

# HITACHI Inspire the Next

## LCD REAR PROJECTION TELEVISION

# **Operating Guide for 50C20**

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As an Energy Star<sup>®</sup> Partner, Hitachi, Ltd. has determined that this product meets the Energy Star<sup>®</sup> guidelines for energy efficiency.

## Important Safety Instructions

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

Our reputation has been built on the quality, performance, and ease of service of HITACHI 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 vour HITACHI television.

Please fill out your warranty card and mail it to HITACHI. This will enable HITACHI to notify you promptly in the improbable event that a safety problem should be discovered in your product model.

#### Follow all warnings and instructions marked on this television.



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.

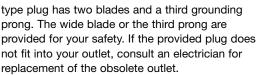
#### **READ BEFORE OPERATING EQUIPMENT**

Follow all warnings and instructions marked on this television

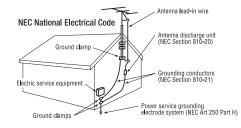
- 1. Read these instructions.
- 2. Keep these instructions.
- 3. Heed all warnings.

2

- 4. Follow all instructions.
- 5. Do not use this apparatus near water.
- 6. Clean only with a dry cloth.
- 7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two
- blades with one wider than the other. A grounding



- 10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11. Only use the attachments/accessories specified by the manufacturer.
- Use only with the cart, stand, tripod, 12. bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- 13. Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into 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.
- 16. Follow instructions for wall, shelf or ceiling mounting as recommended by the manufacturer.
- 17. 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 antennadischarge 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.





## Important Safety Instructions

#### **Power source**

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

To prevent electric shock, do not use the 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 television to 50 Hz, direct current, or anything other than the specified voltage.

#### Caution



Never remove the back cover of the television as this can expose you to very high voltages and other hazards. If the television does not operate properly,

unplug the television and call your authorized dealer or service center.

#### Caution

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.

#### Warning

- To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
- The television should not be exposed to dripping or splashing and objects filled with liquids, such as vases, should not be placed on the television.
- Do not place any objects on the top of the television which may fall or cause a child to climb to retrieve the objects.

#### **FCC Regulations**

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.

#### **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. Home Electronics Division may void the user's authority to operate the equipment.

#### Note

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

#### 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 by Macrovision Corporation, and is intended for home and other limited consumer uses only unless otherwise authorized by Macrovision. Reverse engineering or disassembly is prohibited.

#### Note

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

#### Note

- There are no user serviceable parts inside the television.
- Model and serial numbers are indicated on back side of the television.

#### Lead/Mercury Notice

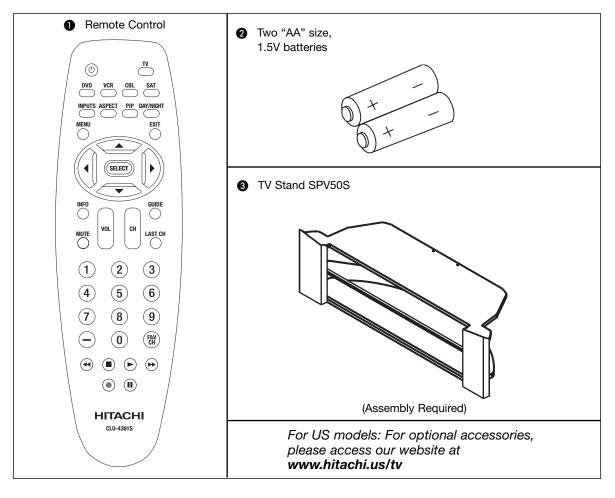
(H9) This product contains lead and a lamp that contains mercury. Dispose of this product and its lamp in accordance with applicable environmental laws. For lamp recycling and disposal information, go to www.lamprecycle.org. For product recycling and disposal information contact your local government agency or www.eRecycle.org (in California), the Electronic Industries Alliance at www.eiae.org (in the US) or the Electronic Product Stewardship Canada at www.epsc.ca (in Canada).

FOR MORE INFORMATION, CALL 1-800-HITACHI.



## Accessories

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

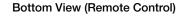


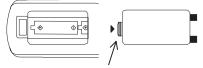
- Remote Control Unit CLU-4361S (Part No. HL02291).
- 2 Two "AA" size, 1.5V batteries (For Remote Control Unit).
- **3** Table Top Stand (P# SPV50S).

#### **REMOTE CONTROL BATTERY INSTALLATION AND REPLACEMENT**

- 1. Open the battery compartment cover of the remote control by pulling back the TAB and lifting up to remove the cover.
- Insert two new "AA" size batteries into the remote control. When replacing old batteries, push them back towards the springs and lift out.
- 3. Match the batteries to the (+) and (-) marks in the battery compartment.
- 4. Insert the (-) side, into the battery compartment, then slide the battery inwards and insert the second battery. Do not force the battery into the battery compartment.
- 5. Replace the battery compartment cover.

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Lift up on tab to remove back cover.

**CAUTION:** Do not insert batteries with the "+" and "-" polarities reversed as this may cause the batteries to swell or rupture resulting in leakage.

## How to set up your new HITACHI Projection Television

#### ANTENNA

Unless your LCD Rear PTV is connected to a cable TV system or to a centralized antenna system, a good outdoor 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.

#### LOCATION

Select an area where sunlight or bright indoor illumination will not fall directly on the picture screen. Also, be sure that the location selected allows a free flow of air to and from the perforated back cover of the set. 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. When using your LCD Rear PTV against a wall, keep it at least 10cm (4 inches) from the wall.

**NOTE:** Your new **HDTV** has a built-in high definition television signal processor. This television includes a fan to cool the processor. The sound of moving air from the fan is normal and may be noticeable in very quiet environments.

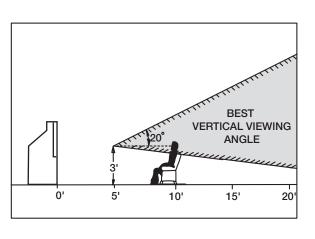
#### VIEWING

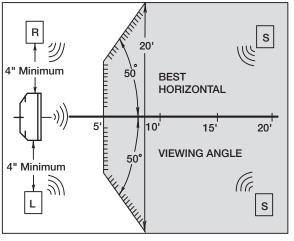
The major benefit of the **HITACHI** LCD Rear PTV is its large viewing screen. To see this large screen at its best, test various locations in the room to find the optimum spot for viewing.

The best picture is seen by sitting directly in front of the TV and about 10 to 18 feet from the screen. Picture brightness decreases as the viewer moves to the left and right of the receiver.

During daylight hours, reflections from outside light may appear on the screen. If so, drapes or screens can be used to reduce the reflection or the TV can be located in a different section of the room.

If the TV's audio output will be connected to a Hi-Fi system's external speakers, the best audio performance will be obtained by placing the speakers equidistant from each side of the receiver cabinet and as close as possible to the height of the picture screen center. For best stereo separation, place the external speakers at least four feet from the side of the TV, place the surround speakers to the side or behind the viewing area. Differences in room sizes and acoustical environments will require some experimentation with speaker placement for best performance.





#### **IMPORTANT NOTES:**

- Since LCD Rear PTV incorporates a high pressure lamp to display an image, it may take about one minute for the picture to become stable, after the power has been turned on. After extended use, the picture may darken, the color may look unusual, or the lamp "goes out," (burns out). You may hear a "pop" sound when the lamp "goes out." These are common characteristics of the lamp, and should not be considered defective.
- 2. LCD Rear PTV incorporates an advanced cooling fan system to prevent from overheating. If you hear the cooling fan, it should not be considered defective.
- 3. If you hear a "cracking" sound from the TV cabinet, it is due to the TV's cabinet expanding and contracting due to room temperature changes. It has no effect on the TV's functions.
- 4. The LCD Rear PTV cabinet is constructed with all plastic. Make sure to place it on a flat surface. An uneven surface might warp the cabinet and reduce the picture quality.

## **Hook-up Cables and Connectors**

Most video/audio connections between components can be made with shielded video and audio cables that have phono connectors. For best performance, video cables should use 75-Ohm coaxial shielded wire. Cables can be purchased from most stores that sell audio/video products. Below are illustrations and names of common connectors. Before purchasing any cables, be sure of the output and input connector types required by the various components and the length of each cable.

#### **300-Ohm Twin Lead Connector**

This outdoor antenna cable must be connected to an antenna adapter (300-Ohm to 75-Ohm).

#### **Phono Cable**

Used on all standard video and audio cables which connect to inputs and outputs located on the television's rear jack panel and side control panel.

#### "F" Type 75-Ohm Coaxial Antenna Cable

For connecting RF signals (antenna or cable TV) to the antenna jack on the television.

#### S-Video (Super Video) Cable

This connector is used on camcorders, VCRs and laserdisc players with an S-Video feature in place of the standard video cable to produce a high quality picture.

#### **Optical Cable**

This cable is used to connect to an audio amplifier with an Optical Audio In jack. Use this cable for the best sound quality.

#### **HDMI** Cable

This cable is used to connect your external devices such as Set-Top-Boxes or DVD players equipped with an **HDMI** output connection to the TV's **HDMI** input.

#### ANTENNA CONNECTIONS TO REAR JACK PANEL

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

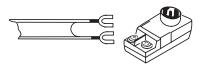
When using a 75-Ohm coaxial cable system, connect **CATV** coaxial cable to the **CABLE** (75-Ohm) terminal. If you have an antenna, connect the coaxial cable to the **AIR** terminal.



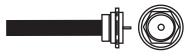
When using a 300-Ohm twin lead from an outdoor antenna, connect the **VHF** or **UHF** antenna leads to screws of the **VHF** or **UHF** adapter. Plug the adapter into the antenna terminal on the TV.

## When both VHF and UHF antennas are connected

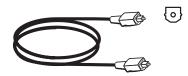
Attach an optional antenna cable mixer to the TV antenna terminal, and connect the cables to the antenna mixer. Consult your dealer or service store for the antenna mixer.

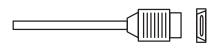


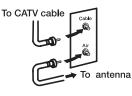






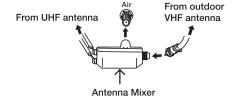








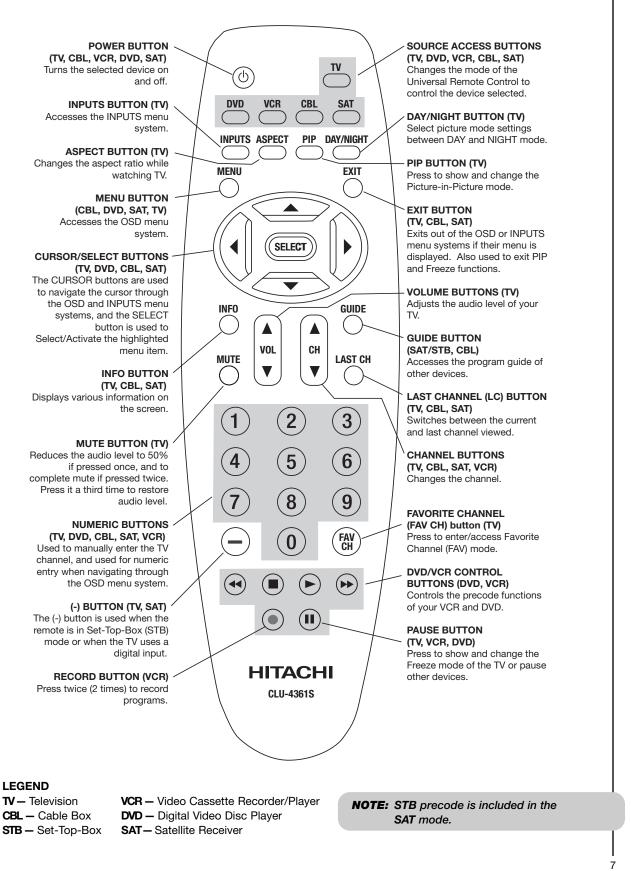
or UHF antenna



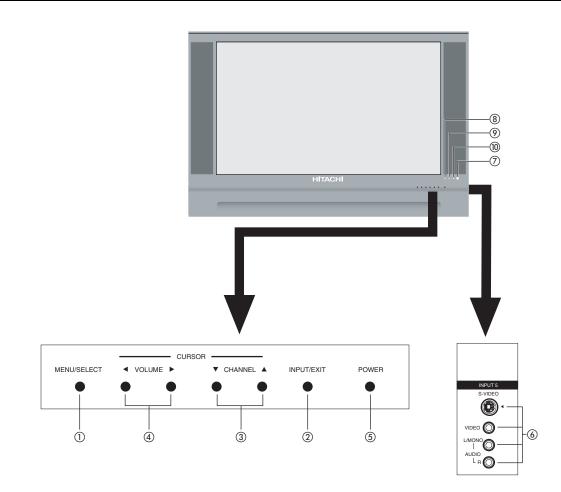


## **Quick Reference Remote Control Buttons and Functions**

In addition to controlling all of the functions on your HITACHI LCD Rear Projection TV, the new remote control is designed to operate different types of devices, such as, DVD Players, CBL (Cable Boxes), set-top-boxes, satellite receivers, and VCRs. The remote control must be programmed to control the chosen device. Please see pages 20-31 for a complete description of all features and programming of the Remote Control.



## **Front Panel Controls**



#### **MENU/SELECT** button

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

#### **O** INPUT/EXIT button

Press this button to display the input menu selections of CABLE, AIR, INPUT: 1, 2, 3, 4 and 5. This button also serves as the EXIT button when in MENU mode.

#### **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 ( $\nabla$ ) and up ( $\blacktriangle$ ) buttons when in **MENU** mode.

#### 4 VOLUME level

Press these buttons for your desired sound level. The volume level will be displayed on the TV screen. These buttons also serve as the cursor left ( $\triangleleft$ ) and right ( $\triangleright$ ) buttons when in **MENU** mode. When the TV power is turned OFF at a volume level 31 or greater, the volume level will default to 30 when the TV is turned ON. However, if it is set to a level 30 or less, the volume level will be at the level it was set when the TV is turned ON.

#### **6** POWER button

Press this button to turn the TV ON or OFF.

#### **③** SIDE INPUT JACKS (INPUT 5)

Use these audio/video jacks for a quick hook-up from a camcorder or VCR to instantly view your favorite show or new recording. Press the **INPUT** button and select **INPUT 5**. If you have mono sound, insert the audio cable into the left audio jack.

#### **IR RECEIVER Sensor**

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

## Front Panel Controls

#### POWER Light

When the TV is turned ON, the Power Light will first blink to indicate that the television lamp is warming up. This light will be ON during normal operation. When the TV is turned OFF, the Power Light will blink to indicate that the television lamp will be cooling down and the light will eventually turn off.

