Color TV

# Directions for Use

Important! Return your Warranty Registration Card within 10 days. See why inside.

***Congratulations*** *on purchasing this Philips product.*
*We've included everything you need to get started.*
*If you have any problems, Philips Representatives can help you get the most from your new product by explaining:*

- *Hookups,*
- *First Time Setup, and*
- *Feature Operation.*

***For fast help, call us first!***
***1-800-531-0039***

*Thank you for making Philips a part of your home!*

Model No.:_____

Serial No.:_____

*Let's make things better.*

PHILIPS

3104 315 2176.1

# Return your Warranty Registration card today to ensure you receive all the benefits you're entitled to.

***Once your PHILIPS purchase is registered, you're eligible to receive all the privileges of owning a PHILIPS product. So complete and return the Warranty Registration Card enclosed with your purchase at once. And take advantage of these important benefits.***

## Warranty Verification

Registering your product within 10 days confirms your right to maximum protection under the terms and conditions of your PHILIPS warranty.

## Owner Confirmation

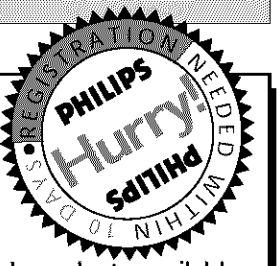
Your completed Warranty Registration Card serves as verification of ownership in the event of product theft or loss.

## Model Registration

Returning your Warranty Registration Card right away guarantees you'll receive all the information and special offers which you qualify for as the owner of your model.

**Congratulations** on your **purchase,**
and welcome to the **"family!"**

**PHILIPS**




**Dear PHILIPS product owner:**

Thank you for your confidence in PHILIPS. You've selected one of the best-built, best-backed products available today. And we'll do everything in our power to keep you happy with your purchase for many years to come.

As a member of the PHILIPS "family," you're entitled to protection by one of the most comprehensive warranties and outstanding service networks in the industry.

What's more, your purchase guarantees you'll receive all the information and special offers for which you qualify, plus easy access to accessories from our convenient home shopping network.

And most importantly you can count on our uncompromising commitment to your total satisfaction.

All of this is our way of saying welcome–and thanks for investing in a PHILIPS product.

Sincerely,

Lawrence J. Blanford

Lawrence J. Blanford
President and Chief Executive Officer

P.S. Remember, to get the most from your PHILIPS product, you must return your Warranty Registration Card within 10 days. So please mail it to us right now!

## Know these **safety** symbols

⚠ This "bolt of lightning" indicates uninsulated material within your unit may cause an electrical shock. For the safety of everyone in your household, please do not remove product covering.

⚠ The "exclamation point" calls attention to features for which you should read the enclosed literature closely to prevent operating and maintenance problems.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

CAUTION: To prevent electric shock, match wide blade of plug to wide slot, and fully insert.

ATTENTION: Pour éviter les chocs électriques, introduire la lame la plus large de la fiche dans la borne correspondante de la prise et pousser jusqu'au fond.

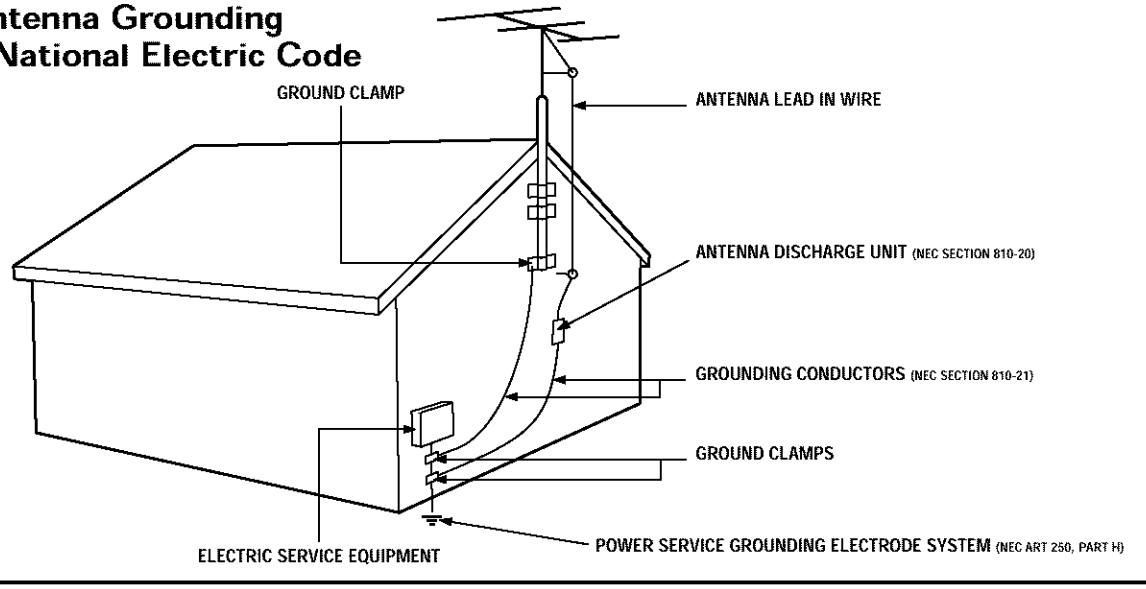
**PHILIPS** *Visit our World Wide Web Site at http://www.philips.com*

# IMPORTANT SAFETY INSTRUCTIONS
## Read before operating equipment

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any of the ventilation openings. Install in accordance with the manufacturers instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and third grounding prong. The wide blade or third prong are provided for your safety. When the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. This product may contain lead and mercury. Disposal of these materials may be regulated due to environmental considerations. For disposal or recycling information, please contact your local authorities or the Electronic Industries Alliance: www.eiae.org
16. **Damage Requiring Service** - The appliance should be serviced by qualified service personnel when:
    - **A.** The power supply cord or the plug has been damaged; or
    - **B.** Objects have fallen, or liquid has been spilled into the appliance; or
    - **C.** The appliance has been exposed to rain; or
    - **D.** The appliance does not appear to operate normally or exhibits a marked change in performance; or
    - **E.** The appliance has been dropped, or the enclosure damaged.
17. **Tilt/Stability** - All televisions must comply with recommended international global safety standards for tilt and stability properties of its cabinet design.
    • Do not compromise these design standards by applying excessive pull force to the front, or top, of the cabinet which could ultimately overturn the product.
    • Also, do not endanger yourself, or children, by placing electronic equipment/toys on the top of the cabinet. Such items could unsuspectingly fall from the top of the set and cause product damage and/or personal injury.
18. **Wall or Ceiling Mounting** - The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
19. **Power Lines** - An outdoor antenna should be located away from power lines.
20. **Outdoor Antenna Grounding** - If an outside antenna is connected to the receiver, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges.
    Section 810 of the National Electric Code, ANSI/NFPA No. 70-1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding connectors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Figure below.
21. **Object and Liquid Entry** - Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

**Note to the CATV system installer:** This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

**Example of Antenna Grounding as per NEC - National Electric Code**



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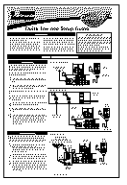
## QUICK USE AND SETUP GUIDE

**Refer to the simple *Quick Use and Setup Guide* (supplied with your TV) for details on Basic Connections, Remote Control Operation, Language and Auto Program.**



# Features

**Active Control™** continuously measures and corrects all incoming signals to help provide the best picture quality. This feature monitors and corrects both the sharpness control and noise reduction control.

**Audio/Video Jack Panel** allows direct connections with VCRs, DVDs, High Definition Receivers or other devices, providing quality TV picture and sound playback.

**Audio Volume Leveler (AVL) Control** keeps the TV sound at an even level. Peaks and valleys that occur during program changes or commercial breaks are reduced, making for a more consistent, comfortable sound.

**Channel Lock** allows you to block the viewing of certain channels or programs with certain ratings if you do not want your children to view inappropriate materials.

**Auto Programming** scans (when activated) for all available channels from regular antenna or cable signals and stores only active broadcast stations in the TV's memory.

**AutoPicture™** allows you to change the picture settings (color, tint, contrast, etc.) for various types of programming, such as sports, movies, multimedia (games), or weak signals with the push of one button. Selections include, Personal, Rich, Natural, Soft, Multimedia, or Eco.

**AutoSound™** allows you to change to different factory predefined audio settings and a personal control that you set according to your own preferences through the onscreen Sound menu. The five factory-set controls (Personal, Speech, Music, Movie, and Multimedia) enable you to tailor the TV sound so as to enhance the particular programming you are watching.

**Channel Remove** allows you to delete channels from the list stored in the TV's memory. Channel Remove makes it easy to limit the number of channels that are available to you when you press the Channel (+) or (–) buttons on your remote control.

**Closed Captioning** allows the viewer to read TV program dialogue or voice conversations as onscreen text.

**Dynamic Contrast** helps to sharpen the picture quality by improving the contrast between the darkest and brightest parts of the picture.

**Pixel Plus™ (or Digital Processing)** gives a choice of two different scanning techniques – Progressive Scan or Pixel Plus.
**Progressive Scan** doubles the number of picture lines, eliminating line flicker and providing a jitter-free picture.
**Pixel Plus™** improves the appearance of onscreen motion. The number of picture lines are increased along with the number of pixels per line, giving normal broadcast signals, DVD reproduction or Digital TV signals, unparalleled sharpness and depth. Gives the viewer near High Definition and natural looking detail without the High Definition signal.

**Infrared Remote Control** works your TV and other remote-controlled devices, such as VCRs, DVD players, cable converters, satellite receivers, etc.

**Onscreen Menu** shows helpful messages and instructions for setting TV feature controls (can be viewed in English, French, or Spanish).

**Sleep Timer** automatically turns the TV OFF after a set amount of time that you choose.

**Standard Broadcast (VHF/UHF) or Cable TV (CATV)** channel capability allows for viewing by antenna or cable.

**Stereo** capability, including a built-in audio amplifier and twin-speaker system, allows for the reception of TV programs broadcast in stereo sound.

**Surf Button** allows you to easily switch among only the channels that are of interest to you (the ones that you have programmed into the TV's Surf control through the onscreen menu). Surf allows 2 channel surfing or 9 channel surfing.

**Timer** allows you to set your TV to turn itself ON and OFF once or daily like an alarm clock.

## Items Included with This TV

**As you unpack your TV, please note the included items:**

- ***Directions for Use* manual (contains safety-tip, cleaning and Factory Service Center location information)**
- **Warranty Registration Card**
- **Remote Control (with supplied batteries for use)**
- **Quick Use Guide to help you set up your new TV.**

Please take a few minutes to complete your registration card. The serial number for the TV is on the rear of the set. For your future reference, please write down the serial and model number of this television in the space provided on the cover of this manual. (In the unlikely event you should need to place a service call, these numbers will be needed.)

## End-of-Life Disposal

Your new television and its packing contain materials that can be recycled and reused. Specialized companies can recycle your product to increase the amount of reusable materials and minimize the amounts that need to be properly disposed.

Your product also uses batteries that should not be thrown away when depleted, but should be handed in and disposed of as small chemical waste.

When you replace your existing equipment, please find out about the local regulations regarding disposal of your old television, batteries, and packing materials.

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As an Energy Star® Partner, Philips Consumer Electronics has determined this product meets the Energy Star® guidelines for energy efficiency. Energy Star® is a U.S. registered mark. Using products with the Energy Star® label can save energy. Saving energy reduces air pollution and lowers utility bills.

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# JACK PANEL DESCRIPTIONS AND REQUIRED CABLES

*The television is equipped with external input and output jacks for use with optional accessory devices such as Home entertainment Receivers, VCRs, DVD Player, Gaming Units, Video Cameras, etc. The following gives a brief explanation of the different types of jacks available and the type of cables needed to make connections.*

**1** **75Ω RF -** Cable/Antenna Input connection jack.

**2** **AV 1 IN -** Audio/Video connection jacks including Component Video Inputs.

**3** **AV 2 IN -** Audio/Video Input connection jacks including S-Video connections.

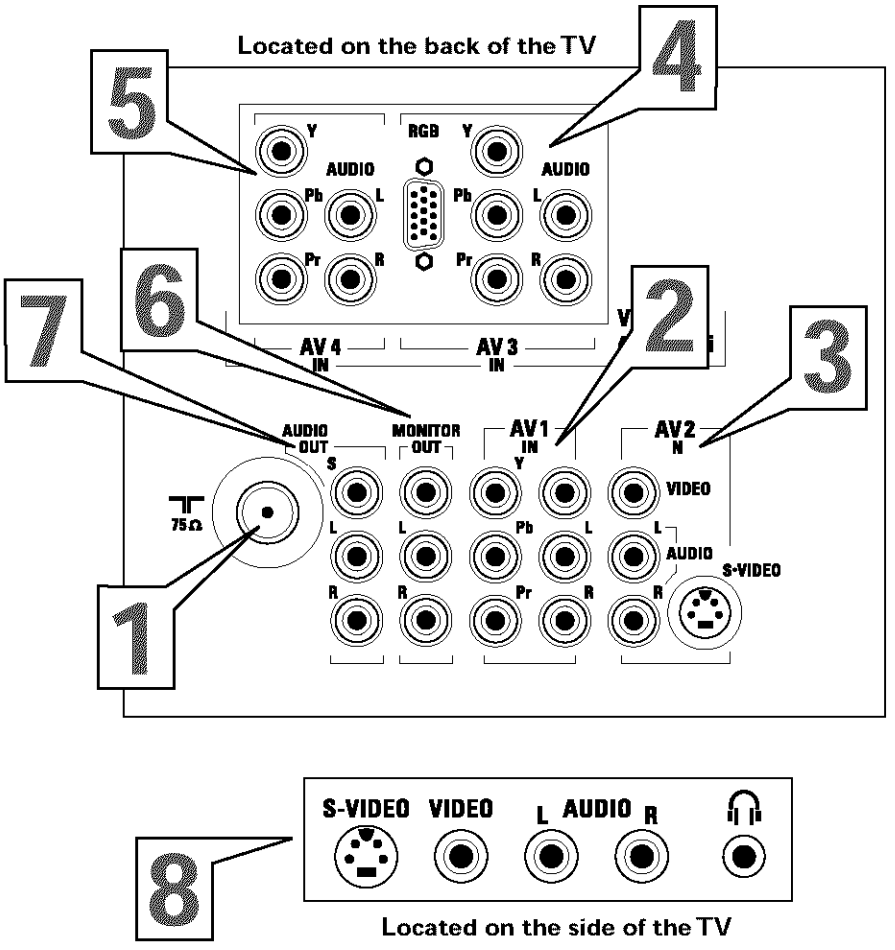
**4** **AV 3 IN -** Component Video, VGA (RGB), and Audio Input connection jacks.

**5** **AV 4 IN -** High Definition Component Video and Audio Input connection jacks.

**6** **Monitor Out -** Audio/Video Output connection jacks (TV tuner signal only).

**7** **Audio Out -** Audio connections for home entertainment receivers and external speakers.

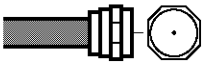
**8** **SIDE -** Audio/Video Input jacks include a S-Video jack, plus a Headphone jack located on the side of the cabinet.



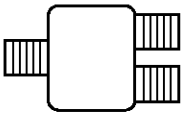




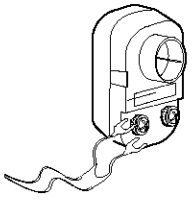
## Cable Descriptions:



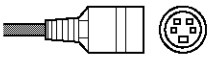
A 75-ohm **coaxial cable** connects signals from an antenna or a cable TV company to the antenna jack on the back of the TV. Coaxial cables use "F" connectors.



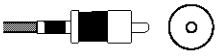
A **two-way signal splitter** enables you to take a single antenna or cable TV signal and supply it to two different inputs.



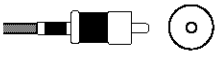
A **300- to 75-ohm twin-lead adapter** accepts the antenna cables (called twin-lead wires) from an antenna, allowing you to connect the antenna signal to the TV.



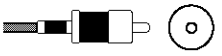
A **S-Video cable** provides better picture performance than regular (composite) video connections.
S-Video cables can be used only with S-Video-compatible accessory devices. You must also connect the left and right audio cables to the AV 2 Audio in jacks because the S-Video jack carries only the picture signal, not the sound.



Yellow - Video



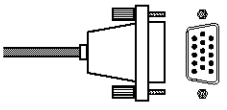
White - Audio Left



Red - Audio Right

**Video and audio cables** with standard RCA (phono) connectors connect the video and audio jacks of accessory devices such as VCRs and DVD players to the jacks on the TV.

These connectors are usually color coded. The jacks on your TV are also color coded to match the colors of the connectors. Yellow for video (composite) and Red and White for the right and left audio channels. The video cables used to connect component video or RGB (high-resolution) jacks are color coded red, green, and blue.



A **VGA (HD15) cable** makes a VGA (RGB) connection to the HD INPUT-AV 4 jack on the rear of the TV.

# USING THE AV 1 INPUT JACKS

*The TV's audio/video input jacks are for direct picture and sound connections between the TV and a VCR (or similar device) that has audio/video output jacks. Follow the easy steps below to connect your accessory device to the AV 1 Input Jacks located on the back of the TV.*

1. **Connect the VIDEO (yellow) cable** to the VIDEO AV1 IN jack on the back of the TV.

2. **Connect the AUDIO (red and white) cables** to the AUDIO (left and right) AV1 IN jacks on the rear of the TV.

3. **Connect the VIDEO (yellow) cable** to the VIDEO OUT jack on the back of the VCR.

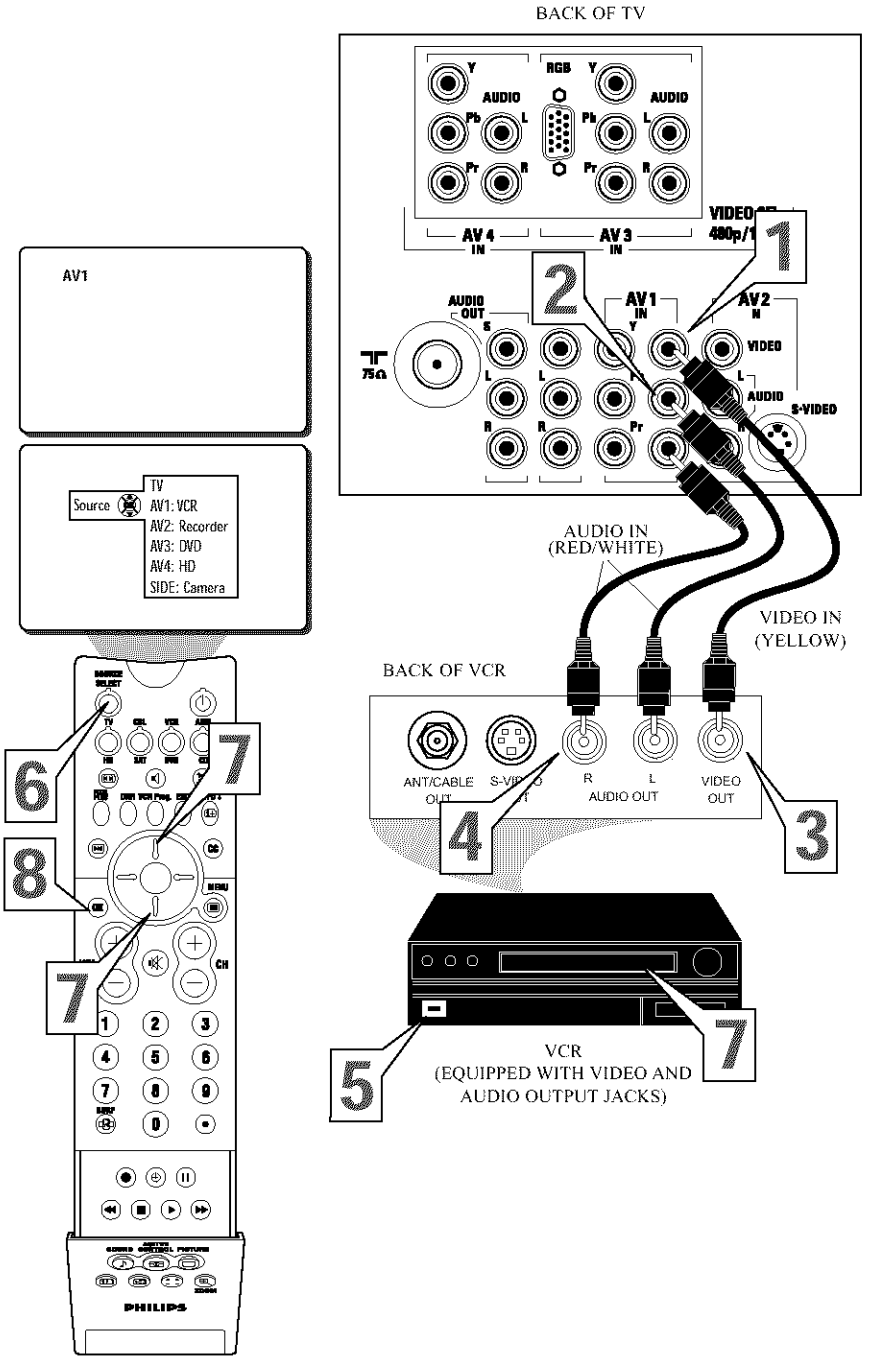
4. **Connect the AUDIO (red and white) cables** to the AUDIO (left and right) OUT jacks on the rear of the VCR.

5. **Turn the VCR (accessory device) and the TV ON.**

6. **Press the SOURCE SELECT button** on the remote control to display the SOURCE menu.

7. **Press the CURSOR UP or DOWN button** to select the AV1 option.

8. **Press the OK button** to confirm your selection. The TV will change to the AV1 channel.



# USING THE AV 2 INPUT JACKS

*The TV's audio/video input jacks allow you connect multiple accessory devices at one time to different sets of input jacks.. Follow the easy steps below to connect an additional accessory device to the AV 2 Input Jacks located on the back of the TV.*

**1** **Connect the VIDEO (yellow) cable** to the VIDEO AV2 IN jack on the back of the TV.

**2** **Connect the AUDIO (red and white) cables** to the AUDIO (left and right) AV2 IN jacks on the rear of the TV.

**3** **Connect the VIDEO (yellow) cable** to the VIDEO OUT jack on the back of the VCR.

**4** **Connect the AUDIO (red and white) cables** to the AUDIO (left and right) OUT jacks on the rear of the VCR.

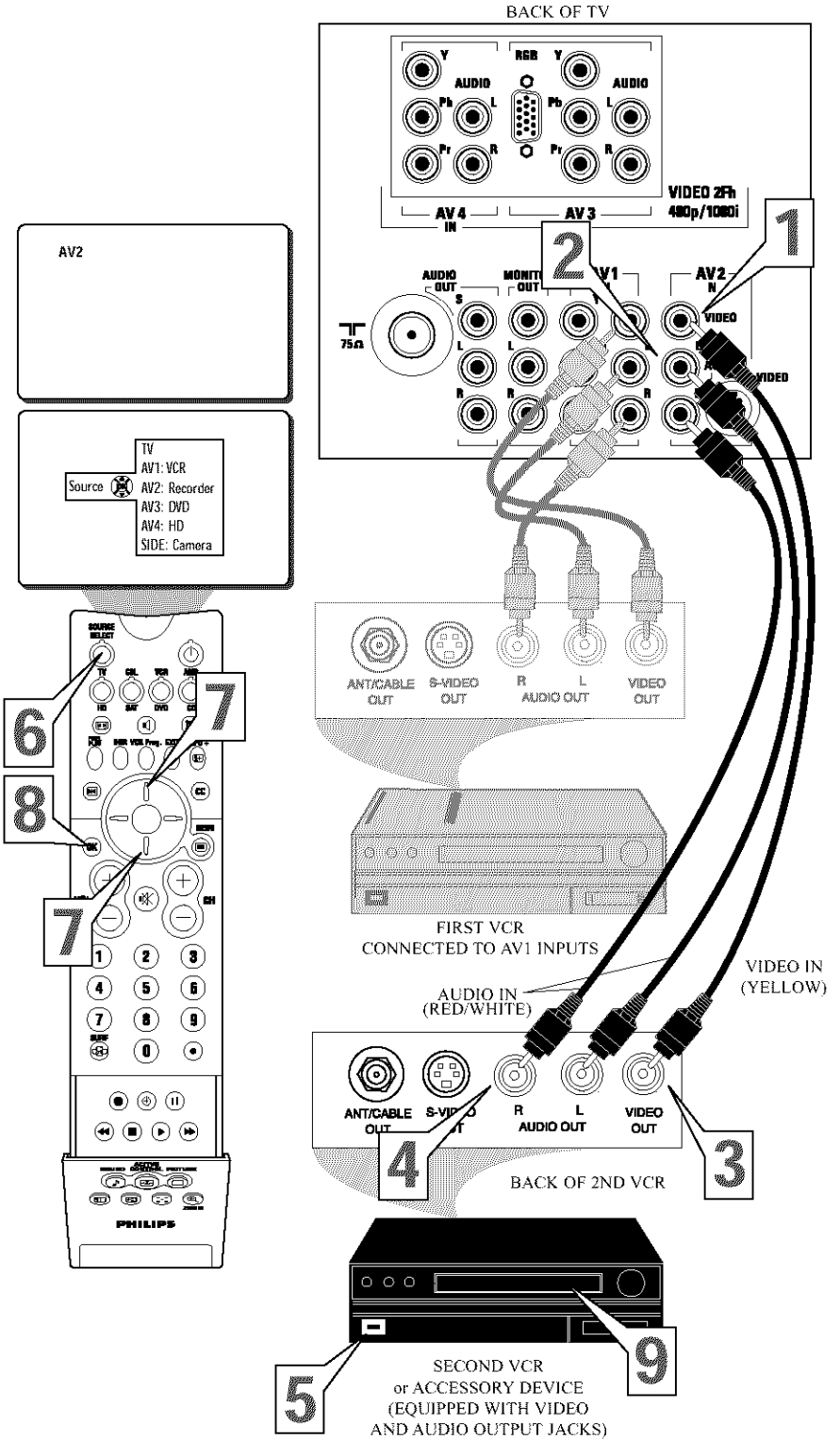
**5** **Turn the VCR (accessory device) and the TV ON.**

**6** **Press the SOURCE SELECT button** on the remote control to display the SOURCE menu.

**7** **Press the CURSOR UP or DOWN button** to select the AV2 option.

**8** **Press the OK button** to confirm your selection. The TV will change to the AV2 channel.

**9** With the VCR (or accessory device) ON and a prerecorded tape (or other media depending on type of accessory device being used), **press the PLAY button** to view the tape on the television.



# USING THE SIDE INPUT JACKS

*This television has input jacks conveniently located on the side of the cabinet. These jack are for easy hook-ups (without having to move around to the back of the TV) for cameras, gaming units, and other accessory devices that wouldn't be connected permanently. Follow the easy steps below to connect your accessory device to the SIDE Input Jacks located on the right side of the TV.*

1. **Connect the VIDEO (yellow) cable** to the VIDEO IN jack on the side of the TV.

2. **Connect the AUDIO (red and white) cables** to the AUDIO (left and right) IN jacks on the side of the TV.

3. **Connect the VIDEO (yellow) cable** to the VIDEO OUT jack on the back of the camera (or accessory device).

4. **Connect the AUDIO (red and white) cables** to the AUDIO (left and right) OUT jacks on the rear of the camera (or accessory device).

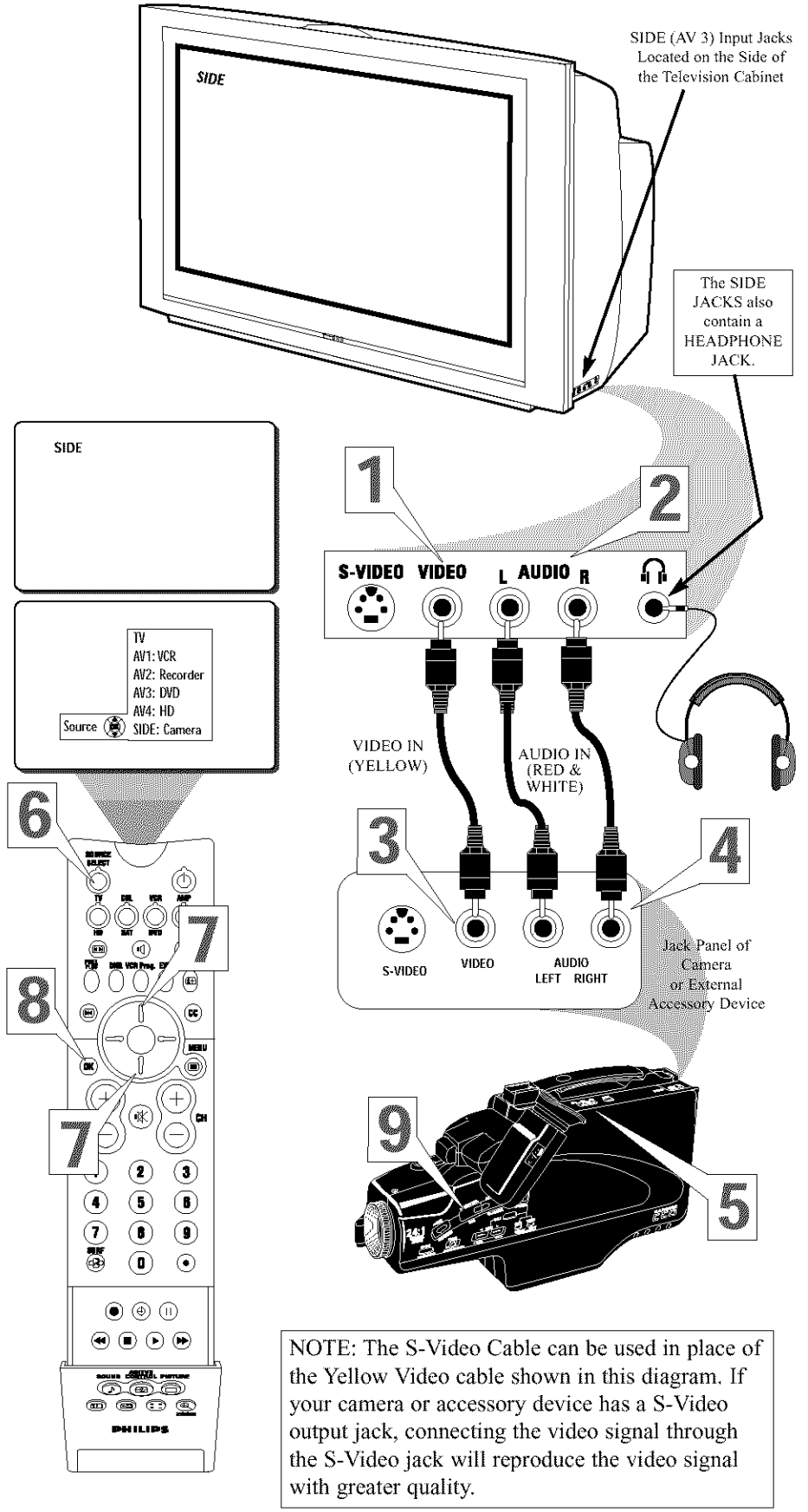
5. **Turn the camera (or accessory device) and the TV ON.**

6. **Press the SOURCE SELECT button** on the remote control to display the SOURCE menu.

7. **Press the CURSOR UP or DOWN button** to select the SIDE option.

8. **Press the OK button** to confirm your selection. The TV will change to the SIDE channel.

9. With the camera (or accessory device) ON and a prerecorded tape (or other media depending on type of accessory device being used), **press the PLAY button** to view the tape on the television.




NOTE: The S-Video Cable can be used in place of the Yellow Video cable shown in this diagram. If your camera or accessory device has a S-Video output jack, connecting the video signal through the S-Video jack will reproduce the video signal with greater quality.

# USING THE AV 3 INPUT JACKS

*The AV3 Input Jacks provide Both Component and RGB Video Inputs at 1080i, for accessories like a HD Receiver and Digital DVD Players. Using the color difference signals (Pb, Pr) and the luminance (Y) signal will improve color bandwidth information. The TV can also become a monitor for projectors, computers or HD Receivers using the RGB Input.*

**1** **Connect the Component (Y, Pb, Pr) Video OUT** jacks from the DVD player (or similar device) to the (Y, Pb, Pr) AV3 IN(put) jacks on the TV.

**2** **Connect the red and white AUDIO CABLES** to the Audio (left and right) output jacks on the rear of the accessory device to the Audio (L and R) AV3 IN(put) jacks on the TV.

**3** **Connect a RGB cable** from the VGA OUT on the HD Receiver to the AV3 RGB Input jack on the back of the TV.

**4** **Connect a 75Ω round cable** from the OUT TO TV jack on the HD Receiver to the 75Ω IN on the back of the TV.

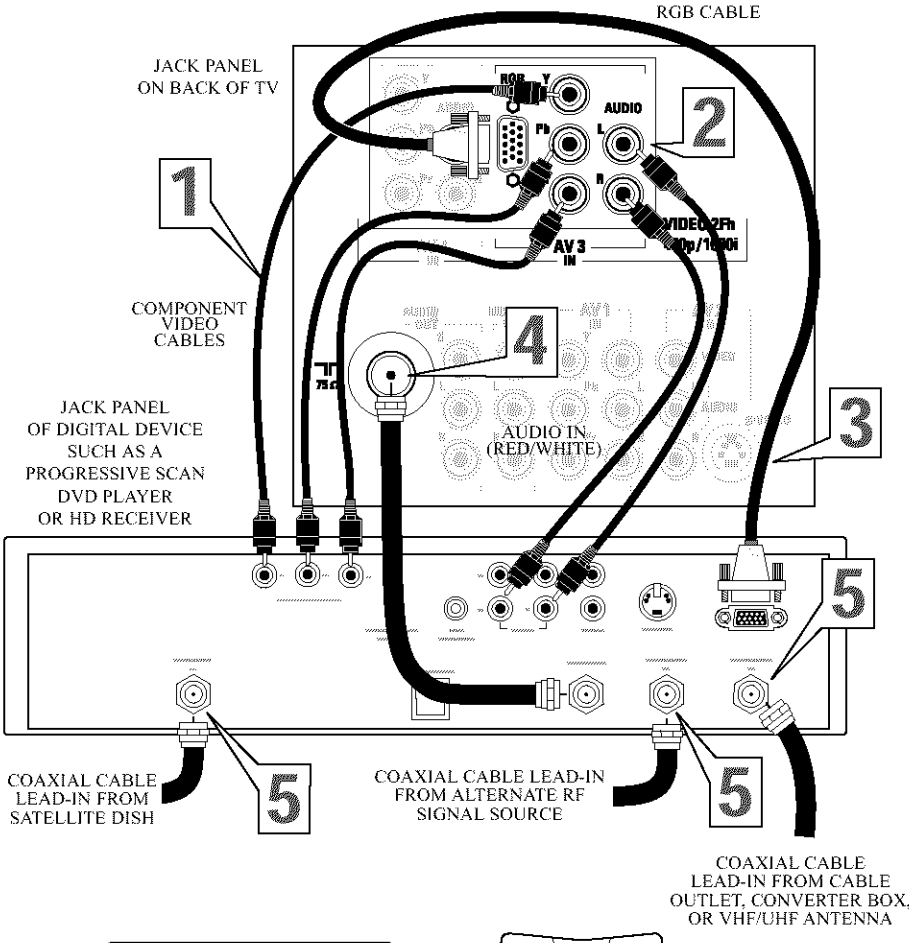
**5** If using a Satellite Dish, Cable signal or Antenna signal, **connect the 75Ω round cable** from a Satellite Dish to the SATELLITE IN and/or the Cable and Antenna signals to the ANTENNA "A" or "B" IN on the back of the HD Receiver.

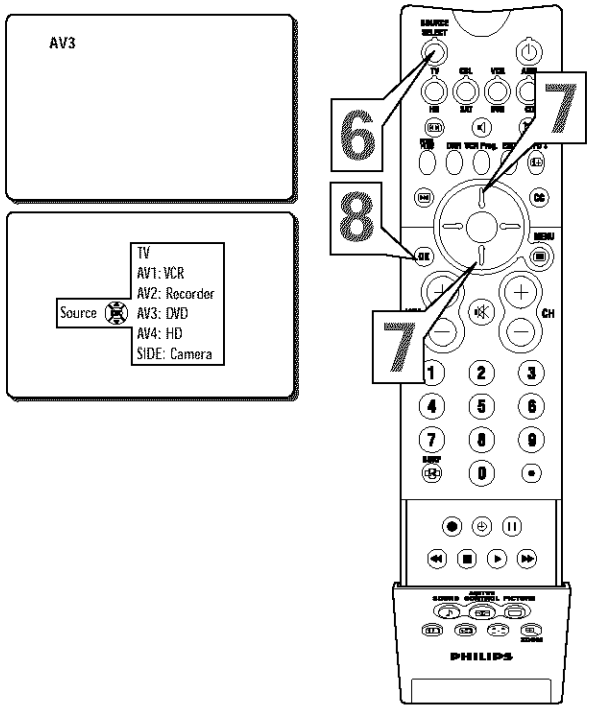
**6** **Press the SOURCE SELECT button** on the remote control to display the SOURCE menu.

