TOSHIBA

OWNER'S MANUAL

Projection Television

COLOR STREAM™

43H70
55H70
61H70

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: _____

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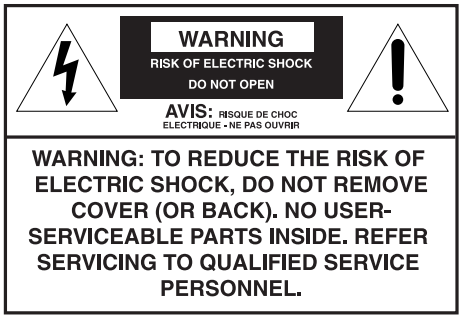
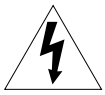
Important Information

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

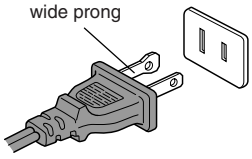
TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED PLUG WITH AN EXTENSION CORD RECEPTACLE OR OTHER OUTLET UNLESS THE PRONGS CAN BE FULLY INSERTED INTO THE OUTLET TO PREVENT ANY EXPOSURE OF THE PRONGS ON THE POLARIZED PLUG.

ATTENTION

POUR PRÉVENIR LES CHOCS 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.
- Model 43H70 must be used only with the Toshiba stand shown on page 44. Use with other stands may result in instability and cause possible injury.
- 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 areas too.
- Damage may occur if you leave the TV in direct sunlight or near a heater. Avoid areas 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 AC 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, then finish with a dry cloth.

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Introduction

Welcome to Toshiba

Congratulations! You have purchased one of the finest projection TVs 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 43H70, 55H70, and 61H70. Before you start reading, check your model number by looking at the rear of the TV.

Instructions in this manual 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.

Please Note

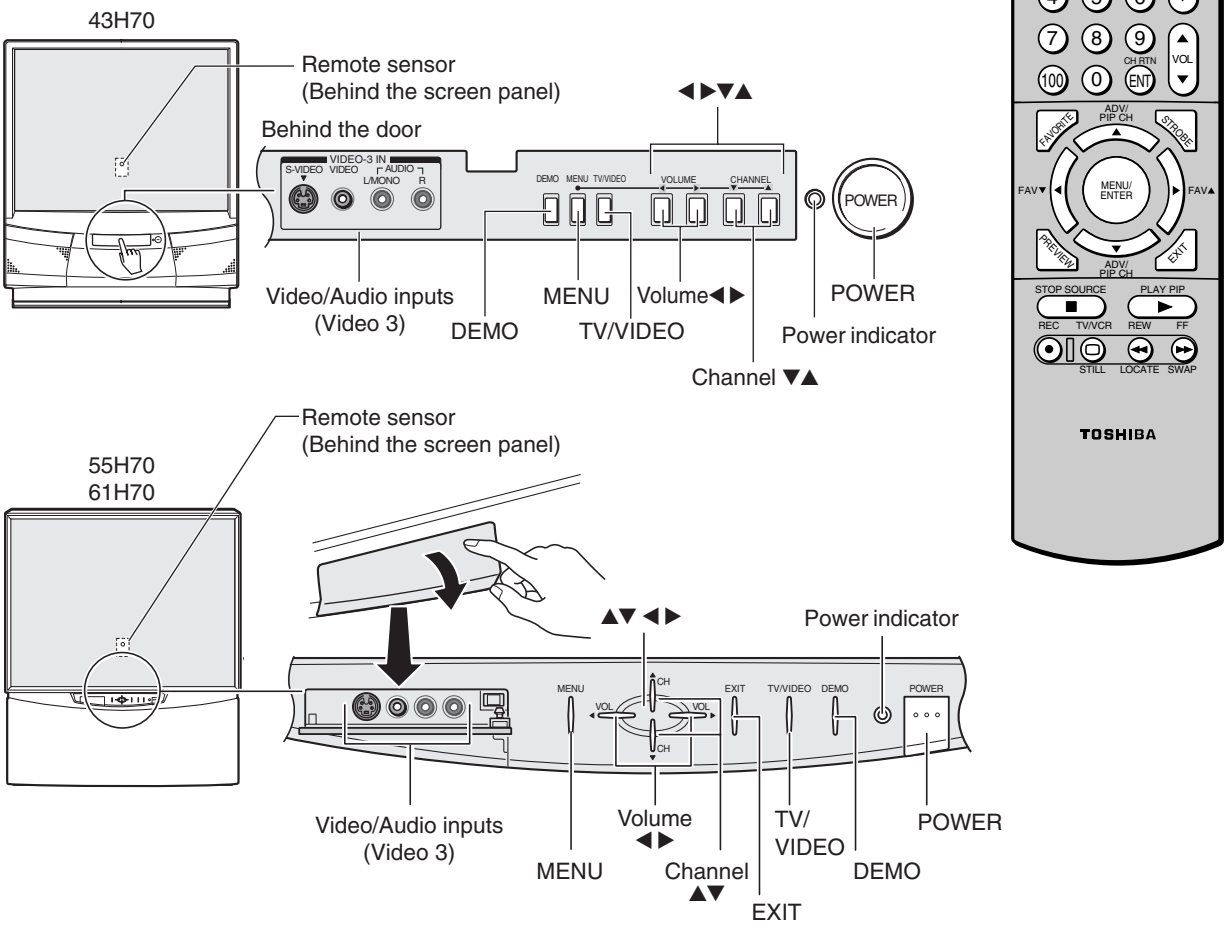
On some models, the SET UP menu automatically appears on-screen the first time the TV is turned on.

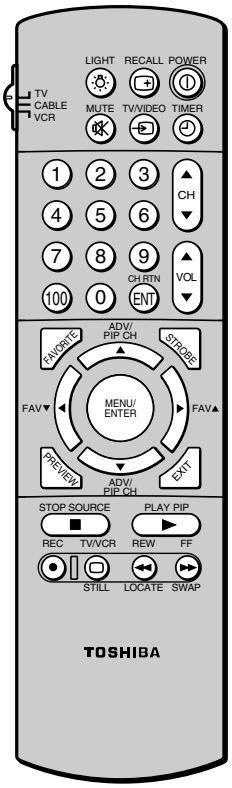
To change the menu settings, see "Setting Up Your TV" on page 16 for details.

To close the menu, either press EXIT or turn the TV off.

Exploring your new TV

You can operate your TV using the buttons on the front panel or the 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. See "Connecting your TV" on page 5.

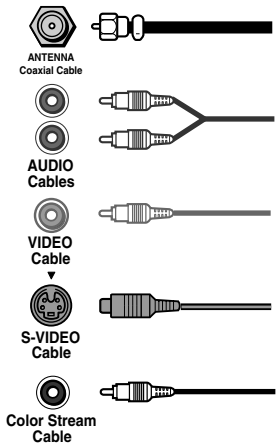




Connecting your TV

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 and provide the best picture performance. ColorStream cables can only be used with ColorStream compatible components.



Caution:

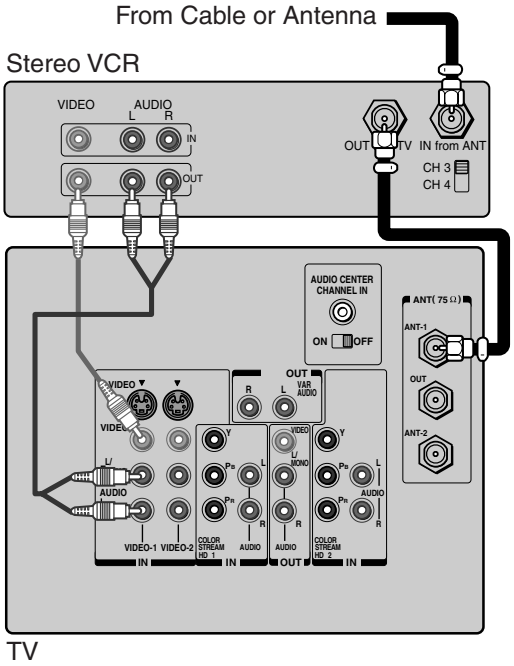
Do not plug the TV in until you have finished connecting all of your equipment.

Connecting a VCR

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

You will need:

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



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 the S-video connections and remove the video cable.

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

Connecting a cable converter box

This connection allows you to watch basic and premium cable channels.

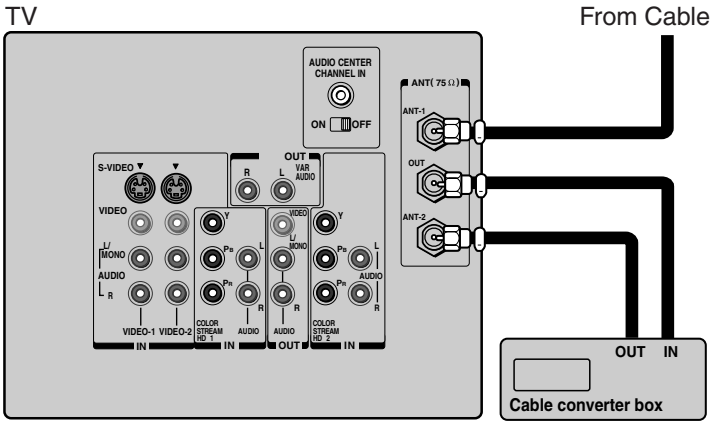
To use the TV's features, select ANT-1. To view premium channels, select ANT-2, tune the TV to channel 3 or 4 (whichever channel is vacant in your area), and use the converter box to change channels.

You will need:

- two coaxial cables

Note:

When you use a converter box with your TV, the remote control will not operate some features such as programming your favorite channels, labeling channels, and locking channels.



Connecting a cable converter box and 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:

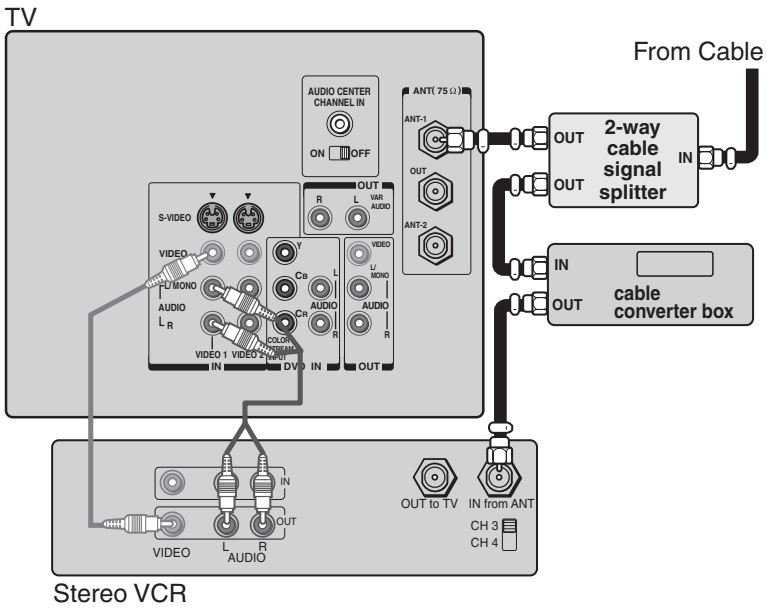
- one two-way cable signal splitter
- three coaxial cables
- one pair of audio cables (one single audio cable for a mono VCR)
- one video cable (one S-video cable for an S-VHS VCR)

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

When you use a converter box with your TV, the remote control will not operate some features such as programming your favorite channels, labeling channels, and locking channels.

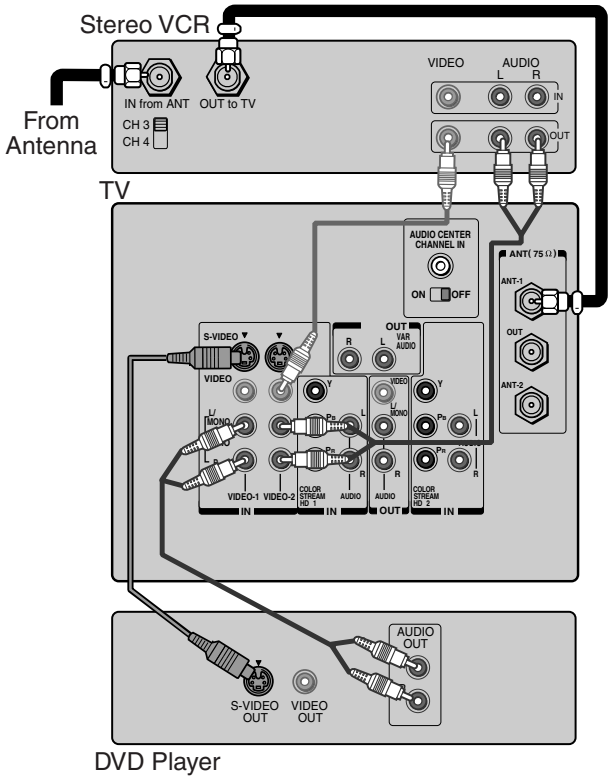


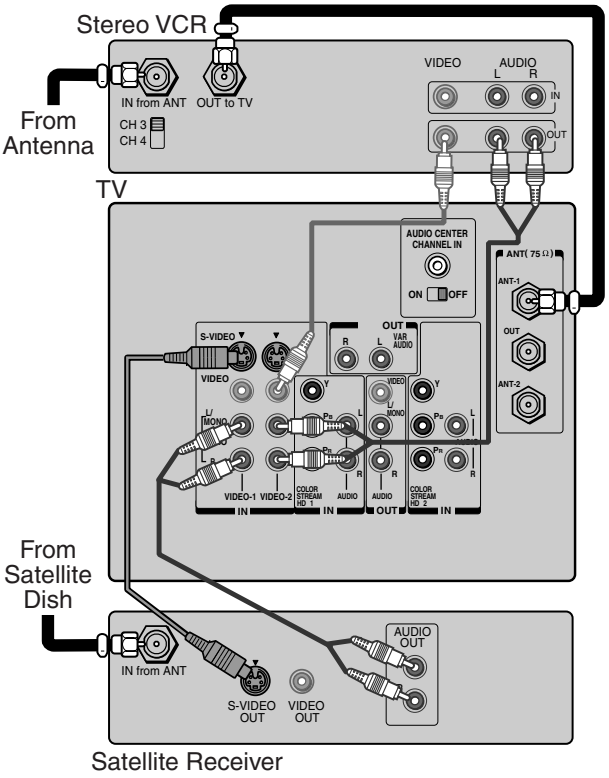
Connecting a DVD player or satellite receiver and a VCR

This connection allows you to watch DVD/satellite, VCR, and TV programs, and 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 (between the TV and VCR)
- one S-video cable (between the TV and DVD player/satellite receiver)





Note:

For the highest possible picture quality from a non-ColorStream DVD player/satellite receiver, you must use an S-video cable between the TV and DVD player/satellite receiver. (If your DVD player or satellite receiver is ColorStream-compatible, see page 8).

