

TOSHIBA

OWNER'S MANUAL

Projection Television

COLORSTREAM®

43AX60
43AX60A
50AX60
50AX60A

Owner's Record

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

Model number:

Serial number:

Introduction

Connecting
your TV

Using the
Remote Control

Setting up
your TV

Using the TV's
Features

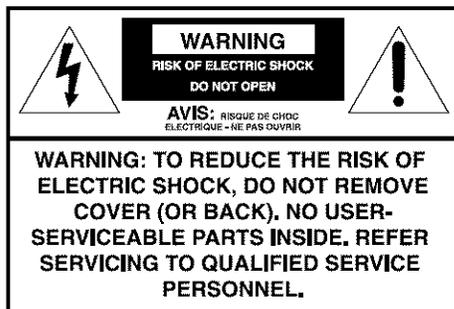
Appendix

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Important Information

WARNING

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



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



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

CAUTION

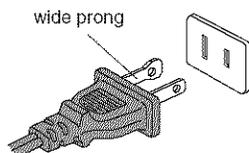
TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED PLUG WITH AN EXTENSION CORD RECEPTACLE OR OTHER OUTLET UNLESS THE PRONGS CAN BE FULLY INSERTED INTO THE OUTLET TO PREVENT ANY EXPOSURE OF THE PRONGS ON THE POLARIZED PLUG.

ATTENTION

POUR PRÉVENIR LES 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.
- Models 43AX60 and 43AX60A may be used only with the Toshiba stand shown on page 50. Use with other stands may result in instability, causing 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 and 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 43AX60, 43AX60A, 50AX60, and 50AX60A. Before you start reading, check your model number by looking at the rear of the TV.

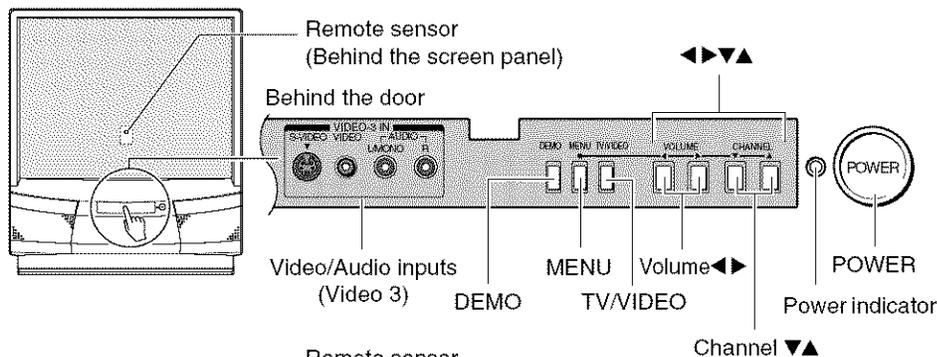
Instructions in this manual are based on using the remote control. You can also use the controls on the TV if they have the same name as those on the remote control.

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

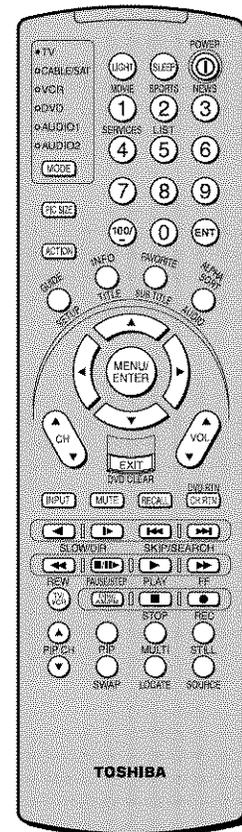
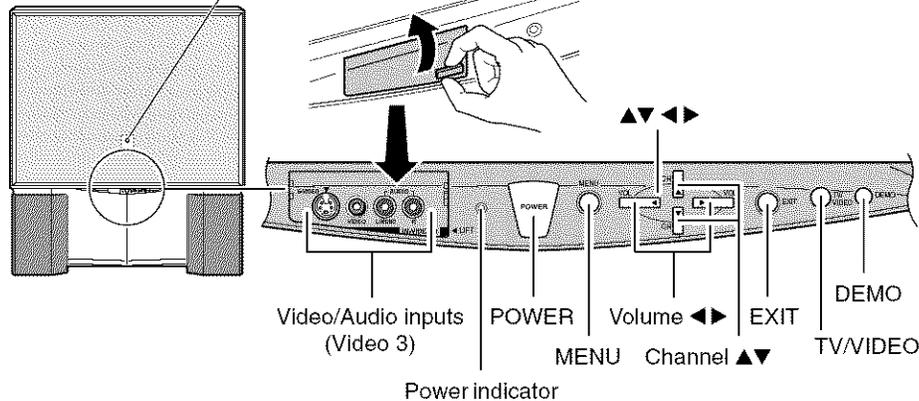
Exploring your new TV

You can operate your TV by 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.

43AX60
43AX60A



50AX60
50AX60A



Connecting your TV

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

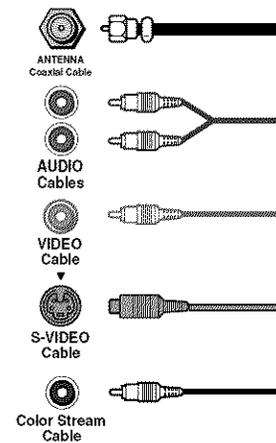
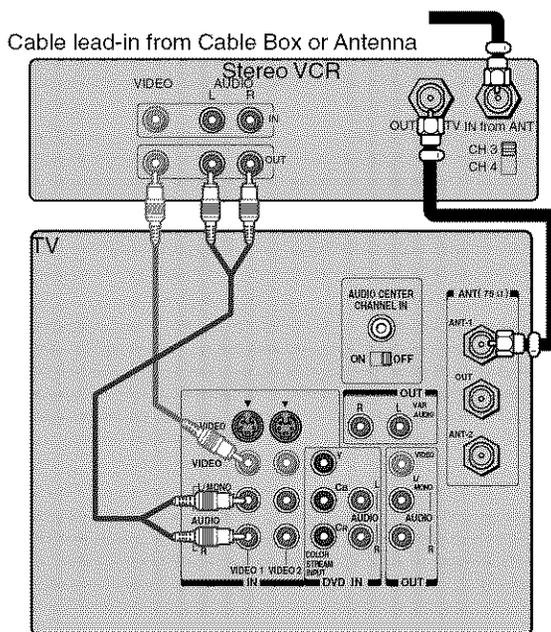
- A coaxial cable is the standard cable that comes in from your antenna or cable converter box. Coaxial cables use "F" connectors.
- Audio and video cables are usually color coded according to use: yellow for video and red and white for audio. The red audio cable is for the stereo right channel, and the white 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.

Connecting a VCR

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

You will need:

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



Caution:

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

Caution:

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

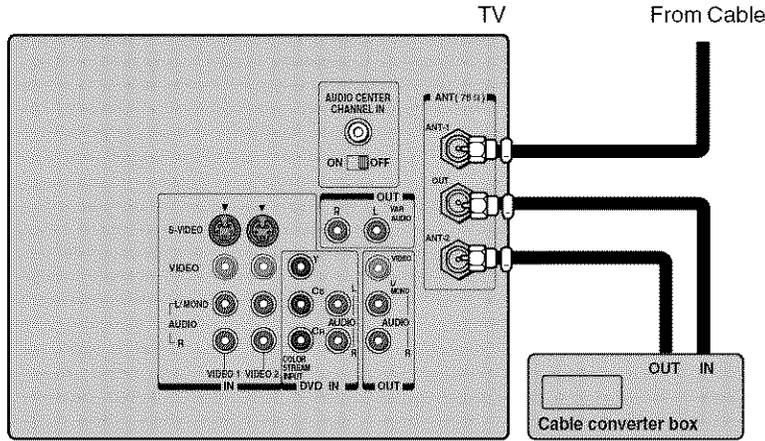
If you have an S-VHS VCR, use the S-video connections and remove the video cable.

Do not connect the video cable and the S-video cable to Video-1 simultaneously.

Connecting a cable converter box

This connection allows you to watch cable and premium channels. You should keep your TV selected to ANT-1 so that you can use the TV features. When viewing premium channels, select ANT-2 and tune the TV to channel 3 or 4 (whichever channel is vacant in your area), then use the converter box to change channels.

You will need two coaxial cables.



Note:

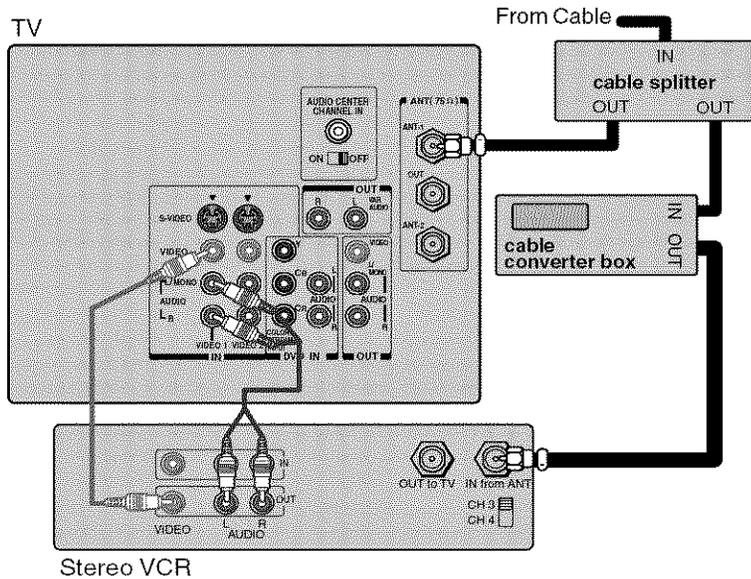
When you use a converter box with your TV, there may be features that you can not program using the remote control, such as programming your favorite channels, labeling channels, and locking channels.

Connecting a cable converter box and a VCR

This connection allows you to watch and record basic and premium cable channels, as well as watch videotapes. You should keep your TV selected to ANT-1 so that you can use the TV's features. When viewing premium channels or recording with the VCR, select ANT-2 and change the TV channel to 3 or 4 (whichever channel is vacant in your area), then use the converter box to change channels.

You will need:

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



Caution:

If you want to record one channel while watching another channel, a splitter (not included) must be added between the cable and ANT-1. One output of the splitter connects to ANT-1 and the second output connects to IN on the cable converter box.

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 the video cable and the S-video cable to Video-1 simultaneously.

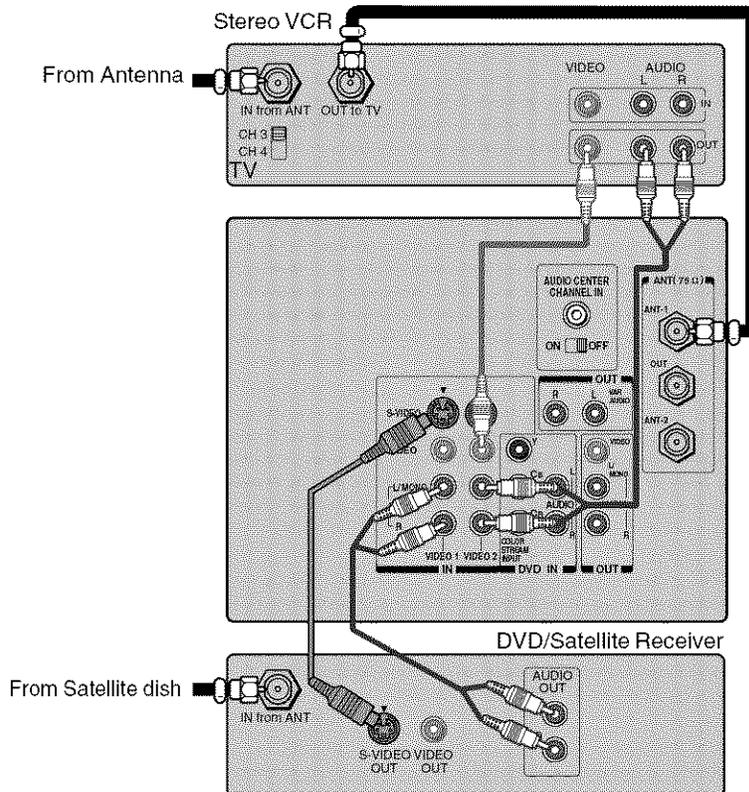
When you use a converter box with your TV, there may be features that you can not program using the remote control, such as programming your favorite channels, labeling channels, and locking channels.

Connecting a DVD/satellite receiver and a VCR

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

You will need:

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



Caution:

You can use a video cable instead of the S-video cable, but the picture quality will decrease. If you use an S-video cable between the TV and DVD/satellite receiver, make the audio connections only and remove the video connection.

Do not connect the video cable and the S-video cable to Video-1 simultaneously.

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

Connecting a DVD with ColorStream® and a VCR

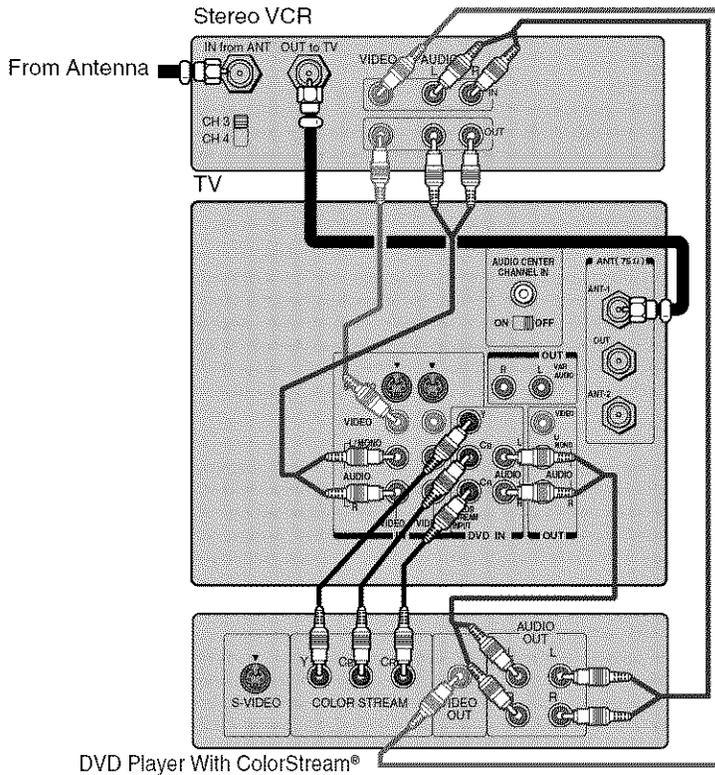
This connection allows you to watch DVD, video or TV programs and to record DVD or TV programs. You can record from one source and watch a program from another source. Your TV is capable of using ColorStream (component video). Connecting your TV to a ColorStream compatible DVD, such as a Toshiba DVD,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

You will need:

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

Caution:

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



Caution:
 To play from the DVD, the DVD and TV must use ColorStream connections and the TV must be set to ColorStream mode (see page 40). To record from the DVD, the VCR must select Line IN.

