LE46S704







# Owners Guide

Thank you for purchasing this Hitachi product. Please read these instructions carefully. For additional assistance please call 800.HITACHI (800.448.2244) or visit our website at www.hitachi.us/tv. Keep this owners guide for future reference.

Record the model name and serial number of your LCD Television for future reference.

This information is located on the back and right side of the television.

MODEL NAME. \_\_\_\_\_ SERIAL NO. \_\_\_\_\_

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## **Important Safety Instructions**

#### SAFETY POINTS YOU SHOULD KNOW ABOUT YOUR HITACHI LCD TELEVISION



Our reputation has been built on the quality, performance, and ease of service of Hitachi LCD televisions.

Safety is also foremost in our minds in the design of these units. To help you operate these products properly, this section illustrates safety tips which will be of benefit to you. Please read it carefully and apply the knowledge you obtain from it to the proper operation of your Hitachi LCD television.



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



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of a sufficient magnitude to constitute a risk of electric shock to a person.



The exclamation point within an equilateral triangle, is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

#### READ BEFORE OPERATING EQUIPMENT

Follow all warnings and instructions marked on this LCD television.

- Read these instructions.
- 2. Keep these instructions.
- 3. Heed all warnings.
- 4. Follow all instructions.
- 5. Do not use this apparatus near water.
- 6. Clean only with a dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not defeat the safety purpose of the polarized or groundingtype plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- Only use the attachments/accessories specified by the manufacturer.
- 12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

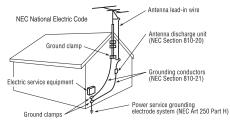


- Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the

- apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- 15. Televisions are designed to comply with the recommended safety standards for tilt and stability. Do not apply excessive pulling force to the front, or top, of the cabinet which could cause the product to overturn resulting in product damage and/or personal injury.
- Follow instructions for wall, shelf or ceiling mounting as recommended by the manufacturer.
- An outdoor antenna should not be located in the vicinity of overhead power lines or other electrical circuits.
- 18. If an outside antenna is connected to the receiver be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges. Section 810 of the National Electric Code, ANSI/NFPA No. 70-1984, provides information with respect to proper grounding for the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding connectors, location of antenna discharge unit, connection to grounding electrodes and requirements for the grounding electrode.

NOTE

To the CATV system installer: This reminder is provided to call the CATV system installer's attention to Article 820-44 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.



#### **Power source**

This LCD television is designed to operate on 120 volts 60 Hz, AC current. Insert the power cord into a 120 volts 60 Hz outlet. The mains plug is used as the disconnect device and shall remain readily operable.

To prevent electric shock, do not use the LCD television's (polarized) plug with an extension cord, receptacle, or other outlet unless the blades and ground terminal can be fully inserted to prevent blade exposure.

Never connect the LCD television to 50 Hz, direct current, or anything other than the specified voltage.

This television's factory default settings as shipped meet ENERGY STAR requirements.

Please see the Energy Options section of this owners guide for more energy saving tips.



Adjust only those controls that are covered in the instructions, as improper changes or modifications not expressly approved by Hitachi could void the user's warranty.

## **Important Safety Instructions**

#### Warning



- To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
- The LCD television should not be exposed to dripping or splashing and no objects filled with liquids, such as vases, should be placed on the television.
- This apparatus shall be connected to a mains socket outlet with a protective earthing connection.

#### Public viewing of copyrighted material

Public viewing of programs broadcast by TV stations and cable companies, as well as programs from other sources, may require prior authorization from the broadcaster or owner of the video program material.

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, and is intended for home and other limited payper-view uses only unless otherwise authorized. Reverse engineering or disassembly is prohibited.

#### FEDERAL COMMUNICATIONS COMMISSION NOTICE

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 turning the equipment off and on, 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/television technician for help.

#### **Modifications**

The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by Hitachi America, Ltd. may void the user's authority to operate the equipment.

#### **Cables**

Connections to this device must be made with shielded cables with metallic RFI/EMI connector hoods to maintain compliance with FCC Rules and Regulations.

Any cables or power code supplied with the system must be replaced with identical parts in order to assure compliance with FCC rules. You may order those replacement parts from Hitachi.

This LCD Television receiver will display television closed captioning, ( cc or ), in accordance with paragraph 15.119 and 15.122 of the FCC rules.

#### **Declaration of Conformity**

This device complies 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.

For questions regarding this declaration, contact:

Hitachi America, Ltd. 900 Hitachi Way Chula Vista, CA 91914-3556 Tel. 800.448.2244(800.HITACHI) ATTN: Customer Relations

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# **CHILD SAFETY:**

It Makes A Difference How and Where You Use Your Flat Panel Display

Congratulations on your purchase!

As you enjoy your new product, please keep these safety tips on mind:



### **HITACHI CARES!**

- The consumer electronics industry is committed to making home entertainment enjoyable and safe.
- Please note the American Academy of Pediatrics discourages television viewing for children younger than two years of age.
- The home theater entertainment experience is a growing trend and larger flat displays are popular purchases. However, flat panel displays are not always supported on the proper stands or installed according to the manufacturer's recommendations.
- Flat Panel displays that are inappropriately situated on dresser, bookcases, shelves, desks, speakers, chest or carts may fall over and cause injury.

## **TUNE INTO SAFETY**

- One size does NOT fit all. Follow the manufacturer's recommendations for the safe installation and use of your flat panel display.
- Carefully read and understand all enclosed instructions for proper use of this product.
- Don't allow children to climb on or play with furniture and television sets.
- Don't place flat panel displays on furniture that can easily be used as steps, such as a chest of drawers.
- Remember that children can become excited while watching a program, especially on a "larger than life" flat panel display. Care should be taken to place or install the display where it cannot be pushed, pulled over, or knocked down.
- Care should be taken to route all cords and cables connected to the flat panel display so that they cannot be pulled or grabbed by curious children.

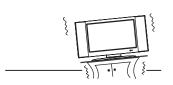
# **WALL MOUNTING:** IF YOU DECIDE TO WALL MOUNT YOUR FLAT PANEL DISPLAY, ALWAYS:

- Use a mount that has been recommended by the display manufacturer and/or listed by an independent laboratory (such as UL, CSA, ETL).
- Follow all instructions supplied by the display and wall mount manufacturers.
- If you have any doubts about your ability to safely install your flat panel display, contact your retailer about professional installation.
- Make sure that the wall where you are mounting the display is appropriate.
   Some wall mounts are not designed to be mounted to walls with steel studs or old cinder block construction.
  - If you are unsure, contact a professional installer.
- A minimum of two people are required for installation. Flat panel displays can be heavy.





Do not place the unit on uneven surfaces, this may drop or damage the unit, it may also cause personal injury.



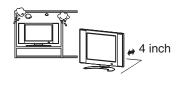
Unplug immediately if there is a malfunction on the TV like no picture, no video/audio or if there is smoke and bad odor coming from the TV.



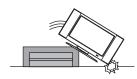
Do not throw any objects inside the TV like metals, coins or any other flammable materials.



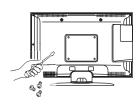
Do not place the TV in confined spaces or inside a box when the TV is operating.



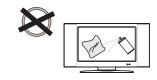
Unplug immediately if any foreign materials falls into the TV or if the TV fell down.



Do not open the TV cabinet.



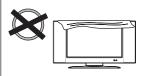
Remember to unplug the power cord from the AC outlet before cleaning. Do not use liquid cleaners or aerosol cleaners to clean the display.



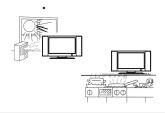
Make sure to unplug the TV when not in use for a long period of time (days).



Do not cover or block any vents and openings of the TV. Inadequate ventilation may shorten the life of the display unit and cause overheating.



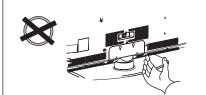
Avoid direct sunlight, dusty, high humidity and smokey locations.



Do not place the TV near water, such as a bathtub, shower rooms, kitchen sink, laundry tub or swimming pool. Avoid liquid containers on top of the unit.



Do not pick up or handle the TV from where the TV connects to the stand. Injury may occur if the TV is picked up or handled from this area.



Notice for Remote Control

Avoid dropping the unit.



Avoid liquids on it.

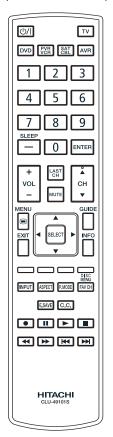


Avoid aerosol cleaners.

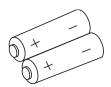


#### Check to make sure you have the following accessories before disposing of the packing material.

 Remote Control Unit CLU-49101S (Part No. HL02568)



② "AAA" Size Batteries (2)



4 Easy Graphic Guide



⑤ Stand Screws (4)

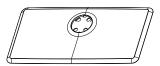


(M6x12: Part No. Q01G6145 1)

(3) Owners Guide



6 Stand Base



(Part No. A34T1854AFL 1L0100 & Q15T0798201)

For optional accessories, please access our web site at: www.hitachi.us/tv

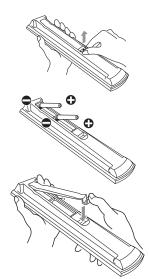


- Ceiling mounting is not recommended. Mounting the panel on the ceiling does not provide adequate ventilation for the electronics or proper support for the front panel. This LCD television product is designed for a maximum tilting angle of 45 degrees from vertical.
- Please see page 8 for important information related to wall mounting.

#### REMOTE CONTROL BATTERY INSTALLATION AND REPLACEMENT

The remote control operates on 2 "AAA" batteries.

- Open the battery cover of the remote control by pushing and pulling it in the direction of the arrow.
- 2. Insert two new "AAA" size batteries for the remote control. When replacing old batteries, push them towards the springs and lift them out.
- 3. Match the batteries to the (+) and (-) marks in the battery compartment.
- 4. Insert the bottom of the battery, the (-) side, into the battery compartment first, push towards the springs and insert the top of the battery, the (+) side, into place. Do not force the battery into the battery compartment.
- 5. Close the battery cover making sure the tabs rest in the corresponding holes and push down the cover until it clicks shut.





- Do not insert batteries with '+' and '-' polarities reversed as this may cause the batteries to swell or rupture resulting in leakage.
- Never mix used and new batteries in the device.
- Replace all the batteries in the device at the same time.
- Remove the batteries if the remote control is not going to be used for an extended period of time.
- The batteries (batteries installed) shall not be exposed to excessive heat such as sunshine, fire, etc.

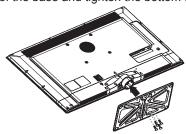
## **How To Install Your New Hitachi LCD Television**

Take the following precautions to prevent the LCD Television from tipping over and possibly causing injury. It is important to mount the unit on a stable and flat surface.

## ASSEMBLY OF THE BASE IMPORTANT:

The base of the LCD TV must be assembled prior to use.

- Place the TV unit face down on a soft and flat surface covered by a blanket, foam, cloth, etc. to prevent any damage or scratches to the LCD TV.
- 2. Carefully align and insert the Base to the TV stand post.
- 3. Insert the screws included with the accessories to the bottom of the base and tighten the bottom to the stand.

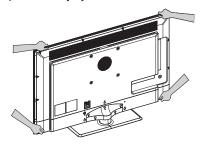


#### Caution when moving the main unit

As this product is heavy, whenever it is moved, at least two people are required to transport it safely. Whenever the unit is moved, it should be lifted forward using the top and bottom on both sides of the Television for stability.

When moving the Television, lift from the corners, then support the top frame as shown below.

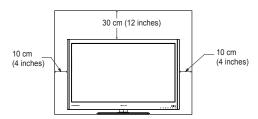
Please use caution when handling the left and right bottom corners of the TV, as these areas protrude slightly from the TV's frame. Handle this area with care to avoid damaging the unit and the possibility of personal injury.



#### Location

Select an area where sunlight or bright indoor illumination will not fall directly on the picture screen. If so, drapes or screens can be used to reduce the reflection.

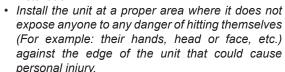
Also, be sure that the location selected allows a free flow of air to and from the perforated back cover of the set. In order to prevent an internal temperature increase, maintain a space of 10 cm (4 inches) from the sides/back of the Television, and 30 cm (12 inches) from the top of the television to the ceiling. To avoid cabinet warping, cabinet color changes, and increased chance of set failure, do not place the TV where temperatures can become excessively hot, for example, in direct sunlight or near a heating appliance, etc.





- Do not block the ventilation holes of the LCD Television. Blocking the ventilation holes might cause overheating and damage.
- In case of an abnormal symptom, unplug the power cord and contact 800.HITACHI.
- If you purchased a wall mount bracket, it is recommended that you ask for professional installation.

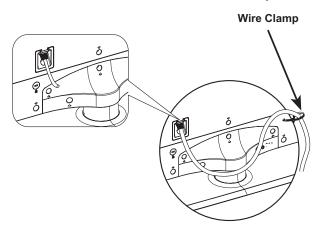
  Install the unit at a proper area where it do



#### **Power Cord Installation**

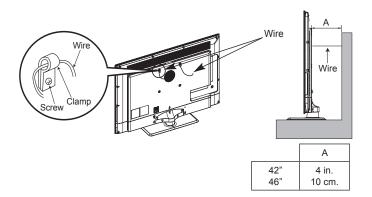
Located on the back of the TV there is one plastic clamp to hold the power cord. Please follow the instructions below.

- Pass the power cord through the wire clamp and connect it to the TV.
- 2. Close the clamp to fix the power cord to the TV.
- 3. All the cables connected to the TV will be held by this clamp.



#### Securing to a Wall

- 1. Use a metallic wire (two locations) to fasten the set to the clamping screw on the rear of the LCD TV as shown below.
- Keep the LCD television 4 inches away from the wall, except when mounted using the wall mount bracket, and secure to the wall as shown below:

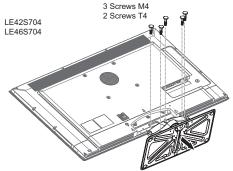


## **How To Install Your New Hitachi LCD Television**

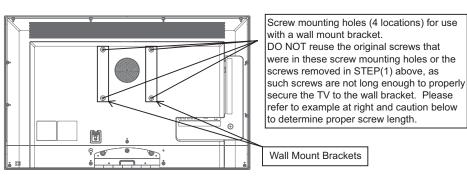
#### WALL MOUNTING SETUP

#### STEP (1): REMOVE THE STAND BASE FROM THE LCD TELEVISION

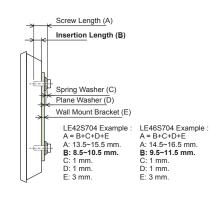
In order to remove the stand from the TV safely, please put the TV set on a soft and flat surface (blanket, foam, cloth, etc.) to prevent any damage; then remove the screws as shown below to separate the Table Top Stand from the TV. Now the Stand can be separated from the TV. Useful dimensions for the WALL MOUNT assembly are illustrated on page 46 and 47.



STEP (2): INSTALL THE WALL MOUNT BRACKETS ON THE LCD TELEVISION USING 4 SCREWS.



 For Wall Mount assembly, please refer to the Installation Manual of the Wall Mount Unit.

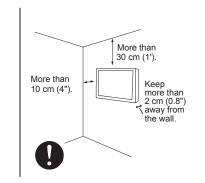


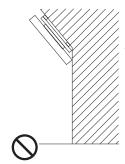
• The screw type :Thread ISO M6 (Metric type, do not use Standard type).



Insertion length (B) of the screws must be (i) within 8.5~10.5 mm for LE42S704, or (ii) within 9.5~11.5 mm for LE46S704. If the length is less than specified, the TV's weight cannot be maintained. If the length is more than specified, a space is created between the Wall Mount Bracket and the LCD Television. This insertion length is **very important**.

#### STEP (3): TIPS TO CONSIDER FOR THE LOCATION OF THE LCD TELEVISION.







- Do not block the ventilation holes. In addition please keep a certain distance around the TV and make sure not to obstruct ventilation. Blocking the ventilation holes may cause fire or defect.
- If you purchased a Wall Mount bracket, please ask for a professional installation. Do not install by yourself.
- This LCD unit features an advanced ventilation system configured for vertical installation. A knowledgeable and experienced professional technician can perform other mounting or installation orientations (e.g., horizontal, tilted) provided that you specifically inform the technician of the unit's specialized ventilation needs. Call 800.HITACHI for additional info and guidance.

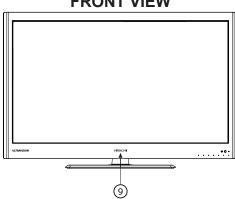


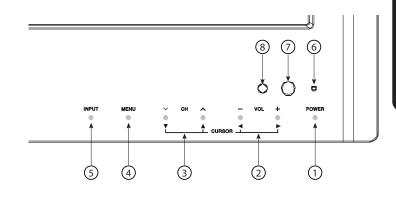
Although this LCD Display Panel can be installed using a variety of third party wall mounting brackets/devices, such third party brackets/devices have not been tested or approved by Hitachi for use or compatibility with this LCD Display Panel. Accordingly, Hitachi accepts no responsibility or liability for any injuries or property damage resulting from the use of such third party brackets/devices. Hitachi strongly advises that any

installation of this LCD Display Panel using wall mounting brackets/devices be performed only by a qualified and experienced television installation technician who has completed a thorough evaluation of:

- a) the weight-bearing strength and stability of the intended wall mount surface; and
- b) the weight-bearing strength and compatibility of the intended wall mount brackets/device.

## **FRONT VIEW**





#### 1 POWER Button

This button is for turning ON the LCD TV, in order to turn the TV On , the standby indicator must be lit red. If the indicator is off, plug the power cord into the AC outlet.

#### ② VOLUME (+/-) Level

Press these buttons to adjust the sound level. The volume level will be displayed on the TV screen. These buttons also serve as the CURSOR left ( $\blacktriangleleft$ ) and right ( $\blacktriangleright$ ) buttons when in the MENU system.

#### **③ CHANNEL Selector**

Press these buttons until the desired channel appears in the top right corner of the TV screen. These buttons also serve as the CURSOR down (▼) and up (▲) buttons when in the MENU system.