Do not connect both an S-video cable and a regular video cable between the TV and DVD player/satellite receiver at the same time. Doing so will distort the picture.

Do not connect the DVD player/satellite receiver and VCR to the same video channel on the TV. (See the illustrations, which show the DVD player/satellite receiver connected to Video-1 and the VCR connected to Video-2.)

Caution:

The unauthorized recording of television programs, videotapes, and other materials may infringe upon the provisions of copyright laws.

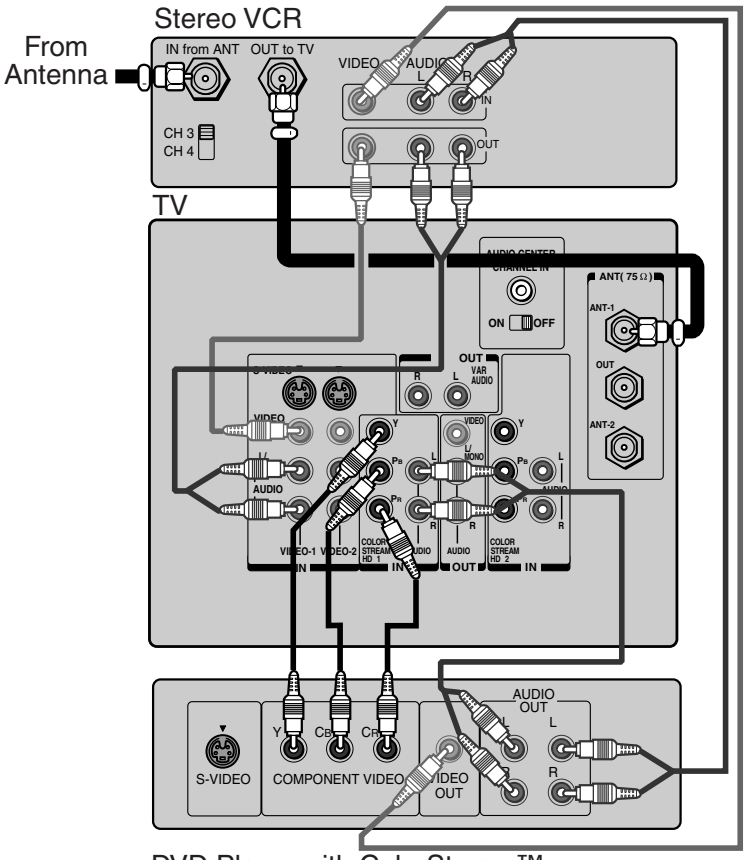
Connecting a DVD player (with or without ColorStream™) and a VCR

This connection allows you to watch DVD, VCR, and TV programs, and record DVD and TV programs. You can record from one source while watching a program from another source.

Your TV has ColorStream component video inputs. Connecting your TV to a ColorStream-compatible DVD player (such as a Toshiba ColorStream-equipped DVD player) can greatly enhance picture quality and realism.

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 (one S-video cable for a non-ColorStream DVD player; see notes at right)



DVD Player with ColorStream™

Note:

For the highest possible picture quality, you must use ColorStream video cables between the TV and DVD player. You can connect the ColorStream cables from the DVD player to to either ColorStream jack on the TV (HD1 or HD2).

If your DVD player is not ColorStream-compatible, use the S-video connections (both audio and video) instead of the ColorStream connections. (Be aware, however, that a ColorStream connection provides higher picture quality than an S-video connection.) Do not connect both S-Video and ColorStream cables between the TV and DVD player at the same time.

To record from the DVD player, set the VCR to Line IN. To monitor recording from the DVD player, set the VCR to Line IN, and set the TV to Video-1.

Caution:

The unauthorized recording of television programs, videotapes, and other materials may infringe upon the provisions of copyright laws.

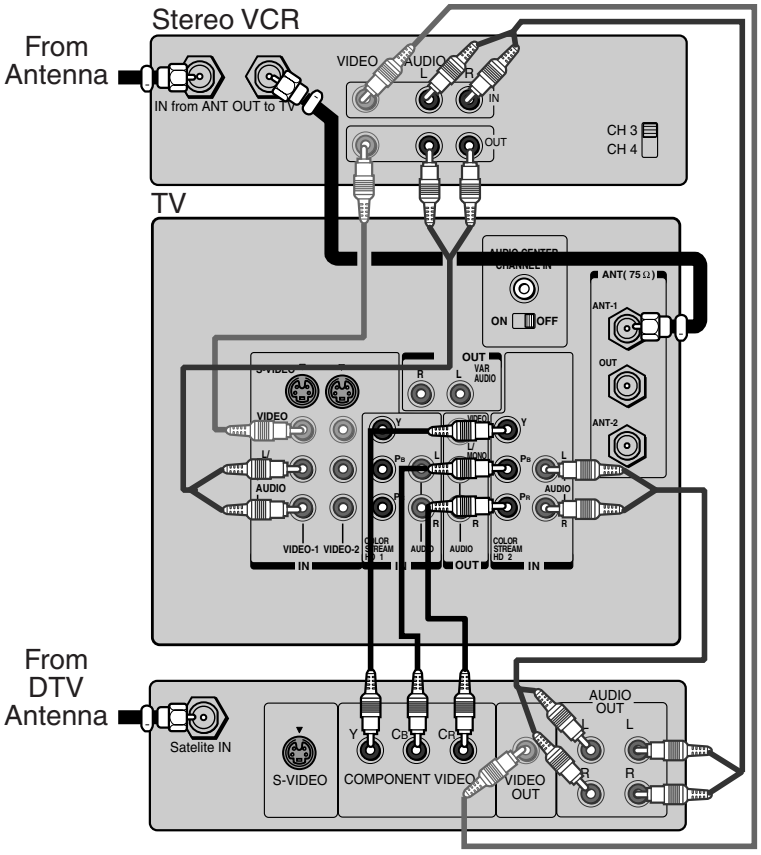
Connecting a DTV receiver/set-top box (with or without ColorStream™) and a VCR

This connection allows you to watch DTV (digital TV broadcast), VCR, and TV programs, and record DTV and TV programs. You can record from one source while watching a program from another source.

Your TV has ColorStream component video inputs. Connecting your TV to a ColorStream-compatible DTV receiver can greatly enhance picture quality and realism.

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 (one S-video cable for a non-ColorStream DTV receiver; see notes at right)



DTV Receiver with ColorStream™

Note:

For the highest possible picture quality, you must use ColorStream video cables between the TV and DTV receiver. You can connect the ColorStream cables from the DTV receiver to either ColorStream jack on the TV (HD1 or HD2).

The ColorStream HD1 and HD2 jacks can be used with Progressive (480p) and Interlace (480i, 1080i) scan systems. If you receive the 1080i source, you may need to change the picture size (see "Selecting 1080i picture size" on page 34).

If your DTV receiver is not ColorStream-compatible, use the S-video connections (both audio and video) instead of the ColorStream connections. (Be aware, however, that a ColorStream connection provides higher picture quality than an S-video connection.) Do not connect both S-Video and ColorStream cables between the TV and DTV receiver at the same time.

To record from the DTV receiver, set the VCR to Line IN. To monitor recording from the DTV receiver, set the VCR to Line IN, and set the TV to Video-1.

Caution:

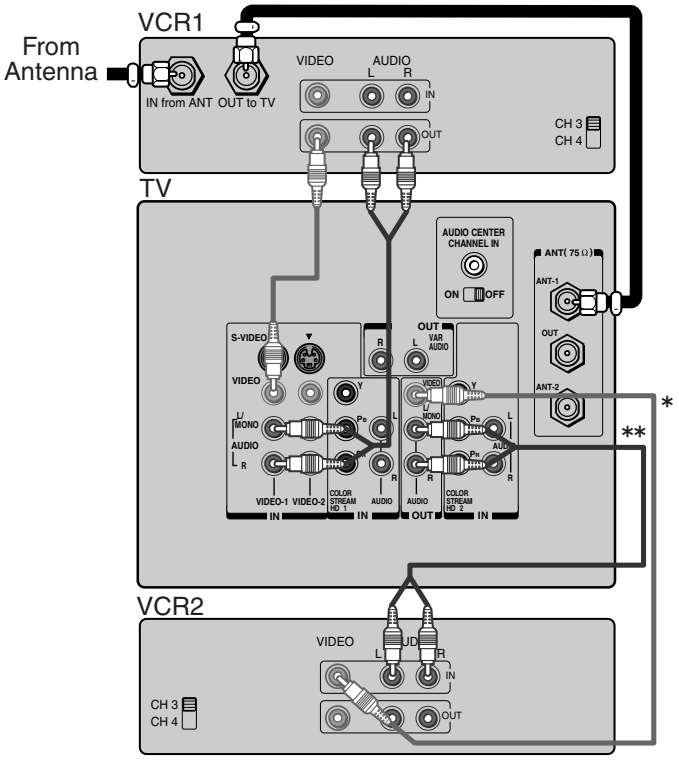
The unauthorized recording of television programs, videotapes, and other materials may infringe upon the provisions of copyright laws.

Connecting two VCRs

This connection allows you to record (dub/edit) from one VCR to another VCR while watching a videotape. You can also record from one TV channel while watching another TV channel.

You will need:

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



Caution:

The unauthorized recording of television programs, videotapes, and other materials may infringe upon the provisions of copyright laws.

Note:

If you have S-VHS VCRs, use S-video cables instead of regular video cables. Do not connect both a regular video cable and an S-video cable to Video-1 or Video-2 at the same time.

Do not connect the same VCR to the output and input jacks on the TV at the same time.

To dub or edit, VCR 2 must select Line IN, and the TV must select Video-1.

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

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

Connecting a camcorder

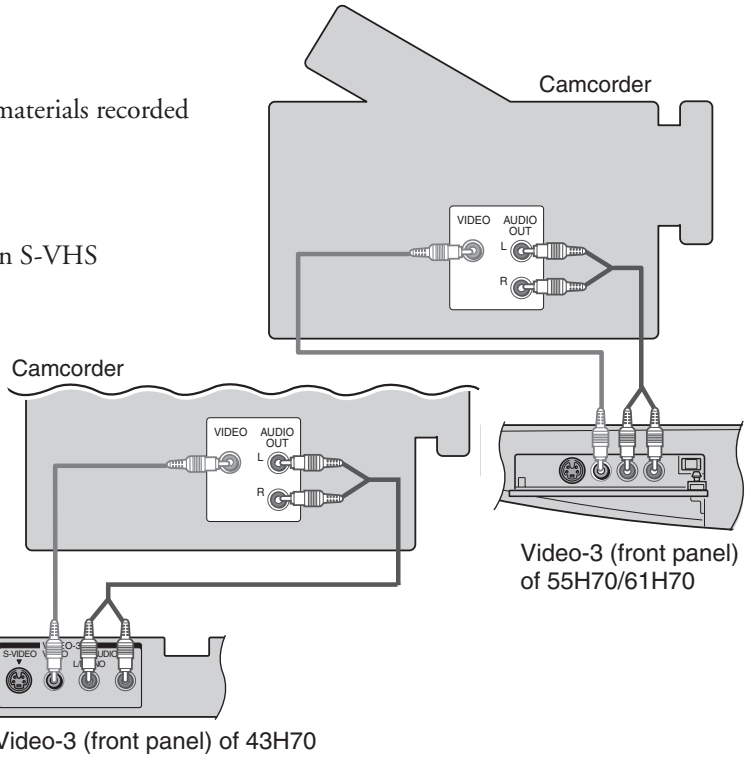
This connection allows you to watch video materials recorded on a camcorder.

You will need:

- one pair of audio cables
- one video cable (one S-video cable for an S-VHS camcorder)

Caution:

If you have an S-VHS camcorder, use an S-video cable between the S-video jacks on the camcorder and TV. Do not connect both a regular video cable and an S-video cable 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.

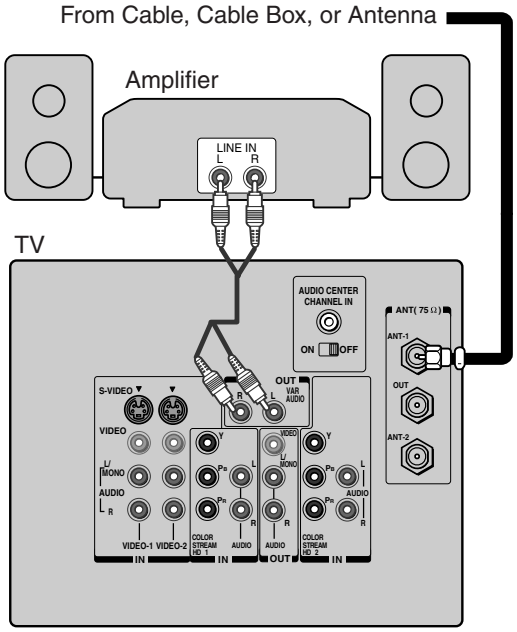
To control the audio, turn on the TV and the stereo amplifier, and turn off the built-in speakers (see" Turning off the built-in speakers" on page 41.)

You will need:

- one pair of audio cables

Note:

To hear sound when using an external audio amplifier, the volume of both the TV and the amplifier must be set above 0 (zero). If the volume of one is set to 0, you will not be able to hear any sound, even the volume of the other is at its highest setting.



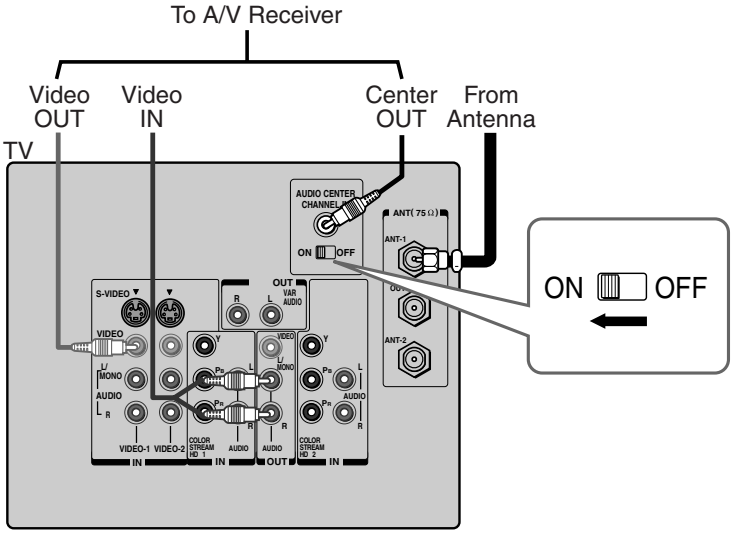
Connecting an A/V receiver

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 use the TV's internal speakers as center channel speakers, which will add to the realism of the sound.