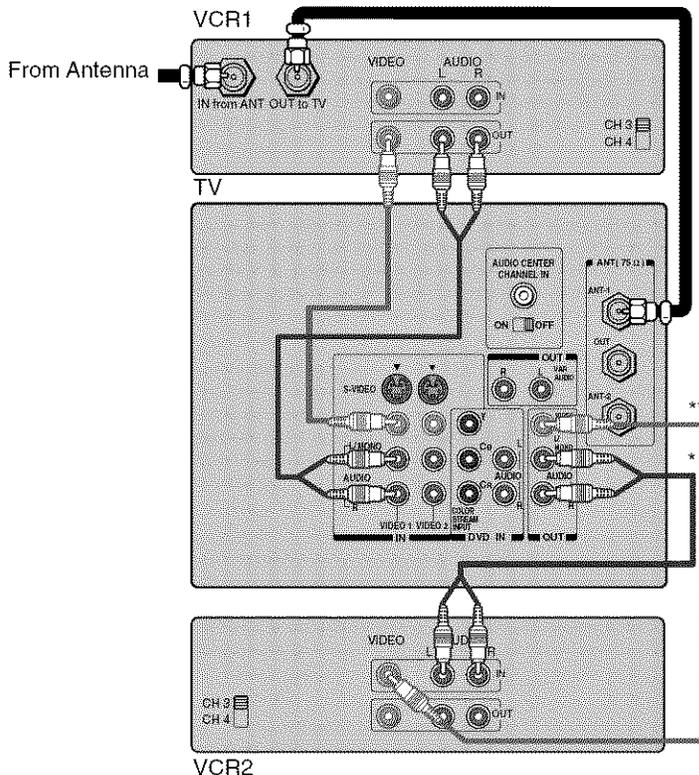
The unauthorized recording of television programs, video tapes and other materials may infringe upon the provisions of copyright laws.

Connecting two VCRs

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

You will need:

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



Caution:
 Do not connect one VCR to the output and input jacks on the TV at the same time. If you are using an S-VHS VCR, use the S-video connections and remove the video cable. Do not connect the video cable and the S-video cable to Video-1 simultaneously.

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

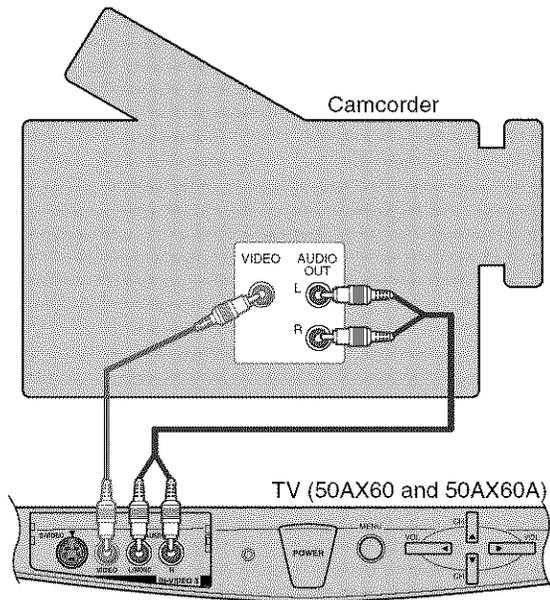
- Note:**
- To dub or edit, VCR 2 must select Line IN, and the TV must select Video-1.
 - * Audio OUT jacks can output the sound of either the main or PIP picture being displayed on the screen (see "Selecting the Audio OUT sound" on page 47).
 - ** The Video OUT jack does not output the PIP picture.

Connecting a camcorder

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

You will need:

- one pair of audio cables
- one video cable



Caution:

If you are using an S-VHS camcorder with an S-video output, connect this to the S-video input on the TV and remove the video cable.

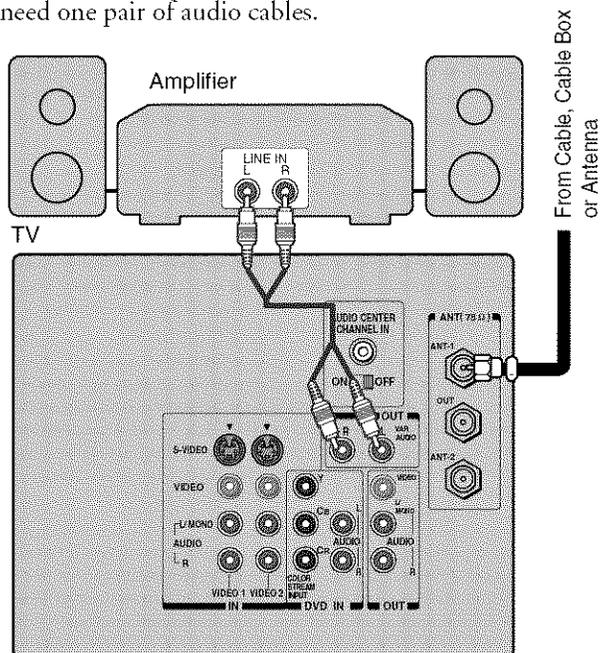
Do not connect the video cable and the S-video cable to Video-3 simultaneously.

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, then turn off the built-in speakers (see "Turning off the built-in speakers" on page 46).

You will need one pair of audio cables.



Note:

To hear the audio, the volume of both the TV and the external audio amplifier must be set above minimum (zero). For example, if you set the volume of the TV to zero, you will not be able to hear any audio, even if you adjust the volume of the amplifier to the maximum setting.

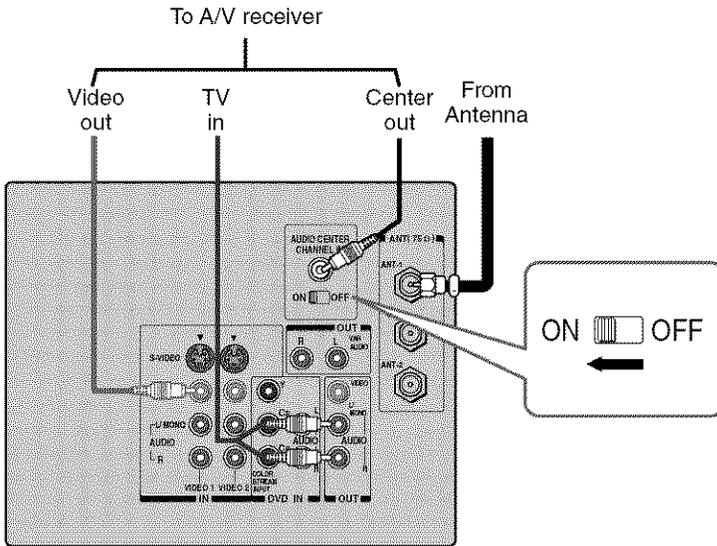
Connecting an A/V receiver

If you use a system that delivers Dolby Pro Logic* surround sound, you will probably want to use the TV speakers as center channel speakers.

A center channel speaker adds to the realism of a surround sound system such as Dolby Pro Logic.

You will need:

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



Caution:

Make sure the TV is turned off before connecting or disconnecting an audio cable to the Audio Center Channel IN jack to avoid damaging the speaker.

Note:

Refer to the instructions furnished with the connected A/V receiver for detailed surround system.

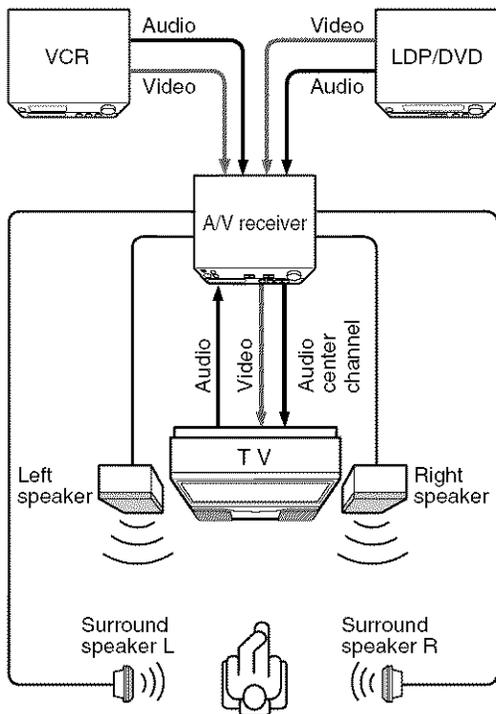
When the Audio Center Channel ON/OFF switch is in the ON position, the TV speakers will function only as the center channel speakers.

Adjust the volume for center channel speakers with the center level control on the A/V receiver.

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

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

Connection example of Dolby Pro Logic surround system



Using the remote control

Preparing the remote control for use

Your Toshiba remote control has one dedicated TV mode and 5 universal modes: VCR, Cable/SAT, DVD, Audio1, and Audio2. The target devices and default devices being programmed for each mode are as follows:

Target device/Mode mapping

Mode	Device
TV	Toshiba TV
CABLE/SAT	Universal Cable, Satellite
VCR	Universal VCR, DVD, LD, Cassette
DVD	Universal DVD, VCR, LD, Cassette
AUDIO1	Universal Audio: Amp., Tuner, Misc.Audio, CD/MD
AUDIO2	Universal Audio: CD/MD, Amp., Tuner, Misc.Audio

Default device codes

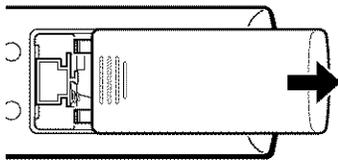
Mode	Default device
TV	Toshiba TV
CABLE/SAT	Toshiba Satellite receiver
VCR	Toshiba VCR
DVD	Toshiba DVD
AUDIO1	Pioneer Audio receiver
AUDIO2	Pioneer LD

The Mode selection button, when pressed, cycles among each mode. If you own different brands of audio/video devices, you first have to program your remote control. (See “Programming the remote control for use with audio/video devices” on page 14.)

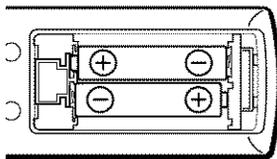
Installing the remote control batteries

To install the batteries:

1. Slide the battery cover off 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.

Note:

This remote control's functions may or may not operate your audio/video devices.

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

Caution:

- *Dispose of 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.*
- *Battery life expectancy is about one year with normal use. If you do not intend to use the remote control for a long time, remove the batteries.*

Remote Control functional key chart

Key Label	Toshiba TV (TV)	Cable (CBL/SAT)	Satellite (CBL/SAT)	VCR	DVD/LD	Receiver (AUDIO)	CD/MD (AUDIO)	Cassette (VCR)
LIGHT	Illuminates the remote							
SLEEP	Sleep timer	---	---	---	---	---	---	---
POWER	Power	Power	Power	Power	Power	Power	Power	Power
1/MOVIE	Digit 1	Digit 1	Digit 1	Digit 1	Digit 1	AV input 1	Digit 1	Digit 1
2/SPORTS	Digit 2	Digit 2	Digit 2	Digit 2	Digit 2	AV input 2	Digit 2	Digit 2
3/NEWS	Digit 3	Digit 3	Digit 3	Digit 3	Digit 3	AV input 3	Digit 3	Digit 3
4/SERVICES	Digit 4	Digit 4	Digit 4	Digit 4	Digit 4	AV input 4	Digit 4	Digit 4
5/LIST	Digit 5	Digit 5	Digit 5	Digit 5	Digit 5	CD	Digit 5	Digit 5
6	Digit 6	Digit 6	Digit 6	Digit 6	Digit 6	Tuner	Digit 6	Digit 6
MODE	Device mode selection for the remote control							
PIC SIZE	This button is not available for this TV model or any other device connected to this TV.							
7	Digit 7	Digit 7	Digit 7	Digit 7	Digit 7	Phono	Digit 7	Digit 7
8	Digit 8	Digit 8	Digit 8	Digit 8	Digit 8	Cassette	Digit 8	Digit 8
9	Digit 9	Digit 9	Digit 9	Digit 9	Digit 9	Aux	Digit 9	Digit 9
ACTION	---	Menu	Action, Menu	Menu	Menu	---	---	---
100/-	100	100	100	100	100	100	100	100
0	Digit 0	Digit 0	Digit 0	Digit 0	Digit 0	Digit 0	Digit 0	Digit 0
ENT	---	CH Enter	CH Enter	CH Enter	---	---	---	---
GUIDE/SETUP	---	Guide	Guide	Program	DVD setup	Program	Program	---
INFO/TITLE	TV preview	← TV	INFO	← TV	TITLE= Top menu	← TV	← TV	← TV
FAVORITE/ SUBTITLE	Favorite CH	---	Favorite CH	---	Subtitle	---	---	---
ALPHASORT/ AUDIO	---	---	Alphasort	---	Audio	---	---	---
MENU/ ENTER	Menu open/ Enter	Select	Select	Enter	Enter	---	---	---
▲▼	Menu select	Menu select	Menu select	Menu select	Menu select	---	---	---
◀▶/FAV FAV ▶▶	Menu select/ FAV ▶▶	Menu select	Menu select	Menu select	Menu select	---	---	---
VOL ▲▼	Volume up/down*	Volume up/down*	Volume up/down*	Volume up/down*	Volume up/down*	Volume up/down*	Volume up/down*	---
EXIT/ DVD CLEAR	Exit	Exit	Exit	Exit	DVD clear	Exit/Clear	Exit/Clear	Exit/Clear
CH ▲▼	Channel up/down	Channel up/down	Channel up/down	Channel up/down	---	Channel up/down	---	---
INPUT	TV/Video select	← TV	← TV	VCR input	← TV	Input	← TV	← TV
MUTE	Sound mute*	Sound mute*	Sound mute*	Sound mute*	Sound mute*	Sound mute*	Sound mute*	---
RECALL	On-screen display	On-screen display	On-screen display	On-screen display	On-screen display	---	---	---
CH RTN/ DVD RTN	Previous channel	Previous channel	Previous channel	Previous channel	DVD return	---	---	---
SLOW/ DIR ▶ ▲	---	---	---	Forward	Forward	---	---	---
SKIP/ SEARCH ▶ ▲	---	---	---	---	Forward Reverse	CH forward CH reverse	Forward Reverse	Forward Reverse
REW	VCR →	VCR →	VCR →	Rewind	Rewind	Rewind	Rewind	Rewind
PAUSE/STEP	VCR →	VCR →	VCR →	Pause	Pause	Pause	Pause	Pause
PLAY	VCR →	VCR →	VCR →	Play	Play	Play	Play	Play
FF	VCR →	VCR →	VCR →	F. Forward	F. Forward	F. Forward	F. Forward	F. Forward
TV/VCR	VCR →	Bypass A/B	TV/SAT	TV/VCR	---	---	---	---

DISC AM/FM	---	---	---	---	Disc shift	AM/FM	Disc shift	Deck side A/B switch
STOP	VCR →	VCR →	VCR →	Stop	Stop	Stop	Stop	Stop
REC	VCR →	VCR →	VCR →	Record	---	Record	Record	Record
PIP CH ▲▼	PIP channel up/down	← TV	← TV	← TV	← TV	← TV	← TV	← TV
PIP	PIP on/off	← TV	← TV	← TV	← TV	← TV	← TV	← TV
MULTI	Strobe	← TV	← TV	← TV	← TV	← TV	← TV	← TV
STILL	PIP Still	← TV	← TV	← TV	← TV	← TV	← TV	← TV
SWAP	PIP Swap	← TV	← TV	← TV	← TV	← TV	← TV	← TV
LOCATE	PIP Locate	← TV	← TV	← TV	← TV	← TV	← TV	← TV
SOURCE	PIP Source	← TV	← TV	← TV	← TV	← TV	← TV	← TV

Notes:

- "—" will send nothing.
- "← TV" will jump to TV.
- "VCR →" will jump to last active VCR or DVD. Active VCR/DVD is defined as the mode that remains for a minimum of 5 seconds, or if a key is pressed in that mode.
- * The VOLUME and MUTE will jump to "TV" by default. When the volume is unlocked, all the devices will have their own volume. The AUDIO1/2 (Receiver, CD) modes will have their own volume even if Volume Lock is on TV, CABLE/SAT, VCR, or DVD. See "Using the Volume Lock feature" on page 15.

