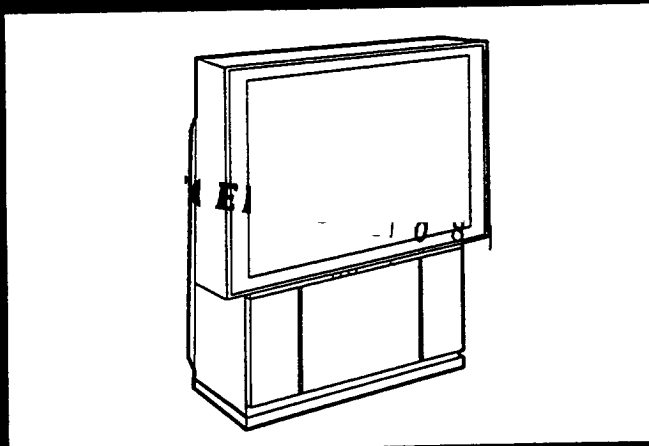


MAGNAVOX
Smart. Very smart.®



OWNER'S MANUAL


QUESTIONS ABOUT THIS PRODUCT?
CALL OUR INFORMATION CENTER.

800-531-0039

**NO
IMAGE
AVAILABLE**

SAFETY INSTRUCTIONS - Read before operating equipment

This product was designed and manufactured to meet strict quality and safety standards. There are, however, some installation and operation precautions which you should be particularly aware of.

1. **Read Instructions** - All the safety and operating instructions should be read before the appliance is operated.
2. **Retain Instructions** - The safety and operating instructions should be retained for future reference.
3. **Heed Warnings** - All warnings on the appliance and in the operating instructions should be adhered to.
4. **Follow Instructions** - All operating and use instructions should be followed.
5. **Water and Moisture** - The appliance should not be used near water - for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement or near a swimming pool, etc.
6. **Carts and Stands** - The appliance should be used only with a cart or stand that is recommended by the manufacturer.
- 6A.  An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.
7. **Wall or Ceiling Mounting** - The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
8. **Ventilation** - The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
9. **Heat** - The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
10. **Power Sources** - The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
11. **Power-Cord Protection** - Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords and plugs, convenience receptacles, and the point where they exit from the appliance.

12. **Cleaning** - The appliance should be cleaned only as recommended by the manufacturer.
13. **Power Lines** - An outdoor antenna should be located away from power lines.
14. **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 mats 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 Fig. below.
15. **Non-use Periods** - The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
16. **Object and Liquid Entry** - Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
17. **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.
18. **Servicing** - The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

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 NATIONAL ELECTRICAL CODE (NEC)

Example of Antenna Grounding as per NEC - National Electric Code

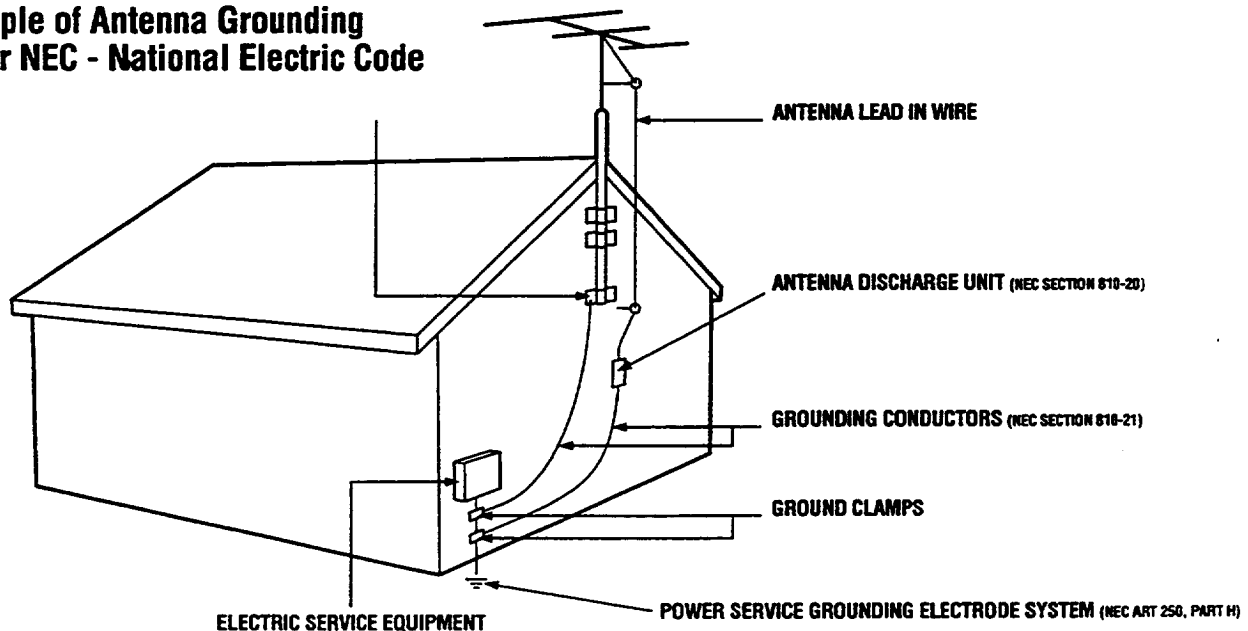


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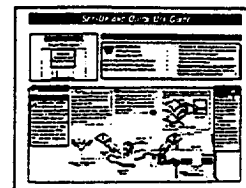
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SET-UP AND QUICK USE GUIDE

Use the simple Set-Up Guide (supplied with your TV information packet) for details on:

- Antenna Hook-ups
- First Time Set-Up (Automatic Settings)
- Basic TV and Remote Control Operation
- On-Screen Menu Use





FEATURES

First Time Set Up which automatically sets the TV for local channels and the correct picture signal (antenna or cable). It even helps you make the necessary connections for the Picture-In-Picture (PIP) feature.

Infrared Remote Control which operates your TV set and a variety of wireless remote control VCRs and Cable TV Converters.

Standard TV broadcast (VHF/UHF) or Cable TV (CATV) channel capability.

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

Automatic Programming of channels for quick and easy selection of favorite stations available in your area.

Picture-In-Picture (PIP) which can show a TV program and the direct video output from an accessory (VCR, etc.) onto the TV screen at the same time.

Stereo-Ready TV with built-in audio amplifier and twin speaker system. Receives TV programs in both broadcast stereo sound or (SAP) bilingual broadcast.

On-Screen Features which display helpful information for the setting of TV controls (such as help messages, operating tips and glossaries).

Audio/Video jacks for direct connections with VCRs (and other accessories) for quality TV picture and sound playback.

Surround Sound external audio speaker connections.

Sleep-Timer which automatically turns the TV OFF at preset time intervals.

Smart Sound for the control of TV volume levels during program changes or commercial breaks.

Smart Picture allows you to choose from a list of TV video control categories set for a variety of viewing conditions and program sources.

Clock Timer feature which can turn ON the TV at any preset time - just like an alarm clock.

As you unpack your TV please note that the following items have been included with your set

- Owner's Manual
- Warranty Registration Card
- Safety Tip Information
- Factory Service Center Address Listings
- Remote Control Transmitter
- Batteries for Remote Control Use
- Audio/Video Cables for Direct Input and Output Connections.

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

To ensure that picture screen performance is of the highest quality, please avoid rubbing any object or material on the screen that could scratch or damage its surface.

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

PICTURE MENU CONTROL ADJUSTMENTS

COLOR, BRIGHTNESS, SHARPNESS, TINT, PICTURE

To adjust your TV color and picture controls, select a TV channel and follow the steps shown below:

BEGIN

- 1 Select **BRIGHTNESS, PICTURE, COLOR, TINT, or SHARPNESS** picture control.

With the **PICTURE MENU** on screen, move the **RED** highlight with the **MENU (M)** buttons. Then press the **MENU** button.

- 2 Press the **(+)** or **(-)** buttons to adjust the selected control.

- 3 Press the **STATUS** button to clear the screen.



SMART HELP

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

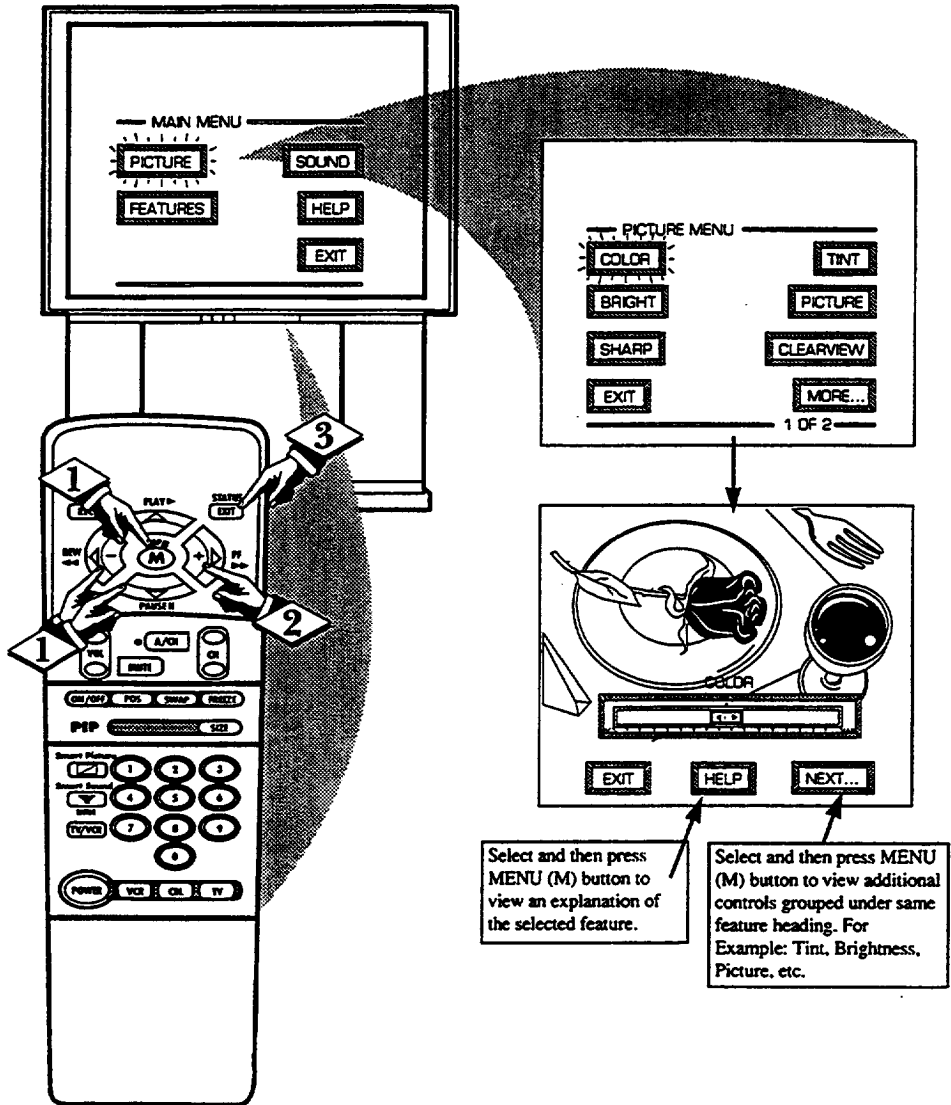
BRIGHTNESS Press **(-)** or **(+)** until dark parts of the picture show good detail.

PICTURE Press **(-)** or **(+)** until whitest parts of the picture are as bright as you prefer.

COLOR Press **(-)** or **(+)** to add or eliminate color.

TINT Press **(-)** or **(+)** to obtain natural skin tones. (Also see *Flesh Correction* on page 14 for more information).

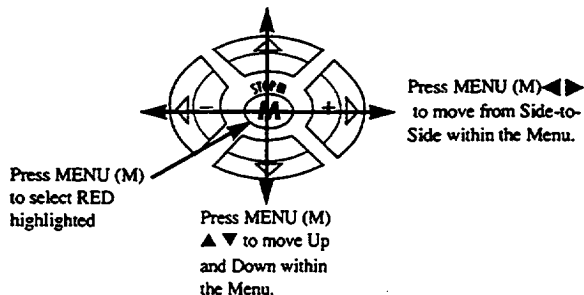
SHARPNESS Press **(-)** or **(+)** to improve detail in the picture.



Select and then press **MENU (M)** button to view an explanation of the selected feature.

Select and then press **MENU (M)** button to view additional controls grouped under same feature heading. For Example: Tint, Brightness, Picture, etc.

HOW TO SELECT FEATURES (WITH BUTTONS ON THE REMOTE)






CLEARVIEW

Clearview is a sharpness feature which smoothes out background snow (or picture noise) without losing picture image detail or crispness.

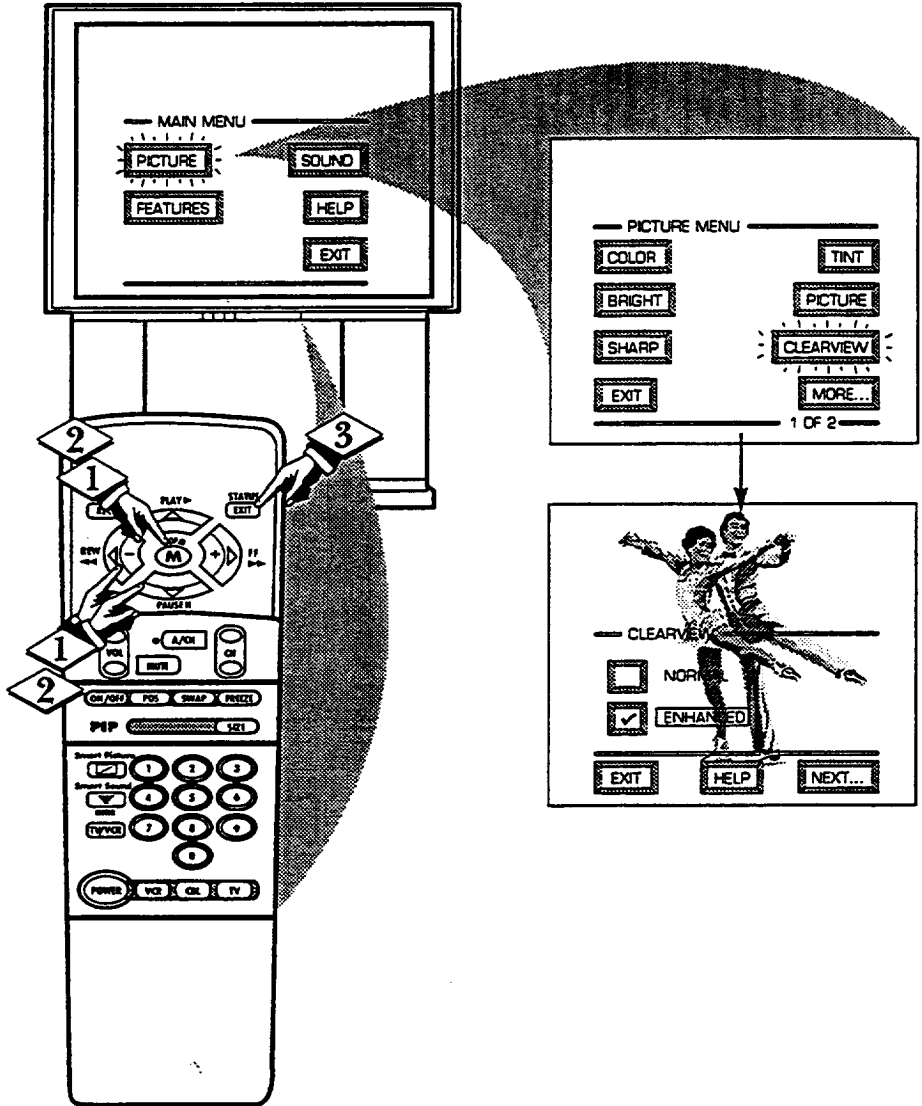
BEGIN

- 1 Select CLEARVIEW control.

With the PICTURE MENU on screen, move the RED highlight with the MENU (M)  buttons. Then press the MENU button.

- 2 Press the MENU   buttons to move the RED highlight. Press the MENU button to select (✓) the ENHANCED mode.

- 3 Press the STATUS button to clear the screen.



PICTURE MENU CONTROLS (CONTINUED)


RED/BLUE CONVERGENCE

Convergence is the correct lining up of the red and blue light paths on the TV screen.


NOTE: If no color fringing (see Smart Help) shows, then no Convergence adjustments are necessary for your TV.

BEGIN

- 1 Select CONVERGENCE control.

With PICTURE MENU (2 of 2) on screen, move the RED highlight with the MENU (M)  buttons. Then press the MENU button.

- 2 If there is RED or BLUE color fringing on the White cross, press the MENU button to continue.

- 3 Press the MENU  buttons to move the red or blue cross directly over the white cross on the TV screen.

The red or blue cross is properly adjusted when it is completely merged with the white cross. (No color appears around the edge of the white cross).

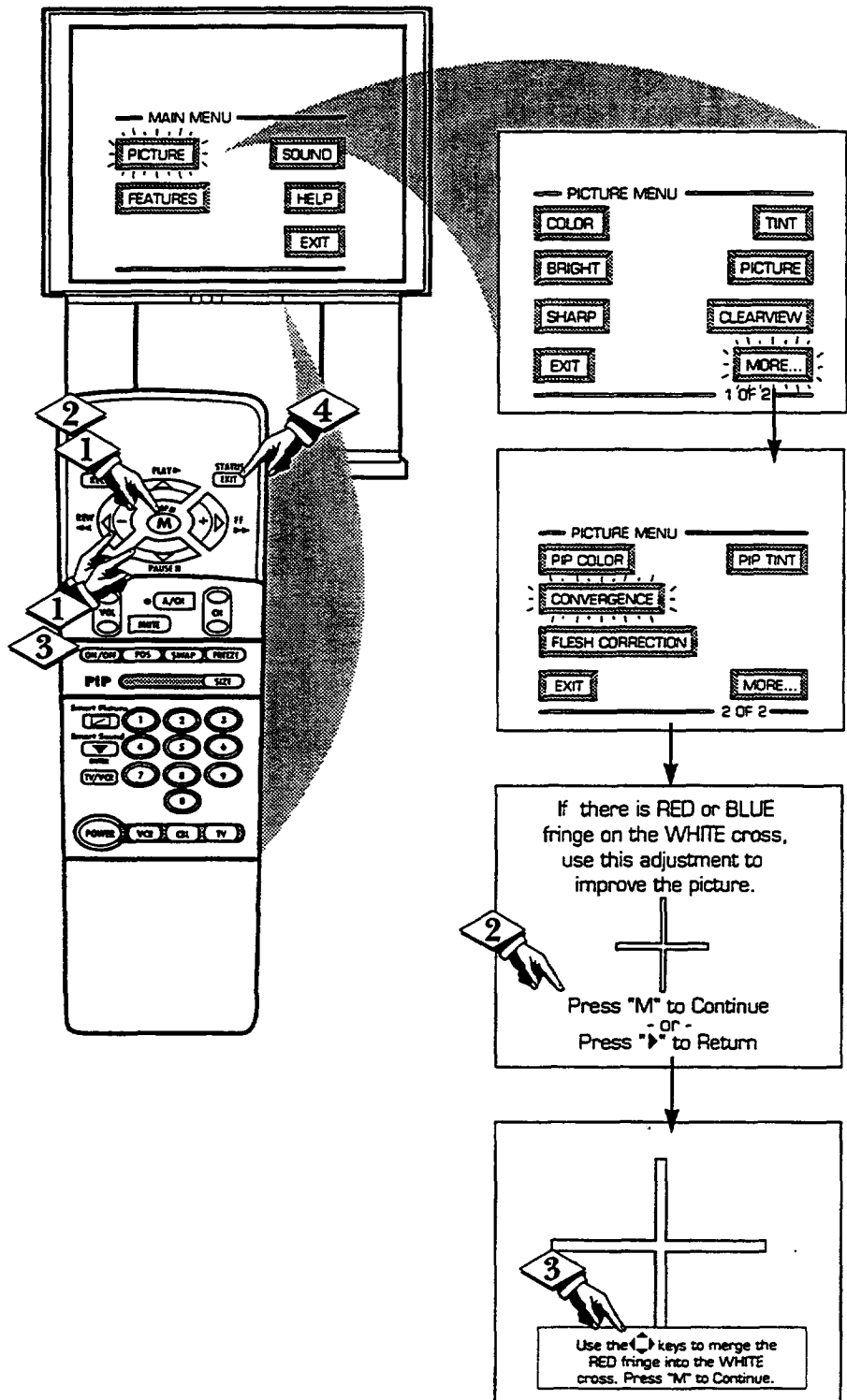
- 4 Press the STATUS button to clear the screen when convergence adjustments are complete.



SMART HELP



Remember. Convergence has been set at the factory for best viewing, but if one or more of the (red or blue) colors appear around the edges of objects (color fringing) follow the steps given in this section.



PICTURE MENU CONTROLS (CONTINUED)

FLESH CORRECTION

Use the *Flesh Correction* control to keep skin tone hues (or facial tint) from varying from TV channel to TV channel.

