

TOSHIBA

Operating Guide

Integrated High Definition LCD Television

COLOR STREAM® HD

CINEMA SERIES PRO

HDTV
HIGH DEFINITION TELEVISION

VIRTUAL
DOLBY
DIGITAL

SRS
WOW

SRS
TruSurround 5.1
DIGITAL

TV
GUIDE

HDMI

42LZ196

47LZ196

IMPORTANT NOTE

Before connecting, operating, or adjusting this product, carefully read the Important Safety, Installation, Care, and Service information in the separate *Installation Guide*.

For an overview of steps for setting up your new TV, see page 7.

Note: To display a High Definition picture, the TV must be receiving a High Definition signal (such as an over-the-air High Definition TV broadcast, a High Definition digital cable program, or a High Definition digital satellite program). For details, please contact your TV antenna installer, cable provider, or satellite provider.

Owner's Record

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

Model number:

Serial number:

FCC Declaration of Conformity Compliance Statement (Part 15):

The **Toshiba 42LZ196 and 47LZ196 Televisions** comply with Part 15 of the FCC rules.

Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The party responsible for compliance to these rules is:

Toshiba America Consumer Products, L.L.C.

82 Totowa Rd. Wayne, NJ 07470.

Ph: 1-800-631-3811

Note: *This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by removing and applying power to the equipment, the user is encouraged to try to correct the interference by one or more of the following measures:*

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: *Changes or modifications to this equipment not expressly approved by Toshiba could void the user's authority to operate this equipment.*

Important notes about your LCD TV

The following symptoms are technical limitations of LCD Display technology and are not an indication of malfunction; therefore, Toshiba is not responsible for perceived issues resulting from these symptoms.

- 1) An afterimage (ghost) may appear on the screen if a fixed, non-moving image is displayed for a long period of time. The afterimage is not permanent and will disappear in a short period of time.
- 2) The LCD panel contained in this TV is manufactured using an extremely high level of precision technology; however, there may be an occasional pixel (dot of light) that does not operate properly (does not light, remains constantly lit, etc.). This is a structural property of LCD technology, is not a sign of malfunction, and is not covered under your warranty. Such pixels are not visible when the picture is viewed from a normal viewing distance.

Note: *Interactive video games that involve shooting a "gun" type of joystick at an on-screen target may not work with this TV.*

Your TV can be connected to the Internet to support firmware update, remote scheduling and e-mail capabilities. You should carefully review the information in this manual before connecting the TV to the Internet or using these features.

- If you use the remote scheduling capability of the TV, you will need a dedicated e-mail account for use by the TV only. Use of non-dedicated accounts (e.g. an account used to receive a personal e-mail) will result in the deletion of e-mail in those accounts—even if they are used only for "test" purposes. See page 75 for more information.
- If you set up any personal e-mail accounts on the TV, anyone with access to the TV will be able to read e-mail from those accounts unless you lock the profile for each e-mail account. See page 71 for more information.
- If you connect the TV to the Internet, anyone with access to the TV will be able to configure the TV to access e-mail accounts for which they have account access information (user name, password and server addresses). See page 71 for more information.

Trademark Information

- This product incorporates copyright protection technology that is protected by U.S. patents and other intellectual property rights. Use of this copyright protection technology must be authorized by Macrovision, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision. Reverse engineering or disassembly is prohibited.
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- Manufactured under license from Dolby Laboratories.
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Chapter 1: Introduction

Welcome to Toshiba

Thank you for purchasing this Toshiba TV, one of the most innovative LCD TVs on the market.

This digital television is capable of receiving analog basic, digital basic, and digital premium cable television programming by direct connection to a cable system providing such programming. A security card provided by your cable operator is required to view encrypted digital programming. Certain advanced and interactive digital cable services (such as video-on-demand, a cable operator's enhanced program guide, or data-enhanced television services) may require the use of a set-top box. For more information, call your local cable operator.

We have provided three separate Guides to facilitate the installation and operation of your TV.

Please use the Guides in the order shown below to get the most enjoyment from your new TV.

- 1) The *Installation Guide* explains how to connect your TV to your antenna and equipment.
- 2) The *Operating Guide* (this Guide) provides step-by-step instructions for using your TV's many features.
- 3) The *TV Guide On Screen™ Interactive Program Guide* explains how to set up and navigate the TV Guide On Screen™ system in your TV.

Note: The TV screen graphics in the Guides are for illustration purposes only and may be different from the screens displayed on your TV.

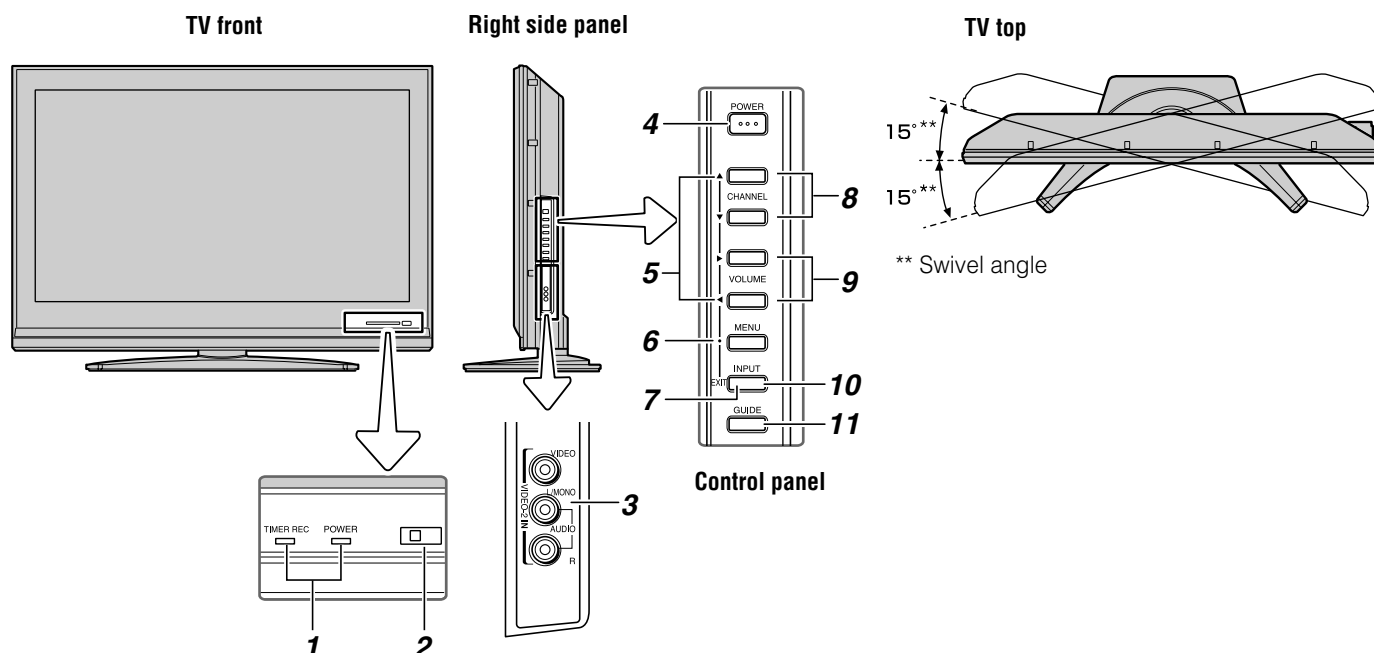
Features of your new TV

The following are just a few of the many exciting features of your new Toshiba widescreen, integrated HD, LCD TV:

- **Integrated digital tuning (8VSB ATSC and QAM)** eliminates the need for a separate digital converter set-top box (in most cases).
- **TV Guide On Screen™** no-fee interactive program guide (see *TV Guide On Screen™ Interactive Program Guide*).
- **Digital CableCARD™ slot** for viewing encrypted digital Cable TV programs (see *Installation Guide*).
- **Two HDMI™** digital, high-definition multimedia interfaces (see *Installation Guide*).
- **Two sets of ColorStream® HD** high-resolution component video inputs (see *Installation Guide*).
- **SRS WOW™** and **Dolby Virtual/SRS TruSurround™** (see page 59) audio technologies.
- **Digital Audio Out** optical audio connection with Dolby® Digital optical output format (see page 45; also see the *Installation Guide*).
- **CableClear®** digital picture noise reduction (see page 56).
- **Double-window POP** feature (see page 39).
- **PC IN (Analog RGB)** computer terminal (see *Installation Guide*).
- **Ethernet (RJ-45) (THINC™) port** for connecting the TV to a home network to enable file sharing (JPEG, MP3), using personal e-mail, and e-mail scheduling of recordings and reminders (see Chapter 7 and *Installation Guide*).
- **Color Management Pro** allows you to adjust the TV's standard colors and create up to three additional custom colors. The menu for this feature has a unique "black" design to enhance contrast while you're adjusting the color.
- **The Personal E-mail** feature allows you to access your e-mail server through the TV. You can create, view, reply to, and forward personal e-mails and JPEG format picture attachments.

- 2** Observe the following when choosing a location for the TV:
 - Read the separate *Installation Guide*.
 - Read the separate *TV Guide On Screen™ Interactive Program Guide*.
 - Read “Important notes about your LCD TV” (📖 page 2).
 - Place the TV on the floor or a sturdy, level, stable surface that can support the weight of the unit. Secure the TV to a wall, pillar, or other immovable structure as described in the *Installation Guide*.
 - Place the TV in a location where light does not reflect on the screen.
 - Place the TV far enough from walls and other objects to allow proper ventilation. Inadequate ventilation may cause overheating, which will damage the TV. **THIS TYPE OF DAMAGE IS NOT COVERED UNDER THE TOSHIBA WARRANTY.**
 - 3** Do not plug in any power cords until AFTER you have connected all cables and devices to your TV.
 - 4** BEFORE connecting cables or devices to the TV, learn the functions of the TV’s connections and controls (📖 pages 8–10).
 - 5** Connect your other electronic device(s) to the TV (📖 *Installation Guide*).
 - 6** Connect the supplied G-LINK™/IR blaster cable from your VCR and/or Cable box (if applicable) to the **G-LINK™** terminal so you can use the TV Guide On Screen™ features (applies to VCRs and cable boxes only) (📖 *Installation Guide*).
 - 7** Install the batteries in the remote control (📖 page 11).
 - 8** See “Learning about the remote control” (📖 page 12) for an overview of the buttons on the remote control.
 - 9** Program the remote control to operate your other device(s) (📖 pages 16–21).
- the TV’s menu system (📖 page 22).
- 12** See the separate *TV Guide On Screen™ Interactive Program Guide* for details on setting up and using the TV Guide On Screen™ system (if available in your area).
 - 13** Program channels into the TV’s channel memory (📖 page 26).
 - 14** For details on using the TV’s features, see Chapters 5 and 6.
 - 15** For details on connecting the TV to a home network to enable file sharing, personal e-mail, and e-mail scheduling of recordings, see Chapter 7.
 - 16** For help, refer to the Troubleshooting Guide, Chapter 8
 - 17** For technical specifications and warranty information, see Chapter 9.
 - 18** Enjoy your new TV!

TV front and side panel controls and connections



1 Blue and Red LEDs

See “LED indications” on page 86 for additional information.

2 Remote sensor

Point the remote control toward this remote sensor (see “Remote control effective range” on page 11).

3 VIDEO-2 IN

The side panel A/V connections are referred to as “**VIDEO 2**” and include standard A/V inputs.

4 POWER

Press to turn the TV on and off. If the TV stops responding to the controls on the remote control or TV control panel and you cannot turn off the TV, press and hold the **POWER** button on the TV control panel for 5 or more seconds to reset the TV.

5 ARROWS

When a menu is on-screen, these buttons function as up/down/left/right menu navigation buttons.

6 *MENU (ENTER)

Press to access the menu system (see pages 22–23). When a menu is on-screen, the **MENU** button on the TV’s side control panel functions as the **ENTER** button.

7 EXIT

Press to instantly close an on-screen menu.

8 CHANNEL

When no menu is on-screen, these buttons change the channel (programmed channels only; see page 26). When a menu is on-screen, these buttons function as up/down menu navigation buttons.

9 VOLUME

When no menu is on-screen, these buttons adjust the volume level. When a menu is on-screen, these buttons function as left/right menu navigation buttons.

10 INPUT

Repeatedly press to change the source you are viewing (**ANT 1**, **VIDEO 1**, **VIDEO 2**, **ColorStream HD1**, **ColorStream HD2**, **HDMI 1**, **HDMI 2**, **PC**, **ANT 2**).

11 GUIDE

Press to access the TV Guide On Screen™ program guide (see TV Guide On Screen™ Interactive Program Guide).

— For use with the enclosed IR blaster/

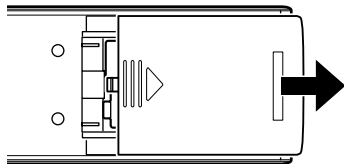
G-LINK™ cable to enable the TV Guide

™ **slot** — For use with a digital security

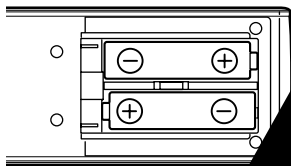
Installing the remote control batteries

To install the remote control batteries:

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



- 2** Install two “AA” size alkaline batteries. Match the positive (+) and negative (–) symbols on the batteries to the symbols on the battery compartment.



- 3** Slide the battery cover on to the lock snaps.

Caution: Never throw batteries

Note:

- Be sure to use AA size alkaline batteries.
- Dispose of batteries in accordance with local regulations.
- Batteries should always be stored in a cool, dry environment in mind for future use in accordance with airtight container.
- If the remote control is not operating within the operating range, replace the batteries with new ones.
- When necessary, always replace the battery type with the same type.
- Always use the correct polarity when inserting the batteries into the device. If the batteries are damaged or leaking, do not use them. Dispose of them in accordance with local regulations.

Remote control effective range

For optimum performance, aim the remote control directly at the TV remote sensor. Make sure there are no obstructions between the remote control and the TV.



- 18 EXIT** closes on-screen menus and the TV Guide On Screen™ system.
- 19 INFO** provides detailed information on highlighted items in the TV Guide On Screen™ system (📖 *TV Guide On Screen™ Interactive Program Guide*).
- 20 MUTE** reduces or turns off the sound (📖 page 43).
- 21 CH RTN** returns to the last viewed channel (📖 page 35), or stops the Picture Viewer slide show (📖 page 69). Also can be used to switch between the Song Select view and File Select view in the Audio Player (📖 page 70).
- 22 RECALL** displays TV status information (📖 page 53).
- 23 SKIP ◀◀** and **SKIP ▶▶** jump backward and forward one day at a time in the TV Guide On Screen™ listings (📖 *TV Guide On Screen™ Interactive Program Guide*). Also can be used for jumping to the beginning and end of a line when used with the software keyboard (📖 page 67).
- 24 C.CAPTION (TV/VCR)** opens the closed caption/audio selector screen (📖 pages 42–43). (The audio selector is not available for analog channels.) Also can be used to select the TV mode to view one program while recording another.
- 25 POP** opens the POP double-window (📖 page 39) or locks/unlocks the TV Guide On Screen™ video window (📖 *TV Guide On Screen™ Interactive Program Guide*).
- 26 FREEZE** freezes the picture. Press again to restore the moving picture.
- 27 PIC SIZE** cycles through the picture sizes: **Natural**, **TheaterWide 1/2/3**, **Full**, **4:3 HD**, and **Native** (📖 page 36).
- 28 f g h j** are used with the Color Management Pro (📖 page 57) and THINC features (📖 page 73).

Remote Control functional key chart

REMOTE CONTROL KEY	Toshiba TV (TV)	CABLE	SAT (satellite)	VCR	•DVD/VCR combo • DVD/DVD-R	Receiver/AMP	CD (AUDIO)	PVR
MODE SELECT	Remote control device mode selection							
LIGHT	Lights the remote control keys.*1							
SLEEP	Sleep timer	← TV	← TV	← TV	← TV	← TV	← TV	← TV
POWER	Power	Power	Power	Power	Power	Power	Power	Power
1 (, ? !)	Digit 1*2	Digit 1	Digit 1	Digit 1	Digit 1	AV input 1	Digit 1	Digit 1
2 (a b c)	Digit 2*2	Digit 2	Digit 2	Digit 2	Digit 2	AV input 2	Digit 2	Digit 2
3 (d e f)	Digit 3*2	Digit 3	Digit 3	Digit 3	Digit 3	AV input 3	Digit 3	Digit 3
4 (g h i)	Digit 4*2	Digit 4	Digit 4	Digit 4	Digit 4	AV input 4	Digit 4	Digit 4
5 (j k l)	Digit 5*2	Digit 5	Digit 5	Digit 5	Digit 5	CD	Digit 5	Digit 5
6 (m n o)	Digit 6*2	Digit 6	Digit 6	Digit 6	Digit 6	Tuner	Digit 6	Digit 6
7 (p q r)	Digit 7*2	Digit 7	Digit 7	Digit 7	Digit 7	Phono	Digit 7	Digit 7
8 (t u v)	Digit 8*2	Digit 8	Digit 8	Digit 8	Digit 8	Cassette	Digit 8	Digit 8
9 (w x y z)	Digit 9*2	Digit 9	Digit 9	Digit 9	Digit 9	Aux	Digit 9	Digit 9
0 (' " ())	Digit 0*2	Digit 0	Digit 0	Digit 0	Digit 0	---	Digit 0, 10	Digit 0
100/-/+10	– (digital separator)*2	---	-/--, +10, +100	+100	-/--, +10, +100	---	---	---
INPUT (↔)	TV/Video select*2	← TV	← TV	← TV	← TV	Input	← TV	← TV
PIC SIZE	Selects the image shape	← TV	← TV	← TV	← TV	← TV	← TV	← TV
MENU	Menu/Guide Menu	Menu	Menu	---	Menu	Menu	Menu	Menu
FAV BROWSER/SET UP	FAV BROWSER	---	---	---	Setup	---	---	---
THINC/TOP MENU	THINC	← TV	← TV	← TV	Top menu	← TV	← TV	← TV
TV GUIDE	TV Guide	Guide	Guide	---	Guide	---	---	Guide
INFO	Guide Info	Info	Info	---	Display	---	---	Info
ENTER	Enter	Select	Select	---	Select	---	---	Select
▲	Menu select up	Cursor up	Cursor up	---	Cursor up	---	---	Cursor up
▼	Menu select down	Cursor down	Cursor down	---	Cursor down	---	---	Cursor down
◀ BACK NEXT ▶ BACK NEXT	Menu select left/right BACK NEXT	Cursor left/right	Cursor left/right	---	Cursor left/right	---	---	Cursor left/right
EXIT/DVD CLEAR	Exit	Exit	Exit	---	DVD clear	---	---	Exit
PAGE +/-	Page up/down	Page up/down	Page up/down	---	Page up/down	---	---	---
VOL +/-	Volume up/down*3	Volume up/down*3	Volume up/down*3	Volume up/down*3	Volume up/down*3	Volume up/down*3	Volume up/down*3	Volume up/down*3

5 To control the TV, press the TV MODE SELECT button.

Note:

- Although the TV remote control includes codes for many devices, it may not include codes for some or all of the features on certain devices you want to control. If you are unable to program the TV remote control to operate your device or some of the features on that device, use the device's original remote control (or the control buttons on the device).
- Every time you change the batteries you will need to reprogram the remote control.
- Some newer VCRs respond to either of two codes. These VCRs have a switch labeled "VCR1/VCR2." If your VCR has this kind of switch and does not respond to the codes for your VCR brand, set the switch to the other position ("VCR1" or "VCR2") and reprogram the remote control.

Searching and sampling the code of a device (8500)

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

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

- 1** Press the appropriate MODE SELECT button on the remote control.
- 2** While holding down **E**, press 8, 5, 0, 0. The remote control will enter program mode.
- 3** Point the remote control at the target device and press **p** (or other function buttons that are available to be sampled).
- 4** If the device responds to the remote control:
Press **E** to store the device code. The MODE SELECT button will blink two times and the remote control will exit the program mode.
If the device does not respond to the remote control:
Press **▲**, and then press **p**. Repeat this step until the device responds to the remote control, and then press **E**.

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

Using the volume lock feature (8000)

By default (factory setting), the remote control's volume keys (**Z**, **Z** and **W**) are locked to the "TV" device mode.

The remote control will operate the TV's volume, even when "TV" is not the current device mode. (This includes all remote control device modes except AUX 1 and AUX 2).

If you unlock the remote control's volume keys, each device mode will have its own volume (if the device ID has volume data). The remote control will operate the volume of the device associated with the current device mode. (This includes all remote control device modes.)

If you lock the remote control's volume keys to a specific device mode, the remote control will operate the volume of the device associated with the locked mode, even when the locked mode is not the current device mode. (This includes all device modes except AUX 1 and AUX 2).

When the remote control is in AUX 1 (or AUX 2) mode, the remote control will operate the volume of the device associated with the AUX 1 (or AUX 2) mode, even when the volume is locked to another mode.

See "Using the remote control to operate your other devices" on page 16.

To lock the remote control's volume keys to a specific mode (CABLE/SAT in this example):

- 1** Press CABLE/SAT.
- 2** While holding down the **E** button, press 8, 0, 0, 0.
- 3** Press **Z**. The CABLE/SAT MODE SELECT button will blink two times (locked).
The remote control's volume keys will now operate the volume of the device associated with the CABLE/SAT mode, even when CABLE/SAT is not the current device mode. (for all device modes except AUX 1 and AUX 2).

To unlock the remote control's volume keys:

- 1** While holding down **E**, press 8, 0, 0, 0.
- 2** Press **Z**. The CABLE/SAT MODE SELECT button will blink four times (unlocked).

Operational feature reset (8900)

This feature clears all programmed remote control features not related to "Device code setup" and resets the volume lock to the "TV" device mode.

To reset the remote control:

While holding down **E**, press 8, 9, 0, 0. The MODE SELECT button will blink four times.

Multi-brand remote control device codes

TVs

Brand	Code
Toshiba	1524

Cable boxes

Brand	Code
ABC	0003, 0008
Americast	0899
Bell South	0899
Clearmaster	0883
ClearMax	0883
Coolmax	0883
Digeo	1187
Director	0476
GoldStar	0144
Hamlin	0009, 0273
Memorex	0000
Motorola/ General Instrument/ Jerrold	0276, 0476, 0810
Motorola	1187, 1376
General Instrument/ Jerrold	0003
Multitech	0883
Pace	0008, 0237, 1877
Panasonic	0000, 0107
Paragon	0000
Philips	0317, 1305
Pioneer	0144, 0533, 0877, 1877
Pulsar	0000
Quasar	0000
RadioShack	0883
Regal	0273, 0279
Runco	0000
Samsung	0144
Scientific Atlanta	0008, 0477, 0877, 1877
Sony	1006
Starcom	0003
Supercable	0276
Supermax	0883
Torx	0003
Toshiba	0000
Tristar	0883
V2	0883
Viewmaster	0883
Vision	0883
Vortex View	0883
Zenith	0000, 0525, 0899

Satellite receivers

Brand	Code
AlphaStar	0772
Chaparral	0216
Crossdigital	1109

DirecTV	0099, 0247, 0392, 0566, 0639, 0724, 0749, 0819, 1076, 1108, 1109, 1142, 1377, 1392, 1414, 1442, 1443, 1444, 1609, 1639, 1640, 1749, 1856
Dish Network System	0775, 1005, 1170, 1505, 1775
Dishpro	0775, 1005, 1505, 1775
Echostar	0775, 1005, 1170, 1505, 1775
Expressvu	0775, 1775
GE	0392, 0566
GOI	0775, 1775
Goodmans	1246
Hisense	1535
Hitachi	0819, 1250
HTS	0775, 1775
Hughes	0749, 1442, 1749
Hughes Network Systems	0749, 1142, 1442, 1443, 1444, 1749
iLo	1535
Janeil	0152
JVC	0775, 1170, 1775
LG	1226, 1414
Magnavox	0722, 0724
Memorex	0724
Mitsubishi	0749
Motorola/General Instrument/Jerrold	0869
Motorola	0856
NEC	0102, 0178, 1270
Next Level	0869
Panasonic	0152, 0247, 0701
Paysat	0724
Philips	0099, 0722, 0724, 0749, 0819, 1076, 1142, 1442, 1749
Pioneer	1442
Proscan	0392, 0566
Proton	1535
RadioShack	0869
RCA	0143, 0392, 0566, 0855, 1392
Samsung	1108, 1109, 1142, 1276, 1377, 1442, 1609
Sanyo	1219
Sony	0639, 1639, 1640
Star Choice	0869
Tivo	1142, 1442, 1443, 1444
Toshiba	0082, 0749, 0790, 0819, 1285, 1286, 1287, 1289, 1749, 1857, 1858
UltimateTV	1392, 1640
Uniden	0722, 0724
US Digital	1535
USDTV	1535
Voom	0869
Zenith	1856

DVD players

Brand	Code
Aiwa	0641
Akai	0695, 0770, 1089
Alco	0790
Allegro	0869
Amphion Media Works	0872
AMW	0872
Apex Digital	0672, 0717, 0755, 0794, 0796, 0797, 1004, 1020, 1056, 1061, 1100
Aspire Digital	1168, 1407
Audiovox	0790, 1041, 1072
Axion	1072
B & K	0655, 0662
Blaupunkt	0717
Blue Parade	0571
Broksonic	0695
California Audio Labs	0490
Cinea	0831
CineVision	0833, 0869, 0876
Citizen	1277
Coby	0778, 0852, 1086, 1107, 1177, 1351
Craig	0831
Curtis Mathes	1087
CyberHome	0816, 0874, 1023, 1024, 1117, 1129
Daewoo	0705, 0784, 0833, 0869, 1169, 1172, 1234, 1242
Daytek	0872
Denon	0490, 0634
Desay	1407
Disney	0675, 1270
Dual	1068, 1085
Durabrand	1127
DVD2000	0521
Emerson	0591, 0675, 0821
Enterprise	0591
Fisher	0670
Funai	0675, 1334
Gateway	1073, 1077, 1158
GE	0522, 0717, 0815
Go Video	0715, 0741, 0744, 0783, 0833, 0869, 1044, 1075, 1099, 1158, 1304, 1730
GoVision	1072
GoldStar	0741
GPX	0699, 0769
Gradiente	0490
Greenhill	0717
Grundig	0539
Harman/Kardon	0582, 0702
Hitachi	0573, 0664
Hiteker	0672
iLo	1348
Initial	0717
Integra	0571, 0627
Jaton	1078



