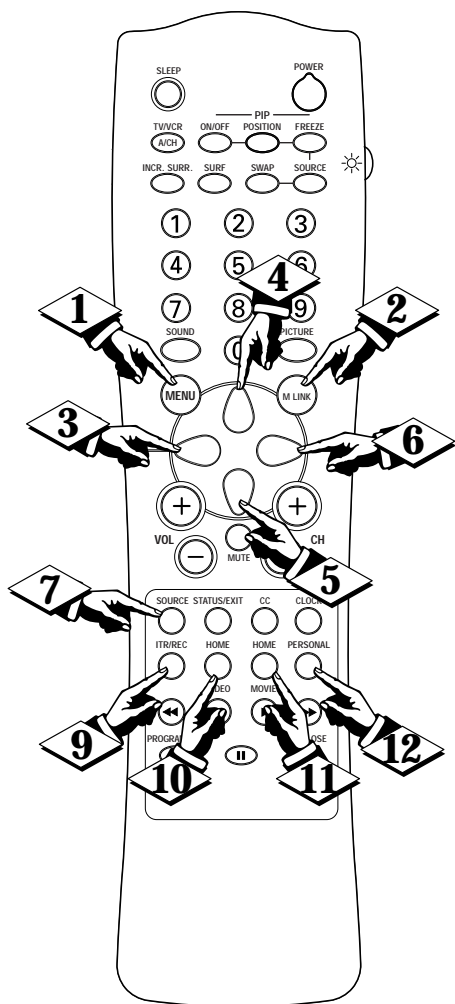
- 4 Connect another accessory device to the inputs on the side jack panel (recognized in the M-Link™ menu as "AV3")

- 5 Connect from the AUDIO (Monitor out) on the TV to an external amplifier (stereo hi-fi).

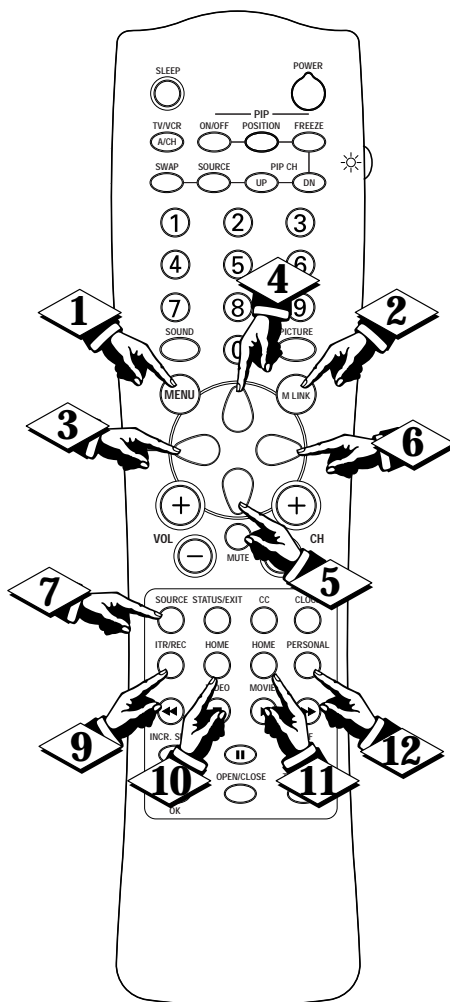




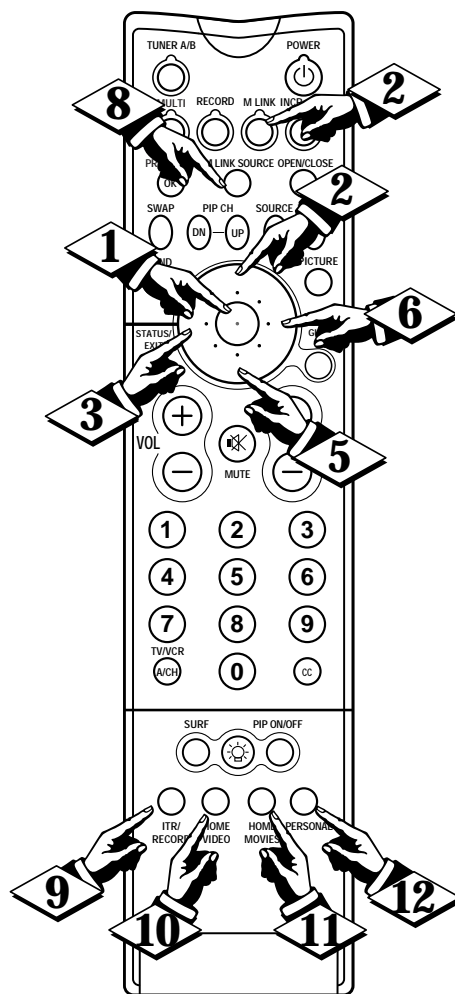
M-LINK™ REMOTE NAVIGATION AND MACRO BUTTONS



Used with Models:
27PT41B1, 32PT41B1, 36PT41B1



Used with Models:
27PT71B1, 32PT71B1, 36PT71B1,
27PT81S1, 32PT81S1



Used with Models:
27PT91B1, 32PT91B1

- 1 MENU**
When you're in M-Link™ mode, this allows you to exit a menu to the previous level.
- 2 M LINK**
Allows you to access or exit the M-Link™ menu.
- 3 CURSOR LEFT**
Allows you to access the menus and adjust the settings.
- 4 CURSOR UP**
Allows you to select the previous item on the menu.
- 5 CURSOR DOWN**
Allows you to select the next item on the menu.
- 6 CURSOR RIGHT**
Allows you to access the menus and adjust the settings.
- 7 SOURCE**
Allows you to select the various sources, either tuner or M-Link™ (accessory devices that have been set up with M-Link™).
- 8 M LINK SOURCE**
Allows you to select the various sources, either tuner or M-Link™ (accessory devices that have been set up with M-Link™).
- 9 ITR/REC (Interactive Touch Recording/Record)**
Allows you to record programs on your VCR.
- 10 HOME VIDEO**
Allows you to play the VCR.
- 11 HOME MOVIES**
Allows you to play a DVD, LD, or VCD.
- 12 PERSONAL**
Allows you to activate functions that you have programmed into M-Link™.

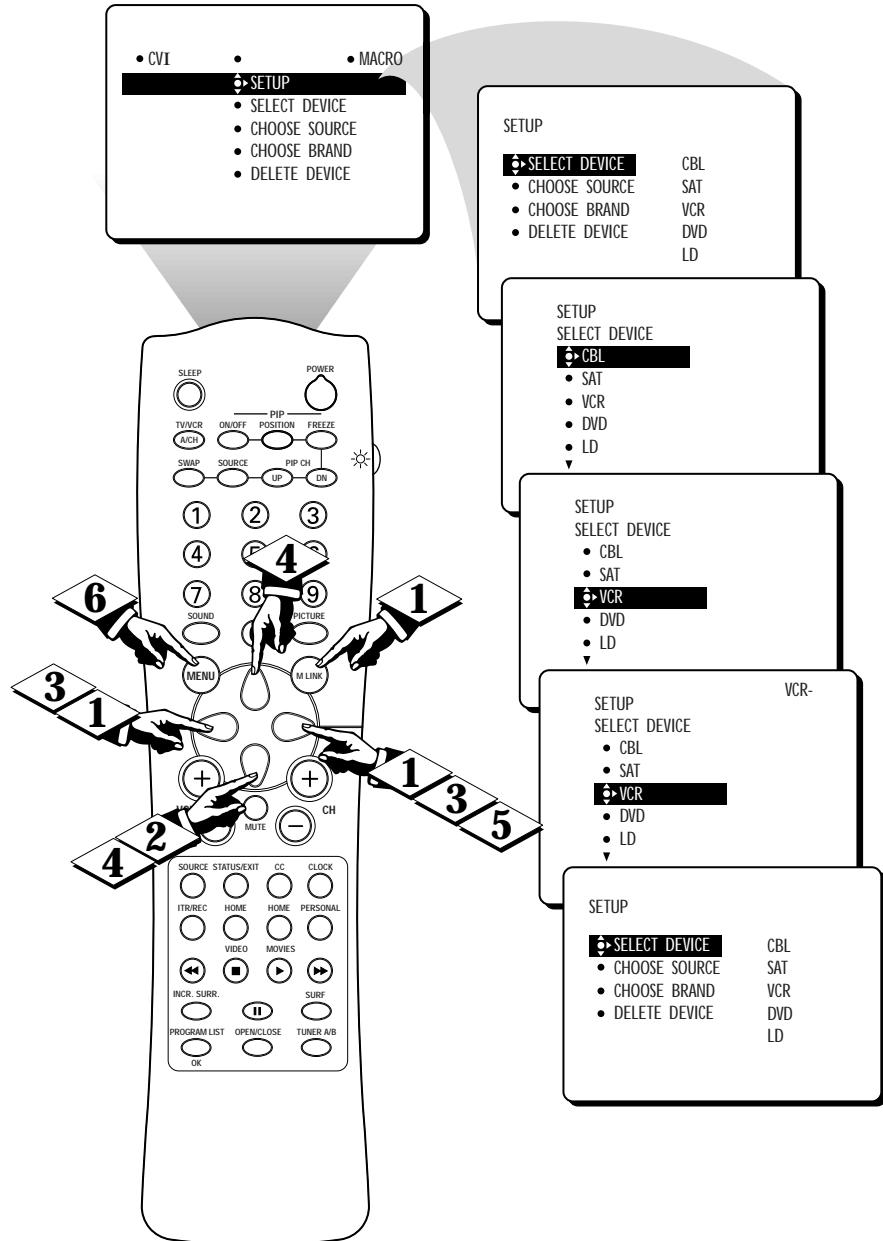
These simple instructions tell you how to set up a Philips accessory device to work with the M-Link™ feature. You will need to follow all of the steps contained in each of the following sections (“Selecting the Device,” “Choosing the Source,” and “Choosing the Brand and Testing Remotes”) to set up the device.

SELECTING THE DEVICE

BEGIN

- 1 Press the **M LINK** button on your remote control to enter the M-Link™ menu. Then press the **CURSOR LEFT** or **CURSOR RIGHT** button until **SETUP** is highlighted.
 - 2 Press the **CURSOR DOWN** button once to highlight **SELECT DEVICE**.
 - 3 Press the **CURSOR LEFT** or **CURSOR RIGHT** button to enter the **SELECT DEVICE** menu. The **SELECT DEVICE** menu will shift to the left.
 - 4 Press the **CURSOR UP** or **CURSOR DOWN** button repeatedly until the device you want to set up with M-Link™ is highlighted.
- NOTE:** You can set up only one device at a time.
- 5 With the device you want to set up highlighted, press the **CURSOR RIGHT** button to set up the device to work with M-Link™. The name of the device you've selected will move to the upper right corner of the TV screen.
 - 6 Press the **MENU** button to exit the **SELECT DEVICE** menu and return to the **SETUP** menu.