#### **4** MENU Button

This button allows you to enter the MENU, making it possible to set TV features to your preference without using the remote control. This button also serves as the Return button when in the MENU system.

#### (5) INPUT Button

Press this button to access the INPUT menu.

#### **6 POWER Light Indicator**

To turn the TV ON, press the (0/1) POWER button ((1)). A blue indicator lamp located on the lower right corner of the front bezel illuminates to indicate the TV power is ON.

Indicating Lamp	Power Status	Operating
Lights Red	OFF (Stand-by)	When the LCD TV is plugged to the AC outlet.
Lights Blue	ON	TV Power is ON; picture is shown.
Quickly Blinking Red	ON	The TV is powering OFF. It will soon be in the Off (Stand-by) state.

#### **REMOTE CONTOROL Sensor**

Point your remote control at this area when selecting channels, adjusting volume, etc.

#### 8 LIGHT Sensor

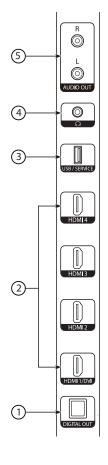
This area detects ambient light level for automatic screen brightness control.

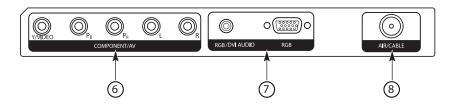
#### ACCENT LIGHT

The Accent Light illuminates when the TV is turned on. The brightness can be adjusted or it can be turned off. (See page 38.)



- Your Hitachi LCD TV will not show any picture if there is no video input when HDMI 1/DVI, HDMI 2 ~ HDMI 4, Component, or AV is selected. Instead, a message will indicate "No Signal", and the Power Light will remain Blue until the TV is turned off or in Stand-by mode (lights red) when not in use.
- The remote control can turn the TV On/Off as well as control various devices and any compatible HDMI CEC devices.
- Please do not put anything around the remote control sensor.





#### ① DIGITAL OUT (Optical Digital Audio)

This jack provides Digital Audio Output for your audio device that is RAW and PCM compatible, such as an audio amplifier.

NOTE

The Digital Output option will grayout with all input sources, except with a digital program channel on the AIR/CABLE input source.

#### ② HDMI 1/DVI, HDMI 2 ~ HDMI 4

Use these side HDMI inputs for AV device such as set top boxes or DVD players equipped with an HDMI output connection (see page 14 for reference).

#### 3 USB MULTIMEDIA/SERVICE Slot

This USB slot is for use with the multimedia feature and future software upgrades.

#### **4** HEADPHONE Jack

Use this jack to connect headphones.

#### **5** AUDIO OUT Jack

This jack provides stereo audio output from your TV to your audio device, such as an audio amplifier.

## © COMPONENT/AV: Y-PbPr Video and Audio L/R Inputs

Component/AV provide Y-PbPr and Audio jacks for connecting device with this capability, such as a DVD player or set top box.



- Your component outputs may be labeled Y, B-Y, and R-Y. In this case, connect the components B-Y output to the TV's Pb input and the components R-Y output to the TV's Pr input.
- Your component outputs may be labeled Y-CbCr. In this case, connect the component Cb output to the TV's Pb input and the component Cr output to the TV's Pr input.
- It may be necessary to adjust Tint to obtain optimum picture quality when using the Y-PbPr inputs (see page 31).

#### ⑦ RGB (PC and AUDIO IN)

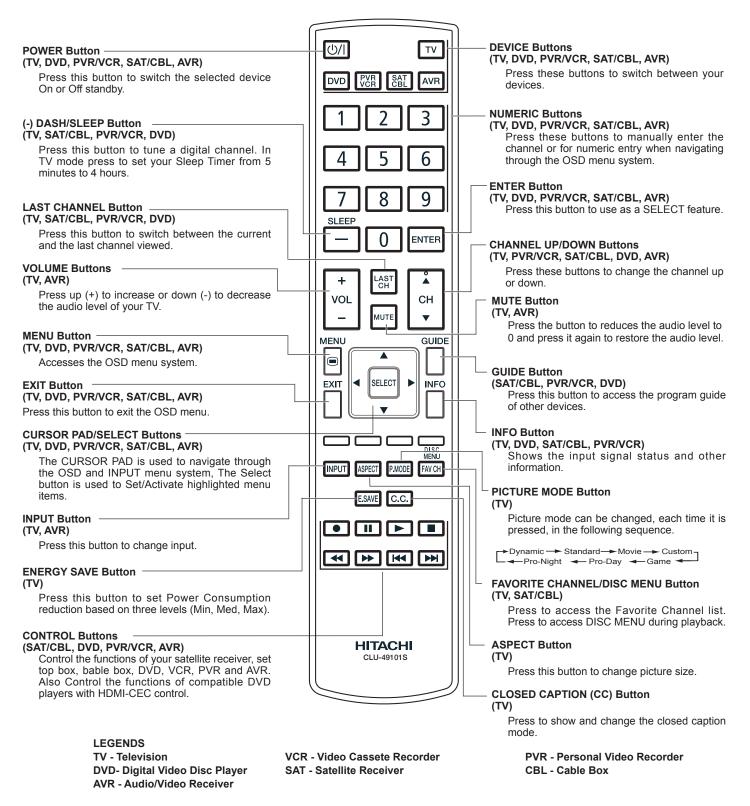
Video input from PC. Audio input from PC or DVI.

#### (8) AIR/CABLE Terminal

To switch between Cable and Air, go to the Channels Menu option to change the signal source Cable or Air (see page 40).

## **Quick Reference Remote Control Buttons And Functions**

In addition to controlling all of the functions on your Hitachi LCD TV, the new remote control is designed to operate different types of devices, such as, DVD Players, cable boxes (CBL), set top boxes, satellite receivers (SAT), VCRs and compatible HDMI CEC DVD Players. The remote control must be programmed to control the chosen device. Please see pages 22~27 for a complete description of all features and programming of the remote control.



## NOTES

- The TV's remote control sensor is located on the right bottom corner of the TV frame. To control TV functions, please point
  the remote control directly at the sensor for best results.
- The pause button "II "on the remote control can be used to freeze the picture on the screen, in case this button is pressed by accident, please press it one more time to restore the moving picture.
- For HDMI CEC details, please see page 38.

## **Quick Setup Guide**

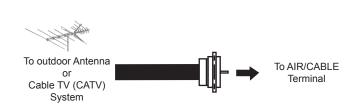
Perform the following steps to quickly setup your new Hitachi LCD Television Set.

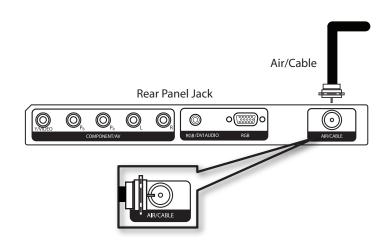
#### 1. ANTENNA CONNECTION

Unless your LCD Television is connected to a cable TV system or to a centralized antenna system, a good outdoor color TV antenna is recommended for best performance. However, if you are located in an exceptionally good signal area that is free from interference and multiple image ghosts, an indoor antenna may be sufficient.

#### VHF (75-Ohm) antenna/CATV (Cable TV)

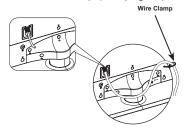
When using a 75-Ohm coaxial cable system, connect the CATV coaxial cable to the AIR/CABLE (75-Ohm) terminal. Or if you have an antenna, connect the coaxial cable to the same AIR/CABLE terminal.



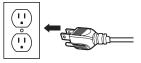


#### 2. CONNECT YOUR NEW HITACHI LCD TV TO THE POWER SOURCE

a). Secure it with the Wire Clamp (see page 7) .



b). Connect the power cord to the AC outlet.



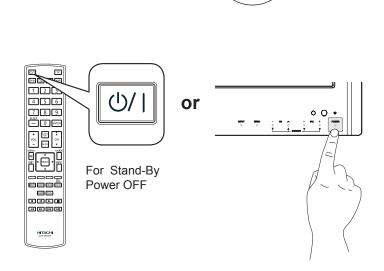
#### 3. POWER ON/OFF YOUR NEW HITACHI LCD TV

Press the POWER button on the remote control or the POWER button on the Front Control Panel to power on/off the LCD TV.



If the Indicating lamp is off, the POWER button on the remote control will not operate. Please make sure that the power cord is plugged to the AC outlet. c). The Indicating Lamp will light red (Standby mode) and then light blue (picture is shown).

Indicating Lamp



#### 4. FOLLOW THE TV SETUP WIZARD INSTRUCTIONS ON NEXT PAGE

## TV Setup Wizard

Your Hitachi LCD television has a TV Setup Wizard feature which has the ability to help you easily setup the first time you turn on your TV and find the channels available in your area. Please follow the instructions below.

The first time you turn on your Hitachi LCD TV, the Energy Savings Initial settings screen will appear. Please select either Home or Retail mode settings to advance to the TV Setup Wizard screen. If you select Home mode, this will save energy, and is intended for home use. Retail mode will set the Picture to Dynamic default settings and the picture will be brighter. This setting is intended for showroom and shop use. If later you want to change the Energy Savings Initial Settings, you can use the Setup menu (refer to page 37).

Setup Wizard (1/8)
Please select Home/Retail ...
Home
Retail
Home mode default settings are recommended for in-home use. ENERGY STAR equalified.
Retail mode is introded for in-5ore display and resets video settings at AC Power On.

NOTE

Retail mode is intended for showroom or shop use. If you make adjustment changes in this mode, they will not be saved when TV's AC power is lost (e.g. power cord unplugged).

The TV Setup Wizard screen automatically starts after the Energy Savings Initial Settings the first time the TV is turned on.

The second step is to set the language of your TV On Screen Menu. Select the language that you prefer. Use the CURSOR PAD  $\blacktriangle$  or  $\blacktriangledown$  to select language and press the SELECT button on the remote control.



The third and fourth steps are to set the date and time. There are two options; one for automatic time setting in which you will select only the time zone in your area and the second option is a manual setup for the date and time. Use the CURSOR PAD to select and change the options with the remote control.





The fifth step is designed to find broadcasting or cable channels. There are two options, Air for an external antenna and Cable for a cable system provider in your home. Use the CURSOR PAD ▲ or ▼ to select a source and press the SELECT button on the remote control.



The sixth step will start the scanning feature to find the channels available on the antenna or cable system. Press the SELECT button on the remote control to start the channel scan.



The seventh step is the channel scanning process, it shows the scan of digital channels first and then the analog channels next. The scanning process will show how many channels have been found. Please be patient while the scanning process searches for the available channels in your area. If you wish to cancel the process, press the SELECT button on the remote control.



NOTES

- Once the user cancels the wizard, the wizard will not be shown again.
- If you see the screen above and if you did not connect your antenna cables to your TV, turn off your TV, unplug the power cord and connect your cables according to the applicable connections in the "First Time Use" section of this Owners Guide.
- After completing the TV Setup Wizard, these screens will not appear again. For updating and adding the channels available in your area refer to the Add Channels to List feature on page 40.

The last step is the completion of process, it shows a brief message and you are ready to view TV programing. This final message will be shown for a few seconds and then the first detected channel will be tuned in. You may also press EXIT button on the remote control to tune to the first detected channel.



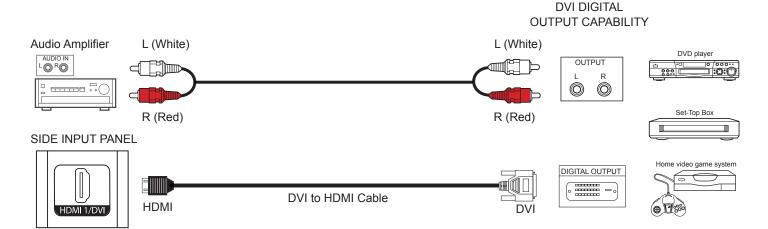
## **Side Panel Connections**

The following connection diagrams are offered as suggestions. However, you may need to modify them to accommodate your particular assortment of devices and features. For best performance, video and audio cables should be made from coaxial shielded wire. There are four SIDE panel HDMI jacks provided as a convenience to allow you to easily connect HDMI or DVI signals from a DVD, set top box, Video Game as shown in the following examples (When a DVI product is connected, the use of a separate audio device is necessary for audio, use an Audio Amplifier and connect to the Audio In jacks).

#### A) CONNECTING HDMI SIGNAL



#### **B) CONNECTING DVI SIGNAL**



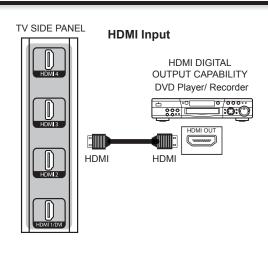
## **Side Panel Connections**

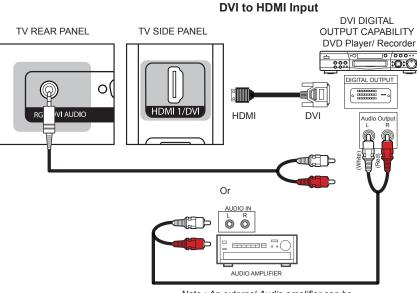
## CONNECTING A DEVICE WITH HDMI OR DVI CAPABILITY TO HDMI 1/DVI, HDMI 2 ~ HDMI 4

- Connect the HDMI or DVI to HDMI connection cable from the output of the HDTV set top box or DVD player to the HDMI input as shown near the side panel at right.
- With DVI output devices, connect a DVI to HDMI cabel to the HDMI 1/DVI input. Connect the audio out cable to DVI Audio Input or connect the audio cables from the Audio output jack from the HDTV set top box or DVD player to an external audio amplifier as shown to the right.
- 3. Press the INPUT button, then select HDMI 1 or 2 to view the program from the HDTV set top box or DVD player.



- Completely insert the connection cord plugs when connecting to the rear panel jacks. If you do not, the picture and/or sound may be abnormal.
- When using a DVI to HDMI cable, connect the Audio Out L and R cables to an external audio amplifier.
- The HDMI input on HDMI 1, 2, 3 and 4 contains the copy protection system called High-bandwidth Digital Content Protection (HDCP). HDCP is a cryptographic system that encrypts video signals when using HDMI connections to prevent illegal copying of video contents.
- HDMI is not a "NETWORK" technology. It establishes a one-way, point-to-point connection for delivery of uncompressed video to a display.
- The connected digital output device controls the HDMI interface, so proper set-up of device user settings determines final video appearance.
- Only HDMI 1 can support DVI audio input.





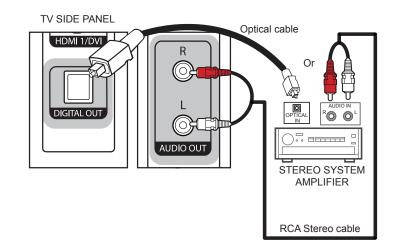
Note: An external Audio amplifier can be used for the same purpose.

#### **CONNECTING AN EXTERNAL AUDIO AMPLIFIER**

To monitor the audio level of the LCD TV to an external audio amplifier, connect the system as shown on the right. The DIGITAL OUT and AUDIO OUT from the Side Panel is a fixed output. The Volume of the amplifier is controlled by the amplifier, not by the LCD Television.

The DIGITAL OUT jack outputs all audio sources to device with Optical IN capability.

- Connect an optical cable from the DIGITAL OUT to the OPTICAL IN of a separate Stereo System Amplifier as shown on the Side Panel on the right.
- Connect an RCA stereo cable from the AUDIO OUT to the Audio input of a separate Stereo System Amplifier as shown on the Side Panel on the right.



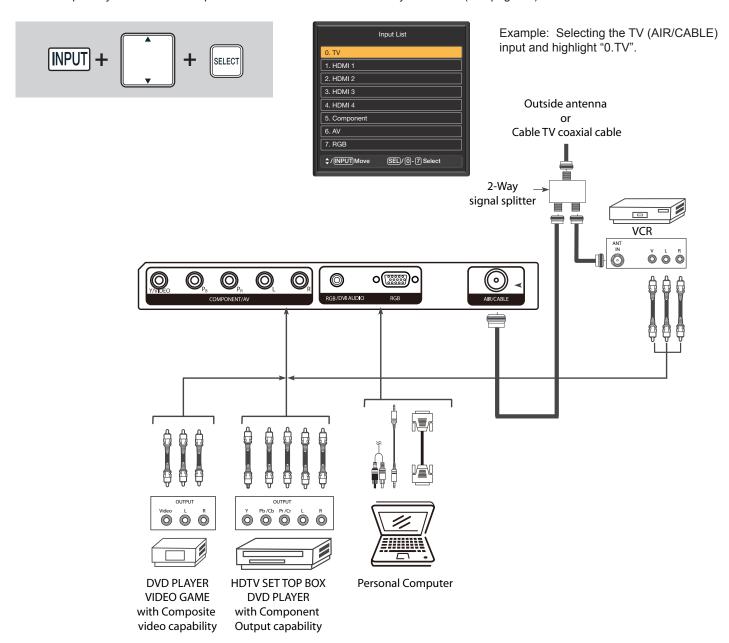


- Completely insert the connection cord plugs when connecting to rear panel jacks. If you do not, the picture and/or sound may be abnormal.
- Cable plugs are often color-coded. Match colors of plugs and jacks, i.e. connect red to red, white to white, etc.
- To return to the last channel viewed, select "0.TV" from the INPUTS menu.

### **Rear Panel Connections**

#### **Before Operating External Video Devices**

Connect an external device to one of the input jacks, then press the INPUT button to show the Inputs List. Use the CURSORS (▲ and ▼) to select the input of your choice. Then press the SELECT button to confirm your choice (see page 19).



NOTE

Cables are not included.