Lasonic	0798, 1173
Lecson	1533
Lenoxx	1127
LG	0591, 0741, 0801, 0869
LiteOn	1058, 1158, 1416, 1440
Loewe	0511
Magnavox	0503, 0539, 0646, 0675, 0821
Malata	0782, 1159
Marantz	0539
McIntosh	1533
Memorex	0695, 0831, 1270
Microsoft	0522
Mintek	0717, 0839
Mitsubishi	0521, 1521
Momitsu	1082
NAD	0591, 0692, 0741
NEC	0785
Nesa	0717
Next Base	0826
NexxTech	1402
Norcent	0872, 1003, 1107, 1265
Onkyo	0503, 0627, 0792
Oritron	0651
Panasonic	0490, 0503, 0703, 1362, 1462, 1490, 1762
Philips	0503, 0539, 0646, 0675, 1267, 1354
PianoDisc	1024
Pioneer	0525, 0571, 0631
Polaroid	1020, 1061, 1086
Polk Audio	0539
Portland	0770
Presidian	0675
Proceed	0672
Proscan	0522
ProVision	0778
Qwestar	0651
RCA	0522, 0571, 0717, 0790, 0822
Rio	0869
RJTech	1360
Rotel	0623
Rowa	0823
Sampo	0698, 0752
Samsung	0490, 0573, 0744, 0820, 1044, 1075
Sansui	0695
Sanyo	0670, 0695, 0873
Sensory Science	1158

Sylvania	0675, 0821
Symphonic	0675
Teac	0790, 0809
Technics	0490, 0703
Technosonic	0730
Techwood	0692
Theta Digita	0571
Toshiba	0503, 0695, 1154, 1854
Tredex	0800, 0803, 0804
Urban Concepts	0503
US Logic	0839
Venturer	0790
Vizio	1064, 1226
Xbox	0522
Yamaha	0490, 0539, 0545
Yamakawa	0872
Zenith	0503, 0591, 0741, 0869
Zoece	1265

VCRs

Brand	Code
ABS	1972
Admiral	0048, 0209, 0479
Adventura	0000
Aiko	0278
Aiwa	0000, 0037, 0124
Akai	0041, 0061, 0175
Alienware	1972
America Action	0278
American High	0035
Asha	0240
Audiovox	0037, 0278
Beaumark	0240
Bell & Howell	0104
Broksonic	0002, 0121, 0184, 0209, 0479
Calix	0037
Canon	0035
Carver	0081
CCE	0072, 0278
Citizen	0037, 0278
Colt	0072
Craig	0037, 0047, 0072, 0240
Curtis Mathes	0035, 0041, 0060, 0162
Cybernex	0240
CyberPower	1972
Daewoo	0045, 0278
Dell	1972
Denon	0042

Fuji	0033, 0035
Funai	0000, 0593, 1593
Garrard	0000
Gateway	1972
GE	0035, 0060, 0065, 0240, 0807
Go Video	0240, 0432, 0526
GoldStar	0037, 0038
Gradiente	0000
Harley Davidson	0000
Harman/Kardon	0038, 0075, 0081
Harwood	0072
Headquarter	0046
Hewlett Packard	1972
HI-Q	0047
Hitachi	0000, 0041, 0042 0065, 0089, 0107
Howard Computers	1972
HP	1972
Hughes Network Systems	0042, 0739
Humax	0739
Hush	1972
iBUYPOWER	1972
Jensen	0041
JVC	0008, 0047
KEC	0037, 027
Kenwood	0038, 00
KLH	0072
Kodak	0035, 0
Linksys	1972
Lloyd's	0000
Logik	0072
LXI	0037
Magnasonic	0597
Magnavox	0000 0007 0015
Magnin	07
Marantz	0
Marta	
Matsushita	
Media Center PC	
MEI	
Memorex	
MGA	
MGN Technology	
Microsoft	
Mind	
Minolta	

Continued)

Mitsubishi	0043, 0061, 0067, 0075, 0173, 0807
Motorola	0035, 0048
MTC	0000, 0240
Multitech	0000, 0072
NEC	0038, 0040, 0041, 0067, 0104
Nikko	0037
Nikon	0034
Niveus Media	1972
Noblex	0240
Northgate	1972
Olympus	0035, 0226
Onkyo	0222
Optimus	0037, 0048, 0104, 0162, 0432, 0593, 1062
Orion	0002, 0184, 0209, 0479
Panasonic	0035, 0077, 0162, 0225, 0226, 0616, 1062
Penney	0035, 0037, 0038, 0040, 0042, 0240
Pentax	0042, 0065, 0105
Philco	0035
Philips	0035, 0081, 0618, 0739, 1081, 1181
Pilot	0037
Pioneer	0067
Polk Audio	0081
Profitronic	0240
Proscan	0060
Protec	0072
Pulsar	0039
Quarter	0046
Quartz	0046
Quasar	0035, 0077, 0162
RadioShack	0000
Radix	0037
Randex	0037
RCA	0042, 0060, 0065, 0077, 0105, 0149, 0240, 0807, 0880
Realistic	0000, 0035, 0037, 0046, 0047, 0048, 0104
ReplayTV	0614, 0616
Ricavision	1972
Ricoh	0034
Runco	0039
Salora	0075
Samsung	0045, 0240, 0739
Sanky	0039, 0048
Sansui	0000, 0041, 0067, 0209, 0479
Sanyo	0046, 0047, 0104, 0159, 0240
Scott	0043, 0045, 0121, 0184, 0210, 0212
Sears	0000, 0035, 0037, 0042, 0046, 0047, 0104, 0105
Sharp	0048, 0807, 0848
Shintom	0072
Shogun	0240

Singer	0072
Sonic Blue	0614, 0616
Sony	0000, 0032, 0033, 0034, 0035, 0636, 1032, 1972
Stack 9	1972
STS	0042
Sylvania	0000, 0035, 0043, 0081, 0593, 1593
Symphonic	0000, 0593, 1593
Systemax	1972
Tagar Systems	1972
Tatung	0041
Teac	0000, 0041
Technics	0035, 0162
Teknika	0000, 0035, 0037
Thomas	0000
Tivo	0618, 0636, 0739, 1996
TMK	0240
Toshiba	0043, 0045, 0209, 0210, 0212, 0366, 0845, 1008, 1145, 1972, 1996
Totevision	0037, 0240
Touch	1972
Unitech	0240
Vector	0045
Vector Research	0038, 0040
Video Concepts	0040, 0045, 0061
Videomagic	0037
Videosonic	0240
Viewsonic	1972
Villain	0000
Voodoo	1972
Wards	0000, 0035, 0042, 0047, 0048, 0060, 0072, 0081, 0149, 0212, 0240
White Westinghouse	0072, 0209
XR-1000	0000, 0035, 0072
Yamaha	0038
Zenith	0000, 0033, 0034, 0039, 0209, 0479, 1139
ZT Group	1972

PVRs

Brand	Code
ABS	1972
Alienware	1972
CyberPower	1972
Dell	1972
Direc TV	0739
Gateway	1972
Hewlett Packard	1972
Howard Computers	1972
HP	1972
Hughes Network Systems	0739
Humax	0739
Hush	1972
iBUYPOWER	1972
Linksys	1972
Media Center PC	1972

Microsoft	1972
Mind	1972
Niveus Media	1972
Northgate	1972
Panasonic	0616
Philips	0618, 0739
RCA	0880
ReplayTV	0614, 0616
Sonic Blue	0614, 0616
Sony	0636, 1972
Stack 9	1972
Systemax	1972
Tagar Systems	1972
Tivo	0618, 0636, 0739
Toshiba	1008, 1972
Touch	1972
Viewsonic	1972
Voodoo	1972
ZT Group	1972

Cable/PVR combos

Brand	Code
Americast	0899
Digeo	1187
Motorola/General Instrument/Jerrold	0476, 0810
Motorola	1187, 1376
Pace	0237, 1877
Pioneer	0877, 1877
Scientific Atlanta	0877, 1877
Sony	1006
Supercable	0276
Zenith	0899

DBS/PVR combos (1)

Brand	Code
DirecTV	0099, 0392, 0639, 1076, 1142, 1377, 1392, 1442, 1443, 1444, 1640
Dish Network System	0775, 1505
Dishpro	0775, 1505
Echostar	0775, 1170, 1505
Expressvu	0775
Hughes Network Systems	1142, 1442, 1443, 1444
JVC	1170
Motorola	0869
Philips	1142, 1442
Proscan	0392
RCA	1392
Samsung	1442
Sony	0639, 1640
Star Choice	0869

DBS/PVR combos (2)

Brand	Code
Hughes Network Systems	0739
Philips	0739
Samsung	0739

Audio Amps

Brand	Code
Adcom	0577, 1100
Bose	0674
Carver	0892
Durabrand	1561
Elan	0647
GE	0078
Harman/Kardon	0892
JVC	0331
LeftCoast	0892
Lenox	1561
Luxman	0165
Marantz	0321, 0892
McIntosh	0251
Nakamichi	0321
NEC	0264
Optimus	0395, 0823
Parasound	0246
Philips	0892
Pioneer	0823
Polk Audio	0892
RCA	0823
Realistic	0395
Sansui	0321
Shure	0264
Sony	0689, 0815, 1126
Soundesign	0078, 0211
Victor	0331
Wards	0078, 0211
Yamaha	0133, 0143, 0354, 0504

CD players

Brand	Code
Adcom	0234
Aiwa	0124, 0157
Akai	0156
Arcam	0157
Audio-Technica	0170
Burmester	0420
California Audio Labs	0029, 0303
Carver	0157, 0299
Denon	0003, 0034
DKK	0000
DMX Electronics	0157
Garrard	0393, 0420
Genexxa	0032
Harman/Kardon	0083, 0157, 0173
Hitachi	0032, 0139
Integra	0101
JVC	0072, 0655, 1294
Kenwood	0028, 0037, 0190, 0626
Krell	0157
Linn	0157
Magnavox	0038, 0157
Marantz	0029, 0038, 0157, 0180, 0435, 0626
MCS	0029
MGA	0083
Miro	0000
Mission	0157
Mitsubishi	0083

MTC	0420
NAD	0019, 0299
NEC	0234
Nikko	0170
NSM	0157
Onkyo	0101, 0102, 0138, 0381, 1327
Optimus	0000, 0032, 0037, 0087, 0420, 0468
Panasonic	0029, 0303, 0388, 0752
Parasound	0420
Philips	0157, 0274, 0626
Pioneer	0032, 0468, 0551, 1062, 1087
Polk Audio	0157
Procead	0420
Proton	0157
QED	0157
Quad	0157
Quasar	0029
RCA	0032, 0053, 0420, 0468, 1062
Realistic	0180, 0420
Rotel	0157, 0420
SAE	0157
Sansui	0157
Sanyo	0087
Sharp	0037, 0180
Sherwood	0180
Sonic Frontiers	0157
Sony	0000, 0100, 0185, 0490, 0604, 0605, 0673, 1364
Sugden	0157
TAG McLaren	0157
Tascam	0420
Teac	0180, 0378, 0393, 0420
Technics	0029, 0303
Toshiba	0019, 0299
Victor	0072
Wards	0053, 0157
Yamaha	0036, 0170, 0187, 0490, 1292

Audio Amps/Tuners

Brand	Code
ADC	0531
Aiwa	0121, 0189, 1243, 1388, 1405, 1641
Akai	1255, 1512
Alco	1390
AMC	1077
Anam	1074, 1609
Apex Digital	1774
Arcam	1189
Audiotronic	1189
Audiovox	1390
Bose	0639, 1229, 1253, 1933
Capetronic	0531
Carver	0121, 0189, 1189, 1289
Delphi	1414
Denon	0121, 1142, 1360

Fisher	1801
Harman/Kardon	0110, 0189, 0891, 1289, 1304, 1306
Hitachi	1273, 1801
Integra	0135, 1298, 1320
JBL	0110, 1306
JVC	1058, 1374, 1495, 1811
Kenwood	0186, 1313, 1569, 1570
KLH	1390, 1428
Linn	0189
Magnavox	0189, 0531, 1189, 1269, 1514
Marantz	0189, 1189, 1269, 1289
McIntosh	1289
Micromega	1189
Mitsubishi	1393
Myryad	1189
Nakamichi	1313
Onkyo	0135, 0380, 0842, 1298, 1320, 1531
Optimus	0186, 0531, 1023, 1074
Panasonic	0309, 1288, 1308, 1316, 1350, 1363, 1518, 1548, 1633, 1763, 1764
Philips	0189, 1189, 1266, 1269
Pioneer	0014, 0150, 0531, 0630, 1023, 1384
Polk Audio	0189, 1289, 1414
Proscan	1254
RCA	0531, 1023, 1074, 1254, 1390, 1511, 1609
Samsung	1295, 1304, 1500
Sansui	0189, 1189
Sanyo	1469, 1801
Sharp	0186
Sherwood	1077
Sirius	1811
Sony	0168, 1058, 1258, 1406, 1441, 1558, 1622, 1658, 1758, 1759, 1858
Stereophonics	1023
Sunfire	1313
Teac	1074, 1267, 1390, 1528
Technics	0309, 1308, 1518, 1633
Thorens	1189
Toshiba	0135
Venturer	1390
Wards	0014, 0189
XM	1406, 1414
Yamaha	0176, 0186, 1176, 1276, 1331, 1375

Chapter 3: Menu layout and navigation

Main menu layout

The tables below and on the next page provide a quick overview of your TV's menu system.

To open the main menus (illustrated below), press **Y** on the remote control or TV control panel.

Icon	Item	Option
Applications 	Picture Viewer	→ [Launches the JPEG Picture Viewer]
	Audio Player	→ [Launches the MP3 Audio Player]
	Personal E-mail	→ [Launches the Personal E-mail]
	Channel Browser™	→ [Launches the Channel Browser™]
	TV Guide On Screen™	→ [Opens the TV Guide On Screen™ feature]
	Digital CC/Audio Selector	→ [Launches the ATSC Digital CC Selector] (This feature is not available if the TV is not tuned to a digital channel).
	CableCARD™	→ Dynamic list of items provided by Cable company. (This option is not available if a CableCARD™ is not inserted.)
Video 	Mode	→ Sports/Standard/Movie/Preference/Pro 1/Pro 2
	Picture Settings	→ [Opens the Picture Settings menu]
	Noise Reduction	→ [Opens the Noise Reduction menu]
	Color Management Pro	→ [Opens the Color Management Pro menu]
	Game Mode	→ On/Off
	Theater Settings	→ [Opens the Theater Settings menu]
Audio 	Audio Settings	→ [Opens the Audio Settings menu]
	Advanced Audio Settings	→ [Opens the Advanced Audio Settings menu]
	Audio Setup	→ [Opens the Audio Setup menu]
Preferences 	Closed Caption Mode	→ OFF/CC1/CC2/CC3/CC4/T1/T2/T3/T4
	Closed Caption Advanced	→ [Opens the Closed Caption Advanced menu]
	Input Labeling	→ [Opens the Input Labeling menu]
	Menu Language	→ English/French/Spanish
	Channel Browser Setup	→ [Opens the Channel Browser Setup menu]
Locks 	Enable Rating Blocking	→ Off/On
	Edit Rating Limits	→ [Opens the Edit Rating Limits menu]
	Channels Block	→ [Opens the Channels block menu]
	Input Lock	→ Off/Video/Video+
	Front Panel Lock	→ Off/On
	GameTimer™	→ Off/30 Min/60 Min/90 Min/120 Min
	New PIN Code	→ [Opens the New PIN Code entry screen]
Setup 	Installation	→ [Opens the Installation menu (see page 23)]
	Sleep Timer	→ [Opens the Sleep Timer menu]
	On/Off Timer	→ [Opens the On/Off Timer menu]
	PC Settings	→ [Opens the PC Settings menu]
	PC Audio	→ No/Yes
	HDMI 1 Audio	→ Auto/Digital/Analog
	Slide Show Interval	→ 2 Sec/5 Sec/10 Sec/15 Sec/20 Sec

Setup/Installation menu layout

The Installation menu contains the Terrestrial, Network, TV Guide On Screen™ Setup, Time and Date, and System Status menus (as described below).

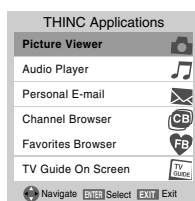
To open the **Installation** menu (illustrated below), press **Y** on the remote control or TV control panel, open the **Setup** menu, select **Installation**, and press **T**.

Icon	Item	Option
Press Y , open the Setup menu, and then open the Installation sub-menu. 	Input Configuration	→ [Opens the Input Configuration menu]
	Channel Program	→ ANT1 → [Scans for new channels on ANT1] → ANT2 → [Scans for new channels on ANT2]
	Channel Add/Delete	→ [Opens the Channel Add/Delete menu]
	Signal Meter	→ [Opens the Signal Meter menu]
	Network	
	Basic Network Setup	→ [Opens the Basic Network Setup menu]
	Personal E-mail Setup	→ [Opens the Personal E-mail Setup menu]
	E-mail Scheduling Setup	→ [Opens the E-mail Scheduling Setup menu]
	Home File Server Setup	→ [Opens the Home File Server Setup menu]
	Software Upgrade	→ [Opens the Software Upgrade menu]
TV Guide On Screen™ Setup 	Start	→ [Opens the TV Guide On Screen™ Setup menu]
Time and Date 	Start Setup	→ [Opens the Time and Date Setup menu]
System Status 	System Information	→ [Opens the System Information screen]

THINC™ menu layout

The THINC* menu provides access to the **Picture Viewer**, **Audio Player**, **Personal E-mail**, **Channel Browser**, **Favorites Browser**, and **TV Guide On Screen** features.

The THINC menu is not part of the main menu system. You can only view the THINC menu by pressing **C** on the remote control.



* Toshiba Home Interactive Network Connection.

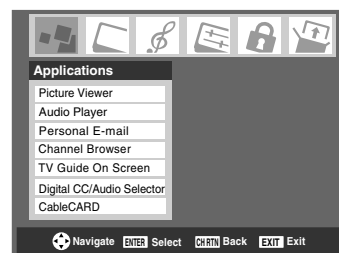
Navigating the menu system

You can use the buttons on the remote control or TV control panel to access and navigate your TV's on-screen menu system.

- Press **Y** to open the menu system.
- When a menu is open, use the up/down/left/right arrow buttons (**▲▼◀▶**) on the remote control or TV control panel to move in the corresponding direction in the menu.
- Press **T** to save your menu settings or select a highlighted item. (A highlighted menu item appears in a different color in the menu.)
- All menus close automatically if you do not make a selection within 60 seconds, except the signal meter menu, which closes automatically after about 5 minutes.
- To close a menu instantly, press **O**.

Note:

- The menu backgrounds may sometimes appear black, depending on the signal the TV is receiving. This is not a sign of malfunction.



- The Video sub-menu appears with a black background, which looks different from other menus.



Chapter 4: Setting up your TV

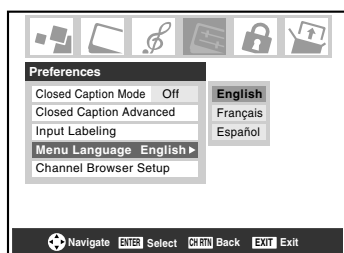
Selecting the menu language

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

Note: The TV Guide On Screen™ menus are in English, regardless of the language selected in this menu.

To select the menu language:

- 1 Press **Y** and open the **Preferences** menu.
- 2 Highlight **Menu Language** and press **►**.
- 3 Press **▲** or **▼** to select your preferred menu language and press **T**.

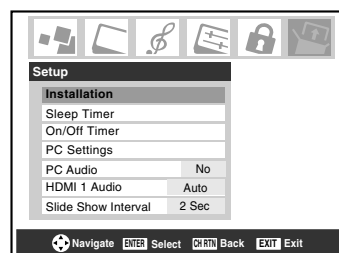


- 4 Press **O** to close the **Preferences** menu.

Configuring the antenna input sources for the ANT 1 and ANT 2 terminals

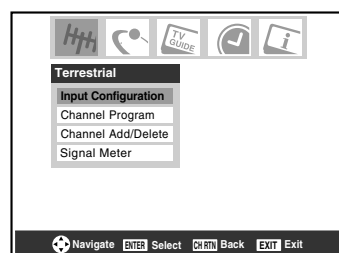
To configure the ANT 1 and ANT 2 input sources:

- 1 Press **Y** and open the **Setup** menu.
- 2 Highlight **Installation** and press **T**.



- 3 (A new set of **Installation** menu icons will appear on-screen, as shown below.) Open the **Terrestrial** menu, highlight **Input Configuration**, and press **T**.

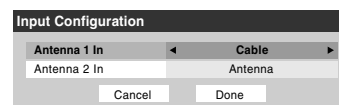
Note: The Terrestrial menu may not be accessible (items will be “grayed out”) in some instances (for example, if a cable box is connected to the ANT 1 input or if one of the VIDEO modes is the current input during TV Guide On Screen™ setup).



- 4 Press **▲** or **▼** to highlight **Antenna 1 In**, and then press **◀** or **▶** to select the input source (**Cable** or **Antenna**) for the **ANT 1** input on the TV.

Note: If a cable box is connected to the ANT 1 input during TV Guide On Screen™ setup, the entire Terrestrial menu will not be accessible, including the input source for ANT 1, which will automatically display “Cable Box.”

- 5 Press **▼** to highlight **Antenna 2 In** and then **◀** or **▶** to select the input source (**Cable** or **Antenna**) for the **ANT 2** input on the TV, if applicable. If you have not connected anything to the **ANT 2** input, skip this step.



- 6 To save your new settings, highlight **Done** and press **T**. To revert to your original settings, highlight **Cancel** and press **T**.

Programming channels into the TV's channel memory

When you press **<** or **>**, on the remote control or TV control panel, your TV will stop only on the channels you programmed into the TV's channel memory.

Follow the steps below to program channels into the TV's channel memory.

Programming channels automatically

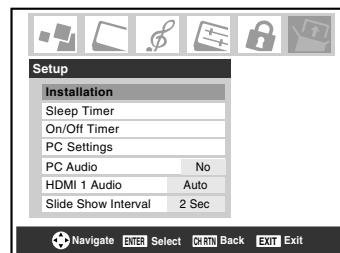
Your TV can automatically detect all active channels in your area and store them in its memory. After the channels are programmed automatically, you can manually add or erase individual channels in the channel memory.

Note:

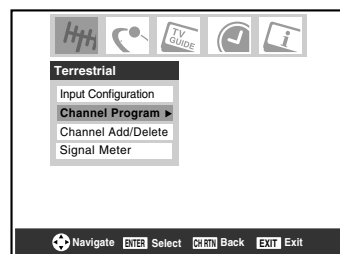
- You must configure the antenna input source before programming channels (see page 25).
- If the Antenna 1 input signal type is set to **Cable**, the automatic channel programming process erases channels that were previously programmed into the TV's memory.
- If the Antenna 1 input signal type is set to **Antenna**, the automatic channel programming process adds newly found channels to the existing set of programmed channels (and does NOT erase channels that were previously programmed into the TV's memory). To remove an antenna source channel from the memory, you must manually delete it.
- To tune the TV to a channel not programmed in the channel memory, you must use the Channel Number buttons on the remote control.
- Programming channels when the antenna input is configured for **Cable** will take substantially longer than when the antenna input is configured for **Antenna**. This is normal; however, once channel programming is finished, you should not have to repeat the programming process again unless your Cable TV service lineup changes significantly.
- If you have a CableCARD™ inserted, channel programming for the **ANT 1** input is disabled because the CableCARD™ automatically loads the Cable channel list into the TV's channel memory. See the Installation Guide for details on CableCARD™.

To program channels automatically:

- 1 Configure the antenna input sources, if you have not already done so (see page 25).
- 2 Press **Y** and open the **Setup** menu.
- 3 Highlight **Installation** and press **T**.



- 4 (A new set of **Installation** menu icons will appear, as shown below.) Open the **Terrestrial** menu, highlight **Channel Program**, and press **T**.



- 5 Highlight **ANT 1** (or **ANT 2**) and then press **T** to start automatic channel programming.



The TV will automatically cycle through all the antenna channels, and store all active channels in the channel memory. While the TV is cycling through the channels, the message “Scanning channels, please wait” appears (as shown above).

- 6 To cancel channel programming, press **O** on the remote control (or highlight **Abort** in the on-screen display and press **T**).

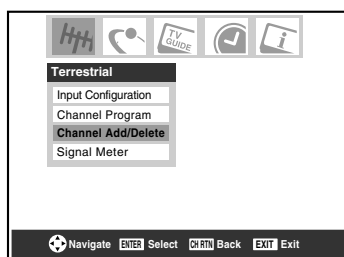
When channel programming is finished, press **<** or **>**, to view the programmed channels.

Manually adding and deleting channels in the channel memory

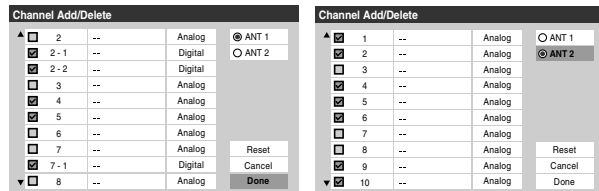
After automatically programming channels into the channel memory, you can manually add or delete individual channels.

To add or delete channels in the channel memory:

- 1 Press **Y** and open the **Setup** menu.
- 2 Highlight **Installation** and press **T**.
- 3 (A new set of **Installation** menu icons will appear, as shown below.) Open the **Terrestrial** menu, highlight **Channel Add/Delete**, and then press **T**.



- 4 The illustration below left shows channels programmed for the ANT 1 antenna input. To view the list of channels programmed for the ANT 2 or Cable box antenna input, press **▲▼** to highlight **ANT 2** and press **T**.



