

TOSHIBA

OWNER'S MANUAL

Projection Television

COLORSTREAM®

50A60 50A60A
55A60 55A60A
55A60R 61A60
61A60A 61A60R

Owner's Record

The model number and serial number are on the back of your TV. Record these numbers in the spaces below. Refer to these numbers whenever you communicate with your Toshiba dealer about this TV.

Model number:

Serial number:

Introduction

Connecting
your TV

Using the
Remote Control

Setting up
your TV

Using the TV's
Features

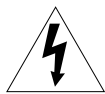
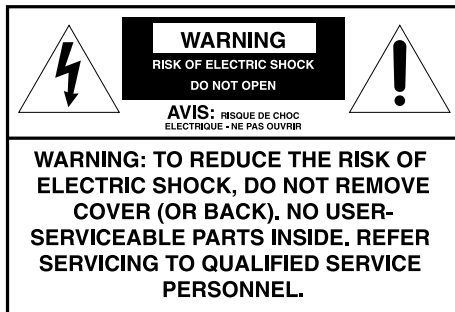
Appendix

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Important Information

WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.



The lightning symbol in the triangle tells you that the voltage inside this product may be strong enough to cause an electric shock. **DO NOT TRY TO SERVICE THIS PRODUCT YOURSELF.**



The exclamation mark in the triangle tells you that important operating and maintenance instructions follow this symbol.

CAUTION

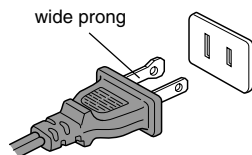
TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED PLUG WITH AN EXTENSION CORD RECEPTACLE OR OTHER OUTLET UNLESS THE PRONGS CAN BE FULLY INSERTED INTO THE OUTLET TO PREVENT ANY EXPOSURE OF THE PRONGS ON THE POLARIZED PLUG.

ATTENTION

POUR PRÉVENIR LES CHOCES ÉLECTRIQUES NE PAS UTILISER CETTE FICHE POLARISÉE AVEC UN PROLONGATEUR, UNE PRISE DE COURANT OU UNE AUTRE SORTIE DE COURANT, SAUF SI LES LAMES PEUVENT ÊTRE INSÉRÉS À FOND SANS EN LAISSER AUCUNE PARTIE À DÉCOUVERT.

CAUTION

The plug has one prong wider than the other and will fit only one way into a standard electrical outlet (120 volt AC, 60 Hz). If the plug does not fit into the outlet, try turning it around. If the plug still does not fit, the outlet is probably non-standard and must be replaced by a qualified electrician. Do not tamper with the plug or try to force it into a non-standard outlet.



Note to CATV system installers in the USA

This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC, which 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.

Precautions

Installing your TV

- Place the TV on the floor or on a sturdy platform. The mounting surface should be flat and steady. If you install the TV on a soft floor, make sure that the floor is not damaged by the weight of the TV.
- Place the TV far enough away from the walls to allow proper ventilation. This will prevent the TV from overheating and avoid possible damage to the TV. Avoid dusty places too.
- Damage may occur if you leave the TV in direct sunlight or near a heater. Avoid places subject to extremely high temperatures or humidity, and temperatures of 41°F(5°C) or lower.

Using your TV

- Do not stand or climb on the TV.
- Do not put any heavy object on top of the TV.
- Do not place containers with liquids such as drinks or cosmetics on the TV. If any foreign material or water leaks into the TV, unplug the power cord and contact your dealer.
- If the room temperature suddenly rises, condensation may occur on the lenses, resulting in picture distortion or color fading. In such a case, simply wait a while (with the power on) and the condensation will evaporate.
- Avoid displaying stationary images on your TV screen for extended periods of time. Stationary patterns generated by a picture-in-picture (PIP) display, Multi-Window display, computer displays, video games, stock market reports, etc., can become permanently engrained on the picture tube. This damage is not protected by your warranty because it is the result of misuse. If you wish to use your TV to display still images, reduce brightness and contrast settings. Never leave a PIP, Multi-Window, computer, or video game display unattended.
- Sit approximately 10-25 feet away from the TV. Sitting too far to the left or right of the screen will cause the picture to appear dull as will direct sunlight and room lights. Turn the TV off to check for reflections on the screen. Then remove the source of any reflections while viewing.

Cleaning your TV

- Clean the TV with a soft dry cloth. Never use strong solvents such as thinner or benzine which might damage the finish of the cabinet. If the cabinet is very dirty, use a damp cloth to wipe the cabinet clean, and then finish with a dry cloth.

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Introduction

Welcome to Toshiba

Congratulations! You have purchased one of the finest projection TV's on the market. The goal of this manual is to guide you through setting up and operating your Toshiba TV as quickly as possible.

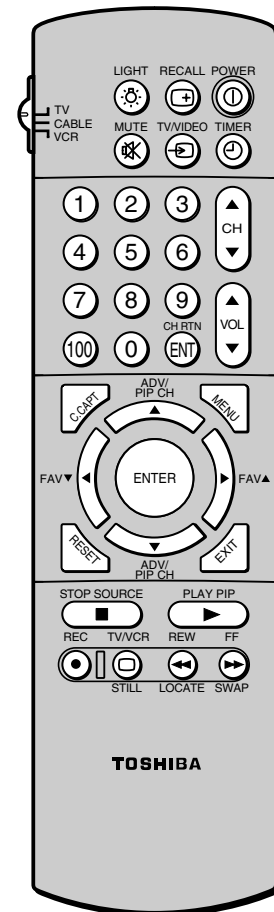
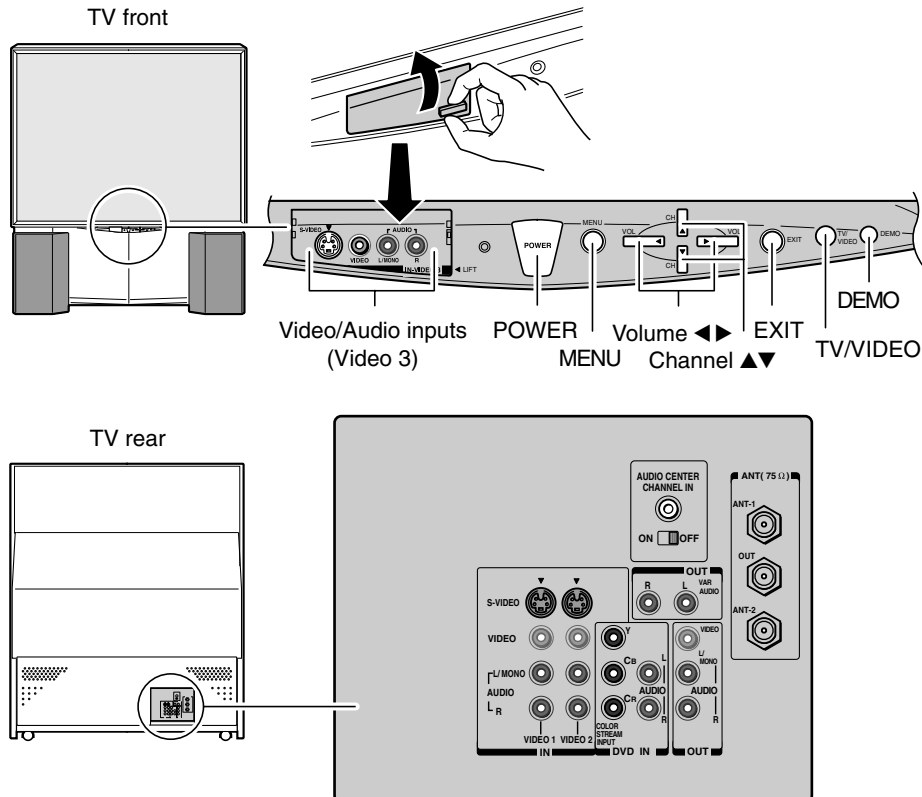
This manual applies to models 50A60, 50A60A, 55A60, 55A60A, 55A60R, 61A60, 61A60A, and 61A60R. Before you start reading, check your model number by looking at the rear of the TV.

Model 50A60 is used in this manual for illustration purposes. Instructions are based on using the remote control. You can also use the controls on the TV if they have the same name as those on the remote control.

Please read all the safety and operating instructions carefully, and keep the manual for future reference.

Exploring your new TV

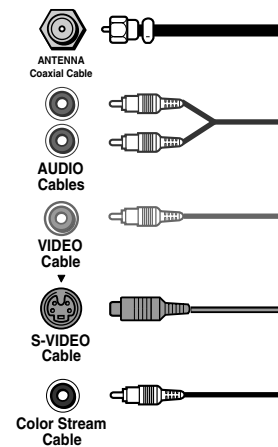
You can operate your TV using the buttons on the front panel or remote control. The back panel and front panel (behind the door) provide all the terminal connections you will need to connect other equipment to your TV.



Connecting your TV

If you have not connected electronic equipment before, or you have been frustrated in the past, you may wish to read this section. (Cables are not supplied.)

- A coaxial cable is the standard cable that comes in from your antenna or cable converter box. Coaxial cables use “F” connectors.
- Audio and video cables are usually color coded according to use: yellow for video and red and white for audio. The red audio cable is for the stereo right channel, and the white audio cable is for the stereo (or mono) left channel. If you look at the rear panel of the TV, you will see that the terminals are color coded in the same manner as the cables.
- S-video cables provide better picture performance. S-video cables can only be used with S-video compatible components.
- ColorStream® cables come in sets of three. A ColorStream connection provides the best picture performance.



Caution:

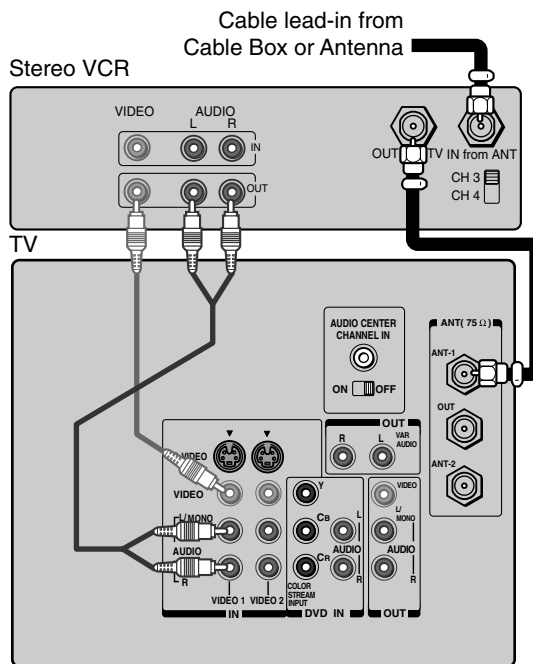
Do not plug the TV in until you have finished connecting all of your equipment.

Connecting a VCR

This connection allows you to watch local channels and video programs, play or record on the VCR while watching TV, and to record from one channel while watching another channel.

You will need:

- one coaxial cable
- one pair of audio cables (one single cable for a mono VCR)
- one video cable



Note:

If you have a mono VCR, connect L/Mono to VCR Audio OUT using only one audio cable.

If you have an S-VHS VCR, use an S-video cable instead of a regular video cable for better picture performance.

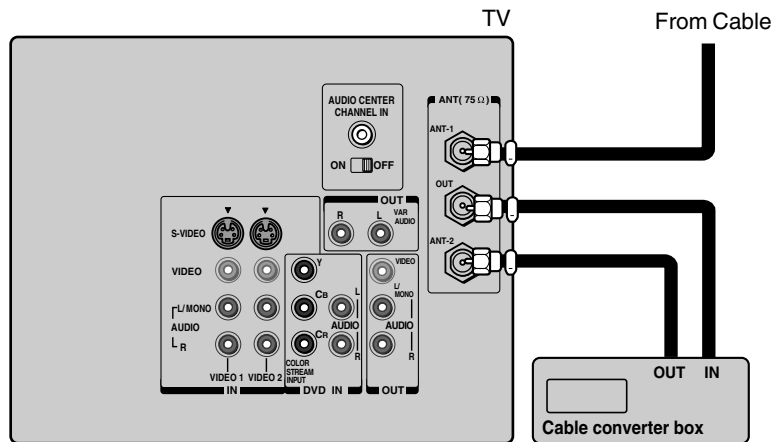
Do not connect a regular video cable and an S-video cable to Video-1 at the same time.

Connecting a cable converter box

This connection allows you to view a separate or different picture on your PIP when you use a converter box to view premium channels. Keep your TV selected to ANT 2 and tuned to channel 3 or 4 (whichever channel is vacant in your area). Then use the converter box to change channels.

You will need:

- two coaxial cables



Note:

You cannot view premium channels in the PIP window.

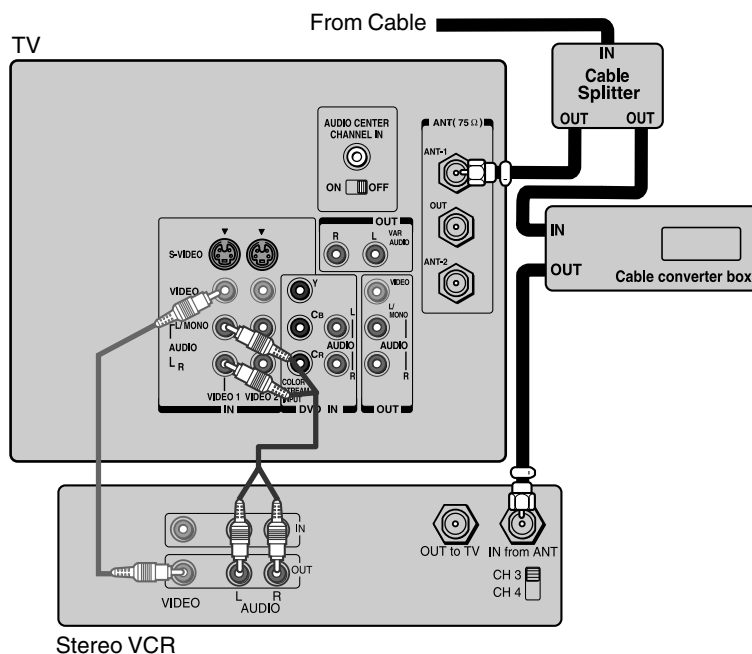
PIP swap is not available with this connection.

Connecting a cable converter box and a VCR

This connection allows you to watch and record basic and premium cable channels, watch videotapes, and record one channel while watching another channel. To use the TV's features, select ANT-1. To view premium channels or record with the VCR, select ANT-2, tune the TV to channel 3 or 4 (whichever channel is vacant in your area), and use the converter box to change channels.

You will need:

- one cable splitter
- three coaxial cables
- one pair of audio cables (one single audio cable for a mono VCR)
- one video cable



Note:

If you have a mono VCR, connect L/Mono to VCR Audio OUT using only one audio cable.

If you have an S-VHS VCR, use an S-video cable instead of a regular video cable for better picture performance.