You will need:

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



Note:

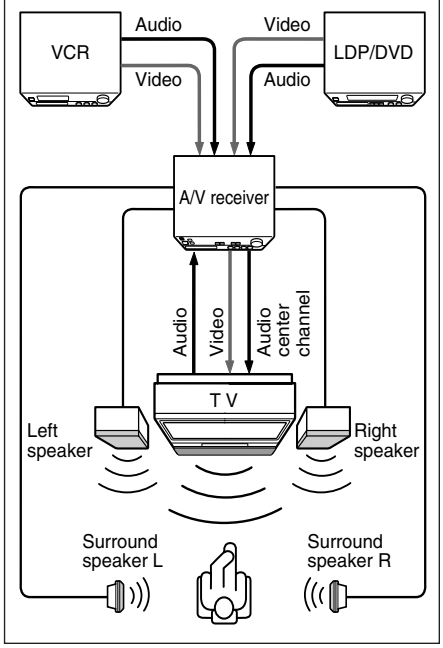
Refer to the instructions provided with your A/V receiver for details about your surround sound system.

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

Adjust the volume for the center channel speakers using 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.

Dolby Pro Logic® surround sound system connection example



Caution:

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

Dolby Pro Logic is a registered trademark of Dolby Laboratories Licensing Corporation.

Using the remote control

Preparing the remote control for use

The remote control will operate your TV, most VCR models, and most 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 must first program your remote control (see "Programming the remote control for use with a VCR or a cable TV converter" on page 12).

Note:

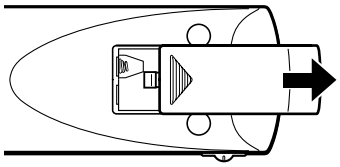
This remote control's functions may or may not operate your VCR or cable TV converter.

Refer to the owner's manuals supplied with the 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.

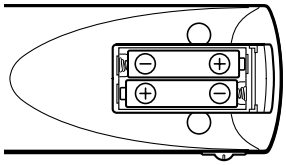
Installing the remote control batteries

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.

Caution:

- *Dispose of your batteries in a designated disposal area. Do not throw your 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.*

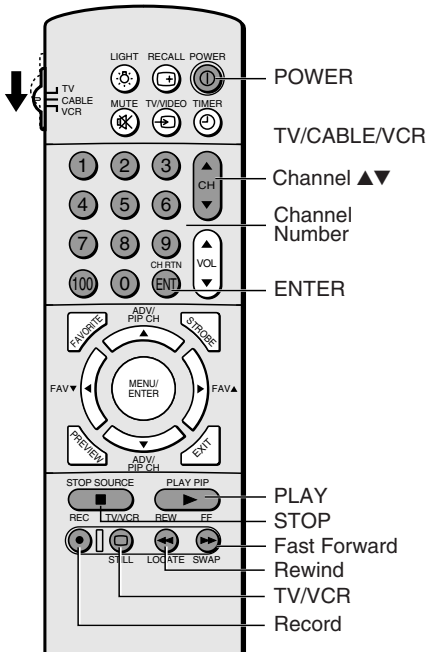
Using the remote control with a VCR or cable TV converter

To control a Toshiba VCR:

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

To control a cable TV converter:

1. Program the remote control to recognize the brand of your converter (see "Programming the remote control for use with a VCR or cable TV converter" on page 13). The shaded buttons in the illustration at right will control the cable TV converter.
2. Set the TV/CABLE/VCR switch to the CABLE position.



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

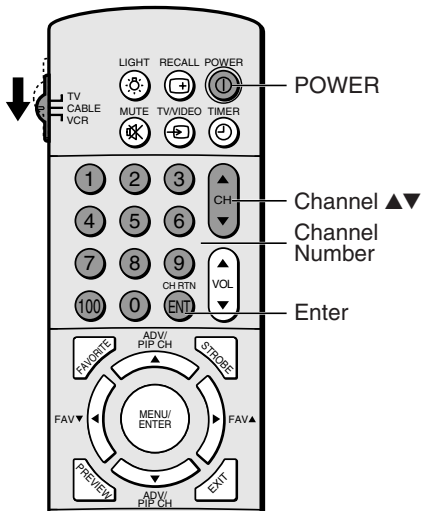
The remote control provided with your Toshiba TV is pre-programmed to operate Toshiba VCRs. To use your TV remote control to operate non-Toshiba VCRs and cable converters:

1. Refer to the VCR and cable TV converter code table (below and on the next page) to find the corresponding code for your VCR or converter brand.

   If more than one code is listed, try each one separately until you find the one that works.
2. If you are programming 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 the RECALL button, press the Channel Number buttons to enter the three-digit 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 turns on, you have entered the right number.

   If the VCR or converter does not respond to the remote control, repeat steps 1–4 using a different code.
5. Reset the TV/CABLE/VCR switch to TV to control the TV.



Note:

- *Each 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 the programmed code, set the switch to the other position (VCR1 or VCR2) and reprogram the remote control.*

For future reference, write down the code(s) you used:

VCR code _____

Cable code _____

VCR codes

Brand	Code	Brand	Code	Brand	Code
Adventura	019	Craig	056,066,091,259	Goldstar	037,056,057
Aiko	297	Curtis Mathes	054,060,079	Gradiente	019
Aiwa	019	Cybernex	259	Harley Davidson	019
Akai	060,068,080,125, 261	Daewoo	039,064,297	Harman/Kardon	057,094
		Daytron	039	Harwood	087,091
American High	054	Dynatech	019	Headquarter	065
Asha	259	Electrohome	056	HI-Q	066
Audiovox	056	Electrophonic	056	Hitachi	060,061,084,124, 254
Beaumark	259	Emerex	051		
Bell & Howell	123	Emerson	019,021,056,062, 080,087,140,203, 227,228,230,231, 297,313,314,380, 498	Jensen	060
Brandt	206			JVC	027,060,086
Broksonic	140,203,230,314, 380			Kenwood	057,060,086
				KLH	091
Calix	056			Kodak	054,056
Canon	054	Fisher	066,073,085,123	Lloyd	019
Capehart	039	Fuji	052,054	Lloyd's	227
Carver	100	Funai	019,344	Logik	091
CCE	091,297	Garrard	019,344	LXI	056
Citizen	056,297	GE	054,079,084,221	Magnavox	054,058,100,129, 168
Colt	091	Go Video	251,298		

VCR codes (continued)

Brand	Code
Magnin	259
Marantz	054,100
Marta	056
Masushita	054
MEI	054
Memorex	019,054,056,058, 065,066,067,123, 259
MGA	062,080
MGN Technology	259
Minolta	061,124
Mitsubishi	062,080,086,094, 192,233,261
Motorola	054,067
MTC	019,259
Multitech	019,091
Nad	077
NEC	057,059,060,069, 086
Nikko	056
Noblex	259
Olympus	054
Optimus	056,067,077,123
Optonica	081
Orion	498
Panasonic	054,096,181,244
Penney	054,056,057,059, 061,073,259
Pentax	061,084,124
Philco	054
Philips	054,081,100,129
Pilot	056
Pioneer	077,086
Portland	039
Protec	091
Pulsar	058
Quarter	065
Quartz	065
Quasar	054,096
Radio Shack	019,056,344
Radix	056
Randex	056
RCA	061,079,084,096, 124,125,168,221
Realistic	019,054,056,065, 066,067,081,085, 123,259
Ricoh	053
Runco	058
Samsung	064,259
Sanky	058,067
Sansui	060,086
Sanyo	065,066,123,259
Scott	062,064,140,203, 229,230,231
Sears	054,056,061,065, 066,073,085,123, 124
Sharp	067,081
Shintom	091
Shogun	259
Singer	091
Sony	051,052,053,054
STS	061
Sylvania	019,054,062,100, 129
Symphonic	019,344
Tatung	060
Teac	019,060
Technics	054,181
Teknika	019,054,056,071
Telefunken	060,206
TMK	227,259
Toshiba	062,064,085,229, 231,385
Totevision	056,259
Unitech	259
Vector	064
Vector Research	057,059
Video Concepts	059,064,080
Videosonic	259
Wards	019,054,061,066, 067,081,091,168, 231,259
XR-1000	019,054,091
Yamaha	057
Zenith	052,053,058

Cable TV converter codes

Brand	Code
ABC	020,022,026,027, 030,032,033,036, 066
Antronix	041
Archer	041,058,172
Belcor	075
Cable Star	075
Cabletenna	041
Cableview	041
Century	172
Citizen	172
Colour Voice	044,050
Comtronics	059,079
Contec	038
Dae Ryung	027
Eastern	021
Focus	419
Garrard	172
GC Electronics	035,075
Gemini	034,089
General Instrument	030,295
GoldStar	059,163
Hamlin	028,039,053,278, 292
Hitachi	030
Hytex	026
Jasco	172
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
Samsung	059,163
Scientific Atlanta	025,027,036,296
Signal	034,059
Signature	030
SL Marx	059
Sprucer	040
Standard Components	174
Starcom	022,034,066
Stargate	034,059
Starquest	034
Sylvania	020
Teleview	059
Texscan	020
Tocom	031,032,078
Toshiba	019
Tusa	034
Unika	041,172
United Artists	026
United Cable	022
Universal	041,058,075,096, 172,210
Viewstar	046,079,230
Zenith	019
Zentek	419

Learning about the remote control

LIGHT back-lights the remote control buttons for five seconds

RECALL displays on-screen information (page 42)

POWER turns the TV on and off (pages 13 and 37)

TV/CABLE/VCR Switch switches between TV, cable, and VCR input sources (page 13)

MUTE mutes the sound (page 38)

TV/VIDEO selects the video input source (pages 17 and 37)

TIMER sets the TV to turn off at a specified time (page 37)

CH ▲▼ cycles through programmed channels (page 19)

Channel Numbers allow direct access to channels (page 19)

VOL ▲▼ 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 channels

FAVORITE allows access to the Multi-Window function (page 25)

STROBE allows access to the Multi-Window function (page 26)

PREVIEW allows access to the Multi-Window function (page 25)

EXIT exits programming menus (page 16)

MENU allows access to programming menus (page 16)

ENTER sets programmed menu information (pages 16 and 21)

▲▼◄► Buttons select or adjust programming menus (page 16)

ADV/PIP CH ▲▼ Buttons cycle through PIP channels (page 23)

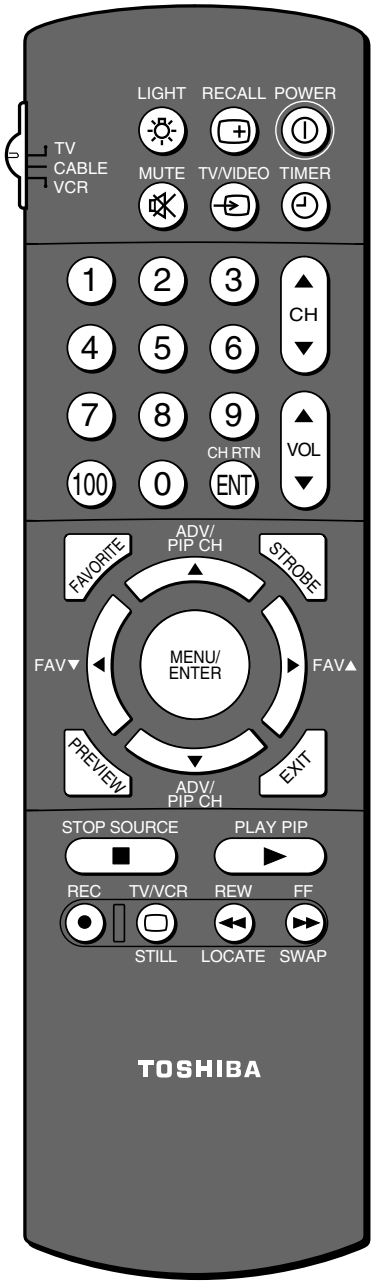
FAV ▼▲ Buttons cycle through favorite channels (page 21)

PIP Buttons allow access to PIP functions (pages 23–25)

- **SOURCE** selects the PIP input source
- **PIP** turns the PIP on and off
- **STILL** freezes the PIP
- **LOCATE** changes the position of the PIP
- **SWAP** switches between the main and PIP pictures

VCR Buttons allow access to VCR functions (page 5)

- **STOP** stops a videotape from playing, recording, rewinding, or fast-forwarding
- **PLAY** plays a videotape
- **REC** starts recording a videotape
- **TV/VCR** toggles between the TV and VCR when viewing while recording
- **REW** rewinds a videotape
- **FF** fast-forwards a videotape

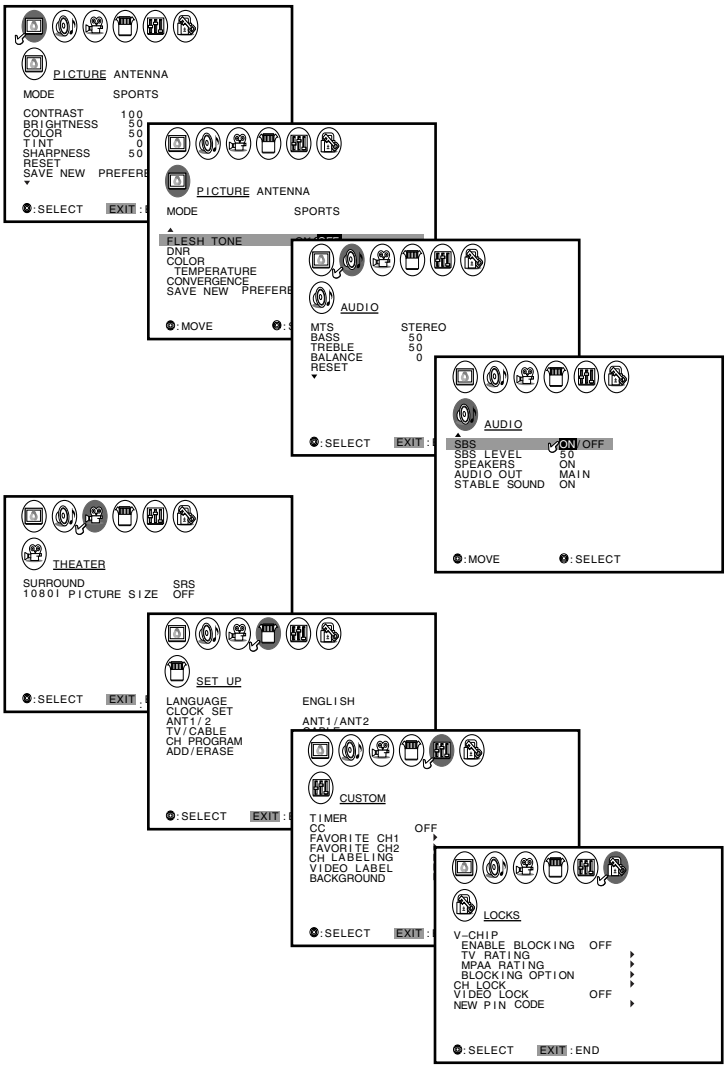


Setting up your TV

Learning about the menu system

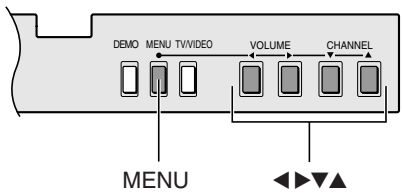
After you have installed the batteries and programmed the remote control, you will need to set some preferences on the TV using the menu system. You can access the menu using the buttons on your TV or remote control.