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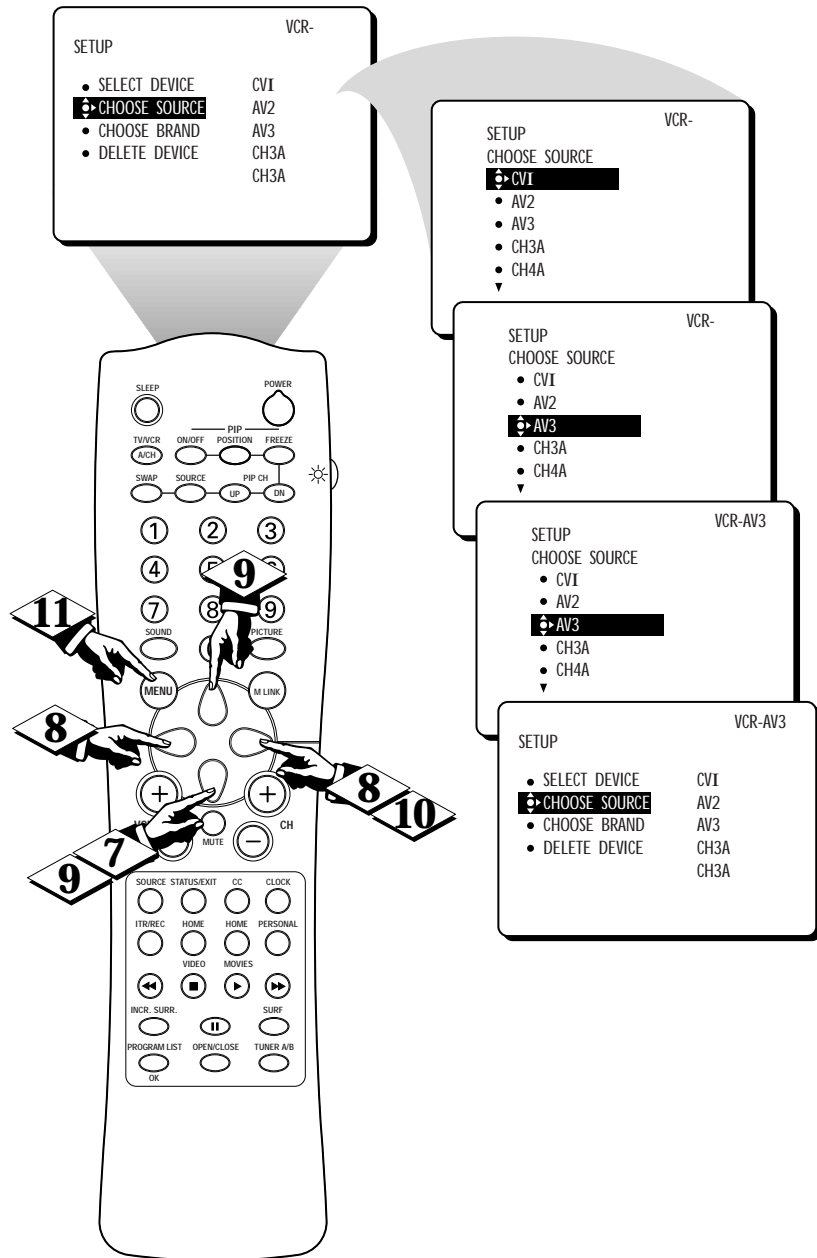


CHOOSING THE SOURCE

NOTE: If you are setting up an external amplifier hi-fi (AMP), you don't have to choose a source; proceed to the next section, "Choosing the Brand and Testing Remotes."

- 7** While in the **SETUP** menu, press the **CURSOR DOWN** button once to highlight **CHOOSE SOURCE**.
- 8** Press the **CURSOR LEFT** or **CURSOR RIGHT** button to enter the **CHOOSE SOURCE** menu. The **CHOOSE SOURCE** menu will shift to the left.
- 9** Press the **CURSOR DOWN** or **CURSOR UP** button repeatedly until the source you want to select is highlighted. For example, if you have connected the device to the side jack panel inputs (recognized by M-Link™ as AV3), highlight AV3.
- 10** With the source you want to select highlighted, press the **CURSOR RIGHT** button. The name of the source you selected will move to the upper right corner of the TV screen, in position after the name of the device you selected in step 5.
- 11** Press the **MENU** button to exit the **CHOOSE SOURCE** and return to the **SETUP** menu.

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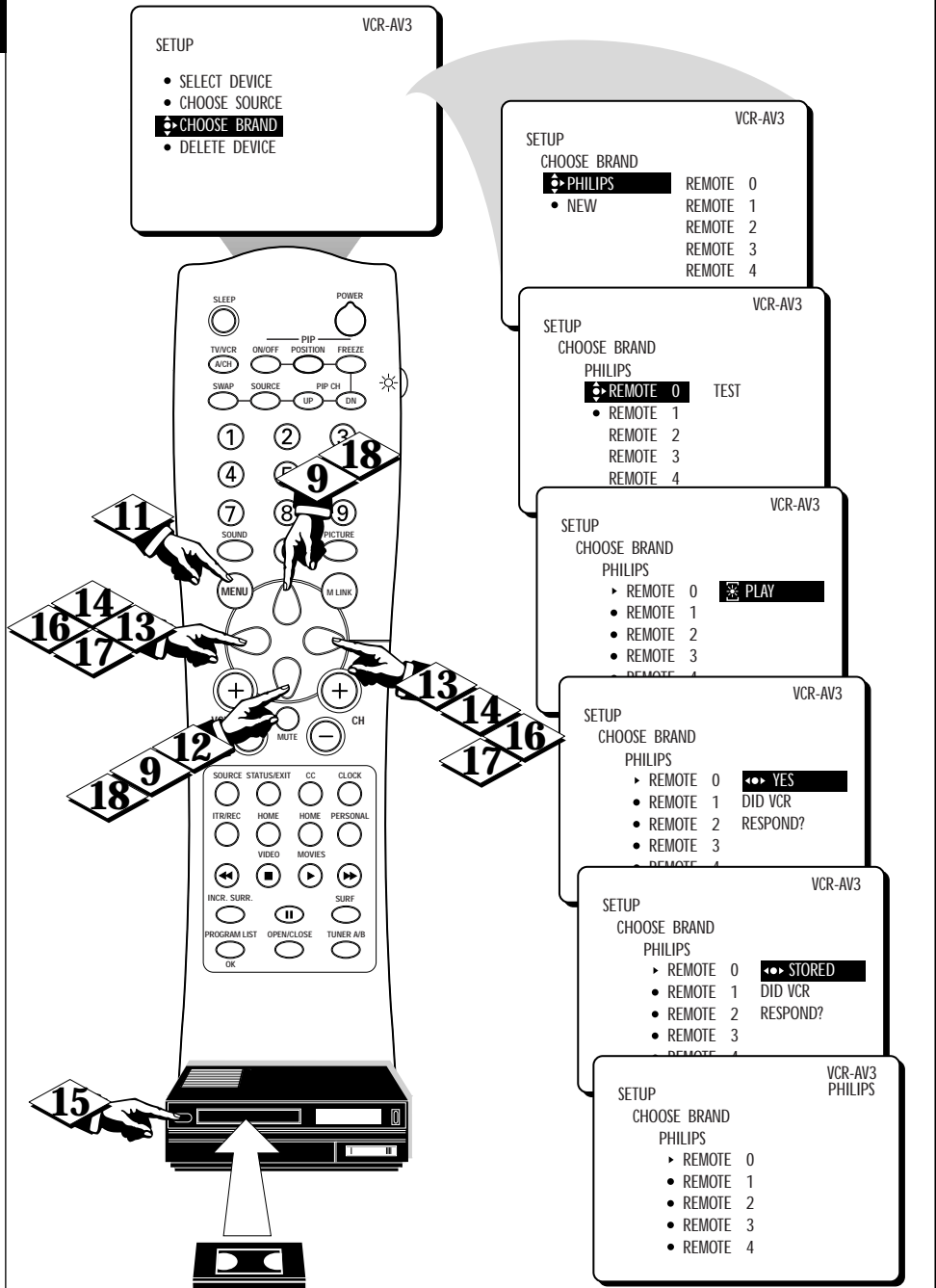


CHOOSING THE BRAND AND TESTING REMOTES

Remote codes for Philips brand accessory devices have been pre-programmed into M-Link™. Follow these steps to choose the Philips brand and find the right set of remote codes (test REMOTE 0, REMOTE 1, and so on) for your accessory device.

- 12 While in the SETUP menu, press the CURSOR DOWN button twice to highlight CHOOSE BRAND.
- 13 Press the CURSOR LEFT or CURSOR RIGHT button to enter the CHOOSE BRAND menu.
- 14 Press the CURSOR LEFT or CURSOR RIGHT button to highlight a REMOTE.
- 15 Turn ON the Philips accessory device that you want to set up and insert a disc or tape to play. Be sure the device is in the STOP mode.
- 16 Press the CURSOR LEFT or CURSOR RIGHT button to test the first REMOTE (REMOTE 0) to see if M-Link™ will make the Philips device play and stop.
- 17 If the device did not respond (play and stop) when you tested the REMOTE, press the CURSOR RIGHT button to select NO. Then press the CURSOR LEFT button. "TEST AGAIN" will appear on the screen. Press the CURSOR RIGHT button to test the REMOTE again.
- 18 If the device still does not respond, press the CURSOR DOWN button to highlight a new REMOTE to test. Then press the CURSOR LEFT or CURSOR RIGHT button to test the remote. (Refer to steps 16 and 17 again, as necessary.)

STOP



SMART HELP



If the Philips device will not respond to any of the remote tests, follow the steps in the next section, "Setting Up a New or Multibrand Accessory Device."

By pressing the SOURCE button, you will be able to toggle from your TV's tuner (or tuners [A or B], depending on your model) to the accessory devices you have set up to work with M-Link™. Remember that when an accessory device is selected as your source (VCR1, for example), you cannot then use the number buttons or channel (+) or (-) buttons to change the TV's channels; you must press the SOURCE button until you have selected a tuner source and then press the number buttons or channel (+) or (-) buttons.



SETTING UP A NEW OR MULTIBRAND ACCESSORY DEVICE

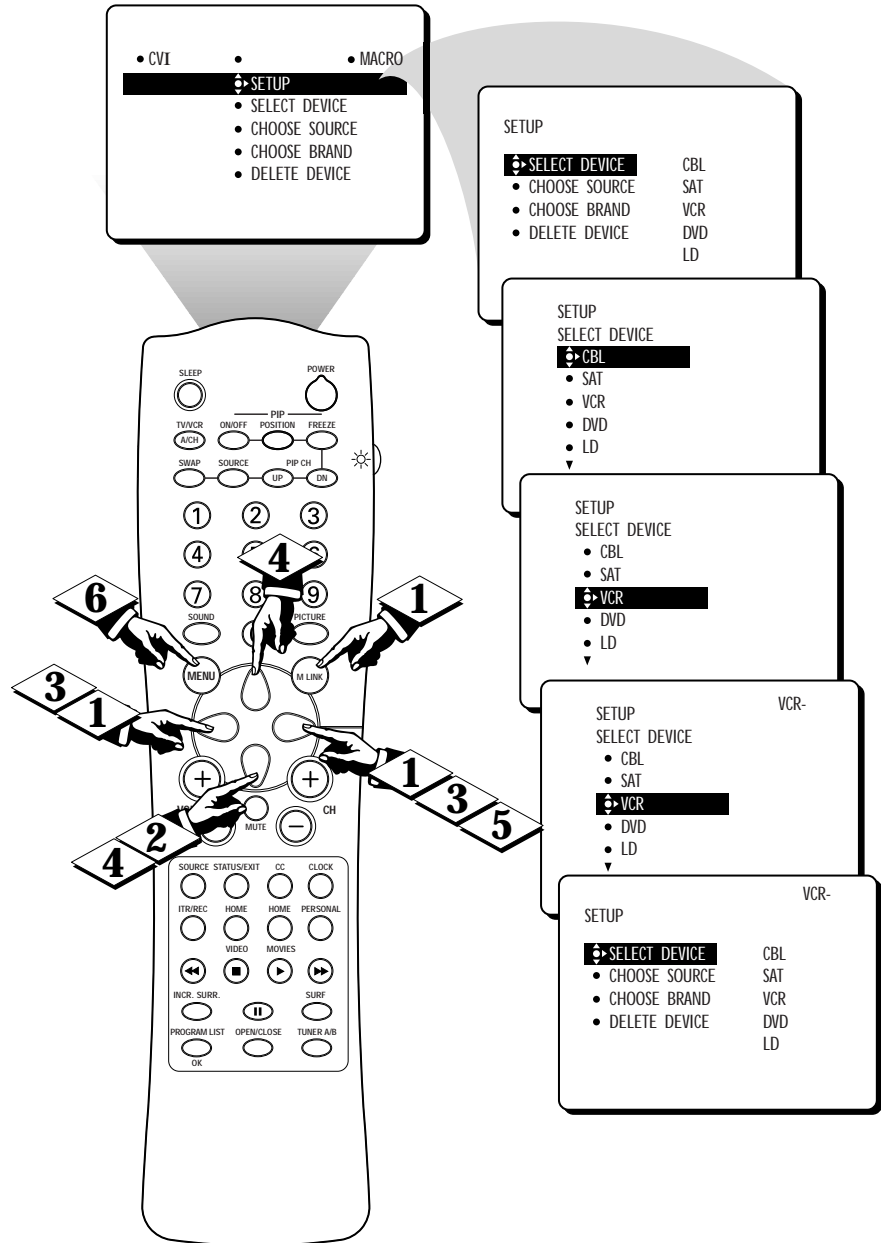
These simple instructions tell you how to set up a New or Multibrand device to work with the M-Link™ system. You will need to follow all of the steps contained in each of the following sections (“Selecting the Device,” “Choosing the Source,” and “Choosing the Brand and Learning Remote Commands”) to set up the device.