Programming the remote control for use with your audio/video devices

Device code setup

1. Refer to the Device code table on pages 16-19 to find the number that corresponds to the brand name of your device.

If more than one number is listed, try each one separately until you find the one that works.

2. Press MODE until the Mode indicator of the device (CABLE/SAT, VCR, DVD, AUDIO1, AUDIO2) lights up.

3. Hold down the RECALL button while using the Number buttons to enter the four-digit code number of your brand of device.

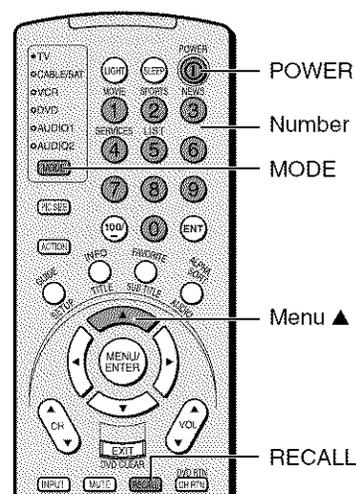
If a valid code has been entered, the mode indicator will blink twice. If an invalid code is entered, there will be one long blink.

4. Point the remote control at the device and press POWER to test the code number.

If the device turns on, you have entered the right number.

If the device does not respond to the remote control, you may have entered the wrong number. Repeat steps 3 and 4 using another code number.

5. Press MODE to select the TV mode 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, it may not respond to any of the code numbers for your VCR brand name. In this case, set the switch to the other position (VCR1 or VCR2) and reprogram the remote control.

Searching and sampling the code of a device (991)

If you do not know the device code for a particular target unit, you can cycle the remote through the available codes for that device mode and sample functions in order to find the code that properly operates the desired target device. The keys available to be sampled, provided they are applicable to that mode, are 0, 1, 2, 3, POWER, VOL ▲, CH ▲, PLAY and STOP. Invalid keys will be ignored while in program mode.

To cycle through each available device code and sample its functions:

1. Press MODE to select the mode you want to set up.
2. While holding down the RECALL button, press 9, 9, 1 in sequence. The remote control will enter program mode.
3. Point the remote at the target device, then press POWER (or other function buttons that are available to be sampled).
4. If the device responds to the remote:
 - Press RECALL to store the device code.
 - The mode indicator will blink twice and the remote will exit the program mode.If the device does not respond to the remote:
 - Press Menu ▲ then press POWER.
 - Repeat this step until the device responds to the remote, then press RECALL.

Note: If a search cycle has been completed, the mode indicator will blink three times. The remote will begin to cycle through the available codes again. If no key is pressed within ten seconds while programming, the remote will exit the program mode and return to the previous code.

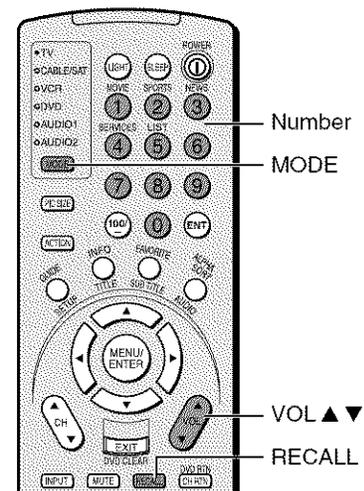
Verifying the device code (990)

Use this feature to verify the codes for your other devices. The number of blinks after pressing the 1, 2, 3, and 4 buttons is the 4-digit code set up for that mode.

Example: To verify the VCR code is 0385:

1. Press MODE to select the VCR mode.
2. While holding down the RECALL button, press 9, 9, 0 in sequence.
3. Press 1 → 0 blinks.
4. Press 2 → 3 blinks.
5. Press 3 → 8 blinks.
6. Press 4 → 5 blinks.

You can verify that the device code of the VCR mode is "0385."



Using the Volume Lock feature (993)

For the TV, CABLE/SAT, VCR, and DVD modes, the volume controls (VOL ▲▼ and MUTE) can be programmed or locked to the selected device mode. This feature does not apply to the AUDIO1/2 modes.

Example: To lock the volume controls to always jump to the CABLE/SAT mode:

1. Press MODE to select the CABLE/SAT mode.
2. While holding down the RECALL button, press 9, 9, 3 in sequence.
3. Press VOL ▲. The Mode indicator will blink two times (locked).

The following table describes in more detail the Volume Lock implementation.

Volume Locked to	TV	CBL/SAT	VCR	DVD	AUD1	AUD2
TV (default)	TV	TV	TV	TV	AUD1	AUD2
CBL/SAT	CBL/SAT	CBL/SAT	CBL/SAT	CBL/SAT	AUD1	AUD2
VCR	VCR	VCR	VCR	VCR	AUD1	AUD2
DVD	DVD	DVD	DVD	DVD	AUD1	AUD2
AUD1	AUD1	AUD1	AUD1	AUD1	AUD1	AUD1
AUD2	AUD2	AUD2	AUD2	AUD2	AUD2	AUD2

To reset the volume controls to the original device code:

1. Pressing the RECALL button, press 9, 9, 3 in sequence.
2. Press VOL ▼. The Mode indicator will blink four times (unlocked).

Operational feature Reset (980)

This feature clears all setup features not related to "Device code set up" and resets the Volume Lock to "TV."

To reset the features:

- While holding down the RECALL button, press 9, 8, 0 in order. The Mode indicator will blink two times, then pause and blink two more times.

Device code table

Cable box setup codes

Brand name	Code number
ABC	0020, 0022, 0026, 0027, 0030, 0032, 0033, 0036
Allegro	0172, 0334
Americast	0918
Antronix	0041, 0226
Archer	0041, 0172, 0226, 0816
BBT	0286
Belcor	0075
Bell & Howell	0033
Bell South	0918
Cable Star	0075
Cabletenna	0041
Cableview	0041
Century	0172
Citizen	0172, 0334
Colour Voice	0044, 0050
Comtronics	0059
Contec	0038
Digi	0656
Eastern	0021
Emerson	0816
Everquest	0034, 0059
Focus	0419
GC Electronics	0075, 0226
Garrard	0172
Gemini	0034, 0089, 0816
General Instrument	0030, 0295, 0495, 0829
GoldStar	0059, 0163
Goodmind	0816
Hamlin	0028, 0039, 0053, 0278, 0292
Hitachi	0030
Hytex	0026
Jasco	0034, 0172, 0334
Jerrold	0022, 0030, 0031, 0033, 0034, 0043, 0295, 0495, 0829
Linsay	0459
Magnavox	0046
Memorex	0019
Movie Time	0082, 0175
NSC	0082, 0089, 0175
Novaplex	0637
Oak	0026, 0038
Optimus	0040
Panasonic	0019, 0040, 0126
Panther	0656
Paragon	0019
Philips	0044, 0046, 0050, 0172
Pioneer	0042, 0163, 0552, 0896
Popular Mechanics	0419
Prelude	0789
Pulsar	0019
Quasar	0019
RCA	0040
Radio Shack	0034, 0334, 0816, 0902
Realistic	0226
Recoton	0419
Regal	0039, 0278, 0292
Regency	0021
Rembrandt	0030, 0089
Runco	0019

Satellite Receiver setup codes

Brand name	Code number
AlphaStar	0791
Chaparral	0072, 0235
Curtis Mathes	0080
Echostar	0288, 0299, 0794, 1024
Expressvu	0794
General Instrument	0380, 0646, 0888
HTS	0794
Hitachi	0838
Homecable	0257
Hughes Network Systems	0768
IQ	0229
IQ Prism	0229
JVC	0794
Jerrold	0380, 0646
Legend	0288
Macom	0080
Magnavox	0741, 0743
Memorex	0288, 0743
Next Level	0888
Panasonic	0720
Philips	0741, 0743
Primestar	0380, 0646
RCA	0162, 0411, 0585, 0874
Radio Shack	0888
Realistic	0071
STS	0229
Sony	0658
Star Choice	0888
Toshiba	0080, 0101, 0768, 0809, 1071, 1072, 1073
Uniden	0071, 0093, 0257, 0741, 0743
Zenith	0080, 0875

Device code table

VCR setup codes

Brand name	Code number				
Admiral	0067, 0228	Kenwood	0057, 0060, 0086,	Radix	0056
Adventura	0019		0403	Randex	0056
Aiko	0297	Kodak	0054, 0056	Realistic	0019, 0054, 0056,
Aiwa	0019, 0056, 0326	LXI	0056		0065, 0066, 0067,
Akai	0060, 0072, 0080,	Lloyd's	0019, 0227		0081, 0085, 0123
	0125	Logik	0091	ReplayTV	0633, 0635
America Action	0297	MEI	0054	Ricoh	0053, 0272
American High	0054	MGA	0062, 0080, 0259	Runco	0058
Asha	0259	MGN Technology	0259	STS	0061
Audiovox	0056	MTC	0019, 0259	Samsung	0064, 0070, 0072,
Beaumarck	0259	Magnasonic	0297		0259
Bell & Howell	0123	Magnavox	0019, 0054, 0058,	Sanky	0058, 0067
Broksonic	0021, 0140, 0203,		0100, 0129, 0168	Sansui	0019, 0060, 0086,
	0228, 0314, 0380,	Magnin	0259		0228, 0290, 0498
	0498	Marantz	0054, 0100	Sanyo	0065, 0066, 0123,
CCE	0091, 0297	Marta	0056		0259
Calix	0056	Matsushita	0054, 0181, 0473	Scott	0062, 0064, 0140,
Canon	0054	Memorex	0019, 0054, 0056,		0203, 0229, 0231
Capehart	0039		0058, 0065, 0066,	Sears	0019, 0054, 0056,
Carver	0100		0067, 0123, 0181,		0061, 0065, 0066,
Cineral	0297		0228, 0259, 0326,		0073, 0076, 0085,
Citizen	0056, 0297		0473, 1056, 1181,		0123, 0124
Colt	0091		1281	Semp	0064
Craig	0056, 0066, 0091,	Minolta	0061, 0124	Sharp	0067, 0081
	0259, 0290	Mitsubishi	0062, 0067, 0080,	Shintom	0091
			0086	Shogun	0070, 0259
Curtis Mathes	0054, 0060, 0079,	Motorola	0054, 0067	Singer	0091
	0181	Multitech	0019, 0091	Sony	0019, 0051, 0052,
Cybernex	0070, 0259	NAD	0077		0053, 0054, 0272,
Daewoo	0039, 0064, 0297,	NEC	0057, 0059, 0060,		1051
	0580		0086, 0123	Sunpak	0272
Daytron	0039	Nikko	0056	Sylvania	0019, 0054, 0062,
Denon	0061	Nikon	0053, 0272		0100, 0129
Dynatech	0019	Noblex	0259	Symphonic	0019
Electrohome	0056	Olympus	0054	TMK	0055, 0227, 0259
Electrophonic	0056	Optimus	0056, 0067, 0077,	Tatung	0060
Emerex	0051		0123, 0181, 0451,	Teac	0019, 0060
Emerson	0019, 0021, 0055,		0473, 1067, 1081,	Technics	0054, 0181
	0056, 0062, 0080,		1181, 1281	Teknika	0019, 0054, 0056
	0087, 0107, 0140,	Optonica	0081	Thomas	0019
	0203, 0227, 0228,	Orion	0021, 0203, 0228,	Tivo	0637
	0231, 0297, 0313,		0314, 0498	Toshiba	0062, 0064, 0076,
	0314, 0380, 0498,	Panasonic	0054, 0096, 0181,		0085, 0229, 0231,
	0580		0244, 0473, 0635,		0385
Fisher	0066, 0073, 0085,		1081, 1181, 1281	Totevision	0056, 0259
	0123	Penney	0054, 0056, 0057,	Unitech	0259
Fuji	0052, 0054		0059, 0061, 0073,	Vector	0064
Funai	0019		0259	Vector Research	0057, 0059
GE	0054, 0067, 0079,	Pentax	0061, 0124	Video Concepts	0059, 0064, 0080
	0221, 0259	Philco	0054, 0228, 0498	Videosonic	0259
Garrard	0019	Philips	0054, 0081, 0100,	Wards	0019, 0054, 0061,
Go Video	0451, 0545, 0662		0129, 0637, 1100,		0066, 0067, 0079,
GoldStar	0056, 0057		1200		0081, 0091, 0100,
Gradiente	0019, 0027	Pilot	0056		0168, 0231, 0259
HI-Q	0066	Pioneer	0077, 0086	White Westinghouse	0228, 0297
Harley Davidson	0019	Portland	0039	XR-1000	0019, 0054, 0091
Harman/Kardon	0057, 0100	Profitronic	0259	Yamaha	0057
Harwood	0087, 0091	Proscan	0079, 0221	Zenith	0019, 0052, 0053,
Headquarter	0065	Protec	0091		0058, 0228, 0498,
Hitachi	0019, 0060, 0061,	Pulsar	0058, 0070		0656
	0124	Quarter	0065		
Hughes Network Systems	0061	Quartz	0065		
JVC	0027, 0060, 0086,	Quasar	0054, 0096, 0181,		
	0403		0473, 1181		
Jensen	0060	RCA	0054, 0061, 0067,		
KEC	0056, 0297		0079, 0096, 0124,		
KLH	0091		0125, 0168, 0221,		
			0259		
		Radio Shack	0019, 1056		