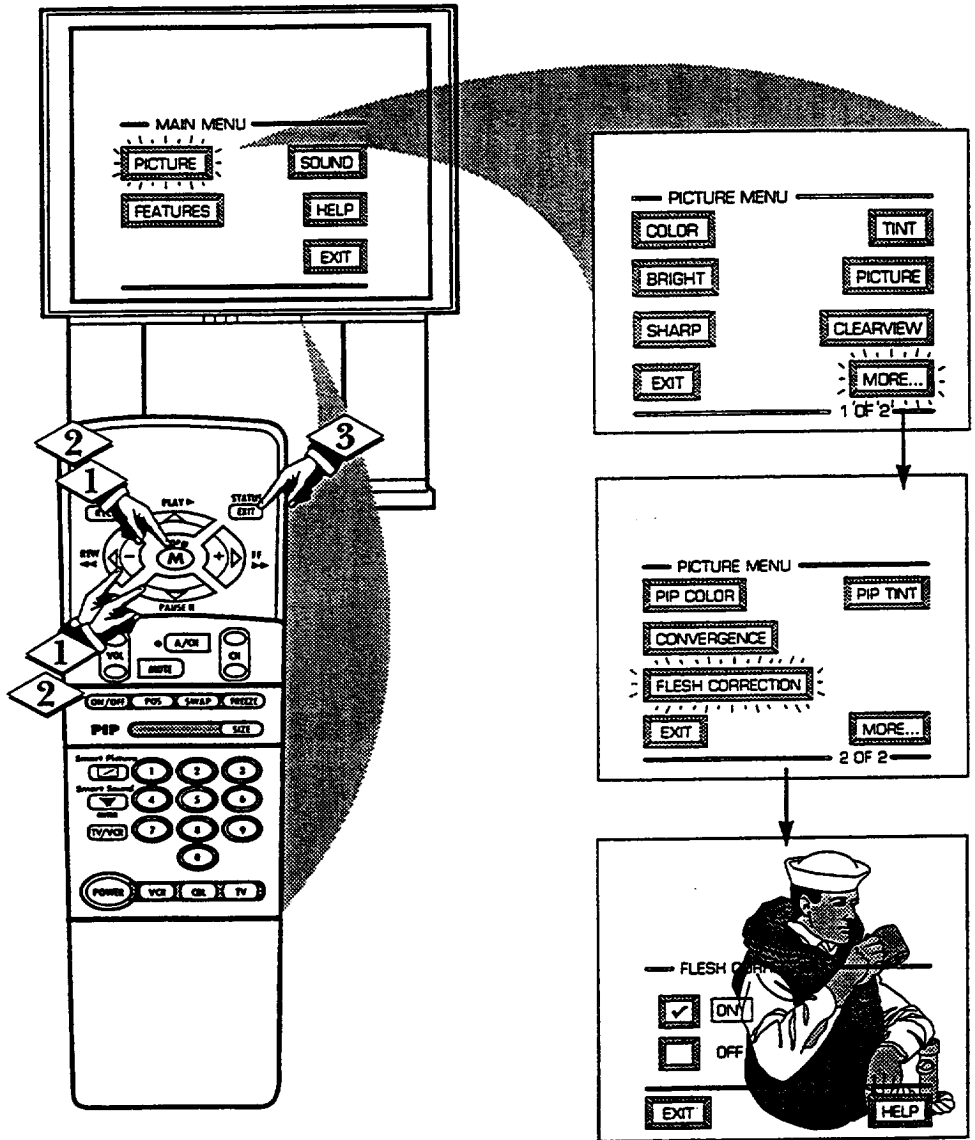
BEGIN

- 1 Select **FLESH CORRECTION** control.

With **PICTURE MENU (2 of 2)** on screen, move the **RED** highlight with the **MENU (M)** buttons. Then press the **MENU** button.

- 2 Press the **MENU** \blacktriangle / \blacktriangledown buttons to move the **RED** highlight. Press the **MENU** button to turn the **FLESH CORRECTION** control **ON**.

- 3 Press the **STATUS** button to clear the screen.



PICTURE SOURCE

The picture for the TV can come through either the **ANTENNA** plug or the **AUDIO/VIDEO** input jacks (on the rear of the TV). The **Picture Source** control simply tells the TV which one of these picture sources it is to show on the TV screen.

BEGIN

- 1 Select **PICTURE SOURCE SELECT** control.

With the **FEATURES** MENU on screen, move the **RED** highlight with the **MENU (M)** buttons. Then press the **MENU** button.

- 2 Press the **MENU** **▲▼** buttons to move the **RED** highlight. Press the **MENU** button to turn the desired **PICTURE SOURCE** control **ON** (✓).

ANTENNA- for a picture signal coming from the **ANTENNA** plug on the TV.

VCR/AUX- for a picture signal coming from the **Video Input** jack on the rear of the TV.

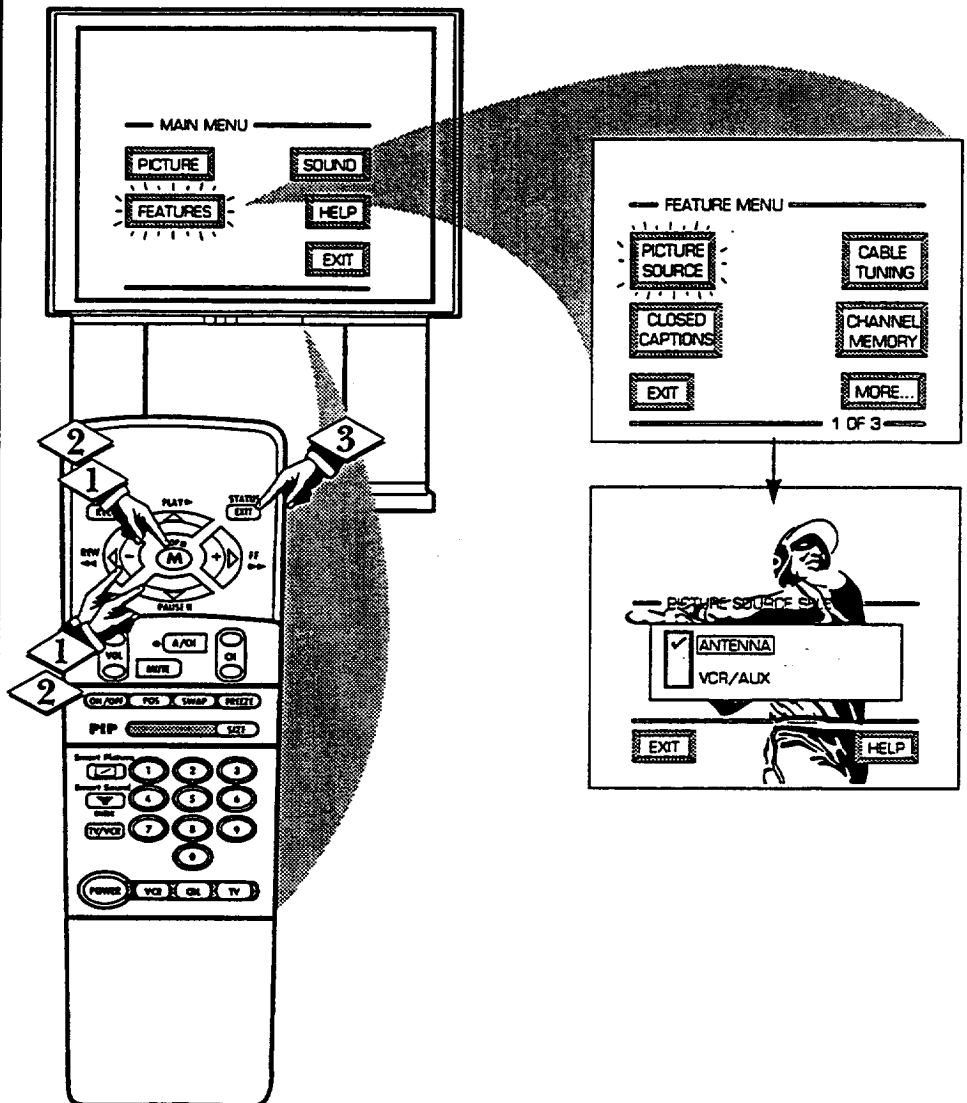
- 3 Press the **STATUS** button to clear the screen.



SMART HELP



Remember. The **VCR/AUX** TV screen will be blank unless a signal source is connected to the **Video Input** jack on the rear of the TV. (See page 23 for details).



FEATURE MENU CONTROLS (CONTINUED)

CLOSED CAPTION

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 Select **CLOSED CAPTIONING** control.

With the **FEATURES MENU** on screen, move the **RED** highlight with the **MENU (M)** buttons. Then press the **MENU** button.

- 2 Press the **MENU** buttons to move the **RED** highlight. Press the **MENU** button to select (✓) the desired Closed Caption mode - For Example: "ALWAYS ON" and "CAPTION 1".

CAPTION 1, 2, 3, 4:

dialogue (and descriptions) for the action on the captioned TV program shows on-screen. (See Important Note on this page.)

TEXT 1, 2, 3, 4:

often used for channel guide, schedules, or bulletin board information for CC programs.

- 3 After making your Caption mode selection, press the **STATUS** button to clear the TV screen. The selected Closed Caption mode will be active. To cancel, set the Closed Captioned feature to **OFF** when finished

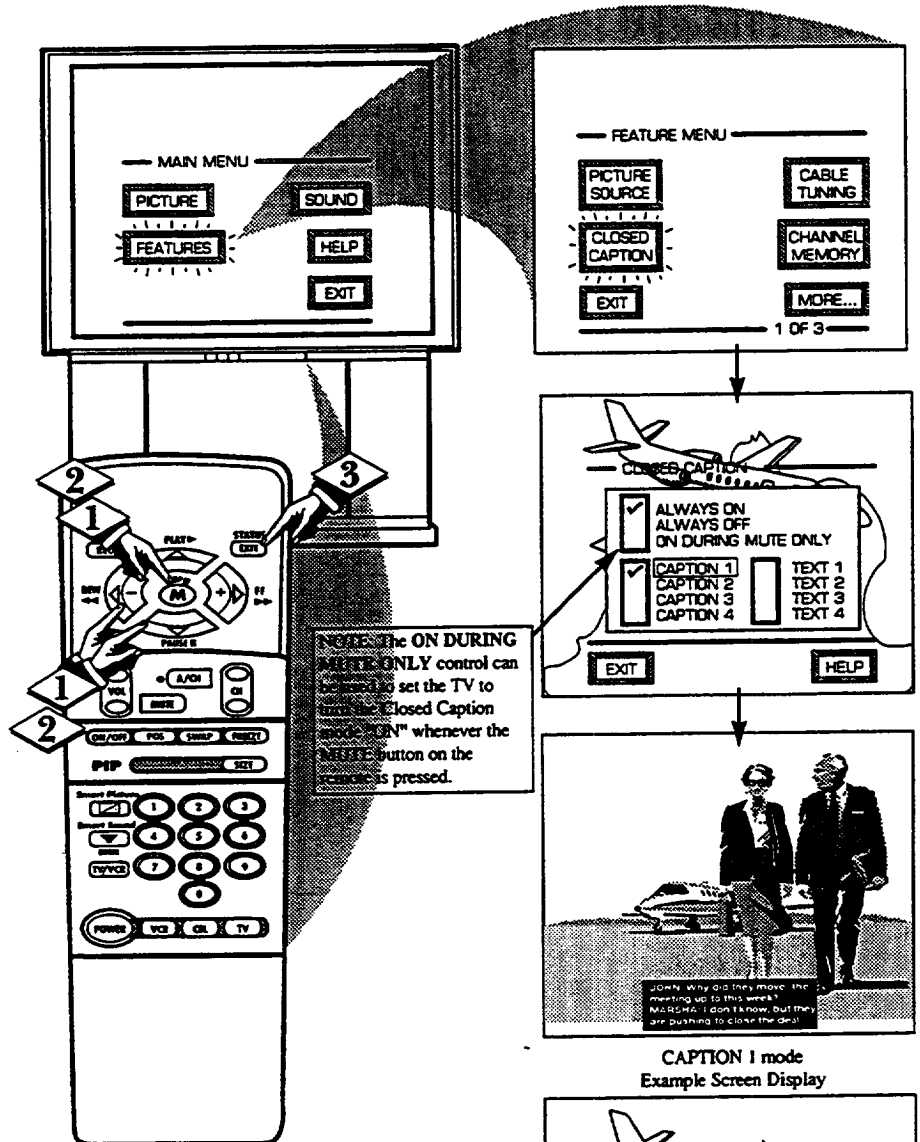


SMART HELP



Remember. Broadcast stations will often use spelling abbreviations, symbols, dropouts and other grammatical shortcuts in order to keep pace with the on-screen action. These type factors vary upon the source of the captioned text material and do not indicate a need for service on the part of the TV.

NOTE: Not all TV programs and product commercials are made for broadcast with Closed Caption (CC) information included. Neither are all Closed Caption modes (CAPTION 1-4; or TEXT 1-4) necessarily being used by a broadcast station during the transmission of a closed caption program. Usually "CAPTION 1" is the most used mode to view captioned material. Refer to your area's TV program listings for the stations and times of Closed Caption shows.



Closed Caption information will usually appear in black and white (although some broadcasters or networks may occasionally use color to highlight or draw attention to certain areas.)

FULL SCREEN TEXT will block TV screen from viewing

CLOSE CAPTION PROGRAMS ON WXYZ

ALL ITEMS ARE EASTERN STANDARD TIME (EST). CHECK LOCAL LISTINGS FOR TIMES IN YOUR AREA.

6:00	TOP OF THE MORNING
10:00	THE BEST LITTLE CALL IN SHOW EVER
12:00	NEWS AT NOON
1:30	AS YOUR LIFE TURNS MY WORLD AROUND
6:00	WORLD NEWS FOR TODAY
9:00	PLAYHOUSE MOVIE OF THE WEEK

FEATURE MENU CONTROLS (CONTINUED)


CABLE TUNING



You need to make sure the TV is set to pick up either Cable TV or Antenna signals. In other words, the TV needs to know if you connected a Cable TV signal or a normal antenna to its ANTENNA plug.

NOTE: If you went through First Time Setup (in your Quick Use Guide), this task has already been completed for you.

BEGIN

- 1 Select CABLE CHANNEL TUNING control.

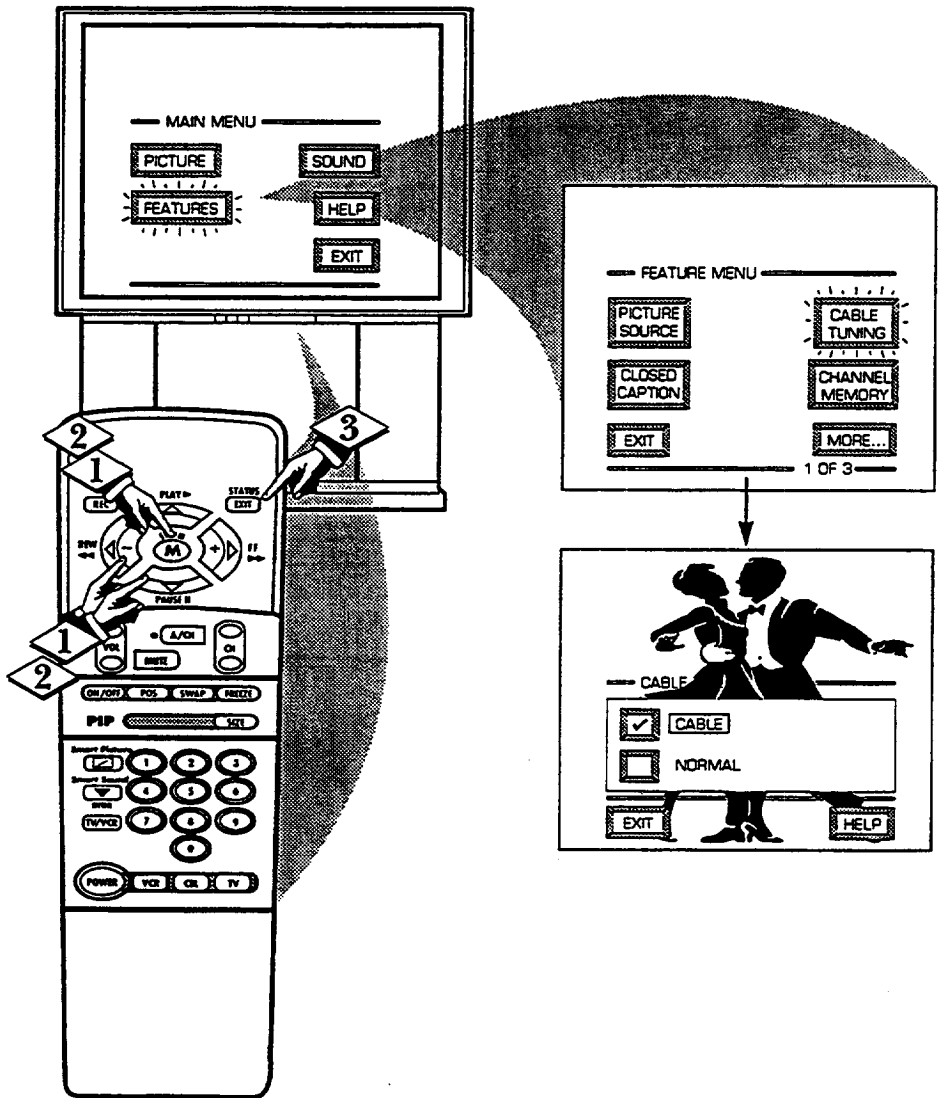
With the FEATURES MENU on screen, move the RED highlight with the MENU (M)  buttons. Then press the MENU button.

- 2 Press the MENU   buttons to move the RED highlight. Press the MENU button to select (✓) the desired mode - For Example: CABLE.

CABLE- If you DO have Cable TV connected to the TV. Channels 1-125 available.

NORMAL- If you have an Antenna connected to the TV. Channels 2-69 available.

- 3 Press the STATUS button to clear the screen.



CHANNEL MEMORY AUTOPROGRAMMING

Your TV can automatically set itself for local area (or Cable TV) channels. This makes it easy for you to select only the TV stations in your area when the CHANNEL ▲▼ buttons are pressed.

NOTE: If you went through First Time Setup (in your Quick Use Guide), this task has already been completed for you.

BEGIN

- 1 Select CHANNEL MEMORY (START AUTOPROGRAMMING) control.

With the FEATURES MENU on screen, move the RED highlight with the MENU (M) ◀▶ buttons. Then press the MENU button.

- 2 Press the MENU button to turn AUTOPROGRAMMING ON.

The TV shows which channel numbers are "SAVED" (✓) as they are added into memory.

"Auto-programming CHANNEL MEMORY is finished" shows when the TV is through adding channels.

- 3 Press the STATUS or Menu (M) button to clear the screen.

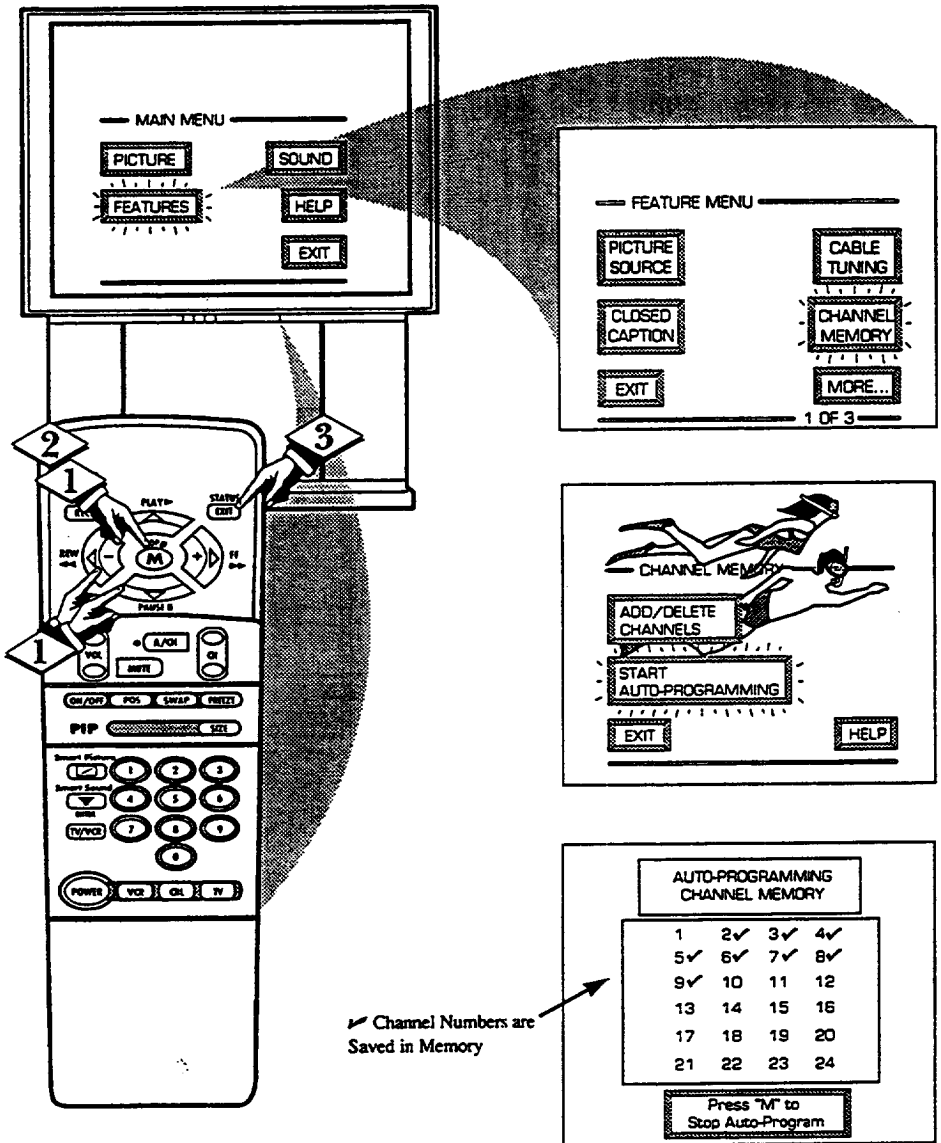
STOP

SMART HELP

Try it out. Press the CHANNEL ▲▼ buttons and see which channels you can select.

Remember. An Antenna or Cable TV signal must first be connected to your TV so that channels can be saved.

If you want to delete any unwanted channels from the TV's memory, see "ADD/DELETE CHANNELS" on the next page.



ADD/DELETE CHANNELS

AutoProgramming (see *previous page*) adds all the channels it can find (on your Antenna or Cable TV system) into the TV's memory. Add/Delete Channels makes it easy for you to add other channels, or drop unwanted channels, from the list of channels in the TV's memory.

BEGIN

- 1 Select CHANNEL MEMORY (ADD/DELETE CHANNELS) control.

With the FEATURES MENU on screen, move the RED highlight with the MENU (M) ◀▶ buttons. Then press the MENU button.