**7** **Press the CURSOR UP or DOWN button** to select the AV3 option.

**8** **Press the OK button** to confirm your selection. The TV will change to the AV3 channel.

**Note:** If the AV3 channel is tuned and no signal connection present, the screen could jump or flash.



# USING THE AV 4 INPUT JACKS

*The AV4 Input Jacks provide Component Video Inputs at 1080i, for accessories like a HD Receiver and Digital DVD Players. Using the color difference signals (Pb, Pr) and the luminance (Y) signal will improve color bandwidth information.*

**1** **Connect the Component (Y, Pb, Pr) Video OUT** jacks from the DVD player (or similar device) to the (Y, Pb, Pr) AV4 IN(put) jacks on the TV.

**2** **Connect the red and white AUDIO CABLES** to the AUDIO (left and right) OUT(put) jacks on the rear of the accessory device to the Audio (L and R) AV4 IN(put) jacks on the TV.

**3** **Press the SOURCE SELECT button** on the remote control to display the SOURCE menu.

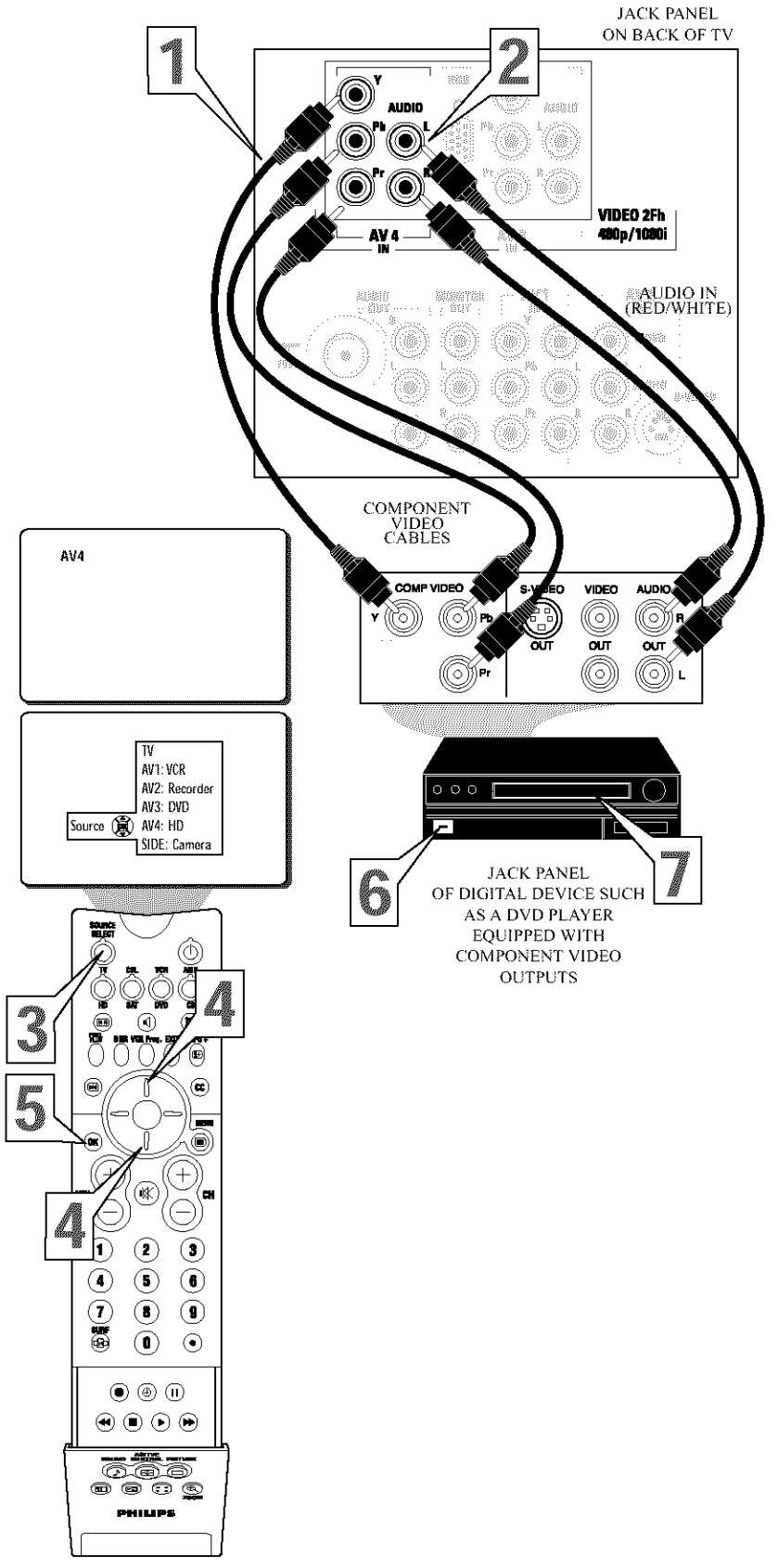
**4** **Press the CURSOR UP or DOWN button** to select the AV3 option.

**5** **Press the OK button** to confirm your selection. The TV will change to the AV3 channel.

**6** **Turn the TV and the DVD (or digital accessory device) ON.**

**7** **Press the PLAY button** on the DVD (or digital accessory device) to view the program on the television.

**Note:** If the AV4 channel is tuned and no signal connection present, the screen could jump or flash.



# USING THE COMPONENT VIDEO INPUT (AV1) JACKS

*If using an accessory device that is not high definition but uses Component Video jacks. The AV1 jacks on the TV offer the user the possibility of better video reproduction using the Component Video Inputs. The color difference signals (Pb, Pr) and the luminance (Y) signal are connected and received separately, which allows for improved color bandwidth information (not possible when using composite video or S-Video connections).*

1. **Connect the Component (Y, Pb, Pr) Video OUT** jacks from the DVD player (or similar device) to the (Y, Pb, Pr) IN(put) jacks on the TV. When using the Component Video Inputs, it is best not to connect a signal to the AV1 Video Input.

2. **Connect the yellow VIDEO CABLE along with the red and white AUDIO CABLES** to the AUDIO (left and right) OUT(put) jacks on the rear of the accessory device to the AV1 VIDEO and AUDIO IN(put) jacks on the TV.

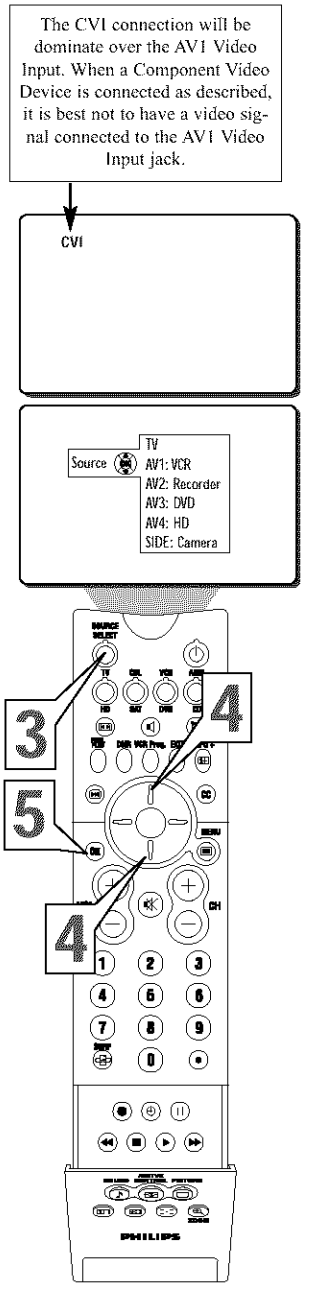
3. **Press the SOURCE SELECT button** on the remote control to display the SOURCE menu.

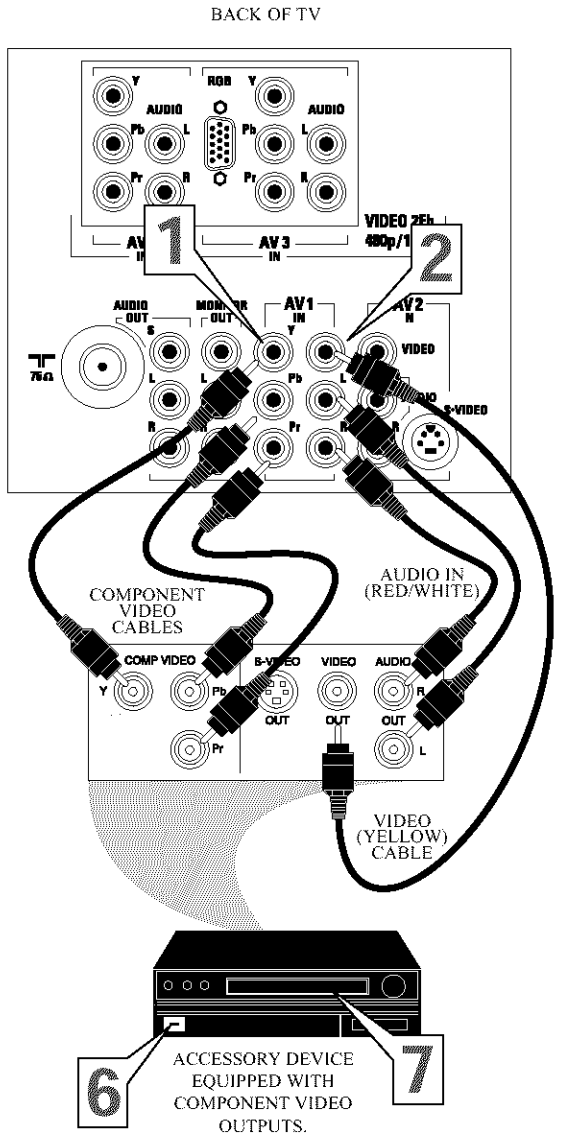
4. **Press the CURSOR UP or DOWN button** to select the AV1 option. CVI will show onscreen rather than AV1.

5. **Press the OK button** to confirm your selection. The TV will change to the AV1 channel.

6. **Turn the TV and the DVD (or digital accessory device) ON.**

7. Insert a DVD disc into the DVD player and **press the PLAY ▶ button on the DVD Player (or digital accessory device).**




## HELPFUL HINT

The description for the component video connectors may differ depending on the DVD player or accessory digital source equipment used (for example, Y, Pb, Pr; Y, B-Y, R-Y; Y, Cr, Cb). Although abbreviations and terms may vary, the letters *b* and *r* stand for the blue and red color component signal connectors, and *Y* indicates the luminance signal. Refer to your DVD or digital accessory owner's manual for definitions and connection details.

# USING THE S-VIDEO INPUT JACKS

*The S(uper)-Video connection on the rear of the TV can provide you with better picture detail and clarity for the playback of accessory sources such as DBS (digital broadcast satellite), DVD (digital video discs), video games, and S-VHS VCR (video cassette recorder) tapes than the normal antenna picture connections.*

***NOTE:** The accessory device must have an S-VIDEO OUT(put) jack in order for you to complete the connection on this page.*

1. **Connect the S-VIDEO CABLE** to the S-VIDEO input jack on the rear of the television.

2. **Connect the AUDIO (red and white) cables** to the AUDIO AV2 IN jacks on the rear of the TV.

3. **Connect the S-VIDEO CABLE** to the S-VIDEO OUT(put) jack on the accessory device.

4. **Connect the red and white AUDIO cables** to the AUDIO (left and right) OUT(put) jacks on the rear of the accessory device.

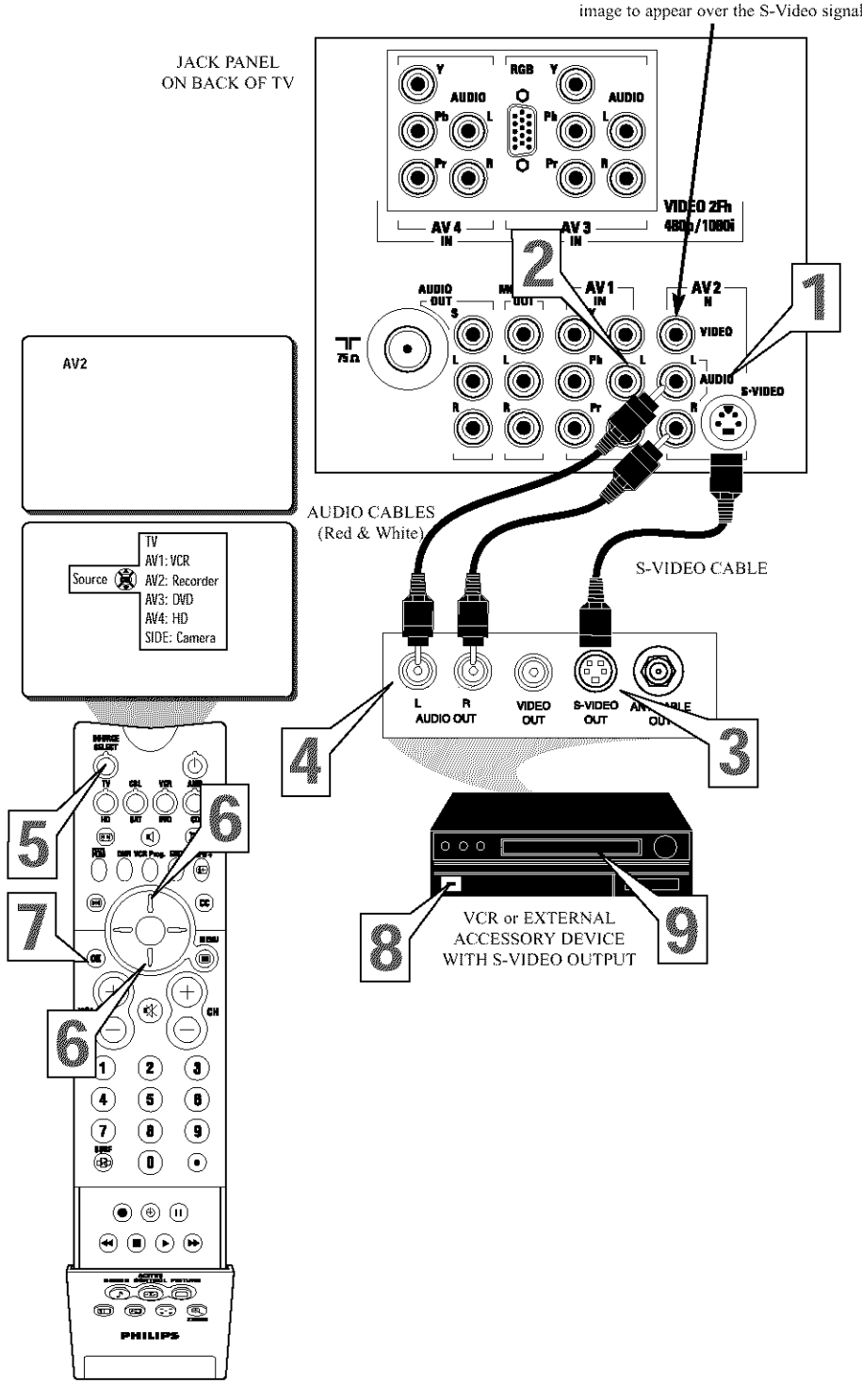
5. **Press the SOURCE SELECT button** on the remote control to display the SOURCE menu.

6. **Press the CURSOR UP or DOWN button** to select the AV2 option.

7. **Press the OK button** to confirm your selection. The TV will change to the AV2 channel.

8. **Turn the VCR, DVD or other accessory device ON.**

9. With the VCR (or accessory device) ON and a prerecorded tape inserted, **press the PLAY button** to view the tape on the television.




## ☑ CHECK IT OUT

The S-Video jack and the AV 2 jacks work together. When a device is connected to the S-Video jack, do not connect a signal to the AV 2 IN Video jack. This could cause an over-lapping of two video images on the TV screen.

# USING THE MONITOR OUTPUT JACKS

*The Audio/Video (Monitor) Output jacks can be used for recording a selected TV (Antenna Input/tuner signal source) Channel. This recording can even be completed while viewing another external Audio/Video Source Select option. (For example: DVD program playback shown through the A/V 1 or 2 Input source connection.)*

**NOTE:** Refer to page 7 for the proper hookup of an accessory device to the AV 1 IN(put) jacks. Follow the instructions on how to tune to the AV 1 channel to view a DVD program playback or pre-recorded VCR tape.

**The following steps allow you to connect a VCR** to record a selected TV channel program through the Monitor Outputs.

**1** **Connect one end of the yellow Video Cable** to the Monitor Out VIDEO plug. Connect the other end to the VIDEO IN plug on the VCR.

**2** **Connect one end of the red and white Audio cable** from the Monitor Out AUDIO L and R plugs on the TV to the AUDIO IN plugs on the VCR.

**3** **Tune the TV to the program** channel you wish to record.

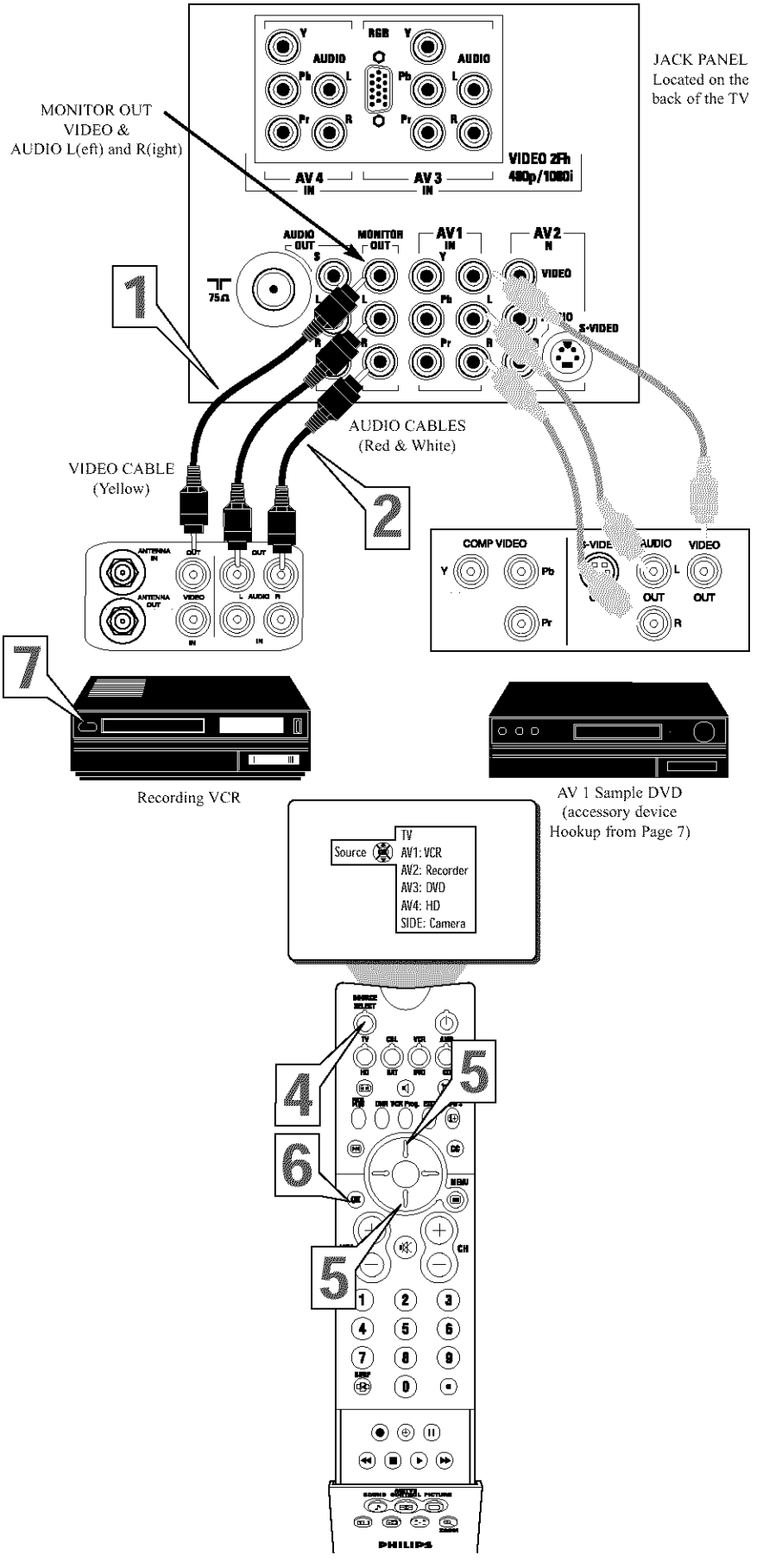
Note: Once selected be sure to leave the TV channel tuned to the desired program until the complete recording is finished.

**4** **Press the SOURCE SELECT button** on the remote control to display the SOURCE menu.

**5** **Press the CURSOR UP or DOWN button** to select the AV1 option (or any of the other AV connection options from which you wish towatch an accessory device playback. Example: DVD playback on AV 1).

**6** **Press the OK button** to confirm your selection. The TV will change to the AV1 channel input (or any other source option you wish to select).

**7** **Turn the VCR ON,** insert a blank VHS tape and it's ready to record the channel program you selected previously in step #3.



# USING THE AUDIO OUTPUT JACKS

*The Audio Output jacks are great for connecting to an external audio system or a set of external speakers. This will enhance the sound coming from the television to improve your viewing and listening experience.*

## For Audio System Connection:

1. **Connect one end of the R(ight) and L(eft) Audio Cables (red and white)** to the AUDIO OUT (Left and Right) jacks on the television.

2. **Connect the other ends of the R(ight) and L(eft) Audio Cables (red and white)** to the Audio Left and Right Input jacks on the external Audio System.

3. **Turn the Audio System and the TV on.** Adjust the volume coming from the Audio System to a pleasant listening level.

4. You can now adjust the sound level coming from the audio system by **pressing the VOLUME (+) or (–) button** on the TV or remote control.

## For External Speaker Connection:

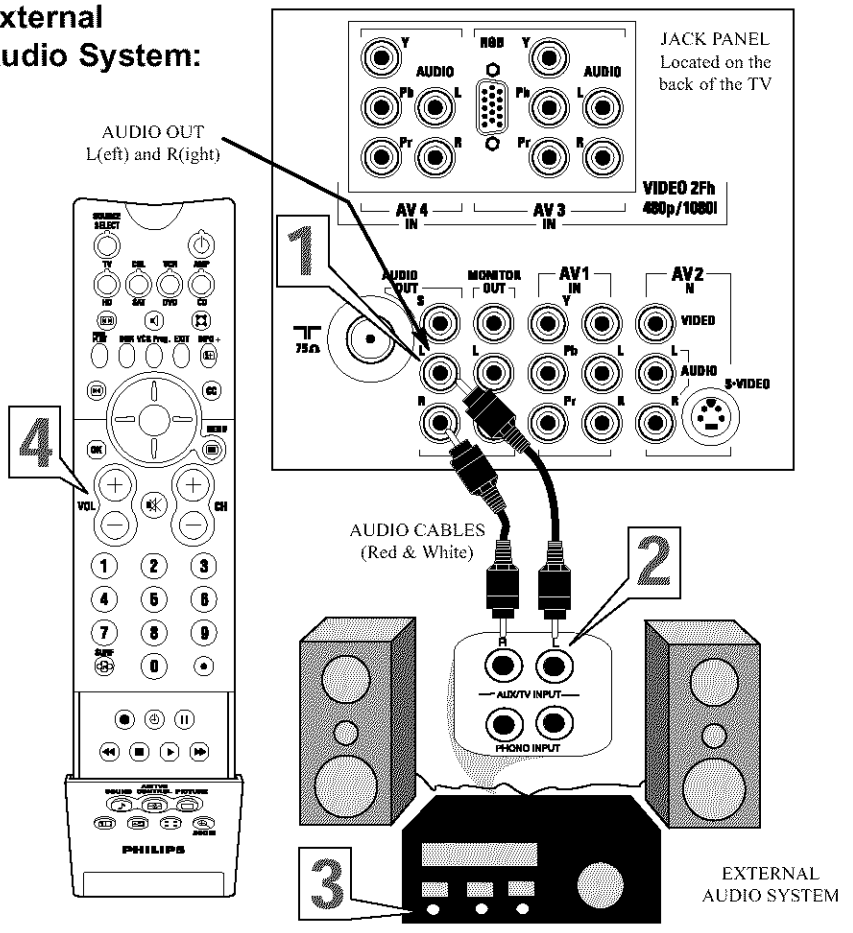
1. **Connect one end of the R(ight) and L(eft) Audio Cables (red and white)** to each of the external speakers.

2. **Using a Stereo to Mono adapter (not supplied) connect the other ends of the Audio Cables to the Stereo end of the adapter.**

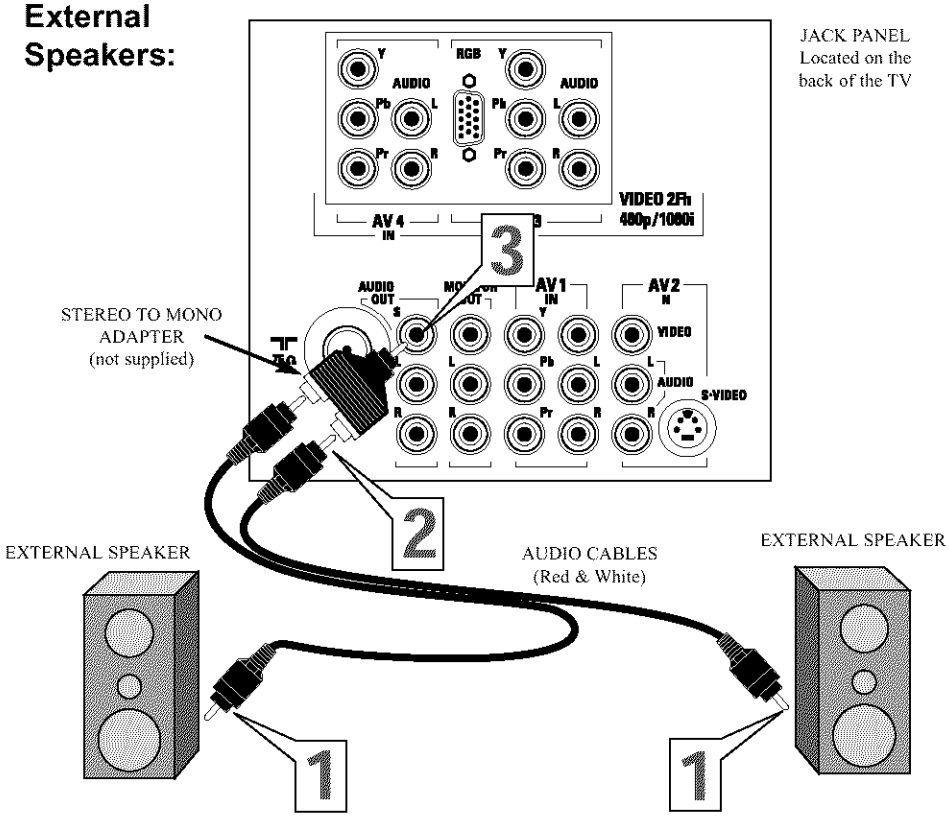
3. **Connect the mono end of the Stereo to Mono Adapter to the AUDIO OUT S jack.**

These speakers can now be adjusted using the Speaker controls within the Setting section of the onscreen menu. Please see page 42 for more details.

## External Audio System:




## External Speakers:



# ADJUSTING THE PICTURE CONTROLS

*To adjust your TV picture controls, select a channel and follow these steps.*

**1** **Press the MENU button** on the remote control to show the onscreen menu.

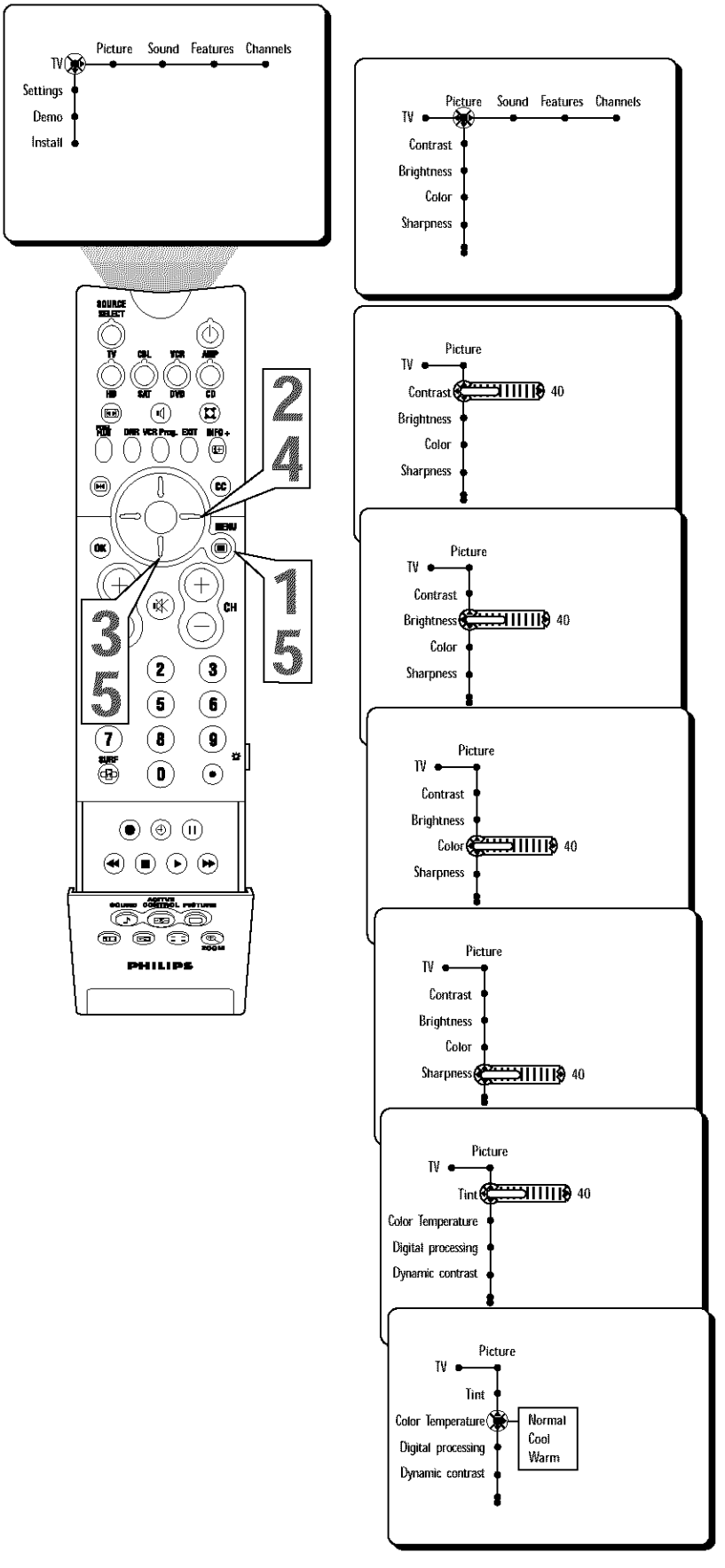
**2** **Press the CURSOR RIGHT button to highlight PICTURE.**

**3** **Press the CURSOR DOWN button** to select one of the picture adjustment: CONTRAST, BRIGHTNESS, COLOR, SHARPNESS, TINT, OR COLOR TEMPERATURE.

**NOTE:** The menu will show only four items at a time, so you will need to continue scrolling with the CURSOR DOWN button to adjust the TINT and COLOR TEMPERATURE.

**4** **Press the CURSOR LEFT or CURSOR RIGHT button** to adjust the selected control. OR, if COLOR TEMPERATURE is chosen, press the CURSOR RIGHT to choose from a submenu of options; NORMAL, COOL, or WARM.

**5** **Press the MENU button** when finished to remove the onscreen menu from the TV screen.




## *HELPFUL HINT*

Remember, when the bar scale is centered, the control settings are at normal, mid-range levels.

**NOTE:** The SHARPNESS and TINT Controls will not be available for adjustments when tuned to the AV3/AV4/CVI Inputs.

**BRIGHTNESS** – adds or subtracts light from the darkest part of the picture.

**COLOR** – adds or eliminates color.

**PICTURE** – improves the detail of the lightest parts of the picture.

**SHARPNESS** – improves the detail in the picture.

**TINT** – adjusts the picture to obtain natural skin tones.

COLOR TEMP offers NORMAL, COOL, or WARM picture preferences.

**NORMAL** – keeps whites, white.

**COOL** – makes whites, bluish.

**WARM** – makes whites, reddish.

# How to Use the Digital Processing Control

*The Digital Processing control gives you a choice between two different picture scanning modes: Progressive Scan or Pixel Plus.*

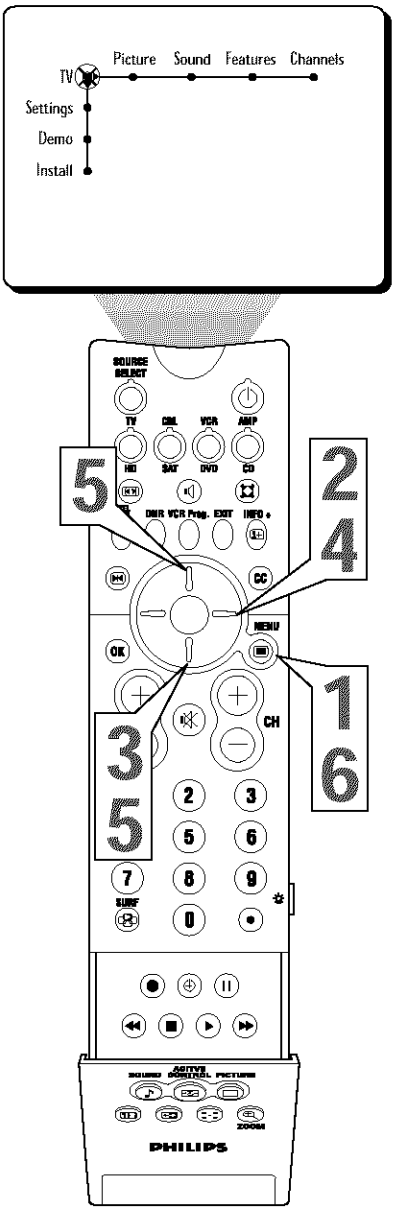
***Progressive Scan** doubles the number of picture lines, eliminating line flicker and providing a jitter-free picture.*

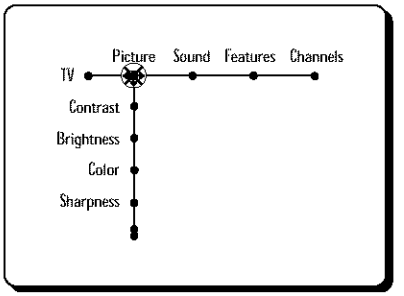
***Pixel Plus** improves the picture quality and appearance of onscreen images. The number of picture lines are increased along with the number of pixels per line, giving normal broadcast signals, DVD reproduction or Digital TV signals, unparalleled sharpness and depth. This gives the viewer near High Definition and natural looking detail without the High Definition signal.*

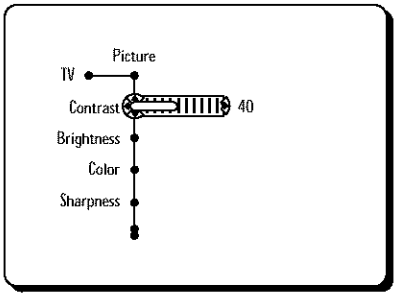
1. **Press the MENU button** on the remote to display the onscreen menu.
2. **Press the CURSOR RIGHT button** to highlight PICTURE.
3. **Press the CURSOR DOWN button** repeatedly until the DIGITAL PROCESSING control is highlighted.
4. **Press the CURSOR RIGHT button** to enter the Digital Processing submenu.
5. **Press the CURSOR UP or DOWN button** to select PROGRESSIVE SCAN or PIXEL PLUS.
6. **Press the MENU button** to remove the onscreen menu from the TV screen.

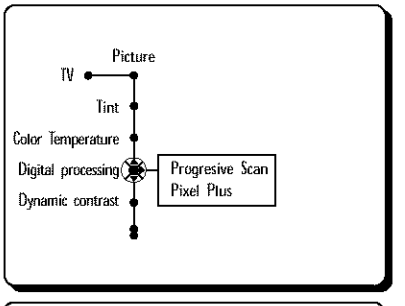
## *Helpful Hint*

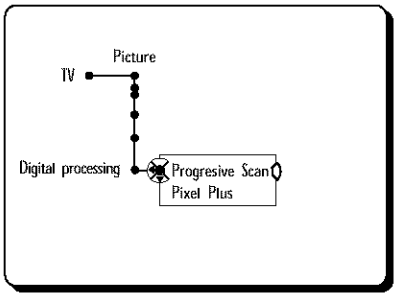
With the use of Pixel Plus some DVD players may display certain screen elements or artifacts while in playback. The Auto Picture-SOFT control (see page 21) can also be used to help reduce the appearance and level of such a screen playback condition.