To add a channel to the channel memory:

Highlight the unchecked box next to the channel number you want to add, and then press **T** to check the box.

To manually add digital subchannels on a physical channel:

Use the Channel Numbers and the Dash (=) on the remote control to enter the channel number (for example, 56–1).

If the channel is found, the number will be added to the list and the box will be checked.

If the channel is not found, a message will appear.

To remove a channel from the channel memory:

Highlight the checked box next to the channel number you want to remove, and then press **T** to uncheck the box.

To save your new settings:

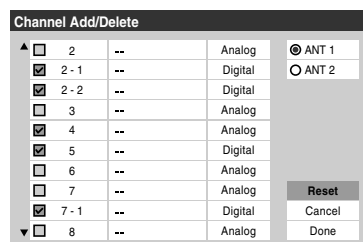
Highlight **Done** and press **T**.

To revert to your original settings:

Highlight **Cancel** and press **T** before saving.

To remove all channels from the channel memory:

Highlight **Reset** and press **T**, and then highlight **Done** and press **T**.



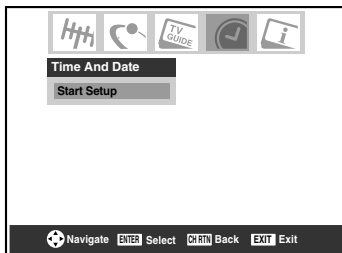
Note: This action applies to the current antenna input only. To delete/add channels on the other input, highlight the other input and press **T**.

Setting the time and date

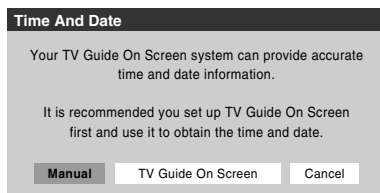
Note: If you already set up the TV Guide On Screen™ system, the time and date were set automatically and you can skip this step.

To set the time and date:

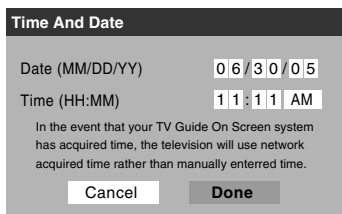
- 1 Press **Y** and open the **Setup** menu.
- 2 Highlight **Installation** and press **T**.
- 3 (A new set of **Installation** menu icons will appear, as shown below.) Open the **Time And Date** menu, highlight **Start Setup**, and press **T**.



If you have not set up the TV Guide On Screen™ system, the following screen will appear. To set the time, highlight **TV Guide On Screen™** and press **T**. The TV Guide On Screen™ setup sequence will start, and the time and date will be set automatically.



If you have already set up the TV Guide On Screen™ system, or if you have not set up the time, the Time and Date setting screen will appear and you will need to manually set the time and date.



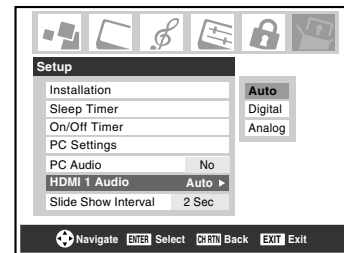
Note:

- If you highlight **TV Guide On Screen™** (above) to set the time and date through the TV Guide On Screen™ system and a power outage occurs, the time and date will be updated automatically when the power is restored.
- If you highlight **Manual** (above) to set the time and date manually and a power outage occurs, you will lose the time and date settings when the power is restored.
- If you manually set the time and date and then perform TV Guide On Screen™ setup, the manual time and date settings will be overridden by the TV Guide On Screen™ settings.

Setting the HDMI™ audio mode

To set the HDMI audio mode:

- 1 Press **Y** and open the **Setup** menu.
- 2 Highlight **HDMI 1 Audio** and press **▶**.
- 3 Press **▼** or **▲** to select the HDMI audio mode (**Auto**, **Digital**, or **Analog**) and press **T**. (**Auto** is the recommended mode.) See “Connecting an HDMI or DVI device to the HDMI input” (📖 *Installation Guide*).



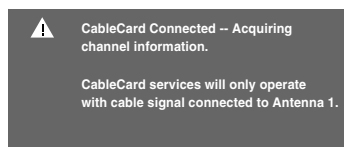
Note: Because the PC IN and HDMI (DVI) IN inputs share the same set of analog audio inputs, the **PC Audio** menu setting influences the **HDMI 1 Audio** menu setting. If **PC Audio** is set to “No,” the **HDMI 1 Audio** setting changes to “Auto.” If **PC Audio** is set to “Yes,” the HDMI Audio setting is set to “Digital” and is grayed out in the menu. (Also see item 4 on page 9 and “Setting the PC Audio mode” on page 52.)

Viewing the CableCARD™ menu

A CableCARD™ enables you to view encrypted digital channels. For connection and subscription information, see “Connecting a digital CableCARD™” in the *Installation Guide*.

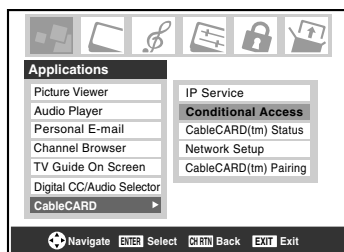
Note: Connecting your TV directly to the Audio/Video output of your set-top box may provide a more vivid picture.

After the CableCARD™ is inserted, a CableCARD™ option appears in the **Applications** menu, with informational screens provided by your digital CableCARD™ service (see the sample illustration under step 3, below).



To view the CableCARD™ menu:

- 1 Press **Y** and open the **Applications** menu.
- 2 Highlight **CableCARD™** and press **►**.
- 3 Press **▲** or **▼** to select one of the side menu items and then press **T** to display the information.



Note: The CableCARD™ menu is for informational purposes only and has no user-adjustable options.

Viewing the digital signal meter

You can view the digital signal meter for the ANT 1 and ANT 2 digital TV input sources only.

To view the digital signal meter:

- 1 Press **Y** and open the **Setup** menu.
- 2 Highlight **Installation** and press **T**.
- 3 A new set of Installation menu icons will appear, as shown below.
Open the **Terrestrial** menu, highlight **Signal Meter**, and press **T**.



- 4 Press **▲▼◀▶** to select the antenna input and digital channel whose signal you want to check.

Note: The physical digital channel number listed in the Signal Meter screen may not correspond to a virtual TV channel number. Contact your local broadcasters to obtain the RF channel numbers for your local digital stations.

To close the screen and return to the Terrestrial menu:

Highlight **Done** and press **T**.

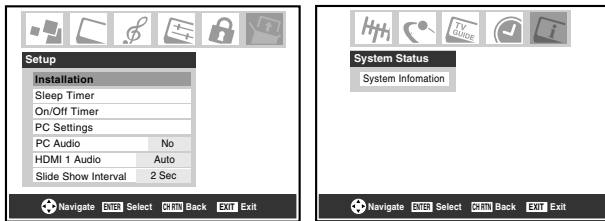
To return to normal viewing:

Press **O**.

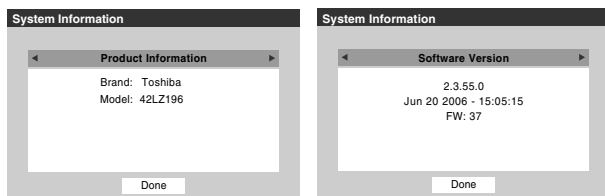
Viewing the system status

To view the system status:

- 1 Press **Y** and open the **Setup** menu.
- 2 Highlight **Installation** and press **T**.
- 3 A new set of Installation menu icons will appear, as shown below right. Open the **System Status** menu, highlight **System Information**, and press **T**.



- 4 Press **◀▶** to scroll through the menu bar to select either **Product Information** or **Software Version** and view the related information.



To close the screen and return to the **Installation** menu:

Highlight **Done** and press **T**.

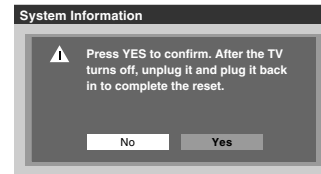
To return to normal viewing:

Press **O**.

Reset Factory Defaults

To reset all settings and channels to their factory default values:

- 1 Press **Y** and open the **Setup** menu.
- 2 Highlight **Installation** and press **T**. A new set of Installation menu icons will appear.
- 3 Open the **System Status** menu, highlight **System Information**, and press **T**.
- 4 Press **◀▶** to scroll through the menu bar to select **Factory Defaults**.
- 5 Enter your PIN code (or 0000 if no PIN code has been set).
- 6 Highlight **Yes** and press **T**. The TV will turn off automatically after a few seconds. After the TV turns off, unplug the TV power cord and then plug it in again to complete the reset process.



To cancel the reset:

Highlight **No** and press **T**.

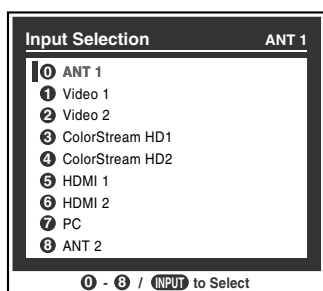
Chapter 5: Using the TV's features

Selecting the video input source to view

The video inputs available to view will be determined by the input terminals you used to connect your devices (see the *Installation Guide*).

To select the video input source to view:

- 1 Press **+** on the remote control or TV control panel.
 - 2 And then either:
 - a) Press 0-8; or
 - b) Repeatedly press **▲▼** on the remote control (or **CHANNEL ▲▼** on the control panel) to change the input; or
 - c) Repeatedly press **+** on the remote control or TV control panel to change the input.
- The current signal source displays in the top right corner of the **Input Selection** screen.



Note:

- You can label the video input sources according to the specific devices you have connected to the TV (see “Labeling the video input sources” at right).
- The source can be “hidden” (see “Labeling the video input sources” at right).

Labeling the video input sources

You can label each video input source to describe the type of device you connected to each source. You can choose from the following preset list of labels:

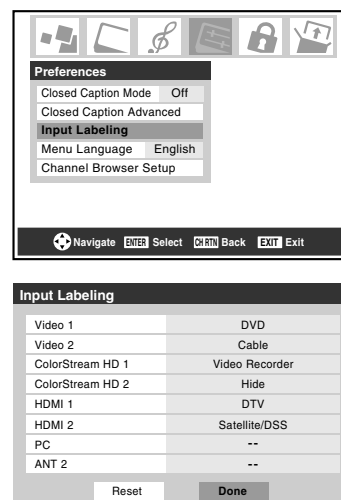
- “--” (default label)
- Cable
- DTV
- Satellite/DSS
- VCR
- Laser Disk
- DVD
- HD DVD
- Audio Receiver
- Compact Disc
- Video Recorder
- Game Console
- Hide (to skip over an unused input in the **Input Selection** screen)

Note:

- If you select ANT 2 in the Input selection screen, you can choose only “--” or “Hide” as the label.
- If you select PC in the Input Selection screen, you can choose only “--,” “Hide,” or “Game Console” as the label.

To label the video input sources:

- 1 Press **Y** and open the **Preferences** menu.
- 2 Highlight **Input Labeling** and press **T**.
- 3 Press **▲** or **▼** to highlight the video source you want to label.



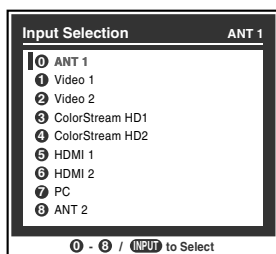
- 4 Press **◀** or **▶** to select the desired label for that input source. If a particular input is not used, you can select **Hide** as the label, which will cause that input to be “grayed out” in the Input Selection screen and skipped over when you press **+** on the remote control.

(continued)

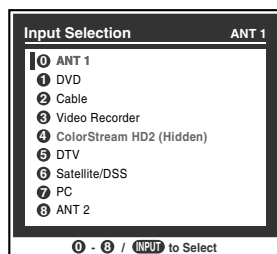
- 5** To save the new input labels, highlight **Done** and press **T**.
To revert to the factory default labels, highlight **Reset** and press **T**.

Input labeling example:

The screen below left shows the default **Input Selection** screen (with none of the inputs labeled as a specific device). The screen below right is an example of how you could label the inputs if you connected a DVD player to VIDEO 1, Cable TV to VIDEO 2, a video recorder to ColorStream HD1, a DTV set-top box to HDMI 1, and a satellite/DSS set-top box to HDMI 2. Also note that the ColorStream HD2 input is labeled “Hidden,” which means that input will be skipped over when **+** is pressed.



Input Selection screen with no inputs labeled.



Input Selection screen with all inputs labeled except input 4, which has been hidden.

To clear the input labels:

- 1** Press **Y** and open the **Preferences** menu.
- 2** Highlight **Input Labeling** and press **T**.
- 3** Highlight **Reset** and press **T**.

Tuning channels

Tuning channels using the Channel Browser™

The Channel Browser™ provides an easy navigation interface for all your channels and inputs. This feature allows you to:

- Navigate the contents of all of your inputs.
- Keep a list of your favorite channels (see “Favorite Browser,” below).
- Provide Cable Box and Satellite Box lists.
- Keep a history of the last 32 channels or inputs viewed.
- Quickly surf and tune your recently viewed channels/inputs from the Channel Browser™ History List (illustrated on the next page).
- Surf via Browse mode (to immediately tune channels as you highlight them in the Channel Browser™) or Select mode (to surf over channels in the Channel Browser™ before you select one to tune).
- Quickly change inputs from the Inputs List.

Favorite Browser

The Favorite Browser allows you to quickly set up a favorite channels/inputs list that is integrated into the Channel Browser™.

To add a favorite channel/input:

- 1** Tune to the channel or input.
- 2** Press and hold **n** for 3 seconds.

Note: Additions are added to the beginning of the Favorite list on the left side of the Channel Browser™.

To delete a favorite channel/input:

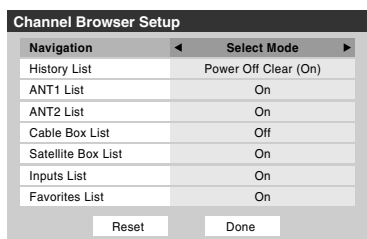
- 1** Press **n** to open the Favorite browser list.
- 2** Highlight the channel or input to delete by pressing **BACK** or **NEXT**.
- 3** Press and hold **=** for 3 seconds. The channel/input will be removed from the Favorite list.

Picture Preview

- A small thumbnail preview of the current channel or input will appear in the list.
- Picture snapshots will be taken when a source change occurs from the Channel Browser™.
- Up to 32 picture previews can be stored in the Channel Browser™ across all lists. If you add a new picture when the total = 32, the oldest thumbnail will be deleted. One thumbnail is counted only once against the total, no matter how many times it appears in various lists.
- Turning off the TV deletes all of the current thumbnails.

To set up the Channel Browser™:

- 1 Press **Y** and open the **Preferences** menu.
- 2 Highlight **Channel Browser Setup** and press **T**.
- 3 Press **▲** to highlight **Navigation**, and then press **◀** or **▶** to select either **Browse Mode** or **Select Mode**.



- 4 Press **▼** to highlight **History List**, and then press **◀** or **▶** to select the setting you prefer: either **Power Off Clear (On)**, **On**, or **Off**.

Note: When **History List** is set to **On**, the channels and inputs stored in the list will be saved every power on/off cycle. When **History List** is set to **Power Off Clear (On)**, the channels and inputs stored in the list will be cleared with every power on/off cycle of the TV.

- 5 Press **▼** to highlight **ANT1 List**, and then press **◀** or **▶** to select **On** or **Off**.

Press **▼** to highlight **ANT2 List**, and then press **◀** or **▶** to select **On** or **Off**.

Press **▼** to highlight **Cable Box List**, and then press **◀** or **▶** to select **On** or **Off**.

Press **▼** to highlight **Satellite Box List**, and then press

Press **▼** to highlight **Inputs List**, and then press **◀** or **▶**

Press **▼** to highlight **Favorites List**, then press **◀** or **▶** to

Press **▼** to highlight **Done** and press **T**.

If you want to reset all settings to default, highlight **Reset**.

Press **▼** to highlight **Done** and press **T**.

Press **▼** to highlight **Done** and press **T**.

Press **▼** to highlight **Done** and press **T**.

Press **▼** to highlight **Done** and press **T**.

Elements of the Channel Browser™



- 1 Input type
- 2 Highlighted item (channel or input)
- 3 Channels with thumbnails stored in the **History List**
- 4 Current list (**History**, **ANT 1**, **ANT 2**, **Cable Box**, **Satellite Box**, **Inputs**, or **Favorites**)
- 5 Current input
- 6 Current antenna type (cable or TV)
- 7 Active channel number
- 8 Channel call letters (if available)
- 9 Resolution

To toggle among the Channel Browser™

After opening the Channel Browser™, you can toggle among **History**, **Inputs**, and **Favorites**.

Note:

- The Channel Browser™ will automatically toggle among the lists if you press the **Y** button.

To tune to a channel or input in Select mode:

- 1 While watching TV, press  or  to open the Channel Browser™ and surf back to a previous item or forward to the next item in the list.
In **Select** mode, when you stop on an item in the Channel Browser™, it will be highlighted but you must press **T** to tune the TV to the highlighted item.
- 2 Press **O** to close the Channel Browser™.

Adding and clearing channels and inputs in the History List

Adding channels and inputs to the History List:

As a channel or input is tuned, the Channel Browser™ adds it to the History List and displays it on the “right side” of the Channel Browser™. Previously tuned channels/inputs are “shifted” to the left, eventually moving off the left side. Press  to surf backward through the previously tuned channels/inputs. Any channel or input that is tuned repeatedly will not be repeated in the History List, but instead is moved to the end of the list on the right side of the Channel Browser™.

The Channel Browser™ will store the following channels:

- All channels that are tuned using the numeric buttons on the remote control.
- All channels that are tuned using **<** or **>** on the remote control for at least 5 seconds.
- All inputs that are tuned for at least 5 seconds.

Note: Whenever an item is selected that cannot be tuned (for various reasons), the TV will automatically tune to the previously viewed channel or input.

Clearing channels from the History List:

- Reconfiguring the **ANT 1** or **ANT 2** input will clear the History List.

Note: See page 25 for details on configuring the antenna inputs.

- Removing the CableCARD™ will clear the History List.
- Once 32 channels or inputs are stored in the History List, the oldest item will be removed from the list when a new channel or input is tuned.
- If **History List** in the **Channel Browser Setup** is set to **“Power Off Clear (On)”**, turning off the TV will clear the History List.

Tuning to the next programmed channel

To tune to the next programmed channel:

Press **<** or **>** on the remote control or TV control panel.

Note: This feature will not work unless you program channels into the TV's channel memory (see page 26).

Tuning to a specific channel (programmed or unprogrammed)

Tuning analog channels:

Press the Channel Number buttons (0–9) on the remote control. For example, to select channel 125, press 1, 2, 5.

Tuning digital channels:

Press the Channel Number (0–9) on the remote control, followed by the dash (=) and then the sub-channel number.

Switching between two channels Channel Return

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

- 1 Select the first channel you want to tune.
- 2 Select a second channel by pressing the number buttons (and the dash (—) button if the second channel is a sub-channel).
- 3 Press **R** on the remote. The second channel will be tuned. Each time you press **R**, the receiver will switch back and forth between the two channels.

Note: If you press **R** again, the receiver will return to the last channel you tuned.

Each time you press **R**, the receiver will tune the second channel one time only. If you press **R** again, the receiver will tune the first channel again, the second channel again, the first channel again, and so on. If you press **R** again, the receiver will tune the first channel again, the second channel again, the first channel again, and so on. If you press **R** again, the receiver will tune the first channel again, the second channel again, the first channel again, and so on.

Selecting the picture size

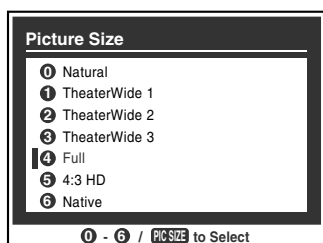
You can view many program formats in a variety of picture sizes—**Natural**, **TheaterWide 1**, **TheaterWide 2**, **TheaterWide 3**, **Full**, **4:3 HD**, and **Native**.

Note: The “picture size” illustrations are examples only. The format of the image (in any of the picture sizes) will vary depending on the format of the signal you are currently watching. Select the picture size that displays the current program the way that looks best to you.

You can save separate picture size preferences for each input on your TV.

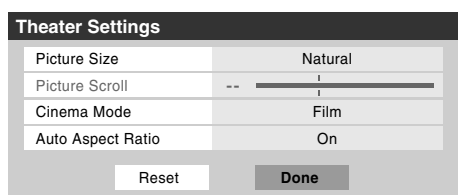
To select the picture size using the remote control:

- 1 Press **|** on the remote control.
- 2 While the **Picture Size** screen is open, you can do one of the following to select the desired picture size:
 - Repeatedly press **|**.
 - Press the corresponding Number button (0–6) while the **Picture Size** screen is open.
 - Press **▲** or **▼** while the **Picture Size** screen is open.



To select the picture size using the menus:

- 1 Select **Picture Size** in the **Theater Settings** menu.
- 2 Select the input for which you want to save your picture settings.
- 3 Highlight **Done** and press **T**.



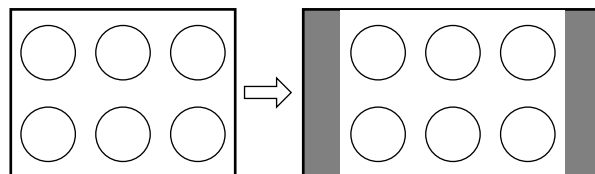
Note: **Full** picture size may not be available for some program formats (it will be “grayed out” in the **Picture Size** screen).

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.

Note: If you select one of the TheaterWide® picture sizes, the top and bottom edges of the picture (including subtitles or captions) may be hidden. To view the hidden edges, either scroll the picture (**TheaterWide 2** and **3** only) or try viewing the program in **Full** or **Natural** picture size.

Natural picture size

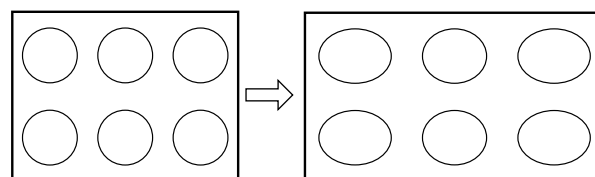
- The image is displayed close to its originally formatted proportion. Some program formats will display with sidebars and/or bars at the top and bottom.



Natural picture size example

TheaterWide 1 picture size (for 4:3 format programs)

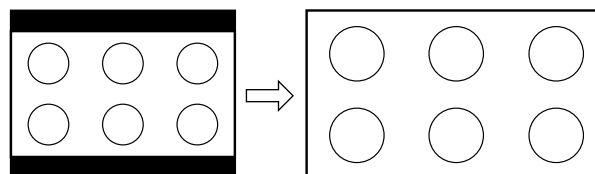
- The center of the picture remains close to its original proportion, but the left and right edges are stretched wider to fill the screen.



TheaterWide 1 picture size example

TheaterWide 2 picture size (for letter box programs)

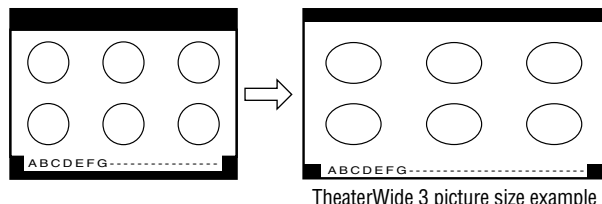
- The picture is stretched wider to fill the width of the screen, but only slightly stretched taller.
- The top and bottom edges of the picture may be hidden. To view the hidden areas, see “Scrolling the TheaterWide® picture” on the next page.



TheaterWide 2 picture size example

TheaterWide 3 picture size (for letter box programs with subtitles)

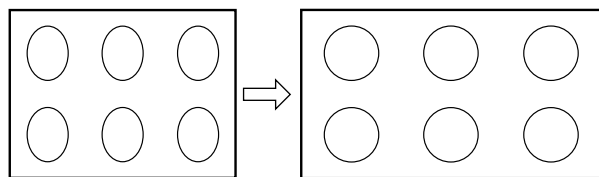
- The picture is stretched wider to fill the width of the screen, but only slightly stretched taller.
- The top and bottom edges are hidden. To view the hidden areas (such as subtitles or captions), see “Scrolling the TheaterWide® picture,” at right.



TheaterWide 3 picture size example

Full picture size (for 16:9 [480i, 480p] source programs only)

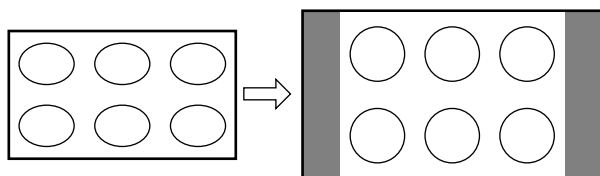
- If receiving a squeezed 4:3 format program, the picture is stretched wider to fill the width of the screen, but not stretched taller.
- None of the picture is hidden.



Full picture size example

4:3 HD picture size (for 720p, 1080i, and 1080p program sources only)

- Sidebars fill the empty vertical spaces.
- Picture is not distorted from original size.

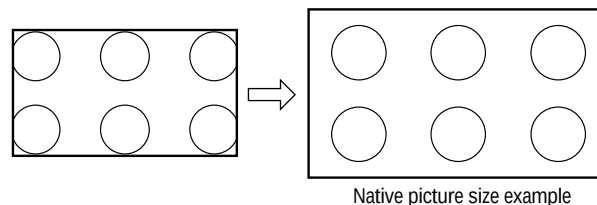


4:3 HD picture size example

Native picture size (for 1080i and 1080p signal programs)

- If receiving a 1080i or 1080p signal program, the Native mode displays the entire picture without scaling.

Note: Native picture size is available for 1080i and 1080p signals only. If the signal being received is other than 1080i or 1080p, “Native” will be grayed out in the **Picture Size** screen.