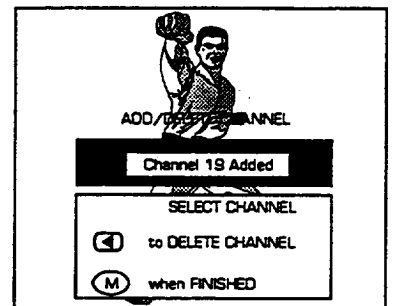
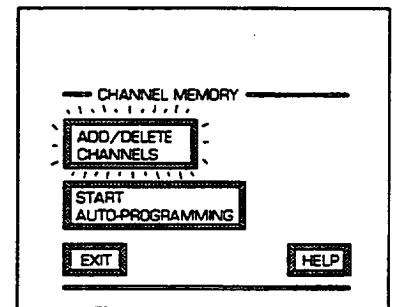
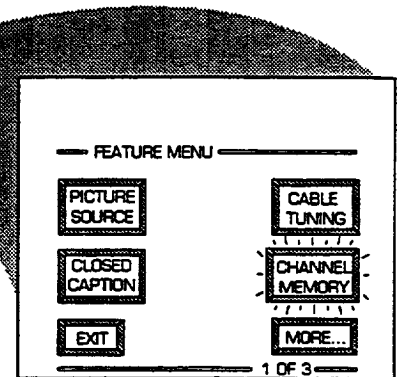
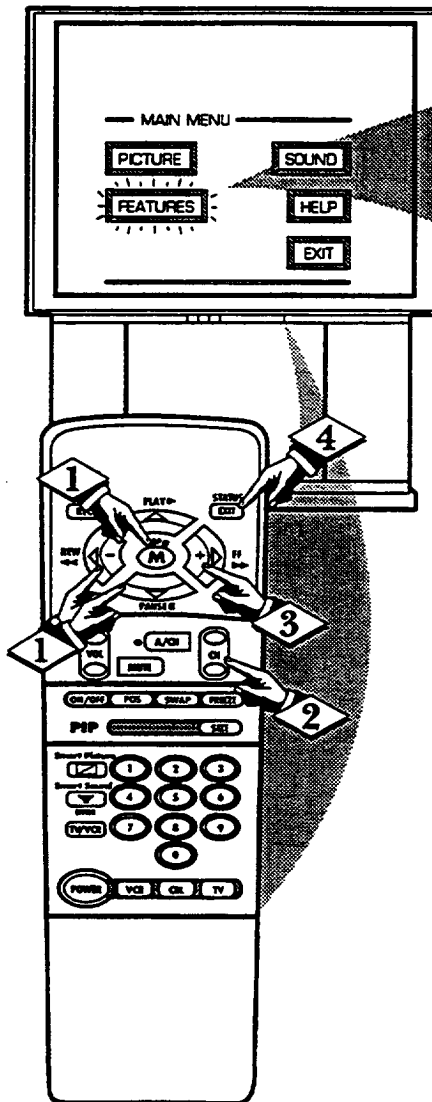
- 2 Press the CHANNEL ▲▼ or number buttons to select the channel you want to add or delete.

- 3 Press the MENU ▶ button to ADD the channel into the TV's memory.

Press the MENU ◀ button to DELETE the channel from memory.

Repeat steps 2 and 3 for each channel you wish to add or delete.

- 4 Press the STATUS or MENU button to clear the screen when through.



SMART HELP

Remember. You can also add the VCR/AUX mode just like a channel. Then by pressing the CHANNEL ▲▼ buttons the VCR/AUX mode can quickly be selected to use the Input jacks on the rear of the TV (see page 23).

Note: "VCR/AUX" mode is located between the lowest and highest channel numbers within the ADD/DELETE CHANNEL control screen.

SET CLOCK

Your TV comes with an on-screen clock. During normal operation the clock appears on the screen with every channel change (and when the STATUS button is pressed).

NOTE: If you went through First Time Setup (in your Quick Use Guide), this task has already been completed for you.

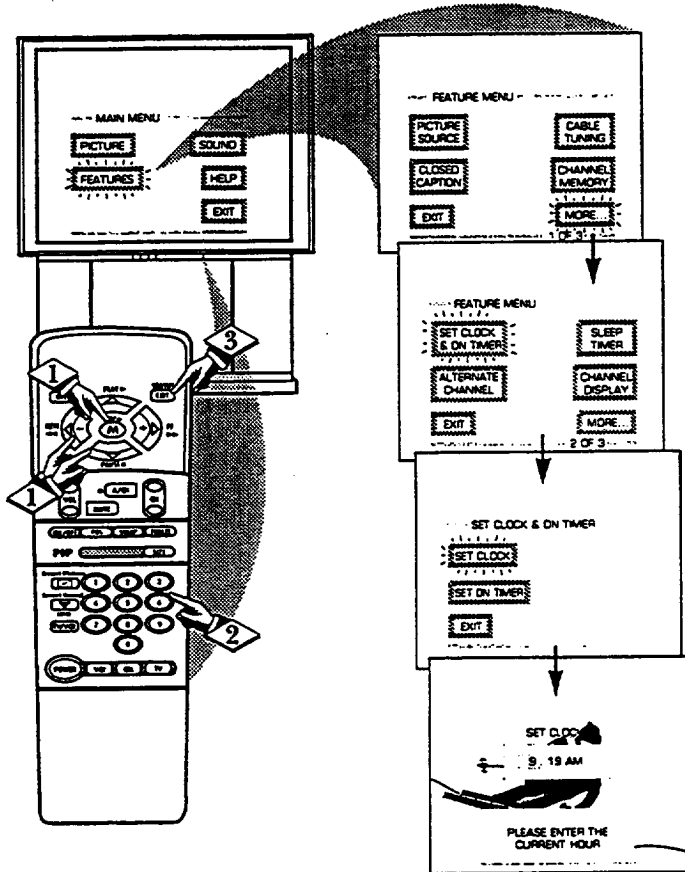
BEGIN

- 1 Select SET CLOCK control.

With FEATURES MENU (2 of 3) on screen, move the RED highlight with the MENU (M) buttons. Then press the MENU button.

- 2 Press the remote's number buttons to set the time clock.

- 3 Press the STATUS button to set the clock in operation and clear the screen.



SMART HELP



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

The remote's MENU (M) buttons can also be used to set the hours, minutes and AM/PM portions of the clock.

SET ON TIMER

Just like an alarm clock you can set the TV to turn itself on at the same time everyday.

BEGIN

- 1 Select SET ON TIMER control.

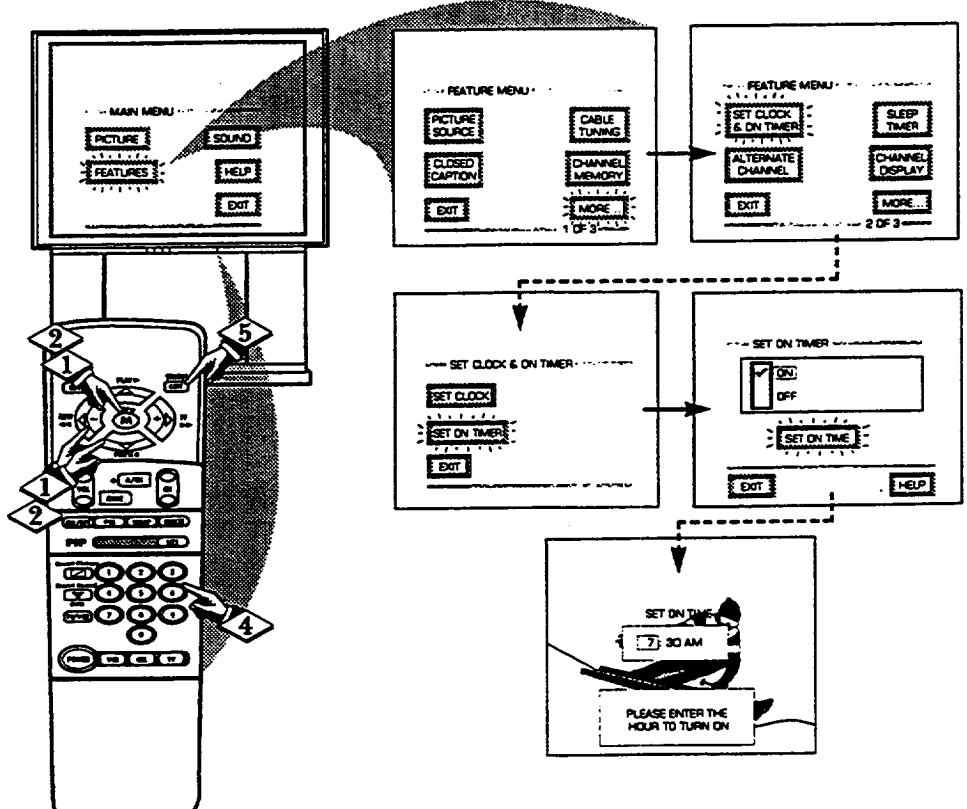
With FEATURES MENU (2 of 3) on screen, move the RED highlight with the MENU (M) buttons. Then press the MENU button.

- 2 Press the MENU ▲▼ and MENU (M) buttons to highlight and select "ON" (✓).

- 3 Press the MENU ▲▼ and then the MENU (M) buttons to select "SET ON TIME".

- 4 Press the remote's number buttons to set the "TURN ON" time for the TV. (Press MENU ▲▼ for AM or PM.)

- 5 Press the STATUS button to set the "ON TIME" and clear the screen.



FEATURE MENU CONTROLS (CONTINUED)

ALTERNATE CHANNEL

A "ring" or series of previously viewed channels can be selected from the Alternate Channel (A/CH) button on your remote control. With this feature you can easily switch between different TV programs that currently interest you. The ALT. CHN. menu control allows you to set up to four channels in the viewing "ring".

BEGIN

- 1 Select ALTERNATE CHANNEL control.

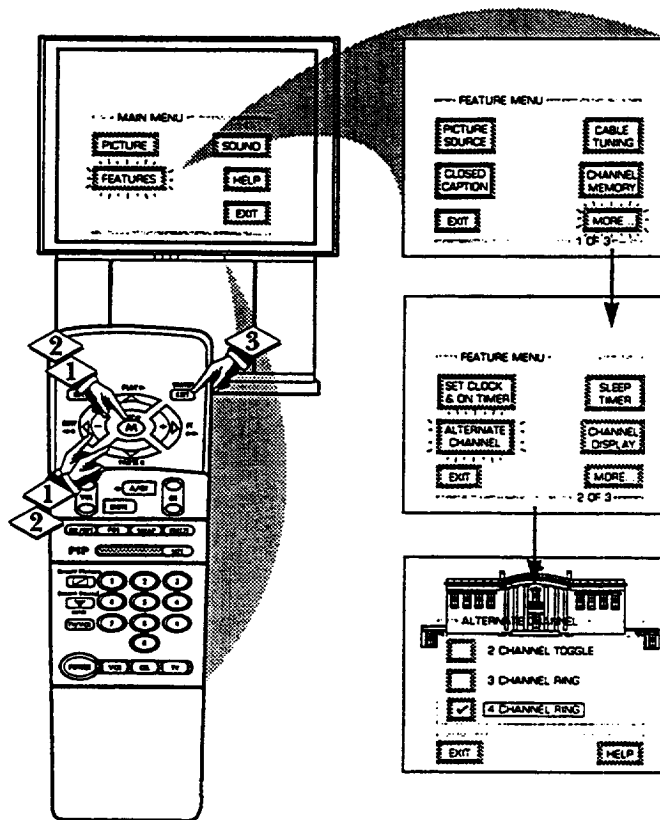
With FEATURES MENU (2 of 3) on screen, move the RED highlight with the MENU (M) \leftarrow \rightarrow buttons. Then press the MENU button.

- 2 Press the MENU \blacktriangle \blacktriangledown and MENU (M) buttons to highlight and select (\checkmark) the number of channels in the "ring" (either 2, 3, or 4 channels.)

Press STATUS button to clear the screen.

- 3

STOP



SMART HELP

Remember, to first use this feature press the A/CH and then the MENU button on the remote. Then select the desired channels with the number buttons on the remote. (For example for a "4" channel ring select: 02, 06, 11, and 22.) Then press the A/CH button on the remote to quickly select the channels in the "ring". Great for viewing evening news or sports programming.

2

6

11

22

Use number buttons to enter channels. \odot Cancels change.

SLEEP TIMER

Have you ever fallen asleep in front of the TV only to have it wake you up at two in the morning with a test pattern screeching in your ears? Well, your TV can save you all that trouble by automatically turning itself off.

BEGIN

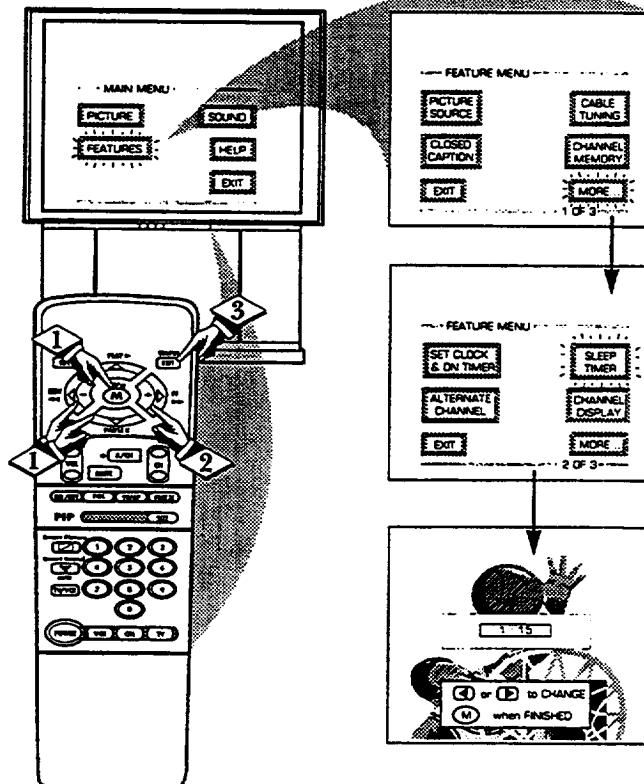
- 1 Select SLEEP TIMER control.

With FEATURES MENU (2 of 3) on screen, move the RED highlight with the MENU (M) \leftarrow \rightarrow buttons. Then press the MENU button.

- 2 Press the MENU \leftarrow \rightarrow buttons to pick the amount of time (15 minutes to 2 hours ahead) before the TV will turn itself off.

- 3 Press the STATUS or MENU (M) button to clear the screen after you have set the time for the TV to turn off.

STOP



SMART HELP

Remember, to see how many minutes are left before the TV shuts itself off, reselect the SLEEP TIMER control screen.

To stop a SLEEP TIMER setting, reset the timer back to OFF. (Turning the TV off and on, or pressing a button during the last minute of a timer setting, will also cancel a setting.)

A few seconds before the TV is to shut off a message will come on the screen telling you GOOD NIGHT.

FEATURE MENU CONTROLS (CONTINUED)

CHANNEL DISPLAY

With the Channel Display control you can change the size and location of the on screen channel and clock information.

BEGIN

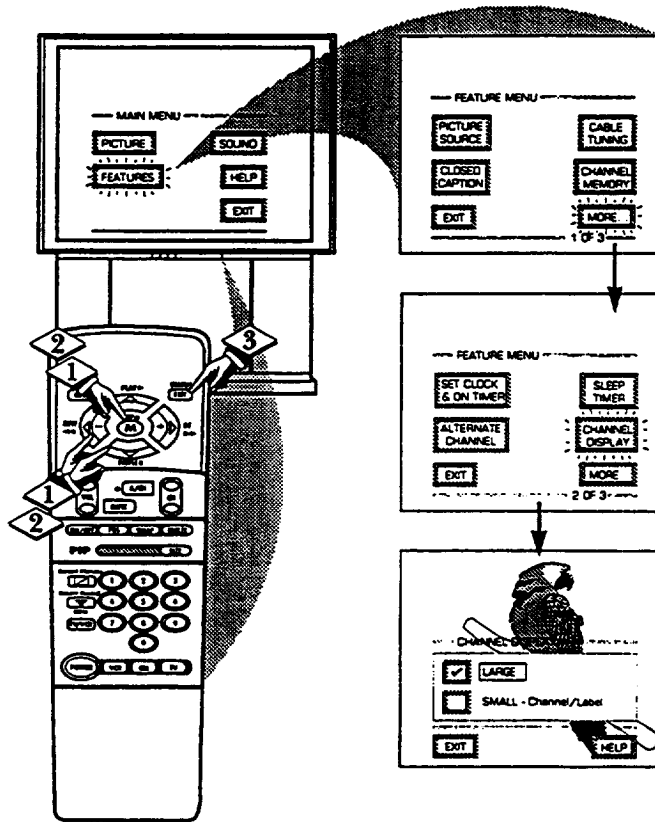
- 1 Select CHANNEL DISPLAY control.

With FEATURES MENU (2 of 3) on screen, move the RED highlight with the MENU (M) buttons. Then press the MENU button.

- 2 Press the MENU ▲▼ and MENU (M) buttons to highlight and select (✓) the LARGE or SMALL display control.

- 3 Press the STATUS button to clear the screen.

STOP

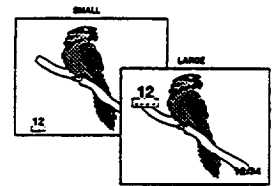


SMART HELP



Try it out. Press the CHANNEL ▲▼ buttons and you should see the Display Size you selected.

Remember. The SMALL SIZE display shows only the channel number, not the time (or clock).



CHANNEL DISPLAY OPTIONS

HALF HOUR REMINDER

With the Half Hour Reminder control the TV automatically shows you the current time and channel every thirty minutes.

BEGIN

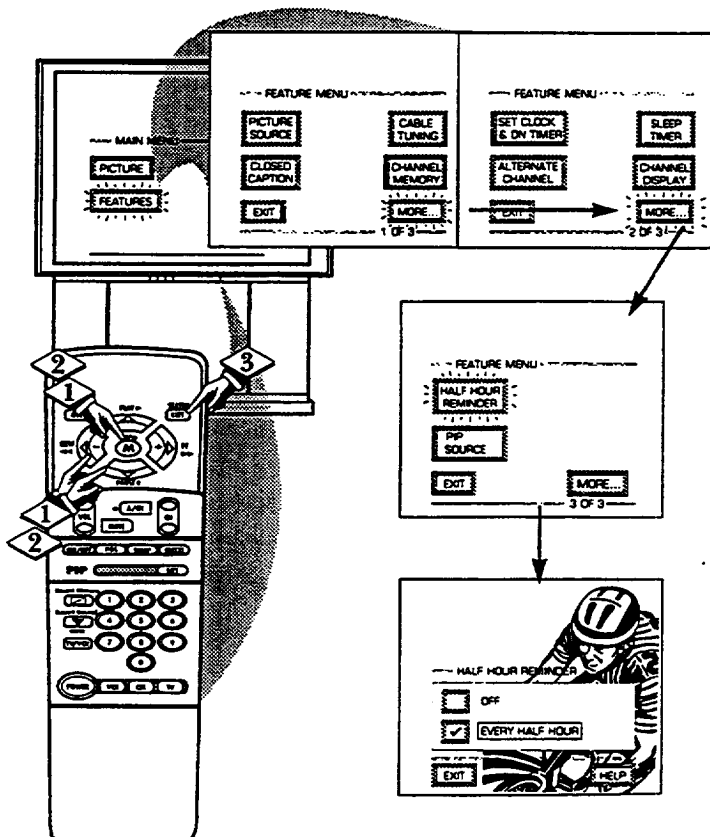
- 1 Select HALF HOUR REMINDER control.

With FEATURES MENU (3 of 3) on screen, move the RED highlight with the MENU (M) buttons. Then press the MENU button.

- 2 Press the MENU ▲▼ and MENU (M) buttons to highlight and select (✓) the EVERY HALF HOUR item.

- 3 Press the STATUS button to clear the screen.

STOP



SMART HELP



Remember, the Time and Channel Reminders will show on the hour and the half-hour for about five seconds.

SOUND MENU CONTROL ADJUSTMENTS

BASS, TREBLE, BALANCE

Your TV also has individual sound adjustment controls. The **BASS** (low frequency), **TREBLE** (high frequency), and **Speaker BALANCE** may all be used to adjust the sound playback of TV programs.

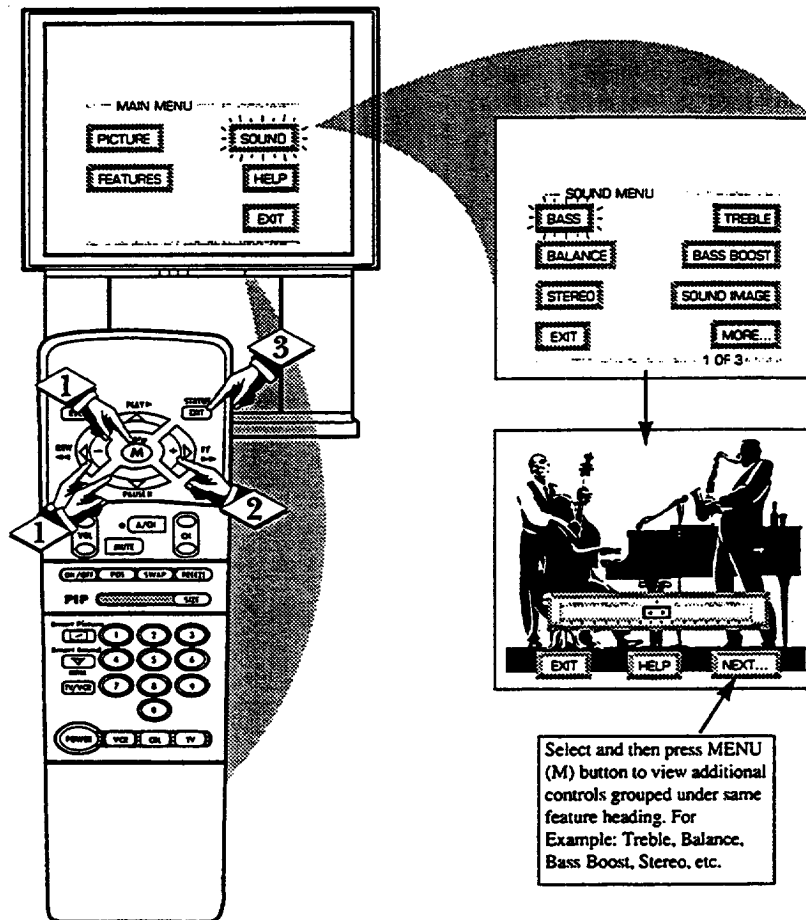
BEGIN

- 1 Select **BASS**, or **TREBLE**, or **BALANCE** sound control.