#### **O** TEMP Indicator

This light is off during normal operation. If this indicator is lit, the optic unit is too hot. If this indicator is blinking, the cooling fan has stopped. Please call service. The optic unit has an air filter that may become clogged over time. The internal termperature will increase which will trigger the temperature sensor to display an On-Screen warning. After 6 minutes, the lamp will turn off, then the TV will turn off with the TEMP LED On.

#### LAMP Indicator

NOTES

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This light is off during normal operation. If light is lit, the lamp has failed. See page 56-59 for lamp replacement procedure. Consult your Hitachi dealer for proper part. If light is blinking, lamp cover is not assembled securely after replacement.

INDICATOR	INDICATION	MEANING	ACTION
	LIGHT ON	NO LAMP LIGHT or BROKEN LAMP	
LAMP LED	BLINKING	WRONG LAMP UNIT ASSEMBLY / LAMP DOOR OPEN	Need to replace if LAMP still does not light by Power On " again. Check assembly condition of LAMP UNIT
TEMP LED	LIGHT ON	Too hot inside the OPTIC unit	Call for Service
LED	BLINKING	COOLING FAN STOPPED	
POWER	INTERMEDIATE BLINKING (0.5 SEC CYCLE)	BEGINNING OF WARM UP AFTER THE POWER ON.	
LED	LIGHT ON	NORMAL OPERATION	
	SHORT BLINKING (0.3 SEC CYCLE)	BEGINNING OF COOL DOWN (FOR 20 SEC.)	
		(TV CANNOT ACCEPT ANY CODE IN THIS PERIOD EXCEPT WITHIN THE BEGINNING 5 SEC.)	
	LONG BLINKING (1 SEC CYCLE)	COOL DOWN (FOR 6 MINUTES)	
		(TV CAN ACCEPT REMOTE CONTROL AND SIDE BUTTONS)	

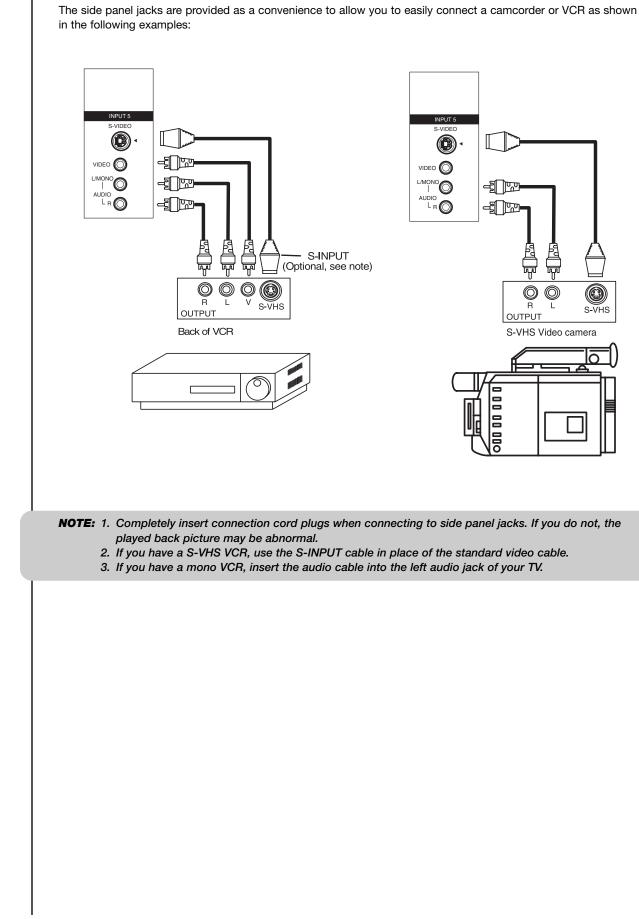
2. If the LAMP, TEMP, and POWER LED are blinking in the order below, the television is warming up. POWER →TEMP →LAMP

 Your Hitachi LCD Rear Projection Television may appear to be OFF when it is set to input 1 ~ input 5 and the video signal is not received from the input jacks. Please make sure the Blue Power light indicator is not lit (OFF) when you are not watching for long lasting performance.

4. Your Hitachi LCD Rear Projection Television has an internal lamp that lights up the TV screen. Make sure to turn off the Power when you do not watch the LCD Rear Projection Television for longer lamp life

## **Side Panel Jacks and Connections**

First time use



## **Rear Panel Connections**

1 Antenna Input

**CABLE** – CATV (Cable TV) input. **AIR** – RF antenna input.

**NOTE:** You may ask your local cable company whether DTV services are available.

#### **O** Audio/Video Inputs 1, 2, 3 and 4

By using the **INPUTS** button, **CURSOR** buttons and **SELECT** button of the remote control you can select each video source. Use the audio and video inputs to connect external devices, such as VCRs, camcorders, laserdisc players, DVD players etc. (If you have mono sound, insert the audio cable into the left audio jack.)

**NOTE:** You may use VIDEO or S-VIDEO inputs to connect to INPUT 1 and 2, but only one of these inputs may be used at a time.

#### MONITOR OUT & HI-FI AUDIO OUT

These jacks provide fixed and variable audio and video signals (CABLE/AIR, INPUT 1, 2 and 5) which are used for recording. Use the S-VIDEO Output for high quality video output. Component signal to INPUT 3 and 4, and HDMI input will not have monitor output.

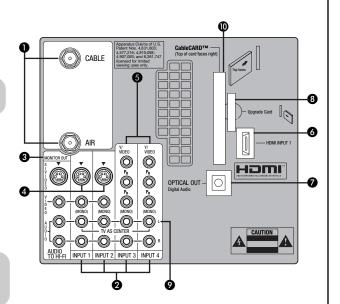
#### **4** S-Video Inputs 1 and 2

**INPUTS 1** and **2** provide S-Video (Super Video) jacks for connecting equipment with S-Video output capability.

#### Component: Y-PBPR Inputs

**INPUTS 3** and **4** provide Y-PBPR jacks for connecting equipment with this capability, such as a DVD player or Set Top Box. You may use composite video signal for both inputs.

- **NOTE:** 1. Do not connect composite VIDEO and S-VIDEO to INPUT 1, 2 or 5 at the same time. S-VIDEO has priority over VIDEO input.
  - 2. 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.
  - 3. 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 34).
  - 5. To ensure no copyright infringement, the **MONITOR OUT** output will be abnormal, when using the Y-P<sub>B</sub>P<sub>R</sub> jacks.
  - 6. **INPUT 3** and **INPUT 4** (Y/VIDEO) can be used for composite video and component video input.



#### **③** HDMI (High Definition Multimedia Interface)

#### ABOUT HDMI - HDMI is the

next-generation all digital interface for consumer electronics. **HDMI** enables the secure distribution of uncompressed high-definition video and multichannel audio in a single cable. Because digital television (DTV) signals remain in digital format, **HDMI** assures that pristine high-definition images retain the highest video quality from the source all the way to your television screen.

Use the **HDMI** input for your external devices such as Set-Top-Boxes or DVD players equipped with an **HDMI** output connection.

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

- **NOTE:** 1. The **HDMI** input is not intended for use with personal computers.
  - 2. Only DTV formats such as 1080i, 720p, 480i and 480p are available for HDMI.

#### Optical Out (Digital Audio)

This jack provides Digital Audio Output for your audio device that is Dolby<sup>®</sup> Digital and PCM compatible, such as an audio amplifier.

Manufactured under license from Dolby Laboratories. **DOLBY** and the **DOUBLE-D** symbol are trademarks of Dolby Laboratories.

#### Upgrade Card

This card slot is for future software upgrades. Hitachi will notify you if a software upgrade is required for your TV. In order to receive written notification, please complete and return your warranty card.

## **Rear Panel Connections**

#### **•** TV AS CENTER (INPUTS 1-4)

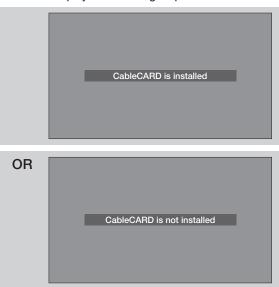
These jacks are for stereo amplifiers with center signal output capability. This feature allows the TV speakers to be used as a center speaker. The TV must be set as a center channel by selecting **TV AS CENTER** on the Internal Speakers Settings of the Audio Menu (see page 38).

#### CableCARD Slot

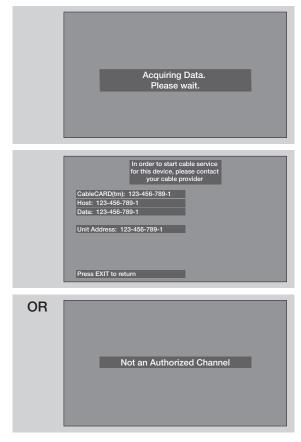
This slot is for the CableCARD that will be provided by your local cable operator to gain access to chosen cable channels. The CableCARD will allow you to tune digital and high definition cable channels. Please call your local cable operator if this service is available before requesting a CableCARD (also known as Point of Deployment (POD) module).

- 1. Connect a coaxial cable to cable terminal of the Rear Panel Jacks.
- 2. Insert the CableCARD into the slot (Top of card should be facing right as shown below).

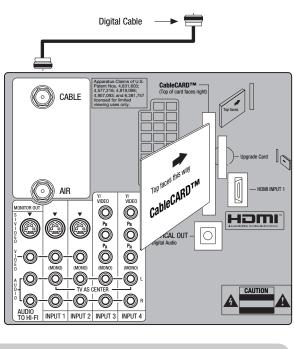
If the CableCARD is properly installed or not installed, the TV will display the following respective screens.



After the CableCARD is installed, wait until the second screen below appears. The third screen below will appear if a channel is not authorized for viewing. Press the **EXIT** button to exit the second screen.



Please take note of all information on the screen (you will provide this information to your cable operator). Call your cable operator and give them the information from the card to start your cable service.



**NOTE:** 1. A digital cable subscription is required.2. Do not insert a PCMCIA card into the CableCARD slot.



## **Rear Panel Connections**

#### Additional CableCARD Information

After the CableCARD has been successfully installed, a CableCARD Information menu appears in the **SETUP** menu of the On-Screen Display.

Follow the instructions below to access the CableCARD Information menu.

1. Press the **MENU** button on the Remote Control to access the Main Menu screen.

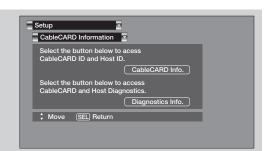
Video Audio		
Channel Manag	er	
Locks		
Timers		
Setup		
✦ Move SEL	Select	

- Use the CURSOR button ▼ to highlight SETUP in the Main Menu and press the SELECT button.
- Use the CURSOR button ▼ to highlight CableCARD Information and press the SELECT button.

Menu Preference	=
Lamp Power Control	
Set The Inputs	
Set Closed Captions	
Set Monitor Out	-
CableCARD Information	F
Upgrades	-
Quick Start-Up	-
SEL Select	

 To view the CableCARD ID and Host ID, use the CURSOR button ▼ to highlight CableCARD Info and press the SELECT button.

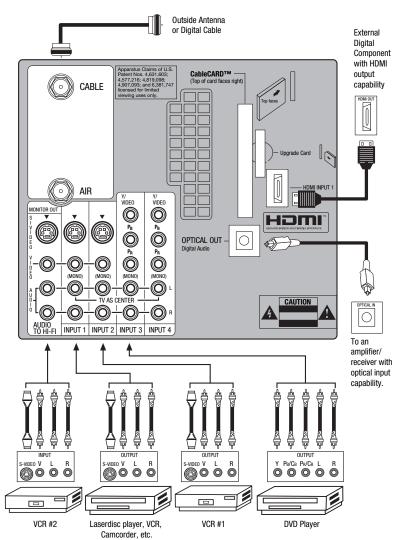
**NOTE:** The **Diagnostics Info.** window is for Service use only.



## **Rear Panel Connections**

#### TIPS ON REAR PANEL CONNECTIONS

- S-VIDEO, Y-PBPR and HDMI connections are provided for high performance laserdisc players, VCRs etc. that have this feature. Use these connections in place of the standard video connection if your device has this feature.
- If your device has only one audio output (mono sound), connect it to the left audio jack on the television.
- Refer to the operating guide of your other electronic equipment for additional information on connecting your hook-up cables.
- A single VCR can be used for VCR #1 and VCR #2, but note that a VCR cannot record its own video or line output (**INPUT 1** in the example on this page). Refer to your VCR operating guide for more information on line input-output connections.
- You may use VIDEO or S-VIDEO inputs to connect to INPUT 1, INPUT 2 or INPUT 5, but only one of these may be used at a time.
- Connect only one component (VCR, DVD player, camcorder, etc.) to each input jack.
- COMPONENT: Y-PBPR (INPUT 3 and INPUT 4) connections are provided for high performance components, such as DVD players and set-topboxes. Use these connections in place of the standard video connection if your device has this feature. INPUT 3 and INPUT 4 accepts both composite and component video signals.
- 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 PB input.
- Your component outputs may be labeled Y-CBCR. In this case, connect the components CB output to the TV's PB input and the components CR output to the TV's PR input.
- You may use composite and component video signals for **INPUT 3** and **INPUT 4**.
- It may be necessary to adjust **TINT** to obtain optimum picture quality when using the **Y-PBPR** inputs (see page 34).



- To ensure no copyright infringement, the MONITOR OUT output may be abnormal, when using the Y-PBPR jacks.
- When using an HDMI input from a Set-Top-Box, it is recommended that a 1080i or 720p input signal is used.
- **NOTE:** 1. Connect only one component to each input jack.
  - 2. Follow connections that pertain to your personal entertainment system.
  - 3. INPUT 3 and INPUT 4 can accomodate Composite and Component video signals.
  - 4. Cables are not included with the purchase of this TV, except when noted as "provided".

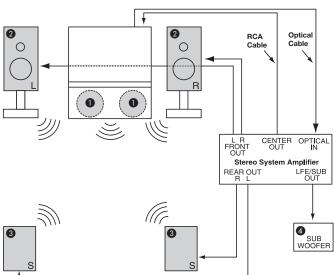
#### **MACROVISION NOTES:**

- Video signals fed through a VCR may be affected by copyright protection systems and the picture will be distorted on the television.
- 2. Connecting the television directly to the Audio /Video output of a Set-Top-Box will assure a more normal picture.

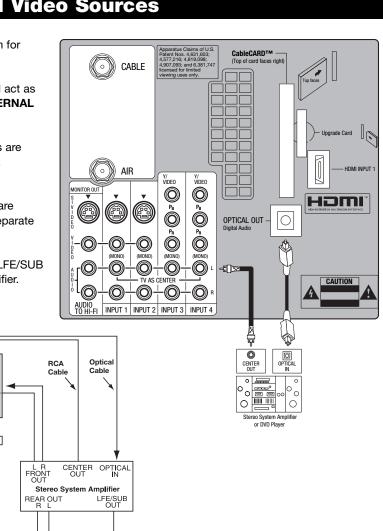
## **Connecting External Video Sources**

Match the numbers below to the diagram for speaker placement.