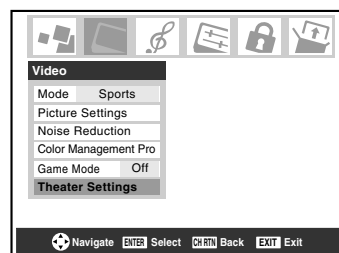
Native picture size example

Scrolling the TheaterWide® picture (TheaterWide 2 and 3 only)

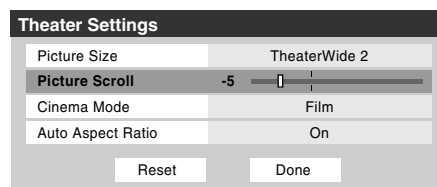
You can set separate scroll settings for the TheaterWide 2 and TheaterWide 3 modes for each input.

To set the scroll settings:

- 1 Press **Y** and open the **Video** menu.
- 2 Highlight **Theater Settings** and press **T**.



- 3 In the **Picture Size** field, select either **TheaterWide 2** or **TheaterWide 3** (you cannot scroll in any other mode).
- 4 Press **▼** to highlight the **Picture Scroll** field.
- 5 Press **◀** or **▶** to scroll the picture up and down as needed, from -10 to +20.



- 6 To save the new settings, highlight **Done** and press **T**. To revert to the factory defaults, highlight **Reset** and press **T**.

Using the auto aspect ratio feature

When the auto aspect ratio feature is set to **On**, the TV will automatically select the picture size when one of the following input sources is received:

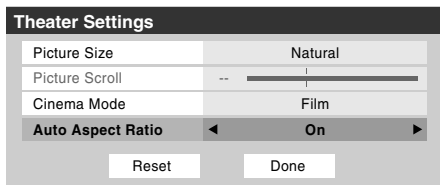
- A 480i signal from the **VIDEO 1**, **VIDEO 2**, **ColorStream HD1**, or **ColorStream HD2** input.
- A 1080i, 1080p, 480i, 480p, or 720p signal from the **HDMI** input.

Aspect ratio of signal source	Automatic aspect size (automatically selected when Auto Aspect is On)
4:3 normal	Natural (with sidebars)
4:3 letter box	TheaterWide 2
16:9 full	Full
Not defined (no ID-1 data or HDMI aspect data)	The current picture size you set under "Selecting the picture size" on page 36.

Note: The auto aspect ratio feature is not applicable to antenna or cable input sources.

To turn on the auto aspect ratio feature:

- 1 Press **Y** and open the **Video** menu.
- 2 Highlight **Theater Settings** and press **T**.
- 3 In the **Auto Aspect Ratio** field, select **On**.



- 4 To save the new settings, highlight **Done** and press **T**. To revert to the factory defaults, highlight **Reset** and press **T**.

To turn off the auto aspect ratio feature:

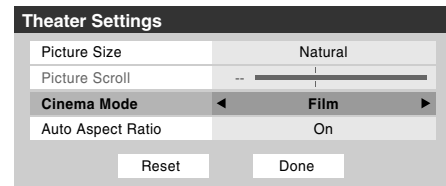
Select **Off** in step 3 above.

Selecting the cinema mode (480i and 1080i signals)

When you view a DVD (3:2 pulldown processed) from a DVD player connected to the **VIDEO 1**, **VIDEO 2**, **ColorStream HD1**, **ColorStream HD2** (component video), or **HDMI** input on the TV, smoother motion can be obtained by setting the **Cinema Mode** to **Film**.

To set the Cinema Mode to Film:

- 1 Press **Y** and open the **Video** menu.
- 2 Highlight **Theater Settings** and press **T**.
- 3 In the **Cinema Mode** field, select **Film**.



- 4 To save the new settings, highlight **Done** and press **T**. To revert to the factory defaults, highlight **Reset** and press **T**.

To set the Cinema Mode to Video:

Select **Video** in step 3 above.

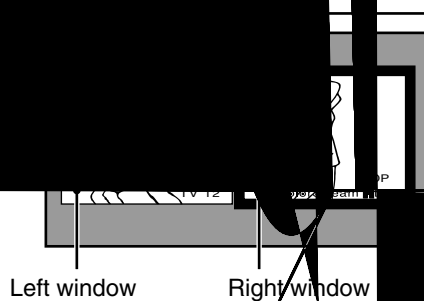
Using the POP features

Using the POP double-window feature

The POP (picture-in-picture) double-window feature splits the screen into two windows and can watch two programs at the same time.

To display the POP double-window:

- 1 Press **POP** to open the POP double-window.



- 2 Press **◀** or **▶** to highlight the desired window. When a window is highlighted, the window will have a green border.
- 3 Press **+** to open the **Input Selection** menu. Select the input source for the POP window by pressing the corresponding Number button (0-9). The selected input source displays in red.

Left window — **ColorStream HD1** in **1080i** format.
Right window — **ColorStream HD1** in **1080i** format.
480p, 1080i, and 720p) and is receiving a signal.

Note:

- The message "Current video cannot be displayed" will appear if you press **POP** when the TV is in **ColorStream HD1** or **HD2** mode and is receiving a 480i format signal.
- The **FREEZE** feature is not available when the POP double-window is open. If you press **B** when the POP double-window is open, the message "Not available from current video mode" will appear.

- If you label the POP feature "Available" when the window is open.

- The message "Not available" will appear if you press **POP** when the feature is in **Not Available** mode.

To tune to the high double-window):

Press **T** after highlighting the **POP** feature to open a normal picture.

Notes about recording:

- If the POP window is open when you start recording, the POP window will start recording.
- If you use the TV's remote control to start recording, you will not be able to open the **POP** feature and the message "Not Available" will appear if you try to do so.
- It is recommended that you use the TV's remote control to start recording. If you use a device other than the TV's remote control to start recording, you may accidentally open the POP feature.

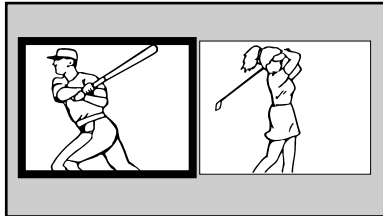
If you use the TV's remote control to start recording, you will not be able to open the **POP** feature and the message "Not Available" will appear if you try to do so. If you use a device other than the TV's remote control to start recording, you may accidentally open the POP feature.

Selecting the POP window audio out

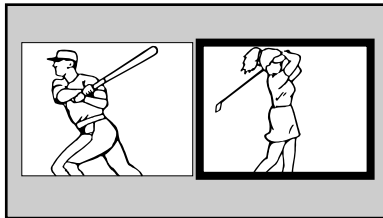
While the POP double-window is open, press ◀ or ▶ to select which audio (left or right POP window) to be output from the TV speakers (and also from the **VARIABLE AUDIO OUT** and **A/V AUDIO OUT** terminals).

The window with the active audio is outlined with a green border.

Example: Press ◀



Example: Press ▶



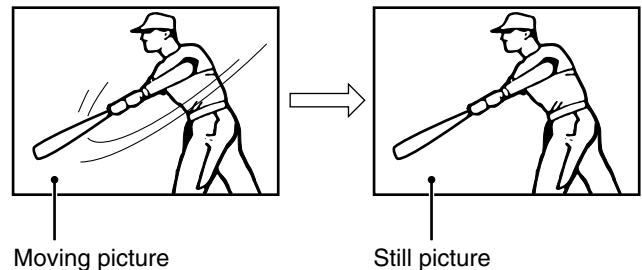
Using the FREEZE feature

To use the FREEZE feature:

- 1 When viewing the TV, press **B** to make the picture a still picture.
- 2 To return to the moving picture, press **B** again (or any other button).

Note:

- The FREEZE feature is not available when the POP double-window is open. If you press **B**, the message "Not available from current video mode" will appear.
- If the TV is left in FREEZE mode for more than 15 minutes, the FREEZE mode will automatically be released and the TV will return to the moving picture.



Using the FREEZE function 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.

Adjusting the picture

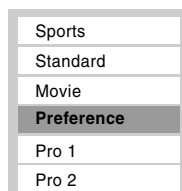
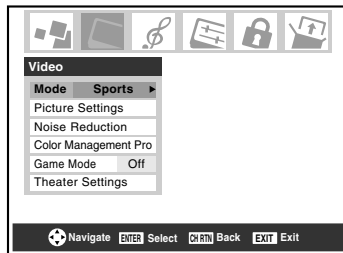
Selecting the picture mode

You can select your desired picture settings from different modes, as described below.

Mode	Picture Quality
Sports	Bright and dynamic picture (factory setting)
Standard	Standard picture settings (factory setting)
Movie	Lower contrast for darkened room (factory setting)
Preference	Your personal preferences
Pro 1	Custom settings based on Standard mode
Pro 2	Custom settings based on Movie mode

To select the picture mode:

- 1 Press **Y** and open the **Video** menu.
- 2 Highlight **Mode** and press **T**.
- 3 Press **▲** or **▼** to select the picture mode you prefer and press **T**.



Note: The picture mode you select affects the current input only. You can select a different picture mode for each input.

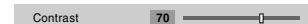
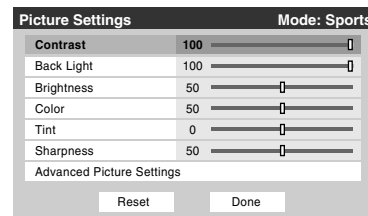
Adjusting the picture quality

You can adjust the picture quality (Contrast, Back Light, Brightness, Color, Tint, and Sharpness) to your personal preferences.

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

To adjust the picture quality:

- 1 Press **Y** and open the **Video** menu.
- 2 Highlight **Picture Settings**, and press **T**.
- 3 Press **▲** or **▼** to select the picture quality you want to adjust (**Contrast**, **Back Light**, **Brightness**, **Color**, **Tint**, or **Sharpness**), and then press **◀** and **▶** to adjust the setting, as described in the table above.



- 4 To save the new settings, highlight **Done** and press **T**. To revert to the factory defaults, highlight **Reset** and press **T**.

Note:

- If you select a picture mode other than **Pro 1** or **Pro 2**, the picture qualities you adjusted are automatically saved in the **Preference** mode (see "Selecting the picture mode," at left).
- If you select picture mode **Pro 1** (or **Pro 2**) and then change a picture quality setting, those values are saved in picture mode **Pro 1** (or **Pro 2**).

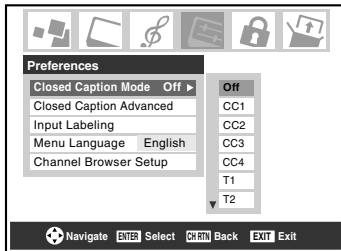
Using the closed caption mode

The closed caption mode 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 “CC” in program guides).
- **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 Press **Y** and open the **Preferences** menu.
- 2 Highlight **Closed Caption Mode** and press **►**.
- 3 Press **▲** or **▼** to select the desired closed caption mode and press **T**.

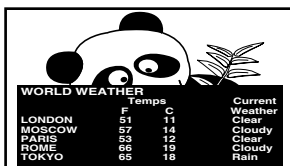


- **To view captions:**
Highlight **CC1**, **CC2**, **CC3**, or **CC4**. (**CC1** displays translation of the primary language in your area.)



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

- **To view text:**
Highlight **T1**, **T2**, **T3**, or **T4**.



Note: If text is not available in your area, a black rectangle may appear on-screen. If this happens, set the Closed Caption Mode to Off.

- **To turn off the Closed Caption mode:**
Select **Off** in step 3 above.

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 non-standard

Closed Caption Advanced

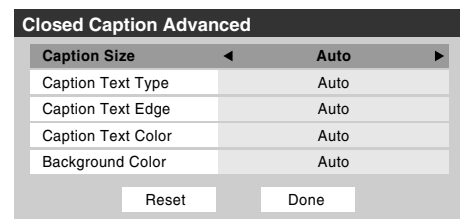
You can customize the closed caption display characteristics by changing the background color, text size, type, edge, and color.

Note:

- This feature is available for digital channels only.
- You cannot set the Caption Text and Background as the same color.

To customize the closed captions:

- 1 Press **Y** and open the **Preferences** menu.
- 2 Highlight **Closed Caption Advanced** and press **T**.



- 3 Press **▲** or **▼** to highlight the characteristic you want to change, and then press **◀** or **▶** to select the format for that characteristic (see table below).
- 4 To save the new settings, highlight **Done** and press **T**. To revert to the factory defaults, highlight **Reset** and press **T**.

Caption Size	Auto, Small, Standard, Large
Caption Text Type	Auto, Default, Mono w. Serif, Prop. w. Serif, Mono w/o Serif, Prop. w/o Serif, Casual, Cursive, Small Capitals
Caption Text Edge	Auto, None, Raised, Depressed, Uniform, Left Drop Shadow, Right Drop shadow
Caption Text Color	Auto, Black, White, Red, Green, Blue, Yellow, Magenta, Cyan
Background Color	Auto, Black, White, Red, Green, Blue, Yellow, Magenta, Cyan

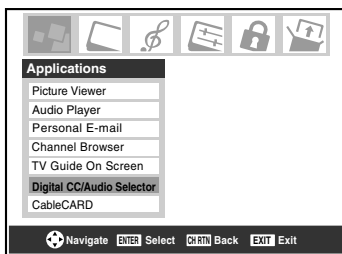
Digital closed captions

You can use the **Digital CC/Audio Selector** to select digital closed caption services (if available), which will temporarily override regular closed captions on digital channels (only).

When such services are not available, the **Digital CC/Audio Selector** presents a default list of services. If the selected service is not available, the next available service will be used instead.

To select digital closed captions:

- 1 Press **Y** and open the **Applications** menu.
- 2 Highlight **Digital CC/Audio Selector** and press **T**.



- 3 Press **▲** or **▼** to select **Closed Caption**, and then press **◀** or **▶** to select the desired service.



- 4 Press **O**.

Using the Closed Caption button on the remote control

If you press **CC** ; when an analog channel is tuned:

- The CC selector will be active and will display CC1-4 and T1-4 as the options.
- The audio selector will be disabled.

If you press **CC** ; when a digital channel is tuned:

- The CC selector will be active and will display the possible caption options (available languages) for that channel or service. For example, in addition to English, a channel might offer closed captions in Spanish and/or French.
- The audio selector will be active and will offer different audio choices for the digital channel (Dolby or AC3, for example).

Adjusting the audio

Muting the sound

Press **W** to partially reduce (1/2 MUTE) or turn off (MUTE) the sound. Each time you press **W**, the mute mode will change in the following order:



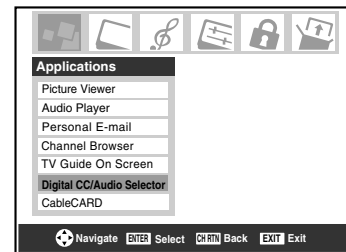
If the closed caption mode is set to **Off** when you select MUTE mode, the closed caption feature is automatically activated. To mute the audio without automatically activating the closed caption feature, use **Z** to set the volume to 0. See "Using the closed caption mode" (page 42) for more information on closed caption modes.

Using the digital audio selector

You can use the Digital Audio Selector to conveniently switch between audio tracks on a digital channel (for those channels that have multiple audio tracks). This temporarily overrides the audio track chosen by the language option under **Audio Setup** (see "Selecting stereo/SAP broadcasts" on page 44).

To use the digital audio selector:

- 1 Press **Y** and open the **Applications** menu.
- 2 Highlight **Digital CC/Audio Selector** and press **T**.



- 3 Press **▲** or **▼** to select **Audio**, and then press **◀** or **▶** to select the desired service.



- 4 Press **O**.

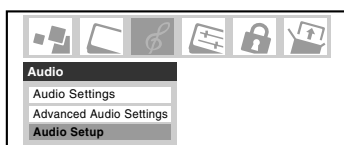
Selecting stereo/SAP broadcasts

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

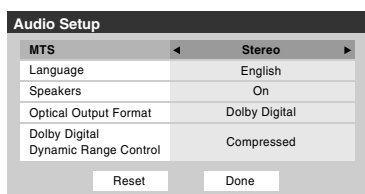
When the TV receives a stereo or SAP broadcast, the word “STEREO” or “SAP” appears when **E** is pressed. The MTS feature is not available when the TV is in VIDEO mode.

To listen to stereo sound:

- 1 Press **Y** and open the **Audio** menu.
- 2 Highlight **Audio Setup** and press **T**.



- 3 In the **MTS** field, select **Stereo**.



- 4 To save the new settings, highlight **Done** and press **T**. To reset the settings to the factory defaults, highlight **Reset** and press **T**.

Note:

- You can typically leave the TV in **Stereo** mode, because it will automatically output the type of sound being broadcast (stereo or monaural).
- If the stereo sound is noisy, select **Mono** to reduce the noise.

To listen to a second audio program on an analog station (if available):

Select **SAP** in step 3 above.

Note:

- A second audio program (SAP) can be heard only on those TV stations that offer it. For example, a station might broadcast another language as a second audio program. If you have SAP on, you will see the current program on the screen but hear the other language instead of the program's normal audio.
- If you have SAP on and the station you are watching is not 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.

To listen to an alternate language on an ATSC digital station (if available):

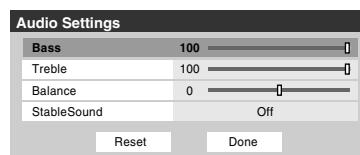
Highlight the **Language** field in step 3 at left, and then press **◀** or **▶** to select the language you prefer.

Adjusting the audio quality

You can adjust the audio quality by adjusting the bass, treble, and balance.

To adjust the audio quality:

- 1 Press **Y** and open the **Audio** menu.
- 2 Highlight **Audio Settings** and press **T**.
- 3 Press **▼** or **▲** to highlight the item you want to adjust (**Bass**, **Treble**, or **Balance**).



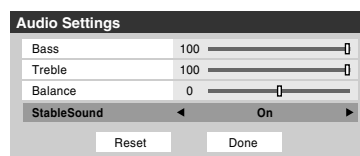
- 4 Press **◀** or **▶** to adjust the level.
 - **◀** makes the bass or treble weaker or increases the balance in the left channel (depending on the item selected).
 - **▶** makes the bass or treble stronger or increases the balance in the right channel (depending on the item selected).
- 5 To save the new settings, highlight **Done** and press **T**. To reset the settings to the factory defaults, highlight **Reset** and press **T**.

Using the StableSound® feature

The StableSound® feature limits the highest volume level to prevent extreme changes in volume when the signal source changes (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 **Y** and open the **Audio** menu.
- 2 Highlight **Audio Settings** and press **T**.
- 3 In the **StableSound** field, select **On**.



- 4** To save the new settings, highlight **Done** and press **T**. To revert to the factory defaults, highlight **Reset** and press **T**.

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

Bass center (50)
 Treble. center (50)
 Balance center (0)
 StableSound. . . Off

To turn off the StableSound feature:

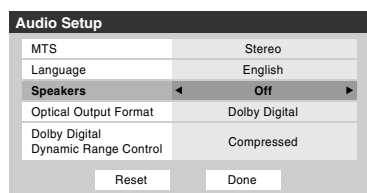
Select **Off** in step 3 above.

Turning off the built-in speakers

You can use this feature to turn off the TV speakers when you connect an audio system to your TV (see “Connecting a digital audio system” and “Connecting an analog audio system” in the *Installation Guide*).

To turn off the built-in speakers:

- 1** Press **Y** and open the **Audio** menu.
- 2** Highlight **Audio Setup** and press **T**.
- 3** In the **Speakers** field, select **Off**.



- 4** To save the new settings, highlight **Done** and press **T**. To revert to the factory defaults, highlight **Reset** and press **T**.

To turn on the built-in speakers:

Select **On** in step 3 above.

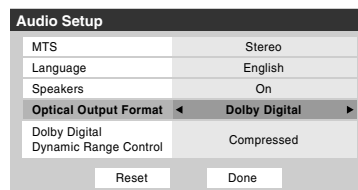
Selecting the optical audio output format

You can use this feature to select the optical audio output format when you connect a Dolby Digital decoder or other digital audio system to the **Optical Audio Out** terminal on the TV (see “Connecting a digital audio system” in the *Installation Guide*).

To select the optical audio output format:

- 1** Press **Y** and open the **Audio** menu.
- 2** Highlight **Audio Setup** and press **T**.

- 3** In the **Optical Output Format** field, select either **Dolby Digital** or **PCM**, depending on your device.



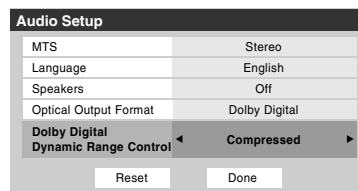
- 4** To save the new settings, highlight **Done** and press **T**. To revert to the factory defaults, highlight **Reset** and press **T**.

Using the Dolby Digital Dynamic Range Control feature

This dynamic range control feature causes the ATSC dynamic range to be further compressed, allowing you to switch from ATSC to analog broadcasts at the same dynamic range.

To use the Dolby Digital Dynamic Range Control:

- 1** Press **Y** and open the **Audio** menu.
- 2** Highlight **Audio Setup** and press **T**.
- 3** In the **Dolby Digital Dynamic Range Control** field, select **Compressed**. When **Standard** is selected, the audio is output with minimal compression.



- 4** To save the new settings, highlight **Done** and press **T**. To revert to the factory defaults, highlight **Reset** and press **T**.

Note:

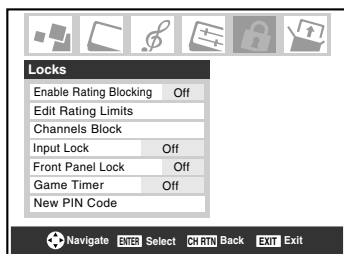
- This item will be grayed out for NTSC signals, Video, ColorStream, and PC inputs.
- The Dolby Digital Dynamic Range Control will function in relation to Optical Output Format.

Using the Locks menu

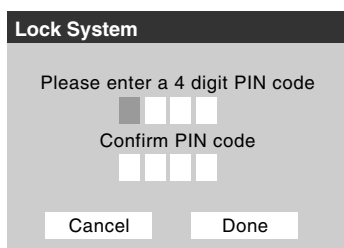
The Locks menu includes the Enable Rating Blocking, Edit Rating Limits, Channels Block, Input Lock, Front (control) Panel Lock, and New PIN Code features. You can use these features after entering the correct PIN code.

Entering the PIN code

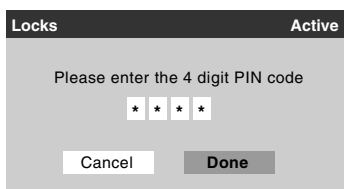
- 1 Press **Y** and highlight the **Locks** menu icon.



- 2 Press **▼**, which displays the PIN code entry screen.
 - The **Lock System** screen (below) appears if a PIN code has not been stored. Press the Channel Number buttons to enter a new four-digit code, enter the code a second time to confirm, and press **T**.

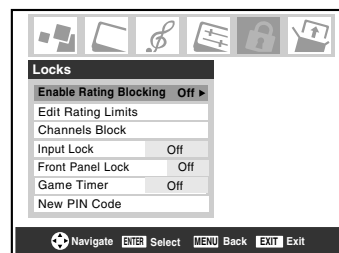


- The **Locks/Active** screen (below) appears if the PIN code is already stored. Use the Number buttons to enter your four-digit code and press **T**.



If the wrong PIN code is entered, the message “Incorrect PIN code, please try again!” appears. Highlight **Retry** and press **T**. Enter the code again and press **T**.

When the correct PIN code is entered, the **Locks** menu opens.

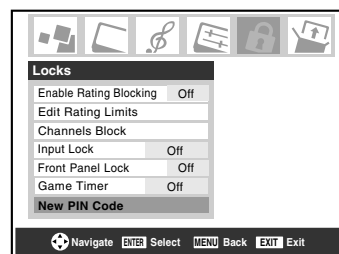


If you cannot remember your PIN code

While the PIN code entering screen is displayed, press **E** four times within five seconds. The PIN code will be cleared and you can enter a new PIN code.

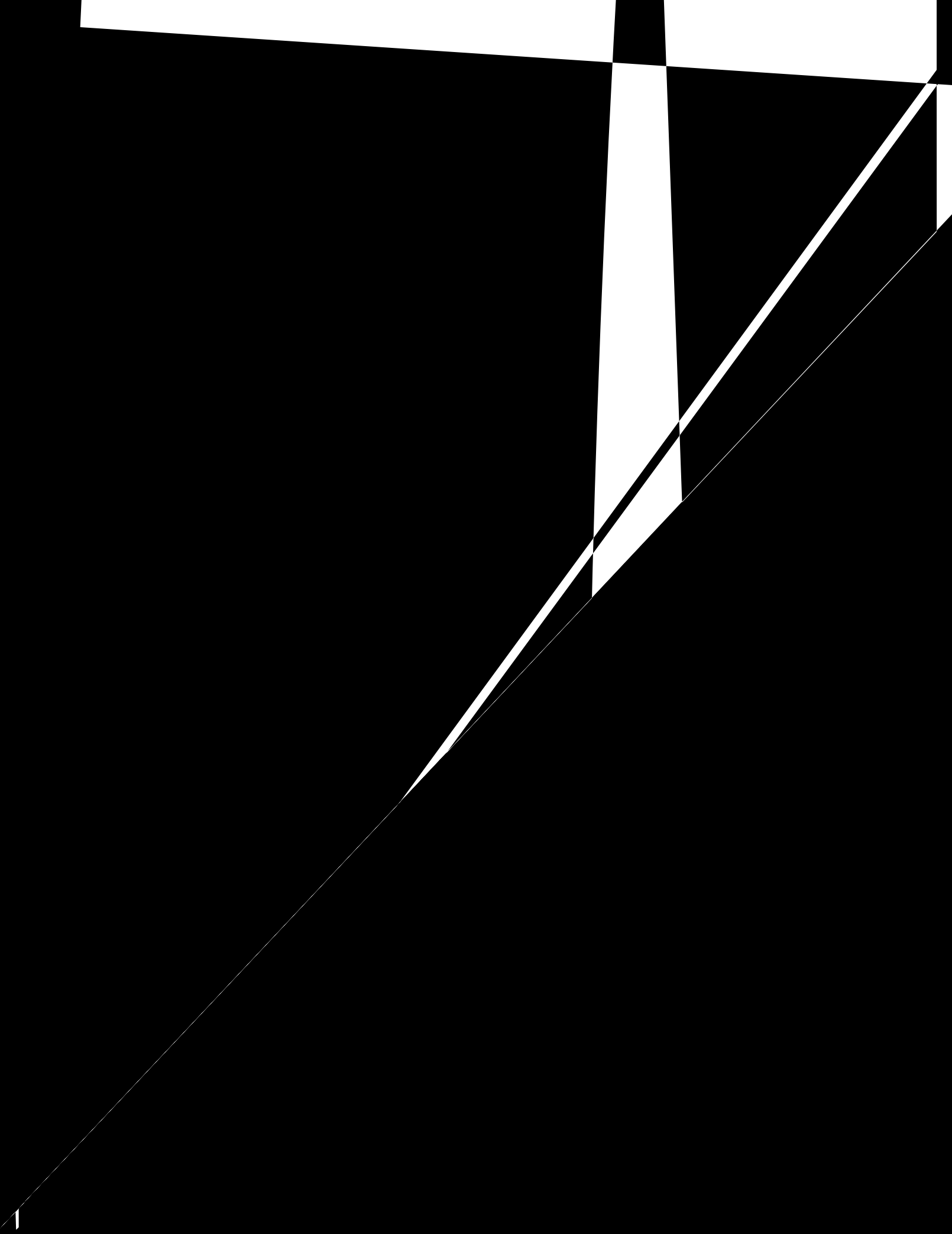
Changing your PIN code

- 1 Press **Y** and highlight the **Locks** menu icon.
- 2 Press **▼** to display the PIN code entering screen.
- 3 Enter your four-digit PIN code and press **T**.
- 4 Press **▼** to highlight **New PIN Code** and press **T**.



