# OWNER'S MANUAL

# **Color Television**

COLOR STREAM® SRS (WOW)





### **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:

34HFX84

Serial No.:



# **Dear Customer,**

Thank you for purchasing this Toshiba TV. This manual will help you use the many exciting features of your new TV. Before operating the TV, please read this manual completely, and keep it nearby for future reference.

# **Safety Precautions**

#### WARNING

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



WARNING RISK OF ELECTRIC SHOCK DO NOT OPEN



WARNING: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL



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  $\ensuremath{\square}$ important operating and maintenance instructions follow this symbol.□

## NOTE TO CATV INSTALLERS IN THE USA

This is a reminder 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. For additional antenna grounding information, see items 26 and 27 on page 4.

# **NOTICE OF POSSIBLE ADVERSE EFFECTS ON TV PICTURE TUBE**

If a fixed (non-moving) pattern remains on the TV screen for long periods of time, the image can become permanently engrained in the picture tube. This type of damage is NOT **COVERED BY YOUR WARRANTY.** See item 34 on page 4.



ENERGY STAR® qualified TV. Products that earn the ENERGY STAR prevent green house gas emissions by meeting strict energy efficiency guidelines set by the U.S. Environmental Protection Agency and the U.S. Department of Energy. ENERGY STAR and the ENERGY STAR mark are registered U.S. marks.

## NOTICE OF POSSIBLE TV STAND INSTABILITY

DANGER: RISK OF SERIOUS PERSONAL INJURY OR DEATH! Use this TV with the TOSHIBA TV stand recommended in the "Specifications" section only.

Use with other stands may result in instability, causing possible injury or death.

# **Child Safety**

# **It Makes A Difference Where Your TV Stands**



Congratulations on your purchase! As you enjoy your new TV, keep these safety tips in mind:

# The Issue

- ☐ If you are like most consumers, you have a TV in your home. Many homes, in fact, have more than one TV.
- ☐ The home theater entertainment experience is a growing trend, and larger TVs are popular purchases; however, they are not always supported on the proper TV stands.
- ☐ Sometimes TVs are improperly secured or inappropriately situated on dressers, bookcases, shelves, desks, audio speakers, chests, or carts. As a result, TVs may fall over, causing unnecessary injury.

# **Toshiba Cares!**

☐ The consumer electronics industry is committed to making home entertainment enjoyable and safe.

☐ The Consumer Electronics Association formed the Home **Entertainment Support Safety** Committee, comprised of TV and consumer electronics furniture manufacturers, to advocate children's safety and educate consumers and their families about television safety.

# **Tune Into Safety**

☐ One size does NOT fit all! Use appropriate furniture large enough to support the weight of your TV (and other electronic components).

- Use appropriate angle braces, straps, and anchors to secure your furniture to the wall (but never screw anything directly into the TV).
- ☐ Carefully read and understand the other enclosed instructions for proper use of this product.
- ☐ Do not allow children to climb on or play with furniture and TVs.
- ☐ Avoid placing any item on top of your TV (such as a VCR, remote control, or toy) that a curious child may reach for.
- Remember that children can become excited while watching a program and can potentially push or pull a TV over.
- ☐ Share our safety message about this hidden hazard of the home with your family and friends. Thank you!



2500 Wilson Blvd. Arlington, VA 22201 U.S.A. Tel. 703-907-7600 Fax 703-907-7690

CEA is the Sponsor, Producer and Manager of the International CES®

# **Important Safety Instructions**

- 1) Read these instructions.
- 2) Keep these instructions.
- 3) Heed all warnings.
- 4) Follow all instructions.



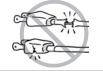
Do not use this apparatus near water.



- 6) Clean only with dry cloth.
- 7) **Do not block any ventilation openings.** Install in accordance with the manufacturer's instructions.
- 8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.



- 9) Do not defeat the safety purpose of the polarized or grounding type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10) Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where it exits the apparatus.



- 11) Only use attachments/accessories specified by the manufacturer.
- 12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.



13) Unplug this apparatus during lightning storms or when unused for long periods of time.



- 14) Refer all servicing to qualified service personnel.

  Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, or the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- 15) CAUTION: To reduce the risk of electric shock, do not use the polarized plug with an extension cord, receptacle, or other outlet unless the blades can be inserted completely to prevent blade exposure.

# **Installation, Care, and Service**

### Installation

Follow these recommendations and precautions and heed all warnings when installing your TV:

16) Never modify this equipment. Changes or modifications may void: a) the warranty, and b) the user's authority to operate this equipment under the rules of the Federal Communications Commission.

DANGER: RISK OF SERIOUS PERSONAL INJURY, DEATH, OR EQUIPMENT DAMAGE! Never place the TV on an unstable cart, stand, or table. The TV may fall, causing serious personal injury, death, or serious damage to the TV.

18) Never place or store the TV in direct sunlight; hot, humid areas; areas subject to excessive dust or vibration; or locations with temperatures at or below 41°F (5°C).



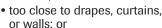
19) Always place the TV on the floor or a sturdy, level, stable surface that can support the weight of the unit.

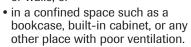


Never place items such as vases, aquariums, or candles on top of the TV.



- 21) Always place the back of the television at least one (1) inch away from any vertical surface (such as a wall) to allow proper ventilation.
- 22) Never block or cover the slots or openings in the TV cabinet back, bottom, and sides. Never place the TV:
  - on a bed, sofa, rug, or similar surface;





The slots and openings are provided to protect the TV from overheating and to help maintain reliable operation of the TV.



- 23) Never allow anything to rest on or roll over the power cord, and never place the TV where the power cord is subject to wear or abuse.
- 24) Never overload wall outlets and extension cords.

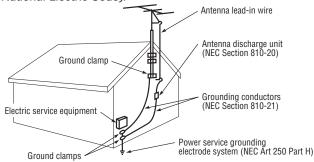


3

25) Always operate this equipment from a 120 VAC, 60 Hz power source only.



26) Always make sure the antenna system is properly grounded to provide adequate protection against voltage surges and built-up static charges (see Section 810 of the National Electric Code).



DANGER: RISK OF SERIOUS PERSONAL INJURY OR DEATH!

• Use extreme care to make sure you are never in a position where your body (or any item you are in contact with, such as a ladder or screwdriver) can accidentally touch overhead power lines. Never locate the antenna near overhead power lines or other electrical circuits.

- Never attempt to install any of the following during lightning activity:
- a) an antenna system; or b) cables, wires, or any home theater component connected to an antenna or phone system.

### Care

27)

For better performance and safer operation of your TOSHIBA TV, follow these recommendations and precautions:

- 28) Always sit approximately 10–25 feet away from the TV and as directly in front of it as possible. The picture can appear dull if you sit too far to the left or right of the TV, or if sunlight or room lights reflect on the screen. Turn the TV off to check for reflections on the screen, and then remove the source of reflections while viewing the TV.
- 29) Always unplug the TV before cleaning. Never use liquid or aerosol cleaners. Clean only with a dry cloth.



WARNING: RISK OF ELECTRIC SHOCK!

Never spill liquids or push objects of any kind into the TV cabinet slots.

- 31) For added protection of your TV from lightning and power surges, always unplug the power cord and disconnect the antenna from the TV if you leave the TV unattended or unused for long periods of time.
- 32) During normal use, the TV may make occasional snapping or popping sounds. This is normal, especially when the unit is being turned on or off. If these sounds become frequent or continuous, unplug the power cord and contact a Toshiba Authorized Service Center.
- 33) Possible Adverse Effects on TV Picture Tube: If a fixed (non-moving) pattern remains on the TV screen for long periods of time, the image can become permanently engrained in the picture tube and cause subtle but permanent ghost images. This type of damage is NOT COVERED BY YOUR WARRANTY. Never leave your TV on for long periods of time while it is displaying the following formats or images:
  - **Fixed Images**, such as PIP/POP windows, stock tickers, video game patterns, TV station logos, and websites.
  - **Special Formats** that do not use the entire screen. For example, viewing letterbox style (16:9) media on a normal (4:3) display (gray bars at top and bottom of screen); or viewing normal style (4:3) media on a widescreen (16:9) display (gray bars on left and right sides of screen).

# Service

WARNING: RISK OF ELECTRIC
SHOCK! Never attempt to service the
TV yourself. Opening and
removing the covers may expose
you to dangerous voltage or other
hazards. Refer all servicing to a
Toshiba Authorized Service Center.

- 35) If you have the TV serviced:
  - Ask the service technician to use only replacement parts specified by the manufacturer.

ONLY AUTHORIZED

- Upon completion of service, ask the service technician to perform routine safety checks to determine that the TV is in safe operating condition.
- 36) When the TV reaches the end of its useful life, ask a qualified service technician to properly dispose of the TV. Improper disposal may result in a picture tube implosion and possible personal injury.

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# Introduction

# **Welcome to Toshiba**

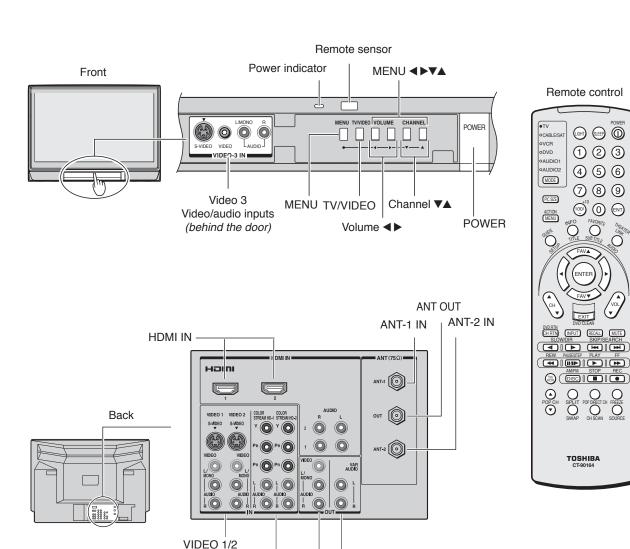
Congratulations! You have purchased one of the finest projection TVs on the market. The goal of this manual is to guide you through setting up and operating your Toshiba TV as quickly as possible.

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 using the buttons on the front panel or the remote control. The terminals for connecting other equipment to your TV are on the back panel and front panel (behind the door).



ColorStream

HD1/HD2 Audio OUT

Variable Audio OUT

# **Connecting your TV**

Note: Cables are not supplied with your TV.

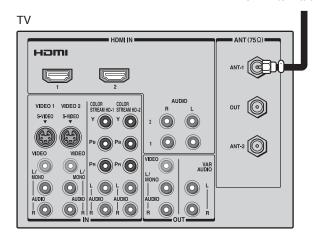
- Coaxial cable is the cable that comes in from your antenna, cable TV service, or cable converter box. Coaxial cable uses "F" connectors.
- Standard A/V (audio/video) cables usually come in sets of three, and are typically color-coded according to use: yellow for video, red for stereo right audio, and white for stereo left (or mono) audio.

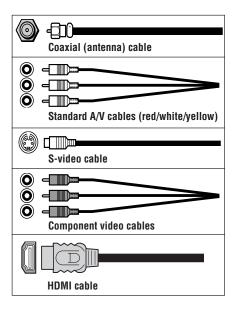
  On your TV's back panel, the standard A/V inputs are color-coded in the same manner as the cables.
- S-Video cable is for use with video equipment that has S-Video output.
- Component video cables come in sets of three, and are for use with video equipment with component video output. (ColorStream® is Toshiba's brand of component video.)
- **HDMI** is for use with video equipment with HDMI output (type A connector) (see page 14).

# Connecting an antenna or cable TV

This connection allows you to watch TV programs or basic cable channels.

From Antenna or Cable







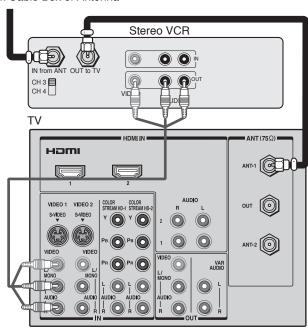
# **Connecting a VCR**

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

You will need:

- two coaxial cables
- one set of standard A/V cables

From Cable Box or Antenna



#### Note:

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

If you have a VCR with S-video, use an S-video cable (in the S-video jacks) instead of the standard video cable.

Do not connect a standard video cable and an S-video cable to Video-1 (or Video-2) at the same time, or the picture performance will be unacceptable.

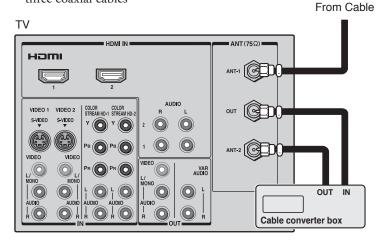
The unauthorized recording, use, distribution, or revision of television programs, videotapes, DVDs, and other materials is prohibited under the Copyright Laws of the United States and other countries, and may subject you to civil and criminal liability.

# Connecting a cable converter box

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

You will need:

• three coaxial cables



#### Note:

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

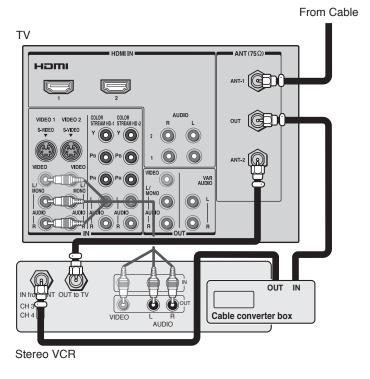
# Connecting a cable converter box and VCR

This connection allows you to watch and record basic and premium cable channels, watch videotapes, and record one channel while watching another channel. To watch basic cable and use the TV's features, select ANT-1.

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

You will need:

- · four coaxial cables
- one set of standard A/V cables



#### Note:

If you have a mono VCR, connect L/Mono to VCR Audio OUT using only one audio cable. If you have a VCR with S-video, use an S-video cable (in the S-video jacks) instead of a standard video cable. Do not connect a standard video cable and an S-video cable to Video-1 (or Video-2) at the same time, or the picture performance will be unacceptable.

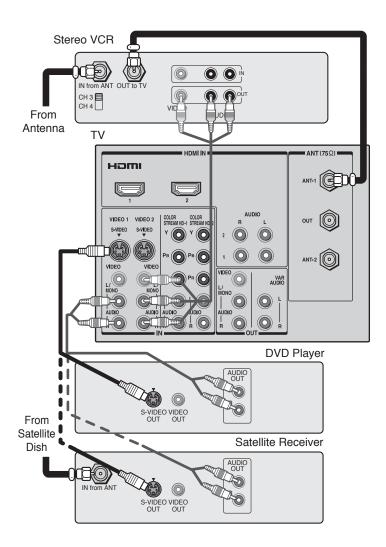
When you use a converter box with your TV, the remote control will not operate some features, such as programming your favorite channels, labeling channels, and locking channels.

# Connecting a DVD player or satellite receiver and a VCR

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

#### You will need:

- two (or three, if satellite receiver is used) coaxial cables
- one set of standard A/V cables (between the TV and VCR)
- one S-video cable (between the TV and DVD player/satellite receiver)
- one pair of standard audio cables (between the TV and DVD player/satellite receiver)



#### Note:

For the highest possible picture quality from a DVD player or satellite receiver without component video or HDMI, use an S-video cable. (If your DVD player has component video, see page 11. If your DVD player or satellite receiver has HDMI, see page 14.)

Do not connect both an S-video cable and a standard video cable between the TV and DVD player/satellite receiver at the same time or the picture performance will be unacceptable.

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

# Connecting a DVD player with ColorStream® (component video) and a VCR

This connection allows you to watch DVD, VCR, and TV programs, and record TV programs.

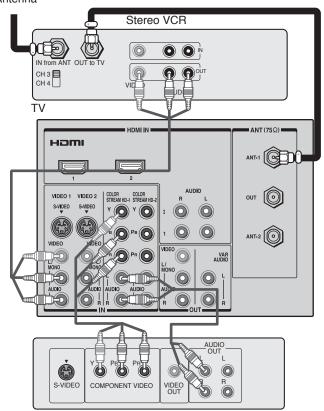
Your TV has ColorStream® (component video) inputs. Connecting your TV to a DVD player with component video (such as a Toshiba DVD player with ColorStream®) can greatly enhance picture quality and realism.