#### **TIPS ON REAR PANEL CONNECTIONS**

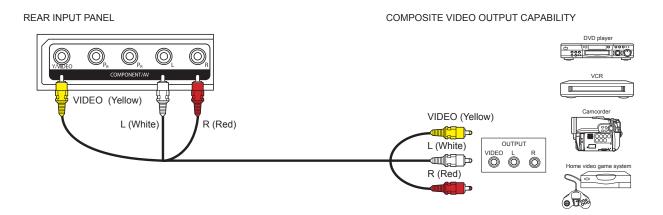
- COMPONENTY-PbPr connection is provided for high performance DVD players, VCRs etc. that have this feature. Use these connections in place of the standard video connection if your device has this feature.
- For additional information on connecting your other electronic devices, please refer to the device's owners guide.
- Your component outputs may be labeled Y, B-Y, and R-Y. In this case, connect the components B-Y output to the TV's P<sub>b</sub> input and the components R-Y output to the TV's P<sub>r</sub> input.
- ♦ Your component outputs may be labeled Y-CbCr. In this case, connect the devices Cb output to the TV's Pb input and the devices Cr output to the TV's Pr input.
- ♦ It may be necessary to adjust TINT to obtain optimum picture quality when using the Y-P<sub>b</sub>Pr inputs. (See page 31).
- When using a HDMI input from a set top box, it is recommended to use a 1080p, 1080i or 720p input signal.
- When the HDMI input is a 1080p signal, it is recommended that the length of the cable should be less than 5 meters.



- Completely insert all connection cord plugs when connecting to rear panel jacks. The picture and sound that is played back will be abnormal if the connection is loose.
- · Cable plugs are often color-coded. Match colors of plugs and jacks, i.e. connect red to red, white to white, etc.

### **Rear Panel Connections**

The REAR panel VIDEO and L/R AUDIO jacks are provided as a convenience to allow you to easily connect a Camcorder, DVD, Video Game and a VCR as shown in the following examples.





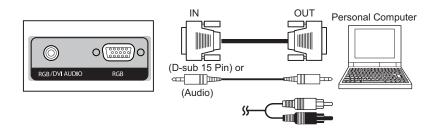
- Completely insert connection cord plugs when connecting to side panel jacks. If you do not, the picture and/or sound may be abnormal.
- · Cable plugs are often color-coded. Match colors of plugs and jacks, i.e. connect red to red, white to white, etc.
- When making video connections, connect S-Video only or Video only. If both are connected, S-Video takes priority.

The exact arrangement you use to connect the VCR, Camcorder, DVD player, or HDTV set top box to your LCD TV is dependent on the model and features of each device. Check the owners guide of each device for the location of video and audio inputs and outputs.

#### **CONNECTING A PERSONAL COMPUTER**

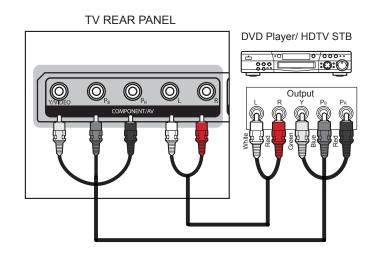
Use the RGB PC connection jack and the Analog Audio Input jacks to connect the PC.

- Connect the RGB (D-sub 15 Pin) and AUDIO cable from the RGB and AUDIO OUT jack of the PC to the RGB and AUDIO jack, as shown on the Side Panel on the right.
- Press the INPUT button, then select RGB from the INPUTS menu to view the signal from the PC.



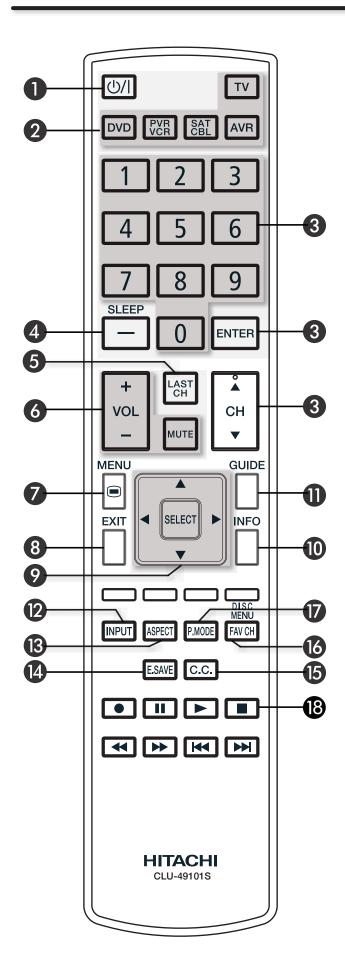
## CONNECTING A DEVICE AND STEREO AUDIO DEVICE TO COMPONENT/AV

- Connect the Y, Pb/Cb, Pr/Cr and AUDIO cables from the Y, Pb/Cb, Pr/Cr OUT and AUDIO OUT jacks of the DVD PLAYER or HDTV set top box to the COMPONENT/AV jacks. A DVD connection to Rear Panel COMPONENT/AV example is shown on the right.
- Press the INPUT button, then select COMPONENT from the INPUTS menu to view the program from the DVD player or HDTV set top box.



## NOTES

- Completely insert the connection cord plugs when connecting to rear panel jacks. If you do not, the picture and/or sound
  may be abnormal.
- · Cable plugs are often color-coded. Match colors of plugs and jacks, i.e. connect red to red, white to white, etc.
- To return to the last channel viewed, select "0.TV" from the INPUTS menu.



#### POWER Button

Press this button to turn the TV set on or off.

#### 2 DEVICE Buttons

In addition to controlling all the functions on your Hitachi LCD TV, the new remote control is designed to operate different types of VCRs, cable boxes, set top boxes, satellite receivers, DVD players, and other audio/video device with one touch. Basic operation buttons are grouped together in one area.

To operate your LCD TV, select TV by pressing the TV button on the remote control. The TV mode indicator will blink, indicating that the remote control will now control your television. Repeat the same procedure for other devices. Press the DVD button for DVD players, press the PVR/VCR button for personal video recorders, press the SAT/CBL button for satellite/cable

boxes, and press the AVR button for audio video recievers. See pages 22~27 for instructions on how to program the remote control to control your device.

#### **3** CHANNEL SELECTOR/ENTER Buttons

The CHANNEL SELECTOR buttons are used to select channels, lock access code, etc. Use the CHANNEL SELECTOR buttons to enter one, two, or three numbers to select channels. Enter 0 first for channels 1 to 9, or simply press the single digit channel you wish to tune, then press the ENTER button for the TV to tune. Channel selection may also be performed by CHANNEL (CH) UP ( $\blacktriangle$ ) or CHANNEL (CH) DOWN ( $\blacktriangledown$ ).

#### 4 (-) DASH/SLEEP Button

Use the (-) DASH button with the CHANNEL SELECTOR buttons to enter Digital Channels that have subchannel numbers indicated by (-) DASH (example 15-1). Also press to Set the Sleep Timer from 5 minutes to 4 hours.

#### **5** LAST CHANNEL (LAST CH) Button

Press this button to toggle between the current and last channel viewed.

#### **6** VOLUME (VOL), MUTE Button

Press the VOLUME button (+ or -) until you obtain the desired sound level.

Press the MUTE button to turn the sound off completely (MUTE). To restore the sound, press the MUTE button one more time, or VOL UP (+).





Closed Captioning will display automatically when MUTE is on and Closed Caption is set to With Mute (see page 37).

When the TV power is turned off at a volume level 21 or greater, the volume level will default to 20 when the TV is turned on. However, if it is set to a level 20 or less, the volume level will be at the level it was set when the TV was turned off.

#### MENU Button

The MENU button will start the On-Screen Display.

#### EXIT Button

This button will exit all On-Screen Displays.

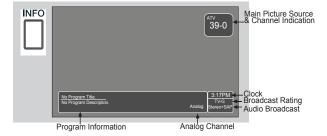
#### CURSOR PAD/SELECT Button

All the On-Screen Display features can be set or adjusted by using the CURSOR PAD and the SELECT button, except for numeric entries. Press the CURSOR PAD toward desired direction and press the SELECT button to select.

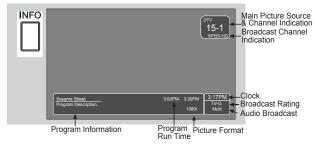
#### **1NFO** Button

Press this button when you want to check the channel being received, the picture source, if the channel has stereo (ST) or second audio program (SAP), the time, and CHANNEL ID.

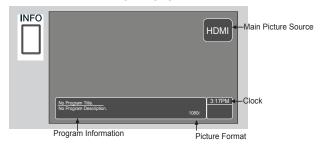
#### **ANALOG CHANNELS**



#### **DIGITAL CHANNELS**



#### **VIDEO INPUTS**



### NOTES

- Press the INFO button again or the EXIT button to return to normal viewing.
- The Aspect INFO will not be shown when the INFO button is pressed.

#### **①** GUIDE Button

Press this button to access the Channel Guide of your satellte receiver, set top box or cable box while in SAT/CBL mode.

#### INPUT Button

Press this button to access the INPUTS menu. Use the CURSOR and SELECT buttons to select the desired input. Pressing the INPUT button repeatedly will also cycle through the inputs that are available. Then press the SELECT button or wait 4 seconds to automatically select the highlighted input.





0. TV Watch TV from an Air or Cable signal.

HDMI 1 Select to choose HDMI 1 Input.

2. HDMI 2 Select to choose HDMI 2 Input.

3. HDMI 3 Select to choose HDMI 3 Input.

4. HDMI 4 Select to choose HDMI 4 Input.

5. Component Select to choose Component Input.

6. AV Select to choose AV Input.

RGB Select to choose PC input

## NOTE

The inputs that do not have any device connected to them will be unavailable (grayed out). Depending on the device, it may be required to turn on the device for the TV to recognize it is available. You can access these grayed-out inputs by using the cursor or number buttons on the remote control.

#### ASPECT button

Press this button to quickly change the picture format ASPECT ratio. Depending on the picture format, ASPECT allows you to adjust the image through the following options.

#### Auto

Use this aspect mode to have the aspect mode change automatically by signal detector.

#### 4:3

Use this aspect mode to display conventional (4:3) images. Side panels (black areas) are placed to the left and right of the image to preserve the original aspect ratio of the source.

#### 16:9

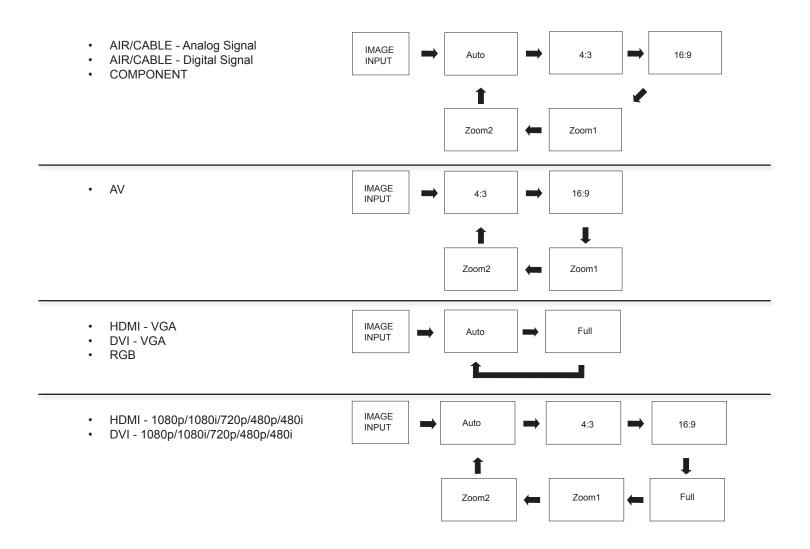
Use this aspect mode to display 16:9 sources like HDTV and DVD's preserving the original 16:9 aspect ratio showing 95% of the size.

#### Full

Use this aspect mode to display 16:9 sources like HDTV and DVD's preserving the original 16:9 aspect ratio showing 100% of the size.

#### Zoom1/Zoom2

Use these aspect modes to zoom in and to reduce the black bars.



### NOTES

- Each input has memory for the Aspect setting. Changing the aspect on one input will not affect the aspect settings on other inputs.
- When displaying "Full" you may notice noise at the top of the picture. Select the "16:9" aspect mode to remove the noise. The noise is normal for some signals.
- See page 55 for Aspect availability according to signal format in use.

#### ENERGY SAVE (E.SAVE) Button

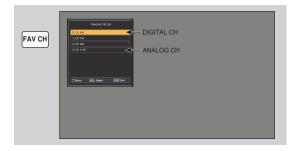
Use this button to choose power consumption reduction settings based on 3 levels (Min, Medium, Max). See page 37 for further details.

#### **(b)** CLOSED CAPTIONS (C.C.) Button

Use this button to display the dialogue, narration, and/or sound effects of a television program or home video which are displayed on the TV screen when available. Your local TV program guide denotes these programs as CC or ......

#### **10** FAVORITE CHANNEL (FAV CH)/DISC MENU Button

Press the FAV CH button to display the Favorite CH List. You have to first setup the Favorite Channels in the Channels Menu in order display the list. Press the FAV CH button on the remote control to display the list and select the desired channel using the CURSOR PAD and then press SELECT to view. Also press to access DISC MENU during playback disc on DVD with CEC option connected to HDMI input.



NOTE

Depending on the disc, the DISC MENU may not be available.

#### PICTURE MODE (P.MODE) Button

Press this button to toggle between Dynamic, Standard, Movie, Custom, Game, Pro-Day and Pro-Night picture mode settings. Select Dynamic mode for automatic brightness and contrast adjustment. Select Standard mode for day time viewing with more brightness and contrast to compete with room light. Select Movie mode for viewing with less brightness and contrast for a more detailed picture. Select Custom mode for viewing with your own brightness and contrast picture settings. Game mode is for automatic brightness and contrast adjustment when playing video games. Pro modes are for your custom calibration settings. (see page 30 for setting changes).

#### DEVICE CONTROL Buttons

These buttons can control external devices (i.e. PVR/VCR, DVD, etc.) directly depending on the device mode set on the remote control. Also, these buttons are for controlling devices with Consumer Electronics Control (CEC) through the HDMI connection like Blu-Ray or DVD players, PVR. set top box while in TV mode.



For some devices, these buttons are not available to control through the TV and HDMI connection; please refer to the device's owners guide for more information.

#### OPERATING THE PRECODED FUNCTIONS FOR YOUR AV DEVICE.

The new remote control is designed to operate different types of VCRs, cable boxes, set top boxes, satellite receivers, DVD players, and other audio/video device. You must first program the remote control to match the remote control system of your AV device (refer to pages 26~27 for a preprogrammed code number).

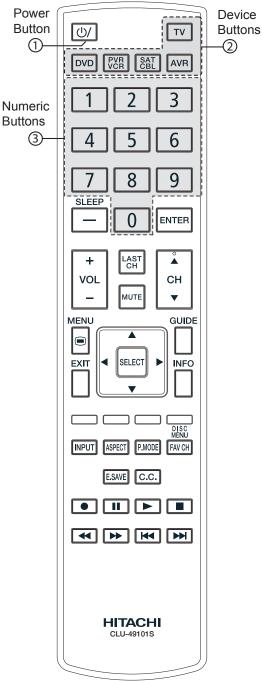
#### AV DEVICE CONTROL SETUP PROCEDURE

- 1. Turn on your AV Device.
- Select the desired mode: DVD, PVR/VCR, SAT/CBL or AVR by pressing the corresponding button.
- Hold down the device button (DVD, PVR/VCR, SAT/CBL or AVR) on the remote control and enter the four digit preset code that matches your device as shown on pages 26~27.
- 4. Release the device button.
- If done correctly, the device LED indicator will blink 3 times to confirm proper setup.
- 6. The remote control will now control the desired device.

#### SETUP EXAMPLE (Hitachi Cable Box with precode 0003)

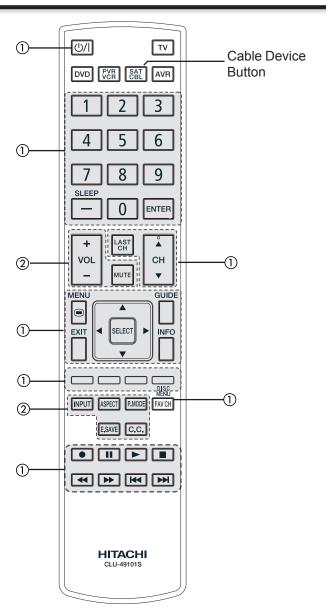
- Turn ON your cable box.
- Select cable mode by using your SAT/CBL button to position the LED indicator on SAT/CBL.
- 3. Hold down the SAT/CBL button on the remote control and press the numbers 0, 0, 0 and 3.
- 4. Release the SAT/CBL button.
- 5. The indicator light will flash 3 times if the code was accepted.
- 6. Aim the remote control at the cable box and press the POWER button. The remote control will turn off your cable box when the correct four digit preset code is entered. When this occurs, the remote control is programmed for your cable box. If the cable box does not turn off, try a different four digit preset code.
- 7. The remote control will now control your cable box.

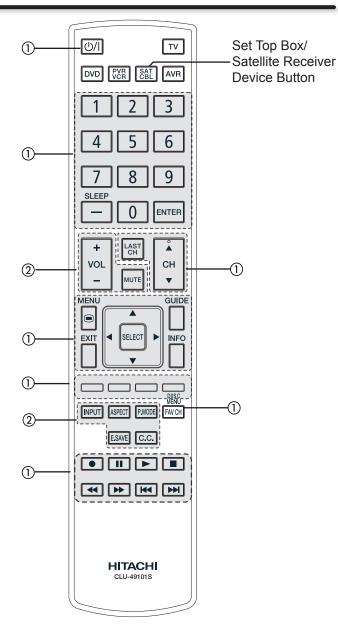
Repeat the same procedure for your set top box or satellite receiver (select SAT/CBL), your DVD (select DVD), your VCR/PVR(select VCR/PVR), or your AVR (select AVR).





- If your AV device cannot be operated after performing the above procedures, your AV device code has not been preprogrammed into the remote control.
- In the unlikely event that your AV device cannot be operated after performing the above procedures, please consult your AV device owners guide.
- The remote control will remember the codes you have programmed even after the batteries are removed from the remote control. To reset all programmed codes to factory default place remote control in TV mode, then press and hold TV mode button and enter "9", "8", "1" in sequence.