SELECTING THE DEVICE

(BEGIN)

- 1 Press the **M LINK** button on your remote control to enter the M-Link™ menu. Then press the **CURSOR LEFT** or **CURSOR RIGHT** button until **SETUP** is highlighted.
 - 2 Press the **CURSOR DOWN** button once to highlight **SELECT DEVICE**.
 - 3 Press the **CURSOR LEFT** or **CURSOR RIGHT** button to enter the **SELECT DEVICE** menu. The **SELECT DEVICE** menu will shift to the left.
 - 4 Press the **CURSOR DOWN** or **CURSOR UP** button repeatedly until the device you want to set up with M-Link™ is highlighted.
- NOTE:** You can set up only one device at a time.
- 5 With the device you want to set up highlighted, press the **CURSOR RIGHT** button to set up the device to work with M-Link™. The name of the device you’ve selected will move to the upper right corner of the TV screen.
 - 6 Press the **MENU** button to exit the **SELECT DEVICE** menu and return to the **SETUP** menu.

Please continue to the next page . . .





CHOOSING THE SOURCE

NOTE: If you are setting up an external amplifier hi-fi (AMP), you don't have to choose a source; proceed to the next section, "Choosing the Brand and Learning Remote Commands."

7 While in the **SETUP** menu, press the **CURSOR DOWN** button once to highlight **CHOOSE SOURCE**.

8 Press the **CURSOR LEFT** or **CURSOR RIGHT** button to enter the **CHOOSE SOURCE** menu. The **CHOOSE SOURCE** menu will shift to the left.

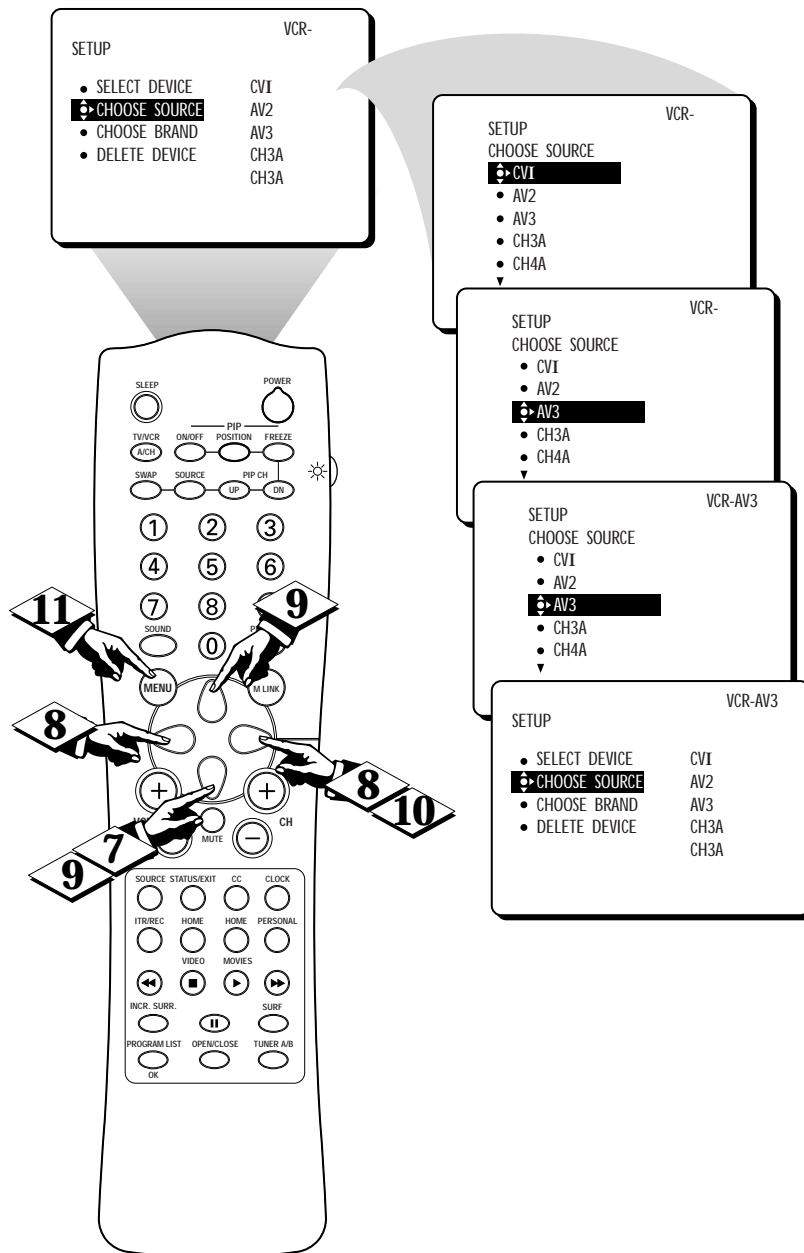
9 Press the **CURSOR UP** or **CURSOR DOWN** button repeatedly until the source you want to select is highlighted. For example, if you have connected the device to the side jack panel inputs (recognized by M-Link™ as AV3), highlight **AV3**.

NOTE: Ensure that you select the source to which you connected the device. Otherwise, your TV remote control will not operate the device after you have completed the setup process.

10 With the source you want to select highlighted, press the **CURSOR RIGHT** button. The name of the source you selected moves to the upper right corner of the TV screen, in position after the name of the type of device you selected in step 5.

11 Press the **MENU** button to exit the **CHOOSE SOURCE** menu and return to the **SETUP** menu.

Please continue to the next page . . .





SETTING UP A NEW OR MULTIBRAND ACCESSORY DEVICE

CHOOSING THE BRAND AND LEARNING REMOTE COMMANDS

- 12** While in the **SETUP** menu, press the **CURSOR DOWN** button twice to highlight **CHOOSE BRAND**.
- 13** Press the **CURSOR LEFT** or **CURSOR RIGHT** button to enter the **CHOOSE BRAND** menu.
- 14** Press the **CURSOR DOWN** button once to highlight **NEW**.
- 15** Press the **CURSOR LEFT** or **CURSOR RIGHT** button. "NEW" will move to the upper right corner under the device name and source.
- 16** Press the **CURSOR LEFT** or **CURSOR RIGHT** button again. The **LEARN** menu will move to the left.

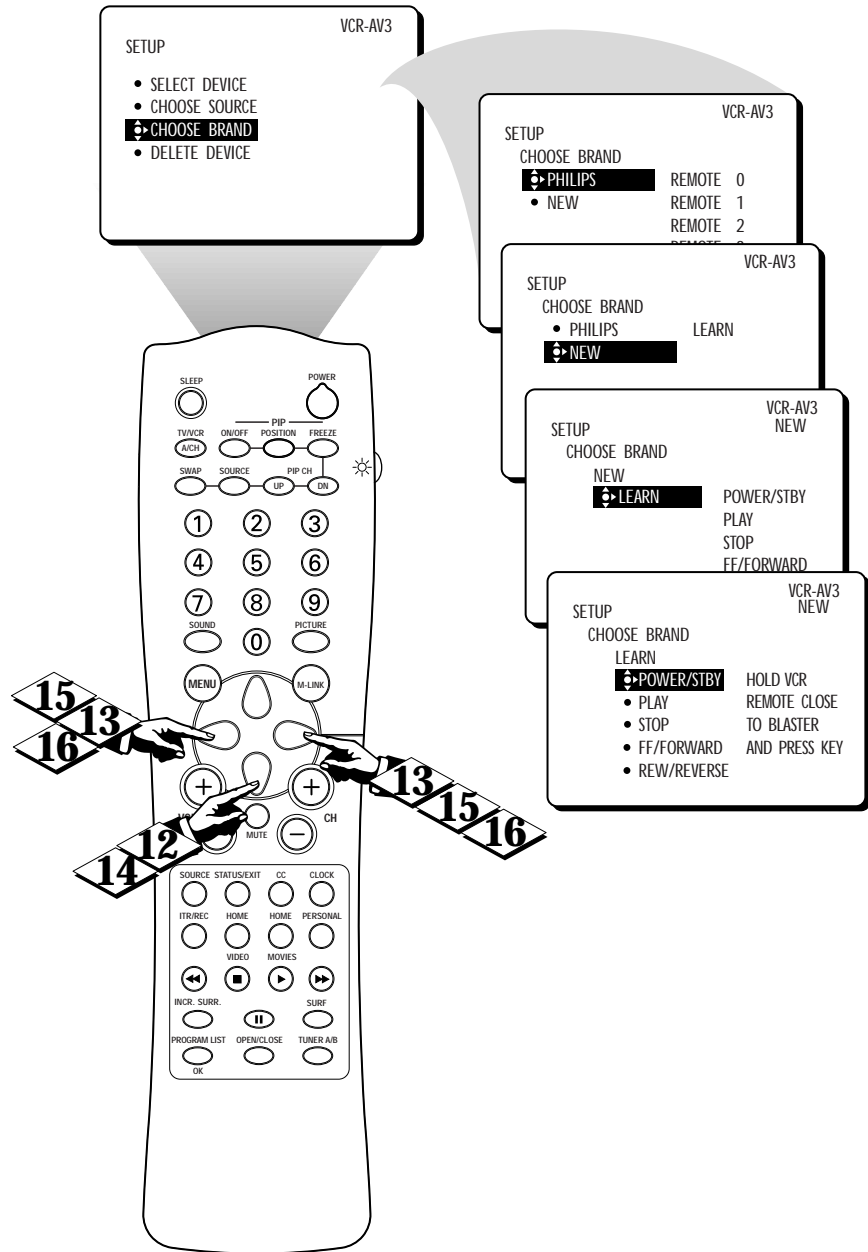
NOTE: You can go through the learning process in manual or automatic mode.

Manual mode—If you press the **CURSOR UP**, **DOWN**, **RIGHT**, or **LEFT** button **within three seconds** of entering the **LEARN** menu, you can manually control the learning process; that is, you can then press the **CURSOR UP** or **CURSOR DOWN** button to highlight a remote function (**POWER/STBY**, **PLAY**, **STOP**, etc.) of your choice and then press the **CURSOR LEFT** or **CURSOR RIGHT** button to select the function (the item will blink, indicating that the IR Blaster is ready to receive transmission from the accessory device remote control).

OR

Automatic mode—If you don't press the **CURSOR UP**, **DOWN**, **RIGHT**, or **LEFT** button within in three seconds of entering the **LEARN** menu, the first function (**POWER/STBY**) will automatically become ready for learning (the function will blink). As each item is learned, the highlight bar will automatically move to the next function to be learned and the function will become ready for learning.

Please continue to the next page . . .



SMART HELP

The various multibrand devices may have different remote control button names for the same function. An easy-to-use table is provided in the back of this book for you to write down the name of each multibrand remote control button next to the corresponding M-Link™ TV remote control button or menu name. This will help you learn and remember the button names you'll use on the TV remote control.