With the **SOUND MENU** on the screen, move the **RED** highlight with the **MENU (M)** buttons. Then press the **MENU** button.

- 2 Press the **(+)** or **(-)** buttons to adjust the sound control to levels you prefer.

- 3 Press the **STATUS** button to clear the screen.



Select and then press **MENU (M)** button to view additional controls grouped under same feature heading. For Example: Treble, Balance, Bass Boost, Stereo, etc.

BASS BOOST

The **BASS BOOST** control increases the low frequency audio range of the TV. This creates a deeper, fuller playback sound which can be heard through the TV's speakers.

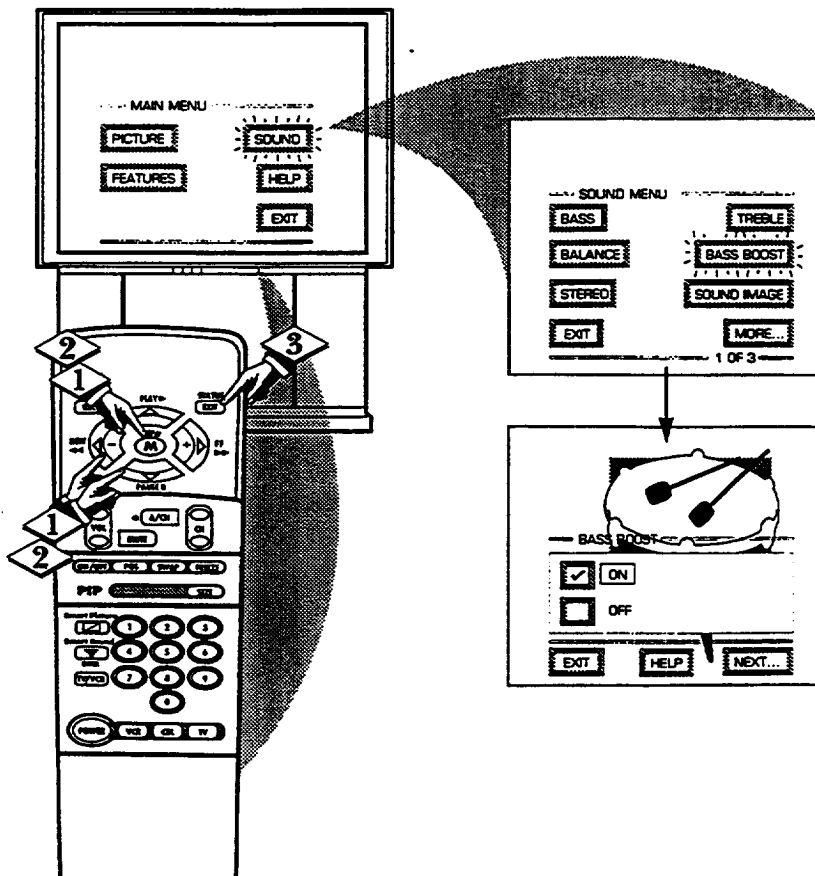
BEGIN

- 1 Select **BASS BOOST** sound control.

With the **SOUND MENU** on the screen, move the **RED** highlight with the **MENU (M)** buttons. Then press the **MENU** button.

- 2 Press the **MENU** and **MENU (M)** buttons to highlight and turn **ON** (✓) the **BASS BOOST** control.

- 3 Press the **STATUS** button to clear the screen.



STEREO

Your TV is able to receive broadcast stereo TV programs. The TV is equipped with an amplifier and twin speaker system through which the stereo sound can be heard.

A RED stereo light (on the front of the TV) will come on when a stereo broadcast is received.

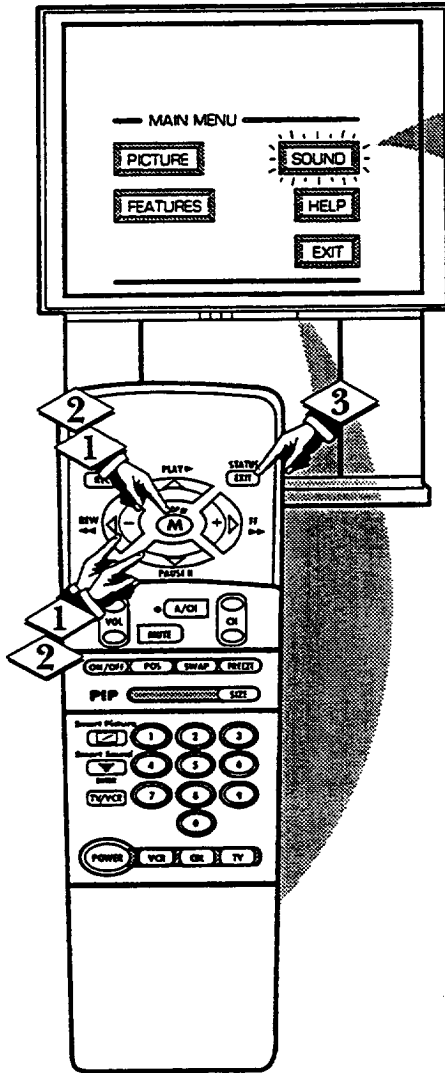
BEGIN

1 Select STEREO sound control.

With the SOUND MENU on the screen, move the RED highlight with the MENU (M) ◀▶ buttons. Then press the MENU button.

2 Press the MENU ▲▼ and MENU (M) buttons to highlight and turn ON (✓) the STEREO mode.

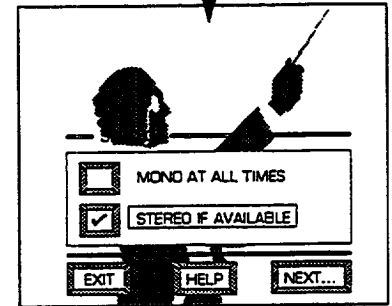
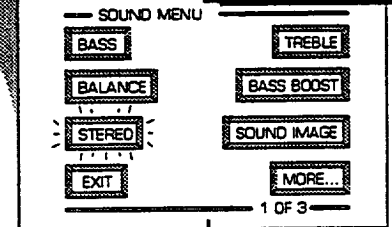
3 Press the STATUS button to clear the screen.



SMART HELP



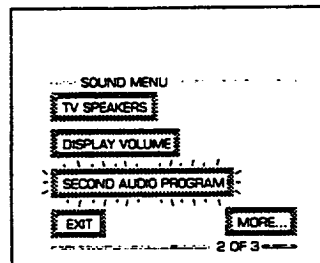
Remember. If a stereo signal is not available and the TV is placed in the STEREO mode, sound coming from the TV will remain monaural (mono).



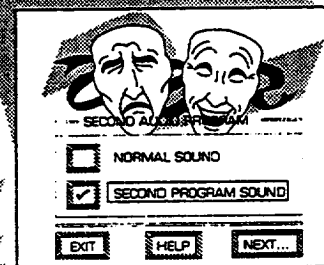
SECOND AUDIO PROGRAM

Second Audio Program (SAP) is part of the stereo broadcast system. Sent as a third audio channel SAP can be heard apart from the current TV program sound. TV stations are free to use SAP for any number of purposes, but many experts believe it will be used for foreign language translations of TV shows (or for weather and news bulletins.)

NOTE: If a SAP signal is not present with a selected program, the SAP option can not be selected. "This program does not contain SAP information" will show on the TV screen.



SECOND PROGRAM SOUND CAN ONLY BE SELECTED (✓) WHEN SAP INFORMATION IS PRESENT ON CURRENT CHANNEL.



SOUND IMAGE

The Sound Image control can be used to add greater depth and dimension to both monaural (MONO) and STEREO TV sound.

BEGIN

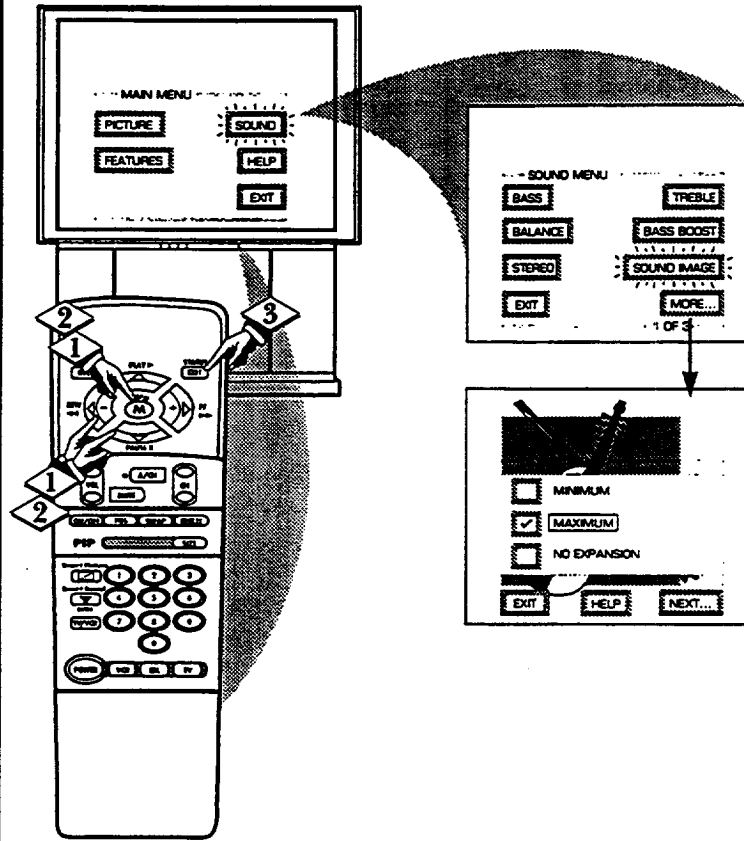
- 1 Select SOUND IMAGE control.

With the SOUND MENU on the screen, move the RED highlight with the MENU (M) buttons. Then press the MENU button.

- 2 Press the MENU ▲▼ and MENU (M) buttons to highlight and select (✓) the desired SOUND IMAGE mode.

For Example: "MAXIMUM" spreads the Sound Image effect as wide as possible.

- 3 Press the STATUS button to clear the screen.



SMART HELP



Remember, with the Sound Image control turned ON even monaural (mono) audio source material can be heard through rear Surround Sound speaker connections (see page 22). Note: The monaural version of Surround Sound may be louder at the rear set of speakers than what is normally heard with true stereo signal Surround Sound, but this is normal.

DISPLAY VOLUME

Use the DISPLAY VOLUME control to see the TV's volume level settings on the TV screen. Once set the Volume Display will be seen each time the VOLUME buttons (on the TV or remote) are pressed.

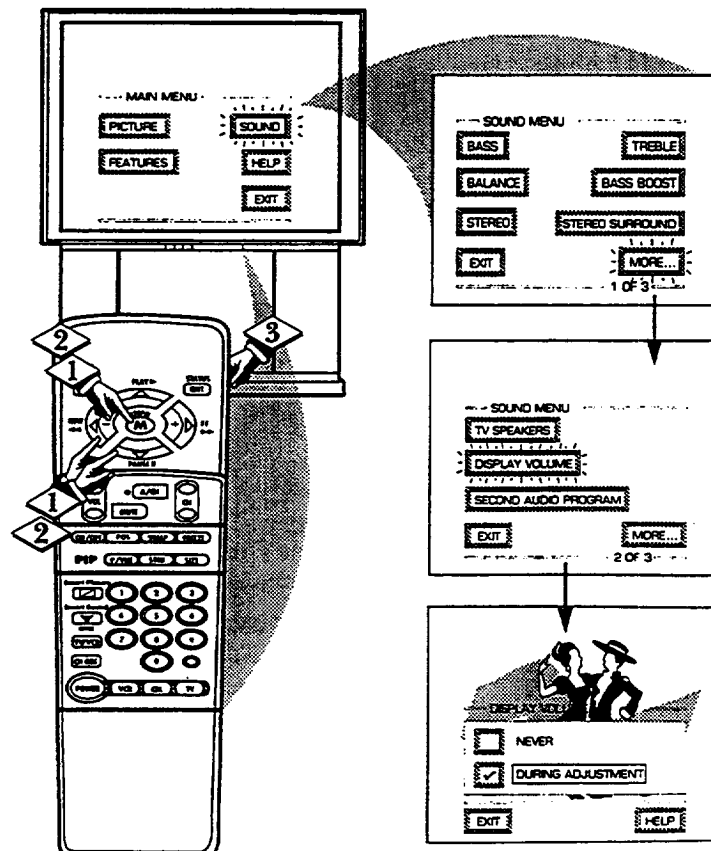
BEGIN

- 1 Select DISPLAY VOLUME control.

With SOUND MENU (2 of 3) on screen, move the RED highlight with the MENU (M) buttons. Then press the MENU button.

- 2 Press the MENU ▲▼ and MENU (M) buttons to highlight and turn ON (✓) the DISPLAY VOLUME control.

- 3 Press the STATUS button to clear the screen.



SMART HELP



Remember, "DURING ADJUSTMENT" means the volume level will be on screen whenever the Volume buttons are pressed.

TV SPEAKERS

Would you like to hear TV programs through your audio hi-fi system? The TV's Variable Audio Output jacks and TV Speaker On/Off control work together to offer you this TV sound option.

BEGIN

- 1 Connect the R(right) and L(left) VARIABLE AUDIO OUT jacks on the TV to the R and L Audio Input jacks on your amplifier or sound system.

Set the audio system's volume to 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 Volume ▲▼ buttons on the TV or remote.

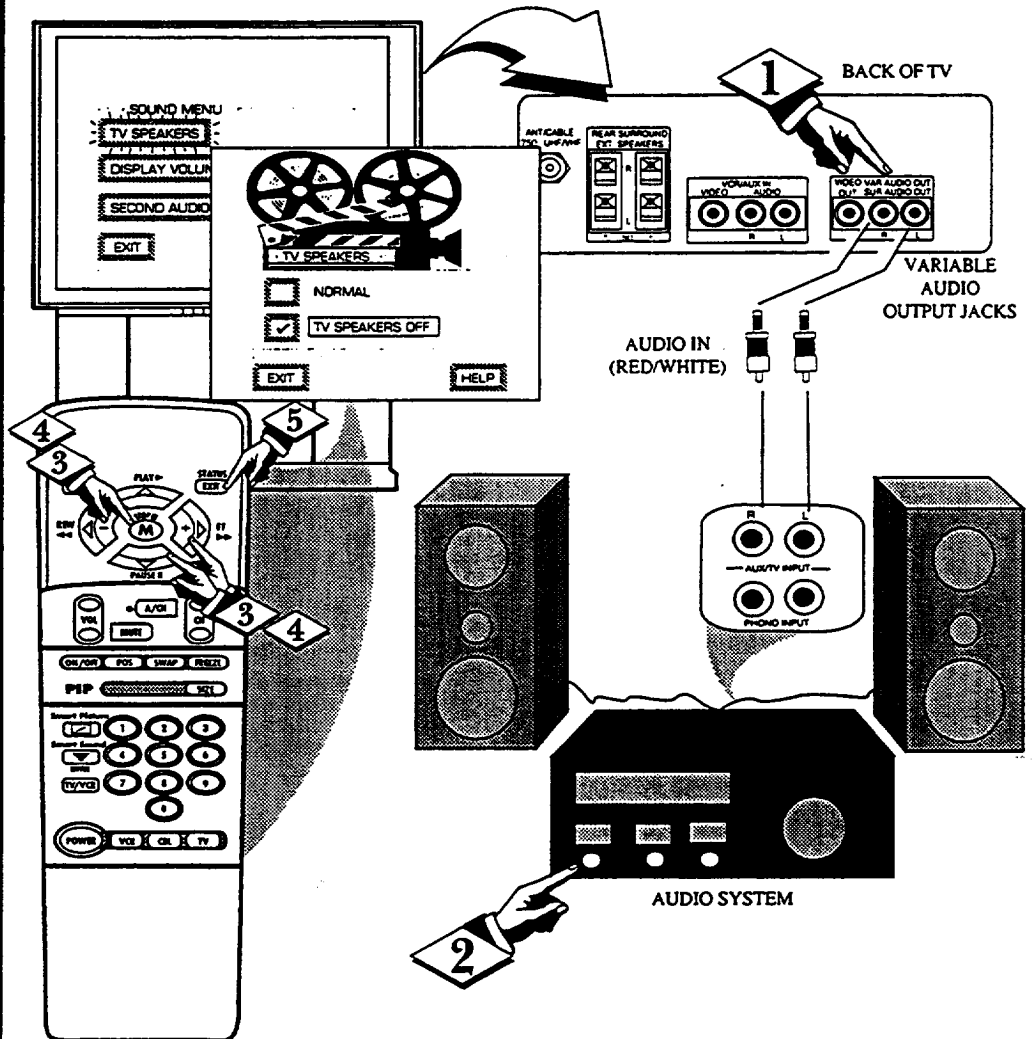
- 3 To hear the TV sound from only the audio system speakers, select TV SPEAKERS control.

With SOUND MENU (2 of 3) on screen, move the RED highlight with the MENU (M) buttons. Then press the MENU button.

- 4 Press the MENU ▲▼ and MENU (M) buttons to highlight and turn OFF (✓) the TV SPEAKERS control.

You should now only hear TV sound coming from the audio system speakers.

- 5 Press the STATUS button to clear the screen.



SMART HELP



Remember, the audio system may have to be in AUX(iliary) mode to play sound from the TV (Outputs).

Note: When the TV SPEAKER control is set to "NORMAL" (for TV speaker operation) make sure the VARIABLE AUDIO OUTPUT control (see next page) is also set to "STEREO" in order for the TV's AUDIO OUTPUT jacks to work properly.

SURROUND SOUND

By adding optional external speakers to the TV's sound system, you can create the feeling of reflected sound that surrounds you at a movie theater or concert hall.

BEGIN

- 1 Connect both external speakers to the speaker wire terminals on the TV.

Recommended speakers: 8ohm, 15 watt minimum. Be sure the (+) and (-) speaker wires are connected to the correct R(ight) and L(ef) speaker terminals on the TV.

- 2 Place the speakers so the viewing area is between the TV and the rear surround speakers. (See overhead view drawing.)

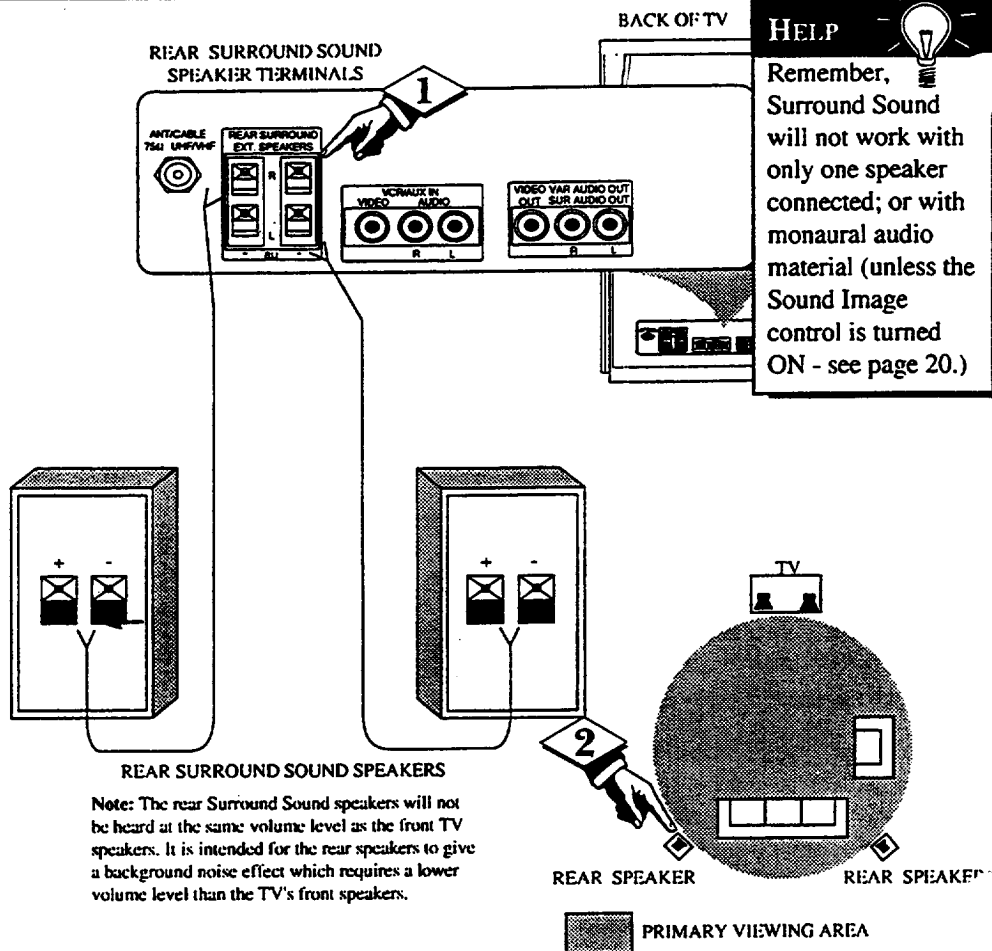
- 3 Turn TV ON and place the STEREO control to the "STEREO IF AVAILABLE" (✓) position. After setup whenever a stereo signal is received the audio will be heard in Surround Sound.

STOP

SMART HELP



Remember, Surround Sound will not work with only one speaker connected; or with monaural audio material (unless the Sound Image control is turned ON - see page 20.)