#### **MY CABLE BOX CODE IS:**



Refer to the instruction manual of the cable box for operation of the buttons exclusively for the cable box.

#### 1) PRECODED CABLE BOX Buttons

These buttons transmit the chosen precoded cable codes :

-Power -Cursor & Select -Number PAD
-Menu -Info -Enter
-Exit -Channel Up & Down -Dash (-)
-Guide -Last CH -Fav CH
-Play, Stop, Pause, RWD, FWD, Skip
FWD, Skip RWD, Record. -Color Buttons

### ② EXCLUSIVE TV Buttons

These buttons are for operating the TV:

-P. Mode -CC -Input -Aspect -Vol Up & Down -Mute

-E. Save

## MY SET TOP BOX/SATELLITE RECEIVER CODE IS:

NOTE

Refer to the instruction manual of the set top box/satellite receiver for operation of the buttons exclusively for the set top box/satellite receiver.

#### ① PRECODED SET TOP BOX/SATELLITE Buttons

These buttons transmit the chosen precoded *set top box/ satellite receiver* codes :

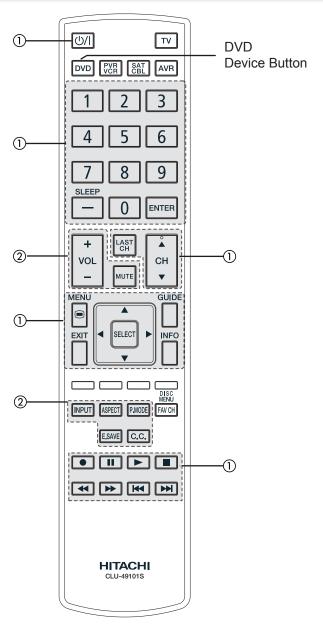
-Power -Cursor & Select -Number PAD
-Menu -Info -Enter
-Exit -Channel Up & Down -Dash (-)
-Guide -Last CH -Fav CH
-Play, Stop, Pause, RWD, FWD, Skip
FWD, Skip RWD, Record. -Color Buttons

#### ② EXCLUSIVE TV Buttons

These buttons are for operating the TV:

-P. Mode -CC -Input -Aspect -Vol Up & Down -Mute

-E. Save



#### **MY DVD PLAYER CODE IS:**



Refer to the instruction manual of the DVD Player for operation of the buttons exclusively for the DVD Player.

#### **PRECODED DVD Buttons**

These buttons transmit the chosen precoded DVD codes:

-Play, Stop, Pause, -Power -Number PAD RWD, FWD, Skip -Menu -Info FWD, Skip FWD -Channel Up & Down

Select -Record -Exit Guide -Dash -Enter

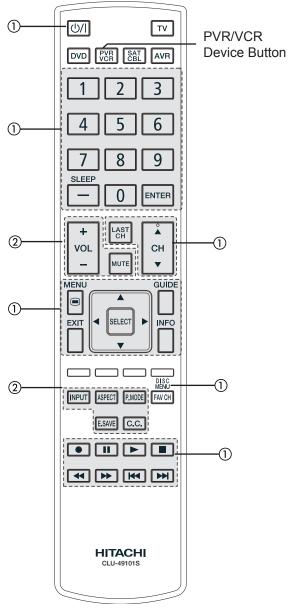
#### **EXCLUSIVE TV Buttons**

These buttons are for operating the TV:

-P. Mode -CC -Input -Mute -Aspect -Vol Up & Down

-E. Save

-Cursor &



#### **MY VCR/PVR CODE IS:**



Refer to the instruction manual of the PVR/VCR for operation of the buttons exclusively for the PVR/VCR.

#### ① PRECODED VCR/PVR Buttons

These buttons transmit the chosen precoded VCR/PVR codes:

-Power -Cursor & Select -Enter -Menu -Channel Up & Down -Dash(-) -Play, Pause, -Exit -Number PAD Stop, FWD, -Info -Last CH Skip FWD -RWD, Skip RWD -Record

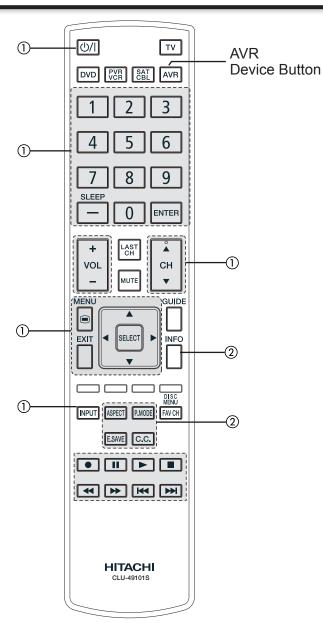
-FAV CH (Only for VCR)

#### **② EXCLUSIVE TV Buttons**

These buttons are for operating the TV:

-Input -P. Mode -CC -Aspect -Vol Up & Down -Mute

-E.Save



## MY AUDIO/VIDEO RECEIVER (AVR) CODE IS:



Refer to the instruction manual of the AVR for operation of the buttons exclusively for the AVR.

#### ① PRECODED AVR Buttons

These buttons transmit the chosen precoded AVR codes:

-Power -Cursor & Select -Vol Up & Down

-Menu -Channel Up & Down -Mute

-Exit -Number PAD -Play, Pause, Stop, RWD, Skip RWD, FWD, Skip FWD,

-Enter

#### ② EXCLUSIVE TV Buttons

These buttons are for operating the TV:

-P. Mode -CC -Aspect

-E.Save -Info

## **Remote Control Codes**

CABLE Brand	CODES	CROSSDIGITAL	1109	ADVENTURA	0037,0240,0000	INSTANT	0035	QUARTZ	0035,0047,0046
A-MARK ABC	0008,0144 0237,0003,0008	DIRECTV	1377,0392,0566 0639,1639,1142	ADYSON AIKO	0072 0278	REPLAY ITT NOKIA	0240,0041	QUASAR	0035,0162,0002 1162
ACCUPHASE	0003		0247,0749,1749 0819,1856,1076	AIWA AKAI ALBA	0037,0000,0124 0041,0175 0209,0072,0278	JANEIL JENSEN JVC	0240 0067,0041 0067,0041,1162	RADIOSHACK	0035,0162,0037 0048,0047,0240 0000,0104,0046
ACORN ACTION	0237 0237		1108,0099,1109 1392,1414,1442	ALIENWARE ALLEGRO	1972 0039	KEC KENWOOD	0037,0278 0067,0041,0038	RADIX	1037,1162 0037
ACTIVE	0237	DISH	1443,1609,1640 1505,1005,0775	AMERICA ACTION AMERICAN HIGH	I 0278 0035,0081	KLH	0046 0072	RANDEX RCA	0037 0060,0035,0048
ADB ARCHER	2092,2586 0237	NETWORK SYSTEM	1170,1775	AMSTRAD ASHA	0000 0240	KODAK KTV	0035,0037 0000		0240,0045,0000 0042,0065,0105
BCC BRITISH	0276 0003	DISHPRO	1505,1005,0775 1775	ASTRA AUDIOVOX	0035,0081 0000	LG	0037,0240,0038 1037	REALISTIC	0880 0035,0162,0037
TELECOM	0008	ECHOSTAR	1505,1005,0775 1170,1775	AVIS BEAUMARK BELL & HOWELL	0000,0072 0240 0035.0048.0039	LINKSYS LLOYD'S	1972 0240,0000,0072		0048,0047,0240 0000,0104,0121
DIGEO	1187,2187	EXPRESSVU FORTEC STAR	0775,1775 1821	BLLE & HOWLLE	0000,0104,0046 0479	LOEWE LOGIK	0038 0081 0240,0000,0072	DEDLAY TV	0278,0046,0065 1162 0614.0616
DIGI DIRECTOR	0637 0476	FUNAI	1377	BROKSONIC	0184,0121,0209 0002,0479	LUMATRON LUXOR	0278 0046	REPLAY TV RICAVISION RUNCO	1972 0039
DUMONT FOSGATE	0637 0276	GE GENERAL	0392,0566 0869	CALIX CANDLE	0037 0037,0038	LXI	0037,0000,0042 0067	SAMSUNG	0060,0240,0045 0000,0038,0432
GE	0144	INSTRUMENTS GOI	0775,1775	CANON CAPEHART	0035 0002	M ELECTRONIC MAGNASONIC	0037,0240,0000	SAMTRON	0739 0240
GENERAL INSTRUMENT	0476,0810,0276 0003	HITACHI HOUSTON	0749,0819,1250 0775	CARRERA CARVER	0240 0035,0081	MAGNAVOX	0072,0278 0035,0037,0048	SANKY SANSUI	0048,0039 0240,0000,0067
GIBRALTER GOLDSTAR	0003 0144	HTS	0775,1775	CCE CINERAL CITIZEN	0072,0278 0278 0035,0037,0240		0039,0081,0240 0000,0563,0618		0209,0041,0072 0002,0479
HITACHI INSIGHT	0003,0008 0476,0810	HUGHES NETWORK SYSTEMS	1142,0749,1749 1442,1443	OMZEN	0000,0209,0278 0479	MAGNIN MARANTZ	1593 0240 0035,0081,0038	SANYO	0047,0240,0000 0104,0046,0159
JERROLD	0476,0810,0276 0003	INNOVA	0099	CLASSIC COLORTYME	0037 0060,0035,0045	MARTA MATSUI	0037 0037,0209	SCOTT	0479 0184,0045,0121 0043
MEMOREX MITSUBISHI	0000	JERROLD JVC	0869 0775,1170,1775	COLT	0278 0000,0072	MATSUSHITA	0035,0162,0081 1162	SEARS	0060,0035,0162 0037,0048,0039
MOTOROLA	0003 1376,0476,0810	LG MAGNAVOX	1414 0722	CRAIG	0037,0047,0240 0072	MEDIA CENTER PC			0047,0033,0045 0000,0042,0104
	0276,1187,1254 1106	MCINTOSH	0869	CRITERION CROSLEY CROWN	0000,0072 0035,0081,0000 0072,0278	MEI MEMOREX	0035 0035,0162,0037		0067,0043,0209 0041,0072,0046
NOVA VISION NOVAPLEX	0008 0008	MITSUBISHI MOTOROLA	0749 0869,0856	CURTIS MATHES	0072,0278 0060,0035,0162 0240,0000,0041		0048,0039,0047 0240,0000,0104	SHARP	0065,0105 0048,0047,0032
NSC PACE	0637 1877.0877.0237	NETSAT NEXT LEVEL	0099 0869	CYBERNEX	0278,0432 0240		0209,0072,0278 0046,0479,1037 1162	SHINTOM	0000,0065,0848 0039,0240,0000
PANASONIC	0008 0000,0008,0144	PANASONIC PANSAT	0247,0701 1807	CYBERPOWER DAEWOO	1972 0037,0045,0278	METZ MGA	0037 0060,0240,0043	SHOGUN SIEMENS	0072 0240 0037,0104
PANTHER	0637	PHILIPS	1142,0749,1749 0775,0819,1076	DAYTRON	0046 0037,0278	MGN TECHNOLOGY	0240	SIGNATURE	0060,0035,0037 0048,0000,0046
PARAGON PENNEY	0000,0008,0525 0000,0637	PIONEER	0722,0099,1442 1142,1442	DELL DENON DERWENT	1972 0081,0042 0041	MICROSOFT MIDLAND	1972 0240	SINGER	0065,0479 0037,0240,0072
PHILIPS PIONEER	1305,0317 1877,0877,0144	PRIMESTAR PROSCAN	0869 0392,0566	DIRECTV DUAL	0739 0000	MIND MINOLTA MITSUBISHI	1972 0042,0105 0060,0048,0047	SINGER SONIC BLUE SONOGRAPHE	0614,0616 0046
PULSAR	0533 0000	RADIOSHACK RCA	0566,0775,0869 0392,0566,1142	DURABRAND DYNATECH	0039,0038 0240,0000	WITSOBISHI	0000,0048,0047 0000,0042,0067 0043,0041	SONY	0035,0047,0032 0033,0000,0067
QUASAR REGAL	0000 0276	SAMSUNG	0775,0855,0143 1392,1442 1377,1142,1276	ELECTROHOME	0060,0037,0240 0000,0043,0209	MOTOROLA MOVIE WALKER	0035,0048	SOUNDMASTER	0046,0636,1032 1972 0000
RUNCO	0000	G/ III/G G/ 1/G	1108,1109,1442 1609	ELECTROPHONIC EMERALD EMEREX	0184,0121 0032	MTC MTX	0240,0000,0072 0000	STACK 9 STS	1972 0042,0105
SAMSUNG SASKTEL	0003,0144 1737	SKY SONY	0856,0099 0639,1639,1640	EMERSON	0037,0184,0240 0000,0121,0043	MULTITECH NAD	0039,0000,0072 0240,0104	SV2000 SVA	0000,0072 0000
SCIENTIFIC ATLANTA	1877,0877,0477 0237,0003,0000	STAR CHOICE STAR TRAK	0869 0869		0209,0002,0278 0479,1593	NEC NEW TECH	0104,0067,0041 0038 0072	SYLVANIA	0035,0081,0000 0043,1593
SONY	0008 1006	THOMSON TIVO TOSHIBA	0392,0566 1142,1442,1443 0749,1749,0790	FISHER	0039,0047,0000 0104,0046	NIKKO NIKKODO	0037,0278 0037,0278	SYMPHONIC SYSTEMAX	0240,0000,0002 1593
SPRUCER STARCOM	0144 0003	ULTIMATE TV ULTRASAT	1392,1640 1806	FUJI FUJITSU	0035,0033 0000	NISHI NIVEUS MEDIA	0240 1972	TAGAR SYSTEMS TANDY	1972 S 1972 0000,0104
STORM SUPERCABLE	0637 0276	UNIDEN VOOM	0722 0869	FUNAI	0037,0000,0072 0278,1593	NOBLEX NORTHGATE	0240 1972	TASHIKO TATUNG	0037 0048,0081,0000
TORX	0003	ZENITH	0856,1856,1810	GARRARD GATEWAY GE	0000 1972 0060,0035,0048	OLYMPUS ONKYO OPTIMUS	0035,0162,0104 0222 1062,0035,0162	TEAC	0067,0041 0000,0067,0041
TOSHIBA UNITED CABLE	0000 0276,0003	SAT/PVR COMBO	0775,1170	GEMINI	0240,0000,0065 0060	OF HIVIOS	0037,0048,0047 0240,0000,0104	TECHNICS	0035,0162,0037 0000
US ELECTRONICS	0276,0003,0008	BELL EXPRESSVU DIRECT TV	1377,0392,0639	GENEXXA GO VIDEO	0037,0000,0278 0240,0432,0526	ORION	0432,1048,1162 0184,0240,0000	TEKNIKA TELECORDER TELEFUNKEN	0035,0037,0000 0240 0041
VIDEOWAY ZENITH	0000 0000,0525	DIRECTIV	1142,1076,0099 1392,1442,1443	GOLDSTAR	0614 0035,0037,0039		0104,0121,0209 0002,0278,0479	TEVION THOMAS	0479 0000,0002
CABLE/PVR	CODES	DISH	1640 1505,0775	GOODMANS	0000,0278,0038 0037,0081,0000 0072.0278	PANAMA PANASONIC	0035 1062,0035,0162	THOMSON TISONIC	0060,0041 0278
COMBO DIGEO	1187,2187	NETWORK SYSTEM		GRADIENTE GRANADA	0072,0278 0000 0081,0042	PENNEY	0000,0225,0614 0616,1162 0035,0162,0037	TIVO	0618,0636,0739 1337
GENERAL	0810	DISH PRO ECHOSTAR	1505,0775 1505,0775,1170	GRUNDIG HARLEY DAVISON	0081	FEININET	0047,0081,0240 0000,0042,0067	TMK TNIX	0240,0000 0037
INSTRUMENTS JERROLD	0810	EXPRESSVU HUGHES NETWORK	0775 1142,1442,1443	HARMAN/ KARDON	0081,0038	PENTAX	0000,0042,0007 0038 0042,0065,0105	TOCOM TOSHIBA	0240 0240,0045,0000 0043,0209,0041
MOTOROLA	1376,0810,1187 1106	SYSTEMS JVC	1170	HARVARD HARWOOD	0072 0072	PHILCO	0035,0081,0000 0209,0479	TOSONIC	1008,1972,1988 0278
PACE PIONEER	1877,0237 1877,0877	MOTOROLA PHILIPS	0869 1142,1442	HEADQUARTER HEWLETT	0046 1972	PHILIPS	0035,0162,0048 0081,0045,0000	TOTEVISION TOUCH	0037,0240 1972
SASKTEL SCIENTIFIC	1737 1877,0877	PROSCAN RCA	0392 1392	PACKARD HI-Q HITACHI	0035,0047,0000 0035,0037,0045	DU OT	0209,0616,0618 0739,1081,1181	TRIX ULTRA	0037 0045,0278
ATLANTA SONY	•	SAMSUNG SONY STAR CHOICE	1442 0639,1640		0000,0042,0041 0065,0105	PILOT PIONEER	0037 0162,0081,0042 0067,1337	UNITECH VECTOR	0240 0045
SUPERCABLE	1006 0276	STAR CHOICE TIVO ZENITH	0869 1142,1442,1443 1810	HOWARD COMPUTERS	1972	POLK AUDIO PORTLAND	0067,1337 0081 0278	VECTOR RESEARCH VEXTRA	0184,0038
SATELLITE	CODES	VCR Brand	CODES	HP HUGHES	1972 0042,0739	PRESIDIAN PROFITRONIC	1593 0240	VICTOR VIDEO	0072 0067,0041 0045
BRAND (Set Top Box)		A-MARK	0037,0240,0000 0278,0046	NETWORK SYSTEMS HUMAX	0730 1707 1000	PROSCAN PROTEC	0060 0000,0072	CONCEPTS VIDEOMAGIC	0037
BELL EXPRESSVU	0775,1170	ABS ACCURIAN	1972 0000 0060 0048 0030	HUMAX HUSH HYTEK	0739,1797,1988 1972 0047,0000,0072	PROTECH PULSAR	0072 0039,0240,0278	VIDEOSONIC VIEWSONIC	0240,0000,0072 1972
CHAPARRAL COOLSAT	0216 1806,2147	ADMIRAL	0060,0048,0039 0047,0104,0209 0065,0479	IBUYPOWER	1972	PULSER QUARTER	0240 0046	VILLAIN VOODOO	0000 1972
			5555,577.5						