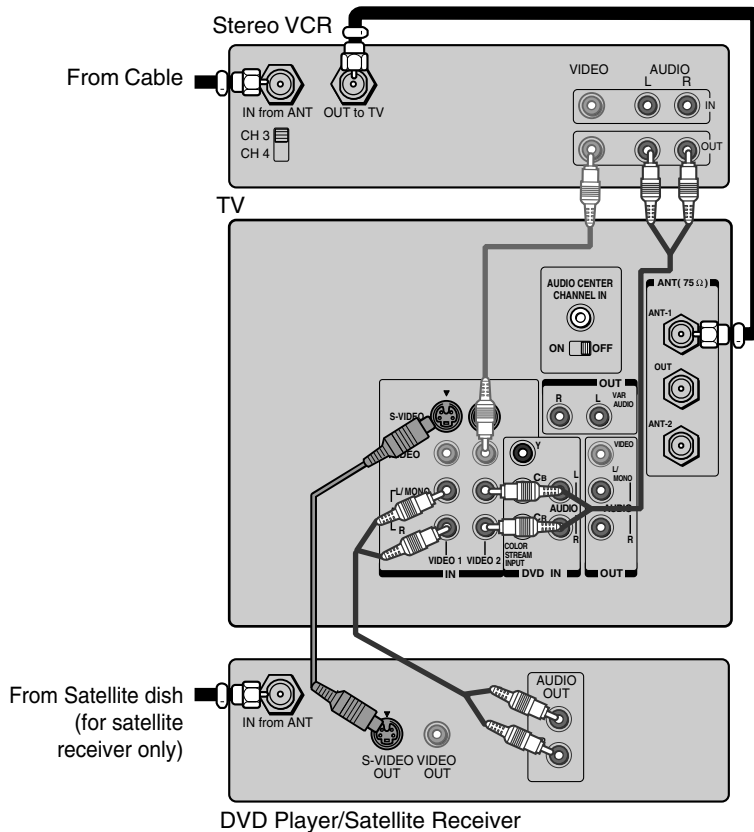
Do not connect a regular video cable and an S-video cable to Video-1 at the same time.

Connecting a DVD player or satellite receiver and a VCR

This connection allows you to watch DVD/satellite, VCR, and TV programs. You can record one TV channel while watching another channel.

You will need:

- one coaxial cable
- two pairs of audio cables (one single and one pair of audio cables for a mono VCR)
- one video cable
- one S-video cable



Note:

For better picture quality, use an S-video cable instead of a regular video cable between the TV and DVD player/satellite receiver.

Do not connect a regular video cable and an S-video cable to Video-1 at the same time.

Caution:

The unauthorized recording of materials such as TV programs, videotapes, and DVDs may infringe upon the provisions of copyright laws. Some program sources, especially DVD, are encoded so they cannot be copied.

Connecting a DVD player with ColorStream® and a VCR

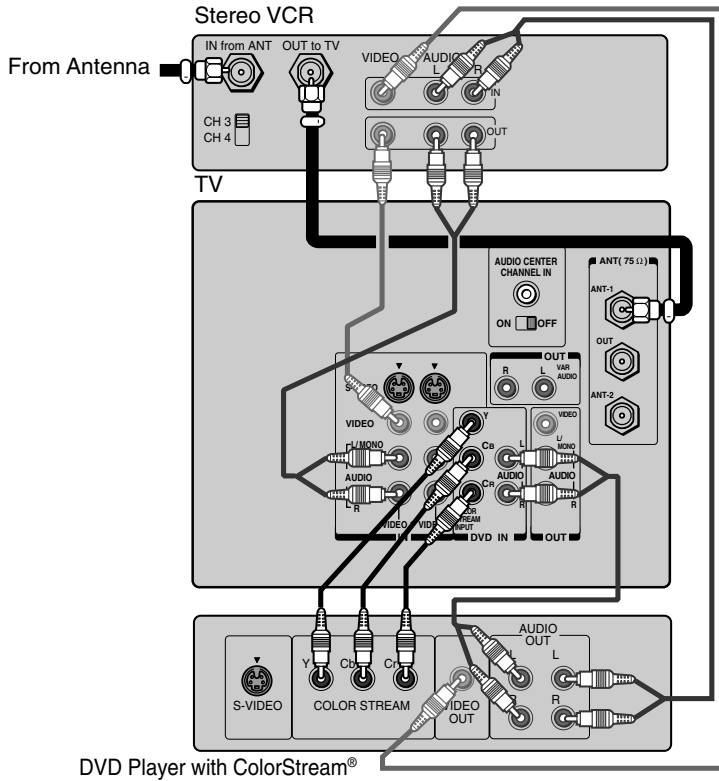
This connection allows you to watch DVD, VCR, and TV programs, and record TV and some DVD programs. You can record from one source while watching a program from another source. Your TV is capable of using ColorStream (component video). Connecting your TV to a ColorStream-compatible DVD player (such as a Toshiba DVD player with ColorStream), can greatly enhance picture quality and performance.

You will need:

- one coaxial cable
- three pairs of audio cables (two single and one pair of audio cables for a mono VCR)
- two video cables
- one set of ColorStream video cables

Caution:

The unauthorized recording of materials such as TV programs, videotapes, and DVDs may infringe upon the provisions of copyright laws. Some program sources, especially DVD, are encoded so they cannot be copied.



Note:

To play from the DVD player, the DVD player and TV must use ColorStream connections. To record from the DVD player, set the DVD player and TV to Video-1 and the VCR to LINE IN.

Caution:

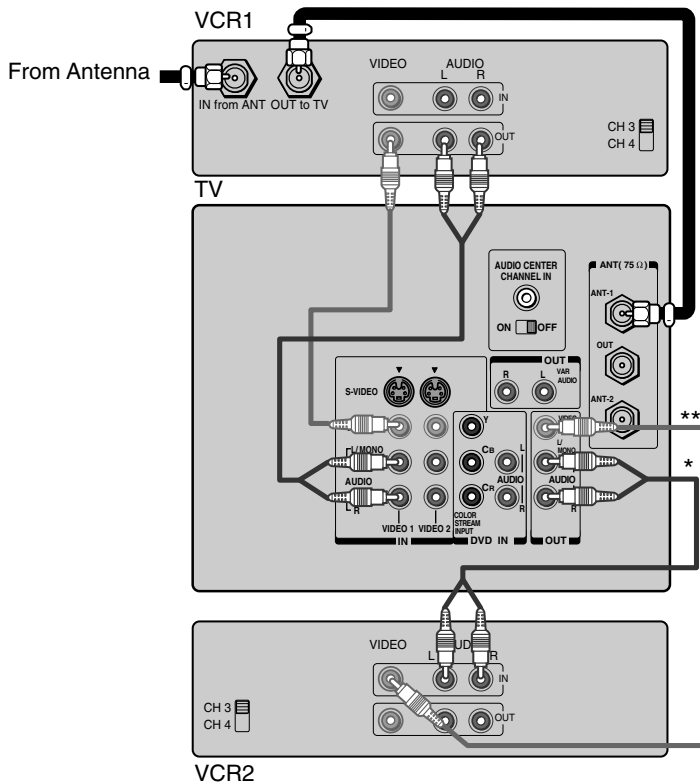
The unauthorized recording of materials such as TV programs, videotapes, and DVDs may infringe upon the provisions of copyright laws. Some program sources, especially DVD, are encoded so they cannot be copied.

Connecting two VCRs

This connection allows you to record (dub/edit) from one VCR to another VCR while watching a video program. You will also be able to record from one TV channel while watching another channel.

You will need:

- one coaxial cable
- two pairs of audio cables (two single audio cables for mono VCRs)
- two video cables



Note:

Do not connect the same VCR to the output and input jacks on the TV at the same time. If you are using an S-VHS VCR, use an S-video cable instead of a regular video cable for better picture performance. Do not connect a regular video cable and an S-video cable to Video-1 at the same time. To dub or edit, VCR 2 must select Line IN, and the TV must select Video-1.

* The Audio OUT jacks can output the sound of either the main or PIP picture (see "Selecting the Audio OUT sound" on page 41).

** The Video OUT jack does not output a PIP picture.

Caution:

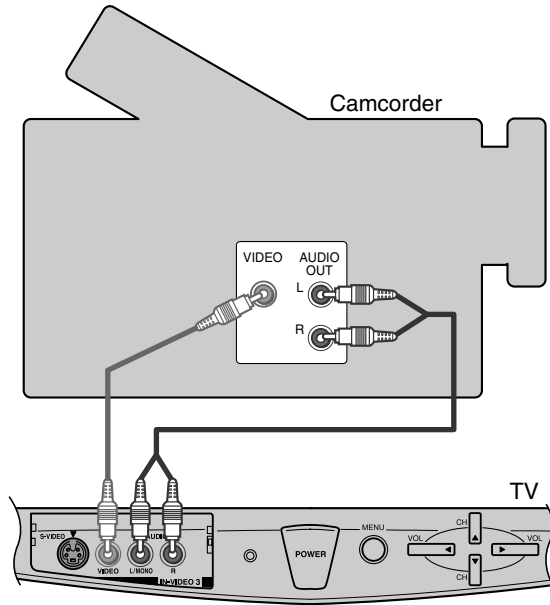
The unauthorized recording of materials such as TV programs, videotapes, and DVDs may infringe upon the provisions of copyright laws. Some program sources, especially DVD, are encoded so they cannot be copied.

Connecting a camcorder

This connection allows you to watch video materials recorded on a camcorder.

You will need:

- one pair of audio cables
- one video cable



Caution:

If you have an S-VHS camcorder, use an S-video cable (in the S-video jacks) instead of a regular video cable between the TV and camcorder.

Do not connect a regular video cable and an S-video cable to Video-3 at the same time.

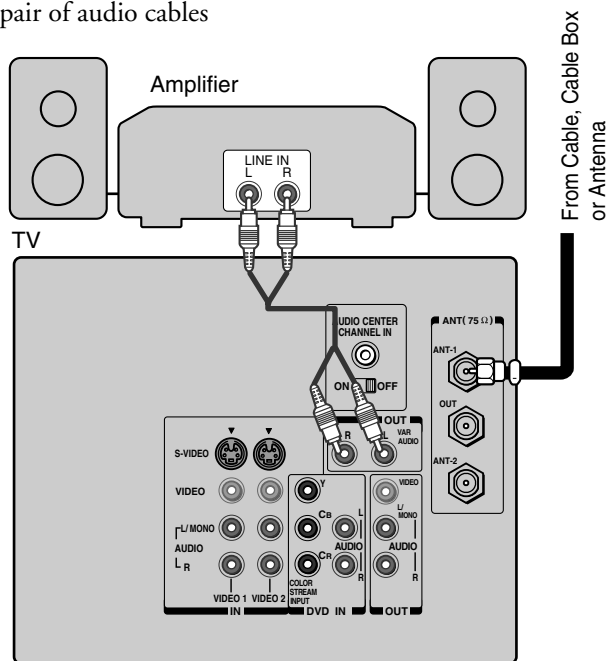
Connecting an audio system

This connection allows you to use an audio amplifier to adjust the audio level. This also allows you to use external speakers.

To control the audio, turn on the TV and the stereo amplifier, and turn off the built-in speakers (see “Turning off the built-in speakers” on page 40).

You will need:

- one pair of audio cables



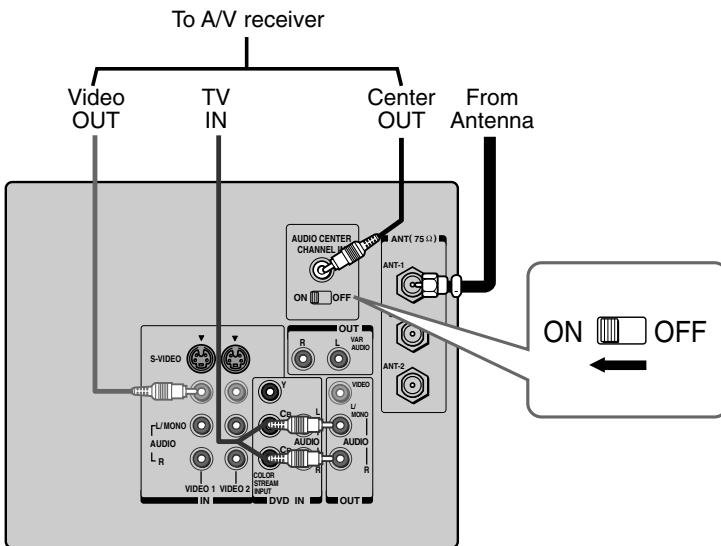
Connecting an A/V receiver

This connection allows you to use an audio/video (A/V) receiver to enhance your TV's sound.

If you have a system with Dolby Pro Logic* surround sound, you can add to the realism of the sound by using the TV speakers as center channel speakers.

You will need:

- one pair of audio cables
- one video cable
- one audio cable for the audio center channel



Caution:

To avoid damaging the speakers, turn off the TV before connecting or disconnecting the Audio Center Channel cable.

Note:

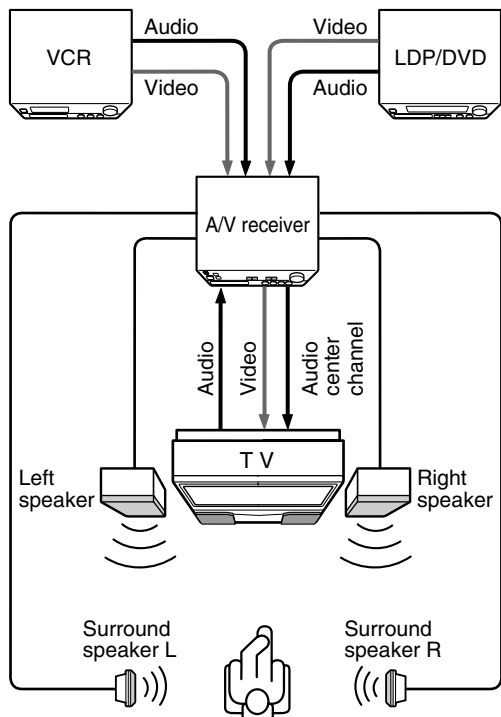
Refer to the instructions provided with your A/V receiver for details about your surround sound system.

When the Audio Center Channel ON/OFF switch is ON, the TV speakers will function as center channel speakers only.

To adjust the center channel speaker volume, use the center level control on the A/V receiver.

To use the TV speakers as normal speakers, set the Audio Center Channel ON/OFF switch to the OFF position.

Connection example of Dolby Pro Logic surround system



*"Dolby Pro Logic" is a trademark of Dolby Laboratories Licensing Corporation.

Using the remote control

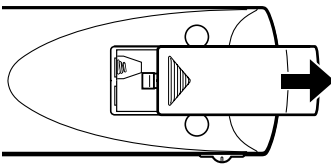
Preparing the remote control for use

With the remote control, you can operate your TV, most VCR models, and cable TV converters together, even if they are different brands. If you will be using your TV with a Toshiba VCR, your remote control is already programmed and ready to use. If you own different brands of VCRs and/or converters, you first have to program your remote control. (See “Programming the remote control for use with a VCR or a cable TV converter” on page 12.)

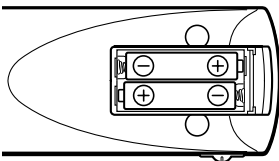
Installing the remote control batteries

To install the batteries:

1. Slide the battery cover off of the back of the remote control.



2. Install two “AA” size alkaline batteries. Match the + and - signs on the batteries to the signs on the battery compartment.



3. Slide the battery cover back on to the remote control until the lock snaps.

Using the remote control with a VCR or a cable TV converter

To control a Toshiba VCR:

Set the TV/CABLE/VCR switch to the VCR position. The shaded buttons shown at right will control the VCR. The unshaded buttons will operate the TV as usual.

If you own different brands of VCRs, program the remote control to recognize the brand of your VCR. (See “Programming the remote control for use with a VCR or a cable TV converter” on page 12.)

