

*Projection
Television*

***Your Television's
Directions for Use***

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Let's make things better.

PHILIPS **MAGNAVOX**

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
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 ground-ing-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 manu-facturer.
12.  Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the appa-ratus. 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 con-siderations. 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 recommend-ed 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 enclo-sure 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

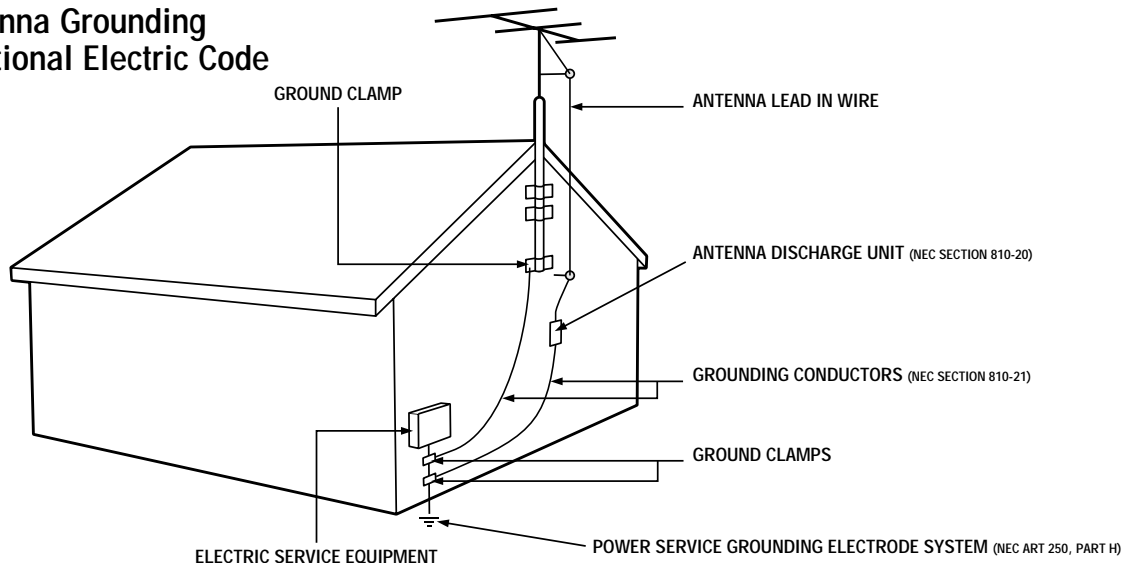


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NOTE: This owner's manual is used with several different television models. Not all features (and illustrations) discussed herein will necessarily match your television set. This is normal and does not require that you contact your dealer or request service.

Because of continuous product improvements, the information mentioned in the documents accompanying your product are subject to change without notice.

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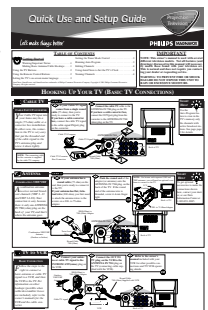
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QUICK USE AND SETUP GUIDE

Refer to the simple *Quick Use and Setup Guide* (supplied with your TV) for details on the following:

- Basic TV Connections
- Television and Remote Operation
- On-screen Menu Controls
- How to Use the Installation Features
- Connection Options for Accessory Devices



AutoLock, ImageMax, Incredible Surround, SmartPicture, and SmartSound are trademarks of Philips Consumer Electronics Company. Copyright © 2001 Philips Consumer Electronics Company. All rights reserved.

FEATURES

Audio/Video Jack Panel allows direct connections with VCRs, DVDs, or other accessory 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.

AutoChron automatically sets the right time of day and maintains it with digital precision through brownouts, power failures, and even Daylight Savings Time adjustments.

AutoLock 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 Program scans for all available channels from regular antenna or cable signals and stores only active broadcast stations in the TV's memory.

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

Closed Captioning allows the viewer to read TV program dialogue or voice conversations as on-screen text.

Dynamic Noise Reduction (DNR) can help eliminate broadcast signal noise ("speckles" in the picture).

ImageMax helps you sharpen the picture quality by making dark portions of the picture darker and lighter portions brighter.

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

On-screen Menu shows helpful messages and instructions for adjusting or 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 of your choice.

SmartPicture allows you to push a button and adapt your television's picture to various types of programming, such as sports, movies, and multimedia (games), as well as to the occurrence of a weak broadcast signal.

SmartSound allows you to select from three factory-set controls and a personal control that you set according to your own preferences through the on-screen Sound menu. The three factory-set controls (Voice, Music, and Theatre) enable you to tailor the TV sound to enhance the particular programming you are watching.

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 on-screen menu).

Timer allows you to set your TV to turn itself on and off once or daily like an alarm clock.

Digital-Ready Projection TV

This Projection Television is capable of connecting to both the current analog television signals of today as well as interfacing with new, upcoming digital source playback products and devices. This TV includes multiple signal connectors (Component Video, S-Video, and Composite Video), which give you a variety of equipment playback options for digital set-top boxes, satellite receivers, cable boxes, and other digital devices.

While there may exist some digital devices with connections not available on this television, you should be adequately prepared for the vast majority of products coming onto the digital consumer electronics' market. **NOTE:** You should always use the connection output on digital devices that gives the highest level of picture quality possible. As listed above, the Component Video (or Y Pb Pr) input delivers the best color and picture reproduction, followed by S-Video, and then Composite Video. In addition to these inputs, your television also includes the standard 75-ohm cable signal connector for use with antennas or analog cable boxes.

Items Included with This TV

As you unpack your TV, please note that this *Directions for Use* manual contains the following:

- Safety Tip Information
- Factory Service Center Locations.

Also included with your set are the following:

- Warranty Registration Card
- Remote Control Transmitter
- Batteries for Remote Control Use.

Please take a few minutes to complete your registration card. The serial number for the TV is on the back of the set.

Refer to the back of this manual for instructions in the cleaning and care of the TV.

End-of-Life Disposal

Your new projection television and its packaging 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. The batteries used by your product should not be thrown away when depleted but should be handed in and disposed of as small chemical waste. Please find out about the local regulations concerning how to dispose of your old television, batteries, and packaging materials whenever it is time to replace them.



ADJUSTING THE PICTURE

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


(BEGIN)

- 1 Press the **MENU** button on the remote control to show the on-screen menu. PICTURE will be highlighted.
- 2 Press the **CURSOR RIGHT** button. BRIGHTNESS will be highlighted and an adjustment bar will be shown to the right.
- 3 Press the **CURSOR RIGHT** or **LEFT** button to adjust the BRIGHTNESS level of the picture. Or press the **CURSOR DOWN** button to select another picture control to adjust.
- 4 Press the **i+** button to remove the menu from the screen.

STOP

SMART HELP



When the bar scale  is centered, the control settings are at normal, mid-range levels. Picture adjustment controls are described here.

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.

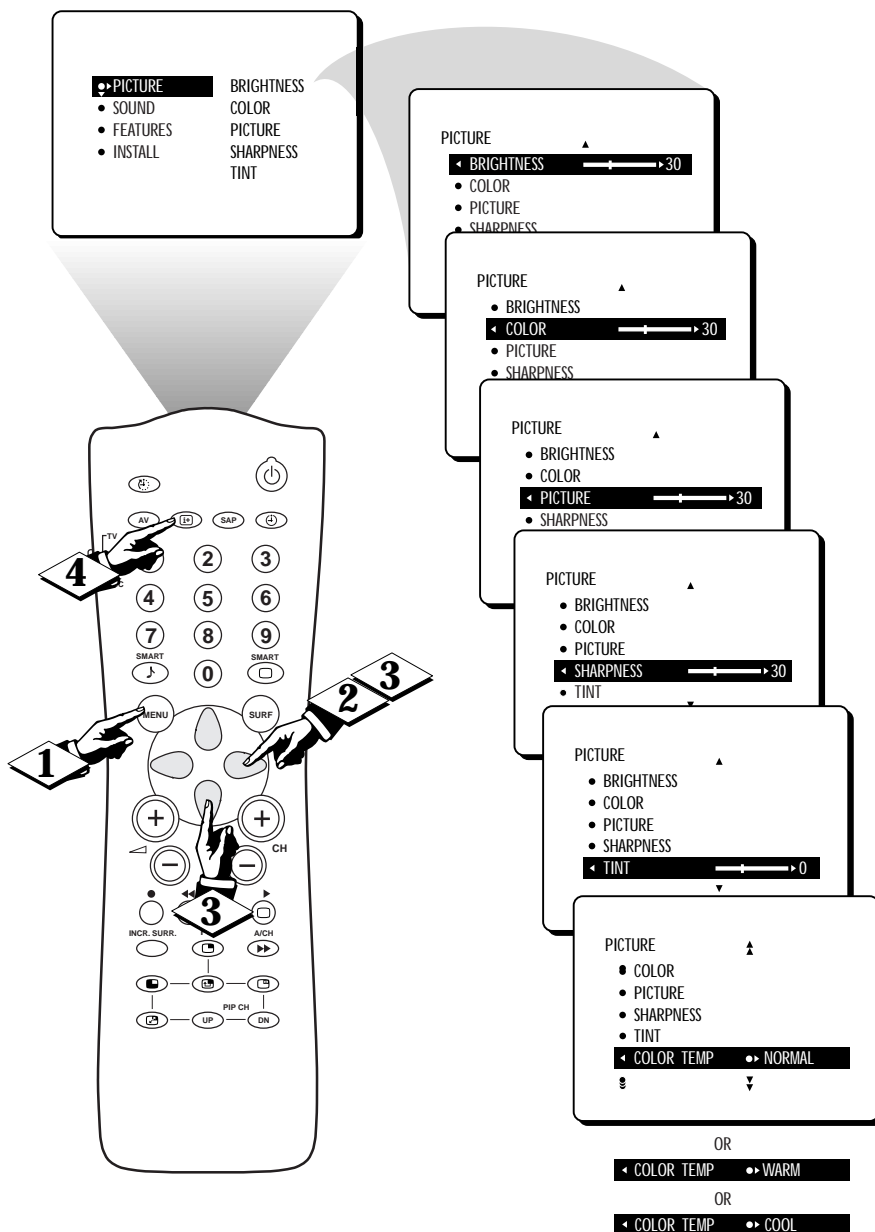
TINT—adjusts the picture to obtain natural skin tones.

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

NORMAL—keeps whites, white.

COOL—makes whites, bluish.

WARM—makes whites, reddish.



TURNING ON THE DYNAMIC NOISE REDUCTION (DNR) CONTROL

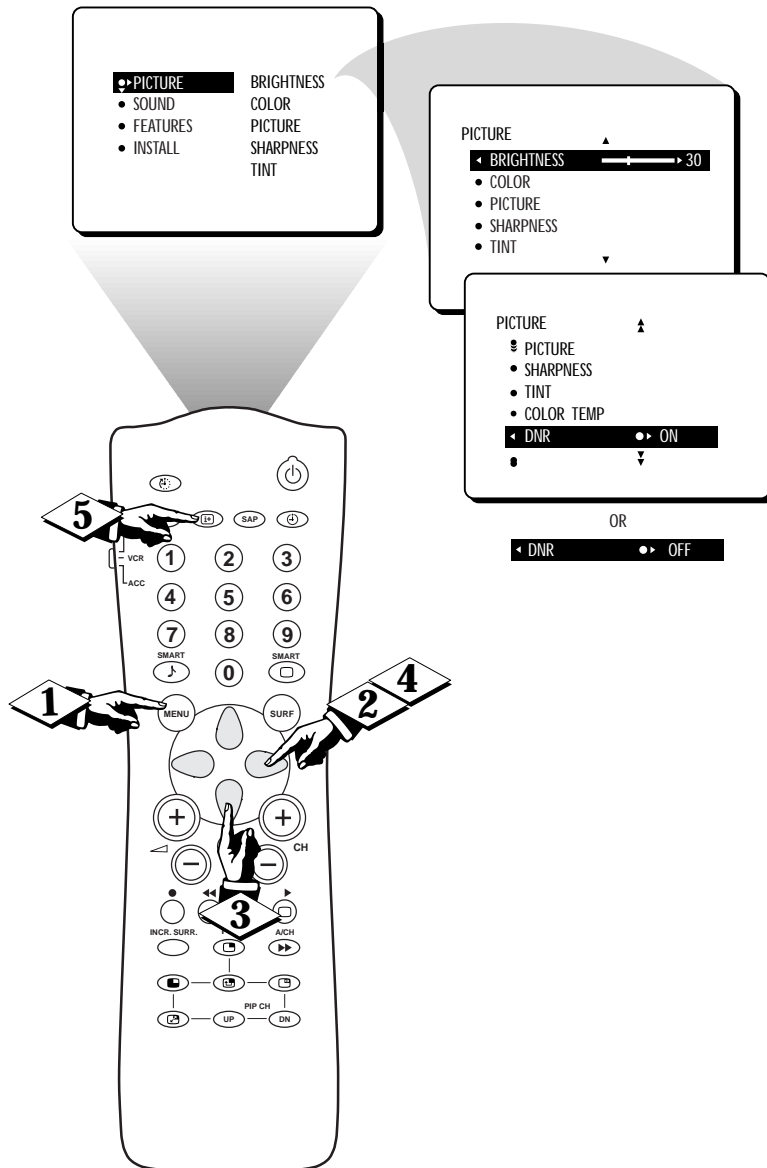


Because of poor cable reception or other difficulties, the picture can sometimes appear slightly “speckled” (an indication of signal noise in the picture). The DNR (Dynamic Noise Reduction) control can help eliminate this type of interference and improve the quality of the picture.

(BEGIN)

- 1** Press the **MENU** button on the remote to show the on-screen menu. PICTURE will be highlighted.
- 2** Press the **CURSOR RIGHT** button to enter the PICTURE menu.
- 3** Press the **CURSOR DOWN** button repeatedly until the DNR control is highlighted.
- 4** Press the **CURSOR RIGHT** or **LEFT** button to switch DNR ON or OFF.
- 5** Press the **i+** button to remove the menu from the screen.

STOP





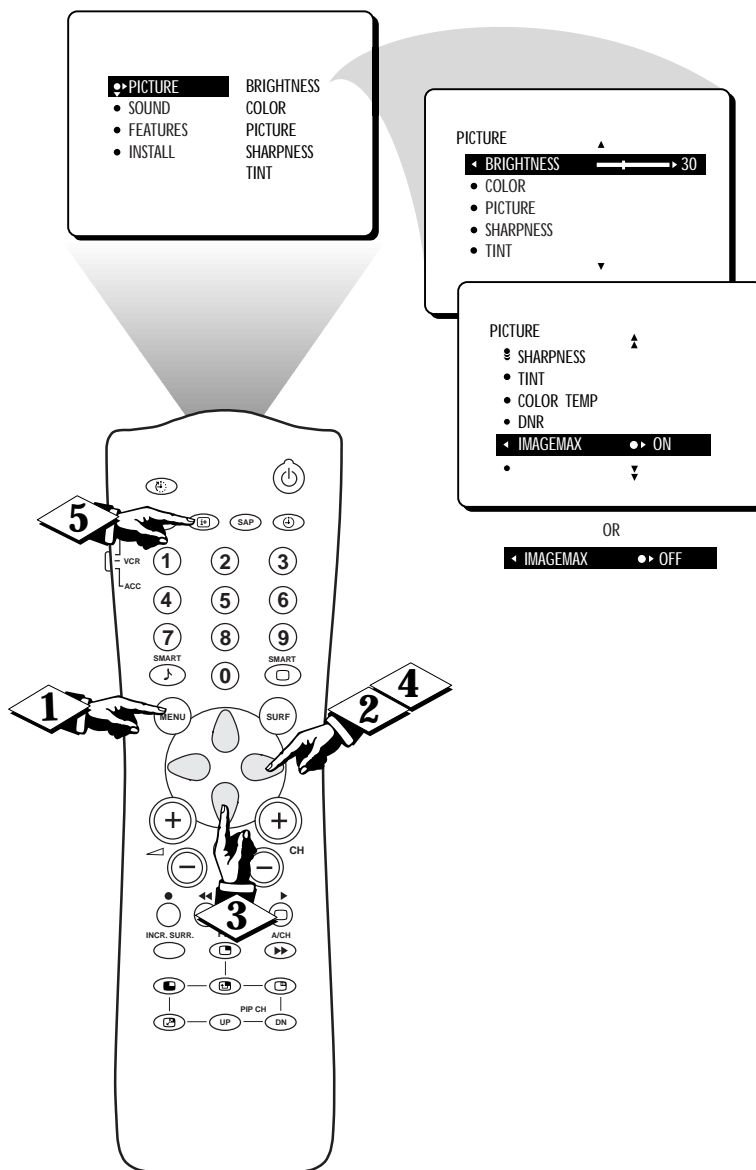
TURNING ON THE IMAGEMax CONTROL

ImageMax helps you sharpen the picture quality by making dark portions of the picture darker and light portions of the picture brighter. Follow these steps to turn ImageMax on.

BEGIN

- 1 Press the **MENU** button on the remote control to show the on-screen menu. PICTURE will be highlighted.
- 2 Press the **CURSOR RIGHT** button to enter the PICTURE menu.
- 3 Press the **CURSOR DOWN** button repeatedly until the IMAGEMax control is highlighted.
- 4 Press the **CURSOR RIGHT** or **LEFT** button to switch between ON and OFF.
- 5 Press the **i+** button to remove the menu from the screen.

STOP



CONVERGE RED/BLUE



The influence of magnetic fields and changes in the position of the TV may cause screen colors not to line up properly. The result on your TV screen will be red or blue colors appearing around the edges of images.

*If various images on the entire picture have red outlines, adjust the **CONVERGE RED** control. Then if any red outlines remain, adjust the **MULTIPOINT RED** control.*

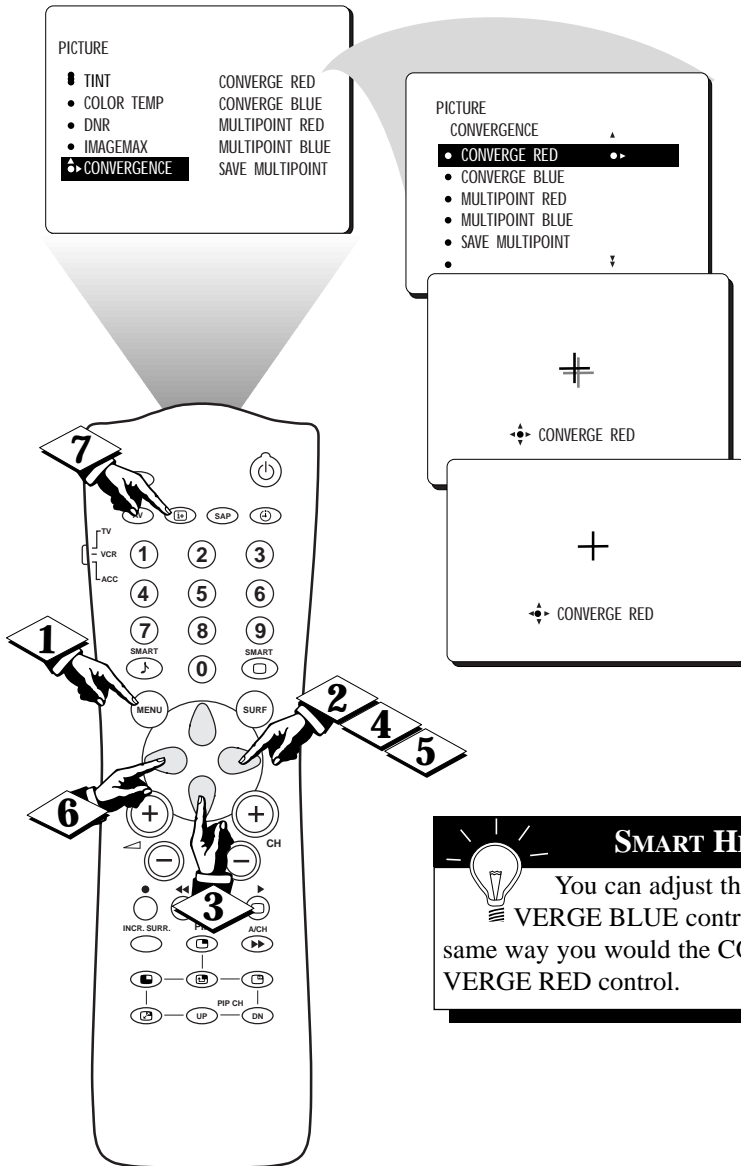
*If various images on the entire picture have blue outlines, adjust the **CONVERGE BLUE** control. Then if any blue outlines remain, adjust the **MULTIPOINT BLUE** control.*

*Use the **UNDO MULTIPOINT** control if you want to restore the picture screen to the way it was before you made Multipoint adjustments.*

NOTE: After turning the TV set on, allow it to warm up for 15 minutes before adjusting the Convergence controls.

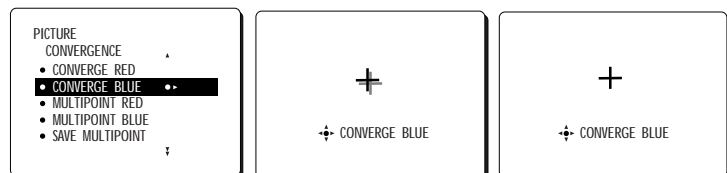
BEGIN

- 1** Press the **MENU** button on the remote to show the on-screen menu. PICTURE will be highlighted.
- 2** Press the **CURSOR RIGHT** button to enter the PICTURE menu.
- 3** Press the **CURSOR DOWN** button repeatedly until **CONVERGENCE** is selected.
- 4** Press the **CURSOR RIGHT** button to enter the CONVERGENCE menu.
- 5** Press the **CURSOR RIGHT** button to enter **CONVERGE RED** mode.
- 6** Press the **CURSOR LEFT**, **RIGHT**, **UP**, or **DOWN** button to adjust the cross image until the color outline around it is gone.
- 7** Press the **i+** button to exit the menu from the screen.



SMART HELP

You can adjust the **CONVERGE BLUE** control the same way you would the **CONVERGE RED** control.



CONVERGE MULTIPOINT RED/BLUE

*If various images on the entire picture have red outlines, adjust the **CONVERGE RED** control. Then if any red outlines remain, adjust the **MULTIPOINT RED** control.*

*Likewise, if various images on the entire picture have blue outlines, adjust the **CONVERGE BLUE** control. Then if any blue outlines remain, adjust the **MULTIPOINT BLUE** control.*

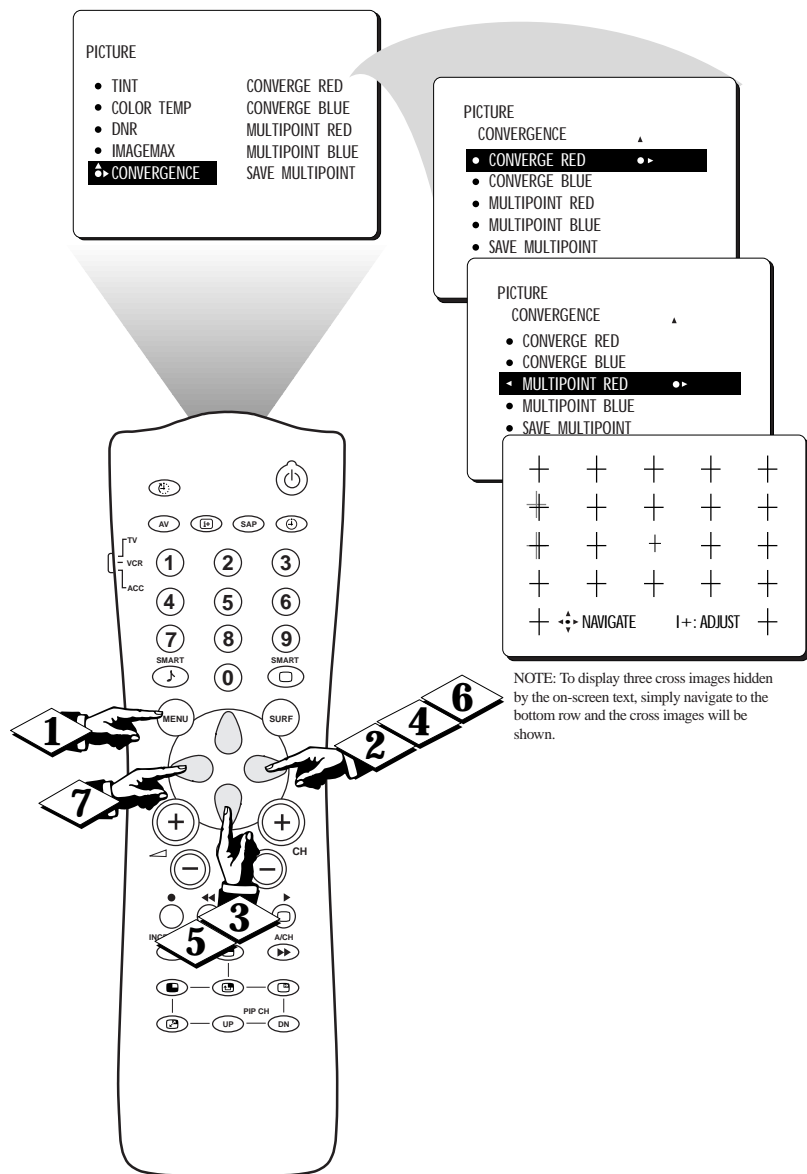
*Use the **UNDO MULTIPOINT** control if you want to restore the picture screen to the way it was before you made Multipoint adjustments.*

NOTE: After turning the TV set on, allow it to warm up for 15 minutes before adjusting the Convergence controls.