## **Remote Control Codes**

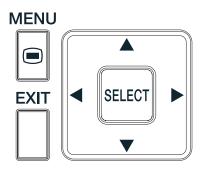
	0060,0035,0037 0048,0047,0081 0033,0240,0045	AMPHION MEDIA WORKS AMW		LITEON LOEWE	1058,1158,1416 1440 0741	VOCOPRO XBOX	1360 0522,2083	RCA REALISTIC REVOX	1023,1609,1390 1609,0121 0189
	0000,0042,0043	APEX DIGITAL	0872 0533,0672,1020	LOGIX	0783	YAMAHA	0490,0539,0545 0497	SAMSUNG	1304,1500,1868
	0041,0072,0038 0479,0065,0046		1056,1061	MAGNASONIC MAGNAVOX	0675 0503,0539,0646	YAMAKAWA	0872	SANGEAN SANSUI	2165 1189,0189
WHITE	0000,0209,0072	ARRGO ASPIRE	1023		0675,1354,1506	ZENITH	0503,0591,0741	SHERWOOD SIRIUS	1913 1602,1811
WESTINGHOUSE WORLD	0209,0002,0479	DIGITAL	1168	MALATA MARANTZ	1159 0503,0539,0646	ZEUS	0869 0784	SONY	1058,1441,1258
	0035,0240,0000	AUDIOVOX	0790		0675,1354,1506	ZOECE	1265		1759,1622,1406
	0072 0041,0038	AWA	0730	MCINTOSH MEMOREX	1533,1273 0695,0831,1270	BLU-RAY DISC	CODES		1558,1658,1758 1858
	0037,0039,0033	B & K BBK	0655,0662 1224		2213 0522,2083	LG	0741	SOUNDESIGN STEREOPHONICS	0670
	0000,0209,0041 0278.0479.1139	BEL CANTO	1571	MICROSOFT MINATO	0522,2083 0752	PANASONIC	1641	TEAC	1390
	1972	DESIGN BLUE PARADE	0574	MITSUBISHI	1521,0521	PHILIPS	2084	TECHNICS THORENS	1308,1518,1633 1189
		BLUE SKY	0571 0695	MUSTEK MYRAD	0730 0894	PIONEER SAMSUNG	0142 0199	TOSHIBA	0842,1788
PVR Brand	CODES	BROKSONIC	0695	NAD	0741	SONY	1516	VENTURER WARDS	1390 0189,0014
	1972 1972	CALIFORNIA	0490	NAIKO NEC	0770 0785,0869			XM	1406,1414
	1972	AUDIO LABS CELESTIAL	1020	NEXXTECH NINTAUS	1402 1051	DVD/PVR COMBO	CODES	YAMAHA	1023,0176,1176 1276,1331,1815
DELL	1972	CENTREX	0672	NORCENT	1003,0872,1107	GO VIDEO	1730		2061
	0739	CINEA	0831	ONKYO	1265 0503,0627,1769	PANASONIC	0490	AUDIO	CODES
	1972 0614	CINEVISION CITIZEN	0876,0833,0869	OPPO	0575,1224,1525	PHILIPS	1340	AMPLIFIER Brand	
	1972	OTTIZET	1003,0695,1277 1587,2116	OPTIMUS	2185 0571	PIONEER RCA	0631 0522	ADCOM	0577,1100
PACKARD	1070	CLAIRTONE	0571	PALSONIC	0672,0852	SHARP	1256	BOSE	0674
HOWARD COMPUTERS	1972	COBY	0778,0852,1077	PANASONIC	0503,0490,0571 0703,1641,1762	SONY	1033,1070,1536	CARVER CARY AUDIO	0892 1879
HP	1972		1086,1107,1165 1177.1351	PHILCO	0675	SYLVANIA	0675	DESIGN	
	0739	CRAIG	0831	PHILIPS	0503,0539,0646 0675,1267,1340	TOSHIBA	1503	CLASSE	1461
NETWORK SYSTEMS		CREATIVE	0503,0539		1354,2056,2084	HD-DVD	CODES	FLEXTRONICS HALCRO	1879 1934
HUMAX	0739,1797,1988	CURTIS MATHES	1087	PIANODISC PIONEER	1024 0525,0571,0142	LG	0741	HARMAN/	0892
	1972	CYBERHOME	0816,0874,1023	FIONLLIX	0631,1571	MICROSOFT ONKYO	2083 1769	KARDON	
	192 1972		1024,1129,1502	POLAROID POLK AUDIO	1020,1061,1086	RCA	1769	KRELL	1837
	1972	CYTRON	1537 0705	PORTLAND	0539 0770	TOSHIBA	1769	LEFT COAST LEXICON	0892 1145,1802
PC	1070	DAEWOO	0784,0705,0770	PRESIDIAN PRIMA	0675 2126,2127	XBOX	2083	MARANTZ MARK LEVINSON	0892 1483
	1972 1972		0833,0869,1169	PROCEED	0672	AUDIO	CODES	PARASOUND	1934
NIVEUS MEDIA	1972	DANSAI	1172,1234,1242	PROSCAN PROVISION	0522 0778	RECEIVER Brand	1405 0400 0404	PHILIPS POLK AUDIO	0892 0892
NORTHGATE	1972	DAYTEK	0770 0872	RADIONETTE RADIOSHACK	0741 0571	AIWA	1405,0189,0121 1243,1388,1641	PRIMARE	1395
PANASONIC PHILIPS	0614,0616 0618,0739	DECCA	0770	RCA	0522,0571,0790	ALCO	1390	YAMAHA	0354
PIONEER	1337	DENON	0490,0634	REALISTIC	0822,1769 0571	ANAM APEX DIGITAL	1609 1774		
RCA	0880	DENVER DIGITREX	0778	REOC	0752	ARCAM AUDIOTRONIC	1189 1189		
REPLAY TV	0614,0616	DISNEY	0672 0675,1270	RIO RJTECH	0869 1360	AUDIOVOX	1390		
SAMSUNG	0739	DI VIDO	0705	ROTEL	0623,1178	B & K BOSE	0820,0840 0639,1253,1933		
SONIC BLUE	0614,0616	DUAL	0675	SAMPO SAMSUNG	0698,0752 0490,0573,0744	BRIX	1602		
SONY	0636,1972	DURABRAND DVD2000	1127 0521		0199,0820,1044	CAIRN CARVER	0189 1189,0189,0121		
STACK 9 SYSTEMAX	1972 1972	EMERSON	1003,2116	SANSUI	1075,2069 0695	CURTIS MATHES DELPHI	0014 1414		
TAGAR	1972	ENTERPRISE	0591,0675	SANYO	0675,0695,0873	DENON	1360,0121,1142		
SYSTEMS		ENTIVO	0503,0539	SCHNEIDER	1919 0783	ELECTROHOME	1306 2026		
TIVO	0618,0636,0739 1337	ENZER FISHER	0770 1919	SCHWAIGER	0752	GRUNDIG	0189		
TOSHIBA	1008,1972,1988	FUNAI	0675	SENSORY SCIENCE SHARP	0630,0675,0752	HARMAN/ KARDON	0189,0891,1304 1306		
TOUCH	1972	GATEWAY	1073,1077,1158	CHEDWOOD	1256	HITACHI	0228		
VIEWSONIC	1972	GE	0522,0815	SHERWOOD	0633,0770,1043 1077	INSIGNIA INTEGRA	1030,2169 0842,1298,1320		
	1972 1972	GO VIDEO	0573,0744,0715 0741,0783,0833	SHINSONIC	0533		1805		
DBC/DVD	CODES		0869,1044,1075	SLIM ART SM ELECTRONIC	0784 0730	JBL JVC	1306 1058,1374,1495		
DBS/PVR COMBO	CODES		1099,1144,1158	SONIC BLUE	0573,0715,0783		1811		
DIRECTV	0739	GOLDSTAR	1304,1730 0741,0869	SONY	0869,1099 0533,1533,0864	KAWASAKI KENWOOD	1390 1570,1569		
HUGHES NETWORK	0739	GOODMANS	0741,0009		1033,1070,1431	KLH	1390,1428		
SYSTEMS		GPX	0769	SYLVANIA	1516,1536 0675	KOSS LG	1497 2197		
PHILIPS SAMSUNG	0739 0739	GRADIENTE	0490	SYMPHONIC	0675	LINN LIQUID VIDEO	0189 1497		
TIVO	0739	GRUNDIG HARMAN/	0539,0705 0582,0702	TAG MCLAREN TATUNG	0894 0770	MAGNAVOX	1189,1269,0189		
		KARDON	0562,0702	TEAC	0571,0790	MADANITZ	1266,1514		
DVD/PVR COMBO	CODES	HELLO KITTY HITACHI	0831 0573,0664,1919	TECHNICS TECHNIKA	0490,0703 0770	MARANTZ	1189,1269,0189 0891		
HUMAX	1797,1988	HITEKER	0672	TECHNIKA	0730	MICROMEGA	1189,0189		
PIONEER RCA	1337 0880	INSIGNIA INTEGRA	2095 0571,0627	THETA DIGITAL	0571	MITSUBISHI MYRAD	1393 1189		
SYLVANIA	0000	IRT	0783	THOMSON	0522	NAKAMICHI ONKYO	0097,1555 0842,1298,1320		
TIVO TOSHIBA	1337 1008,1988	JBL JMB	0702 0695	TIVO TOSHIBA	1503 0503,0573,0539		1805		
		JSI JVC	1423 0558,0623,0867	TOOLIDA	0695,1154,1503	OPTIMUS	1023,0014,0121		
	0503,0539		1164	TDEDEY	1608,1769	ORITRON	0670 1497		
ACCURIAN	0675,1416	JWIN	1049,1051	TREDEX UNIMAX	0800,0803 0770	PANASONIC	1308,1518,1288		
	0730	KAWASAKI KENWOOD	0790 0490,0534	UNITED	0730		1316,1548,1633 1763,1764,2967		
SOLUTIONS ADCOM	1094	KLH KLOSS	0790,1020,1149 0533	UNIVERSUM	0591	PHILIPS	1189,1269,0189		
A EDEE\/	0698	KONKA	0711,0721	URBAN CONCEPTS	0503,0539 1064,1226	PIONEER	0891,1266 1023,0014,0630		
AFREEY AIWA	0641					LIONELL	1020,0014,0030		
AIWA AKAI	0641 0695,0705,0770	KOSS	0769,1061,1423 0627	V VENTURER			1384,1935		
AIWA AKAI	0641 0695,0705,0770 1089	KOSS LASONIC LECSON	0627 1533	V VENTURER VIZIO	0790 1064,1226	POLK AUDIO	0189,1414		
AIWA AKAI	0641 0695,0705,0770	KOSS LASONIC	0627	VENTURER	0790				

## **On-Screen Display**

- Press MENU button on the remote control to display the different features on your Hitachi LCD TV.
- Use the CURSOR PAD (▲, ▼, ◀ and ▶) and highlight a different feature of the On-Screen Display menu. Press the SELECT button to select.
- 3. Press EXIT button on the remote control to quickly exit from any menu.

This part of the screen shows which selections are available.







The On Screen Display (OSD) for the different submenus shown in the following pages are for illustration purposes only, there may be slight differences from the actual appearance of the OSD of your Hitachi LCD TV.

#### **Video**

Picture Mode Select between 7 pictures modes; Dynamic, Standard, Movie, Custom, Game, Pro Day and Pro Night.

ContrastAdjust picture contrast.BrightnessAdjust picture brightness.

ColorAdjust color.TintAdjust tint.SharpnessAdjust sharpness.

Color Temp. Set this to High for less intense color with more blue, set to Medium for natural color and set to Standard for warm

colors

Noise Reduction Reduces conspicuous noise in the picture.

MPEG NR Reduces block noise in the picture.

**Gamma** Changes the gamma ratio value to produce pictures of greater contrast.

**Dynamic Gamma** Set to produce greater picture detail in dark or bright scene areas depending on the program.

**Backlight** Adjust to increase or decrease the brightness of backlight.

**Auto Movie** Select the 3:2 Pull down detection feature Auto/Off. For a film like picture.

**Reel120 Motion** Adjust the movie motion to smooth or original. **Aspect Ratio** Choose the picture format aspect ratio.

**Reset** Choose to Reset Video Settings to factory settings.

## On-Screen Display

Audio

**Sound Mode** Selects 4 audio presets (Custom, Standard, Movie, News).

Bass Adjust the intensity of low frequencies.

Treble Adjust the intensity of high frequencies.

**Balance** Adjust the balance.

**Bass Boost** Enhances the depth of the sound from the TV speakers.

**CONEQ** Select sound equalizing mode.

**CONEQ Surround** Select CONEQ surround settings (Off, 3D Sound, Surround).

Audio Source Select between three Audio Sources (Stereo, Mono, SAP) (Available for analog channel).

Preferred LanguageSelect Language options if available (Available for digital channel).Audio LanguageSelect Language options if available (Available for digital channel).Digital OutputSelect Optical Output options (Available for digital channel).

Internal Speakers Turn On/Off internal speakers.

Perfect Volume Adjust volume to be closer in level between channels.

**Reset** Resets all Audio settings the original condition.



NOTE

The Audio Language and Digital Output of the Audio OSD are only available for Digital channels.

The Signal Strength feature of the

Channels OSD is only available for

Digital (DTV) channels.

Setup

Menu Language Choose English, French or Spanish OSD Language.

Time Set Clock Settings.

Sleep Timer Set Sleep Timer intervals (5 minutes ~ 4 hours).

Day/Night Timer Set Day/Night picture mode to start at preset times.

Set Password Set the password for the Parental control access and Calibration menu access.

Parental Controls Ratings system to block various types of programs.

**Closed Captions** Feature to turn On/Off closed captions. **Digital Captions** Feature to display Digital dialogue/text.

**Digital Caption Options** Feature to change the appearance of the Digital Captions.

**Analog Captions** Feature to display Analog dialogue/text. **Energy Options** Select Power Consumption Savings options.

**Light Control** Adjust the settings of the Accent Light and Power LED.

**HDMI - CEC** Set to On, this feature will enable simplified operation of compatible HDMI CEC devices.

**Input Labels** Label Video Inputs, VCR, DVD, etc.

Component Options
RGB Options
Adjust the Phase and applies Reset to any adjustments made.
Adjust Horizontal Position, Vertical Position, Clock, Phase and Reset.
Reset AV & Setup
Resets all Audio, Video and Setup settings to the original condition.

Channels

**Source** Selects the type of signal to be used Cable or Air.

Signal Strength Access Signal Strength meter.

New Channel Scan Set Auto Channel Scan.

Add Channels to List Adds Channels to the List (Scanned channels remain the same until New Channel Scan is performed).

Channel List Set Channel List.

**Channel Labels**Set Labels on the channels. **Favorite Channels**Set the Favorite Channels.

Multimedia

JPEG Viewer View digital still pictures from USB Drives.

NOTE

If there are any options grayed out, this is an indicator that option is not available for that specific function or mode.

NOTE

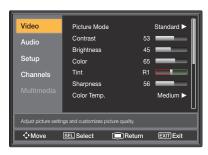
Changing any Video/Audio settings, other than the Standard/Default settings, may not meet ENERGY STAR requirements.

### Video

Select Video to adjust picture settings and improve picture quality. You can independently customize each of the video inputs, including Analog channels separately from Digital Channels (under TV Mode). Adjustments will be applied to Custom settings.

## **MENU**







#### **Picture Mode**

Use this function to choose from preset picture settings to optimize your TV's performance.

- Use the CURSOR PAD ► to select Picture Mode settings (Dynamic, Standard, Movie, Custom, Game or Pro modes).
- 3. There are seven Picture Modes available: Dynamic, Standard, Movie, Custom, Game, Pro-Day, and Pro-Night Mode. Standard mode is the factory preset mode for your TV. The only mode that can be directly changed by adjusting any Video setting to your desired conditions is the Custom mode. The other modes, with the exception of the Pro-Day and Pro-Night (refer to Calibration Menu on page 30 for adjusting these modes), are preset. Any changes made to these modes will be applied to Custom mode.

## NOTES

- For the PC input, there are only two Picture modes available: Standard and Custom. In this case, only the Custom mode can be changed to your desired conditions.
- Video setting can be set to the user's preference in Game mode (Similar to Custom mode) with the exception of the Auto Movie setting.
- If you change any of the adjustments in the Dynamic, Standard and Movie modes, the name of the Custom option will change. For example, changes on Dynamic will rename the option as "Custom-Dyn.". This means that the original picture mode is not affected by the changes; the only thing affected is that Custom mode will take the video adjustments of the mode where the change was made.

#### **Pro Mode**

This Hitachi LCD TV includes a picture quality mode called "Pro Mode" designed to customize the picture settings and is protected by a password in order to keep your settings as you want it. This option will give a couple extra picture modes (Pro-Day and Pro-Night) on your LCD TV for your viewing pleasure.

Please follow the next steps in order to adjust these special modes on your LCD TV.

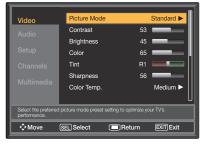
- Using the remote control, press the MENU and select the Video menu by pressing the SELECT or the CURSOR PAD
   .
- Use the CURSOR PAD ▼ to highlight the Picture Mode option, then press and hold the P.MODE button for 3 seconds, the Access Screen should appear.

#### **MENU**









3. The code to enter the Pro Mode feature is a four digit access code. The factory preset code is 0000. Use the NUMERIC buttons on the remote control to enter the access code. After entering the correct access code, the Calibration Menu (green OSD) should appear and the picture mode changes to Pro Mode.