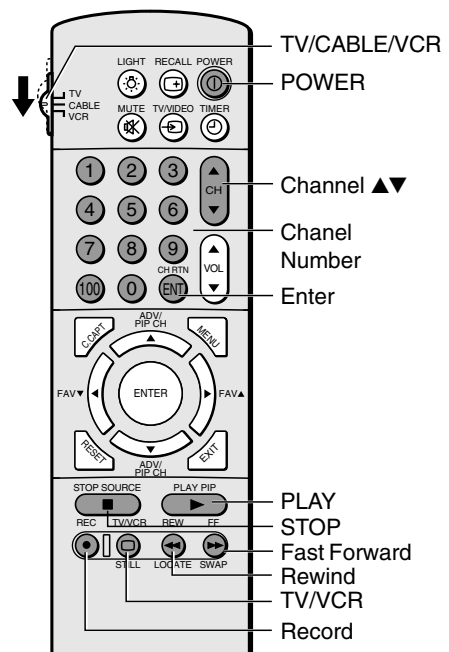
Note:

Your TV's remote control may or may not operate your VCR or cable TV converter.

Refer to the owner's manuals supplied with your other equipment to see which features are available. In addition, the original controllers may have features not available on this remote control. If you would like to continue to use these features, you may want to use the original remote control.

Caution:

- Dispose of batteries in a designated disposal area. Do not throw batteries into a fire.
- Do not mix battery types or combine used batteries with new ones.
- Remove dead batteries immediately to prevent battery acid from leaking into the battery compartment.
- If you do not intend to use the remote control for a long time, remove the batteries.



To control a cable TV converter:

Program the remote control to recognize the brand of your converter. The shaded buttons shown on the right will control the cable TV converter.

Set the TV/CABLE/VCR switch to the CABLE position.

Programming the remote control for use with a VCR or a cable TV converter

This remote control is pre-programmed to operate Toshiba VCRs. To use VCRs or cable converters other than Toshiba models, you must follow the steps below before you operate your remote control.

1. Refer to the VCR and Cable TV converter code tables on pages 13–14 to find the corresponding code for your VCR or converter. If more than one code is listed, try each one separately until you find the one that works.
2. If you are reprogramming the remote control to operate your:
 - **VCR**, set the TV/CABLE/VCR switch on the remote control to VCR.
 - **Cable converter**, set the TV/CABLE/VCR switch on the remote control to CABLE.
3. While holding down RECALL, press the Channel Number buttons (0–9) to enter the code for your brand of VCR or converter.
4. Point the remote control at the VCR or converter and press POWER to test the code.

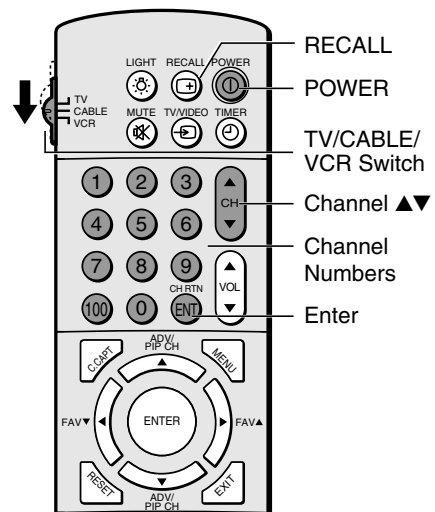
If the VCR or converter responds, you have entered the correct code.

If the VCR or converter does not respond to the remote control, you may have entered the wrong code. Repeat steps 1–4 using another code.
5. To control the TV, set the TV/CABLE/VCR switch to TV.

For future reference, write down the codes you used:

VCR code _____

Cable TV converter code _____



Note:

Every time you replace the batteries, you must reprogram the remote control.

Some newer VCRs are capable of working on either of two remote codes. These VCRs have a switch labeled "VCR1/VCR2." If your VCR has this kind of switch and does not respond to any of the codes for your VCR brand, set the switch to the other position (VCR1 or VCR2) and reprogram the remote control.

VCR code table

Brand name	Code number				
Adventura	019	Jensen	060	Quasar	054,096
Aiko	297	JVC	027,060,086	Radio Shack	019,056,344
Aiwa	019	Kenwood	057,060,086	Radix	056
Akai	060,068,080,125, 261	KLH	091	Randex	056
American High	054	Kodak	054,056	RCA	061,079,084,096, 124,125,168,221
Asha	259	Lloyd	019	Realistic	019,054,056,065, 066,067,081,085, 123,259
Audiovox	056	Lloyd's	227	Ricoh	053
Beaumarck	259	Logik	091	Runco	058
Bell & Howell	123	LXI	056	Samsung	064,259
Brandt	206	Magnavox	054,058,100,129, 168	Sanky	058,067
Broksonic	140,203,230,314, 380	Magnin	259	Sansui	060,086
Calix	056	Marantz	054,100	Sanyo	065,066,123,259
Canon	054	Marta	056	Scott	062,064,140,203, 229,230,231
Capehart	039	Masushita	054	Sears	054,056,061,065, 066,073,085,123, 124
Carver	100	MEI	054	Sharp	067,081
CCE	091,297	Memorex	019,054,056,058, 065,066,067,123, 259	Shintom	091
Citizen	056,297	MGA	062,080	Shogun	259
Colt	091	MGN Technology	259	Singer	091
Craig	056,066,091,259	Minolta	061,124	Sony	051,052,053,054
Curtis Mathes	054,060,079	Mitsubishi	062,080,086,094, 192,233,261	STS	061
Cybernex	259	Motorola	054,067	Sylvania	019,054,062,100, 129
Daewoo	039,064,297	MTC	019,259	Symphonic	019,344
Daytron	039	Multitech	019,091	Tatung	060
Dynatech	019	Nad	077	Teac	019,060
Electrohome	056	NEC	057,059,060,069, 086	Technics	054,181
Electroponic	056	Nikko	056	Teknika	019,054,056,071
Emerex	051	Noblex	259	Telefunken	060,206
Emerson	019,021,056,062, 080,087,140,203, 227,228,230,231, 297,313,314,380, 498	Olympus	054	TMK	227,259
Fisher	066,073,085,123	Optimus	056,067,077,123	Toshiba	062,064,085,229, 231,385
Fuji	052,054	Optonica	081	Totevision	056,259
Funai	019,344	Orion	498	Unitech	259
Garrard	019,344	Panasonic	054,096,181,244	Vector	064
GE	054,079,084,221	Penney	054,056,057,059, 061,073,259	Vector Research	057,059
Go Video	251,298	Pentax	061,084,124	Video Concepts	059,064,080
Goldstar	037,056,057	Philco	054	Videosonic	259
Gradiente	019	Philips	054,081,100,129	Wards	019,054,061,066, 067,081,091,168, 231,259
Harley Davidson	019	Pilot	056	XR-1000	019,054,091
Harman/Kardon	057,094	Pioneer	077,086	Yamaha	057
Harwood	087,091	Portland	039	Zenith	052,053,058
Headquarter	065	Protec	091		
HI-Q	066	Pulsar	058		
Hitachi	060,061,084,124, 254	Quarter	065		
		Quartz	065		

Cable TV converter code table

Brand name	Code number		
ABC	020,022,026,027, 030,032,033,036, 066	Samsung	059,163
Antronix	041	Scientific Atlanta	025,027,036,296
Archer	041,058,172	Signal	034,059
Belcor	075	Signature	030
Cable Star	075	SL Marx	059
Cabletenna	041	Sprucer	040
Cableview	041	Standard	
Century	172	Components	174
Citizen	172	Starcom	022,034,066
Colour Voice	044,050	Stargate	034,059
Comtronics	059,079	Starquest	034
Contec	038	Sylvania	020
Dae Ryung	027	Teleview	059
Eastern	021	Texscan	020
Focus	419	Tocom	031,032,078
Garrard	172	Toshiba	019
GC Electronics	035,075	Tusa	034
Gemini	034,089	Unika	041,172
General Instrument	030,295	United Artists	026
GoldStar	059,163	United Cable	022
Hamlin	028,039,053,278, 292	Universal	041,058,075,096, 172,210
Hitachi	030	Viewstar	046,079,230
Hytex	026	Zenith	019
Jasco	172	Zentek	419
Jerrold	022,030,031,033, 034,043,066,295		
Macom	052		
Magnavox	046		
Memorex	019		
Movie Time	175		
NSC	089,175		
Oak	026,038,267		
Panasonic	019,040,126		
Paragon	019		
Philips	044,046,047,048, 049,050,172		
Pioneer	042,163,552		
Popular Mechanics	419		
Pulsar	019		
RCA	040		
Recoton	419		
Regal	039,278,292		
Regency	021		
Rembrandt	030,089		
Runco	019		

Learning about the remote control

POWER turns the TV on and off (pages 12, 36)

TIMER sets the TV to turn off automatically (page 36)

RECALL displays time, status, channel, and rating information on-screen (page 42)

TV/VIDEO selects the video input source (page 34)

MUTE turns off the sound (page 37)

LIGHT back-lights the remote control keys for 5 seconds

TV/CABLE/VCR switches between TV, Cable, and VCR modes (page 12)

Channel ▲▼ cycles through programmed channels (page 19)

Channel Numbers (0–9, 100) allow direct access to channels (page 19)

Volume ▲▼ adjusts the volume level

CH RTN returns to the last viewed channel (page 21)

ENT required by some VCRs and Cable TV converters to change the channel number

C.CAPT turns closed captioning on and off (page 35)

MENU accesses programming menus (page 16)

ENTER sets programmed menu information (pages 16, 20-23)

▲▼◀▶ selects or adjusts programming menus (page 16)

PIP Channel ▲▼ cycles through PIP channels (page 24)

RESET resets the picture and audio adjustments to the factory settings (pages 33, 39)

FAV ▼▲ cycles through your favorite channels (page 22)

EXIT exits programming menus (page 16)

PIP Buttons access PIP functions (pages 24, 25)

SOURCE selects the PIP signal source

PIP turns the PIP on and off

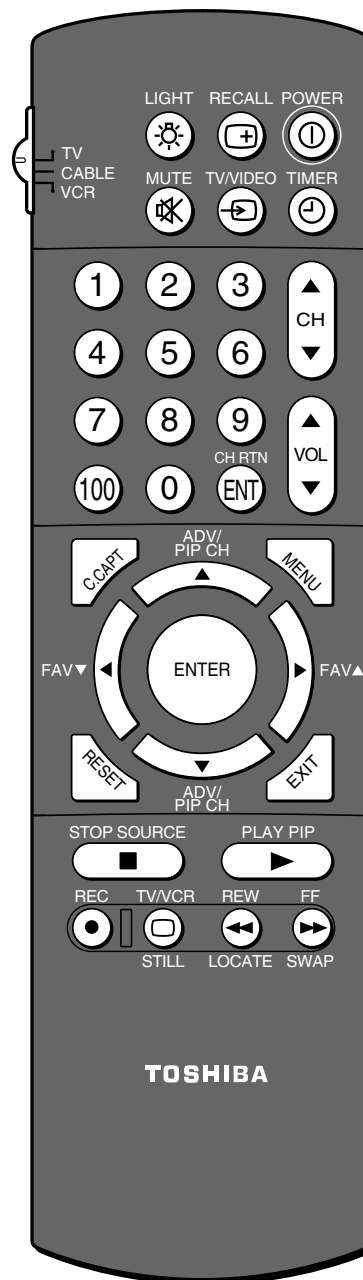
STILL freezes the PIP

LOCATE changes the position of the PIP

SWAP switches the main and PIP pictures

VCR Buttons allow access to VCR functions (play, stop, record, fast forward, rewind) (page 12)

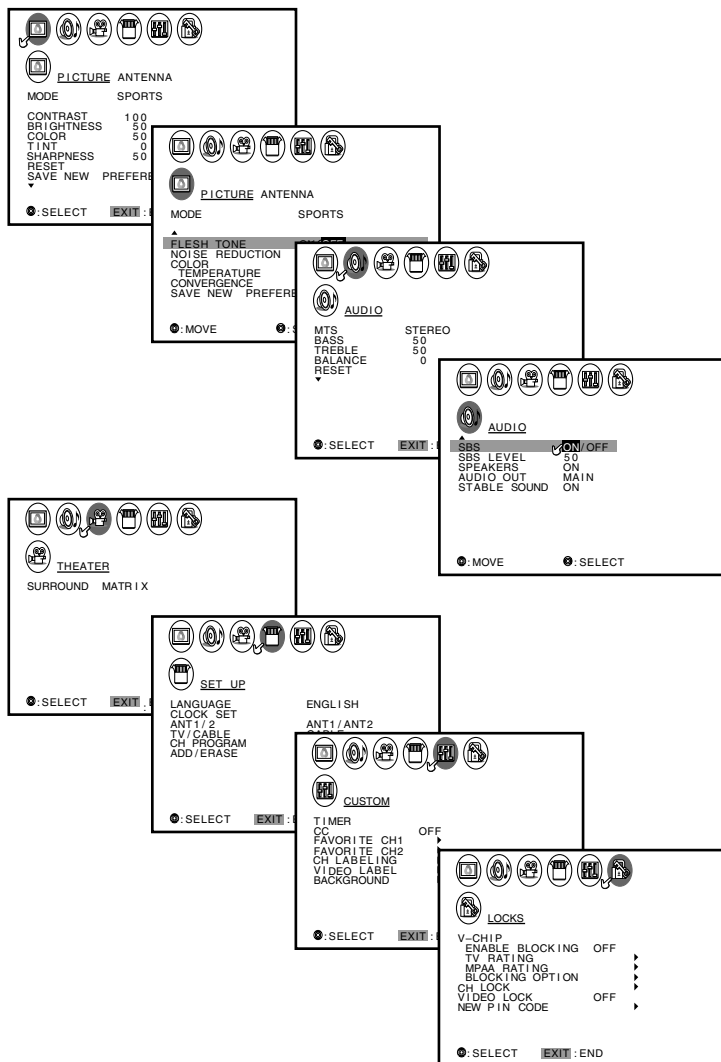
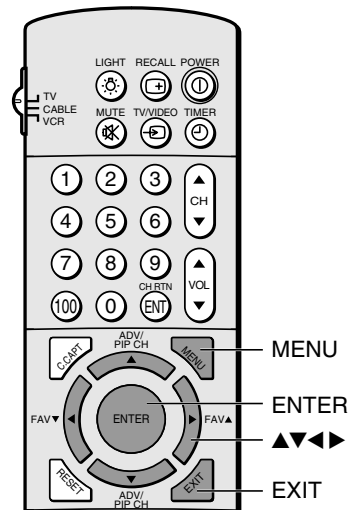
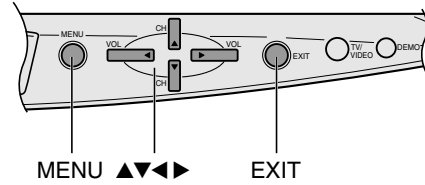
TV/VCR toggles between the TV and VCR when viewing while recording



Setting up your TV

After you have installed the batteries and programmed the remote control, you need to set some preferences on the TV using the menu system. You can access the menus using the buttons on the TV or remote control.

1. Press MENU to display the menu system.
2. Press ◀ or ▶ to select a menu.
3. Press ▲ or ▼ to select an item.
4. Press ◀ or ▶ to select or adjust a setting.
5. Press ENTER to activate your setting adjustments. If you do not press ENTER, the menu will close automatically within a maximum of 15 seconds, except the Convergence, Clock Set, and Timer menus, which remain on-screen until a button is pressed.
6. Press EXIT to close an on-screen display instantly.