- The television's internal speakers will act as center speaker (select AUDIO - INTERNAL SPEAKERS - TV AS CENTER).
- 2 These FRONT left and right speakers are connected to the FRONT output of a separate audio amplifier.
- 3 These REAR left and right speakers are connected to the Rear output of a separate audio amplifier.
- This subwoofer is connected to the LFE/SUB Out output of a separate audio amplifier.



- **NOTE:** 1. The Optical Out (Digital Audio) provides a fixed digital audio output to your external component such as an A/V receiver with optical input capability. The audio level can only be controlled through the volume control of the external audio amplifier.
  - 2. See page 39 for AUDIO-Digital Output.



The exact arrangement you use to connect the VCR, camcorder, laserdisc player, DVD player or HDTV Set Top Box to your TV set is dependent on the model and features of each component. Check the owner's manual of each component for the location of video and audio inputs and outputs.

The following connection diagrams are offered as suggestions. However, you may need to modify them to accommodate your particular assortment of components and features. For best performance, video and audio cables should be made from coaxial shielded wire.

#### BEFORE OPERATING EXTERNAL VIDEO SOURCE

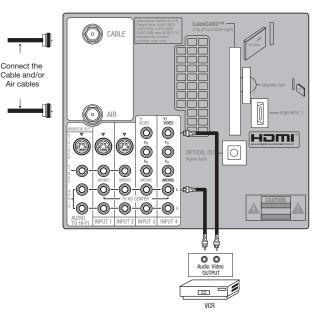
Connect an external source to the INPUT terminal, then press the **INPUTS** button to show the **INPUTS** menu. Use the **CURSOR PAD** to select the **CABLE, AIR** or **INPUT** of your choice. Then press the **SELECT** button to confirm your choice (see page 23).

**NOTE:** When the TV is set to VIDEO and a video signal is not received from the VIDEO INPUT JACK on the back panel of the TV (i.e., VCR/laserdisc player, etc. is not connected or the video device is OFF), the set will appear to be OFF.

#### CONNECTING A COMPOSITE VIDEO AND MONAURAL AUDIO SOURCE TO INPUT1 – INPUT5

- 1. Connect the cable from the VIDEO OUT of the VCR or the laserdisc player to the INPUT (VIDEO) jack, as shown on the TV set on the right.
- Connect the cable from the AUDIO OUT of the VCR or the laserdisc player to the INPUT (MONO)/L(AUDIO) jack.
- 3. Press the **INPUTS** button, then select **INPUT 4** from the **INPUTS** menu to view the program from the VCR or the laserdisc player. The VIDEO OSD label disappears automatically after approximately four seconds.
- 4. Select **CABLE** from the **INPUTS** menu to return to the previous channel.
- **NOTE:** The Input 3 can be used in the same manner as Input 4.

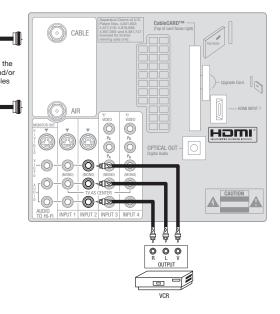






#### CONNECTING A COMPOSITE VIDEO AND STEREO AUDIO SOURCE TO INPUT1 – INPUT5

- Connect the cable from the VIDEO OUT of the VCR or the laserdisc player to the INPUT (VIDEO) jack, as shown on the TV set on the right.
- Connect the cable from the AUDIO OUT R of the VCR or the laserdisc player to the INPUT (AUDIO/R) jack.
- Connect the cable from the AUDIO OUT L of the VCR or the laserdisc player to the INPUT (AUDIO/L) jack.
- Press the INPUTS button, then select INPUT 2 from the INPUTS menu to view the program from the VCR or laserdisc player. The VIDEO OSD label disappears automatically after approximately four seconds.
- 5. Select **CABLE** from the **INPUTS** menu to return to the previous channel.



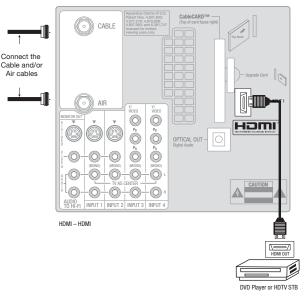
- **NOTE:** 1. Completely insert the connection cord plugs when connecting to rear panel jacks. The picture and sound that is played back will be abnormal if the connection is loose.
  - A single VCR can be used for VCR #1 and VCR #2 (see page 14), but note that a VCR cannot record its own video or line output. Refer to your VCR operating guide for more information on line inputoutput connections.
  - 3. When Input 3 or 4 are used, it's necessary to connect the video output from the device to the Y/Video input jack of the TV.

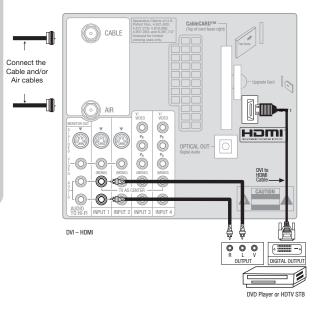
#### CONNECTING AN S-VIDEO SOURCE TO INPUT 1, 2 AND 5

- 1. Connect the cable from the S-VIDEO OUT of the VCR or the laserdisc player to the INPUT (S-VIDEO)
- Connect the cable from the AUDIO OUT R of the VCR or the laserdisc player to the INPUT (AUDIO/R) jack.
- Connect the cable from the AUDIO OUT L of the VCR or the laserdisc player to the INPUT (AUDIO/L) jack.
- Press the INPUTS button, then select INPUT 2 from the INPUTS menu to view the program from the VCR or laserdisc player. The VIDEO OSD label disappears automatically after approximately four seconds.
- 5. Select **CABLE** from the **INPUTS** menu to return to the previous channel.
- <complex-block>
- **NOTE:** 1. Completely insert the 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.
  - 2. A single VCR can be used for VCR #1 and VCR #2 (see page 14), but note that a VCR cannot record its own video or line output. Refer to your VCR operating guide for more information on line input-output connections.

#### CONNECTING A COMPONENT SOURCE WITH HDMI OR DVI CAPABILITY TO INPUT 1

- 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 on the TV set on the right. When using a component with DVI output, you also have to connect the AUDIO OUT (R/L) of the component to the AUDIO IN (R/L) of INPUT 1.
- Press the INPUTS button, then select INPUT 1 from the INPUTS menu to view the program from the HDTV set top box or DVD player. The VIDEO OSD label disappears automatically after approximately four seconds.
- 3. Select **CABLE** from the **INPUTS** menu to return to the previous channel.
- **NOTE:** 1. Completely insert the 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.
  - 2. The HDMI input on INPUT 1 contains the copy protection system called Highbandwidth Digital Content Protection (HDCP). HDCP is a cryptographic system that encrypts video signals when using HDMI connections to prevent illegal copying of video contents.
  - 3. HDMI is not a "NETWORK" technology. It establishes a one-way point-to-point connection for delivery of uncompressed video to a display.
  - 4. The connected digital output device controls the HDMI interface so proper setup of device user settings determines final video appearance.

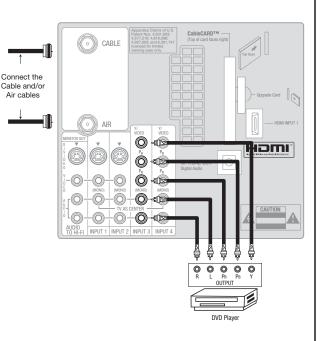






#### CONNECTING A COMPONENT SOURCE TO INPUT 3 OR 4: Y-PBPR.

- Connect the cable from the Y OUT of the Laserdisc/DVD player or HDTV set top box to the INPUT (Y) jack, as shown on the TV set on the right.
- Connect the cable from the C<sub>B</sub>/P<sub>B</sub> OUT or B-Y OUT of the Laserdisc/DVD player or HDTV set top box to the INPUT (P<sub>B</sub>) jack.
- Connect the cable from the CR/PR OUT or R-Y OUT of the laserdisc/DVD player or HDTV set top box to the INPUT (PR) jack.
- 4. Connect the cable from the AUDIO OUT R of the Laserdisc/DVD player or HDTV set top box to the INPUT (AUDIO/R) jack.
- 5. Connect the cable from the AUDIO OUT L of the Laserdisc/DVD player or HDTV set top box to the INPUT (AUDIO/L) jack.
- Press the the INPUTS button, then select INPUT 3 from the INPUTS menu to view the program from the Laserdisc/DVD player or HDTV set top box. The VIDEO OSD label disappears automatically after approximately four seconds.
- 7. Select **CABLE** from the **INPUTS** menu to return to the previous channel.
- **NOTE:** 1. Completely insert the 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.
  - 2. See page 14 for tips on REAR PANEL CONNECTIONS.



## **The Remote Control**

In addition to controlling all the functions on your **HITACHI** LCD Rear Projection TV, the new remote control is designed to operate different types of VCRs, CATV (Cable TV) converters, set-top-boxes, satellite receivers (SAT) and DVD players with one touch. Basic operation keys are grouped together in one area.

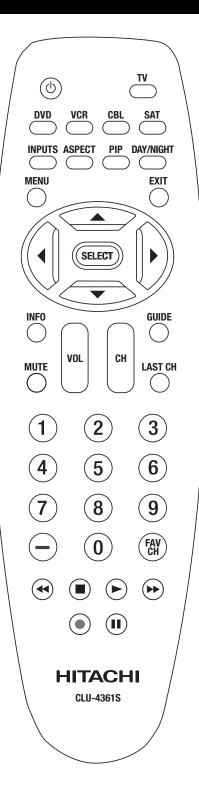
To operate your TV, point the remote control at the screen of the TV and press the  $\mathbf{TV}$  button. The remote will now control your television.

To operate your VCR, point the remote at the remote sensor of the VCR and press the **VCR** button. The remote will now control your VCR (see page 31 for instructions on how to program the remote to control your VCR).

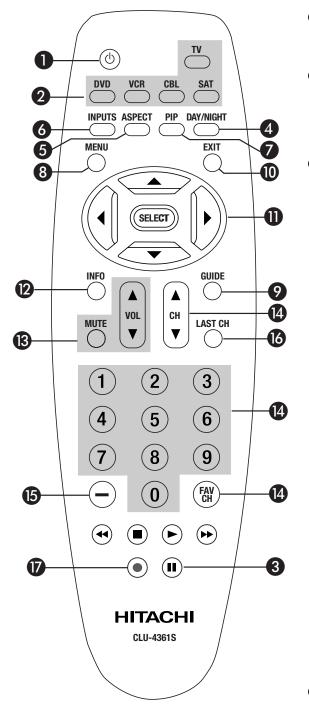
To operate your cable box, point the remote at the remote sensor of the cable box and press the **CABLE** (CBL) button. The remote will now control your cable box (see page 28 for instructions on how to program the remote to control your cable box).

To operate your set-top-box or satellite receiver, point the remote at the remote sensor of the set-top-box or satellite receiver and press the **SAT** button. The remote will now control your set-top-box or satellite receiver. If you have a satellite receiver, use this button to program your satellite receiver (see page 29 for instructions on how to program the remote to control your SAT).

To operate your DVD player, point the remote at the remote sensor of the DVD player and press the **DVD** button. The remote will now control your DVD player (see page 30 for instruction on how to program the remote to control your DVD player).



## How to Use the Remote to Control Your TV



#### POWER button

Press this button to turn the TV set on or off when the remote is in TV mode.

#### Ø MODE buttons

These buttons allow the remote to control your TV, VCR, DVD, Cable box/Satellite box depending on which button is pressed. Refer to page 20 for how to change between each of these modes.

#### PAUSE button

Press the **PAUSE** button to freeze the picture. Press the **EXIT** button to return the picture to motion. Press the **PAUSE** button repeatedly to cycle through the three different freeze modes (see page 26).



#### DAY/NIGHT button

Press this button to toggle between Day and Night picture mode settings. Select **DAY** for day time viewing with more brightness and contrast to compete with room light. Select **NIGHT** for night time viewing with less brightness and contrast for a more detailed picture (see page 34 for settings changes).

## How to Use the Remote to Control Your TV

#### **6** ASPECT button

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

#### 4:3 STANDARD

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

#### 4:3 EXPANDED

Use this aspect mode to display conventional (4:3) sources by linearly increasing image expansion from the center towards the edges of the display area in order to fill it.

#### 4:3 ZOOM1/ZOOM2

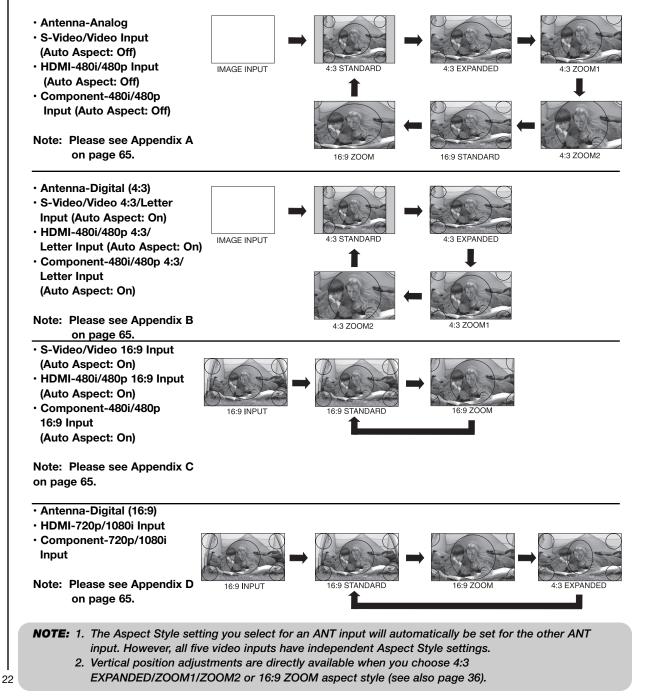
Use these aspect modes to zoom in on conventional (4:3) sources.

#### 16:9 STANDARD

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

#### 16:9 ZOOM

Use this aspect to Zoom-in once while in 16:9 aspect.



## How to Use the Remote to Control Your TV

#### **6** INPUTS button

When the remote control is in TV mode, press this button to access the **INPUTS** menu. Use the **CURSOR** and **SELECT** buttons to scroll and select the inputs that are being used. Pressing the **INPUTS** button repeatedly will also cycle through the Inputs menu items. Then press the **SELECT** button to select.



<b>INPUT 1</b>	Select to choose INPUT 1.
<b>INPUT 2</b>	Select to choose INPUT 2.
<b>INPUT 3</b>	Select to choose INPUT 3.
<b>INPUT 4</b>	Select to choose INPUT 4.
<b>INPUT 5</b>	Select to choose INPUT 5.
CABLE	Select to choose Cable.
AIR	Select to choose Air.