The code used to access the Pro Mode feature is the same password that is used to set and activate parental controls. To change this code please refer to the "Set the Password" Function on page 34.





- While in the Calibration menu, use the CURSOR PAD ▲, ▼ to highlight the desired function to be adjusted.
- Press the SELECT or the CURSOR PAD ► to select the function settings.
- 6. Press the CURSOR PAD ◀ or ▶ to adjust the function.
- 7. Press the MENU to return to the Main menu or the EXIT to quit the Calibration menu.

#### **Calibration Menu**

White Balance: Use this function to adjust the dark end (Cutoff) and bright end (drive) of the White background.

**Blue Only Mode:** This function removes the red and green signal from the video signal and displays the blue signal only. This lets you accurately adjust the color and tint settings.



For Input Mode, CABLE and AIR share the same Video adjustment settings. Also, each of the video inputs have their own independent video adjustment settings.

### Video

#### Other Video Menu Setting Adjustments:

Use the CURSOR PAD  $\blacktriangle$  or  $\blacktriangledown$  to highlight the function to be adjusted.

- Press the SELECT button or the CURSOR PAD ▶ to select the function settings.
- 2. Press the CURSOR PAD ◀ or ▶ to adjust the function.
- 3. Press MENU button to return to the main menu.
- 4. Press EXIT button to guit the menu.

#### Contrast

Use this function to change the contrast between black and white levels in the picture.

#### **Brightness**

Use this function to change the overall brightness of the dark areas of the picture.

#### Color

Use this function to adjust the level of color in the picture.

#### Tint

Use this function to adjust flesh tones so they appear natural.

#### **Sharpness**

Use this function to adjust the amount of fine detail in the picture.

#### Color Temp.

Set this to High for cooler color with more blue, set to Medium for a more natural color or set to Standard for accurate color.

#### **Noise Reduction**

The Noise Reduction function automatically reduces conspicuous noise in the picture without degrading picture quality. Set Noise Reduction to Off if you see individual blocks in the picture.

#### MPEG NR

The MPEG NR (Noise Reduction) function automatically reduces block noise in the picture without degrading picture quality.

#### Gamma

The Gamma function allows you to set between three levels of gamma ratio correction values (Gamma 1, Gamma 2, or Gamma 3) to produce pictures contrast.

#### **Dynamic Gamma**

The Dynamic Gamma feature allows you to set between three settings (Off, Dynamic1, and Dynamic2) to produce greater picture detail in dark or bright scene area.

#### Backlight

Adjust the brightness of the Backlight for maximum visibility. It changes the intensity of the backlight. Increase for bright rooms and decrease for darker rooms to make the dark areas of the picture black.

#### **Auto Movie**

The Auto Movie function sets the 3:2 pull down detection feature to Auto or Off. Theatrical movies are shot on film at 24 frames or still pictures per second, instead of 30 frames or 60 fields like video. When film is transferred to video for television viewing, the disparity between the two frame rates must be reconciled. This involves a process known as 3:2 pull down. When Auto Movie is set to Auto your Hitachi LCD Television will activate the circuitry for this special feature to improve video performance when watching interlaced format film based sources. Set to Off to deactivate this feature.

#### Reel120 Motion

Hitachi's advanced video processor can display movies at 120 frames per second. The following settings are available to smooth the motion of movie sources. Please note that the effect may not be immediately noticeable and the effect depends on the content of the movie.



- Use the CURSOR PAD ▲ or ▼ to highlight Reel120 Motion function.
- 2. Press the CURSOR PAD ▶ to select Off, Low, Mid, or High.

 $\textit{High:} \ \mathsf{Use} \ \mathsf{this} \ \mathsf{setting} \ \mathsf{for} \ \mathsf{the} \ \mathsf{maximum} \ \mathsf{smooth} \ \mathsf{motion} \ \mathsf{effect}.$ 

*Mid:* Use this setting for a moderate smooth motion effect.

Low: Use this setting for a mild smooth motion effect.

*Off:* Use this setting if there is noise with the High, Medium or Low settings.

#### **Aspect Ratio**

Use this function to select the Picture Format Aspect Ratio.



**Auto Aspect:** Automatically adjust the Aspect Ratio depending on the input signal.

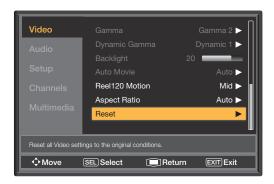
**Aspect Modes:** Manually select the Aspect Ratio. There are different aspect ratios available according to the signal in use. See page 55.

#### Aspect Ratio reference

Input Signal	Display Screen	Display Aspect Recomended	To display suitable screen as follows.
When Watching S	tandard Definition F	rictures:	
		4:3	Displays 4:3 programs in there original aspect ratio with bars to the left and right of the image.
(4:3 Signal)		16:9	Expands a 4:3 aspect ratio program to fill the widescreen 16:9 screen
(Vista)		Zoom1	Use this aspect mode to expand letterbox movies to fill the screen.  Note that some of the image may not be visible.
(Cinema)		Zoom2	Use this aspect mode to fill the screen with very widescreen movies. Note that some of the image may not be viewable in this mode.
When Watching H	ligh Definition Pictur	es:	
		16:9	Plays a 16:9 image faithfully showing 95% of the size.
(16:9 Signal)	000	Full	Use this mode when you want to see 100% of the signal.  Note that some signals have noise. In the case of noise use the 16:9 mode.

#### Reset

This function allows you to reset the Video Menu Settings of the present input source and return it to the Standard video mode



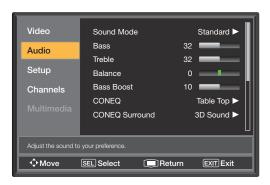
- 1. Use the CURSOR PAD ▲ or ▼ to highlight this function.
- Press the SELECT button or the CURSOR PAD ► to select Yes or No.
- Press the SELECT button on the Yes option to execute the reset of the Video settings.

Depending upon the video program being viewed, you can customize each video input to your preference to increase viewing performance and pleasure.

If you run this Reset menu, only the present input source will reset to its initial condition. For example, if the Reset menu has been selected and done for HDMI 1 input source, only the HDMI 1 settings will return to its factory default.

#### **Audio**

Select Audio to adjust the sound to your preference.



#### **Sound Mode**

This function has four sound modes that are preset according to the type of program. Standard mode is for normal audio conditions, Movie mode is for movies, News mode is for News programs, and Custom mode is for adjusting audio levels to your preference. The only mode that can be directly changed by adjusting any audio setting to your desired conditions is the Custom mode. The other modes are preset and any changes made to these modes will be applied to Custom mode.

#### **Audio Menu Settings Adjustment**

- 1. Press the CURSOR PAD ▲ or ▼ to select menu item.
- 2. Press the CURSOR PAD ◀ or ▶ to adjust the function.
- Press the EXIT button to quit the menu, or select Audio to return to the main menu.



If Treble is selected, you are adjusting treble. The additional menu items Bass and Balance can be selected and adjusted in the same manner.

#### **Bass**

This function controls the low frequency audio to the speakers.

#### Treble

This function controls the high frequency audio to the speakers.

#### Balance

This function will control the left to right balance of the LCD TV internal speakers and headphone jack.

#### **Bass Boost**

This function enhances the depth of the sound from the TV speakers.

#### CONEQ

Delivers clear crisp sound and high fidelity music playback. Use the CURSOR PAD ▶ to select the preferred setting.

**Table Top:** Use this setting for improved sound quality with table top stands.

**Wall Mount:** Select this setting for improved sound quality when wall mounting.

**Hearing Aid:** This special mode is for users that want to maintain clear sound after removing their conventional hearing aid. Note that this feature emphasizes higher frequencies.

#### **CONEQ Surround**

Produces an impressive surround sound experience through the TV's sound system.

#### **Audio Source**

Multi-Channel Television Sound will allow you to select Stereo (a stereo broadcast), Mono (monaural sound) used when receiving a weak stereo broadcast or SAP(Second Audio Program) which may be a secondary language, weather report, etc. This setting is only for analog channels.

#### **Preferred Language**

Some programs transmit in other languages. This language function will allow you to set between 3 language options (English, Español, and Français) to your preference as the audio default language. This setting is only for digital channels.

#### **Audio Language**

Some programs transmit more than one DTV language option. Most will have English as a default language. The language function will allow you to select up to 6 language options (if available). Please try all available options.

#### **Digital Output**

This function allows you to select between RAW and PCM. This setting changes the format of the Digital Optical Output.

**PCM:** Select this feature if the TV is connected to an amplifier/receiver with a PCM only decoder; it will provide two independent soundtrack channels through the optical audio output jack (Digital Audio).

**RAW:** Select this feature to allow the original audio bit stream to be passed through to the audio receiver.

#### Internal Speakers

This function is useful when using external speakers. Select On if using the internal speakers only. Select Off if you prefer to use the speakers from a separate stereo system.

#### **Perfect Volume**

This function will automatically adjust volume so each channel and input has the same average volume level.

#### Reset

This function allows you to reset the Audio Menu Settings of the present input source and return it to the Standard mode and default settings.



- Use the CURSOR PAD ▲ or ▼ to highlight functions.
- Press the SELECT button or the CURSOR PAD ► to select Yes or No.
- Press the SELECT button on the Yes option to execute the reset of the Audio settings.

Depending upon the audio program being heard, you can customize each audio input to your preference to increase audio performance and pleasure.

All the input sources will be reset to its initial condition by running this Reset menu.

## Setup

Select Setup when setting your TV up for the first time.



- Use the CURSOR PAD ▲ or ▼ to select the Setup menu.
- Use the CURSOR PAD ► to enter the option of your choice and make the changes that you need.
- Press the MENU button to return.

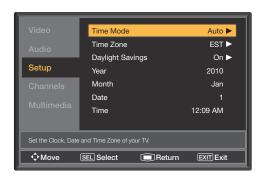
#### Menu Language

Sets the Language of the Menu OSD. This feature will allow you to select any one of three different languages for the on-screen displays.

- Use the CURSOR PAD ► to select the language of your choice.
- 2. Press the EXIT button to quit the menu or the MENU to return to the previous menu.

#### Time

Use this option to set the Clock, Date and Time Zone for your LCD TV.



- Use the CURSOR PAD ▲, ▼ and ► to highlight and setup the Time settings.
- If you observe daylight savings, use the CURSOR PAD to highlight Daylight Savings and press the CURSOR PAD ► to activate it. This can only be changed if the Time Mode is set to Auto.
- 3. Use the CURSOR PAD to highlight and adjust the Current Time (hour and minute), AM or PM, Month, Day and Year.
- 4. Press the SELECT to set the Time.
- 5. Press the EXIT button to quit the menu or the MENU to return to the previous menu.



- When Auto is set, Daylight Savings can be set, the TV will automatically calculate the clock adjustment for Daylight Saving. Set this setting according to the current DST status.
- The TV counts electrical pulses for regulating the timers. When the power cord is unplugged quickly, the clock will reset to factory default setting.
- The Year, Month, Date, and Time setup can be changed only if the Time Mode is set to Manual.

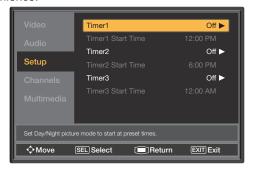
#### Sleep Timer

Select this feature to set your Sleep Timer from 5 minutes to 4 hours.

1. Press the CURSOR PAD ▶ repeatedly to set your Timer from Off, 5 min, 10 min, 15 min, 30 min, 60 min, 90 min, 120 min, 180 min and 240 min.

#### Day / Night Timer

Select this feature to activate and set your TV's Day/Night/ Picture Mode Timers. There are three available Timers for your convenience.



- 1. Use the CURSOR PAD to highlight the Timer that you would like to set (Timer1, Timer2, or Timer3).
- Use the CURSOR PAD or the SELECT to select the Picture Mode you would like to activate. (Dynamic, Standard, Movie, Custom, Game, Pro-Day or Pro-Night).
- Use the CURSOR PAD to select "Timer Start Time" and press the SELECT.
- Use the CURSOR PAD or the NUMERIC buttons to set the timer start time.
- 5. Once the start time is set press the SELECT.
- 6. Repeat steps 1-6 to set another Timer.

#### **Set Password**

- To change the password, select Set the Password option to change the factory preset password (0000) to your preference.
   If you forget your password, use the factory password 7777 to erase your password. This will reset the password number back to the factory preset (0000).
- 2. Enter a new four digit number.
- 3. Press the EXIT button to quit the menu.



When setting the password, please take note that this password will also be common with the password used to access and set the Pro Mode/Calibration Menu features. For details about the Pro Mode/Calibration Menu, please refer to page 30.

## Setup

#### **Parental Controls**

This function will block out the picture and sound of the selected rating levels.

The password to enter the Locks feature is a four digit number. The factory preset password is 0000. Use the NUMERIC buttons to enter the password.





#### **Panel Lock**

When Panel Lock is turned On, all buttons on the Side Panel, except the POWER button will be deactivated.

#### **Block Unrated TV**

When this feature is turned On, programs without ratings will be blocked.

#### US

This option will block TV and Movie Ratings in the USA to prevent viewing of any content that you feel may be inappropriate (see below).

#### Canada

This option will block TV and Movie Ratings in Canada to prevent viewing of any content that you feel may be inappropriate due to its content (see page 36).

#### **Motion Picture Ratings Table**

NOT RATED	Contains no rating. Not Rated (NR) and Not Applicable (NA) programs. Movie has not been rated or ratings do not apply.
G	General audiences. All ages admitted.
PG	Parental guidance suggested. Some material may not be suitable for children.
PG-13	Parents strongly cautioned. Some material may be inappropriate for children under 13.
R	Restricted. Under 17 requires accompanying parent or adult guardian.
NC-17	No one 17 and under admitted.
X	Adults only



- If the movie does not carry a rating, the TV will not block it.
- Blocking NOT RATED programs may block emergency programming, sports, news, public service announcements, religious programs and weather.

#### **TV Parental Guide Ratings Table**

TV-Y	All children. The themes and elements in this program are specifically designed for a very young audience, including children from ages 2-6.						
TV-Y7	Directed to older children. Themes and elements in this program may include mild physical or comedic violence, or may frighten children under the age of 7.						
TV-G	General audience. It contains little or no violence, no strong language, and little or no sexual dialogue or situations.						
TV-PG	Parental guidance suggested. The program may contain infrequent coarse language, limited violence, some suggestive sexual dialogue and situations.						
TV-14	Parents strongly cautioned. This program may contain sophisticated themes, intense sexual situation, more intense violence and intensely suggestive dialogue.						
TV-MA	Mature audiences only. This program may contain mature themes, indecent language, graphic violence, and explicit sexual content.						
FV: Fa	antasy/Cartoon Violence V: Violence S: Sexual Situation L: Adult Language D: Sexually Suggestive Dialogue						



- If you Block TV-14D, you will still permit TV-MA programs; If you block TV-14V, you will automatically block TV-MAV
  programs, but you will still permit TV-MALS programs. This means that the TV will block violence in TV-14 and higher (TV-MA), but not language and sex.
- TV program ratings are dependent on the broadcaster. If the program is not rated, the TV will not block it.

## Setup

Canadiar	n Ratings English Table
С	Programming intended for children under age 8 - Violence Guidelines; Careful attention is paid to themes, which could threaten children's sense of security and well-being. There will be no realistic scenes of violence. Depictions of aggressive behavior will be infrequent and limited to portrayals that are clearly imaginary, comedic or unrealistic in nature. Other Content Guidelines: There will be no offensive language, nudity or sexual content.
C8+	Programming generally considered acceptable for children 8 years and over to watch on their own - Violence Guidelines: Violence will not be portrayed as the preferred, acceptable, or only way to resolve conflict; or encourage children to imitate dangerous acts which they may see on television. Any realistic depictions of violence will be infrequent, discreet, of low intensity and will show the consequences of the acts. Other Content Guidelines: There will be no profanity, nudity or sexual content.
G	General Audience - Violence Guidelines: Will contain very little violence, either physical or verbal or emotional. Will be sensitive to themes which could frighten a younger child, will not depict realistic scenes of violence which minimize or gloss over the effects of violent acts. Other Content Guidelines: There may be some inoffensive slang, no profanity and no nudity.
PG	Parental Guidance - Programming intended for a general audience but which may not be suitable for younger children. Parents may consider some content inappropriate for unsupervised viewing by children ages 8-13. Violence Guidelines: Depictions of conflict and/or aggression will be limited and moderate; may include physical, fantasy, or supernatural violence. Other Content Guidelines: May contain infrequent mild profanity, or mildly suggestive language. Could also contain brief scenes of nudity.
14+	Programming contains themes or content which may not be suitable for viewers under the age of 14 - Parents are strongly cautioned to exercise discretion in permitting viewing by pre-teens and early teens. Violence Guidelines: May contain intense scenes of violence. Could deal with mature themes and societal issues in a realistic fashion. Other Content Guidelines: May contain scenes of nudity and/or sexual activity. There could be frequent use of profanity.
18+	Adult - Violence Guidelines: May contain violence integral to the development of the plot, character or theme, intended for adult audiences. Other Content Guidelines: May contain graphic language and explicit portrayals of nudity and/or sex.
Canadiar	n Ratings French Table
G	General - Programming intended for audiences of all ages. Contains no violence, or the violence content is minimal or is depicted appropriately with humor or caricature or in an unrealistic manner.
8 ans+	8 + General - Not recommended for young children - Programming intended for a broad audience but contains light or occasional violence that could disturb young children. Viewing with an adult is therefore recommended for young children (under the age of 8) who cannot differentiate between real and imaginary portrayals.
13 ans+	Programming may not be suitable for children under the age of 13 - Contains either a few violent scenes or one or more sufficiently violent scenes to affect them. Viewing with an adult is therefore strongly recommended for children under 13.
16 ans+	Programming is not suitable for children under the age of 16 - Contains frequent scenes of violence or intense violence.
18 ans+	Programming restricted to adults - Contains constant violence or scenes of extreme violence.

#### Region 5

Use Region 5 to block various types of movies and television programs based on ratings systems used in the U.S. that you feel may be inappropriate due to its content. The Region 5 option will operate for Digital Channels (ATSC) only.