- 5 Press the Number buttons to enter a new four-digit code. Reenter the PIN code to confirm it.
- 6 Press **T**. The new PIN code is now active.



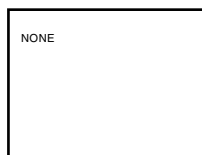
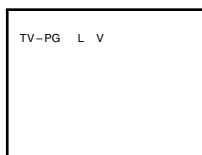


Independent rating system for broadcasters	
Ratings	Description and Content themes
TV-MA	Mature Audience Only (This program is specifically designed to be viewed by adults and therefore may be unsuitable for children under 17.) L) Crude or indecent language S) Explicit sexual activity V) Graphic violence
TV-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
TV-PG	Parental Guidance Suggested (This program contains material parents may find unsuitable for younger children.) D) Some suggestive dialog L) Infrequent coarse language S) Some sexual situations V) Moderate violence
TV-G	General Audience (Most parents would find this program suitable for all ages.)
TV-Y7, TV-Y7FV	Directed to Older Children (This program is designed for children age 7 and above. Note: Programs in which fantasy violence may be more intense or more combative than other programs in this category are designated TV-Y7FV.)
TV-Y	All Children (This program is designed to be appropriate for all children.)

Independent rating system for movies	
Ratings	Description and Content themes
X	X-rated (For adults only)
NC-17	Not intended for anyone 17 and under
R	Restricted (Under 17 requires accompanying parent or adult)
PG-13	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)

Note:

- If you place an "X" in the box next to "**None** Rated," programs rated "**None**" will be blocked; however, programs that do not provide any rating information will not be blocked.
- To display the rating of the program you are watching, press **E** on the remote control. If it is rated "**None**," the word "**NONE**" appears in the **RECALL** screen (as shown below right). If rating information is not provided, no rating will appear in the **RECALL** screen.

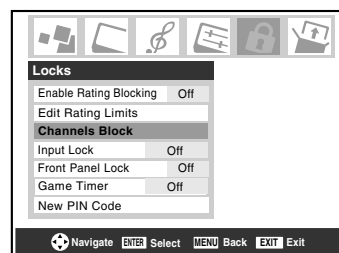


Blocking channels

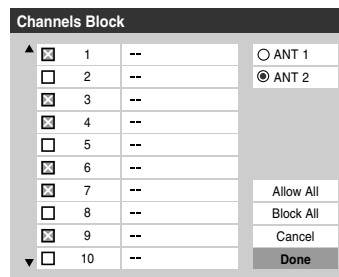
With the Channels Block feature, you can block specific channels. You will not be able to tune blocked channels unless you unblock them.

To block channels:

- Press **Y** and highlight the **Locks** menu icon.
- Press **▼** to display the PIN code entering screen.
- Enter your four-digit PIN code and press **T** (see page 46).
- Press **▼** to highlight **Channels Block** and then press **T**.



- Press **▲▼◀▶** to select the input for which you want to block channels (**ANT1** or **ANT2**) and press **T**.
A list of the channels available for that input will be displayed along with the call letters for each channel, if available.
- Press **▲▼** to highlight the channel you want to block and press **T**, which puts an "X" in the box next to that channel.



- Repeat step 6 for other channels you want to block.
- Highlight **Done** and press **T**.

To unblock individual channels:

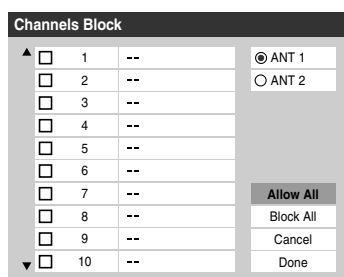
In step 6 above, press **▲▼** to highlight the channel you want to unblock, press **T** to remove the "X" from the box, highlight **Done** and press **T**.

To block all channels at once:

Highlight **Block All** in step 6 above, and then highlight **Done** and press **T**.

To unblock all blocked channels at once:

Highlight **Allow All** in step 6 on the previous page, and then highlight **Done** and press **T**.

**Unlocking programs temporarily**

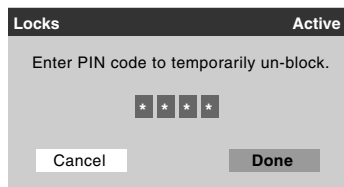
If you try to tune the TV to a program that exceeds the rating limits you set, the TV will enter program lock mode and the following message will appear:

This program exceeds the rating limit you set.
Push 'mute' to enter PIN.

You can either temporarily unlock the program or select an unlocked program to watch.

To temporarily unlock the program:

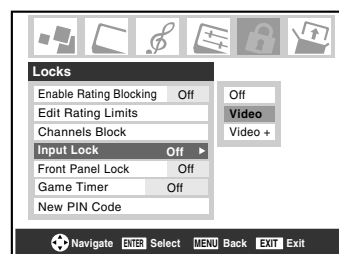
- 1 Press **W**.
- 2 Enter your four-digit PIN code and press **T**. If the correct code is entered, the program lock mode is released and the normal picture appears. All locking is disabled until the TV is turned off, and will be enabled when the TV is turned on again.

**Using the input lock feature**

You can use the Input Lock feature to lock the video inputs (**VIDEO 1**, **VIDEO 2**, **ColorStream HD1**, **ColorStream HD2**, **HDMI 1**, **HDMI 2**, and **PC**) and channels 3 and 4. You will not be able to view the input sources or channels until you unlock the inputs.

To lock/unlock the video inputs:

- 1 Press **Y** and highlight the **Locks** menu icon.
- 2 Press **▼** to display the PIN code entering screen.
- 3 Enter your four-digit PIN code and press **T**.
- 4 Press **▼** to highlight **Input Lock** and press **►**.



- 5 Press **▲** or **▼** to select the desired level of video input locking (**Video**, **Video+**, or **Off**, as described below), and then press **T**.

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

Video+: Locks VIDEO 1, VIDEO 2, ColorStream HD1/HD2, HDMI 1/HDMI 2, PC and channels 3 and 4.

- Select Video+ if you play video tapes via an ANT input.
- When a CableCARD™ is inserted, Video+ will not lock channels 3 and 4.

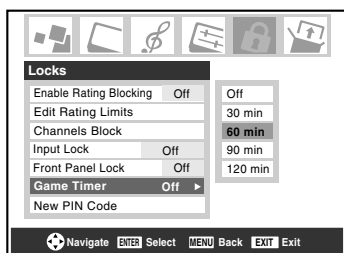
Off: Unlocks all video inputs and channels 3 and 4.

Using the GameTimer™

You can use the GameTimer to set a time limit for playing a video game (30–120 minutes). When the GameTimer is activated, the TV enters Input Lock mode and locks out the input source for the video game device.

To set the GameTimer™:

- 1 Press **Y** and highlight the **Locks** menu icon.
- 2 Press **▼** to display the PIN code entering screen.
- 3 Enter your four-digit PIN code and press **T**.
- 4 Press **▼** to highlight **Game Timer** and press **►**.
- 5 Press **▲** or **▼** to select the length of time until the Input Lock is activated (30, 60, 90, or 120 minutes) and press **T**.



To cancel the GameTimer™:

Select **Off** in step 5 above.

To deactivate the Input Lock once the GameTimer has activated it:

Set the **Input Lock** to **Off** (👉 “Using the input lock feature” on the previous page).

Note:

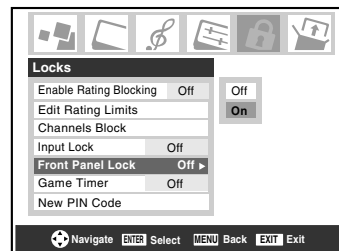
- A message will appear when 10 minutes, 3 minutes, and 1 minute remain on the GameTimer.
- If the TV loses power with time remaining on the GameTimer, when power is restored the TV will enter Input Lock mode (as if the GameTimer had been activated) and you will have to deactivate the Input Lock (as described above).

Using the control panel lock feature

You can lock the control panel to prevent your settings from being changed accidentally (by children, for example). When the control panel lock is **On**, none of the controls on the TV control panel will operate except **POWER**.

To lock the control panel:

- 1 Press **Y** and highlight the **Locks** menu icon.
- 2 Press **▼** to display the PIN code entering screen.
- 3 Enter your four-digit PIN code and press **T**.
- 4 Press **▼** to highlight **Front Panel Lock**.
- 5 Press **►**, and then **▲** or **▼** to highlight **On** and press **T**. When the control panel is locked and any button on the control panel (except **POWER**) is pressed, the message “Not Available” appears.



To unlock the control panel:

Highlight **Off** in step 5 above, or press and hold the **VOLUME –** button on the TV control panel for about 10 seconds until the volume icon appears.

Setting the sleep timer

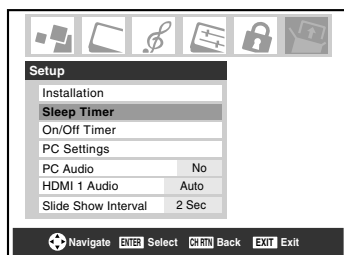
You can set the sleep timer to turn off the TV after a set length of time (maximum of 180 minutes).

To set the sleep timer using the remote control:

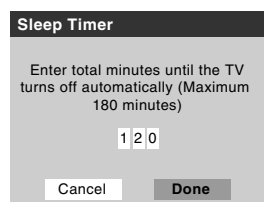
Press **[]** on the remote control to set the length of time until the TV turns off. Repeatedly press **[]** to increase the time in 10-minute increments, or press **▲** or **▼** to increase or decrease the time in 10-minute increments, to a maximum of 180 minutes.

To set the sleep timer using the menus:

- 1 Press **Y** and open the **Setup** menu.
- 2 Highlight **Sleep Timer** and press **T**.



- 3 Press the Number buttons to enter the length of time in 10-minute increments.



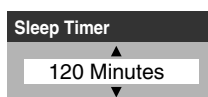
- 4 Highlight **Done** and press **T**.

Note:

- When a power failure occurs, the sleep timer setting may be cleared.
- A message will display when there is one minute remaining on the sleep timer.

To display the remaining sleep time:

Press **[]**.



Note: You also can view the remaining sleep time by pressing **E**.

To cancel the sleep timer:

Repeatedly press **[]** until it is set to 0 minutes.

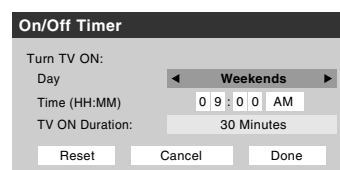
Setting the On/Off Timer

You can set the **On/Off Timer** to turn the TV on and off automatically at a preset time on a recurring basis.

Note: You must first set the time (see page 28).

To set the On/Off Timer:

- 1 Press **Y** and open the **Setup** menu.
- 2 Highlight **On/Off Timer** and press **T**.
- 3 In the DAY field, press **◀** or **▶** to select the recurrence (weekends, weekdays, every day, etc).



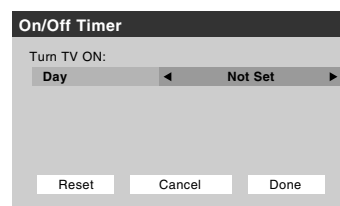
- 4 Press **▼** to highlight the **Time** field, and then use the Number buttons to enter the time you want the TV to turn on automatically.
- 5 When the **AM/PM** field is highlighted, press **▶** to select **AM** or **PM**.
- 6 Press **▼** to highlight the **TV ON Duration** field, and then press **◀** or **▶** to select the length of time until the TV turns off (**30 Minutes**, **1 Hour**, **2 Hours**, **4 Hours**, **8 Hours**, or **12 Hours**).
- 7 Highlight **Done** and press **T**.
- 8 Turn off the TV. The TV will turn on automatically on the day(s) and at the time you set. The TV will then turn off automatically after the length of time you set in the **TV ON Duration** field.

Note:

- When a power failure occurs, the **On/Off Timer** settings may be cleared.
- To display the **On/Off Timer** setting, press **E**.

To turn off the On/Off Timer:

Select **Not Set** in step 3 above.



Using the PC settings feature

You can view the image from a PC on the TV screen. The PC must be connected to the TV's PC IN terminals (see *Installation Guide*).

The PC Settings feature allows you to make any necessary adjustments to the image.

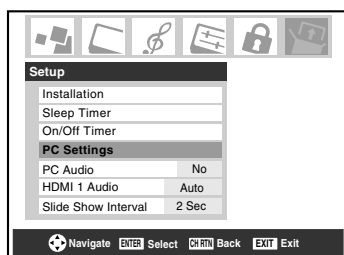
If the edges of the image are not visible, you can adjust the **Horizontal Position/Width** and **Vertical Position/Height**.

If the picture is affected by interference, you can adjust the **Clock Phase** and **Sampling Clock**.

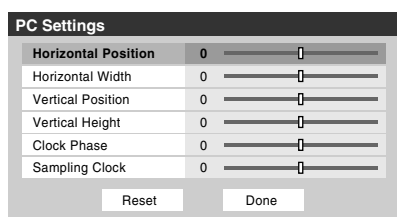
To adjust the PC settings:

- 1 Repeatedly press **+** to select PC input mode (see "Selecting the video input source to view" page 31).
- 2 Press **Y** and open the **Setup** menu.
- 3 Highlight **PC Settings** and press **T**.

Note: If a PC is not connected, this feature will be grayed out in the **Setup** menu.



- 4 Press **▲** or **▼** to highlight the item you want to adjust.
- 5 Press **◀** or **▶** to make the appropriate adjustments.



Note: The screen is disrupted momentarily when adjusting the PC settings. This is not a sign of malfunction.

- **Horizontal Position:**
Moves the picture left/right.
The adjustment range is within ± 5 from center.*
- **Vertical Position:**
Moves the picture up/down.
The adjustment range is within ± 5 from center.*
- **Horizontal Width:**
Adjusts the width of the picture.
The adjustment range is within ± 5 from center.*
- **Vertical Height:**
Adjusts the height of the picture.
The adjustment range is within ± 5 from center.*
- **Clock Phase:**
Helps to reduce noise and sharpen the picture.
The adjustment range is within ± 2 from center.*
- **Sampling Clock:**
Helps to reduce noise and minimize periodic vertical stripes on the screen.
The adjustment range is within ± 15 from center.*

* The range of adjustment may vary slightly.

Setting the PC Audio mode

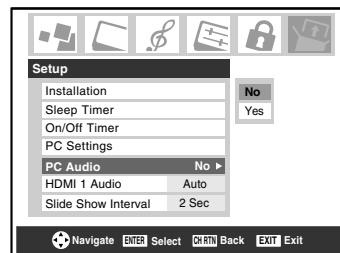
This function allows you to output the sound from your PC (if connected) or mute the sound from your PC and output the sound from your HDMI (DVI) connection. (see *Installation Guide*)

To set the PC Audio:

- 1 Press **Y** and open the **Setup** menu.
- 2 Highlight **PC Audio**.
- 3 Press **▶** and then press **▼** to select **No** or **Yes**.

Yes: Outputs the sound from your PC.

No: Mutes the sound from your PC, and outputs the sound from the HDMI connection.



Note: Because the PC IN and HDMI (DVI) IN inputs share the same set of analog audio inputs, the **PC Audio** menu setting influences the **HDMI 1 Audio** menu setting. If **PC Audio** is set to "No," the **HDMI 1 Audio** setting changes to "Auto." If **PC Audio** is set to "Yes," the HDMI Audio setting is set to "Digital" and is grayed out in the menu. (Also see item 4 on page 9 and "Setting the HDMI™ audio mode" on page 28.)

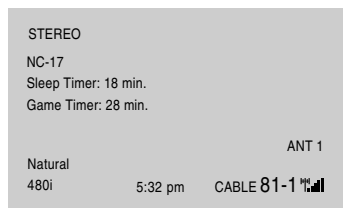
Displaying TV status information using RECALL

To display TV status information:

Press **E** on the remote control.

The following information will display (if applicable):

- Current input (**ANT 1**, **ANT 2**, **VIDEO 1**, etc.)
- If **ANT 1** or **ANT 2** is the current input, either “**CABLE**” (for cable TV) or “**TV**” (for over-the-air broadcasts).
- Channel number (if in **ANT 1** or **ANT 2** mode)
- Digital signal strength indicator (bar graph in lower right corner of screen; for ATSC signal only)
- Time (if set)
- On timer setting (if set)
- Remaining time on game timer (if set)
- Remaining time on sleep timer (if set)
- Stereo or SAP audio status
- V-Chip rating status
- Picture size
- Video resolution



Sample RECALL screen

To close the RECALL screen:

Press **E** again.

Understanding the auto power off feature

The TV will automatically turn itself off after approximately 15 minutes if it is tuned to a vacant channel or a station that completes its broadcast for the day. This feature functions in **ANT 1** and **ANT 2** modes only.

Understanding the last mode memory feature

If the power is cut off while you are viewing the TV, the Last Mode Memory feature automatically turns on the TV when the power is resupplied.

Note: You should unplug the TV's power cord if it is possible that you will be away from the TV for an extended period of time after the power is restored. This will prevent the TV from turning on automatically in your absence.

Chapter 6: Using the TV's advanced features

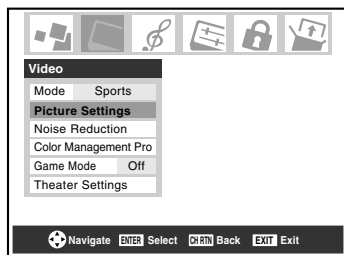
Using the advanced picture settings features

Using dynamic contrast

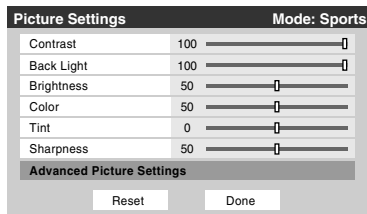
When dynamic contrast is set to **Low**, **Middle**, or **High**, the TV will detect changes in the picture quality that affect the appearance of your contrast settings and then automatically adjust the video.

To select dynamic contrast preferences:

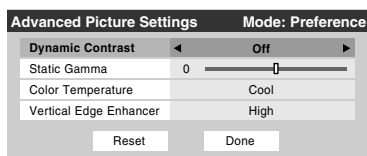
- 1 Press **Y** and open the **Video** menu.
- 2 Highlight **Picture Settings** and press **T**.



- 3 Highlight **Advanced Picture Settings** and press **T**.



- 4 In the **Dynamic Contrast** field, select either **Off**, **Low**, **Middle** or **High**.



- 5 To save the new settings, highlight **Done** and press **T**. To revert to the factory defaults, highlight **Reset** and press **T**.

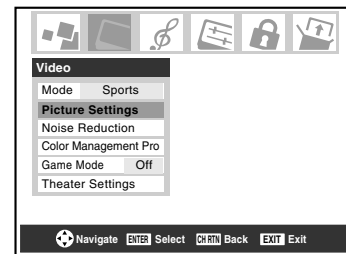
Note: If you select one of the factory-set picture modes (**Sports**, **Standard**, or **Movie**) and then change the dynamic contrast setting, the picture mode automatically changes to **Preference**.

Using the static gamma feature

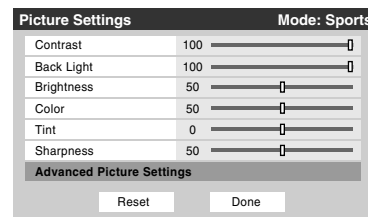
The static gamma feature allows you to adjust the levels of black in the picture.

To adjust the static gamma settings:

- 1 Press **Y** and open the **Video** menu.
- 2 Highlight **Picture Settings** and press **T**.

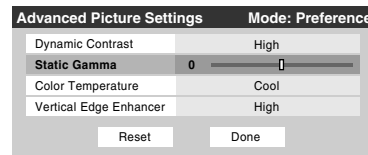


- 3 Highlight **Advanced Picture Settings** and press **T**.



- 4 In the **Static Gamma** field, press **◀** or **▶** to adjust the static gamma.

The adjustment range is within ± 5 from center.



- If the setting is moved in the minus direction, the detail of black colors will be decreased.
- If the setting is moved in the plus direction, the detail of black colors will be increased.

- 5 To save the new settings, highlight **Done** and press **T**. To revert the factory defaults, highlight **Reset** and press **T**.

Note: If you select one of the factory-set picture modes (**Sports**, **Standard** or **Movie**) and then change the static gamma setting, the picture mode automatically changes to **Preference**.

Selecting the color temperature

You can change the quality of the picture by selecting from three preset color temperatures (cool, medium, and warm), as described below.

To select the color temperature:

- 1 Press **Y** and open the **Video** menu.
- 2 Highlight **Picture Settings** and press **T**.
- 3 Highlight **Advanced Picture Settings** and press **T**.
- 4 Highlight **Color Temperature** and press **T**.

- 5 In the **Color Temperature** field, select the mode you prefer (**Cool**, **Medium**, or **Warm**).

- 6 Press **▲** or **▼** to select either **B Drive** or **G Drive**, and then press **◀** or **▶** to adjust the settings.

- **B Drive**: **▶** makes the picture blueish.
- **G Drive**: **▶** makes the picture greenish.

Note: The **B Drive** and **G Drive** settings are connected to the **Color Temperature** settings and will change based on which setting is selected in step 5 above.

- 7 To save the new settings, highlight **Done** and press **T**. To revert to the factory defaults, highlight **Reset** and press **T**.

Note: If you select one of the factory-set picture modes (**Sports**, **Standard**, or **Movie**) and then change the color temperature mode, the picture mode automatically changes to **Preference**.

Using the Vertical Edge Enhancer feature

The Vertical Edge Enhancer feature strengthens video contour.

To turn on the Vertical Edge Enhancer feature:

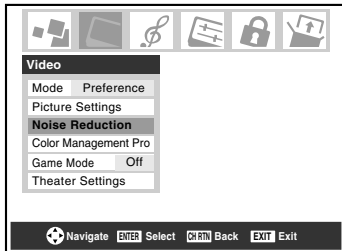
- 1 Press **Y** and open the **Video** menu.
- 2 Highlight **Picture Settings** and press **T**.

Using CableClear® digital noise reduction

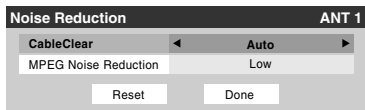
The CableClear® digital noise reduction feature allows you to reduce visible interference in your TV picture. This may be useful when receiving a broadcast with a weak signal (especially a Cable channel) or playing a noisy video cassette or disc.

To change the CableClear settings:

- 1 Press **Y** and open the **Video** menu.
- 2 Highlight **Noise Reduction** and press **T**.



- 3 In the **CableClear** field, select your desired setting.



Note:

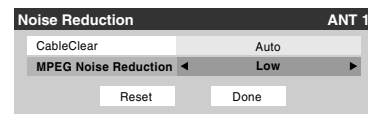
- If the current input is **ANT 1**, **ANT 2**, **VIDEO 1**, or **VIDEO 2**, the menu will display the text "CableClear." The available selections are **Off**, **Auto**, **Low**, **Middle**, and **High**.
 - If the current input is **ColorStream HD1**, **ColorStream HD2**, or **HDMI**, the menu will display the text "DNR." The available selections are **Off**, **Auto**, **Low**, **Middle**, and **High**. **Auto** will react proportionally to the strength of the noise. **Low**, **Middle**, and **High** will reduce the noise in varying degrees, from lowest to highest, respectively.
- 4 To save the new settings, highlight **Done** and press **T**. To revert to the factory defaults, highlight **Reset** and press **T**.

Using MPEG noise reduction

The MPEG noise reduction feature allows you to reduce visible interference caused by MPEG compression. Choices for MPEG noise reduction are **Off**, **Low**, **Middle**, and **High**. **Off** is automatically selected when this feature is disabled ("grayed out").

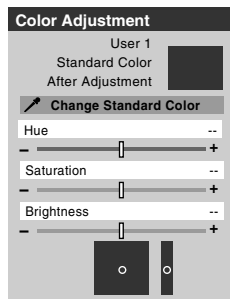
To select the MPEG noise reduction level:

- 1 Press **Y** and open the **Video** menu.
- 2 Highlight **Noise Reduction** and press **T**.
- 3 Press **▲** or **▼** to highlight the **MPEG Noise Reduction** field, and then press **◀** or **▶** to select either **Off**, **Low**, **Middle** or **High**.