VARIABLE AUDIO OUTPUT

The TV's Variable Audio Output jacks can also be used for Surround Sound. Once they are connected an external hi-fi system its speakers can be used for the playback of Surround Sound.

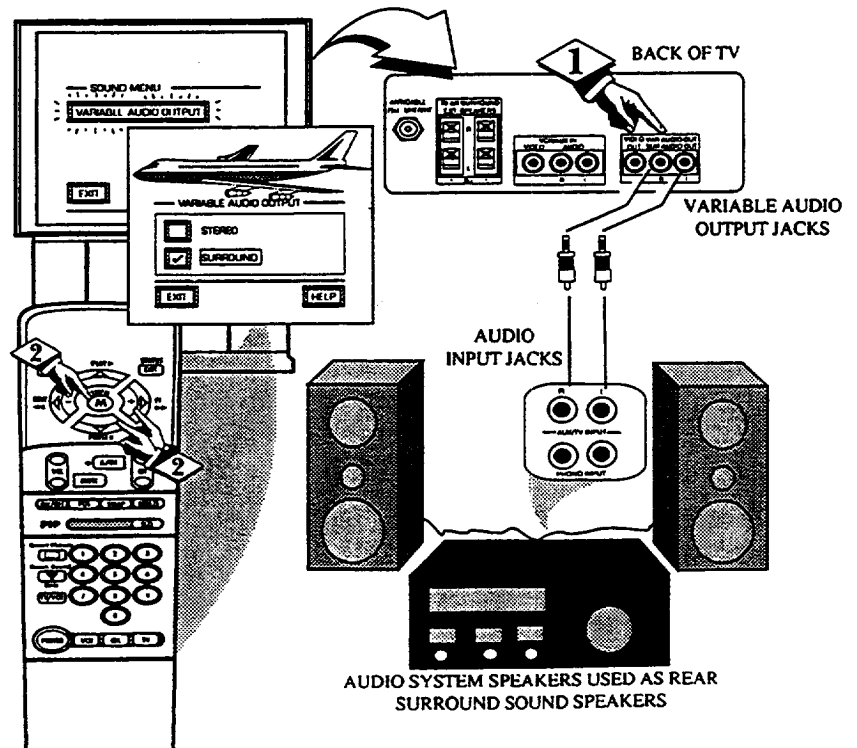
BEGIN

- 1 Connect the R(ight) and L(ef) VARIABLE AUDIO OUT jacks on the TV to the R and L Audio Input jacks on your amplifier or sound system.

- 2 Turn TV ON and place the VARIABLE AUDIO OUTPUT on screen control to the SURROUND (✓) position.

Note: This will change the Left/Right channel audio line level signal at the Audio Output jacks to the same signal found at the TV's Surround Sound Speaker terminals.

STOP



USING THE AUDIO/VIDEO INPUT JACKS

VCR/AUX INPUTS

The TV's Audio/Video Input jacks are for direct picture and sound connections between the TV and a VCR (or Video Disc Player, etc.) that has Audio/Video Output jacks.

To view the playback of a VCR tape by using the Audio/Video Input jacks on the TV:

BEGIN

- 1 Connect the VIDEO OUT jack from the VCR to the VCR/AUX VIDEO IN jack on the TV.
- 2 Connect the AUDIO OUT jacks R(right) and L(left) from the VCR to the VCR/AUX AUDIO IN jacks on the TV.
- 3 Select the "VCR/AUX" PICTURE SOURCE SELECT control on the TV.

With the FEATURES MENU on screen, move the RED highlight with the MENU (M) buttons. Then press the MENU button.
- 4 Press the MENU ▲▼ and MENU (M) buttons to highlight and select (✓) the VCR/AUX mode.
- 5 Turn the VCR ON and press PLAY to view the tape on the TV.

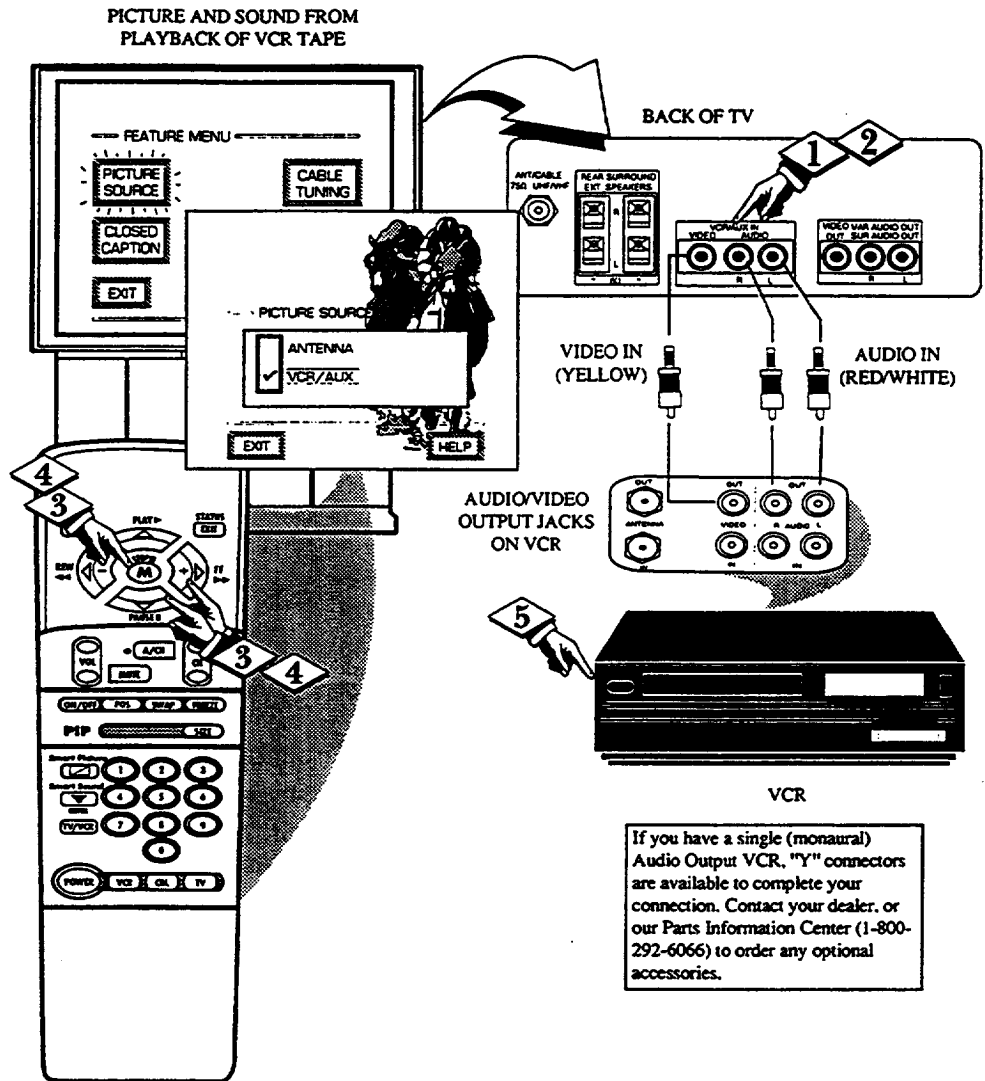


SMART HELP



Remember, an easy way to select VCR/AUX mode is to press the VCR button on the front of the TV. (Channels 3 and 4 can also be selected in this way.)

Or if you have added VCR/AUX to the TV's channel memory (see page 14), just press the CHANNEL ▲▼ buttons to select the VCR/AUX mode.



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 (1-800-292-6066) to order any optional accessories.

USING THE AUDIO/VIDEO OUTPUT JACKS

AUDIO/VIDEO OUTPUTS

The Audio/Video Output jacks on the TV can be used to record TV programs on VCRs which have Audio/Video Input jacks.

To record TV programs by using the Audio/Video jacks on the TV:

BEGIN

1 Connect the VIDEO OUT jack from the TV to the VIDEO IN jack on the VCR.

2 Connect the AUDIO OUT jacks R(ight) and L(eft) from the TV to the AUDIO IN jacks on the VCR.

3 Select the "ANTENNA" PICTURE SOURCE control on the TV.

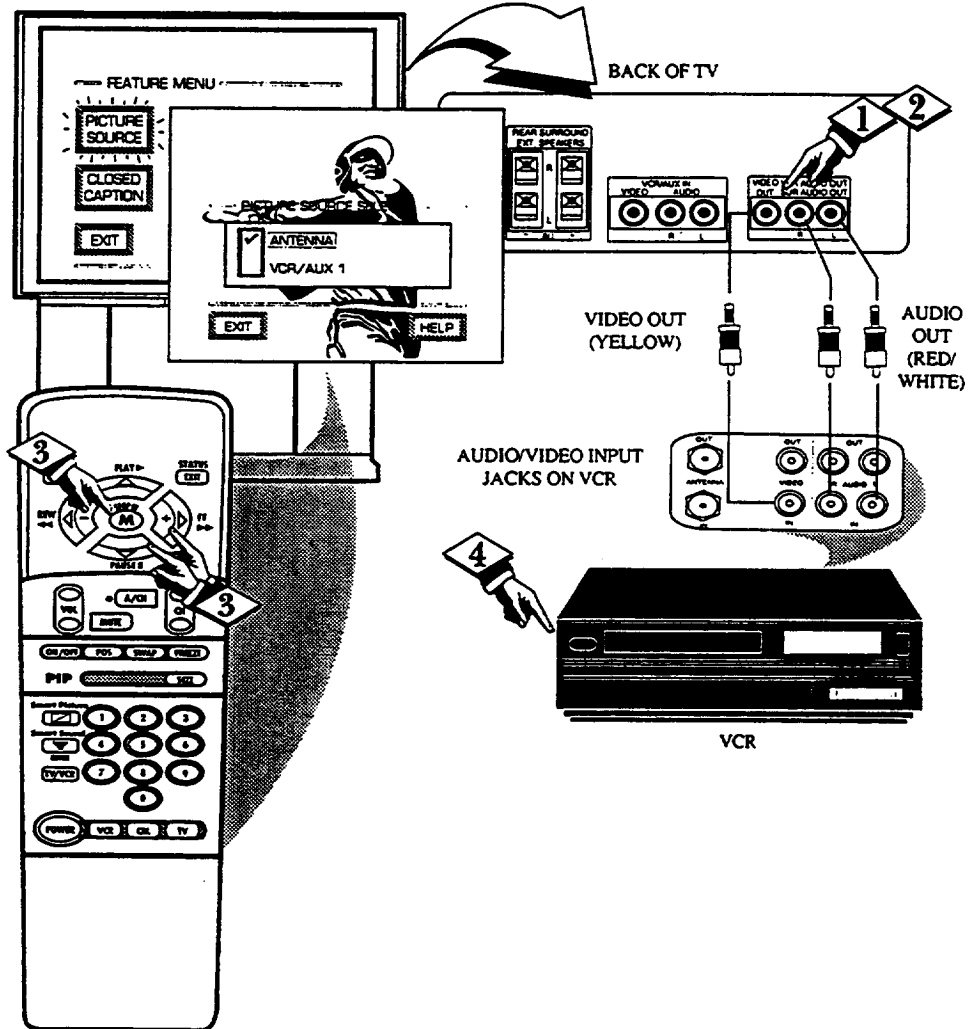
With the FEATURES MENU on screen, move the RED highlight with the MENU (M) buttons. Then press the MENU button.

Select the channel on the TV that you want to record.

4 Turn the VCR ON. Put a cassette tape in the unit and place the VCR in the RECORD mode.

STOP

PICTURE AND SOUND BEING RECORDED ON VCR.



SMART HELP

Remember, If the VCR has an INPUT SELECTOR switch, place it in the LINE or CAMERA position.

Unattended Timer Recordings with a VCR are possible, but not recommended with this connection since the TV must be left ON for the VCR to record.

REMOTE CONTROL OPERATION

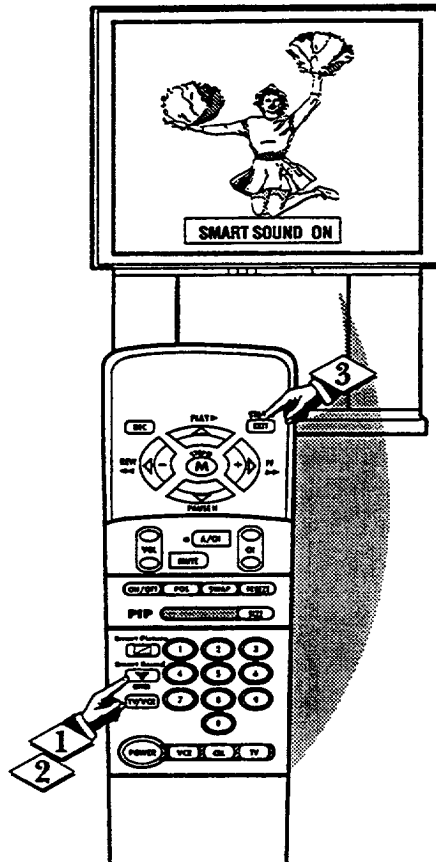
SMART SOUND

Are you tired of the sound of commercials following you into the next room or all through the house? Smart Sound allows you to preset a desired volume level that the TV sound will not go above. This makes for an even, more consistent sound by reducing the peaks and valleys that can occur during program changes or commercial breaks.

BEGIN

- 1 Press the Smart Sound button on the remote.
- 2 Press the Smart Sound button repeatedly to turn the Smart Sound ON (or OFF.)
- 3 Press the STATUS button to clear the screen when completed.

STOP



SMART HELP

Remember, Smart Sound works for sound levels coming from either the Antenna/Cable input on the rear of the TV (RF audio); or the Auxiliary (VCR/AUX IN) audio inputs.

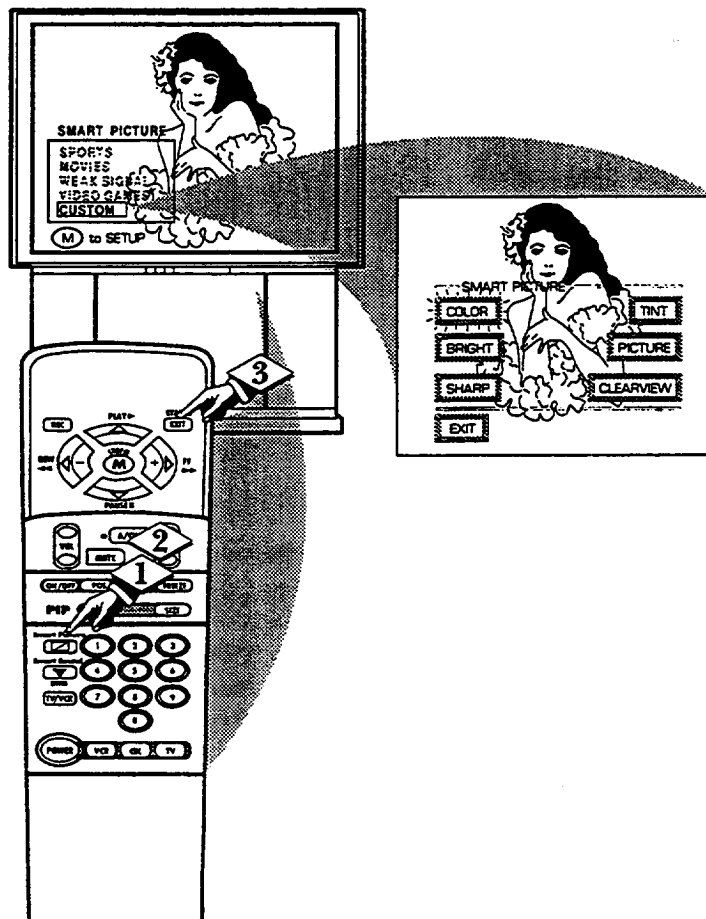
SMART PICTURE

Whether you're watching a movie or a video game your TV has automatic video control settings matched for your current program source or content. The Smart Picture feature quickly resets your TV's video controls for a number of different types of programs and viewing conditions you may have in your home. Each Smart Picture setting is preset at the factory to automatically adjust the TV's viewing control levels.

BEGIN

- 1 Press the Smart Picture button on the remote.
- 2 Press the Smart Picture button repeatedly to select any one of the preset viewing categories (Example: Video Games, Movies, etc.).
- 3 Press STATUS button to clear the screen.

STOP



SMART HELP

Remember, press SMART PICTURE and then the MENU (M) button to highlight and select the "CUSTOM" mode. With this control you can set a number of video controls to your own preference. Then reselect them at any time by pressing the SMART PICTURE button.

The video control settings for the Smart Picture categories (except CUSTOM) are memorized into the TV at the factory and can only be reset by field and service technicians.

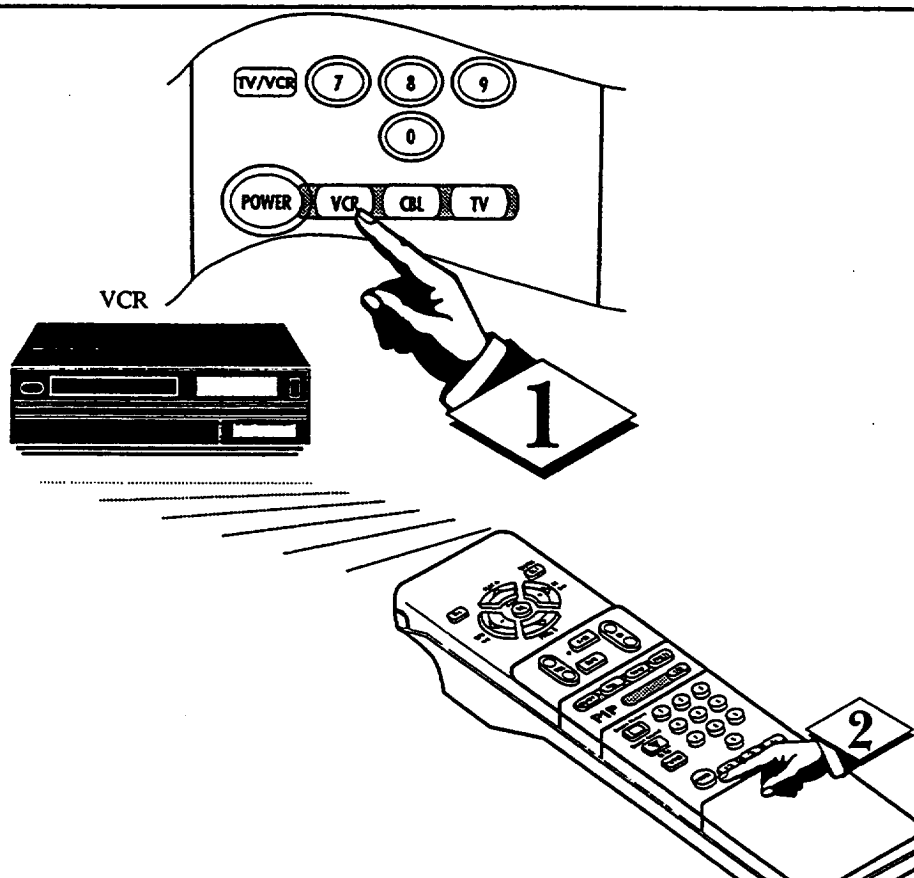
SETTING THE REMOTE TO WORK VCRs

Your remote control is set to work your TV and many infrared remote (IR) control VCRs. However, an easy one-time step may be necessary before the remote will work your VCR.

Try this initial check to see if going on to the following section is necessary.

BEGIN

- 1 Press the VCR System button on the remote.
- 2 Point remote toward VCR and press the POWER button.
- 3 Does the remote turn the VCR ON?
IF YES, and try the other VCR buttons on the remote. If they also work the VCR, then the remote is ready and no further steps are needed.
If NO, continue...



- 1 First look up a TWO-DIGIT remote code number for your brand VCR before going through the simple "1,2,3" steps (on the following page).

continue to next page

SMART HELP

Remember, if more than one number is listed, you may have to try more than the first two-digit code given in order to locate your VCR's remote code.

VCR BRAND	REMOTE CODE NO.	VCR BRAND	REMOTE CODE NO.
Akai	24, 25, 36	Multitech	27, 28
Audio Dynamics	14, 21, 29	NEC	14, 21, 29
Broksonic	31	Panasonic	01
Cannon	01	Pentax	02, 03
Capehart	33	Philco	01, 02, 05, 27, 28
Craig	07, 30	Philips	00, 01, 05, 27, 28
Curtis Mathes	01, 32, 42, 43	Quasar	01
Daewoo	33	RCA	03, 04, 32, 42, 43, 44
DBX	14, 21, 29	Realistic	07, 11, 12, 23, 27, 28
Dynatech	27	Samsung	22, 30
Emerson	20, 31, 34, 40	Sansui	49
Fisher	06, 07, 08	Sanyo	07, 13
Funai	27, 28	Scott	19
GE	01	Sears	03, 08, 23
Goldstar	23	Sharp	11, 12
Go Video	45, 46	Shinton	35
Hitachi	03, 51	Sony	09, 10, 41
Instant Replay	01	Sound Design	27
JC Penney	01, 03, 23, 29	Sylvania	01, 02, 05
JVC	14, 47, 48	Symphonic	27
Kenwood	13, 14	Tatung	14
Lloyds	27	Teac	14, 27
Magnavox	00, 01, 02, 05, 27, 28	Teknika	26, 27
Magnin	30	Thomas	27
Marantz	29	TMK	20
Memorex	01, 07, 23, 27	Toshiba	18, 19
Minolta	03	Video Concepts	28
Mitsubishi	16, 17, 38, 39, 50	Yamaha	14, 29
Montgomery Ward	12	Zenith	15



Now that you have looked up the two-digit Remote Code Number for your brand of VCR (on previous page), you are ready to follow the four simple steps below.

Please read through steps 1-4 before beginning.

BEGIN

- 1 Press and release the REC (RECORD) button.
- 2 Within thirty seconds after releasing the REC button, press and release the VCR System button.
- 3 Within thirty seconds after releasing the VCR System button, ENTER THE TWO DIGIT CODE NUMBER for the desired VCR. The remote is now ready to send commands to the VCR.
- 4 Point the remote at the VCR. Press the POWER button on the remote to turn the VCR ON.