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.

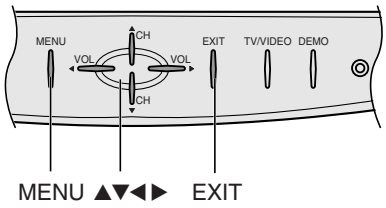


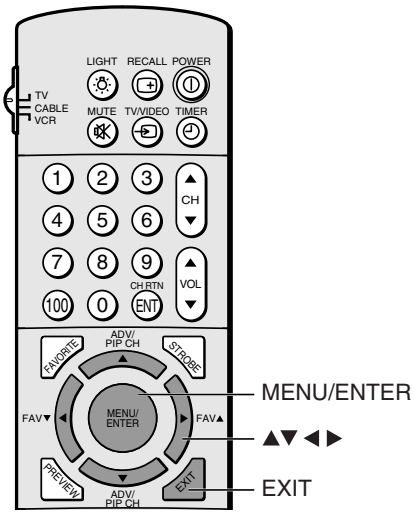
- Press ENTER to activate the function settings in the SET UP menu.
- The main menu display will disappear automatically if you do not make a selection within 15 seconds; the other displays will disappear automatically within 6 seconds (except the Convergence menu, which will remain until a button is pressed).
- If you want to close all the on-screen displays instantly, press EXIT.

43H70



55H70/61H70





Notes:

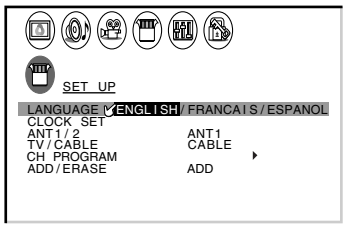
- *The menu illustrations on the following pages have been distorted for easy reference.*
- *You can change the background of the menu. See page 42 for details.*
- *Model 43H70 does not have the EXIT button on the TV.*

Changing the on-screen display language

You can choose from three different languages (English, French and Spanish) for the on-screen displays. Adjustment menus and messages will appear in the language of your choice.

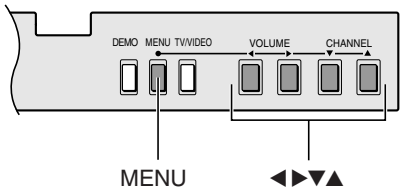
To select a language:

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

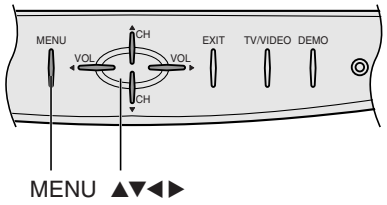


3. Press ◀ or ▶ to highlight your desired language.

43H70



55H70/61H70

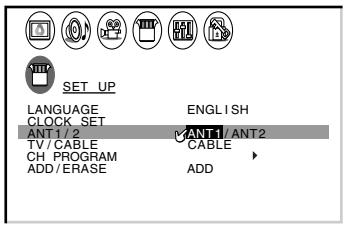


Selecting the antenna input

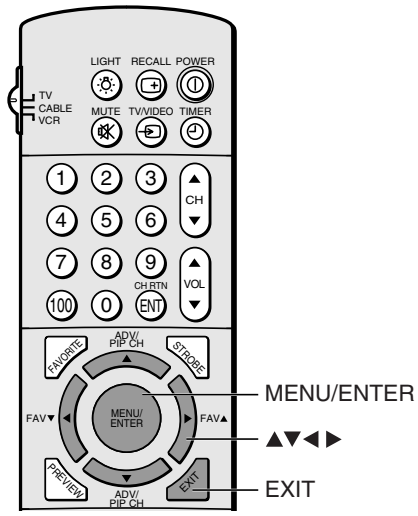
You can connect to two different signal sources by choosing the antenna input (ANT 1 or ANT 2).

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.



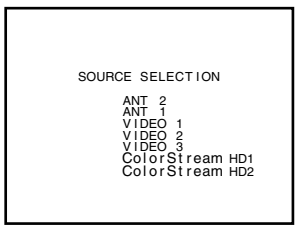
3. Press ◀ or ▶ to highlight either ANT 1 or ANT 2, depending on the antenna terminal you wish to use.



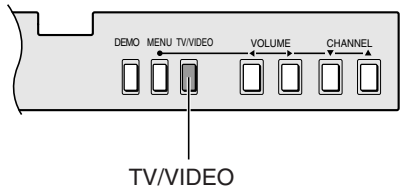
Using the TV/VIDEO button on the TV

To use the TV/VIDEO button on the TV to monitor or change your TV's signal source:

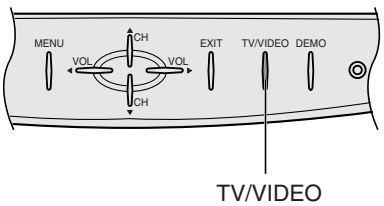
1. Press the TV/VIDEO button on the TV to monitor the source. The current signal source is displayed in purple.
2. Continue pressing the TV/VIDEO button to change to either ANT 2, ANT 1, VIDEO 1, VIDEO 2, VIDEO 3, ColorStream HD1, or ColorStream HD2.



43H70



55H70/61H70



Adding channels to the TV's memory

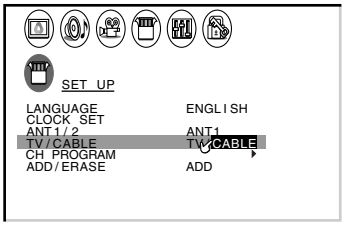
Your TV will stop on specific channels that are stored in the TV's channel memory when you press Channel ▲ or ▼. Use the steps below to set all active channels in your area automatically.

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 add channels:

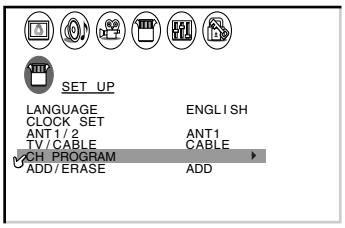
1. Press MENU, then press ◀ or ▶ until the SET UP menu appears.
2. Press ▲ or ▼ until TV/CABLE is highlighted.
3. Press ◀ or ▶ to highlight either TV or CABLE, depending on which you use.



If you use an antenna, choose TV.

If you use cable, choose CABLE.

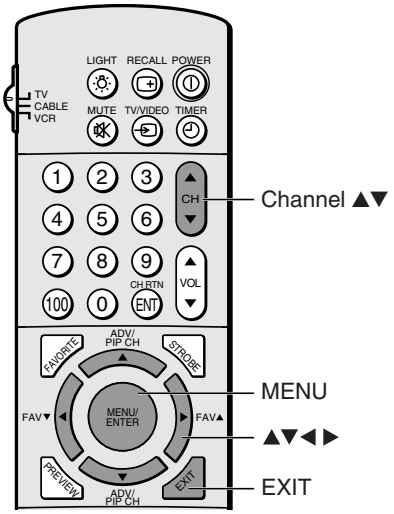
4. Press ▼ to select CH PROGRAM.



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.

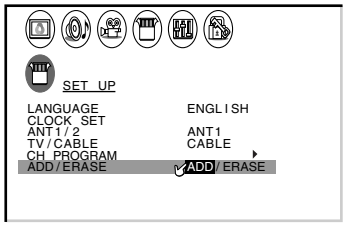


Adding and erasing channels manually

After you've programmed the channels, you can add or erase specific channels.

To add or erase channels:

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



4. Press ◀ or ▶ to select ADD or ERASE, whichever 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).

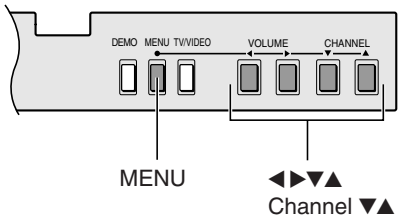
For example, to select channel 125, press the 100 button, the 2 button, and the 5 button.

Adjusting the color convergence

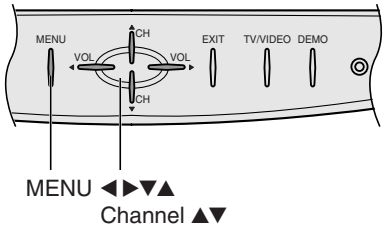
This projection TV uses three separate TV tubes: a red one, a green one, and a blue one. The red, green, and blue images are projected onto the screen where they converge to form a full color picture. You can see a clear picture only when they converge correctly. Convergence may drift over time or if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

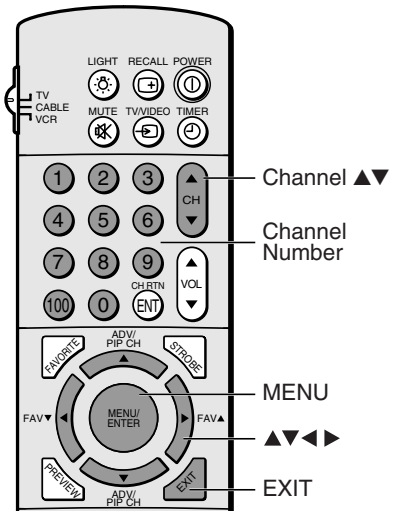
This adjustment should be made after the TV has been on for at least 30 minutes.

43H70



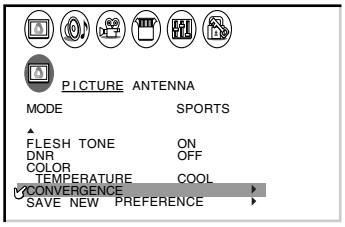
55H70/61H70



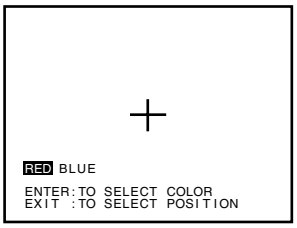


To check and adjust the color convergence:

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

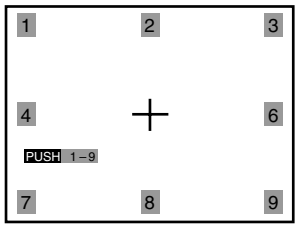


3. Press ◀ or ▶ to display the center CONVERGENCE menu.

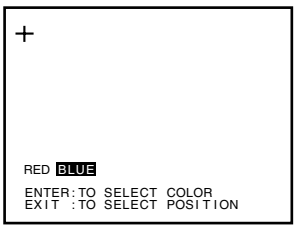


If you see separate colored lines, you have to adjust the convergence.

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



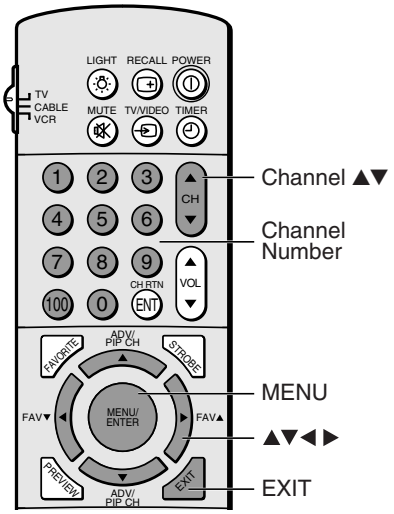
8. Press ENTER to highlight RED or BLUE.



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

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

10. Press EXIT once to select another area to adjust, then repeat steps 7–9.
11. Press EXIT twice to close the CONVERGENCE menu.



Using the TV's features

Adjusting the channel settings

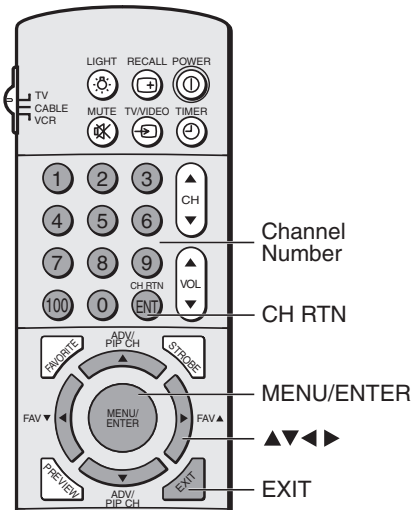
Switching between two channels

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.

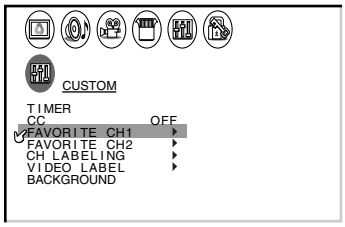


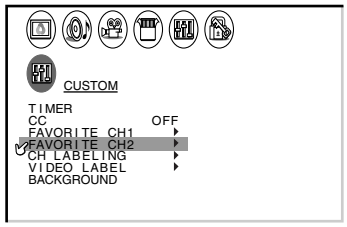
Programming your favorite channels

You can preset up to 9 of your favorite channels each for FAVORITE 1 and FAVORITE 2 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.

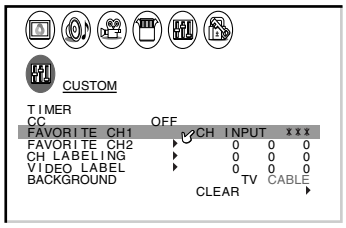
To program your favorite channels:

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 menu for example. 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 ▶.

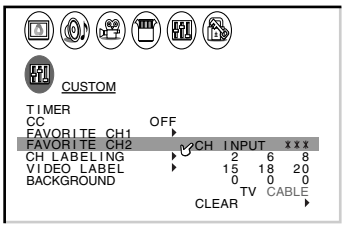
To scan your favorite channels with a 9-picture multi-window, press FAVORITE (see page 25 for details).