- To record one TV program while watching another TV program, tune the VCR to the channel to record, and tune the TV to the channel to watch.
- To record a TV program while watching a DVD, tune the VCR to the channel to record, and select ColorStream HD1 on the TV (see "Selecting the antenna input" on page 25).

## You will need:

- two coaxial cables
- one set of standard A/V cable
- one pair of standard audio cables
- one set of component video cables

#### From Antenna



DVD player with component video

#### Note:

For the highest possible picture quality, use component video cables (or an HDMI cable) between the TV and DVD player.

You can connect the component video cables to either set of ColorStream jacks on the TV (HD1 or HD2).

For HDMI connection, see page 14.

The ColorStream HD1/HD2 and HDMI jacks can be used with Progressive (480p, 720p) and Interlaced (480i, 1080i) scan systems; however, a 1080i signal will provide the best picture performance.

If your DVD player is not compatible with component video or HDMI, use the S-video connections (plus the standard audio connections) instead (see page 10).

# Connecting a DTV receiver/set-top box with ColorStream<sup>®</sup> (component video) and a VCR

This connection allows you to watch DTV (digital TV), VCR, and TV programs, and record DTV and TV programs.

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

- To record and watch a DTV program, select LINE IN on the VCR, and select ColorStream HD2 (or VIDEO 1 for a non-ColorStream connection) on the TV (see "Selecting the antenna input" on page 25).
- To record a TV program while watching a DTV program, tune the VCR to the channel to record, and select ColorStream HD2 on the TV.
- To record and watch the same TV program, tune the VCR to the channel to record, and select VIDEO 1 on the TV.
- To record one TV program while watching another TV program, tune the VCR to the channel to record, and tune the TV to the channel to watch.

#### You will need:

- three coaxial cables
- two sets of standard A/V cables
- one pair of standard audio cables
- one set of component video cables

# 

DTV Receiver with component video

#### Note:

For the highest possible picture quality, use component video cables (or an HDMI cable) between the TV and DTV receiver/set-top

You can connect the component video cables to either set of the ColorStream jacks on the TV (HD1 or HD2).

For HDMI connection, see page 14.

The ColorStream HD1/HD2 and HDMI jacks can be used with Progressive (480p, 720p) and Interlaced (480i, 1080i) scan systems; however, a 1080i signal will provide the best picture performance.

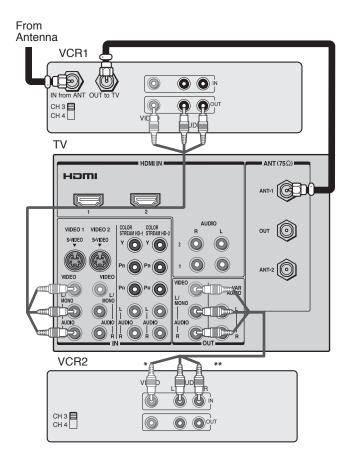
If your DTV receiver or set-top box is not compatible with component video or HDMI, use the S-video connections (plus the standard audio connections) instead (see page 10).

# **Connecting two VCRs**

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

You will need:

- two coaxial cables
- two sets of standard A/V cables



#### Note:

If you have VCRs with S-video, use S-video cables instead of standard video cables for better picture performance. Do not connect both a standard video cable and an S-video cable to Video-1 (or Video-2) at the same time, or the picture performance will be unacceptable.

Do not connect the same VCR to the output and input jacks on the TV at the same time. To dub or edit, VCR 2 must select Line IN, and the TV must select VIDEO 1 (see "Selecting the antenna input" on page 25).

- \* The Video OUT jack does not output the POP picture.
- \*\* The Audio OUT jacks can output the sound of either the Main or POP picture (see "Selecting the Audio OUT sound" on page

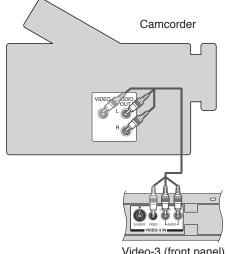
The unauthorized recording, use, distribution, or revision of television programs, videotapes, DVDs, and other materials is prohibited under the Copyright Laws of the United States and other countries, and may subject you to civil and criminal liability.

# Connecting a camcorder

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

You will need:

• one set of standard A/V cables



#### Video-3 (front panel)

#### Note:

If you have a camcorder with S-video, use an S-video cable instead of a standard video cable for better picture performance. Do not connect both a standard video cable and an S-video cable at the same time, or the picture performance will be unacceptable.

# Connecting an HDMI or a DVI device to the HDMI input

The HDMI<sup>[1]</sup> input on your TV receives digital audio and uncompressed digital video and audio from an HDMI device or uncompressed digital video from a DVI<sup>[2]</sup> device.

This input is designed to accept HDCP<sup>[3]</sup> program material in digital form from EIA/CEA-861/861B—compliant<sup>[4]</sup> consumer electronic devices (such as a settop box or DVD player with HDMI or DVI output).

The HDMI input is designed for best performance with 1080i high-definition video signals, but will also accept and display 480i, 480p, and 720p signals.

Note: This TV is not intended for connection to and should not be used with a personal computer.

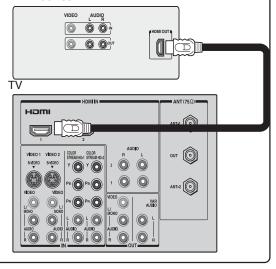
### To connect an HDMI device, you will need:

• one HDMI cable (type A connector)

For proper operation, it is recommended that you use a short HDMI cable. You should not encounter difficulty if you use an HDMI cable shorter than 16.4 ft (5m).

HDMI cable transfers both video and audio. Separate analog audio cables are not required (see illustration below). Some CDVs (video CDs) may not output digital audio signals. In that case, you may hear sound by connecting analog audio cables. However, if you connect analog audio cables with this connection, the HDMI terminal on the TV will not receive the HDMI digital audio signal and you will hear analog audio only.

#### HDMI device



HDMI, the HDMI logo, and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing, LLC.

[1] HDMI = High-Definition Multimedia Interface.

- [2] DVI = Digital Video Interface.
- [3] HDCP = High-bandwidth Digital Content Protection.
- [4] EIA/CEA-861/861B compliance covers the transmission of uncompressed digital video with high-bandwidth digital content protection, which is being standardized for reception of high-definition video signals. Because this is an evolving technology, it is possible that some devices may not operate properly with the TV.

To ensure that the HDMI or DVI device is reset properly, it is recommended that you follow these procedures:

- When turning on your electronic components, turn on the TV first, and then the HDMI or DVI device.
- When turning off your electronic components, turn off the HDMI or DVI device first, and then the TV.

### To connect a DVI device, you will need:

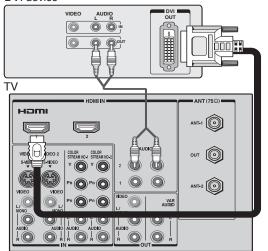
• one HDMI-to-DVI adapter cable (HDMI type A connector)

For proper operation, the length of an HDMI-to-DVI adapter cable should not exceed 9.8 ft (3m). The recommended length is 6.6 ft (2m).

• one pair of standard analog audio cables

An HDMI-to-DVI adapter cable transfers only video. Separate analog audio cables are required (see illustration below).

#### DVI device



# Connecting an audio system

This connection allows you to use an audio amplifier and external speakers, and adjust the audio level using the TV's remote control. To control the audio, turn on the TV and the stereo amplifier, and turn off the TV's built-in speakers (see "Turning off the built-in speakers" on page 57).

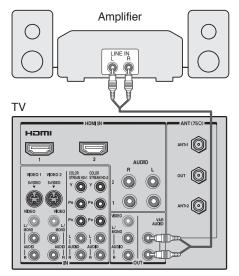
You will need:

• one pair of standard audio cables

#### Note:

To hear sound when using an external audio amplifier, the volume of both the TV and the amplifier must be set above 0 (zero).

For example, if the volume of the TV is set to 0, you will not be able to hear any sound, even the volume of the amplifier is at its highest level.



# Using the remote control

# Preparing the remote control for use

Your Toshiba TV remote control has one dedicated TV mode and five 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

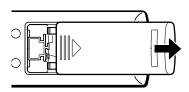
| Mode      | Default device             |
|-----------|----------------------------|
| TV        | Toshiba TV                 |
| CABLE/SAT | Toshiba Satellite receiver |
| VCR       | Toshiba VCR                |
| DVD       | Toshiba DVD                |
| AUDIO1    | Pioneer Audio receiver     |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

Repeatedly press MODE to cycle among the modes. If you own different brands of audio/video devices, you must first program your remote control (see "Programming the remote control for use with your audio/video devices" on page 19).

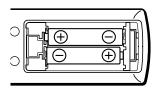
# Installing the remote control batteries

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.

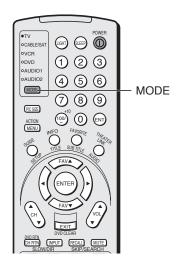


3. Slide the battery cover back on to the remote control until the lock snaps.

#### Note:

Your TV's remote control may not operate certain features on your VCR, cable TV converter, or other electronic device.

Refer to the owner's manuals for your other devices to determine their available features. If your TV's remote control does not operate a specific feature on a device, use the remote control that came with the device.



#### Caution:

· Do not throw batteries into a fire.

#### Note:

- Dispose of batteries in a designated disposal area.
- Attention should be drawn to the environmental aspects of battery disposal.
- If the remote control does not operate correctly, or if the operating range becomes reduced, replace both batteries with new ones. Do not mix battery types or combine used batteries with new ones.
- If the batteries are dead or if you will not use the remote control for a long time, remove the batteries to prevent battery acid from leaking into the battery compartment.

# Remote Control functional key chart

| Key Label                  | Toshiba TV<br>(TV)   | Cable (CBL/SAT)      | Satellite<br>(CBL/SAT) | VCR                  | DVD/LD               | Receiver (AUDIO)   | CD/MD<br>(AUDIO)     | Cassette<br>(VCR)  |
|----------------------------|--|----------------------|------------------------|----------------------|----------------------|--------------------|----------------------|--------------------|
| LIGHT                      | Lights the remote key, and toggles between enabled and disabled Illumination mode. |                      |                        |                      |                      |                    |                      |                    |
| SLEEP                      | Sleep timer  |                      |                        |                      |                      |                    |                      |                    |
| POWER                      | Power  | Power                | Power                  | Power                | Power                | Power              | Power                | Power              |
| 1                          | Digit 1  | Digit 1              | Digit 1                | Digit 1              | Digit 1              | AV input 1         | Digit 1              | Digit 1            |
| 2                          | Digit 2  | Digit 2              | Digit 2                | Digit 2              | Digit 2              | AV input 2         | Digit 2              | Digit 2            |
| 3                          | Digit 3  | Digit 3              | Digit 3                | Digit 3              | Digit 3              | AV input 3         | Digit 3              | Digit 3            |
| 4                          | Digit 4  | Digit 4              | Digit 4                | Digit 4              | Digit 4              | AV input 4         | Digit 4              | Digit 4            |
| 5                          | 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                       | Remote con   | trol device m        | ode selection          |                      |                      |                    |                      |                    |
| PIC SIZE                   | Selects the image shape.   | ←— TV                | ← TV                   | ← TV                 | ← TV                 | ← TV               | ←—TV                 | ← 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                     |  |                      | Action, Menu           |                      | Menu                 |                    |                      |                    |
| 100/-                      | 100  |                      | 100/-                  |                      | +10                  |                    |                      |                    |
| 0                          | Digit 0  | Digit 0              | Digit 0                | Digit 0              | Digit 0              | Digit 0            | Digit 0, 10          | Digit 0            |
| ENT (CH Enter)             |  | CH Enter             |                        |                      |                      |                    |                      |                    |
| GUIDE/SETUP                |  |                      | Guide                  |                      | DVD setup            |                    |                      |                    |
| INFO/TITLE                 |  |                      | INFO                   |                      | TITLE=<br>Top menu   |                    |                      |                    |
| FAVORITE/<br>SUBTITLE      | Favorites  |                      | Favorites              |                      | Subtitle             |                    |                      |                    |
| THEATERLINK/<br>AUDIO      |  |                      |                        |                      | Audio                |                    |                      |                    |
| MENU/<br>ACTION            | Menu   |                      | Action,<br>Menu        |                      | Menu                 |                    |                      |                    |
| <b>▲▼</b> (FAV <b>▲▼</b> ) | Menu select<br>FAV ▲▼  |                      | Menu select            |                      | Menu select          |                    |                      |                    |
| <b>∢</b> ▶                 | Menu select  |                      | Menu select            |                      | Menu select          |                    |                      |                    |
| ENTER                      | Enter  |                      | Select                 |                      | Enter                |                    |                      |                    |
| VOL <b>▲▼</b>              | Volume<br>up/down*   | Volume<br>up/down*   | Volume<br>up/down*     | Volume<br>up/down*   | Volume<br>up/down*   | Volume<br>up/down* | Volume<br>up/down*   | Volume<br>up/down* |
| EXIT/<br>DVD CLEAR         | Exit   |                      | Exit                   |                      | DVD clear            |                    |                      |                    |
| CH ▲▼                      | Channel<br>up/down   | Channel<br>up/down   | Channel<br>up/down     | Channel<br>up/down   |                      | Channel<br>up/down |                      |                    |
| INPUT                      | TV/Video<br>select   | ←— TV                | < TV                   | VCR input            | ← TV                 |                    | < TV                 | ← TV               |
| MUTE                       | Sound mute*  | Sound mute*          | Sound mute*            | Sound mute*          | Sound mute*          | Sound mute*        | Sound mute*          | Sound mute*        |
| RECALL                     | On-screen<br>display   | On-screen<br>display | On-screen<br>display   | On-screen<br>display | On-screen<br>display |                    |                      |                    |
| CH RTN/<br>DVD RTN         | Previous<br>channel  | Previous<br>channel  | Previous<br>channel    |                      | DVD<br>return        |                    |                      |                    |
| SLOW/ ► DIR ◀              |  |                      |                        | Slow FWD             | Slow FWD<br>Slow REV |                    |                      |                    |
| SKIP/ ► SEARCH ◀           |  |                      |                        |                      | Skip FWD<br>Skip REV |                    | Skip FWD<br>Skip REV |                    |
| REW                        | VCR—→  | VCR>                 | VCR>                   | Rewind               | Rewind               |                    | Rewind               | Rewind             |
| PAUSE/STEP                 | VCR—→  | VCR>                 | VCR>                   | Pause                | Pause                |                    | Pause                | Pause              |
| PLAY                       | VCR—→  | VCR—→                | VCR>                   | Play                 | Play                 |                    | Play                 | Play               |
| FF                         | VCR—→  | VCR—→                | VCR—→                  | Fast FWD             | Fast FWD             |                    | Fast FWD             | Fast FWD           |

| Key Label     | Toshiba TV<br>(TV)     | Cable (CBL/SAT)  | Satellite<br>(CBL/SAT) | VCR      | DVD/LD     | Receiver (AUDIO) | CD/MD<br>(AUDIO) | Cassette (VCR)          |
|---------------|------------------------|--|------------------------|----------|------------|------------------|------------------|-------------------------|
| TV/VCR        | VCR—→                  |  | TV/SAT                 | TV/VCR   |            |                  |                  | Reverse                 |
| AM/FM<br>DISC |                        |  |                        |          | Disc shift | AM/FM            | Disc shift       | Deck side<br>A/B switch |
| STOP          | VCR—→                  | VCR>   | VCR>                   | Stop     | Stop       |                  | Stop             | Stop                    |
| REC**         | VCR—→                  | VCR>   | $VCR \longrightarrow$  | Record** |            |                  |                  | Record**                |
| POP CH ▲▼     | POP channel<br>up/down | ← TV   | ← TV                   | ← TV     | ← TV       | ← TV             | ← TV             | ← TV                    |
| SPLIT         | POP Split              | ← TV   | ← TV                   | ← TV     | ← TV       | ← TV             | ← TV             | ← TV                    |
| POP DIRECT CH | POP Direct ch          | <tv< td=""><td>← TV</td><td>&lt; TV</td><td>← TV</td><td>← TV</td><td>← TV</td><td>← TV</td></tv<> | ← TV                   | < TV     | ← TV       | ← TV             | ← TV             | ← TV                    |
| FREEZE        | Still picture          | < TV   | ← TV                   | ←— TV    | < TV       | ←— TV            | < TV             | ← TV                    |
| SWAP          | POP Swap               | ←— TV  | ← TV                   | ← TV     | ← TV       | ←— TV            | ← TV             | ←— TV                   |
| CH SCAN       | POP Ch scan            | ← TV   | ← TV                   | ← TV     | ← TV       | ← TV             | ← TV             | ←— TV                   |
| SOURCE        | POP 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 20.
- \*\* Press the REC button twice within 5 seconds to record each audio/video source.