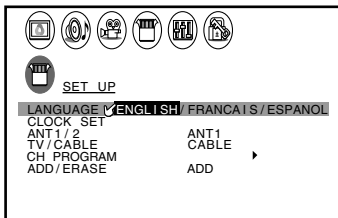
Note:
You can change the background of the menu.
See page 42 for details.

Changing the on-screen display language

You can choose from three different languages (English, French and Spanish) for the on-screen display of adjustment menus and messages.

To select an on-screen display language:

1. Press MENU, and then press ◀ or ▶ until the SET UP menu appears.
2. Press ▲ or ▼ to highlight LANGUAGE.



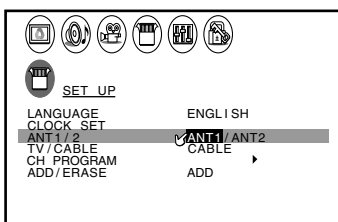
3. Press ◀ or ▶ to highlight your desired language.

Selecting the antenna input

You can connect to two different signal sources by choosing the antenna input (ANT 1 or ANT 2).

To select the antenna input:

1. Press MENU, then use ◀ or ▶ to highlight the SET UP menu.
2. Press ▲ or ▼ to highlight ANT 1/2.



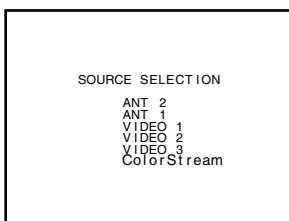
3. Press ◀ or ▶ to highlight either ANT 1 or ANT 2, depending on the antenna terminal you wish to use.

Using the TV/ VIDEO button on the TV

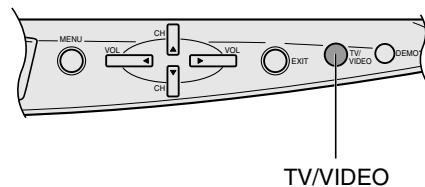
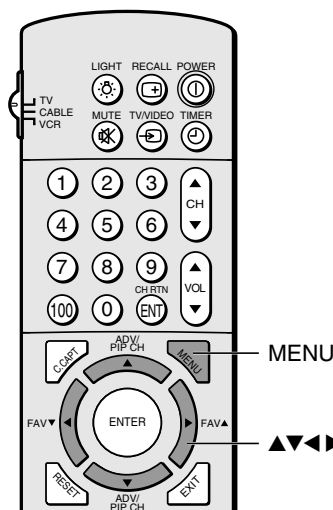
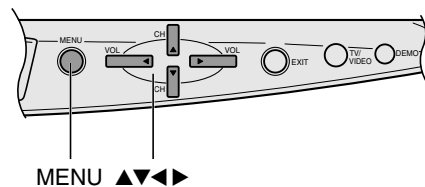
You can monitor or change the signal source that is connected to the TV. By pressing the TV/VIDEO button on your TV, you can select the ANT 2, ANT 1, VIDEO 1, VIDEO 2, VIDEO 3 or ColorStream mode. The signal source you are currently connected to will be displayed in purple.

To select the antenna input:

1. Press the TV/VIDEO button. The signal source you are connected to is displayed in purple.



2. Press the TV/VIDEO button until ANT 1 or ANT 2 is displayed in purple, indicating the antenna terminal you wish to use.



Adding channels to the TV's memory

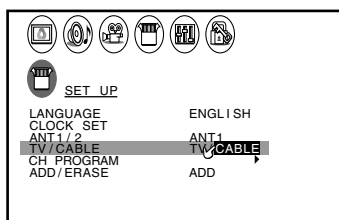
When you press Channel ▲ or ▼, your TV will stop only on the channels stored in the TV's channel memory. Follow the steps below and on the next page to program channels into the TV's memory.

Programming channels automatically

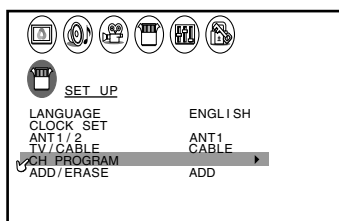
Your TV can automatically detect all active channels and store them in its memory. After the TV has stored the channels in its memory, you can erase channels or add your favorite channels. If you use both ANT-1 and ANT-2 terminals, you must program channels for each input source.

To program channels automatically:

1. Press MENU, and then press ◀ or ▶ until the SET UP menu appears.
2. Press ▲ or ▼ until TV/CABLE is highlighted.
3. Press ◀ or ▶ to highlight either TV or CABLE, depending on which you use. If you use an antenna, highlight TV; if you use cable, highlight CABLE.



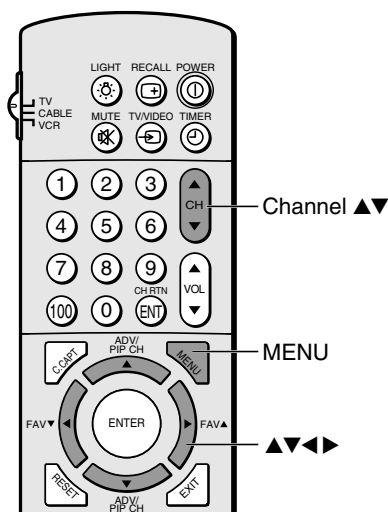
4. Press ▼ to select CH PROGRAM.



5. Press ◀ or ▶ to start channel programming. The TV will automatically cycle through all the TV or Cable channels (depending on which you selected), and store all active channels in the channel memory.

While the TV is cycling through the channels, the message “Programming Now—Please Wait” appears.

6. When channel programming is complete, the message “Completed” appears.
7. Press Channel ▲ or ▼ to view the programmed channels.

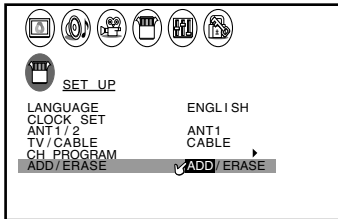


Adding and erasing channels manually

After you have programmed the channels automatically, you can manually add and erase specific channels.

To manually add or erase channels:

1. Select the channel you want to add or erase. If you are adding a channel, you must select the channel using the Channel Number buttons.
2. Press MENU, and then press ◀ or ▶ until the SET UP menu appears.
3. Press ▲ or ▼ to highlight ADD/ERASE.



4. Press ◀ or ▶ to select Add or Erase, depending on the function you want to perform.
5. Repeat steps 1–4 for other channels you want to add or erase.

Changing channels

To change the channel, you can:

- change the programmed channels using the remote control
- select a channel directly using the remote control
- scan the channels using the TV buttons

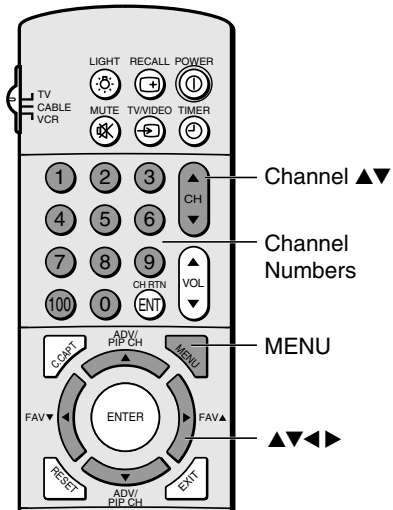
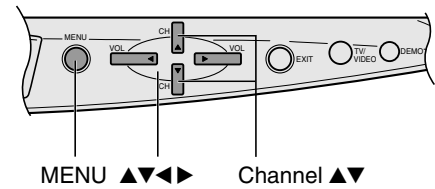
To change to the next programmed channel:

Press Channel ▲ or ▼ on the TV or remote control.

To change to a specific channel (programmed or unprogrammed):

Press the Channel Number buttons (0–9 and 100).

For channels 100 and above, press the 100 button and then the next two numbers. For example, to select channel 125, press 100–2–5.



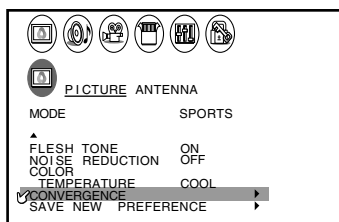
Adjusting the color convergence

This projection TV uses three separate TV tubes: red, green, and blue. The red, green, and blue images are projected onto the screen where they converge to form a full-color picture. You can see a clear picture only when the three images converge correctly. Convergence can drift over time or if you move the TV. If you can see clear images on your TV screen, skip this procedure.

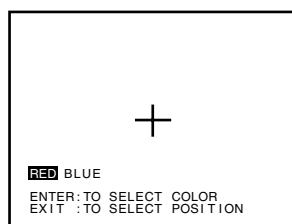
Make this adjustment only after the TV has been on for at least 30 minutes.

To check and adjust the color convergence:

1. Press MENU, and then press ◀ or ▶ until the PICTURE menu appears.
2. Press ▲ or ▼ to highlight CONVERGENCE.

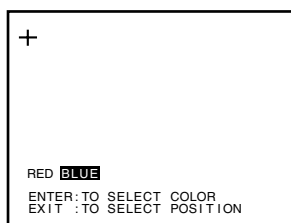
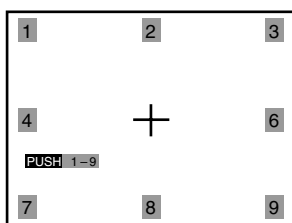


3. Press ◀ or ▶ to display the center convergence menu.



If you see separate color lines (red, blue, and green or white), you need to adjust the convergence.

4. Press ENTER to highlight RED or BLUE.
5. Press ▲ (up), ▼ (down), ◀ (left), or ▶ (right) to converge the red or blue line into the green (or white) line. When the convergence is adjusted correctly, you will see two single, crossed white lines.
6. Press EXIT to display the circumference convergence menu.
7. Press the corresponding Number button (1–4 and 6–9) to select the area of the screen you want to adjust.
8. Press ENTER to highlight RED or BLUE.

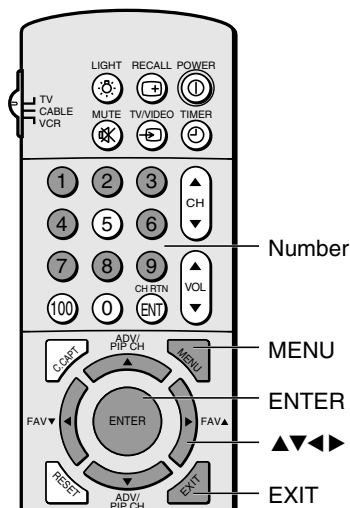


9. Press ▲▼◀▶ to converge the red or blue line into the green (or white) line.

Repeat steps 8 and 9 until you see two single, crossed white lines.

10. Press EXIT once to select another area to adjust in the circumference convergence menu, and then repeat steps 7–9.

11. Press EXIT twice to close the convergence menus.



Using the TV's features

Adjusting the channel settings

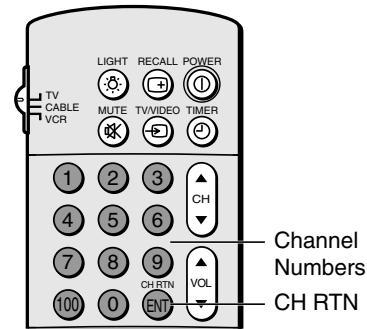
Switching between two channels

You can switch between two channels without entering an actual channel number each time.

To switch between two channels:

1. Select the first channel you want to view.
2. Select a second channel with the Channel Number buttons (0-9, 100).
3. Press CH RTN. The previous channel will be displayed.

Each time you press CH RTN, the TV will switch back and forth between the two channels.



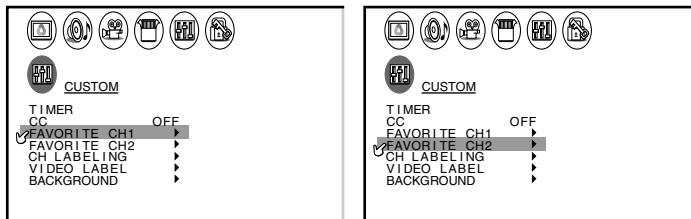
Programming your favorite channels

You can preset up to 9 of your favorite channels each for FAVORITE CH1 and FAVORITE CH2 modes using the Favorite Channel Programming feature. Because this feature scans through only your favorite channels, it allows you to skip other channels you do not normally watch.

You can still use Channel ▲▼ to scan through all the channels you programmed in the TV's memory.

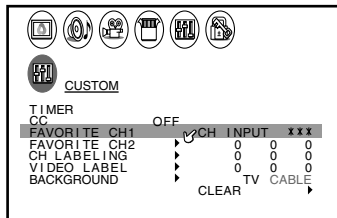
To program your favorite channels:

1. Press MENU, then press ◀ or ▶ until the CUSTOM menu appears.
2. Press ▲ or ▼ to highlight FAVORITE CH1 (or FAVORITE CH2).



3. Press ◀ or ▶ to display the FAVORITE CH1 (or FAVORITE CH2) menu.

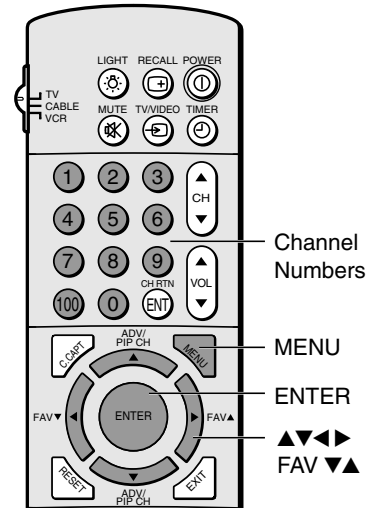
CH INPUT will be highlighted.



4. Press the Channel Number buttons to enter one of your favorite channels.
5. Press ENTER.
6. Repeat steps 4 and 5 for other channels.

To select your favorite channels:

Press FAV ▼ or ▲.

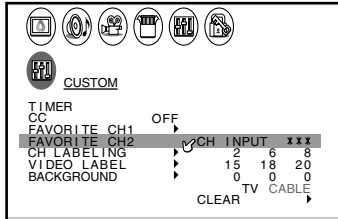


Note:

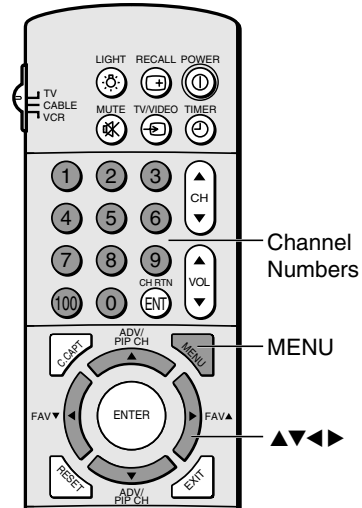
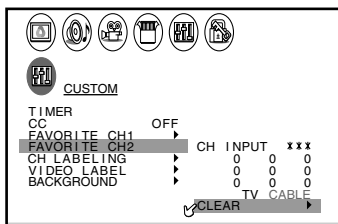
The FAV ▼▲ buttons will not function until you have programmed your favorite channels.

To clear your favorite channels:

1. Press MENU, and then press ◀ or ▶ until the CUSTOM menu appears.
2. Press ▲ or ▼ to highlight FAVORITE CH1 (or FAVORITE CH2).
3. Press ◀ or ▶ to display the FAVORITE CH1 (or FAVORITE CH2) menu.