SMART HELP

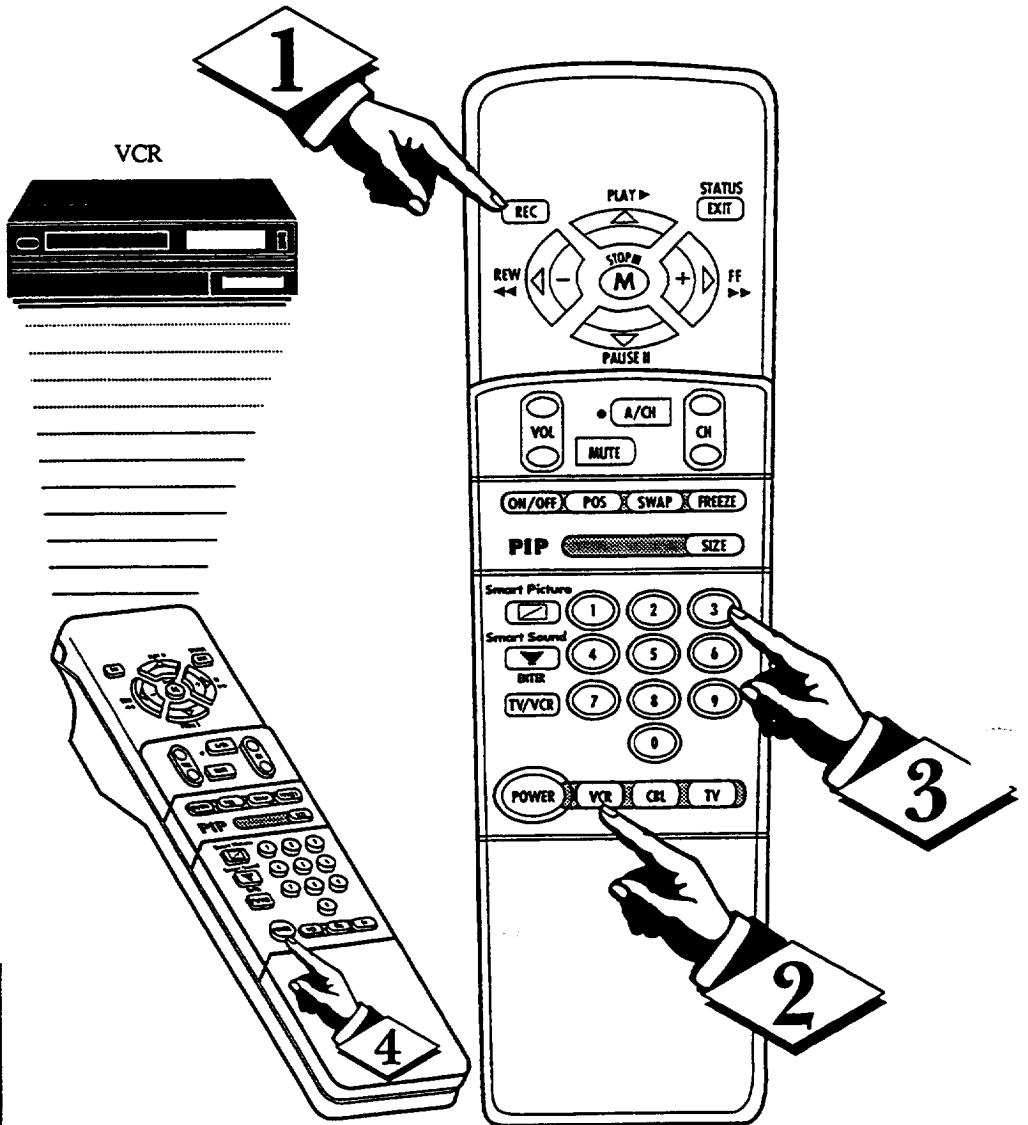


Try it out. The Channel and VCR buttons on the remote should now operate the VCR.

Remember, if this doesn't work the first time, repeat steps using the same remote code number.

If after a second try the remote does not operate your VCR, and there are more code numbers listed for your brand VCR, use the next listed code number.

If after repeated attempts the code number method does not work your VCR, try the "VCR SEARCH" method on page 30.





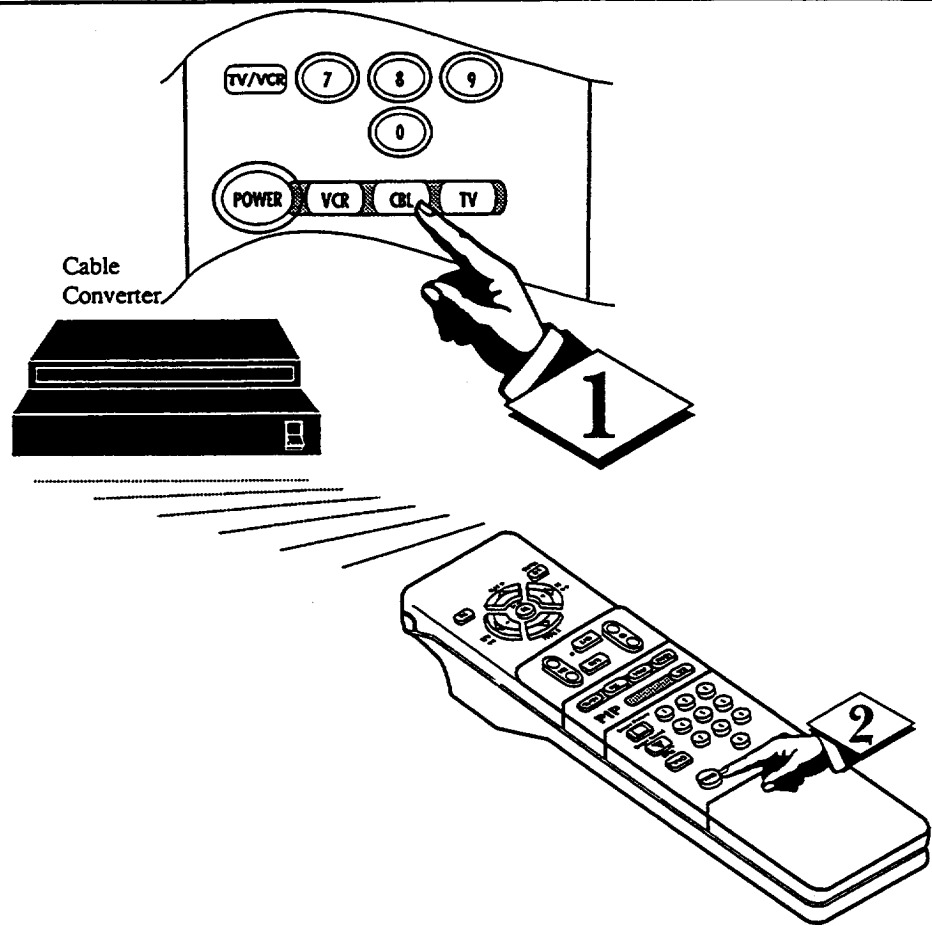
SETTING THE REMOTE TO WORK CABLE TV CONVERTERS

Your remote control is set to work your TV and many infrared remote (IR) control Cable Converters. However, an easy one-time step may be necessary before the remote will work your Converter.

Try this initial check to see if going on to the following section is necessary.

BEGIN


- 1 Press the CBL System button on the remote.
- 2 Point remote toward Cable Converter and press the POWER button.
- 3 Does the remote turn the Converter ON?
 IF YES,  and try the CH  and CH number buttons on the remote. If they also work the Converter then the remote is ready and no further steps are needed.
 If NO, continue...



- 1 First look up a **TWO-DIGIT remote code number** for your brand Converter before going through the simple "1,2,3" steps (on the following page).

continue to next page

SMART HELP

 Remember, if more than one number is listed, you may have to try more than the first two-digit code given in order to locate your Converter's remote code.

CONVERTER BRAND	REMOTE CODE NO.	CONVERTER BRAND	REMOTE CODE NO.
Archer	28	Rembrant	33
Diamond	23	Salora	52
Drake	37	Scientific Atlanta	08, 22, 47
Gemini	45	Sheritech	34
Hamlin	14, 15	Sylvania	16
Hitachi	25	Texscan	16, 48
Jerrold	01,02,03,04,05,30,46	Tocom	12,13, 53
Macom	29, 38	Toshiba	43
Magnavox	17,26, 31	Uniden Satellite	44, 54
NSC	49	Unika	50
Oak	06, 27, 39	Universal	36
Panasonic	18, 35	Video Tech	40
Philips	19, 20, 21, 24, 26	Video Way	51
Pioneer	09, 32	Viewstar	26
Regency	10, 11	Zenith	07, 41, 42

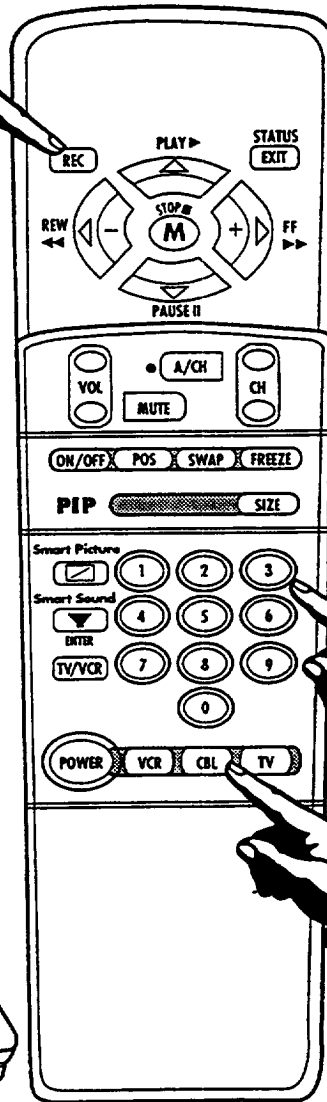
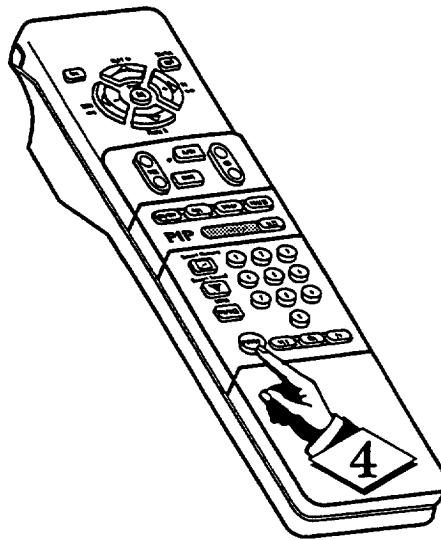
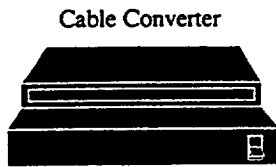


Now that you have looked up the two-digit Remote Code Number for your brand of Cable Converter (on previous page), you are ready to follow the four simple steps below.

Please read through steps 1-4 before beginning.

BEGIN

- 1 Press and release the REC (RECORD) button.
- 2 Within thirty seconds after releasing the REC button, press and release the CBL System button.
- 3 Within thirty seconds after releasing the CBL System button, ENTER THE TWO DIGIT CODE NUMBER for the desired Converter. The remote is now ready to send commands to the Converter.
- 4 Point the remote at the Converter. Press the POWER button on the remote to turn the Converter ON.



SMART HELP



Try it out. The Channel and POWER buttons on the remote should now operate the Converter.

Remember, if this doesn't work the first time, repeat steps using the same remote code number.

If after a second try the remote does not operate your Converter, and there are more code numbers listed for your brand Converter, use the next listed code number.

If after repeated attempts the code number method does not work your Converter, try the "CONVERTER SEARCH" method on page 30.

Your TV remote can be set to work your VCR or Cable Converter by what is called the **SEARCH** method.

If the "REMOTE CODE" number method shown in the previous section did not set your remote to work your VCR or Converter, then follow the easy steps listed below.

Please read through steps 1-4 before beginning.

BEGIN

- 1 Press the **POWER** button on the VCR or Converter to turn the unit ON.
- 2 Stand at least six feet away from the front of the VCR or Converter. **Point the remote toward the unit. HOLD DOWN** the **A/CH** and the desired System (**VCR** or **CBL-Converter**) buttons at the same time. **KEEP HOLDING BUTTONS DOWN.**
- 3 Watch the Channel Indicator on the unit. Channel Numbers will **SCAN UP** when the unit has been identified. This may take up to two minutes.
- 4 Release the **A/CH** and System (**VCR** or **CBL**) buttons as soon as channel numbers start to scan up. The code has been identified and the remote is ready to operate with the VCR or Converter.



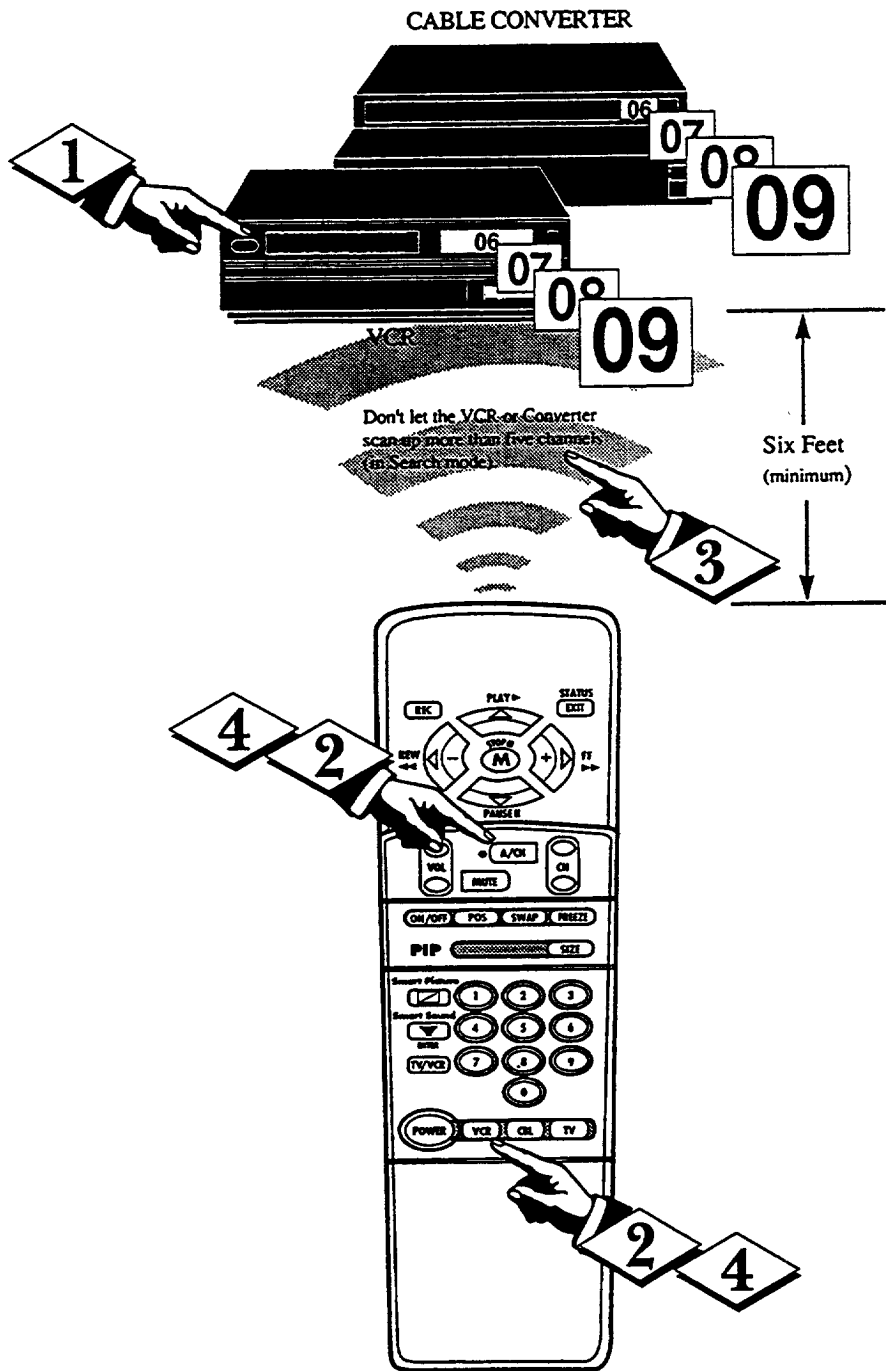
SMART HELP



Remember, a minute or two can seem very long, but the code should be located within two minutes.

Don't let the VCR scan up more than five channels. If you do the remote may pass up the right code and another two minute search cycle will have to be repeated.

If no channel change happens within two minutes, repeat steps 1-4. Should a channel change still not occur, the remote will not work with the desired unit.





When using the TV remote with a VCR, first make certain it is set to control your VCR (by the REMOTE CODE or SEARCH method - see earlier section).

BEGIN

- 1 Press the VCR System button on the remote.
- 2 Point the top of the remote toward the front of the VCR (remote sensor window) when pressing buttons.



Record Button

Hold the RECORD button down, and then press the PLAY button to begin a VCR recording.

Rewind Button

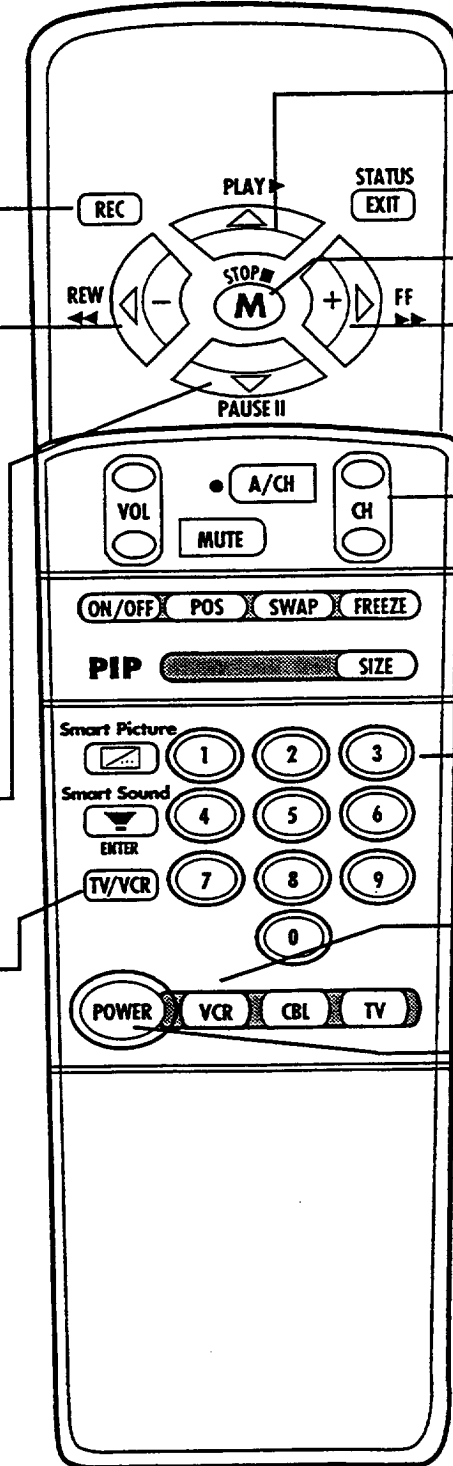
Press to rewind tapes. For some VCRs you may need to press STOP button first then REWIND. In playback mode, hold button down to view picture moving rapidly in reverse.

Pause Button

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

TV-VCR Button

Press to the VCR position ("VCR" indicator on the VCR will light) to view the playback of a tape. Press again to place in the TV position ("VCR" indicator on the VCR will go OFF) to view one program while recording another program. When used with the TV the TV/VCR button works as a source button. Each press cycles the TV between channels 3 and 4; or the VCR/AUX Input mode. It is a quick one-button way to select these channels and modes (without directly entering the TV's Menu system.)



Play Button

Press to playback a tape. Hold down after pressing the RECORD button to start a recording.

Stop Button

Press to stop the tape.

Fast Forward Button

Press to rapidly advance the tape. For some VCRs you may need to press STOP first then FF. In Playback mode hold button down to view the picture moving rapidly in the forward direction.

Channel Scan Buttons

Press to scan up or down through VCR channel numbers.

Number Buttons

Press buttons for direct VCR channel selections.

VCR System Button

Press to send remote commands to the VCR.

Power Button

Press to turn the VCR ON and OFF.

SMART HELP



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

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

HOW TO USE THE PICTURE-IN-PICTURE (PIP) FEATURE

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 inset picture - or PIP).

Note: The PIP picture must be supplied by a VCR (or other accessory equipped with a VIDEO OUTPUT jack). If you already went through FIRST TIME SETUP (in the Quick-Use Guide), then the connections for PIP have been completed.

To see how channels selected on a VCR can be shown as PIP:

BEGIN

- 1 Connect the VIDEO OUT jack on the VCR to the VCR/AUX VIDEO IN jack (yellow) on the TV.

Also connect the AUDIO OUT (R and L) jacks from the VCR to the VCR/AUX AUDIO IN jacks (red and white) on the TV.

Also be sure the normal antenna connection between the VCR and TV are in place.