Device code table

DVD setup codes

Brand name	Code number
Aiwa	0660
Denon	0509, 0653
GE	0541
Harman/Kardon	0601
JVC	0577, 0642
Kenwood	0553
Magnavox	0522
Marantz	0558
Mitsubishi	0540
Onkyo	0522, 0646
Optimus	0590
Panasonic	0509, 0651
Philips	0522, 0558
Pioneer	0544, 0590, 0651
Proscan	0541
RCA	0541
Samsung	0592
Sharp	0649
Sherwood	0652
Sony	0552
Technics	0509
Theta Digital	0590
Toshiba	0522
Yamaha	0509, 0564
Zenith	0522, 0610

Laser Disc setup codes

Brand name	Code number
Aiwa	0222
Carver	0083, 0213, 0342
Denon	0078, 0191
Disco Vision	0042
Funai	0222
Harman/Kardon	0213
Hitachi	0042
Magnavox	0213, 0236
Marantz	0083, 0213
Mitsubishi	0078
NAD	0078
Optimus	0078
Panasonic	0223
Philips	0083, 0213
Pioneer	0042, 0078
Quasar	0223
Realistic	0222
Samsung	0342
Sega	0042
Sony	0212, 0220
Technics	0223
Theta Digital	0213
Yamaha	0236

CD Player setup codes

Brand name	Code number
ADC	0037
Adcom	0174, 0253
Aiwa	0143, 0176
Akai	0175
Audio Alchemy	0213
Audio-Technica	0189
BSR	0213, 0264
Burmester	0439
California Audio Labs	0048, 0322
Carrera	0213
Carver	0176, 0198, 0318, 0456
DAK	0264
DKK	0019
Denon	0022, 0892
Emerson	0174, 0183, 0324, 0488
Fisher	0107, 0193, 0198, 0361
GE	0028
Garrard	0264, 0299, 0412, 0439
Genexxa	0051, 0183, 0324
Harman/Kardon	0176, 0192, 0445
Hitachi	0051, 0174
JVC	0091
Kenwood	0047, 0056, 0209, 0645, 0700, 0845
Kodak	0306
Krell	0176
Kyocera	0037
LXI	0324
Linn	0176
Luxman	0112
MCS	0048
MTC	0439
Magnavox	0176, 0324
Marantz	0048, 0176, 0199
McIntosh	0306
Mission	0176
NAD	0038, 0318
NEC	0253
NSM	0176
Nikko	0183, 0189, 0193
Onkyo	0120, 0887
Optimus	0019, 0051, 0056, 0106, 0164, 0198, 0213, 0215, 0299, 0324, 0361, 0439, 0445, 0456, 0487, 1082
Panasonic	0048, 0322, 0386, 0771
Parasound	0213, 0439
Philips	0176, 0306, 0645
Pioneer	0051, 0263, 0324, 0487, 1082
Proton	0176
QED	0176
Quasar	0048
RCA	0028, 0072, 0174, 0198, 0324, 0783
Realistic	0174, 0183, 0198, 0199, 0439
Rotel	0176, 0439
SAE	0176
STS	0037
Sansui	0176, 0221, 0324
Sanyo	0106, 0198
Scott	0174, 0183, 0324
Sears	0324
Sharp	0056, 0199, 0880
Sherwood	0199, 0215, 0445, 1086
Sony	0019, 0204, 0509, 0623, 0624
Soundesign	0164
Tascam	0439
Teac	0193, 0199, 0412, 0439
Technics	0048, 0322
Toshiba	0038, 0318
Vector Research	0213
Victor	0091
Wards	0072, 0176
Yamaha	0055, 0189, 0206
Yorx	0480

Device code table

Amplifier setup codes

Brand name	Code number
Aiwa	0425
Carver	0288
Curtis Mathes	0319
Denon	0179
GE	0097
Harman/Kardon	0911
JVC	0350
Linn	0288
Magnavox	0288
Marantz	0288
Optimus	0319, 0414
Panasonic	0327
Philips	0288, 0911
Pioneer	0032, 0319
Realistic	0414
Sony	0239, 0708
Soundesign	0097
Technics	0327
Toshiba	0372
Victor	0350
Wards	0032, 0097
Yamaha	0373

Cassette Player setup codes

Brand name	Code number
Aiwa	0048, 0216, 0219
Akai	0302
Carver	0048
Denon	0095
Fisher	0093
Garrard	0327, 0458
Harman/Kardon	0048, 0201
JVC	0263, 0292
Kenwood	0089
Magnavox	0048
Marantz	0028, 0048
Mitsubishi	0302
Onkyo	0154, 0155, 0301
Optimus	0046, 0239, 0356, 0458
Panasonic	0248
Philips	0048
Pioneer	0046, 0118, 0239
Revox	0209
Sansui	0028, 0048
Sherwood	0356
Sony	0189, 0262, 0310
Teac	0327
Technics	0248
Toshiba	0360, 0361
Victor	0292
Wards	0046
Yamaha	0113, 0116

Misc. Audio setup codes

Brand name	Code number
Aiwa	0029, 0178, 0423
Fisher	0071
Harman/Kardon	0496
JBL	0496
JVC	0092
Jerrold	0478, 0539
Nikko	0395
Paramount Pictures	0336
RCA	0075
SSI	0336
Schneider	0395
Scientific Atlanta	0479
Sony	0029, 0178, 0595
Soundesign	0395
Starcom	0478
Yorx	0395

Receiver setup codes

Brand name	Code number
ADC	0550
Adcom	0635
Aiwa	0140, 0177, 0208, 0424, 1108, 1424
Akai	0095, 0243
Capetronic	0550
Carver	0027, 0061, 0208, 0379, 1108, 1208
Casio	0214
Clarinette	0214
Curtis Mathes	0099
Denon	0023, 0292, 0790, 1123, 1179
Emerson	0443
Fisher	0061, 0238, 0379
Garrard	0443, 0482
Harman/Kardon	0129, 0208, 0910
Inkel	0081
JBL	0129
JVC	0093
Kenwood	0046, 0061, 0096, 0205, 0332, 0333, 1046, 1071, 1332, 1588
Koss	0443
LXI	0200
Linn	0208
Lloyd's	0214
MCS	0058, 0365
Magnavox	0147, 0208, 0214, 0410, 0550, 1108, 1208
Marantz	0058, 0147, 0208, 1108, 1208
Modulaire	0214
NAD	0339
NEC	0254
Nakamichi	0116, 0366
Onkyo	0119, 0154, 0399
Optimus	0061, 0099, 0196, 0200, 0205, 0238, 0550, 0689, 0757, 0820, 1042
Panasonic	0058, 0328, 0537, 1537
Penney	0214
Philips	0208, 0410, 1108, 1208

Pioneer	0033, 0099, 0169, 0550, 0649, 1042
Proscan	1273
Quasar	0058
RCA	0073, 0365, 0379, 0549, 0550, 1173, 1273
Realistic	0182, 0200, 0214
Sansui	0208, 0212, 0365, 1108
Sanyo	0238, 0820
Scott	0182, 0341
Sharp	0205
Sherwood	0081, 0510, 0521
Sony	0177, 0187, 0493, 1061, 1077, 1177, 1277
Soundesign	0689
Sunfire	0332, 0333, 1071, 1332
Teac	0182, 0482
Technics	0058, 0227, 0328, 0537, 1327, 1328, 1537
Thorens	1208
Victor	0093
Wards	0033, 0073, 0099, 0177, 0208
Yamaha	0195, 0205, 1195
Yorx	0214
Zenith	0876

Learning about the remote control

Only the buttons that are used to operate the TV set are described here.

POWER turns the TV on or off

SLEEP sets the TV to turn off at a specific time (page 42)

LIGHT The initial press of the LIGHT button causes two actions:

- 1) enables the illumination mode
- 2) illuminates the keypad.

Subsequent presses of the LIGHT button cause the illumination mode to toggle between enabled and disabled. Any keypress illuminates the keypad for 5 seconds.

If in programming mode, the keypad will remain lit for 10 seconds.

When disabled, pressing the LIGHT button enables the illumination mode and lights the keypad.

Channel Numbers (0-9, 100) allow direct access to channels (page 24)

MODE cycles through the 6 device modes (TV, CABLE/SAT, VCR, DVD, AUDIO1, AUDIO2). The mode indicator will be turned off if the remote control has been left idle for more than 10 seconds.

FAVORITE allows access to Multi-Window function (page 31)

INFO allows access to Multi-Window function (page 31)

MENU allows access to programming (page 21)

ENTER sets programming menu information (page 21)

▲▼ ◀▶ selects or adjusts programming menus (page 21)

(FAV) ◀▶ selects your favorite channels (page 26)

Volume ▲▼ adjusts the volume level

EXIT exits programming menus (page 21)

Channel ▲▼ cycles through programmed channels (page 24)

CH RTN returns to the last viewed channel (page 26)

RECALL displays on-screen information (page 48)

MUTE mutes the sound (page 43)

INPUT selects video input source (page 40)

PIP allows access to PIP functions (page 29)

PIP turns the PIP on or off

PIP CH ▲▼ selects the PIP channels

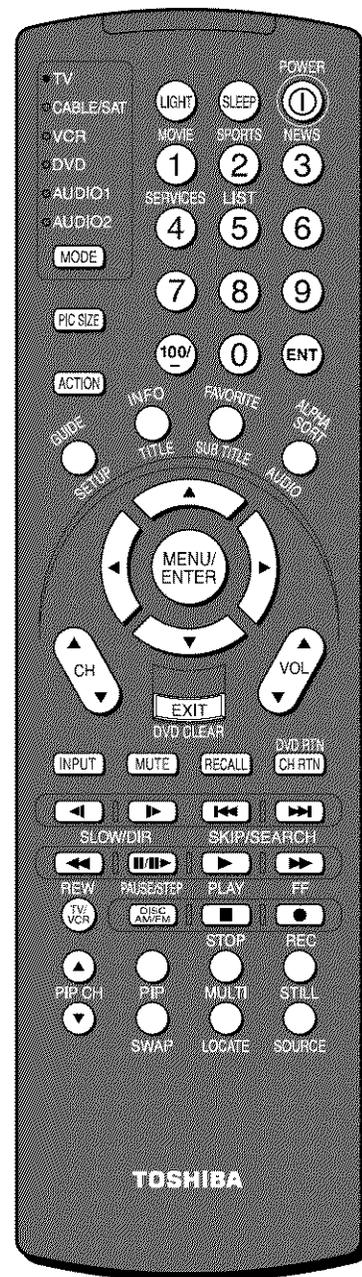
MULTI allows access to Multi-Window function

STILL freezes the PIP

SOURCE selects the PIP source

LOCATE moves the PIP

SWAP switches the PIP and main pictures

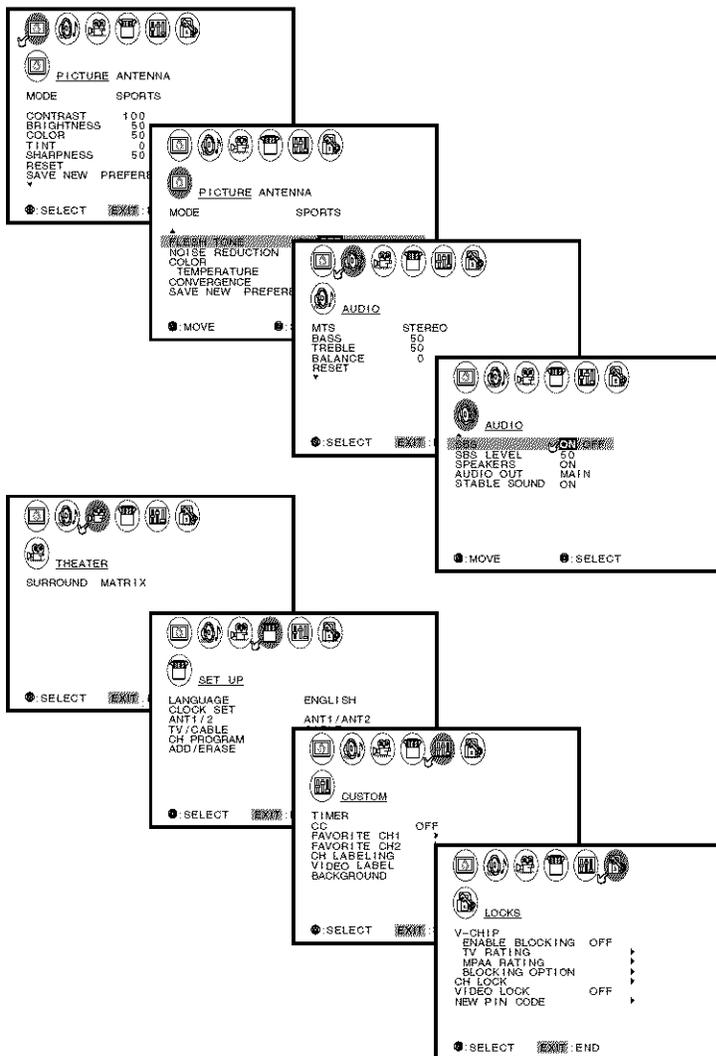


Setting up your TV

Learning about the menu system

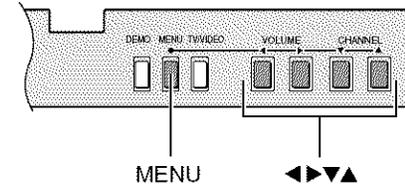
After you have installed the batteries and programmed the remote control, you will need to set some preferences on the TV using the menu. You can access the menu with the buttons on your TV or by using the remote control.

1. Press MENU to display menu.
2. Press ◀ or ▶ to select menu.
3. Press ▲ or ▼ to select an item.
4. Press ◀ or ▶ to select or adjust a setting.