BEGIN

- 1** Press the **MENU** button on the remote to show the on-screen menu. PICTURE will be highlighted.
- 2** Press the **CURSOR RIGHT** button to enter the PICTURE menu.
- 3** Press the **CURSOR DOWN** button repeatedly until **CONVERGENCE** is selected.
- 4** Press the **CURSOR RIGHT** button to enter the **CONVERGENCE** menu.
- 5** Press the **CURSOR DOWN** button repeatedly until **MULTIPOINT RED** is selected.
- 6** Press the **CURSOR RIGHT** button to enter **NAVIGATE** mode.
- 7** Press the **CURSOR LEFT**, **RIGHT**, **UP**, or **DOWN** button to move to a cross image that has a color outline.

Go to step 8 on the next page.



CONVERGE MULTIPOINT RED/BLUE

8 Press the **i+** button to enter the ADJUST mode.

9 Press the **CURSOR LEFT**, **RIGHT**, **UP**, or **DOWN** button to adjust the cross image until the color outline is gone.

10 Press the **i+** button to return to NAVIGATE mode.

Repeat steps 7–10 until all misaligned crosses have been adjusted.

11 Press the **MENU** button to return to the CONVERGENCE menu.

12 Press the **CURSOR DOWN** button repeatedly until **SAVE MULTIPOINT** is selected.

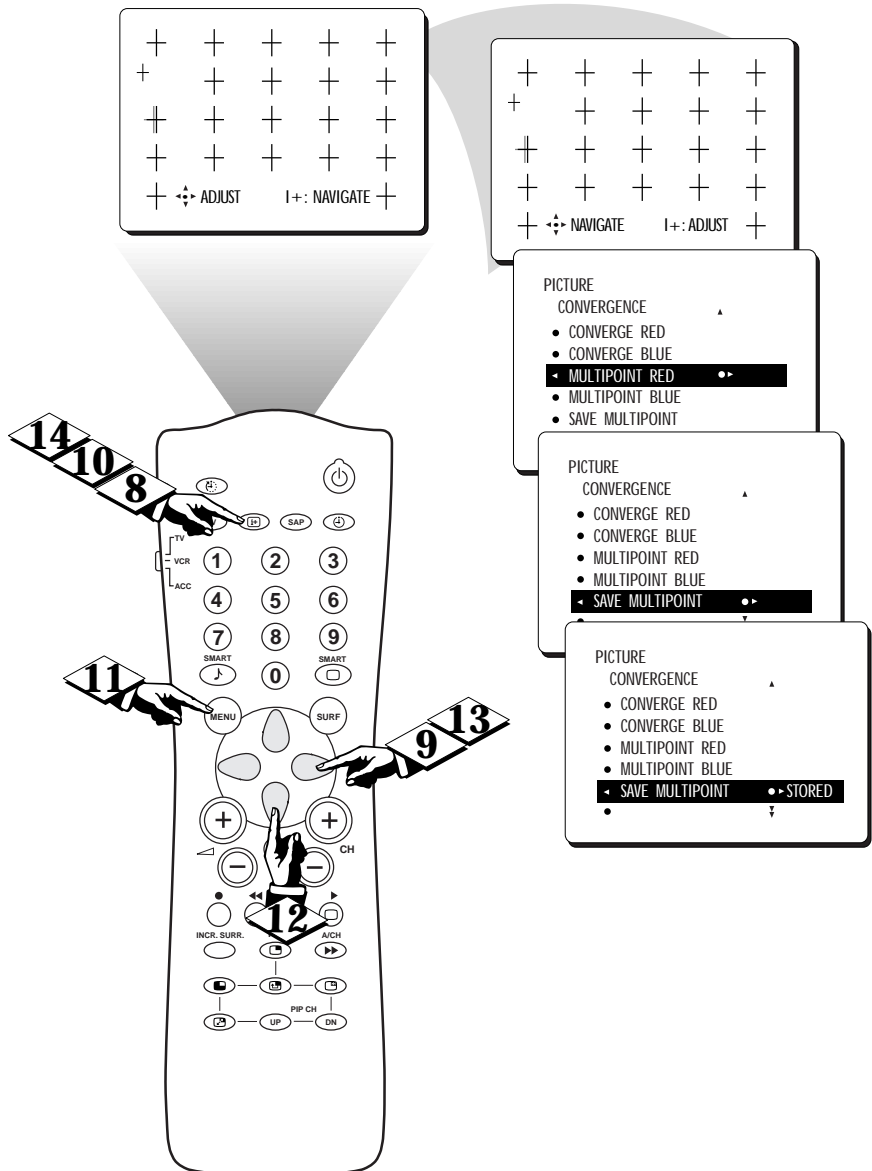
13 Press the **CURSOR RIGHT** button to activate the storing of the Multipoint adjustments you have made.

14 Press the **i+** button to remove the menu from the screen.



SMART HELP

You can adjust the **MULTIPOINT BLUE** control in the way you would adjust the **MULTIPOINT RED** control.

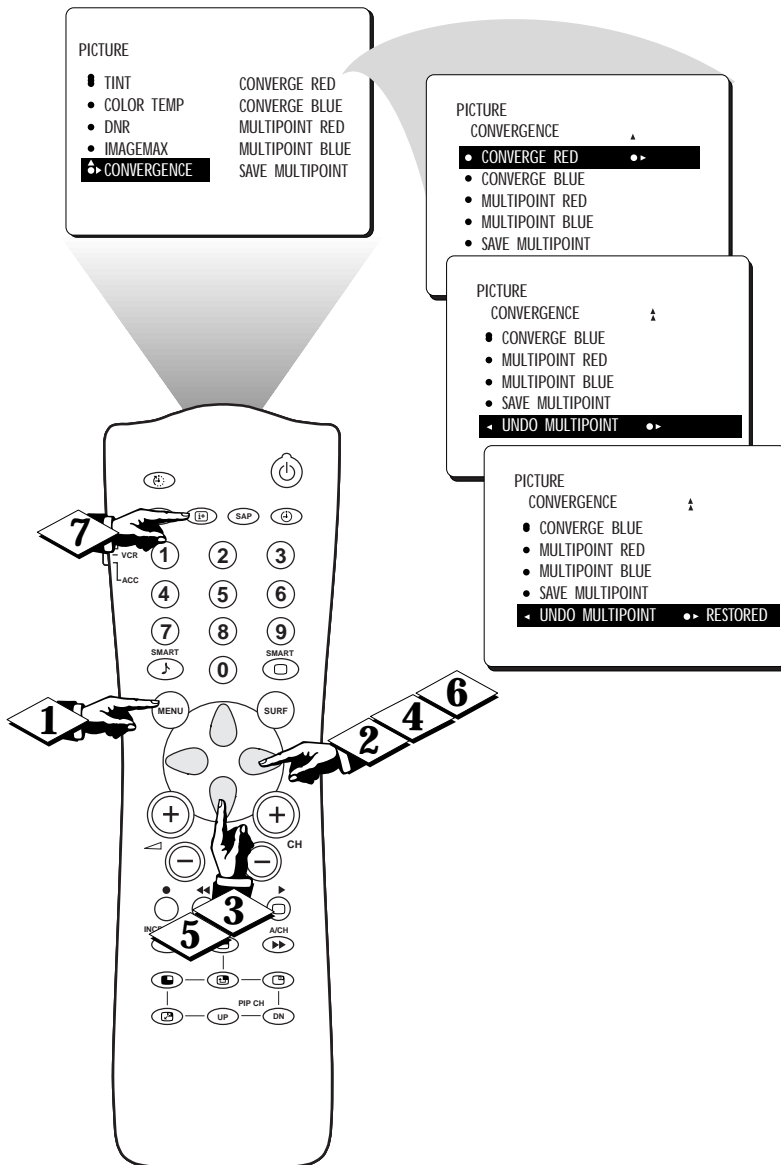


UNDO MULTIPOINT

The UNDO MULTIPOINT control allows you to restore the TV's picture screen to the way it was before you made Multipoint adjustments.

BEGIN

- 1 Press the **MENU** button to show the on-screen menu. PICTURE will be highlighted.
- 2 Press the **CURSOR RIGHT** button to enter the PICTURE menu.
- 3 Press the **CURSOR DOWN** button repeatedly until CONVERGENCE is selected.
- 4 Press the **CURSOR RIGHT** button to enter the CONVERGENCE menu.
- 5 Press the **CURSOR DOWN** button repeatedly until UNDO MULTIPOINT is selected.
- 6 Press the **CURSOR RIGHT** button to activate the restoring of the previous picture screen.
- 7 Press the **i+** button to remove the menu from the screen.



SETTING THE CLOCK



Your television comes with an on-screen clock. During normal operation, the clock appears on the screen when the **i+** button is pressed or if the **TIMER DISPLAY** control is turned **ON**.

BEGIN

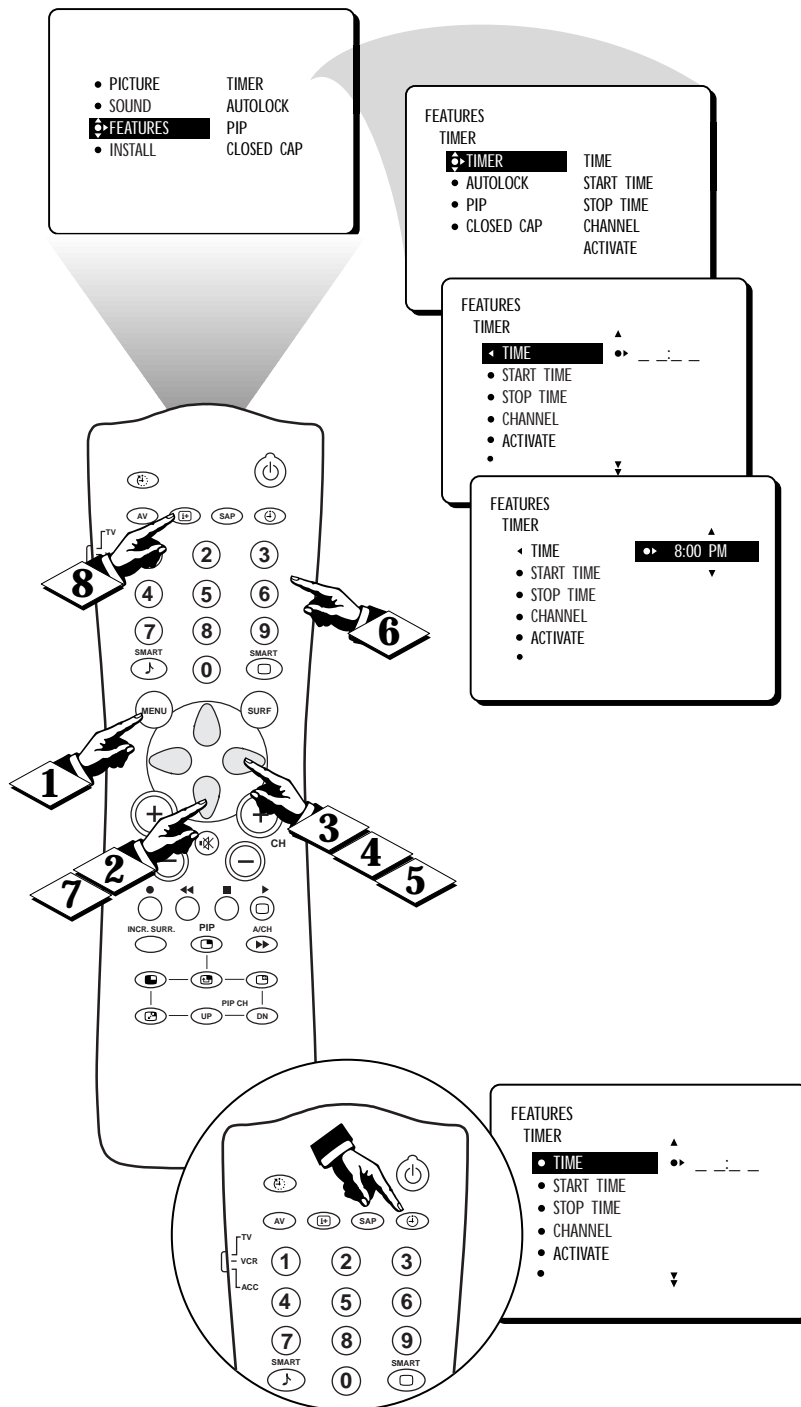
- 1 Press the **MENU** button on the remote control to show the on-screen menu.
- 2 Press the **CURSOR DOWN** button twice to highlight **FEATURES**.
- 3 Press the **CURSOR RIGHT** button to enter the **FEATURES** menu.
- 4 Press the **CURSOR RIGHT** button again to shift the display left and highlight the **TIME** control.
- 5 Press the **CURSOR RIGHT** button again to highlight the time indicator area.
- 6 Press the **NUMBER** buttons to enter the correct time. If you make a mistake entering the time, use the **CURSOR LEFT** or **RIGHT** button to move among the input slots to make corrections. **NOTE:** You may also use the **CURSOR UP** or **DOWN** button to cycle through digits to input the time.
- 7 Press the **CURSOR UP** or **DOWN** button to select **AM** or **PM**.
- 8 Press the **i+** button to remove the menu from the screen.



SMART HELP



- For single-digit entries, be sure to press **0** first and then the hour number.
- If you'd like, set the clock automatically using the AutoChron feature (page 4, *Setup and Quick Use Guide*).
- Clock settings may be lost when the TV is unplugged or when AC power to the set is interrupted.
- The **TIME** (Clock) feature can be accessed directly by pressing the **CLOCK** button on the remote control and following steps 5–10 to complete the task.



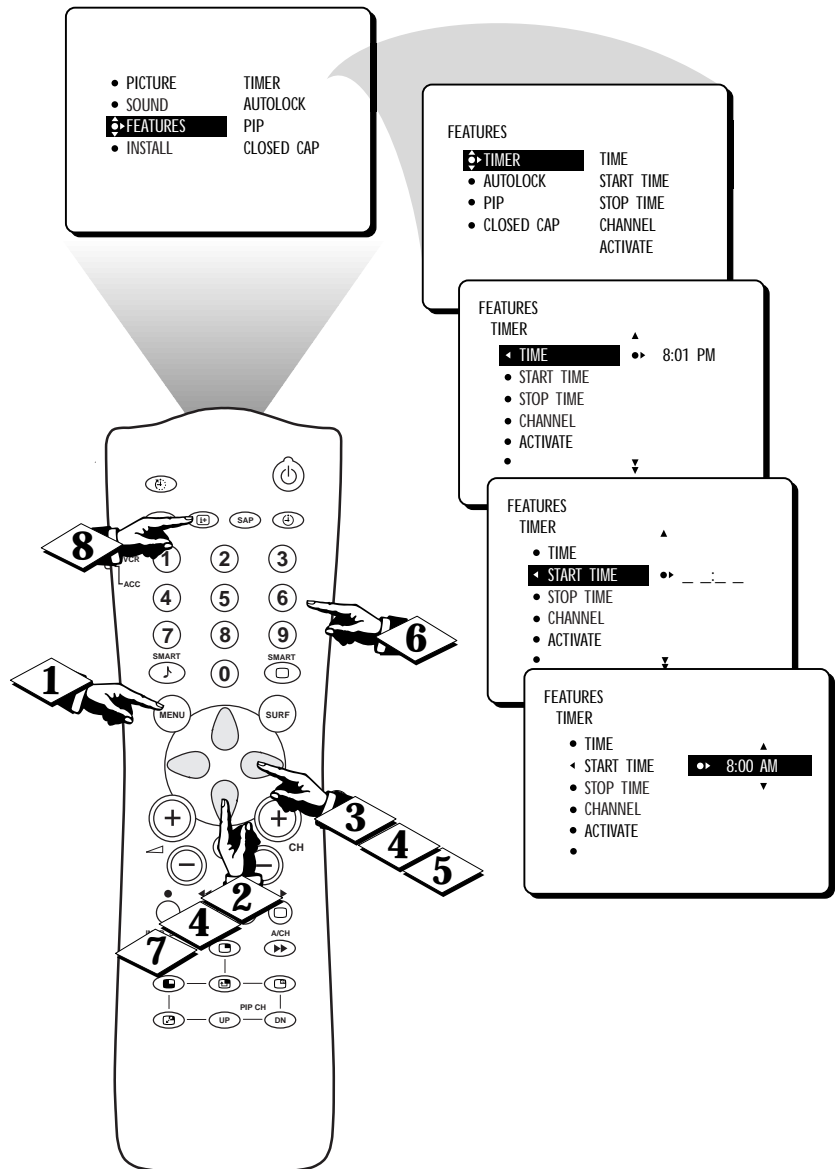


SETTING THE START TIME

You can set the TV to turn itself on at a specific time, just as you would an alarm clock. Follow these steps to set the Start Time.

BEGIN

- 1 Press the **MENU** button on the remote control to show the on-screen menu.
- 2 Press the **CURSOR DOWN** button twice to highlight **FEATURES**.
- 3 Press the **CURSOR RIGHT** button to enter the **FEATURES** menu.
- 4 Press the **CURSOR RIGHT** button again. Then press the **CURSOR DOWN** button once to highlight the **START TIME** control.
- 5 Press the **CURSOR RIGHT** button again to highlight the time indicator area.
- 6 Press the **NUMBER** buttons to enter the correct time. If you make a mistake entering the time, use the **CURSOR LEFT** or **RIGHT** button to move among the time input slots to make corrections. **NOTE:** You can also use the **CURSOR UP** or **DOWN** button to cycle through digits to input the time.
- 7 Press the **CURSOR UP** or **DOWN** button to select **AM** or **PM**.
- 8 Press the **i+** button to remove the menu from the screen.



SMART HELP



You can set **STOP TIME** similarly to the way you set **START TIME**. Instructions are on the next page.

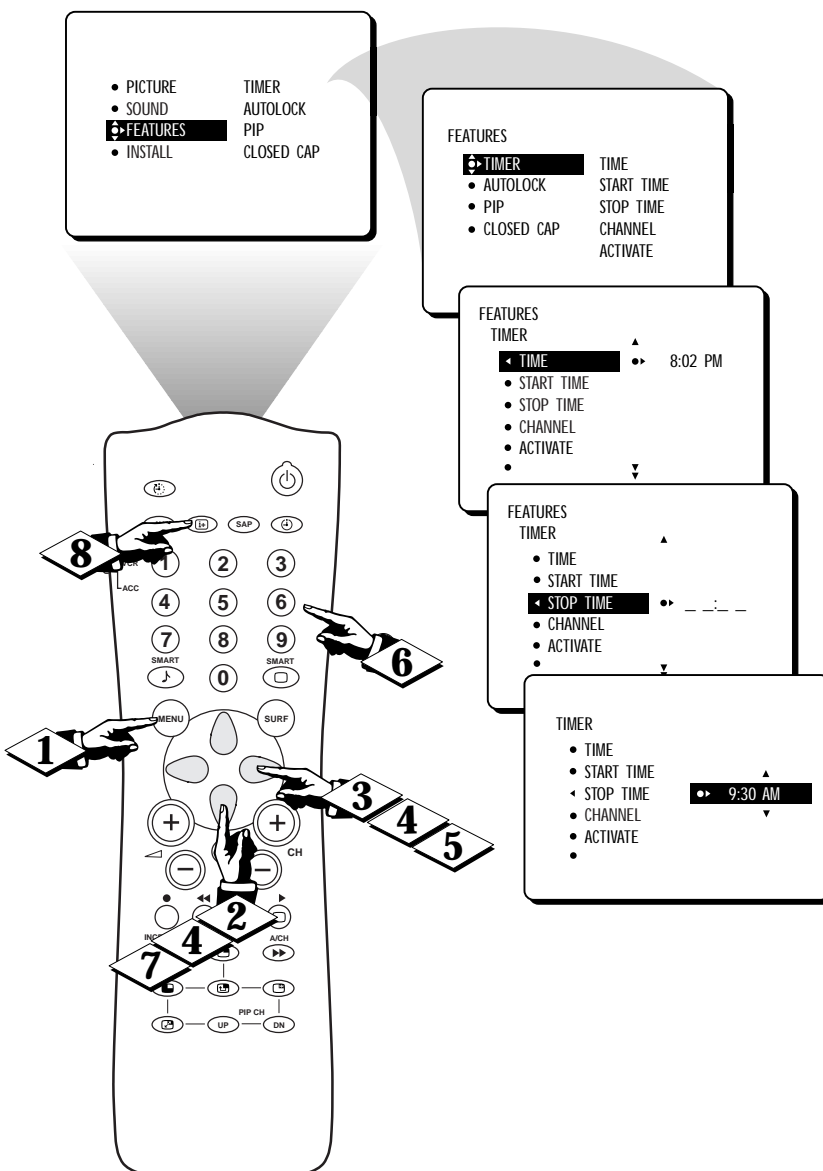


SETTING THE STOP TIME

Use the **START TIME** control to set the TV to turn itself on at a specific time (see the previous page). The following steps will guide you in setting the TV to turn itself off.

BEGIN

- 1 Press the **MENU** button on the remote control to show the on-screen menu.
- 2 Press the **CURSOR DOWN** button twice to highlight **FEATURES**.
- 3 Press the **CURSOR RIGHT** button to enter the **FEATURES** menu.
- 4 Press the **CURSOR RIGHT** button again. Then press the **CURSOR DOWN** button twice to highlight the **STOP TIME** control.
- 5 Press the **CURSOR RIGHT** button to highlight the time indicator area.
- 6 Press the **NUMBER** buttons to enter the correct time. If you make a mistake entering the time, use the **CURSOR LEFT** or **RIGHT** button to move among the input slots to make corrections. **NOTE:** You can also use the **CURSOR UP** or **DOWN** button to cycle through digits to input the time.
- 7 Press the **CURSOR UP** or **DOWN** button to select **AM** or **PM**.
- 8 Press the **i+** button to remove the menu from the screen.



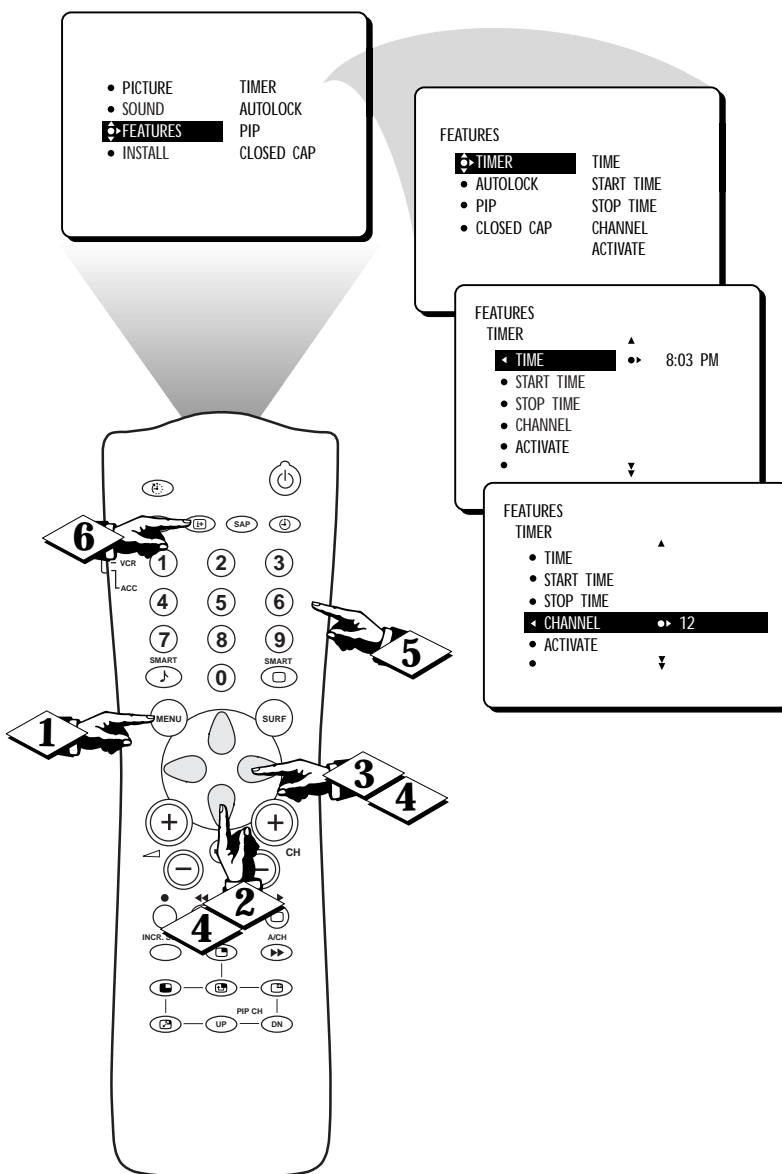


SELECTING THE CHANNEL

You can select a specific channel that the television will tune to when the timer turns the set on. Follow these steps to select the channel.