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

### **Device code setup**

- 1. Refer to the Device code table on pages 21–22 to find the code for your device.
  - If more than one number is listed, try each one separately until you find one that works.
- 2. Press MODE until the Mode indicator for the device (CABLE/SAT, VCR, DVD, AUDIO1, AUDIO2) lights up.
- 3. While holding down the RECALL button, press the Channel Number buttons to enter the four-digit code for your device. If a valid code is entered, the mode indicator will blink twice. If an invalid code is entered, the mode indicator will blink one long blink.
- 4. Point the remote control at the device and press POWER to test the code.
  - If the device turns on, you have entered the correct code. If the device does not respond to the remote control, you may have entered the wrong code. Repeat steps 3 and 4 using another code.
- 5. Press MODE to select the TV mode to control the TV.

# Searching and sampling the code of a device (8500)

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

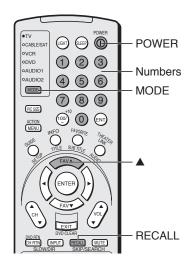
To cycle through each available device code and sample its functions:

- 1. Press MODE to select the mode you want to set up.
- 2. While holding down the RECALL button, press 8-5-0-0. The remote control will enter program mode.
- 3. Point the remote control at the target device and press POWER (or other function buttons that are available to be sampled).
- 4. If the device responds to the remote control:
  Press RECALL to store the device code.
  The mode indicator will blink twice and the remote control will exit the program mode.
  - If the device does not respond to the remote control:
    Press ▲, and then press POWER.
    Repeat this step until the device responds to the remote control, and then press RECALL.

**Note:** When a search cycle is completed, the mode indicator will blink three times. The remote control will begin to cycle through the available codes again. If no key is pressed within 10 seconds while programming, the remote control will exit the program mode and return to the previous code.

#### Note:

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



## Using the volume lock feature (8000)

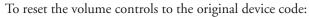
For the TV, CABLE/SAT, VCR, and DVD modes, the volume controls (VOL ▲▼ and MUTE) can be programmed (locked) to the selected device mode. This feature does not apply to the AUDIO1/2 modes.

For example, to lock the volume controls to always jump to the CABLE/SAT mode:

- 1. Repeatedly press MODE to select the CABLE/SAT mode.
- 2. While holding down the RECALL button, press 8-0-0-0.
- Press VOL ▲.
   The Mode indicator will blink two times (locked).

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

| Volume<br>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 |



- 1. While holding down the RECALL button, press 8-0-0-0.
- 2. Press VOL ▼.

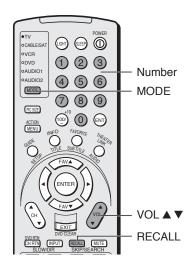
The Mode indicator will blink four times (unlocked).

# **Operational feature reset (8900)**

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 8-9-0-0. The Mode indicator will blink two times, and then pause and blink two more times.



# Device code table

| VCR setup cod    | des                                     |                    |                                       | Cable box setu         | up codes                            |
|------------------|---|--------------------|---------------------------------------|------------------------|-------------------------------------|
| Brand            | Code                                    |                    |                                       | Brand                  | Code                                |
| ADMIRAL          | 0135                                    | PHILCO             | 0131, 0124, 0127,                     | ABC                    | 1124                                |
| AIWA             | 0127, 0132, 0181                        | 1111200            | 0123, 0126, 0120,                     | ARCHER                 | 1132, 1125                          |
| AKAI             | 0129, 0114, 0115,                       |                    | 0143                                  | CABLEVIEW              | 1105, 1132                          |
|                  | 0116                                    | PHILIPS            | 0131, 0123, 0124,                     | CITIZEN                | 1122, 1105                          |
| AUDIO DYNAMIC    | 0139, 0111                              |                    | 0173                                  | CURTIS                 | 1112, 1113                          |
| BELL&HOWELL      | 0105, 0113                              | PIONEER            | 0123                                  | DIAMOND                | 1124, 1132, 1125                    |
| BROKSONIC        | 0120, 0126, 0180                        | PROSCAN            | 0145, 0100, 0123,                     | EAGLE                  | 1129                                |
| CANON            | 0123, 0125                              |                    | 0124, 0131, 0146,                     | EASTERN                | 1134                                |
| CCE              | 0143                                    |                    | 0101, 0102, 0133,                     | GCBRAND                | 1132, 1105                          |
| CITIZEN<br>CRAIG | 0106<br>0105, 0129, 0106                | OLIACAD            | 0174<br>0121, 0122, 0123,             | GEMINI<br>G.I./JERROLD | 1122, 1143<br>1119, 1124, 1125,     |
| CURTIS MATHES    | 0145, 0124, 0127                        | QUASAR             | 0121, 0122, 0123, 0124                | G.I./JERROLD           | 1119, 1124, 1123, 1126, 1127, 1120, |
| DAEWOO           | 0143, 0124, 0127                        | RADIO SHACK        | 0133, 0124, 0105,                     |                        | 1120, 1127, 1120,                   |
| DIE WOO          | 0175                                    | Tubio ornion       | 0136, 0109, 0140,                     |                        | 1123, 1152                          |
| DBX              | 0139, 0110, 0111                        |                    | 0127                                  | HAMLIN                 | 1140, 1141, 1142,                   |
| DIMENSIA         | 0145                                    | RCA                | 0133, 0145, 0100,                     |                        | 1145, 1118, 1112                    |
| EMERSON          | 0143, 0126, 0119,                       |                    | 0123, 0124, 0131,                     | HITACHI                | 1103, 1124                          |
|                  | 0103, 0125, 0142,                       |                    | 0146, 0101, 0102,                     | MACOM                  | 1103, 1104, 1105,                   |
|                  | 0120, 0118                              |                    | 0170, 0172, 0174,                     |                        | 1108                                |
| FISHER           | 0105, 0108, 0109,                       | DEALICEIC          | 0176, 0183                            | MAGNAVOX               | 1133                                |
| PINIAI           | 0107, 0113, 0165                        | REALISTIC          | 0124, 0105, 0136,                     | MEMOREX                | 1130                                |
| FUNAI            | 0127, 0126, 0120,<br>0134               | SAMSUNG            | 0109, 0140, 0127<br>0137, 0102, 0104, | MOVIETIME<br>OAK       | 1132, 1105<br>1139, 1137, 1102      |
| GE               | 0134 0145, 0124                         | SAMSUNG            | 0137, 0102, 0104,                     | PANASONIC              | 1109, 1110, 1114,                   |
| GO VIDEO         | 0137, 0151, 0163,                       | SAMTRON            | 0163                                  | 771171501110           | 1151, 1153                          |
| 00 11220         | 0149, 0150, 0182                        | SANSUI             | 0139, 0126, 0120,                     |                        | 1191, 1193                          |
| GOLDSTAR         | 0106                                    |                    | 0152                                  | PHILIPS                | 1128, 1129, 1130,                   |
| GRADIENTE        | 0170, 0171, 0168,                       | SANYO              | 0105, 0109, 0113                      |                        | 1106, 1107, 1150,                   |
|                  | 0134, 0156                              | SCOTT              | 0101, 0102, 0104,                     |                        | 1131                                |
| HITACHI          | 0123, 0145, 0100,                       |                    | 0109, 0138, 0140,                     | PIONEER                | 1101, 1116                          |
|                  | 0127, 0168                              |                    | 0147, 0148, 0126,                     | PULSAR                 | 1105, 1132                          |
| INSTANT REPLAY   |   | SEARS              | 0120                                  | PUSER                  | 1132                                |
| JENSEN<br>JVC    | 0139<br>0139, 0110, 0111,               | SEARS              | 0105, 0106, 0107,<br>0108, 0100       | RCA<br>REALISTIC       | 1115<br>1132                        |
| JVC              | 0134, 0157, 0158,                       | SHARP              | 0135, 0136, 0167,                     | REGAL                  | 1112, 1118, 1140,                   |
|                  | 0184, 0185                              | OTHE               | 0162                                  | TO GILL                | 1141, 1142, 1145,                   |
| KENWOOD          | 0139, 0110, 0106,                       | SHINTOM            | 0117                                  |                        | 1149                                |
|                  | 0111                                    | SIGNATURE 2000     | 0127, 0135                            | REGENCY                | 1134                                |
| LG               | 0159                                    | SINGER             | 0117                                  | REMBRANT               | 1137, 1132, 1105,                   |
| LXI              | 0127, 0106, 0100,                       | SONY               | 0128, 0129, 0130,                     |                        | 1138                                |
|                  | 0107, 0108, 0105,                       | CT TO C C          | 0153, 0154, 0155                      | SAMSUNG                | 1105                                |
| MACNIANOV        | 0109                                    | SV2000             | 0127                                  | S.A.                   | 1111, 1112, 1113                    |
| MAGNAVOX         | 0131, 0123, 0124,<br>0173               | SYLVANIA           | 0131, 0123, 0124,<br>0127, 0178       | SLMARK<br>SPRUCER      | 1105, 1101<br>1105, 1110            |
| MARANTZ          | 0139, 0110, 0111                        | SYMPHONIC          | 0127, 0178                            | STARGATE               | 1132, 1105                          |
| MARTA            | 0106                                    | TASHIRO            | 0106                                  | TELECAPTION            | 1148                                |
| MEMOREX          | 0124, 0109                              | TATUNG             | 0139, 0110, 0111                      | TELEVIEW               | 1101, 1105                          |
| MGA              | 0138, 0140, 0147,                       | TEAC               | 0139, 0110, 0127,                     | TEXSCAN                | 1144                                |
|                  | 0148, 0141, 0142                        |                    | 0111                                  | TOCOM                  | 1135, 1136, 1147                    |
| MINOLTA          | 0100, 0145                              | TECHNICS           | 0121, 0122, 0123,                     | TOSHIBA                | 1104, 1146                          |
| MITSUBISHI       | 0138, 0140, 0147,                       | TEKNICA            | 0124                                  | UNIKA                  | 1132, 1125                          |
|                  | 0148, 0141, 0142,<br>0161, 0164         | TEKNICA<br>THOMSON | 0124, 0127, 0112<br>0179, 0183        | UNIVERSAL<br>VIDEOWAY  | 1122, 1132<br>1106                  |
| MULTITECH        | 0147, 0127, 0104                        | TOSHIBA            | 0101, 0146, 0166,                     | VIEWSTAR               | 1129, 1130                          |
| NEC              | 0139, 0110, 0111,                       | TOOTHER            | 0160                                  | ZENITH                 | 1117, 1100                          |
|                  | 0134                                    | VECTOR RESEARC     |                                       | ZENITH/DRAKE           | ,,                                  |
| OLYMPIC          | 0124, 0123                              | WARDS              | 0135, 0136, 0109,                     | SATELLITE              | 1100                                |
| OPTIMUS          | 0128, 0121, 0135,                       |                    | 0144, 0106                            |                        |                                     |
|                  | 0106                                    | YAMAHA             | 0105, 0139, 0110,                     |                        |                                     |
| ORION            | 0126, 0120, 0132                        | ZENIZELI           | 0111                                  |                        |                                     |
| PANASONIC        | 0123, 0124, 0121,                       | ZENITH             | 0144, 0106, 0169,                     |                        |                                     |
| DENINEV          | 0122                                    |                    | 0180                                  |                        |                                     |
| PENNEY           | 0124, 0100, 0145,<br>0105, 0139, 0110,  |                    |                                       |                        |                                     |
|                  | 0103, 0139, 0110,                       |                    |                                       |                        |                                     |
| PENTAX           | 0100, 0111, 0145                        |                    |                                       |                        |                                     |
|                  | , ,, ,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |                    |                                       |                        |                                     |
|                  |   |                    |                                       |                        |                                     |
|                  |   | I                  |                                       | 1                      |                                     |

| CD Player setu | ıp codes            |
|----------------|---------------------|
| Brand          | Code                |
| ADMIRAL        | 6126                |
| AIWA           | 6133, 6135          |
| CARVER         | 6129                |
| DENON          | 6142, 6151          |
| EMERSON        | 6139                |
| FISHER         | 6105, 6106          |
| GARRARD        | 6117                |
| HARMAN KARDO   | N 6120, 6121, 6123, |
|                | 6119                |
| HITACHI        | 6107                |
| JENSEN         | 6134                |
| JVC            | 6140, 6141, 6145,   |
|                | 6148, 6151          |
| KENWOOD        | 6100, 6101, 6111,   |
|                | 6145                |
| LXI            | 6136                |
| MAGNAVOX       | 6129, 6132          |
| MARANTZ        | 6129                |
| MCINTOSH       | 6121                |
| NAKAMICHI      | 6110                |
| ONKYO          | 6114, 6115          |
| OPTIMUS        | 6108, 6118, 6120,   |
|                | 6122                |
| PANASONIC      | 6124, 6125, 6127,   |
|                | 6150                |
| PHILIPS        | 6129, 6130, 6149    |
| PIONEER        | 6108                |
| QUASAR         | 6125, 6127, 6124    |
| RCA            | 6147, 6137, 6138,   |
|                | 6131, 6152          |
| SANSUI         | 6110, 6146, 6113    |
| SANYO          | 6105                |
| SCOTT          | 6110, 6146          |
| SHARP          | 6142, 6143          |
| SHERWOOD       | 6120                |
| SONY           | 6128                |
| SOUNDE-SIGH    | 6144                |
| TEAC           | 6112, 6116, 6118    |
| TECHNICS       | 6127, 6124, 6125    |
| VICTOR         | 6140, 6141, 6145    |
| YAMAHA         | 6102, 6103, 6104    |

#### **Receiver setup codes**

| •            |                    |
|--------------|--------------------|
| Brand        | Code               |
| ADMIRAL      | 4120               |
| AIWA         | 4125, 4126, 4146   |
| DENON        | 4134, 4135, 4136,  |
|              | 4143               |
| FISHER       | 4104               |
| GARRARD      | 4113               |
| HARMAN KARDO | N 4115, 4123, 4145 |
| JENSEN       | 4129               |
| JVC          | 4132, 4133, 4140,  |
|              | 4144               |
| KENWOOD      | 4100, 4108, 4141,  |
|              | 4142, 4147         |
| MAGNAVOX     | 4127, 4128         |
| MARANTZ      | 4124               |
| MCINTOSH     | 4116               |
| MITSUBISHI   | 4148               |
| NAKAMICHI    | 4106, 4117         |
| ONKYO        | 4109, 4114         |
| OPTIMUS      | 4103, 4127, 4131,  |
|              | 4130               |
| PANASONIC    | 4119, 4118, 4121   |
| PHILIPS      | 4123               |
| PIONEER      | 4105, 4107, 4150   |
|              |                    |

| QUASAR      | 4119, 4118, 4121  |
|-------------|-------------------|
| RCA         | 4103, 4105, 4127, |
|             | 4131, 4130, 4149  |
| SANSUI      | 4103, 4111, 4139  |
| SHARP       | 4134, 4137        |
| SONY        | 4122              |
| SOUNDE-SIGH | 4138              |
| TEAC        | 4112, 4113, 4111, |
|             | 4110              |
| TECHNICS    | 4121, 4118, 4119  |
| VICTOR      | 4132, 4133        |
| YAMAHA      | 4101, 4102        |
|             |                   |