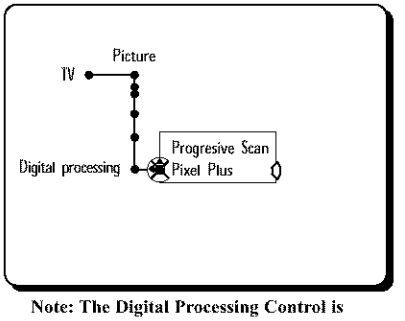



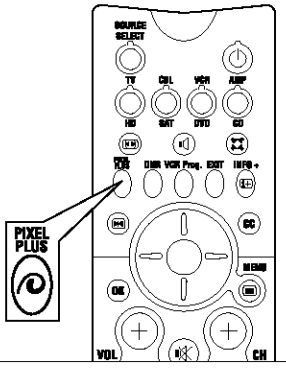

OR

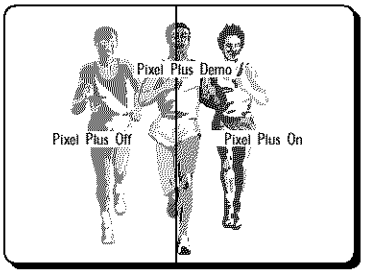



**Note: The Digital Processing Control is not available** for use with the AV 3 or AV 4 input jacks.

## Pixel Plus Demo

With Pixel Plus ON, there is a sharper image with more natural motion. The picture will appear flicker free.

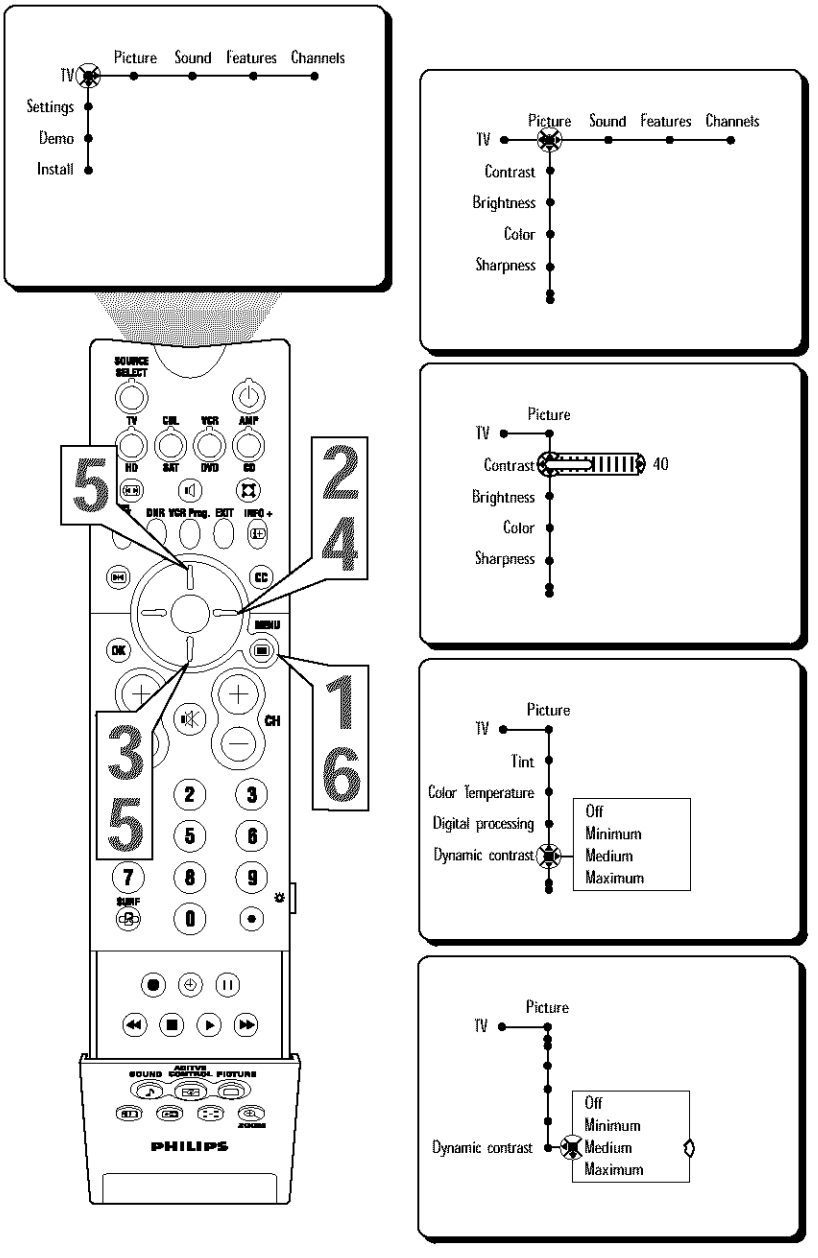


# How to Set the Dynamic Contrast Control

*The Dynamic Contrast control allows you to sharpen the picture quality by making dark portions of the picture darker and light portions of the picture more noticeable. Normally, you will probably want to select MEDIUM. In certain circumstances, however, you may prefer MINIMUM or MAXIMUM.*

1. **Press the MENU button** on the remote to display the onscreen menu.
2. **Press the CURSOR RIGHT button** to highlight PICTURE.
3. **Press the CURSOR DOWN button** repeatedly until the DYNAMIC CONTRAST control is highlighted.
4. **Press the CURSOR RIGHT button** to enter the Dynamic Contrast submenu.
5. **Press the CURSOR UP or DOWN button** to select one of the Dynamic Contrast options; OFF, MINIMUM, MEDIUM, or MAXIMUM.
6. **Press the MENU button** to remove the onscreen menu from the TV screen.



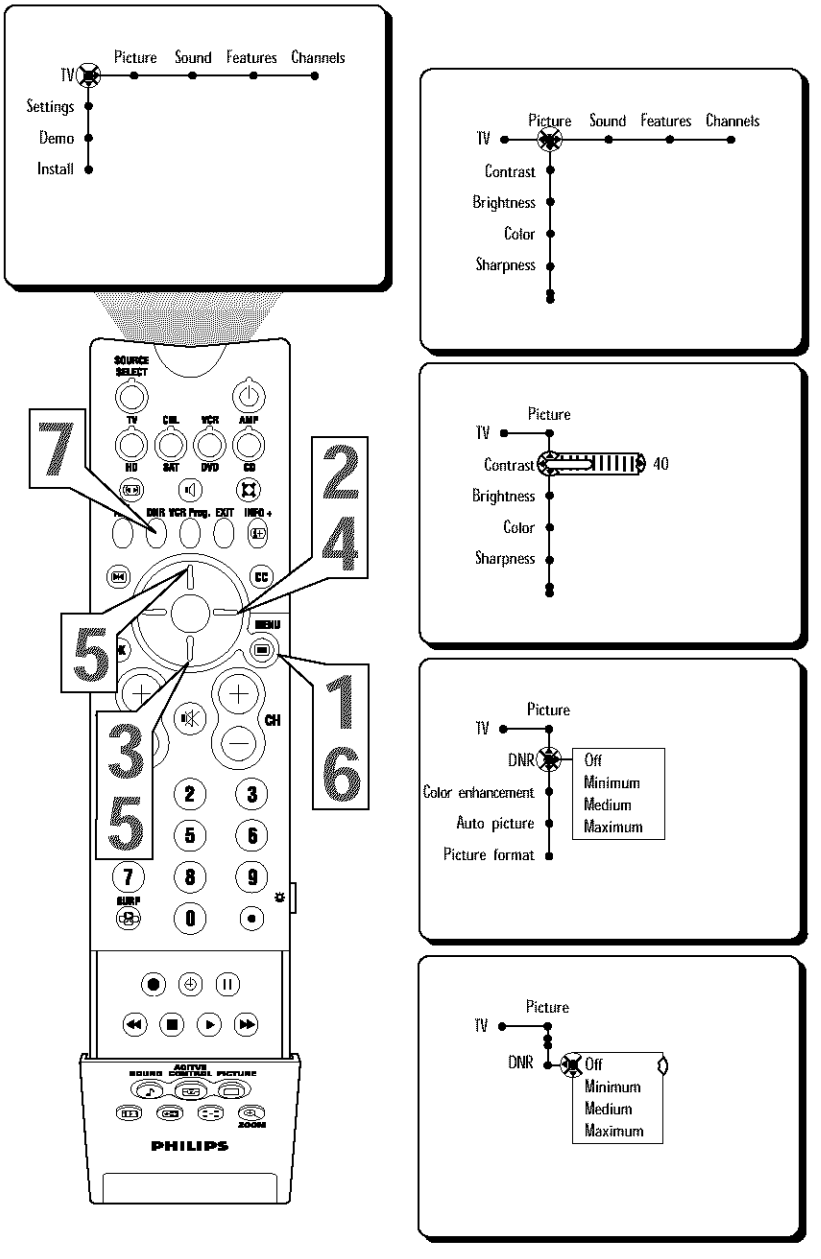

## *Helpful Hint*

The Dynamic Contrast control is not available for use with the AV 3 or AV 4 Inputs.

# How to Use the DNR (Dynamic Noise Reduction) Control

*Due to many reasons, such as poor cable reception, the picture can sometimes appear slightly "speckled" (an indication of signal noise in the picture). The DNR (Dynamic Noise Reduction) control can help eliminate this type of interference and improve the quality of the picture.*

1. **Press the MENU button** on the remote to display the onscreen menu.
2. **Press the CURSOR RIGHT button** to highlight PICTURE.
3. **Press the CURSOR DOWN button** repeatedly until the DNR control is highlighted.
4. **Press the CURSOR RIGHT button** to enter the DNR sub-menu.
5. **Press the CURSOR UP or DOWN button** to select one of the DNR options; OFF, MINIMUM, MEDIUM, or MAXIMUM.
6. **Press the MENU button** to remove the onscreen menu from the TV screen.
7. The DNR Control can also be accessed by simply **pressing the DNR button** on the remote control.



# How to Use the Color Enhancement Control

*The Color Enhancement control can dramatically improve the picture quality of pictures with a high saturation of color. This control works in four ways;*

***Dynamic Blue Stretch** corrects the white colors toward a more bluish colored white without changing the other colors. Improves the sharpness of the picture.*

***Green Enhancement** offers a more saturated green color in case of low green broadcasts giving landscapes a fresher and brighter look.*

***Color Dependent Sharpness** improves the sharpness of the picture through the color information. Gives the picture more details especially in red colors.*

***Skin-tone Correction** adjusts for over saturation of red that often appears in skin-tones.*

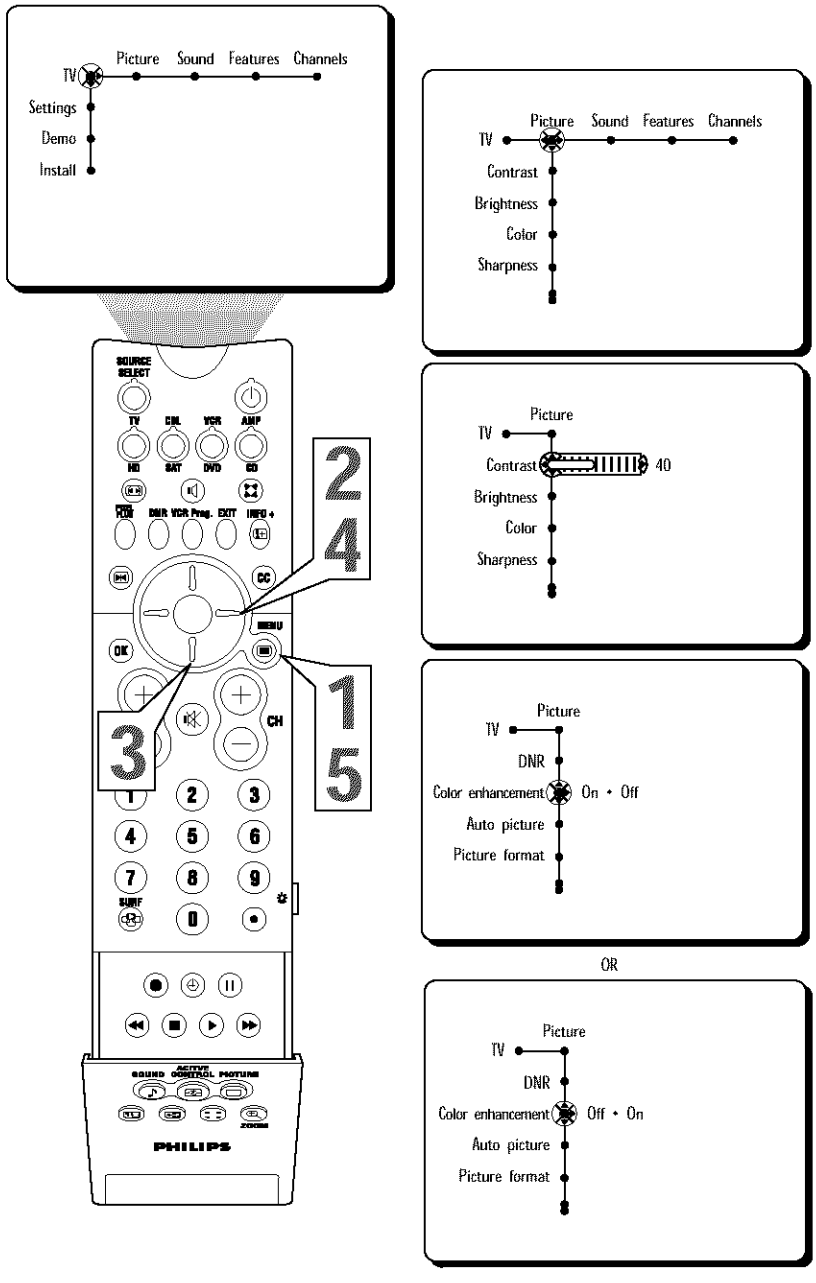
**1** **Press the MENU button** on the remote to display the onscreen menu.

**2** **Press the CURSOR RIGHT button** to highlight PICTURE.

**3** **Press the CURSOR DOWN button** repeatedly until the COLOR ENHANCEMENT control is highlighted.

**4** **Press the CURSOR RIGHT button** to turn the Color Enhancement control ON or OFF.

**5** **Press the MENU button** to remove the onscreen menu from the TV screen.




## Helpful Hint

The Color Enhancement control is not available for use with the AV 3 or AV 4 Inputs.

# How to Use the Auto Picture Control

*Whether you're watching a movie or a video game, your TV has automatic video control settings that will match with your current program source or content. AutoPicture™ quickly resets your TV's video controls for a number of different types of programs and viewing conditions that you may have in your home. The Personal AutoPicture™ settings are the same as the PICTURE control adjustments made within the onscreen menu.*

**1** **Press the PICTURE button** on the remote control. The Auto Picture menu will appear on the TV screen.

**2** **Press the CURSOR DOWN button repeatedly** to select either PERSONAL, RICH, NATURAL, SOFT, MULTIMEDIA or ECO picture settings.

After your selection is made the onscreen menu will disappear from the TV screen within a couple of seconds.

**NOTE:** The PERSONAL setting and the PICTURE options within the onscreen menu are the same. This is the only option in AutoPicture™ that can be changed. To adjust these settings, use the PICTURE options within the onscreen menu. All other settings are set up at the factory during production and cannot be adjusted.

## *Helpful Hint*

**PERSONAL** – picture settings are based on your personal choice or viewer control preferences.

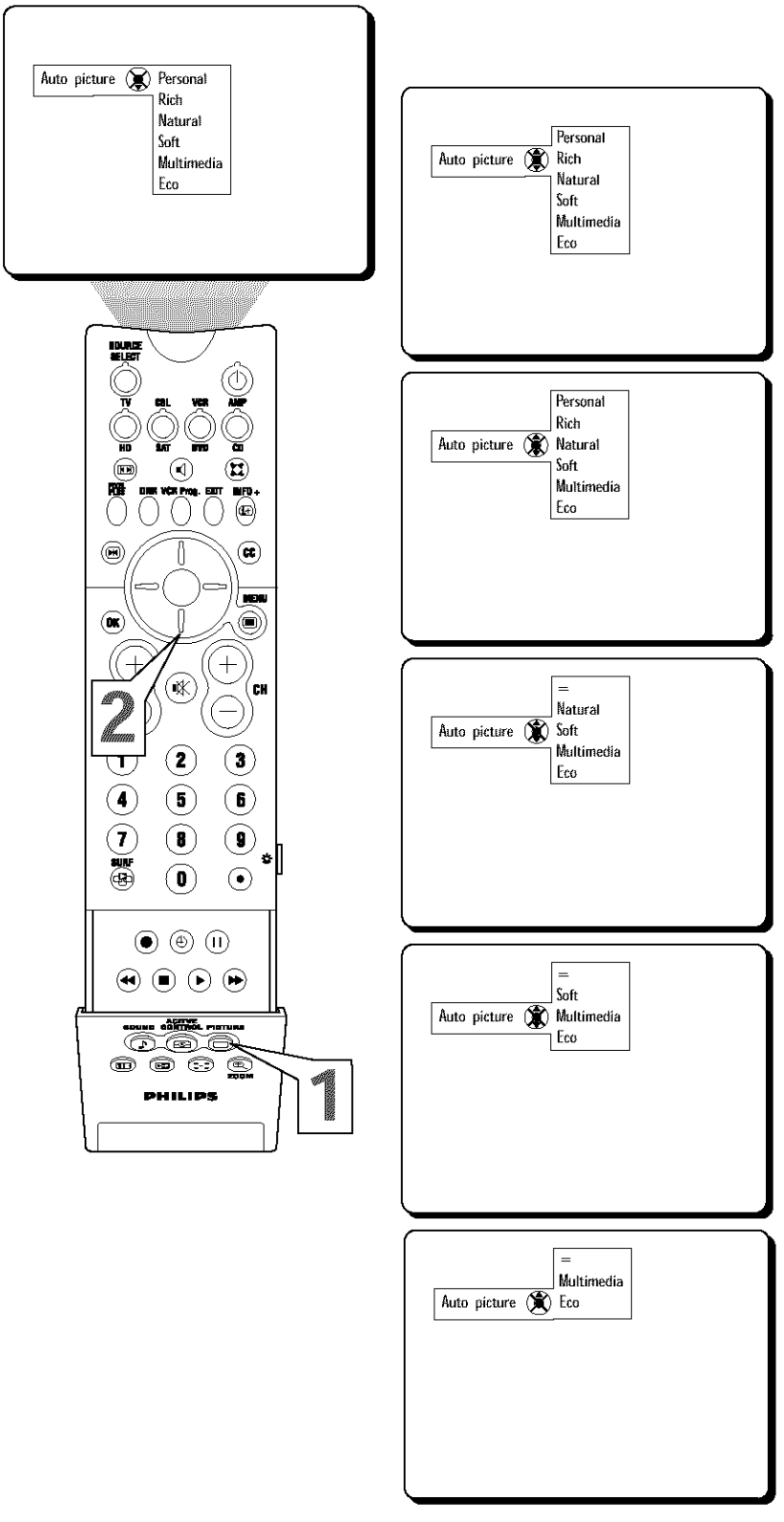
**RICH** – emphasizes very vibrant colors. (Good choice for AV mode used in a brightly lit room.)

**NATURAL** – sets picture controls at mid-level settings for consistent viewing conditions.

**SOFT** – emphasizes warm colors. (Good choice for dimly lit room. Gives a cinema-like effect when the light is switched off.)
**Note: Can also be used with Pixel Plus** control (see page 17) to soften the appearance of harsh video replay screen elements that can show with certain types of DVD playback conditions.

**MULTIMEDIA** – emphasizes soft colors. (Good choice for playing computer games, etc.)

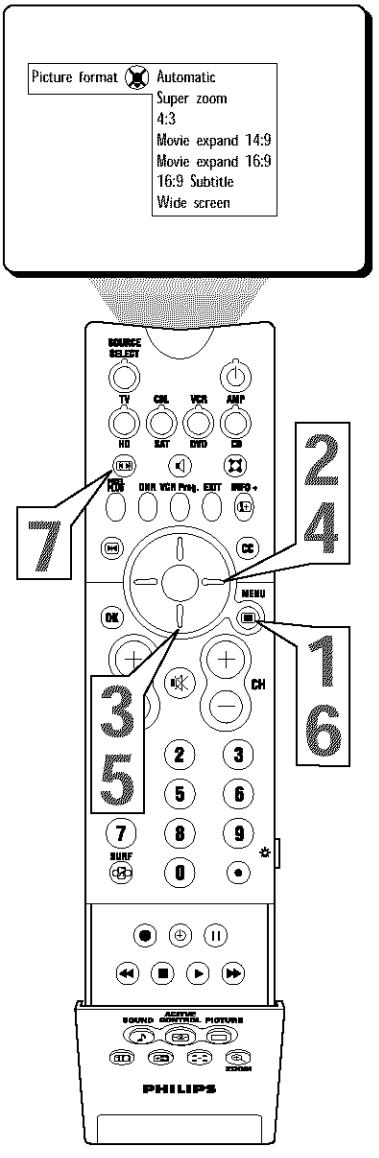
**ECO** – reduces Brightness and Contrast settings to low levels as a power consumption saving measure.

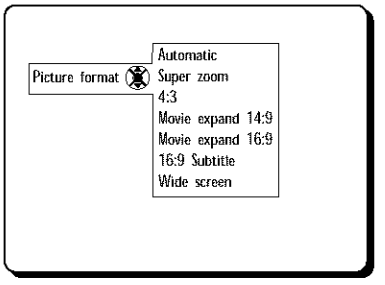


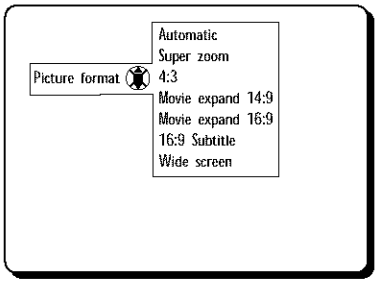
# How to Use the Picture Format Control

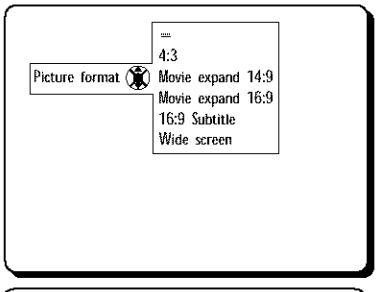
*You can change the screen format size to match the type of program you're watching. Select the normal 4:3 aspect ratio or a variety for wide screen formats.*

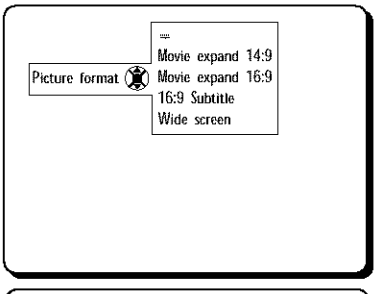
1. **Press the MENU button** on the remote to display the onscreen menu.
2. **Press the CURSOR RIGHT button** to highlight PICTURE.
3. **Press the CURSOR DOWN button** repeatedly until the Picture Format control is highlighted.
4. **Press the CURSOR RIGHT button** to enter the Picture Format sub-menu options.
5. **Press the CURSOR DOWN button** to select one of the seven screen formats. Choose from Automatic, Super Zoom, 4:3, Movie Expand 4:3, Movie Expand 16:9, 16:9 Subtitle, or Wide Screen.
6. **Press the MENU button** to remove the onscreen menu from the TV screen.
7. **Note: The Picture format onscreen menu can also be entered by pressing the Picture Format button on the remote control.**

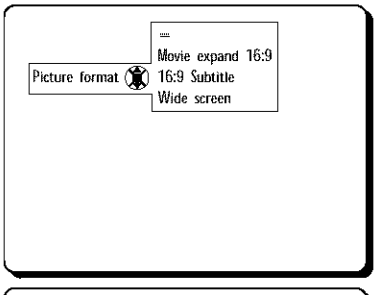


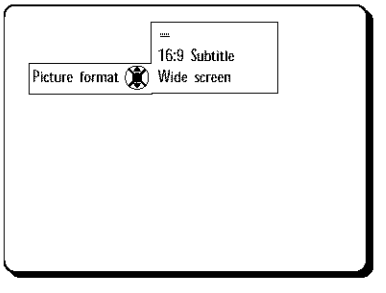



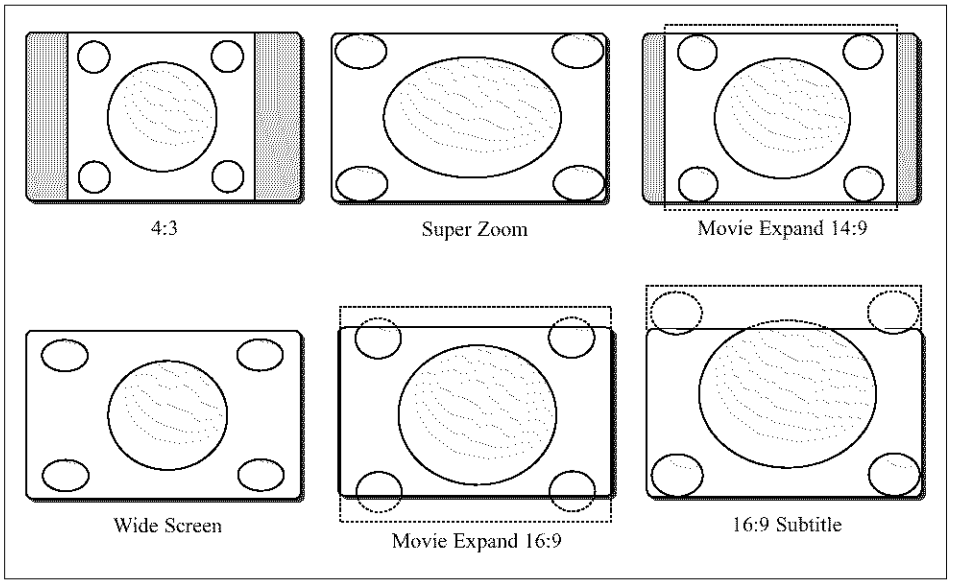



# ADJUSTING THE TV VOLUME AND THE HEADPHONE VOLUME

*Besides the normal volume level control, your TV also has a headphone volume control. This control can be adjusted when using headphones without having to adjust the main volume control for the TV cabinet speakers.*

**To control the television volume:**

1. **Press the VOL + button** on the remote control to increase the television volume level.

2. **Press the VOL – button** on the remote control to decrease the television volume level.

Note: The Volume level can also be adjusted within the onscreen menu. Select the Sound menu and cursor down to the Volume control. Use the Cursor Left and Right to adjust.

**To control the Headphone volume:**

3. **Press the MENU button** on the remote control to display the onscreen menu.

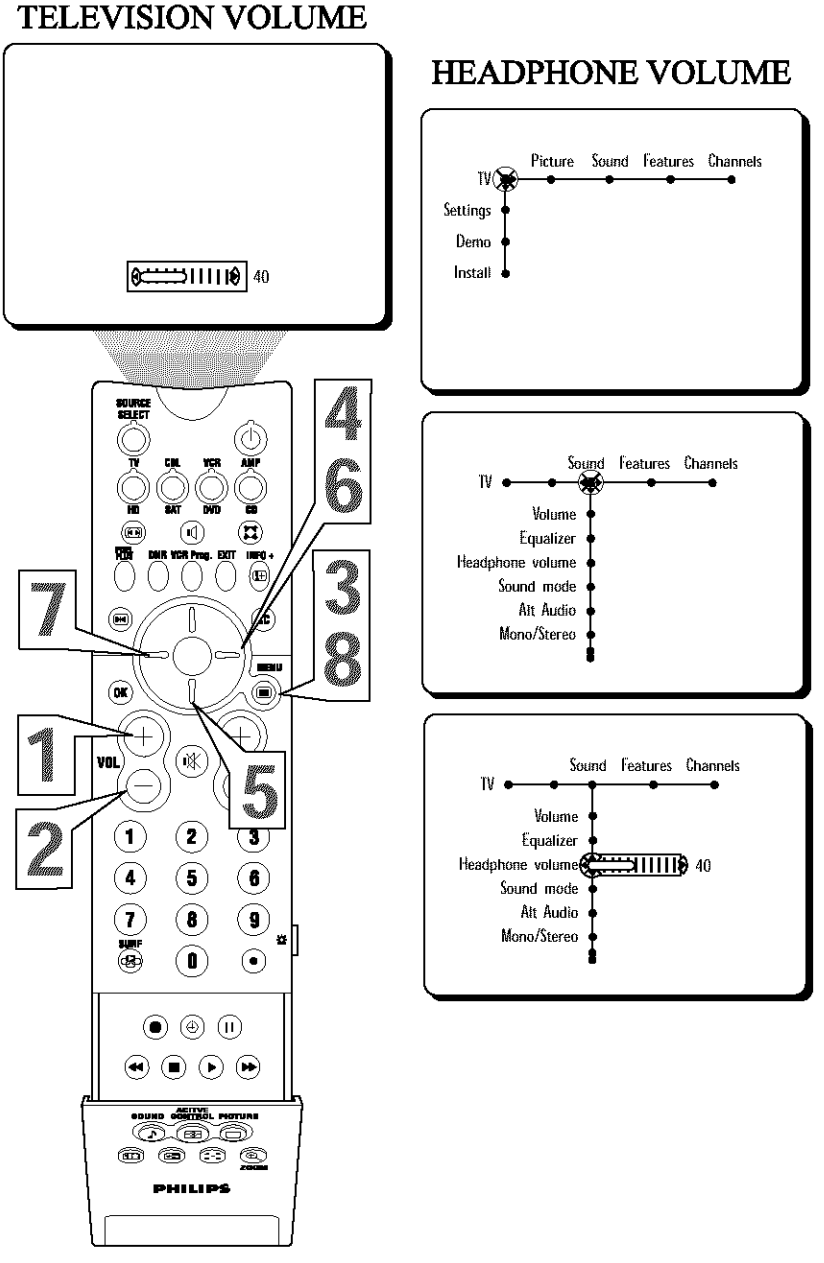
4. **Press the CURSOR RIGHT button** to highlight SOUND.

5. **Press the CURSOR DOWN button** repeatedly until the Headphone Volume control is highlighted.

6. **Press the CURSOR RIGHT button** to increase the volume level being heard through the headphones.

7. **Press the CURSOR LEFT button** to decrease the volume level being heard through the headphones.

8. **Press the MENU button** on the remote control to remove the onscreen menu from the TV screen.



# USING THE TV EQUALIZER CONTROL

*You can change the dynamics of the sound being heard through the TV by using the Equalizer control. The Equalizer control contains slider controls to adjust or change only the Personal settings. If any of the other factory pre-defined settings are changed, they will become the new Personal settings.*

**1** **Press the MENU button** on the remote to display the onscreen menu.

**2** **Press the CURSOR RIGHT button** repeatedly to highlight SOUND.

**3** **Press the CURSOR DOWN button** repeatedly until the Equalizer control is highlighted.

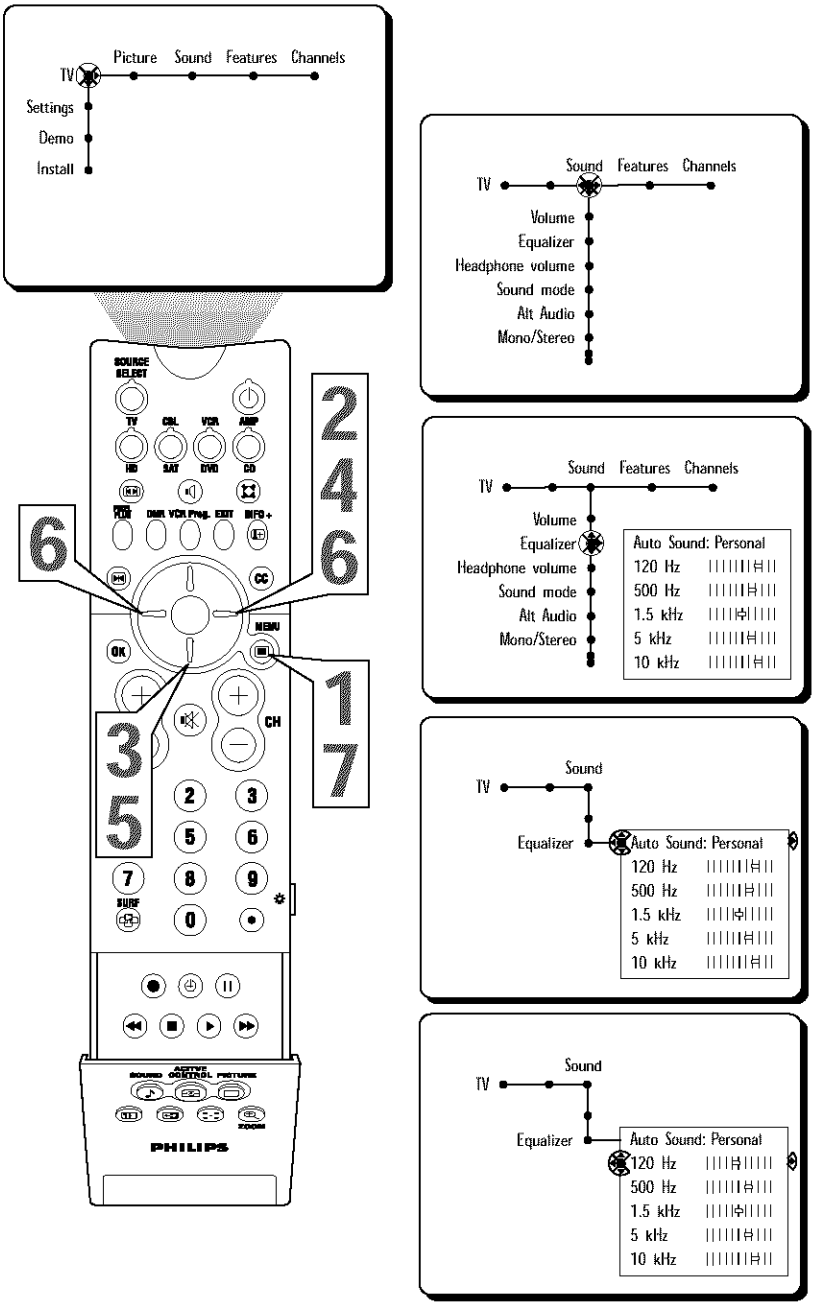
**4** **Press the CURSOR RIGHT button** to enter the Equalizer sub-menu options. Continue to press the CURSOR RIGHT to select one of the options; Personal, Speech, Music, Movie, or Multimedia.

**5** The Personal setting can be changed. Once an option has been chosen, **press the CURSOR DOWN button** to highlight one of the settings.

**6** **Press the CURSOR LEFT or RIGHT** button to adjust the slider control to the desired position.

**Note:** Even if an option other than Personal has been chosen, changing any of the values will default it to the new Personal setting.