BEGIN

- 1 Press the **MENU** button on the remote control to show the on-screen menu.
- 2 Press the **CURSOR DOWN** button twice to highlight **FEATURES**.
- 3 Press the **CURSOR RIGHT** button to enter the **FEATURES** menu.
- 4 Press the **CURSOR RIGHT** button. Then press the **CURSOR DOWN** button repeatedly until the **CHANNEL** control is highlighted.
- 5 Press the **NUMBER** buttons to enter the desired start-up channel. Or press the **CURSOR RIGHT** button repeatedly to enter the start-up channel you want.
- 6 Press the **i+** button to remove the menu from the screen.



SETTING THE ACTIVATE CONTROL



After you have set the Time, Start Time, Stop Time, and Start Channel, you must activate the Timer for it to operate. Your options are to set the Timer to work **ONCE** or **DAILY**. Set **ACTIVATE** to **OFF** if you don't want to use the Timer.

BEGIN

- 1 Press the **MENU** button on the remote control to show the on-screen menu.
- 2 Press the **CURSOR DOWN** button twice to highlight **FEATURES**.
- 3 Press the **CURSOR RIGHT** button to enter the **FEATURES** menu.
- 4 Press the **CURSOR RIGHT** button again. Then press the **CURSOR DOWN** button repeatedly until the **ACTIVATE** control is highlighted.
- 5 Press the **CURSOR RIGHT** button again to set **ACTIVATE** to **ONCE**, press the **CURSOR RIGHT** button again for **DAILY**, or press the **CURSOR RIGHT** button again to toggle **ACTIVATE** to **OFF**.
- 6 Press the **i+** button to remove the menu from the screen.

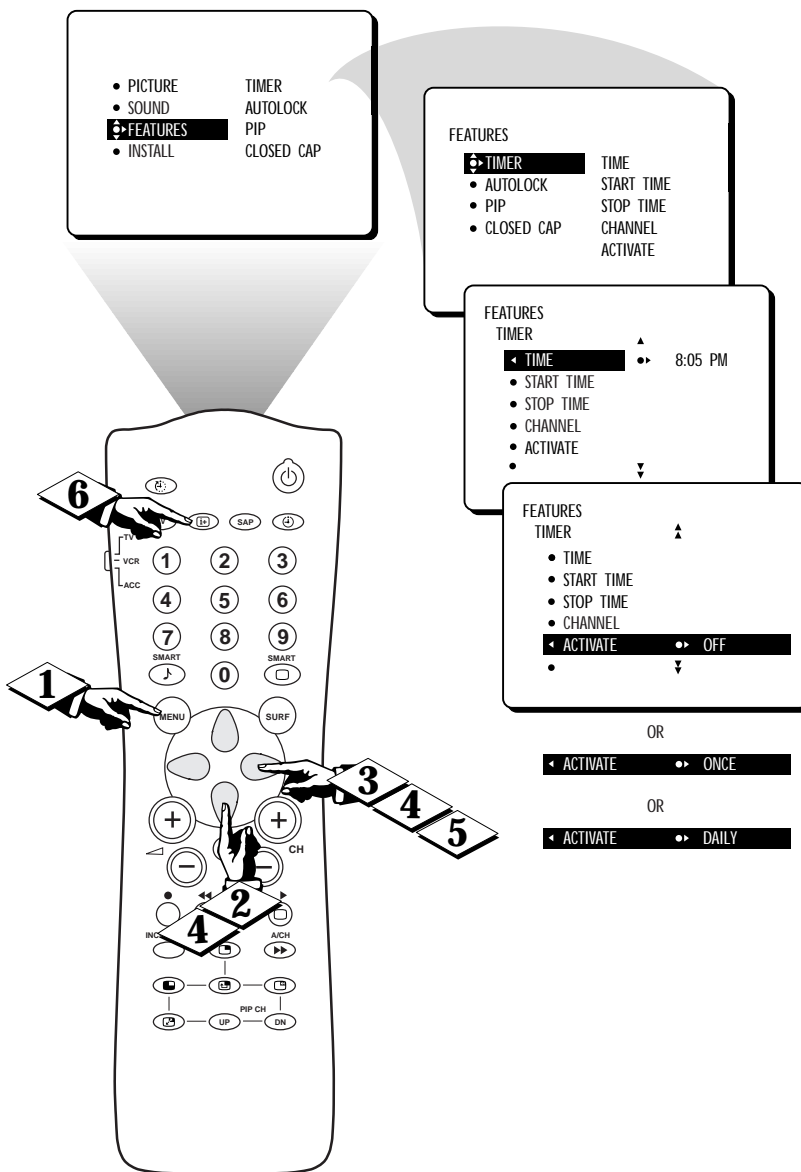


SMART HELP



Before you set the **TIMER** controls, you must set the TV's clock manually within the Timer menu (see page 13) or by using the AutoChron feature described on page 4 of the *Setup and Quick Use Guide*.

Try it! After following the steps on pages 13–18, use your TV to wake you up like a clock radio.



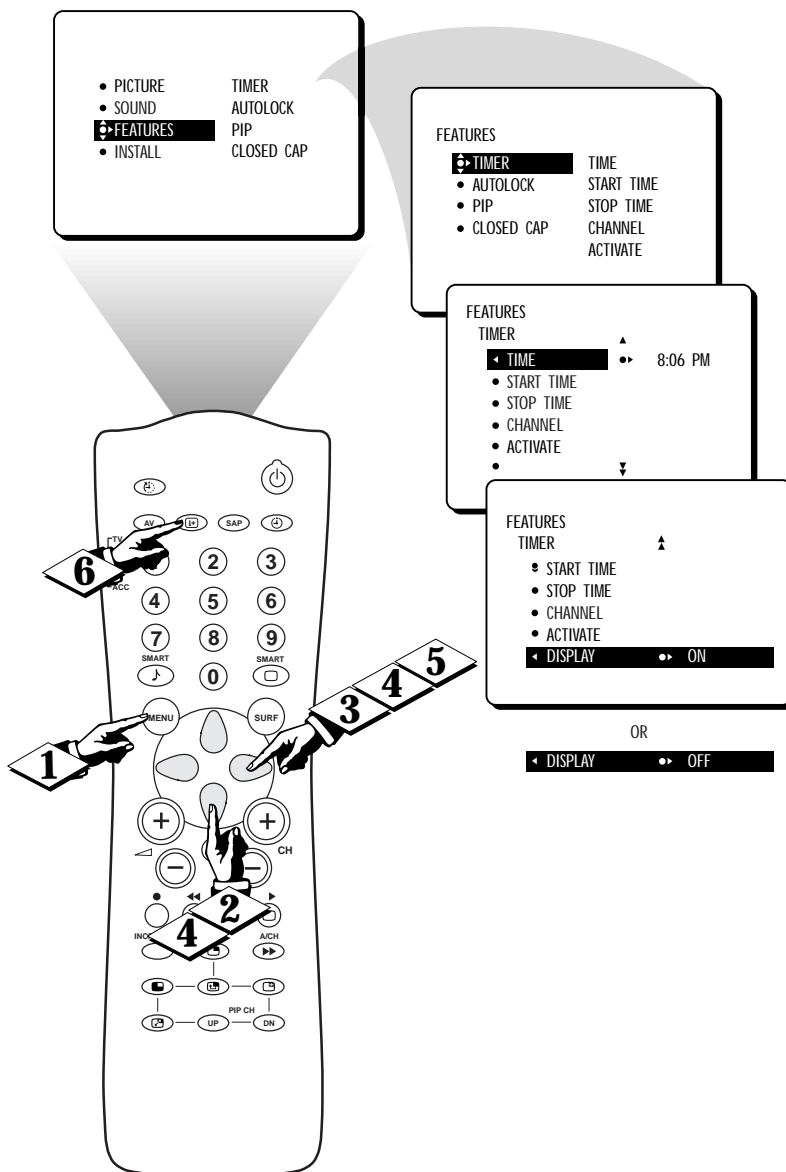


CONSTANTLY DISPLAYING THE TIME ON SCREEN

After you have set the TV's clock, you can use your TV to keep up with the time. The **TIMER DISPLAY** control allows you to permanently display the time in the upper right corner of the screen.

BEGIN

- 1 Press the **MENU** button on the remote to show the on-screen menu.
- 2 Press the **CURSOR DOWN** button twice to highlight **FEATURES**.
- 3 Press the **CURSOR RIGHT** button to enter the **FEATURES** menu.
- 4 Press the **CURSOR RIGHT** button again. Then press the **CURSOR DOWN** button repeatedly until the **DISPLAY** control is highlighted.
- 5 Press the **CURSOR RIGHT** or **LEFT** button to turn the **TIMER DISPLAY** ON or OFF.
- 6 Press the **i+** button to remove the menu from the screen.



UNDERSTANDING AUTOLOCK



The AutoLock feature can help parents censor what their children watch on TV. AutoLock receives content advisories sent by broadcasters or other program providers. After you program AutoLock, it can respond to the content advisories and block programs that contain content which you may consider objectionable—offensive language, violence, or sexual situations.

In this section, you'll learn how to block channels and programming that is not rated, is unrated, or has no rating. You will also find out how to turn these blocking features on or off. Following on this page are brief explanations of AutoLock terms and program ratings.

Terms

BLOCKING control—can be thought of as the “master switch” for AutoLock. This control affects the settings you have chosen for blocking programs according to movie ratings or TV ratings, or for blocking programs that have no rating or are unrated. When the BLOCKING control is OFF, the blocking or censoring of programs is disabled. When the BLOCKING control is ON, blocking will occur according to the settings you have chosen.

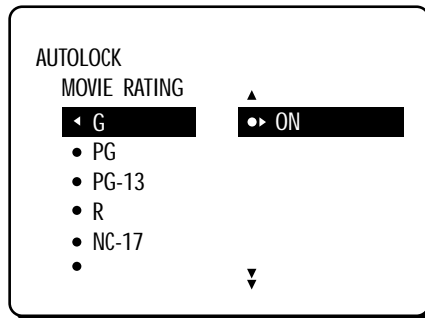
BLOCK UNRATED control—if set to ON, blocks all unrated programs.

Unrated programming consists of the kind of shows that the MPAA (Motion Picture Association of America) or the TV broadcasters have chosen not to rate.

NO RATING control—if set to ON, blocks all programming with no content advisory data.

Programming that has No Rating is not encoded with any rating information from the MPAA or the Parental Guidelines. Any programming could fall into this category.

You can also block individual channels using the BLOCK CHANNEL control.



MOVIE RATINGS (MOTION PICTURE ASSOCIATION OF AMERICA)

G (General Audience)—all ages admitted. Most parents will find programs that are rated G to be suitable for children of all ages. Such programs have little or no violence, no strong language, and little or no sexual dialogue or sexual situations.

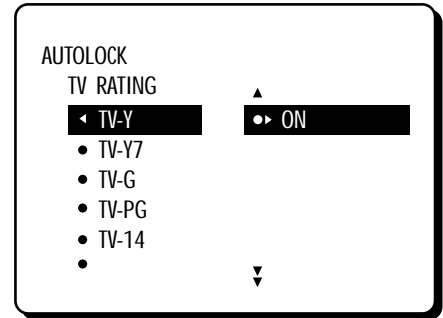
PG (Parental Guidance Suggested)—contain material that parents may find unsuitable for younger children. Programs that are rated PG have one or more of the following: moderate violence, some sexual situations, infrequent coarse language, or some suggestive dialogue.

PG-13 (Parents Strongly Cautioned)—contain material that parents may find unsuitable for children under the age of 13. Programs that are rated PG-13 have one or more of the following: violence, sexual situations, coarse language, or suggestive dialogue.

R (Restricted)—specifically designed for adults. Anyone under the age of 17 should view programs that are rated R only with an accompanying parent or adult guardian. Such programs have 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)—should be viewed by adults only. Programs that are rated NC-17 have graphic violence; explicit sex; or crude, indecent language.

X (Adults Only)—contain one or more of the following: very graphic violence, very graphic and explicit or indecent sexual acts, or very coarse and intensely suggestive language.



TV PARENTAL GUIDELINES (TV BROADCASTERS)

TV-Y (All Children)—designed to be appropriate for all children, especially ones ages 2–6. Programs rated TV-Y are not expected to frighten younger children.

TV-Y7 (Directed to Older Children)—designed for children ages 7 and older. Programs rated TV-Y7 may be more appropriate for children who have acquired the development skills needed to distinguish between make-believe and reality. Such programs may include mild fantasy and comic violence (FV).

TV-G (General Audience)—most parents will consider programs that are rated TV-G to be suitable for children of all ages. Such programs have little or no violence, no strong language, and little or no sexual dialogue or sexual situations.

TV-PG (Parental Guidance Suggested)—contain material that parents may find unsuitable for younger children. This type of programming has 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)—contain material that many parents will find unsuitable for children under 14 years of age. Such programs have one or more of the following: intense violence (V); intense sexual situations (S); strong, coarse language (L); or intensely suggestive dialogue (D).

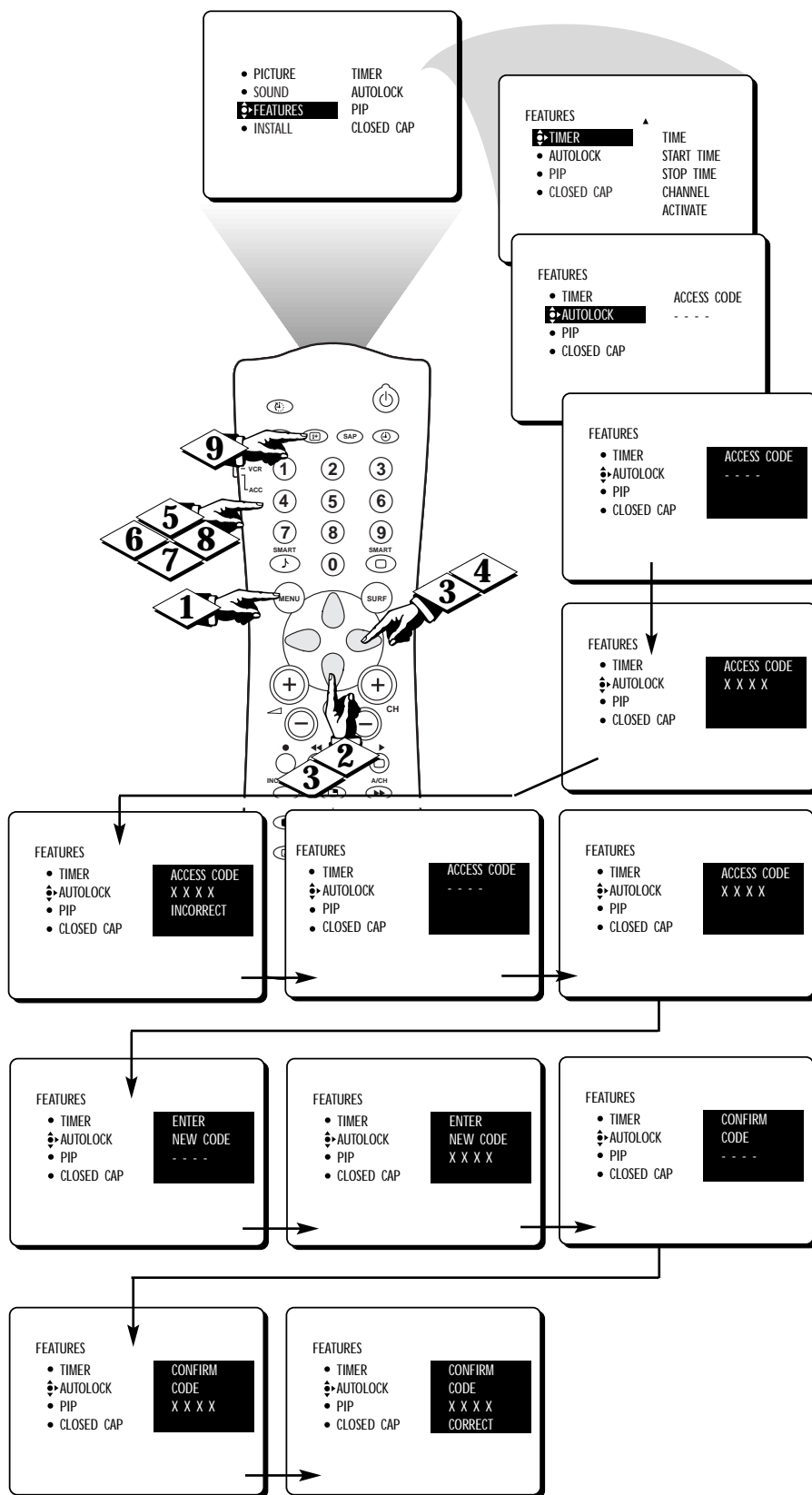
TV-MA (Mature Audience Only)—specifically designed to be viewed by adults and therefore may be unsuitable for children under 17. Such programs have one or more of the following: graphic violence (V); explicit sexual situations (S); or crude, indecent language (L).

AutoLock allows parents to block channels they think children should not watch. A channel blocked by the AUTOLOCK control cannot be viewed until a correct access code is used to unlock the channel for viewing. Follow these steps to set up your Access Code.

- 1** Press the **MENU** button on the remote control to show the on-screen menu.
- 2** Press the **CURSOR DOWN** button twice to highlight **FEATURES**.
- 3** Press the **CURSOR RIGHT** button to enter the **FEATURES** menu. Then press the **CURSOR DOWN** button once to highlight the **AUTOLOCK** control.
- 4** Press the **CURSOR RIGHT** button to highlight **ACCESS CODE**.
- 5** Press **0,7,1,1** on the remote control. **INCORRECT** will appear on the screen.
- 6** Press **0,7,1,1** on the remote control again. **ENTER NEW CODE** will appear on the screen.
- 7** Enter a new four-digit code using the number buttons. **CONFIRM CODE** will appear on the screen.
- 8** Enter your new four-digit code again. **CORRECT** will flash on the screen briefly.
- 9** Press the **i+** button to remove the menu from the screen.



 Parents, it isn't possible for your child to unblock a channel without knowing your access code or changing it to a new one. If you discover that your access code has been changed, you can assume that blocked channels may have been viewed.



After you have set your personal access code (see the previous page), you are ready to select the channels or program sources you want to block.

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

3 Press the **CURSOR RIGHT** button to enter the **FEATURES** menu. Then **press the CURSOR DOWN** button once to highlight the **AUTOLOCK** control.

5 Enter your four-digit **ACCESS CODE**. **CORRECT** will flash very briefly and the menu will move to the left with **BLOCK CHANNEL** highlighted.

7 Press the **CURSOR UP** or **DOWN** button to highlight the channel you want to block.

Repeat steps 7 and 8 for any channels you want to block from viewing.



• PICTURE
• SOUND
• **FEATURES**
• INSTALL

TIMER
AUTOLOCK
PIP
CLOSED CAP

FEATURES
• **TIMER**
• AUTOLOCK
• PIP
• CLOSED CAP

TIME
START TIME
STOP TIME
CHANNEL
ACTIVATE

FEATURES
• **TIMER**
• **AUTOLOCK**
• PIP
• CLOSED CAP

ACCESS CODE

FEATURES
• **TIMER**
• **AUTOLOCK**
• PIP
• CLOSED CAP

ACCESS CODE

FEATURES
• **TIMER**
• **AUTOLOCK**
• PIP
• CLOSED CAP

ACCESS CODE
X X X X

FEATURES
AUTOLOCK
• **BLOCK CHANNEL**
• SETUP CODE
• CLEAR ALL
• MOVIE RATING
• TV RATING

▲ AV2
AV3
ALL
1
2
▼

FEATURES
AUTOLOCK
• **BLOCK CHANNEL**
• SETUP CODE
• CLEAR ALL
• MOVIE RATING
• TV RATING

▲ AV2
AV3
ALL
1
2
▼

FEATURES
AUTOLOCK
• **BLOCK CHANNEL**
• SETUP CODE
• CLEAR ALL
• MOVIE RATING
• TV RATING

▲ 12
13
14
15
16
▼

FEATURES
AUTOLOCK
• **BLOCK CHANNEL**
• SETUP CODE
• CLEAR ALL
• MOVIE RATING
• TV RATING

▲ 12
13
14
15
16
▼



BLOCKING BY MOVIE RATING

After you have set your personal Access code (see page 20), you can block programs by specific movie ratings.

BEGIN

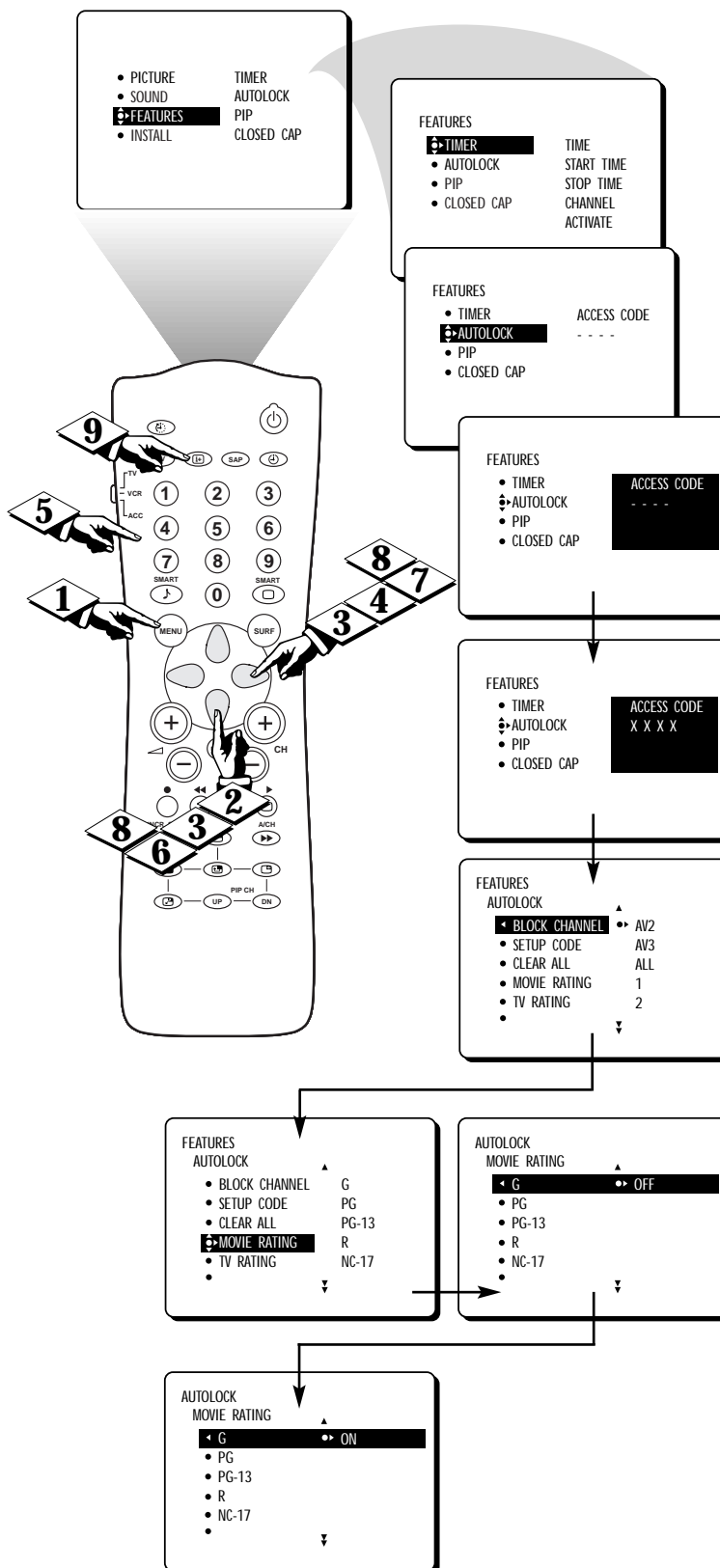
- 1 Press the **MENU** button on the remote control to show the on-screen menu.
- 2 Press the **CURSOR DOWN** button twice to highlight **FEATURES**.
- 3 Press the **CURSOR RIGHT** button to enter the **FEATURES** menu. Then press the **CURSOR DOWN** button once to highlight the **AUTOLOCK** control.
- 4 Press the **CURSOR RIGHT** button to highlight **ACCESS CODE**.
- 5 Enter your four-digit **ACCESS CODE**. **CORRECT** will flash very briefly in red and the menu will move to the left with **BLOCK CHANNEL** highlighted.
- 6 Press the **CURSOR DOWN** button repeatedly until **MOVIE RATING** is highlighted.
- 7 Press the **CURSOR RIGHT** button and the Rating menu will shift to the left with **G** highlighted.
- 8 Press the **CURSOR UP** or **DOWN** button to highlight each rating you want. Then press the **CURSOR RIGHT** button to turn the rating ON or OFF. Turning the rating on will block such programs from being seen.
- 9 Press the **i+** button to remove the menu from the screen.