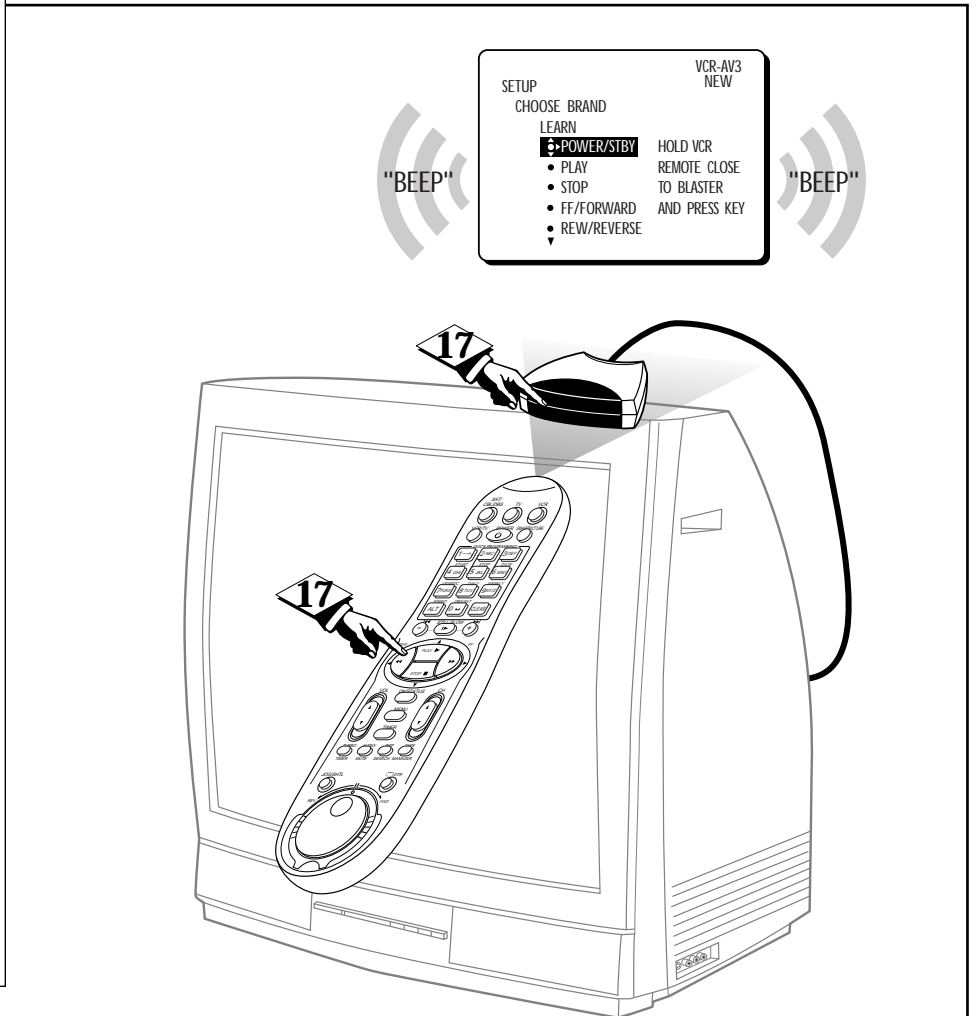
SETTING UP A NEW OR MULTIBRAND ACCESSORY DEVICE



17 To learn an accessory device remote control function: Point the remote control of the accessory device at the IR Blaster (Hold the remote control no farther than about four and one-half inches from the IR Blaster.) Then press the button on the remote control that corresponds with the highlighted function in the LEARN menu (POWER/STBY, PLAY, STOP, etc.). If M-Link™ recognizes the button code, a sound feedback (a beep) will occur to indicate that the function has been learned. If M-Link™ doesn't recognize the button code, the sound feedback will not occur.

18 After you've had M-Link™ learn all the functions you want, press the M LINK button to remove the menu from the screen.

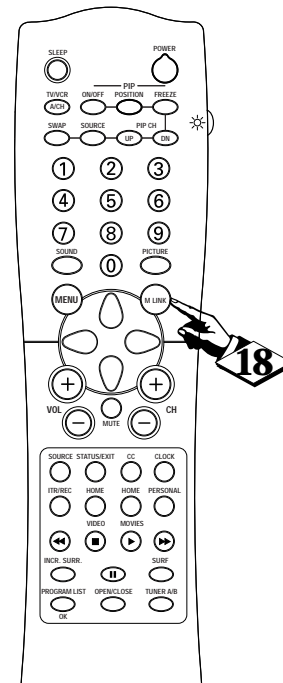
The next section will tell you how to test the remote control commands of your accessory devices to ensure that they are working properly with M-Link™.



SMART HELP

It is important that you have M-Link™ learn the functions that are necessary for basic operation of each New or Multibrand accessory device that you set up to work with M-Link™ (for example: POWER/STBY, PLAY, STOP, PAUSE, FF/FORWARD, REW/REVERSE, as appropriate for the device). Otherwise, you may not be able to use the colored macro buttons (ITR/REC, HOME VIDEO, HOME MOVIES, and PERSONAL) on your TV's remote control to power ON and play the devices; and you may not be able to use your TV's remote control to work basic functions of the new or multibrand device (for example: PLAY, PAUSE, STOP, FF/FORWARD, REW/REVERSE).

By pressing the SOURCE button, you will be able to toggle from your TV's tuner (or tuners [A or B], depending on your model) to the accessory devices you have set up to work with M-Link™. Remember that when an accessory device is selected as your source (VCR1, for example), you cannot then use the number buttons or channel (+) or (-) buttons to change the TV's channels; you must press the SOURCE button until you have selected a tuner source and then press the number buttons or channel (+) or (-) buttons.



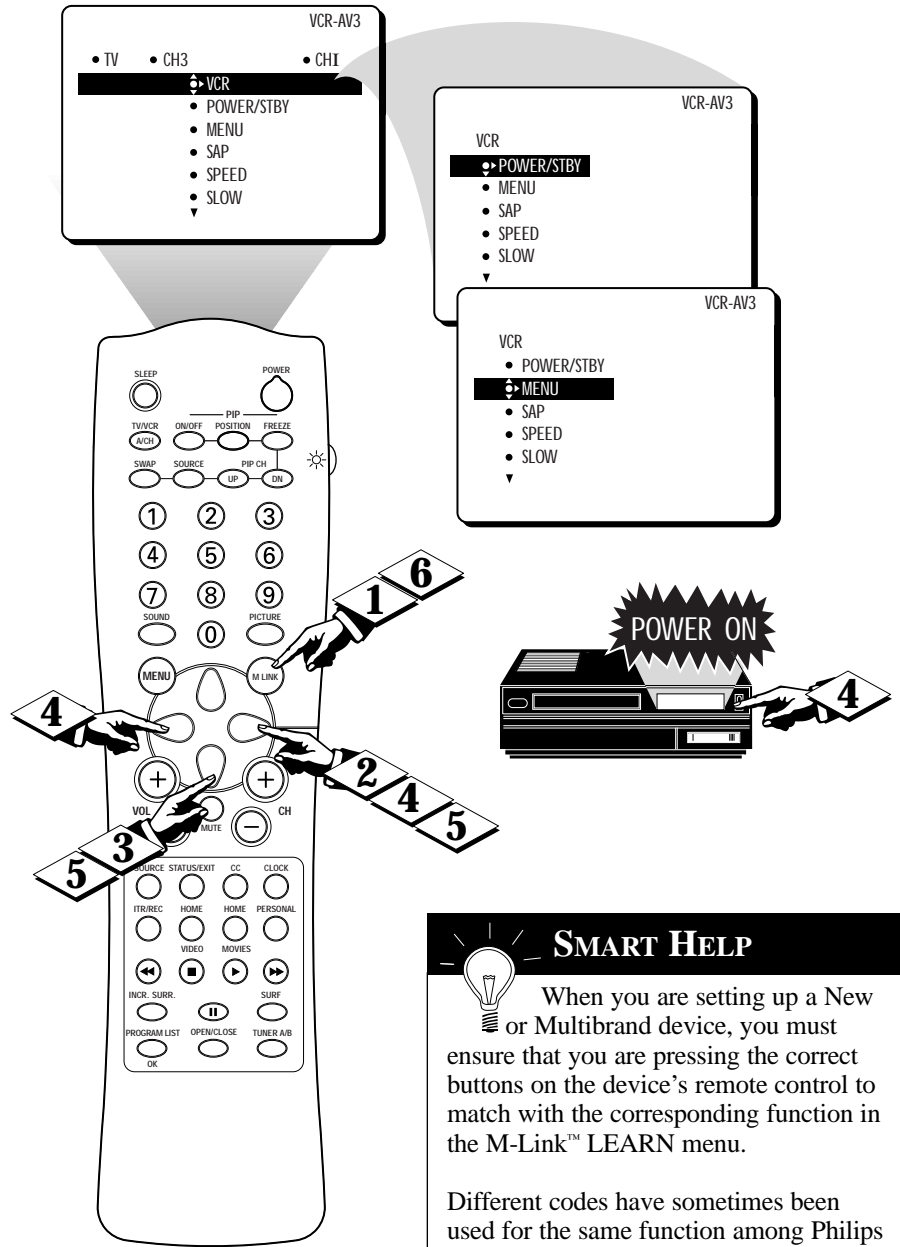


TESTING LEARNED REMOTE CONTROL FUNCTIONS

After the remote control functions of accessory devices have been learned by M-Link™, you can test whether the functions shown on the screen are being correctly carried out by the accessory device.

BEGIN

- 1 Press the **M LINK** button on your TV remote control to enter the M-Link™ menu.
 - 2 Press the **CURSOR RIGHT** button repeatedly until the name of the device whose functions you want to test (VCR or DVD, for example) is highlighted.
 - 3 Press the **CURSOR DOWN** or **CURSOR UP** button repeatedly until the name of the function you want to test is highlighted.
 - 4 Press the **CURSOR LEFT** or **CURSOR RIGHT** button to activate the highlighted function.
- NOTE:** If the device did not respond to the command to perform the function in step 4, go back to either the section on “Setting Up a Philips Device” or “Setting Up a New or Multibrand Device” and perform the steps again.
- 5 If the device performed the **POWER/STBY** function, press the **CURSOR DOWN** button to highlight other functions (MENU, SPEED, SLOW, etc.). Then press the **CURSOR RIGHT** button to activate each function and check whether the device performs the function.
 - 6 Press the **M LINK** button on your TV’s remote control to remove the M-Link™ menu from the screen.



SMART HELP

When you are setting up a New or Multibrand device, you must ensure that you are pressing the correct buttons on the device’s remote control to match with the corresponding function in the M-Link™ LEARN menu.

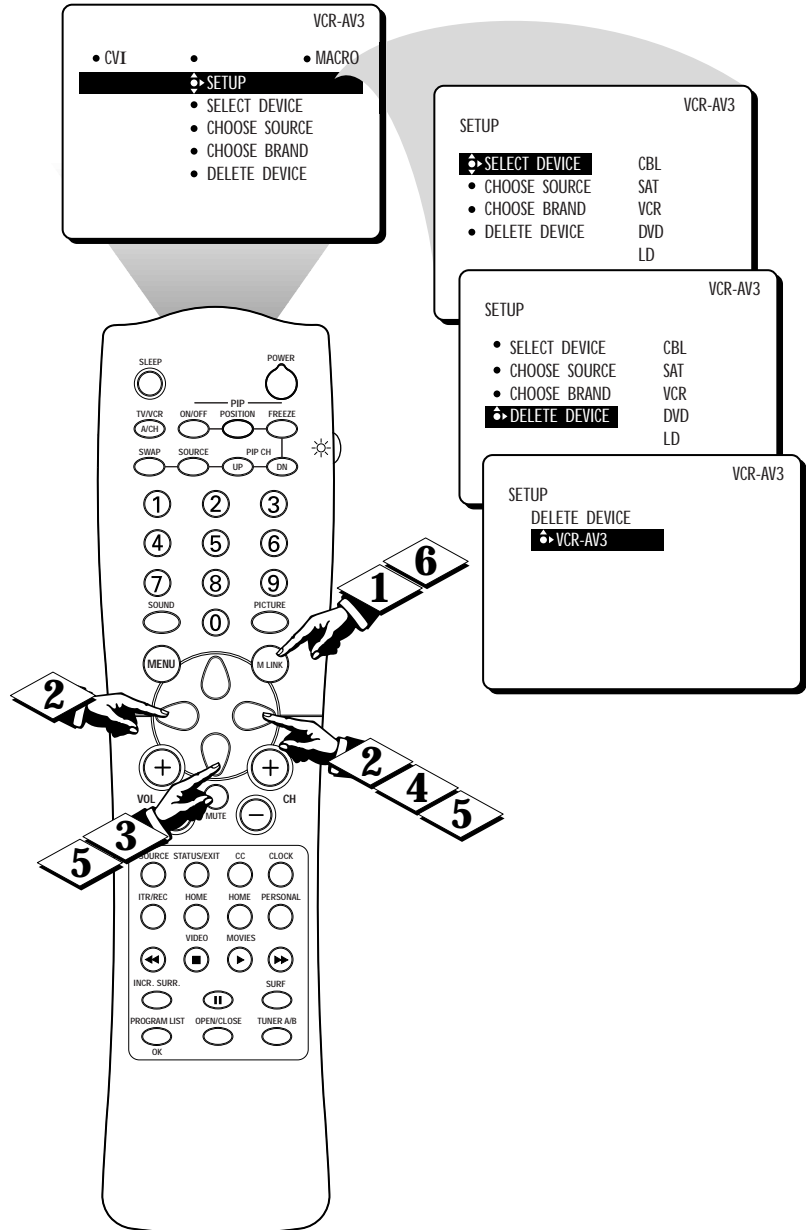
Different codes have sometimes been used for the same function among Philips accessory devices. If M-Link™ will not operate the functions of a Philips accessory device, you may need to delete the device from M-Link™ using the onscreen menu, and then explore the functions of the Philips accessory device using its remote control. Follow the steps under “Setting up a New or Multibrand Accessory Device” to have M-Link™ learn the remote functions.