Notes:

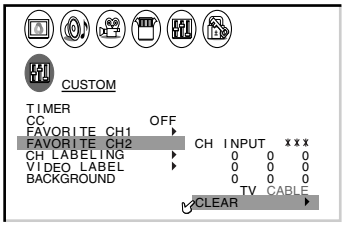
- *The (FAV) ◀▶ buttons will operate as the menu ◀▶ buttons while the menu display is on the screen.*
- *The favorite channel feature is not available for the ANT2 input.*

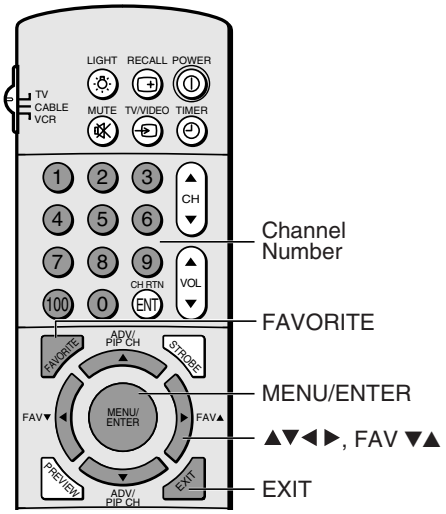
To clear your favorite channels:

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



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



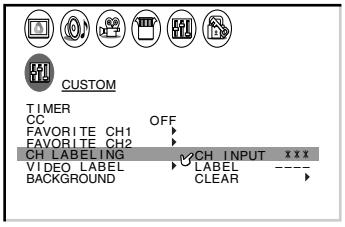


Labeling channels

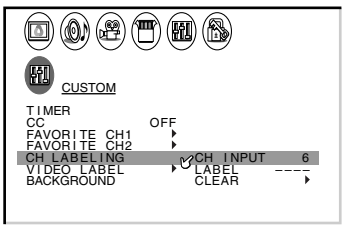
Channel labels will appear over the channel number display each time you turn on the TV, select a channel, or press the RECALL button. You can choose any four characters to identify the channels.

To create channel labels:

1. Press MENU, 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.

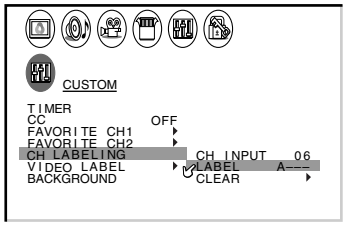


4. Press the Channel Number buttons to select a channel you want to label.



5. Press ▼ to highlight LABEL.

6. Assign the label to the channel. Press ◀ or ▶ to enter a character in the first space. Press the button repeatedly until the character you want appears on the screen, then press ENTER.

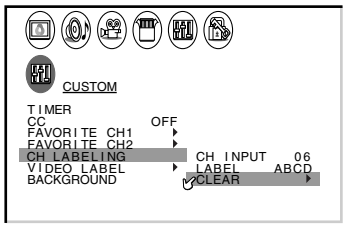


7. Repeat step 6 to enter the rest of the characters.

   If you would like a blank space in the label name, you must choose an empty space from the list of characters. Otherwise, a dash "–" will appear in that space.
8. Repeat steps 4 through 6 for other channels. You can assign up to 32 labels.

To erase channel labels:

1. Press MENU, then press ◀ or ▶ until the CUSTOM menu appears.
2. Press ▲ or ▼ to highlight CH LABELING.
3. Press ◀ or ▶ to display the CH LABELING menu.
4. Press ▼ to highlight CH INPUT, then select the channel you want to clear with the Channel Number buttons.
5. Press ▼ to highlight CLEAR.



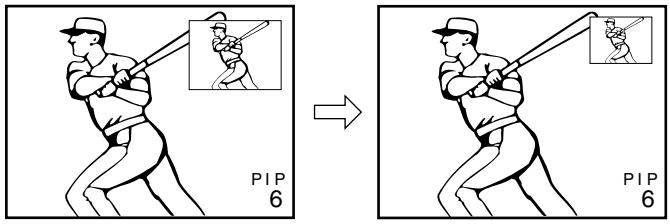
6. Press ◀ or ▶ to erase the channel label.
7. Repeat steps 4–6 to erase other channel labels.

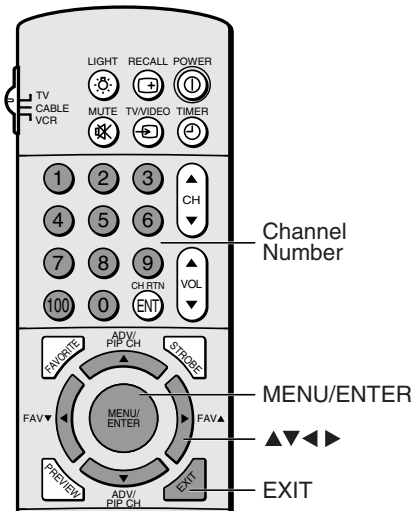
Watching picture-in-picture (PIP)

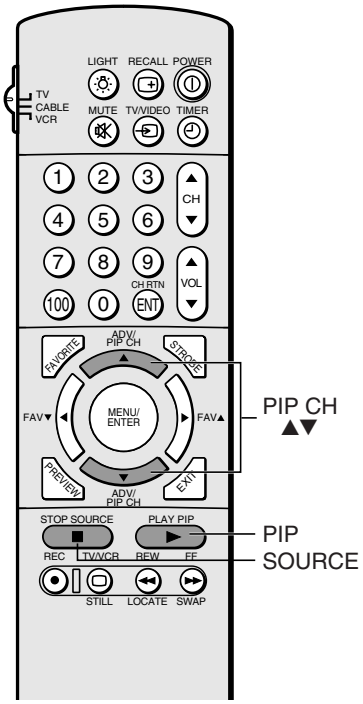
The picture-in-picture (PIP) feature allows you to watch two pictures at the same time. The smaller picture can be a TV broadcast or come from an external source, such as a VCR.

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.





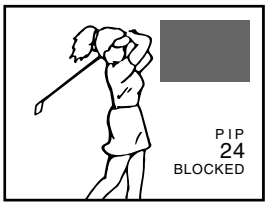


Note:

- *PIP can not be turned on when the ColorStream input (HD1 or HD2) is being viewed.*
- *You can not display the signal sources input through the ANT-2 terminal as a small picture.*

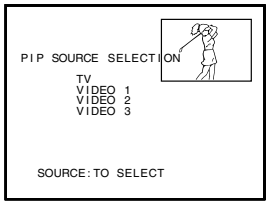
3. Press PIP CH ▲▼ to choose the program you want to be displayed as a small picture.

   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 35.



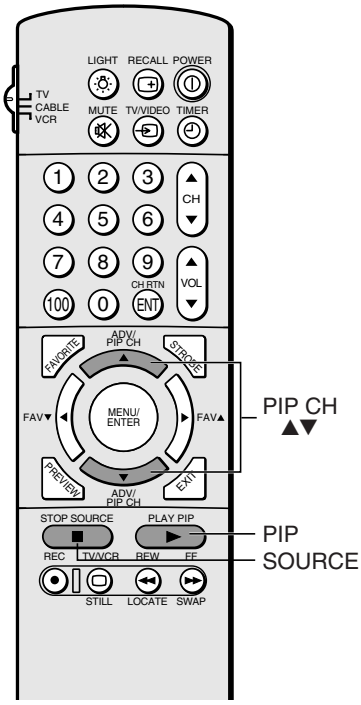
To display a picture from an external source as a small picture:

1. Make sure you have connected the external source equipment properly. For more information, see the “Connecting your TV” on page 5.
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 HD1 and HD2 can not be selected.



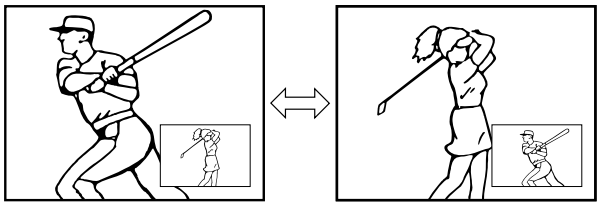
To turn PIP off:

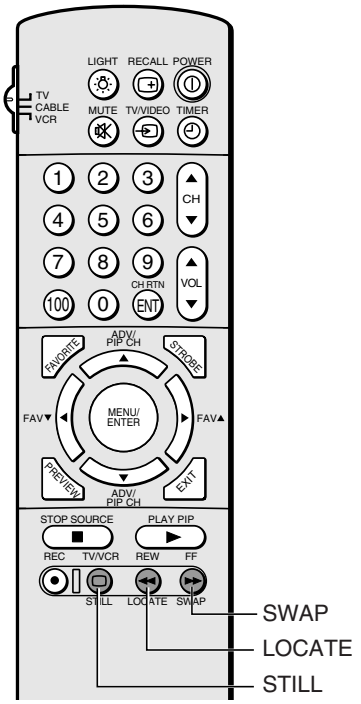
Press PIP once or twice, depending on the size of the small picture screen you selected.



Switching the main and small pictures

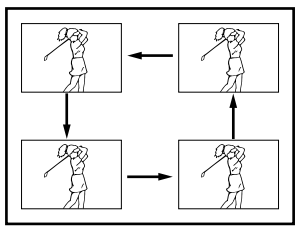
Press SWAP while you are using the PIP feature to switch the main and small pictures. The main and small pictures will switch each time you press the SWAP button.





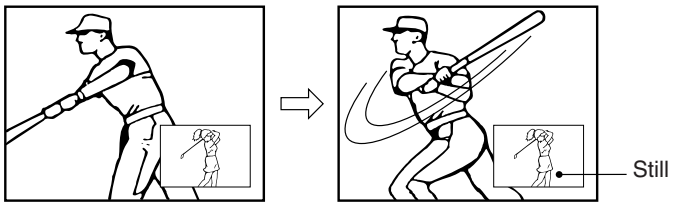
Changing the position of the small picture

Press LOCATE repeatedly while you are watching a small picture. The display position of the small picture will change in a counter-clockwise manner.



Freezing the small picture

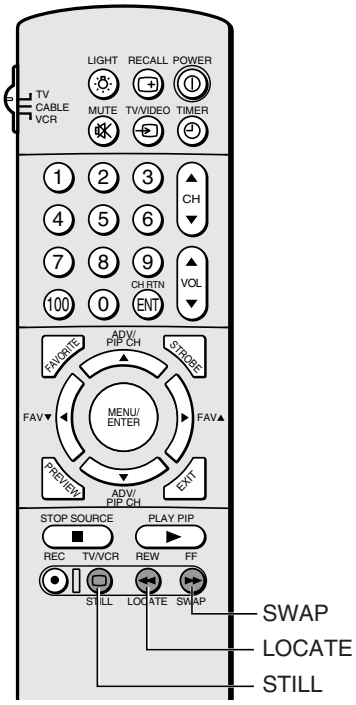
Press STILL while you are watching a small picture. The small picture will become a still picture. To return to the moving picture, press STILL again.



Using the Multi-Window feature

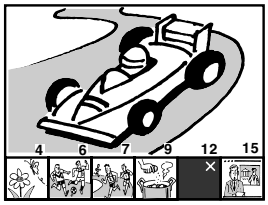
The Multi-Window feature provides two channel search modes. One is the Preview that scans the channels programmed in the TV memory by the CH PROGRAM function (6-picture multi-search), and the other is the Favorite that scans the channels programmed in the TV memory by the FAVORITE CH function (9-picture multi-search).

The Strobe function is convenient when watching a quickly moving picture such as a sports program.



Using the preview function

Press PREVIEW to scan the channels programmed in the TV memory by the CH PROGRAM function. The 6-picture multi-search will start.



To cancel the preview function:

Press PREVIEW again.

Note:

- *V-Chip program blocking may not work properly during PREVIEW and FAVORITE channel scanning. A blocked program will appear as a black window with an "X" in the upper right corner.*
- *The PREVIEW, FAVORITE, STROBE, and CH PROGRAM features do not work when the main picture source is ColorStream.*
- *The PREVIEW feature does not work when the ANT 2 mode is selected.*

Using the favorite function

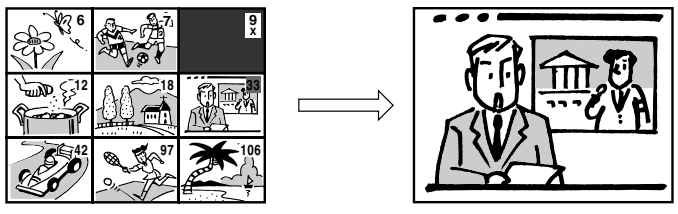
1. Press FAVORITE to scan the channels programmed in the TV memory by the favorite channel function (page 28).

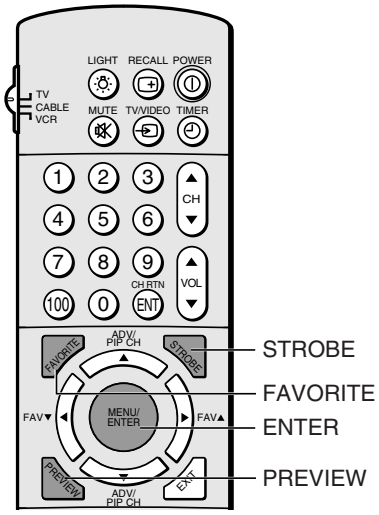
   The 9-picture multi-search will start.

   The first window will be displayed with a moving picture.

   Each time you press FAVORITE, the display will change in the following order.

   FAVORITE CH1—— FAVORITE CH2 —— off
2. Press ▲▼◀▶ to select a channel you want to see with a moving picture.
3. Press ENTER to display the channel you selected at step 2 with a normal picture.



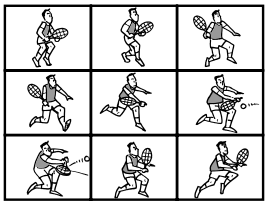


To cancel the favorite function:

Press FAVORITE again.

Using the strobe function

Press STROBE to start the strobe function. Nine-picture multi-strobe starts for the current main picture. For example, you can watch a decisive moment of a previously recorded sports program.

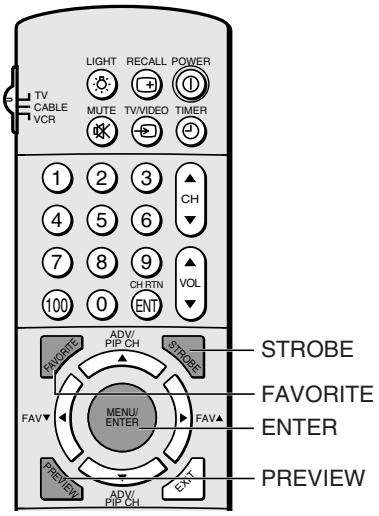


To cancel the strobe function:

Press STROBE again.

Note:

The STROBE feature does not work when the main picture source is ColorStream.

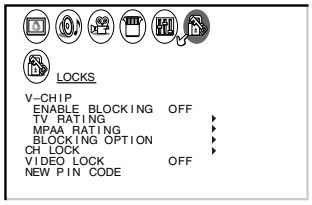


Using the LOCKS menu

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

Entering the PIN code

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



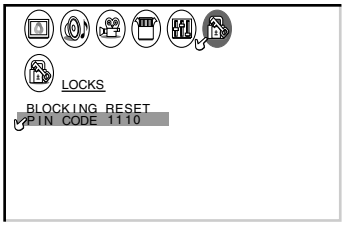
2. Press ▲ or ▼ to display the PIN code entering mode.

- Factory reset status:

  Set your 4-digit code by pressing the Number buttons (0–9).

- When the PIN code is already stored:

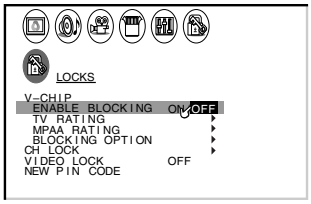
  Press the Number buttons (0–9) to enter the 4-digit PIN code used to block channels.