STOP

SMART HELP



When a rating is set to be turned on (blocked), all higher ratings will also be blocked automatically. For example, if the R rating is turned on, the NC-17 and X ratings also will be turned on.



BLOCKING BY TV RATING

You also can block programs by specific TV ratings. Follow these simple steps.

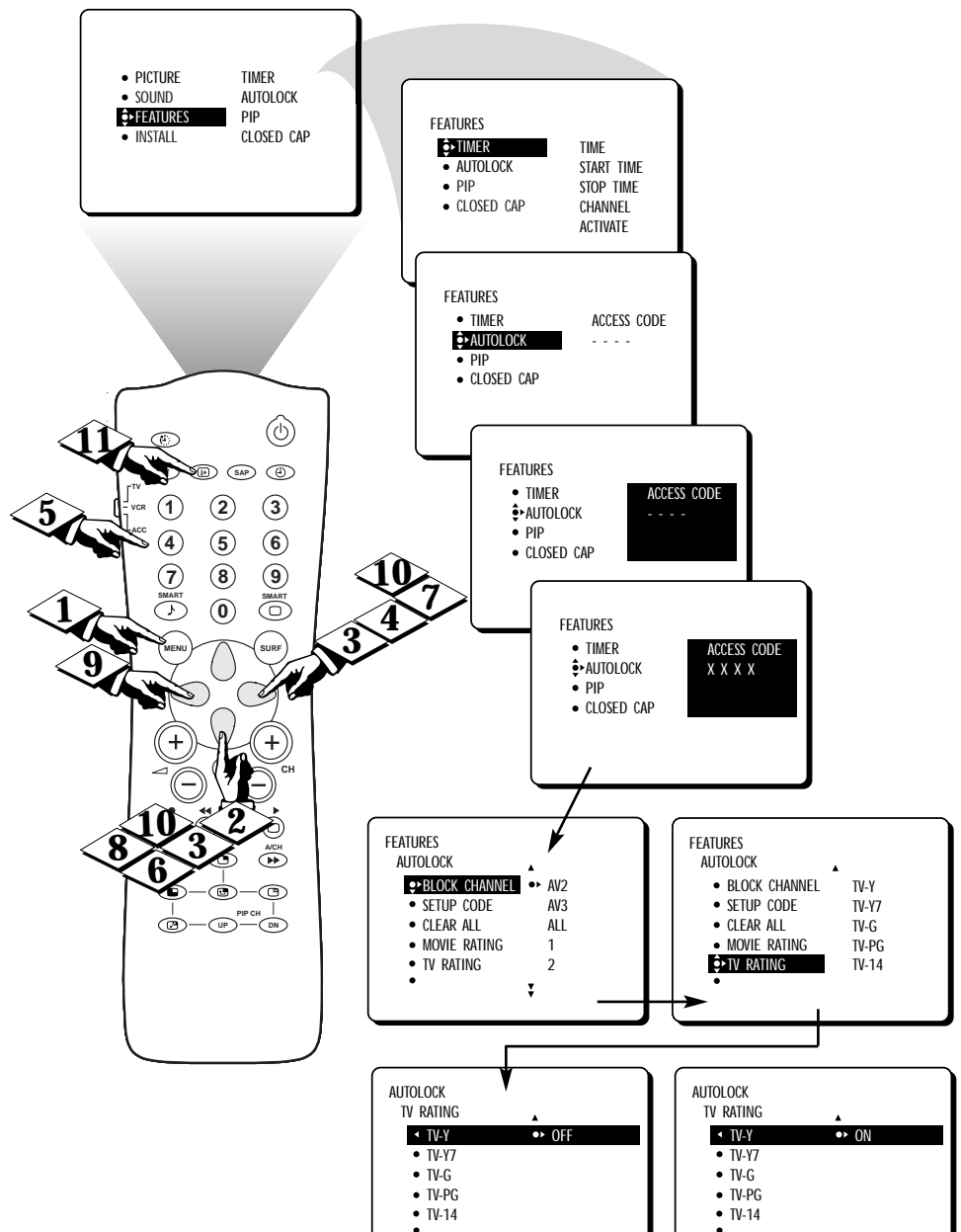
BEGIN

- 1 Press the **MENU** button on the remote control to show the on-screen menu.
- 2 Press the **CURSOR DOWN** button twice to highlight **FEA-TURES**.
- 3 Press the **CURSOR RIGHT** button to enter the **FEATURES** menu. Then press the **CURSOR DOWN** button once to highlight the **AUTOLOCK** control.
- 4 Press the **CURSOR RIGHT** button to highlight **ACCESS CODE**.
- 5 Enter your four-digit **ACCESS CODE**.
- 6 Press the **CURSOR DOWN** button repeatedly until **TV RATING** is highlighted.
- 7 Press the **CURSOR RIGHT** button to enter the **TV RATING** menu.
- 8 Press the **CURSOR UP** or **DOWN** button to select a rating.
- 9 Press the **CURSOR RIGHT** or **LEFT** button to turn the block on the rating **ON** or **OFF**.

NOTE: More specific subratings (for violence, sexual content, dialogue, or fantasy violence) are available for TV-Y7, TV-PG, TV-14, and TV-MA.

- 10 To access these subratings, press the **CURSOR RIGHT** button. Press the **CURSOR UP** or **DOWN** button to select the subrating that you want to block or unblock. Then press the **CURSOR RIGHT** or **LEFT** button to turn the block on the subrating **ON** or **OFF**.

- 11 Press the **i+** button to remove the menu from the screen.



TV-Y (All Children)—designed to be appropriate for all children, especially ones ages 2–6. Programs rated TV-Y are not expected to frighten younger children.

TV-Y7 (Directed to Older Children)—designed for children ages 7 and older. Programs rated TV-Y7 may be more appropriate for children who have acquired the development skills needed to distinguish between make-believe and reality. Such programs may include mild fantasy and comic violence (FV).

TV-G (General Audience)—likely to be considered suitable for children of all ages. Such programs have little or no violence, no strong language, and little or no sexual dialogue or sexual situations.

TV-PG (Parental Guidance Suggested)—contain material that parents may find unsuitable for younger children. This type of programming has 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)—contain material that many parents will find unsuitable for children under 14 years of age. Such programs have 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)—specifically designed to be viewed by adults and therefore may be unsuitable for children under 17. Such programs have one or more of the following: graphic violence (V); explicit sexual situations (S); or crude, indecent language (L).

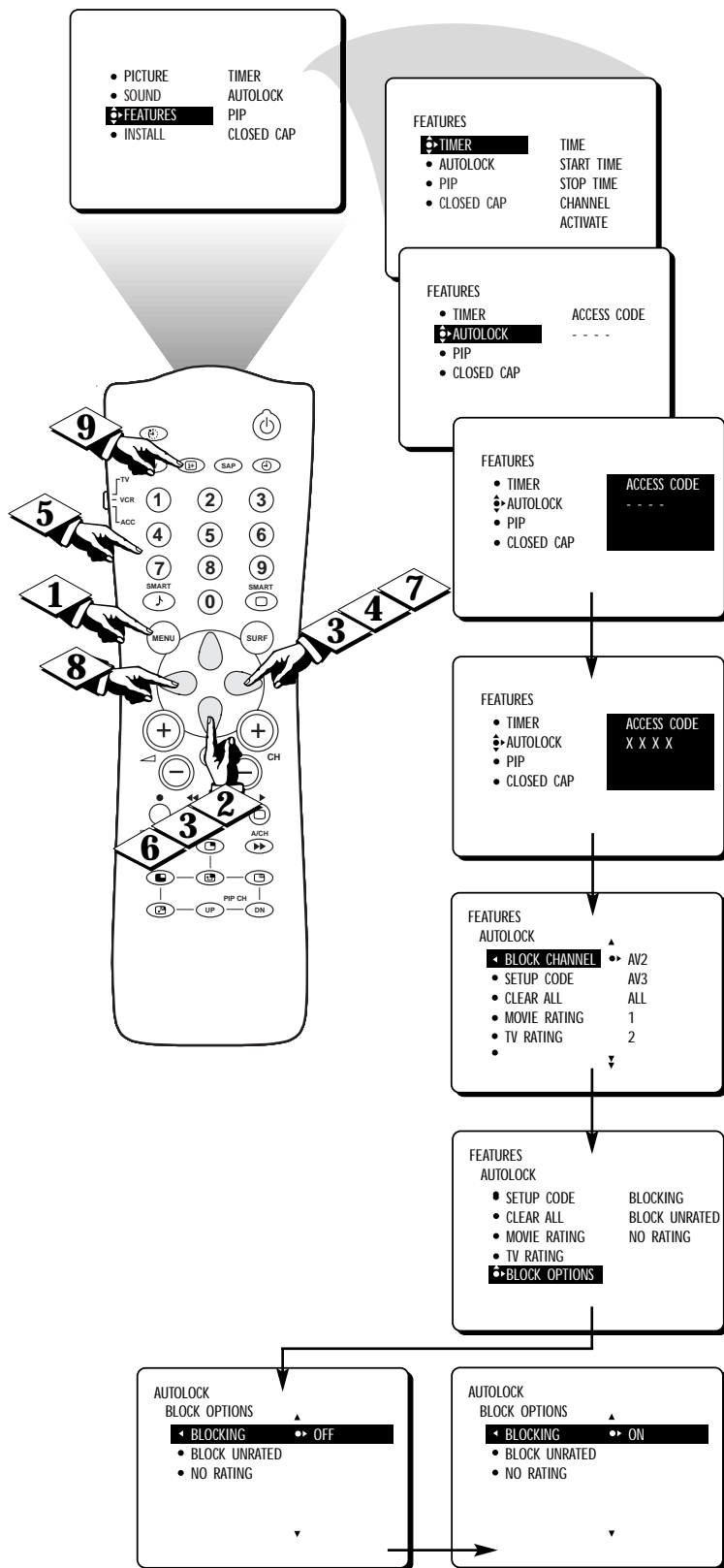


TURNING THE BLOCKING CONTROL ON OR OFF

*The **BLOCKING** control can be thought of as the “master switch” for AutoLock. Use it to turn on or off all of the settings you have chosen to block programming.*

BEGIN

- 1 Press the **MENU** button on the remote control to show the on-screen menu.
- 2 Press the **CURSOR DOWN** button twice to highlight **FEATURES**.
- 3 Press the **CURSOR RIGHT** button to enter the **FEATURES** menu. Then press the **CURSOR DOWN** button once to highlight the **AUTOLOCK** control.
- 4 Press the **CURSOR RIGHT** button to highlight **ACCESS CODE**.
- 5 Enter your four-digit **ACCESS CODE**.
- 6 Press the **CURSOR DOWN** button repeatedly until **BLOCK OPTIONS** is highlighted.
- 7 Press the **CURSOR RIGHT** button to enter the **BLOCK OPTIONS** menu. **BLOCKING** will be highlighted.
- 8 Press the **CURSOR RIGHT** or **LEFT** button to toggle **BLOCKING** ON or OFF.
- 9 Press the **i+** button to remove the menu.

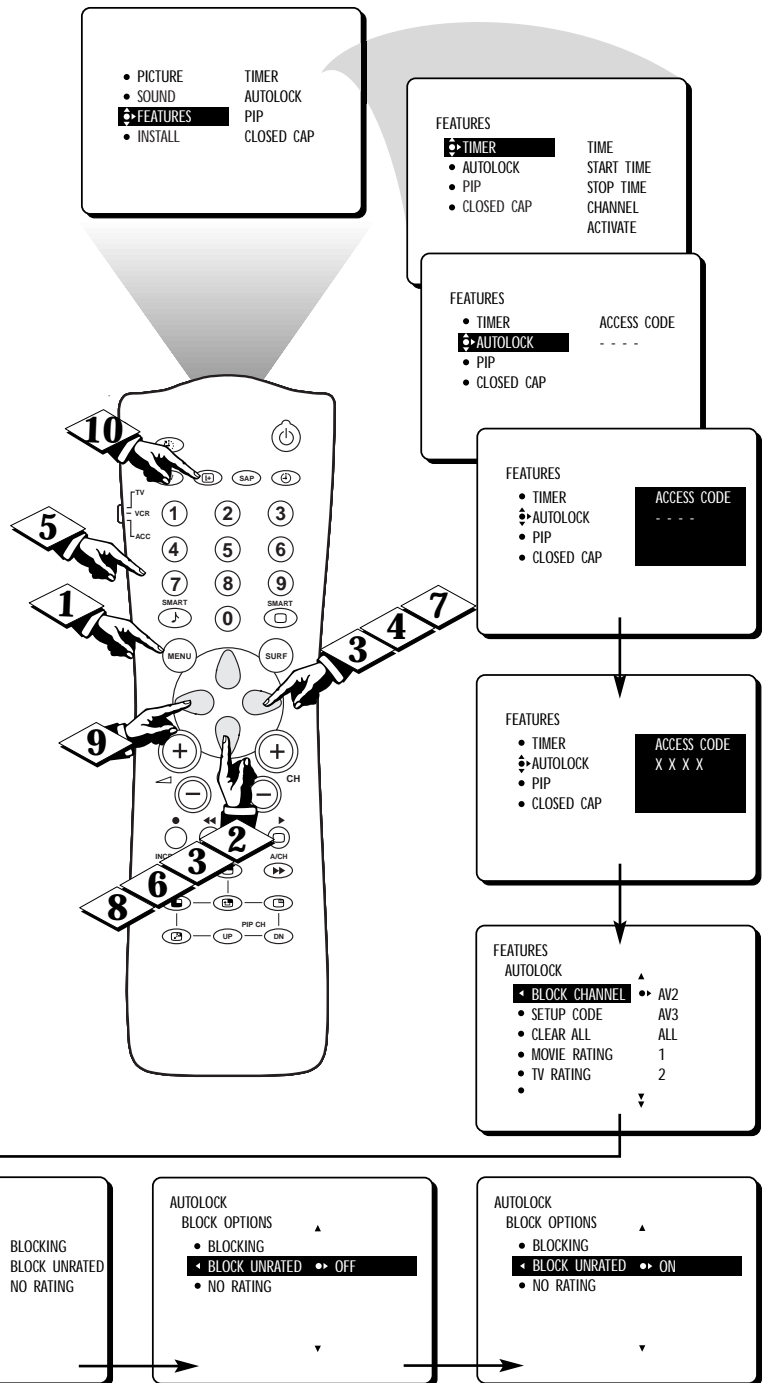


BLOCKING UNRATED BROADCASTS

In addition to blocking rated programs or channels, you may also choose to block all programming that is unrated.

BEGIN

- 1 Press the **MENU** button on the remote control to show the on-screen menu.
- 2 Press the **CURSOR DOWN** button twice to highlight **FEA-TURES**.
- 3 Press the **CURSOR RIGHT** button to enter the **FEATURES** menu. Then press the **CURSOR DOWN** button once to highlight the **AUTOLOCK** control.
- 4 Press the **CURSOR RIGHT** button again to highlight **ACCESS CODE**.
- 5 Enter your four-digit **ACCESS CODE**.
- 6 Press the **CURSOR DOWN** button repeatedly until **BLOCK OPTIONS** is highlighted.
- 7 Press the **CURSOR RIGHT** button to enter the **BLOCK OPTIONS** menu.
- 8 Press the **CURSOR DOWN** button once to select **BLOCK UNRATED**.
- 9 Press the **CURSOR RIGHT** or **LEFT** button to turn **BLOCK UNRATED** ON or OFF.
- 10 Press the **i+** button to remove the menu.



SMART HELP

When the **BLOCK UNRATED** control is turned on, attempts to view unrated programs will bring a message like this to the screen. To watch the program, enter your access code or go into the **BLOCK OPTIONS** menu and turn the **BLOCK UNRATED** control OFF.

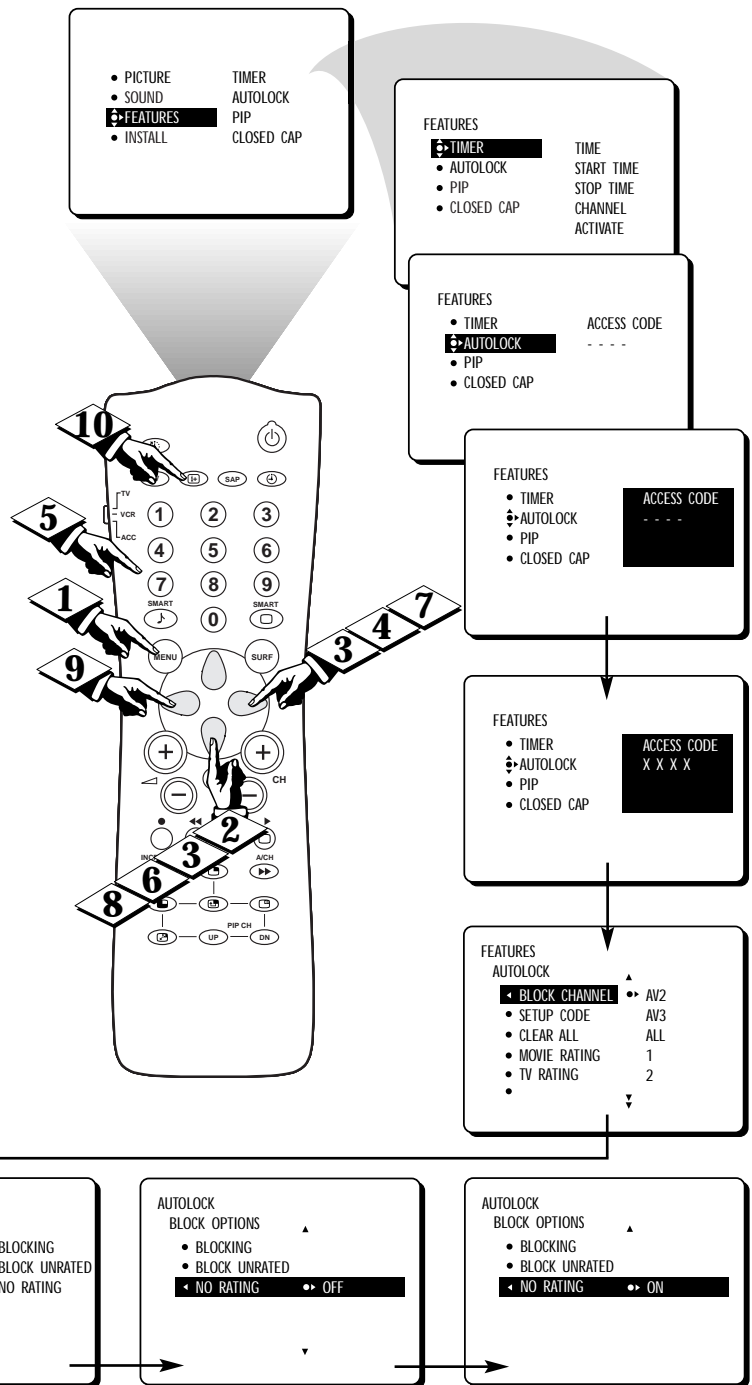
Channel 12
Blocked by AutoLock
Unrated
Access Code

BLOCKING BROADCASTS THAT HAVE NO RATING

Some programs contain no content advisories from the Motion Picture Association of America or the television broadcasters (see page 19 for more on content advisories and ratings). To block such programs, follow these steps.

BEGIN

- 1 Press the **MENU** button on the remote to show the on-screen menu.
- 2 Press the **CURSOR DOWN** button twice to highlight **FEATURES**.
- 3 Press the **CURSOR RIGHT** button to enter the **FEATURES** menu. Then press the **CURSOR DOWN** button once to highlight the **AUTOLOCK** control.
- 4 Press the **CURSOR RIGHT** button to highlight the **ACCESS CODE** input area.
- 5 Enter your four-digit **ACCESS CODE**.
- 6 Press the **CURSOR DOWN** button repeatedly until **BLOCK OPTIONS** is highlighted.
- 7 Press the **CURSOR RIGHT** button to enter the **BLOCK OPTIONS** menu.
- 8 Press the **CURSOR DOWN** button twice to highlight **NO RATING**.
- 9 Press the **CURSOR RIGHT** or **LEFT** button to turn **NO RATING** ON or OFF.
- 10 Press the **i+** button to remove the menu.



SMART HELP

If the **NO RATING** control is turned on, all programs having no content advisory information will activate a screen like this. To watch the channel, enter your access code or turn the **NO RATING** option OFF.

Channel 12
Blocked by AutoLock
No rating
Access Code

REVIEWING YOUR SETTINGS

You can access a screen that shows your AutoLock settings.

BEGIN

- 1 Press the **i+** button on your remote twice. Your AutoLock settings will appear on the screen.

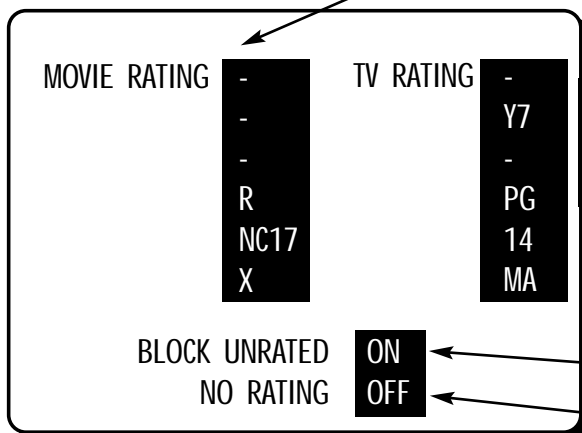
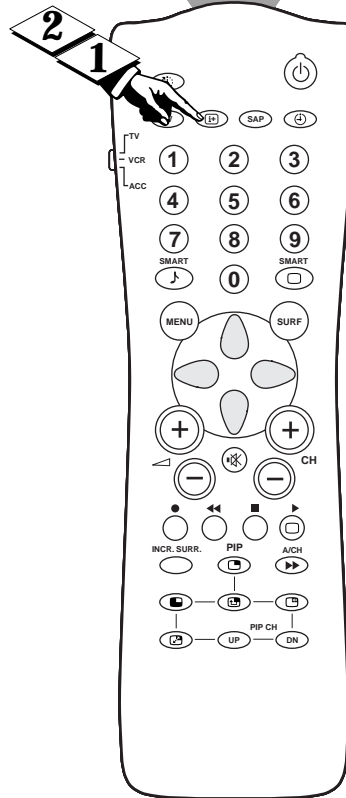
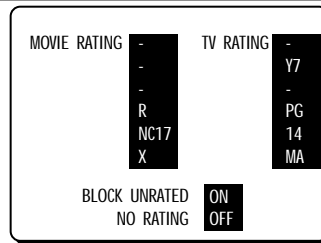
NOTE: If you have blocked specific subratings, such as V for Violence in the TV-PG category, these blocked subratings will not appear in the review. Nonetheless, the subratings are still blocked according to your selections.

- 2 After a few seconds, the settings will leave the screen automatically, or you can **press the i+ button** to remove them from the screen.

STOP

SMART HELP

The AutoLock review screen will appear only if you have turned **ON** the **BLOCKING** control (see page 24).



MOVIE RATING—shows all the movie ratings that you have chosen to block within the MOVIE RATING control. **NOTE:** If a lower rating is blocked, higher ratings will also be blocked automatically. For example, if you block R-rated programs, those that are rated X will also be blocked.

TV RATING—shows all the TV ratings that you have chosen to block within the TV RATING control. **NOTE:** If a lower rating is blocked, higher ratings will also be blocked automatically. For example, if you block TV-PG-rated programs, those rated TV-14 and TV-MA will also be blocked. The TV rating controls also have subratings for Violence (V), Fantasy Violence (FV), Sexual Situations (S), Coarse Language (L), and Suggestive Language (D). If you turn off a main rating but turn on a subrating of that main rating control, programs having the subrating will be blocked; however, the main rating will not appear within the AutoLock review menu because you did not turn it ON.

BLOCK UNRATED—shows whether you have turned this control ON or OFF.

BLOCK NO RATING—shows whether you have turned this control ON or OFF.



CLEARING ALL BLOCKED CHANNELS

The CLEAR ALL control will allow you to remove all channel blocks that have been turned on through the BLOCK CHANNEL control. To clear all channel blocks, follow the simple steps below.