## **Cassette Player setup codes**

| <b>,</b> - |                   |
|------------|-------------------|
| Brand      | Code              |
| AIWA       | 7123, 7124, 7125  |
| DENON      | 7131              |
| FISHER     | 7103              |
| JENSEN     | 7114              |
| JVC        | 7129, 7130, 7132, |
|            | 7133              |
| KENWOOD    | 7100, 7107        |
| MARANTZ    | 7102              |
| NAKAMICHI  | 7105              |
| ONKYO      | 7108, 7109, 7113  |
| PANASONIC  | 7116, 7118        |
| PHILIPS    | 7122, 7121        |
| PIONEER    | 7104, 7106        |
| RCA        | 7126, 7127, 7128, |
|            | 7134, 7135        |
| SANSUI     | 7105, 7110, 7112  |
| SHARP      | 7131              |
| SONY       | 7119, 7120        |
| TEAC       | 7110, 7111, 7115  |
| TECHNICS   | 7116, 7118, 7117  |
| YAMAHA     | 7101, 7102        |
|            |                   |

# **Laser Disc setup codes**

| Brand      | Code              |
|------------|-------------------|
| DENON      | 5114              |
| HITACHI    | 5100              |
| KENWOOD    | 5102, 5103        |
| MAGNAVOX   | 5101              |
| MARANTZ    | 5114              |
| MITSUBISHI | 5114, 5118, 5119  |
| NEC        | 5114              |
| PANASONIC  | 5104, 5105, 5106, |
|            | 5115              |
| PHILIPS    | 5111              |
| PIONEER    | 5114              |
| PROSCAN    | 5114              |
| QUASAR     | 5104, 5105, 5106, |
| _          | 5115              |
| RCA        | 5114              |
| SAMSUNG    | 5112              |
| SANYO      | 5114, 5117        |
| SHARP      | 5113, 5116        |
| SONY       | 5107, 5108, 5109, |
|            | 5110              |
| TEAC       | 5114              |
| TOSHIBA    | 5114              |
| YAMAHA     | 5101              |
|            |                   |
|            |                   |

# Brand Code AIWA 3123 APEX 3120 DENON 3100, 3117 FERGUSON 3101

**DVD** setup codes

DENON **FERGUSON** 3101 HITACHI 3111 JVC 3109 KENWOOD 3115, 3129 KONKA 3119 MITSUBISHI 3105 NORDMENDE 3101 ONKYO 3121 ORITRON 3124 PANASONIC 3100 PHILIPS 3103, 3116 PIONEER 3102 RAITE 3113 RCA 3101, 3106 SABA 3101 SAMPO 3114 SAMSUNG 3110 SHARP 3108 SILVANIA 3132, 3118 SMC 3125 SONY 3104, 3126, 3127, 3128 **TECHNICS** 3100 THOMSON 3101 TOSHIBA 3103 WAVE 3122 YAMAHA 3100, 3130 ZENITH 3107, 3112 VIALTA 3131

## **Satellite Receiver setup codes**

3132, 3118

FUNAI

| Brand         | Code              |
|---------------|-------------------|
|               | Couc              |
| DISH NETWORK  | 2105 2115 2116    |
| (Echostar)    | 2105, 2115, 2116, |
| ECHOCEAR      | 2117              |
| ECHOSTAR      | 2105              |
| EXPRESS VU    | 2105, 2115        |
| G.E.          | 2106              |
| G.I. (GENERAL |                   |
| INSTRUMENT)   | 2108              |
| GRADIENTE     | 2114              |
| HITACHI       | 2103, 2111, 2112  |
| HNS (Hughes)  | 2103              |
| MAGNAVOX      | 2101, 2102        |
| PANASONIC     | 2104              |
| PHILIPS       | 2101, 2102, 2118  |
| PRIMESTAR     | 2108              |
| PROSCAN       | 2106, 2109, 2110, |
|               | 2113              |
| RCA           | 2106, 2109, 2110, |
|               | 2113              |
| SONY          | 2107              |
| STAR CHOICE   | 2103, 2108        |
| TOSHIBA       | 2100, 2103, 2119, |
|               | 2120, 2121        |
| UNIDEN        | 2101, 2102        |
|               | ,                 |
|               |                   |

### Learning about the remote control

The buttons used for operating the TV only are described here. For a complete list of the remote control's functions, see the "Remote Control functional key chart" on pages 17–18.

**POWER** turns the TV on and off

**SLEEP** allows access to the automatic TV shut-off function (page 59)

**LIGHT** The first press of the LIGHT button lights the keypad and turns on the Illumination mode. With the Illumination mode on, pressing any other key lights the keypad for 5 seconds (10 seconds if you're in programming mode).

Subsequent presses of the LIGHT button toggle between turning the Illumination mode on and off.

Channel Numbers (0-9, 100) allow direct access to channels (page 26)

**MODE** cycles through the six device modes: TV, CABLE/SAT, VCR, DVD, AUDIO1, and AUDIO2. The mode indicator light will remain lit for a few seconds (page 20).

**PIC SIZE** cycles through the five pictures sizes: Natural, Theater Wide 1, 2, 3, and Full (page 31)

**FAVORITE** allows access to the favorite channel search function (page 37)

**MENU** allows access to on-screen programming menus (page 24)

**ENTER** sets programming menu information (page 24)

**▲▼ ◀▶** select or adjust programming menus (page 24)

**FAV** ▲ ▼ cycles through favorite channels (page 29)

**CH** ▲▼ cycles through programmed channels (page 27)

**VOL** ▲▼ adjusts the volume level

**EXIT** exits the programming menus (page 24)

**INPUT** selects the video input source (page 49)

**MUTE** mutes the sound (page 53)

**RECALL** displays on-screen information (page 59)

**CH RTN** returns to the last viewed channels (page 28)

**POP CH ▲▼** selects the POP (picture-out-picture) channel (page 35)

**SPLIT** turns the POP feature on and off (page 35)

**CH SCAN** allows access to the programmed channel search function (page 37)

**FREEZE** freezes the picture. Press again to restore the picture.

**SWAP** switches the main and POP pictures (page 36)

**POP DIRECT CH** allows direct access to POP channels (page 35)

**SOURCE** selects the POP picture source (page 35)



# Note:

The error message "Not Available" will appear if you press a key for a function that is not available.

# **Setting up your TV**

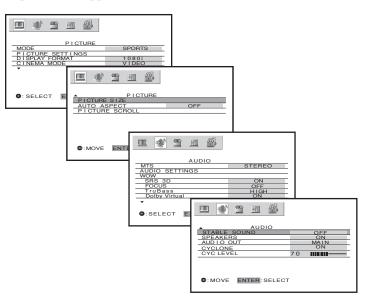
# Learning about the menu system

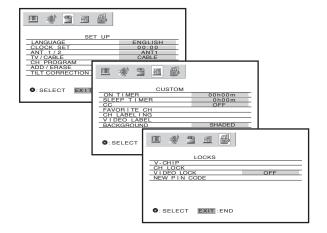
After you have installed the batteries and programmed the remote control, you will need to set some preferences on the TV using the menu system. You can access the menu system using the buttons on your TV or the remote control.

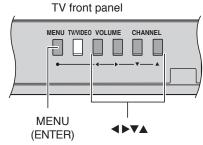


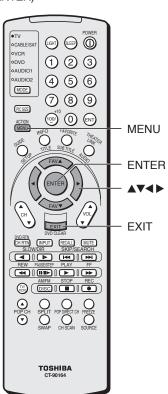
- 2. Press ◀ or ▶ to select a menu.
- 3. Press  $\triangle$  or  $\nabla$  to select an item, then press ENTER.
- 4. Press  $\triangle$  or  $\nabla$  to select or adjust a setting.
- 5. Press ENTER to activate the settings.
- 6. To close the menu, press EXIT.

  If you do not make a selection within 15 seconds, the menu display will disappear automatically.









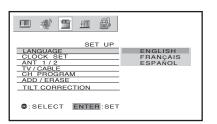
#### Note:

You can change the background of the menu. See page 59 for details.

# Changing the on-screen display language

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

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



3. Press ▲ or ▼ to highlight your desired language.

# Selecting the antenna input

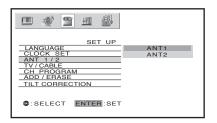
You can connect to two different antenna input sources (ANT 1 or ANT 2).

To select the antenna input using the menu system:

- Press MENU, and then press 

  or 

  to highlight the SET UP menu.
- 2. Press ▲ or ▼ to highlight ANT 1/2, and then press ENTER to display the pull-down menu.



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

To select the antenna input using the INPUT or TV/VIDEO button:

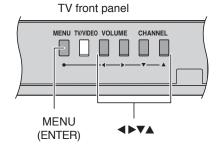
- 1. Press the INPUT button on the remote control or TV/VIDEO on the TV (see illustrations below). The current signal source displays in purple.
- 2. Continue pressing the INPUT or TV/VIDEO button to select ANT 1 or ANT 2.

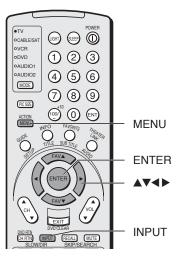


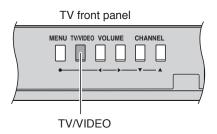
Pressing INPUT on the remote control <u>displays</u> the current signal source (press INPUT again or 0-7 to <u>change</u>)



Pressing TV/VIDEO on the TV <u>changes</u> the current signal source







# Adding channels to the TV's memory

When you press Channel ▲ or ▼, your TV will stop only on the channels stored in the TV's channel memory.

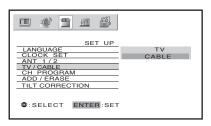
Follow the steps below and on the next page to program all active channels into the TV's memory.

# **Programming channels automatically**

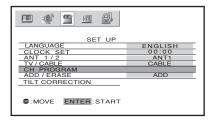
Your TV can automatically detect all active channels in your area and store them in its memory. After the channels are stored automatically, you can manually add or erase individual channels (see page 27).

To program channels automatically:

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



- 4. Press ENTER.
- 5. Press ▼ to select CH PROGRAM.



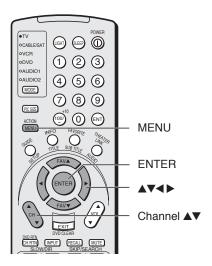
6. Press ENTER to start channel programming. The TV will automatically cycle through all the TV or Cable channels (depending on which you selected), and store all active channels in the channel memory.

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

- 7. When channel programming is complete, the message "Completed" appears.
- 8. Press Channel  $\triangle$  or  $\nabla$  to view the programmed channels.

#### Note:

To tune the TV to a channel not programmed in the channel memory, you must use the Channel Number buttons on the remote control.

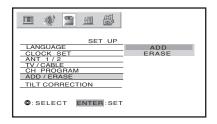


### Adding and erasing channels manually

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

To add or erase channels:

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



- 4. Press ▲ or ▼ to select ADD or ERASE, depending on the function you want to perform.
- 5. Repeat steps 1-4 for other channels you want to add or erase.



To change to a specific channel (programmed or unprogrammed): Press the Channel Number buttons (0–9 and 100). For channels 100 and higher, press the 100 button, and then the next two numbers. For example, to select channel 125, press 100, 2, 5.

To change to the next programmed channel:

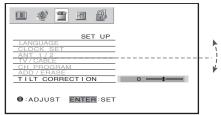
Press Channel ▲ or ▼ on the TV or remote control.

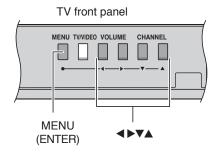
# Adjusting the tilt correction feature

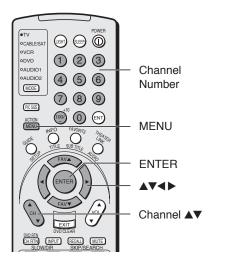
When you install the TV or change the direction of the TV, the picture may become tilted because of the terrestrial magnetism. If so, the following adjustment should be made for the best possible picture.

To adjust the tilt correction:

- 1. Press MENU, then press ◀ or ▶ until the SET UP menu appears.
- 2. Press ▲ or ▼ to highlight TILT CORRECTION, and then press ENTER.
- 3. Press ◀ or ▶ to correct any tilt of the picture between +10 and -10.







# **Using the TV's features**

# Adjusting the channel settings

# Switching between two channels using Channel Return

The Channel Return feature allows you to switch between two channels without entering an actual channel number each time.

- 1. Select the first channel (or video mode) you want to view.
- 2. Select a second channel using the Channel Number buttons (0-9, 100).
- 3. Press CH RTN. The previous channel will display.

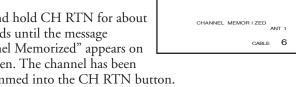
Each time you press CH RTN, the TV will switch back and forth between the last two channels that were selected.

# Switching between two channels using SurfLock™

The SurfLock<sup>TM</sup> feature temporarily "memorizes" one channel in the CH RTN button, so you can return to that channel quickly from any other channel by pressing CH RTN.

To memorize a channel in the CH RTN button:

- 1. Select the channel you want to program into the CH RTN button.
- 2. Press and hold CH RTN for about 2 seconds until the message "Channel Memorized" appears on the screen. The channel has been programmed into the CH RTN button.



- 3. Continue to change channels until your desired channel is selected.
- 4. Press CH RTN. The memorized channel will be selected.

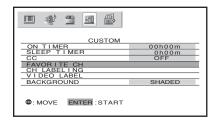
The TV will return to the memorized channel one time only. Once you press CH RTN and then change channels again, the CH RTN button memory will be cleared and the button will function as Channel Return, by switching back and forth between the last two channels that were selected.

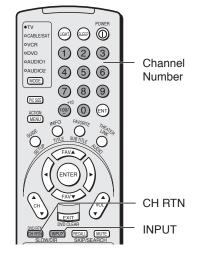
### **Programming your favorite channels**

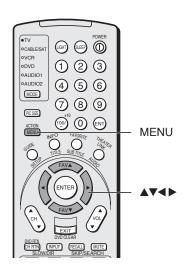
You can preset up to 12 of your favorite channels using the Favorite Channel Programming feature. Because this feature scans through only your favorite channels, it allows you to skip other channels you do not normally watch.

To program your favorite channels:

- 1. Press MENU, and then press ◀ or ▶ until the CUSTOM menu
- 2. Press ▲ or ▼ to highlight FAVORITE CH.

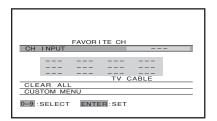






(continued on next page)

3. Press ENTER to display the FAVORITE CH menu. CH INPUT will be highlighted.



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

To select your favorite channels:

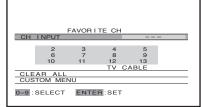
Press FAV ▼ or ▲.

To quickly scan through your favorite channels in a twelve-picture multi-window:

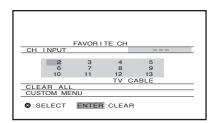
Press FAVORITE (see page 38 for details).

To clear a favorite channel:

- 1. Press MENU, and then press ◀ or ▶ until the CUSTOM menu appears.
- 2. Press ▲ or ▼ to highlight FAVORITE CH.
- 3. Press ENTER to display the FAVORITE CH menu.



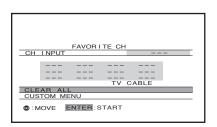
4. Press ▲▼◀▶ to highlight the channel you want to clear, then press ENTER.