DELETING ACCESSORY DEVICES FROM THE M-LINK™ SYSTEM

You can remove any accessory device you have set up to work in the M-Link™ system by following these steps.

BEGIN

- 1 Press the **M LINK** button on your TV remote control to enter the M-Link™ menu.
- 2 Press the **CURSOR LEFT** or **CURSOR RIGHT** button until **SETUP** is highlighted.
- 3 Press the **CURSOR DOWN** button repeatedly until **DELETE DEVICE** is highlighted.
- 4 Press the **CURSOR RIGHT** button to enter the **DELETE DEVICE** menu.
- 5 Press the **CURSOR DOWN** button until the name of the device you want to delete is highlighted. Then press the **CURSOR RIGHT** button to delete the device from M-Link™.
- 6 Press the **M LINK** button to remove the menu from the screen.



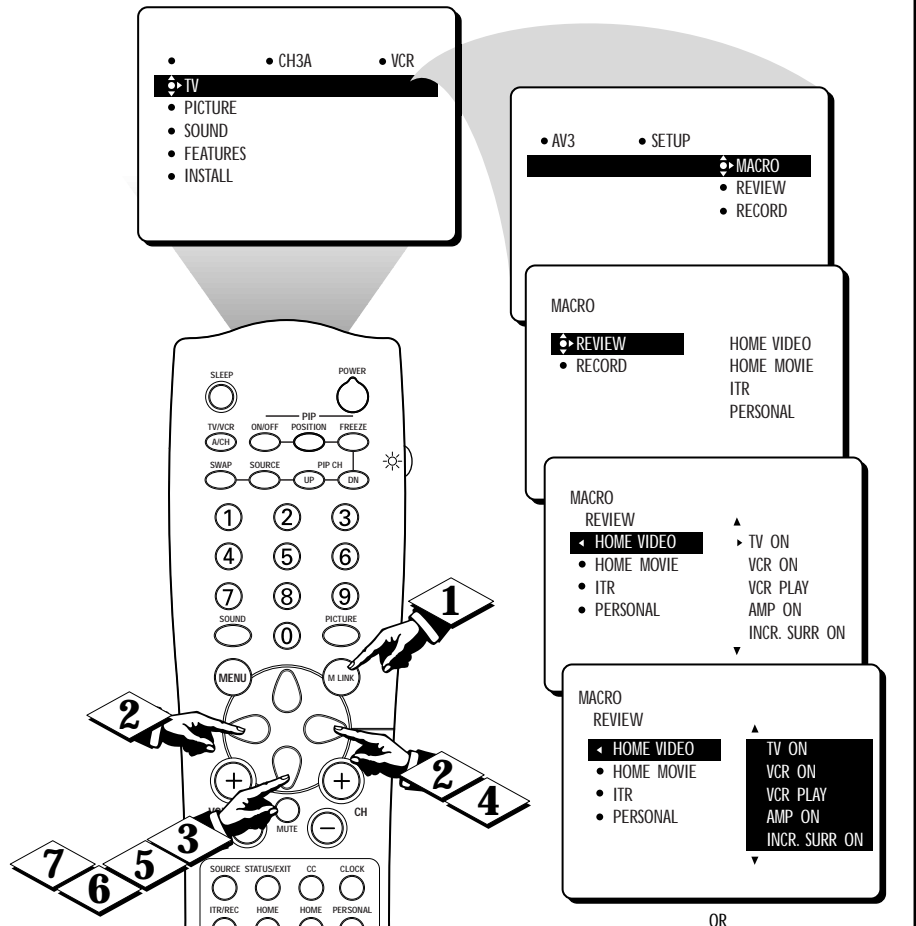


REVIEWING MACRO FUNCTIONS

A macro is a set of functions programmed into your TV that you can activate with one touch of a button on your TV remote control. Three buttons have been preprogrammed to play videotapes or DVD/LD/VCD movies or to record with your VCR: HOME VIDEO, HOME MOVIE, and ITR/REC (Interactive Touch Record). You program the the PERSONAL macro button. Follow these steps to review the functions that each button will activate.

BEGIN

- 1 Press the **M LINK** button on your TV remote control to enter the M-Link™ menu.
- 2 Press the **CURSOR LEFT** or **CURSOR RIGHT** button repeatedly until **MACRO** is highlighted.
- 3 Press the **CURSOR DOWN** button to highlight **REVIEW**.
- 4 Press the **CURSOR RIGHT** button. The **REVIEW** menu will move to the left and **HOME VIDEO** will be highlighted. The series of functions that can be performed automatically, one after another, when you press the **HOME VIDEO** macro button will be listed.
- 5 Press the **CURSOR DOWN** button down once to highlight **HOME MOVIE**. The series of functions that can be performed automatically when you press the **HOME MOVIE** macro button will be listed.
- 6 Press the **CURSOR DOWN** button again to highlight **ITR**. The macro functions will be shown.
- 7 Press the **CURSOR DOWN** button again to highlight **PERSONAL**. You must program functions in order for them to be shown in the menu (see the next section).



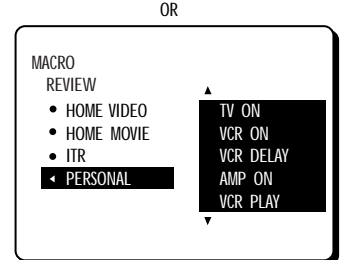
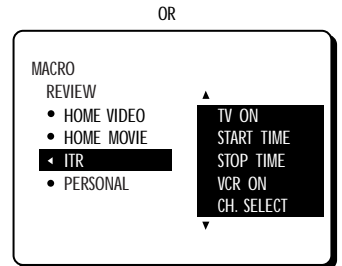
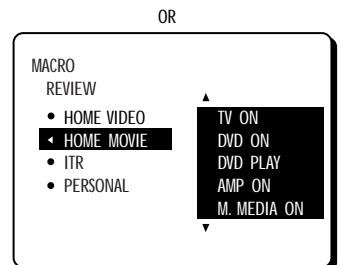
Here are the series of functions set in motion by touching the macro buttons:

HOME VIDEO—turn the TV and a VCR (video cassette recorder) ON; make the VCR begin playing; turn ON an external amplifier (hi-fi system), if one is set up; if an external amplifier is not present, the TV Incredible Surround Sound and TV V. Dolby sound features will be turned ON.

HOME MOVIE—turn the TV and a DVD (digital video disc player), LD (laser disc player), or VCD (video cassette disc player) ON; make the DVD or other accessory device begin playing; turn ON an external amplifier (hi-fi system), if one is set up; turn ON the TV Multimedia feature; if an external amplifier is not present, the TV Incredible Surround and TV V. Dolby sound features will be turned ON.

ITR/REC—turn the TV ON; start recording a program on your VCR; or set start and stop times for the later recording of a program.

PERSONAL—can be used to turn ON or OFF all the accessory devices connected. Or you can program this button to carry out other steps of your choice, such as recording from DVD to VCR, for example. See page 17 for instructions for programming your Personal macro.



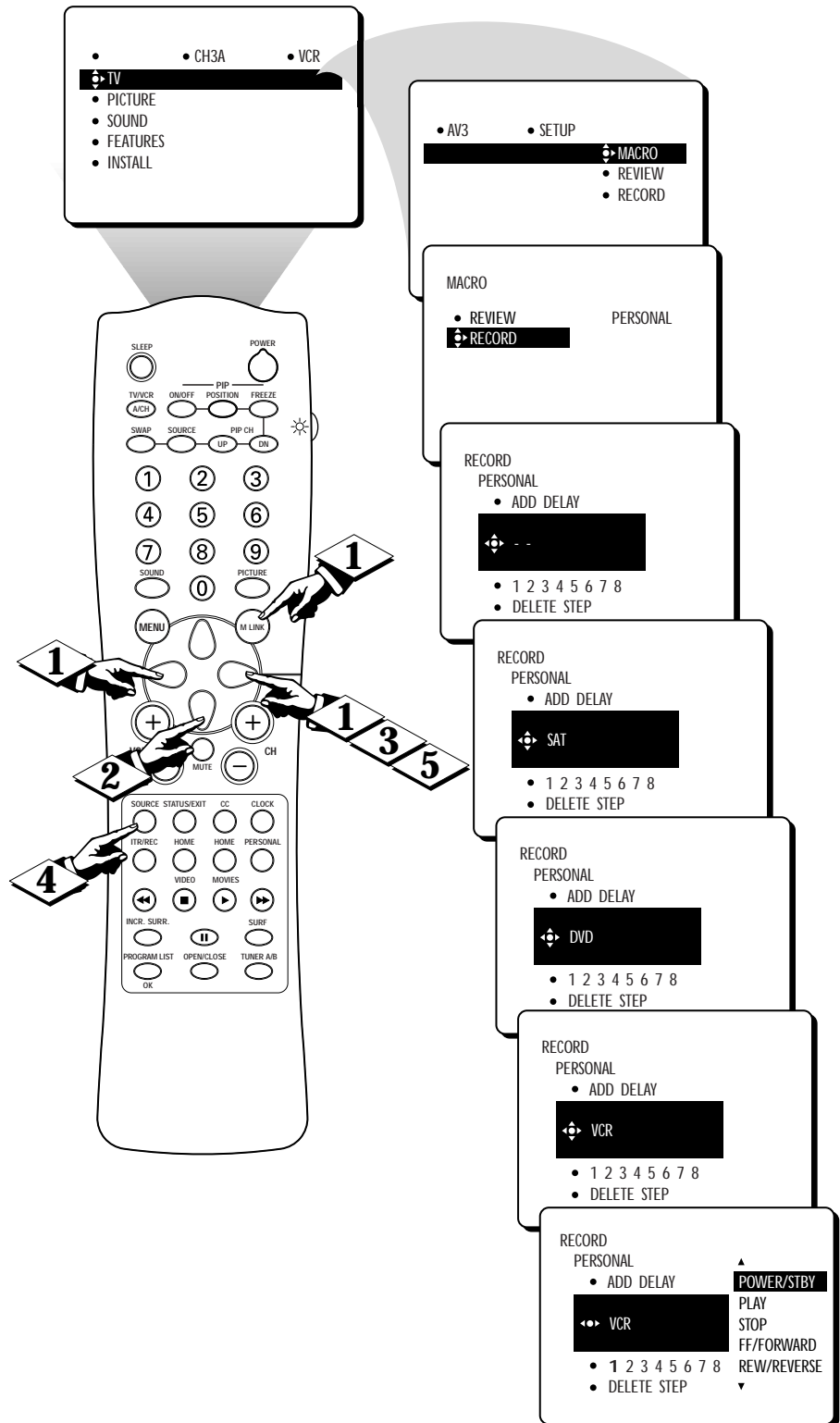


You can program your Personal macro to automatically perform the functions you desire with one touch of the PERSONAL macro button on your TV remote control. You may want to use the macro to automate functions that you use often. For example, you can set up your Personal macro to record DVD movies to your VCR. Or perhaps you'd like to program it to turn ON or OFF all of the accessory devices connected to your TV. Try it! Creatively program your Personal macro to enhance your home cinema experience. Follow these steps to program your Personal macro.

BEGIN

- 1 Press the M LINK button.**
Then press the CURSOR LEFT or CURSOR RIGHT button until you enter the MACRO menu.
- 2 Press the CURSOR DOWN button** twice to highlight RECORD.
- 3 Press the CURSOR RIGHT button** to enter the RECORD sub-menu of your PERSONAL macro. "RECORDING" will flash briefly in red at the bottom of the screen; the ADD DELAY control will be shown.
- 4 Press the SOURCE (or M LINK SOURCE) button** on your TV remote control repeatedly until the source/accessory device (SAT, DVD, VCR, etc.) functions that you want to add to your PERSONAL macro is highlighted. The name of the source/accessory device will appear in the highlighted box below the ADD DELAY control.
- 5 Press the CURSOR RIGHT button** to enter the menu of the source/accessory device you've selected. A list of functions will be displayed (with POWER/STBY highlighted).