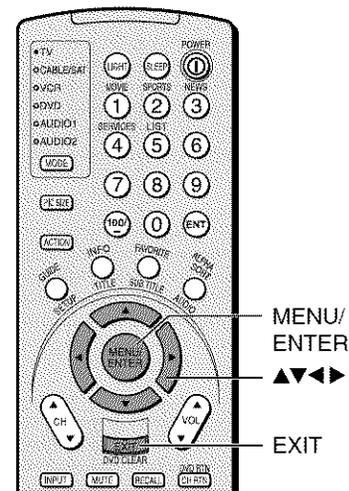
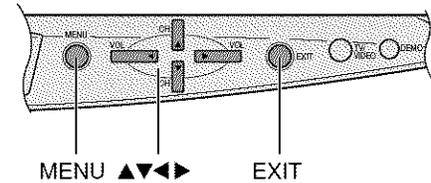


- Press ENTER to activate the function settings in the SET UP menu.
- The main menu display will disappear automatically if you do not make a selection within 15 seconds; the other displays will disappear automatically within 6 seconds. (Except the Convergence which will remain until a button is pressed.)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

43AX60 and 43AX60A



50AX60 and 50AX60A



Notes:

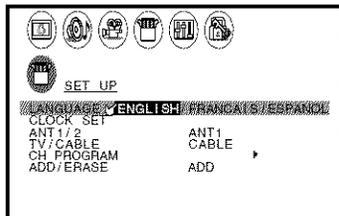
- The menu illustrations in the following pages have been distorted for easy reference.
- You can change the background of the menu. See page 48 for details.
- Models 43AX60 and 43AX60A do not have an EXIT button on the TV.

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.



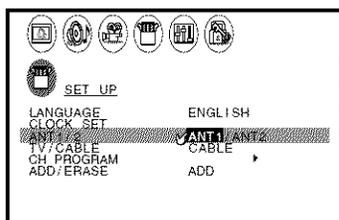
3. Press ◀ or ▶ to highlight your desired language.

Selecting the antenna input

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

To select the antenna input:

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



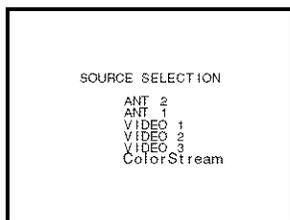
3. Press ◀ or ▶ to highlight either ANT 1 or ANT 2, depending on the antenna terminal you wish to use.

Using the TV/ VIDEO button on the TV

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

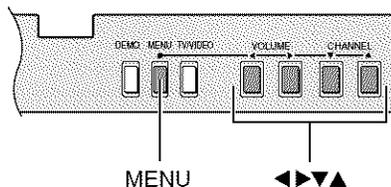
To select the antenna input:

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

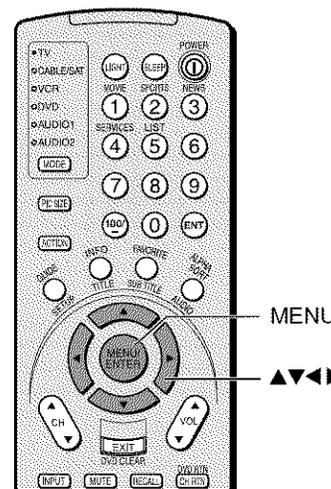
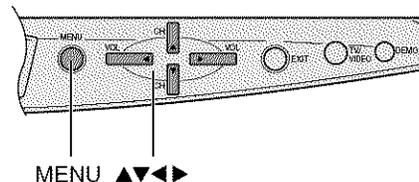


2. Press the button until ANT 1 or ANT 2 is displayed in purple, indicating the antenna terminal you wish to use.

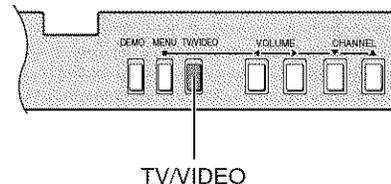
43AX60 and 43AX60A



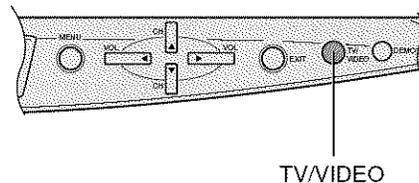
50AX60 and 50AX60A



43AX60 and 43AX60A



50AX60 and 50AX60A



Adding channels to the TV's memory

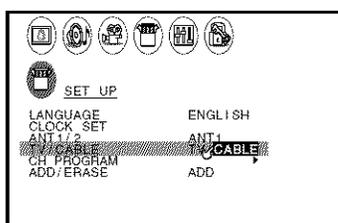
Your TV will stop on specific channels that are stored in the TV's channel memory when you press Channel ▲ or ▼. Use the steps below to set all active channels in your area automatically.

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:

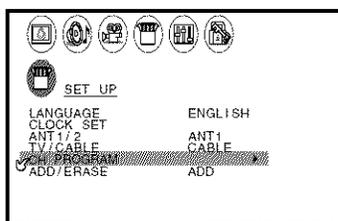
1. Press MENU, then press ◀ or ▶ until the SET UP menu appears.
2. Press ▲ or ▼ until TV/CABLE is highlighted.
3. Press ◀ or ▶ to highlight either TV or CABLE, depending on which you use.



If you use an antenna, choose TV.

If you use cable, choose CABLE.

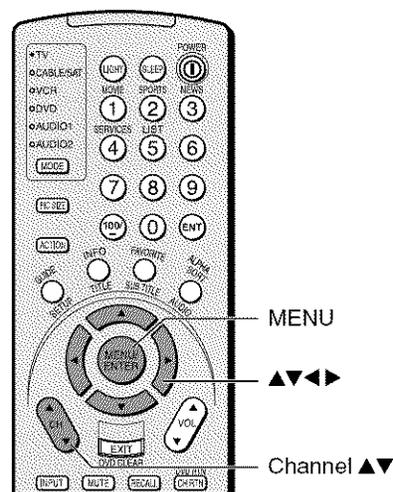
4. Press ▼ to select CH PROGRAM.



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.

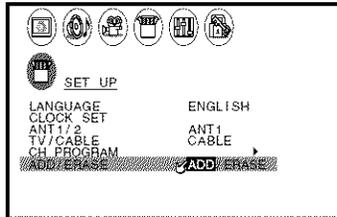


Adding and erasing channels manually

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.

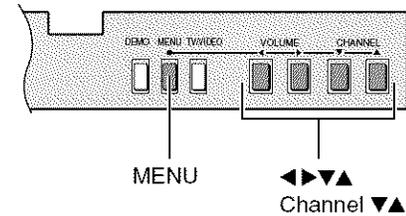
Adjusting the color convergence

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.

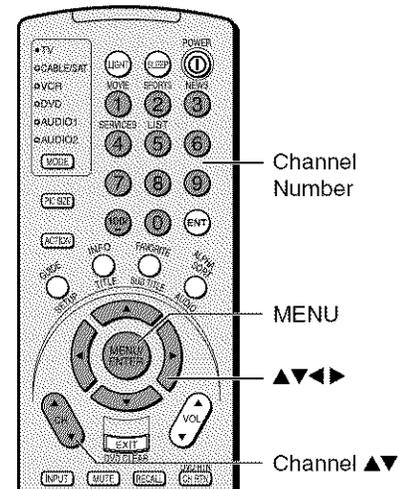
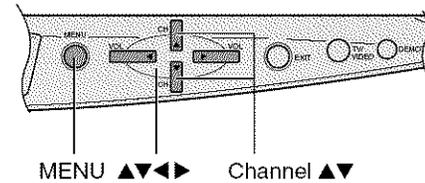
Convergence may drift over time or if you move the TV. If you can see clear images on the screen, skip this procedure.

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

43AX60 and 43AX60A

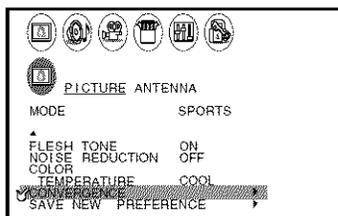


50AX60 and 50AX60A

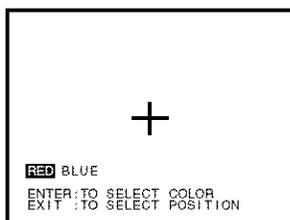


To check and adjust the color convergence:

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

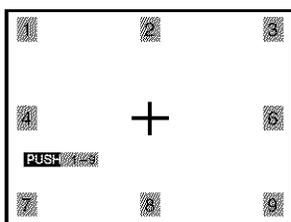


3. Press ◀ or ▶ to display the center CONVERGENCE menu.

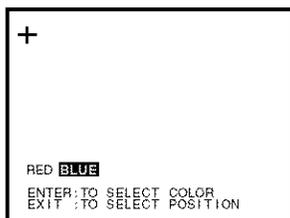


If you see separate colored lines, you have to adjust the convergence.

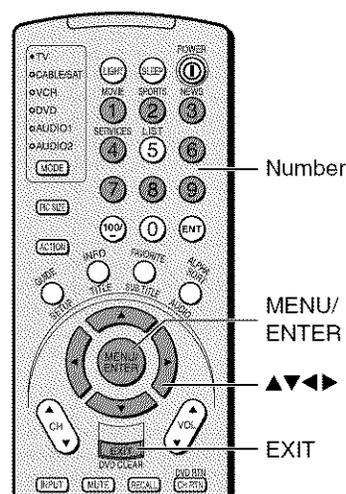
4. Press ENTER to highlight RED or BLUE.
5. Press ▲ (up), ▼ (down), ◀ (left), or ▶ (right) on the remote control to converge the red or blue line into the green line. When color convergence is correctly adjusted, you will see two single crossed white lines.
6. Press EXIT to display the circumference 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 through 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.

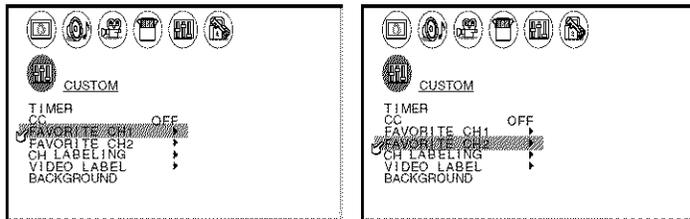
Each time you press CH RTN, the TV will switch back and forth between the two channels.

Programming your favorite channels

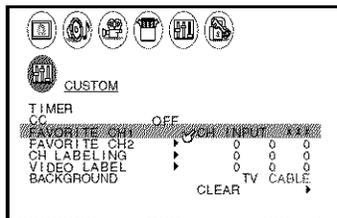
You can preset up to 9 of your favorite channels each for FAVORITE 1 and FAVORITE 2 modes using the Favorite Channel Programming feature. Because this feature scans through only your favorite channels, it allows you to skip other channels you do not normally watch.

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.

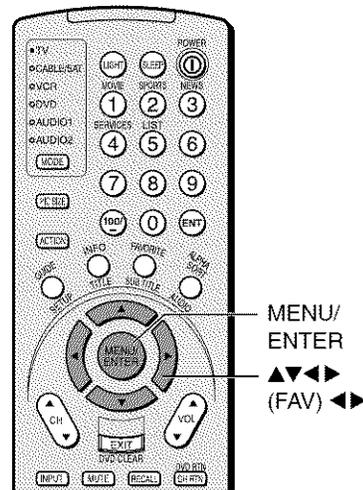
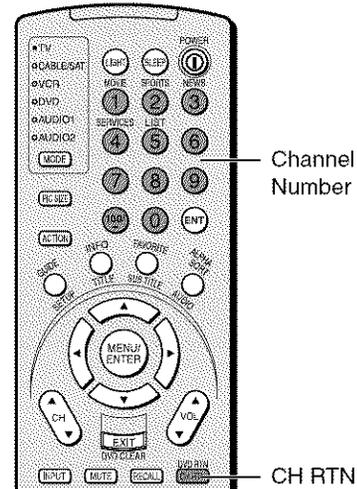


4. Press the Channel Number buttons to enter one of your favorite channels.
5. Press ENTER.
6. Repeat steps 4 and 5 for other channels.

To select your favorite channels:

Press (FAV) ◀ or ▶.

To scan your favorite channels with a 9-picture multi-window, press FAVORITE. (See page 31 for details.)

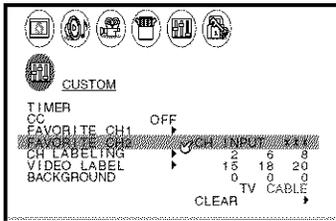


Notes:

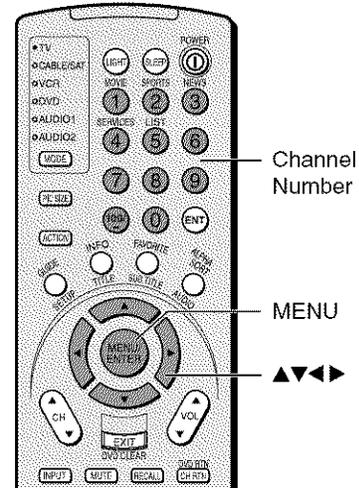
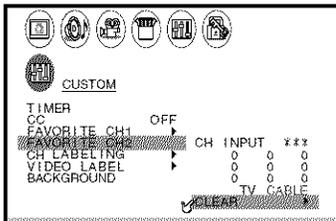
- The (FAV) ◀ ▶ buttons will operate as the menu ◀ ▶ buttons while the menu display is on the screen.
- The favorite channel feature is not available for the ANT2 input.

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.

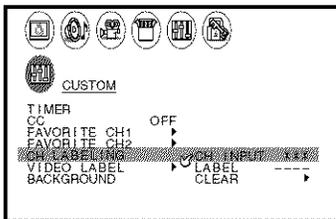


Labeling channels

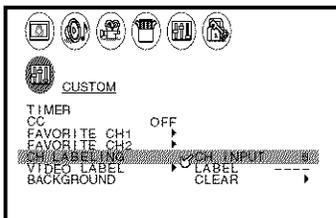
Channel labels will appear over the channel number display each time you turn on the TV, select a channel, or press the RECALL button. You can choose any four characters to identify the channels.

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.

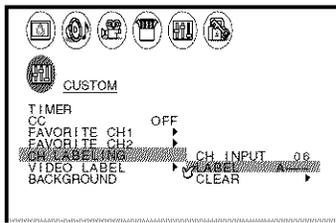


4. Press the Channel Number buttons to select a channel you want to label.



5. Press ▼ to highlight LABEL.

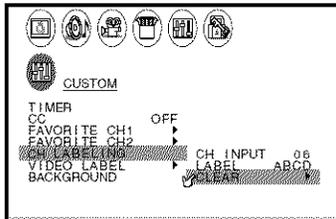
- Assign the label to the channel. Press ◀ or ▶ to enter a character in the first space. Press the button repeatedly until the character you want appears on the screen, then press ENTER.



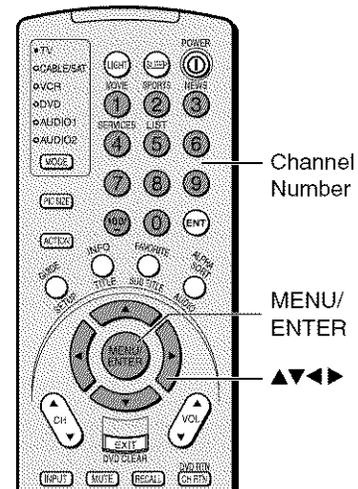
- Repeat step 6 to enter the rest of the characters. If you would like a blank space in the label name, you must choose an empty space from the list of characters. Otherwise, a dash “-” will appear in that space.
- Repeat steps 4 through 6 for other channels. You can assign up to 32 labels.