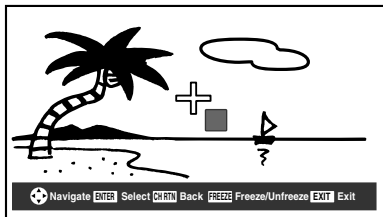
- 4 To save the new settings, highlight **Done** and press **T**. To revert to the factory defaults, highlight **Reset** and press **T**.

- 3 The **Color Adjustment** window will be displayed. Press **▲** or **▼** to highlight **Change Standard Color**, and then press **T**.

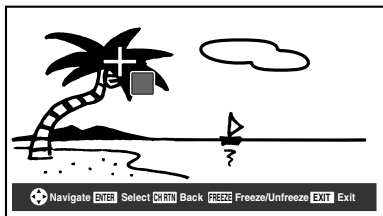


The video on-screen will automatically freeze and the cross hairs will appear on the video.

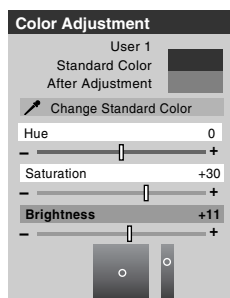
Note: Release the video anytime by pressing **B**.



- 4 Press **▲▼◀▶** to move the cross hairs to the color you want to adjust, and then press **T**.



- 5 Press **▲** or **▼** to select either **Hue**, **Saturation**, or **Brightness**, and then press **◀** or **▶** to adjust the setting.

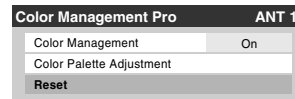


Note: You can reset the **Hue**, **Saturation**, and **Brightness** colors to "0" for any user color by pressing **f**.

- 6 Repeat step 5 for other items.
7 Press **O**.

To reset **Color Management Pro** to its factory settings:

- 1 From the **Color Management Pro** menu, highlight **Reset**, and then press **T**.



- 2 A confirmation message will appear. Highlight **OK**, and then press **T**.



- 3 Press **O**.

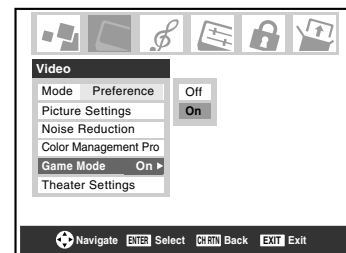
Using the Game Mode feature

You can use the Game Mode feature for shorter frame delays when playing a video game requiring split-second timing between the on-screen display and input from the controller (such as music creation and high-action games).

Note: To use the Game Mode feature, the current video input must be **Video 1**, **Video 2**, **ColorStream HD1**, **ColorStream HD2**, **HDMI 1** or **HDMI 2**. The Game Mode cannot be turned on when any other video input is selected.

To turn on Game Mode:

- 1 Press **Y** and open the **Video** menu.
2 Press **▲** or **▼** to highlight the **Game Mode** field, and then press **◀** or **▶** to select **On**.



To turn off Game Mode:

Select **Off** in step 2 above, change the video input, or turn the TV off and then on again.

Note: You can change the video input in any of the following ways:

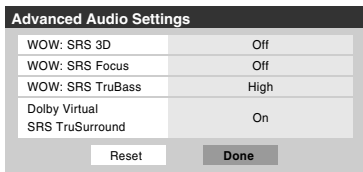
- Pressing **+** on the remote control (page 31).
- Changing the channel using the Numbers or **< / , , R**, **BACK**, **EXIT**, **◀**, **▶**.



creates a thrilling surround sound experience with deep, rich bass from stereo sound sources. Your TV's audio will sound fuller, richer, and wider.

To adjust the WOW™ settings:

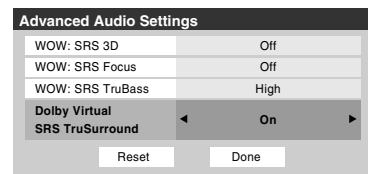
- 1 Put the TV in **STEREO** mode (→ “Selecting stereo/SAP broadcasts” on page 44).
- 2 Press **Y** and open the **Audio** menu.
- 3 Highlight **Advanced Audio Settings** and press **T**.
- 4 Press **▼** or **▲** to highlight the WOW feature you want to adjust, and then press **◀** or **▶** to adjust the item.



- **WOW: SRS 3D** — To turn the surround sound effect **On** or **Off**.
Note: If the broadcast is monaural, the SRS 3D effect will not work.
 - **WOW: SRS Focus** — To turn the vocal emphasis effect **On** or **Off**.
 - **WOW: SRS TruBass** — To select the desired bass expansion level (**Off**, **Low**, or **High**).
- 5 To save the new settings, highlight **Done** and press **T**. To revert to the factory defaults, highlight **Reset** and press **T**.

WOW, TruSurround, SRS and  symbol are trademarks of SRS Labs, Inc.
WOW and TruSurround technologies are incorporated under license from SRS Labs, Inc.

- 2 Highlight **Advanced Audio Settings** and press **T**.
- 3 In the **Dolby Virtual/SRS TruSurround** field, select **On**.



- 4 To save the new settings, highlight **Done** and press **T**. To revert to the factory defaults, highlight **Reset** and press **T**.

To turn off the Dolby Virtual/SRS TruSurround feature:

Select **Off** in step 3 above.

Note: The **Dolby Virtual/SRS TruSurround** and **WOW S 3D** features cannot be on at the same time. If you set on **On**, the other will automatically be set to **Off**.

Chapter 7: Using the THINC™ home network feature

The **Toshiba Home Interactive Network Connection (THINC™)** feature allows you to connect the TV to your home network, which will enable access to file sharing, personal e-mail, and e-mail scheduling features.

File sharing

You can access JPEG and MP3 files that are stored on your networked home PC and view/play them on the TV.

Note: Requires a home network* (see Installation Guide). Does NOT require Internet/e-mail service.

Personal E-mail

The Personal E-mail feature allows you to access your e-mail server through the TV. You can create, view, reply to, and forward personal e-mails and JPEG format picture attachments.

E-mail scheduling of recordings and reminders

You can schedule recordings and reminders by sending e-mail to the TV from any PC.

Note:

- Requires a compatible recording device (see Installation Guide); a home network* (see Installation Guide); and home Internet service with a dedicated e-mail address for the TV (different from your e-mail address).
- **Contact your Internet Service Provider (ISP) and set up Internet/e-mail service.**
- **You will NOT be able to access e-mail through the TV.**

Follow the steps in sections A and B to set up and use the TV's THINC™ home network feature.

* The THINC™ home network feature requires Microsoft® Windows® 95 or later, versions of Microsoft® Internet Explorer® 3.0 or later, and Service Pack 2. Microsoft and Windows are trademarks of Microsoft Corporation in the United States and other countries.

A. Connecting the TV to your home network

- 1 Connect the TV to your home network via the TV's THINC™ home network port. See the Installation Guide for details.

After connecting the TV to your home network, you can access the THINC™ home network feature. The THINC™ home network feature does not be able to access the Internet or e-mail scheduling features.

After connecting the TV to your home network, you can access the THINC™ home network feature. The THINC™ home network feature does not be able to access the Internet or e-mail scheduling features. See Chapter 8.

The THINC™ home network feature does not be able to access the Internet or e-mail scheduling features. See Chapter 8.

B. Setting up the network address

To set up the network address:

- 1 First, try automatically setting up the network address (below).
- 2 If the automatic setup is not successful, you can **either** retry the automatic setup (below) **or** try manually setting up the network address (ⓘ page 62).

Note:

- If you used an Ethernet crossover cable to connect your PC directly to the TV, you will not be able to use the automatic setup, and must manually set up the network address.
- If you used a hub or switch to connect the TV to your home network, you will not be able to use the automatic setup, and must manually set up the network address.
- If you used a router with built-in DHCP functionality, use the automatic setup. Manual setup may not work.

Router technology, like all new and emerging technology, may from time to time cause compatibility issues because of the differences in router systems implemented by the various router manufacturers; however, most issues can be easily resolved. If you think your Toshiba TV and router might have compatibility problems, please contact the following:

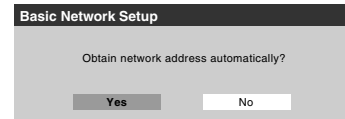
- **In the U.S.**, call TACP Consumer Solutions at **1-800-631-3811** or visit <http://www.tacp.com/customersupport/contact.asp>.
- **In Canada**, call TCL Customer Service at **1-800-268-3404** or visit <http://www.toshiba.ca>.

Automatically setting up the network address

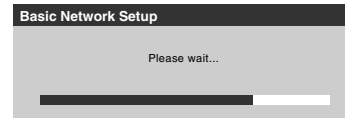
- 1 Press **Y** and open the **Setup** menu.
- 2 Highlight **Installation** and press **T**. The **Installation** menu appears.
- 3 Open the **Network** menu.
- 4 Highlight **Basic Network Setup** and press **T**.



- 5 The message “Obtain network address automatically?” will display. Highlight **Yes** and press **T**.



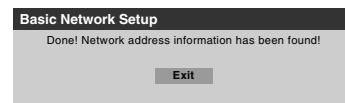
- 6 The message “Please wait...” will display while the TV is attempting to load the network address information from the DHCP server.



If the automatic network address setup is successful, go to step 7.

If the automatic network address setup is not successful, go to step 8.

- 7 If the automatic network address setup is successful, the following screen will appear:



- a) Press **T** to close the screen and return to the **Network** menu.
- b) Skip to section C, “Setting up file sharing on your PC” (ⓘ page 63).

- 8 If the automatic network address setup is **not** successful, the following screen will appear:

- a) Make sure all cables for your home network are securely connected.
- b) Make sure your home network is set up properly. **See the Installation Guide for TV connection information. Also consult the owner’s manuals for your other components.**
- c) Make sure the DHCP and security settings on your home router are correct. **Consult the owner’s manual for your router.**
- d) Retry the automatic network address setup by following these steps:
 - (1) Highlight **OK** and press **T**.
 - (2) Repeat steps 1–6. *(If you have already repeated this setup process, go to step 9.)*

(continued)

- 9** If, after repeating steps 1–6, you receive the error message shown in step 8:
Either...
- a) Highlight “OK” and press T.
 - b) Go to “Manually setting up the network address.”
Or...
 - a) Highlight “OK” and press T.
 - b) **Continue to sections C, D, and E** (pages 63–67) (to set up and use file sharing) **and/or to sections F, G, H, and I** (pages 75–81) (to set up and use personal e-mail and e-mail scheduling).
- If the file sharing and/or personal e-mail and e-mail scheduling features work correctly**, then the automatic network address setup was successful (even though the TV displayed the error message).

Manually setting up the network address

This setup requires the data listed below. **You can get this data from either your ISP or the configuration utility for your DSL/cable modem or router.**

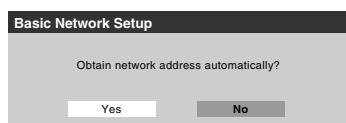
IP address:

Subnet mask:

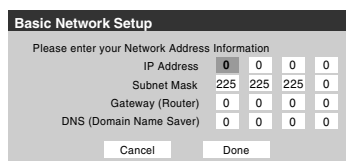
Gateway (Router) address:

DNS (Domain Name Server) address:

- 1** Press Y and open the **Setup** menu.
- 2** Highlight **Installation** and press T. The **Installation** menu appears.
- 3** Open the **Network** menu.
- 4** Highlight **Basic Network Setup** and press T.
- 5** The message “Obtain network address automatically?” appears.
Highlight **No** and press T.



- 6** The **Basic Network Setup** menu appears.
Press ▲ or ▼ to highlight the **IP Address** field, and then use the Number buttons on the remote control to input the IP address.

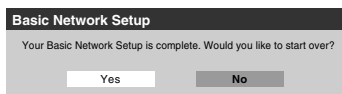


- 7** Press ▼ to highlight the **Subnet Mask** field, and then use the Number buttons to input the Subnet Mask.

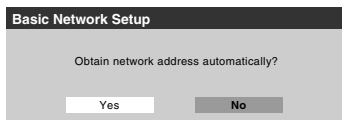
- 8** Press ▼ to highlight the **Gateway (Router)** field, and then use the Number buttons to input the Gateway (Router) address.
- 9** Press ▼ to highlight the **DNS (Domain Name Server)** field, and then use the Number buttons to input the DNS address.
- 10** When finished, highlight **Done** and press T.
The **Basic Network Setup** menu closes and the **Network** menu appears.
- 11** Go to section C, “Setting up file sharing on your PC.”

Resetting the network address

- 1 Press **Y** and open the **Setup** menu.
- 2 Highlight **Installation** and press **T**. The **Installation** menu appears.
- 3 Open the **Network** menu.
- 4 Highlight **Basic Network Setup** and press **T**.
- 5 The message “Your Basic Network Setup is complete. Would you like to start over?” will appear. To continue, highlight **Yes** and press **T**. To return to the **Network** menu, highlight **No** and press **T**.



- 6 If you selected **Yes** in step 5, the message “Obtain network address automatically?” will appear.



To obtain the network address automatically, go to step 5 under “Automatically setting up the network address” (page 61).

To manually enter the network address, go to “Manually setting up the network address.”

For home network troubleshooting tips, see Chapter 8.

C. Setting up file sharing on your PC

Compatible operating systems

The following operating systems are compatible for file sharing with the TV:

- Microsoft® Windows® XP Service Pack 2 (Home Edition and Professional) [See setup details below]
 - Microsoft® Windows® XP Service Pack 1 (Home Edition and Professional) [See setup details below]
 - Microsoft® Windows® 2000 [See setup details on page 65]
- No other operating systems are compatible with the TV.

Note:

- The name of any directory/folder on your PC that you are setting up for file sharing with the TV cannot be longer than 12 characters and cannot contain any special characters.
- See “Media specifications” (page 67) for details on compatible JPEG and MP3 files.
- The network (NETBIOS) name of your PC that you are setting up for file sharing must be 15 characters or less.

To determine which operating system and service pack (if applicable) are on your PC:

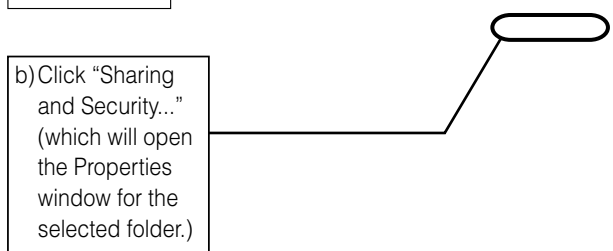
- 1 On your PC, click the “Start” button.
- 2 Click “Settings | Control Panel.”
- 3 In the Control Panel, double-click “System.”
- 4 Select the “General” tab, which will display your PC’s current operating system and service pack.

Setting up file sharing on a PC with Microsoft® Windows® XP Service Pack 1 or Service Pack 2

- 1 On your PC:

a) Right-click the folder to be shared.

b) Click “Sharing and Security...” (which will open the Properties window for the selected folder.)

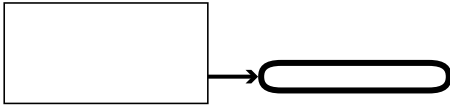


* Microsoft product screen shot(s) reprinted with permission from Microsoft Corporation.

(continued)

- 2** If the “Sharing” tab on your PC does not have a “Permissions” button, follow step 2.1 below.
If the “Sharing” tab on your PC has a “Permissions” button, follow step 2.2 below.

2.1



Go to section D, “Setting up file sharing on the TV,” on page 66.

2.2

Go to step 3.

- 3** In the Permissions window for the selected folder:

- 4** Go to section D, “Setting up file sharing on the TV,” on page 66.

Setting up file sharing on a PC with Microsoft® Windows® 2000

1 On your PC:

- a) Right-click the folder to be shared.
- b) Click "Sharing..." (which will open the Properties window for the selected folder).

2 In the Properties window for the selected folder:

- a) Click to display the "Sharing" tab.
- b) Click to select "Share this folder."
- c) Click "Permissions" (which will open the Permissions window for the selected folder).

3 In the Permissions window for the selected folder:

- a) Click "Add..." and then select the user to be given sharing privileges.*
 - b) Click to check "Allow" next to "Full Control."
 - c) Click "Apply."
 - d) Click "OK" (which closes the Permissions window).
- *This user must match the user stored in the TV's "Home File Server Setup" menu.

4 In the Properties window:

- Click "OK" (which closes the Properties window).

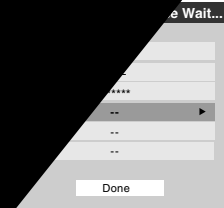
5 The shared folder will display with a "shared folder" icon (a hand holding a folder).

6 Go to section D, "Setting up file sharing on the TV," on the next page.

For home network troubleshooting tips, see Chapter 8.

Library

fields, the field is folder(s).



shared folder (on your PC) that and/or MP3 files you want to view/play

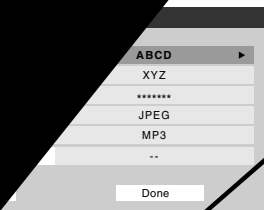
you select the correct folder in this step.

window and save your settings, highlight and press **T**.

the window without saving your settings, highlight **Cancel** and press **T**.

and then
up for file

network that have
C (home server)



highlight **User Name** and then press **T**
software keyboard for that field.

User Name for your PC using the software
See “Using the software keyboard” on the
page.

Note: The **User Name** is case sensitive.

When finished entering all characters, highlight **Done**
and press **T**.

Repeat step 5 for the **Password** field.

Note: The **Password** is case sensitive.

Using the software keyboard

Typing text on the software keyboard is similar to typing text on a cell phone. The number keys on the remote control have corresponding letters or symbols printed next to them. Repeatedly press a key to toggle through the available characters for that key.

For example, repeatedly pressing the “q” key toggles through several punctuation symbols and the numeral 1; repeatedly pressing the “w” key toggles through the letters a, b, and c, and the numeral 2, and so forth.

To enter text using the software keyboard:

- 1 Repeatedly press the corresponding key on the remote control to highlight the desired character on the on-screen software keyboard.
- 2 The highlighted character is entered after you either press a different key, press the ► key, or after a two-second pause.
- 3 Repeat steps 1 and 2 until you have entered all desired text.

Software keyboard example



- 4 Press R to close the software keyboard and return to the previous screen.

Note: Help instructions are provided in the on-screen display and include specific remote control key functions that are applicable only in certain views.

For example:

x X = page up and down.

◀◀ = Home.

▶▶ = End of Line.

T = New Line.

O = Closes the screen WITHOUT saving entries.

About the Software Upgrade feature

This feature allows you to download software updates to your television from a shared folder on your home network. If you experience any difficulties that can only be resolved by a software update, your Toshiba customer service representative will provide you with the appropriate upgrade files and assist you in the proper use of this feature.

E. Viewing/playing shared files on the TV

You can use the **Picture Viewer** to view compatible JPEG-format photos on the TV.

You can use the **Audio Player** to play compatible MP3 files on the TV.

The TV can access JPEG and/or MP3 files stored on a networked PC (as described on pages 68–70 in this Guide and also in the *Installation Guide*).

Note:

- If you are viewing/playing files stored on a networked PC, IT IS RECOMMENDED THAT YOU BACK UP YOUR DATA. Toshiba is not liable for any damage caused by the use of any networked PC or shared files with this TV. Toshiba will not compensate for any lost data or recording(s) caused by the use of such PCs or data.
- The technical criteria set out in this manual are meant as a guide only.
- You must obtain any required permission from copyright owners to download or use copyrighted content. Toshiba cannot and does not grant such permission.

Media specifications

File/folder name specifications

- **Maximum file name length:** 255 characters.
- **Maximum shared folder* name length:** 12 characters.
- **File names must contain** US-ASCII characters only.
- **File and folder names cannot contain** any special characters, such as \ / : ? “ ” < > | .

* The words “folder” and “directory” are used interchangeably.

Picture Viewer/JPEG file specifications

- **Maximum JPEG file size:** 8 MB
 - JPEG files larger than 8 MB will not display.
- **Maximum JPEG image resolution:** 6000 × 4000 pixels
 - Images with a resolution higher than 6000 × 4000 pixels will not display.
- **The Picture Viewer is designed to display** only pictures stored in compatible JPEG formats with a file extension of “.jpg.”
- **JPEG images processed and/or edited on a personal computer (PC)** may not display properly or at all.
- Some digital cameras may store images in a format that is not compatible with the TV.
- **JPEG files stored on a networked PC that are not in a file and folder format compatible with the TV will not display on the TV.**

(continued)

Audio Player/MP3 file specifications

- **Maximum MP3 file size:** 50 MB
 - *MP3 files larger than 50 MB will not play.*
- **The Audio Player is designed to play** only music files stored in compatible MP3 formats with a file extension of “.mp3.”
- **MP3 files processed and/or edited on a PC** may not play properly or at all. Some MP3 files may be in a format that is not compatible with the TV.
- **MP3 files must be in the following format:**
 - MPEG1 (ISO/IEC 11172-3) Layer3.
 - Sampling frequency—MPEG1: 32 kHz, 44.1 kHz, 48 kHz.
 - Bitrate—MPEG1: 32–320 kbps.
 - Channels—Stereo, Joint stereo, Dual channel, Single channel.
 - ID3 Ver. 1, Ver. 2.
- **The meta-data for MP3 files** (artist name, album name, song title, etc.) must be in the following format:
 - ISO-8859-1 (US-ASCII/ Western European) character sets
- **MP3 files stored on a networked PC that are not in a file and folder format compatible with the TV will not play on the TV.**

Networked PC specifications

Maximum number of files per shared folder:

- JPEG = 1,000
 - All JPEG files over the 1,000th in a shared folder will not display.
- MP3 = 200
 - All MP3 files over the 200th in a shared folder will not play.

Maximum number of nested folder levels: 10 levels

- Files in folders more than 10 levels down from the top level folder will not display/play.
- See pages 60–66 for details on networking your TV and PC for file sharing.

Using the Picture Viewer

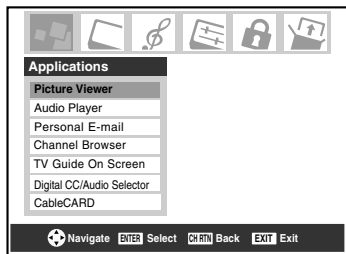
You can use the TV's **Picture Viewer** to display your digital photos (JPEG files) on your TV's screen in thumbnail mode or as a slide show.

Note:

- You cannot use the **Picture Viewer** and **Audio Player** at the same time.
- **You must obtain any required permission from copyright owners to download or use copyrighted content. Toshiba cannot and does not grant such permission.**

Accessing JPEG files stored on a networked PC

- 1 Make sure you have correctly set up your home network and file sharing (see pages 60–66 in this Guide; also see the *Installation Guide*).
- 2 Press **Y** and open the **Applications** menu.
- 3 Highlight **Picture Viewer** and press **T**.



If the network is available, it will retrieve the JPEG picture list via the network.

- 4** Press **▲** or **▼** to access the folder or directory that contains the JPEG pictures you want to view.



To expand a particular folder to view a list of images, press ► on the folder.

To close the folder or directory, press ◀ on the folder.

Pressing ◀ on a file will move the focus up to the folder that contains the file.

Pressing ► on a file will move the focus down to the next folder.

If you press **T** on a particular folder, the first file in the folder will be displayed as the first file in the thumbnail list.

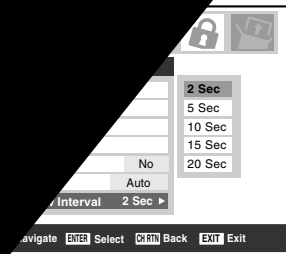
If you press **T** on a particular file, that file will be displayed as the first file in the thumbnail list.

Note: You can use **R** to toggle between the thumbnail and folder views. The last item selected will be highlighted upon return to the Picture Viewer.

pen).

Press **T**.

bar (2, 5, 10, 15, or



View JPEG files in Native Resolution mode:

during the slideshow. This will expand the image to its non-compressed format.

To display a help bar that will show how to scroll to different pages of the image using the **▲▼◀▶** buttons.

To exit Native Resolution and return to the normal slideshow, press **T**.

To return to the thumbnail view, press either **O** or **R**. If an image is too large to display in Native Resolution mode (6MB), a warning message will display.

To close the Picture Viewer:

Press **O** to close the **Picture Viewer** and return to the regular TV screen.

the slide show, press **T**.

press **T** again.

press **◀** or **▶**.

age, press **▲** or **▼**.

now and return to the picture viewer, press

ide show and return to the regular TV screen,

Using the Audio Player

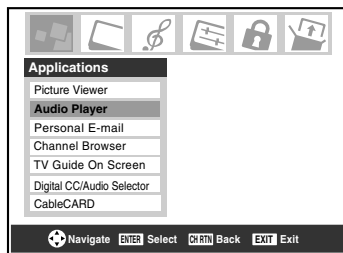
You can use the TV's **Audio Player** to listen to MP3 files on the TV.

Note:

- Make all desired adjustments to the TV's audio features (e.g., surround, bass, treble, balance) before starting the **Audio Player**.
- You cannot use the **Picture Viewer** and **Audio Player** at the same time.
- You must obtain any required permission from copyright owners to download or use copyrighted content. Toshiba cannot and does not grant such permission.

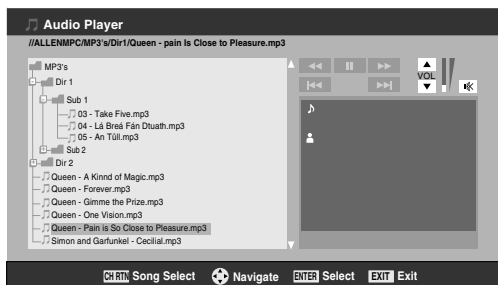
Playing MP3 files stored on a networked PC

- 1 Make sure you have correctly set up your home network and file sharing (see pages 60–66 in this Guide; also see the *Installation Guide*).
- 2 Press **Y** and open the **Applications** menu.
- 3 Highlight **Audio Player** and press **T**.



If the network is available, the TV will retrieve the MP3 file through the network.

- 4 Press **▲** or **▼** to access the folder or directory that contains the MP3 files you want to play.



To expand a particular folder to view a list of images, press **▶** on the folder.

To close the folder, press **◀** on the folder.