#### **PICTURE-IN-PICTURE** button

See separate section on pages 25-27 for a description.

#### MENU button

The MENU button will start the On-Screen Display.

#### **9** GUIDE button

#### [Cable Box (CBL), Satellite Receiver (SAT)/ Set-Top-Box (STB) mode only]

The use of this button is only applicable when the remote control is in (CBL) and (SAT/STB) mode. Press this button to access the Channel Guide of the (CBL), and (SAT/STB).

#### EXIT button

This button will exit all On-Screen Displays.

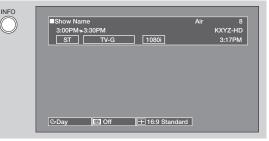
#### CURSOR buttons/SELECT button

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

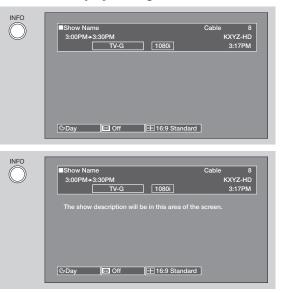
#### INFO button

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 (SA), the time, CHANNEL ID and if the TIMER is set.

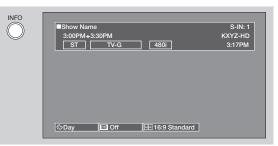
#### **INFO** button display for Analog Channels



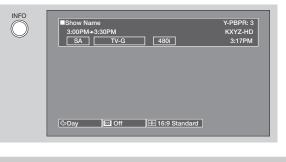
#### **INFO button display for Digital Channels**



## INFO button display when an S-VIDEO Input is connected to INPUT 1



#### INFO button display for when a COMPONENT VIDEO: Y-PBPR Input is connected to INPUT 3



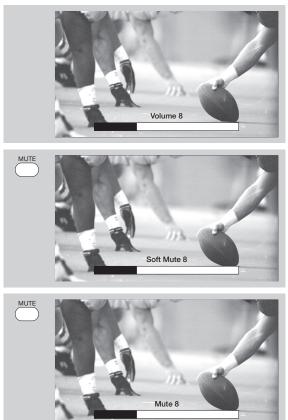
- **NOTE:** 1. Press the INFO button again or the EXIT button to return to normal viewing.
  - 2. The Aspect setting will not be shown if the channel is locked.

## How to Use the Remote to Control Your TV

#### **(B)** VOLUME (VOL), MUTE button

Press the **VOLUME** button ( $\blacktriangle$  or  $\blacktriangledown$ ) until you obtain the desired sound level.

To reduce the sound to one half of normal volume (SOFT MUTE) to answer the telephone, etc., press the **MUTE** button. Press the **MUTE** button again to turn the sound off completely (MUTE). To restore the sound, press the **MUTE** button one more time, or **VOL UP** ( $\blacktriangle$ ).



Closed Captioning will display automatically when MUTE/SOFT MUTE is on and Closed Caption is set to **AUTO** (see page 52).

When the TV power is turned off at a volume level 31 or greater, the volume level will default to 30 when the TV is turned on. However, if it is set to a level 30 or less, the volume level will be at the level it was set when the TV is turned on.

#### CHANNEL SELECTOR/FAVORITE CHANNEL (FAV CH) 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 wait a few seconds for the TV to tune. Channel selection may also be performed by **CHANNEL (CH) UP** ( $\blacktriangle$ ) or **CHANNEL (CH) DOWN** ( $\bigtriangledown$ ).

Press the **FAV CH** button to switch to Favorite (FAV) channel mode. You will know you are in Favorite Channel mode when (FAV) is displayed and the displayed channel is **GREEN**. Press it again to return to your regular tuned channels. You can add any channel to your Favorite channel list by pressing and holding down the **FAV CH** button until the displayed channel turns from **WHITE** to highlighted **GREEN**. You can also delete a channel from your favorite channel list by pressing and holding down the **FAV CH** button until the displayed channel turns highlighted **GREEN** to **WHITE**.







#### (-) DASH button

The **(-) DASH** button can only be used when the remote control is in Satellite (SAT) mode.

#### LAST CHANNEL (LC) button

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

#### RECORD button

Press to record programs when the remote is in VCR mode.



## Picture-in-Picture (PIP)

Your **HITACHI** LCD Rear Projection TV incorporates Two Tuner technology designed for improved viewing enjoyment. This Two Tuner feature allows you to view antenna inputs on both the main picture and sub-picture simultaneously, with separate tuning control for each. When a **DIGITAL** channel is viewed as the main picture, a **DIGITAL** channel can not be viewed as a sub picture. When an **ANALOG** channel or **INPUT** is viewed as the main picture, an **ANALOG** channel or **INPUT** can not be viewed as a sub picture.

To select between main picture and PIP sub-picture tuning, use the **CURSOR** buttons on the remote. The green highlighted channel display will move with every press of the **CURSOR** buttons ( $\blacktriangleleft$  or  $\blacktriangleright$ ).

The Picture-in-Picture feature is convenient when you want to watch more than one program at the same time. You can watch a TV program while viewing other programs from any of the video inputs.

Use the connection diagram to the right to view VCR program (from Input 1-5) as a sub-picture while viewing another program as main picture (**CABLE** or **AIR**). You may also view the VCR program (from Input 1-5) as a main picture while viewing another program as a sub-picture (**CABLE** or **AIR**).

When installing a CableCARD, connect your coaxial cable to **CABLE** (see page 12). **AIR** will not be available while using a CableCARD.

#### PIP button

Press the **PIP** button and a sub-picture will appear in one of the four different modes (**POP**, **PIP**, **SPLIT** or **SURF**), depending on the INPUT signal. To change the PIP mode, use the **PIP** button to cycle through the four different modes.

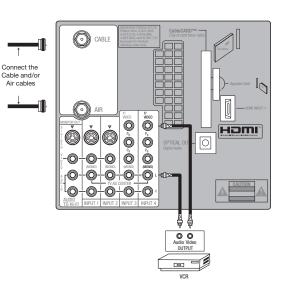
#### **POP Mode Picture-in-Picture**

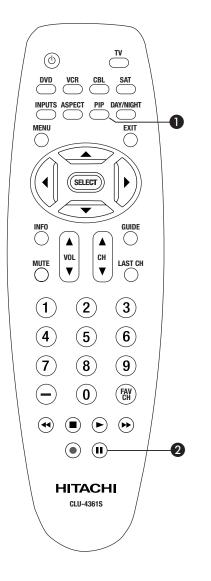
**POP MODE PIP** displays the sub-picture outside of the main picture. Use the **CURSOR** buttons ( $\blacktriangle$  or  $\blacktriangledown$ ) to move the sub-picture. This feature is not available with a Digital 16:9, 720p and 1080i signal. Please refer to the Picture-in-Picture Modes Table (see page 26).



**NOTE:** 1. Press the **CURSOR** buttons (◀ or ►) to enable the sub-picture sound.

- 2. Sub-picture channel availability depends on the channel list.
- 3. Two INPUTS can't be viewed in PIP mode. Only one INPUT (1-5) and one antenna (CABLE or AIR).





## **Picture-in-Picture (PIP)**

#### **PIP Mode Picture-in-Picture**

This feature is only available with a Digital 16:9, 720p and 1080i signal. To prevent a pattern burn, occasionally move the sub-picture using the **CURSOR** buttons.





### MAIN PICTURE SUB PICTURE



#### **SPLIT Mode Picture-in-Picture** Split Mode PIP displays the main picture and sub-

picture evenly on the screen.

#### **SURF Mode Picture-in-Picture**

Surf Mode PIP automatically scans all active channels (those set in memory) and displays them as PIP subpictures or Thumbnail channels. Press the **SELECT** button to stop on a chosen channel. Use the remote **CURSOR** buttons ( $\blacktriangleleft$ ,  $\blacktriangleright$ ,  $\blacktriangle$  and  $\blacktriangledown$ ) to navigate the Thumbnail. Press the **EXIT** button to enable your chosen channel and return to normal viewing.



**NOTE:** Press the SELECT button to stop the Surf mode or channel scan. Press the SELECT button again to resume Surf mode or channel scan.

			SUB-IMAGE				
	MAIN PICTURE		Digital	Tuner	1080і / 720р		480i / Analog ⁄ideo / S-Video
PIP Mode	Format	Aspect	16:9	4: 3	16:9	16:9	4:3
	ANT Digital	4:3	-	-	YES	YES	YES
POP	480p/480i	16:9	YES	YES	-	-	-
	ANT Analog Video / S-Video	4:3	YES	YES	-	-	-
PIP	ANT Digital	16:9	-	-	-	YES	YES
4:3	1080i / 720p	16:9	-	YES	-	-	-
PIP	ANT Digital	16:9	-	-	YES	YES	YES
16:9	1080i / 720p	16:9	YES	-	-	-	-
	ANT Digital	16:9	-	-	YES	YES	YES
		4:3	-	-	YES	YES	YES
SPLIT	1080i / 720p	16:9	YES	YES	-	-	-
	480p / 480I	16:9	YES	YES	-	-	-
	ANT Analog Video / S-Video	4:3	YES	YES	-	-	-
SURF 12 PIX			YES	YES	-	-	YES <sup>1</sup>

#### Picture-In-Picture (PIP) Modes

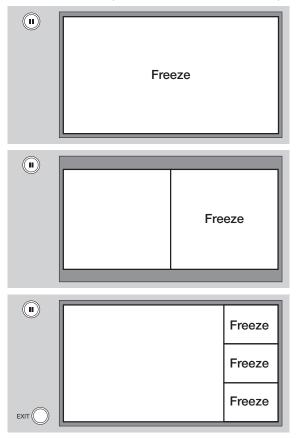
26

http://www.pureglare.com.au

## **Picture-in-Picture (PIP)**

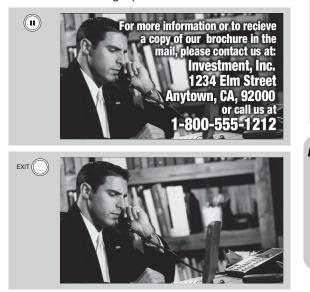
#### **2** PAUSE button

If you wish to freeze the sub-picture, press the **PAUSE** button. This is convenient when trying to write down the address for a mail order company, recording statistics for a sporting event, etc. To return the picture to motion, press the **EXIT** button. Press the **PAUSE** button repeatedly to toggle between **FREEZE** modes (Main Freeze, SPLIT and STROBE).



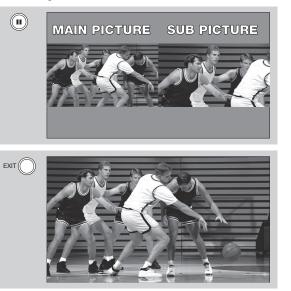
#### MAIN FREEZE

Press the **PAUSE** button to freeze one frame of the picture you are currently viewing and the frozen frame will show in the Main Picture. Press the **EXIT** button to return to normal viewing. This feature is useful for freezing a picture frame with addresses.



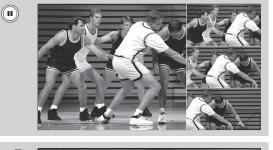
#### SPLIT FREEZE

Press the **PAUSE** button to freeze the picture you are currently viewing (only the right sub-picture will freeze). Press the **EXIT** button to return to normal viewing.



#### STROBE FREEZE

Press the **PAUSE** button to freeze three frames of the picture you are currently viewing (only the 3 sub-pictures will freeze). Press the **EXIT** button to return to normal viewing. This feature is useful for viewing a moving picture that has many details, for example, a close play in a sporting event or a golf swing.





- **NOTE:** 1. The default **FREEZE** mode is the MAIN freeze followed by the **SPLIT** freeze and then the **STROBE** freeze. The last Freeze mode you selected before you pressed the **EXIT** button will be the one that comes up after pressing the **PAUSE** button again.
  - 2. Each freeze frame is delayed about 0.1 (1/10) second.

## The Remote Control for Cable Box Functions

#### **OPERATING THE PRECODED** FUNCTION FOR YOUR CABLE BOX.

This remote is designed to operate different types of cable boxes. You must first program the remote to match the remote system of your cable box (refer below for pre-codes).

- 1. Turn **ON** your cable box.
- Aim the remote control at the front of your cable 2. box.
- To switch to Cable (CBL) pre-coded mode, press 3. and release the CABLE (CBL) button.
- 4. Hold down the CBL button on the remote and enter the two digit preset code that matches your cable box, as shown below. Release the CBL button.
- 5. Aim the remote at the cable box and press the POWER button. The remote will turn off your cable box when the correct two 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 two digit preset code.
- 6. The remote will now control your Cable box.
- NOTE: 1. If your cable box cannot be operated after performing the above procedures, your cable box code has not been precoded into the remote.
  - 2. In the unlikely event that your cable box cannot be operated after performing the above procedures, please consult your cable box operating guide.
  - 3. The remote control will remember the codes you have programmed until the batteries are removed from the remote control. After replacing the batteries repeat the entire programming procedure as stated above.

#### CABLE (CBL) button 0

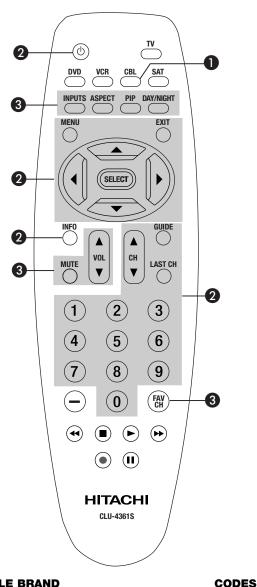
This button allows the remote to control your cable box by setting it to CABLE mode.

#### **A** PRECODED CABLE BOX buttons

These buttons transmit the chosen precoded cable codes.

#### **EXCLUSIVE TV** buttons 6

These buttons are for operating the TV.



#### CABLE BRAND

HAMLIN	11, 12
JERROLD	
OAK	13, 14
PANASONIC	10
PIONEER	
SCIENTIFIC ATLANTA	03, 04, 05
ZENITH	06, 07

DIGITAL CABLE BRAND	CODES
ADELPHIA	18
CABLEVISION	19
COMCAST	20
COX	21
MOTOROLA	17,22,24
PIONEER	15
SCIENTIFIC ATLANTA	16
TIMEWARNER	23

#### MY CABLE BOX CODE IS:

NOTE: Refer to instruction manual of the Cable Box for operation of the buttons exclusively for the Cable Box.

## The Remote Control for Set-Top Box/Satelite Receiver Functions

## OPERATING THE PRECODED FUNCTION FOR YOUR SET-TOP-BOX/SATELLITE RECEIVER.

This remote is designed to operate different types of set-top-box/satellite systems. You must first program the remote to match the remote system of your set-top-box/satellite systems (refer below for pre-codes).