(BEGIN)

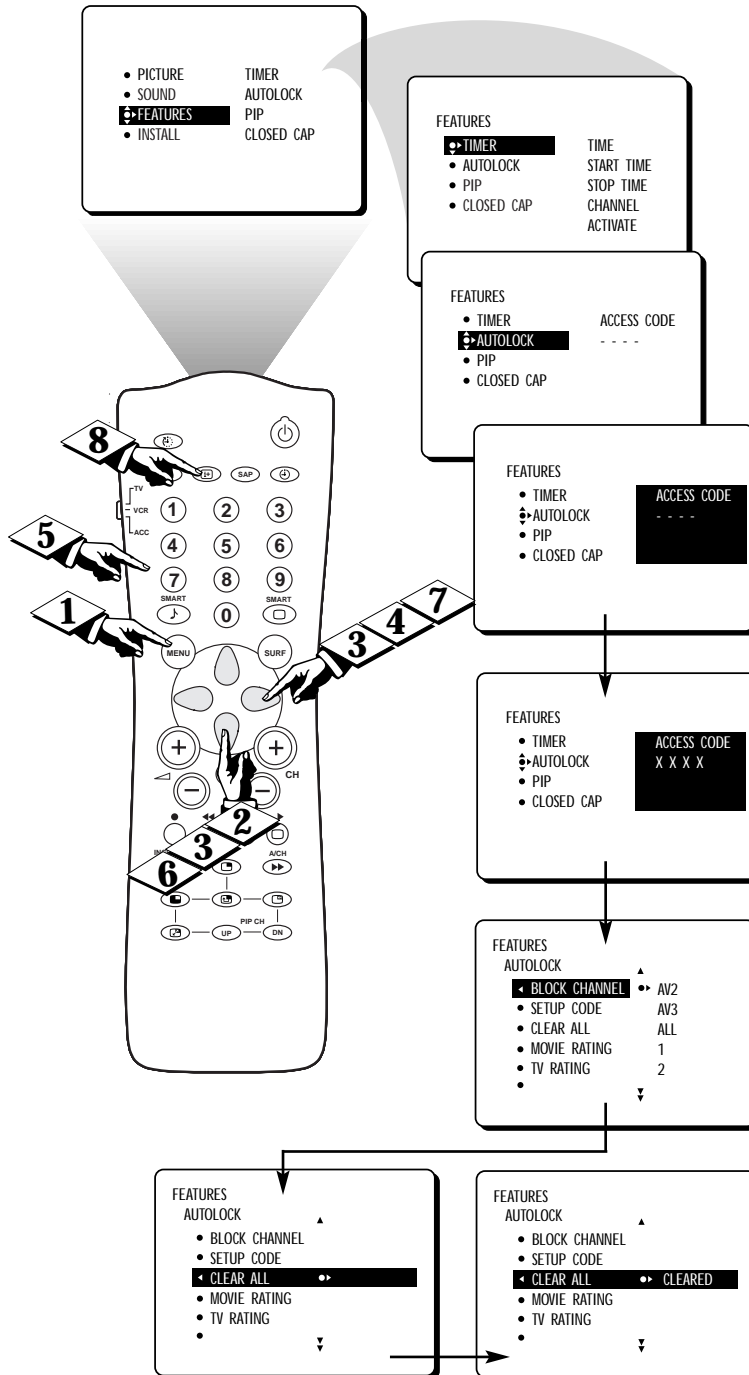
- 1 Press the **MENU** button on the remote to show the on-screen menu.
- 2 Press the **CURSOR DOWN** button twice to highlight **FEATURES**.
- 3 Press the **CURSOR RIGHT** button to enter the **FEATURES** menu. Then press the **CURSOR DOWN** button once to highlight the **AUTOLOCK** control.
- 4 Press the **CURSOR RIGHT** button again to highlight **ACCESS CODE**.
- 5 Enter your four-digit **ACCESS CODE**.
- 6 Press the **CURSOR DOWN** button twice to highlight **CLEAR ALL**.
- 7 Press the **CURSOR RIGHT** button. The **CLEAR ALL** option will display the word **CLEARED**. All blocked channels will then be viewable.
- 8 Press the **i+** button to remove the menu.

STOP



SMART HELP

This control clears only the blocks placed on channels through use of the **BLOCK CHANNEL** control and will not turn off the **MOVIE RATING**, **TV RATING**, **BLOCK UNRATED**, or **NO RATING** control settings.



USING 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 on-screen text boxes to show dialogue and conversations while the TV program is in progress.

BEGIN

- 1 Press the **MENU** button on the remote control to show the on-screen menu.
- 2 Press the **CURSOR DOWN** button twice to highlight **FEATURES**.
- 3 Press the **CURSOR RIGHT** button to enter the **FEATURES** menu.
- 4 Press the **CURSOR DOWN** button repeatedly until **CLOSED CAP** is highlighted.
- 5 Press the **CURSOR RIGHT** button. The menu will shift to the left and **CAPTION MODE** will be highlighted. Then press the **CURSOR RIGHT** button again to highlight the **CAPTION MODEs** area.
- 6 Press the **CURSOR UP** or **DOWN** button to select a **CAPTION MODE**.
- 7 Press the **i+** button to remove the menu from the screen.



SMART HELP



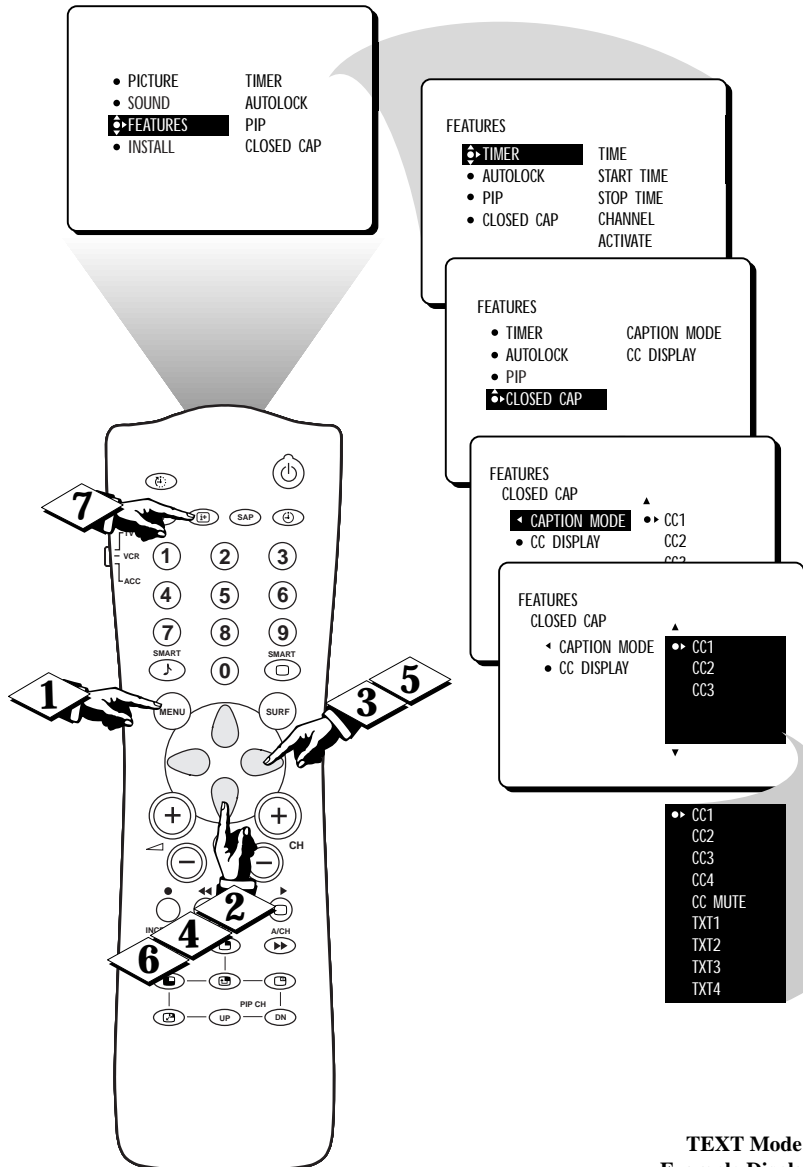
CC DISPLAY—turns text on or off if the TV station broadcasting on the channel is making Closed Captioning available. Highlight **CC DISPLAY** and press the **CURSOR RIGHT** button to turn this feature on or off.

CC MUTE—turns the Closed Captioning mode on whenever the **MUTE** button on the remote control is pushed. Select **CC MUTE** in the on-screen menu to turn this feature on. Closed Captioning cannot be used on the **CVI** (Component Video input) source.

SMART HELP



Not all TV programs and product commercials are broadcast with Closed Captioning (CC). Nor are all Closed Captioning **MODEs** necessarily being used by broadcast stations during a program offering Closed Captioning. Refer to your area's TV program listings for the stations and times of shows being broadcast with Closed Captioning.



CAPTION Mode Example Display



TEXT Mode Example Display - The TV program is blocked by the Text screen.





ADJUSTING THE TREBLE, BASS, AND BALANCE

*B*esides the normal volume level control, your TV also has individual sound-adjustment controls. You can use **TREBLE** (high frequency), **BASS** (low frequency), and **Speaker BALANCE** to further adjust the sound playback of TV programs.

BEGIN

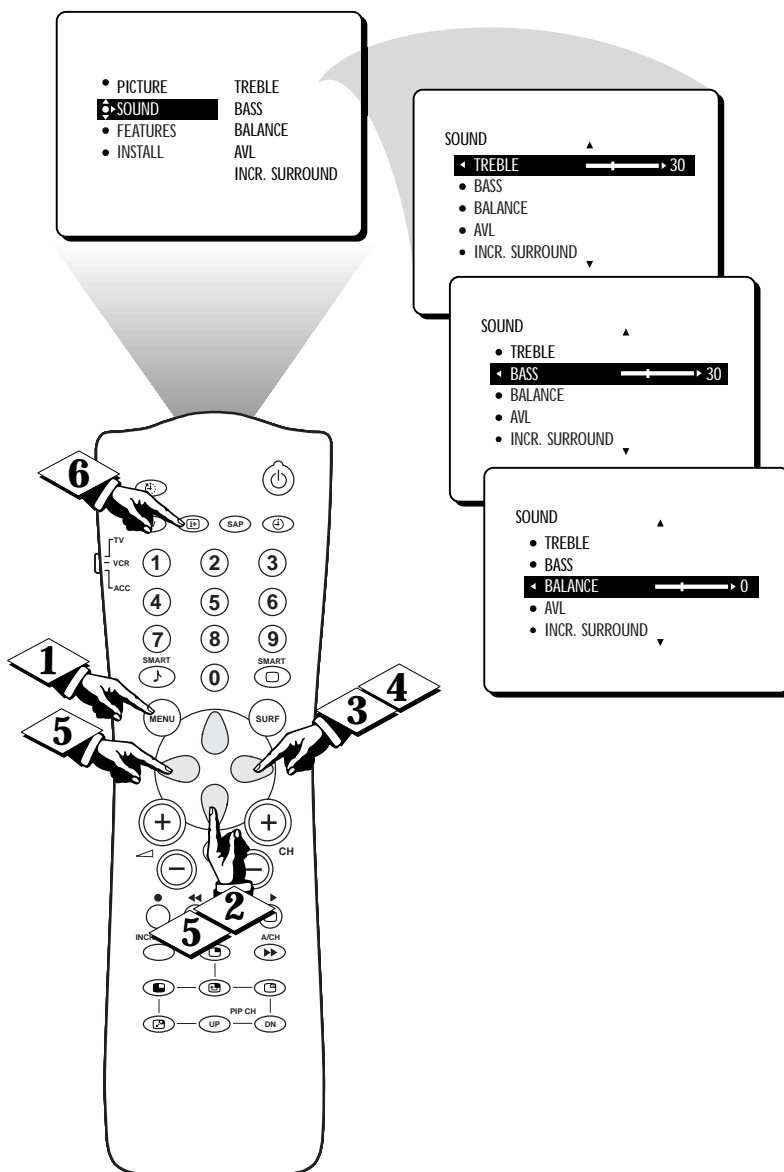
- 1 Press the **MENU** button on the remote control to show the on-screen menu.
- 2 Press the **CURSOR DOWN** button once to highlight **SOUND**.
- 3 Press the **CURSOR RIGHT** button to enter the **SOUND** menu.
- 4 Press the **CURSOR RIGHT** or **LEFT** button to adjust the **TREBLE** level of the television's sound.
- 5 After adjusting the **TREBLE** control, press the **CURSOR DOWN** button to select another sound adjustment: **BASS** or **BALANCE**. Then Press the **CURSOR RIGHT** or **LEFT** button to adjust the selected control.
- 6 Press the **i+** button to remove the menu from the screen.



SMART HELP



Remember, when the bar scale is centered, speaker sound **BALANCE** is centered between the TV's left and right side speakers.



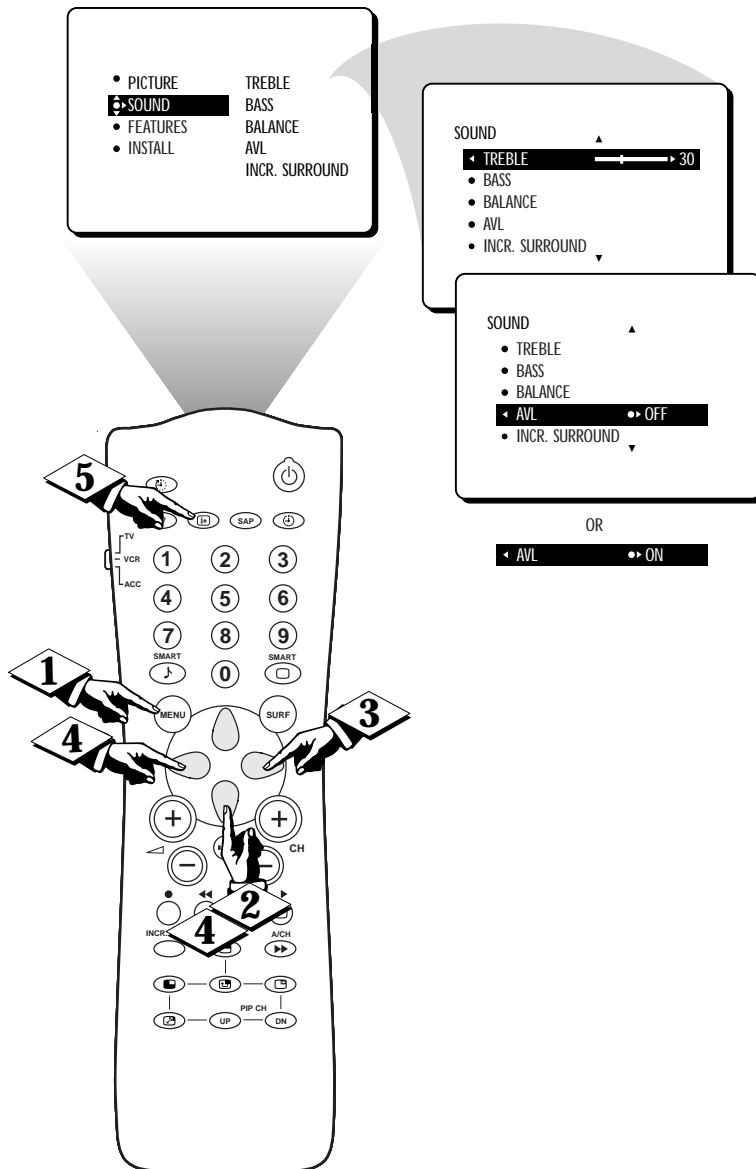
USING THE AVL (AUDIO VOLUME LEVELER) CONTROL



You may have noticed the peaks and valleys of sound that occur between program changes or at commercial breaks. The volume levels often vary considerably. By turning on the AVL (Audio Volume Leveler) control, you can make your TV produce a more consistent volume level. Follow these steps to turn the AVL on.

BEGIN

- 1 Press the **MENU** button on the remote control to show the on-screen menu.
- 2 Press the **CURSOR DOWN** button once to highlight **SOUND**.
- 3 Press the **CURSOR RIGHT** button to enter the **SOUND** menu.
- 4 Press the **CURSOR DOWN** button repeatedly until **AVL** is highlighted. Then press the **CURSOR RIGHT** or **LEFT** button to turn AVL ON or OFF.
- 5 Press the **i+** button to remove the menu from the screen.





USING INCREDIBLE SURROUND

The Incredible Surround feature will boost the TV's sound by making the sound broader and fuller. Set the INCREDIBLE SURROUND control to INCREDIBLE SURROUND to enhance stereo programs. Or set the INCREDIBLE SURROUND control to SPATIAL to give a "surround" effect to mono programs.

BEGIN

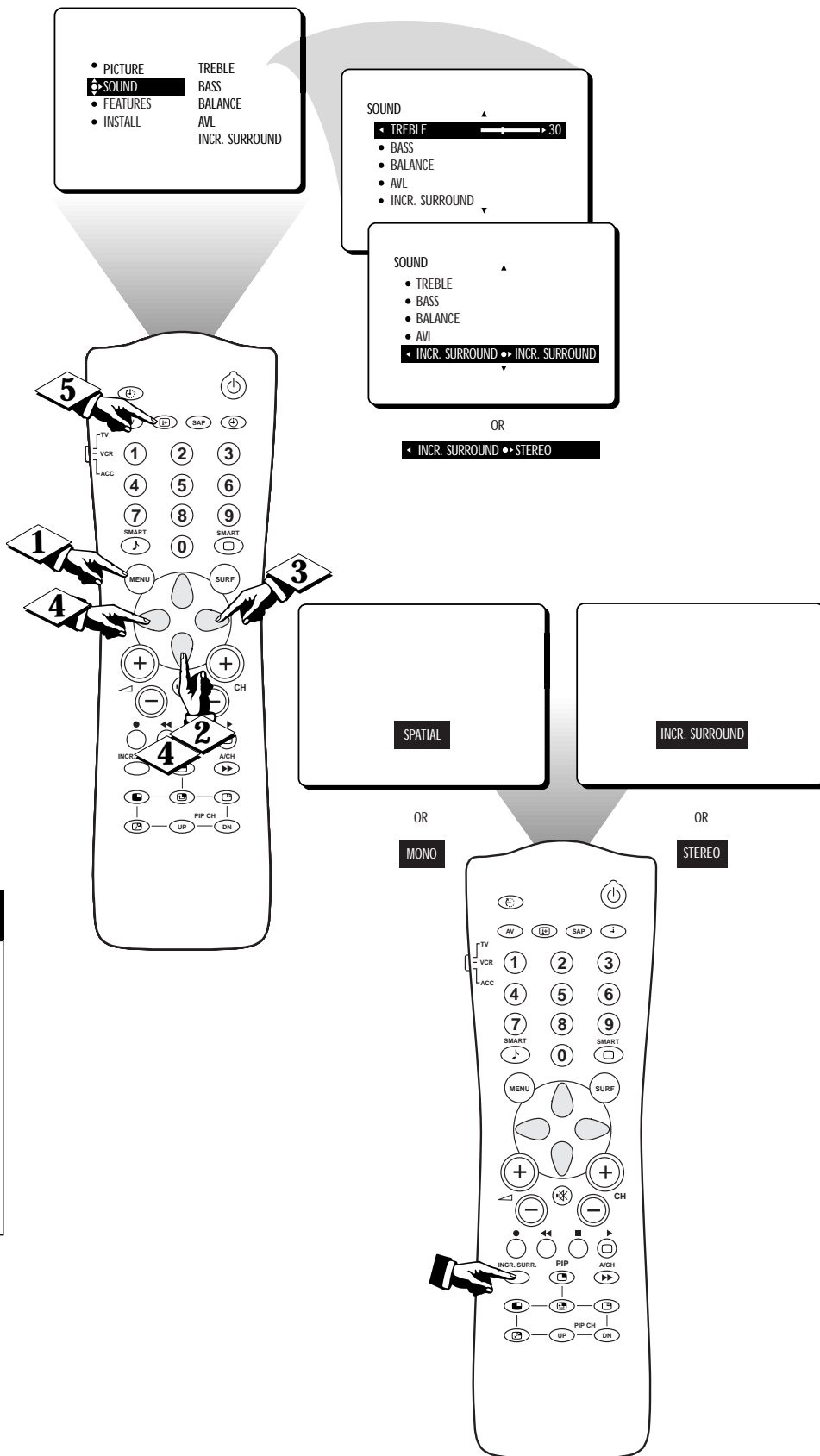
- 1** Press the **MENU** button on the remote control to show the on-screen menu.
- 2** Press the **CURSOR DOWN** button once to highlight **SOUND**.
- 3** Press the **CURSOR RIGHT** button to enter the **SOUND** menu.
- 4** Press the **CURSOR DOWN** button repeatedly until **INCR. SURROUND** is highlighted. Then press the **CURSOR RIGHT** or **LEFT** button to select **SPATIAL** or **MONO** for a mono program, or **INCR. SURROUND** or **STEREO** for a stereo program.
- 5** Press the **i+** button to remove the menu from the screen.

STOP

SMART HELP



Press the **INCR. SURR.** button on the remote to toggle between the same Incredible Surround options discussed above: **SPATIAL** or **MONO** and **INCR. SURROUND** or **STEREO**. The options available to you will be determined by the program the TV is on when you push the **INCR. SURR.** button.



SETTING THE TV FOR STEREO AND SAP

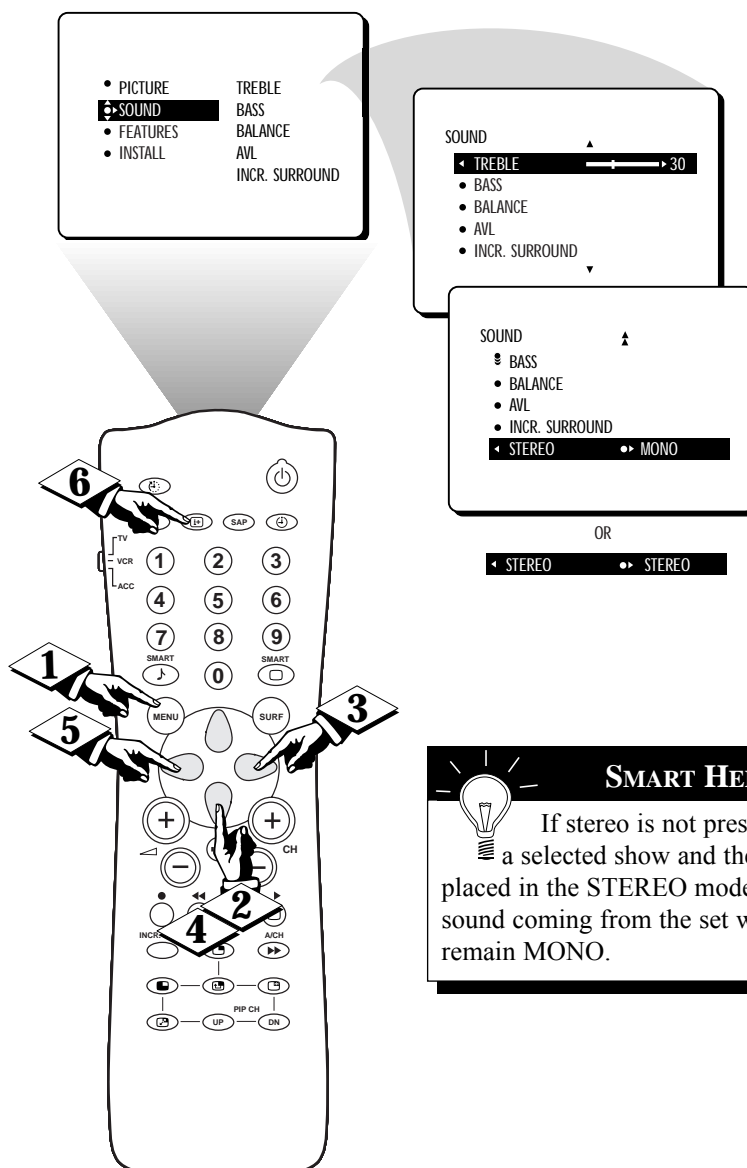


STEREO MODE

You can enjoy stereo programs on your TV. It has both an amplifier and twin speakers through which stereo sound can be heard. Follow these steps to select the STEREO mode.

BEGIN

- 1** Press the **MENU** button on the remote control to show the on-screen menu.
- 2** Press the **CURSOR DOWN** button once to highlight the **SOUND** menu.
- 3** Press the **CURSOR RIGHT** button to enter the **SOUND** menu.
- 4** Press the **CURSOR DOWN** button repeatedly until the **STEREO** control is highlighted.
- 5** Press the **CURSOR RIGHT** or **LEFT** button to select **STEREO** or **MONO**. When **STEREO** has been selected, the television will reproduce any stereo signal it receives.
- 6** Press the **i+** button to remove the menu from the screen.



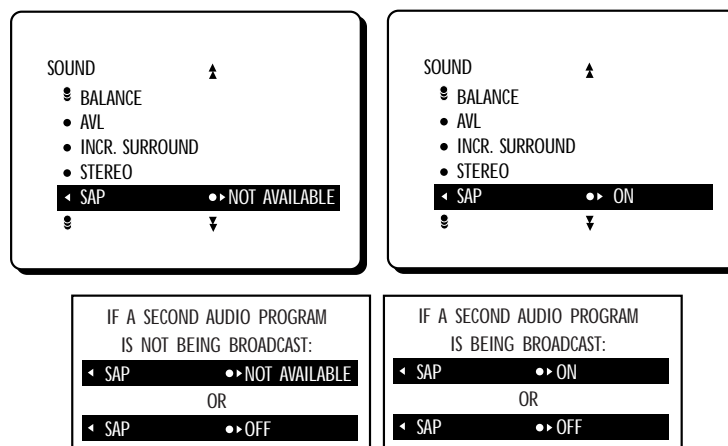
SMART HELP

If stereo is not present on a selected show and the TV is placed in the STEREO mode, the sound coming from the set will remain MONO.