4. Press ▲ or ▼ to highlight CLEAR, and then press ▶ or ◀ until "0" replaces the channel numbers you have programmed.

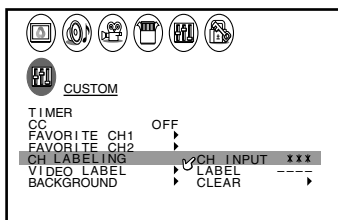


Labeling channels

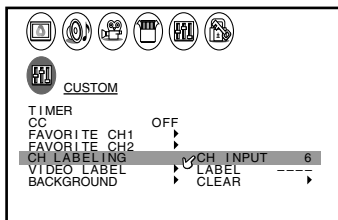
Channel labels appear above the channel number display each time you turn on the TV, select a channel, or press RECALL. You can choose any four characters to identify a channel.

To create channel labels:

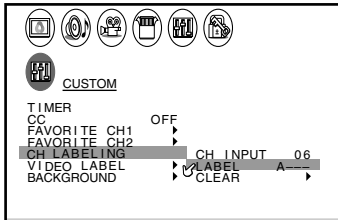
1. Press MENU, and then press ◀ or ▶ until the CUSTOM menu appears.
2. Press ▲ or ▼ to highlight CH LABELING.
3. Press ◀ or ▶ to display the CH LABELING menu.
CH INPUT will be highlighted.



4. Press the Channel Number buttons to select the channel you want to label.



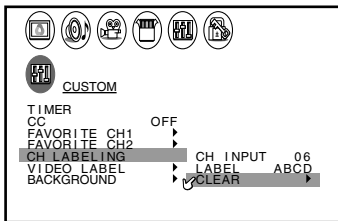
- Press ▼ to highlight LABEL.
- Repeatedly press ◀ or ▶ to select a character for the first space, and then press ENTER. If you want a blank space in the label name, you must select an empty space from the list of characters; otherwise, a dash will appear in that space.



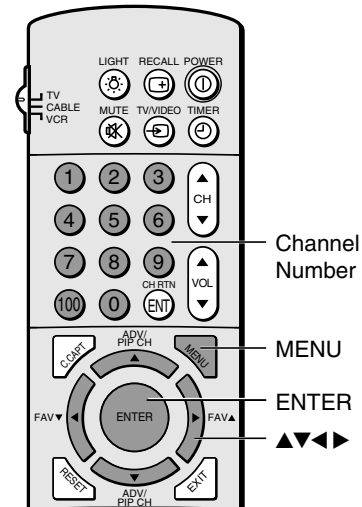
- Repeat step 6 to enter the rest of the characters.
- Repeat steps 4–6 for other channels. You can assign labels to a maximum of 32 channels.

To erase channel labels:

- Press MENU, and then press ◀ or ▶ until the CUSTOM menu appears.
- Press ▲ or ▼ to highlight CH LABELING.
- Press ◀ or ▶ to select the CH LABELING menu.
- Press ▼ to highlight CH INPUT, and then select the channel you want to clear with the Channel Number buttons.
- Press ▼ to highlight CLEAR.



- Press ◀ or ▶ to erase the channel label.
- Repeat steps 4–6 to erase other channel labels.

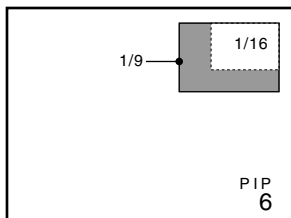


Watching picture-in-picture (PIP)

The picture-in-picture (PIP) feature allows you to watch two pictures at the same time. The smaller picture can come from a TV broadcast or an external source, such as a VCR.

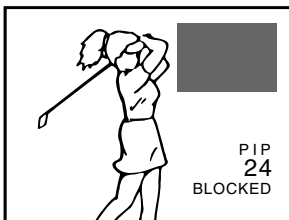
To display a TV broadcast as a small picture:

1. Turn on the TV and select the program you want to watch.
2. Press PIP once to display a small picture. A window 1/9 the size of the screen will appear. Press PIP a second time to display a 1/16 size window.



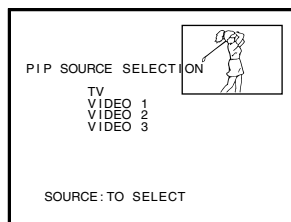
3. Press PIP CH ▲▼ to choose the program you want to be displayed as a small picture.

If the V-CHIP feature is active and you try to watch a TV program that exceeds the rating limits you set, the TV will enter into the program block mode. See “Using the V-CHIP menu” on page 27.



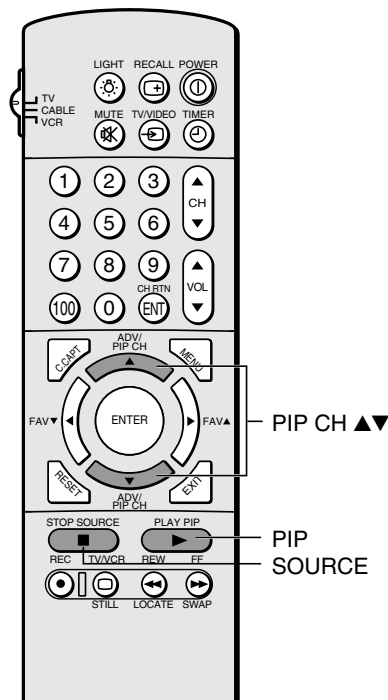
To display a picture from an external source as a small picture:

1. Make sure you have connected the external source equipment properly. For more information, see “Connecting your TV” on page 6.
2. Turn on the TV and select the program you want to watch.
3. Press PIP once to display a small picture. A window 1/9 the size of the screen will appear. Press PIP a second time to display a 1/16 size window.
4. Press SOURCE repeatedly to select the input source (VIDEO 1, VIDEO 2 or VIDEO 3) for the small picture. The selected source will be displayed in purple. ColorStream cannot be selected.



To turn PIP off:

Press PIP once or twice, depending on the size of the small picture screen you selected.



Note:

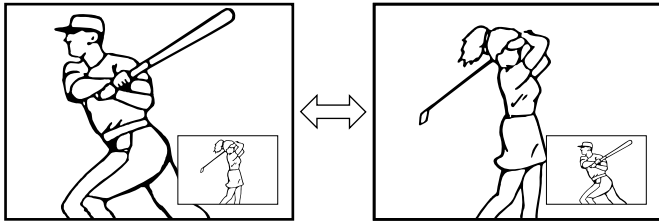
PIP cannot be turned on when ColorStream input is being viewed.

You cannot display the signal sources input through the ANT-2 terminal in the PIP window.

You can choose to hear the sound of either the PIP or main picture (see “Selecting the audio OUT sound” on page 41).

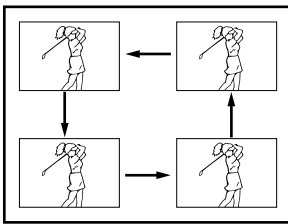
Switching the main and small pictures

Press SWAP while you are using the PIP feature to switch the main and small pictures. The main and small pictures will switch each time you press the SWAP button.



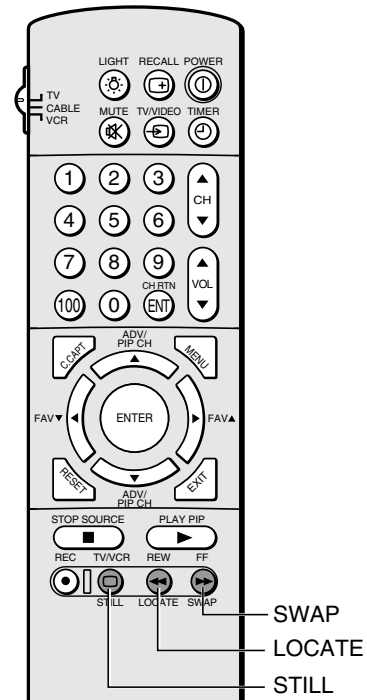
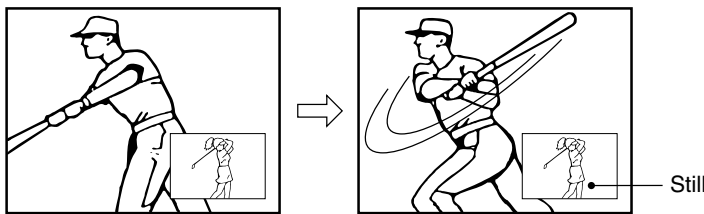
Changing the position of the small picture

Press LOCATE repeatedly while you are watching a small picture. The display position of the small picture will change in the following order:



Freezing the small picture

Press STILL while you are watching a small picture. The small picture will become a still picture. To return to the moving picture, press STILL again.



Cation:

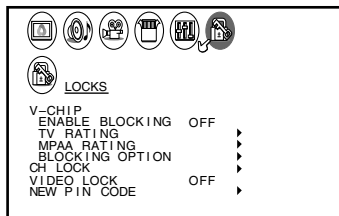
To prevent CRT burn-in, do not leave a still picture on the screen for extended periods of time.

Using the LOCKS menu

The LOCKS menu includes the V-chip, CH (channel) Lock, Video Lock, and New PIN Code functions. You can use these functions only after entering the correct PIN code.

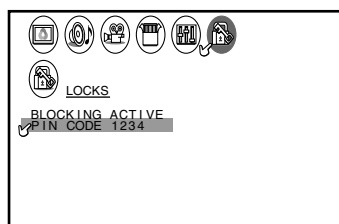
Entering the PIN code

1. Press MENU, and then press ◀ or ▶ until the LOCKS menu appears.



- Factory reset status (to store a new PIN code):
Press the Channel Number buttons (0–9) to store a new 4-digit PIN code.
- When the PIN code is already stored:
Press the Channel Number buttons (0–9) to enter the PIN code you previously stored.

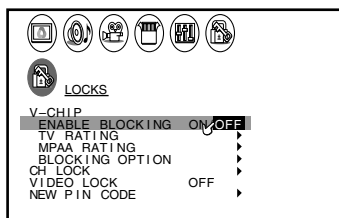
2. Press ▲ or ▼ to display the PIN code entering screen.



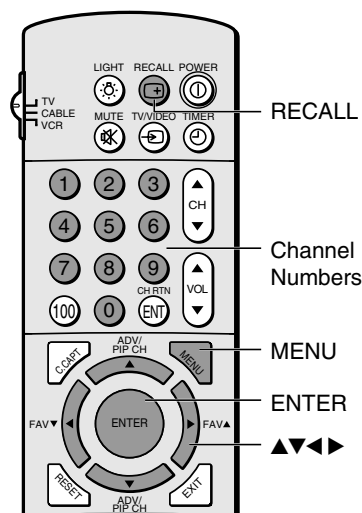
If the wrong PIN code is entered, the message “Incorrect” appears. Enter the code again.

If you cannot remember the PIN code you stored, while in PIN code entering mode, press RECALL four times within 5 seconds. The PIN code you stored will be released (factory reset status).

4. Press ENTER to display the LOCKS menu.

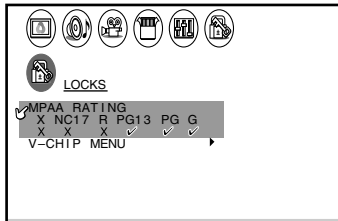


Continue to set each item following the steps on the next page.



MPAA RATING (Independent rating system for movies)

1. From the LOCKS menu, select MPAA RATING.
2. Press ◀ or ▶ to display the MPAA RATING menu.
3. Press ▼ or ▲ to highlight MPAA RATING, and then press ◀ or ▶ to display the MPAA ratings.
4. Press ▶ to lock ("X") or ◀ to unlock ("✓").



The movie ratings you can lock are described as follows:

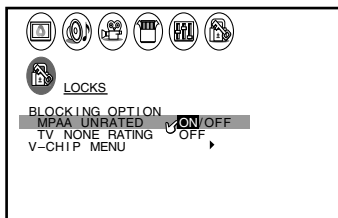
- X : X-rated (For adults only)
- NC17: Not intended for anyone 17 and under
- R : Restricted (Under 17 requires accompanying parent or adult guardian.)
- PG13 : Parents Strongly Cautioned (Some material may be inappropriate for children under 13)
- PG : Parental Guidance Suggested (Some material may not be suitable for children)
- G : General Audience (Appropriate for all ages)

BLOCKING OPTION

1. From the LOCKS menu, select BLOCKING OPTION.
2. Press ◀ or ▶ to display the BLOCKING OPTION menu, and then press ▲ or ▼ to select the item.

MPAA UNRATED:

Press ◀ or ▶ to select ON (locked) or OFF (unlocked) for unrated programs in the MPAA rating system.

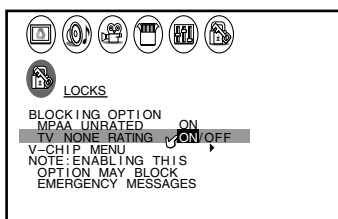


TV NONE RATING:

Press ◀ or ▶ to select ON (locked) or OFF (unlocked) for programs rated NONE in the TV PARENTAL GUIDELINES.

Note: The PIP is not locked even if ON is selected.

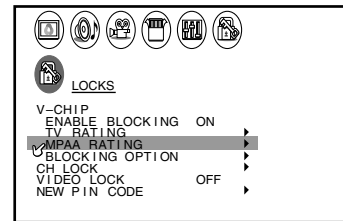
If you select ON, the note shown in the screen graphic below will be displayed, since emergency information may also be blocked.



V-CHIP MENU:

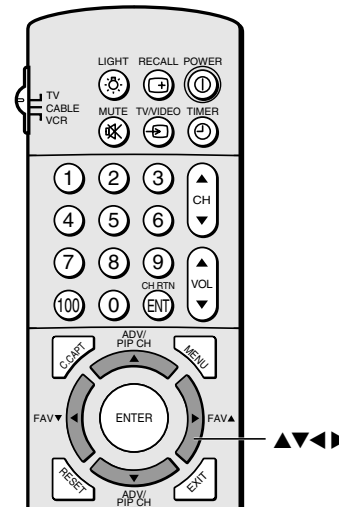
Press ◀ or ▶ to return to the LOCKS menu.

LOCKS menu



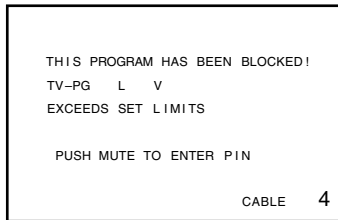
To select each item:

Press ▼ or ▲.

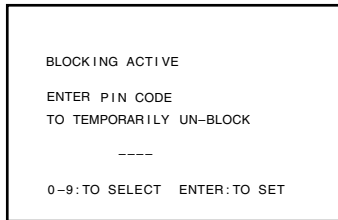


Unlocking programs temporarily

1. If you try to watch a TV program that exceeds the rating limits you set, the TV will enter into the program lock mode.



2. If you want to watch the locked program temporarily, press MUTE.
3. Press the Channel Number buttons (0–9) to enter the 4-digit PIN code you stored (see “Entering the PIN code” on page 26).