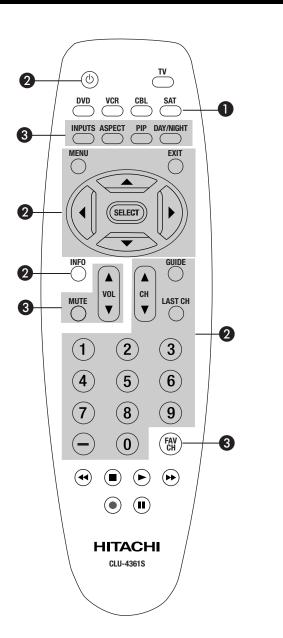
- 1. Turn **ON** your set-top-box/satellite systems.
- 2. Aim the remote control at the front of your set-topbox/satellite systems.
- 3. To switch to set-top-box/satellite (STB) pre-coded mode, press and release the **SAT** button.
- 4. Hold down the **SAT** button on the remote and enter the two digit preset code that matches your settop-box/satellite receiver, as shown below. Release the **SAT** button.
- 5. Aim the remote at the set-top-box/satellite receiver and press the **POWER** button. The remote will turn off your set-top-box/satellite receiver when the correct two digit preset code is entered. When this occurs, the remote control is programmed for your set-top-box/satellite receiver. If the set-topbox/satellite receiver does not turn off, try a different two digit preset code.
- 6. The remote will now control your set-topbox/satellite receiver.
- NOTE: 1. If your set-top-box/satellite receiver cannot be operated after performing the above procedures, your set-topbox/satellite receiver code has not been precoded into the remote.
  - In the unlikely event that your set-topbox/satellite receiver cannot be operated after performing the above procedures, please consult your set-top-box/satellite receiver operating guide.
  - 3. The remote control will remember the codes you have programmed until the batteries are removed from the remote control. After replacing the batteries repeat the entire programming procedure as stated above.

SAT (Set-Top-Box/Satellite) button This button allows the remote to control your settop-box/satellite receiver by setting it to SET-TOP-BOX/SATELLITE mode.

#### PRE-CODED SET-TOP-BOX/SATELLITE RECEIVER buttons

These buttons transmit the chosen pre-coded settop-box/satellite codes.

EXCLUSIVE TV buttons These buttons are for operating the TV.



#### SATELLITE BRAND

ECOSTAR	03
HITACHI	00
HUGHES	04
RCA	01
SONY	

# SET TOP BOX BRANDCODESPANASONIC.05RCA.06SAMSUNG.07ZENITH.08

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

**NOTE:** Refer to instruction manual of the set-topbox/satellite receiver for operation of the buttons exclusively for the set-topbox/satellite receiver.

CODES

## **The Remote Control for DVD Functions**

#### OPERATING THE PRECODED FUNCTION FOR YOUR DVD PLAYER.

This remote is designed to operate different types of DVD players. You must first program the remote to match the remote system of your DVD player (refer below for pre-codes).

- 1. Turn **ON** your DVD player.
- 2. Aim the remote control at the front of your DVD player.
- 3. To switch to DVD pre-coded mode, press and release the **DVD** button.
- Hold down the **DVD** button on the remote and enter the two digit preset code that matches your DVD player, as shown below. Release the **DVD** button.
- 5. Aim the remote at the DVD player and press the **POWER** button. The remote will turn off your DVD player when the correct two digit preset code is entered. When this occurs, the remote control is programmed for your DVD player. If the DVD player does not turn off, try a different two digit preset code.
- 6. The remote will now control your DVD player.
- 7. You will need to set the display type of your DVD player to **16:9 WIDESCREEN**.
- **NOTE:** 1. If your DVD player cannot be operated after performing the above procedures, your DVD player's code has not been precoded into the remote.
  - 2. In the unlikely event that your DVD player cannot be operated after performing the above procedures, please consult your DVD player operating guide.
  - 3. The remote control will remember the codes you have programmed until the batteries are removed from the remote control. After replacing the batteries repeat the entire programming procedure as stated above.

#### **OVD** button

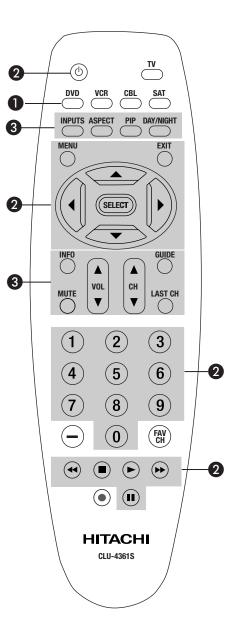
This button allows the remote to control your DVD player by setting it to DVD mode.

#### **O PRECODED DVD Buttons**

These buttons transmit the chosen precoded DVD codes.

#### EXCLUSIVE TV Buttons

These buttons are for operating the TV.



## DVD BRAND CODES APEX .09 GO VIDEO .08

00
10
02
03
04
06
07
01
05

#### MY DVD PLAYER CODE IS: \_

**NOTE:** Refer to instruction manual of the DVD player for operation of the buttons exclusively for the DVD player.

## The Remote Control for VCR Functions

#### OPERATING THE PRECODED FUNCTION FOR YOUR VCR.

This remote is designed to operate different types of VCRs. You must first program the remote to match the remote system of your VCR (refer below for pre-codes).

- 1. Turn ON your VCR.
- 2. Aim the remote control at the front of your VCR.
- 3. To switch to VCR pre-coded mode, press and release the **VCR** button.
- Hold down the VCR button on the remote and enter the two digit preset code that matches your VCR, as shown below. Release the VCR button.
- 5. Aim the remote at the VCR and press the **POWER** button. The remote will turn off your VCR when the correct two digit preset code is entered. When this occurs, the remote control is programmed for your VCR. If the VCR does not turn off, try a different two digit preset code.
- 6. The remote will now control your VCR.
- **NOTE:** 1. If your VCR cannot be operated after performing the above procedures, your VCR's code has not been precoded into the remote.
  - 2. In the unlikely event that your VCR cannot be operated after performing the above procedures, please consult your VCR operating guide.
  - 3. The remote control will remember the codes you have programmed until the batteries are removed from the remote control. After replacing the batteries repeat the entire programming procedure as stated above.
  - 4. Press the Record button twice to record.

#### VCR button

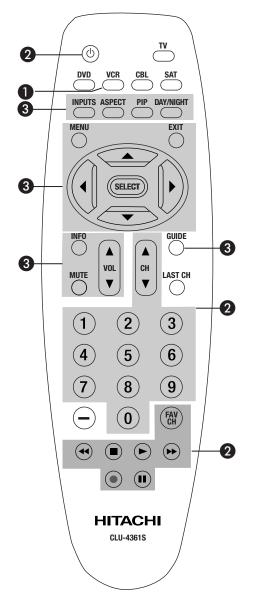
This button allows the remote to control your VCR player by setting it to VCR mode.

#### **O PRECODED VCR Buttons**

These buttons transmit the chosen precoded VCR codes.

#### **O EXCLUSIVE TV Buttons**

These buttons are for operating the TV.



#### VCR BRAND

#### CODES

AIWA	20
FUNAI	
HITACHI	00, 01, 02, 03, 04, 05, 06
JVC	13
MITSUBISHI	
PANASONIC	
SAMSUNG	14, 15
SHARP	
SONY	07, 08, 09
TOSHIBA	12
ZENITH	19

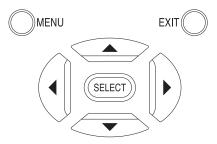
#### MY VCR PLAYER CODE IS:

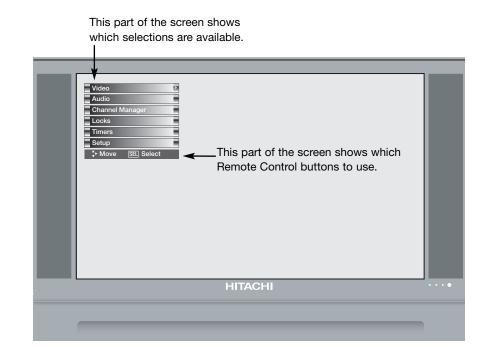
**NOTE:** Refer to instruction manual of the VCR for operation of the buttons exclusively for the VCR.



## **On-Screen Display**

- Press MENU on the remote control to display the different features on your HITACHI LCD Rear Projection TV.
- Press the CURSOR buttons to navigate and highlight a different feature of the On-Screen Display menu. Press the SELECT button to select.
- 3. Press **EXIT** on the remote control to quickly exit from a menu.







## **On-Screen Display**

Video	$\checkmark$
Picture Mode	Select between the two picture
	modes; Day and Night.
Contrast	Adjust contrast.
Brightness	Adjust brightness.
Color	Adjust color.
Tint	Adjust tint.
Sharpness	Adjust sharpness.
Color Temperature	Set this to High for less intense
	color with more blue, set to
	Medium for natural color, set to
	Standard for standard colors or
	Black and White for more
	reddish color.
Black Enhancement	Enhance picture brightness in
	light scenes.
Contrast Mode	Choose Automatic Contrast
	settings.
Noise Reduction	Reduces conspicuous noise in
	the picture.
Auto Movie Mode	Turn ON/OFFthe 3:2 Pulldown
	detection feature.
Aspect	Choose the picture format
	aspect ratio.
Black Side Panel	Set the gray side bars on/off
	when watching 4:3 signals in
	standard mode.
Reset Video Settings	Choose the Reset Video
	settings.

Audio	$\bigtriangledown$
Treble	Adjust the treble.
Bass	Adjust the bass.
Balance	Adjust the balance.
SRS	Select SRS settings (Off, Wide,
	Normal)
BBE	Select BBE settings (Off, Soft,
	Hard)
Audio Source	Select between three Audio
	Sources.
Internal Speakers	Select internal or external
	speakers.
Auto Noise Cancel	Eliminates the noise between
	stations.
Perfect Volume	Adjust volume in fixed setting.
Loudness	Adjust Loudness.
Language	Select Language options if
	available.
Digital Output	Select Optical Output options.
DRC	Select Dynamic Range
	Compression to ON or OFF.

Channel M	anager 🔽
Signal Meter	Access Signal Meter.
Auto Channel Scan	Set Auto Channel Scan.
Channel List	Set Channel List.
Locks	$\mathbf{\nabla}$
Change Access Code	Change Lock access code.
Engage Lock	Choose to lock channel or
	front panel.
Movie Ratings	Block various types of movies
	and video types based on
	motion picture ratings.
TV Ratings	Block various types of movies
	and television programming
	based on a parental guide
	ratings.
Canadian Ratings (ENG)	Block various types of movies
	and television programming
	based on the Canadian ratings
	system.
Canadian Ratings (FRN)	Block various types of movies
	and television programming
	based on the Canadian French
	ratings system.
Timers	$\mathbf{\nabla}$
Set the Clock	Set Clock Settings.
Set Sleep Timer	Set Sleep Timer intervals
	(30 min. intervals, 00:30-3:00).

Set the Clock	Set Clock Settings.
Set Sleep Timer	Set Sleep Timer intervals
	(30 min. intervals, 00:30-3:00).
Set Day/Night Timer	Set Day/Night picture mode
	settings.
Set Event Timer	Set viewing reservation for TV
	programs.

$\nabla$
Choose English, French, or
Spanish text.
Automatic Power Saving
Feature.
Label Video Inputs, VCR, DVD,
etc.
Feature to display dialogue/text.
Set Monitor Out source.
Select to upgrade TV software.
Select the TV Quick Start Up
options.

- **NOTES:** 1. The Signal Meter feature of the Channel Manager OSD is only available for Digital signals.
  - 2. The Language, Digital Output, and the Dynamic Range Compression feature of the Audio OSD are only available for Digital channels.



 $\nabla$ 

## Video

## Video

Select VIDEO to adjust picture settings and improve picture quality. You can independently customize each of the Video Inputs to your preference to increase viewing performance and pleasure depending upon the video program being viewed. If RESET is selected, only the selected input will reset to initial conditions.

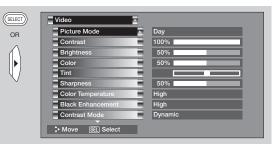
#### **Picture Mode**

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

- Use the CURSOR buttons ◄ or ► to highlight and select PICTURE MODE settings.
- 2. Press **EXIT** to quit menu or select **PICTURE MODE** to return to previous menu.

Function	Day	Night
Contrast	100%	90%
Brightness	50%	50%
Color	50%	30%
Tint	50%	50%
Sharpness	50%	20%
Color Temperature	High	Standard
Black Enhancement	Middle	Off
Contrast Mode	Dynamic	Normal
Noise Reduction	Low	Low
Black Side Panel	On	On







- Use the CURSOR buttons ▲ or ▼ to highlight the function to be adjusted.
- Press the CURSOR buttons 
   or ► to adjust the function. Press the SELECT button to select the function settings.
- 3. Press MENU to return to main menu or select PICTURE MODE to return to previous menu.
- 4. Press EXIT to quit menu.

#### Contrast

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

#### Brightness

Use this function to adjust overall picture brightness.

#### 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. Sharpness function will be disabled when Noise Reduction is set to High.

Picture Mode	Day
Contrast	100%
Brightness	50%
Color	50%
Tint	
Sharpness	50%
Color Temperature	High
Black Enhancement	High
Contrast Mode	Dynamic
Video	
Move SE Return      Video     Sharpness	50%
Move E Return      Video     Sharpness     Color Temperature	50%
Move E Return      Video     Sharpness     Color Temperature     Black Enhancement	50% High High
Move E Return      Video     Sharpness     Color Temperature     Black Enhancement     Contrast Mode	50%
Move E Return      Video     Sharpness     Color Temperature     Black Enhancement	50%
Move E Return      Video     Sharpness     Color Temperature     Black Enhancement     Contrast Mode	50% High High Dynamic
Move E Return      Video     Sharpness     Color Temperature     Black Enhancement     Contrast Mode     Noise Reduction	50% High High Dynamic Low

## Video

#### **Color Temperature**

Set this to High for cooler color with more blue, set to Medium for more natural color, set to Standard for accurate color or set to Black/White for more reddish color.

#### **Black Enhancement**

Use this function to enhance Picture brightness in light scenes using the settings off, low, middle and high.

#### **Contrast Mode**

Use this function to choose between 2 Contrast Mode settings. Set to Dynamic for darker images more in the level of Black and set to Normal for a balanced White to Black level.

- **NOTE:** 1. If CONTRAST is selected, you are adjusting CONTRAST. The additional menu items BRIGHTNESS, COLOR, TINT, and SHARPNESS can be selected and adjusted in the same manner.
  - 2. It may be necessary to adjust **TINT** to obtain optimum picture quality when using the **COMPONENT VIDEO Y-PBP**R input jacks.
  - 3. CABLE and AIR share a Video setting. Also, each of the video inputs have their own independent settings.
  - 4. If CONTRAST is set to minimum level, the OSD will be difficult to see.