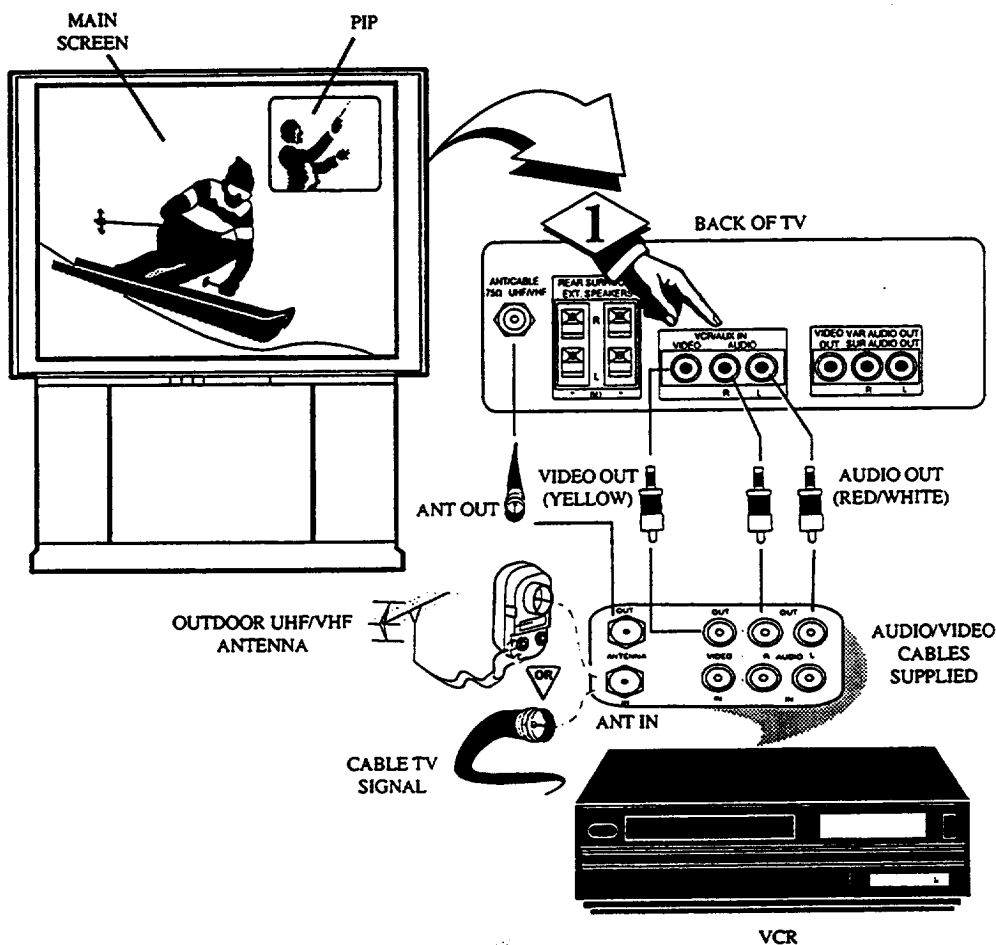
- 2 Move to the next page after the VCR to TV PIP connections are completed.

SMART HELP



For other possible PIP connections see page 37 for 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 (1-800-292-6066), for details.



Now that you have completed the required connections on the previous page you are ready to follow the simple steps shown below.

3 Turn the VCR and TV ON.

Place the VCR in the TV mode - Use the TV/VCR button on the VCR (or on the TV remote if it has been set to work with your VCR - see page 26.)

Place the TV's PIP INPUT control to "VCR/AUX".

With FEATURES MENU (3 of 3) on screen, move the RED highlight with the MENU (M) buttons. Then press the MENU button.

Press the MENU ▲▼ and MENU (M) buttons to highlight and select the "VCR/AUX" (✓) item.

4 Select the channel on the VCR to view in the PIP window.

Select the channel on the TV to view on the main screen.

5 Press the PIP ON/OFF button on the remote.

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



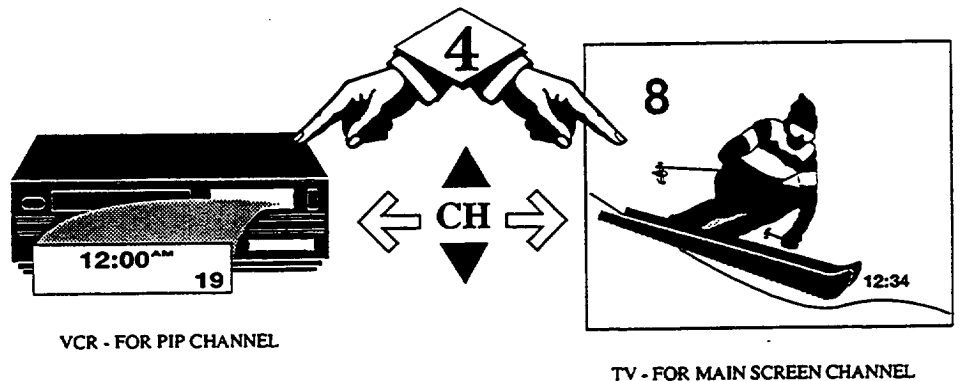
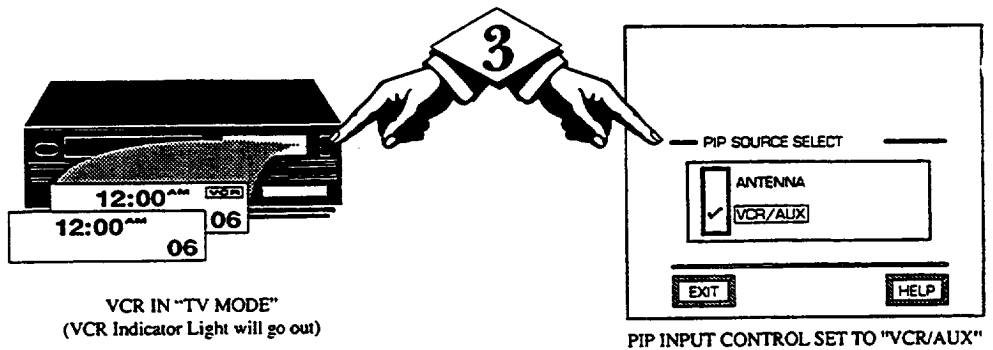
SMART HELP



Remember, if you see the same picture on the main screen and in the PIP window, you need to be sure the TV's PIP Picture Source control (page 35) is set to "VCR/AUX".

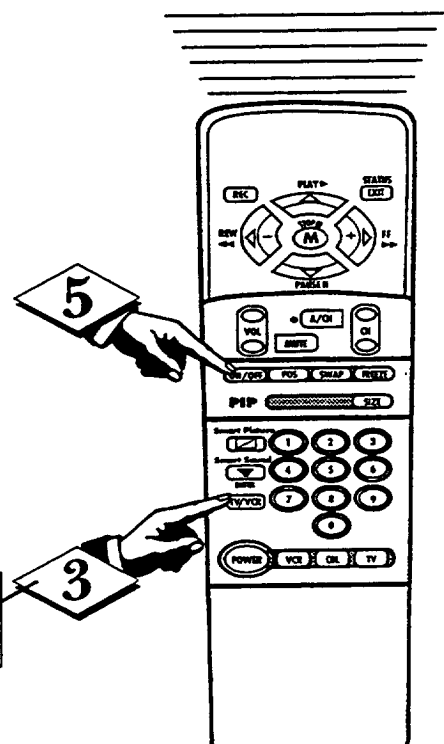
No sound will be heard with the PIP picture. See page 34 on how to "SWAP" the PIP picture with the main screen picture so that sound can be heard.

Also see the following page on how to operate other PIP features with the remote controls



VCR SELECTED CHANNEL

TV SELECTED CHANNEL



By using the PIP buttons on the remote the PIP picture can be moved and swapped with the main screen. The main screen picture can also be frozen in the PIP window.

BEGIN

1 Press the PIP ON button to show the PIP picture.
PIP appears in a corner of TV screen. Press PIP ON again to remove PIP from the main screen.

2 Press the PIP POSITION button to move the PIP picture (from corner-to-corner on the TV screen.)

This feature allows you to move PIP and avoid blocking off any main screen action.

3 With PIP on the TV screen, press the SWAP button to swap the main screen picture with the PIP picture. See "Smart Help" note on this page.

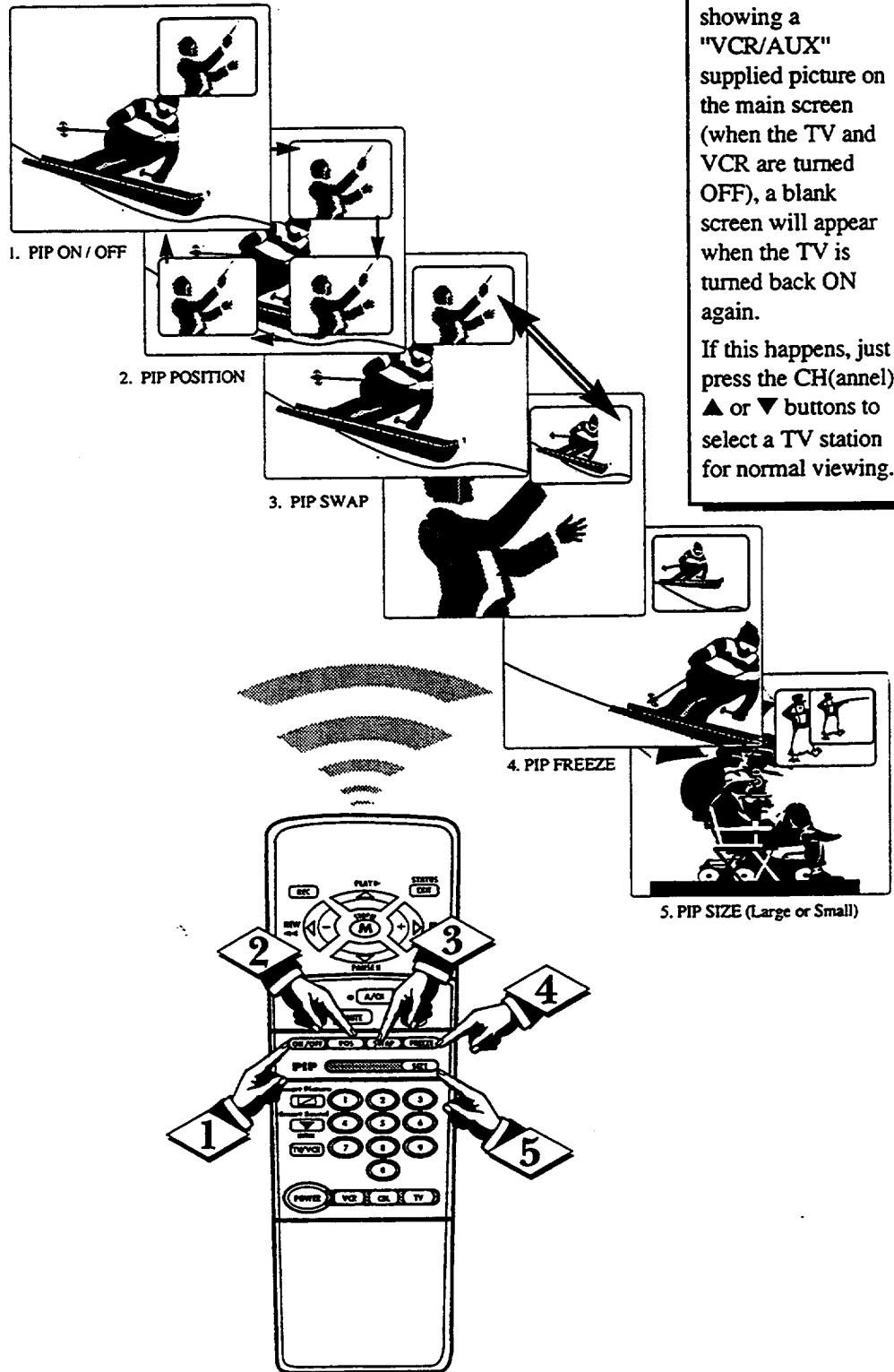
4 Press FREEZE to hold the current MAIN screen picture in the PIP window (Main picture is still active).

If PIP is currently OFF, the PIP window will automatically appear. Press FRZ repeatedly to update the frozen PIP with current pictures from the Main screen.

You cannot reposition or swap a frozen PIP picture.

Press the PIP ON button to drop the frozen PIP picture from the screen.

5 Press the PIP SIZE button to change the size of the PIP window shown on the TV screen. Press the PIP SIZE button again to see and compare the large and small size PIP windows.



SMART HELP



Remember, if the TV is showing a "VCR/AUX" supplied picture on the main screen (when the TV and VCR are turned OFF), a blank screen will appear when the TV is turned back ON again.

If this happens, just press the CH(annel) ▲ or ▼ buttons to select a TV station for normal viewing.


SELECTING THE PICTURE SOURCE FOR PIP




PIP SOURCE

The picture for the PIP window can come through either the ANT/CABLE or VCR/AUX Inputs (on the rear of the TV). PIP Picture Source simply tells the TV which one of these sources it is to show in the PIP window.

BEGIN

- 1 Select PIP SOURCE control.

With FEATURES MENU (3 of 3) on screen, move the RED highlight with the MENU (M)  buttons. Then press the MENU button.

- 2 Press the MENU  and MENU (M)  buttons to highlight and select either the ANTENNA or VCR/AUX () item.


VCR/AUX1- for a picture signal coming from the VCR/AUX IN Audio/Video jacks on the TV.

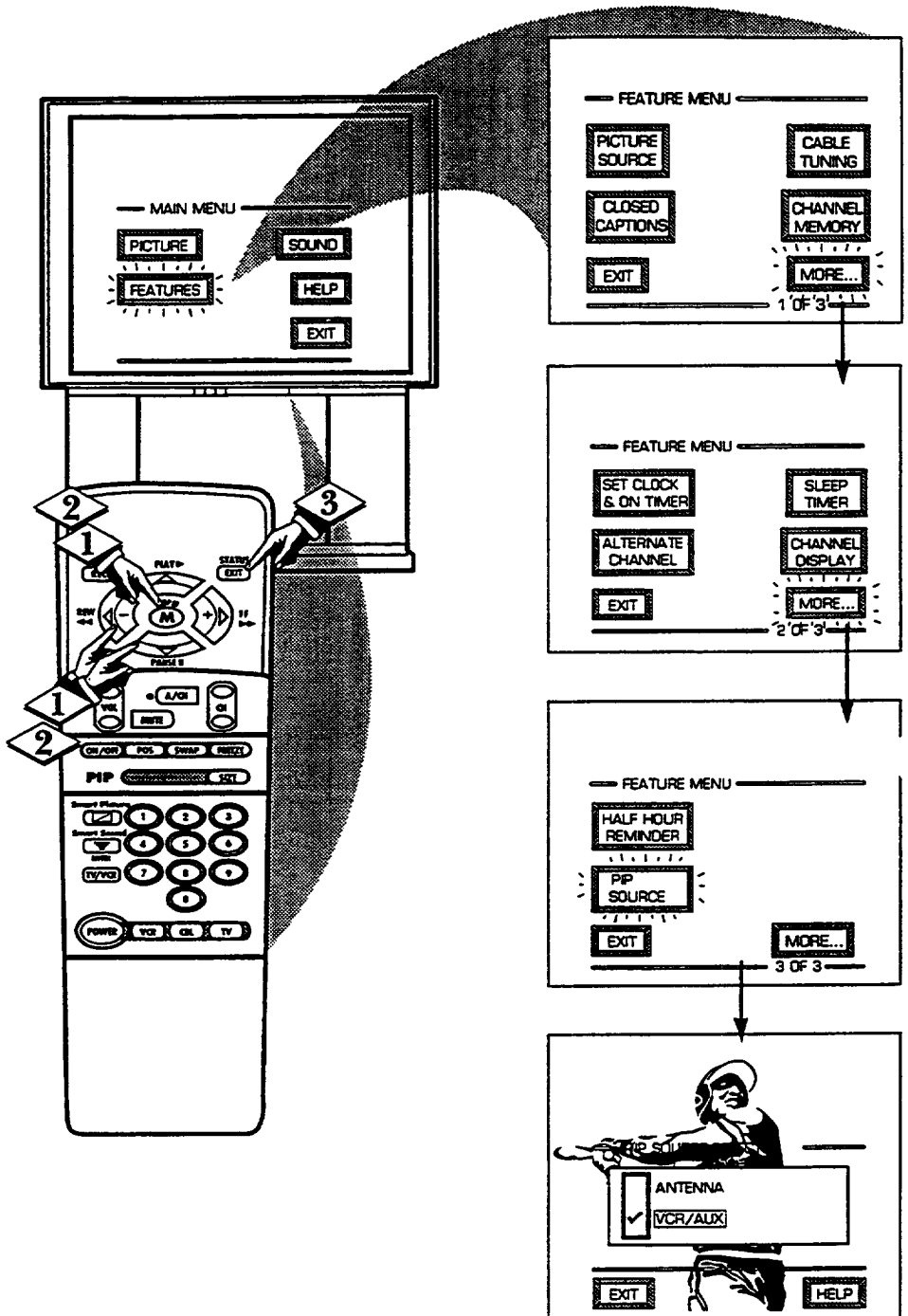
ANTENNA- for a picture signal coming from the ANT/CABLE Input on the TV.

- 3 Press the STATUS button to clear the screen.

STOP

SMART HELP

 Remember. The PIP screen will be blank unless a signal is connected to the selected source (either ANT/CABLE or VCR/AUX Inputs) on the rear of the TV.



PIP COLOR / PIP TINT

The Picture-In-Picture (PIP) Color and Tint controls are used to make fine tune adjustments to the color settings for PIP (when it is shown on the TV screen).

BEGIN

- 1 Select PIP COLOR (or PIP TINT) control.

With PICTURE MENU (2 of 2) on screen, move the RED highlight with the MENU (M) buttons. Then press the MENU button.

- 2 Press the MENU ▲▼ buttons to move the RED highlight. Press the MENU button to turn (✓) the PIP COLOR or TINT control ON.

The PIP automatically comes on to show the PIP window on the TV screen.

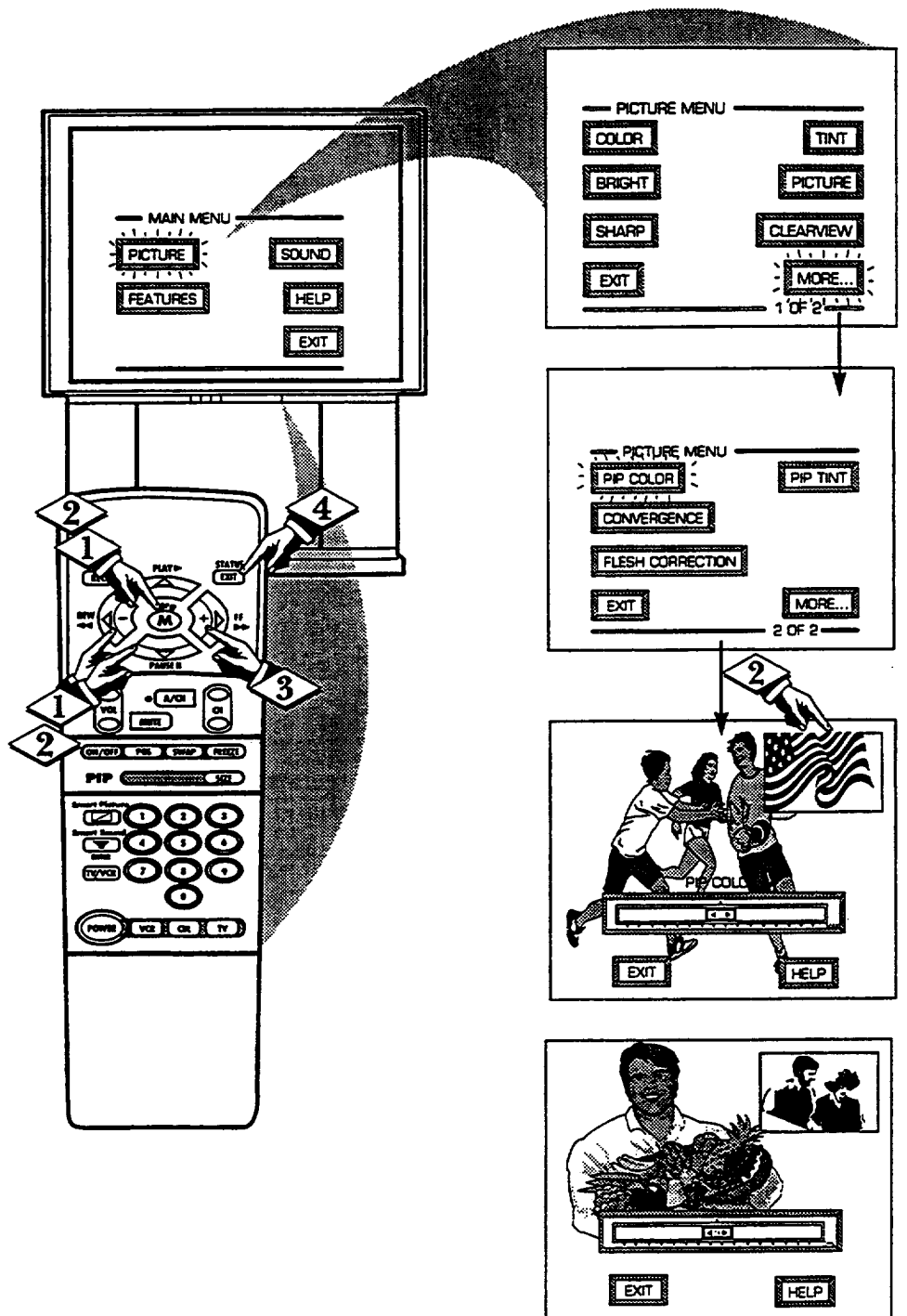
- 3 Press the (+) and (-) buttons to adjust the PIP for Color (or Tint) levels you prefer.

- 4 Press the STATUS button to clear the screen.

STOP

SMART HELP

Remember. Although there are separate COLOR and TINT controls for PIP, the adjustment levels for these controls depend on the TV's main picture. For example: If the main screen is showing a black and white picture, PIP would also be in black and white (even though its source is in color).



MORE PIP CONNECTIONS

PIP hookup with Cable Converter Box and 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 TV.