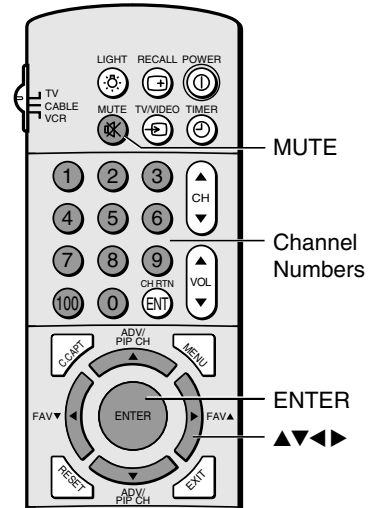


4. Press ENTER.

If the correct code is entered, the lock mode will be released and the normal picture will appear.

All locking is disabled until the TV is turned off, and will be enabled the next time the TV is turned on.

If the wrong PIN code is entered, the message “Incorrect PIN code” appears. Enter the code again.



Locking channels

With the CH LOCK feature, you can lock specific channels. You will not be able to tune locked channels using the Channel ▲▼ or Channel Number buttons unless you clear the setting.

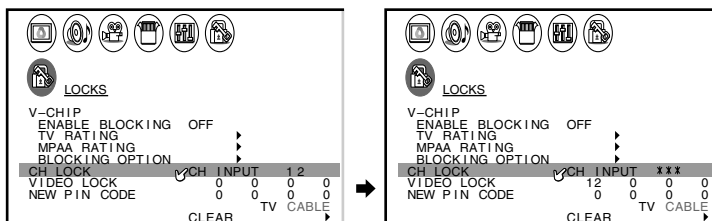
You can lock a maximum of 8 channels.

To lock channels:

1. From the LOCKS menu, select CH LOCK.
2. Press ◀ or ▶ to display the CH LOCK menu.
3. Press the Channel Number buttons to enter the channel you want to lock.

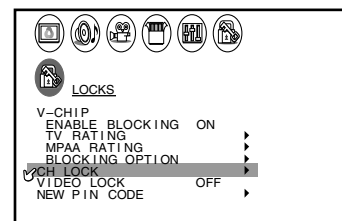
Note: You cannot lock the current channel.

4. Press ENTER.



5. Repeat steps 3 and 4 for other channels.

LOCKS menu

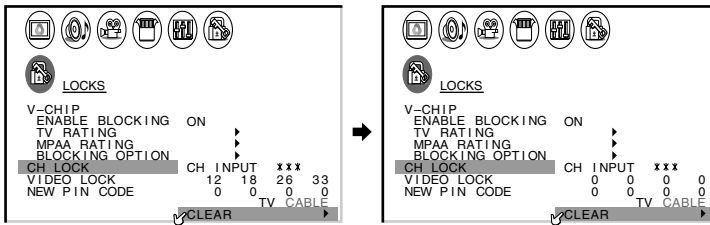


To select each item:

Press ▼ or ▲.

To unlock channels:

1. From the LOCKS menu, select CH LOCK.
2. Press ◀ or ▶ to display the CH LOCK menu.
3. Press ▲ or ▼ to highlight CLEAR.
4. Press ◀ or ▶ until "0" replaces the channel numbers you have locked.

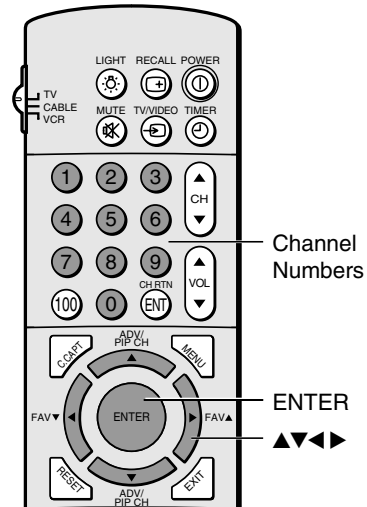
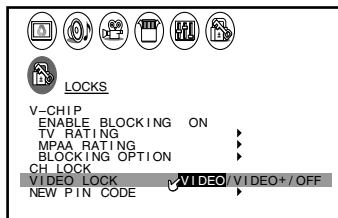


Locking video inputs

You can use the VIDEO LOCK feature to lock the video inputs. With the video inputs locked, you cannot select the input sources using the TV/VIDEO button unless Video Lock is OFF.

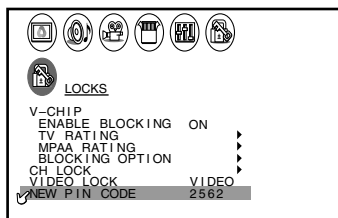
To lock the video inputs:

1. From the LOCKS menu, select VIDEO LOCK.
 2. Press ◀ or ▶ to highlight the level of video locking you want.
 - VIDEO: Locks the video inputs (VIDEO1, VIDEO2, VIDEO3, and ColorStream)
 - VIDEO+: Locks the video inputs and channels 3 and 4 (if you use the antenna terminal to play a videotape)
- Note:** Make sure the PIP is not on channel 3 or 4.
- OFF: Unlocks all video inputs.



Changing the PIN code

1. From the LOCKS menu, select NEW PIN CODE.
2. Press the Channel Number buttons (0–9) to enter a 4-digit code. The numbers you enter will replace the dashes in the display.



3. Press ENTER. The new PIN code is now active.

Adjusting the picture

Selecting the picture modes

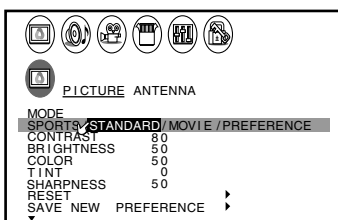
You can select your desired picture type from the following picture modes: Sports, Standard, Movie, and Preference.

Mode	Picture Quality
Sports	Bright and dynamic picture (factory set; reset default)
Standard	Standard picture setting (factory set)
Movie	Movie-like picture setting (factory set)
Preference	Your personal preferences*

*(see “Saving new preferences” on page 32.)

To select a picture mode:

1. Press MENU, and then press ◀ or ▶ until the PICTURE menu appears.
2. Press ▼ or ▲ to highlight MODE.
3. Press ◀ or ▶ to highlight the mode you prefer.



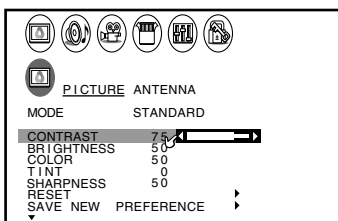
Adjusting the picture quality

You can adjust the picture quality to your personal preferences, including the contrast, brightness, color, tint, sharpness, flesh tone, noise reduction, and color temperature.

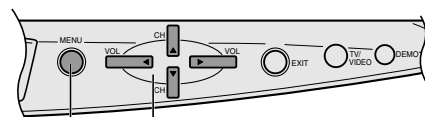
Selection	◀ Pressing	▶
Contrast	lower	higher
Brightness	darker	lighter
Color	paler	deeper
Tint	reddish	greenish
Sharpness	softer	sharper

To adjust the picture quality:

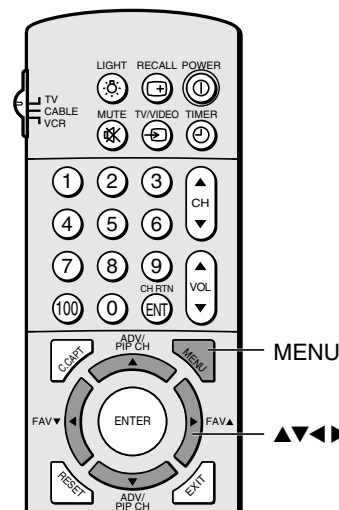
1. Press MENU, and then press ◀ or ▶ until the PICTURE menu appears.
2. Press ▼ or ▲ to highlight the quality you want to adjust.
3. Press ◀ or ▶ to adjust the level.



The PICTURE qualities you adjusted can be saved in the TV's memory with the Save New Preference feature (see page 32). You can select your preferences or one of the factory set modes (as described in “Selecting the picture mode” above).



MENU ▲▼◀▶



MENU

▲▼◀▶

Note:

If you select one of the factory-set picture modes (SPORTS, STANDARD, or MOVIE), and then change a picture quality setting (for example, increase the contrast), the picture mode automatically changes to PREFERENCE in the Picture menu.

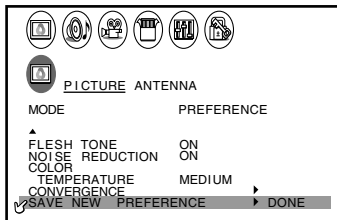
To save your new picture quality settings, you must select SAVE NEW PREFERENCE (see page 32) before closing the Picture menu or the TV will return to the previous picture mode.

Saving new preferences

You can save the PICTURE qualities (contrast, brightness, color, tint, and sharpness) you adjusted in the Picture PREFERENCE mode.

To save your new preferences:

1. Press MENU, and then press ◀ or ▶ until the PICTURE menu appears.
2. Press ▲ or ▼ to highlight SAVE NEW PREFERENCE.
3. Press ◀ or ▶. When saved, the menu displays “DONE.”



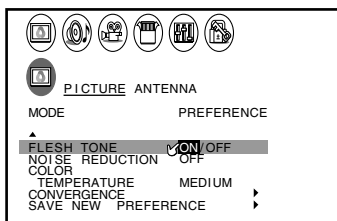
You can choose your saved preferences by selecting PREFERENCE in the picture mode (see “Selecting the picture mode” on page 31).

Using the flesh tone feature

This feature corrects the differences in tint among TV stations, to make flesh tones appear more natural on your TV screen.

To turn on the flesh tone feature:

1. Press MENU, and then press ◀ or ▶ until the PICTURE menu appears.
2. Press ▲ or ▼ to highlight FLESH TONE.
3. Press ◀ or ▶ to highlight ON.



To turn off the flesh tone feature:

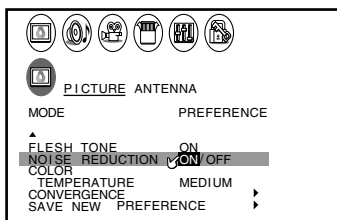
Highlight OFF in step 3 above.

Using the noise reduction feature

This feature allows you to reduce visible interference in your TV picture. This is useful when receiving a broadcast with a weak signal or playing a videotape or disk damaged by repeated use.

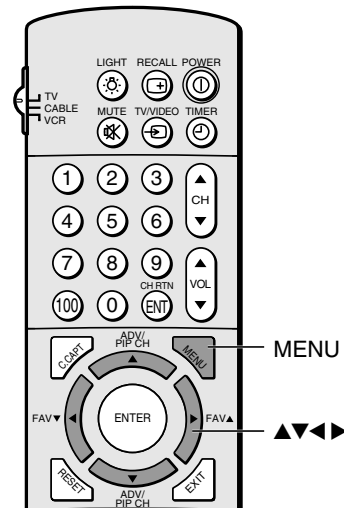
To turn on the noise reduction feature:

1. Press MENU, and then press ◀ or ▶ until the PICTURE menu appears.
2. Press ▲ or ▼ to highlight NOISE REDUCTION.
3. Press ◀ or ▶ to highlight ON.



To turn off the noise reduction feature:

Highlight OFF in step 3 above.



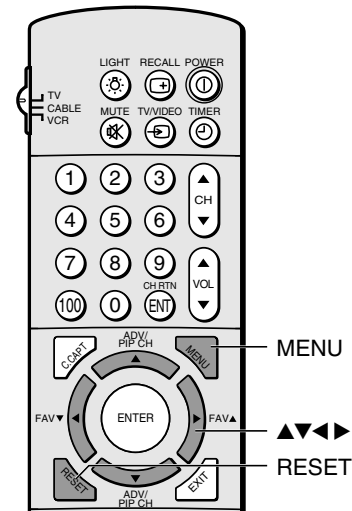
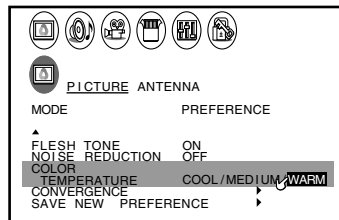
Selecting the color temperature

You can change the quality of the picture by selecting from three preset color temperatures: Cool, Medium, and Warm.

Mode	Picture Quality
Cool	Blueish
Medium	Neutral
Warm	Reddish

To select the color temperature:

1. Press MENU, and then press ◀ or ▶ until the PICTURE menu appears.
2. Press ▲ or ▼ to highlight COLOR TEMPERATURE.
3. Press ◀ or ▶ to highlight the mode you prefer.



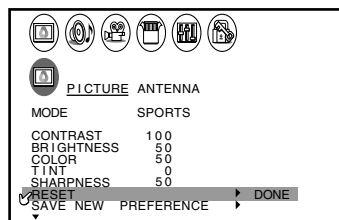
Resetting your picture adjustments

The RESET function returns the picture qualities to the following factory settings:

contrast	max (100)	color temperature	cool
brightness	center (50)	noise reduction	off
color	center (50)	picture mode	sports
tint	center (0)		
sharpness	center (50)		

To reset your picture adjustments:

1. Press MENU, and then press ◀ or ▶ until the PICTURE menu appears.
2. Press ▲ or ▼ to highlight RESET.
3. Press ◀ or ▶.



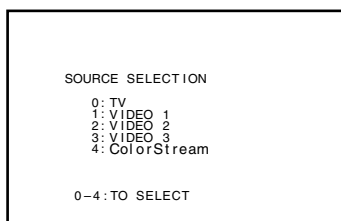
To reset both the picture and audio adjustments to the factory settings:

Press RESET on the remote control.

Watching video input

You can use the TV/VIDEO button on the remote control or TV to change the video input, which allows you to view a signal coming from another device connected to your TV (such as a VCR or DVD player). Select VIDEO 1, VIDEO 2, VIDEO 3, or ColorStream, depending on which input jack is used for connecting the specific device (see “Connecting your TV” on page 5).

The following on-screen display appears if you press the TV/VIDEO button on the remote control. If you press the TV/VIDEO button on the TV, a different menu is displayed (see “Using the TV/VIDEO button on the TV” on page 17).



To select a video source:

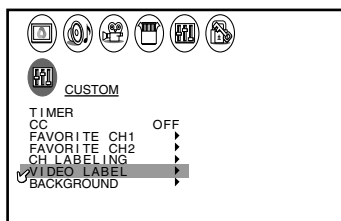
1. Press the TV/VIDEO button.
2. While the above menu is on the screen, either press the corresponding number button (0–4) or repeatedly press the TV/VIDEO button to cycle through the sources. The current source displays in purple.

Selecting the video input labels

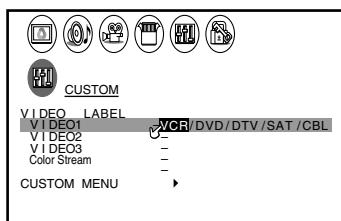
You can change the video label that displays on the screen when the TV/VIDEO button is pressed.

To label the video inputs:

1. Press MENU, and then press ◀ or ▶ until the CUSTOM menu appears.
2. Press ▲ or ▼ to highlight VIDEO LABEL.



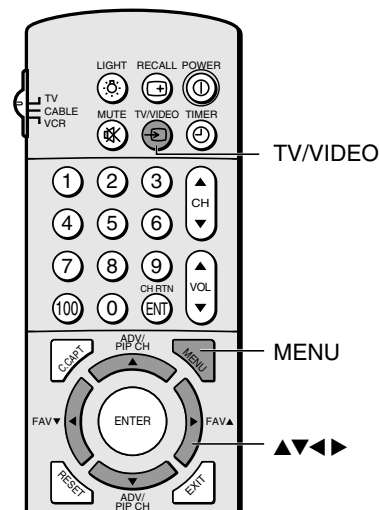
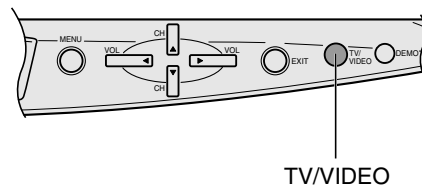
3. Press ◀ or ▶ to display the VIDEO LABEL menu.
4. Press ▲ or ▼ to highlight the video source you want to label.
5. Press ◀ or ▶ to select the appropriate label for that source: VCR, DVD, DTV, SAT (satellite), or CBL (cable). To use the original label (“VIDEO 1,” for example), select “—.”
6. To exit the menu, press EXIT.