#### **Noise Reduction**

The **NOISE REDUCTION** function automatically reduces conspicuous noise in the picture without degrading picture quality. Set **NOISE REDUCTION** to **OFF** if the TV experiences picture blocking. When Noise Reduction is set to High, Sharpness function is disabled (grayed out).

#### **Auto Movie Mode**

The Auto Movie Mode turns the 3:2 PULLDOWN DETECTION SPECIAL FEATURE ON 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 pulldown.

When Auto Movie Mode is turned ON from the VIDEO menu, your Hitachi LCD Rear Projection Television will activate the circuitry for this special feature to improve video performance when watching film based sources.

- **NOTE:** 1. When using Progressive Scan Component or HDMI input (ex. 480p or 720p), Auto Movie Mode will not be available (grayed out).
  - 2. All video settings are independent of each other based on it's input (Cable, Air, Input 1~5, Photo Input).

#### Aspect

Use this function to select the Picture Format Aspect Ratio.

- 1. Use the **CURSOR** buttons ▲ or ▼ to highlight the function to be adjusted.
- Press the CURSOR buttons ◄ or ► to select ON or OFF.
- Video

   Aspect
   :

   Auto Aspect
   :

   Off
   Mode
   :

   Vertical Position
   :
   0

   Move
   Return
- 3. Press the **CURSOR** buttons ◄ or ► to select **ASPECT MODE**.

#### Auto Aspect

Automatically adjust the Aspect Ratio depending on the input signal to fill the screen.

NOTE: 1. The Auto Aspect function is recommended on an input signal with VIDEO ID.

- 2. The Auto Aspect function is best used on COMPOSITE VIDEO, S-VIDEO, 480i and 480p COMPONENT/HDMI signals.
- 3. See page 22 for ASPECT MODE availability.

4. Press the **CURSOR** buttons ◀ or ► to select **VERTICAL POSITION**.



## Video

#### **Vertical Position**

This function allows you to select when aspect style is either **4:3 EXPANDED/ZOOM1/ZOOM2** or **16:9 ZOOM.** Vertical position can be changed with these modes. For example, it will be useful for centering the picture area at both the top and bottom of the picture with 480i/480P signal. Adjustable range is -10 (video center is toward bottom of screen) to +10 (video center is toward top of screen).

NOTE: Vertical Position will not be available in 4:3 STANDARD and 16:9 STANDARD MODES.

- 5. Press MENU to return to main menu or select PICTURE MODE to return to previous menu.
- 6. Press **EXIT** to quit menu.

#### **Black Side Panel**

The BLACK SIDE PANEL function turns the gray side bars on/off when watching 4:3 signals in Standard mode. The top/bottom gray bar will appear in SPLIT MODE PIP and SPLIT FREEZE. The TV set will always return to "Set Black Side Panel - OFF" setting every time the TV is powered "OFF".

**NOTE:** To maximize operating life of the TV's picture tubes when watching 4:3 signal, Black Side Panel is cancelled at Power OFF. It is recommended to watch 4:3 signal with gray side bar.

#### **Reset Video Settings**

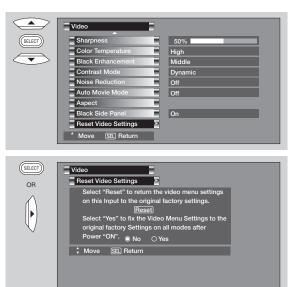
This function allows you to Reset the Video Menu Settings of the present input and return it to the Day VIDEO mode.

- 1. Use the **CURSOR** buttons ▲ or ▼ to highlight the function to be adjusted.
- 2. Press the SELECT button to select RESET VIDEO SETTINGS.
- 3. Use the **CURSOR** button ▼ to access other video settings.

You can customize each of the Video Inputs to your preference to increase viewing performance and pleasure, depending upon the video program being viewed. If **RESET** is selected, only the selected Input will reset to the initial conditions as explained above.

If **RESET** is selected in Input 1, only Input 1 will return to factory conditions.

- **NOTE:** 1. If YES is selected, the **VIDEO MENU SETTINGS** will be reset to the original factory settings on all modes during the next power on/off
  - 2. Channel List, Volume level and Last-CH selection remains unchanged.





# Audio

# Audio

Select AUDIO to adjust the TV to your preference and to improve the sound quality.

- 1. Use the **CURSOR** buttons ▲ or ▼ to highlight the function to be adjusted.
- 2. Press the **CURSOR** buttons ◀ or ► to adjust the function.
- 3. Press **EXIT** to quit the menu or select **AUDIO** to return to the main menu.

**NOTE:** If TREBLE is selected you are adjusting TREBLE. The additional menu items BASS and BALANCE can be selected and adjusted in the same manner.

#### Treble

This function controls the high frequency audio to all speakers.

#### Bass

This function controls the low frequency audio to all speakers.

#### Balance

This function will control the left to right balance of the Projection TV internal speakers.

#### SRS

Based on the principles of the human hearing system, **SRS** technology delivers and exciting and realistic 3D Sound experience from just two external speakers (or) the two internal speakers of your **HITACHI** Television. If your **HITACHI** Television is connected to an external audio system, **SRS** will also create an incredible 3D sound experience from two speakers and even enhance a complete multi-speaker surround sound system.

SRS and the (•) symbol are trademarks of SRS Labs, Inc. SRS technology is incorporated under license from SRS Labs, Inc.

#### BBE

Sound reproduction quality enhancement system. The **BBE** technology produces sound that is natural and crisp from just two speakers or the two internal speakers found in your **HITACHI** television is connected to an external audio system, **BBE** will also create an incredible crisp sound experience from two speakers. **BBE** brings to the listener's ear a more complete and accurate reproduction of the original performance. Each voice, speaking or singing, each instrument or sound effect is

presented with its attendant harmonics or partials more clearly audible. The ear can then more easily recognize the unique tonal colors of each sound as though the sound was being produced live.

Licensed by BBE Sound, Inc. under USP5510752 and 5736897. BBE and BBE symbol are registered trademarks of BBE Sound, Inc. Manufactured under license from BBE Sound, Inc.

	Video Audio Channel Manager Locks Timers Setup \$P Move SE Select	
(SELECT)	Audio	
	Treble	50%
OR	Bass	50%
$\wedge$	Balance	L
	SRS	Off
Ur)	BBE	Hard
$\vee$	Audio Source	Stereo
	Internal Speakers	On
	Auto Noise Cancel	Off
	Perfect Volume	Off
	, Move (SEL) Return	



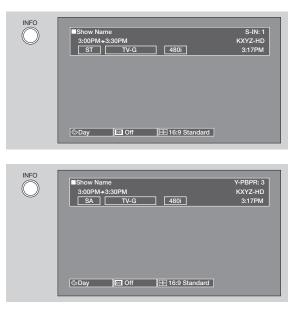
# Audio

#### **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 SECOND AUDIO PROG (SA) which may be a secondary language, weather report, etc.

The sources received will be displayed at the top left edge of the TV. The source you select will be displayed above the sources received. See example to the right for each selection when both stereo and second audio are received (monaural is always received).

1. Press the **INFO** button to display your settings.



#### **Internal Speakers**

This function is useful when setting up the external speakers.

ON	Select this feature if using the internal speakers only.
TV as Center	Select this feature when setting up external speakers from a separate stereo system. The
	TV's speakers will work as the center speaker.
OFF	Select this feature if you prefer to use only speakers from a separate stereo system.

#### **Auto Noise Cancel**

This function eliminates the noise between stations. If a channel is tuned and is noisy, this function will automatically eliminate the audio for that channel.

#### **Perfect Volume**

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

#### Loudness

This function turns loudness **ON** or **OFF**. It will improve the quality of both low and high frequency sounds when listening at low volume levels.



# Audio

Use the functions below if your TV is connected to an amplifier/receiver with **OPTICAL DIGITAL INPUT** with Dolby Digital or PCM decoder capabilities.

- 1. Use the **CURSOR** buttons ▲ or ▼ to highlight the function to be adjusted.
- Press the CURSOR buttons 
   or ► to adjust the function.
- 3. Press **EXIT** to quit the menu or select **AUDIO** to return to the main menu.

Treble	50%
Bass	50%
Balance	
SRS	Off
BBE	Hard
Audio Source	Stereo
Internal Speakers	On
Auto Noise Cancel	Off
Perfect Volume	Off

Audio	
BBE	Hard
Audio Source	Stereo
Internal Speakers	On
Auto Noise Cancel	Off
Perfect Volume	Off
Loudness	Off
Language	1 [Unknown]
Digital Output	Dolby Digital
DRC	On
t Move SEL Return	

#### 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 4 language options (if available).

#### **Digital Output**

This function allows you to select between Dolby® Digital and PCM.

Dolby <sup>®</sup> Digital	Select this feature if the TV is connected to an amplifier/ receiver with a Dolby <sup>®</sup> Digital only decoder; it will provide six independent soundtrack channels through the optical output jack (Digital Audio).
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 output jack (Digital Audio).

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

#### DRC

Dynamic Range Compression - Use this function to compress the range of sound volume. By compressing the range of sound volume, it is possible not only to suppress the output of loud sound at night but also to raise the volume of low sound. This is only effective when the TV is connected via the optical out (digital audio) to an amplifier/receiver with a Dolby® Digital decoder. The default setting is ON. Use the **CURSOR** buttons ◀ or ► to select the chosen options.

**NOTE:** These functions are only available when viewing digital programs.



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# **Channel Manager**

**Channel Manager** 

Select **CHANNEL MANAGER** to set your Antenna options, run Auto Channel Scan, Check Signal Meter and Set Channel List.

- 1. Use the **CURSOR** buttons ▲ or ▼ to highlight the function to be adjusted.
- Press the SELECT button or CURSOR button ► to select.



SELECT	Channel Manager
	Signal Meter
OR	Auto Channel Scan
$\wedge$	Channel List
▶)	Move SEL Return
$\mathbf{V}$	

#### **Signal Meter**

Select **SIGNAL METER** when using an indoor or outdoor antenna. This feature will show the signal strength and peak values of the Antenna signal to help you adjust your antenna to optimize signal reception.

- 1. Use the **CURSOR** buttons ▲ or ▼ to highlight **SIGNAL METER**.
- 2. Press the **SELECT** button to select.

**NOTE:** The Signal Meter will not be available (grayed out) when watching analog channels.



ELECT	Channel Manager	L
	Signal Meter	
	Channel 15-1	
	Strength 91	
	Peak 91	
	Close	
	Contraction Contra	
		-



# Channel Manager

#### Auto Channel Scan

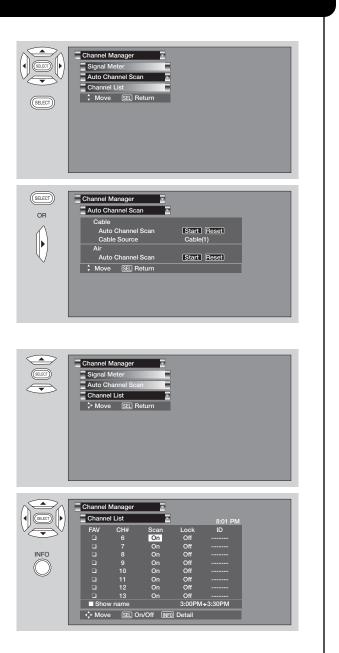
This feature will automatically store active TV channels in Auto Channel Scan memory.

- 1. Use the **CURSOR** buttons ▲ or ▼ to highlight **CABLE** or **AIR**.
- 2. Press the **CURSOR** buttons ◀ or ► to highlight the **START** or **RESET** option.
- 3. Press the SELECT button to select.
- **NOTE:** 1. When a CableCARD is installed, Auto Channel Scan for **CABLE** will not be available.
  - If certain channels are poor or not possible in Cable (1) mode, set cable source to Cable (2) by using the CURSOR buttons ◀ or ►.

#### **Channel List**

This function allows you to review which channels are labeled (CH ID), which have been added to CHANNEL MEMORY (SCAN), which are protected by LOCK and which are your FAVORITE (FAV) CHANNELS.

- 1. Use the **CURSOR** buttons navigate the Channel List.
- 2. Press the **SELECT** button to select **ON** or **OFF** on the **SCAN** and **LOCK** Columns.
- To select the LOCK column, input the access code. (Default access code: 0000)
- 4. Press the **FAV** button to set or remove the **FAVORITES** settings.
- 5. Press the EXIT button to return to normal viewing.
- **NOTE:** 1. When a CableCARD is installed, the Channel List will be dependent on channels agreed upon by you and your cable operator.
  - 2. The Channel List cannot be updated by only changing the Cable Source. Auto Channel Scan must also be performed for the Channel List to be updated.





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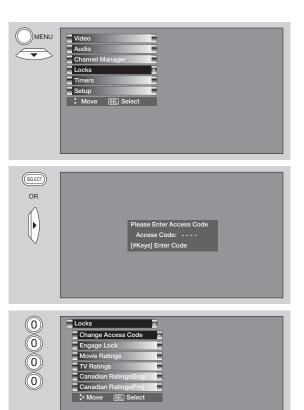
## Locks



This function will block out the picture and sound of the selected channel or video input.

The code to enter the Locks feature is a four digit access code number. The factory preset code is **0000**. Use the **NUMBER** buttons to enter the access code.

- 1. Use the **CURSOR** buttons  $\blacktriangle$  or  $\blacktriangledown$  to highlight the function.
- 2. Press the SELECT button to select.



#### **Change Access Code**

1. To change the ACCESS CODE NUMBER, select CHANGE ACCESS CODE to change the factory preset code (0000) to your preference.

If you forget your **ACCESS CODE NUMBER**, use the factory code **7777** to erase your key number. This will reset the access code number back to the factory preset **(0000)**.

- 2. Enter a new four digit number.
- 3. Press EXIT to quit the menu or select CHANGE ACCESS CODE to return to the previous menu.

#### **Engage Lock**

When ENGAGE LOCK is selected, SET CHANNEL LOCK and SET FRONT PANEL LOCK can be set individually.

When SET CHANNEL LOCK is turned on, the picture and sound for the chosen channel will be blocked out.

When **SET FRONT PANEL LOCK** is turned on, all buttons on the Front Panel will be deactivated, except the **POWER** button.

When **MOVIE RATINGS** is selected, you can block various types of movies and video tapes based on motion picture ratings. Picture-in-Picture will also be blocked automatically (see page 43).

When **TV RATINGS** is selected, various types of television programming based on a parental guide ratings will be blocked. Picture-in-Picture will also be blocked automatically (see page 44).

Use **CANADIAN RATINGS** to block various types of movies and television programs based on the two rating systems used in Canada that you feel may be inappropriate due to its content (see pages 45-46).