SECOND AUDIO PROGRAM (SAP)

A Second Audio Program, or SAP, is an additional part of the stereo broadcast system. Sent as a third audio channel, an SAP can be heard apart from the current TV program sound. TV stations are free to use SAP for any number of purposes, such as the broadcast of a second language or other audio information.

If an SAP signal is not present with a selected program, the SAP option cannot be selected; NOT AVAILABLE will appear on screen. Also, if SAP is selected on a channel and you change to another channel, when you return to the original channel, SAP will be off. You will have to reselect the SAP feature.



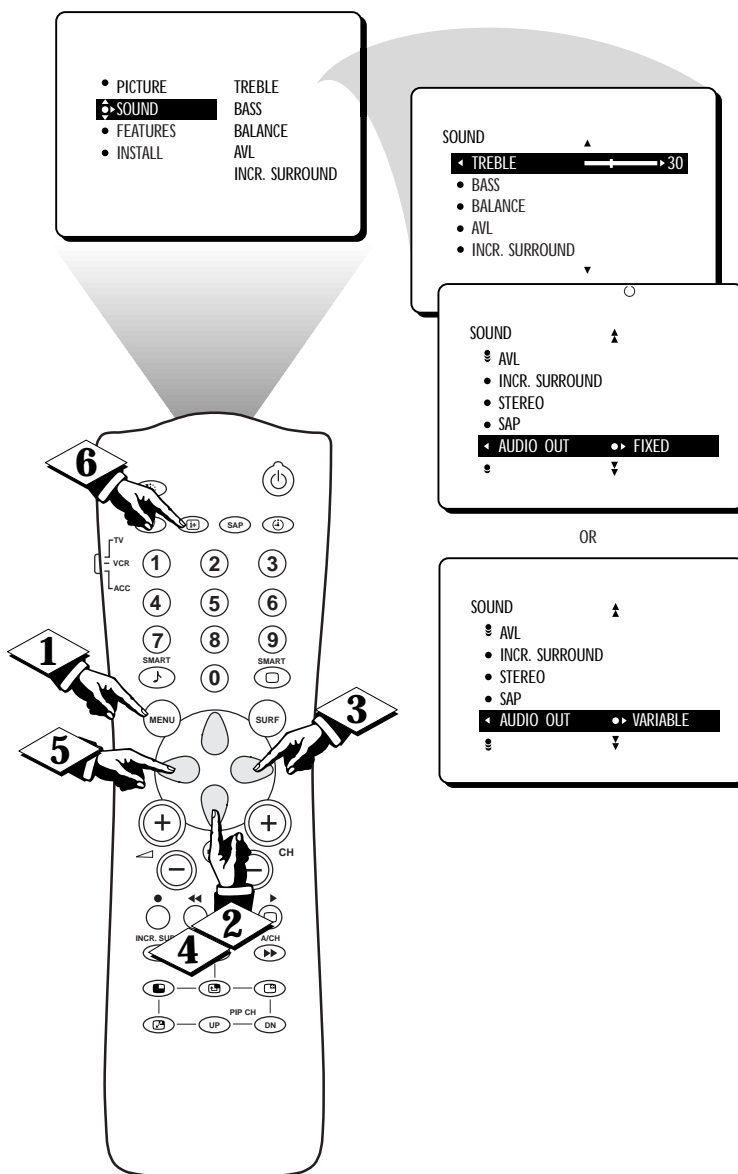


SETTING THE AUDIO OUT CONTROL

If you have connected the TV's AUDIO OUTPUT jacks to the AUDIO INPUT jacks on a stereo receiver, set AUDIO OUT to either VARIABLE or FIXED to determine whether you adjust the volume at the TV or at the stereo. If you select VARIABLE, change the volume at the TV using the TV's remote control. If you select FIXED, adjust the volume at the stereo using the stereo's controls. Follow these steps to make your selection.

BEGIN

- 1 Press the **MENU** button on the remote control to show the on-screen menu.
- 2 Press the **CURSOR DOWN** button once to highlight **SOUND**.
- 3 Press the **CURSOR RIGHT** button to enter the **SOUND** menu.
- 4 Press the **CURSOR DOWN** button repeatedly until **AUDIO OUT** is highlighted.
- 5 Press the **CURSOR RIGHT** or **LEFT** button to set the **AUDIO OUT** to **VARIABLE** or **FIXED**.
- 6 Press the **i+** button to remove the menu from the screen.



USING THE TV SPEAKER CONTROL AND AUDIO OUTPUTS



Would you like to hear TV programs through your audio hi-fi system? The TV's Audio Outputs and TV Speaker ON/OFF control work together to offer you this TV sound option.

BEGIN

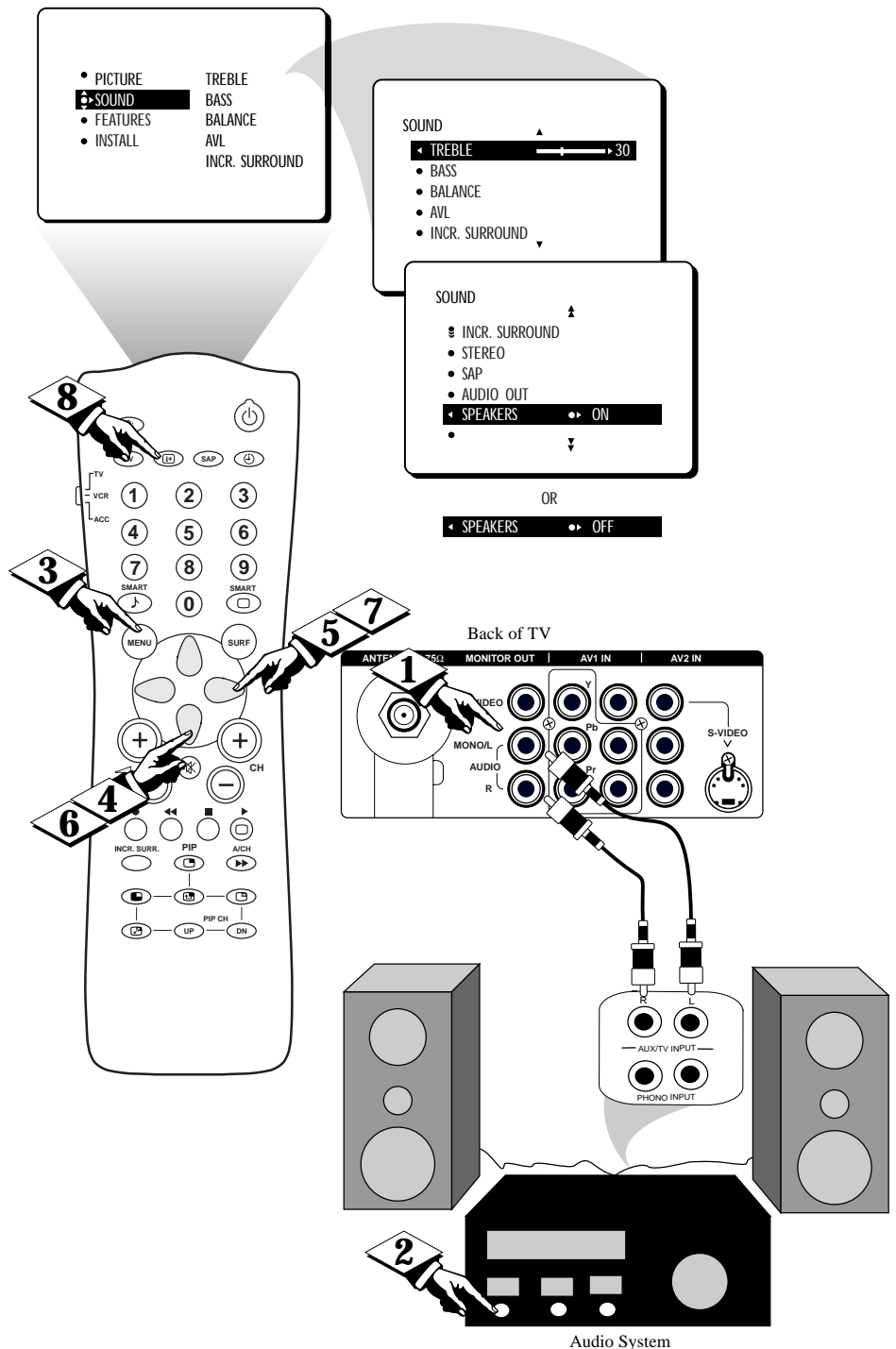
- 1** Use audio cables to connect the **R(ight) and L(eft) AUDIO OUT(puts)** on the TV to the **AUX/TV INPUTs** on your amplifier or sound system. Set the audio system's volume to a normal listening level.
 - 2** Turn the TV and audio system **ON**. You can now adjust the sound level coming from the audio system with the **VOL(ume) (+, -)** buttons on the TV or remote control.
- To hear the TV sound from only the audio system speakers:
- 3** Press the **MENU** button on the remote control to show the on-screen menu.
 - 4** Press the **CURSOR DOWN** button once to highlight **SOUND**.
 - 5** Press the **CURSOR RIGHT** button to enter the **SOUND** menu.
 - 6** Press the **CURSOR DOWN** button repeatedly until the **SPEAKERS** control is highlighted.
 - 7** Press the **CURSOR RIGHT** or **LEFT** button to turn the television's speakers **ON** or **OFF**. With the **SPEAKERS** control set to **OFF**, you should hear the TV sound coming only from the audio system speakers.
 - 8** Press the **i+** button to remove the menu from the screen.

STOP

SMART HELP



The audio system may have to be in **AUX(iliary)** mode to play sound from the TV.



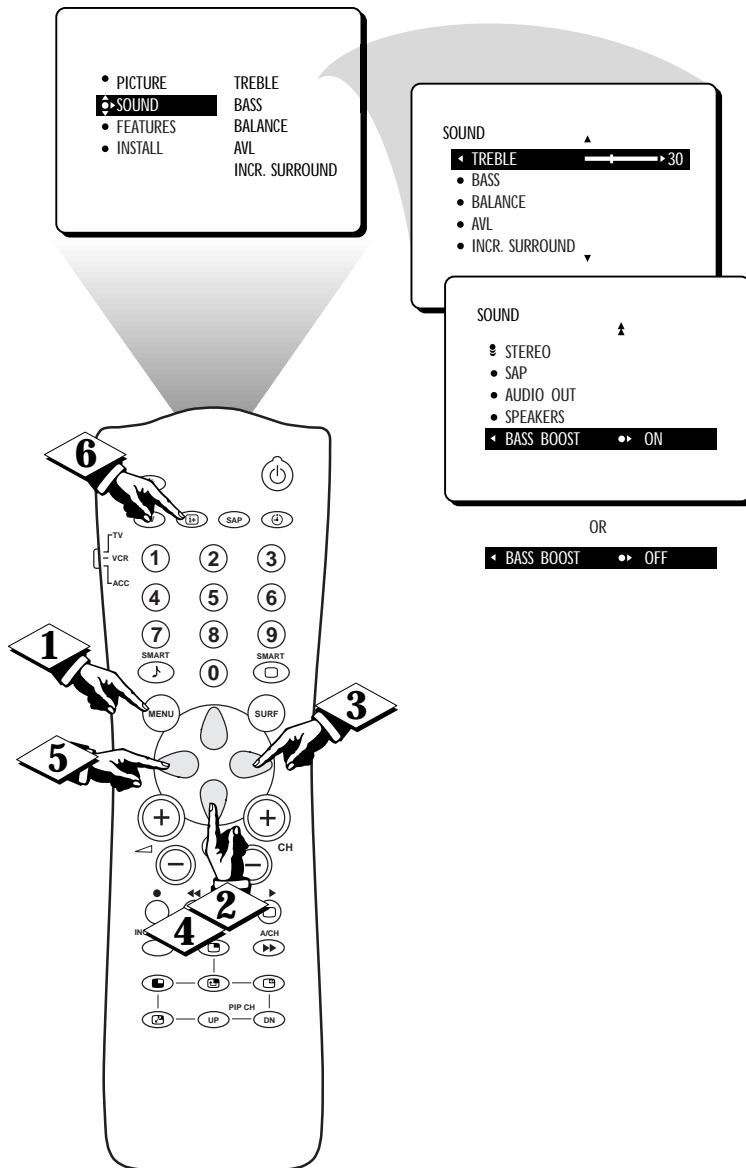


USING THE BASS BOOST CONTROL

The BASS BOOST control allows you to increase the low-frequency range of the TV's sound. This creates a deeper, fuller sound. Follow these steps to turn BASS BOOST ON.

(BEGIN)

- 1 Press **MENU** button on the remote control to show the on-screen menu.
- 2 Press the **CURSOR DOWN** button once to highlight **SOUND**.
- 3 Press the **CURSOR RIGHT** button to enter the **SOUND** menu.
- 4 Press the **CURSOR DOWN** button repeatedly until **BASS BOOST** is highlighted.
- 5 Press the **CURSOR RIGHT** or **LEFT** button to turn **BASS BOOST** ON or OFF.
- 6 Press the **i+** button to remove the menu from the screen.



USING SMARTPICTURE

Whether you're watching a movie or playing a video game, your TV has automatic video control settings that will match with your current program source or content. SmartPicture 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 Movies, Sports, Weak Signal, and Multimedia AutoPicture controls have been preset at the factory to automatically adjust the TV's brightness, color, picture, sharpness, tint, and color temperature levels. The Personal AutoPicture settings are the ones that you made through the PICTURE options within the on-screen menu.

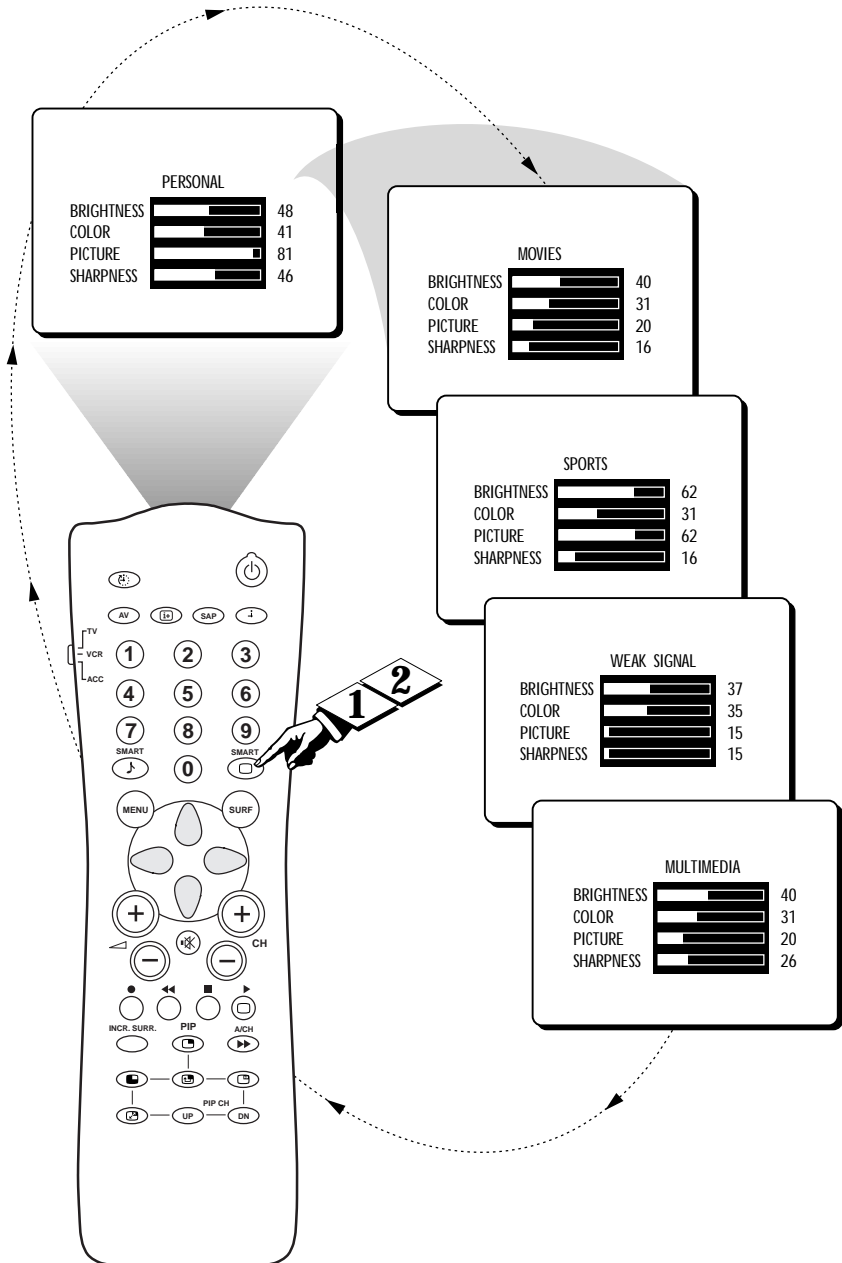
(BEGIN)

- 1 Press the **SMARTPICTURE** button on the remote control. The current AutoPicture setting will appear in the middle of the screen.
- 2 Press the **SMARTPICTURE** button repeatedly to select either PERSONAL, MOVIES, SPORTS, WEAK SIGNAL, or MULTIMEDIA picture settings.



SMART HELP

You determine the **PERSONAL** setting by adjustments you make within the **PICTURE** menu. The other SmartPicture settings are made at the factory and cannot be adjusted.



USING SMARTSOUND

SmartSound allows you to select from three factory-set controls and a personal control that you set according to your own preferences through the on-screen Sound menu. The three factory-set controls (Voice, Music, and Theatre) 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.

BEGIN

- 1 Press the **SMARTSOUND** button on the remote control. The current SmartSound setting will appear in the middle of the screen.
- 2 Press the **SMARTSOUND** button repeatedly to cycle through the four settings: PERSONAL, VOICE, MUSIC, or THEATRE.

STOP

SMART HELP



You determine the **PERSONAL** setting by adjustments you make within the **SOUND** menu. The other SmartSound settings are made at the factory and cannot be adjusted.

SmartSound works only with the programs coming through the **ANTENNA/CABLE** (ANT "A" or PIP ANT "B") inputs on the back of the TV. SmartSound will not control the sound levels of the other inputs on the back of the TV set.

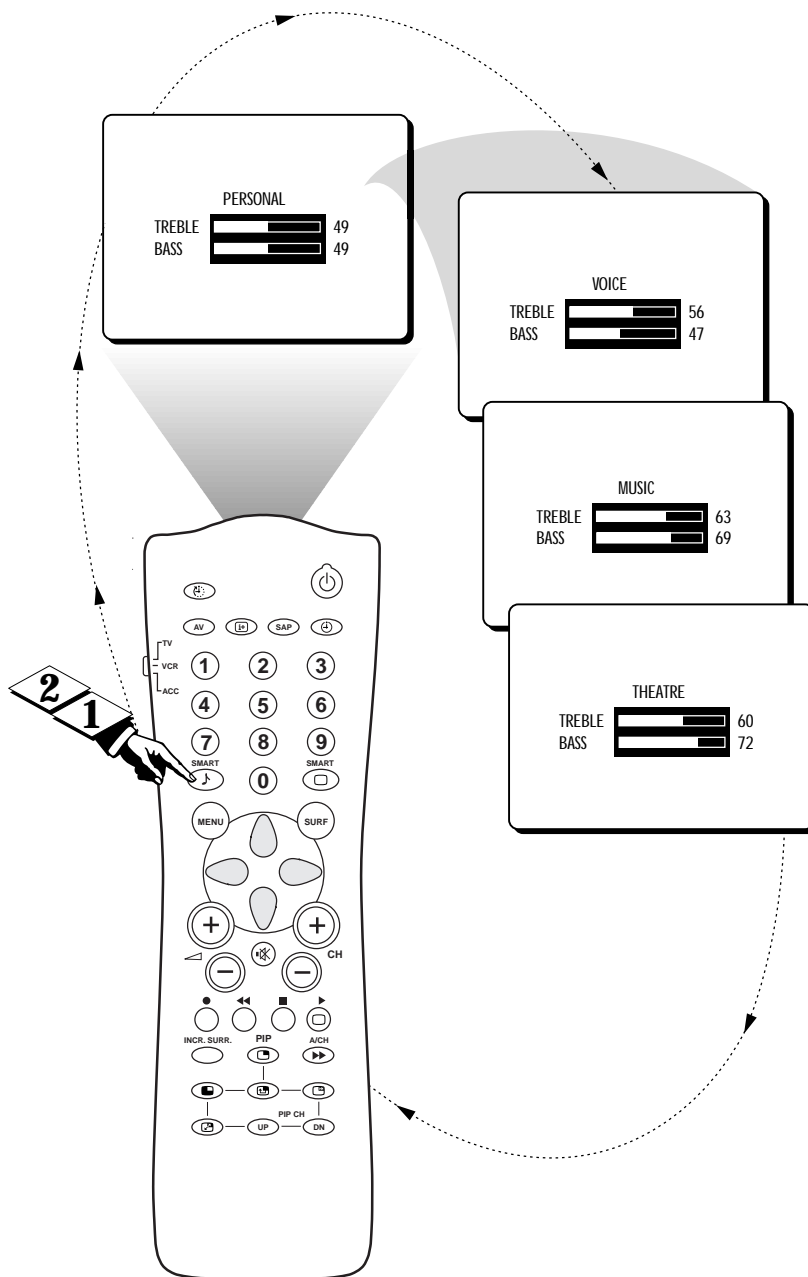
SmartSound Choices

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

VOICE—brings voices to the forefront and emphasizes them. Moves music to the background.

MUSIC—emphasizes music over voices.

THEATRE—provides a balance between voices and music.



USING SURF AND ALTERNATE CHANNEL

SURF

A list of previously viewed channels can be selected with the **SURF** button on your remote control. With **SURF**, you can easily switch between different TV channels that currently interest you. The **SURF** control allows you to set up to ten channels in its quick viewing list.

BEGIN

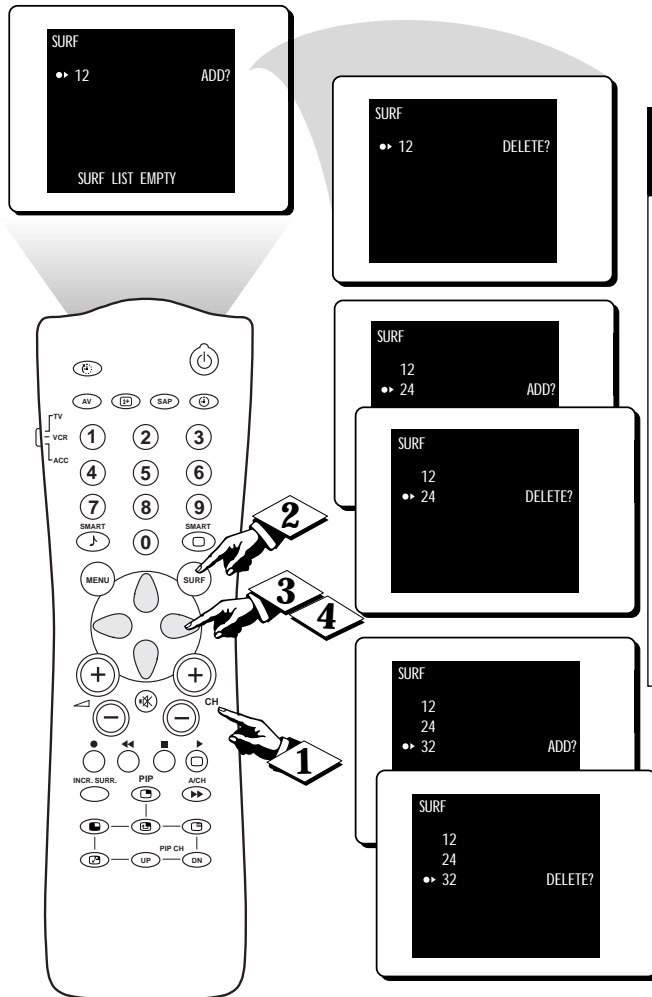
- 1 Press the **CH(annel) Scan (+, -)** buttons (or the **NUMBER** buttons) to select a channel to add to the **SURF** list.
- 2 Press the **SURF** button on the remote control. The on-screen display may read, "SURF LIST EMPTY." The number of the current channel will be shown with **ADD?** to the right.
- 3 While the **SURF** list message or the **SURF** channel list appears on the screen, press the **CURSOR RIGHT** button to add the present channel to the **SURF** list.
- 4 If you want to delete the present channel from the **SURF** list, press the **CURSOR RIGHT** button again.

Repeat steps 1 through 3 to add more channels (up to 10) to the **SURF** list.