Please continue to the next page . . .





PROGRAMMING YOUR PERSONAL MACRO

6 Press the **CURSOR DOWN** or **CURSOR UP** button to highlight the action you want to record.

7 Press the **CURSOR RIGHT** button to record the function in your **PERSONAL** macro. "RECORDING" will flash at the bottom of the screen.

NOTE: A default delay time of two seconds will occur between each function when the Personal macro is activated. You can choose to add delay time between the execution of one function and another. Follow steps 8–10 to add a delay between macro functions.

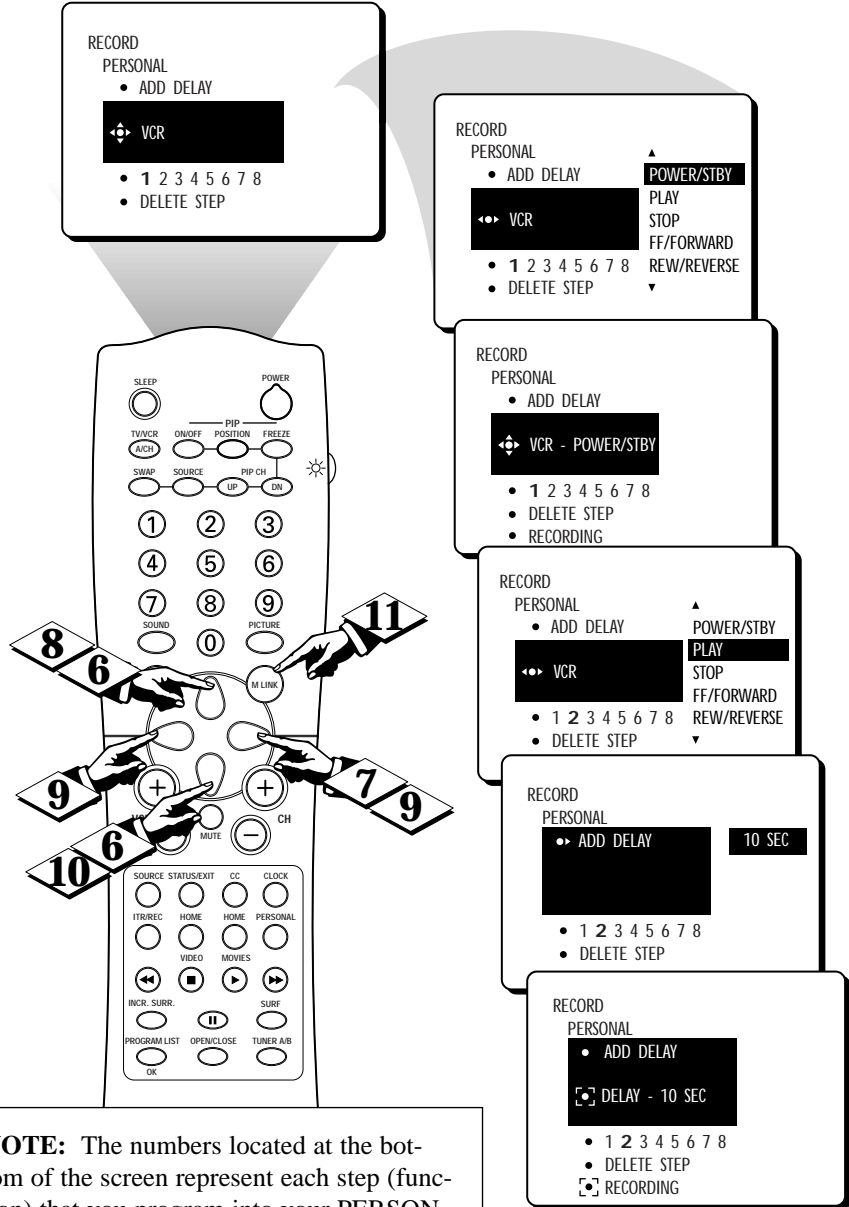
8 Press the **CURSOR UP** button until **ADD DELAY** is highlighted.

9 Press the **CURSOR RIGHT** or **CURSOR LEFT** button to increase or decrease the delay time.

10 Press the **CURSOR DOWN** button to record the delay time you have chosen. After the delay has been recorded, the next step number at the bottom of the screen will be highlighted in orange to show that it is the next one to be recorded.

NOTE: Repeat steps 6 and 7 to record other functions for the source/accessory device. After you have recorded all of the functions you want for the source/accessory device, you can **press the SOURCE** button on the TV remote control to select another source/accessory device, and then follow steps 6–7 again to record functions in your **PERSONAL** macro.

11 Press the **M LINK** button to remove the menu from the screen.





If you have infrared remote-controlled room lighting, you can use the Personal macro to control the lighting. The room lighting remote functions can be learned into M-Link™ as the USER1, USER2, and USER3 items in the list of device functions for a DVD, for example. If you want to program the lighting into the Personal macro, follow these steps.

BEGIN

1 Set up the infrared lighting model you want to use.

2 Press the M LINK button to enter the M-Link™ menu.

3 Press the CURSOR LEFT or CURSOR RIGHT button until you enter the SETUP menu.

NOTE: For this example, the lighting functions will be learned in with the list of DVD functions. Thus the following steps assume that you have already had M-Link™ learn the remote functions of the DVD.

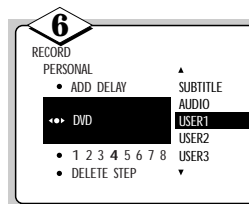
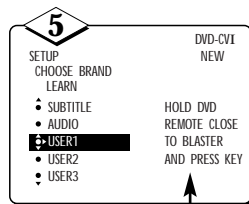
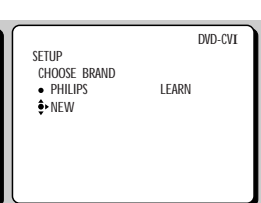
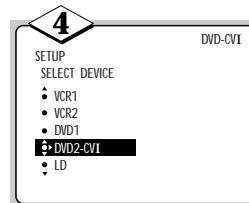
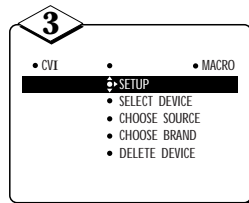
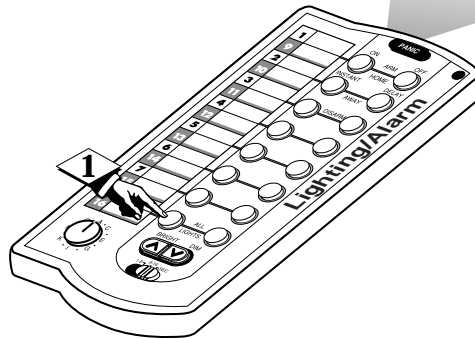
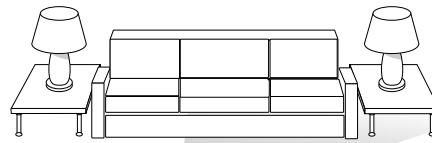
NOTE: See the section “Setting Up a New or Multibrand Accessory Device” (beginning on page 10) as a refresher for the next two steps.

4 Within the SETUP menu, go into SELECT DEVICE and select DVD; then go into CHOOSE BRAND and choose NEW.

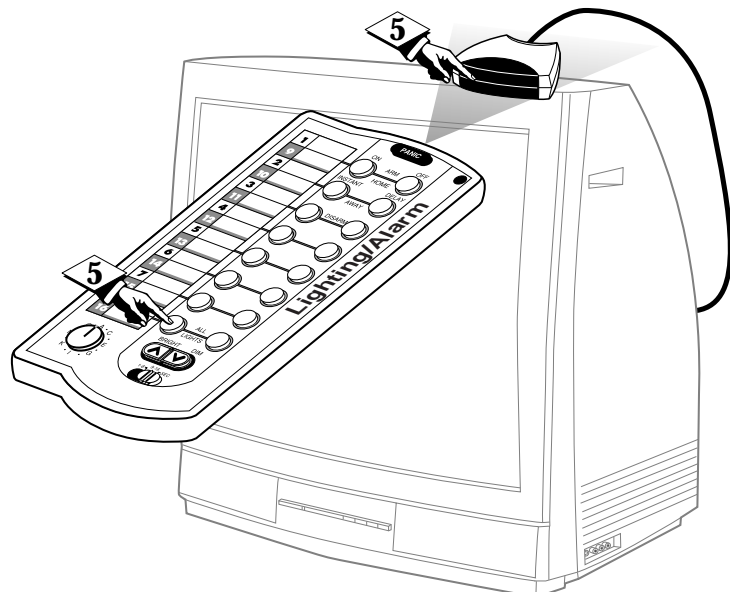
5 Within the LEARN menu for the DVD, cursor down the menu to USER 1, USER 2, and USER 3 and have M-Link™ learn the remote functions of your infrared remote-controlled room lighting through the IR Blaster.

6 After having M-Link™ learn the remote functions of your infrared remote-controlled room lighting, you can then go to the DVD’s set of function steps while programming your Personal macro and add the room lighting functions as USER1, USER2, and USER3.

STOP



Although you will actually have M-Link™ learn remote functions of your infrared remote-controlled room lighting, the message will refer to DVD because you are using the DVD menu for the learning.



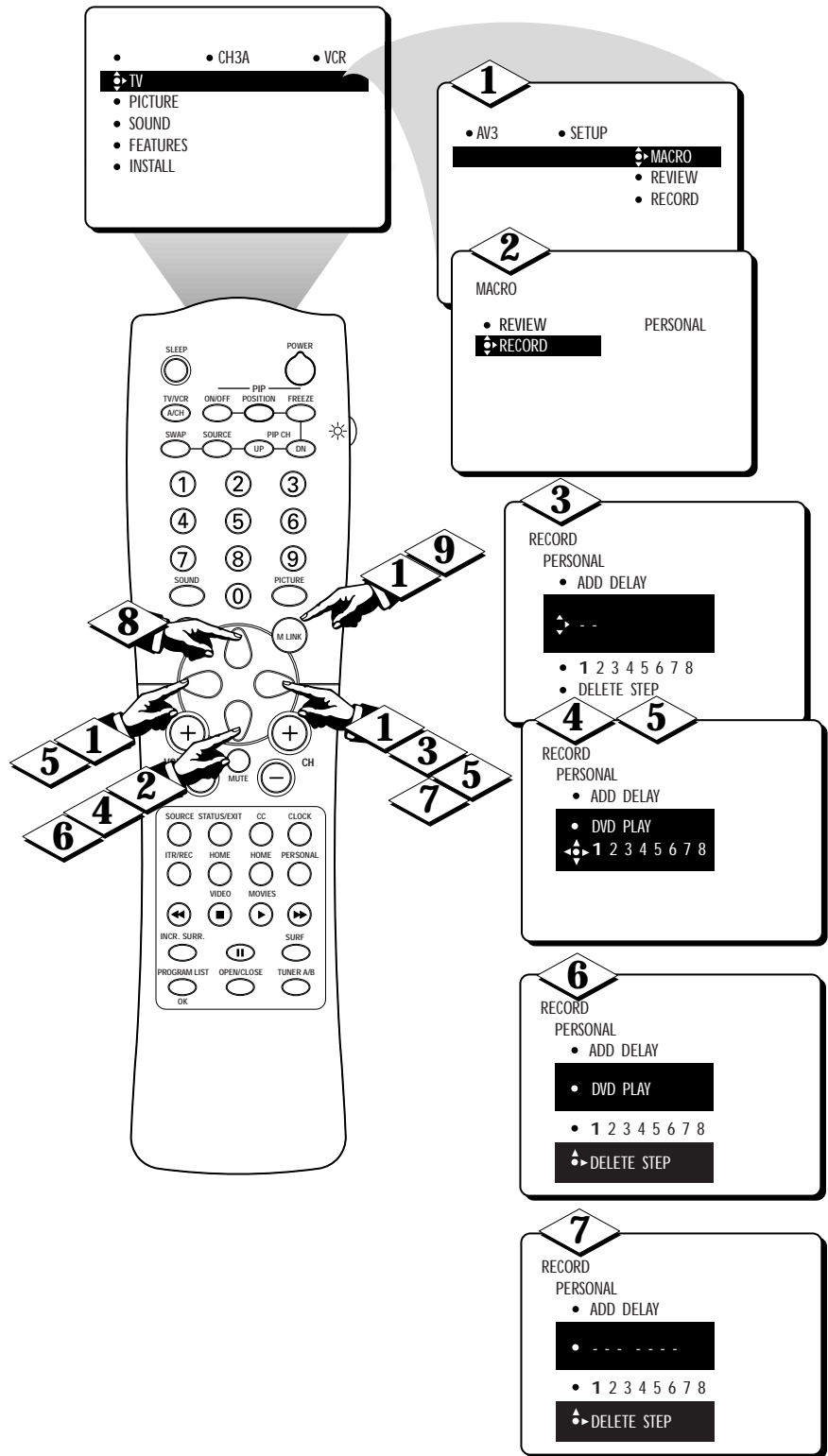


DELETING FUNCTIONS FROM YOUR PERSONAL MACRO

When programming your Personal macro, you may have made some mistakes. The following instructions will show you how to delete accessory-device functions (steps) from your Personal macro.