#### **Ratings Procedure**

- Press the SELECT button to block the Rating that you have selected.
- 3. Press the EXIT button to quit the menu.

#### Region 5 Alternate Ratings (Example Only)

G	General audiences. All ages admitted.
PG	Parental guidance suggested. Some material may not be suitable for children.
PG-13	Parents strongly cautioned. Some material may be inappropriate for children under 13.
R	Restricted. Under 17 requires accompanying parent or adult guardian.
NC-17	No one 17 and under admitted.
X	Adults only.
Υ	Adults only.



- In order to set the Region 5 Ratings the ATSC Digital channel received must include Region 5 Ratings data. To see if the channel has Region 5 Ratings, press the INFO button on the remote control.
- Once the TV has received Region 5 Ratings data, the Region 5 option in the Parental Controls menu will become available and display the data.

## Setup

#### **Closed Captions**

Closed Captions are the dialogue, narration, and/or sound effects of a television program or home video which are displayed on the TV screen. Your local TV program guide denotes these programs as CC or ...



- Use the CURSOR PAD ▲, ▼ and ► to highlight and select the function to change.
- 2. Press the EXIT button to quit menu or press menu to return to the Main menu items.

## **Closed Captions:**

On/Off: will turn the display CC on or off.

With Mute: will turn the display CC on when Mute is on.

### **Digital Captions**

Set captions for digital programs and set available language.

#### **Digital Caption Options**

This function will help choose and set font, size, color and background style of digital captions.



- The Digital Closed Captions feature only works when using the "TV" input of this television.
- Caption Display will not work when viewing a 480i, 480p, 720p, 1080i or 1080p input via the COMPONENT: Y-PbPr or HDMI inputs.
- Analog and digital Closed Captions availability and content depends on the broadcaster. Digital Closed Caption are available when the Closed Caption icon is displayed on the info banner.
- Digital Captions language will not be available (grayed out) when using analog channels.

#### **Analog Captions**

Set captions for analog programs. This function will help choose and set available mode and channel.

**CC1,CC2, etc.**: These are for the program you are viewing. **TEXT1, etc.**: These are for additional information such as news reports or a TV program guide. This information covers the entire screen and viewing the TV program is not possible. Text may not be available with every **CC** program.

### **Energy Options**

Use this feature to save energy when watching your Hitachi LCD TV.





- 1. Press the CURSOR PAD ▲ or ▼ to highlight Energy Options.
- 2. Press the CURSOR PAD ▶ to select your choice.

#### **Light Sensor**

This feature allows you to turn Off/On the light sensor function for automatically backlight control.

#### **Picture Energy Saving**

This function allows you to choose power consumption reduction based on 3 levels (Min, Medium, and Max).

#### Home/Retail

This function allows you to return to the Energy Savings Initial Setting screen (see page 13).



The Retail mode is intended for showroom or shopuse only, if you make any video or audio adjustment changes in this mode, they will not be saved when the TV is turned AC Off.

#### **Auto TV Off**

This function turns off the TV when no remote control signal is detected for 3 hours to save energy. Please choose On or Off to set this feature.

#### **Light Control**

This feature allows you to save electric energy consumption furthermore besides the other energy saving options.



- 1. Press the CURSOR PAD ▲ or ▼ to highlight Light Control.
- 2. Press the CURSOR PAD ▶ to enter the Light Control menu.

## Setup

#### **Accent Light**

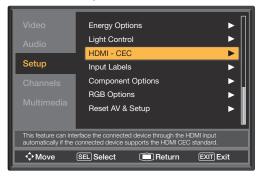
This feature turns Off or control the brightness of the Accent Light on the front panel of your TV.

#### **Power LED**

Select this feature to turn Off or On the Power LED indicator on the front panel on your TV.

#### **HDMI - CEC**

Set to On and this feature will enable the HDMI-CEC signal bus to allow your Hitachi LCD TV to discover and communicate automatically with other compatible HDMI-interfaced Audio/Video device. The CEC signal bus makes global controls possible, based on "plug & play" automation, to minimize the number of IR remotes and key-presses required for basic operation of your AV device. Select Off to disable this option.





With the "HDMI - CEC" feature, you can interface the connected device through the HDMI jack automatically if the connected device meets the "HDMI CEC (Consumer Electronics Control)" industry standard. Please check if the connected device supports HDMI CEC before using this feature. For example, here are three common functions after setting item "CEC Enable" to "On".

Feature	Description
One-Touch Play (TV Auto On)	Pushing the "Play" button on the CEC enabled device will command the device to play, turn the TV on, and the HDMI input, that the device is connected to, will become the active input device for the TV.
System Standby (Device Auto Off)	When the user turns off the TV, all active CEC enabled devices on the HDMI input will go to Standby.
Playback Control	The user can operate the CEC enabled device's deck control functions (i.e. Play, Stop,Fast Forward and Rewind) by the TV's remote control's transport keys (ie. ▶, ■, ∢ and ▶).



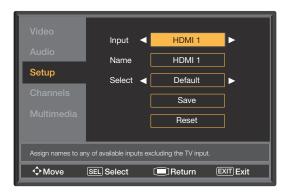
Not all devices with an HDMI connection have the CEC feature. Consult the instruction manuals for the device you are trying to control to confirm whether or not CEC is available.

#### **Input Labels**

Use this feature to give a name to any of the nine video inputs excluding the TV input.



- Press the CURSOR PAD ▲ or ▼ to highlight Inputs Labels.
- 2. Press the CURSOR PAD ▶ to select your choices.



NOTE

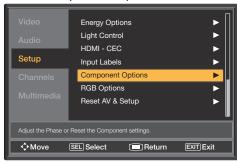
Input Labels is Grayed out (Skip) or disabled until you are on the INPUT that you like to change.

When the Custom option is selected a Keyboard will appear on the screen to place your desired label.

## Setup

#### **Component Options**

This function allows you to adjust the phase between your TV and the Device with component output.



- Press the CURSOR PAD ▲ or ▼ to highlight Component Options.
- Press the CURSOR PAD ► to select your choice.

There are two options for the Component input. Phase and Reset.

#### Phase

Use this feature to fine-tune the display to perfectly synchronize with the video signal source.

#### Reset

Return to the original condition for Component inputs.

### **RGB Options**

This function is to adjust the RGB input to match your PC or laptop output with your LCD Television.



- 1. Press the CURSOR PAD ▲ or ▼ to highlight RGB Options.
- 2. Press the CURSOR PAD ▶ to select your choices.

There are six options for the RGB input. H-Position, V-Position, Clock, Phase , Auto Adjust and Reset.



#### **H-Position**

Adjusts the display position horizontally.

### **V-Position**

Adjusts the display position vertically.

### Clock

Minimizes vertical stripes on the screen.

#### Phase

Minimizes the blurring of letters and stripes on horizontal row.

#### **Auto Adjust**

Adjusts Horizontal Position, Vertical Position, Clock, and Phase automatically.

#### Reset

Each item in RGB Options Menu will be restored to the factory setting by selecting Yes.

#### Reset AV & Setup

This feature restores all Audio, Video and Setup configuration that you have made on the TV and it will return to the factory settings.



## **Channels**

Select Channels to set your signal source options, run New Channel Scan, Check Signal Meter and Set Channel List (Add channels to List, Channel/Labels and Favorite Channels).





- Press the CURSOR PAD ▲ or ▼ to highlight functions.
- 2. Press the SELECT button or the CURSOR PAD ▶ enter the next popped-up menu.
- 3. Press the CURSOR PAD ▲ or ▼ to select.

#### Source

Select the signal Source for the TV. When using an indoor or outdoor antenna select Air. When using a cable system select Cable.

#### Signal Strength

Select Signal Strength when using an indoor or outdoor antenna. This feature will show the signal strength of the antenna signal to help you adjust your antenna to optimize signal reception. Use the MENU or the EXIT button to return.



The Signal Strength meter will not be available (grayed out) when watching analog channels.

#### **New Channel Scan**

This feature will automatically store active Analog and Digital channels to the Channel list. This scan will erase all channels previously stored in the list.



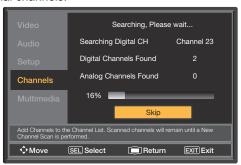
 Use the CURSOR PAD ▲ or ▼ to highlight then press the SELECT button to start scanning.



If you do not want to erase all scanned channels, please use the Add Channels to List option instead.

#### Add Channels to List

This function allows you to add channels to the channel memory. Sometimes adjusting the antenna direction will allow reception of additional channels.



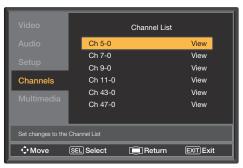
- Use the CURSOR PAD ▲ or ▼ to select the Add Channels to List
- 2. Press the SELECT button to start scanning.
- 3. Press the EXIT button to return to normal viewing.



Only the Channels that have been added to the list will be stored.

#### **Channel List**

This function allows you to review which channels have been added to the Channel List.



- 1. Use the CURSOR PAD to navigate the Channel List.
- Press the SELECT button or the CURSOR PAD ▶ to select Skip or View.
- Press the EXIT button to return to normal viewing.

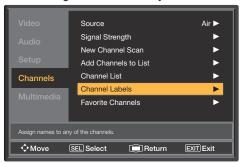


The Channel List cannot be updated by only changing the signal. Auto Channel Scan must be performed for the Channel List to be updated.

## Channels/Multimedia

#### **Channel Labels**

Use this feature to give a name to any of the channels.

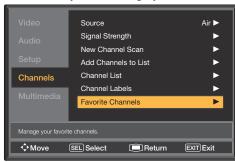


- 2. Press the CURSOR PAD ▼ to change the channel label.
- 3. Press the SELECT button to show the keyboard for editing the channels.



### **Favorite Channels**

This function allows you to manage your Favorite Channels.



1. Use the CURSOR PAD to navigate the Favorite Channels.



 Press the SELECT button or the CURSOR PAD ► to check mark the channel and make it a Favorite channel. Select all desired channels.

- 3. Press the EXIT button to return to normal viewing.
- 4. To view all the Favorite channels that you have choosen, press the FAV CH button on the remote control.



## **Multimedia**

This feature is useful for viewing digital still pictures from USB Drives using the USB slot in the side panel of your Hitachi LCD television.

Upon inserting a USB drive into the USB slot, you will be prompted to view these photos with the JPEG viewer feature or you can access them via the OSD Main Menu under Multimedia. Using the remote control's CURSOR PAD you can navigate through thumbnails and individually select pictures you would like to view. During manual playback of selected photos, the CURSOR PAD can be utilized to scroll through your pictures. Additionally, using the MENU on the remote control in the Browser View or Picture View mode you can activate and set Slideshow options.



This option will remain grayed out until a USB drive containing pictures (JPEG format) is inserted and recognized by TV.

## **Equipment Care And Troubleshooting**

#### DO

Dust the screen and cabinet with a soft cloth.

Clean the screen with a soft cloth moistened in warm water and dry with a soft cloth. A mild soap may be used if the screen is extremely dirty.

Place your LCD Television away from extreme heat, humidity and extremely dusty places.

Remove the plug from the wall outlet if your LCD Television will not be used for a long period of time, for instance, when you go on vacation.

#### DO NOT

Do not clean your screen with strong cleaners, polishes or a chemically treated cloth.

Do not place rubber or vinyl products or tape on your LCD Television.

Avoid repeatedly touching the screen.

Do not drop or hit the remote control, this may cause internal damage.

Avoid placing the remote control in a high humidity place or getting it wet. Do not leave it on or near a heater. Excessive heat or moisture may cause the unit to fail.

When the batteries run down, remote control operation will become erratic or become unresponsive. Replace the old batteries with two new "AAA" size batteries. Do not use an old battery with a new battery.

Exposing the screen to direct sunlight for a long period of time or heat may cause damage to the LCD screen.

Troubles are sometimes caused by simple "faults" that you can correct without the help of a service technician. If you experience any difficulty with your TV, check a few basic remedies before calling your service technician.

#### TV will not turn ON

- 1. Press the POWER button (ON/OFF button) once.
- 2. If there is still no power, wait 30 seconds and press the POWER button again.
- 3. If there is still no power, unplug the power cord from the wall. Wait 30 seconds and plug the power cord back in. Press the POWER button again.

### When the Following Messages Appear on the Screen

Message	Condition / Action	
No Signal	The unit cannot detect any signals from any input jacks or the TV channel does not show picture.  Check if the cable is connected correctly and firmly.  Check if the power of any external device is ON.  Check if the input selection matches the connection jack.  This message will be displayed for 15 minutes then the TV will turn off.	

# **Troubleshooting**

## **Symptom and Checklist**

SYMPTOM	CHECKLIST	PAGES
No picture - no sound	<ul> <li>Check the Indicating lamp status (Off, Red, Blue).</li> <li>Check the connection of the power cord and/or other cables.</li> <li>Check if the power of the unit or external device is ON.</li> <li>Check if the correct Video input is selected.</li> <li>Check if the unit is in "Standby mode".</li> <li>Adjust the values in "Video menu" and "Audio menu".</li> </ul>	9, 12, 14~17 30~33
Multiple images-normal sound	Check the connections to external device.	14~17
Intermittent interference	Check if the source of interference is shielded correctly.     Move these kinds of electrical devices away from the unit.	44
Normal picture, but no sound	Check the volume level. Check if the MUTE button has been pressed or not. Check the connections to external device. Try next/other Audio Language.	
No picture - normal sound	Check the value level of "Brightness" and "Contrast" in "Video Menu".	31
The remote control does not work.	<ul> <li>Check if the batteries are installed correctly.</li> <li>The batteries might be exhausted. Replace them with new ones.</li> <li>Remove all obstructions from in front of the sensor window on the unit.</li> <li>Check if the buttons on the control panel are working.</li> </ul>	6, 9
The buttons on both the remote control and control panel do not work.	Unplug and connect the power cord again.	7, 42
Normal picture but no color-normal sound	Check the connections to external device.	14~17
No picture The Indicating lamp $\rightarrow$ Off	Check if the power cord is plugged into the socket securely.	7, 9
No picture The indicating lamp $\rightarrow$ Blue	<ul><li>Check if the signal cable is connected correctly and securely.</li><li>Adjust the level of Brightness and Contrast lower.</li></ul>	12, 14~17, 31
Some screen display aspects cannot be switched in.	Check the signal status by pressing the INFO button on the remote control. The available screen display aspect is different depending on the current signal status.	11, 20 55
No power	Check the power cord is connected to the AC outlet.	9, 12
Turns Off by itself	Check or ensure Sleep Timer settings are not activated.	11, 18, 34
Turns On by itself	Check if the HDMI-CEC feature is activated.	38
Picture may "block" or freeze when watching a digital channel.	Check signal strength under "Signal Strength".	40

## **HDMI** Issues

SYMPTOM	CHECKLIST	PAGES
No picture - no sound	Make sure you have selected the correct HDMI input. Toggle through them while HDMI device is ON or during playback.     Unplug and re-plug HDMI connection while TV and HDMI source device are powered on.     Turn TV and HDMI device off. Turn TV on first and then HDMI device second.	
Error notice comes to screen	<ul> <li>Try pressing "exit" on HDMI device remote control and then on TV remote control to find source of the error OSD. If error persist or comes back even after pressing exit, try alternate HDMI input on TV.</li> <li>Unplug and re-plug HDMI connection while TV and HDMI source device are powered on.</li> <li>Turn TV and HDMI device off. Turn TV on first and then HDMI device second.</li> </ul>	
Normal picture, but no sound	Check HDMI Audio settings under the HDMI device menu (of the HDMI source device). In order to get sound on TV, HDMI output must be set to PCM option.	
No sound from TV Optical Out when using HDMI devices	Change Digital Output selection.     As an option, use audio optical output from HDMI source device directly to separate Audio Amplifier.	33
Picture flickers during channel change w/ using HDMI set top boxes	This is normal operation from the source switching delay itself. It's not an indicator of a TV malfunction.	
Picture is blurry or fuzzy	If HDMI source is HD capable, ensure it's output is set to 1080p, 1080i or 720p under HDMI device menu (of the HDMI source device).	
Pixelization noise or loss connection ("No Signal" message display)	Check HDMI input picture format, if use 1080p format confirm cable length it is recommended that the length of the cable should be less than 5 meters, or change HDMI input picture format to 1080i.	

If the problem cannot be solved with the suggested procedures, contact 800.HITACHI. For your safety, never try to repair the product yourself.

## **Reception Problems**



#### **IGNITION NOISE:**

Black spots or horizontal streaks may appear, picture may flutter or drift. Usually caused by interference from automobile ignition systems, neon lamps, electrical drills, and other electrical appliances.



#### GHOSTS:

Ghosts are caused by the television signal following two paths. One is the direct path and the other is reflected from tall buildings, hills or some other objects. Changing the direction or position of the antenna may improve reception. Ghosting may also be caused by defects in the antenna system such as unshielded leads or connecting several sets to the same antenna without using multiple antenna couplers.



#### SNOW:

If your receiver is located in the fringe area of a television station where the signal is weak, your picture may be marred by the appearance of small dots. When the signal is extremely weak, it may be necessary to install a special antenna to improve the picture.



#### RADIO FREQUENCY INTERFERENCE:

The interference produces moving ripples or diagonal streaks, and in some cases, causes loss of contrast in the picture.

### PREVENTION OF AN OBSTACLE TO RADIO RECEIVERS

This television has been designed pursuant to the FCC class B Rules. This is to prevent a problem to Radio receivers. If this television causes a problem to Radio receivers, then take the following steps:

- Keep the television away from Radio.
- Adjust Radio antennas in order for the television not to receive interference.
- The antenna cable of Radio should be kept away from the television.
- Use a coaxial cable for antenna.

You can check if this television influences Radio receivers by turning off all other device other than the television. If you find a problem receiving Radio when using the television, check the instructions mentioned above.



#### **BLOCK NOISE or FREEZE (DIGITAL INPUT):**

Fuzzy blocks may appear in some area or the whole area of the screen. This is usually caused by interference from automobile ignition systems, neon lamps, electrical drills, ghosting of the image and lost or weak receiving signals.