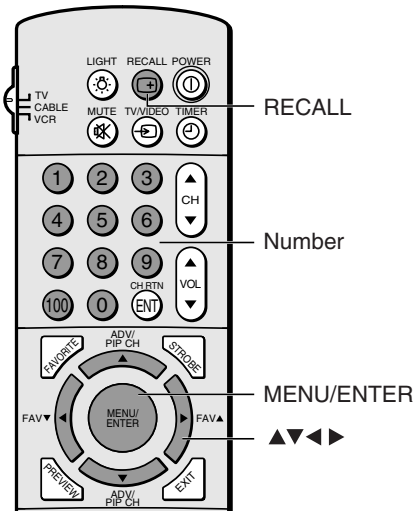
If a wrong PIN code has been entered, the message "Incorrect" will appear. Enter the code again.

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

3. Press ENTER to display the LOCKS menu.



Continue to set each item following the steps starting on page 27.



Using the V-CHIP menu

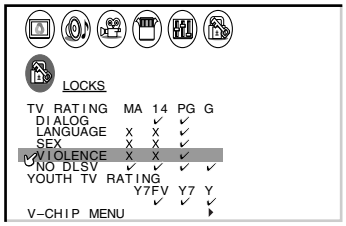
Some TV programs and movies include signals that classify the content of the program (violence, sex, dialog, language). The V-CHIP control feature in this TV detects the signals and blocks the programs according to your selections. To use this feature, perform the following setup.

ENABLE BLOCKING

1. From the LOCKS menu, select ENABLE BLOCKING.
2. Press ◀ or ▶ to select ON or OFF.
   ON : To enable your setting (Lock)
   OFF: To release your setting (Unlock)
   Note: *The CH LOCK function is not affected with this selection.*

TV RATING (Independent rating system for broadcasters)

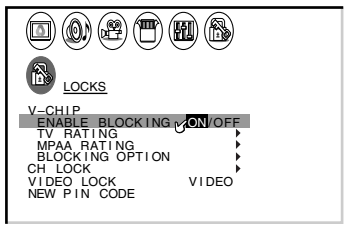
1. From the LOCKS menu, select TV RATING.
2. Press ◀ or ▶ to display the TV RATING menu.
3. Press ▼ or ▲ to select item.
4. Press ▶ to lock (displays X)
   Press ◀ to unlock (displays ✓)
5. Repeat steps 3 and 4 to set the next item.



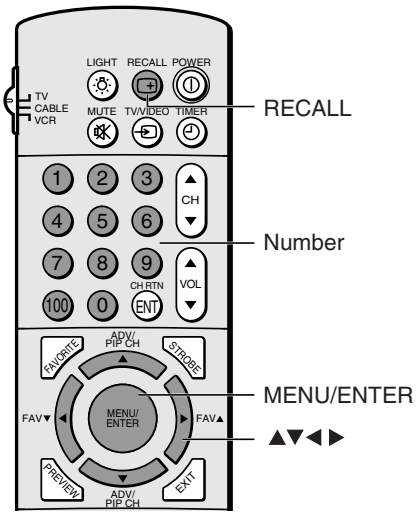
The TV age-based ratings and content themes you can lock are listed in the table below.

Ratings	Description and Content themes
MA	Mature Audience Only (This program is specifically designed to be viewed by adults and therefore may be unsuitable for children under 17.) **L) Crude or indecent language S) Explicit sexual activity V) Graphic violence**
14	Parents Strongly Cautioned (This program contains some material that many parents would find unsuitable for children under 14 years of age.) **D) Intensely suggestive dialog L) Strong coarse language S) Intense sexual situations V) Intense violence**
PG	Parental Guidances Suggested (This program contains material that parents may find unsuitable for younger children.) **D) Some suggestive dialog L) Infrequent coarse language S) Some sexual situations V) Moderate violence**
G	General Audience (Most parents would find this program suitable for all ages.)
Y7, Y7FV	Directed to Older Children (This program is designed for children age 7 and above. Note: For those programs where fantasy violence may be more intense or more combative than other programs in this category, such programs will be designated Y7FV.)
Y	All Children (This program is designed to be appropriate for all children)

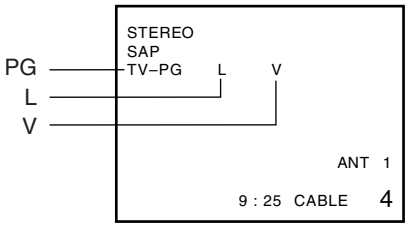
LOCKS menu



To select each item:
Press ▼ or ▲ .

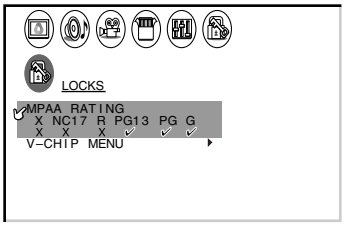


The rating of the TV programs you are now watching can be confirmed by pressing the RECALL button.



MPAA RATING (Independent rating system for movies)

1. From the LOCKS menu, select MPAA RATING.
2. Press ◀ or ▶ to display the MPAA RATING menu, then press ▼ or ▲ to highlight MPAA RATING.
3. Press ◀ or ▶ to display the MPAA RATING menu.



4. Press ▶ to lock "X" or press ◀ 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)

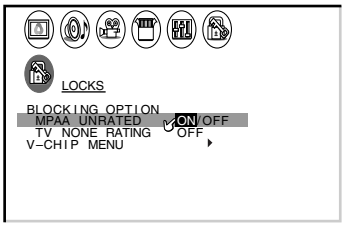
G : General Audience (Appropriate for all ages)

BLOCKING OPTION

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

MPAA UNRATED:

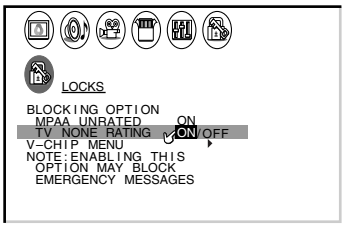
Press ◀ or ▶ to select ON (Lock) or OFF (Unlock) for unrated programs on MPAA rating system.



TV NONE RATING:

Press ◀ or ▶ to select ON (Lock) or OFF (Unlock) for programs rated NONE on TV PARENTAL GUIDELINES.

If you select ON, the NOTE shown below will be displayed since the emergency information may also be blocked.

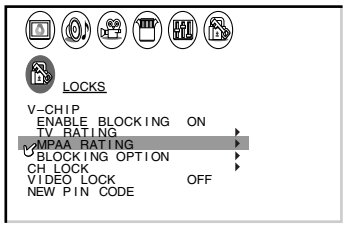


***Note**: The picture-in-picture is not locked even if ON is selected.*

V-CHIP MENU:

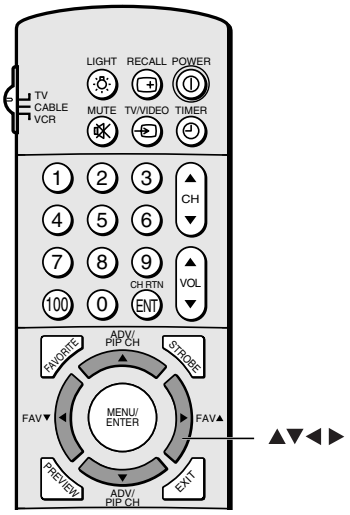
Press ◀ or ▶ to return to the LOCKS menu.

LOCKS menu



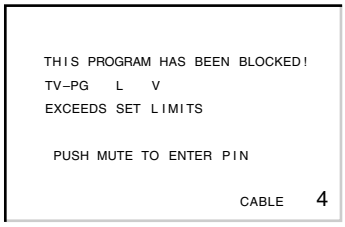
To select each item:

Press ▼ or ▲.

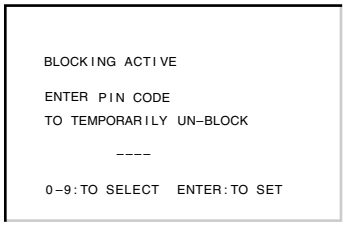


Unlocking programs temporarily

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 Number button (0-9) to enter the 4-digit code you have stored.



4. Press ENTER.

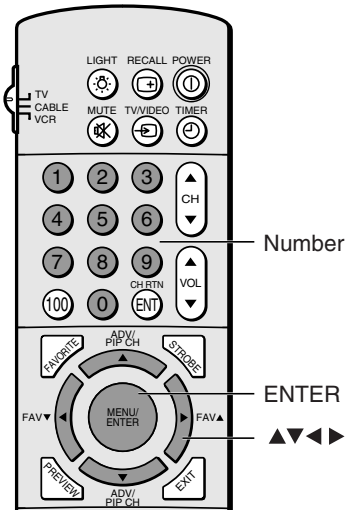
   If the number is correct, the lock mode will be released and the normal picture will appear.

   All locking is disabled until the TV is turned off.

   It will be enabled when the power is reapplied.

   If a wrong pin code is entered, the message appears.

   Enter the correct code again.



Locking channels

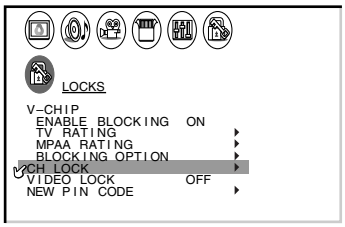
With the CH LOCK feature, you can lock specific channels. The TV will not be able to tune these channels with the Channel ▲▼ buttons or Channel Number buttons, unless you clear the setting.

You can lock a maximum of eight channels.

To lock channels:

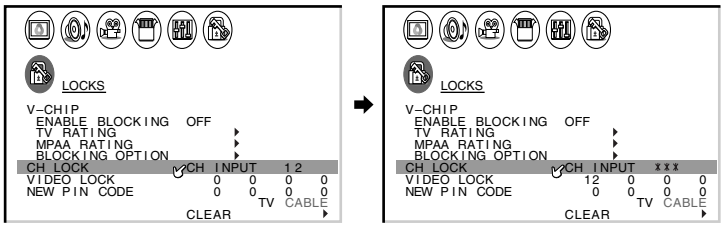
1. From the LOCKS menu, select CH LOCK.
2. Press ◀ or ▶ to display the CH LOCK menu.
3. Press the Channel Number buttons to enter the channel you want to lock. (The channel you are currently watching cannot be locked.)
4. Press ENTER.

LOCKS menu



To select each item:

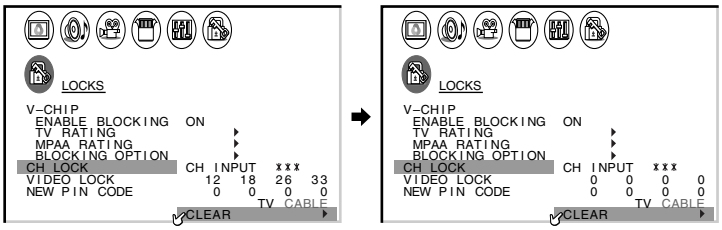
Press ▼ or ▲ .

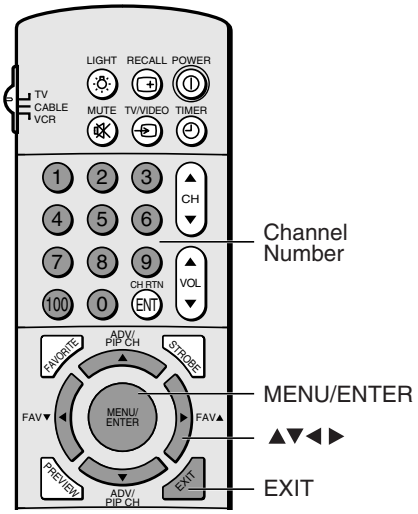


5. Repeat steps 3 and 4 for other channels.

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.



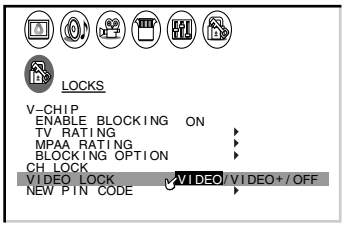


Locking video inputs

With the VIDEO LOCK feature, you can lock out the input sources (Video 1, Video 2, Video 3, ColorStream HD1, ColorStream HD2) and channels 3 and 4.
The TV will not be able to select the input sources with the TV/VIDEO button or Channel buttons unless you clear the setting.

To set up the video lock:

1. From the LOCKS menu, select VIDEO LOCK.
2. Press ◀ or ▶ to highlight the appropriate video lock mode.



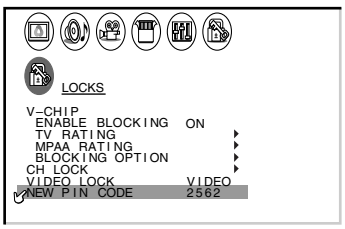
VIDEO: Locks Video 1, Video 2, Video 3, ColorStream HD1 and HD2.

VIDEO+: Locks Video 1, Video 2, Video 3, ColorStream, HD1/HD2, and channels 3 and 4. This option should be used if you use the antenna terminal to play a video tape.
Note: *Make sure the PIP channel is not on 3 or 4.*

OFF: Unlocks.

Changing the PIN code

1. From the LOCKS menu, select NEW PIN CODE.
2. Press the 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.

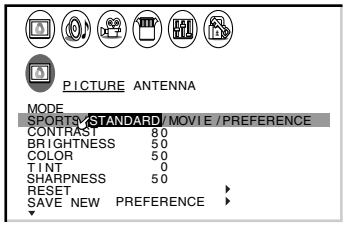
Adjusting the picture

Selecting the picture mode

You can select your desired picture type from four picture quality modes: SPORTS, STANDARD, MOVIE, and PREFERENCE.

To select the picture mode:

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



The table below describes the effects of the different preferences.

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

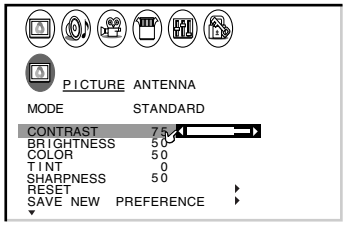
*(See "Saving new preference" on page 32.)

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. The qualities you choose will be stored by using the Save New Preference feature in your TV's memory so you can recall them at any time.

To adjust the picture quality:

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



Selection	◀ Pressing ▶	
contrast	lower	higher
brightness	darker	lighter
color	paler	deeper
tint	reddish	greenish
sharpness	softer	sharper

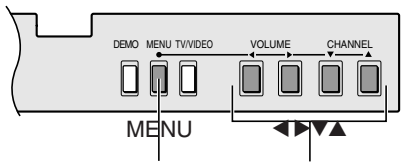
The PICTURE items you have adjusted can be saved in the TV's memory by performing the Save New Preference feature (page 32). You can keep these settings or choose preset options under the picture mode selection feature shown above.