**7** **Press the MENU button** when finished to remove the onscreen menu from the TV screen.



# How to Use the Sound Mode Control

*The Sound Mode control allows you to place the TV sound into one of five modes; Stereo, 3 Stereo, 3D Surround, Hall, or Pro Logic.*

*The following instructions show how to place the TV into one of these sound modes.*

**1** **Press the MENU button** on the remote to display the onscreen menu.

**2** **Press the CURSOR RIGHT button** repeatedly to highlight SOUND.

**3** **Press the CURSOR DOWN button** repeatedly until the Sound Mode control is highlighted.

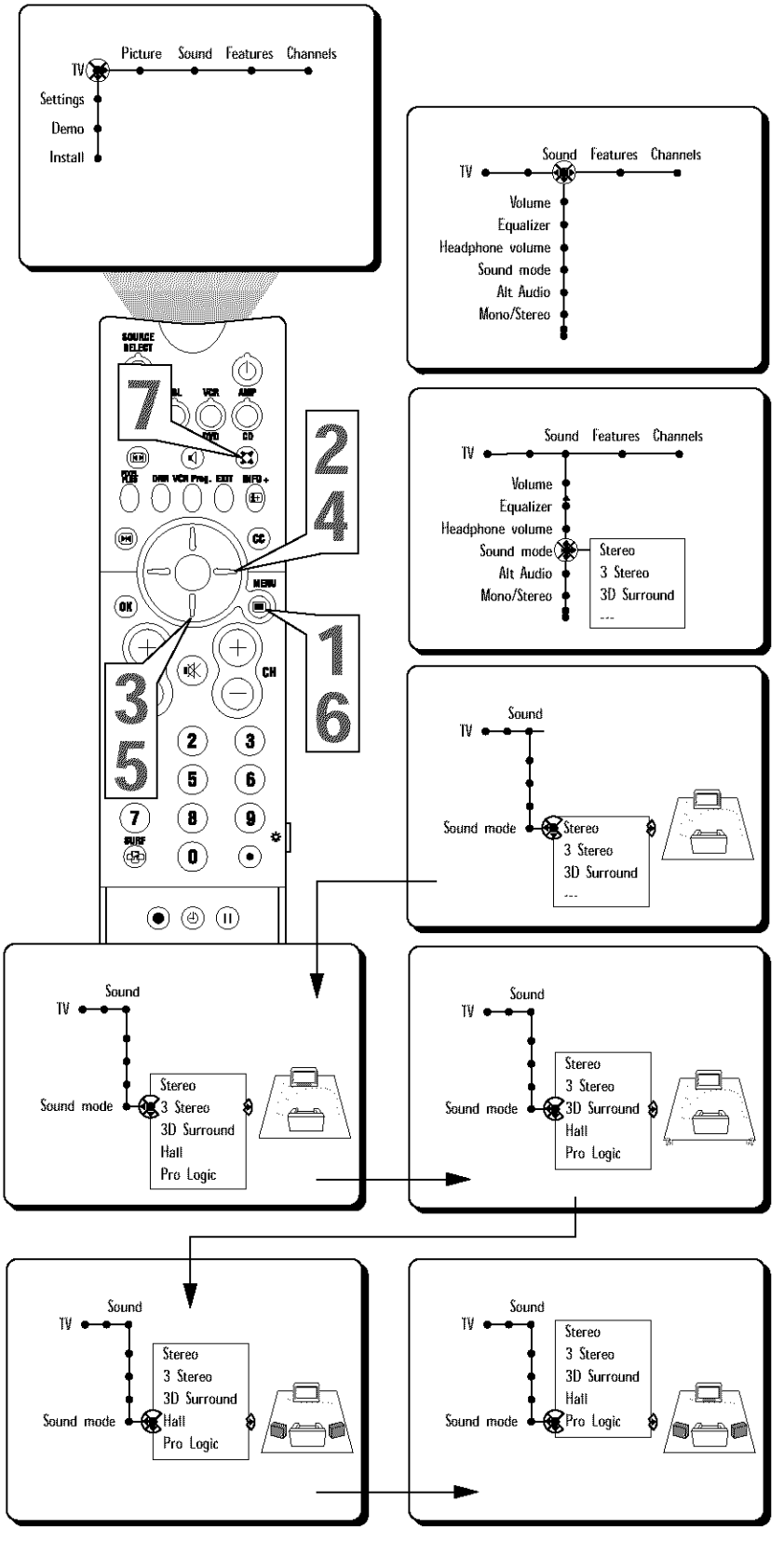
**4** **Press the CURSOR RIGHT button** to enter the Sound Mode sub-menu options.

**5** **Press the CURSOR DOWN button** to select one of the five options; Stereo, 3 Stereo, 3D Surround, Hall, or Pro Logic.

**Stereo -** Reproduces only left and right front speaker sound. If you are receiving a stereo broadcast, you will hear left and right channel stereo sound.
**3 Stereo -** Gives stereo sound through the left, right, and center front speakers.
**3D Surround -** Gives the experience of Dolby Surround Pro Logic without having rear speakers connected or activated.
**Hall -** Creates a "Hall" effect through the TV left, right, and rear speakers. Will add simulated surround sound to any broadcast which is not encoded with Dolby Surround, or to a mono signal broadcast.
**Pro Logic -** For broadcasts encoded with Dolby Surround, the left, right center and rear speakers will reproduce the Dolby Surround Pro Logic audio.

**6** **Press the MENU button** when finished to remove the onscreen menu from the TV screen.

**7** **Pressing the SOUND MODE button** on the remote control will display a simplified menu for selecting the proper sound mode.




*Manufactured under license from Dolby Laboratories. "Dolby", "Pro Logic", and the double-D symbol are trademarks of Dolby Laboratories.

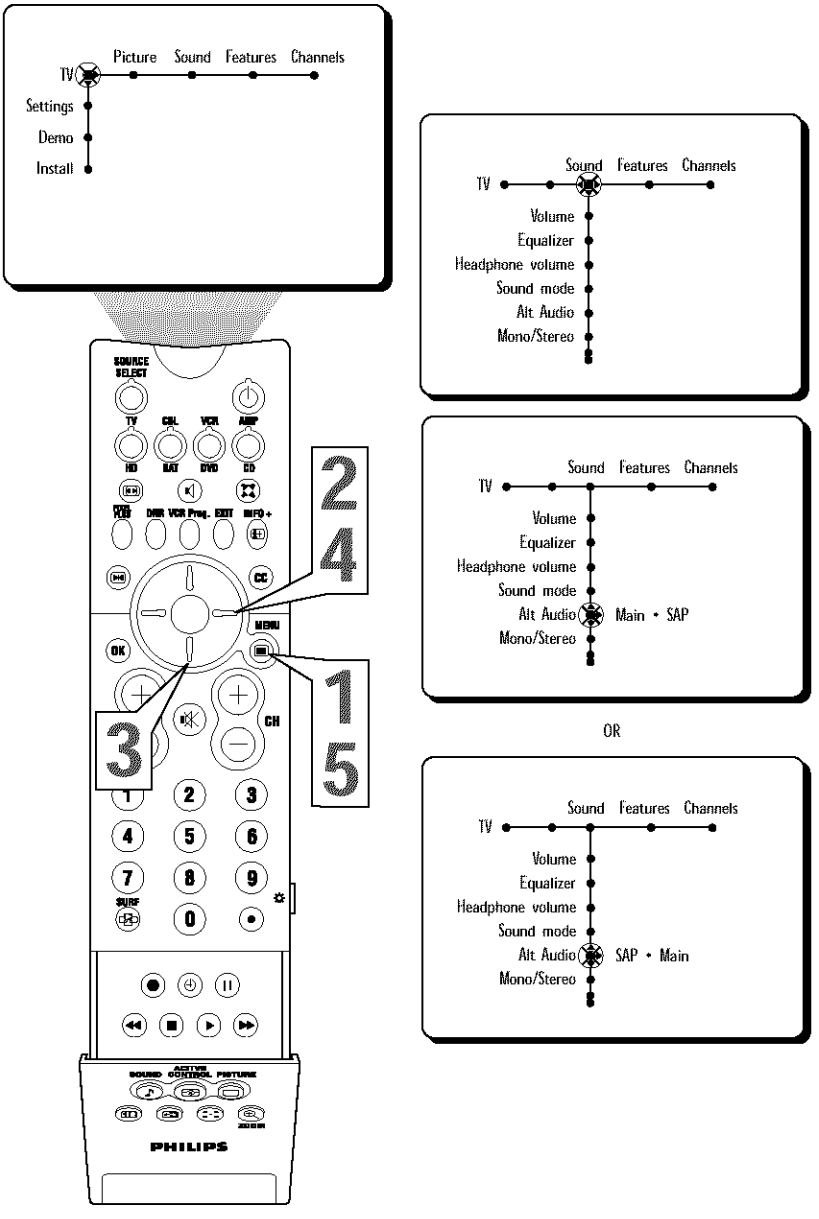
# How to Use the Alternate Audio Control (SAP)

*For broadcasts that contain SAP (Secondary Audio Program) information the Alt Audio Control can be set to ON. SAP is an additional part of the stereo broadcast system. Sent as a third audio channel, SAP can be heard apart from the current TV program sound. TV stations are free to use SAP for any number of purposes.*

*If a SAP signal is not present with a selected program, the Alt Audio option cannot be selected and will appear grayed out in the onscreen menu.*

*If SAP is available on the tuned channel:*

1. **Press the MENU button** on the remote to display the onscreen menu.
2. **Press the CURSOR RIGHT button** repeatedly to highlight SOUND.
3. **Press the CURSOR DOWN button** repeatedly until the Alt Audio control is highlighted.
4. **Press the CURSOR RIGHT button** to toggle and select either Main or SAP.
5. **Press the MENU button** when finished to remove the onscreen menu from the TV screen.



# How to Set the TV for Stereo Programming

*You can receive broadcast stereo TV programs. The TV has both an amplifier and twin speakers through which the stereo sound can be heard.*

**1** **Press the MENU button** on the remote to display the onscreen menu.

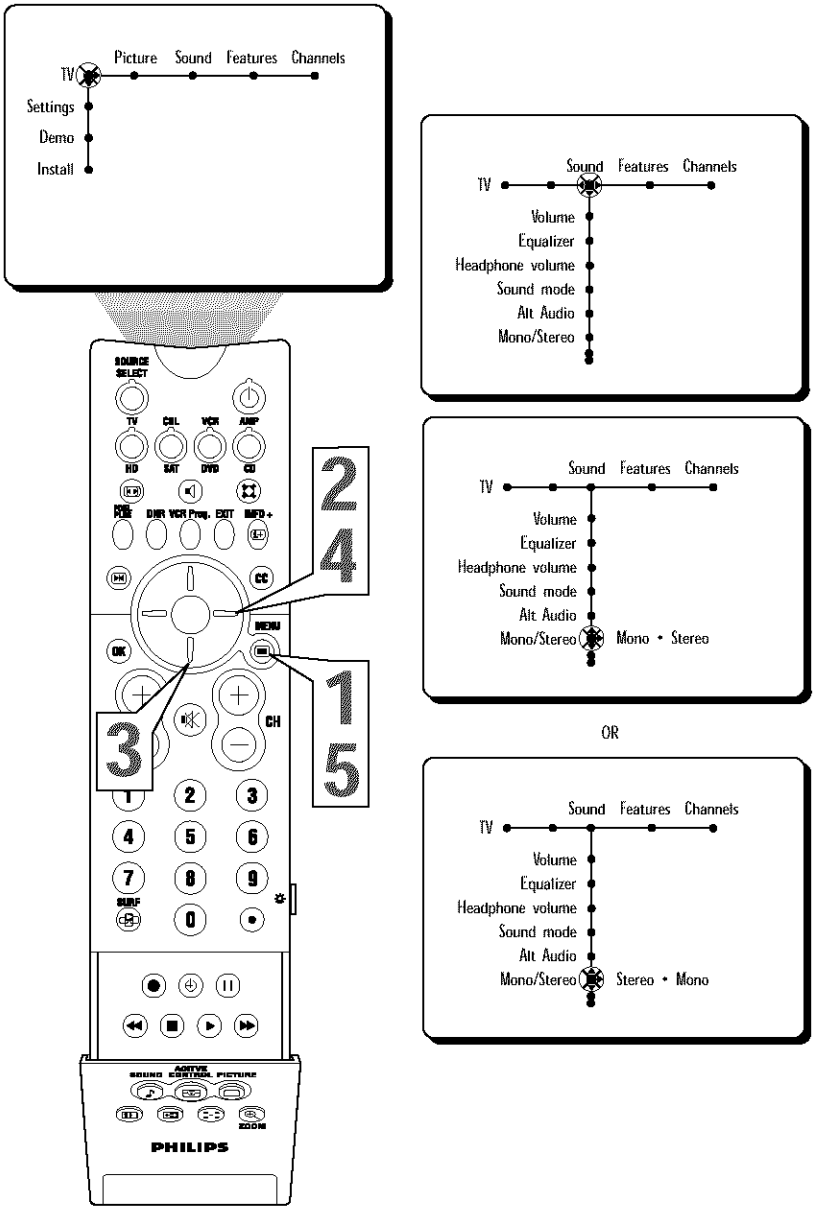
**2** **Press the CURSOR RIGHT button** repeatedly to highlight SOUND.

**3** **Press the CURSOR DOWN button** repeatedly until the Mono/Stereo control is highlighted.

**4** **Press the CURSOR RIGHT button** to toggle and select either Mono or Stereo.

**Note:** If the signal being received is in mono, it can not be set to Stereo. However, if the signal being received is in Stereo, the TV can be placed in the Mono mode. (If set to the Mono control position, remember to return the Mono/Stereo Control back to Stereo when using the TV with stereo programming.)

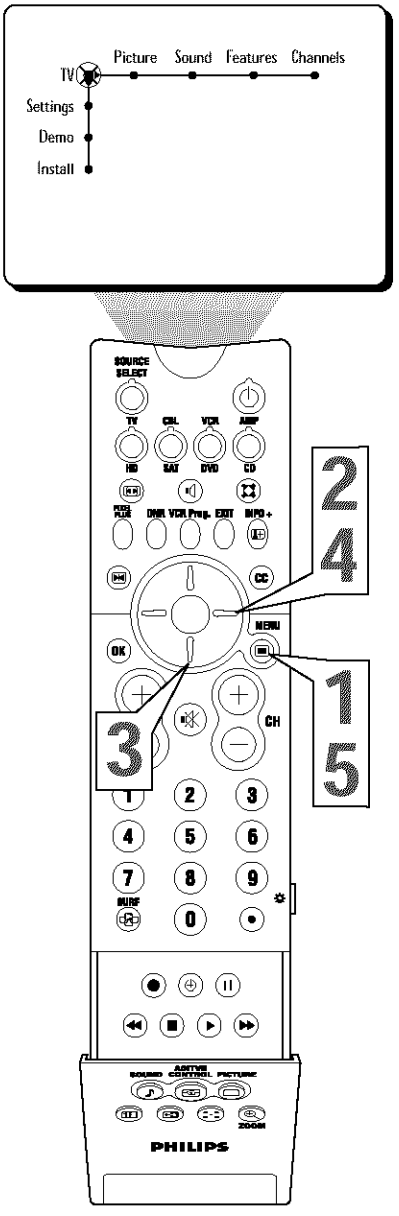
**5** **Press the MENU button** when finished to remove the onscreen menu from the TV screen.

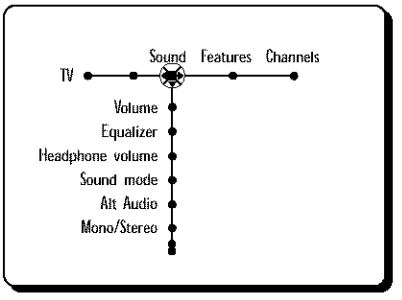


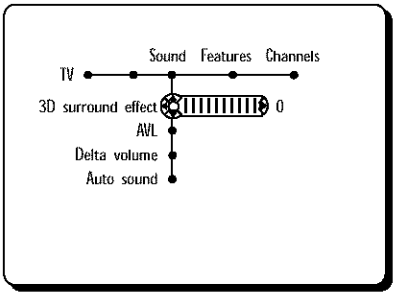
# How to Use the 3D Surround Effect control

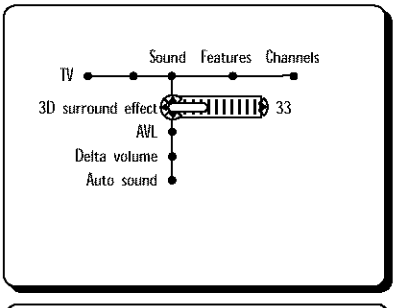
*The 3D Surround Effect Control helps to widen the effect being heard through the television speakers. This control is only available if the television has been placed in the 3D Surround mode.*

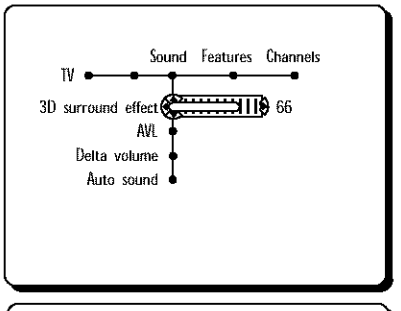
1. **Press the MENU button** on the remote to display the onscreen menu.
2. **Press the CURSOR RIGHT button** repeatedly to highlight SOUND.
3. **Press the CURSOR DOWN button** repeatedly until the 3D Surround Effect control is highlighted.
4. **Press the CURSOR RIGHT button** to increase the surround effect. Choose a value of 0, 33, 66, or 100.
5. **Press the MENU button** when finished to remove the onscreen menu from the TV screen.

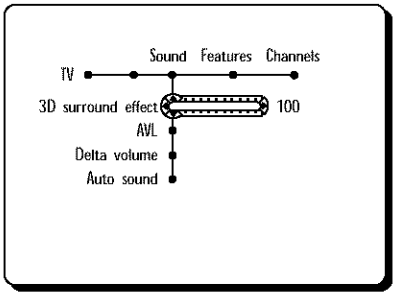


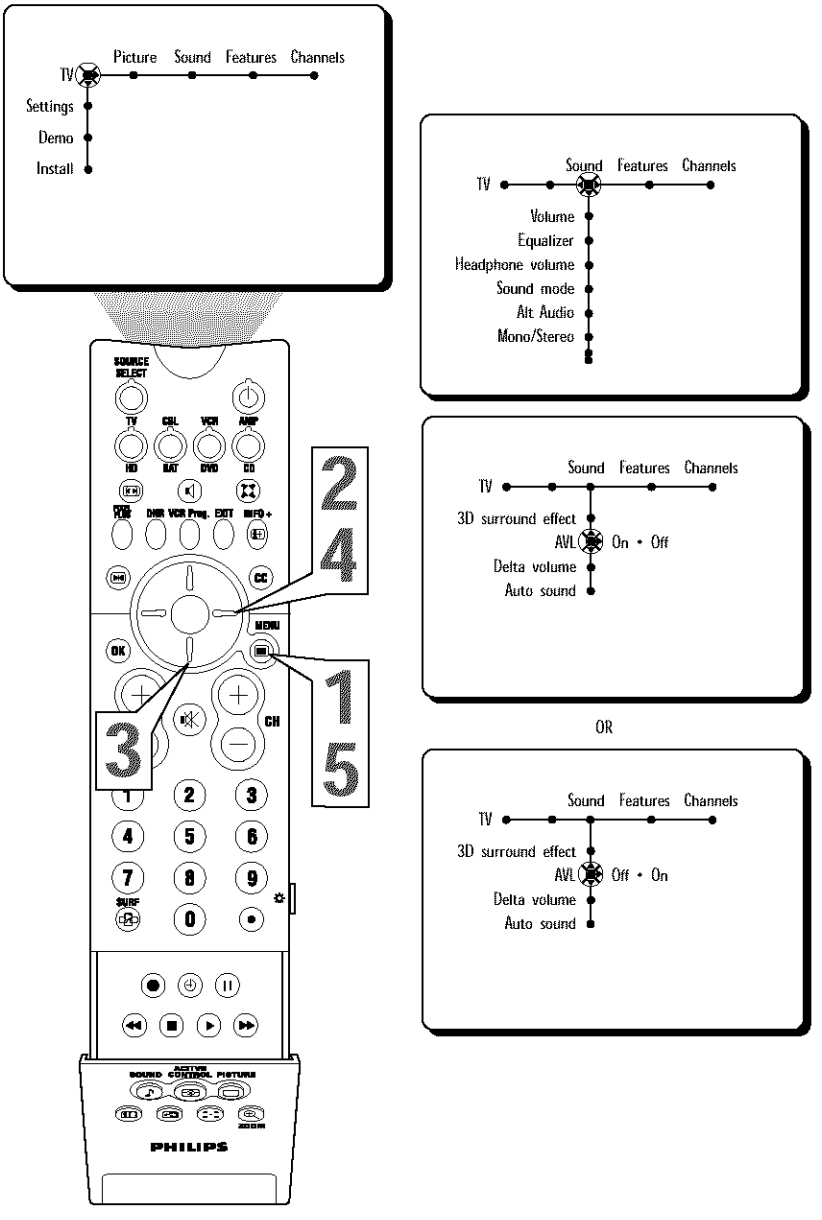



# How to Use the AVL Control

*In most cases, the volume levels coming from broadcast programming or commercials are never the same. With the AVL (Audio Volume Leveler) control turned ON, you can have the TV level out sound that is being heard. This makes for a more consistent sound by reducing the peaks and valleys that occur during program changes or commercial breaks. To turn the AVL ON, follow these steps.*

1. **Press the MENU button** on the remote control to display the onscreen menu.
2. **Press the CURSOR RIGHT button** repeatedly to highlight SOUND.
3. **Press the CURSOR DOWN button** repeatedly until AVL is highlighted.
4. **Press the CURSOR RIGHT button** to toggle the control ON or OFF.
5. **Press the MENU button** to remove the menu from the screen.



# How to Use the Delta Volume Control

*The volume level coming from channel to channel and broadcast to broadcast can vary widely. The Delta Volume Control will allow the volume to be increased for channels with weaker audio signals while allowing other channels with stronger signals to be reduced some. When the Delta Volume Control is adjusted or changed, it will only effect the currently tuned channel. The TV will store the setting for that channel within its memory and remember it when the channel is tuned again.*

1. **Press the CH + or - button** on the remote control to tune a specific channel.

2. **Press the MENU button** on the remote control to show the onscreen menu.

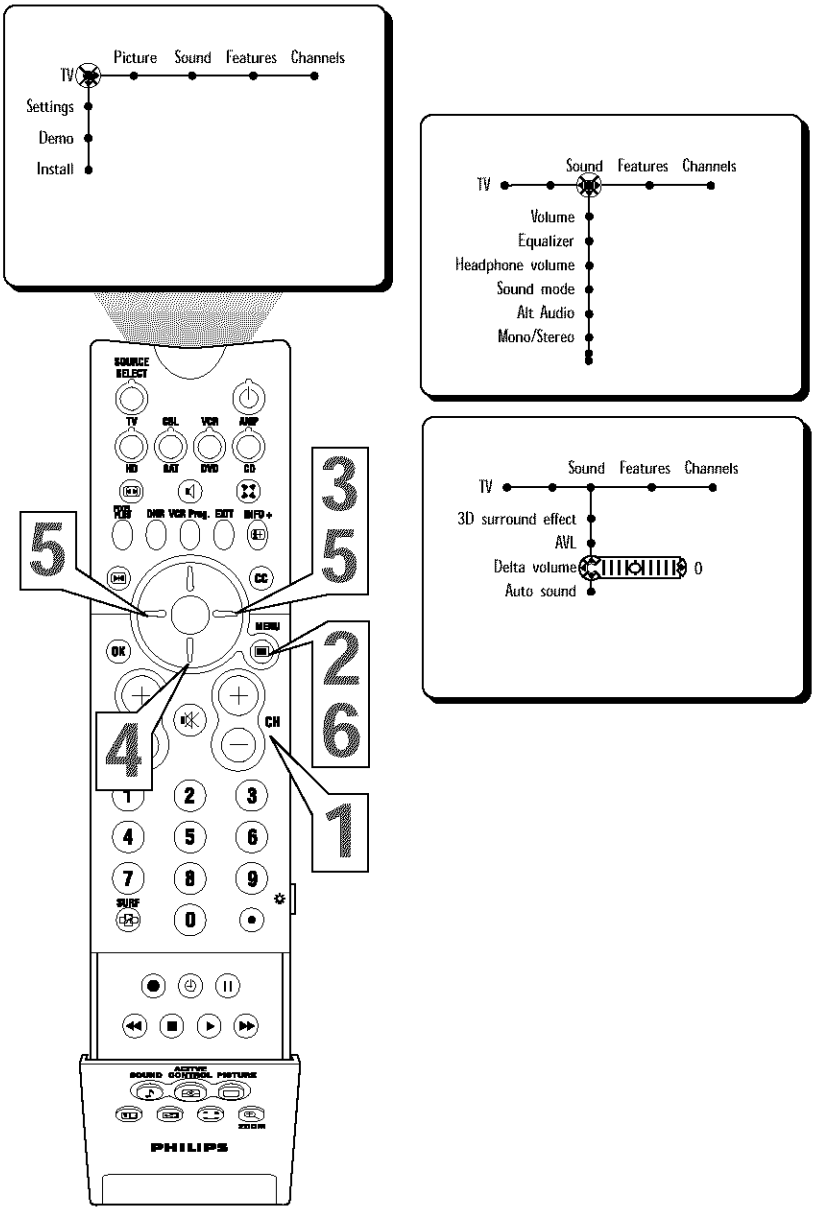
3. **Press the CURSOR RIGHT button** once to highlight SOUND.

4. **Press the CURSOR DOWN button** repeatedly until Delta Volume is highlighted.

5. **Press the CURSOR LEFT button** to decrease the overall volume, or **press CURSOR RIGHT button** to increase the overall volume for the tuned channel.

Repeat steps for other channels you wish to adjust the Delta Volume.

6. **Press the MENU button** to remove the onscreen menu from the TV screen.



# How to Use the Auto Sound Control

*AutoSound™ allows you to select from four factory-set controls and a personal control that you set according to your own preferences through the onscreen Sound menu. The four factory-set controls (Speech, Music, Movie, or Multimedia) enable you to tailor the TV sound so as to enhance the particular program you are watching. Follow these steps to select any of the options.*

1 **Press the SOUND button** on the remote control.

2 **Press the CURSOR DOWN button repeatedly** to toggle down the options: Personal, Speech, Music, Movie, or Multimedia.

Once your selection has been made, the onscreen menu will disappear from the TV screen within few seconds.

The Auto Sound options can also be selected through the SOUND menu options within the onscreen menu.

## ☑ Check It Out

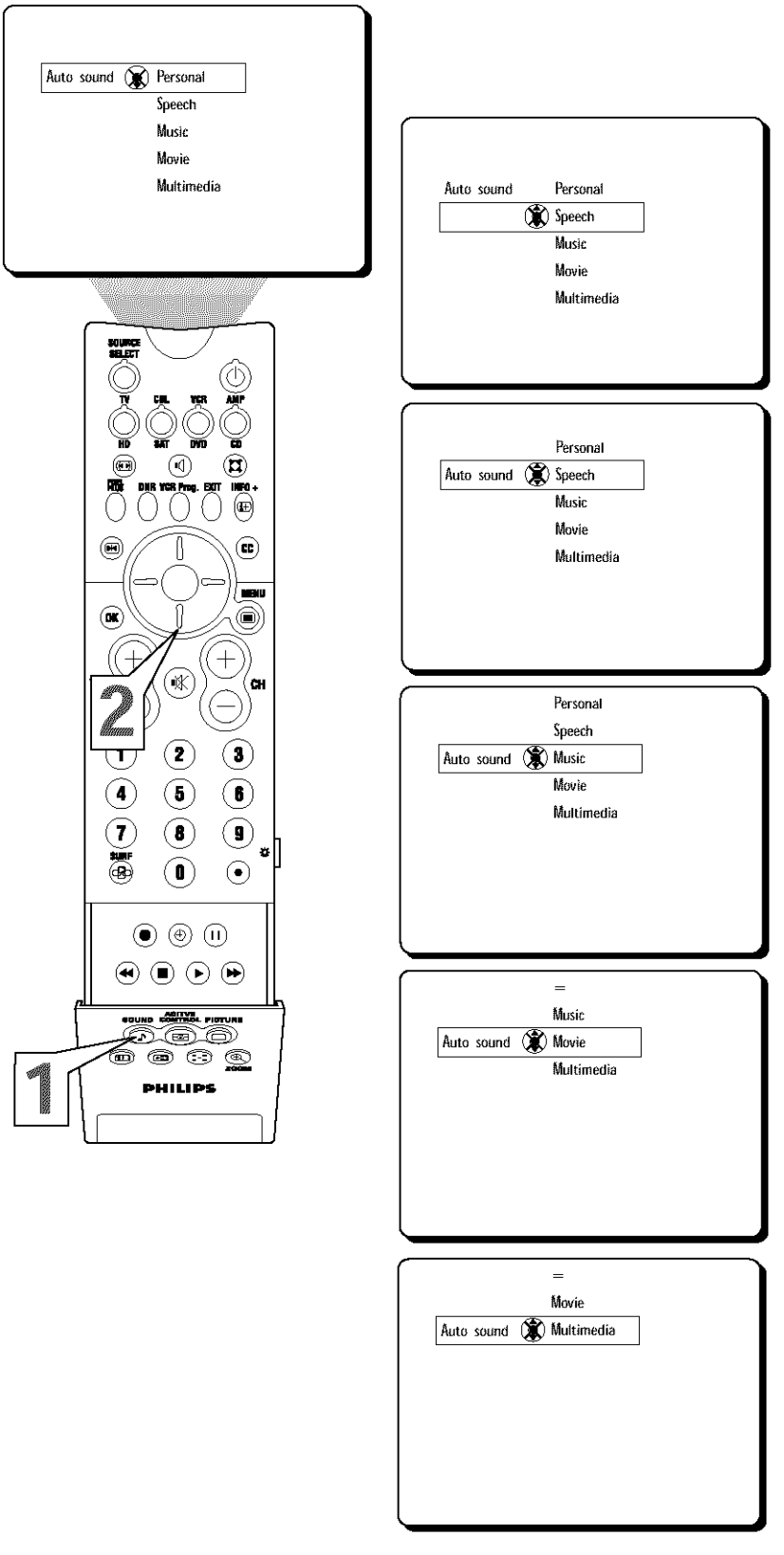
**PERSONAL** – presents the TV's sound according to the settings you make within the sound menu.

**SPEECH** – brings voices to the forefront and emphasizes them. Moves music to the background.

**MUSIC** – emphasizes music over voices.

**MOVIE** – provides a balance between voices and music.

**MULTIMEDIA** – provides sound balance best suited for gaming consoles, or interactive media.



# How to use the Closed Captioning Control

*Closed Captioning (CC) allows you to read the voice content of television programs on the TV screen. Designed to help the hearing impaired, this feature uses onscreen "text boxes" to show dialogue and conversations while the TV program is in progress.*

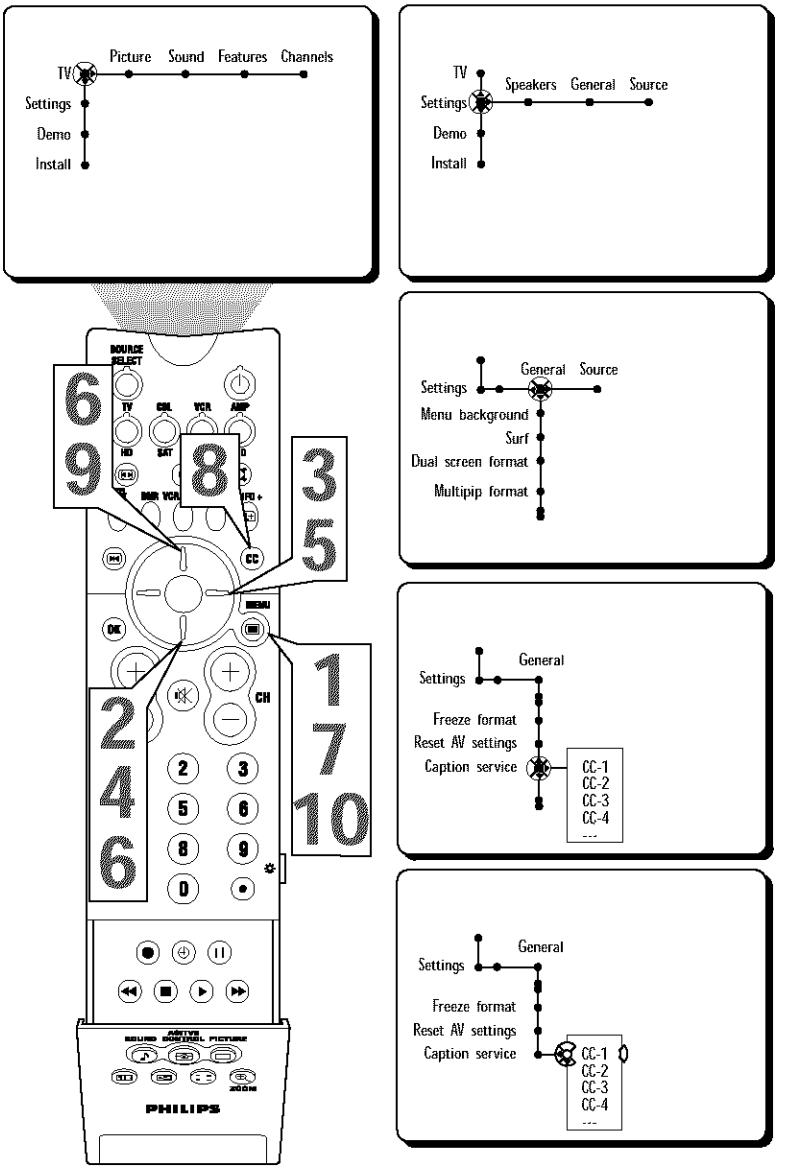
**Follow steps 1 through 7 to select a Closed Caption option:**

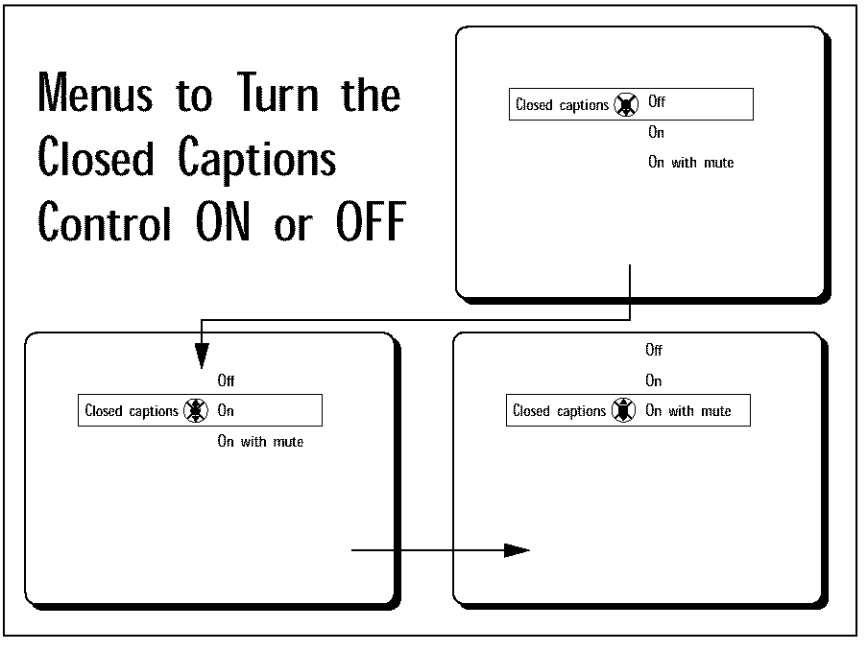
1. **Press the MENU button** on the remote control to display the onscreen menu.
2. **Press the CURSOR DOWN button** repeatedly to highlight SETTINGS.
3. **Press the CURSOR RIGHT button** repeatedly to highlight General.
4. **Press the CURSOR DOWN button** repeatedly to highlight Caption Service.
5. **Press the CURSOR RIGHT button** to enter the Closed Captions sub-menu.
6. **Press the CURSOR UP or DOWN button** to highlight one of the caption modes: CC-1, CC-2, CC-3, CC-4, T-1, T-2, T-3, or T-4.

   Note: Text Modes (T1-T4) appear onscreen as boxes and may block portions of the TV screen.
7. **Press the MENU button** to remove the onscreen menu from the TV screen.

**Follow steps 8 through 13 to turn the Closed Captions Control ON or OFF.**

8. **Press the CC button** on the remote control.
9. **Press the CURSOR UP or DOWN button** repeatedly to select OFF, ON, or ON with Mute.
   **OFF -** Closed Captioning service will not be displayed on the TV screen.
   **ON -** Closed Captioning information (if available) will display on the TV screen.
   **ON with Mute -** Closed Captioning information will turn On only when the MUTE button is pressed. Turns the closed captioning information OFF when the TV volume is restored.
10. **Press the MENU button** on the remote to remove the onscreen display from the TV screen.



# How to Set the Sleep Timer Control

*Have you ever fallen asleep in front of the TV, only to have it wake you up at two in the morning with a test pattern sound screeching in your ears? Well, your TV can enable you to avoid that discomfort by automatically turning itself off. With the Sleeptimer control, you can set a timer to automatically switch the TV OFF after a period of time you choose (5-minutes up to 180 minutes in 5-minute increments).*

**1** **Press the MENU button** on the remote control to display the onscreen menu.

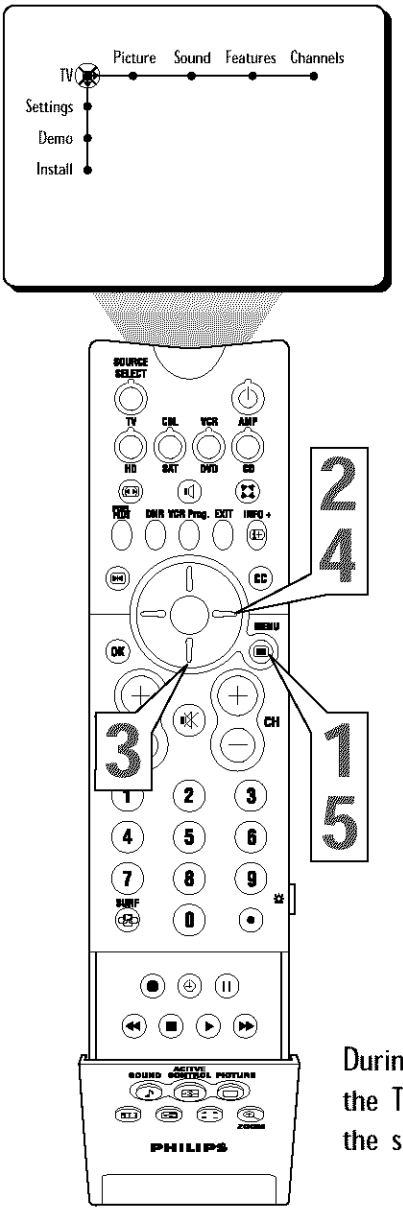
**2** **Press the CURSOR RIGHT button** repeatedly until FEATURES is highlighted.