Note:

When ColorStream is selected, the video OUT signal will not have color.

To receive a color video OUT signal, a video or S-video IN jack must be used instead of the ColorStream connection.



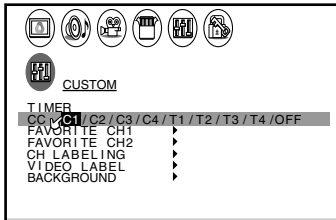
Using the closed caption feature

The closed caption feature has two options:

- **Captions** — An on-screen display of the dialogue, narration, and sound effects of programs and videos that are closed-captioned (usually identified as “CC” in program guides).
- **Text** — An on-screen display of information not related to the program, such as weather or stock data (when provided by individual stations).

To view captions or text:

1. Tune the TV to the desired program or video.
2. Press C.CAPT to display the CUSTOM menu. CC will be highlighted.
3. Press ◀ or ▶ to display the closed caption modes.



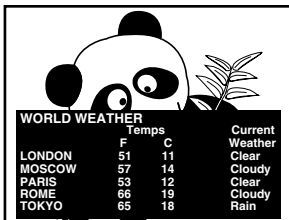
- To view captions, highlight C1, C2, C3, or C4 (C1 displays captions in the primary language in your area).

Note: If the program or video you are viewing is not closed-captioned, no captions will display on the screen.



- To view text, highlight T1, T2, T3, or T4.

Note: If text is not available, a black rectangle may appear on your screen. If this happens, set the closed caption feature to OFF.

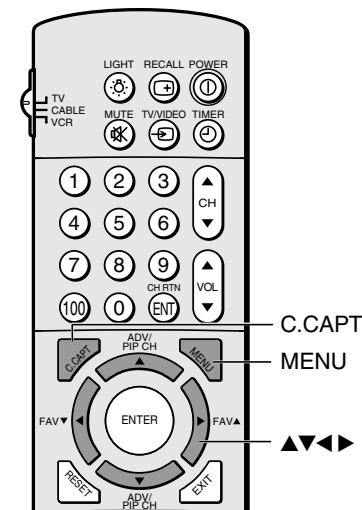


To turn off the closed-caption feature:

Highlight OFF in step 3 above.

Note:

The closed caption feature can be also selected by pressing MENU and ◀▶ to display the Custom menu, ▲▼ to highlight CC, and then ◀▶ to select a closed caption mode.



Note:

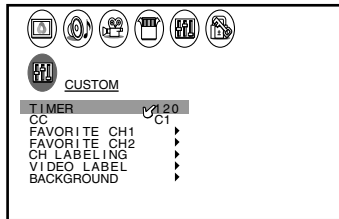
A closed caption signal may not be decoded in the following situations:

- when a videotape has been dubbed
- when the signal reception is weak
- when the signal reception is nonstandard

Setting the sleep timer

To set the sleep timer to turn the TV off automatically:

1. Press **TIMER** (or **MENU** and **◀▶**) to display the **CUSTOM** menu. **TIMER** will be highlighted.
2. After the number position starts to blink, repeatedly press **TIMER** to enter the length of time until the TV turns off (in 10-minute increments to a maximum of 180).
3. Press **ENTER** to start the timer.



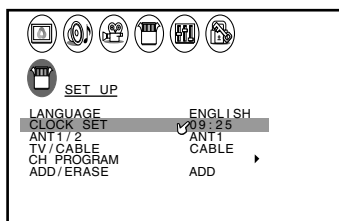
To cancel the sleep timer:

Press **POWER** twice.

Setting the clock

To set the clock:

1. Press **MENU**, and then press **◀** or **▶** until the **SET UP** menu appears.
2. Press **▲** or **▼** to highlight **CLOCK SET**.
3. After the number position starts to blink, press the **Number** buttons (0–9) to enter the correct time. The clock operates on a 12-hour cycle.
4. Press **ENTER** to start the clock.

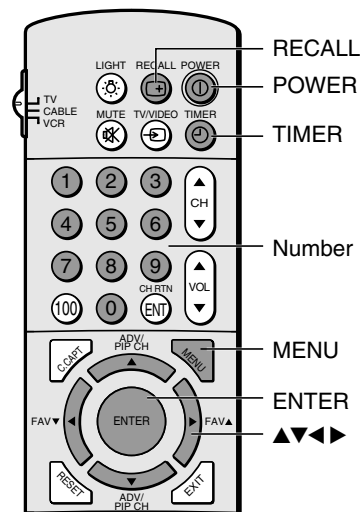


To display the time on-screen:

Press **RECALL**.

Note :

To display the amount of time until the TV turns off automatically, press **TIMER** once. To close the display, press **ENTER**.



Note :

If the power source for the TV is interrupted (that is, the power cord is unplugged or a power failure occurs), the clock will have to be reset.

Adjusting the sound

Muting the sound

Press MUTE to temporarily turn off the sound. While the sound is off, the screen will display the word MUTE in the lower right corner. To restore the sound, press MUTE again.

When you press the MUTE button, you automatically activate the closed caption feature. To deactivate this feature, press the MUTE button again. This feature only works when the closed caption mode is set to OFF. See “Using the closed caption feature” on page 35 for more information.

Selecting stereo/SAP broadcasts

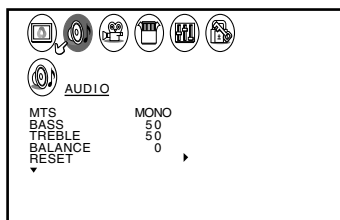
The multi-channel TV sound (MTS) feature allows you to listen to high-fidelity stereo sound while you watch TV. MTS can also transmit a second audio program (SAP) containing a second language, music, or other audio information (when provided by individual stations).

When the TV receives a stereo or SAP broadcast, the word STEREO or SAP appears on-screen every time you turn the TV on, change the channel, or press RECALL.

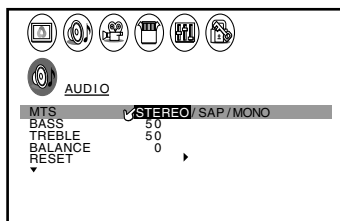
The MTS feature is not available when the TV is in VIDEO mode.

To listen to stereo sound:

1. Press MENU, and then press ◀ or ▶ until the AUDIO menu appears.



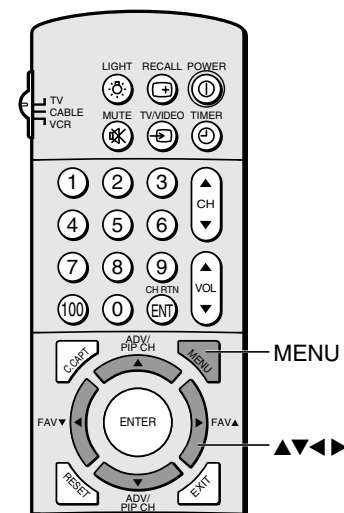
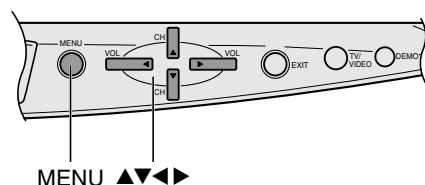
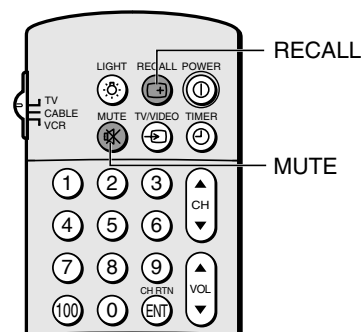
2. Press ▲ or ▼ to highlight MTS.
3. Press ◀ or ▶ to highlight STEREO.



You can leave your TV in STEREO mode because it automatically outputs the type of sound being broadcast (stereo or monaural). If the stereo sound is noisy, select MONO to reduce the noise. The word STEREO or SAP displays in yellow in the menu when the TV receives the signal.

To listen to SAP (if available):

1. Press MENU, and then press ◀ or ▶ until the AUDIO menu appears.
2. Press ▲ or ▼ to highlight MTS.
3. Press ◀ or ▶ to highlight SAP. You will hear the station's second audio program (if available) from the speakers while viewing the original program's picture (see note at right).



Note :

A second audio program (SAP) can be heard only on those TV stations that offer it. For example, some TV stations broadcast music as a second audio program. If you have SAP on, you will see the current program on the screen but hear music instead of the program's normal audio.

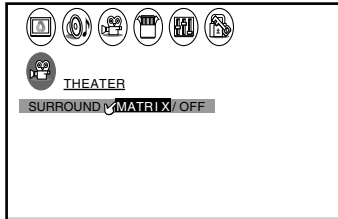
If you have SAP on, and the station you are watching is not currently broadcasting a second audio program, you will see the picture but not hear any sound. If this happens, but the TV is in STEREO mode so you can hear the station's normal audio.

Using the surround sound feature

The surround sound feature expands the audio listening field wider and deeper to create exceptional sound quality from the TV's speakers. The feature uses stereo signals from a TV broadcast or video input.

To turn on the surround sound feature:

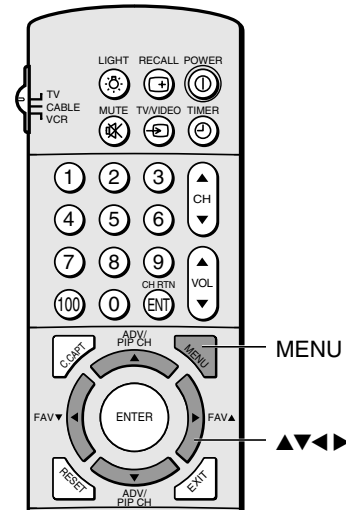
1. Select STEREO mode (see "Selecting stereo/SAP broadcasts" on page 37).
2. Press MENU, and then press ◀ or ▶ until the THEATER menu appears.
3. Press ▲ or ▼ to highlight SURROUND.
4. Press ◀ or ▶ to highlight MATRIX.



To turn off the surround sound feature:

Highlight OFF in step 4 above.

In general, you can leave your TV in MATRIX mode because it automatically outputs the type of sound being broadcast (stereo or monaural).



Note:

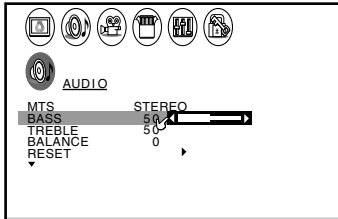
When MATRIX surround sound is selected, the StableSound™ feature is automatically turned off. See page 41.

Adjusting the sound quality

You can change the quality of your TV's sound by adjusting the bass, treble, and balance.

To adjust the sound quality:

1. Press MENU, and then press ◀ or ▶ until the AUDIO menu appears.
2. Press ▲ or ▼ to highlight the item you want to adjust.



3. Press ◀ or ▶ to adjust the level:
 - ◀ makes the sound quality weaker or decreases the balance in the right channel, depending on the item selected.
 - ▶ makes the sound quality stronger or decreases the balance in the left channel, depending on the item selected.

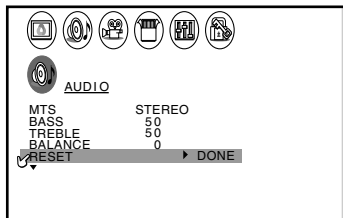
Resetting your audio adjustments

The RESET function returns your audio adjustments to the following factory settings:

bass center (50)
treble center (50)
balance center (0)

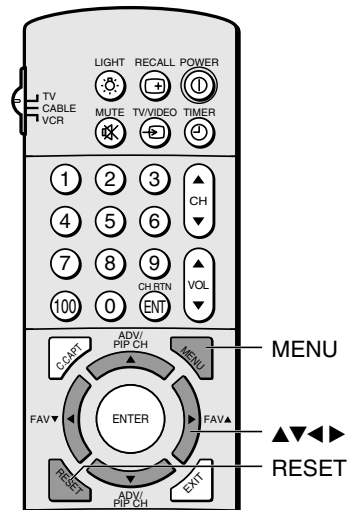
To reset your audio adjustments:

1. Press MENU, and then press ◀ or ▶ until the AUDIO menu appears.
2. Press ▲ or ▼ to highlight RESET.
3. Press ◀ or ▶. When reset, the menu displays "DONE."



To reset both your audio and picture adjustments to the factory settings:

Press RESET on the remote control.

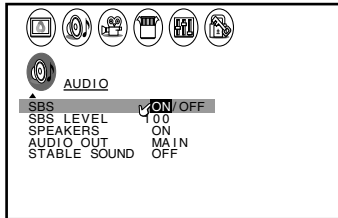


Using the sub-bass system (SBS)

The sub-bass system allows you to enhance bass performance (even when the sound volume is low).

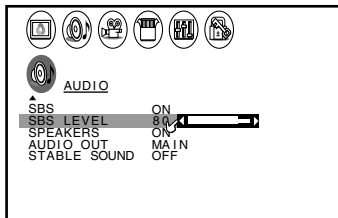
To turn on the SBS:

1. Press MENU, and then press ◀ or ▶ until the AUDIO menu appears.
2. Press ▲ or ▼ to highlight SBS.
3. Press ◀ or ▶ to highlight ON.



To adjust the SBS level:

4. Press ▲ or ▼ to highlight SBS LEVEL.
5. Press ◀ or ▶ to adjust the SBS level.



To turn off the SBS:

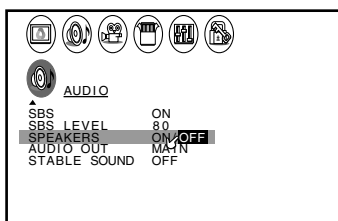
Highlight OFF in step 3 above.

Turning off the built-in speakers

Use this feature to turn the TV speakers off when you connect an audio system (see page 9).

To turn off the built-in speakers:

1. Press MENU, and then press ◀ or ▶ until the AUDIO menu appears.
2. Press ▲ or ▼ to highlight SPEAKERS.
3. Press ◀ or ▶ to highlight OFF.



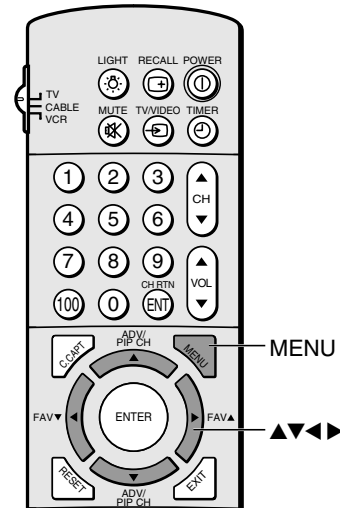
To turn on the built-in speakers:

Highlight ON in step 3 above.

Note:

The Sub-Bass System signal does not pass through the "Variable Audio OUT" jacks. (See page 9.)

However, the AUDIO menu will appear when the buttons are pressed.