Note:

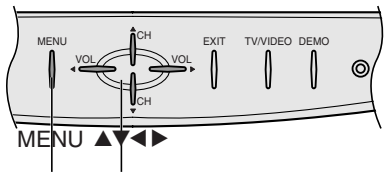
If you select one of the factory-set picture modes (SPORTS, STANDARD, or MOVIE) and then change a picture quality setting (for example, increase the contrast), the picture mode automatically changes to PREFERENCE in the Picture menu.

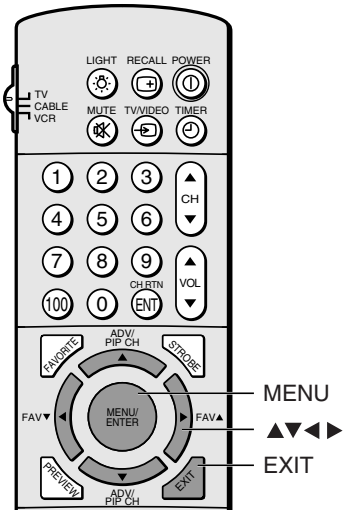
To save your new picture quality settings, you must select "Save New Preference" before closing the Picture menu or the TV will change back to the previous picture quality mode when the menu is closed (see "Saving new preference" on page 32).

43H70



55H70/61H70



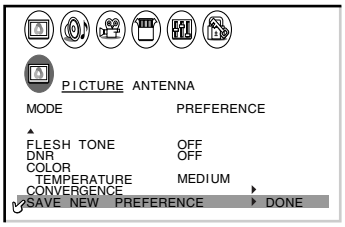


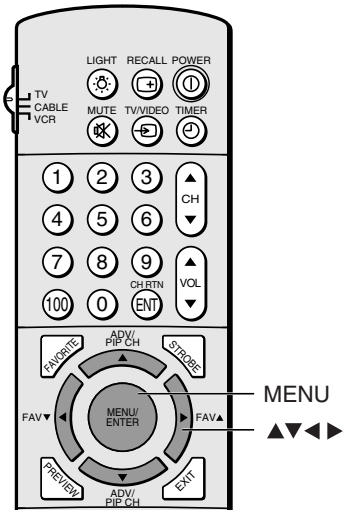
Saving new preference

You can save the PICTURE items (contrast, brightness, color, tint, and sharpness) you have adjusted in the picture preference mode.

To save new preference:

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





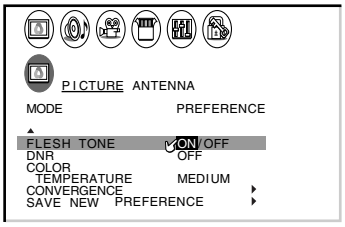
You can choose preset options by selecting the PREFERENCE mode in the picture mode feature. See page 39.

Using the flesh tone feature

This feature allows you to obtain natural flesh tones by correcting the difference of tint between TV stations.

To turn on the flesh tone feature:

1. Press MENU, 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:

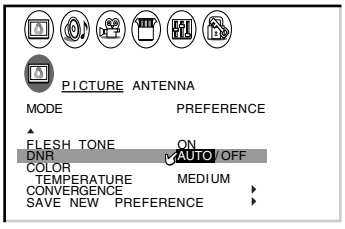
Choose OFF in step 3 above.

Using the Digital Noise Reduction (DNR) 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 back a video cassette or disc damaged by repeated use.

To turn on the DNR feature:

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



To turn off the DNR feature:

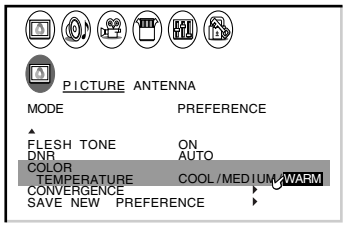
Choose OFF in step 3 above.

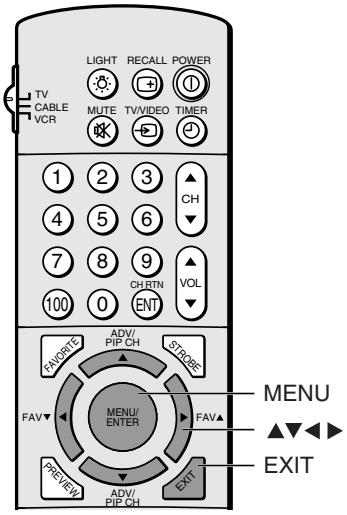
Selecting the color temperature

You can change the quality of the picture by selecting from three preset color temperatures: cool, medium, and warm.

To select the color temperature:

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

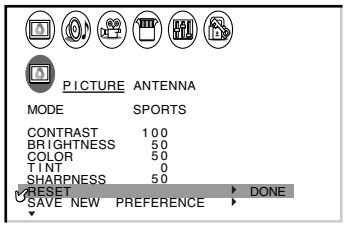




Mode	Picture Quality
cool	blueish
medium	neutral
warm	reddish

Resetting your picture adjustments

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



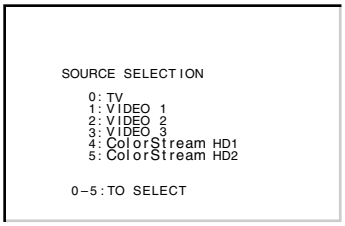
The RESET function adjusts the following picture functions to the factory settings.

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

Watching video input

Press the TV/VIDEO button on the remote control or TV to select the TV's signal source from a connected device such as a VCR or digital video disc player. Select TV, VIDEO 1, VIDEO 2, VIDEO 3, ColorStream HD1, or ColorStream HD2, depending on which input jacks are used for connecting the devices (see "Connecting your TV" on page 5).

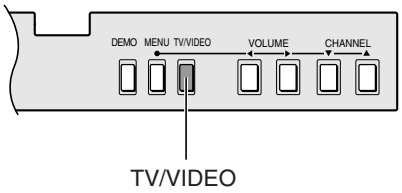
The following on-screen display appears if you press the TV/VIDEO button on the remote control; however, if you press the TV/VIDEO button on the TV, a different menu appears (see page 17). The current signal source is displayed in purple.



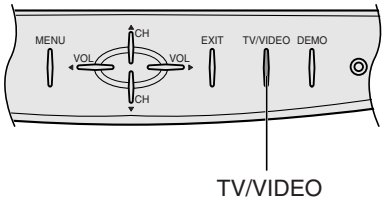
Note:

- *When ColorStream HD1 or HD2 is selected, the video OUT jack does not output a signal.*
- *To receive a video OUT signal, a video or S-video IN jack must be used instead of a ColorStream connection.*
- *If you select ColorStream HD1 or HD2 while the PIP is on the screen, the PIP will close.*

43H70



55H70/61H70

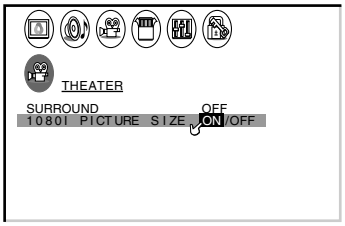


Selecting the 1080i picture size

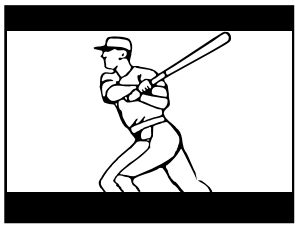
If the 1080i feature is ON, when the TV receives a 1080i letter box program on digital broadcasts, the picture size automatically changes to the letter box format. If the 1080i feature is OFF, the picture will be stretched to fill the screen to the conventional 4:3 ratio.

To activate the 1080i picture size:

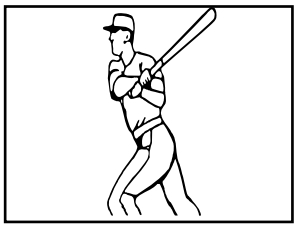
1. Press MENU, and then press ◀ or ▶ until the THEATER menu appears.
2. Press ▲ or ▼ to highlight 1080I PICTURE SIZE.
3. Press ◀ or ▶ to highlight ON.

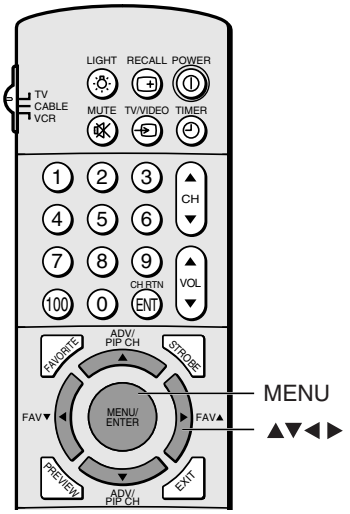


ON



OFF





To deactivate 1080i picture size:

Highlight OFF in step 3 above.

Selecting the video label

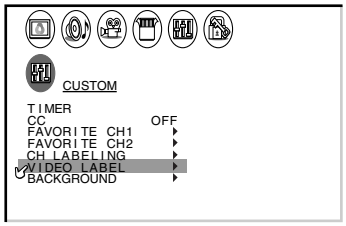
The video label feature allows you to rename the input sources for your TV.

The available video label names are as follows:

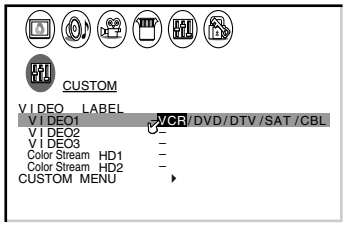
–:	Default label name
VCR:	Video Cassette Recorder
DVD:	DVD video player
DTV:	Digital TV Set Top Box
SAT:	Satellite box
CBL:	Cable box

To set up your own video label names:

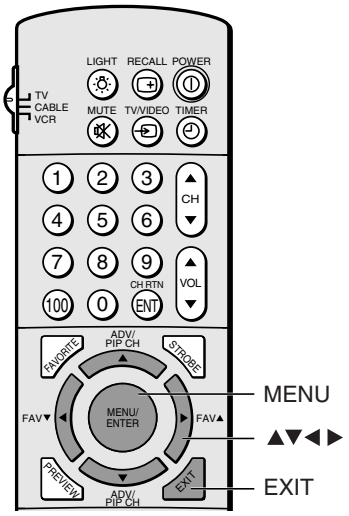
1. Press MENU, then press ◀ or ▶ until the CUSTOM menu appears.
2. Press ▲ or ▼ to highlight VIDEO LABEL.



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 desired label.



6. Finish labeling the other video sources as desired. To return to the previous menu, press ▲ or ▼ to highlight CUSTOM MENU, and then press ◀ or ▶.
7. To exit the menu, press EXIT.

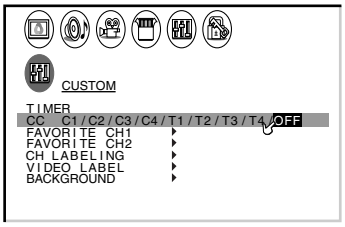


Using the closed caption feature

You have two options with the closed caption feature: captions or text. A caption is a printed version of the dialogue, narration and/or sound effects of a TV program. Text is information not related to the program that appears on half of the TV screen (if available in your area).

To view captions or text:

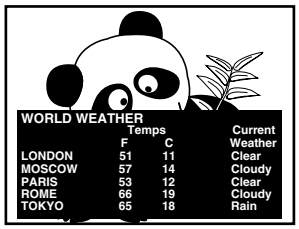
1. Select the desired program. The captioned programs are usually marked in your local TV listing as "CC."
2. Press MENU, then press ◀ or ▶ until the CUSTOM menu appears.
3. Press ▼ or ▲ to highlight CC.



4. Press ◀ or ▶ to highlight the closed caption mode.

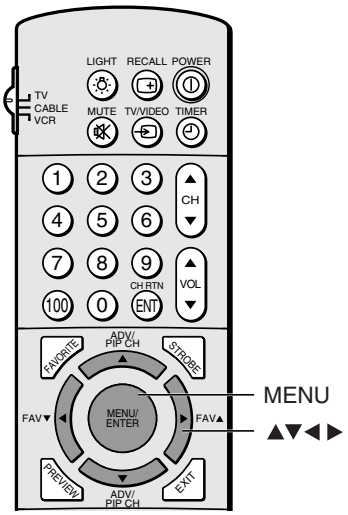
- Select C1, C2, C3, or C4 to view captions. Select C1 for translation of the primary language in your area.

- Select T1, T2, T3, or T4 to view Text.



To turn off the closed-caption feature:

Select OFF in step 4.



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*

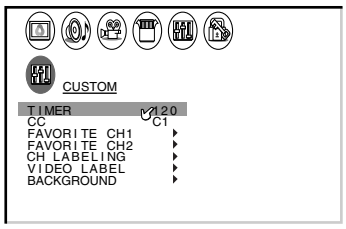
When you choose a closed captioned channel and the text mode, the text screen always appears. When there is no signal, however, the text screen will not display text characters.

Setting the sleep timer

You can set the TV so it turns off automatically.

To set the sleep timer:

1. Press TIMER (or MENU and then ▲ or ▼) to display the CUSTOM menu. TIMER will be highlighted.
2. After the number position starts to blink, press TIMER repeatedly to enter the length of time until the TV turns off automatically (in 10-minute increments up to 180).



3. Press ENTER to start the timer.

To cancel the sleep timer:

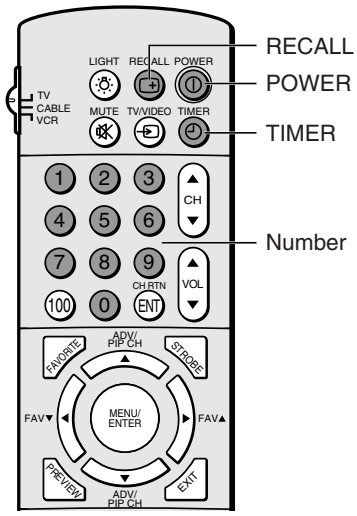
Press POWER twice, once to turn the TV off, and once to turn it on again.

Note :

To see on-screen the amount of time before the TV turns off automatically, press TIMER once. To close the on-screen display, press EXIT.

Note:

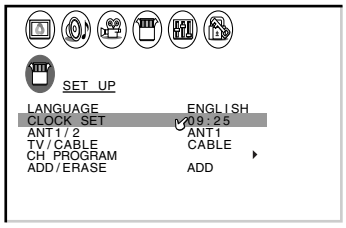
If the power source for the TV is interrupted (for example, if the power cord is unplugged or a power outage occurs), you will have to reset the clock.



Setting the clock

To set the clock:

1. Press MENU, 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 view the time on-screen:

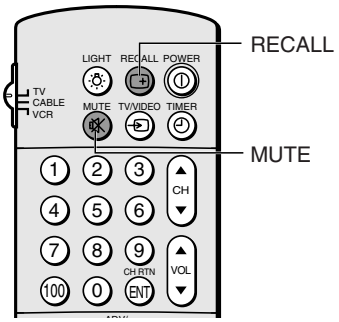
Press RECALL.