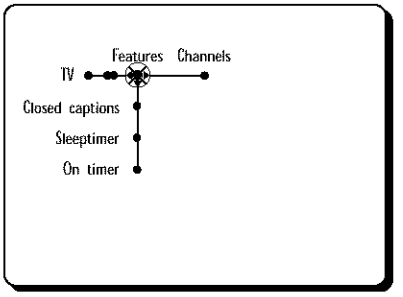
**3** **Press the CURSOR DOWN button** repeatedly to highlight Sleeptimer.

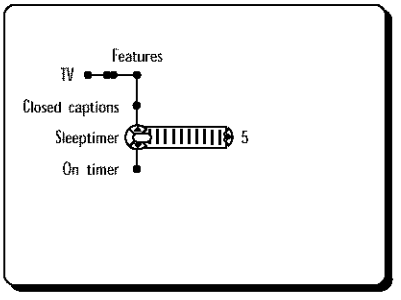
**4** **Press the CURSOR RIGHT button** to set the Sleeptimer in 5-minute increments starting at 5-minutes up to 180-minutes.

**5** **Press the MENU button** to remove the onscreen menu from the TV screen.

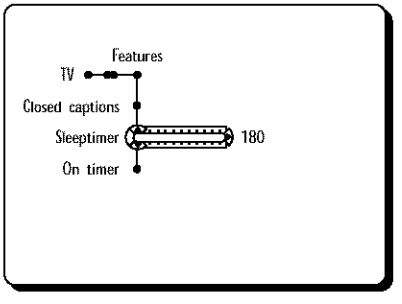
An onscreen countdown will appear during the last minute before the TV shuts itself off. At this time you may cancel the sleeptimer setting by pressing the OK button on the remote control.



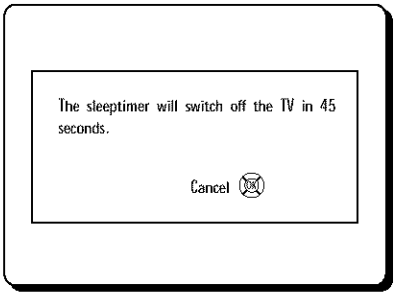




Up To




During the last minute of a Sleeptimer setting the TV will display a countdown screen where the setting can be cancelled




## *Helpful Hint*

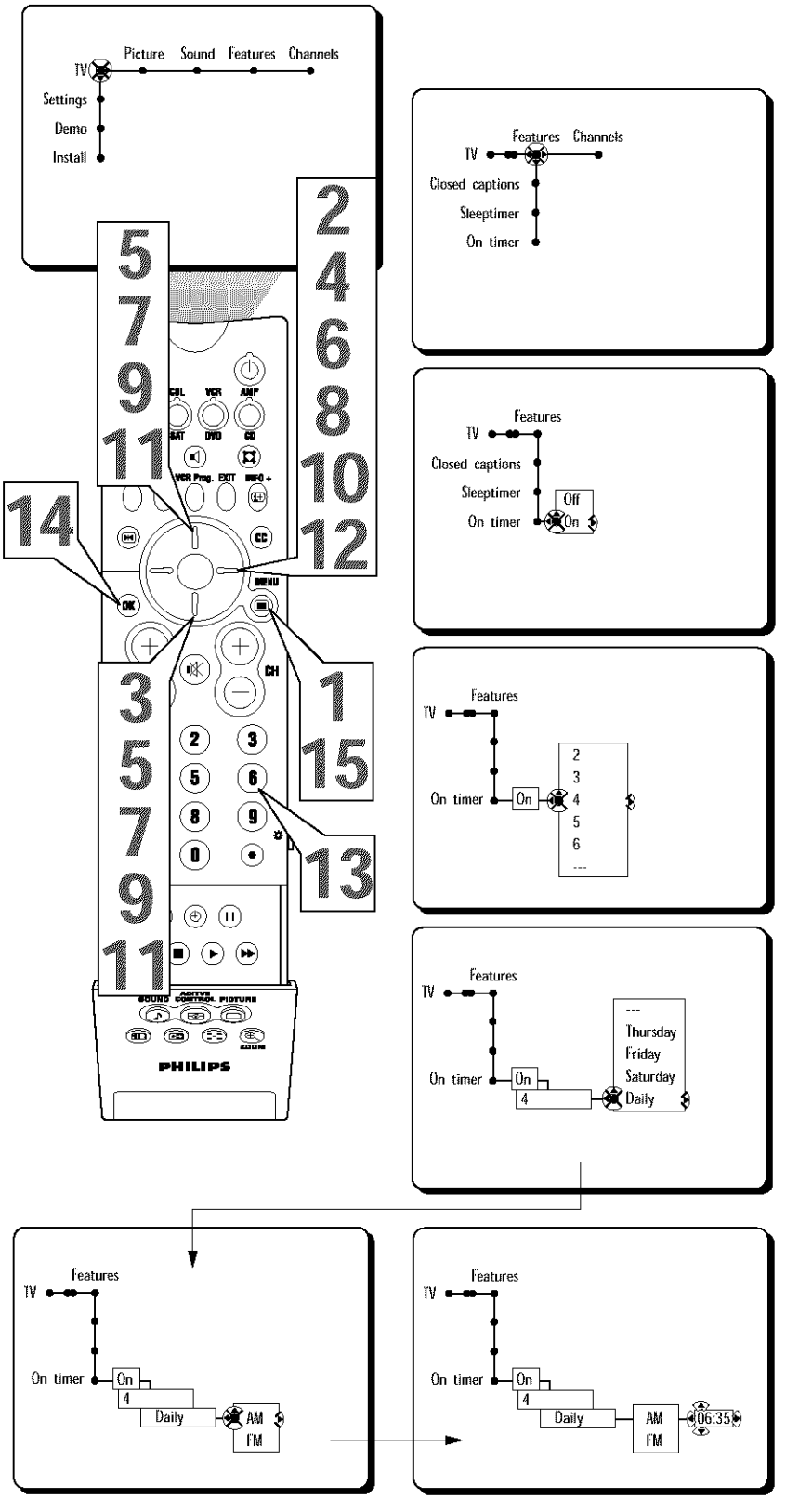
To see how many minutes remain before the TV shuts itself off, press the INFO+ button.

A Sleep Timer setting can be cancelled by pressing the OK button during the last minute of the operation.

# How to Use the On-Timer Control

*The On-Timer Control allows you to set a time to power the TV on automatically at a certain time of day. The On-Timer can be set to work once, or daily at the same time.*

1. **Press the MENU button** on the remote control to display the onscreen menu.
2. **Press the CURSOR RIGHT button** repeatedly to highlight FEATURES.
3. **Press the CURSOR DOWN button** repeatedly to highlight the On Timer control.
4. **Press the CURSOR RIGHT button** to enter the sub-menu.
5. **Press the CURSOR UP or DOWN button** to select ON.
6. **Press the CURSOR RIGHT button** to shift the menu to the start channel sub-menu.
7. **Press the CURSOR UP or CURSOR DOWN button** to select the channel you would like the TV to tune to when it turns on.
8. **Press the CURSOR RIGHT button** to shift the menu to the Day/Daily sub-menu.
9. **Press the CURSOR UP or DOWN button** to select the day to turn on or select Daily.
10. **Press the CURSOR RIGHT button** to enter the AM/PM sub-menu.
11. **Press the CURSOR UP or DOWN button** to select AM or PM.
12. **Press the CURSOR RIGHT button** to enter the start time.
13. **Press the NUMBERED buttons** to enter the time. Use 0 first if entering a signal digit. (i.e.; 0, 1, 3, 0 for 1:30)
14. **Press the OK button** to confirm.
15. **Press the MENU button** to remove the onscreen menu from the TV screen.



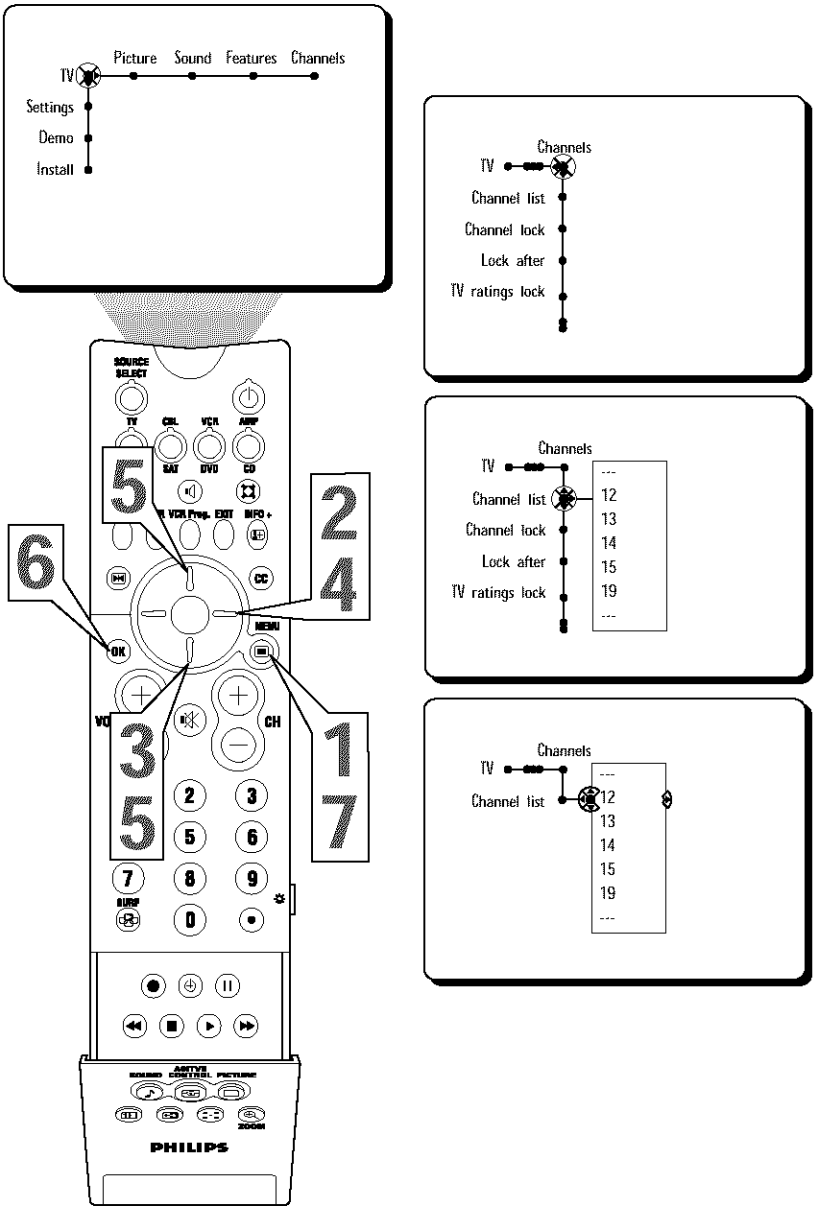

## Helpful Hint

Remember, be sure to press *0* first and then the hour number for single-digit entries.

# How to Use the Channel List Control

*The Channel List Control shows all the available channels that the Auto Programming placed in the TV memory. The channels can be selected from this list.*

1. **Press the MENU button** on the remote control to display the onscreen menu.
2. **Press the CURSOR RIGHT button** repeatedly to highlight CHANNELS.
3. **Press the CURSOR DOWN button** to highlight the Channel List control.
4. **Press the CURSOR RIGHT button** to enter the Channel List sub-menu.
5. **Press the CURSOR UP or DOWN button** to highlight a specific channel from the list.
6. **Press the OK button**. The television will tune to the highlighted channel.
7. **Press the MENU button** to remove the onscreen menu from the TV screen.



# How to Use the Channel Lock Control

*For various reasons you might want to block the programming on a specific channel or series of channels. The Channel Lock Control will allow individual channels to be "locked", blocking the programming on that channel.*

1. **Press the MENU button** on the remote control to display the onscreen menu.
2. **Press the CURSOR RIGHT button** repeatedly to highlight CHANNELS.
3. **Press the CURSOR DOWN button** repeatedly to highlight the Channel Lock Control.
4. **Press the CURSOR RIGHT button** to enter the Channel Lock sub-menu.
5. **Press the CURSOR UP or DOWN button** to highlight a specific channel from the list.
6. **Press the OK button**. The "dot" in front of the channel number will change to yellow showing that the channel is locked.

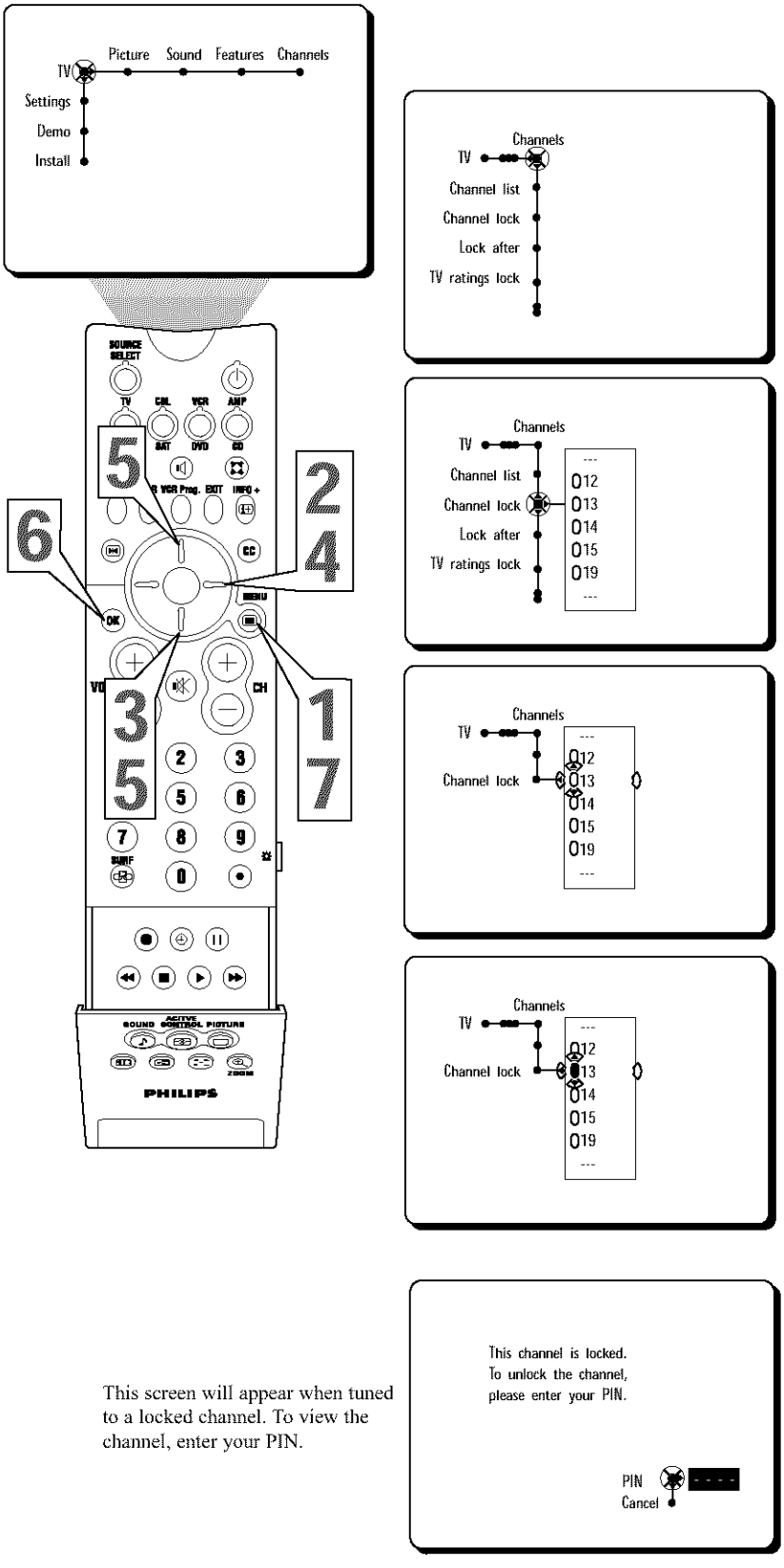
Repeat steps 5 and 6 for other channels you wish to lock.

7. **Press the MENU button** to remove the onscreen menu from the TV screen.

**Note:** To unlock a locked channel, enter your personal PIN number to clear the channel from being blocked. Please refer to page 51 for instructions on setting up a PIN (Personal Identification Number).

## *Helpful Hint*

If you tune to a channel that is locked and you enter your PIN to unlock the channel, ALL locked channels will be unlocked until the television is shut off. When the television is turned back on again, previously locked channels will be locked again.




This screen will appear when tuned to a locked channel. To view the channel, enter your PIN.

# How to Use the Lock After Control

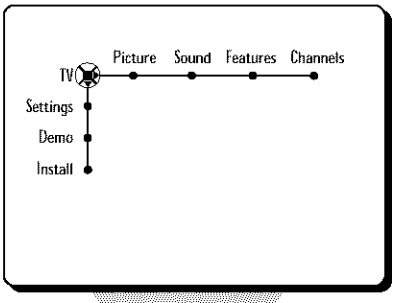
*There may come a time when you will need to block programming after a certain time of day. This is a great feature to limit the time your children watch TV or to lock all channels at night when material not suited for children might be broadcast.*

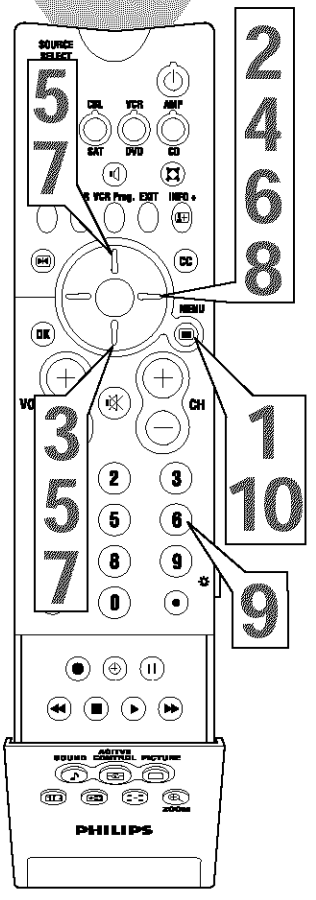
1. **Press the MENU button** on the remote control to display the onscreen menu.
2. **Press the CURSOR RIGHT button** repeatedly to highlight CHANNELS.
3. **Press the CURSOR DOWN button** repeatedly to highlight the Lock After Control.
4. **Press the CURSOR RIGHT button** to enter the Lock After sub-menu (ON or OFF).
5. **Press the CURSOR UP or DOWN button** to highlight On from the list. A sub-menu with AM or PM will appear.
6. **Press the CURSOR RIGHT button** to enter the AM, PM sub-menu. A box with the time (or area when the time can be entered) will appear.
7. **Press the CURSOR UP or DOWN button** to highlight AM or PM.
8. **Press the CURSOR RIGHT button** to enter the lock after time.
9. **Press the NUMBERED button** to enter the time you want the television to lock all channels.
10. **Press the MENU button** to remove the onscreen menu from the TV screen.

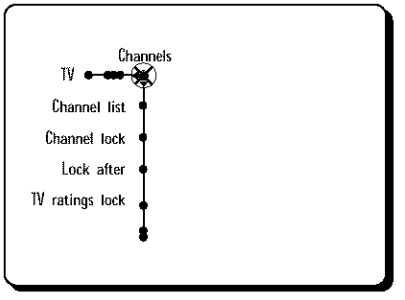
**Note:** To unlock a locked channel, enter your personal PIN number to clear the channel from being blocked. Please refer to page 51 for instructions on setting up a PIN (Personal Identification Number).

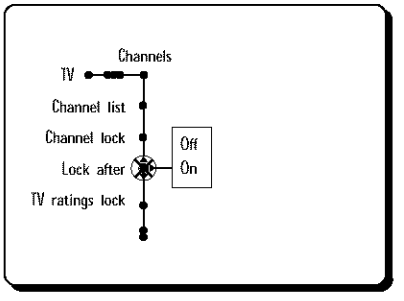
## *Helpful Hint*

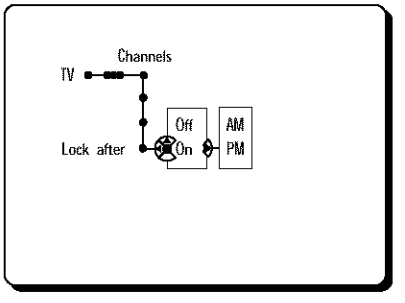
If you tune to a channel that is locked and you enter your PIN to unlock the channel, ALL locked channels will be unlocked until the television is shut off. When the television is turned back on again, previously locked channels will be locked again.

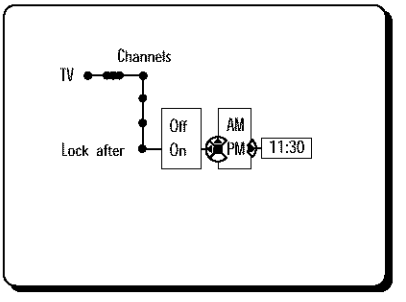


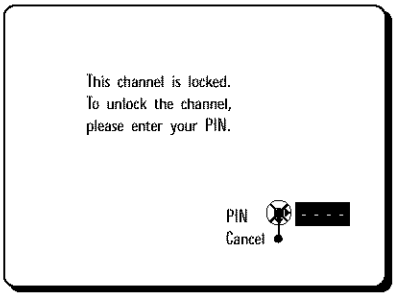



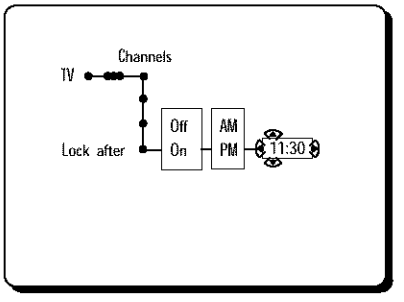




Once the Lock After setting takes place, all channels will display this screen. To view the channels, enter your PIN.

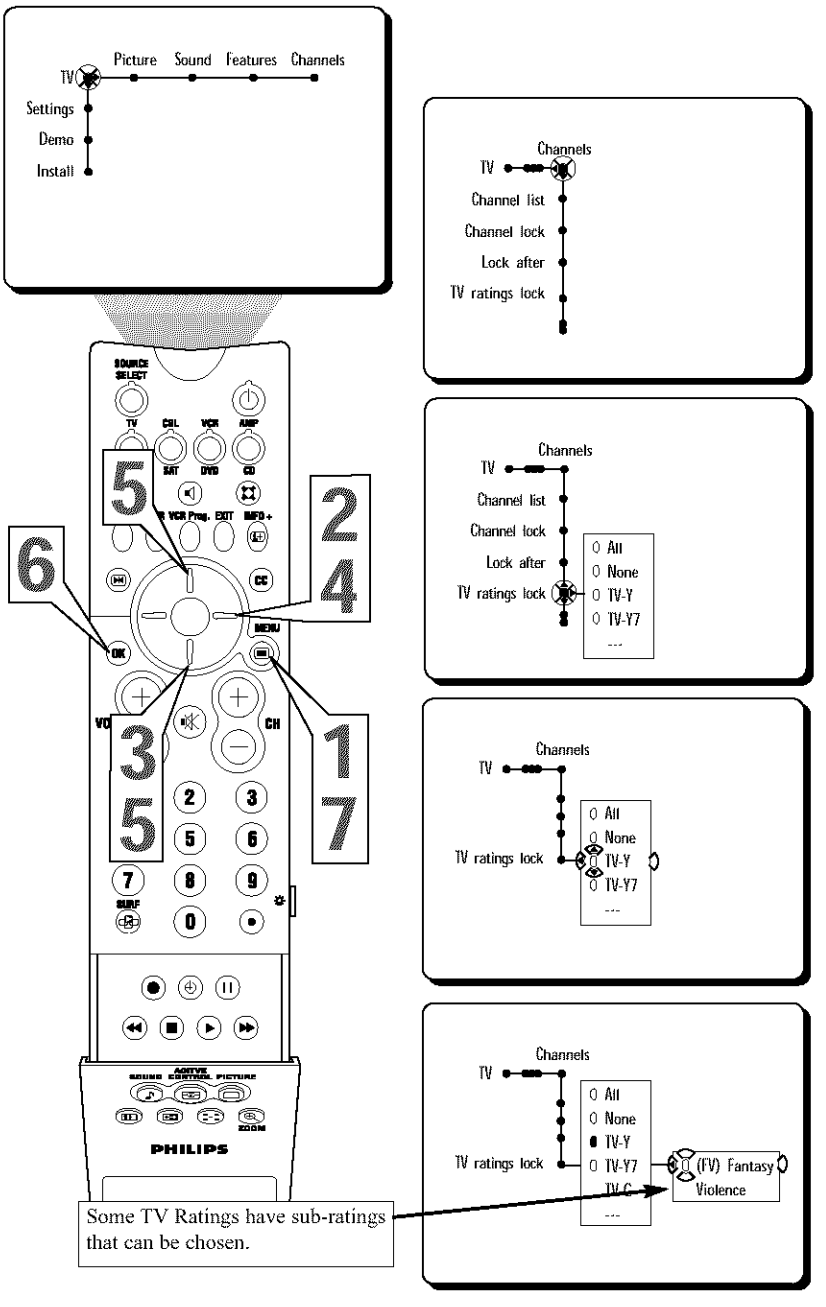
# How to Block Programming Based on TV Ratings

*You can select specific TV Ratings to block broadcast signal with unsuitable information.*

1. **Press the MENU button** on the remote control to display the onscreen menu.
2. **Press the CURSOR RIGHT button** repeatedly to highlight CHANNELS.
3. **Press the CURSOR DOWN button** repeatedly to highlight the TV Ratings Lock Control.
4. **Press the CURSOR RIGHT button** to enter the TV Ratings Lock list of options.
5. **Press the CURSOR UP or DOWN button** to highlight one of the ratings.
6. **Press the OK button** to activate your choice. Note: Whenever a rating is turned On, all higher ratings (with their sub ratings) will also be turned On or blocked.

**Note:** Some of the TV Rating options contain specific sub-ratings. TV-Y7 contains sub-rating of (FV) Fantasy Violence; TV-PG and TV-14 contains sub-ratings of (D) Dialogue, (L) Language, (S) Sex, and (V) Violence; TV-MA contains sub-ratings of (L) Language, (S) Sex, and (V) Violence.

7. **Press the MENU button** to remove the onscreen menu from the TV screen.




## TV Ratings (TV Broadcasters)

**TV-Y**: (**All children** -- *appropriate for all children.*) Designed for a very young audience, including children ages 2-6.

**TV-Y7**: (**Directed to Older Children** -- *designed for children ages 7 and above.*) For children who have acquired the development skills needed to distinguish make-believe from reality. This programming may include mild fantasy and comic violence (FV).

**TV-G**: (**General Audience** -- *suitable for all ages.*) Contains little or no violence, no strong language, and little or no sexual dialogue or sexual situations.

**TV-PG**: (**Parental Guidance Suggested** -- *Contains material unsuitable for younger children.*) Contains one or more of the following: Moderate violence (V), some sexual situations (S), infrequent coarse language (L), or some suggestive dialogue (D).

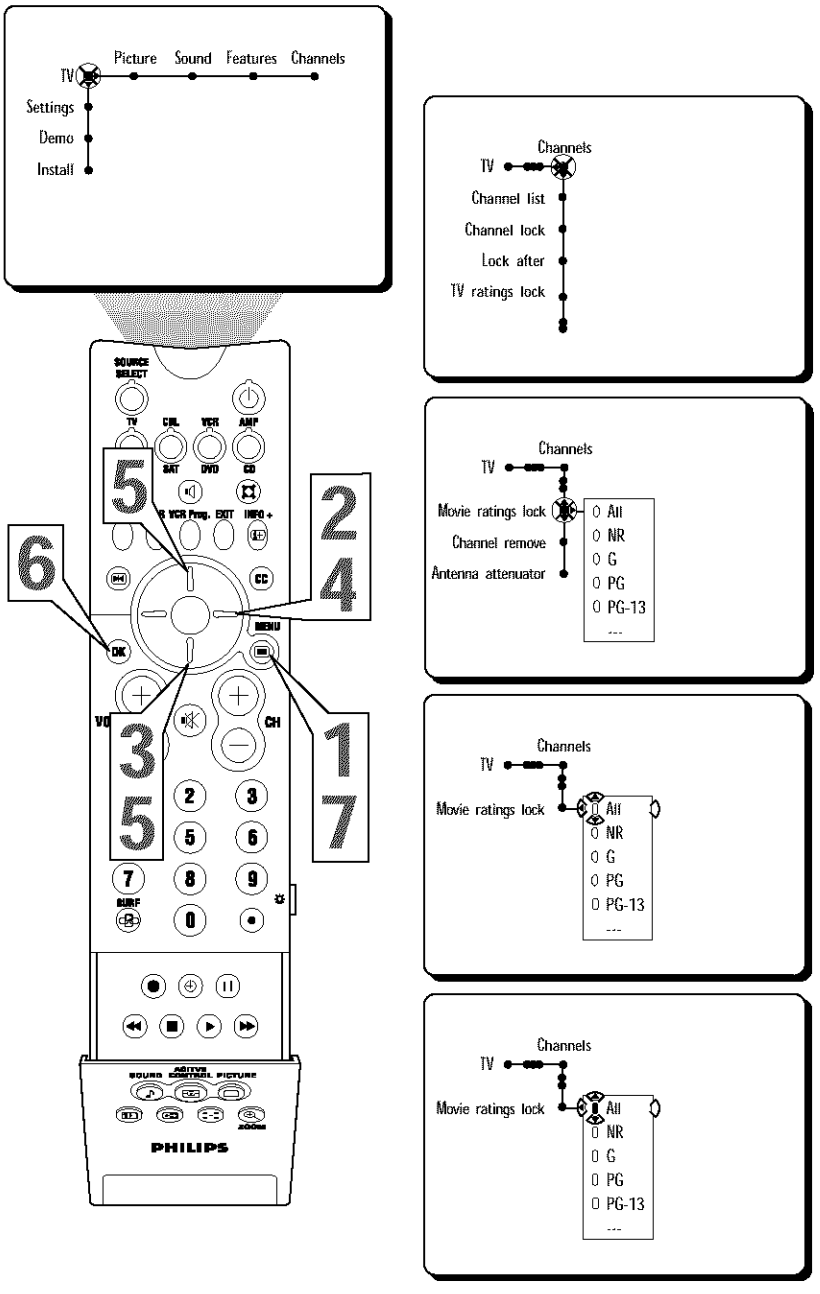
**TV-14**: (**Parents Strongly Cautioned** -- *Contains some material unsuitable for children under 14 years of age.*) Contains one or more of the following: intense violence (V); intense sexual situations (S); strong, coarse language (L); or intensely suggestive dialogue (D).

**TV-MA**: (**Mature Audience Only** -- *Designed to be viewed by adults and unsuitable for children under 17.*) Contains one or more of the following: graphic violence (V); explicit sexual situations (S); or crude, indecent language (L).

# How to Block Programming Based on Movie Ratings

*You can select specific Movie Ratings to block programming signals with unsuitable information.*

1. **Press the MENU button** on the remote control to display the onscreen menu.
2. **Press the CURSOR RIGHT button** repeatedly to highlight CHANNELS.
3. **Press the CURSOR DOWN button** repeatedly to highlight the Movie Ratings Lock Control.
4. **Press the CURSOR RIGHT button** to enter the Movie Ratings Lock list of options.
5. **Press the CURSOR UP or DOWN button** to highlight the rating you wish to lock.
6. **Press the OK button** to activate your choice. Note: Whenever a rating is turned on, all higher ratings (and sub-ratings) will be turned on. (i.e., If R is selected, NC-17 and X will automatically turn on also.)
7. **Press the MENU button** to remove the onscreen menu from the TV screen.




## Movie Ratings
(Motion Picture Association of America)

***G: General Audience*** - All ages admitted. Most parents would find this programming suitable for all ages. This type of programming contains little or no violence, no strong language, and little or no sexual dialogue or sexual situations.

***PG: Parental Guidance Suggested*** - This programming contains material that parents may find unsuitable for younger children. It may contain one or more of the following: Moderate violence, some sexual situations, infrequent coarse language, or some suggestive dialogue.

***PG-13: Parents Strongly Cautioned*** - This programming contains material that parents may find unsuitable for children under the age of 13. It contains one or more of the following: violence, sexual situations, coarse language, or suggestive dialogue.

***R: Restricted*** -This programming is specifically designed for adults. Anyone under the age of 17 should view this programming only with an accompanying parent or adult guardian. It contains one or more of the following: intense violence; intense sexual situations; strong coarse language; or intensely suggestive dialogue.

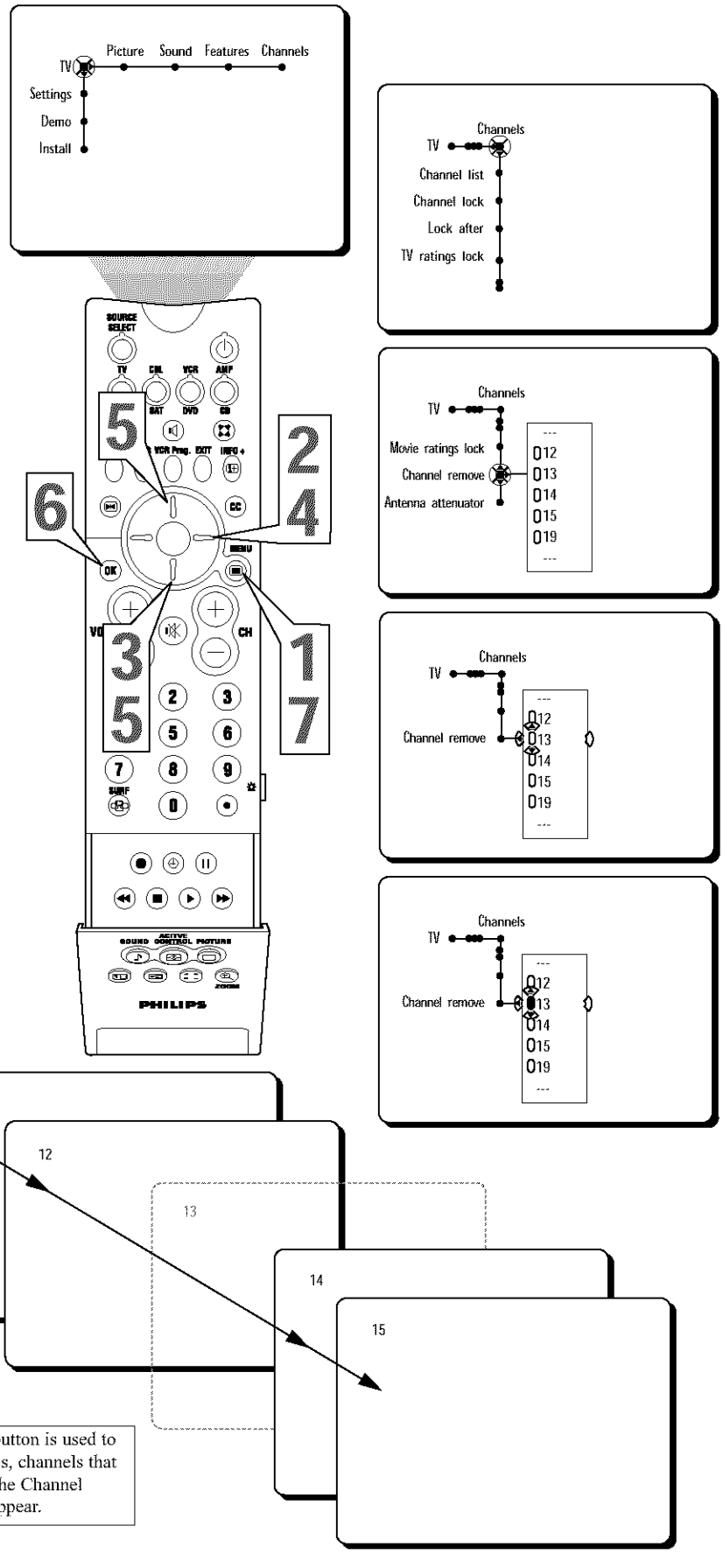
***NC-17: No one under the age of 17 will be admitted.*** - This type of programming should be viewed by adults only. It contains graphic violence; explicit sex; or crude, indecent language.

***X: Adults Only*** - This type of programming contains one or more of the following: very graphic violence, very graphic and explicit or indecent sexual acts, very coarse and intensely suggestive language.