2 Connect the CABLE OUT on the Converter to the ANT. IN on the VCR.

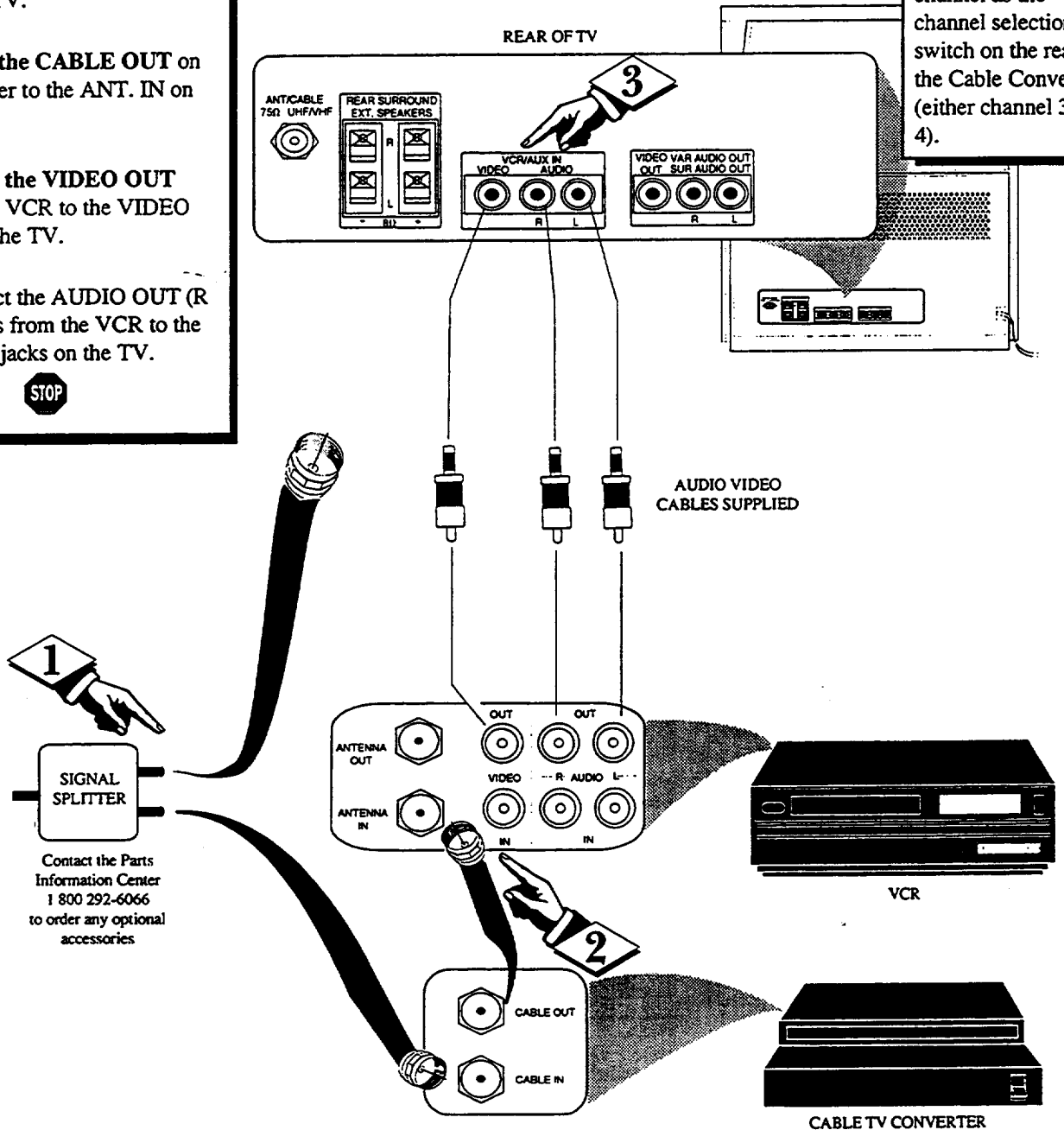
3 Connect the VIDEO OUT jack on the VCR to the VIDEO IN jack on the TV.

Also connect the AUDIO OUT (R and L) jacks from the VCR to the AUDIO IN jacks on the TV.

STOP

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 rear of the Cable Converter (either channel 3 or 4).



Contact the Parts Information Center 1 800 292-6066 to order any optional accessories



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

No Power

- Check the TV power cord. Unplug the TV, wait 1 minute, then reinsert plug into outlet and push POWER button again.
- Check to be sure outlet is not on a wall switch.

No Picture

- Check antenna connections on the rear of the TV. Are they properly secured to the antenna plug on the TV?
- Check the CABLE TUNING control for correct position.
- Check PICTURE SOURCE control for correct position "VCR/AUX" position without a signal source will result in a blank screen.

No Sound

- Check the VOLUME buttons.
- Check the MUTE button on the remote control.
- Check the TV SPEAKER ON/OFF control for the correct position.
- If attempting auxiliary equipment hook-ups, check audio jack connections and that the auxiliary equipment is on and in the proper operating modes.

Remote Does Not Work

- Check TV-VCR-CBL "System" buttons on the remote. Press the remote's TV System button to send commands to the TV; VCR System to sent to VCR; etc.
- Check batteries. Replace with AA Heavy Duty (Zinc Chloride) or Alkaline batteries if necessary.
- Clean the remote and the remote sensor window on the TV.

TV Displays Wrong Channel or No Channels Above 13

- Repeat channel selection.
- Add desired channel numbers (ADD/DELETE CHANNELS control) into TV memory.
- Check CABLE TUNING control for correct position.

QUESTIONS ABOUT THIS PRODUCT?
CALL OUR INFORMATION CENTER.

800-531-0039

This TV is equipped with protective circuitry that shuts the TV off in case of moderate power surges. Should this occur turn the TV back on by pressing the POWER button once or twice, or unplug and then replug the power cord at the AC outlet. This feature is NOT designed to prevent damage due to high power surges such as those caused by lightning, which is not covered by your warranty.

Cleaning and Care


- To avoid possible shock hazard be sure the TV is unplugged from the electrical outlet before cleaning.
- When cleaning the TV screen take care not to scratch or damage the screen surface (avoid wearing jewelry or using anything abrasive- do not use household cleaners). Wipe the front screen with a clean cloth dampened with water. Use even, easy, vertical strokes when cleaning.
- Specially designed screen cleaning kits are also available which contain anti-static cleaners and cloths designed to get into the ridges of the TV screen. If interested, ask your dealer about the MAG4600 Projection TV Screen Cleaning Kit or call our toll-free Accessory Parts ordering number 1-800-292-6066.
- Gently wipe the cabinet surfaces with a clean cloth or sponge dampened in a solution of cool clear water and a mild soap or detergent. Use a clean dry cloth to dry the wiped surfaces.
- Occasionally vacuum the ventilation holes or slots in the cabinet back.
- Never use thinners, insecticide sprays, or other chemicals on or near the cabinet, as they might cause permanent marring of the cabinet finish.




The on screen **HELP** menu offers both *Operating Tips* and a list of *Glossary definitions* for different features on your TV. These items are given to provide you with more information and details on a select group of feature operations.

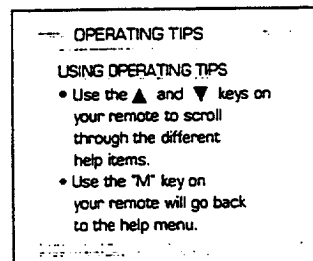
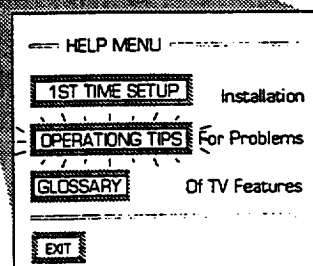
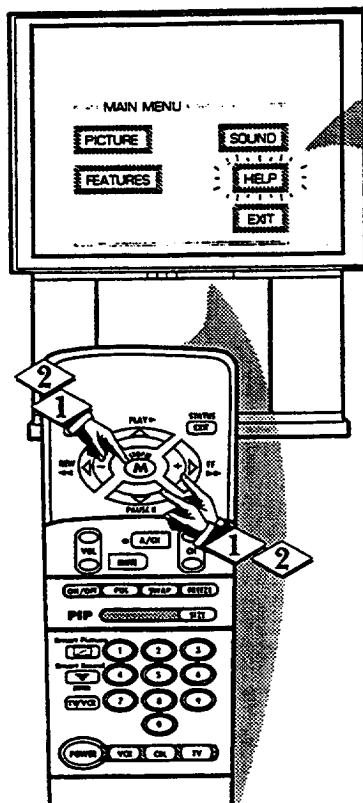
BEGIN

1 Select "HELP" on the TV's Main Menu.

Press the remote's Menu  buttons to move UP/DOWN and from SIDE-TO-SIDE within the list of on-screen features.

Press MENU (M) to select the highlighted "HELP" item.

2 Press the MENU  and then the MENU (M) buttons to select either the OPERATING TIPS or GLOSSARY item.



FOLLOW THE ON SCREEN DIRECTIONS TO VIEW OPERATING TIPS

GLOSSARY TO TELEVISION TERMS

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

Display * An on screen message or graphics that help the user operate and adjust his Television feature controls. See On Screen Displays (OSD).

Direct Audio/Video Inputs * Located on the rear of the TV these connectors (RCA phono type plug) are used for the input of audio and video signals. Designed for use with VCRs (or other accessories) in order to receive higher picture resolution and offer sound connection options.

Identify * Method by which a remote control searches and finds an operating code for another product (such as a VCR or Cable Converter). Once the code has been "identified" then the TV remote can operate and send commands to the other product.

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

On Screen Displays (OSD) * Refers to the wording or messages generated by the television (or VCR) to help the user with specific feature controls (color adjustment, programming, etc.).

Menu * An on-screen listing of feature controls shown on the Television screen that are made available for user adjustments.

Picture -In-Picture (PIP) * Term used when two pictures are shown on the TV screen at the same time. The smaller PIP picture is supplied by a VCR (or other tuner/video playback source). The PIP picture can also be moved and swapped with the TV's main screen picture.

Programming * The procedure of adding or deleting channel numbers into the Television's memory circuits. In this way the Television "remembers" only the locally available or desired channel numbers and skips over any unwanted channel numbers.

Remote Sensor Window * A window or opening found on the Television control panel through which infrared remote control command signals are received.

Second Audio Program (SAP) * Another or additional audio channel provided for in the Multichannel Television Sound (MTS) broadcast standard. The most frequently proposed use for SAP is the simultaneous bilingual broadcast of TV program material.

Status * Allows the user to quickly confirm what channel number is currently being viewed. Status can also be used to clear the Television of on screen displays or information (rather than waiting for the displays to "time out" or automatically disappear from the screen).

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 Televisions and VCRs.

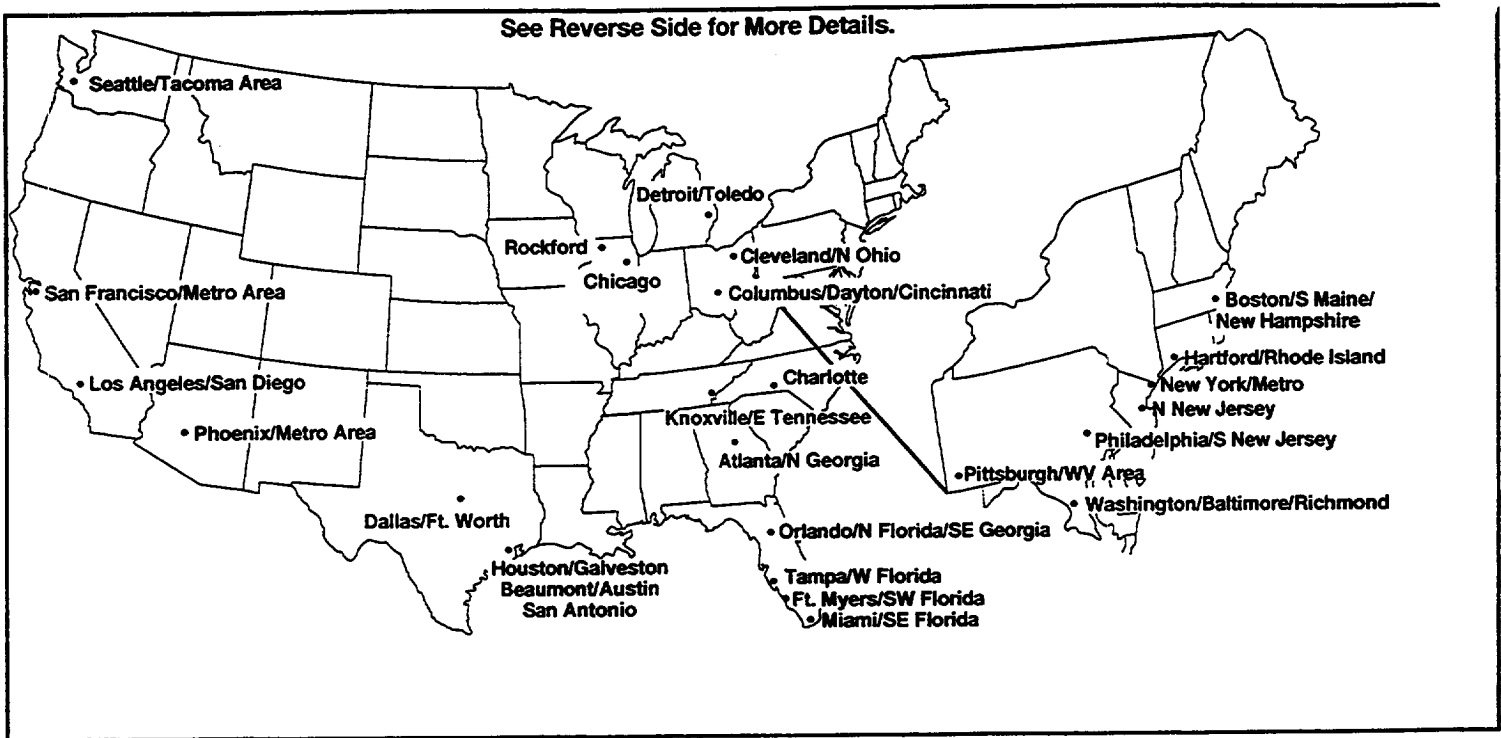


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* Information contained in Quick-Use (Q/U) Guide - page listed

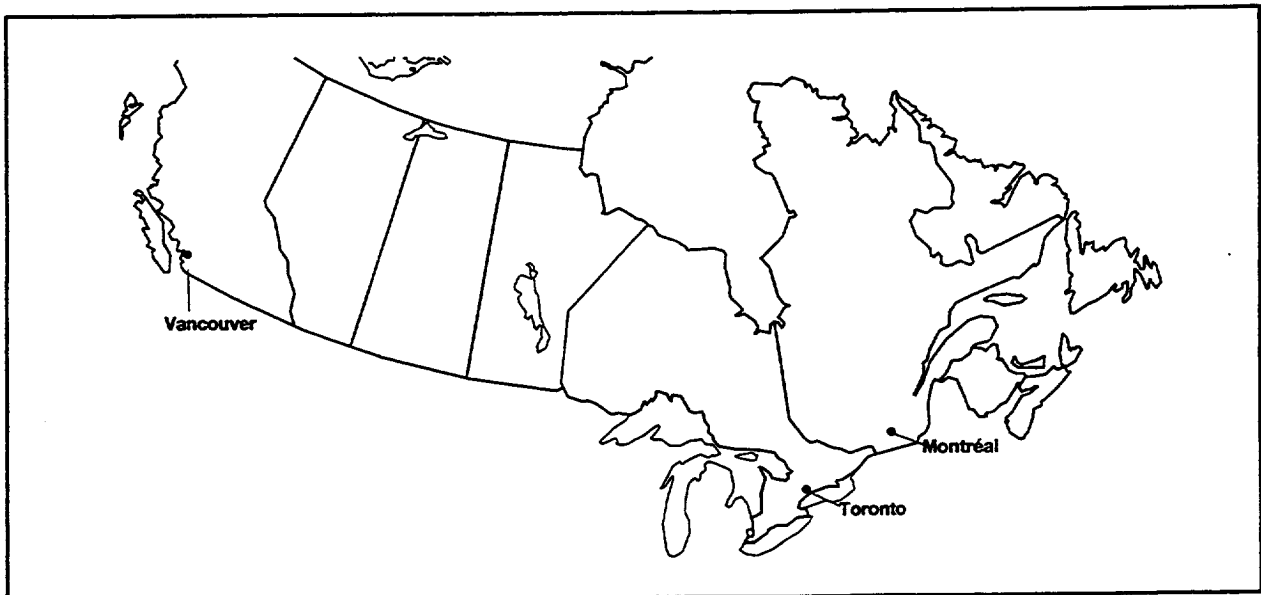
Philips Consumer Electronics Company Factory Service Center Locations



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

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

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LIMITED WARRANTY

PROJECTION TELEVISION

One Year Free Labor

One Year Free Service on Parts

Two Years Free Service on Cathode Ray Tube Parts / 30 Days Free Service on Projection TV Screen

This product can be repaired in-home.

WHO IS COVERED?

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

WHAT IS COVERED?

Warranty coverage begins the day you buy your product. *For one year thereafter (30 days for the projection TV screen)*, all parts will be repaired or replaced, and labor and transportation are free. *From one to two years from the day of purchase*, you pay for the replacement or repair of all parts except the cathode ray tube and the "Clear-Vu" lens, and for all labor and transportation charges. *After two years from the day of purchase*, you pay for the replacement or repair of all parts except the "Clear Vu" lens (which is guaranteed against manufacturer's defects for the lifetime of the product), and for all labor and transportation charges.

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

WHAT IS EXCLUDED?

Your warranty does not cover:

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

WHERE IS SERVICE AVAILABLE?

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

MAKE SURE YOU KEEP...

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

BEFORE REQUESTING SERVICE...

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

TO GET WARRANTY SERVICE...

Repair must be performed by an authorized service center or a factory service center. *If you live near a factory service center (see enclosed list)*, you may contact that center to schedule a time for in-home repair. *If you do not live near a factory service center*, contact your dealer. If your dealer is an authorized service center, he will arrange repair. If your dealer is not an authorized service center, he will direct you to the authorized service center engaged by him to service the products he sells.

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

(In Canada, this warranty is given in lieu of all other warranties. No other warranties are expressed or implied, including any implied warranties of merchantability or fitness for a particular purpose. Philips is not liable under any circumstances for any direct, indirect, special, incidental or consequential damages, howsoever incurred, even if notified of the possibility of such damages.)

IF YOU HAVE QUESTIONS...

In U.S.A., Puerto Rico, or the U.S. Virgin Islands, contact Philips Service Company at the address listed below.

In Canada, contact Philips Electronics Ltd. at:

4977 Levy Street
St. Laurent, Québec, H4R 2N9
(514) 956-0210

REMEMBER...

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

MODEL # _____

SERIAL # _____

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

Philips Service Company

401 East Andrew Johnson Highway
(423) 475-8869

Jefferson City, Tennessee 37760

Optional Accessories

Prices subject to change without notice. Availability subject to change at time of purchase. When ordering accessories outside the U.S.A., please refer to the accessories material, address, and prices for that country.

Maximize your viewing pleasure

with state-of-the-art accessories

designed specifically for your

Projection Television. The

optional accessories shown in

this booklet may be purchased

from your local dealer, or may

be ordered direct from Philips

Consumer Electronics

Company.

Call toll-free

1-800-292-6066

Or write

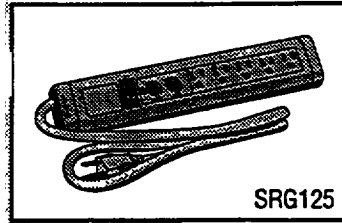
Philips Consumer

Electronics Co.

Accessories Marketing Dept.

P.O. Box 967,

Greenville, TN 37744-0967



SRG125

TV/Cable Surge Protector

Your Cost \$19.95

Electrical fluctuations and power surges can damage your valuable electronic entertainment equipment. Protect your antenna, cable, and electrical lines with Magnavox Audio/Video Equipment Surge Protectors.

Features:

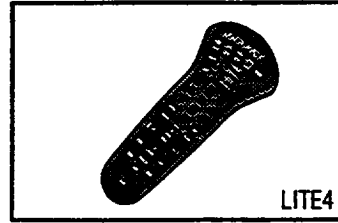
- Coaxial cable input/output
- Five grounded outlets
- Built-in LED and reset button

Screen Enhancers and Screen Enhancer Cleaning Kit

Enhances your TV picture while protecting the TV screen. This easy-to-install tinted, plexiglass screen visibly improves picture sharpness and provides protection from scratches and foreign material. Order the Screen Enhancer Cleaning Kit to maintain the quality and performance of your screen enhancer.

Screen Enhancer Cleaning Kit

4835 395 17265
Your Cost \$17.90



LITE4

Universal Night Lite™ Audio/Video Remote

Your Cost \$24.95

Replace your lost or broken remote control, or consolidate all your remotes into one. Plus, make remote easier to use in dimly-lit areas, with our Night Lite™ lighted keypad.

Features:

- Preprogrammed
- Autoscan and manual code setup
- On-screen capabilities
- Menu programming
- Spanish instructions included
- Toll-free customer assistance number included

46" Screen Enhancer

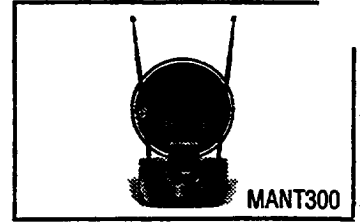
CE9246
Your Cost \$84.00

52" Screen Enhancer

CE9252
Your Cost \$105.00

61" Screen Enhancer

CE9261
Your Cost \$147.00



MANT300

Smart Amplifier Amplified VHF/UHF/FM Indoor Antenna

Your Cost \$34.95

Drastically improves VHF/UHF/FM reception on your TV or stereo. Simply attach antenna to your TV/stereo and enjoy crisper, clearer sound and improved picture quality. Adjustable UHF loop tilts and rotates for the best possible reception.

Features:

- 39" retractable dipoles
- 6' 75 ohm coax connection cable
- Matching transformer included
- Soft base prevents scratching surfaces
- Active antenna with amplifier with up to 20 dB gain
- LED power indicator on front of antenna: easy to see while watching TV
- Knob on top of antenna serves as gain and power switch
- AC/DC power adapter included
- 90-day warranty