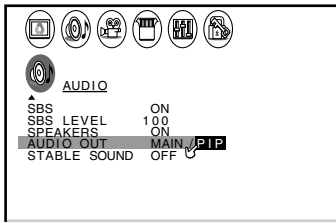
Selecting the Audio OUT sound

You can choose to output the sound of either the PIP or main picture from the Audio OUT jacks.

This is useful when amplifying or recording the PIP sound with external equipment while hearing the sound of the main picture through the built-in speakers.

To select the Audio OUT sound:

1. Press MENU, and then press ◀ or ▶ until the AUDIO menu appears.
2. Press ▲ or ▼ to highlight AUDIO OUT.
3. Press ◀ or ▶ to highlight MAIN or PIP.
 - MAIN: Main picture sound.
 - PIP: PIP sound.

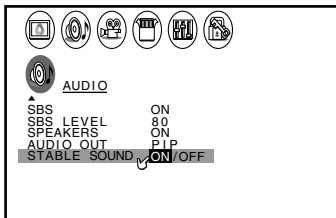


Using the StableSound™ feature

The StableSound™ feature limits the highest volume level to avoid extreme changes in volume when the signal source is changed.

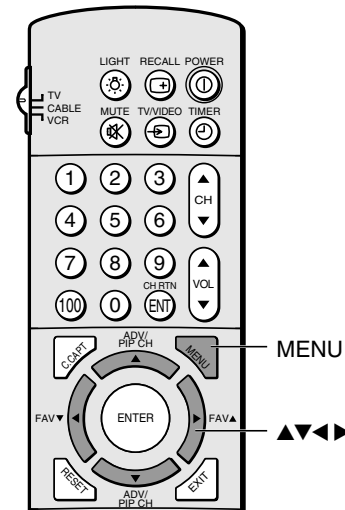
To turn on the StableSound™ feature:

1. Press MENU, and then press ◀ or ▶ until the AUDIO menu appears.
2. Press ▲ or ▼ to highlight STABLE SOUND.
3. Press ◀ or ▶ to highlight ON.



To turn off the StableSound feature:

Highlight OFF in step 3 above.



Note:

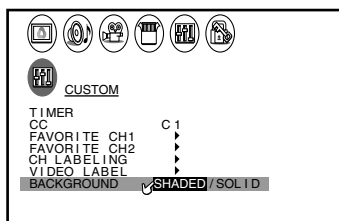
When the StableSound™ feature is turned on, the surround sound feature is automatically turned off (see page 38).

Selecting the background of the menu display

You can change the background of the menu display by selecting from two preset types: shaded and solid (gray).

To select the background:

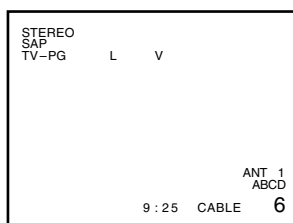
1. Press MENU, and then press ◀ or ▶ until the CUSTOM menu appears.
2. Press ▲ or ▼ to highlight BACKGROUND.
3. Press ◀ or ▶ to highlight either SHADED or SOLID.



Displaying on-screen information

Press RECALL to display the following information on-screen:

- Antenna mode (when in TV mode)
- Channel number or VIDEO mode selected
- Time (if set)
- Channel label (if set)
- Stereo or SAP (second audio program) audio status
- V-CHIP rating status

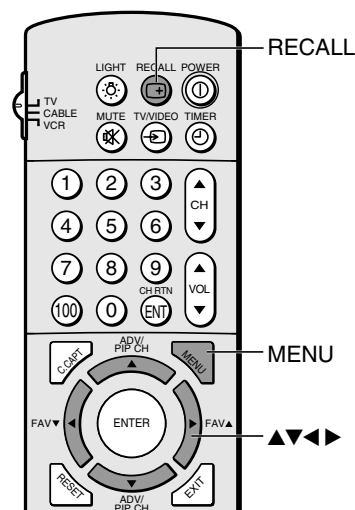


Viewing the demonstration mode

When you press DEMO on the TV, the TV will automatically display a variety of its on-screen menus and special features. This function is provided for demonstration purposes only.

To stop the demonstration mode:

Press DEMO again.



Understanding the auto power off feature

The TV will automatically turn itself off after approximately 15 minutes if it is tuned to a vacant channel or a station that completes its broadcast for the day. This feature does not work in VIDEO mode.

Understanding the last mode memory feature

If the power is cut off while you are viewing the TV, the last mode memory feature will turn the TV on automatically when the power is resupplied.

If the power is going to be off for a long time or you are going to be away from your TV, unplug the power cord to prevent the TV from turning on in your absence.

Appendix

Specifications

Television System	NTSC standard
Channel Coverage	VHF: 2 through 13 UHF: 14 through 69 Cable TV: Mid band (A-8 through A-1, A through I) Super band (J through W) Hyper band (AA through ZZ, AAA, BBB) Ultra band (65 through 94, 100 through 125)
Power Source	120 V AC, 60 Hz
Power Consumption	137 W (average)
Audio Power	14 W + 14 W
Speaker Type	Two 6-1/4 inches (16 cm) round
Video/Audio Terminals	S-VIDEO INPUT Y-INPUT: 1 V(p-p), 75 ohm, negative sync. C-INPUT: 0.286 V(p-p) (burst signal), 75 ohm VIDEO/AUDIO INPUT VIDEO: 1 V(p-p), 75 ohm, negative sync. AUDIO: 150 mV(rms) (30% modulation equivalent, 47 kohm) ColorStream® (component video) INPUT Y-INPUT: 1V(p-p), 75 ohm CR-INPUT: 0.7 V(p-p), 75 ohm CB-INPUT: 0.7 V(p-p), 75 ohm AUDIO: 150 mV(rms), 47 kohm VIDEO/AUDIO OUTPUT VIDEO: 1 V(p-p), 75 ohm, negative sync. AUDIO: 150 mV(rms) (30% modulation equivalent, 4.7 kohm) VARIABLE AUDIO OUTPUT 0–300 mV(rms) (30% modulation equivalent, 4.7 kohm) AUDIO CENTER CHANNEL INPUT 300 mV(rms) (30% modulation equivalent, 10 kohm)

Dimensions/Mass

Model	Dimension (W/H/D)	Mass
50A60 50A60A	42-1/4 × 50-5/8 × 20-13/16 inches (1,073 × 1,284 × 529 mm)	217 lbs (98.6 kg)
55A60 55A60A 55A60R	46-5/16 × 53-1/4 × 22-15/16 inches (1,176 × 1,353 × 583 mm)	250 lbs (113.6 kg)
61A60 61A60A	51-1/16 × 57-3/16 × 25-9/16 inches (1,297 × 1,453 × 649 mm)	288 lbs (130.9 kg)
61A60R	51-1/16 × 57-3/16 × 25-9/16 inches (1,297 × 1,453 × 649 mm)	296 lbs (134.3 kg)

Supplied Accessories Remote Control with 2 size “AA” alkaline batteries

Design and specifications are subject to change without notice.

Troubleshooting

Before calling a service technician, please check the following table for a possible cause of the problem and some solutions.

Problem	Solution
TV will not turn on	<ul style="list-style-type: none">• Make sure the power cord is plugged in, and then press POWER.• The remote control batteries may be dead. Replace the batteries.
No picture, no sound	<ul style="list-style-type: none">• Check the antenna/cable connections.• Press the TV/VIDEO button to check the main picture source.
No sound, picture OK	<ul style="list-style-type: none">• The sound may be muted. Press VOL ▲▼.• The station may have broadcast difficulties. Try another channel.• Make sure the SPEAKERS feature in the AUDIO menu is set correctly.
Poor sound, picture OK	<ul style="list-style-type: none">• The station may have broadcast difficulties. Try another channel.
Poor picture, sound OK	<ul style="list-style-type: none">• Check the antenna connections.• The station may have broadcast difficulties. Try another channel.• Adjust the PICTURE menu.
Poor reception of broadcast channels	<ul style="list-style-type: none">• Check the antenna connections.• The station may have broadcast difficulties. Try another channel.• If you are using a VCR, make sure the TV/VCR button is set correctly.
Cannot receive above channel 13	<ul style="list-style-type: none">• Make sure the TV/CABLE/VCR switch is set to the mode that corresponds with the signal source (cable or outside antenna).
Black box appears on the screen	<ul style="list-style-type: none">• The closed caption feature may be set to one of the Text modes (T1, T2, T3, or T4). Set closed captioning to OFF.
Unable to select a certain channel or VIDEO input	<ul style="list-style-type: none">• The channel may be locked out with the CH LOCK or VIDEO LOCK feature, or erased with the ADD/ERASE feature.
Multiple images	<ul style="list-style-type: none">• The station may have broadcast difficulties. Try another channel.• Antenna reception may be poor. Use a highly directional outdoor antenna.
Poor color or no color	<ul style="list-style-type: none">• The station may have broadcast difficulties. Try another channel.• Adjust the TINT and/or COLOR in the PICTURE menu.• The picture may suffer from color shading if you change the direction of the TV while it is on. Turn the TV off and allow it to cool for 30 minutes before turning it on again.
No stereo or SAP sound from a known MTS broadcast	<ul style="list-style-type: none">• Make sure the MTS feature is set properly.
The remote control does not operate	<ul style="list-style-type: none">• Make sure the TV/CABLE/VCR switch is set properly.• There may be an obstruction between the remote control and the remote control sensor. Remove the obstruction.• The remote control batteries may be dead. Replace the batteries.
Cannot access signal input sources (Video 1-2-3, ColorStream) and/or channels 3 and 4.	<ul style="list-style-type: none">• Check the VIDEO LOCK feature.

Limited United States Warranty

Toshiba America Consumer Products, Inc. ("TACP") and Toshiba Hawaii Inc. ("THI") make the following limited warranties. These limited warranties extend to the original consumer purchaser or any person receiving this set as a gift from the original consumer purchaser and to no other purchaser or transferee.

Limited One (1) Year Warranty

TACP and THI warrant this product and its parts against defects in materials or workmanship for a period of one (1) year after the date of original retail purchase. During this period, TACP and THI will repair or replace a defective part, at their option, with a new or refurbished part, without charge to you. TACP/THI Authorized Service Station personnel will come to your home when warranty service is required. Depending on the type of repair required, the service will either be performed in your home or the set will be taken to the TACP/THI authorized service station for repair and returned to your home at no cost to you.

Limited Two (2) Year Warranty of Picture Tube

TACP and THI further warrant the picture tube in this product against defects in materials or workmanship for a period of two (2) years after the date of original retail purchase. During this period, TACP and THI will repair or replace a defective picture tube at their option, with a new or refurbished picture tube, without charge to you, except that if a defective picture tube is replaced after one (1) year from the date of the original retail purchase, you pay labor charges involved in the replacement.

Rental Units

The warranty for rental units begins with the first rental or thirty (30) days from the date of shipment to the rental firm, whichever comes first.

Commercial Units

Products sold and used for commercial use have a limited ninety (90) day warranty for all parts, labor and picture tube.

Owner's Manual and Demographic Card

You should read this owner's manual thoroughly before operating this product. You should complete and mail the enclosed Demographic card within ten days after you., or the person who has given you this product as a gift, purchased this product. This is one way to enable TACP/THI to provide you with better customer service and improved products. Failure to return the Demographic card will not affect your rights under this warranty.

Your Responsibility

The above warranties are subject to the following conditions;

- (1) You must retain your bill of sale or provide other proof of purchase.
- (2) All warranty servicing of this product must be made by an Authorized TACP/THI Service Station.
- (3) These warranties are effective only if the product is purchased and operated in the U.S.A. or Puerto Rico.
- (4) Labor service charges for set installation, set up, adjustment of customer controls and installation or repair of antenna systems are not covered by this warranty. Reception problems caused by inadequate antenna systems are your responsibility.
- (5) Warranties extend only to defects in materials or workmanship as limited above and do not extend to any product or parts which have been lost or discarded by you or to damage to products or parts caused by misuse, accident, damage caused by Acts of God, such as lightning or fluctuations in electric power, improper installation, improper maintenance or use in violation of instructions furnished by us; or to units which have been modified or had the serial number removed, altered, defaced or rendered illegible.

How to Obtain Warranty Service

If, after following all of the operating instructions in this manual and checking the section "Troubleshooting," you find that service is needed:

- (1) To find the nearest Toshiba Authorized Service Station, visit our web site at www.toshiba.com/tacp/cus_svc.html, or call us toll-free at 1-800-631-3811.

In Hawaii, contact Toshiba Hawaii, Inc., 327 Kamakee Street, Honolulu, HI 96814, (808) 591-8377.
- (2) Present your bill of sale or other proof of purchase to the Authorized Service Station. "Authorized TACP/THI service station personnel will come to your home when warranty service is required. Depending on the type of repair required, either the service will be performed in your home or the set will be taken to the TACP/THI authorized service station for repair and returned to your home at no cost to you."

**For additional information, visit our web site:
www.toshiba.com/tacp/cus_svc.html**

All warranties implied by state law, including the implied warranties of merchantability and fitness for a particular purpose, are expressly limited to the duration of the limited warranties set forth above. With the exception of any warranties implied by state law as hereby limited, the foregoing warranty is exclusive and in lieu of all other warranties, guarantees, agreements and similar obligations of manufacturer or seller with respect to the repair or replacement of any parts. In no event shall TACP or THI be liable for consequential or incidental damages.

No person, agent, distributor, dealer or company is authorized to change, modify or extend the terms of these warranties in any manner whatsoever. The time within which action must be commenced to enforce any obligation of TACP or THI arising under this warranty or under any state, or law of the United States or any state thereof, is hereby limited to 90 days from the date you discover or should have discovered, the defect. This limitation does not apply to implied warranties arising under state law.

This warranty gives you specific legal rights and you may also have other rights which may vary from state to state. Some states do not allow limitation on how long an implied warranty lasts, when an action may be brought, or the exclusion or limitation of incidental or consequential damages, so the above provisions may not apply to you.



ATTENTION CANADIAN CONSUMERS:

Canadian consumers are requested to complete the special Canadian "Warranty Registration Form" enclosed, and forward this completed form with a copy of bill of sale to TOSHIBA OF CANADA to "Register and Validate" their warranty.

Products purchased in the U.S.A. and used in Canada are not covered by these warranties.

Products Purchased in Canada and used in the U.S.A. are not covered by these warranties.

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TOSHIBA AMERICA CONSUMER PRODUCTS, INC.

HEAD OFFICE/82 TOTOWA ROAD, WAYNE, NEW JERSEY 07470
NATIONAL SERVICE DIVISION:1420B TOSHIBA DRIVE, LEBANON, TN. 37087

TOSHIBA HAWAII, INC.

HEAD OFFICE/327 KAMAKEE STREET, HONOLULU, HAWAII 96814, U.S.A. TEL: (808) 591-8377

TOSHIBA OF CANADA LTD.

HEAD OFFICE/191 McNABB STREET MARKHAM, ONTARIO L3R 8H2, CANADA TEL: (905) 470-5400
SERVICE CENTERS/TORONTO: 191 McNABB STREET MARKHAM, ONTARIO L3R 8H2, CANADA TEL: (905) 470- 5400
MONTREAL: 1643, NORTH SERVICE RD., TRANS-CANADA HIGHWAY, DORVAL QUEBEC, H9P 1J1, CANADA
TEL: (514) 856-4100
VANCOUVER: 22171 FRASERWOOD WAY, RICHMOND, B.C. V6W 1J5, CANADA TEL: (604) 303-2500

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