# How to Remove Channels from the Channel List

*You can remove specific channels from the television's memory by using the Channel Remove Control.*

1. **Press the MENU button** on the remote control to display the onscreen menu.
2. **Press the CURSOR RIGHT button** repeatedly to highlight CHANNELS.
3. **Press the CURSOR DOWN button** repeatedly to highlight the Channel Remove Control.
4. **Press the CURSOR RIGHT button** to enter the list of channels within the television's memory.
5. **Press the CURSOR UP or DOWN button** to highlight a channel you wish to remove.
6. **Press the OK button** to activate your choice. After you activate the Channel Remove Control, the channel(s) highlighted will no longer be tuned when using the Channel + or – buttons.
7. **Press the MENU button** to remove the onscreen menu from the TV screen.

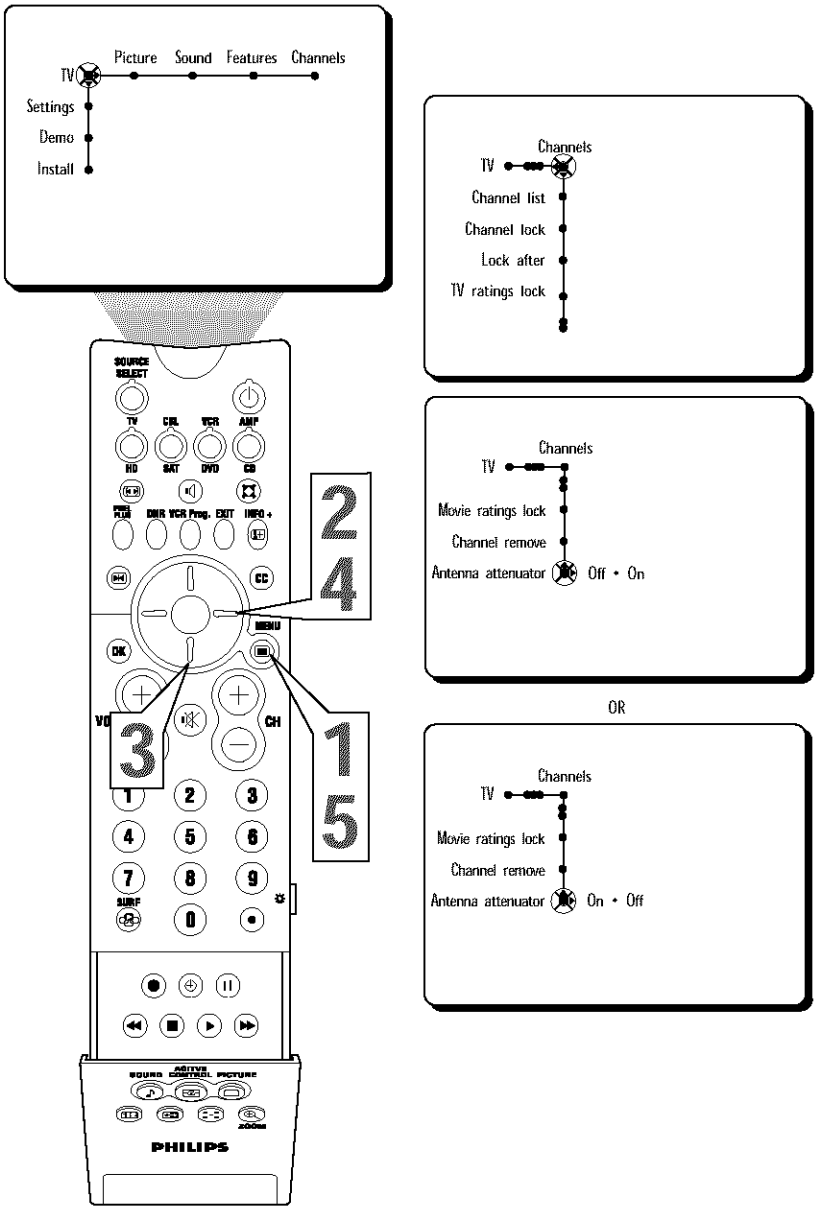



When the Channel + or – button is used to scroll the available channels, channels that have been removed using the Channel Remove Control will not appear.

# How to Use the Antenna Attenuator Control

*At times the signal being received may be weak due to various reasons. This television is equipped with a control (Antenna Attenuator) that will help to improve or strengthen the signal being received.*

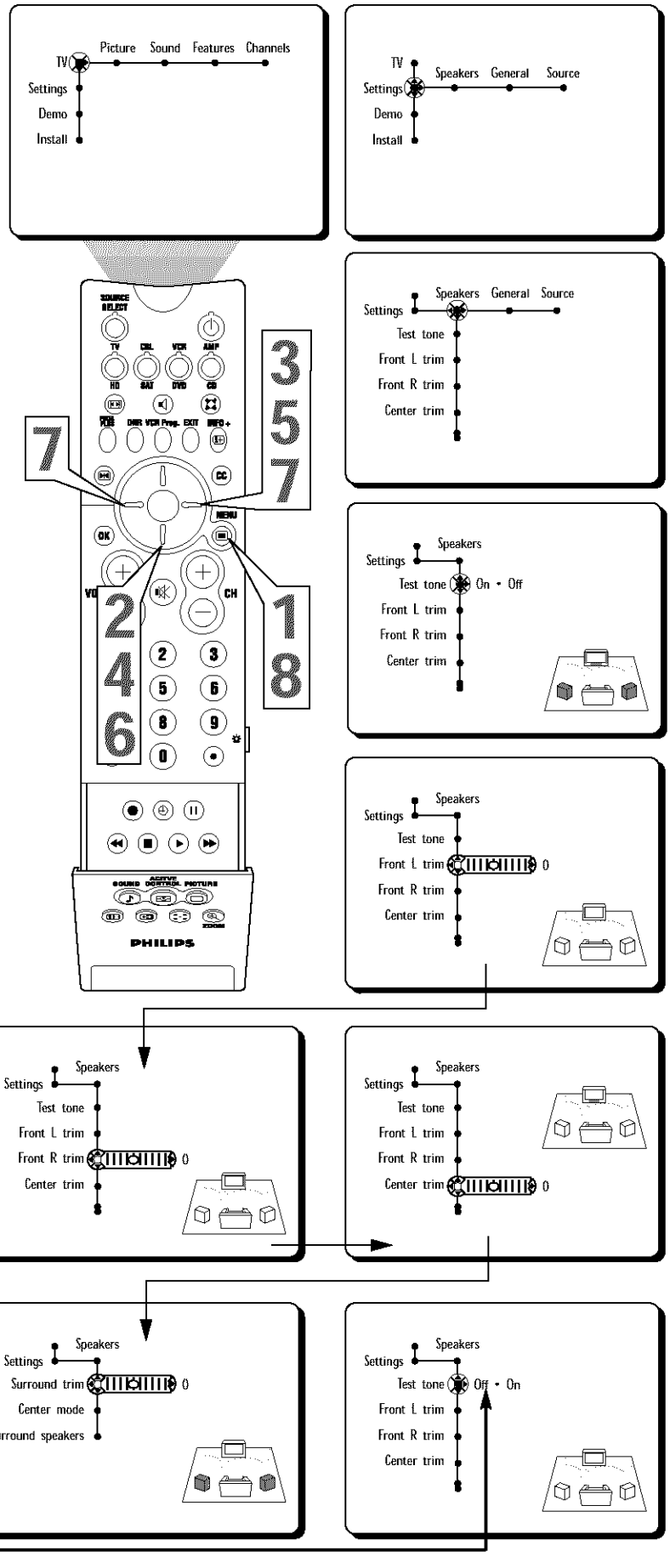
1. **Press the MENU button** on the remote control to display the onscreen menu.
2. **Press the CURSOR RIGHT button** repeatedly to highlight CHANNELS.
3. **Press the CURSOR DOWN button** repeatedly to highlight the Antenna Attenuator Control.
4. **Press the CURSOR RIGHT button** toggle the control ON or OFF.
5. **Press the MENU button** to remove the onscreen menu from the TV screen.



# How to use the Test Tone and Speaker Trim Controls

*The Test Tone and Speaker Trim Controls will allow you to adjust and balance the sound coming from all available speakers.*

1. **Press the MENU button** on the remote control to display the onscreen menu.
2. **Press the CURSOR DOWN button** to highlight SETTINGS.
3. **Press the CURSOR RIGHT button** to highlight the Speakers menu.
4. **Press the CURSOR DOWN button** to highlight the Test Tone Control.
5. **Press the CURSOR RIGHT button to** toggle the Test Tone Control ON or OFF. When ON is selected, the Test Tone control generated a sound test signal that circulates through all active speakers one at a time in a clockwise direction. With the Test Tone Control ON, you can now use the individual Speaker Trim Controls to adjust each speaker's volume.
6. **Press the CURSOR DOWN button** to select one of the Speaker Trim Controls (Front L Trim, Front R Trim, Center Trim, or Surround Trim).
7. **Press the CURSOR LEFT or RIGHT button** to adjust the volume for each control. Once all trim controls have be set, return to the Test Tone Control and turn it OFF.
8. **Press the MENU button** to remove the onscreen menu from the TV screen.




Be sure to go back to the Test Tone Control and turn it OFF when finished with the Speaker Trim Controls.

# How to Turn the Center Mode and Surround Speakers Controls On

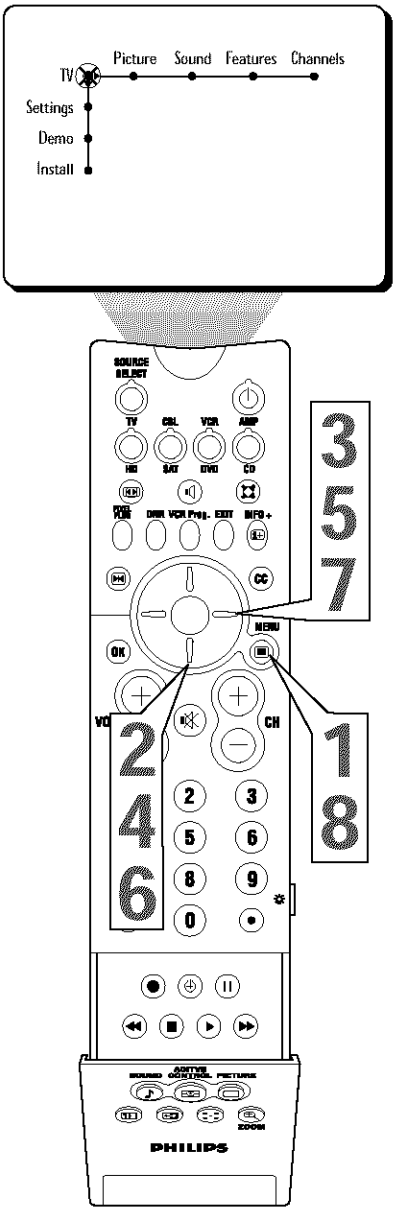
*There are simple controls to set the television in Center Mode (center speaker mode) or to turn the Surround Speakers ON.*

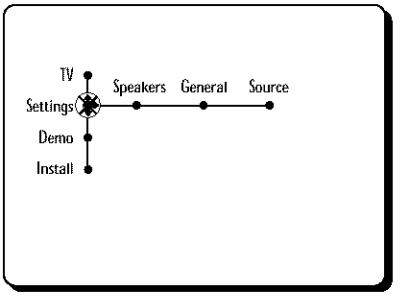
**To turn the Center Mode Control ON:**

1. **Press the MENU button** on the remote control to display the onscreen menu.
2. **Press the CURSOR DOWN button** to highlight SETTINGS.
3. **Press the CURSOR RIGHT button** to highlight the Speakers menu.
4. **Press the CURSOR DOWN button** repeatedly to highlight the Center Mode Control.
5. **Press the CURSOR RIGHT button** to toggle the Center Mode Control ON or OFF.

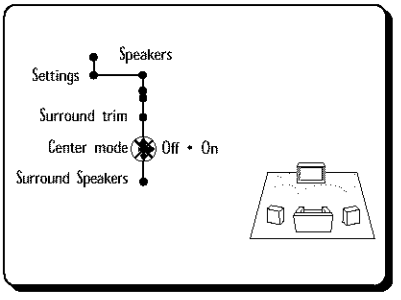
**To turn the Surround Speakers Control ON:**

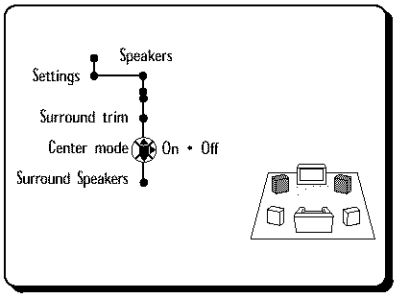
6. Within the Speakers menu, **press the CURSOR DOWN button** repeatedly to select the Surround Speakers Control
7. **Press the CURSOR RIGHT button** to toggle the Surround Speakers Control ON or OFF.
8. **Press the MENU button** to remove the onscreen menu from the TV screen.



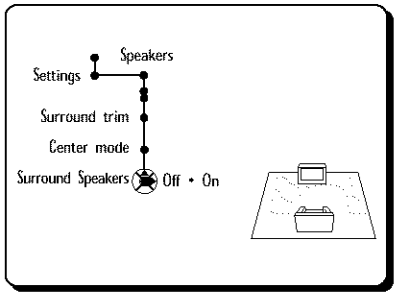



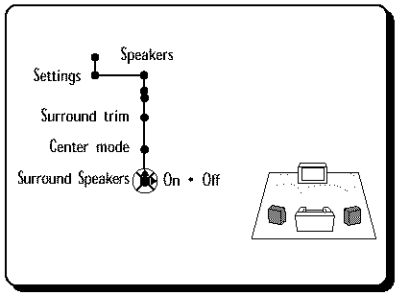

Center Mode Control




Surround Speakers Control



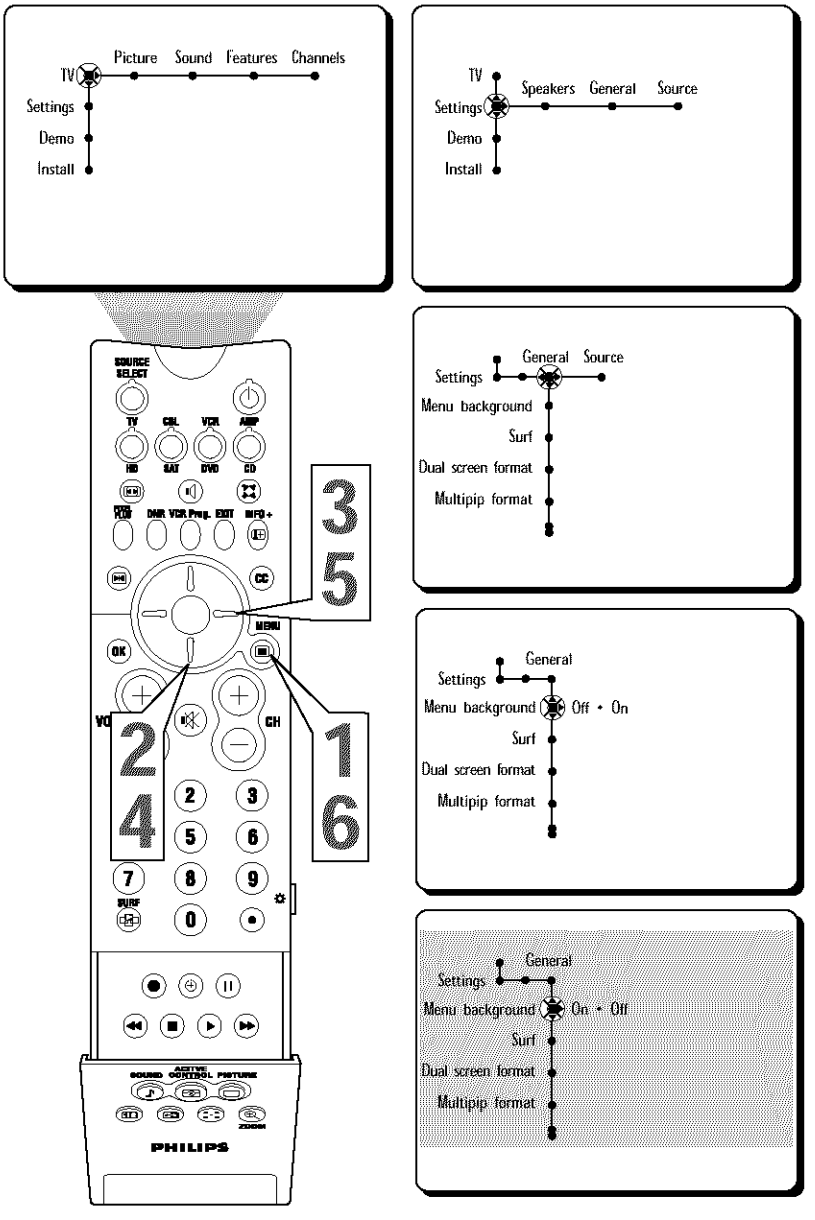



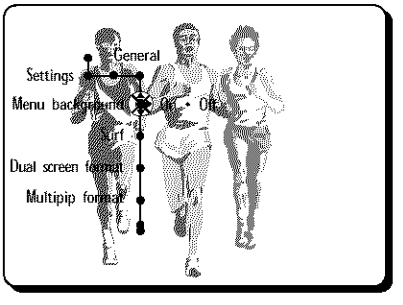
# How to Use the Menu Background Control

*To help view the onscreen menu better when it is activated, the Menu Background Control will place a light transparent green field behind the onscreen menu. This field reduces the contrast in the TV picture allowing the text of the onscreen menu to be more highly visible.*

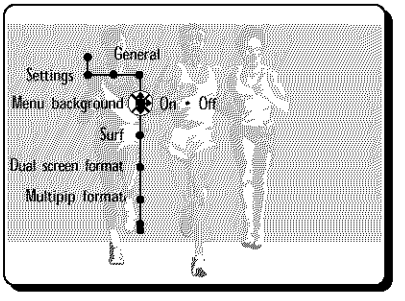
1. **Press the MENU button** on the remote control to display the onscreen menu.
2. **Press the CURSOR DOWN button** to highlight SETTINGS.
3. **Press the CURSOR RIGHT button** repeatedly to highlight the General menu.
4. **Press the CURSOR DOWN button** to highlight the Menu Background Control.
5. **Press the CURSOR RIGHT button to** toggle the Menu Background Control ON or OFF.
6. **Press the MENU button** to remove the onscreen menu from the TV screen.

**Note:** The Menu Background, when ON, will only appear while the onscreen menu is displayed on the television screen.




With Menu Background OFF



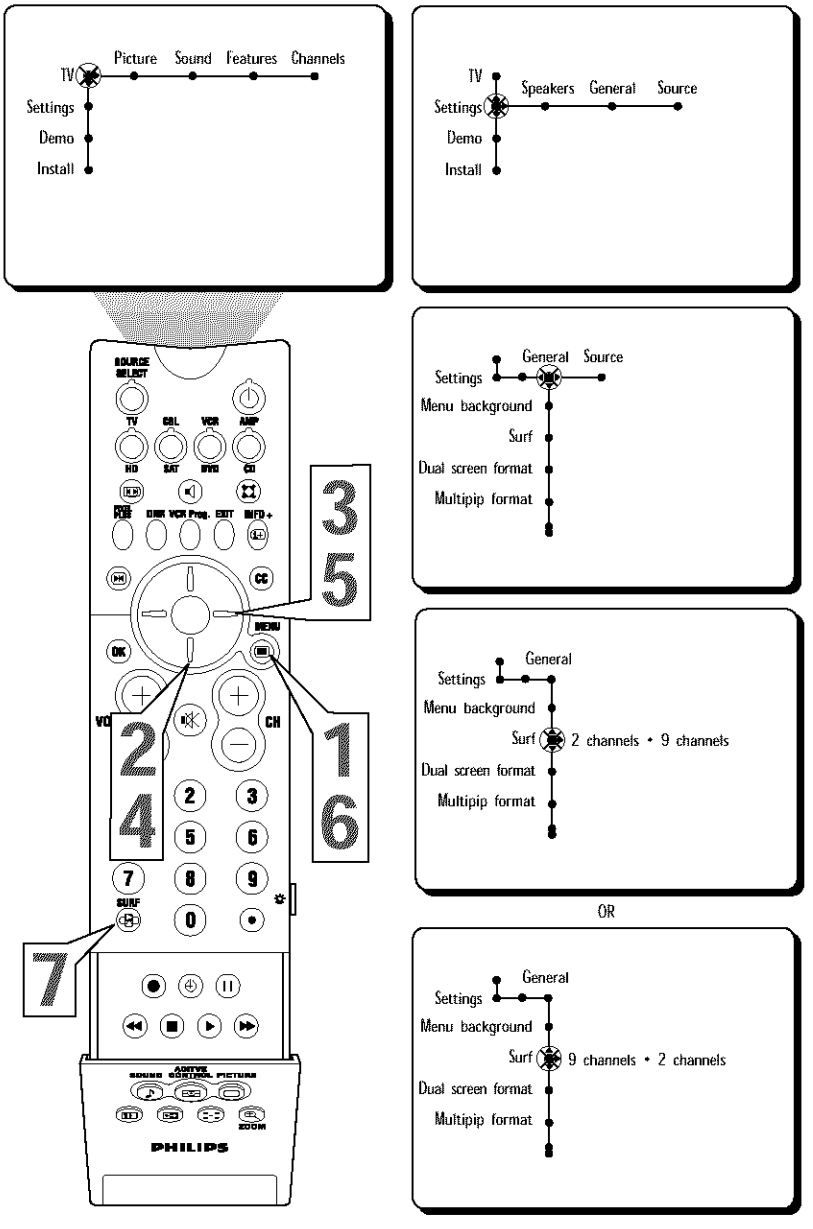

With Menu Background ON

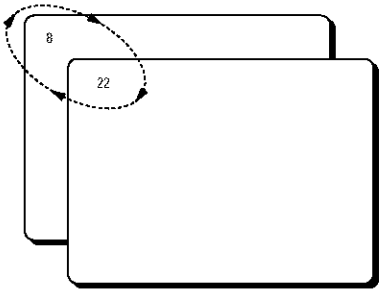
# How to Use the Surf Control

*A list or series of previously viewed channels can be selected with the SURF button on your remote control. With this feature, you can easily switch between different TV channels that currently interest you. The SURF Control allows you to set up the television to toggle 2 channels or 9 channels when pressing the Surf button on the remote.*

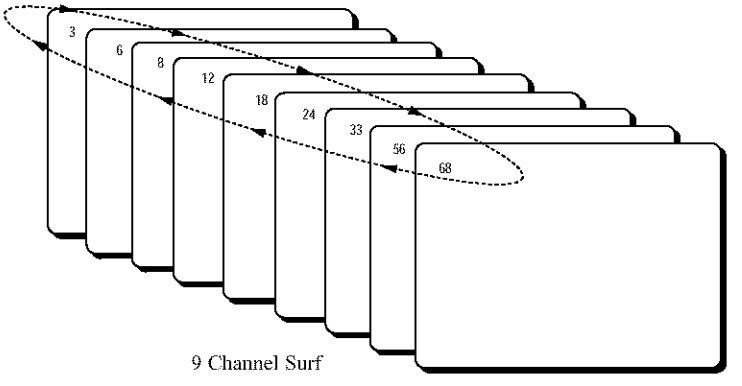
1. **Press the MENU button** on the remote control to display the onscreen menu.
2. **Press the CURSOR DOWN button** to highlight SETTINGS.
3. **Press the CURSOR RIGHT button** repeatedly to highlight the General menu.
4. **Press the CURSOR DOWN button** repeatedly to highlight the Surf Control.
5. **Press the CURSOR RIGHT button to** toggle the Surf Control between 2 channels or 9 channels.
6. **Press the MENU button** to remove the onscreen menu from the TV screen.
7. **Press the SURF button** on the remote control repeatedly to toggle through the last series of viewed channels (2 or 9 depending on what is selected in the Surf control).

**Note:** 2 Channel Surf works like an Alternate Channel control. Pressing the SURF button will toggle the current channel and previously last viewed channel. 9 Channel Surf allows toggling of the present channel and the last previously viewed 8 channels when pressing the SURF button.




2 Channel Surf

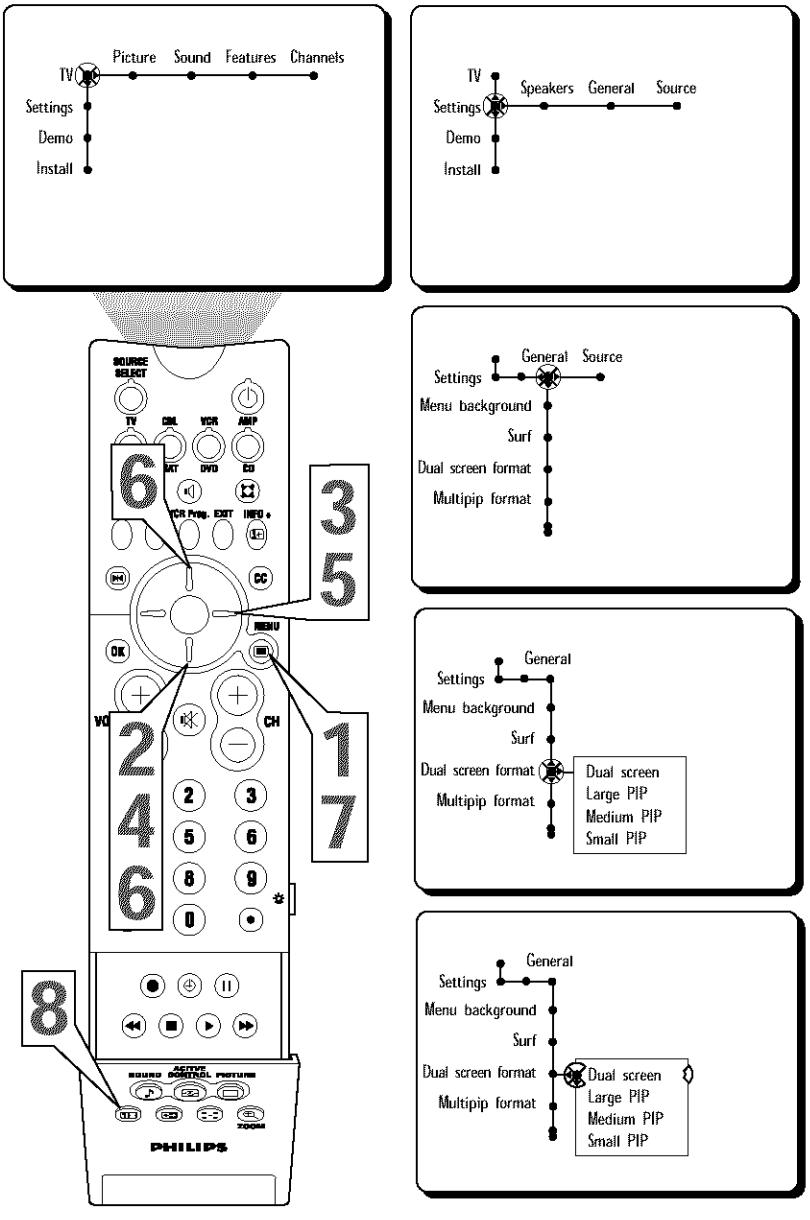



9 Channel Surf

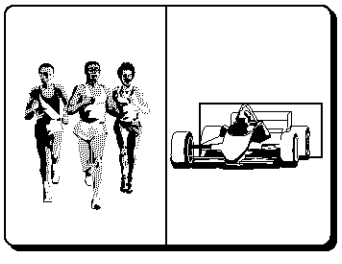
# How to Use the Dual Screen Format Control

*The Dual Screen, or sometimes called Picture In Picture (PIP), feature will allow you to choose the size of Dual Screen window to be displayed when the Dual Screen (or PIP) button is pressed on the remote control. The window can be set to Dual Screen, Large PIP, Medium PIP, or Small PIP.*

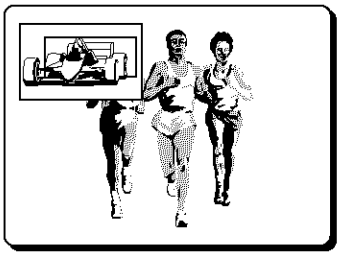
1. **Press the MENU button** on the remote control to display the onscreen menu.
2. **Press the CURSOR DOWN button** to highlight SETTINGS.
3. **Press the CURSOR RIGHT button** repeatedly to highlight the General menu.
4. **Press the CURSOR DOWN button** repeatedly to highlight the Dual Screen Format Control. A sub-menu or list of options will appear.
5. **Press the CURSOR RIGHT button** to enter the list of options.
6. **Press the CURSOR UP or DOWN button** to select the desire Dual Screen Format. Choose from Dual Screen, Large PIP, Medium PIP, or Small PIP.
7. **Press the MENU button** to remove the onscreen menu from the TV screen.
8. **Press the Dual Screen button** on the remote control to display the second video window in the format you have chosen. **Press the Dual Screen button again** to return the television to the main




Dual Screen



Large PIP



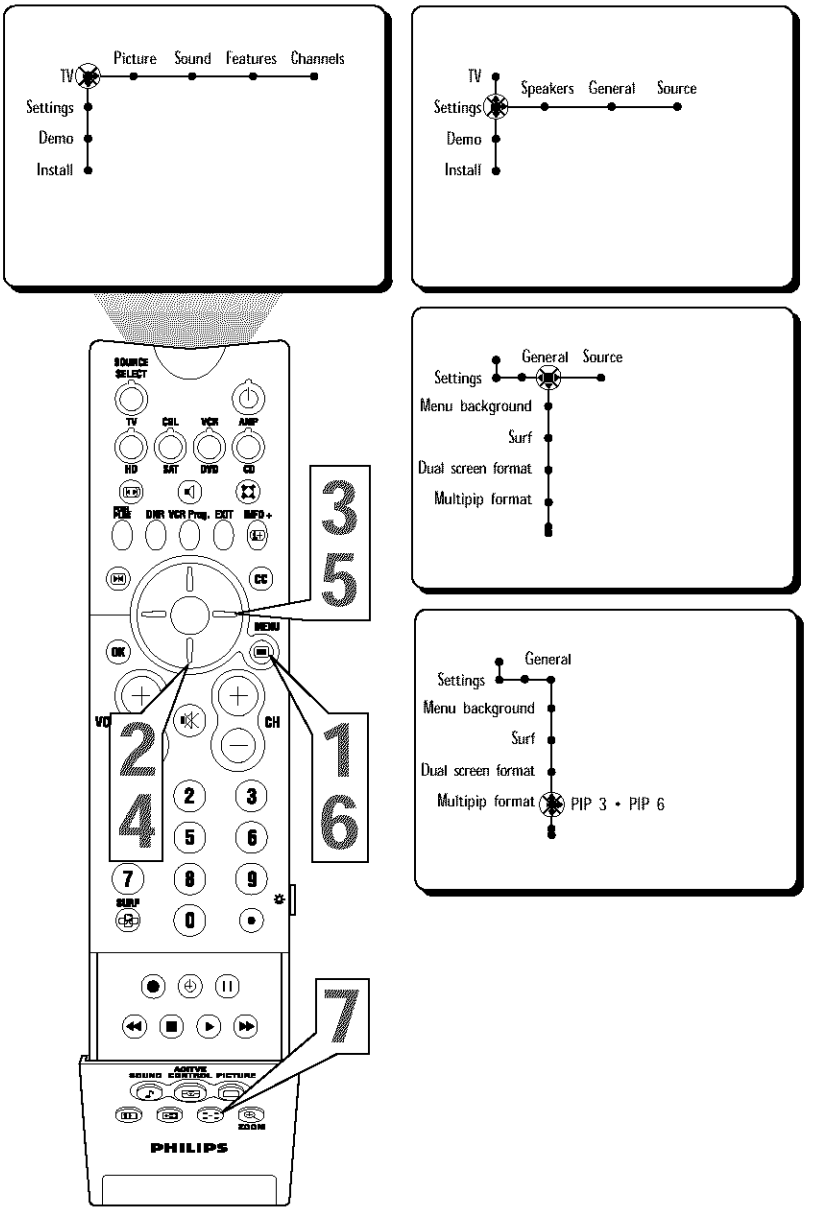
Medium PIP

Small PIP

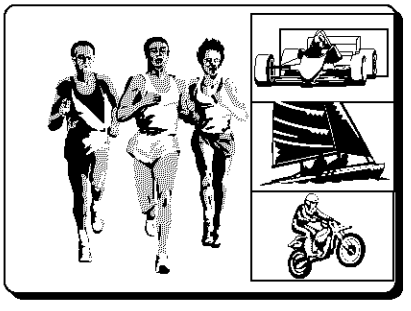
# How to Use the MultiPIP Control

*The MultiPIP Control will allow you to choose between showing 3 or 6 PIP windows while still displaying the main video picture onscreen.*

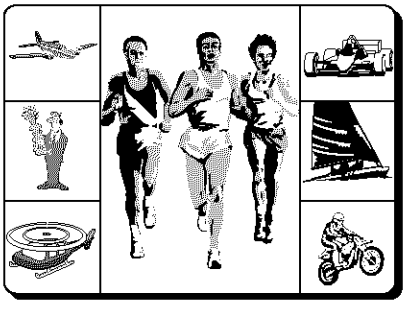
1. **Press the MENU button** on the remote control to display the onscreen menu.
2. **Press the CURSOR DOWN button** to highlight SETTINGS.
3. **Press the CURSOR RIGHT button** repeatedly to highlight the General menu.
4. **Press the CURSOR DOWN button** repeatedly to highlight the Multipip Control.
5. **Press the CURSOR RIGHT button** to toggle between PIP 3 (3 PIP windows) or PIP 6 (6 PIP windows).
6. **Press the MENU button** to remove the onscreen menu from the TV screen.
7. **Press the MultiPIP button** on the remote control to display the multiple video windows in the format you have chosen. **Press the MultiPIP button again** to return the television to the main video screen.




PIP 3



PIP 6

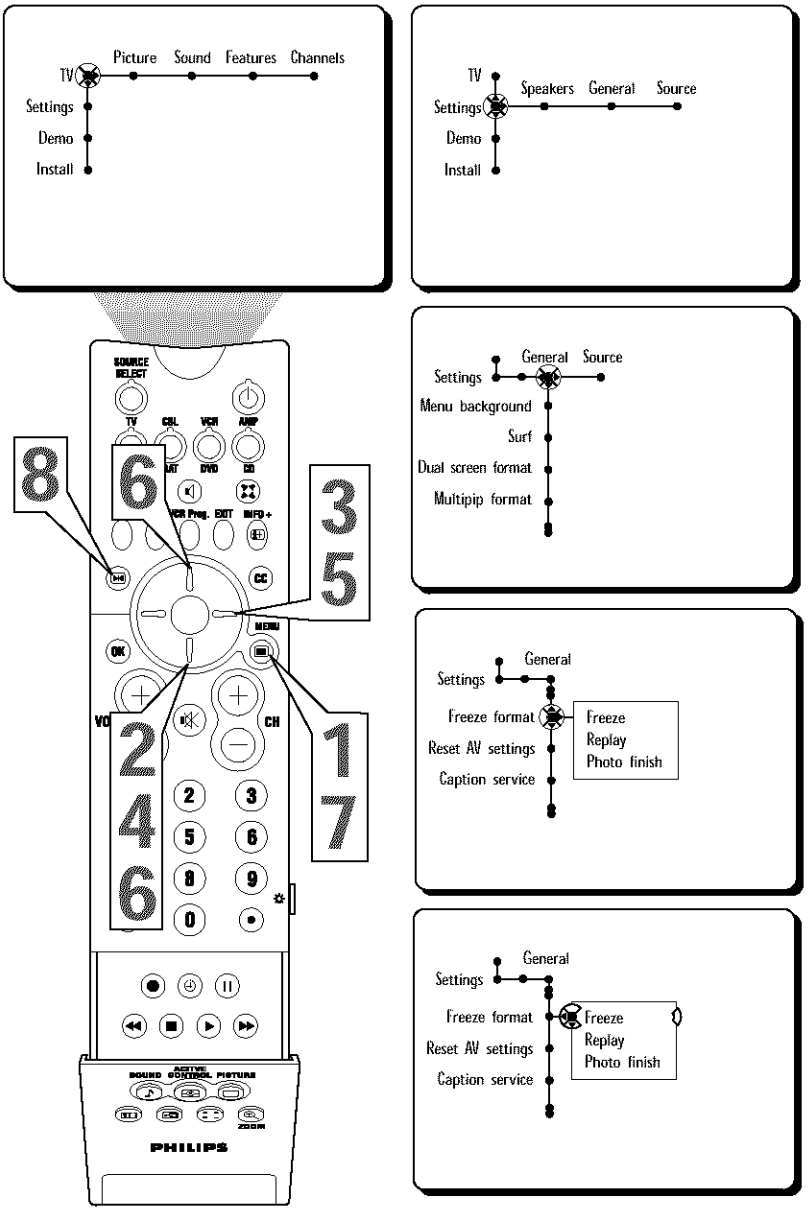


# How to Use the Freeze Control

*The Freeze Control will allow you to set the freeze option to one of three different choices. Choose from the Freeze, Replay, or Photo Finish options. Below are the steps describing the process to set the Freeze Format Control.*

1. **Press the MENU button** on the remote control to display the onscreen menu.
2. **Press the CURSOR DOWN button** to highlight SETTINGS.
3. **Press the CURSOR RIGHT button** repeatedly to highlight the General menu.
4. **Press the CURSOR DOWN button** repeatedly to highlight the Freeze Format Control. A sub-menu with a list of options will appear.
5. **Press the CURSOR RIGHT button** to enter the list of options.
6. **Press the CURSOR UP or DOWN button** to select the desired Freeze Format. Choose from Freeze, Replay, or Photo finish.