5. Repeat step 4 for other channels.

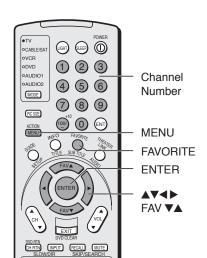
To clear all favorite channels at once:

Press ▲ or ▼ to highlight CLEAR ALL in step 4 above, and then press ENTER to clear all favorite channels at once.



#### Note:

- The FAV ▼▲ buttons operate as MENU ▼▲ buttons when a menu is onscreen
- The favorite channel feature is not available in ANT2 mode.

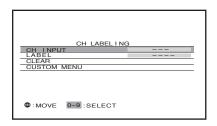


### **Labeling channels**

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

To create channel labels:

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



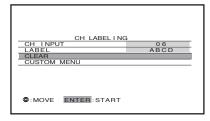
- 4. Press the Channel Number buttons to select a channel you want to label.
- 5. Press ▼ to highlight LABEL.
- 6. Press ◀ or ▶ repeatedly to select a character for the first space, and then press ENTER.

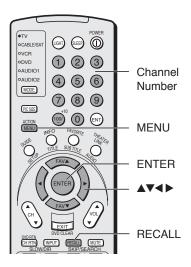


- 7. Repeat step 6 to enter the rest of the characters. If you would like a blank space in the label name, you must choose an empty space from the list of characters. Otherwise, a dash "—" will appear in that space.
- 8. Repeat steps 4–7 for other channels. You can assign labels to a maximum of 32 channels.

To erase channel labels:

- 1. Press MENU, and then press ◀ or ▶ until the CUSTOM menu appears.
- 2. Press ▲ or ▼ to highlight CH LABELING.
- 3. Press ENTER to display the CH LABELING menu.
- 4. Press ▼ to highlight CH INPUT, then select the channel you want to clear with the Channel Number buttons.
- 5. Press **▼** or **△** to highlight CLEAR.
- 6. Press ENTER to erase the channel label.
- 7. Repeat steps 4–6 to erase other channel labels.





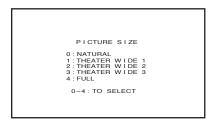
# Viewing the wide-screen picture formats (480i, 480p and 1080i signals only)

You can view 480i, 480p and 1080i format programs in a variety of picture sizes—Natural, Theater Wide 1, Theater Wide 2, Theater Wide 3, and Full. (The Full picture size is not selectable for 1080i format programs.)

The way the image displays in any of the picture sizes will vary depending on the format of the program you are viewing. Select the picture size that displays the current program the way that looks best to you. See "Notice of possible adverse effects on TV picture tube," below right.

# Selecting the picture size

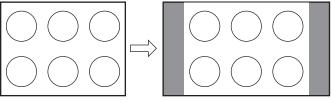
- 1. Press PIC SIZE on the remote control.
- 2. Press the corresponding number button (0-4) to select the desired picture size, as described below and on the next page.



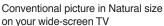
### **Natural picture size**

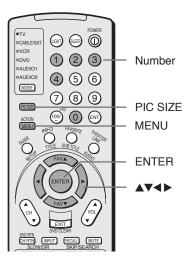
• The image is displayed close to its originally formatted proportion. Some program formats will display with side bars and/or bars at the top and bottom.

Natural picture size example: The way the image displays will vary depending on the format of the program you are currently watching. See "Notice of possible adverse effects on TV picture tube" at right.



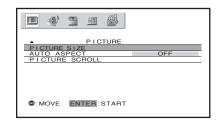
Conventional picture on a conventional TV screen





#### Note:

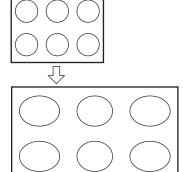
You also can change the picture size by selecting PICTURE SIZE in the PICTURE menu.



# NOTICE OF POSSIBLE ADVERSE EFFECTS ON TV PICTURE TUBE

#### Theater Wide 1 picture size (For 4:3 format program)

- The picture is non-uniformly enlarged—the center of the picture remains close to its original proportion, but the left and right edges are stretched wider to fill the screen.
- A small part of the picture at the top and bottom is hidden; however, this mode cannot be scrolled.



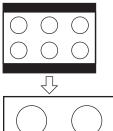
Theater Wide 1 picture size example

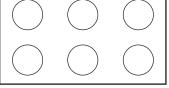
#### Note:

- To select the picture size, press PIC SIZE on the remote control or select PICTURE SIZE in the PICTURE menu.
- The PICTURE SIZE feature is not available for some program formats (such as 720p). Such formats will display in Natural picture size (see page 31).
- If you select Theater Wide 2 or 3, the top and bottom edges of the picture may be hidden. To see the hidden edges, either scroll the picture (see page 33) or try viewing the program in Full picture size.

# Theater Wide 2 picture size (For Letter box program)

- The entire picture is uniformly enlarged—it is stretched the same amount both wider and taller (retains its original proportion).
- Part of the picture at the top and bottom is hidden. To view the hidden areas, see "Scrolling the Theater Wide picture" on page 33.





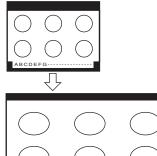
Theater Wide 2 picture size example

# NOTICE OF POSSIBLE ADVERSE EFFECTS ON TV PICTURE TUBE

Avoid displaying stationary images on your TV screen for extended periods of time. Fixed (non-moving) images (such as still PIP/POP windows or black/gray bars in wide-screen picture or PIP/POP formats) can become permanently engrained in the picture tube. **This type of damage is NOT COVERED BY YOUR WARRANTY** because it is the result of misuse. See item 34 on page 4.

# Theater Wide 3 picture size (For Letter box program with subtitles)

- The picture is non-uniformly enlarged—it is stretched wider to fill the width of the screen, but only slightly stretched taller.
- A small part of the picture at the top and bottom is hidden. To view the hidden areas (such as subtitles or captions), see "Scrolling the Theater Wide picture" on page 33.



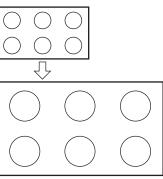
Theater Wide 3 picture size example

#### Note:

Using these functions to change the picture size (i.e., changing the height/ width ratio) for any purpose other than your private viewing may be prohibited under the Copyright Laws of the United States and other countries, and may subject you to civil and criminal liability.

# Full picture size (For 16:9 source program)

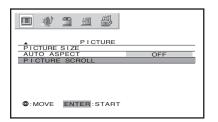
- The picture is non-uniformly enlarged—if receiving 4:3 format program, it is stretched wider to fill the width of the screen, but not stretched taller.
- None of the picture is hidden.



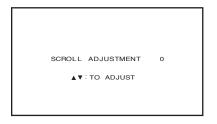
Full picture size example

# Scrolling the Theater Wide picture (Theater Wide 2 and 3 only)

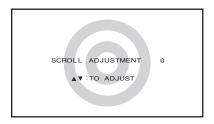
- 1. Press PIC SIZE to select the Theater Wide 2 or 3 mode.
- 2. Press MENU, and then press ◀ or ▶ until PICTURE menu appears.
- 3. Press ▲ or ▼ to highlight PICTURE SCROLL.



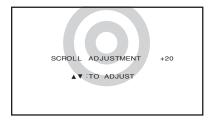
4. Press ENTER to display the Scroll Adjustment mode.



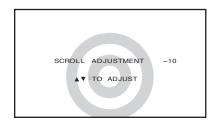
- 5. Press  $\triangle$  or  $\nabla$  to adjust the vertical position of the picture.
- Normal (center) position

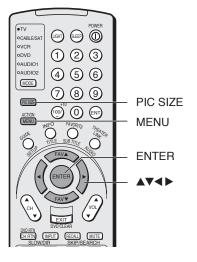


• To raise the picture, press ▲.



• To lower the picture, press **▼**.





#### Note:

You can scroll the picture in Theater Wide 2 and Theater Wide 3 only. The scroll amounts are as follows:

• 480i/480p/1080i signal source:

 Theater Wide 1 :
 Not adjustable

 Theater Wide 2 :
 -10 to +20

 Theater Wide 3 :
 -10 to +20

# NOTICE OF POSSIBLE ADVERSE EFFECTS ON TV PICTURE TUBE

# **Using the AUTO ASPECT feature**

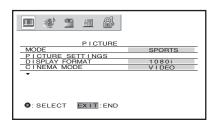
When the AUTO ASPECT feature is set to ON and the TV receives a 480i signal, the picture size is automatically selected (as described in the following table).

| Aspect ratio of signal source | Automatic aspect size<br>(automatically selected<br>when AUTO ASPECT is ON) |
|-------------------------------|---|
| 4:3 Normal                    | Natural   |
| 16:9 Full                     | Full  |
| 4:3 Letter box                | Theater wide 2  |
| Not defined (no ID–1data)*    | User-set mode   |

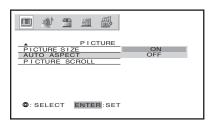
\*If the signal does not include aspect information, the picture size you selected on pages 31–32 is displayed.

To turn on the AUTO ASPECT feature:

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



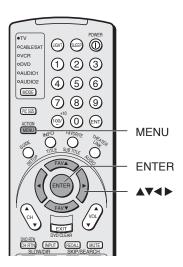
2. Press ▲ or ▼ to highlight AUTO ASPECT, and then press ENTER.



3. Press  $\triangle$  or  $\nabla$  to select ON, and then press ENTER.

#### Note:

The AUTO ASPECT feature is available for additional formats when viewing HDMI sources because AUTO ASPECT operates based on information found in the digital HDMI signal (not ID–1 signal).



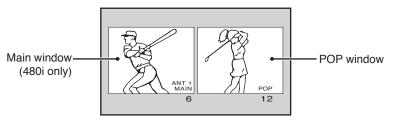
# NOTICE OF POSSIBLE ADVERSE EFFECTS ON TV PICTURE TUBE

# Using the POP double-window feature

The POP (picture-out-picture) feature splits the screen into a double window that allows you to watch two programs at the same time. The POP program can come from a TV broadcast or an external source, such as a VCR.

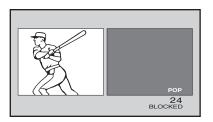
To display a TV broadcast in the POP window:

1. Press SPLIT to display the POP window.



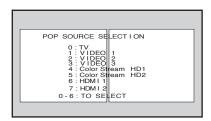
- 2. Select POP channels in the following two ways:
  - To change to a specific channel, press POP DIRECT CH. While "POP" is on the screen, press the Channel Number buttons (0-9 and 100).
  - To change to the next programmed channel, press POP CH 
     To change to the next programmed channel, press POP CH

If the V-CHIP feature is active and you try to watch a TV program that exceeds your set rating limits, the program will be blocked (see "Using the V-CHIP menu" on page 39).



To display a picture from an external source in the POP window:

- 1. Connect the external source equipment (see "Connecting your TV" on page 7).
- 2. Select the TV program you want to watch in the main window.
- 3. Press SPLIT to display the POP window.
- 4. Repeatedly press SOURCE to select the input source for the POP window (VIDEO 1, VIDEO 2, VIDEO 3, ColorStream HD1, ColorStream HD2, HDMI 1, or HDMI 2). The current source will display in purple.



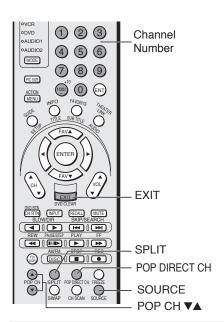
While the above menu is on the screen, you can select the desired signal input source by pressing the corresponding number button (0-6).

To close the POP window:

Press SPLIT again or EXIT.

#### Note:

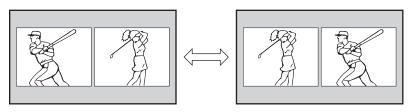
- The SPLIT buttons on the remote control operate the TV's POP features.
- You can display only 480i format programs in the main window.
- You cannot display the ANT-2 signal source in the POP window.
- You can choose to output the sound of either the main or POP program through the AUDIO OUT jacks (see "Selecting the Audio OUT sound" on page 57).
- You can choose to hear either the main or POP audio through the TV speakers. See "Switching the speaker audio (main or POP)" on page 36.
- HDMI, 720p ColorStream, 480p ColorStream, and 1080i ColorStream signals will only display in the POP (right) window. These signals will not display in the main (left) window when the TV is in double-window mode.
- If an HDMI or ColorStream source is being viewed when you open the POP doublewindow feature, the HDMI or ColorStream source will default to the POP (right) window.



# NOTICE OF POSSIBLE ADVERSE EFFECTS ON TV PICTURE TUBE

### Switching the main and POP pictures

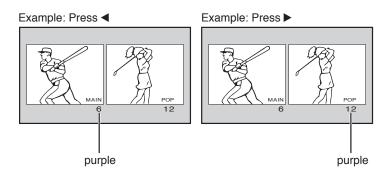
Press SWAP while you are using the POP feature to switch the main and POP pictures.



# Switching the speaker audio (main or POP)

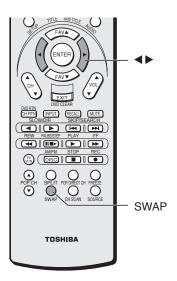
Press ◀ or ▶ while you are using the POP feature to switch the sound (main or POP) from the speakers. The POP sound in the TV mode is monaural only.

The selected audio source indicator is displayed in purple.



#### Note:

- If the POP program is not 480i format, it will not display in the main window when you press SWAP.
- The SAP channel will not be decoded when the speaker source is switched to POP. Even if SAP is selected in the menu (see page 53), the main audio channel will be heard when the speaker sound is switched to POP.
- The VARIBLE AUDIO OUT jacks will switch with the speaker sound; however, the source of the regular AUDIO OUT jacks is determined by the AUDIO OUT menu settting (page 57). The regular AUDO OUT jacks do not switch with the speaker sound.



# NOTICE OF POSSIBLE ADVERSE EFFECTS ON TV PICTURE TUBE

### **Double-Window aspect ratio**

The Double-Window feature displays each picture according to its input signal aspect ratio, as illustrated below.





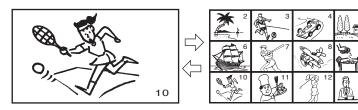
# Using the programmed channel search function

You can use the programmed channel search function to quickly scan the channels you programmed into the TV's memory (page 26).

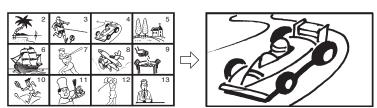
1. Press CH SCAN.

The TV automatically enters multi-window mode, and begins a twelve-picture scan of your programmed channels in the multi-window.

(Press CH SCAN again to return to a normal picture.)

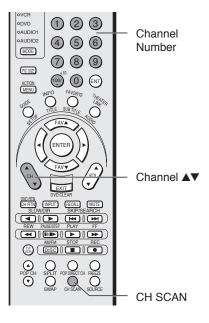


2. Press CH ▲▼ or Channel Number buttons to select one of the twelve pictures.



#### Note:

- The AUTO ASPECT feature (page 34) does not operate in double-window mode.
- Aspect ratio is the ratio of width to height of the picture.



#### Note:

During the programmed channel search, the multi-window pictures display in 4:3 aspect ratio, regardless of the signal format.

The sound is not output.

# NOTICE OF POSSIBLE ADVERSE EFFECTS ON TV PICTURE TUBE

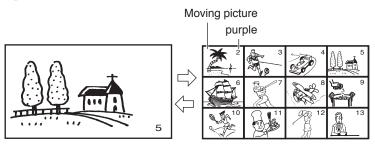
Avoid displaying stationary images on your TV screen for extended periods of time. Fixed (non-moving) images (such as still PIP/POP windows or black/gray bars in wide-screen picture or PIP/POP formats) can become permanently engrained in the picture tube. This type of damage is NOT COVERED BY YOUR WARRANTY because it is the result of misuse. See item 34 on page 4.