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 works only when the closed caption mode is set to OFF. See "Using the closed caption feature" on page 36 for more information.



Selecting stereo/SAP broadcasts

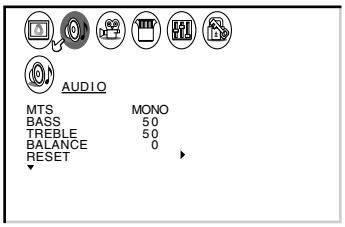
You can enjoy watching TV while you listen to high-fidelity stereo sound with the Multi-channel TV Sound (MTS) feature. MTS can also transmit a second audio program (SAP) containing a second language or other audio information (if available in your area).

When the TV receives a stereo or SAP broadcast, the word STEREO or SAP appears on the screen every time the TV is turned on, the channel is changed, or the RECALL button is pressed.

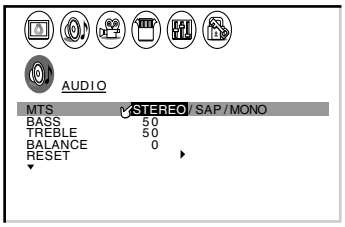
The MTS feature is not available while in the VIDEO mode.

To listen to stereo sound:

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



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

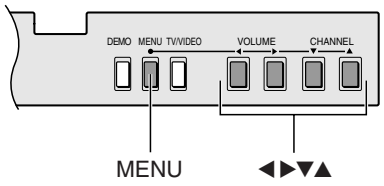


You can leave your TV in STEREO mode because it automatically receives stereo or monaural sound, depending on the broadcast type. If the stereo sound is noisy, select MONO to reduce the noise. The word STEREO or SAP is displayed in yellow in the menu when the TV receives the signal (if available).

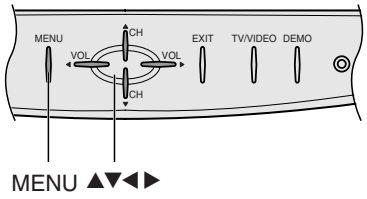
To listen to SAP (second audio program):

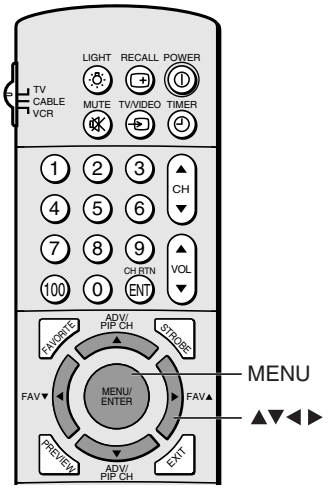
1. Press MENU, then press ◀ or ▶ until the AUDIO menu appears.
2. Press ▲ or ▼ to highlight MTS.
3. Press ◀ or ▶ to highlight SAP. You will hear only the second audio program from the speakers.

43H70



55H70/61H70





Note:

A second audio program (SAP) can be heard only on those TV stations that offer it.

For example, a station might broadcast the news as their second audio program. With SAP on, you would see the regular program on the screen but hear the news instead of the program's normal audio.

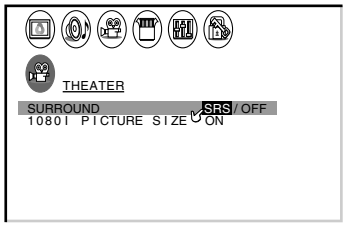
If you have SAP on, and the station you are watching also has SAP on but is not broadcasting any audio on their SAP, you will be able to see the picture but not hear any sound. If this occurs, put the TV in STEREO mode so you can hear the station's normal audio.

Using the (●)SRS™ feature

The (●)SRS™ 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 (●)SRS™ feature:

1. Select the stereo mode following the steps under "Selecting stereo/SAP broadcasts" on page 38.
2. Press MENU, then press ◀ or ▶ until the THEATER menu appears.
3. Press ▲ or ▼ to highlight SURROUND.
4. Press ◀ or ▶ to highlight SRS.



To turn off the (●)SRS™ feature:

Highlight OFF in step 4 above.

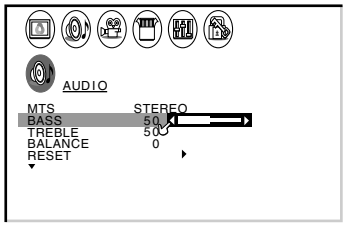
In general, you should leave your TV set to SRS so it can automatically produce surround stereo or monaural sound, depending on the broadcast type.

Adjusting the sound quality

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

To adjust the sound quality:

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



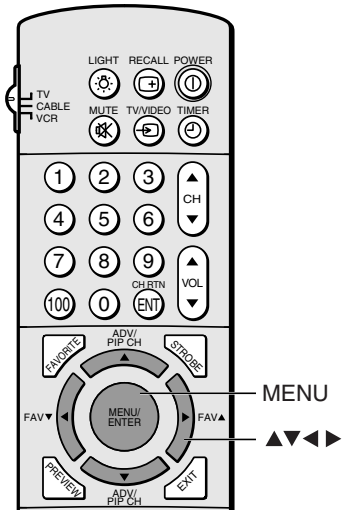
3. Press ◀ or ▶ to adjust the level.

- ◀ 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.

Note:

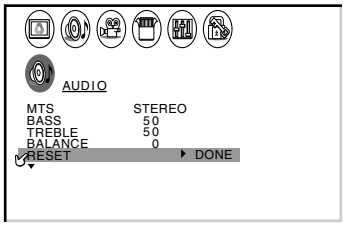
When the (●)SRS™ feature is selected, the stable sound feature is automatically turned off (see page 50).

- *SRS and the (●) symbol are trademarks of SRS Labs, Inc. SRS technology is incorporated under license from SRS Labs, Inc.*
- *If the broadcast is monaural, the SRS effect does not work.*



Resetting your audio adjustments

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



The RESET function adjusts the following audio functions.

bass ..... center (50)

treble ..... center (50)

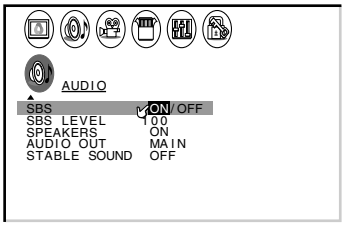
balance ..... center (0)

Using the sub-bass system (SBS)

The Sub-Bass System allows you to improve bass performance (even when the sound volume is low).

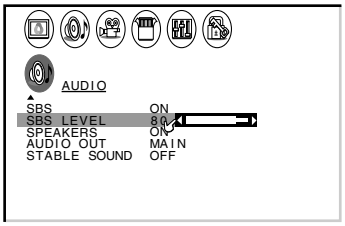
To turn on the Sub-Bass System:

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



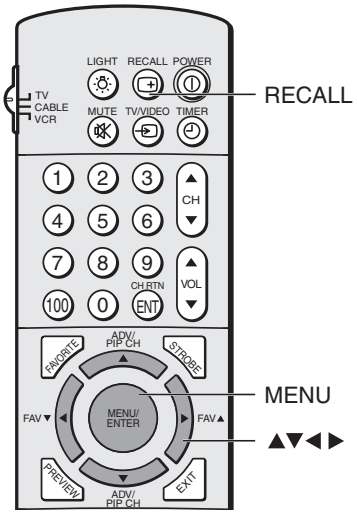
To adjust the SBS level:

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



To turn off the Sub-Bass System:

Choose OFF in step 3 above.



Note:

The Sub-Bass System signal does not pass through the "Variable Audio OUT" jacks. (See page 11.)

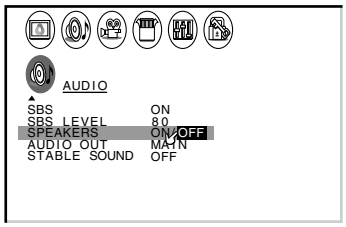
However, the AUDIO menu will appear when the buttons are pressed.

Turning off the built-in speakers

Use this feature to turn the TV speakers off when you connect an audio system. (See page 11.)

To turn off the built-in speakers:

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

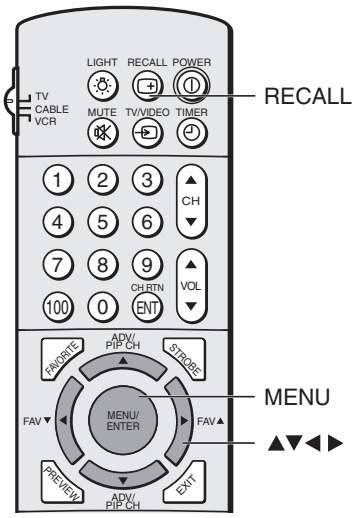


To turn on the built-in speakers:

Choose ON in step 3.

Note:

Make sure the volume control of your audio amplifier is set to a moderate listening level.



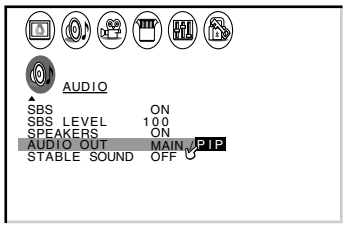
Selecting the Audio OUT sound

This feature allows you to select the sound sources (MAIN and PIP) that are output from the Audio OUT jacks.

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

To select the Audio OUT sound:

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



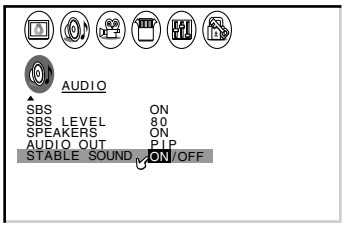
- MAIN : Main picture sound you are now watching.
- PIP : Selected PIP sound.

Using the stable sound feature

The stable sound feature limits the maximum volume level to prevent extreme changes in volume when the signal source is changed (for example, an increase in volume when a TV program switches to a commercial).

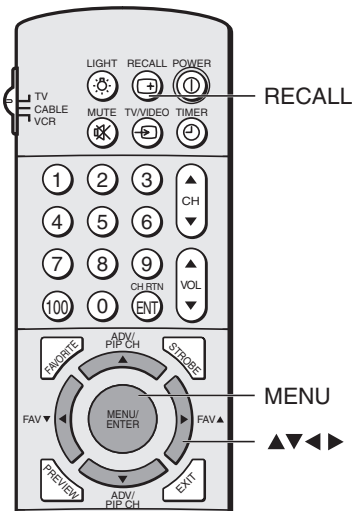
To turn on the stable sound feature:

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



To turn off the stable sound:

Choose OFF in step 3 above.



Note:

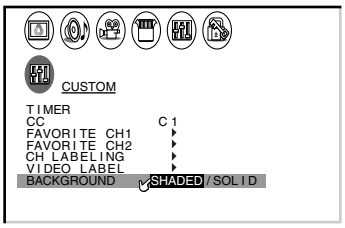
When the stable sound feature is turned on, the SRS feature is automatically turned off. See page 47.

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:

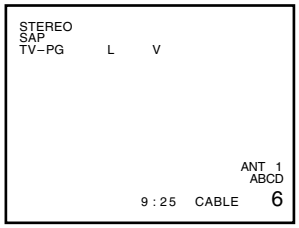
1. Press MENU, then press ◀ or ▶ until the CUSTOM menu appears.
2. Press ▲ or ▼ to highlight BACKGROUND.
3. Press ◀ or ▶ to select either a SHADED or SOLID background.



Displaying on-screen information

Press RECALL to display the following on-screen information:

- 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 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 turns the TV on automatically when the power is resupplied.

If the power is going to be off for a long time and 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
43H70: 195 W (average)
55H70: 195 W (average)
61H70: 195 W (average)

Audio Power
14 W + 14 W

Speaker Type
43H70: Two 4-3/4 inches (12 cm) round
55H70: Two 6-1/4 inches (16 cm) round
61H70: Two 6-1/4 inches (16 cm) round

Video/Audio Terminals
S-VIDEO INPUT
Y : 1 V(p-p), 75 ohm, negative sync.
C : 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 : 1V(p-p), 75 ohm
PR: 0.7 V(p-p), 75 ohm
PB: 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

43H70:	Width	37-3/4 inches (959 mm)
	Height	42-1/2 inches (1,080 mm)
	Depth	18-7/16 inches (468 mm)
55H70:	Width	46-5/16 inches (1,176 mm)
	Height	53-1/4 inches (1,353 mm)
	Depth	22-15/16 inches (583 mm)
61H70:	Width	51-1/16 inches (1,297 mm)
	Height	57-3/16 inches (1,452 mm)
	Depth	25-9/16 inches (649 mm)

Mass
43H70: 133 lbs (60.5 kg)
55H70: 250 lbs (113.6 kg)
61H70: 308 lbs (139.8 kg)

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

Optional TV Stand
43H70: ST4315, ST4305

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	• Make sure the power cord is plugged in, then press POWER. • The remote control batteries may be dead. Replace the batteries.
No picture, no sound	• Check the antenna/cable connections.
No sound, picture OK	• The sound may be muted. Press VOLUME. • The station may have broadcast difficulties. Try another channel. • Check that the SPEAKERS function in AUDIO menu is properly set.
Poor sound, picture OK	• The station may have broadcast difficulties. Try another channel.
Poor picture, sound OK	• Check the antenna connections. • The station may have broadcast difficulties. Try another channel. • Adjust the PICTURE menu.
Poor reception of broadcast channels	• The station may have broadcast difficulties. Try another channel. • Check the antenna connections. • If you are using a VCR, make sure the TV/VCR button is set correctly.
Cannot receive above channel 13	• Make sure the TV/CABLE switch is set to the mode that corresponds to the signal source type (cable company or outside antenna).
Black box appears on the screen	• Captioning may be turned on.
Unable to select a certain channel	• The channel may be locked out with the CH LOCK feature, or erased with the ADD/ERASE feature.
Multiple images	• The station may have broadcast difficulties. Try another channel. • Use a highly directional outdoor antenna.
Poor color or no color	• The station may have broadcast difficulties. Try another channel. • Adjust the TINT and/or COLOR in the PICTURE menu.
No stereo or SAP sound from a known MTS broadcast	• Make sure the MTS feature is set properly.
The remote control does not operate	• Check whether the appropriate device mode is selected. • There may be an obstruction between the remote control and the remote control sensor. • The remote control batteries may be dead. Replace the batteries.
Cannot access signal input sources (Video1, Video2, Video3, ColorStream HD1, ColorStream HD2) and/or Channels 3 and 4.	• 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) Call the TACP toll free number 1-800-631-3811 after you find a defective product or part to find the nearest TOSHIBA Authorized Service Station. In Hawaii contact: Toshiba Hawaii, Inc., 327 Kamakee Street, Honolulu, Hawaii 96814, (808) 591-8377.

(2) Please present your bill of sale or other proof 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, 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."

For additional information, visit our web site:

www.toshiba.com

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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MANUFACTURED BY
TOSHIBA AMERICA CONSUMER PRODUCTS, INC.

PRINTED IN USA
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