To erase channel labels:

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



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

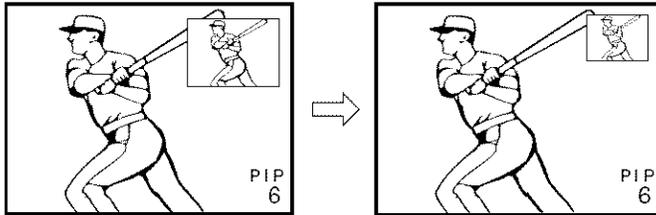


Watching picture-in-picture (PIP)

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.

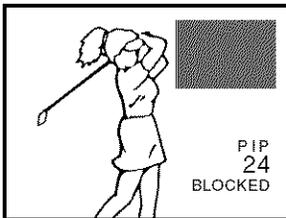
To display a TV broadcast as a small picture:

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.



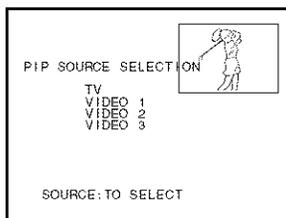
3. Press PIP CH ▲▼ to choose the program you want to be displayed as a small picture.

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 33.



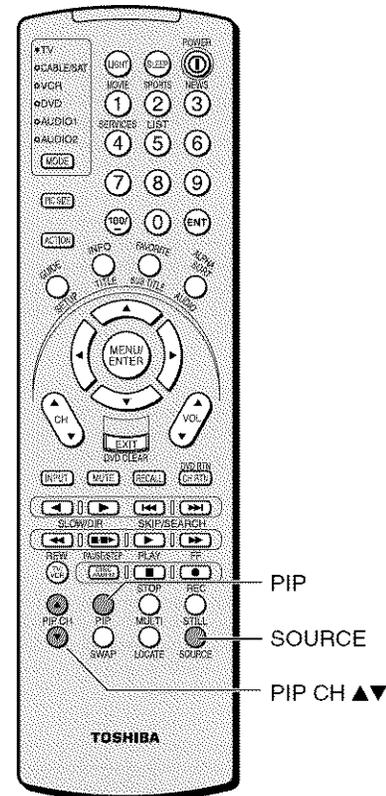
To display a picture from an external source as a small picture:

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 can not be selected.



To turn PIP off:

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

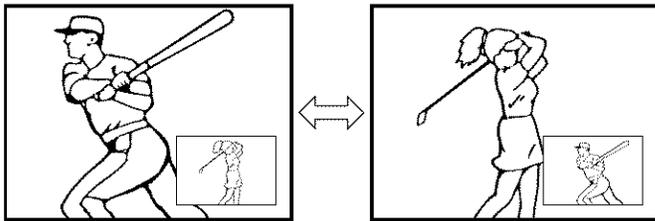


Note:

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

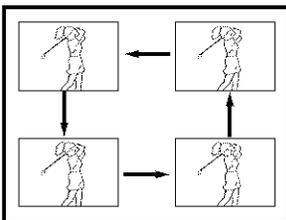
Switching the main and small pictures

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



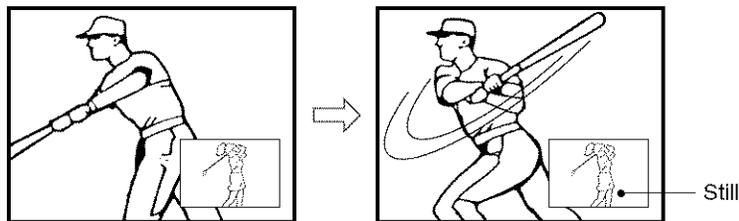
Changing the position of the small picture

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



Freezing the small picture

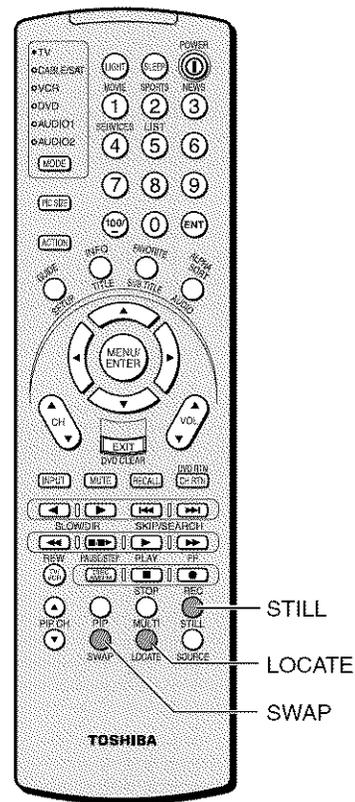
Press STILL while you are watching a small picture. The small picture will become a still picture. To return to the moving picture, press STILL again.



Using Multi-Window feature

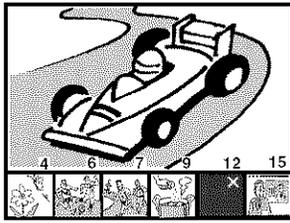
The Multi-Window feature provides two channel search modes. One is the Preview that scans the channels programmed in the TV memory by the CH PROGRAM function (6-picture multi-search), and the other is the Favorite that scans the channels programmed in the TV memory by the FAVORITE CH function (9-picture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

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



Using the preview function

Press INFO 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 INFO again.

Using the favorite function

1. Press FAVORITE to scan the channels programmed in the TV memory by the favorite channel function (page 26).

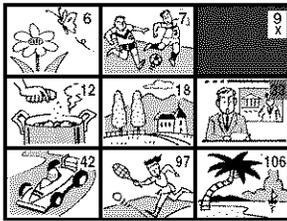
The 9-picture multi-search will start.

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.

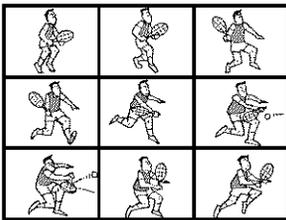


To cancel the favorite function:

Press FAVORITE again.

Using the strobe function

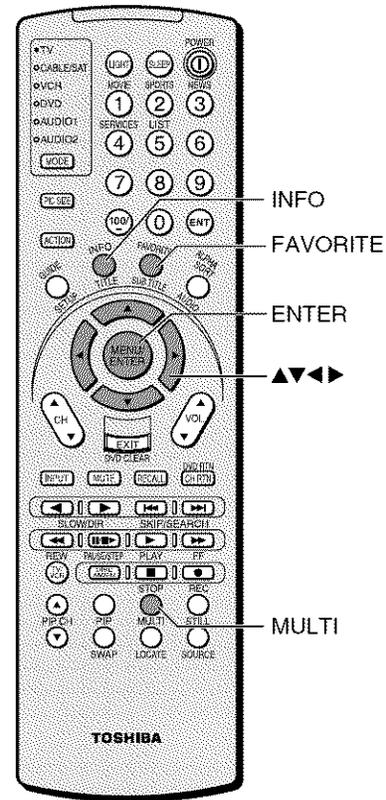
Press MULTI to start the strobe function. 9-picture multi-strobe starts for the present main picture.



For example, you can watch a decisive moment of a sport program that has been recorded previously.

To cancel the strobe function:

Press MULTI again.



Notes:

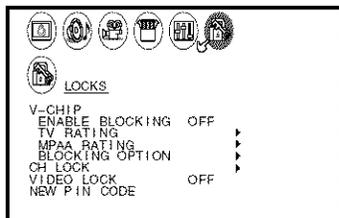
- When the main picture source is "colorstream", the INFO, FAVORITE and MULTI buttons are not available.
- The INFO button will not work when the ANT 2 mode is selected.
- If the V-CHIP feature is active and you try to scan a TV program that exceeds the rating limits you set, the "X" mark on the black window will appear. However, during the scanning period, the V-CHIP operation may not be done correctly.

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.

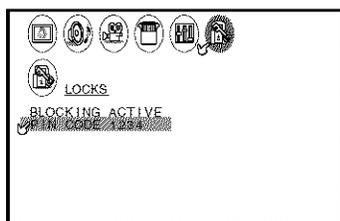
Entering the PIN code

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



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

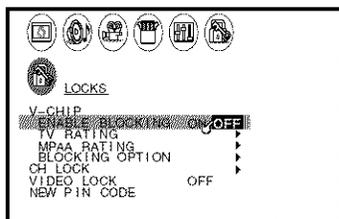
- Factory reset status
Set your 4 digit code by pressing the Number buttons (0-9).
- When the PIN code is already stored
Press the Number buttons (0-9) to enter the 4-digit PIN code used to block channels.



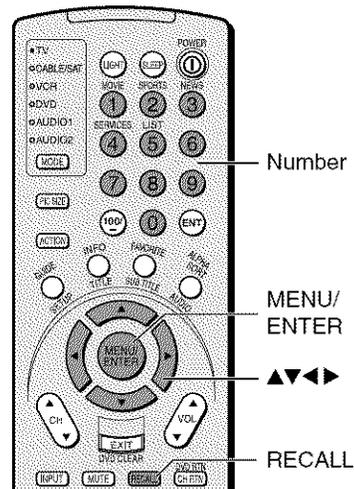
If a wrong PIN code has been entered, the message “Incorrect” will appear. Try to enter the correct code again.

If you cannot remember the PIN code you stored, while in the PIN code entering mode, press the RECALL button four times within five seconds. The PIN code you 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 on the next page.



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.

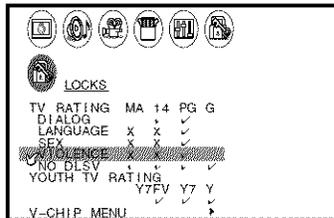
ENABLE BLOCKING

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)

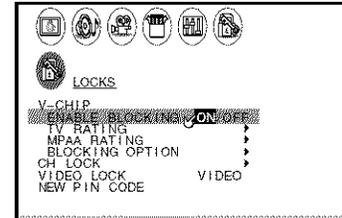
1. From the LOCKS menu, select TV RATING.
2. Press ◀ or ▶ to display the TV RATING menu.
3. Press ▼ or ▲ to select item.
4. Press ▶ to lock (displays "X")
Press ◀ to unlock (displays "✓")
5. Repeat steps 3 and 4 to set the next item.



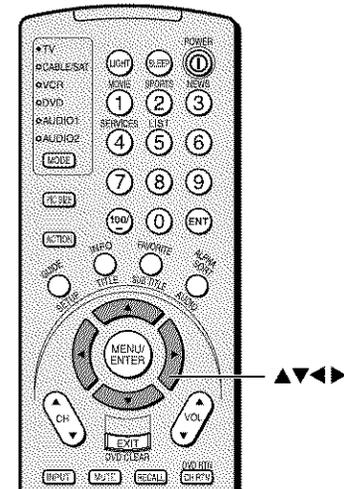
The TV age-based ratings and content themes you can lock are listed in the table below.

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: Programs in which fantasy violence may be more intense or more combative than other programs in this category are designated Y7FV.)
Y	All Children (This program is designed to be appropriate for all children)

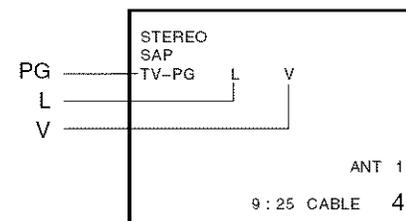
LOCKS menu



To select each item:
Press ▼ or ▲ .

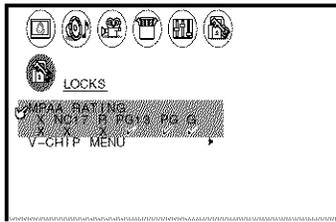


The rating of the TV programs you are now watching can be confirmed by pressing the RECALL button.



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:

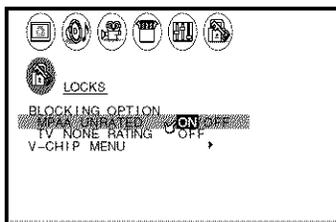
- X : X-rated (For adults only)
- NC17: Not intended for anyone 17 and under
- R : Restricted (Under 17 requires accompanying parent or adult guardian)
- PG13 : Parents Strongly Cautioned (Some material may be inappropriate for children under 13)
- PG : Parental Guidance Suggested (Some material may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

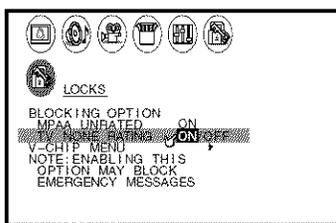
Press ◀ or ▶ to select ON (Lock) or OFF (Unlock) for unrated programs on MPAA rating system.



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.

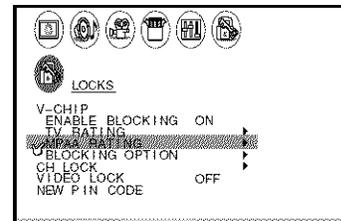


Note: The picture-in-picture is not locked even if ON is selected.

V-CHIP MENU:

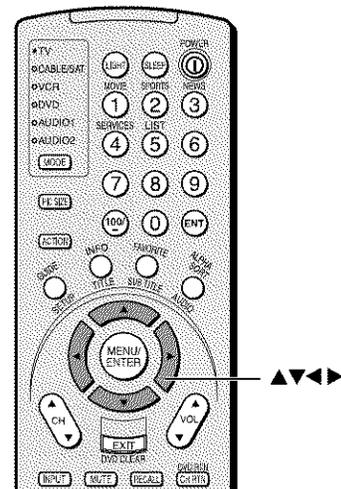
Press ◀ or ▶ to return to the LOCKS menu.

LOCKS menu



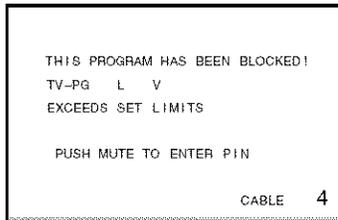
To select each item:

Press ▼ or ▲.

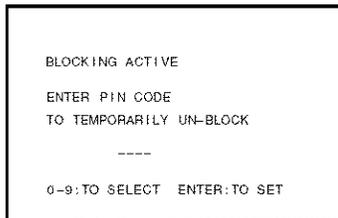


Unlocking programs temporarily

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.