#### Using the favorite channel search function

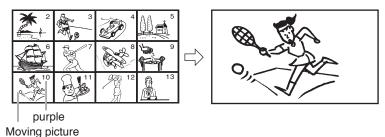
You can use the favorite channel search function to quickly scan your favorite channels (see "Programming your favorite channels" on page 28).

### 1. Press FAVORITE.

The TV automatically enters multi-window mode, and begins a twelve-picture scan of your favorite channels in the multi-window. (Press FAVORITE again to return to a normal picture.)

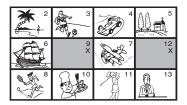


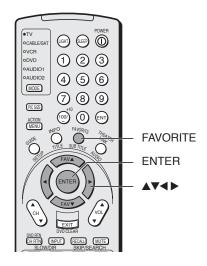
- 2. Press ▲▼◀▶ to select one of the twelve pictures (becomes a moving picture). The selected channel number is in purple and the monaural sound of the selected channel is output.
- 3. Press ENTER to display the channel you selected in step 2 as a normal picture.



### About the auto favorite feature

If your TV is in the program lock mode, after 4 seconds the TV starts the auto favorite channel search function. See page 42 for details.





- The favorite channel search function does not operate in HDMI mode.
- The aspect ratio of all main and POP windows in favorite channel search mode is 4:3, regardless of the input signal format.

# NOTICE OF POSSIBLE ADVERSE EFFECTS ON TV PICTURE TUBE

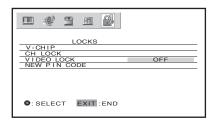
Avoid displaying stationary images on your TV screen for extended periods of time. Fixed (non-moving) images (such as still PIP/POP windows or black/gray bars in wide-screen picture or PIP/POP formats) can become permanently engrained in the picture tube. This type of damage is NOT COVERED BY YOUR WARRANTY because it is the result of misuse. See item 34 on page 4.

# Using the LOCKS menu

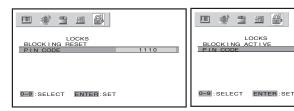
The LOCKS menu includes the V-Chip, CH Lock, Video Lock, and New PIN Code functions. You can use these functions after entering the correct PIN code.

## **Entering the PIN code**

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



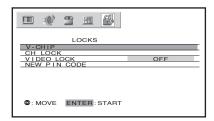
- 2. Press  $\triangle$  or  $\nabla$  to display the PIN code entering mode.
  - Blocking Reset status: Set a new 4-digit code by pressing the Number buttons (0–9).
- When the PIN code is already stored:
   Press the Number buttons (0-9) to enter your 4-digit PIN code used for blocking channels.



If the wrong PIN code is entered, the message "Incorrect" appears. Enter the code again, and then press ENTER.

#### If you cannot remember your PIN code

- 1. While the PIN code entering screen is displayed, press RECALL four times within five seconds. The PIN code will be released (Blocking Reset status restored).
- 2. Set a new 4-digit code, and then press ENTER. The LOCKS menu appears.



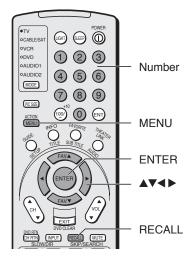
# **Using the V-CHIP menu**

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.

(continued on next page)

#### Note:

The V-Chip function is available only for the U.S. V-Chip system. The Canadian V-Chip system is not supported.

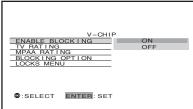


#### **ENABLE BLOCKING**

1. From the LOCKS menu, press **▼** or **△** to highlight V-CHIP, and then press ENTER.

The V-CHIP menu appears.

 Press ▼ or ▲ to highlight ENABLE BLOCKING, and then press ENTER.



3. Press ▲ or ▼ to select ON or OFF.

 $\mathsf{ON}:\mathsf{To}\;\mathsf{enable}\;\mathsf{your}\;\mathsf{setting}\;(\mathsf{Lock})$ 

OFF: To release your setting (Unlock)

Note: The CH LOCK function is not affected by this setting.

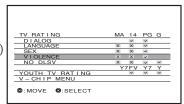
# **TV RATING (Independent rating system for broadcasters)**

 From the V-CHIP menu, press ▼ or ▲ to highlight TV RATING, and then press ENTER.
 The TV RATING menu an appears.

2. Press  $\nabla$  or  $\triangle$  to select an item.

Press ► to lock (displays "X")
 Press ◄ to unlock (displays "✓")

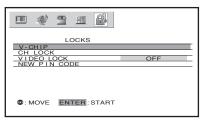
4. Repeat steps 2 and 3 to set the next item.

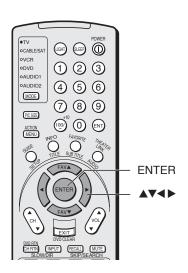


The TV age-based ratings and content themes you can be lock are listed in the table below.

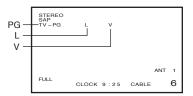
| Ratings     | Description and Content themes   |
|-------------|--|
| MA          | Mature Audience Only (This program is specifically designed to be viewed by adults and therefore may be unsuitable for children under 17.)  L) Crude or indecent language S) Explicit sexual activity V) Graphic violence                                |
| 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 Guidance 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,<br>Y7FV | Directed to Older Children (This program is designed for<br>children age 7 and above. Note: Programs in which fantasy<br>violence may be more intense or more combative than other<br>programs in this category are designated Y7FV.)                    |
| Y           | All Children (This program is designed to be appropriate for all children.)  |

#### LOCKS menu



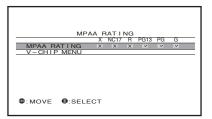


Press RECALL to display the rating of the TV program you are currently watching.

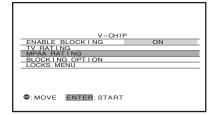


## **MPAA RATING (Independent rating system for movies)**

- From the V-CHIP menu, press ▼ or ▲ to highlight MPAA RATING, and then press ENTER. The MPAA RATING menu appears.
- 2. Press ▲ or ▼ to highlight MPAA RATING.
- 3. Press ▶ to lock ("X") or press ◀ to unlock ("✓").



V-CHIP menu



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**

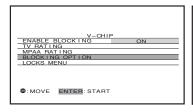
1. From the V-CHIP menu, press ▼ or ▲ to highlight BLOCKING OPTION, and then press ENTER.

The BLOCKING OPTION menu appears.

2. Press  $\triangle$  or  $\nabla$  to select an item.

#### **MPAA UNRATED:**

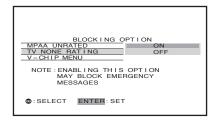
- 1. Highlight MPAA UNRATED, and then press ENTER.
- 2. Press ▲ or ▼ to select ON (Lock) or OFF (Unlock) for unrated programs in the MPAA rating system, then press ENTER.





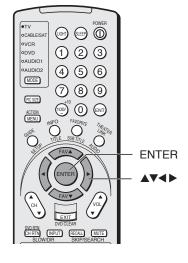
### TV NONE RATING:

- 1. Highlight TV NONE RATING, and then press ENTER.
- 2. Press ▲ or ▼ to select ON (Lock) or OFF (Unlock) for programs rated NONE in the TV PARENTAL GUIDELINES, then press ENTER.



#### **V-CHIP MENU:**

Highlight V-CHIP menu, then press ENTER to return to the V-CHIP menu.



#### **Caution**

Be aware that setting the TV None Rating to ON may block the broadcast of emergency information. The menu will display the note, "Enabling this option may block emergency messages" to warn you of this possibility.

## **Unlocking programs temporarily**

1. If you try to watch a TV program that exceeds the rating limits you set, the TV enters program lock mode. After 4 seconds, the TV starts the auto favorite channel search function (see page 38). You can either unlock the program temporarily (see steps 2-4) or select a non-locked program to watch.

After 4 seconds

THIS PROGRAM HAS BEEN BLOCKED!

TV-PG L V

EXCEEDS SET LIMITS

PUSH MUTE TO ENTER PIN

CABLE 9

- 2. To temporarily unlock the program, press MUTE while the message is on the screen.
- 3. Press the Number buttons (0-9) to enter your 4-digit PIN code.



4. Press ENTER.

If the correct code is entered, the program lock mode is released and the normal picture appears.

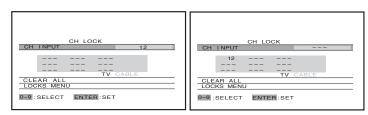
All locking is disabled until the TV is turned off, and will be enabled when the TV is turned on again.

# **Locking channels**

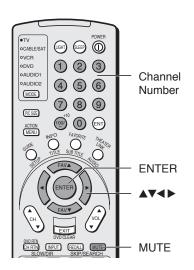
With the CH LOCK feature, you can lock specific channels. The TV will not be able to tune locked channels with the Channel ▲ ▼ buttons or Channel Number buttons, unless you clear the setting. You can lock a maximum of nine channels.

To lock channels:

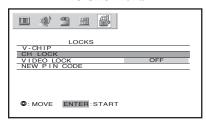
- 1. From the LOCKS menu, press ▲ or ▼ to highlight CH LOCK, and then press ENTER.
  - The CH LOCK menu appears, and CH INPUT will be highlighted.
- 2. Press the Channel Number buttons to enter the channel you want to lock.
- 3. Press ENTER.



4. Repeat steps 2 and 3 for other channels.



#### LOCKS menu



To unlock individual channels:

1. From the LOCKS menu, press ▲ or ▼ to highlight CH LOCK, then press ENTER.

The CH LOCK menu appears.

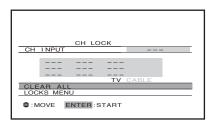
2. Press ▲▼◀▶ to highlight the channel you want to unlock, and then press ENTER.



3. Repeat step 2 for other channels.

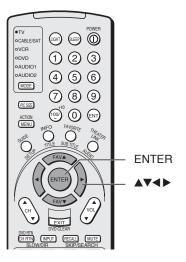
To unlock all locked channels at once:

Press ▲ or ▼ to highlight CLEAR ALL, and then press ENTER.



#### Note:

After programming the channel lock feature, change the channel before turning off the TV.



# Locking the video inputs

With the VIDEO LOCK feature, you can lock out the input sources (Video 1, Video 2, Video 3, ColorStream HD1, ColorStream HD2, HDMI 1, HDMI 2) and channels 3 and 4.

You will not be able to select locked input sources with the TV/VIDEO button or Channel buttons unless you clear the setting. To set up the video lock:

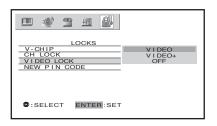
- 1. From the LOCKS menu, press ▲ or ▼ to highlight VIDEO LOCK, then press ENTER.
- 2. Press ▲ or ▼ to highlight the level of video locking you want (Video, Video+, or Off), as follows:

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

VIDEO+: Locks Video 1, Video 2, Video 3, ColorStream HD1/HD2, HDMI 1, HDMI 2, and channels 3 and 4. This option should be used if you use the antenna terminal to play a video tape.

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

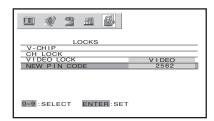
OFF : Unlocks all video input sources.



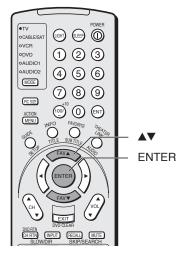


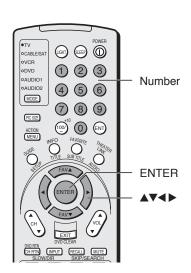
# Changing the PIN code

- From the LOCKS menu, press ▲ or ▼ to highlight NEW PIN CODE.
- 2. Press the Number buttons (0-9) to enter a 4-digit code. The numbers you enter will replace the dashes in the display.



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





# **Adjusting the picture**

## Selecting the picture mode

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

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

\*(see "Saving your new preferences" on page 46)

To select the picture mode:

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



# Adjusting the picture quality

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

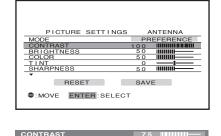
| Selection         | -       | Pressing | <b>•</b> |
|-------------------|---------|----------|----------|
| contrast          | lower   |          | higher   |
| brightness        | darker  |          | lighter  |
| color             | paler   |          | deeper   |
| tint              | reddish |          | greenish |
| sharpness         | softer  |          | sharper  |
| color temperature | cool    | medium   | warm     |

To adjust the picture quality:

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

The PICTURE SETTINGS menu appears.

- 3. Press ▲ or ▼ until the item you want to adjust is highlighted, then press ENTER.
- 4. Press ◀ or ▶ to adjust the level.



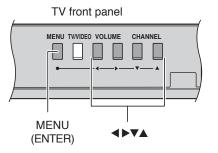
The PICTURE qualities you adjusted can be saved in the TV's memory (see page 46).

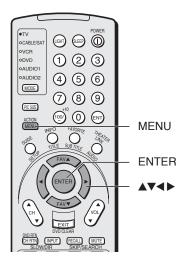
You can keep these settings or choose factory set options, as described under "Selecting the picture mode" above.

#### Note:

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

To save your new picture quality settings, you must select SAVE (see page 46) before closing the Picture menu or the TV will return to the previous picture mode.





### Saving your new preferences

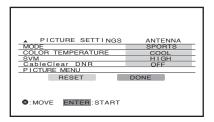
You can save the PICTURE qualities you adjusted (contrast, brightness, color, tint, sharpness, color temperature, CableClear DNR, and SVM) in the picture PREFERENCE mode.

To save your new preferences:

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

The PICTURE SETTINGS menu appears.

Press ▲▼◀► to highlight SAVE, and then press ENTER.
 When complete, "SAVE" changes to "DONE" in the menu.



The picture mode automatically changes to PREFERENCE (see "Selecting the picture mode" on page 45).

### Selecting the color temperature

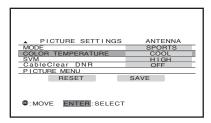
You can change the quality of the picture by selecting from three preset color temperatures: cool, medium, and warm.

To select the color temperature:

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

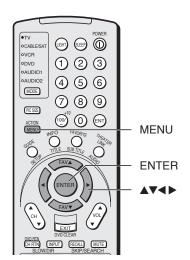
The PICTURE SETTINGS menu appears.

3. Press ▲ or ▼ to highlight COLOR TEMPERATURE, and then press ENTER.



4. Press ◀ or ▶ to select the mode you prefer.

| Mode   | Picture Quality |
|--------|-----------------|
| cool   | bluish          |
| medium | neutral         |
| warm   | reddish         |



#### **Selecting the Scan Velocity Modulation (SVM)**

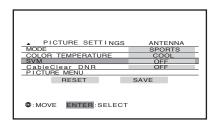
The SVM feature enhances picture contrast and sharpness. This feature has three modes: HIGH, LOW, and OFF.

To select the SVM feature:

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

The PICTURE SETTINGS menu appears.

3. Press ▲ or ▼ to highlight SVM, and then press ENTER.



4. Press ◀ or ▶ to select the mode you prefer (HIGH, LOW, or OFF).

To turn off the SVM:

Select OFF in step 4.

# **Using the CableClear™ DNR feature**

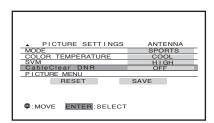
CableClear<sup>TM</sup> DNR reduces visible interference in your TV picture. This is useful when receiving a broadcast with a weak signal (especially a Cable channel) or playing a video cassette or disc damaged by repeated use.

To turn on CableClear<sup>TM</sup> DNR:

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

PICTURE SETTINGS menu appears.

3. Press ▲ or ▼ to highlight CableClear DNR, and then press ENTER.



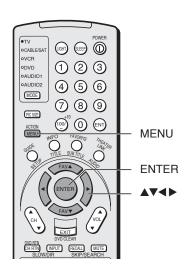
4. Press ◀ or ▶ to select AUTO.

To turn off CableClear DNR:

Select OFF in step 4 above.

#### Note:

SVM is not required when viewing some high-quality video material. If you are watching high-quality video material, you may want to set SVM to OFF.



#### Note:

- When in ColorStream or HDMI mode, "CableClear DNR" will change to "DNR" in the menu.
- DNR is not selectable in HDMI mode.