## **BLACK SCREEN:**

When using an antenna, weak signals will display a black screen. It may be necessary to upgrade your antenna.

NOTE

The TV set can generate sound distortion in external devices such as a radio. Please separate radio device from the TV set to a considerable distance.

## **Features And Specifications**

#### Features:

- New High Gloss Black Frame
- (4) HDMI<sup>®</sup> (V.1.3 with Deep Color, CEC)
- 1080p60, 1080p24 Input Compatible
- New Multi-Function Remote Control
- 120Hz 1080p Perfected
- · Reel 120 Motion Correction
- Dynamic/Standard/Movie/Custom/Game/Pro-Day/Pro-Night Picture Memories
- 3 Preset Color Temperatures
- · Game Mode
- · Calibration Menu

#### Video:

- · 1920 x 1080p Display Resolution
- · Wide Viewing Angle
- · Color Temperature Presets: High, Medium, and Standard
- Multiple Screen Fill Modes: (Auto/4:3/16:9/Zoom1/Zoom2/Full)<sup>1</sup>
- · 4MB 10-bit 3D Y/C Comb Filter
- Picture Modes: Dynamic/Standard/Movie/Custom/Game/Pro-Day/ Pro-Night

#### Audio:

- CONEQ<sup>™</sup> Sound Quality
- MTS Stereo/SAP
- 4 Sound Modes (Custom, Standard, Movie, News)
- Rated Output Power: 5W+5W (L/R), 10W(Subwoofer)

#### Inputs:

•	Power Input
•	Power Consumption Maximum Power LE42S704
•	Antenna Input Impedance
•	Channel Coverage       191ch.         VHF-Band       2~13         UHF-Band       14~69         CATV Mid Band       A5~A1, A~I         Super Band       J~W         Hyper Band       W+1~W+28         Ultra Band       W+29~W+94
•	Television System NTSC Standard
•	Video
•	S-Video
•	Component Video         1.0Vp-p, 75 Ohm           Chrominance(Pb/Pr)         0.7Vp-p, 75 Ohm
•	Audio Input Impedance >10k Ohm
•	Audio Input Sensitivity
•	HDMI

#### **Supplied Accessories:**

- Remote Control
- Batteries (AAA)
- Owners Guide
- Easy Graphic Guide
- Stand Base
- Stand Screws

#### Inputs/Outputs:

•	Wideband Component Y, Pb, Pr
•	Composite Video
•	Antenna (RF) Input
•	Audio Output
•	Optical Output
•	HDMI
•	USB Multimedia/SERVICE Slot
•	RGB Input
•	RGB/DVI Audio Input
•	Phono Jack for Headphone

### Specifications:

•	FCC class	for Consumer Use
•	Power Requirements	108-132VAC, 60Hz

<sup>&</sup>lt;sup>1</sup> Screen mode availability varies by input format.

VGA and XGA are trademarks of International Business Machines Corporation.

VESA is a registered trademark of the Video Electronics Standard Association.

HDTV Televisions display HDTV only when an HDTV source is available.

All specifications, weights, and dimensions are subject to change without prior notice. Please access www.hitachi.us/tv for detailed specifications and dimensions for custom installations.



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HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries.



Manufactured under license from Dolby Laboratories. Dolby and the double-D symbol are trademarks of Dolby Laboratories.



Manufactured under license from Real Sound Lab, SIA. CONEQ is a trademark of Real Sound Lab, SIA. CONEQ™ delivers clear, rich sound using proprietary professional equalizing technology. Dialog is clear and music sounds more dynamic when the speakers are perfectly optimized.

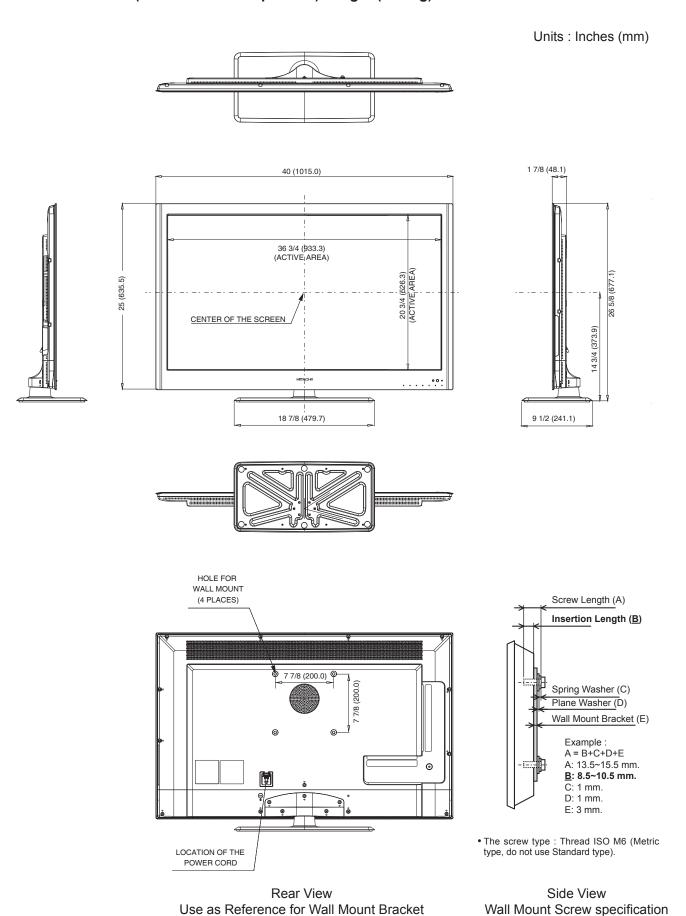


CONEQ HA Mode™ (Hearing Aid) technology produces natural sound for the hearing impaired. The listener can enjoy details in music and clear dialog often without the help of a hearing aid.

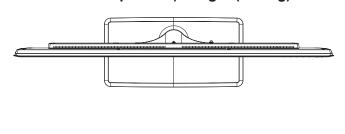


CONEQ Surround™ is the 2-speaker Surround process (Stereo Input and Output). This process provides natural surround sound by widening the sound's width, height and depth, while maintaining high-fidelity, directionality and clear dialogue. In terms of the technical aspects of this process, it has not only the parameters for the surround but also the parameters to enhance the center and the bass.

## LE42S704 model (Includes Table Top Stand) Weight (lbs./kg): 38.6/17.5

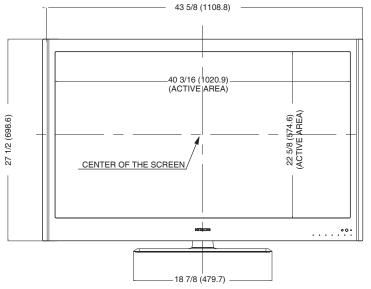


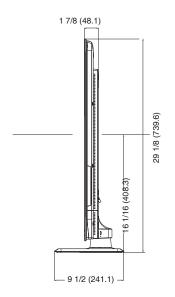
## LE46S704 model (Includes Table Top Stand) Weight (lbs./kg): 44.2/20.1

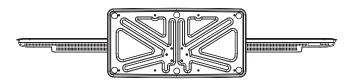


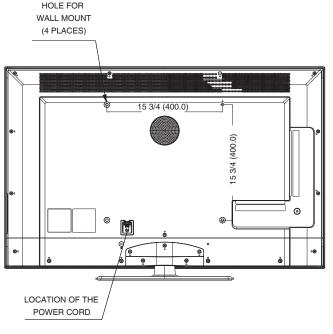
Units: Inches (mm)



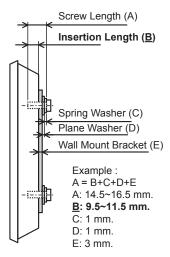








Rear View
Use as Reference for Wall Mount Bracket



• The screw type : Thread ISO M6 (Metric type, do not use Standard type).

Side View Wall Mount Screw specification

# 800.HITACHI

(800.448.2244)

Monday ~ Friday 8:00 am - 7:00 pm CST

www.hitachi.us/tv



#### HITACHI AMERICA, LTD.

HITACHI has made every effort to assure you hours of trouble free operation from your Hitachi product.

Should you require service assistance with OPERATIONAL, HOOK UP, TECHNICAL ASSISTANCE OR WARRANTY SERVICE SUPPORT, please contact one of our knowledgeable Customer Service Representatives at (800.448.2244).

Our Customer Service Representatives will provide you with the assistance you need and if necessary coordinate the repair process with a local Authorized Service Facility in your area. Please be prepared to submit proof of purchase and/or delivery receipts to your 800.HITACHI Customer Service Representative. Warranty coverage will be provided in accordance with the provisions of your Limited Warranty (see the Limited Warranty page in this owners guide).

Pour de plus amples renseignements sur le service durant la période couverte par la garantie, sur le fonctionnement ou pour de l'assistance technique communiquez avec:

### Au Canada: 800.HITACHI (800.448.2244)

Lundi~ Vendredi 8:00 am - 7:00 pm HNC

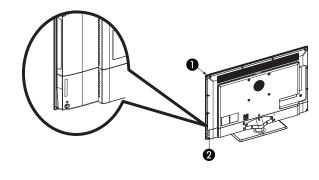
Hitachi America, Ltd., Digital Media Division Customer Service Support PO Box 3900 Peoria, IL 61612

U.S.A.: customerservice.ce@hal.hitachi.com
Canada: customerservice.canada@hal.hitachi.com

#### **Customer Record**

The MODEL NAME and SERIAL NUMBER of this product is located on the backcover and also on the RIGHT SIDE of the set. Please follow the next steps to find this information and then record it in the space provided below for use in case you call 800.HITACHI, they will require this information in order to give you the proper support.

- Look on the right side of the set.
- 2 Locate the label where it shows the information related to MODEL NAME and SERIAL #.
- 800.HITACHI will require this information in order to give you the proper support regarding your questions.



Model Name Serial Number

## **Limited Warranty**

Congratulations on your purchase of a new Hitachi display product.

#### LIMITED WARRANTY

Hitachi America, Ltd. warrants this product in accordance with the terms and conditions applicable to the products identified below:

#### **Conditions of Hitachi Limited Warranty**

This Hitachi display product (the "Product") is warranted to be free from defects in materials and workmanship beginning on the date of purchase by the original owner and continuing for the duration of the applicable time periods specified below. If the Product is found to be defective, Hitachi will repair or replace (at Hitachi's option) defective parts at no charge, subject to the conditions of this Limited Warranty. If the original owner rejects, refuses or otherwise does not accept Hitachi's offer to repair or replace such defective parts under this Limited Warranty, this Limited Warranty shall be void and of no further force or effect. This Limited Warranty extends to the original owner only and is not transferable, and such owner must provide a dated sales receipt for the Product to qualify for parts or service under this Limited Warranty. The original owner must notify Hitachi of a defect claim by calling 800.HITACHI during the applicable Limited Warranty period for this Limited Warranty to be effective. This Limited Warranty is valid only in the U.S.A. and Puerto Rico

Hitachi Product : LCD Flat Panel Televisions **PARTS**: The Limited Warranty period for parts is 1 year from the date of original purchase. During the Limited Warranty period for parts, Hitachi will replace defective parts with new or rebuilt parts (at Hitachi's option) at no charge for such parts. Any replacement part will be warranted for the remainder of the original warranty period applicable to the part replaced.

**LABOR**: The Limited Warranty period for labor is 1 year from the date of original purchase. During the Limited Warranty period for labor, Hitachi will repair or replace (at Hitachi's option) defective parts without charge for labor.

**SERVICE LOCATION**: In-home warranty service, which includes either in-home repair or free pick-up and delivery (at Hitachi's option), applies to all Hitachi products except: (i) 32-inch and smaller LCD Flat Panel Televisions; (ii) Products located outside the U.S.A. or Puerto Rico; (iii) Products located more than seventy-five (75) driving miles from Hitachi's nearest Authorized Service Facility. If the foregoing clauses (i), (ii), (iii)apply, then the Product owner will be responsible for bringing/delivering the Product to a Hitachi Authorized Service Facility and, following warranty service, retrieving the Product from such Authorized Service Facility.



Hitachi is a proud supporter of the Certified Service Center program. Businesses who display the CSC certification mark have demonstrated that they operate in accordance with the high standards of professionalism prescribed by the Consortium for Certified Service Centers.

#### IMPORTANT:

Before using or installing your. Product, please complete this form and attach your sales receipt and retain them for your records. This will help facilitate proper warranty coverage.

### 800.HITACHI (800.448.2244)

Please call 800.HITACHI (800.448.2244) for operational, hook up or warranty service support.

#### Visit our website at www.hitachi.us/tv:

Hitachi's website features a wealth of information on Hitachi products and technologies, as well as downloadable owners guides and other useful information.

MODEL NAME.	SERIAL NO.
DEALER NAME	DATE OF PURCHASE
DEALER ADDRESS	
CITY	STATE

#### **Warranty Limitations**

#### This Hitachi Limited Warranty does not cover:

- A. Any Product that has been modified or repaired in a manner not previously authorized by Hitachi in writing.
- B. Any Product whose serial number has been removed, altered, replaced, defaced or rendered illegible.
- C. Any defect, malfunction, or failure caused by or resulting from improper or unauthorized service, maintenance or repair.
- D. Damage resulting from abuse, misuse, mishandling, neglect or damage caused by exposure to hostile operating environments such as areas containing dust and/or smoke.
- E. Damage caused by power surges, accidents, natural disasters or any other events or circumstances outside Hitachi's control.
- F. Any Product used in any manner inconsistent with the acceptable set-up, usage, safety or installation configurations identified in the Product's Owners Guide.
- G. Any Product used for purposes or applications, or subjected to operating conditions, other than those identified as acceptable in the Product's Owners Guide.
- H. Product repairs (including any product whose case has been opened), or part replacements provided or installed, by any person other than an Authorized Hitachi Service Facility Representative.
- I. Improper uncrating, set-up or installation or any misadjustments caused by user-operated controls.
- J. Any labor or costs associated with removing the Product from a custom cabinet or other specialized product installation that impedes direct and immediate removal of the Product from the owner's premises (must be arranged and paid by the owner).
- K. Product cabinets, cabinet parts, knobs, batteries or accessories.
- L. Product screens that have been cleaned by any method other than as specified in the Product's Owners Guide.
- M. Normal usage, degraded brightness caused by backlight aging and/or cell defects or ordinary wear and tear, including, without limitation, scratches or marks on the Product's screen, cabinet or the appearance of bright or dark screen pixels.
- N. Any Product returned for service that is damaged due to improper packaging, mishandling or shipping. (IMPORTANT: When shipping any Product to a Hitachi Authorized Service Facility, Product owner must package it securely in the original shipping container or its equivalent to prevent damage. The Product must be returned with the shipping charges prepaid and proof of purchases included in the shipping container. Failure to properly package such product during such shipment will void all warranties.)
- O. Any Product purchased or serviced outside the United States of America and Puerto Rico.
- P. Any Product that has been used for commercial purposes.

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## **End User License Agreement For HITACHI DTV Software**

#### END USER LICENSE AGREEMENT FOR HITACHI DTV SOFTWARE

IMPORTANT – READ CAREFULLY: This End User License Agreement for HITACHI DTV Software (this "Agreement") is a legal agreement between you ("you" or "your"), in your capacity as the owner of a HITACHI brand digital television (the "DTV"), and HITACHI America, Ltd., Home Electronics Division ("HITACHI"). By using the DTV or the digital television software installed on the DTV (the "DTV Software") or any Upgrade (as defined below, and together with the DTV Software, the "Software"), you agree to be bound by the terms and conditions of this Agreement. IF YOU DO NOT AGREE TO BE BOUND BY THIS LICENSE AGREEMENT, DO NOT USE THE DTV OR THE SOFTWARE.

- LICENSE GRANT. HITACHI grants to you, for the life of the DTV, a nonexclusive, non-transferable, revocable license to install and use one copy of the Software on the DTV, subject to the following limitations and restrictions:
  - a. You may not share, duplicate, republish or redistribute the Software;
  - You may not resell, rent, lease, sublicense, gift, loan, as sign or otherwise transfer the Software or any of your rights under this Agreement;
  - c. You may not modify, adapt, translate, reverse engineer, decompile, disassemble or make derivative works from the Software or use the Software in combination with any non-Hitachi software; and
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# **Appendixes**

## **Appendix A: Picture Format for Each Input Source**

**Aspect Specifications** 

Yes: Available / --: Not Available

		Aspect						
Input Signal	Input Signal		Auto	4:3	16:9	Full	Zoom1	Zoom2
AIR / CABLE	Air / Cable		Yes	Yes	Yes		Yes	Yes
		1080p, 1080i, 720p, 480p, 480i	Yes	Yes	Yes	Yes	Yes	Yes
HDMI 1	HDMI / DVI	640x480, 800x600, 1024x768, 1280x720, 1280x768, 1280x1024, 1440x900, 1680x1050	Yes			Yes		
HDMI 2	HDMI	1080p, 1080i, 720p, 480p, 480i	Yes	Yes	Yes	Yes	Yes	Yes
HDMI 3	HDMI	1080p, 1080i, 720p, 480p, 480i	Yes	Yes	Yes	Yes	Yes	Yes
HDMI 4	HDMI	1080p, 1080i, 720p, 480p, 480i	Yes	Yes	Yes	Yes	Yes	Yes
COMPONENT	YPbPr		Yes	Yes	Yes		Yes	Yes
AV	Video / S-Video			Yes	Yes		Yes	Yes
RGB	Analog RGB		Yes			Yes		

## Appendix B: RGB Format

Resolution	Frequency(Hz)	Resolution	Frequency(Hz)
640x480	60, 72, 75	1280x1024	60
720x400	70	1440x900	60
800x600	56, 60, 72, 75	1680x1050	60
1024x768	60, 70, 75	1920x1080	60
1280x720	60		
1280x768	60		

The type of video board or connecting cable may not allow for correct displays adjustment of H-Position, V-Position, Clock and Phase.

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