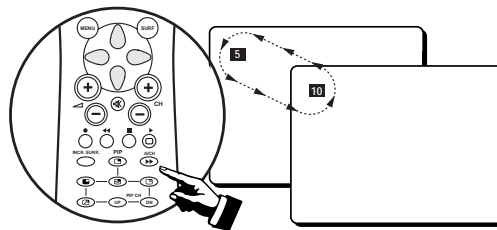
ALTERNATE CHANNEL (A/CH)

Your remote also has an **A/CH** (Alternate Channel) button. Pressing this button will toggle between the current channel and one previous channel.



SMART HELP

Along with the broadcast channels, the external video source connections can be added to the **SURF** list. This means that the **AV 1**, **CVI**, and **AV 2** signal sources can be added to your **SURF** list. Just press the **AV** button on your remote to select the signal source and then follow steps 2–4 in the "Surf" section on this page.



USING THE SLEEP TIMER CONTROL

Have you ever fallen asleep in front of the TV, only to be awakened in the middle of the night by the screeching sound that accompanies the on-screen test pattern of a station that's signed off? Your TV can enable you to avoid that discomfort by automatically turning itself off. You choose the amount of time before the set turns off.

BEGIN

- 1 Press the **SLEEP** button on the remote control. The SLEEP Timer on-screen display will appear in the upper part of the screen.

- 2 Within five seconds, press the **SLEEP** button repeatedly to pick the amount of time before the TV will turn itself off.

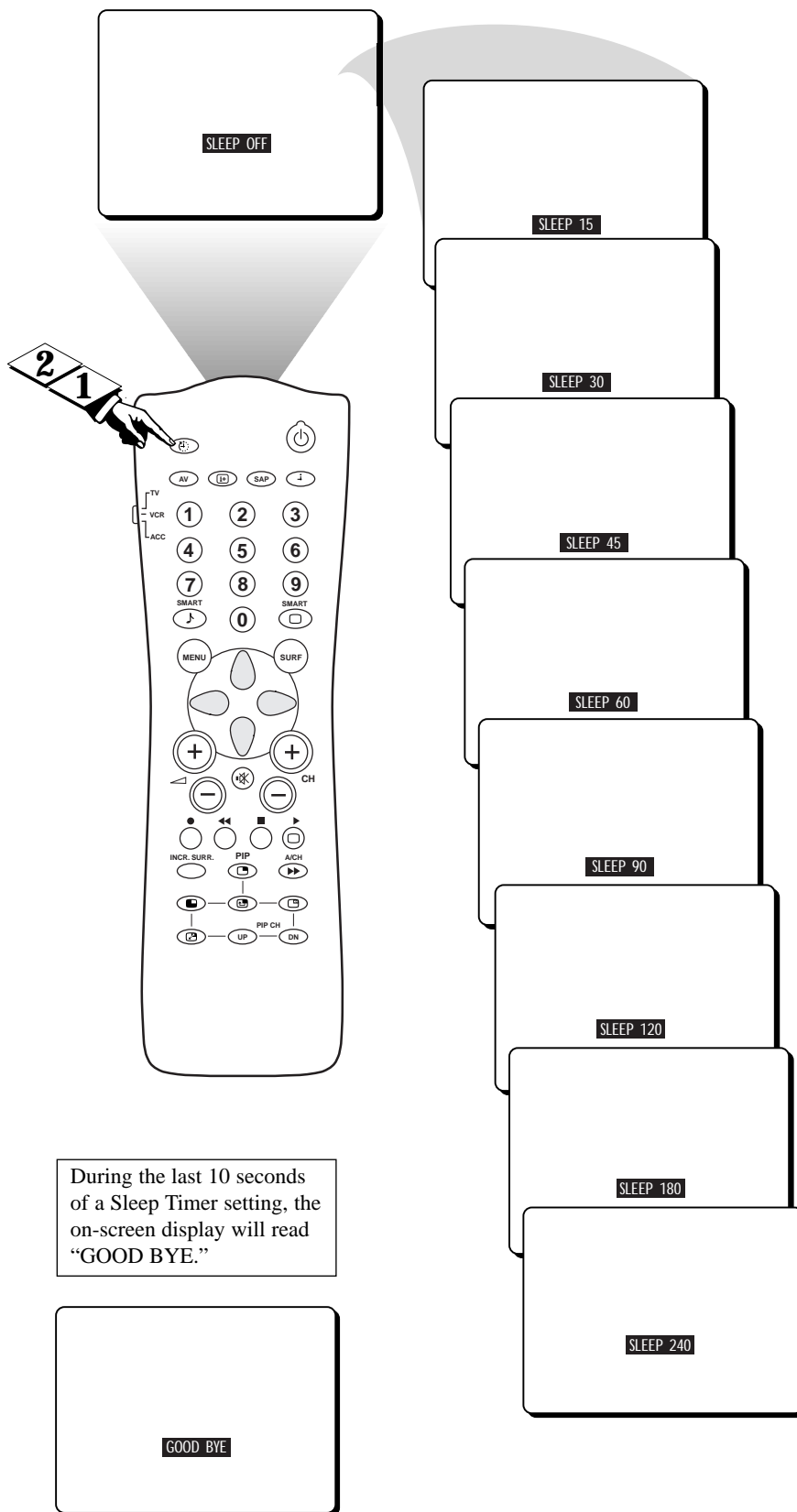
An on-screen countdown will appear during the last minute before the TV turns off.



SMART HELP



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



During the last minute of a Sleep Timer setting, an on-screen countdown will be displayed.

During the last 10 seconds of a Sleep Timer setting, the on-screen display will read "GOOD BYE."

USING THE VOLUME AND AV BUTTONS

VOLUME BUTTONS

*Press the **VOLUME** (+, -) buttons on the remote and the volume adjustment bar will appear on screen. Adjustments are shown as you make them.*

BEGIN

- 1** Press the **VOLUME** (+, -) buttons on the remote control to show the **VOLUME** bar display on the screen.
- 2** Press the **VOLUME** (+, -) buttons to adjust the TV's sound level.

STOP

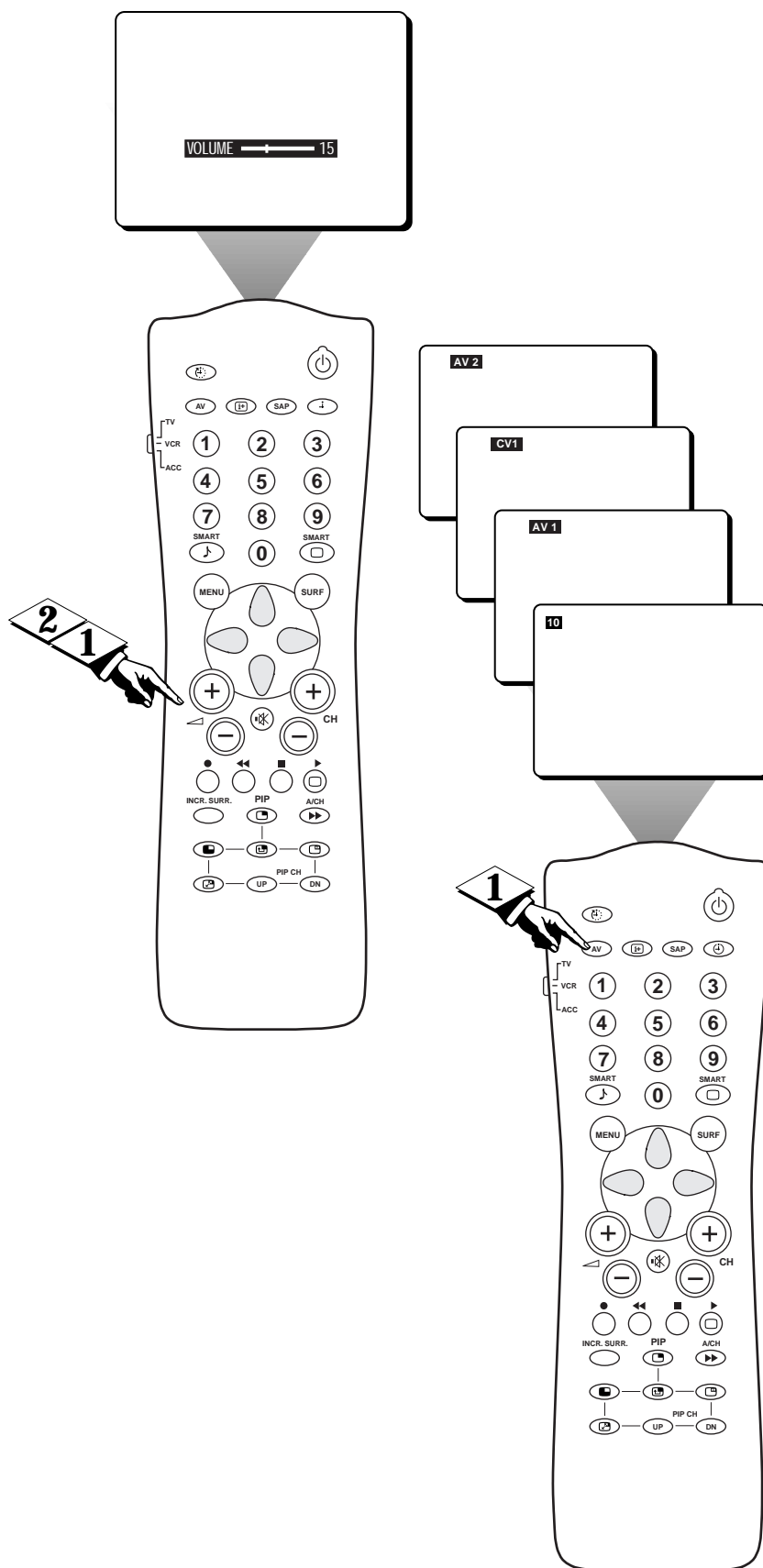
AV BUTTON

*The **AV** button on your remote control allows you to choose from among the signal sources you have connected to your TV.*

BEGIN

- 1** Press the **AV** button on your remote to choose a signal source for viewing.

STOP



SETTING THE TV REMOTE TO WORK ACCESSORY DEVICES

Your TV remote is capable of working not only your TV but also infrared remote (IR) controlled devices such as VCRs, cable TV converter boxes, satellite receivers, DVD players, and laser disc players.

If you want to use your TV remote to operate a VCR or other accessory device, you will need to perform this initial check explained in this section. You may also need to go to the sections on the “Direct Access Method” and the “Search Method” in the pages that follow.

BEGIN

- 1 Move the slide switch on the side of the TV remote to VCR or ACC mode for the accessory device category you want.

NOTE: selecting the ACC(essory) mode button allows access to the product codes for cable TV converters, DVD players, satellite receivers, and laser disc players.

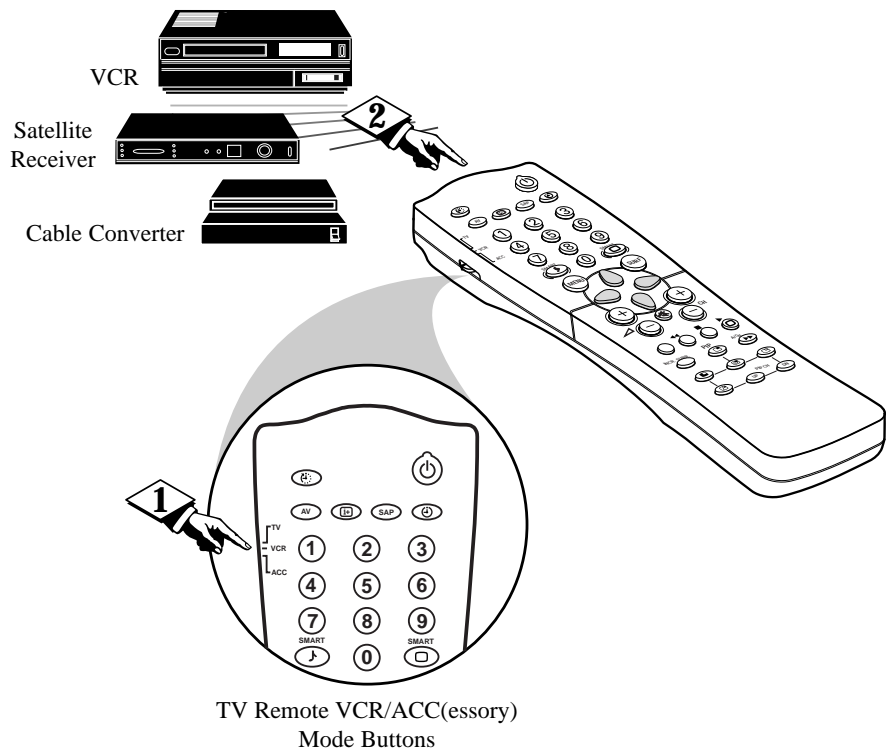
- 2 Point the TV remote toward the desired accessory device and press the POWER button.

Does the remote turn the accessory device on?

If yes, **STOP** and try other function buttons on the TV remote. If they also work the accessory device, then the remote is ready and no further steps are needed.

If no, do the following:

Look up a **three-digit remote code number** on page 45 or 46 for your brand of accessory device. Then go through the simple Direct Access Method steps shown on page 43.



TV Remote VCR/ACC(essory)
Mode Buttons

SMART HELP



If more than one number is listed, you may have to try more than the first three-digit code given to locate your device's correct code.

SETTING THE TV REMOTE TO WORK ACCESSORY DEVICES

DIRECT ACCESS METHOD

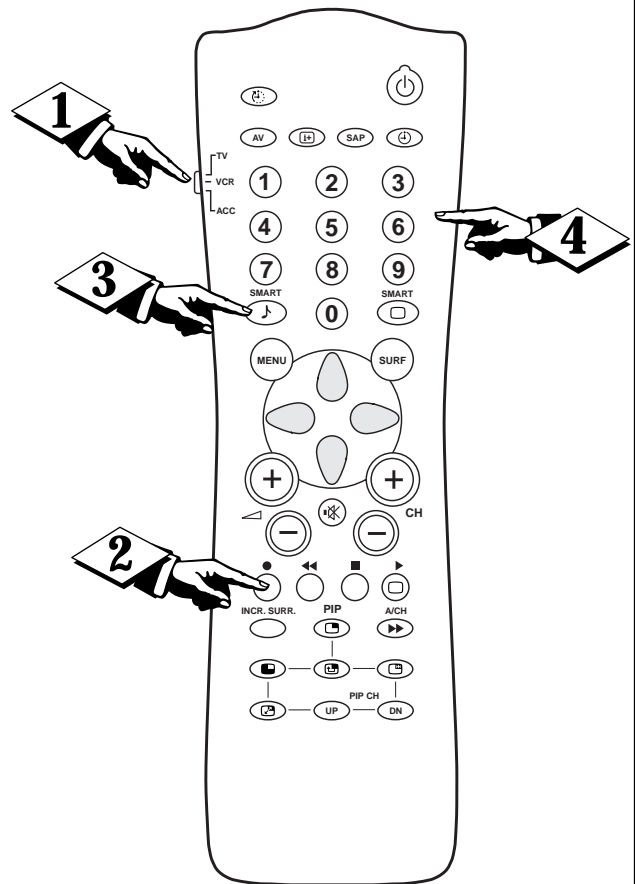
Now that you have looked up the three-digit Remote Control Direct Entry Code for your brand of accessory device, you are ready to follow the simple steps shown below.

Please read through all the steps before beginning.

BEGIN

- 1 Move the slide switch on the side of the TV remote to VCR or ACC mode for the device you want.
- 2 Press the VCR RECORD (•) button and release.
- 3 Within 30 seconds, press the SMARTSOUND button.
- 4 Within 30 seconds, Enter the three-digit ID code (the code is list on pages 45 and 46).
- 5 Point the remote at the accessory device. Then press the POWER button on the TV remote to turn the device on.

STOP



SMART HELP



- ACC mode is for cable converter boxes, satellite receivers, DVDs, and laser disc players.
- If the procedure explained above does not work the first time, repeat the steps using the same remote code number.
- If after a second try the TV remote does not operate your accessory device, and more code numbers are listed for your brand, use the next listed code number. Continue trying the code numbers until successful.
- If none of the codes listed for the accessory device will work, go to the Search Method on the next page.

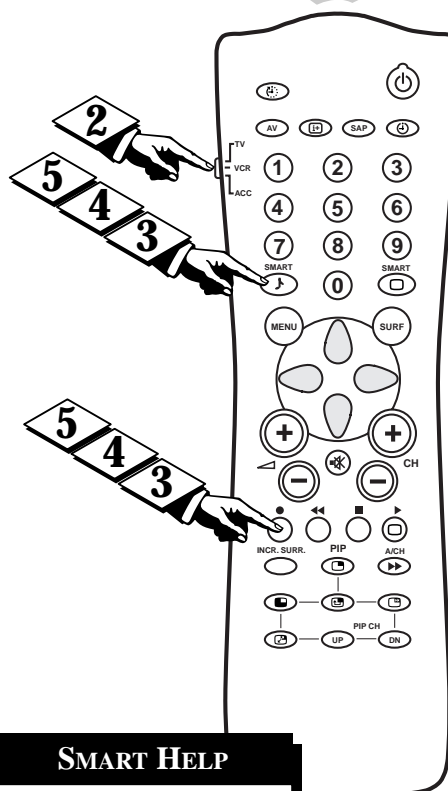
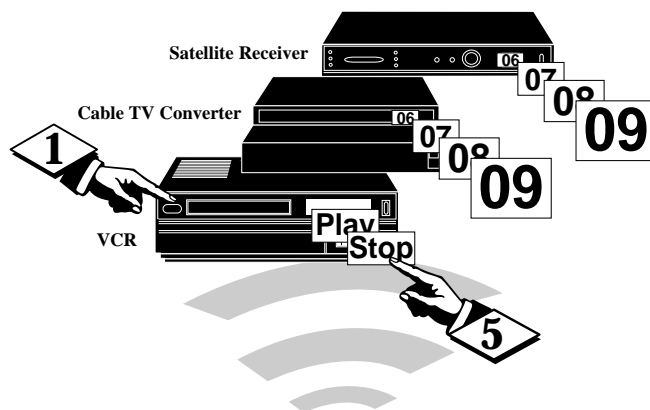
SETTING THE TV REMOTE TO WORK ACCESSORY DEVICES

SEARCH METHOD

Your TV remote can be set to work various accessory devices (VCRs, cable converters, satellite receivers) by what is called the Search Method. **NOTE:** The Search Method works with devices equipped with Channel Display Indicators (cable TV converters, satellite receivers, etc.). For VCRs, the play/stop function is used to confirm that the correct code has been found. Please read the steps below once before performing them.

(BEGIN)

- 1 **Turn on the desired device.** For a VCR, insert a tape and begin playing.
- 2 **Move the slide switch** on the side of the TV remote to VCR or ACC mode for the desired device.
- 3 **Press and hold the VCR RECORD (•) and SMARTSOUND buttons** at the same time.
- 4 **While continuing to hold the VCR RECORD (•) and SMARTSOUND buttons, point the TV remote** at the remote sensor window of the accessory device. The TV remote will begin transmitting codes to try to find the one for your accessory device.
- 5 **For cable converter boxes and satellite receivers, watch the accessory device's Channel Indicator.** When the channel numbers begin to change, immediately release the VCR RECORD (•) and SMARTSOUND buttons. The TV remote has identified the correct remote code for the accessory device. **For VCRs, when the VCR player stops, the correct code has been found.** When you release the VCR RECORD and SMARTSOUND buttons, the remote code for the accessory device will be stored in the TV remote. Whenever you want to use the TV remote to work the accessory device, remember to have the slide switch on the TV remote in the VCR or ACC mode. Then point the TV remote at the accessory device to operate it.



SMART HELP



- Your TV remote may locate the accessory device's code quickly or require several minutes to do so.
- Don't let the accessory device scan through more than five channels when the correct code is found—the remote may pass up the right code and have to repeat the search cycle.
- If the channel does not change on the accessory device or if the VCR fails to stop, repeat steps 1–4. If there is still no response, the remote will not work the accessory device or VCR.



SETTING THE TV REMOTE TO WORK ACCESSORIES



Remote Control Direct Entry Codes

VCR BRAND AND REMOTE CODE(S)

Admiral	.075, 236
Adventura	.027
Aiko	.305
Aiwa	.334, 495, 027, 064
Akai	.133, 080, 068, 076, 088, 183, 269
America Action	.305
American High	.062
Asha	.267
Audiovox	.064
Beaumarck	.267
Bell & Howell	.131
Broksonic	.148, 211, 029, 236, 238, 322, 388, 506
CCE	.099, 305
Calix	.064
Canon	.194, 062, 129
Capehart	.047
Carver	.108
Cineral	.305
Citizen	.305, 064
Colt	.099
Craig	.064, 099, 074, 267, 298
Curtis Mathes	.062, 068, 087, 189
Cybernex	.078, 267
Daewoo	.305, 588, 047, 072
Daytron	.047
Denon	.069
Dynatech	.027
Electrohome	.064
Electroponic	.064
Emerex	.059
Emerson	.211, 029, 236, 305, 063, 148, 238, 588, 235, 321, 506, 088, 115, 239, 027, 064, 070, 095, 322, 388, 537
Fisher	.074, 131, 081, 093
Fuji	.060, 062
Funai	.027
GE	.062, 087, 075, 092, 229, 267
Garrard	.027
Go Video	.306, 459, 553, 259
GoldStar	.064, 045, 065, 498, 507
Gradiente	.035, 027, 435
Grundig	.222
HI-Q	.074
Harley Davidson	.027
Harman/Kardon	.065, 102, 108
Harwood	.095, 099
Headquarter	.073
Hitachi	.069, 193, 132, 092, 027, 068, 109
Hughes Network Systems	.069
JVC	.094, 035, 233, 234, 068, 411
Jensen	.068
KEC	.064, 305
KLH	.099
Kenwood	.068, 094, 411, 065
Kodak	.062, 064
LXI	.064
Lloyd's	.027, 235
Logik	.099
MEI	.062
MG	.070, 088, 267
MGN Technology	.267
MTC	.027, 267
Magnasonic	.305
Magnavox	.062, 108, 137, 130, 027, 066, 176
Magnin	.267
Marantz	.108, 062
Marta	.064
Matsushita	.062, 189, 481
Memorex	.131, 074, 506, 027, 064, 075, 062, 073, 267, 334, 066, 189, 236, 481, 828, 829
Minolta	.132, 069
Mitsubishi	.070, 200, 088, 102, 241, 269, 075, 094, 470
Motorola	.062, 075
Multitech	.027, 099
NAD	.085
NEC	.065, 067, 068, 077, 094, 109, 131
Nikko	.064
Nikon	.061, 280
Noblex	.267
Olympus	.062, 253
Optimus	.189, 481, 075, 085, 064, 131, 459, 827, 828, 829
Optonica	.089
Orion	.506, 029, 211, 236, 322
Panasonic	.062, 189, 481, 253, 104, 405, 129, 252, 254, 273, 827, 828, 829
Penney	.062, 267, 064, 069, 065, 067, 081
Pentax	.069, 092, 132
Philco	.062, 236, 506
Philips	.108, 062, 089, 137, 830, 831
Pilot	.064
Pioneer	.085, 195, 094
Polk Audio	.108
Portland	.047
Proffitronic	.267
Proscan	.087, 229
Protec	.099
Pulsar	.066, 078
Quarter	.073
Quartz	.073
Quasar	.062, 189, 104, 481, 828
RCA	.087, 176, 229, 069, 132, 062, 075, 092, 104, 133, 267, 304
Radio Shack	.027
Radix	.064
Randex	.064
Realistic	.027, 131, 074, 075, 064, 062, 089, 073, 93
Ricoh	.061, 280
Runco	.066
STS	.069
Salora	.102
Samsung	.072, 078, 080, 267
Sanky	.066, 075
Sansui	.068, 506, 027, 094, 109, 236, 298
Sanyo	.074, 073, 131, 267
Scott	.211, 238, 148, 070, 072, 237, 239
Sears	.081, 132, 064, 069, 027, 062, 073, 074, 093, 131
Semp	.072
Sharp	.075, 089

Shintom	.099
Shogun	.078, 267
Singer	.099
Sony	.060, 061, 059, 280, 027, 038, 062
Sunpak	.280
Sylvania	.062, 108, 027, 070, 130, 137
Symphonic	.027
TMK	.063, 235, 267
Tatung	.068
Teac	.027, 068
Technics	.062, 189, 273
Teknika	.027, 062, 064, 079
Thomas	.027
Toshiba	.072, 237, 239, 070, 093, 393
Totevision	.064, 267
Unitech	.267
Vector	.072
Vector Research	.065, 067
Video Concepts	.067, 072, 088, 248
Videosonic	.267
Wards	.062, 087, 089, 027, 074, 239, 267, 069, 075, 099, 108, 176
White Westinghouse	.099, 305, 236
XR-1000	.099, 027, 062
Yamaha	.065
Zenith	.066, 027, 060, 061, 236, 506

CABLE CONVERTER BRAND AND REMOTE CODE(S)

ABC	.030, 028, 034, 035, 038, 040, 041, 044, 060
Allegro	.180, 342
Antronix	.049, 234
Archer	.049, 066, 180, 234, 824
BBT	.294
Belcor	.083
Bell & Howell	.041
Cable Star	.083
Cabletenna	.049
Cableview	.049
Century	.180
Citizen	.180, 342
Colour Voice	.052, 058
Comband	.259
Comtronics	.067, 087
Contec	.046
Digi	.664
Eastern	.029
Emerson	.824
Everquest	.042, 067
Focus	.427
GC Electronics	.083, 234
GE	.259
Garrard	.180
Gemini	.042, 097, 269, 824
General Instrument	.303, 503, 038, 837
GoldStar	.067, 171
Goodmind	.824
Hamlin	.047, 036, 286, 061, 300
Hitachi	.038
Hytex	.034
Jasco	.042, 180, 342

See the next page for more codes.