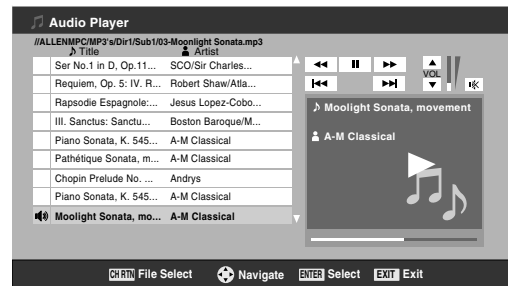
Pressing **◀** on a file will move the focus up to the folder which contains the file.

Pressing **▶** on a file will move the focus down to the next folder.

If you press **T** on a particular folder, the first file in the folder will display as the first file in the list in Song Select view.

If you press **T** on a particular file, that file will display as the first file in the list in Song Select view.

Note: You can use **R** to toggle between the thumbnail and folder. The last item selected will be highlighted upon return to the Audio Player.



- 5 The **Audio Player** will begin playing the first MP3 file in the list. Press **▲▼◀▶** to navigate to the rewind, pause, fast forward, skip backward, skip forward, volume, and mute buttons—or to select another MP3 file—and then press **T**.

To adjust or mute the volume:

Press **Z Z** or **W** on the remote control (see page 43 for details on muting the sound), or press **▲▼◀▶** to navigate to the on-screen VOL and MUTE (**⏏**) buttons and press **T**.

To close the Audio Player:

Press **O** to close the **Audio Player** and return to the regular TV screen.

F. Setting up the Personal E-mail feature

The Personal E-mail feature allows you to access your e-mail server through the TV. You can create, view, reply to, and forward personal e-mails and JPEG format picture attachments.

IMPORTANT NOTE

If you connect the TV to the Internet, anyone with access to the TV will be able to configure the TV to access e-mail accounts for which they have account access information (user name, password and server addresses).

If you set up any personal e-mail accounts on the TV, anyone with access to the TV will be able to read e-mail from those accounts **unless you lock the profile for each e-mail account** (see page 71, step 8).

You should consider these factors when deciding whether to set up personal e-mail accounts and whether to keep the TV set connected (or make available easy connection) to the internet.

The Personal E-mail Setup will allow up to 4 users to set up profiles from which each profile may access their e-mail account.

Required information and services

Before you can set up the personal e-mail feature, you must have the following information and related services:

- A valid POP3 e-mail account that you normally use to receive e-mails.
- Login and password settings for above.
- Name or IP address of the incoming (POP3) mail server.
- Name or IP address of the outgoing (SMTP) mail server.

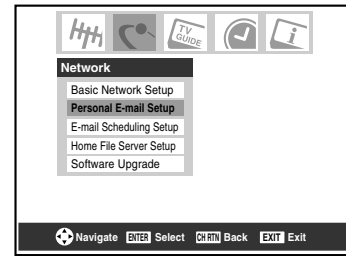
To obtain the required e-mail services listed above, contact your ISP.

To obtain the required addresses and settings listed above, either contact your ISP or use the configuration utility for your DSL/cable modem or router.

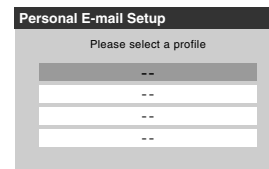
Setting up personal e-mail

- Press **Y** and open the **Setup** menu.
- Highlight **Installation** and press **T**. The **Installation** menu appears.
- Open the **Network** menu.

- Highlight **Personal E-mail Setup** and press **T**.

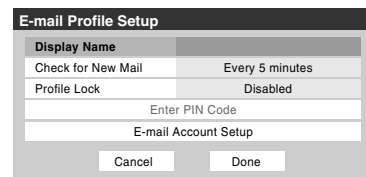


- The **Personal E-mail Setup** window appears. Press **▲** or **▼** to highlight one of the blank profiles and press **T**.



Note: If all four profiles have been created, you can select an existing profile and modify it.

- The **E-mail Profile Setup** window will appear.



Highlight the **Display Name** field and press **T**. The software keyboard will appear.

Software keyboard example



Use the software keyboard to enter the display name. (See "Using the software keyboard" on page 67).

- Press **▼** to highlight **Check for New Mail**, then press **◀** or **▶** to select your desired setting.
 - You can choose to have the TV check for new e-mail every 5, 15, 30 minutes, or 1 hour. When the **Check for New Mail** interval is set to **DISABLED**, new e-mail notifications will not appear.
- You can use the **Profile Lock** to protect your profile settings and prevent other users from viewing your personal e-mails.

Note: Each of the four e-mail profiles must be locked individually.

To lock an e-mail profile:

 - Press **▼** to highlight the **Profile Lock** field.
 - Press **◀** or **▶** to select **Enabled**.

(continued)

Highlight a field and press **T**. The software keyboard will appear (as shown in step 6).

Note: The software keyboard layout will vary based on the buttons that are available for the current item.

- 12** When testing is finished, a message will appear indicating whether the e-mail account test passed or not.

If the e-mail account test succeeds, the following message appears:

If the e-mail account test fails, the following message appears:

Make sure you entered the correct information for the fields in the **E-mail Account Setup** window.

- 13** Press **T**.

- 14** To exit the window and save your settings, highlight **Done** and press **T**.

To exit the window without saving your settings, highlight **Cancel** and press **T**.

G. Using the Personal E-mail feature

The Personal E-mail feature allows you to:

- 1) Create new e-mails.
- 2) View and reply to received messages.
- 3) Forward received messages (including messages with attached JPEG files)
- 4) View attached JPEG files. (Users will not be able to attach files to messages that they send.)

In addition, you can create up to four different user e-mail accounts, which can be locked to prevent unwanted access (see page 71).

You can access the personal e-mail feature in any of the following ways:

- Select **Personal E-mail** from the **Applications** menu.
- Open the **THINC** menu and select **Personal E-mail**.
- Press **T** when the “unread e-mail notification” appears (see below).

Unread E-mail Notification

When the TV detects unread e-mail in a user’s inbox, a notification will appear in the bottom right corner of the screen that contains the envelope icon, user’s name, and number of unread messages.



Note:

- You can specify the frequency at which the TV checks for unread e-mails by selecting **Check for New Mail** in the **E-mail Profile Setup** menu (see page 71, step 7).
- The unread e-mail notification will not display when other applications are running (such as the **Picture Viewer** or **Audio Player**).
- The unread e-mail notification will not appear in any video recorded from the TV using the video outputs.

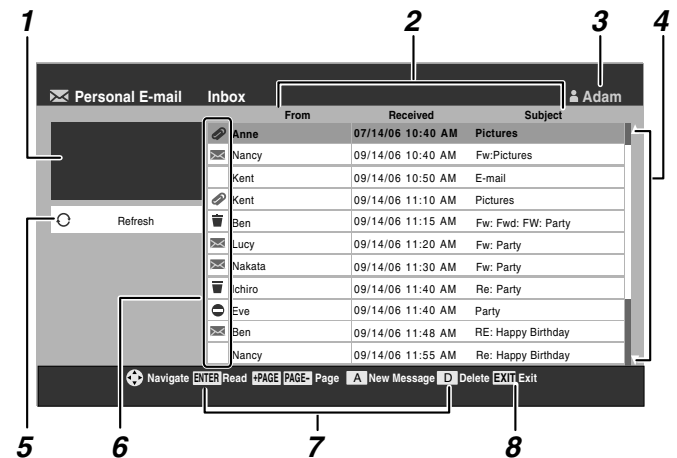
To open the Inbox, press **T** while the unread e-mail notification is on-screen.

To dismiss the unread e-mail notification and continue watching TV, press **O**.

E-mail Inbox

To open the Inbox, press **T** while the unread e-mail notification is on-screen.

In the Inbox view, unread e-mails are denoted by an envelope icon.



Elements of the Inbox

1 PIP window

When the Inbox is open, you can continue watching the current channel in the PIP (picture-in-picture) window in the upper left corner of the screen. You can change channels in the PIP window by pressing **< /**, on the remote control (unless the TV is currently recording.)

2 From, Received, and Subject information.

3 User name

4 Scroll arrows

Press **▲▼** to scroll through messages one-by-one. Press **X / X** to scroll through messages page by page. The Inbox can hold a maximum of 100 messages.

5 Refresh button

The Refresh button checks for new messages and deletes messages marked with the Trash Can icon (see below). To refresh the Inbox, highlight the Refresh button and press **T**.

6 The following icons convey information about messages in the Inbox:

Trash Can icon

The Trash can icon denotes a message marked for deletion. To mark a message for deletion, highlight the message and press **j**. To unmark the message (and remove the trash can icon), press **j** again. To delete all messages marked with the Trash Can icon, refresh the Inbox (see item 5, above).

Envelope icon

The Envelope icon denotes a new, unread message. After the message is viewed, the envelope icon disappears.

(continued)

✉ Envelope with paperclip icon

The Envelope with paperclip icon denotes a new message with a JPEG attachment.

📎 Paperclip icon

The Paperclip icon denotes a message with a JPEG attachment.

⊘ “No Entry” icon

The No Entry icon denotes a message that is too large to open. The maximum allowable message size is 300 KB.

Note: If you delete an e-mail on the TV, it will also be deleted from the e-mail server identified in the account setup—even if the message indicates that it cannot be read by the TV.

7 Read, New Message, Delete

From the Inbox view, you can reply to messages, forward messages, delete messages, or create new messages by pressing the appropriate buttons (as shown in the guide at the bottom of the screen). You cannot add attachments to an outgoing e-mail, but you can forward an e-mail that includes attachments.

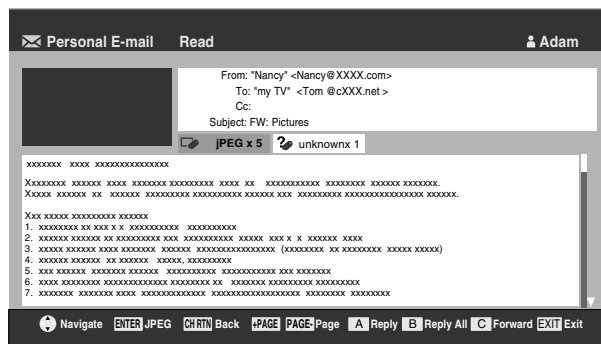
Note: If you delete an e-mail on the TV, it will also be deleted from the e-mail server identified in the account setup—even if the message indicates that it cannot be read by the TV.

8 Exit

Press **O** to close the Personal E-mail feature and return to the regular TV screen on the last channel viewed.

Read View**To read e-mail:**

From the E-mail Inbox window, highlight the e-mail you want to read and press **T**. The Read view (illustrated below) will appear.



From the Read view, press **▲ ▼** to scroll up and down to view the entire message.

To reply to the current message, press **f**.

If the e-mail has more than one recipient, press **g** to reply to all (attachments will be discarded).

To forward an e-mail to other recipients, press **h** (attachments will be included).

To view a JPEG attachment using the Picture Viewer, highlight the Paperclip icon and press **T**.

To return to the Read View from the Picture Viewer, press **O**.

To return to the Inbox View from the Read view, press **R**.

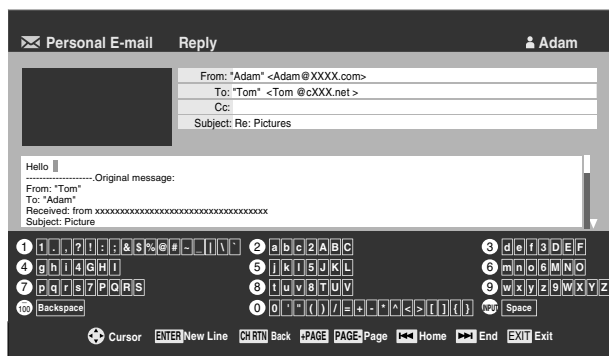
To close the Personal E-mail feature and return to the regular TV screen on the last channel viewed, press **O** at any time.

Message editing views

To edit a field when creating an e-mail:

- 1 Repeatedly press ▲▼◀▶ to highlight the field (**To**, **Cc**, **Subject**, etc.).
- 2 Press **T** to edit the field.

From the Read View, you can reply or forward the message (page 74), and the screen will enter Message Editing view.



To send a message to more than one recipient:

- 1 Highlight the **“To”** or **“Cc”** field.
- 2 Press **T**.
- 3 Highlight **“Add new recipient.”**
- 4 Press **T**.

To delete a recipient:

- 1 Highlight the recipient to be deleted.



- 2 Press **j**.
- 3 Highlight **YES** to confirm deletion.



- 4 Press **T**.

H. Setting up e-mail scheduling

You can remotely schedule and delete recordings and reminders by sending an e-mail to the TV from any PC.

Note:

- If you have not already done so, follow the instructions in sections A and B (page 60), before proceeding.
- Before you can schedule recordings, the time and date in the TV Guide On Screen feature must be set (page 28).

Required information and services

Before you can set up the e-mail scheduling feature, you must have the following information and related services:

- a) A valid POP3 e-mail address dedicated for use by the TV only.

Note: The e-mail address assigned to the TV must be a dedicated POP3 address, different from your personal e-mail address. Assigning your personal e-mail address to the TV will eventually lead to the deletion of all of your personal e-mails (including attachments). This is NOT covered under the Toshiba warranty.

- b) A personal e-mail address (different from the TV's dedicated e-mail address) from which you can send e-mails to the TV.
- c) Login and password settings for the TV's POP3 e-mail account.
- d) Name or IP address of the incoming (POP3) mail server.
- e) Name or IP address of the outgoing (SMTP) mail server.

To obtain the required e-mail services listed above, contact your ISP. You may also be able to use the “home page” or “configuration portal” supplied by your ISP to configure additional e-mail accounts.

To obtain the required addresses and settings listed above, either contact your ISP or use the configuration utility for your DSL/cable modem or router.

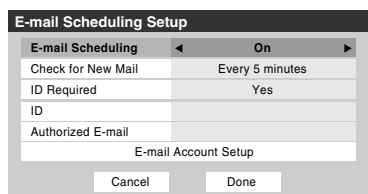
Note:

- Toshiba is not responsible for any damage or loss caused directly or indirectly by the failure of the e-mail scheduling feature to record content intended to be recorded.
- Toshiba is not responsible for, nor has any control over, any content recorded and/or viewed using the e-mail scheduling feature. Further, the e-mail scheduling feature is not meant to be used for unauthorized recording and/or viewing of copyrighted works.
- The recording, use, distribution or revision of television programs, videotapes, DVDs and other materials in violation of applicable laws (including copyright law) and/or agreements may subject you to criminal and civil liability.

For home network troubleshooting tips, see Chapter 8.

Setting up e-mail scheduling

- 1 Press **Y** and open the **Setup** menu.
- 2 Highlight **Installation** and press **T**. The **Installation** menu appears.
- 3 Open the **Network** menu.
- 4 Highlight **E-mail Scheduling Setup** and press **T**. The **E-mail Scheduling Setup** window opens.

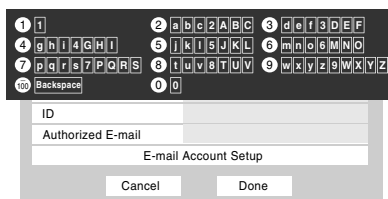


The **E-mail Scheduling Setup** window shows the following settings:

E-mail Scheduling	On
Check for New Mail	Every 5 minutes
ID Required	Yes
ID	
Authorized E-mail	

At the bottom, there is a button for **E-mail Account Setup**, and **Cancel** and **Done** buttons.

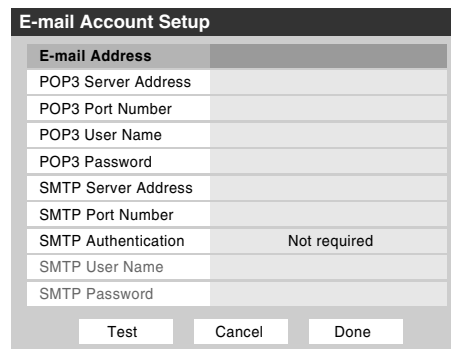
- 5 Enter the required data in the fields.
See “Description of fields in the E-mail Scheduling Setup window” (page 77) for details on the settings for these fields.
 - For the fields listed below, press **▲** or **▼** to highlight the field, and then press **◀** or **▶** to select the settings:
 - **E-mail Scheduling:** **On** or **Off**
 - **Check for New Mail:** Options are 5 min, 15 min, 30 min and 1 hour.
 - **ID Required:** **Yes** or **No**
 - For the fields listed below, press **▲** or **▼** to highlight the field, press **T** to open the software keyboard, and then enter the required information using the software keyboard:
 - **ID**
 - **Authorized E-mail**



The software keyboard is shown with a grid of letters and numbers. Below it, the **E-mail Account Setup** window is visible, with the **ID** and **Authorized E-mail** fields highlighted.

See “Using the software keyboard” (page 67) for instructions on entering data in the fields.

- 6 Highlight **E-mail Account Setup**, then press **T**. The **E-mail Account Setup** window will appear.



The **E-mail Account Setup** window shows the following fields:

E-mail Address	
POP3 Server Address	
POP3 Port Number	
POP3 User Name	
POP3 Password	
SMTP Server Address	
SMTP Port Number	
SMTP Authentication	Not required
SMTP User Name	
SMTP Password	

At the bottom, there are **Test**, **Cancel**, and **Done** buttons.

- 7 Enter the data in the fields as you did in step 5. See “Description of fields in the E-mail Account Setup window” (page 78) for details on the settings for these fields.

For the fields listed below, **▲** or **▼** to highlight the field, press **T** to open the software keyboard, and then enter the required information using the software keyboard:

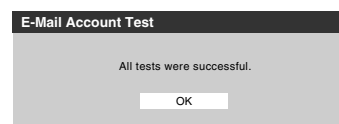
- **E-mail Address**
- **POP3 Server Address**
- **POP3 Port Number**
- **POP3 User Name**
- **POP3 Password**
- **SMTP Server Address**
- **SMTP Port Number**
- **SMTP User Name**
- **SMTP Password**

For the **SMTP Authentication** field, press **▲** or **▼** to highlight the field, and then press **◀** or **▶** to select the appropriate setting (**Not required**, **Same as POP3**, **Different from POP3**).

- 8 When you are finished entering all characters for the selected field, highlight **Test** and press **T** to test the e-mail setup.
During testing, the TV will display the E-Mail Account Test window.

Note: Depending on your configuration, the e-mail test can take several minutes. Do not press **O** during this time.

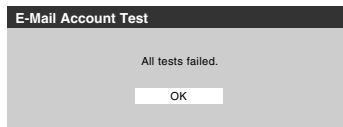
- 9 When testing is finished, a message will appear indicating whether the e-mail test passed or not.
If the e-mail test succeeds:
The message “All tests were successful” (shown below) will appear.



The **E-Mail Account Test** window displays the message: **All tests were successful.** with an **OK** button below it.

If the e-mail test fails:

- a) An error message will appear (similar to the example below).



- b) Ensure that you entered the correct information for the fields in the **E-mail Account Setup** window. Repeat steps 7–8.

- 10** To exit the **E-mail Scheduling Setup** window and save your settings, highlight **Done** and press **T**.
To exit the **E-mail Scheduling Setup** window without saving your settings, highlight **Cancel** and press **T**.

IMPORTANT NOTE

To use e-mail scheduling, you must first set up the **TV Guide On Screen™** system. E-mail scheduling will not be available unless the TV Guide On Screen™ system is fully operational. **See the separate TV Guide On Screen™ Interactive Program Guide for details on setting up the TV Guide On Screen™ system.**

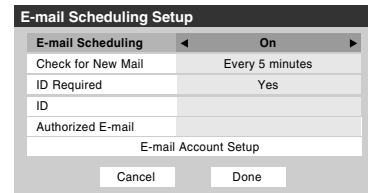
If you experience any issues with e-mail scheduling, please contact the following:

- **In the U.S.**, call TACP Consumer Solutions at **1-800-631-3811** or visit <http://www.tacp.com/customersupport/contact.asp>.
- **In Canada**, call TCL Customer Service at **1-800-268-3404** or visit <http://www.toshiba.ca>.

For home network troubleshooting tips, see Chapter 8.

Description of fields in the “E-mail Scheduling Setup” window

For instructions on entering data in these fields, see step 5 under “Setting up e-mail scheduling” (page 76).



E-mail Scheduling

You can select **On** or **Off** for the **E-mail Scheduling** field.

- **When this field is set to On**, the TV will be able to receive e-mails from any PC to remotely schedule and modify recordings and reminders.
- **When this field is set to Off**, the TV will not be able to receive any e-mail, the other fields in this window will be disabled (“grayed out”), and it will not be possible to remotely schedule recordings or reminders via e-mail.

Note: This does not affect the personal e-mail feature.

Check for New Mail

This field controls the frequency of checking e-mail. Options are 5 min, 15 min, 30 min, and 1 hour.

ID Required

You can select **Yes** or **No** for the **ID Required** field.

- **When this field is set to Yes (recommended)**, the ID you entered in the “ID” field must be included in all e-mails you send to the TV. This is a security feature to protect your TV from unauthorized e-mail access.
- **When this field is set to No**, you do not need to include the ID in e-mails you send to the TV.

ID

Use the software keyboard to enter front six to 16 numbers and/or letters to create your ID (spaces and punctuation are **not** allowed).

Note:

- To help protect your privacy, you may want to choose an ID that is different from any of your usual passwords or security PINs (e.g., different from your personal e-mail password, banking login code, social security number, etc.).
- The ID is case sensitive.

Authorized E-mail

If you enter an e-mail address (such as your personal e-mail address in this field, the TV will only be able to receive e-mail from this e-mail address.

Description of fields in the “E-mail Account Setup” window

E-mail Account Setup

E-mail Address	mymail@isp.com
POP3 Server Address	pop.isp.com
POP3 Port Number	110
POP3 User Name	user_name
POP3 Password	*****
SMTP Server Address	smtp.isp.com
SMTP Port Number	25
SMTP Authentication	Same as POP3
SMTP User Name	user_name
SMTP Password	*****

E-mail Address

Use the software keyboard to enter the e-mail address of the
Personal E-mail Setup, enter your personal e-mail address for
the E-mail Scheduling Setup, enter the TV's serial number and
address, which is different from your personal address (see page 10).

POP3 Server Address

Use the software keyboard to enter the IP address of the host that hosts the e-mail account.

Note: The TV does not support e

POP3 Port Number

Use the software keyboard to enter the user's POP3 (incoming mail) password. The default is **pop3**.

POP3 User Name

Use the software keyboard
Depending on your device
or just the character set

POP3 Pass

Use the software account.

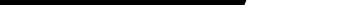
Note: _____

SMTP Port Number

Denotes the port number used by the user's SMTP (outgoing mail) server. This is set to 25 by default. Some ISPs block this port to prevent mail relay attacks and specify an alternate port.

SMTP Authentication

...the
...the
...and
...different



MTP

... as the ... depending on ... only if the ... set to "Different

Figure 1 | **Flowchart of the study**

by the SMTP server.

“Password” field used depending on the ISP/

...ed only if the SMTP
(e) is set to “Different from

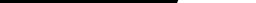
Advanced techniques for SMTP

Commonly used techniques before SMTP.” and “AUTH

before SMTP," and "AUTH
TV e-mail scheduler. SSL and
ed

shooting tips, see Chapter 8.

Downloaded from <http://ajph.org/> on November 10, 2015



THE

10.10 *Staphylococcus aureus* is a Gram-positive, spherical bacterium that is commonly found on the skin and in the nasal cavity of humans. It is a facultative anaerobe and can grow in a wide range of environments. *S. aureus* is known for its ability to form spores, which are highly resistant to heat and disinfectants. The bacterium is also capable of producing a variety of toxins, including exfoliatin and enterotoxins, which can cause skin infections and food poisoning. *S. aureus* is a common cause of hospital-acquired infections and is often resistant to many antibiotics.

10

10

10.10 *Explain the difference between a variable and a constant.*

11

10

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1

1

✓

I. Using e-mail scheduling

You can use the e-mail scheduling feature to schedule and delete recordings and reminders by sending a “request e-mail” to the TV’s e-mail address from any PC.

The four commands the TV will accept are **ADD**, **DELETE**, **GET**, and **HELP**, as described in this section.

If you have not already done so, follow the instructions in sections A and B (pages 60–61), and in section H (page 75), before proceeding.

When a recording is scheduled via e-mail, the recording device used will be the VCR connected to the TV’s analog A/V OUT terminals (see item 4 on page 9 for the location of the A/V OUT terminals; see the separate *Installation Guide* for various VCR connection examples).

E-mail parameters

Note: Some e-mail clients automatically insert e-mail signatures, which the TV will try to process. These may generate unwanted error messages.

- The maximum allowable size for an e-mail sent to the TV is 16 KB. E-mails over 16 KB will be automatically deleted.
- E-mails sent to the TV cannot contain any attachments. The TV will automatically delete any e-mail with an attached file.
- E-mails can be formatted either Plain Text or Rich Text Format (HTML style).
- E-mails sent to the TV that are not properly formatted, that are from the wrong e-mail address, or that have the wrong ID (if specified) will be deleted.
- All e-mails sent to the TV will be eventually deleted.

Note:

- ***Toshiba is not responsible for any damage or loss caused directly or indirectly by the failure of the e-mail scheduling feature to record content intended to be recorded.***
- ***Toshiba is not responsible for, nor has any control over, any content recorded and/or viewed using the e-mail scheduling feature. Further, the e-mail scheduling feature is not meant to be used for unauthorized recording and/or viewing of copyrighted works.***
- ***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.***

Sending a request e-mail to the TV

To send a request e-mail to the TV:

- 1 Format the e-mail according to the instructions under “Formatting a request e-mail” on the next page.
- 2 Send the e-mail to the TV.
- 3 After the TV receives and processes the e-mail, the TV will send a reply e-mail indicating whether the e-mailed request succeeded or failed. See “Receiving an e-mail from the TV” (page 81).