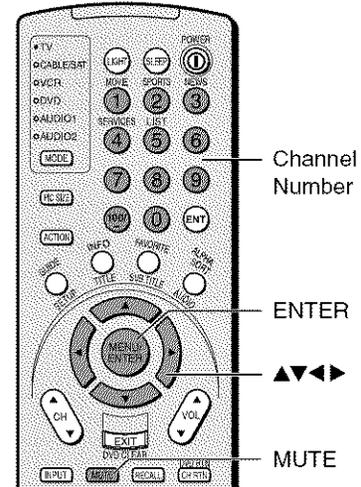
If the number is correct, the lock mode will be released and the normal picture will appear.

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 "Incorrect" appears.

Enter the correct code again.



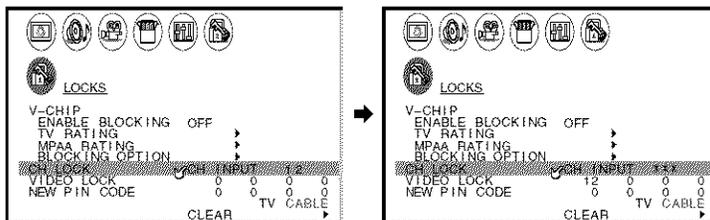
Locking channels

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

You can lock a maximum of eight channels.

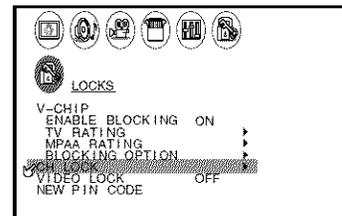
To lock channels:

1. From the LOCKS menu, select CH LOCK.
2. Press \blacktriangleleft or \blacktriangleright 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.



5. Repeat steps 3 and 4 for other channels.

LOCKS menu

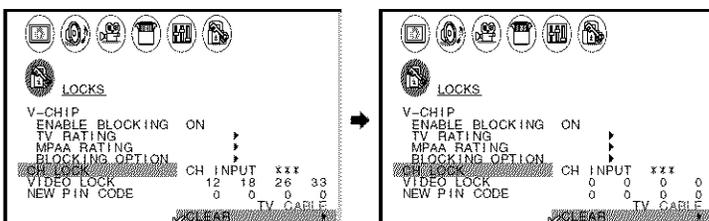


To select each item:

Press \blacktriangledown or \blacktriangle .

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.

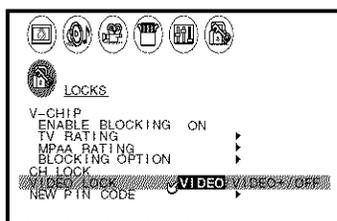


Locking video inputs

With the VIDEO LOCK feature, you can lock out the input sources (Video 1, Video 2, Video 3, ColorStream) 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, and ColorStream.

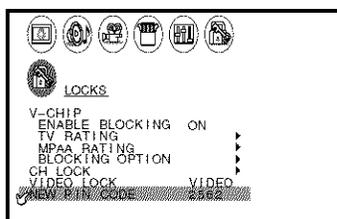
VIDEO+ : Locks Video 1, Video 2, Video 3, ColorStream, and channels 3 and 4. This option should be used if you use the antenna terminal to playback a video tape.

Note: Make sure the PIP channel is not on 3 or 4.

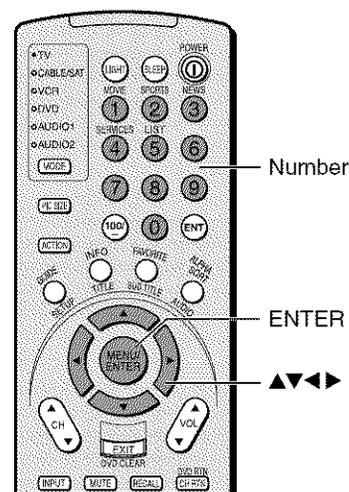
OFF : Unlock

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.



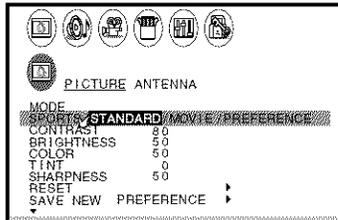
Adjusting the picture

Selecting the picture mode

You can select your desired picture type from four preset picture 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
movie	movie-like picture setting
preference	your personal preference*

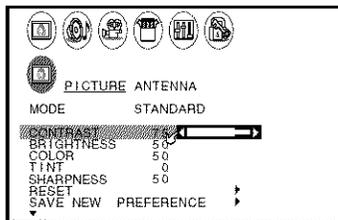
*(see "Saving new preference" on page 38.)

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:

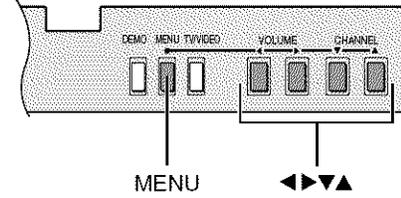
1. Press MENU, then press ◀ or ▶ until the PICTURE menu appears.
2. Press ▼ or ▲ until the item you want to adjust is highlighted.
3. Press ◀ or ▶ to adjust the level.



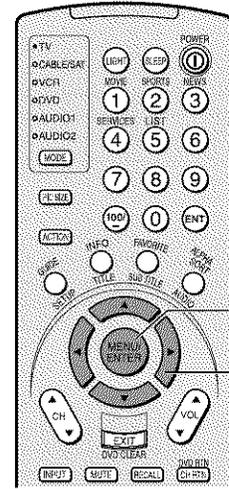
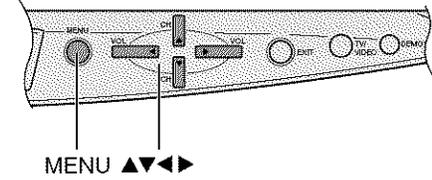
Selection	◀ Pressing ▶	
contrast	lower	higher
brightness	darker	lighter
color	paler	deeper
tint	reddish	greenish
sharpness	softer	sharper

The PICTURE items you have adjusted can be saved in the TV's memory by performing the Save New Preference feature (page 38). You can keep these settings or choose preset options under the picture mode selection feature shown above.

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Note:

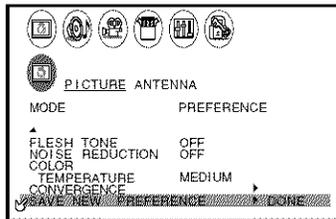
Your new settings must be saved using the Save New Preference feature. If the input source or channel is changed without saving your new preference, the settings will be lost.

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 ▶.



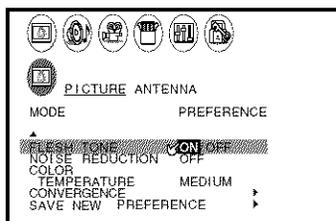
You can choose preset options by selecting the PREFERENCE mode in the picture mode feature. See page 37.

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:

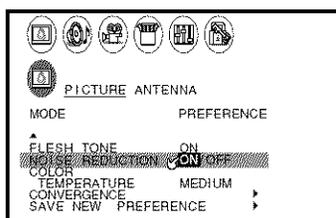
Choose OFF in step 3 above.

Using the noise reduction feature

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

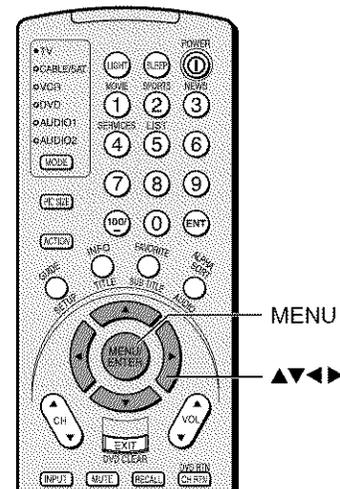
To turn on the noise reduction feature:

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



To turn off the noise reduction feature:

Choose OFF in step 3 above.

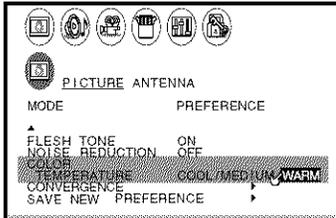


Selecting the color temperature

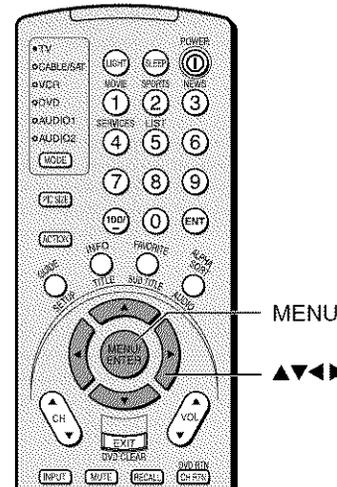
You can change the quality of the picture by selecting from three preset color temperatures: cool, medium, and warm.

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.

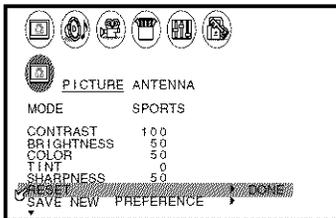


Mode	Picture Quality
cool	blueish
medium	neutral
warm	reddish



Resetting your picture adjustments

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



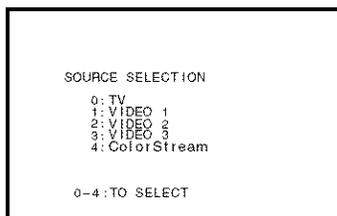
The RESET function adjusts the following picture functions to the factory settings.

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

Watching video input

You can use the INPUT button on the remote or the TV/VIDEO button on the TV to view a signal coming from other devices, such as VCRs or video disc players that may be connected to your TV. Select VIDEO 1, VIDEO 2, VIDEO 3, or ColorStream depending on which input jacks are used for connecting the devices. (See "Connecting your TV" on page 5.)

The following on-screen display applies if you press the INPUT button on the remote control, but if you press the TV/VIDEO button on the TV set a different menu is displayed. (See page 22.)



You can select the desired video source directly by pressing the corresponding number buttons (1-4) while the above menu is on the screen.

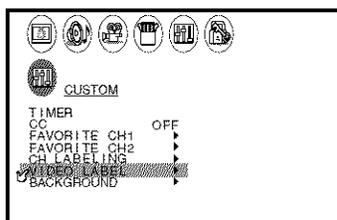
Selecting the video label

This feature allows you to rename the input sources for your TV. The available video label names include '-', 'VCR', 'DVD', 'DTV', 'SAT' and 'CBL' where the symbol denotes the following:

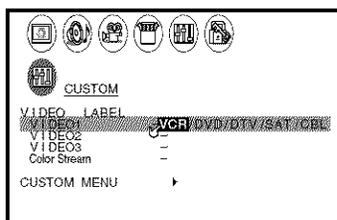
- : uses the default label name
- VCR : Video Cassette Recorder
- DVD : DVD video player
- DTV : Digital TV Set Top Box
- SAT : Satellite box
- CBL : Cable box

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 your desired label.

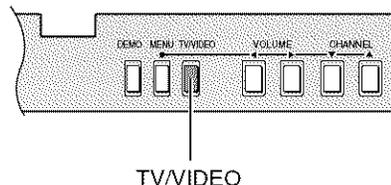


Note:

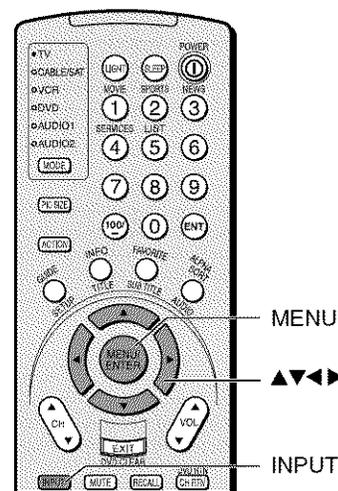
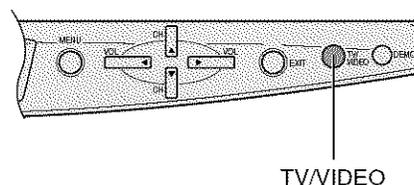
When ColorStream is selected, the video OUT signal will not have color.

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

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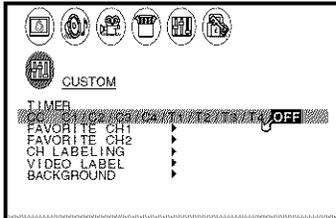
6. Finish labeling the other video sources as desired. To return to the previous menu, press ▲ or ▼ to highlight CUSTOM MENU, then press ◀ or ▶.
To exit the menu, press EXIT.

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:

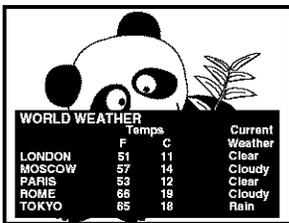
1. Select the desired program. The captioned programs are usually marked in your local TV listing as "CC."
2. Press MENU, then press ◀ or ▶ until the CUSTOM menu appears.
3. Press ▼ or ▲ to highlight CC.



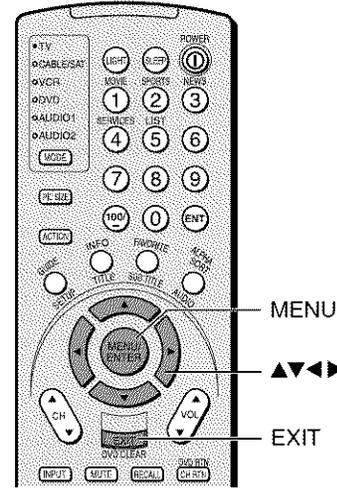
4. Press ◀ or ▶ to highlight the closed caption mode.
 - Select C1, C2, C3, or C4 to view captions. Select C1 for translation of the primary language in your area.



- 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 video tape 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.

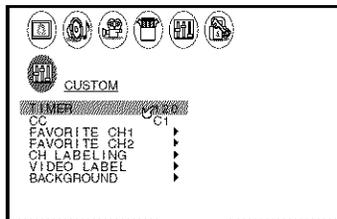
Setting the sleep timer

You can set the TV so it turns off automatically.

To set the sleep timer:

1. Press SLEEP to display the CUSTOM menu. TIMER will be highlighted.
2. Press two Number buttons (0-9) to enter how long you want the TV to remain on (up to three hours, in 10 minute increments). Enter the numbers after the number position starts to blink.

The SLEEP button can also be used to increment the time interval of 10 minutes up to 180 minutes.



3. Press ENTER to start the timer.

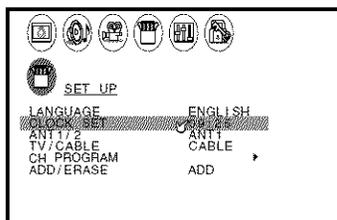
To cancel the off-timer:

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

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. Press four Number buttons (0-9) to enter the correct time. Enter the numbers after the number position starts to blink.



The clock operates on a 12 hour-cycle.