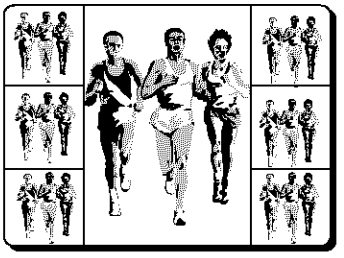
   **Freeze** - Will freeze the main screen image while the audio continues to play.
   **Replay** - Will display and replay a few seconds of store video information within single PIP window.
   **Photo Finish** - Will display a series of frozen images within 6 PIP windows.
7. **Press the MENU button** to remove the onscreen menu from the TV screen.
8. **Press the FREEZE button** on the remote control to display the format you have chosen. **Press the FREEZE button again** to return the television to the main video screen.




FREEZE
Single frozen image

REPLAY
Replays a few seconds
of stored video

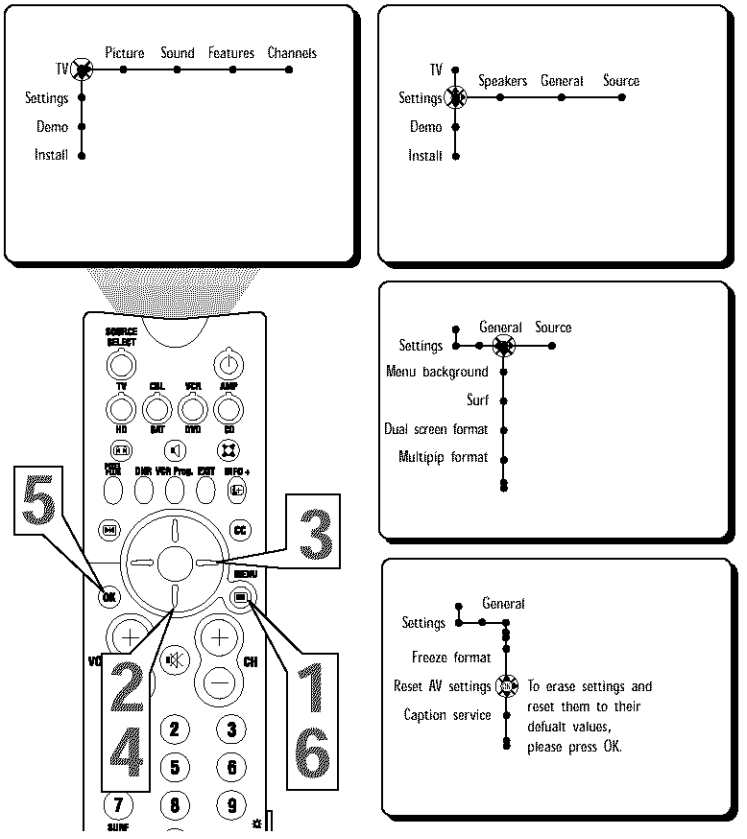
PHOTO FINISH
Displays a series of 6 frozen
images within 6 PIP windows



# How to Reset the Audio Video Setting to the Factory Presets

*The Audio/Video control can be reset to the Factory set modes using the Reset AV Setting Control.*

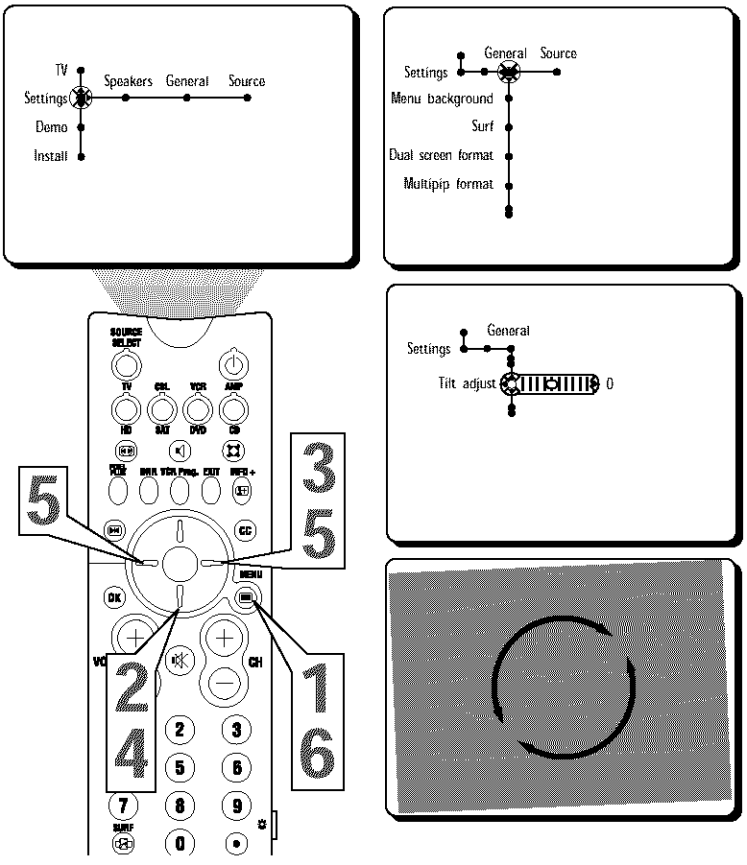
1. **Press the MENU button** on the remote control to display the onscreen menu.
2. **Press the CURSOR DOWN button** to highlight SETTINGS.
3. **Press the CURSOR RIGHT button** repeatedly to highlight the General menu.
4. **Press the CURSOR DOWN button** repeatedly to highlight the Reset AV Setting Control.
5. **Press the OK button** to activate the control.
6. **Press the MENU button** to remove the onscreen menu from the TV screen.




# How to Use the Tilt Adjust Control

*There may be times when the video reproduction from some signals may appear to be slightly tilted from normal. The Tilt Adjust Control can help to correct this problem.*

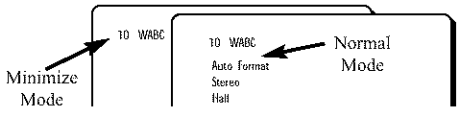
1. **Press the MENU button** on the remote control to display the onscreen menu.
2. **Press the CURSOR DOWN button** to highlight SETTINGS.
3. **Press the CURSOR RIGHT button** repeatedly to highlight the General menu.
4. **Press the CURSOR DOWN button** repeatedly to highlight the Tilt Adjust Control.
5. **Press the CURSOR RIGHT button** to tilt the image clockwise, or **press the CURSOR LEFT button** to tilt the image counter clockwise.
6. **Press the MENU button** to remove the onscreen menu from the TV screen.

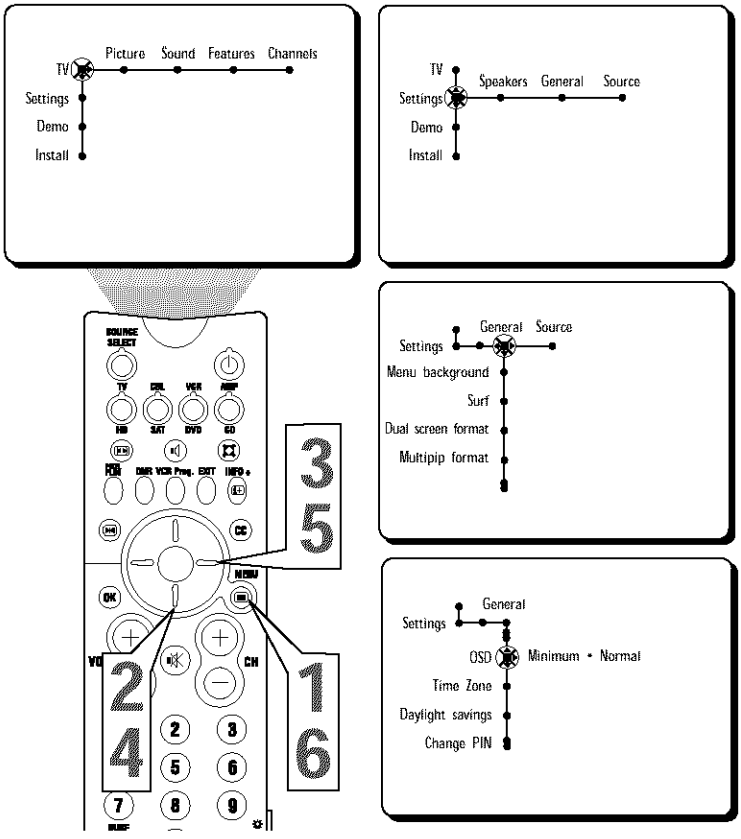


# How to Maximize or Minimize the Onscreen Display

*The television Onscreen Display (OSD) Control can be set two ways. OSD Minimize limits the TV display to current channel number status. Normal shows additional TV operating modes and other status screen information.*

1. **Press the MENU button** on the remote control to display the onscreen menu.
2. **Press the CURSOR DOWN button** to highlight SETTINGS.
3. **Press the CURSOR RIGHT button** repeatedly to highlight the General menu.
4. **Press the CURSOR DOWN button** repeatedly to highlight the OSD Control.
5. **Press the CURSOR RIGHT button** to toggle between Minimize or Maximize.
6. **Press the MENU button** to remove the onscreen menu from the TV screen.

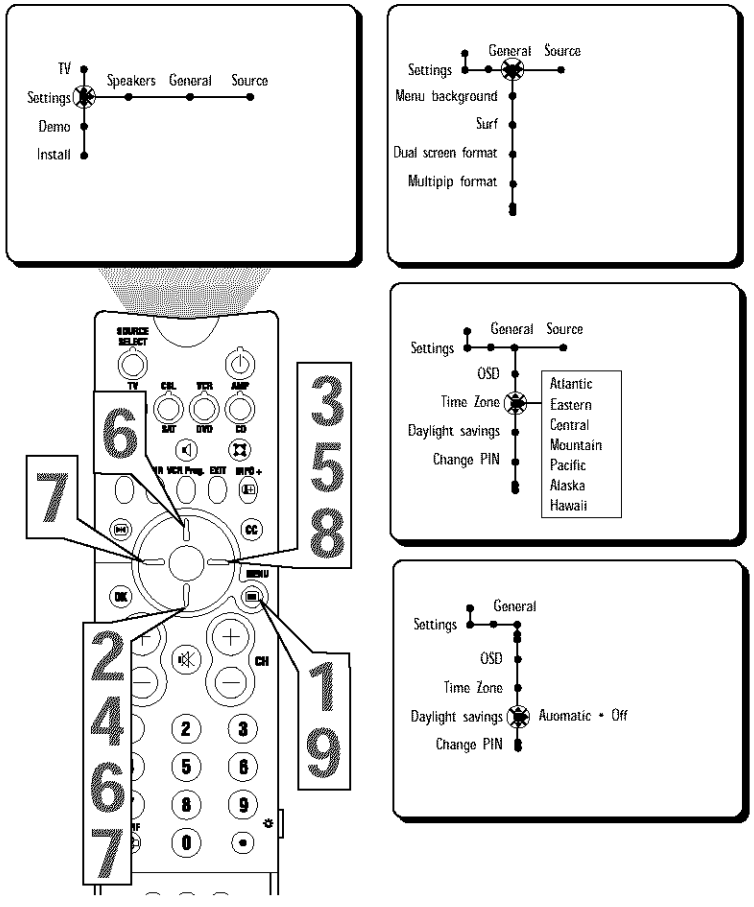



# How to Select a Time Zone and Set the Daylight Savings Control

*Your television can pick the current time from the signal being received. It needs to know your Time Zone and if you use Daylight Savings.*

1. **Press the MENU button** on the remote control to display the onscreen menu.
2. **Press the CURSOR DOWN button** to highlight SETTINGS.
3. **Press the CURSOR RIGHT button** repeatedly to highlight the General menu.
4. **Press the CURSOR DOWN button** repeatedly to highlight the Timer Zone Control.
5. **Press the CURSOR RIGHT button** to enter the list of available zones.
6. **Press the CURSOR UP or DOWN button** to select your Time Zone.
7. **Press the CURSOR LEFT button**, then **press the CURSOR DOWN button** to highlight the Daylight Savings Control.
8. **Press the CURSOR RIGHT button** to toggle Daylight Savings to Automatically change or to Off.
9. **Press the MENU button** to remove the onscreen menu from the TV screen.



# How to Setup or Change a PIN (Personal Identification Number)

*Setting up a PIN or changing your existing PIN is easy. Follow the steps below to learn how.*

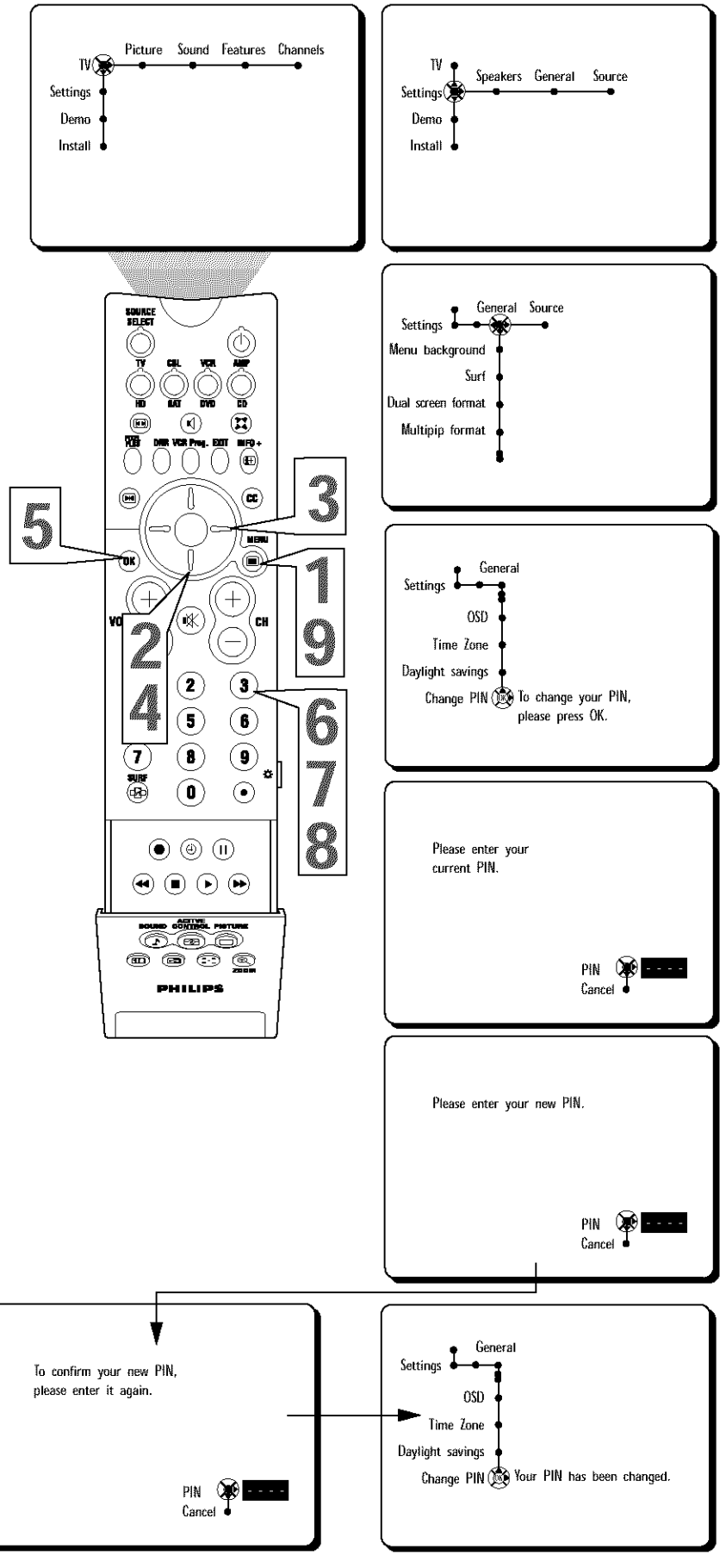
1. **Press the MENU button** on the remote control to display the onscreen menu.
2. **Press the CURSOR DOWN button** to highlight SETTINGS.
3. **Press the CURSOR RIGHT button** repeatedly to highlight the General menu.
4. **Press the CURSOR DOWN button** repeatedly to highlight the Change PIN Control.
5. **Press the OK button** to begin the process.
6. **Enter the default four digit PIN number (0, 7, 1, 1) using the NUMBERED buttons** on the remote control.
7. **Using the NUMBERED buttons** on the remote control, enter a new four digit PIN.
8. **Re-enter your new PIN using the NUMBERED buttons** to confirm the code. Your PIN is now changed.
9. **Press the MENU button** on the remote control to remove the onscreen menu from the TV screen.

## *Helpful Hint*

Remember, if you ever forget you current four digit PIN, the default four digit PIN is:

**0, 7, 1, 1**

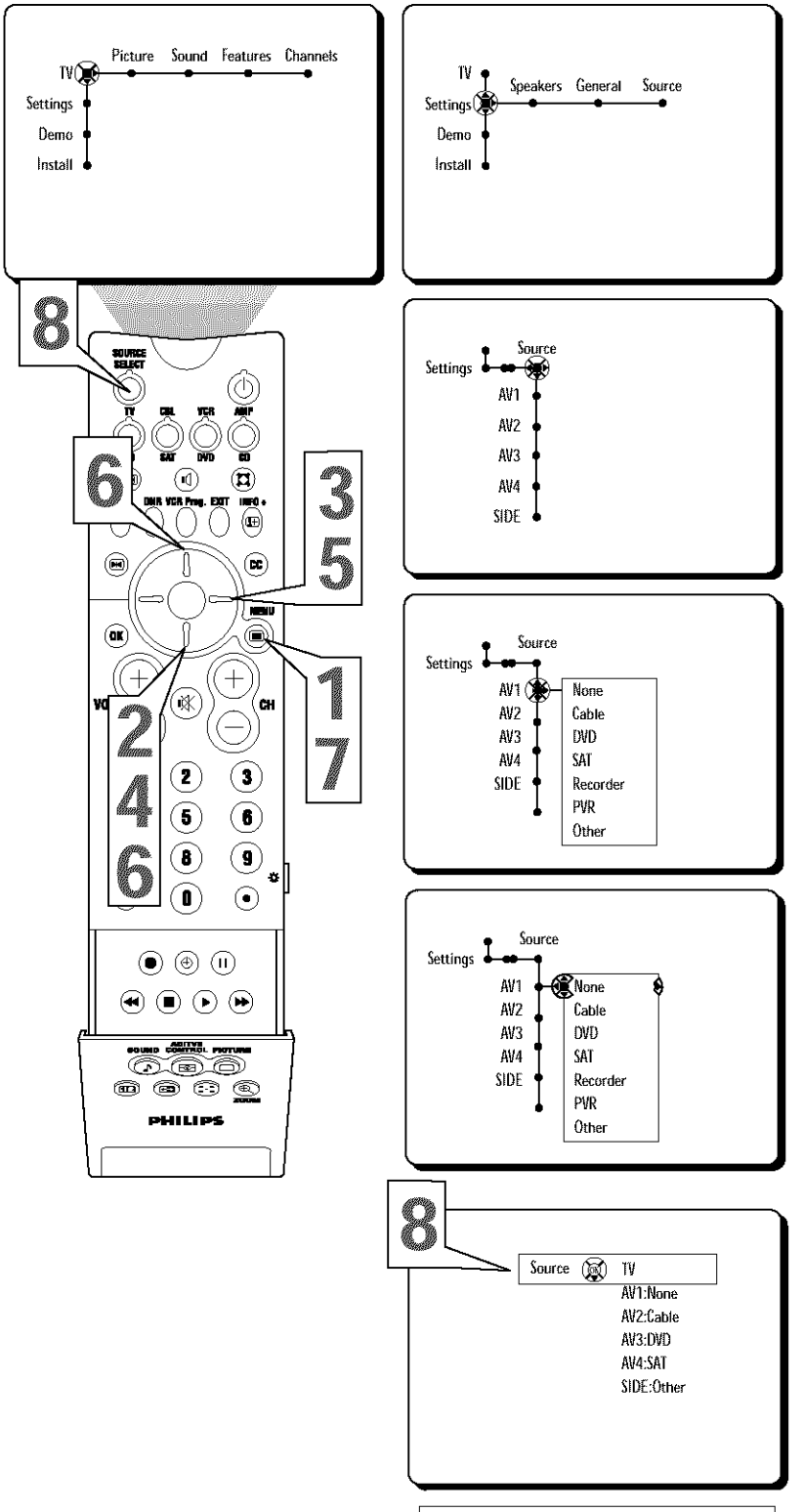
This default PIN will still work as a backup number even if you create a new PIN.



# How to Label the Audio/Video Input Jacks

*Within the Source Control, all the external Audio/Video Input Jacks can be given a channel label that will appear along side the channel indicator when the AV Input channels are tuned.*

1. **Press the MENU button** on the remote control to display the onscreen menu.
2. **Press the CURSOR DOWN button** to highlight SETTINGS.
3. **Press the CURSOR RIGHT button** repeatedly to highlight the Source menu.
4. **Press the CURSOR DOWN button** repeatedly to highlight any of the AV Inputs. (AV1, AV2, AV3, AV4, or SIDE) A sub-menu or list of names will appear next to the selected AV Input.
5. **Press the CURSOR RIGHT button** to enter the sub-menu list.
6. **Press the CURSOR UP or DOWN button** to scroll and highlight one of the labels on the list.
7. **Press the MENU button** on the remote control to remove the onscreen menu from the TV screen.
8. **Press the SOURCE SELECT button** on the remote control to display the list of AV Inputs and their labels.




This is just a sample of what the labeling might look like. Your Source Labels will depend on how you choose to label the AV Inputs.

# USING THE ACTIVE CONTROL

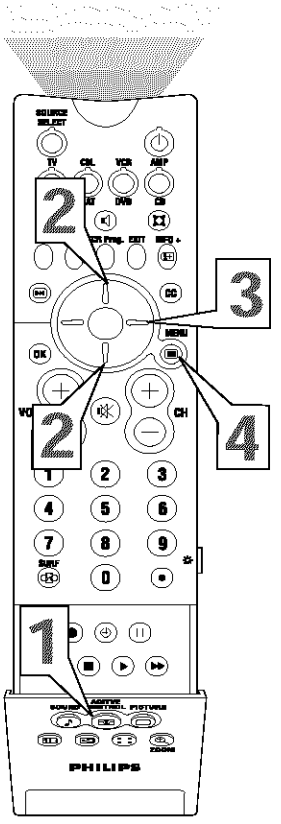
*The Active Control monitors and adjusts incoming video signals to help provide the best picture quality. When you choose to turn the Active Control ON, the control can be set to Minimum, Medium, or Maximum effect.*

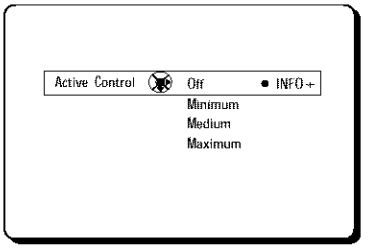
1. **Press the ACTIVE CONTROL button** on the remote control to display the Active Control menu.

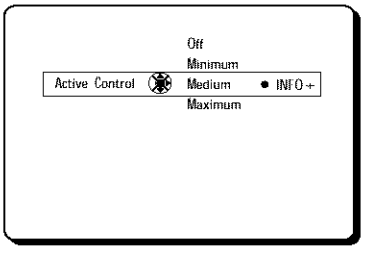
2. **Press the CURSOR UP or DOWN button** to highlight one of the options (Minimum, Medium, Maximum or Off).

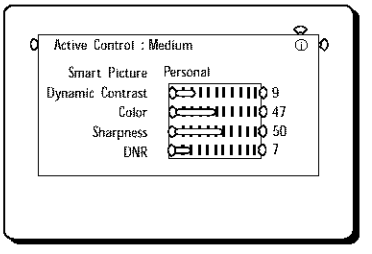
3. **Press the CURSOR RIGHT button** to display the Active Control information window. You will notice how the values constantly change while Active Control is working.

4. **Press the MENU button** to remove the onscreen menu from the TV screen.




# HOW TO USE THE ZOOM CONTROL

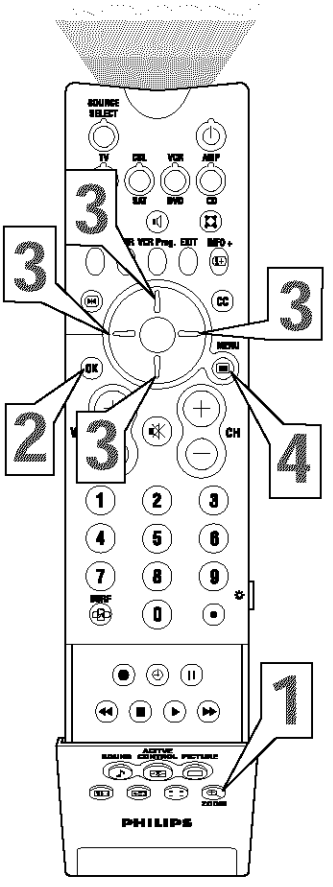
*This television offers an unique feature called Zoom. The Zoom Controls allows you to magnify the onscreen picture by 4, 9, or 16 times. The magnified picture can also be panned with the cursor buttons.*

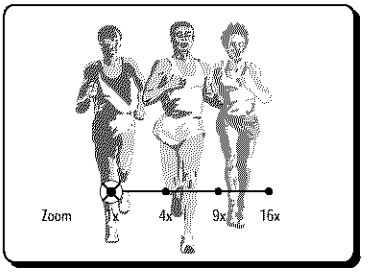
1. **Press the ZOOM button** on the remote control to display the Zoom menu.

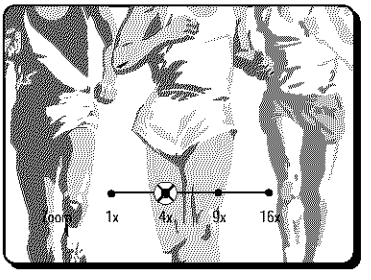
2. **Press the OK button** repeatedly to select and highlight one of the zoom options (4x, 9x, or 16x).

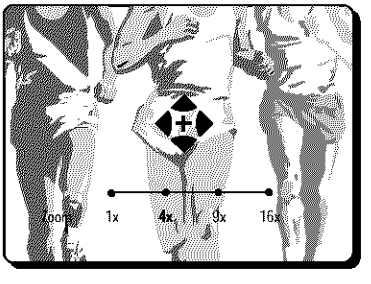
3. **Press and hold any of the CURSOR buttons** to pan the picture up, down, left or right.

4. **Press the MENU button** to remove the Zoom menu from the TV screen and return the picture to its normal size.



# SETTING THE REMOTE CONTROL TO OPERATE ACCESSORY DEVICES

*The remote control that is supplied with your television may also work with a variety of infrared controlled accessory devices such as VCRs, Cable Boxes, DVD Players, Satellite Receivers, etc.*

**1** **Press the CBL, VCR, AMP, HD, SAT, DVD, or CD button** depending on the type of accessory device you want to operate. If the function buttons (i.e.; Play, CH + or –, Stop, etc.) on the remote control work the device, the remote is ready to use and no further steps are required. If the remote does not work with the accessory device proceed to step 2.

**Using the Code Entry Method:**
(Please look up the code(s) for your brand of accessory device (listed on pages 56-57) before you begin the next few steps.)

**2** **Press the desired MODE button** that corresponds to the type of device you wish to operate. (CBL, VCR, AMP, HD, SAT, DVD, or CD) A green light will indicate the mode labeled on the top of the button, while a red light will indicate the mode labeled on the bottom of the button. If needed, hold the button down and the light will toggle between the green and red settings.

**3** **Press and hold the NUMBER 1 and 3 buttons** at the same time until the backlight and selected mode buttons light up. Then, release both buttons.

**4** **Within 30 seconds of completing step 3 and using the NUMBERED buttons,** enter the 4 digit code listed on pages 56-57 for you brand of device. There may be several codes for your brand and all may have to be tried.

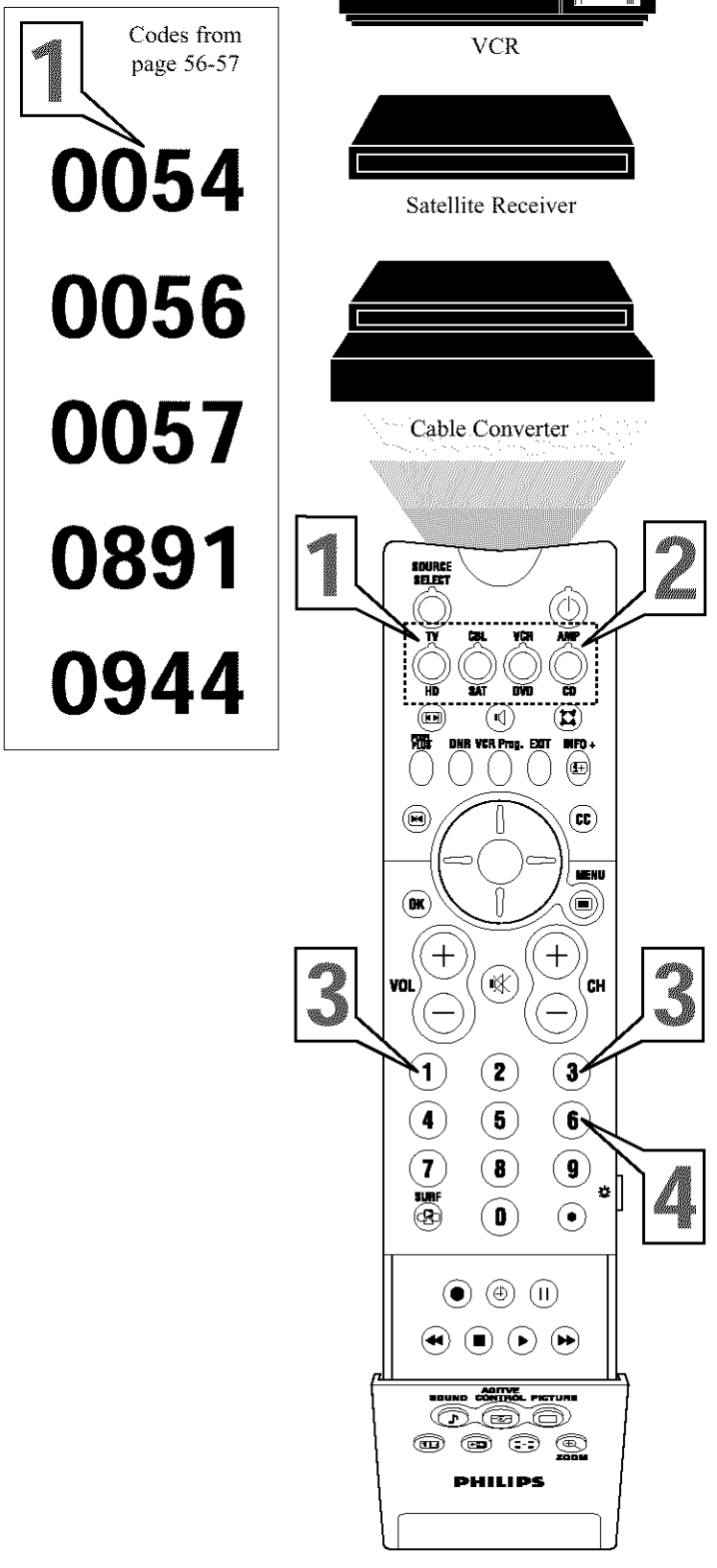
If a valid code number has been entered, the backlight and select mode buttons will turn off and then blink twice.

Try the function buttons to see if the remote will operate your accessory device.

**IF YES** - No other steps are required.

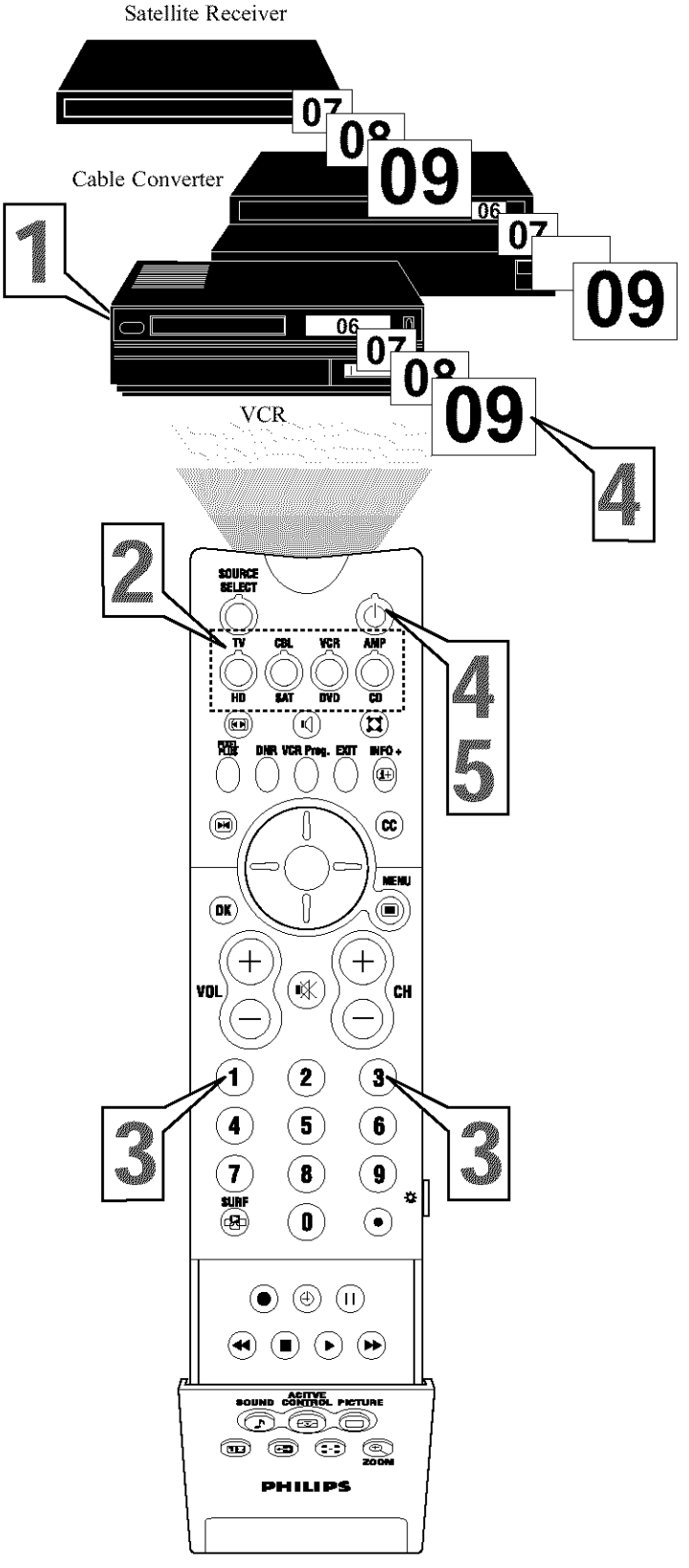
**IF NO** - Try the procedure again with another code number listed by your brand. Several attempts may be needed to complete all code numbers.

**IF NO** - After several attempts fail, please refer to the next page to try the Auto Search Method.



# SETTING THE REMOTE CONTROL TO OPERATE ACCESSORY DEVICES

*The Auto Search Method of programming the remote control can take several minutes to complete. So before starting, it is recommended that you seat yourself in a comfortable position at least six feet from the accessory device. You will have to hold the remote so that it is pointed at the front of the device for the entire time the search is taking place.*




**1** **Turn the accessory device ON using the devices power button.**

**2** **Press the desired MODE button** that corresponds to the type of device you wish to operate. (CBL, VCR, AMP, HD, SAT, DVD, or CD) A green light will indicate the mode labeled on the top of the button, while a red light will indicate the mode labeled on the bottom of the button. If needed, hold the button down and the light will toggle between the green and red settings.

**3** **Press and hold the NUMBER 1 and 3 buttons** at the same time until the backlight and selected mode buttons light up. Then, release both buttons.

**4** **Press and release the red POWER button** on the remote control. The backlight buttons will turn off.

The remote will start the Auto Search of all available codes, sending a command to channel up. The backlight will blink after each code is tried. *(For devices such as DVD or CD players, insert a disc and press PLAY on the device. The remote control will send a command to switch to the next track. Switch AV receivers to the tuner function.)*

**IMPORTANT:** Watch the channel indicator of your accessory device closely. Once the right code is found the channels on your device will start to scan up.