NOTE: If MOVIE/TV RATINGS LOCK function settings are ON, SURF will be deactivated.

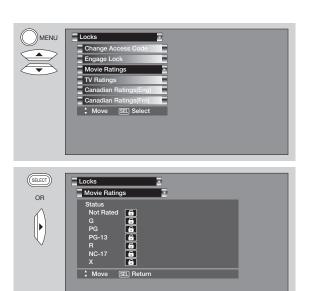
42



#### **Movie Ratings**

Use Movie Ratings to prevent viewing of any movie that you feel may be inappropriate due to its content.

- Use the CURSOR buttons ▲ or ▼ to select the MOVIE RATING category that you want to block.
- Press SELECT to block the MOVIE RATING that you have selected. Once rating is selected, for example PG-13, all movies rated PG-13 and higher (R, NC-17, and X) will be blocked.
- 3. Press EXIT to quit the menu or select MOVIE RATING to return to the previous menu.



#### 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	

**NOTE:** 1. A movie rating is dependent upon the movie that is viewed. If the movie does not carry a rating, the TV will not block it.

- 2. Blocking **NOT RATED** programs may block emergency programming, sports, news, public service announcements, religious programs and weather.
- 3. If a CableCARD is installed, your cable operator may provide an Emergency Alert System (EAS) message in the event of a local or national emergency with the purpose of alerting the general public. When you receive such messages, the Television will immediately tune to an EAS channel as directed by the EAS message. Please be advised that if the EAS channel is blocked using the LOCKS feature, you will not be able to tune to that channel.



#### **TV Ratings**

Use **TV RATINGS** to prevent the viewing of any TV program that you feel may be inappropriate due to its content.

- Use the CURSOR buttons ▲ or ▼ to select the TV RATING category that you want to block.
- 2. Press **SELECT** to block the **TV RATING** that you have selected.
- 3. Press **EXIT** to quit the menu or select **TV RATING** to return to the previous menu.



SELECT Locks	
OR	ing
Status D L	S V FV
TV-Y G	6
TV-Y7 G	6
TV-PG G	6

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	Fantasy Violence
V	Violence
S	Sexual Situation
L	Adult Language
D	Sexually Suggestive Dialogue

**NOTE:** 1. 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.

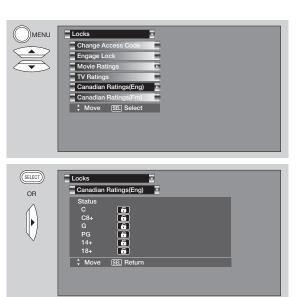
- 2. TV program ratings are dependent on the broadcaster. If the program is not rated, the TV will not block it.
- 3. If a CableCARD is installed, your cable operator may provide an Emergency Alert System (EAS) message in the event of a local or national emergency with the purpose of alerting the general public. When you receive such messages, the Television will immediately tune to an EAS channel as directed by the EAS message. Please be advised that if the EAS channel is blocked using the LOCKS feature, you will not be able to tune to that channel.



#### **Canadian Ratings (Eng)**

Use **CANADIAN RATINGS (ENG)** to block any type of movie and television program in Canada that you feel might be inappropriate in its content.

- Use the CURSOR buttons ▲ or ▼ to select the CANADIAN RATINGS (ENG) category that you want to block.
- Press SELECT to block the CANADIAN RATINGS (ENG) that you have selected. Once rating is selected, for example C8+, all movies and television programs rated C8+ and higher (G, PG, 14+ and 18+) will be blocked automatically.
- 3. Press EXIT to quit the menu or select CANADIAN RATINGS (ENG) to return to the previous menu.



<ul> <li>their own - Violence Guidelines: Violence will not be portrayed as the preferred, a or only way to resolve conflict; or encourage children to imitate dangerous acts w may see on television. Any realistic depictions of violence will be infrequent, discr low intensity and will show the consequences of the acts. Other Content Guidelin will be no profanity, nudity or sexual content.</li> <li>G General Audience - Violence Guidelines: Will contain very little violence, either ph verbal or emotional. Will be sensitive to themes which could frighten a younger cl not depict realistic scenes of violence which minimize or gloss over the effects of acts. Other Content Guidelines: There may be some inoffensive slang, no profanit no nudity.</li> <li>PG Parental Guidance - Programming intended for a general audience but which may suitable for younger children. Parents may consider some content inappropriate f unsupervised viewing by children ages 8-13. Violence Guidelines: Depictions of c and/or aggression will be limited and moderate; may include physical, fantasy, or supernatural violence. Other Content Guidelines: May contain infrequent mild pro mildly suggestive language. Could also contain brief scenes of nudity.</li> <li>14+ Programming contains themes or content which may not be suitable for viewers or age of 14 - Parents are strongly cautioned to exercise discretion in permitting vier pre-teens and early teens. Violence Guidelines: May contain intense scenes of vic Could deal with mature themes and societal issues in a realistic fashion. Other Could be with mature themes and societal issues in a realistic fashion. Other Could be profanity.</li> </ul>	eful attention is
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	ld be frequent
18 Adult - Violonco (Suidolinos: May contain violonco intogral to the dovolonment of t	
character or theme, intended for adult audiences. Other Content Guidelines: May graphic language and explicit portrayals of nudity and/or sex.	s: May contain

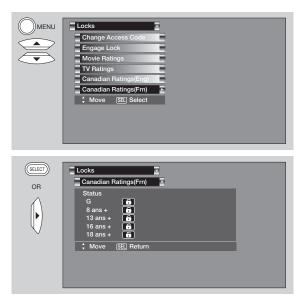
# **On-Screen Display**



#### **Canadian Ratings (Frn)**

Use **CANADIAN RATINGS (FRN)** to block Canadian French programs according to various program ratings that you feel might be inappropriate in its content.

- Use the CURSOR buttons ▲ or ▼ to select the CANADIAN RATINGS (FRN) category that you want to block.
- Press SELECT to block the CANADIAN RATINGS (FRN) that you have selected. Once rating is selected, for example 8 ANS+, all movies and television programs rated 8 ANS+ and higher will be blocked automatically.
- 3. Press EXIT to quit the menu or select CANADIAN RATINGS (FRN) to return to the previous menu.



#### **Canadian Ratings French Chart**

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.



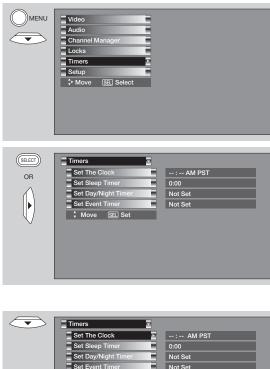
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## Timers

#### Timers

Select **TIMERS** to set your Clock, Sleep Timer, Event Timer and Day/Night Timer Recordings.

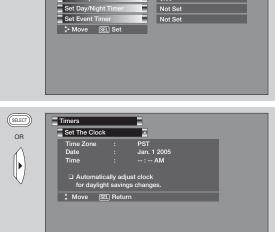
- 1. Use the **CURSOR** buttons ▲ or ▼ to highlight the function to be adjusted.
- 2. Press the **SELECT** button or **CURSOR** button ► to select.



#### Set The Clock

The Clock must be adjusted before you can use the **SET EVENT TIMER** or **DAY/NIGHT TIMER** feature.

- Use the CURSOR button ▼ to highlight the chosen TIME ZONE settings. Use CURSOR buttons ◄ or
   to set TIME ZONE and press SELECT to set.
- Press CURSOR button ▼ to select Date. Use CURSOR buttons ◄, ▶, ▲ or ▼ to set Month, Day and Year. Press SELECT to set.
- Press CURSOR button ▼ to select Time. Use CURSOR buttons ◄, ▶, ▲ or ▼ to set Hour, Minute, AM or PM. Press SELECT to set.
- If you observe Daylight Saving Time, press CURSOR button ▼ to select AUTOMATICALLY ADJUST CLOCK FOR DAYLIGHT SAVINGS CHANGES and press SELECT to set.



5. Press EXIT to quit the menu or select SET THE CLOCK to return to the previous menu.

**NOTE:** 1. When AUTOMATICALLY ADJUST CLOCK FOR DAYLIGHT SAVING CHANGES is checked  $\checkmark$ , the TV will automatically calculate the clock adjustment for Daylight Saving.

- 2. When the CableCARD is used, the TV will SET THE CLOCK automatically.
- 3. The TV counts electrical pulses for regulating the **TIMERS**. When the power cord is unplugged then plugged in quickly, the clock is stopped momentarily and the **TIME** indication will become slow.



# Timers

#### Set Sleep Timer

Select this feature to set your **SLEEP TIMER** from 30 minutes to 3 hours (30 minute increments).

 Press the CURSOR buttons ◄ or ► repeatedly to set your Timer from 0:00, 0:30, 1:00, 1:30, 2:00, 2:30 and 3:00.

$\overline{\bullet}$	Timers	
	Set The Clock	: AM PST
	Set Sleep Timer	0:00
	Set Day/Night Timer	Not Set
	Set Event Timer	Not Set
	ၞ Move জি Set	

#### Set Day/Night Timer

Select this feature to activate and set your TV's **DAY/NIGHT PICTURE MODE** automatically.

- Use the CURSOR buttons ▼ to select ACTIVATE. Press SELECT button to set (a check mark will appear in the box).
- Use the CURSOR button ▼ to select DAY MODE ON. Using CURSOR buttons ◄, ▶, ▲ or ▼, set the ON TIMER. Press the SELECT button to set.
- Use the CURSOR button ▼ to select DAY MODE OFF. Using CURSOR buttons ◄, ►, ▲ or ▼, set the OFF TIMER Press the SELECT button to set.
- Press EXIT to quit the menu or select SET DAY/NIGHT TIMER to return to the previous menu.

**NOTE:** When the clock is changed in the **SET THE CLOCK** function, this feature is disabled.

SELECT	Timers       Set The Clock       Set Sleep Timer       O:00       Set Day/Night Timer       Not Set       Set Event Timer       Move       Set
OR	Set Day/Night Timer activate Day Mode On : 06:00 AM Day Mode Off : 06:00 PM Move SE Return

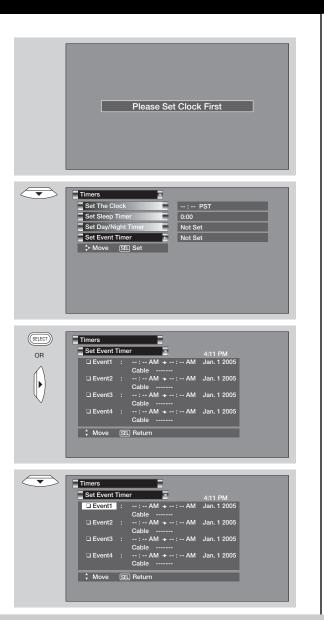


## Timers

#### Set Event Timer

This function will automatically operate the Projection TV viewing reservation of a program. If the clock is not set, you can not use this function and the screen below will appear. The message on the screen will disappear after 3 seconds, then the screen automatically goes to the clock setup mode (see page 47).

- Use the CURSOR buttons ▲ or ▼ to highlight EVENT 1, EVENT 2, EVENT 3, EVENT 4 and then press the SELECT button to select. A in the box means the selected event is enabled.
- Use the CURSOR buttons ▶, ▲ or ▼ to highlight and select START TIME HOUR/MINUTE, AM OR PM.
- Use the CURSOR buttons ▶, ▲ or ▼ to highlight and select FINISH TIME HOUR/MINUTE, AM or PM.
- 4. Use the CURSOR buttons ▲ or ▼ to set MONTH, DAY and YEAR.
- 5. Use the **CURSOR** buttons **▶**, **▲** or **▼** to highlight and select **CABLE** or **AIR**.
- 6. Use the **CURSOR** buttons ►, ▲ or ▼ to set the channel the TV will tune to.



**NOTE:** 1. When the **INFO** button is pressed, the Event Timer Icon in the bottom right corner of the screen will display the start time.

- 2. The OFF TIMER will only activate if the TV was turned on by the ON TIMER and no channel selection was made after this time. If you change the channel after the ON TIMER has been activated, the OFF TIMER will deactivate.
- 3. If no remote control button is pressed after viewing reservation is activated, the TV will automatically turn off after three hours. Therefore, do not **SET EVENT TIMER** for more than three hours if you do not plan to control your television with the remote control.
- 4. When a CableCARD is installed or removed, EVENT SETTINGS of the CABLE mode are cancelled.
- 5. When the CLOCK is changed in the SET THE CLOCK function, events are disabled and the check mark is removed



**CAUTION:** Do not use your TV as a deterrent when away from home by using the **ON** and **OFF TIMERS**. For safety, the TV should be turned off when you are away from home.



 $\nabla$ 

# Setup

#### Setup

Select  $\ensuremath{\textbf{SETUP}}$  when setting your TV up for the first time.

- 1. Use the **CURSOR** buttons ▲ or ▼ to highlight the function to be adjusted.
- Press the SELECT button or CURSOR button ► to select.





#### **Menu Preference**

This feature will allow you to select any one of three different languages for all on-screen displays.

#### Set the Language

This function allows you to choose from three menu languages.

- Use the CURSOR buttons d or ► to highlight the language of your choice.
- 2. Press EXIT to quit menu or select MENU PREFERENCE to return to previous menu.





#### Set the Menu Background

This function allows you to choose from two menu backgrounds.

- Use the CURSOR buttons ◄ or ► to highlight SET THE MENU BACKGROUND (SHADED OR SOLID).
- 2. Press **EXIT** to quit menu or **CURSOR** button ◀ to return to previous menu.
- Select SOLID for a black background (no picture can be seen behind menu screen), or select SHADED for a light background.

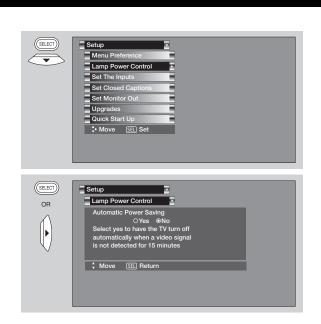




#### **Lamp Power Control**

Use this feature o have the TV turned OFF automatically when a video signal is not detected for 15 minutes.

 Press the CURSOR buttons d or ► to highlight Yes or No.



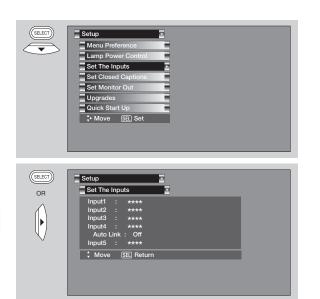
#### Set The Inputs

Use this feature to give a name to any of the five video inputs. A named input is shown in the **INPUTS** menu.