4. Press ENTER to start the clock.

To monitor the time:

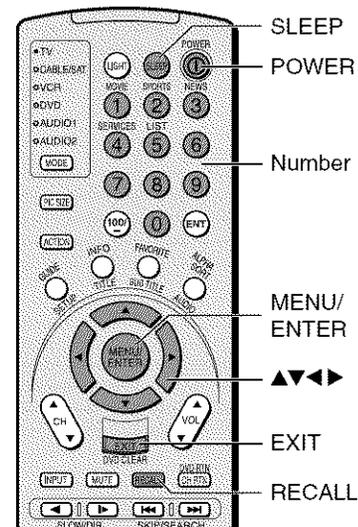
Press RECALL.

Note :

The timer can also be set by using the MENU and ▲▼◀▶ buttons.

If you want to see how much time remains before the shut-off time, press SLEEP once.

The remaining time will be displayed. To erase the display, press EXIT.



Note:

If the power source for the TV is interrupted (i.e., AC cord unplugged or power failure), the clock will have to be reset.

Adjusting the sound

Muting the sound

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

When you press the MUTE button, you automatically activate the closed caption feature. To deactivate this feature, press the MUTE button again. This feature only works when the closed caption mode is set to off. See "Using the closed caption feature" on page 41 for more information.

Selecting stereo/SAP broadcasts

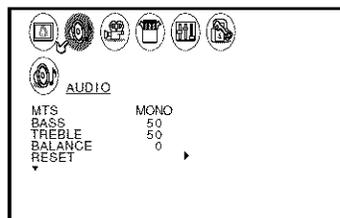
You can enjoy watching TV while you listen to high-fidelity stereo sound with the Multi-channel TV Sound (MTS) feature. MTS can also transmit a second audio program (SAP) containing a second language or other audio information (if available in your area).

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.

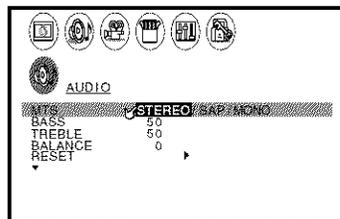
The MTS feature is not available while in the VIDEO mode.

To listen to stereo sound:

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



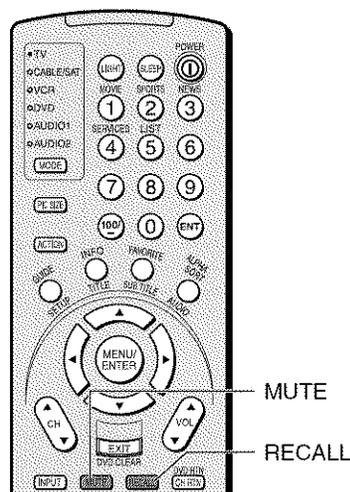
2. Press ▲ or ▼ to highlight MTS.
3. Press ◀ or ▶ to highlight STEREO.



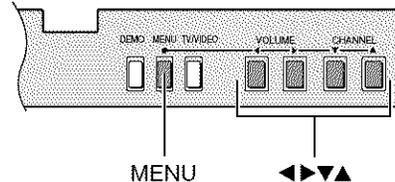
You should leave your TV set to STEREO so you can automatically receive stereo or monaural sound, depending on the broadcast type. If the stereo sound is noisy, select MONO to reduce the noise. The word STEREO or SAP is displayed in yellow when the TV receives the signal.

To listen to a second audio program:

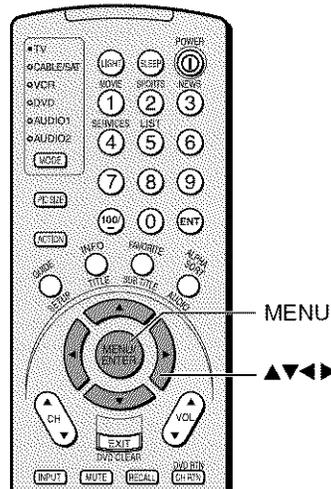
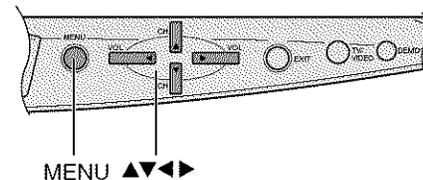
1. Press MENU, then press ◀ or ▶ until the AUDIO menu appears.
2. Press ▲ or ▼ to highlight MTS.
3. Press ◀ or ▶ to highlight SAP. You will hear only the second audio program from the speakers.



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Note:

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

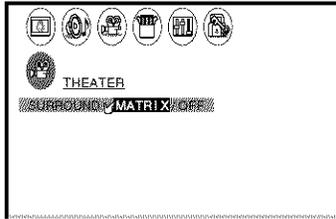
If you have the SAP feature on, and the station the TV is currently tuned to is in SAP mode but is not currently playing a second audio program, you will be able to see the picture but may not hear sound. If this occurs, turn the SAP feature off.

Using the surround sound feature

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

To turn on the surround sound feature:

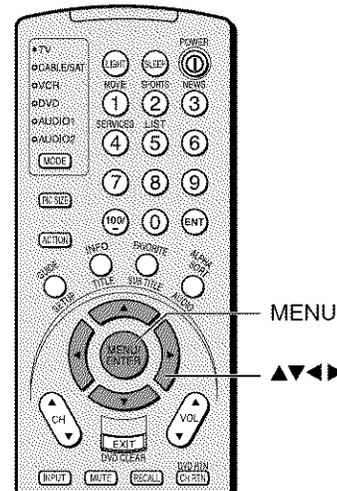
1. Select the stereo mode following the steps under "Selecting stereo/SAP broadcasts" on page 43.
2. Press MENU, then press ◀ or ▶ until the THEATER menu appears.
3. Press ▲ or ▼ to highlight SURROUND.
4. Press ◀ or ▶ to highlight MATRIX.



To turn off the surround sound feature:

Choose OFF in step 4 above.

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



Note:

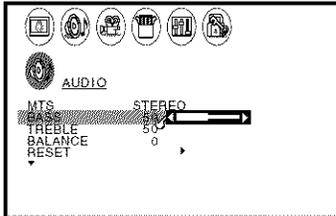
When the MATRIX surround is selected, the StableSound™ feature is automatically turned off. See page 47.

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:

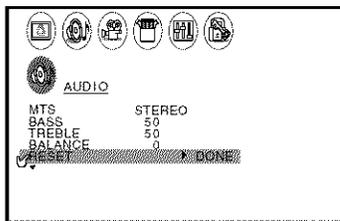
1. Press MENU, then press ◀ or ▶ until the AUDIO menu appears.
2. Press ▲ or ▼ to highlight the item you want to adjust.



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.

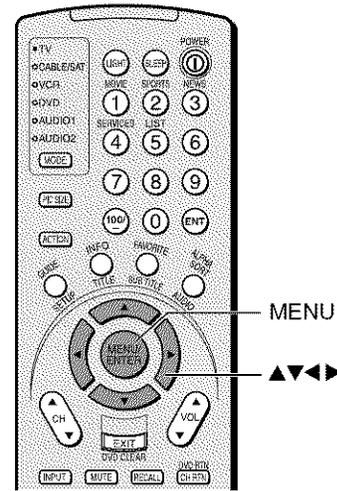
Resetting your audio adjustments

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)

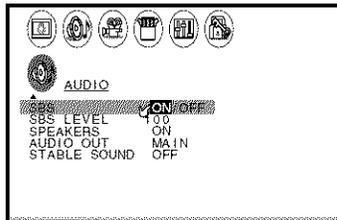


Using the Sub-Bass System (SBS)

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

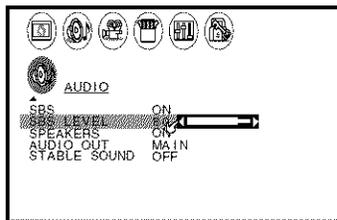
To turn on the Sub-Bass System:

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:

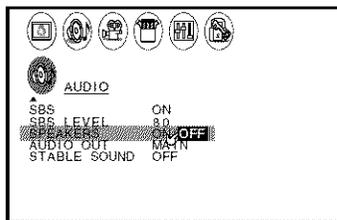
Choose OFF in step 3 above.

Turning off the built-in speakers

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

To turn off the built-in speakers:

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



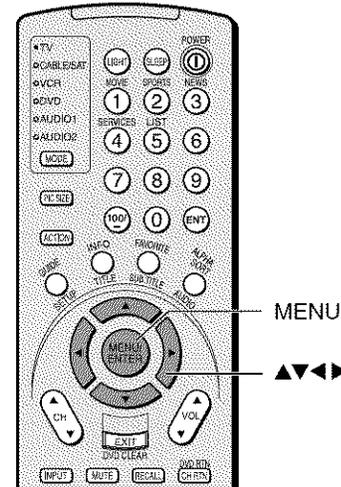
To turn on the built-in speakers:

Choose ON in step 3.

Note:

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

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



Note:

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

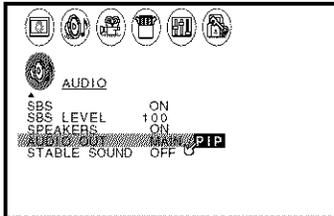
Selecting the Audio OUT sound

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 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 StableSound™ feature

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

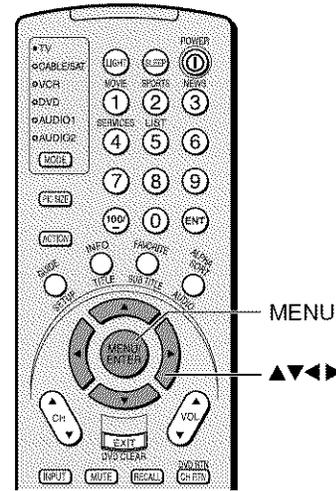
To turn on the StableSound feature:

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 StableSound feature:

Choose OFF in step 3 above.



Note:

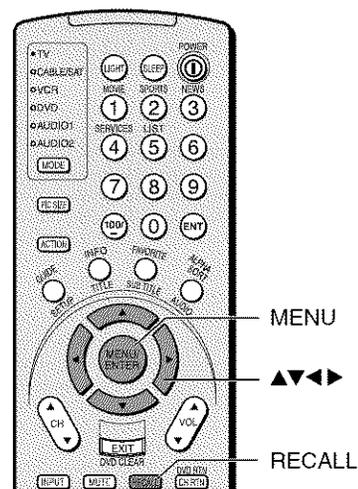
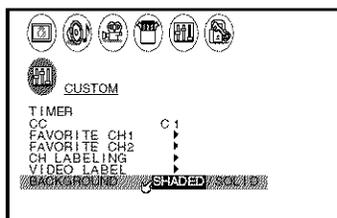
When the StableSound™ feature is turned on, the surround feature is automatically turned off (see page 44).

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:

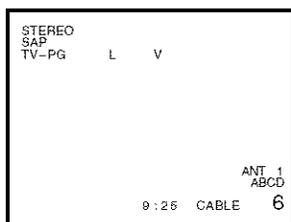
1. Press MENU, then press ◀ or ▶ until the CUSTOM menu appears.
2. Press ▲ or ▼ to highlight BACKGROUND.
3. Press ◀ or ▶ to select either a SHADED or SOLID background.



Displaying on-screen information

Press RECALL to display the following information on-screen:

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



Viewing the demonstration mode

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

To stop the demonstration mode:

Press DEMO again.

Understanding the auto power off feature

The TV will automatically turn itself off after approximately 15 minutes if it is tuned to a vacant channel or to a station 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	43AX60A: 143 W (average) 50AX60A: 141 W (average)
Audio Power	14 W + 14 W
Speaker Type	43AX60/A: Two 4-3/4 inches (12 cm) round 50AX60/A: Two 6-1/4 inches (16 cm) round
Video/Audio Terminals	S-VIDEO INPUT Y-INPUT: 1 V(p-p), 75 ohm, negative sync. C-INPUT: 0.286 V(p-p) (burst signal), 75 ohm VIDEO/AUDIO INPUT VIDEO: 1 V(p-p), 75 ohm, negative sync. AUDIO: 150 mV(rms) (30% modulation equivalent, 47 kohm) ColorStream® (component video) INPUT Y : 1V(p-p), 75 ohm CR: 0.7 V(p-p), 75 ohm CB: 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	43AX60/A: Width 37-3/4 inches (959 mm) Height 42-1/2 inches (1,080 mm) Depth 18-7/16 inches (468 mm) 50AX60/A: Width 42-1/4 inches (1,073 mm) Height 50-5/8 inches (1,286 mm) Depth 20-13/16 inches (529 mm)
Mass	43AX60/A: 133 lbs (60.5 kg) 50AX60/A: 217 lbs (98.6 kg)
Supplied Accessories	Remote Control with 2 size “AA” alkaline batteries
Optional TV Stand	43AX60/A: ST4316 50AX60/A: —

Design and specifications are subject to change without notice.

Troubleshooting

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

Problem	Solution
TV will not turn on	<ul style="list-style-type: none">• Make sure the power cord is plugged in, then press POWER.• The remote control batteries may be dead. Replace the batteries.
No picture, no sound	<ul style="list-style-type: none">• Check the antenna/cable connections.
No sound, picture OK	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• The station may have broadcast difficulties. Try another channel.
Poor picture, sound OK	<ul style="list-style-type: none">• Check the antenna connections.• The station may have broadcast difficulties. Try another channel.• Adjust the PICTURE menu.
Poor reception of broadcast channels	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• Make sure TV/CABLE is set to the mode that corresponds to the signal source type (that is, cable company or outside antenna).
Black box appears on the screen	<ul style="list-style-type: none">• Captioning may be turned on.
Unable to select a certain channel	<ul style="list-style-type: none">• The channel may be locked out with the CH LOCK feature, or erased with the ADD/ERASE feature.
Multiple images	<ul style="list-style-type: none">• The station may have broadcast difficulties. Try another channel.• Antenna reception may be poor. Use a highly directional outdoor antenna.
Poor color or no color	<ul style="list-style-type: none">• The station may have broadcast difficulties. Try another channel.• Adjust the TINT and/or COLOR in the PICTURE menu.
No stereo or SAP sound from a known MTS broadcast	<ul style="list-style-type: none">• Make sure the MTS feature is set properly.
Remote control does not operate	<ul style="list-style-type: none">• Check whether the appropriate device mode is selected.• There may be an obstruction between the remote control and the remote control sensor. Remove the obstruction and retry the remote control.• The remote control batteries may be dead. Replace the batteries.

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.

How to Obtain Warranty Service

If after following all of the operating instructions in this manual and checking the section "BEFORE CALLING SERVICE PERSONNEL," 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.
- (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."

In the Continental United States call:



In Hawaii contact:

Toshiba Hawaii, Inc. 327 Kamakee Street, Honolulu, Hawaii 96814 (808) 591-8377

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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