**5** **Press and release the red POWER button** on the remote control as soon as the channels start to change. The backlight buttons and selected mode button will blink twice to indicate the Auto Search code setup is complete.

Note: if any other buttons are pressed during the procedure, the Auto Search will end.

Remember, Auto Search can take several minutes to complete. Please be patient.

# Remote Control Direct Entry Codes for Accessory Devices

### Amplifiers Remote Code No.

Aiwa .0433
Carver .0296
Curtis Mathes .0327
Denon .0187
GE .0105
Harman/Kardon .0919
JVC .0358
Linn .0296
Magnavox .0296
Marantz .0296, 0348
Nakamichi .0348
Optimus .0422
Panasonic .0335
Philips .0296, 0919
Pioneer .0040, 0327
Realistic .0422
Sansui .0348
Sony .0716, 0247
Soundesign .0105
Technics .0335
Victor .0358
Wards .0040, 0105
Yamaha .0381

### Cable Remote Code No.

ABC .0030, 0028, 0034, 0035, 0038, 0040, 0041, 0044
Allegro .0180, 0342
Americast .0926
Antronix .0049
Archer .0049, 0180, 0824
Belcor .0083
Bell & Howell .0041
Cable Star .0083
Cabletenna .0049
Cableview .0049
Century .0180
Citizen .0180, 0342
Colour Voice .0052
Comtronics .0067
Contec .0046
Eastern .0029
Emerson .0824
Everquest .0042, 0067
Focus .0427
GC Electronics .0083
Garrard .0180
Gemini .0042
General Instrument .0303, 0503, 0038, 0837
GoldStar .0067, 0171
Goodmind .0824
Hamlin .0047, 0036, 0286, 0061
Hitachi .0038
Hytex .0034
Jasco .0042, 0180, 0342
Jerrold .0030, 0039, 0303, 0041, 0038, 0503, 0042, 0837
Memorex .0027
Movie Time .0090
NSC .0090
Oak .0046, 0034
Optimus .0048
Panasonic .0048, 0134, 0027
Paragon .0027
Philips .0052, 0180
Pioneer .0171, 0560, 0904
Popular Mechanics .0427
Pulsar .0027
Quasar .0027
RCA .0048
Radio Shack .0042, 0342, 0910, 0824
Recoton .0427
Regal .0047, 0286
Regency .0029
Rembrandt .0038
Runco .0027
SL Marx .0067
Samsung .0067, 0171
Scientific Atlanta .0035, 0044, 0504, 0904
Signal .0042, 0067
Signature .0038
Sprucer .0048
Starcom .0030, 0042
Stargate .0067, 0042, 0824
Starquest .0042
Sylvania .0028
TV86 .0090
Tandy .0285
Teleview .0067
Texscan .0028
Tocom .0039, 0040
Toshiba .0027
Tusa .0042
Unika .0180, 0049
United Artists .0034
Universal .0049, 0083, 0180, 0218
Viewstar .0285, 0090
Zenith .0027, 0552, 0926
Zentek .0427

### CD Players Remote Code No.

Aiwa .0184
Burmester .0447
California Audio Labs .0056
Carver .0184, 0206, 0464
DKK .0027
Denon .0030, 0900
Emerson .0332
Fisher .0201, 0206
Garrard .0420, 0447
Genexxa .0059, 0332
Harman/Kardon .0200, 0184
Hitachi .0059
JVC .0099
Kenwood .0055, 0217, 0853, 0064, 0653, 0708
Krell .0184
LXI .0332
Linn .0184
MCS .0056
MTC .0447
Magnavox .0184, 0332
Marantz .0184, 0056, 0207
Mission .0184
NSM .0184
Nikko .0201
Onkyo .0128, 0895
Optimus .0447, 0059, 0206, 0495, 0464, 0332, 0027, 0064,0172
Panasonic .0056, 0330
Parasound .0447
Philips .0184, 0653
Pioneer .0059, 0495, 0271, 0332
Proton .0184
QED .0184
Quasar .0056
RCA .0080, 0332, 0206, 0791
Realistic .0206, 0207, 0447
Rotel .0184, 0447
SAE .0184
Sansui .0184, 0332
Sanyo .0206
Scott .0332
Sears .0332
Sharp .0064, 0207, 0888
Sherwood .0207
Sony .0027, 0212, 0517
Soundesign .0172
Tascam .0447
Teac .0420, 0447, 0201, 0207
Technics .0330, 0056
Victor .0099
Wards .0080, 0184
Yamaha .0214, 0063
Yorx .0488

### Receivers Remote Code No.

ADC .0558
Adcom .0643
Aiwa .0148, 0432, 0185, 0216
Akai .0251, 0103
Capetronic .0558
Carver .0035, 0216, 0387, 0069
Casio .0222
Clarinette .0222
Curtis Mathes .0107
Denon .0031, 0798, 0300
Emerson .0451
Fisher .0069, 0246, 0387
Garrard .0451, 0490
Harman/Kardon .0137, 0216, 0918
Inkel .0089
JBL .0137
JVC .0101
Kenwood .0054, 0341, 0104, 0069, 0213, 0340
Koss .0451
LXI .0208
Linn .0216
Lloyd's .0222
MCS .0066, 0373
Magnavox .0216, 0418, 0558, 0155, 0222
Marantz .0216, 0155, 0066
Modulaire .0222
NAD .0347
NEC .0262
Nakamichi .0374, 0124
Onkyo .0162, 0407, 0127
Optimus .0208, 0204, 0213, 0246, 0558, 0765, 0828, 0069, 0697
Panasonic .0066, 0336, 0545
Penney .0222
Philips .0216, 0418
Pioneer .0107, 0041, 0177, 0558, 0657
Quasar .0066
RCA .0081, 0373, 0558, 0387, 0557
Realistic .0208, 0222, 0190
Sansui .0216, 0220, 0373
Sanyo .0246, 0828
Scott .0190, 0349
Sharp .0213
Sherwood .0529, 0518, 0089
Sony .0185, 0195, 0501
Soundesign .0697
Teac .0490, 0190
Technics .0336, 0066, 0235, 0545
Victor .0101
Wards .0081, 0041, 0107, 0185, 0216
Yamaha .0203, 0213
Yorx .0222
Zenith .0884

# Remote Control Direct Entry Codes for Accessory Devices

## Satellite Remote Code No.

AlphaStar .....0799
Amplica .....0099
Amway .....0102
Astro Industries .....0122
BSR .....0122
Capetronic .....0122
Channel Master .....0045, 0239
Chaparral .....0080, 0236, 0243
Curtis Mathes .....0088, 0099
DX Antenna .....0068
Drake .....0091, 0272, 0045, 0176
Echostar .....0307, 0802, 0175, 0186, 0296
Expressvu .....0802
General Instrument .....0388, 0896, 0654
HTS .....0802
Hitachi .....0846
Homecable .....0265
Hughes Network Systems .....0776
Hytek .....0122
IQ .....0237
IQ Prism .....0237
JVC .....0802
Janeil .....0179
Jerrold .....0388, 0654
Legend .....0296
Macom .....0088, 0045
Magnavox .....0749, 0751
Memorex .....0296, 0751
Next Level .....0896
Panasonic .....0179, 0728
Philips .....0227, 0749, 0751
Pico .....0102
Primestar .....0654, 0388
RCA .....0593, 0170, 0882
Radio Shack .....0896
Ramsey .....0102
Realistic .....0079
STS .....0237, 0068
Sony .....0666
Star Choice .....0896
Star Trak .....0207
Toshiba .....0109, 0817, 0088
Uniden .....0265, 0079, 0101, 0397, 0751, .....0103, 0749
Zenith .....0091, 0883, 0088

## VCR Remote Code No.

Admiral .....0075, 0236
Adventura .....0027
Aiko .....0305
Aiwa .....0334, 0027, 0064
Akai .....0133, 0068, 0088
America Action .....0305
American High .....0062
Asha .....0267
Audiovox .....0064
Beaumark .....0267
Bell & Howell .....0131
Brocksonic .....0236
Broksonic .....0148, 0211, 0029, 0236, 0506
CCE .....0099, 0305
Calix .....0064
Canon .....0062
Capehart .....0047
Carver .....0108
Cineral .....0305
Citizen .....0305, 0064
Colt .....0099
Craig .....0064, 0099, 0074, 0267, 0298
Curtis Mathes .....0062, 0068, 0087, 0189
Cybernex .....0267
Daewoo .....0305, 0588, 0047, 0072
Daytron .....0047
Denon .....0069
Dynatech .....0027
Electrohome .....0064
Electrophonic .....0064
Emerex .....0059
Emerson .....0211, 0029, 0236, 0305, .....0148, 0235, 0506, 0588, .....0088, 0239, 0027, 0064,0070
Fisher .....0074, 0131, 0081
Fuji .....0060, 0062
Funai .....0027
GE .....0062, 0087, 0075, 0229, 0267
Garrard .....0027
Go Video .....0459, 0553
GoldStar .....0064, 0065
Gradiente .....0035, 0027
HI-Q .....0074
Harley Davidson .....0027
Harman/Kardon .....0065, 0108
Harwood .....0099
Headquarter .....0073
Hitachi .....0069, 0132, 0027, 0068
Hughes Network Systems .....0069
JVC .....0094, 0035, 0068
Jensen .....0068
KEC .....0064, 0305
KLH .....0099
Kenwood .....0068, 0094, 0065
Kodak .....0062, 0064
LXI .....0064
Lloyd's .....0027, 0235
Logik .....0099
MEI .....0062
MGA .....0070, 0088, 0267
MGN Technology .....0267
MTC .....0027, 0267
Magnasonic .....0305
Magnavox .....0062, 0108, 0027, 0066, 0176
Magnin .....0267
Marantz .....0108, 0062
Marta .....0064
Matsushita .....0062, 0189, 0481
Memorex .....0131, 0074, 0027, 0064, 0075, .....0062, 0073, 0267, 1064, 0334, .....0066, 0236, 1189, 1289
Minolta .....0132, 0069
Mitsubishi .....0070, 0088, 0075, 0094
Motorola .....0062, 0075
Multitech .....0027, 0099
NEC .....0065, 0068, 0094, 0131
Nikko .....0064
Nikon .....0061
Noblex .....0267
Olympus .....0062
Optimus .....1089, 1189, 0075, 1289, 0064, .....1075, 0131, 0189, 0459, 0481
Optonica .....0089
Orion .....0506, 0029, 0211, 0236
Panasonic .....0062, 1189, 0189, 0252, .....0481, 0643
Penney .0062, 0267, 0064, 0069, 0065, 0081
Pentax .....0069, 0132
Philco .....0062, 0236, 0506
Philips .0108, 0062, 0089, 0645, 1108, 1208
Pilot .....0064
Pioneer .....0094
Portland .....0047
Profitronic .....0267
Proscan .....0087, 0229
Protec .....0099
Pulsar .....0066
Quarter .....0073
Quartz .....0073
Quasar .....0062, 0189, 0481, 1189
RCA .....0087, 0176, 0229, 0069, 0132, .....0062, 0075, 0133, 0267
Radio Shack .....0027, 1064
Radix .....0064
Randex .....0064
Realistic .....0027, 0131, 0074, 0075, 0064, .....0062, 0089, 0073
ReplayTV .....0641, 0643
Ricoh .....0061
Runco .....0066
STS .....0069
Samsung .....0072, 0267
Sanky .....0066, 0075
Sansui .0068, 0506, 0027, 0094, 0236, 0298
Sanyo .....0074, 0073, 0131, 0267
Scott .....0211, 0148, 0070, 0072, 0239
Sears .....0081, 0132, 0064, 0069, 0027, .....0062, 0073, 0074, 0131
Semp .....0072
Sharp .....0075, 0089
Shintom .....0099
Shogun .....0267
Singer .....0099
Sony .....0060, 0061, 0059, 0027, 0062
Sylvania .....0062, 0108, 0027, 0070
Symphonic .....0027
TMK .....0235, 0267
Tatung .....0068
Teac .....0027, 0068
Technics .....0062, 0189
Teknika .....0027, 0062, 0064
Thomas .....0027
Tivo .....0645
Toshiba .....0072, 0239, 0070
Totevision .....0064, 0267
Unitech .....0267
Vector .....0072
Vector Research .....0065
Video Concepts .....0072, 0088
Videosonic .....0267
Wards .0062, 0087, 0089, 0027, 0074, 0239, .....0267, 0069, 0075, 0099, 0108, 0176
White Westinghouse .....0305, 0236
XR-1000 .....0099, 0027, 0062
Yamaha .....0065
Zenith .0066, 0027, 0060, 0061, 0236, 0506

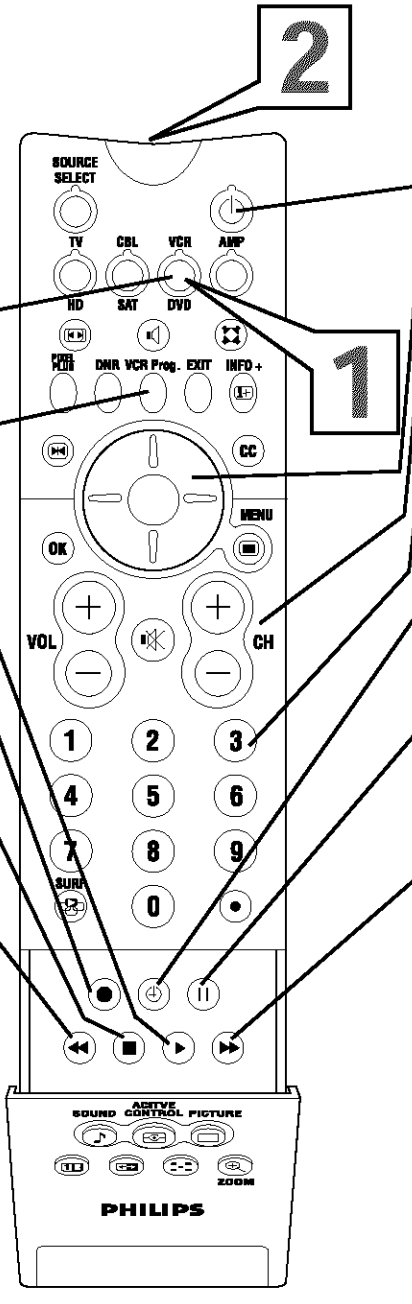
## Digital Video Disc Remote Code No.

Harman/Kardon .....0609
JVC .....0650, 0585
Kenwood .....0561
Magnavox .....0530
Mitsubishi .....0548
Onkyo .....0654, 0530
Panasonic .....0517, 0659
Philips .....0530, 0566
Pioneer .....0598, 0552, 0659
Proscan .....0549
RCA .....0549
Samsung .....0600
Sharp .....0657
Sony .....0560
Technics .....0517
Theta Digita .....0598
Toshiba .....0530
Yamaha .....0517, 0572
Zenith .....0618, 0530

# SPECIFIC REMOTE CONTROL VCR BUTTONS

*When using the TV remote control with a VCR, first make certain it is set to control your VCR (by the CODE ENTRY or SEARCH method).*

1. **Press the VCR mode button**. Be sure the button lights green.
2. **Point the top of the remote** toward the front of the VCR (remote sensor window) when pressing the buttons.




**VCR Mode Button**
Press button to place the remote in a mode to control a VCR.

**VCR Prog. Button**
Many VCRs have an automatic programming function. If your VCR has this feature, when the remote is programmed, the code for this function will be assigned to this button.

**Play Button ▶**
Press to begin playback of a videotape.

**• (Record) Button**
Hold the • (Record) and PLAY ▶ buttons down to begin a VCR recording.

**Stop Button ■**
Press to stop the motion of a tape in playback, rewind, fast forward, and so on.

**Rewind Button ◀◀**
Press to rewind tapes. For some VCR's, the STOP button may have to be pressed first, then REWIND. In playback mode, hold down the button to view the picture moving rapidly in reverse.

**Power Button**
Press to turn the VCR ON and OFF.

**Cursor Up/Down/Left/Right**
Press to navigate the VCR onscreen customer controls.

**Channel + and – Buttons**
Press to scan up or down through the VCR channel numbers.

**Number Buttons**
Press buttons for the direct selection of VCR channels.

**VCR Timer Button**
Press button to set up a timer recording within the VCR onscreen menu.

**Pause Button II**
Press to temporarily stop the tape during a playback or recording. Press again to release Pause.

**Fast Forward Button ▶▶**
Press to rapidly advance the tape. For some VCRs, you may need to press the STOP button first, then the FAST FORWARD button. In playback mode, hold the button down to view the picture moving rapidly in the forward direction.

## *HELPFUL HINT*

Remember, the VCR buttons on the remote will not operate your VCR if those features are not found on your VCR remote control.

**NOTE:** All VCR functions (particularly Search, Rewind, Fast Forward, etc.) will operate the same as with the original VCR remote control provided with the VCR.

# TROUBLESHOOTING

### No Power
- Check the TV power cord. Unplug the TV, wait 10 seconds, then reinsert the plug into the outlet and push the POWER button again.
- Check that the outlet is not on a wall switch.
- Be sure the fuse is not blown on the AC power strip, if one is being used.

### No Picture
- Check antenna connections. Are they properly secured to the TV's ANT 75Ω plug?
- Check the TUNER MODE control for the correct tuner setting.
- Try running the Auto Program feature to find all available channels.
- Press the Source Select button on the remote to make sure the correct signal source is selected (FRONT or Current Channel).

### No Sound
- Check the VOLUME buttons.
- Check the MUTE button on the remote control.
- If you're attempting to hook up auxiliary equipment, check the audio jack connections located on the front of the TV.

### Remote Does Not Work
- Make sure the correct Mode button is being used.
- Check the batteries. If necessary, replace them with AA Heavy Duty (Zinc Chloride) or Alkaline batteries.

### Remote Does Not Work (Continued)
- Clean the remote control and the remote control sensor window on the TV.
- Check the TV power cord. Unplug the TV, wait 10 seconds, then reinsert the plug into the outlet and push the POWER button again.
- Be sure the fuse is not blown on the AC power strip, if one is being used.
- Check to be sure the TV outlet is not on a wall switch.

### TV Displays Wrong Channel or No Channels Above 13
- Repeat channel selection.
- Add the desired channel numbers (using the CHANNEL EDIT control) into the TV's memory.
- Check to be sure the TUNER MODES are set to the CABLE option and run the Auto Program feature to find all available channels.

### TV Displays white lines in letterbox when viewing a DVD disc
- Some DVD Discs are encoded with as much as 30% more video information to give the best possible picture quality. With the DVD Player in the 16:9 picture format, the playback of this type of disc with extra video information, can produce a number of small white lines in the upper portion of the black letterbox area. With some of these discs, this situation is unavoidable and it does not require a service call.

# CARE AND CLEANING

### WARNING Concerning Stationary Images on the TV Screen:

**Do not leave stationary or letterbox images on screen for extended periods of time. This can cause uneven picture-tube aging.**

Normal use of the TV should involve the showing of pictures that contain constantly moving and changing images that fill the screen. Be careful not to leave nonmoving images on screen for extended periods of time, or to display the same images on screen too frequently, because subtle ghost images can be left on the picture tubes. Sources of stationary images may be DVD disks, laser disks, video games, CD-i disks, videotapes, digital television boxes, broadcast channels, cable channels, satellite channels, and others. **Here are some examples of stationary images (this is not an all-inclusive list; you may encounter others in your viewing):**

- **DVD menus**—listings of DVD disk content
- **Letterbox black bars**—shown at the top and bottom of the TV screen when a wide screen (16:9) movie is viewed on a TV with standard (4:3) aspect ratio.
- **Video-game images and scoreboards**
- **Television station logos**—present a problem if they are bright and stationary; moving or low-contrast graphics are less likely to cause uneven aging of the picture tube
- **Stock-market tickers**—presented at the bottom of the TV screen
- **Shopping channel logos and pricing displays**—bright and shown constantly or repeatedly in the same location on the TV screen.

### PLACEMENT OF THE TV
- To avoid cabinet warping, cabinet color changes, and increased chance of set failure, do not place the TV where temperatures can become excessively hot; for example, in direct sunlight or near a heating appliance.
- Be sure to allow a free flow of air to and from the perforated back cover of the set.

### CLEANING
- To avoid possible shock hazard, be sure the TV is unplugged from the electrical outlet before cleaning.
- Regularly dust the TV with a dry, nonscratching duster to keep the TV clean.
- When cleaning the TV, take care not to scratch or damage the screen surface. Avoid wearing jewelry or using anything abrasive. Do not use household cleaners. Wipe the front screen with a clean cloth dampened with water. Use even, easy, vertical strokes when cleaning.
- Gently wipe the cabinet surfaces with a clean cloth or sponge dampened in a solution of cool, clear water and a mild soap or detergent. Use a clean, dry cloth to dry the wiped surfaces.
- Occasionally vacuum the ventilation holes or slots in the back cover of the set.
- Never use thinners, insecticide sprays, or other chemicals on or near the cabinet, as they might cause permanent marring of the cabinet finish.

# Glossary of Television Terms

**Active Control** • Active Control continuously measures and corrects the incoming signals to provide the best picture possible.

**Alternate Channel** • Allows you to toggle between the last two channels viewed by pressing the A/CH button on the remote control.

**Aspect Ratio** • The proportions of a rectangular display screen. NTSC television has a 4:3 ratio; HDTV has a 16:9 ratio.

**Audio/Video Inputs** • Jacks (standard RCA), located on the back of the TV, used for external accessory devices. These jacks are designed to receive higher picture resolution and offer sound-connection options.

**Auto Picture and Auto Sound** • Buttons on the remote control (Sound and Picture) to select predefined picture and sound settings.

**Auto Programming** • When activated, this feature scans for all available channels from regular antenna or cable signals and stores only active broadcast stations in the TV's memory.

**Channel Edit** • The feature that allows you to add or delete channels from the list of channels stored in the TV's memory.

**Closed Captioning** • The broadcast standard feature that allows you to read the voice content of television programs on the TV screen. Designed to help the hearing impaired, Closed Captioning shows dialogue and conversations while a TV program is in progress.

**Coaxial Cable** • A single solid wire normally matched with a metal plug (F-type) end connector that screws (or pushes) directly onto a 75-ohm input found on the television or VCR.

**Component Video Inputs** • Inputs that allow the separate reception of blue, red, and luminance signals. These inputs provide the highest possible color and picture resolution in the playback of digital signal-source material, such as the kind available from DVD players.

**Composite Video Input** • An input in which all the components required for displaying the onscreen image are combined in one signal.

**High-definition Television (HDTV)** • High-resolution digital television.

**Incredible Stereo (or Surround)** • False acoustic management of the audio signal that produces a dramatic expansion of the wall of sound that surrounds the listener and heightens overall viewing pleasure.

**Menu** • An onscreen list of feature controls available for you to adjust or set.

**NTSC (analog video signals)** • National Television Standards Committee format devised to TV broadcasting signals in the 1940s (525 lines: 60Hz).

**Onscreen Displays (OSD)** • The wording or messages generated by the television (or VCR) to help you with specific feature controls (color adjustment or programming, for example).

**Pixel Plus** improves picture quality and definition by increasing the number of picture lines and the number of pixels per line to give normal broadcast signals, DVD reproduction or Digital TV signals, unparalleled sharpness and depth. Gives near High Definition and natural looking detail without the High Definition signal.

**Picture Freeze** • TV mode which allows you to freeze a certain image in order to study a specific detail at ease, e.g. to make notes of certain program information like phone numbers.

**Progressive Scan** • Double the number of visible picture lines per field. A jitter-free and quiet picture with astonishing sharpness.

**Remote Control Sensor Window** • The window or opening found on the television control panel through which infrared remote control command signals are received.

**Second Audio Program (SAP)** • An additional audio channel provided for in the Multichannel Television Sound (MTS) broadcast standard. A monaural soundtrack included within the recorded or video signal (usually containing a second language translation for the displayed programming).

**Status/Exit Button** • The remote control function that allows you to quickly confirm what channel number you are watching. Status/Exit can also be used to clear the television of onscreen displays or information. You can use Status/Exit rather than having to wait for the displays to "time out," or automatically disappear from the screen.

**Surround Pro Logic** • Literally wraps you in 4-channel sound. It brings your favorite movies to life with all the realism and impact of cinema sound as though you are part of the action or viewing your programming from the theatre.

**S-Video Input** • Signal input that allows direct connection of high-resolution video sources, such as a satellite receiver, DVD player, S (Super)-VHS videocassette recorder, or video games. Provides improved picture resolution, sharpness, and clarity.

**Tint** • TV function that allows you to change the general color balance between cool and warm. Adjust tint according to your personal preference.

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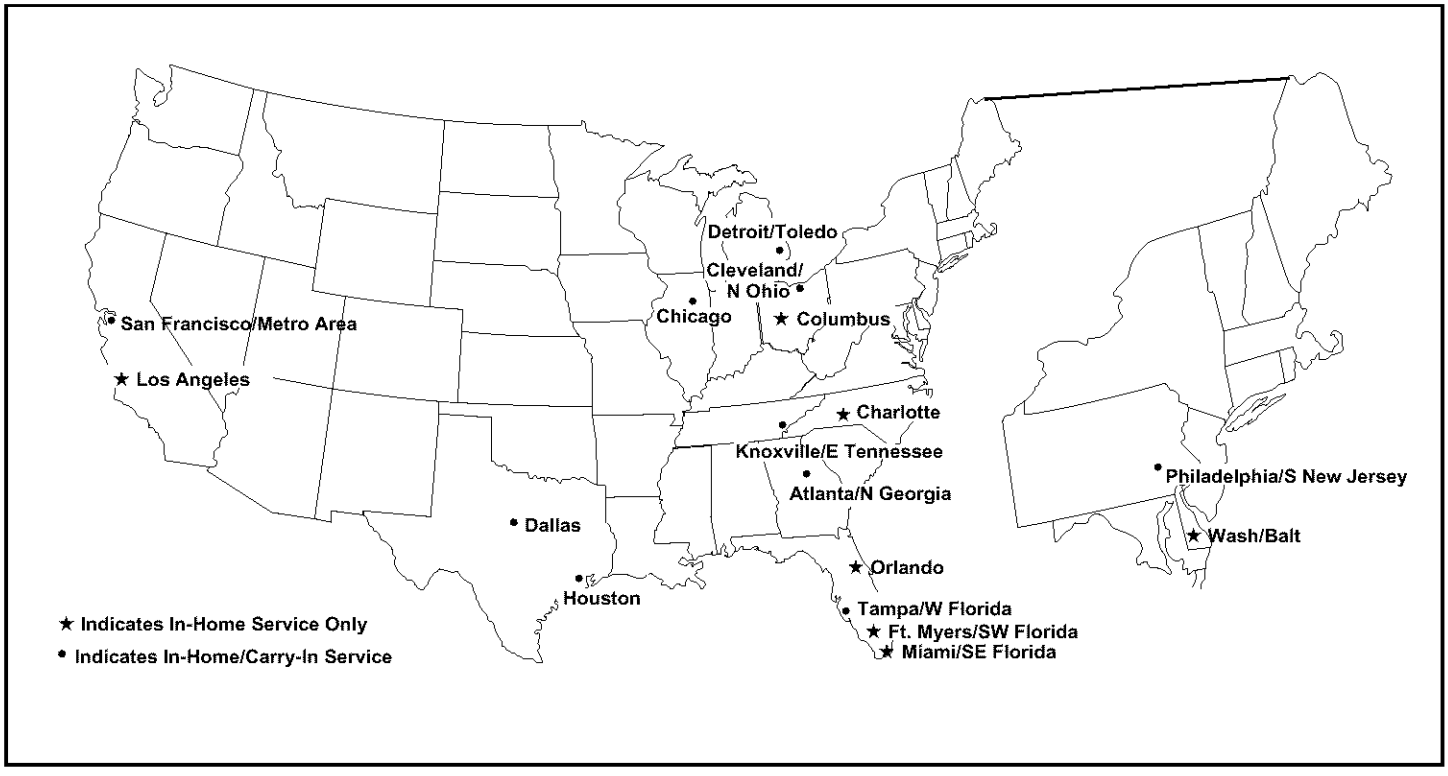
# FACTORY SERVICE LOCATIONS




**NOTE:** If you reside in one of our Philips Factory Service Branch areas (see directory on back), you can contact the nearest Service Branch to obtain efficient and expedient repair for your product. If your product is In-Warranty, you should have proof-of-purchase to ensure No Charge Service. For Out-of-Warranty service, call the location nearest you.

**NOTA:** Si vous résidez dans une des régions desservies par une succursale de service après vente du fabricant Philips (voir liste ci-dessous), vous pourrez contacter la branche de service après vente la plus près de chez vous pour obtenir un service après vente rapide et efficace. Si le produit est sous garantie, il suffira de présenter une preuve d'achat pour bénéficier d'un service sans frais. Pour les produits non couverts par la garantie, contactez le centre le plus près de chez vous.

**NOTA:** Si Ud. reside en una de nuestras zonas para sucursales Philips de servicio al de fábrica (ver directorio más abajo), Ud. puede comunicarse con la sucursal de servicio más cercana para obtener una reparación oportuna y eficaz de su producto. Si su producto está todavía bajo garantía, Ud. debe presentar comprobante de compra para no ocasionar ningunos cargos por servicio. Para servicio después del vencimiento de la garantía, llame al lugar más cercano de los abajo indicados.

**In Canada**

How you can obtain efficient and expedient carry-in, mail-in, or in-home service for your product
Please contact Philips at 1-800-661-6162 (French speaking)
1-800-363-7278 (English or Spanish speaking)

**Au Canada**

Comment obtenir le service après-vente pour les produits apportés ou envoyés par la poste à notre centre de service ou le service à domicile
Veuillez contacter philips á: 1-800-661-6162 (Francophone)
1-800-363-7278 (Anglais ou Espagnol)

**En el Canadá**

Cómo recibir servicio efficiente para su producto, en persona, por correo o a domicillo
Favor de comunicarse con Philips al: 1-800-661-6162 (francófono)
1-800-363-7278 (Inglés o Español))

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EL4482-3 Rev. DD
3135 015 07541

# FACTORY SERVICE LOCATIONS

**QUALITY SERVICE IS AS CLOSE AS YOUR TELEPHONE! SIMPLY LOOK OVER THE LIST BELOW FOR THE NUMBER OF A FACTORY SERVICE CENTER NEAR YOU. YOUR PRODUCT WILL RECEIVE EFFICIENT AND EXPEDIENT CARRY-IN, MAIL-IN, OR IN-HOME SERVICE, AND YOU WILL RECEIVE PEACE OF MIND, KNOWING YOUR PRODUCT IS BEING GIVEN THE EXPERT ATTENTION OF PHILIPS' FACTORY SERVICE.**

COMMENT OBTENIR NOTRE SERVICE APRÈS VENTE RAPIDE ET EFFICACE SOIT PAR COURRIER, À DOMICILE, OU EN SE PRÉSENTANT À UN CENTRE DE SERVICE PHILIPS. PLUS DE 600 CENTRES DE RÉCEPTION DE PRODUITS À RÉPARER À TRAVERS LE PAYS: CONTACTER LE CENTRE DE SERVICE AUX CONSOMMATEURS LE PLUS PROCHE POUR SAVOIR L'EMPLACEMENT DE CES DÉPÔTS DANS UN RAYON DE 50 À 75 MILES (80 KM À 120 KM) DU CENTRE DE SERVICE LOCAL.

CÓMO OBTENER UN SERVICIO OPORTUNO Y EFICIENTE POR CORREO, EN CASA O EN PERSONA PARA SU PRODUCTO A TRAVÉS DE UN CENTRO PHILIPS DE SERVICIO. MAS DE 600 SITIOS POR TODO EL PAIS PARA LA RECEPCION DE PRODUCTOS NECESITADOS DE REPARACIONES: COMUNICARSE CON EL CENTRO DE SERVICIO DE FABRICA MAS CERCANO PARA ESTOS LUGARES DENTRO DE UN RADIO DE 80 A 120 KM (50 A 75 MILLAS) DEL CENTRO DE SERVICIO LOCAL.

**ATLANTA**
Philips Factory Service
550 Franklin Road., Suite F
Marietta, GA 30067
800-273-1501

**TAMPA**
Philips Factory Service
1911 US Highway 301 North
Tampa, FL 33619
800-442-2027

**SAN FRANCISCO**
Philips Factory Service
681 East Brokaw Rd.
San Jose, CA 95112
800-300-9013

**HOUSTON**
Philips Factory Service
1110 N. Post Oak Rd., Suite 100
Houston, TX 77055
800-952-3254

**CLEVELAND**
Philips Factory Service
950 Keynote Circle
Brooklyn Heights, OH 44131
800-331-7037

**DETROIT**
Philips Factory Service
25173 Dequindre
Madison Heights, MI 48071
800-438-1398

**DALLAS**
Philips Factory Service
415 N. Main Street, #107
Euless, TX 76040
800-952-3254

**CHICAGO**
Philips Factory Service
1279 W. Hamilton Pkwy.
Itasca, IL 60143
800-531-2922

**KNOXVILLE**
Philips Factory Service
6700 D Papermill Rd.
Knoxville, TN 37919
800-821-1767

**PHILADELPHIA**
Philips Factory Service
352 Dunks Ferry Rd.
Bensalem, PA 19020
800-847-9320

MAC2929 1/1/2002

# LIMITED WARRANTY

## COLOR TELEVISION

90 Days Free Labor

One Year Free Replacement of Parts (Two Years Free Replacement on Color Picture Tube)

This product can be repaired in-home.

### WHO IS COVERED?

You must have proof of purchase to receive warranty service. A sales receipt or other document showing that you purchased the product is considered proof of purchase.

### WHAT IS COVERED?

Warranty coverage begins the day you buy your product. *For 90 days thereafter,* all parts will be repaired or replaced free, and labor is free. From 90 days to one year from the day of purchase, all parts will be repaired or replaced free, but you pay for all labor charges. From one to two years from the day of purchase, you pay for the replacement or repair of all parts except the picture tube, and for all labor charges. After two years from the day of purchase, you pay for the replacement or repair of all parts, and for all labor charges.

All parts, including repaired and replaced parts, are covered only for the original warranty period. When the warranty on the product expires, the warranty on all replaced and repaired parts also expires.

### WHAT IS EXCLUDED?

Your warranty does not cover:

- labor charges for installation or setup of the product, adjustment of customer controls on the product, and installation or repair of antenna systems outside of the product.
- product repair and/or part replacement because of misuse, accident, unauthorized repair or other cause not within the control of Philips Consumer Electronics Company.
- reception problems caused by signal conditions or cable or antenna systems outside the unit.
- a product that requires modification or adaptation to enable it to operate in any country other than the country for which it was designed, manufactured, approved and/or authorized, or repair of products damaged by these modifications.
- incidental or consequential damages resulting from the product. (Some states do not allow the exclusion of incidental or consequential damages, so the above exclusion may not apply to you. This includes, but is not limited to, prerecorded material, whether copyrighted or not copyrighted.)
- a product used for commercial or institutional purposes.

### WHERE IS SERVICE AVAILABLE?

Warranty service is available in all countries where the product is officially distributed by Philips Consumer Electronics Company. In countries where Philips Consumer Electronics Company does not distribute the product, the local Philips service organization will attempt to provide service (although there may be a delay if the appropriate spare parts and technical manual(s) are not readily available).

### MAKE SURE YOU KEEP...

Please keep your sales receipt or other document showing proof of purchase. Attach it to this owner's manual and keep both nearby. Also keep the original box and packing material in case you need to return your product.

### BEFORE REQUESTING SERVICE...

Please check your owner's manual before requesting service. Adjustments of the controls discussed there may save you a service call.

### TO GET WARRANTY SERVICE IN U.S.A., PUERTO RICO OR U.S. VIRGIN ISLANDS...

Contact a Philips factory service center (see enclosed list) or authorized service center to arrange repair.

(In U.S.A., Puerto Rico and U.S. Virgin Islands, all implied warranties, including implied warranties of merchantability and fitness for a particular purpose, are limited in duration to the duration of this express warranty. But, because some states do not allow limitations on how long an implied warranty may last, this limitation may not apply to you.)

### FOR WARRANTY COVERAGE IN CANADA...

Note: Product Warranty coverage may vary between countries where product is distributed by Philips Consumer Electronics Company. In order to receive full and specific warranty details for products sold and serviced in Canada, please contact Philips at:

**1-800-661-6162** (from Canada - French Speaking)

**1-800-531-0039** (English and Spanish Speaking)

### REMEMBER...

Please record the model and serial numbers found on the product below. Also, please fill out and mail your warranty registration card promptly. It will be easier for us to notify you if necessary.

MODEL # _____

SERIAL # _____

*This warranty gives you specific legal rights. You may have other rights which vary from state/province to state/province.*

**Philips Consumer Electronics Company, P.O. Box 520890, Miami, FL 33152, (402) 536-4171**

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