BEGIN

- 1 Press the **M LINK** button. Then press the **CURSOR LEFT** or **CURSOR RIGHT** button until you enter the **MACRO** menu.
- 2 Press the **CURSOR DOWN** button twice to highlight **RECORD**.
- 3 Press the **CURSOR RIGHT** button to enter the **RECORD** menu of your **PERSONAL** macro.
- 4 Press the **CURSOR DOWN** button to highlight the step you want to delete. The step (the name of the accessory device function) will appear above the step numbers.
- 5 Press the **CURSOR LEFT** or **CURSOR RIGHT** button to select the step to be deleted.
- 6 Press the **CURSOR DOWN** button to highlight **DELETE STEP**.
- 7 Press the **CURSOR RIGHT** button to activate the deletion of the step.
- 8 To delete another step, press the **CURSOR UP** button and repeat steps 6 and 7.
- 9 After you have deleted all of the steps you want, press the **M LINK** button to remove the menu from the screen.

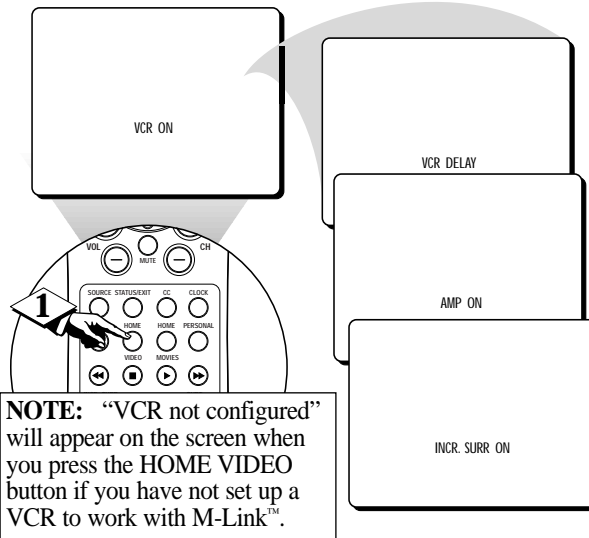




RUNNING THE HOME VIDEO MACRO

BEGIN

- 1 Press the **HOME VIDEO** button to run the Home Video macro. The series of steps will be carried out, one after another. The name of each function will flash on the screen as it is activated. Use the **BACK**, **STOP**, **PLAY**, **FORWARD**, and other buttons on your TV remote control to work the the various VCR functions.



SMART HELP

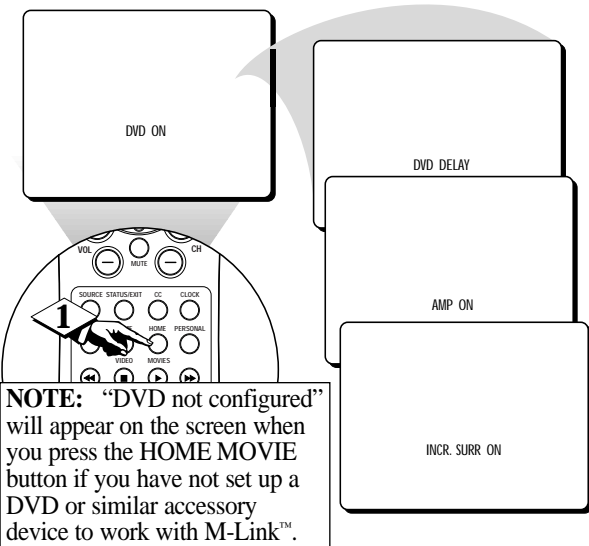


Before you press the **HOME VIDEO** macro button, you must have a VCR tape inserted and rewound in the VCR player, and the VCR and TV must be in standby mode. When you press the **HOME VIDEO** macro button, the VCR will turn ON and begin playing. The macro may not work for an accessory device that is not turned ON by the **POWER/STBY** button on the device's remote control.

RUNNING THE HOME MOVIE MACRO

BEGIN

- 1 Press the **HOME MOVIE** button on the remote control to run the Home Movie macro. The series of functions will be carried out, one after another. The name of each function will flash on the screen as it is activated. Use the **SCAN NEXT**, **SCAN PREV.**, or other buttons on your TV remote control to work the the various functions of your DVD, LD, or VCD player.



SMART HELP

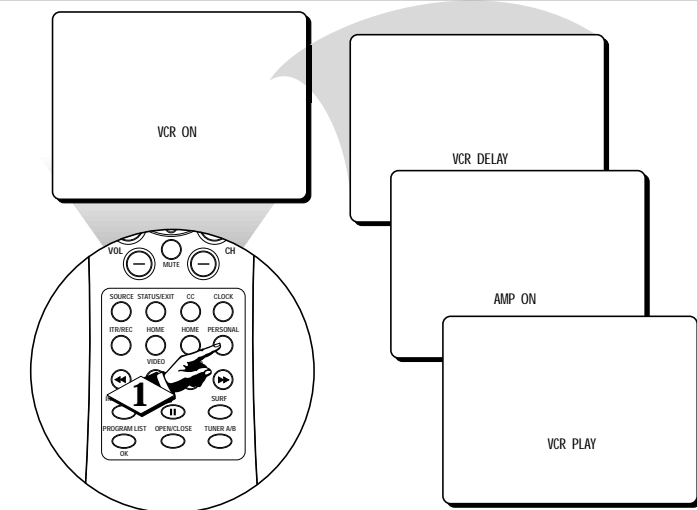


Before you press the **HOME MOVIE** macro button, you must place a disc in the accessory device you've set up with M-Link to play movies (DVD, LD, VCD), and the device must be in the standby mode. When you press the **HOME MOVIE** macro button, the accessory device will turn ON and begin playing. The button may not work for an accessory device that is not turned ON by the **POWER/STBY** button on the device's remote control.

RUNNING THE PERSONAL MACRO

BEGIN

- 1 Press the **PERSONAL** button on the remote control to run the Personal macro. The series of functions that you have programmed into your Personal macro will be carried out, one after another. The name of each function will flash on the screen as it is activated.





RUNNING THE ITR MACRO

You can connect two VCRs (referred to as VCR1 and VCR2 on the M-Link™ menu) to your TV at once for use with M-Link™, if you'd like. In order to use the Instant Touch Recording macro, however, you must have your cable or antenna signal (RF) connected to one of the VCRs (VCR1) and to the TV. Then with your VCR in TV mode you can press the ITR/REC button to begin recording a program or to set start and stop times for recording later.

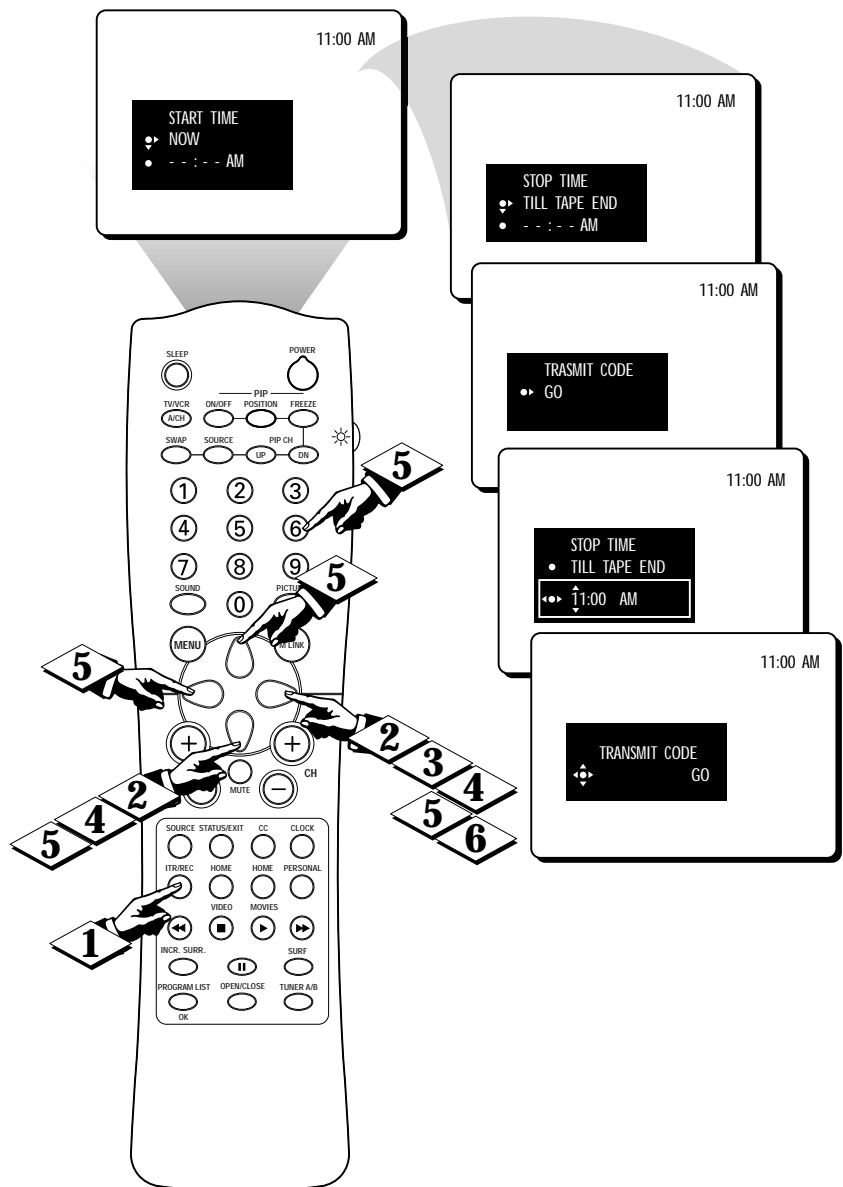
You also can press the ITR/REC button for normal REC recording. In that case, you must have your VCR in VCR mode, and you can record on VCR1 or VCR2, depending on your connection.

BEGINNING ITR RECORDING NOW

BEGIN

- 1 Press the ITR/REC button to bring the ITR menu to the screen.
 - 2 Press the CURSOR RIGHT button to select "NOW"; the STOP TIME options will appear.
 - 3 To choose to record fill the end of the tape, press the CURSOR RIGHT button. Then press the CURSOR RIGHT button again to transmit the code to M-Link™ and begin recording.
- OR
- 4 To input a STOP TIME, press the CURSOR DOWN button to highlight the STOP TIME input area. Then press the CURSOR RIGHT button to be in position to enter the STOP TIME.
 - 5 Press the CURSOR RIGHT or CURSOR LEFT button to move to each spot in which time numbers can be input. Then press the CURSOR UP or CURSOR DOWN button to input the time; or press the number buttons to do so.
 - 6 After inputting the STOP TIME, press the CURSOR RIGHT button. TRANSMIT CODE and GO will appear on the screen. Then press the CURSOR RIGHT button again to begin recording.

Please see the next page for instructions in setting the ITR macro to record later.





SETTING THE ITR MACRO TO RECORD LATER

BEGIN

1 Press the **ITR/REC** button to bring the ITR menu to the screen.

2 Press the **CURSOR DOWN** button to highlight the **START TIME** input area. Then press the **CURSOR RIGHT** button.

3 Press the **CURSOR RIGHT** or **CURSOR LEFT** button to move to each spot in which time numbers can be input. Then press the **CURSOR UP** or **CURSOR DOWN** button to input the time; or press the **number buttons** to do so.