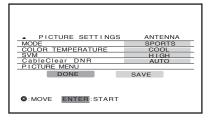
# Resetting picture adjustments

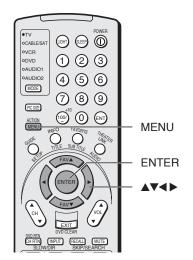
The RESET function adjusts the picture qualities to the following factory settings:

| Mode sports            | Sharpness center (50) |
|------------------------|-----------------------|
| Contrast max (100)     | Color temperaturecool |
| Brightness center (50) | SVM high              |
| Color center (50)      | CableClear DNR auto   |
| Tint center (0)        |                       |

To reset the picture adjustments:

- 1. Press MENU, and then press ◀ or ▶ until the PICTURE menu appears.
- 2. Press ▲ or ▼ to highlight PICTURE SETTINGS, and then press ENTER. The PICTURE SETTINGS menu appears.
- 3. Press ▲ or ▼ to highlight RESET.
- 4. Press ENTER until "RESET' changes to "DONE" in the menu.





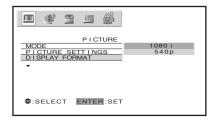
# Selecting the display format (for 480p signals only)

This feature converts 480p input signals to 540p or 1080i. To select the display format:

- Press MENU, and then press 

  or 

  until the PICTURE menu appears.
- 2. Press ▲ or ▼ to highlight DISPLAY FORMAT, and then press ENTER.
- 3. Press ▲ or ▼ to select 540p or 1080i, whichever you prefer.



# Selecting the cinema mode

When you view a DVD movie (3:2 pulldown processed) from a DVD player connected to the ColorStream (component video) inputs on the TV, smoother and more natural motion can be obtained by setting the CINEMA MODE to FILM.

To set the CINEMA MODE to FILM:

- 1. Press MENU, and then press ◀ or ▶ until the PICTURE menu appears.
- 2. Press ▲ or ▼ to highlight CINEMA MODE, and then press ENTER.
- 3. Press ▲ or ▼ to select FILM.



To set the CINEMA MODE to VIDEO (off):

Press ▲ or ▼ to select VIDEO in step 3 above.

# **Selecting the video input source**

Press INPUT on the remote control or TV/VIDEO on the TV to view a signal from another device connected to your TV, such as a VCR or DVD player (see illustrations below). You can select ANT 1, VIDEO 1, VIDEO 2, VIDEO 3, ColorStream HD1, ColorStream HD2, HDMI 1, HDMI 2, or ANT 2 depending on which input jacks you used for connecting your devices (see "Connecting your TV" on page 7).



Pressing INPUT on the remote control displays the current signal source (press INPUT again or 0-7 to change)



Pressing TV/VIDEO on the TV <u>changes</u> the current signal source

# D

# Labeling the video input sources

The video label feature allows you to label each input source for your TV from the following preset list of labels:

--- : Uses the default label name

VCR: Video cassette recorder

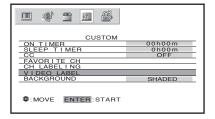
DVD: DVD video

DTV: Digital TV set-top box

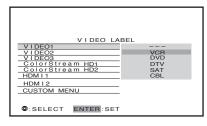
SAT : Satellite box CBL : Cable box

To label the video input sources:

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



- 3. Press ENTER to display the VIDEO LABEL menu.
- 4. Press ▲ or ▼ to highlight the video source you want to label and then press ENTER.
- 5. Press ▲ or ▼ to select the desired label for that input source.



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

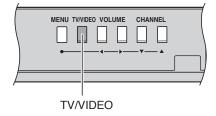
#### Note:

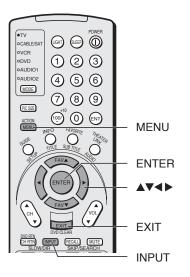
- When ColorStream HD1 or HD2 is selected, the video OUT jack does not output a signal. To receive a video OUT signal, use a standard video or S-video IN connection instead of the ColorStream connection.
- In POP double-window mode, the main window will display 480i signals only. If you select ColorStream HD1 or ColorStream HD2 while the POP picture is active, the message "Not Available" will display.

Please note the following regarding the HDMI source selection:

This TV is not intended for connection to and should not be used with a PC (personal computer). See "Connecting an HDMI or DVI device to the HDMI input" on page 14 for details.

#### TV front panel





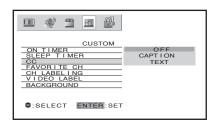
# Using the closed caption feature

The closed caption feature has two options:

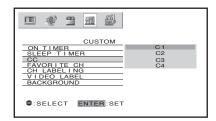
- Captions—An on-screen display of the dialogue, narration, and sound effects of TV programs and videos that are closed captioned (usually marked as "CC" in TV listings).
- Text—An on-screen display of information not related to the current program, such as weather or stock data (when provided by individual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

To view captions or text:

- 1. Tune the TV to the desired program.
- 2. Press MENU, and then press ◀ or ▶ to display CUSTOM menu.
- 3. Press  $\triangle$  or  $\nabla$  to highlight CC, and then press ENTER.



4. Press ▲ or ▼ to highlight CAPTION or TEXT, and then press ENTER.



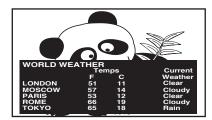
• To view captions, highlight C1, C2, C3, or C4 (C1 displays translation of the primary language in your area).

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

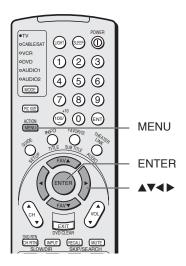


• To view text, highlight T1, T2, T3, or T4.

**Note:** If text is not available in your area, a black rectangle may appear on your screen. If this happens, turn the Closed Caption feature OFF.



To turn off the Closed Caption feature: Highlight OFF in step 4.



#### Note:

A closed caption signal may not display in the following situations:

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

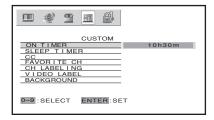
# **Setting the ON timer**

To set the ON timer to turn the TV on automatically:

- 1. Press MENU, and then press ◀ or ▶ until the CUSTOM menu appears.
- 2. Press ▲ or ▼ to highlight ON TIMER, and then press ENTER.
- 3. Press the Number buttons (0-9) to enter the length of time until the TV turns on automatically.

You can set the ON timer in 10 minute increments, up to 12h00m.

4. Press ENTER.

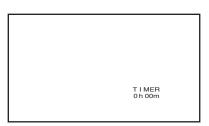


5. Press POWER to turn off the TV. (The ON timer will start.) The TV will turn on automatically after the length of time you set in the ON Timer.



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

1. Press SLEEP to set the length of time until the TV turns off.



Every time you press the button, the time display will increase by 10 minutes, up to 3 hours.

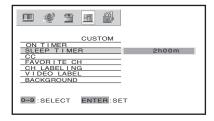
 $0h00m \rightarrow 0h10m \rightarrow 0h20m ---- \rightarrow 2h50m \rightarrow 3h00m \rightarrow 0h00m$ 

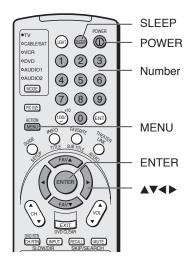
To cancel the sleep timer:

Press SLEEP until it is set to 0h00m.

The timer can also be set using the on-screen menu:

- 1. Press MENU, and then press ◀ or ▶ until the CUSTOM menu appears.
- 2. Press ▲ or ▼ to highlight SLEEP TIMER, and then press FNTER
- 3. Press the Number buttons (0-9) to enter the length of time until the TV turns off automatically.
- 4. Press ENTER to start the timer.





#### Note:

- When an instant power failure occurs, the ON timer and sleep timer settings may be cleared.
- To display the amount of time left until the TV turns on or off automatically, press RECALL.

# **Setting the clock**

To set the clock:

- 1. Press MENU, and then press ◀ or ▶ until the SET UP menu appears.
- 2. Press  $\blacktriangle$  or  $\blacktriangledown$  to highlight CLOCK SET, and then press ENTER.
- 3. Press the Number buttons (0-9) to enter the correct time. The clock operates on a 24-hour cycle.
- 4. Press ENTER to start the clock.

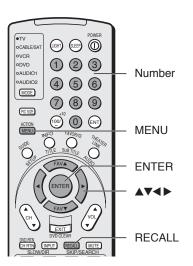


To display the time on-screen:

Press RECALL.

#### Note:

If the TV's power source is interrupted (the power cord is unplugged or a power failure occurs), the clock must be reset.



# Adjusting the sound

## Muting the sound

Press MUTE to temporarily reduce (1/2 MUTE) or turn off (MUTE) the sound. While the sound is off, the screen will display "1/2 MUTE" or "MUTE" in the lower right corner. Every time you press MUTE, the mute mode will change in the following order:

$$\rightarrow$$
 Normal  $\rightarrow$  1/2 MUTE  $\rightarrow$  MUTE  $\rightarrow$ 

When you select "MUTE" mode, the closed caption feature is automatically activated. To deactivate this feature, deactivate MUTE. This feature works only when the closed caption mode is set to OFF. See "Using the closed caption feature" on page 50 for more information.

## **Selecting stereo/SAP broadcasts**

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

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

The MTS feature is not available when the TV is in VIDEO mode. To listen to stereo sound:

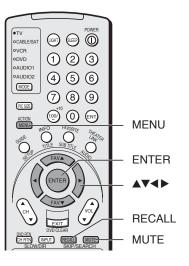
- 1. Press MENU, and then press ◀ or ▶ until the AUDIO menu appears.
- 2. Press  $\triangle$  or  $\nabla$  to highlight MTS, and then press ENTER.
- 3. Press  $\triangle$  or  $\nabla$  to highlight STEREO, and then press ENTER.



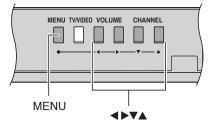
You can leave your TV in STEREO mode because it will automatically output the type of sound being broadcast (stereo or monaural). The word "STEREO" or "SAP" displays in yellow in the menu when the TV receives the signal.

If the stereo sound is noisy, select MONO to reduce the noise. To listen to SAP (if available):

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



#### TV front panel



#### Note:

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

For example, a station might broadcast music as a second audio program. If you have SAP on, you will see the current program on the screen but hear music instead of the program's normal audio.

However, if you have SAP on, and the station you are watching is not currently broadcasting a second audio program, the station's normal audio will be output; however, occasionally there is no sound at all in SAP mode. If this happens, set the MTS feature to STEREO mode.

# **Enjoying the Dolby Virtual sound feature**

The Dolby\* Virtual sound feature allows you to enjoy virtual surround sound from the TV's speakers.

• If you connect a device (such as a game console, DVD player, or DTV receiver) with analog audio output to standard (analog) audio terminals on the TV, and the input source is encoded with Dolby Surround DTI DOLBY sound or Dolby Digital DI DOLBY sound, the Dolby Virtual feature functions as Virtual Dolby Surround DI DOLBY Surround SURROUND (VDS). VDS simulates Dolby Surround sound from the TV's speakers.

To turn on the Dolby Virtual sound feature:

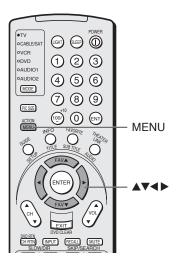
- 1. Press MENU, and then press ◀ or ▶ until the AUDIO menu appears.
- 2. Press ▲ or ▼ to highlight Dolby Virtual.
- 3. Press ◀ or ▶ to highlight ON.



To turn off the Dobly Virtual sound feature: Highlight OFF in step 3 above.

#### Note:

• The Dolby Virtual and SRS 3D features cannot be on at the same time.



<sup>\*</sup> Manufactured under license from Dolby Laboratories.

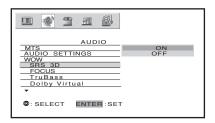
<sup>&</sup>quot;Dolby" and the double-D symbol are trademarks of Dolby Laboratories.

### Using the WOW™ surround sound feature

WOW is a special combination of SRS Labs audio technologies that creates a thrilling surround sound experience with deep, rich bass from stereo sound sources. Your TV's audio will sound fuller, richer, and wider. WOW consists of three features: SRS 3D, FOCUS, and TruBass.

To adjust the WOW features:

- 1. Select STEREO mode (see "Selecting stereo/SAP broadcasts" on page 56).
- 2. Press MENU, and then press ◀ or ▶ until the AUDIO menu appears.
- 3. Press ▲ or ▼ to highlight the desired WOW feature you want to adjust, then press ENTER.
  - SRS 3D To turn on or off the surround sound effect.
  - FOCUS To turn on or off the vocal emphasis effect.
  - TruBass To select your desired bass expansion level (HIGH, LOW, or OFF).



4. Press  $\triangle$  or  $\nabla$  to adjust the item, then press ENTER.

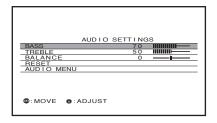
## Adjusting the sound quality

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

To adjust the sound quality:

- 1. Press MENU, and then press ◀ or ▶ until the AUDIO menu appears.
- 2. Press ▲ or ▼ to highlight AUDIO SETTINGS, and then press ENTER.

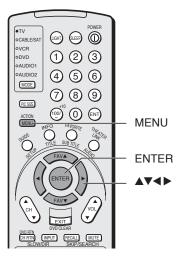
The AUDIO SETTINGS menu appears.



- 3. Press  $\triangle$  or  $\nabla$  to highlight the item you want to adjust.
- 4. Press ◀ or ▶ to adjust the level.
- makes the sound quality weaker or increases the balance in the left channel, depending on the item selected.
- makes the sound quality stronger or increases the balance in the right channel, depending on the item selected.

#### Note:

If the broadcast is monaural, the WOW SRS 3D surround sound effect will not work.



# Resetting your audio adjustments

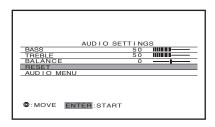
The RESET function returns your audio adjustments to the following factory settings:

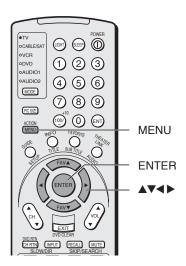
Bass ..... center (50)
Treble ..... center (50)

Balance ..... center (0)

To reset your audio adjustments:

- 1. Press MENU, and then press ◀ or ▶ until the AUDIO menu appears.
- 2. Press ▲ or ▼ to highlight AUDIO SETTINGS, and then press ENTER. The AUDIO SETTINGS menu appears.
- 3. Press  $\triangle$  or  $\nabla$  to highlight RESET, and then press ENTER.



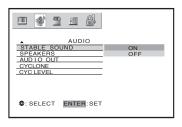


### Using the StableSound® feature

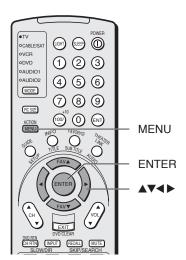
When the signal source is changed, the StableSound feature limits the highest volume level to prevent extreme changes in volume (for example, to prevent the sudden increase in volume that often happens when a TV program switches to a commercial).

To turn on the StableSound feature:

- 1. Press MENU, and then press ◀ or ▶ until the AUDIO menu appears.
- 2. Press ▲ or ▼ to highlight STABLE SOUND, and then press ENTER.
- 3. Press  $\triangle$  or  $\nabla$  to select ON, and then press ENTER.



To turn off the StableSound feature: Select OFF in step 3 above.

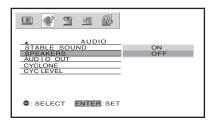


#### **Turning off the built-in speakers**

Use this feature to turn off the TV speakers when you connect an audio system (see "Connecting an audio system" on page 15).

To turn off the built-in speakers:

- 1. Press MENU, then press ◀ or ▶ until the AUDIO menu appears.
- 2. Press ▲ or ▼ to highlight SPEAKERS, and then press ENTER.
- 3. Press  $\triangle$  or  $\nabla$  to select OFF, and then press ENTER.