Formatting a request e-mail

Recognized tags

When you send an **ADD**, **DELETE**, **GET**, or **HELP** request e-mail to the TV, the TV will recognize only the tags listed below. These tags (and their accompanying data) must be listed in the body of the request e-mail **in the following order**:

- ID [your ID*]
(not required if you set the “**ID Required**” field to **No**)
- COMMAND ADD
(or COMMAND DELETE or COMMAND GET or COMMAND HELP)
- INPUT [name of input to record]
- CHANNEL [channel number of recording or reminder]
- DATE [date of recording or reminder]
- START TIME [start time of recording or reminder]
- DURATION [length of recording or reminder]
- TYPE RECORD
(or TYPE REMIND)

Tag and data formats

The data for each tag can be formatted in various ways, as described in the following table:

Tag formats	Data formats
ID*	[6- to 16-character alphanumeric] MYID1234* (example only)
COMMAND (or CMD)	ADD DELETE (or DEL) GET HELP
INPUT (or INP)	ANT1 (or ANT-1) ANT2 (or ANT-2) CABLEBOX (or CB) SETTOPBOX (or STB)**
CHANNEL (or CH)	5 ... 38 ... 100 ... 5-1 ... 120-1 [Use a hyphen for digital channels]
DATE	7-4 (or 7-4-06 or 7-4-2006 or 7/4/06, etc.) [If the year is not specified, the current year is assumed.]
STARTTIME (or START)	8AM ... 9:30PM [Noon = 12PM; Midnight = 12AM]
DURATION (or DUR)	30M (or 30MIN) 2H30M (or 2HR30MIN or 2:30)
TYPE	RECORD (or REC) REMIND (or REM)

* The ID is case sensitive. The ID tag is required only if you created an ID in the “**ID**” field and set the “**ID Required**” field to **Yes**. If you set the “**ID Required**” field to **No**, you do not need to include the ID tag line in your request e-mail. See “Description of fields in the E-mail Scheduling Setup window” (page 77).

**“Set-top box” and “STB” refer to a satellite set-top box.

Sample request e-mails

- The examples shown below are for illustration purposes only.
- Styles applied to the sample e-mail text (such as bold, italic, and underline) are for illustration purposes only. You do not need to style the text in your request e-mails.
- The only text in a request e-mail that is case sensitive is the ID. All other text is not case sensitive.

ADD request e-mail

The **ADD** request allows you to schedule a new recording or reminder.

The required tags for an **ADD** request e-mail are (in this order):

- ID [your ID*]
(not required if you set the “**ID Required**” field to **No**)
- COMMAND ADD
- INPUT [name of input]
- CHANNEL [channel number of recording or reminder]
- DATE [date of recording or reminder]
- START TIME [start time of recording or reminder]
- DURATION [length of recording or reminder]
- TYPE RECORD ...or... TYPE REMIND

Sample **ADD** request e-mail
to schedule a new **recording**:

To: [TV's e-mail address]
[Subject can be left blank]

ID MYID1234*
COMMAND ADD
INPUT ANT-1
CHANNEL 102-1
DATE 06/10/2006
START TIME 7 PM
DURATION 2H15M
TYPE RECORD

Sample **ADD** request e-mail
to schedule a new **reminder**:

To: [TV's e-mail address]
[Subject can be left blank]

ID MYID1234*
cmd add
input cb
ch 4
date 7-4
start 8:30pm
dur 1hr
type remind

GET request e-mail

When you send a **GET** request e-mail to the TV, you will receive a reply e-mail that lists all currently scheduled recordings and/or reminders.

The only required tag and data for a **GET** request e-mail is **GET**.

Sample **GET** request e-mail:

To: [TV's e-mail address]
[Subject can be left blank]

GET

DELETE request e-mail

The **DELETE** request allows you to cancel a scheduled recording or reminder.

The required tags for a **DELETE** request e-mail are (in this order):

- ID [your ID*]
(not required if you set the “**ID Required**” field to **No**)
- COMMAND DELETE
- INPUT [name of input]
- CHANNEL [channel number of recording or reminder]
- DATE [date of recording or reminder]
- START TIME [start time of recording or reminder]
- DURATION [length of recording or reminder]
- TYPE RECORD ...or... TYPE REMIND

*Sample **DELETE** request e-mail to delete an existing recording:*

To: [TV's e-mail address] [Subject can be left blank]
ID MYID1234* COMMAND <u>DELETE</u> INPUT ANT-1 CHANNEL 102-1 DATE 06/10/2006 START TIME 7 PM DURATION 2H15M TYPE <u>REC</u>

*Sample **DELETE** request e-mail to delete an existing reminder:*

To: [TV's e-mail address] [Subject can be left blank]
ID MYID1234* cmd <u>del</u> input cb ch 4 date 7-4 start 8:30pm dur 1hr type <u>rem</u>

HELP request e-mail

When you send a **HELP** request e-mail to the TV, you will receive a reply e-mail that contains helpful information about formatting a request e-mail (syntax, definition of the various commands, etc.).

The only required tag for a **HELP** request e-mail is **HELP**.

*Sample **HELP** request e-mail:*

To: [TV's e-mail address] [Subject can be left blank]
HELP

* The ID is case sensitive.
The ID tag is required only if you created an ID in the “**ID**” field and set the “**ID Required**” field to **Yes**. If you set the “**ID Required**” field to **No**, you do not need to include the ID tag line in your request e-mail. See “Description of fields in the E-mail Scheduling Setup window” (page 77).

Receiving an e-mail from the TV

If the request e-mail was successful, the reply e-mail from the TV to your PC will contain one of the following (or similar) messages, depending on the command you sent to the TV:

- ADD SUCCESS
- DELETE SUCCESS
- GET SUCCESS
- HELP SUCCESS

If the request e-mail was not successful, the reply e-mail from the TV to your PC will contain one of the following (or similar) messages, depending on the command you sent to the TV:

- FAILED – SCHEDULE CONFLICT.
The new recording or reminder you attempted to schedule conflicts with an existing one that was previously scheduled. If you want to schedule the new recording or reminder, you will have to **DELETE** the existing one first, and then **ADD** the new one.
- FAILED – COULD NOT UNDERSTAND “Line x.”
The request e-mail has an error in the line of text referenced in the error message. Correct the text and resend the e-mail.
- FAILED – NO DEVICE AVAILABLE.
Make sure you have a recording device connected to the TV and that all cables are properly connected, and then resend the e-mail.
- FAILED – MISC ERROR.
Make sure all devices and cables are properly connected and that the text in the body of your e-mail is correct, and then send the corrected e-mail to the TV.

Modifying an existing recording or reminder

To modify an existing scheduled recording or reminder:

- 1 Send a **DELETE** request e-mail to cancel the existing recording or reminder.
- 2 Send an **ADD** request e-mail to schedule the modified recording or reminder.

For home network troubleshooting tips, see Chapter 8.

Chapter 8: Troubleshooting

General troubleshooting

Before calling a service technician, please check this chapter for a possible cause of the problem and some solutions you can try.

Black box on screen

- The Closed Caption feature is set to one of the Text modes (**T1**, **T2**, **T3**, or **T4**). Set the **Closed Caption** feature to **Off** (🔧 page 42).

LED indications while in reboot from standby

- When you plug the power cord in the red LED will blink until the TV enters standby mode (plugged in but not powered on). This is normal and is not a sign of malfunction.

TV stops responding to controls

- If the TV stops responding to the controls on the remote control or TV control panel and you cannot turn off the TV, press and hold the **POWER** button on the TV control panel for 5 or more seconds to reset the TV.

Other problems

- If your TV's problem is not addressed in this Troubleshooting section or the recommended solution has not worked, use the Reset Factory Defaults procedure (🔧 page 30).

TV will not turn on

- Make sure the power cord is plugged in, and then press **p**.
- The remote control batteries may be dead. Replace the batteries or try the control panel buttons.

Picture problems

General picture problems

- Check the antenna/cable connections (🔧 *Installation Guide*).
- Press **+** on the remote control or TV and select a valid video input source (🔧 page 31). If no device is connected to a particular input on the TV, no picture will display when you select that particular input source. For device connection details, see the *Installation Guide*.
- Antenna reception may be poor. Use a highly directional outdoor antenna (if applicable).
- The station may have broadcast difficulties. Try another channel.
- Adjust the picture qualities (🔧 page 41).
- If you are using a VCR, make sure **L** on the remote control is set to the correct mode (see item 24 on page 13).
- If you have two VCRs connected to your TV, make sure you have not connected the same VCR to the TV's output and input connections at the same time (🔧 *Installation Guide*).
- Do not connect both a standard video cable and an S-video cable to the same set of VIDEO inputs (**VIDEO 1**, or **VIDEO 2**) at the same time (🔧 *Installation Guide*).

Noisy picture

- If you are watching an analog channel (off-air broadcast or Cable TV), you can set the **CableClear**® feature to **AUTO** to reduce visible interference in the TV picture (🔧 page 56).

Video Input Selection problems

- If the **Input Selection** window does not appear when you press **+** on the remote control or TV, press **+** a second time, which will change to the next video input source and display the **Input Selection** window.

Cannot view external signals or channel 3 or 4

- If you cannot view signals from external devices connected to **VIDEO 1**, **VIDEO 2**, or **ColorStream**®, or from channels 3 or 4, make sure the **Input Lock** is set to **Off** (🔧 page 49).

Poor color or no color

- The station may have broadcast difficulties. Try another channel.
- Adjust the **Tint** and/or **Color** (🔧 page 41).
- When the **ColorStream**® signal source is active, the **VIDEO OUT** terminal does not output video. To receive video from the **VIDEO OUT** terminal, a standard video or **S-video IN** connection must be used instead of the **ColorStream**® connections.

POP problems

- If you label all of the inputs as "**Hide**," the POP feature will be disabled. If you then attempt to access the POP feature, the message "Not Available" will appear (🔧 page 39).

Poor composite or S-video picture

- If the TV is connected to an external A/V device (e.g., DVD player, video game system, set-top box, etc.) try using a **ColorStream** or **HDMI** video connection instead.

Picture and sound are out of sync

- As with all products that contain a digital display, in rare instances, when viewing certain content (e.g., television broadcasts, video games, DVDs), you may notice that the sound and picture are slightly out of sync. This phenomenon can be caused by various factors including, without limitation, video processing within the TV, video processing in an attached gaming system, and video processing or different compression rates used by broadcasters in their programming. You may want to try one or more of the following suggestions, which may help to reduce the effect of this phenomenon:
 - If the TV is connected to an A/V receiver that has a programmable audio delay feature, use this feature to help synchronize the sound to the picture.
 - If you notice this phenomenon only on certain TV channels, please contact your local broadcast, cable, or satellite provider to inform them of this issue.

Sound problems

- Check the antenna/cable connections (🔧 *Installation Guide*).
- The station may have broadcast difficulties. Try another channel.
- The sound may be muted. Press **Z**.
- If you hear no sound, try setting the **MTS** feature to **Stereo** mode (🔧 page 44).
- Make sure the Speakers function in the **Audio Setup** menu is set correctly (🔧 page 45).
- If you are not receiving a second audio program from a known SAP source, make sure the **MTS** feature is set to **SAP** mode (🔧 page 44).
- If you hear audio that seems “incorrect” for the program you are watching (such as music or a foreign language), the SAP mode may be on. Set the **MTS** feature to **Stereo** mode (🔧 page 44).
- When using an external audio amplifier, if you connect the amplifier to the **VAR. AUDIO OUT** terminals, the volume of the TV and amplifier must be set above 0 or you will not hear any sound (🔧 *Installation Guide*).

Remote control problems

- Make sure the remote control is set to the correct device mode (🔧 page 16).
- Remove all obstructions between the remote control and the TV.
- The remote control batteries may be dead. Replace the batteries (🔧 page 11).
- Your TV remote control may not operate certain features on your external device. Refer to the owner’s manual for your other device to determine its available features. If your TV remote control does not operate a specific feature on another device, use the remote control that came with the device (🔧 page 16).
- If the amplifier has a specific function, refer to the owner’s manual for the amplifier.

Title or artist name is not displayed

- The MP3 file does not contain valid meta-data or does not meet supported specifications (🔧 “Media specifications” in Chapter 7).

The Audio Player takes almost a minute to start

- Sufficient network band-width is not available. Turn off any other file sharing programs, network-based games, or other network-intensive operations while the **Audio Player** is playing.
- The shared folder has too many files or sub-folders. If the shared folder on the networked PC contains a large number of files or nested directories, it may take over a minute for the **Audio Player** to locate all playable files.

The File is displayed but is always skipped

- The file is not a valid or supported MP3 file.

Some files in the shared folder are not played

- Only the first 200 MP3 files found will be played. Folders nested 10 or more levels below the shared folder are not searched.

The Audio Player plays (progress bar and animation change) but audio is not heard

- The volume level is not high enough or TV is muted.

Picture Viewer problems*“No pictures found” message is displayed*

- Sharing is not correctly set up on the networked PC. Make sure you connected your home network correctly (🔧 *Installation Guide*) and set up the network address properly (🔧 Chapter 7).
- The JPEG files exceed the specified limits (🔧 “Media specifications” in Chapter 7).

Picture viewer option in menu is disabled

- There are no picture files in the networked PC's shared folder(s).
- Basic network setup and Home server setup were not successfully performed.

Picture is not displayed; Rectangle containing “X” is displayed instead

- The picture file does not meet the specifications for the **Picture Viewer** (🔧 “Media specifications” in Chapter 7).

Picture is not listed at all

- There are no picture files in the networked PC's shared folder(s).
- The number of pictures files found is more than the TV can display.
- The picture file does not have a valid “.jpg” extension.
- The file is too large or is otherwise not compatible with the TV for display. See “Media specifications” in Chapter 7 for Picture Viewer and JPEG file specifications.

Home network troubleshooting

Basic network setup problems*Cannot connect to network*

- Check the modem and splitter connections.
- Make sure the splitter is connected to the modem or telephone jack correctly (🔧 page 60).
- Confirm your modem's operation with this manual.
- Make sure your network address and e-mail account are set up correctly (🔧 Chapter 7).

No network connection

- The Ethernet cables are not connected properly or at all. Connect all cables(🔧 *Installation Guide*).
- Make sure the modem's power cord is plugged in.
- Make sure your network address and e-mail account are set up correctly (🔧 Chapter 7).

Automatic setup fails

- The Ethernet cables are not connected properly or at all. Connect all cables(🔧 *Installation Guide*).
- The DHCP service is not enabled on the router, or no router is present. Refer to your router's documentation for instructions on enabling DHCP. If you do not have a router, you must manually set up the network address (🔧 page 62).
- Internet service is not available. Check your cable/DSL modem or contact your ISP for Internet service issues.

Manual setup fails

- The Ethernet cables are not connected properly or at all. Connect all cables (🔧 *Installation Guide*).
- The TV IP address is the same as the networked PC's. The TV IP address must be different from the PC's IP address.
- The TV IP address is not on the same subnet as the networked PC's. For example, if the PC has IP 192.168.0.100 with netmask 255.255.255.0, and the TV has IP 192.168.0.200 with netmask 255.255.255.0, then they are both on same subnet. Conversely, if the PC has IP 192.168.1.100 with netmask 255.255.255.0, and the TV has IP 192.168.0.200 with netmask 255.255.255.0, then they are on different sub-nets.

Unstable network connection

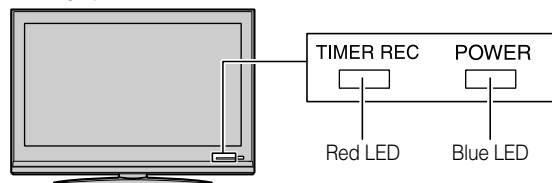
- Unplug the Ethernet cables, and then connect them again.

LED indications

The blue and red LED lights on the TV front indicate the TV's status, as described below:

Note: If the TV loses A/C power (e.g., a power outage occurs or the power cord is unplugged), when power is restored, the red LED will blink while the TV is booting until the remote control is usable. This is normal and is not a sign of malfunction.

TV front



LED Indication	Condition	Solution
1) Blue is ON (solid).	The TV is operating properly.	–
2) Red is ON (solid).	Recording is in progress.	–
3) Red blinks three times.	The TV is rebooting.	Wait several seconds until the red LED stops blinking.
4) Blue blinks. Red blinks.	Fan stopped (SET).	Turn OFF the TV and unplug the power cord. Plug the power cord in again and turn ON the TV.
5) Blue is on (solid). Red blinks.	Fan stopped (CableCard).	
6) Blue blinks slowly.	Abnormal operation of BUS line.	
7) Blue blinks quickly.	Power protect detection.	

If, after trying the solution, the problem still exists:

- In the U.S., call TACP Consumer Solutions at 1-800-631-3811.
- In Canada, locate the nearest Toshiba authorized service depot by directing your web browser to www.toshiba.ca; click “Home Entertainment,” and then click “Support.”

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.**

Television System

NTSC standard
ATSC standard (8VSB)
Digital Cable (64 QAM, 256 QAM; in-the-clear, unencrypted*)

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 135)

Power Source

120 V AC, 60 Hz

Power Consumption

42LZ196: 191 W (average)
33 W in standby mode (using a CableCARD™)
29 W in standby mode (without a CableCARD™)
47LZ196: 207 W (average)
35 W in standby mode (using a CableCARD™)
31 W in standby mode (without a CableCARD™)

Audio Power

10 W + 10 W

Speaker Type

Main: Four 2-3/8 × 4-3/4 inches (6 × 12 cm)
Tweeter: Two 1-1/16 inches (33 mm) round

Video/Audio Terminals

S-VIDEO INPUT:

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

VIDEO/AUDIO INPUT:

VIDEO: 1 V(p-p), 75 ohm, negative sync.
AUDIO: 150 mV(rms) (30% modulation equivalent, 22 k ohm or greater)

ColorStream® (component video) HD INPUT:

VIDEO: Y: 1V(p-p), 75 ohm
Pr: 0.7 V(p-p), 75 ohm
Pb: 0.7 V(p-p), 75 ohm
Suggested formats: 1080i, 480p, 480i, 720p
AUDIO: 150 mV(rms), 22 k ohm or greater

HDMI™ INPUT:

HDMI compliant (type A connector)
HDCP compliant
E-EDID** compliant
Suggested formats: 1080p, 1080i, 480p, 480i, 720p
HDMI Audio: 2-channel L-PCM; 32/44.1/48 kHz
sampling frequency; 16/20/24 bits per sample
and Dolby Digital

VIDEO/AUDIO OUTPUT (also for recording):

VIDEO: 1 V(p-p), 75 ohm, negative sync.
AUDIO: 150 mV(rms) (30% modulation equivalent, 2.2 k ohm or less)

DIGITAL AUDIO OUTPUT:

Optical type

VARIABLE AUDIO OUTPUT:

0–300 mV(rms) (30% modulation equivalent, 2.2 k ohm or less)

G-LINK™ and IR IN/OUT:

3 V(p-p), 3.5 mm mono socket (IR blaster cables supplied)

PC INPUT:

15-pin D-sub Analog RGB

RJ-45 port:

Standard Ethernet (RJ-45)

Dimensions

42LZ196: Width: 41-1/8 inches (1042 mm)
Height: 30.0 inches (762 mm)
Depth: 13-7/8 inches (352 mm)
47LZ196: Width: 44-5/8 inches (1132 mm)
Height: 31-3/8 inches (795 mm)
Depth: 13-7/8 inches (352 mm)

Weight

42LZ196: 74.9 lbs (34.0 kg)
47LZ196: 90.8 lbs (41.2 kg)

Operating conditions

Temperature: 32°F–95°F (0°C–35°C)
Humidity: 20–80% (no moisture condition)

Supplied Accessories

- Remote control with two size “AA” alkaline batteries
- Dual-wand IR blaster cable
- Installation Guide
- Operating Guide (this book)
- TV Guide On Screen™ Interactive Program Guide
- Lead clip
Use this clip to attach the TV to a wall, pillar, or other immovable structure. See item 19 on page 3 of the separate *Installation Guide*.

* Encrypted channels can be viewed on this TV using a CableCARD™ (see *Installation Guide*).

**E-EDID = Enhanced-Extended Display Identification

Limited United States Warranty

for LCD Televisions 26" and Larger

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 LCD TELEVISION AS A GIFT FROM THE ORIGINAL CONSUMER PURCHASER AND TO NO OTHER PURCHASER OR TRANSFEREE. LCD TELEVISIONS PURCHASED IN THE U.S.A. AND USED ANYWHERE OUTSIDE OF THE U.S.A., INCLUDING, WITHOUT LIMITATION, CANADA AND MEXICO, ARE NOT COVERED BY THESE WARRANTIES.

LCD TELEVISIONS PURCHASED ANYWHERE OUTSIDE OF THE U.S.A., INCLUDING, WITHOUT LIMITATION, CANADA AND MEXICO, 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 LCD 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. During this period, TACP Authorized Service Station personnel will come to your home when warranty service is required. Depending on the type of repair required, the service will either be performed in your home or the LCD Television will be taken to a TACP Authorized Service Station for repair and returned to your home at no cost to you.

Rental Units

The warranty for LCD Television rental units begins on the date of the first rental or thirty (30) days after the date of shipment to the rental firm, whichever comes first.

Limited Warranty for Commercial Units

TACP warrants LCD Televisions that are 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 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.

Owner's Manual and Product Registration Card

Read this owner's manual thoroughly before operating this LCD Television.

Complete and mail the enclosed product registration card or register your LCD Television online at www.tacp.toshiba.com/service as soon as possible. By registering your LCD Television you will enable TACP to bring you new products specifically designed to meet your needs and help us to contact you in the unlikely event a safety notification is required under the U.S. Consumer Product Safety Act. **Failure to complete and return the product registration card does not diminish your warranty rights.**

Your Responsibility

THE ABOVE WARRANTIES ARE SUBJECT TO THE FOLLOWING CONDITIONS:

- (1) You must retain your original bill of sale or provide other proof of purchase.
- (2) All warranty servicing of this LCD Television must be performed by an Authorized TACP Service Station.
- (3) The warranties from TACP are effective only if this LCD Television is purchased and operated in the Continental U.S.A. or Puerto Rico.
- (4) Labor service charges for set installation, setup, adjustment of customer controls, and installation or repair of antenna systems are not covered by this warranty. Reception problems caused by inadequate antenna systems, misaligned satellite dishes, cable

television distribution, VCRs, DVD players/recorders, personal computer level IEEE-1394 devices, and any other connected signal source device are your responsibility.

- (5) Warranties extend only to defects in materials or workmanship as limited above, and do not extend to any LCD Television or parts that have been lost or discarded by you or to damage to the LCD 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 LCD Television 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 Service

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

- (1) To find the nearest TACP Authorized Service Station, visit TACP's website at www.tacp.toshiba.com/service or contact TACP's Consumer Solution Center toll free at 1-800-575-5469.
- (2) You must present your original bill of sale or other proof of purchase to the TACP Authorized Service Station.

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

ALL WARRANTIES IMPLIED BY THE LAW OF ANY STATE OF THE U.S.A., INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSLY LIMITED TO THE DURATION OF THE LIMITED WARRANTIES SET FORTH ABOVE. WITH THE EXCEPTION OF ANY WARRANTIES IMPLIED BY THE LAW OF ANY STATE OF THE U.S.A. AS HEREBY LIMITED, THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, GUARANTEES, AGREEMENTS, AND SIMILAR OBLIGATIONS OF TACP WITH RESPECT TO THE REPAIR OR REPLACEMENT OF ANY PARTS. IN NO EVENT SHALL TACP BE LIABLE FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, LOST PROFITS, BUSINESS INTERRUPTION, OR MODIFICATION OR ERASURE OF RECORDED DATA CAUSED BY USE, MISUSE OR INABILITY TO USE THIS LCD TELEVISION).

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

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH MAY VARY FROM STATE TO STATE IN THE U.S.A. SOME STATES OF THE U.S.A. DO NOT ALLOW LIMITATIONS ON THE DURATION OF AN IMPLIED WARRANTY, WHEN AN ACTION MAY BE BROUGHT, OR THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES. THEREFORE, THE ABOVE PROVISIONS MAY NOT APPLY TO YOU UNDER SUCH CIRCUMSTANCES.

Limited Canada Warranty

for LCD Televisions

Toshiba of Canada Limited ("TCL") makes the following limited warranties to original consumers in Canada.

LCD TVs PURCHASED IN CANADA AND USED ANYWHERE OUTSIDE OF CANADA, INCLUDING, WITHOUT LIMITATION, THE U.S.A. AND MEXICO, ARE NOT COVERED BY THESE WARRANTIES.

LCD TVs PURCHASED ANYWHERE OUTSIDE OF CANADA, INCLUDING, WITHOUT LIMITATION, THE U.S.A. AND MEXICO, AND USED IN CANADA, ARE NOT COVERED BY THESE WARRANTIES.

THESE LIMITED WARRANTIES EXTEND TO THE ORIGINAL CONSUMER PURCHASER OR ANY PERSON RECEIVING THIS LCD TV AS A GIFT FROM THE ORIGINAL CONSUMER PURCHASER AND TO NO OTHER PURCHASER OR TRANSFEREE.

Limited One (1) Year Warranty on Parts and Labor

TCL warrants this LCD TV 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.

a) FOR LCD TVs UNDER 37":

To receive warranty service, you must return the LCD TV to a TCL Authorized Service Depot.

b) FOR LCD TVs 37" AND LARGER:

During this period, TCL Authorized Service Depot personnel will come to your home when warranty service is required. Depending on the type of repair required, the service will either be performed in your home or the LCD Television will be taken to a 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.**

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.

Commercial Units

LCD TVs sold and used for commercial purposes have a limited ninety (90) day warranty for all parts and labor.

Owner's Manual and Product Registration

Read this owner's manual thoroughly before operating this LCD TV. If you purchased your LCD TV in Canada, register it online at www.toshiba.ca as soon as possible. By registering your product you will enable TCL to bring you new products specifically designed to meet your needs and help us to contact you in the unlikely event a safety notification is required.

Failure to register online does not diminish your warranty rights.

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 LCD TV must be made by an Authorized TCL Service Depot.
- (3) The warranties from TCL are effective only if the LCD TV 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 LCD TV or parts that have been lost or discarded by you or to damage to the LCD TV 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:
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