4 After you've entered the **START TIME**, press the **CURSOR RIGHT** button. The **STOP TIME** menu will appear.

5 To choose to record till the end of the tape, press the **CURSOR RIGHT** button. Then press the **CURSOR RIGHT** button again to send your settings to M-Link™.

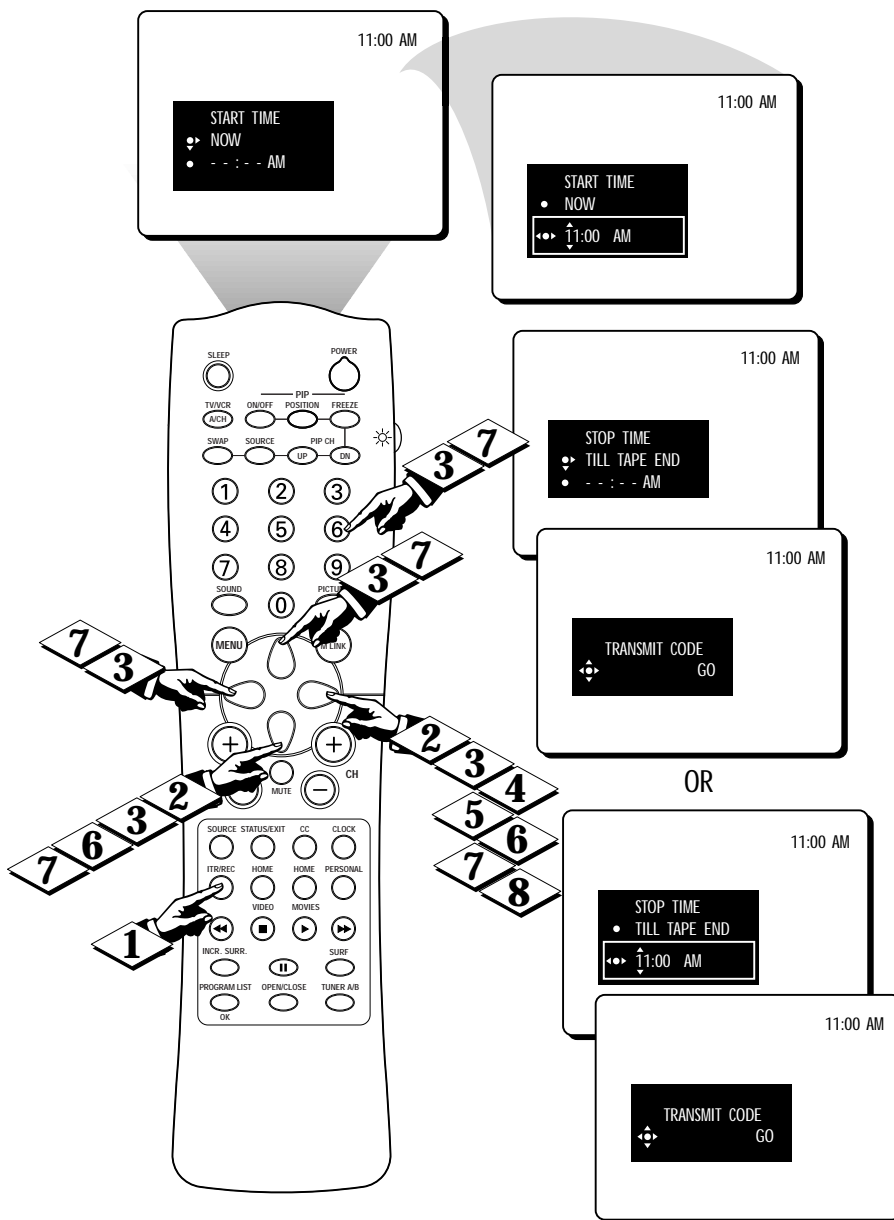
OR

6 To input a **STOP TIME**, press the **CURSOR DOWN** button to highlight the **STOP TIME** input area. Then press the **CURSOR RIGHT** button.

7 Press the **CURSOR RIGHT** or **CURSOR LEFT** button to move to each spot in which time numbers can be input. Then press the **CURSOR UP** or **CURSOR DOWN** button to input the time; or press the **number buttons** to do so.

8 After inputting the **STOP TIME**, press the **CURSOR RIGHT** button. **TRANSMIT CODE** and **GO** will appear on the screen. Then press the **CURSOR RIGHT** button again. Recording will begin and end according to your settings.

STOP



NOTE: At the **START TIME** you select, the **ITR/REC** macro will perform the following steps:

- Turn the **VCR ON**.
- Set the **VCR** to the current **TV channel**.

At the end of recording period you've set, the macro will perform the following steps:

- Stop **VCR recording**.
- Power the **VCR OFF** to standby status.

TABLES FOR RECORDING MULTIBRAND REMOTE CONTROL FUNCTIONS

VCR		DVD		LD		CBL	
M-Link™	New or Multibrand	M-Link™	New or Multibrand	M-Link™	New or Multibrand	M-Link™	New or Multibrand
POWER/STBY		POWER/STBY		POWER/STBY		POWER/STBY	
PLAY		PLAY		PLAY		CH. UP	
STOP		STOP		STOP		CH. DOWN	
FF/FORWARD		SCAN NEXT		SCAN NEXT		CH. ALT	
REW/REVERSE		SCAN PREV.		SCAN PREV.		MENU	
PAUSE		PAUSE		PAUSE		LEFT	
RECORD		SKIP LEFT		SKIP LEFT		RIGHT	
EJECT		SKIP RIGHT		SKIP RIGHT		UP	
CH. UP		FRAME/STEP		FRAME/STEP		DOWN	
CH. DOWN		OPEN/CLOSE		OPEN/CLOSE		OK	
TV/VIDEO		MENU		MENU		OSD/DISPLAY	
MENU		DISC MENU		LEFT		(STATUS/EXIT)	
LEFT		LEFT		RIGHT		0	
RIGHT		RIGHT		UP		1	
UP		UP		DOWN		2	
DOWN		DOWN		OK		3	
OK		OK		OSD/DISPLAY		4	
OSD/DISPLAY		OSD/DISPLAY		(STATUS/EXIT)		5	
(STATUS/EXIT)		(STATUS/EXIT)		- USA ONLY		6	
- USA ONLY		- USA ONLY		0		7	
0		0		1		8	
1		1		2		9	
2		2		3		GUIDE	
3		3		4		TUNER A/B	
4		4		5		USER1	
5		5		6		USER2	
6		6		7		USER3	
7		7		8		USER4	
8		8		9		USER5	
9		9		CHAPTER			
SAP		CHAPTER		SIDE A/B			
SPEED		TITLE		AUDIO			
SLOW		LAST PLAY		USER1			
TRACK		SUBTITLE		USER2			
USER1		AUDIO					
USER2		USER1					
		USER2					
		USER3					

TABLES FOR RECORDING MULTIBRAND REMOTE CONTROL FUNCTIONS

SAT		STB		VCD		AMP	
M-Link™	New or Multibrand	M-Link™	New or Multibrand	M-Link™	New or Multibrand	M-Link™	New or Multibrand
POWER/STBY		POWER/STBY		POWER/STBY		POWER/STBY	
CH. UP		CH. UP		PLAY		MUTE	
CH. DOWN		CH. DOWN		STOP		VOL. UP	
TV/VIDEO		TV/VIDEO		SCAN NEXT		VOL. DOWN	
MENU		MENU		SCAN PREV.		USER1	
LEFT		LEFT		PAUSE		USER2	
RIGHT		RIGHT		SKIP LEFT		USER3	
UP		UP		SKIP RIGHT		USER4	
DOWN		DOWN		FRAME/STEP		USER5	
OK		OK		OPEN/CLOSE			
OSD/DISPLAY (STATUS/EXIT)		OSD/DISPLAY (STATUS/EXIT)		MENU			
				LEFT			
1		0		RIGHT			
2		1		UP			
3		2		DOWN			
4		3		OK			
5		4		OSD/DISPLAY (STATUS/EXIT)			
6		5					
7		6		- USA ONLY			
8		7		0			
9		8		1			
0		9		2			
GUIDE		GUIDE		3			
USER1		USER1		4			
USER2		USER2		5			
USER3		USER3		6			
USER4		USER4		7			
USER5		USER5		8			
				9			
				CHAPTER			
				AUDIO			
				USER1			
				USER2			



Please make these simple checks before calling for service. Because charges for adjustment of customer controls are not covered under your warranty, these tips can save you time and money.

Things to Remember about the IR Blaster

The IR Blaster transmits commands to your accessory devices to carry out functions (POWER/STBY, PLAY, STOP, etc.). Therefore, you need to ensure that the IR Blaster's remote sensor window is not blocked and that the IR Blaster is in a position to send its signal into the room, where it can bounce off of walls or objects and then to remote sensor windows of the accessory devices. The remote sensor windows of the accessory devices must not be blocked in order to receive transmissions from the IR Blaster.

Light colors or other room conditions can prevent the IR Blaster signal from reaching accessory devices. Also, storing accessory devices in glass-covered cabinets can block the signal. If you have such conditions, IR Shooters can be attached to the IR Blaster cable for more direct transmission of the signal from the IR Blaster to accessory devices (see page 4). Call 1-800-851-8885 to order the IR Shooters.

Difficulty

A Philips Accessory Device Will Not Respond to Any of the Remotes Tested During Setup

Remedy

The remote codes of the Philips accessory device you're attempting to set up may not be preprogrammed into M-Link™ because the device is new. Go to the section "Setting up a New or Multibrand Accessory Device" and follow the steps to set up your Philips accessory device.

Remote Control Functions of Philips Accessory Devices Are Not Working or the Wrong Functions Are Being Activated When M-Link™ Is Used

Different codes have sometimes been used for the same function among some Philips accessory devices. You may need to delete the device from M-Link™ using the onscreen menu, and then explore the functions of the Philips accessory device using its remote control. Follow the steps under "Setting up a New or Multibrand Accessory Device" to have M-Link™ learn the remote functions.

Accessory Devices Will Not Respond When Macro Buttons Are Pressed

- Ensure that all of the setup steps have been followed for each accessory device. For the Home Video macro to work, a VCR must be setup; for the Home Movie macro, a DVD, LD, or VCD player; and for the ITR video, a VCR. See "Setting up a Philips Device" on page 7 or "Setting up a New or Multibrand Device" on page 10 for instructions.
- After setup, these simple requirements need to be met for each button in order for it to operate:
 - Home Video**—a VCR tape must be inserted and rewound in the VCR player, and the VCR must be in standby mode. The macro may not work for an accessory device that is not turned ON by the POWER/STBY button on the device's remote control.
 - Home Movie**—A video disc must be placed in the DVD, LD, or VCD, and the accessory device must be in the standby mode. The macro may not work for an accessory device that is not turned ON by the POWER/STBY button on the device's remote control.



Difficulty

Accessory Devices Will Not Respond When Macro Buttons Are Pressed (continued)

Remedy

ITR/REC—a VCR tape must be inserted and rewound in the VCR player, and the VCR must be in standby mode. The macro may not work for an accessory device that is not turned ON by the POWER/STBY button on the device's remote control.

- For the **PERSONAL** macro button to work, you must program the macro steps. See “Programming Your Personal Macro” on page 17.
- Ensure that the source inputs (CVI, AV2, AV3, for example) to which you've connected accessory devices match with the sources you chose in the onscreen menu during setup.
- You may need to delete a device that is not responding and set it up with M-Link™ again. See the sections “Deleting Accessory Devices from the M-Link™ System” (page 15) and “Setting up a New or Multibrand Accessory Device” (page 10). When you have M-Link™ learn an accessory-device function, remember to ensure that the button you are pressing on the accessory device's remote control matches the highlighted function in the M-Link™ LEARN menu.
- Ensure that you have had M-Link™ at least learn the remote functions that are necessary for the basic operation of each new or multibrand device (POWER/STBY, PLAY, and STOP, for example).

The TV Remote Control Will Not Work Accessory-Device Functions

Ensure that the functions you want to use have been learned by M-Link™. These could be functions such as FF/FORWARD, REW/REVERSE, PAUSE, EJECT, SCAN NEXT, SCAN PREV., or others, depending on the device.



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