To turn on the built-in speakers: Select ON in step 3 above.

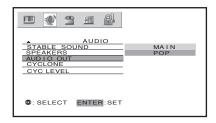
## **Selecting the Audio OUT sound**

This feature allows you to select the sound source (MAIN or POP) that is output from the Audio OUT terminals (for example, see "Connecting two VCRs" on page 13).

This is useful when amplifying or recording the POP sound with external equipment while listening to the sound of the main picture through the TV's built-in speakers.

To select the Audio OUT sound:

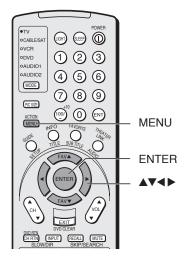
- 1. Press MENU, and then press ◀ or ▶ until the AUDIO menu appears.
- 2. Press ▲ or ▼ to highlight AUDIO OUT, and then press ENTER.
- 3. Press  $\triangle$  or  $\nabla$  to select MAIN or POP, and then press ENTER.



- MAIN: Outputs the sound of the main (left window) program through the AUDIO OUT terminals.
- POP : Outputs the sound of the POP (right window) program through the AUDIO OUT terminals.

#### Note:

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



#### Note:

When the POP window is closed, the sound of the main program is output through the AUDIO OUT terminals, even if POP is selected in the AUDIO OUT menu.

### Using the CYCLONE® sub-woofer system

Toshiba's CYCLONE® ABX (Acoustic Bass eXpansion) system provides dynamic acoustic reproduction in a self-enclosed bass-reflex sub-woofer system.

To turn on the CYCLONE® sub-woofer system and adjust the CYCLONE level:

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



- 4. Press ▲ or ▼ to highlight CYC LEVEL.
- 5. Press ◀ or ▶ to adjust the CYCLONE level (sub-woofer volume).
  - Press to increase the sub-woofer volume.



To turn off the CYCLONE® sub-woofer system:

Highlight OFF in step 3 above.

#### Note:

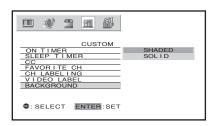
While the CYCLONE mode is off, if the CYCLONE level is adjusted, the CYCLONE is automatically turned ON.

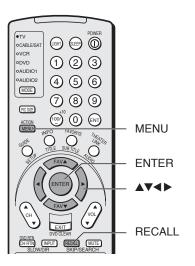
# Selecting the background of the menu display

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

To select the background:

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





# **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)
- Remaining time of ON/SLEEP timer (if set)
- Channel label (if set)
- Video label (when in video mode)
- Stereo or SAP audio status
- V-CHIP rating status
- Picture size





# Understanding the auto power off feature

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

# Understanding the last mode memory feature

If the power is cut off while you are viewing the TV, the Last Mode Memory feature 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**

• Note: This model complies with the specifications listed below. Designs and specifications are subject to change without notice. This model may not be compatible with features and/or specifications that may be added in the future.



#### WARNING: RISK OF ELECTRIC SHOCK!

Never attempt to service the TV yourself. Opening and removing the covers may expose you to dangerous voltage or other hazards. Refer all servicing to a Toshiba Authorized Service Center.

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 185 W (average)

Audio Power

10 W + 10 W + 13 W sub-woofer

Speaker Type

Two 6x12 cm + One 10 cm round sub-woofer

Video/Audio Terminals

S-VIDEO INPUT

Y: 1 V(p-p), 75 ohms, negative sync. C: 0.286 V(p-p) (burst signal), 75 ohms

VIDEO/AUDIO INPUT

VIDEO: 1 V(p-p), 75 ohms, negative sync.

AUDIO: 150 mV(rms) (30% modulation equivalent,

22 k ohms or more)

ColorStream® (component video) INPUT

Y: 1V(p-p), 75 ohms PR: 0.7 V(p-p), 75 ohms PB: 0.7 V(p-p), 75 ohms

AUDIO: 150 mV(rms), 22 k ohms or more

VIDEO/AUDIO OUTPUT

VIDEO: 1 V(p-p), 75 ohms, negative sync.

AUDIO: 150 mV(rms) (30% modulation equivalent,

2.2 k ohms or less)

VARIABLE AUDIO OUTPUT

0-300 mV(rms) (30% modulation equivalent,

2.2 k ohms or less)

Video/Audio Terminals (cont.)

HDMI INPUT:

HDMI 1, HDMI 2 compliant (type A connector)

HDCP compliant E-EDID\* compliant

Suggested scan rates: 1080i, 480p, 480i, 720p

HDMI Audio: 2-channel PCM

32/44.1/48 kHz sampling frequency

16/20/24 bits per sample

Dimensions

Width 33 5/8 inches (854 mm) Height 24-3/8 inches (619 mm) Depth 23-3/4 inches (603 mm)

Mass

160 lbs (72.6 kg)

Operating condition

Temperature: 41°F-95°F (5°C-35°C)

Supplied Accessories

Remote Control with 2 size "AA" alkaline batteries

Optional TV Stand ST34W64

<sup>\*</sup> E-EDID = Enhanced-Extended Display Identification

# **Troubleshooting**

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

| Symptom   | Solution  |  |  |
|---|---|--|--|
| TV will not turn on   | <ul> <li>Make sure the power cord is plugged in, then press POWER.</li> <li>The remote control batteries may be dead. Replace the batteries.</li> </ul>   |  |  |
| No picture, no sound  | Check the antenna/cable connections.  |  |  |
| No sound, picture OK  | <ul> <li>The sound may be muted. Press VOLUME.</li> <li>The station may have broadcast difficulties. Try another channel.</li> <li>Check that the SPEAKERS function in AUDIO menu is set properly</li> </ul>  |  |  |
| Poor picture, sound OK  | <ul> <li>Check the antenna connections.</li> <li>The station may have broadcast difficulties. Try another channel.</li> <li>Adjust the PICTURE menu.</li> </ul>   |  |  |
| Poor reception of broadcast channels  | <ul> <li>The station may have broadcast difficulties. Try another channel.</li> <li>Check the antenna connections.</li> <li>If you are using a VCR, make sure the TV/VCR button is set correctly.</li> </ul>  |  |  |
| Cannot receive above channel 13   | <ul> <li>Make sure the TV/CABLE switch is set to the mode that<br/>corresponds with the signal source type (cable company or outside<br/>antenna).</li> </ul>   |  |  |
| Black box appears on the screen   | • The closed caption feature may be set to one of the Text modes (T1 T2, T3, or T4). Turn closed captioning OFF.  |  |  |
| Unable to select a certain channel  | The channel may be locked out with the CH LOCK feature, or erased with the ADD/ERASE feature.   |  |  |
| Multiple images   | <ul> <li>The station may have broadcast difficulties. Try another channel.</li> <li>Antenna reception may be poor. Use a highly directional outdoor antenna.</li> </ul>   |  |  |
| Poor color or no color  | <ul> <li>The station may have broadcast difficulties. Try another channel.</li> <li>Adjust the TINT and/or COLOR in the PICTURE menu.</li> </ul>  |  |  |
| No stereo or SAP sound from a known MTS broadcast   | Make sure the MTS feature is set properly.  |  |  |
| The remote control does not operate   | <ul> <li>Check whether the appropriate device mode is selected.</li> <li>Remove all obstructions between the remote control and the remote control sensor in the TV.</li> <li>The remote control batteries may be dead. Replace the batteries.</li> </ul> |  |  |
| Cannot access signal input sources (Video1, Video2, Video3, ColorStream HD1/HD2, HDM 1, HI and/or Channels 3 and 4. | Check the VIDEO LOCK feature.  OMI 2)   |  |  |

# **Limited United States Warranty**

# for 27" FST PURE® and All Larger Television Models

Toshiba America Consumer Products, L.L.C. ("TACP") makes the following limited warranties to original consumers in the United States. THESE LIMITED WARRANTIES EXTEND TO THE ORIGINAL CONSUMER PURCHASER OR ANY PERSON RECEIVING THIS TELEVISION AS A GIFT FROM THE ORIGINAL CONSUMER PURCHASER AND TO NO OTHER PURCHASER OR TRANSFEREE.

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.

#### Limited One (1) Year Warranty on Parts and Labor\*

TACP warrants this television 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 WILL, AT TACP'S OPTION, REPAIR OR REPLACE A DEFECTIVE PART WITH A NEW OR REFURBISHED PART WITHOUT CHARGE TO YOU FOR PARTS OR LABOR. TACP Authorized Service Station personnel will come to your home when warranty service is required. Depending on the type of repair required, either the service will be performed in your home or the set will be taken to the TACP Authorized Service Station for repair and returned to your home at no cost to you.

#### Limited Two (2) Year Warranty on Picture Tube\*

TACP further warrants the picture tube in this television against defects in materials or workmanship for a period of two (2) years after the date of original retail purchase. DURING THIS PERIOD, TACP WILL, AT TACP'S OPTION, REPAIR OR REPLACE A DEFECTIVE PICTURE TUBE WITH A NEW OR REFURBISHED PICTURE TUBE WITHOUT CHARGE TO YOU, EXCEPT THAT, IF A DEFECTIVE PICTURE TUBE IS REPAIRED OR REPLACED AFTER ONE (1) YEAR FROM THE DATE OF THE ORIGINAL RETAIL PURCHASE, YOU PAY LABOR CHARGES INVOLVED IN THE REPAIR OR REPLACEMENT.

#### **Rental Units**

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

#### \*Limited Warranty for Commercial Units

TACP warrants televisions sold and used for commercial purposes as follows: all parts are warranted against defects in materials or workmanship for a period of ninety (90) days after the date of original purchase. DURING THIS PERIOD, TACP WILL, AT TACP'S OPTION, REPAIR OR REPLACE A DEFECTIVE PART WITH A NEW OR REFURBISHED PART WITHOUT CHARGE TO YOU.

#### **Owner's Manual and Product Registration**

Read this owner's manual thoroughly before operating this television.

Complete and mail the enclosed product registration card or register your product online at **www.tacp.toshiba.com/service** as soon as possible. By registering your product you will enable TACP to provide you with better customer service and improved product support. Failure to register your product does not diminish your rights under this warranty.

#### Your Responsibility

THE ABOVE WARRANTIES ARE SUBJECT TO THE FOLLOWING CONDITIONS:

- (1) You must provide your bill of sale or other proof of purchase.
- (2) All warranty servicing of this television must be made by an Authorized TACP Service Station.
- (3) The warranties from TACP are effective only if the television is purchased and operated in the U.S.A. or Puerto Rico.

- (4) Labor charges for set installation, setup, adjustment of customer controls, and installation or repair of antenna systems are not covered by these warranties. Reception problems caused by inadequate antenna systems are your responsibility.
- (5) Warranties extend only to defects in materials or workmanship as limited above and do not extend to any television or parts that have been lost or discarded by you or to damage to television or parts caused by fires, misuse, accident, Acts of God (such as lightning or fluctuations in electric power), improper installation, improper maintenance, or use in violation of instructions furnished by TACP; use or malfunction through simultaneous use of this product and connected equipment; or to units that have been modified or had the serial number removed, altered, defaced, or rendered illegible.

#### **How to Obtain Warranty Services**

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

- Visit TACP's web site at www.tacp.toshiba.com/service or call toll free 1-800-631-3811 to find the nearest TACP Authorized Service Station.
- (2) Present your bill of sale or other proof of purchase to the Authorized Service Station.

For additional information, visit TACP's web site: www.tacp.toshiba.com

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# **Limited Canada Warranty**

# for 32" and Larger Television Models

Toshiba of Canada Limited ("TCL") makes the following limited warranties to original consumers in Canada. THESE LIMITED WARRANTIES EXTEND TO THE ORIGINAL CONSUMER PURCHASER OR ANY PERSON RECEIVING THIS TELEVISION AS A GIFT FROM THE ORIGINAL CONSUMER PURCHASER AND TO NO OTHER PURCHASER OR TRANSFEREE.

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.

#### Limited One (1) Year Warranty on Parts and Labor\*

TCL warrants this television 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, TCL WILL, AT TCL'S OPTION, REPAIR OR REPLACE A DEFECTIVE PART WITH A NEW OR REFURBISHED PART WITHOUT CHARGE TO YOU FOR PARTS OR LABOR. TCL Authorized Service Depot personnel will come to your home when warranty service is required. Depending on the type of repair required, either the service will be performed in your home or the set will be taken to the TCL Authorized Service Depot for repair and returned to your home at no cost to you. IN-HOME SERVICE ONLY APPLIES WITHIN 100 KILOMETERS OF AN AUTHORIZED TCL SERVICE DEPOT.

#### Limited Two (2) Year Warranty on Picture Tube\*

TCL further warrants the picture tube in this television against defects in materials or workmanship for a period of two (2) years after the date of original retail purchase. DURING THIS PERIOD, TCL WILL, AT TCL'S OPTION, REPAIR OR REPLACE A DEFECTIVE PICTURE TUBE WITH A NEW OR REFURBISHED PICTURE TUBE WITHOUT CHARGE TO YOU, EXCEPT THAT, IF A DEFECTIVE PICTURE TUBE IS REPAIRED OR REPLACED AFTER ONE (1) YEAR FROM THE DATE OF THE ORIGINAL RETAIL PURCHASE, YOU PAY LABOR CHARGES INVOLVED IN THE REPAIR OR REPLACEMENT.

### **Rental Units**

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

#### \*Limited Warranty for Commercial Units

TCL warrants televisions sold and used for commercial purposes as follows: all parts are warranted against defects in materials or workmanship for a period of ninety (90) days after the date of original purchase. DURING THIS PERIOD, TCL WILL, AT TCL'S OPTION, REPAIR OR REPLACE A DEFECTIVE PART WITH A NEW OR REFURBISHED PART WITHOUT CHARGE TO YOU. ON-SITE SERVICE ONLY APPLIES WITHIN 100 KILOMETERS OF AN AUTHORIZED TCL SERVICE DEPOT.

#### **Owner's Manual and Product Registration**

Read this owner's manual thoroughly before operating this television.

Register your product online at **www.toshiba.ca** as soon as possible. By registering your product you will enable TCL to provide you with better customer service and improved product support. Failure to register your product does not diminish your rights under this warranty.

#### Your Responsibility

THE ABOVE WARRANTIES ARE SUBJECT TO THE FOLLOWING CONDITIONS:

- (1) You must provide your bill of sale or other proof of purchase.
- (2) All warranty servicing of this television must be made by an Authorized TCL Service Depot.

- (3) The warranties from TCL are effective only if the television is purchased in Canada from an authorized TCL dealer and operated in Canada.
- (4) Labor charges for installation, setup, adjustment of customer controls, and installation or repair of antenna systems are not covered by these warranties. Reception problems caused by inadequate antenna systems are your responsibility.
- (5) Warranties extend only to defects in materials or workmanship as limited above and do not extend to any television or parts that have been lost or discarded by you or to damage to television or parts caused by fires, misuse, accident, Acts of God (such as lightning or fluctuations in electric power), improper installation, improper maintenance, or use in violation of instructions furnished by TCL; use or malfunction through simultaneous use of this product and connected equipment; or to units that have been modified or had the serial number removed, altered, defaced, or rendered illegible.

#### **How to Obtain Warranty Services**

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

- (1) To find the nearest TCL Authorized Service Depot, visit TCL's web site at **www.toshiba.ca**.
- (2) Present your bill of sale or other proof of purchase to the Authorized Service Depot.

For additional information, visit TCL's web site: www.toshiba.ca

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THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS, WHICH MAY VARY FROM PROVINCE TO PROVINCE IN CANADA. SOME PROVINCES OF CANADA DO NOT ALLOW LIMITATIONS ON THE DURATION OF AN IMPLIED WARRANTY, LIMITATIONS ON THE TIME WITHIN WHICH AN ACTION MAY BE BROUGHT, OR THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES; THEREFORE, THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU UNDER SUCH CIRCUMSTANCES.

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