SETTING THE TV REMOTE TO WORK ACCESSORY DEVICES

Remote Control Direct Entry Codes

CABLE CONVERTER BRAND AND

REMOTE CODE(S)

Jerrold	.030, 039, 303, 041, 503, 038, 051, 042, 837
Linsay	.467
Macom	.060
Magnavox	.054
Memorex	.027
Movie Time	.090, 183
NSC	.183, 090, 097
Novaplex	.645
Oak	.046, 034
Optimus	.048
Panasonic	.048, 134, 027
Panther	.664
Paragon	.027
Philips	.052, 058, 269, 317, 054, 180
Pioneer	.171, 050, 560
Popular Mechanics	.427
Prelude	.797
Pulsar	.027
Quasar	.027
RCA	.048
Radio Shack	.042, 847, 342, 824
Realistic	.234
Recoton	.427
Regal	.300, 047, 286
Regency	.029
Rembrandt	.038, 097
Runco	.027
SL Marx	.067
Samsung	.067, 171
Scientific Atlanta	.035, 044, 033, 504
Seam	.537
Signal	.042, 067
Signature	.038
Sprucer	.048
StarSight	.569, 449
Starcom	.030, 042
Stargate	.067, 042, 797, 824
Starquest	.042
Sylvania	.028
TFC	.337
TV86	.090
Tandy	.285
TeleCaption	.248
Televue	.067
Texscan	.028
Timeless	.445
Tocom	.039, 040
Toshiba	.027
Tusa	.042
Unika	.180, 234, 049
United Artists	.034
Universal	.234, 049, 066, 083, 180, 218
Viewstar	.285, 054, 087, 090
Zenith	.027, 552, 081
Zentek	.427

SATELLITE RECEIVER BRAND AND

REMOTE CODE(S)

AlphaStar	.799
Amplica	.099

Amway	.070, 102
Arunta	.548
Astro Industries	.122
BMC	.114
BSR	.122
Cable Innovations	.581
Capetronic	.122
Century	.565
Channel Master	.045, 239
Chaparral	.080, 236, 243
Citoh	.191
Conifer	.031
Curtis Mathes	.088, 099
DX Antenna	.068
Drake	.091, 272, 045, 176
Echostar	.307, 802, 175, 186, 296
Expressvu	.802
General Instrument	.388, 896, 574, 581, 654
Gould	.082
HNS	.644
HTS	.802
Hitachi	.846
Homecable	.265
Hughes Network Systems	.776
Hytek	.122
IQ	.237
IQ Prism	.237
Intersat	.070
JVC	.802
Janeil	.179
Jerrold	.388, 654
Legend	.296
Macom	.088, 045
Magnavox	.749, 751
Memorex	.296, 751
Next Level	.896
Norsat	.031
Panasonic	.179, 728
Philips	.227, 749, 751
Pico	.102
Primestar	.654, 388
RCA	.593, 170, 882
Radio Shack	.581, 896
Ramsey	.102
Realistic	.079, 078
STS	.237, 068
Sony	.666
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USING PIP (BASIC CONNECTIONS)



Picture-In-Picture (PIP) is the showing of two pictures on the TV screen at the same time—one main screen picture and one small picture, or PIP.

NOTE: The PIP picture must be supplied by a VCR (or other accessory device equipped with a VIDEO OUT[PUT] jack). The following connection example uses the AV1 IN(puts), but you may use AV2 instead, if you would like.

BEGIN

- 1** Connect an antenna or cable TV signal to the ANTENNA IN(put) on the back of the VCR.

- 2** Connect the VIDEO OUT jack on the VCR to the AV1 IN(put) for VIDEO on the back of the TV.

Also connect the AUDIO OUT(puts) (R and L) jacks from the VCR to the AV1 IN(puts) (R and L) for AUDIO on the back of the TV.

- 3** Turn the VCR and TV on.

Place the VCR in TV mode—Use the VCR/TV button on the VCR.

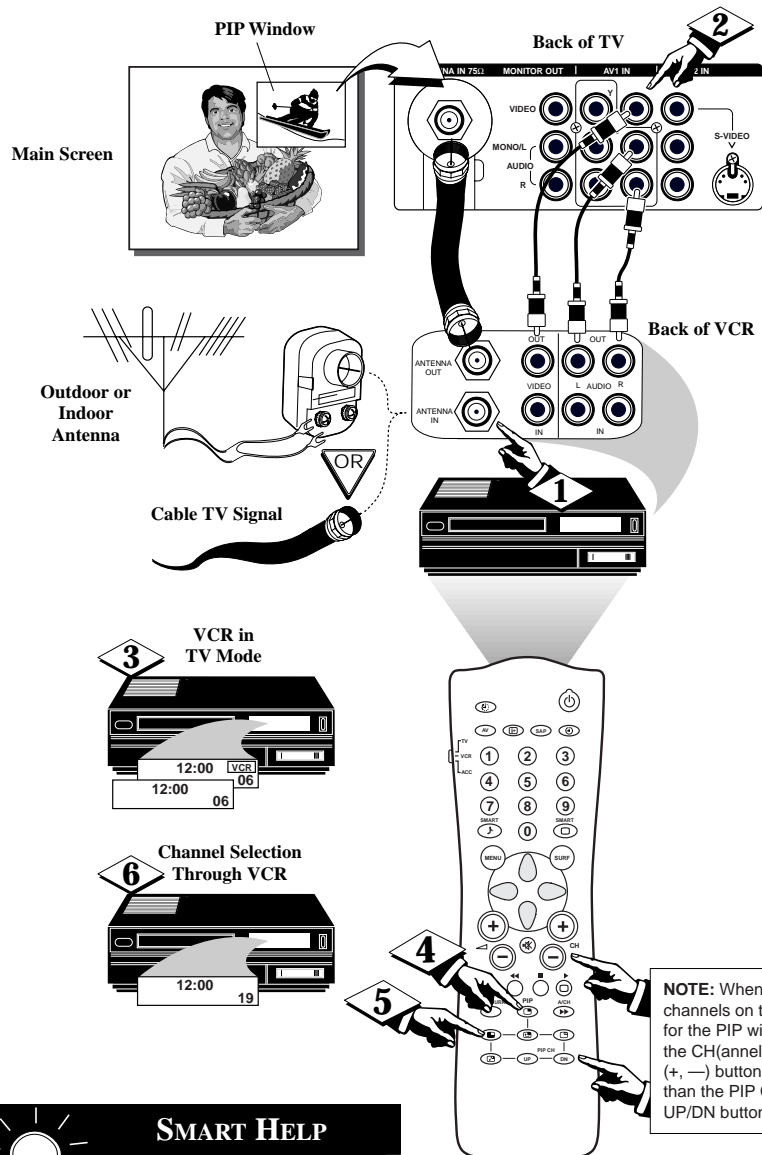
- 4** Press the PIP on/off button on the TV remote.

The PIP window should show in one of the corners of the TV screen.

- 5** Press the PIP SOURCE button on your TV remote until the input source to which you connected your VCR (in this example, AV 1) appears in the PIP window.

- 6** Select the channel on the VCR to view in the PIP window. You can do this with your TV remote (in VCR mode) if you have set it to work with your VCR (see page 42).

Put the TV/VCR/ACC switch on the remote in TV mode and select the channel on the TV to view on the main screen.



SMART HELP

Remember, be sure the TV remote is in the correct mode when you switch back and forth between the VCR and the TV.

If you see the same picture on the main screen and in the PIP window, you need to be sure you have selected the source to which you connected the VCR.

For other possible PIP connections see the "More PIP Connections" section.

If you have a single (monaural) audio output VCR, "Y" connectors are available to complete your connection. Contact your dealer, or our Parts Information Center at 1-800-851-8885 for details.



USING THE PIP REMOTE CONTROL BUTTONS

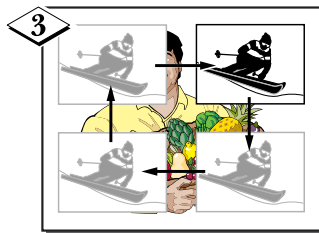
Follow these steps to practice using the PIP buttons. You can change the size of the PIP window, reposition it, freeze its image, or swap it with the main picture.

BEGIN

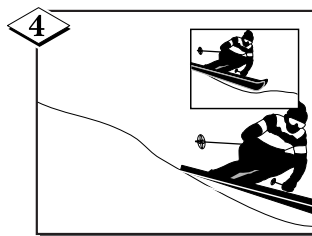
- 1** Press the **PIP ON/OFF** button to show the PIP window. PIP appears in one of the four corners of the screen. Press the PIP ON/OFF button again to reduce the window size. Press the PIP ON/OFF button a third time to remove the PIP window from the main screen.
- 2** Press the **PIP ON/OFF** button to show the PIP window again.
- 3** Press the **POSITION** button to move the PIP window to any of the four corners.
- 4** Press the **FREEZE** button to stop the action within the PIP window. Press the FREEZE button again to resume normal viewing.
- 5** Press the **SWAP** button to swap the main screen picture with the PIP picture. Press the SWAP button again to return the main and PIP screens to their original positions.
- 6** When you are finished using PIP, press the **PIP ON/OFF** button twice to remove PIP from the main screen.



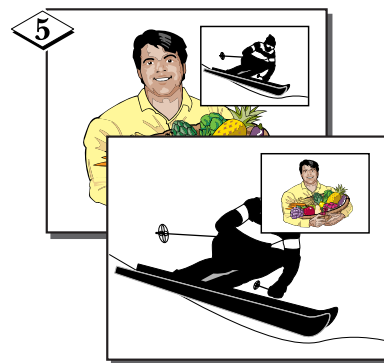
1. PIP ON/OFF



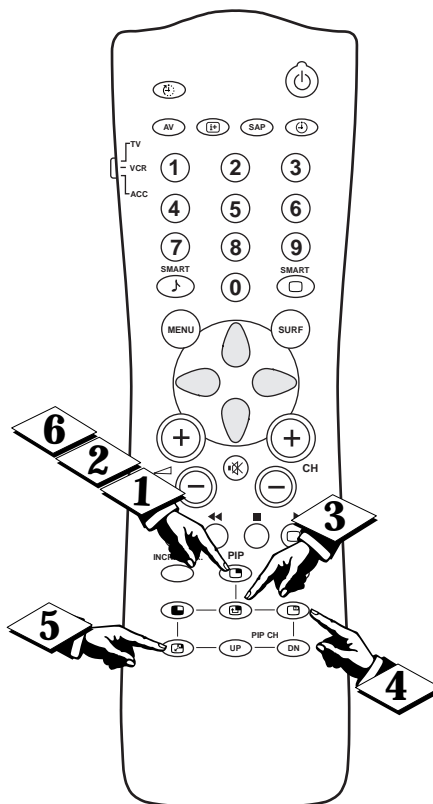
2. POSITION



3. FREEZE



4. SWAP



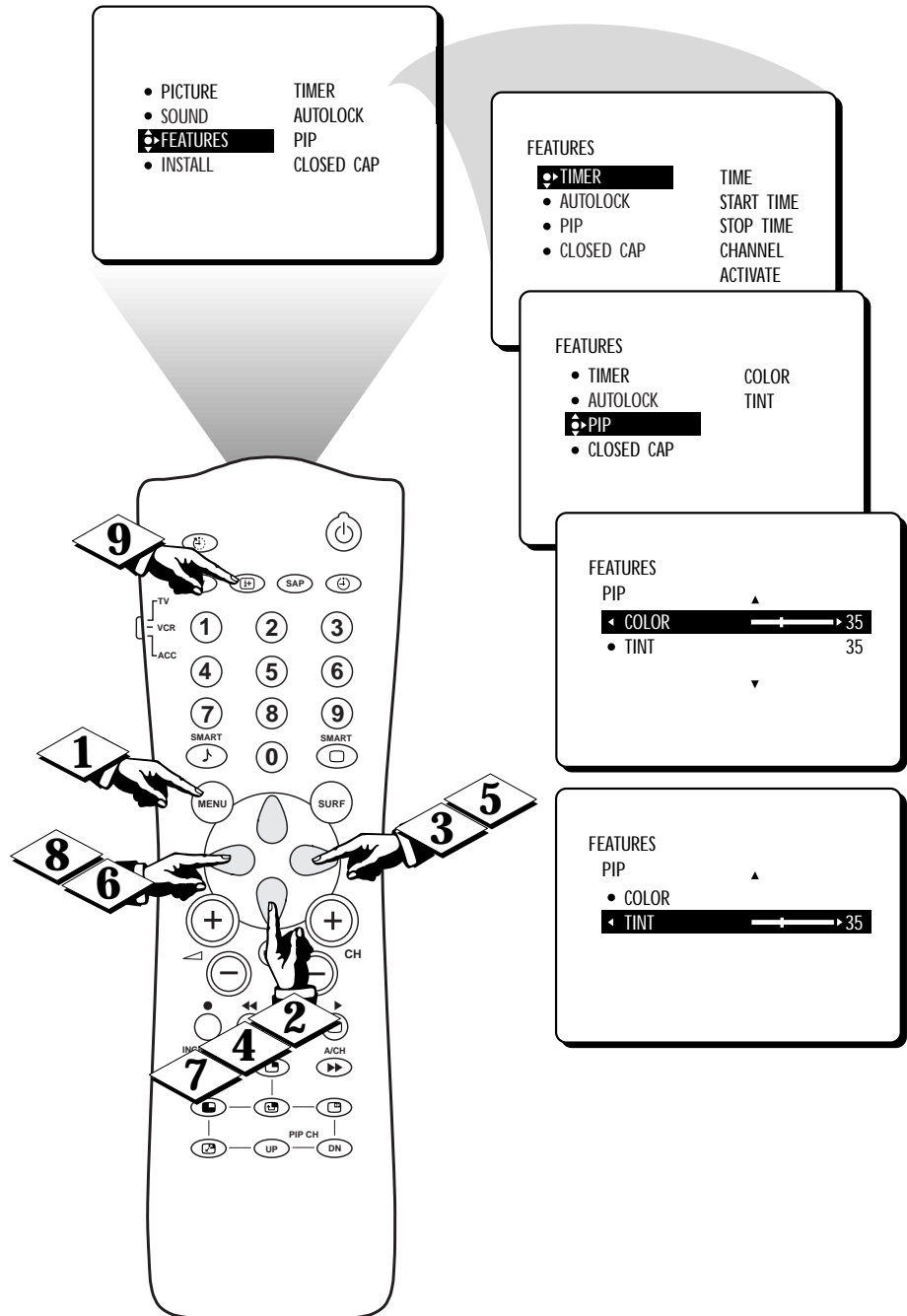
ADJUSTING THE PIP COLOR AND TINT CONTROLS



The Picture-in-Picture (PIP) COLOR and TINT controls allow you to make fine-tune adjustments to the PIP picture settings.

(BEGIN)

- 1 Press the **MENU/SELECT** button on the remote control to show the on-screen menu.
- 2 Press the **CURSOR DOWN** button twice to highlight **FEATURES**.
- 3 Press the **CURSOR RIGHT** button to enter the **FEATURES** menu.
- 4 Press the **CURSOR DOWN** button twice to highlight **PIP**.
- 5 Press the **CURSOR RIGHT** button again to shift the display to the **COLOR** adjustment bar.
- 6 Press the **CURSOR RIGHT** or **LEFT** button to adjust the **COLOR** bar to the desired level.
- 7 Press the **CURSOR DOWN** button to highlight the **TINT** adjustment bar.
- 8 Press the **CURSOR RIGHT** or **LEFT** button to adjust the **TINT** bar to the desired level.
- 9 Press the **i+** button to remove the menu from the screen.



MORE PIP CONNECTIONS

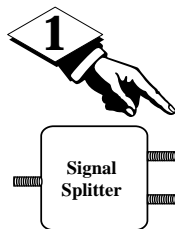
This page shows how to hook PIP up with a cable box and a VCR.

BEGIN

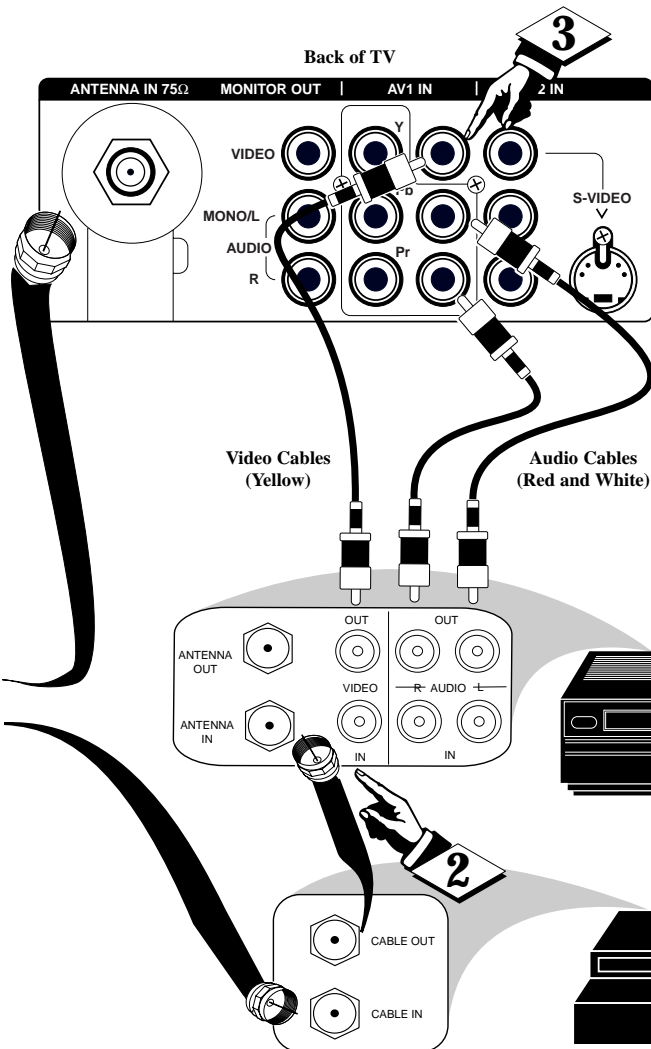
- 1** First, use an optional signal splitter and connect the original cable TV signal to both the CABLE IN on the cable converter and the ANTENNA plug on the rear of the television.
- 2** Connect the CABLE OUT on the Converter to the ANTENNA IN on the VCR.
- 3** Connect the VIDEO OUT jack on the VCR to the VIDEO IN jack on the TV.

Also connect the AUDIO OUT (right and left) jacks from the VCR to the AUDIO IN jacks on the television.

STOP



Contact the Parts Information Center at 1-800-851-8885 to order any optional accessories.



VCR



Cable TV Converter

SMART HELP



Remember, to use the cable TV converter box to select channels for PIP, the VCR must be set to the same channel as the channel selection switch on the back of the cable converter (either channel 3 or 4).

HELPFUL HINTS



If you are having difficulties with your product, check this list of difficulties and possible solutions before requesting service. You may be able to solve the problem yourself. Charges for TV installation and adjustment of customer controls are not covered under your warranty. If you need to call a customer service representative, please know the model number and serial number of your product before you call. This information is displayed on the back of the product. Also, please take a moment to identify the problem you are having, and be prepared to explain this to the representative. If you believe the representative will need to help you with operations, please stay near the product. Our representative will be happy to assist you.

CAUTION

The continual presence of nonmoving images on your TV screen can damage the picture tube.

A video source such as a video game, CDI, or TV information channel that shows a constant nonmoving pattern on the TV screen can damage the picture tube. When your TV is continuously used with such a source, the nonmoving portion of the on-screen image can become permanently fixed on the picture tube. When you are not using the video source, turn it off. Also, regularly alternate the use of such video sources with normal TV viewing.

Cleaning and Care

- To avoid possible shock hazard, be sure the TV is unplugged from the electrical outlet before cleaning.
- When you are cleaning the TV, take care not to scratch or damage the screen surface. Avoid wearing jewelry or using anything abrasive. Wipe the front screen with a 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. Use a clean, dry cloth to dry the wiped surfaces.
- Never use thinners, insecticide sprays or other chemicals on or near the cabinet, as they might cause permanent marring of the cabinet finish.

No power

- Check the TV power cord. Unplug the TV, wait 10 seconds, then reinsert the plug into the outlet and push the remote control power or TV power/standby button again. *The location of the TV power/standby button is illustrated on page *S-2.*
- Check that the outlet is not on a wall switch.
- If you are using an AC power strip, be sure the fuse on the power strip is not blown.

No picture

- Check antenna or cable connections to your TV. Be sure they are secure. *Details are on pages *S-1, 47, and 50.*
- Check the Tuner Mode control for the correct tuner setting. *Details are on page *S-3.*
- Try running the Auto Program feature to scan for all available channels. *Details are on page *S-3.*
- Press the AV button on the remote to ensure that the correct signal source is selected (ANTENNA IN[put], AV 1, CVI, or AV 2). *Details are on pages *S-2 and 41.*

No Sound

- Check the volume buttons. *Details are on pages *S-2 and 41.*
- Check the mute button on the remote. *Details are on page *S-2.*
- Check the Audio Out and Speaker controls. *Details are on pages 34 and 35.*
- If you are attempting to connect auxiliary equipment, check the audio connections. *Details are on pages 47 and 50.*
- If applicable, check the audio receiver for the correct operating mode. *Details are on page 35.*

Remote does not work

- Check the batteries. If necessary, replace them with AA heavy duty (zinc chloride) or alkaline batteries. *Details are on page *S-2.*
- Clean the remote control and the remote sensor window on the TV. *To locate the TV remote sensor window, see page *S-2.*
- Check the TV power cord. Unplug the TV, wait 10 seconds, then reinsert the plug into the outlet and push the remote power or TV power/standby button again. *To locate the TV power/standby button, see page *S-2.*
- If you are using an AC power strip, be sure the fuse on the power strip is not blown.
- Check to be sure the TV is not on a wall switch.

TV displays wrong channel or no channels above 13

- Select the channel again.
- Add the desired channel numbers into the TV's memory using the Channel Edit control. *Details are on page *S-4.*
- Check to be sure the Tuner Mode is set to the Cable option and run the Auto Program feature to find and store all channels with active broadcast signals available in your area. *Details are on page *S-3.*

*S refers to the *Setup and Quick Use Guide* that came with your TV.



GLOSSARY OF TELEVISION TERMS

Audio/Video Inputs • Connectors (RCA phono-type plug), located on the back of the TV, used for the input of audio and video signals. These inputs are designed for use with VCRs (or other accessories) to receive higher picture resolution and offer sound-connection options.

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 uses on-screen text boxes to show dialogue and conversations while a TV program is in progress.

Component Video Input • The input that allows the separate reception of blue, red, and luminance signals. Provides the highest possible color and picture resolution in the playback of digital signal source material, such as the kind available from DVD players. Allows improved bandwidth information not possible through composite video (A/V) or S-Video Connections.

Identify • The method by which a TV remote control searches and finds an operating code for another product (such as a VCR or a cable converter). After the code has been “identified,” the TV remote control can operate and send commands to the other product.

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.

i+ remote control button • Allows the user to quickly confirm what channel number is currently being viewed. The i+ button can also be used to clear the TV of on-screen displays or information (rather than waiting for the displays to “time out,” or automatically disappear from the screen).

Menu • An on-screen list of feature controls that are available for you to adjust.

Multichannel Television Sound (MTS) • The broadcast standard that allows for stereo sound to be transmitted with the TV picture.

On-screen 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).

Picture-in-Picture • The showing of two pictures on the TV screen at the same time (one main screen picture and one small picture, or PIP).

Programming • The process of adding or deleting channel numbers in the television’s memory circuits. Through programming, the TV “remembers” only the locally available or desired channel numbers and skips over any unwanted channel numbers.

PTV • Projection Television. (Rear- and/or front-projection design systems are available.)

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

RF • Radio Frequency or modulated signal design used as the carrier for television broadcasts.

RF coaxial cable • Used to connected a broadcast or cable signal to the TV. Also can be used to connect a VCR to the TV (or cable box or satellite receiver).

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).

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

Twin-lead Wire • The more commonly used name for the two-strand, 300-ohm antenna wire used with many indoor and outdoor antenna systems. In many cases, this type of antenna wire requires an additional adapter (or balun) in order to connect to the 75-ohm input terminals designed into the more recent TVs and VCRs.



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*Q refers to the *Quick Use and Setup Guide* that came with your TV.

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