- Press the CURSOR buttons ◀, ►, ▲ or ▼ to highlight the name of the video inputs.
- Select from one of the following choices to set an input name: A/V Receiver, DVD, DVD2, VCR, VCR2, Cable (STB), Satellite, PVR, DVD Recorder,

**Note:** The inputs labeled Gray out (Skip) or Hide (Skip) are disabled in the **INPUTS** selection.

CAM, LB, Gray out (Skip), Hide (Skip)





#### **INPUT 4 Auto Link**

Use this function to automatically turn the TV on and tune to INPUT 4 when it detects a video signal to INPUT 4.

- 1. Use the **CURSOR** buttons **◄** or **▶** to highlight the **AUTO LINK** setting of your choice.
- When AUTO is selected, the TV will turn on and tune to INPUT 4 automatically, when the Input 4 input device is turned on. This is convenient when you want to watch a movie with your VCR, laserdisc player or DVD player.

Input1 : ***		
nput2 : ***		
nput3 : ***		
Input4 : ***		
Auto Link : O		
Input5 : ***	*	
Move SEL R	eturn	

- 3. When **REMOTE** is selected, the TV will turn on and switch to Input 4 automatically when the INPUT 4 input device is turned on and the VCR, laserdisc, or DVD play button on your remote control is pressed. This is convenient when you want to record a movie with your VCR and watch it later.
- 4. Select **OFF** to disable this function.
- 5. Press EXIT to quit menu or select AUTO LINK to return to previous menu.
- **NOTE:** 1. Once the TV has been turned on using the **AUTO LINK** feature, it must be reset before **AUTO LINK** is used again. To do this, turn your VCR, laserdisc or DVD player OFF. This feature is now reset and will turn on your TV as described above.
  - 2. When using **REMOTE** mode, any remote control button will substitute for your video input device play button. However, intended operation is for use with your VCR, laserdisc, or DVD play button.
  - 3. If no remote control button is pressed after the TV is turned on by **AUTO LINK**, the TV will automatically turn off after three hours.

#### **Set Closed Caption**

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 c or .

- Use the CURSOR buttons ◄, ►, ▲ or ▼ to highlight and select the function to change.
- 2. Press **EXIT** to quit menu or **CURSOR** button ◀ to return to previous menu.

#### **Caption Display:**

**ON/OFF** will turn the cc display on or off. **AUTO** will turn the cc display on when Mute/Soft Mute is on.

#### Analog Captions:

Set **CAPTIONS** for Analog programs. This function will help choose and set available mode and channel.

SELECT	Setup
	Menu Preference
	Lamp Power Control
	Set The Inputs
	Set Closed Captions
	Set Monitor Out
	Upgrades
	Quick Start Up
	✦ Move SEL Set

SELECT	Setup
OR	Caption Display : Off
	Analog Mode : Captions Channel : 1
$\vee$	Digital Language : 1(Unknown) Font : Default (Hitachi) Size : Standard Style : Standard
	Move SE Return

#### **Caption Mode:**

CAPTIONS is for the program you are viewing.

**TEXT** is 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.

#### Channel:

- 1 is used for the primary language (usually English).
- 2 is sometimes used for a second language (may vary by region).
- 3 is sometimes used for a third language (may vary by region).
- 4 is sometimes used for a fourth language (may vary by region).



#### **Digital Captions**

Set captions for digital programs. This function will help choose and set available language, font, size and style of digital captions.

- 1. Use the **CURSOR** buttons *◄*, *▶*, *▲* or *▼* to highlight and select **DIGITAL CAPTIONS** feature.
- 2. Press **EXIT** to quit menu or **CURSOR** button ◀ to return to previous menu.

Setup		
Set Closed Capt	ions 🔽	
Caption Display		Off
Analog	Mode Channel	Captions 1
Digital [Hitachi]	Language Font Size	1(Unknown) Default Standard
	Style	Standard
Contract Con	Return	

NOTE: 1. Some types of digital closed captions will not work with this TV.

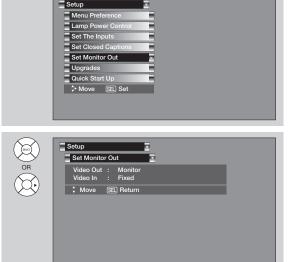
- 2. Caption Display will not work when viewing a 480p, 720p or 1080i input via the **COMPONENT: Y-PBP**<sub>R</sub> inputs.
- 3. When PIP SURF is on, Closed Caption will not work.
- 4. Digital Captions Font Style are sometimes different from the Font Style of Analog Captions.
- 5. Closed Caption and Digital Captions availability and content depends on the broadcaster. Closed Caption is available when Closed Caption icon is displayed on screen.
- 6. Digital Captions will not be available (grayed out) when using analog channels.

#### Set Monitor Out

This feature will select the source of the Monitor Output.

#### Monitor:

Select **MONITOR** to output the audio and video signals of the chosen input source **(CABLE, AIR, INPUT 1-5)** to a VCR or other A/V device.



#### TV Tuner Out:

Select **TV TUNER OUT** to output the audio and video signals of the last watched Antenna Source **(CABLE, AIR).** 

#### Fixed

Select **AUDIO OUT FIXED** to have the Audio at fixed volume.

#### Variable

Select AUDIO OUT VARIABLE to have Audio

volume that can be controlled by the LCD Rear Projection TV Volume Up/Down.

Video Out	Audio Out	Use
Monitor	Fixed	To record currently viewed Video and Audio.
Monitor	Variable	When an external device like a monitor
		or Hi-Fi audio system is connected to the
		audio and video output of the TV. You can
		control the volume output by changing the
		volume of the TV.
TV Tuner Out	Fixed	To record currently viewed Video and Audio
		from either Cable or Air.

- 1. Use **CURSOR button**  $\blacktriangle$  or  $\triangledown$  to highlight the function to change
- 2. Use the **CURSOR button** ◀ or ► to select the function.
- 3. Press EXIT to quit menu or select SET MONITOR OUT to return to previous menu.

#### **NOTE:** 1. When **TV TUNER OUT** is selected, **VARIABLE AUDIO OUT** will not be available (grayed out). 2. When using MONITOR OUT for recording, set the VIDEO OUT to MONITOR.

#### MONITOR: Available Monitor Out Signals

	In	Monitor Out					
				S-Video	Video	L/R	HiFi
ANT	Digital	No Macrovision	S-Video	YES	YES	YES	YES
(Air or	Channel	Macrovision	S-Video	-	-	-	YES
Cable)	Anal	og Channel	Video	-	YES	YES	YES
Input 1	F	IDMI_1		-	-	-	YES
	S-1	Video_1	YES	YES	YES	YES	
	V	ideo_1	-	YES	YES	YES	
Input 2	S-'	Video_2		YES	YES	YES	YES
	V	ideo_2		-	YES	YES	YES
Input 3	Y	-PbPr_3		-	-	-	YES
	V	ideo_3		-	YES	YES	YES
Input4	Y-	PbPr_4		-	-	-	YES
	V	ideo_4		-	YES	YES	YES
Input5	S-1	Video_5		YES	YES	YES	YES
	V	ideo_5		-	YES	YES	YES

#### TV TUNER OUT: Available Monitor Out Signals

	In	put Mode	Monito	r Out (T	V Tune	r Out)	
				S-Video	Video	L/R	HiFi
ANT	Digital	No Macrovision	S-Video	YES	YES	YES	YES
(Air or	Channel			ANT	ANT	ANT	ANT
Cable)		Macrovision	S-Video	-	-	-	YES
							ANT
	Anal	og Channel	Video	-	YES	YES	YES
					ANT	ANT	ANT
Input 1	F	IDMI_1	Y-PbPr	YES	YES	YES	YES
	S-'	Video_1		ANT	ANT	ANT	ANT
	V	ideo_1		digital			
Input 2	S-'	Video_2		ONLY			
	V	ideo_2					
Input 3	Y	-PbPr_3					
	V	ideo_3					
Input4	Y-	PbPr_4					
	V	ideo_4					
Input5	S-'	Video_5		]			
	V	ideo_5					



#### Upgrades

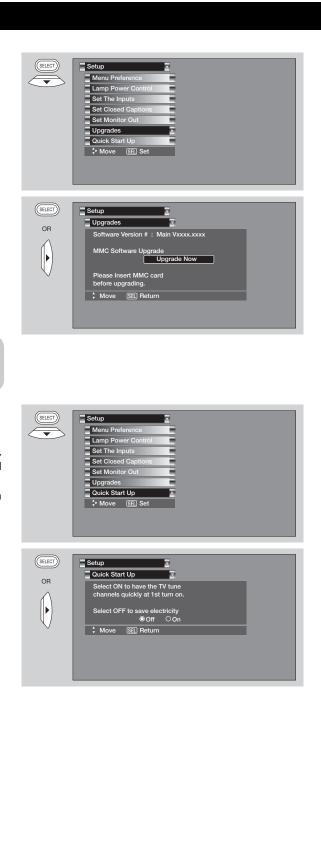
It shows software information and easy upgrade procedure. This function allows the TV software to be upgraded by using a flash card **(MMC CARD).** If a future software upgrade is required for your TV, **HITACHI** will notify and provide you with a flash card. In order to receive written notification and the flash card, please complete and return the warranty card.

- 1. Insert MMC CARD
- Press the CURSOR buttons ▲ or ▼ to highlight UPGRADE NOW.
- 3. Press the **SELECT** button to select and start upgrading.
- 4. Unplug the power cord when the upgrade is complete.

**NOTE:** Any power interruption during the upgrade process will cancel the upgrade. When this happens, repeat the upgrade procedure.

#### **Quick Start Up**

This feature will select **QUICK START UP** options. Set this feature to **ON** to have the TV tune channels (both Analog and Digital) quickly when first turning the TV on. Set this feature to **OFF** to save electricity. Selecting **ON** for the **QUICK START UP** feature will activate the TV tuners circuits when the TV is in "standby mode" which is commonly referred to as "off". This will allow you to quickly tune to channels when first turning the TV on. Digital signals often change and this feature will monitor any changes and prepare the television to quickly present a picture. A small amount of electricity is used to continually monitor signals when this feature is selected.



#### Lamp Life

The lamp life may vary based on usage of the LCD Rear PTV. Turning on and off frequently may shorten the life of the lamp.

#### Lamp Replacement

After extended use, if the TV picture turns dark, the color looks unusual or LAMP INDICATOR light turns on, then it is time to replace the lamp with a new lamp.

#### WARNING:

The lamp gets very hot! The lamp may explode if improperly handled. To avoid injury, please observe the following precautions.

- Do not open lamp compartment or attempt to remove lamp assembly unless the lamp assembly is being replaced.
- Unplug the product's power cord from the AC outlet before attempting to replace the lamp assembly.
- If the lamp is in use when failure occurs or if the lamp has exploded, wait at least 30-45 minutes for the lamp to cool before opening the lamp compartment or touching the lamp assembly or any broken pieces.
- Broken lamp pieces can cause injury. Handle with gloves to avoid cuts.
- Do not place any foreign objects inside the lamp compartment.
- When installing a new lamp, follow handling instruction included with the new lamp. Do not touch glass surface of new lamp.
- (Hg) This product contains lead and a lamp that contains mercury. Dispose of this product and its lamp in accordance with applicable environmental laws. For lamp recycling and disposal information, go to www.lamprecycle.org. For product recycling and disposal information, contact your local government agency or eRecycle.org (in California), the Electronic Industries Alliance at www.eiae.org (in the US) or the Electronic Product Stewardship Canada at www.epsc.ca (in Canada). For more information, call "1-800-HITACHI."

#### **CAUTION!**

A "LAMP" indicator will light when lamp becomes hot. Unplug product's power cord from the AC outlet and allow lamp to cool for at least 30-45 minutes. If "LAMP" indicator is still lit, please contact your authorized service center (see page 63).

#### NOTES:

Contact your Hitachi dealer for a new lamp unit. Using other lamps may cause damage to the TV Set.

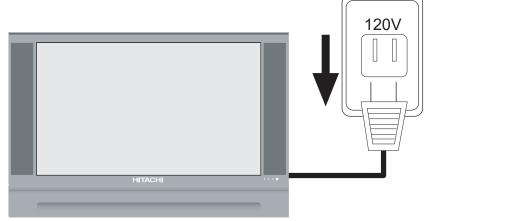
MODEL#	LAMP TYPE	<u>PART#</u>
50C20	LP520	UX21518

- When replacing the lamp, let it cool down completely, for approximately 30 to 45 minutes after the power has been switched off and A.C. cord has been unplugged.
- Do not touch the glass of the new lamp or make it dirty which can shorten the life of the lamp and reduce the picture quality.
- Keep the lamp out of the reach of children and away from flammable materials.
- Do not pour water onto the removed lamp or put any object inside the lamp.
- Once the lamp is removed, do not put flammable materials and metal objects inside the lamp receptacle on the TV set. Do not touch the receptacle.
- Install the new lamp securely, otherwise the picture may become dark or it may cause severe overheating.
- Install the lamp cover correctly, otherwise power will not come on.



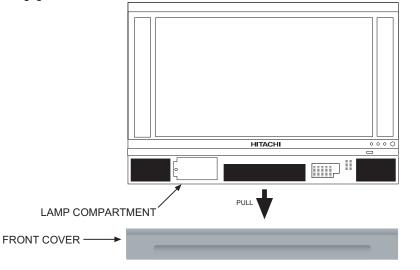
#### Lamp Replacement

1. Turn off the main power switch and unplug the power cord. Wait at least 30 minutes to allow the lamp to cool down before replacing it.



**CAUTION:** The lamp is very hot and may cause fire or severe burns. Wait at least 30~45 minutes to allow the lamp to cool before proceeding with lamp removal.

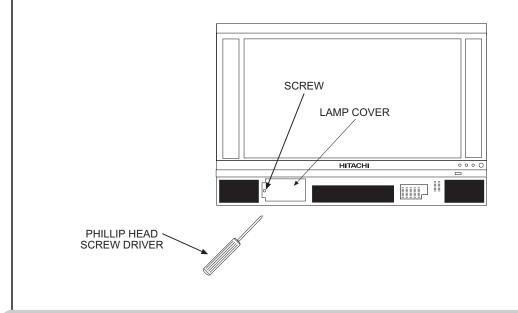
2. Remove the front cover from the TV set. This is held by snap on. Pull the cover outwards until the quick snap on disengages.



**NOTE:** (H9) This product contains lead and a lamp that contains mercury. Dispose of this product and its lamp in accordance with applicable environmental laws. For lamp recycling and disposal information, go to www.lamprecycle.org. For product recycling and disposal information, contact your local government agency or the Electronic Industries Alliance at www.eiae.org (in the US) or the Electronic Product Stewardship Canada at www.epsc.ca (in Canada). For more information, call "1-800-HITACHI."

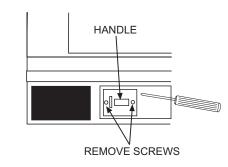


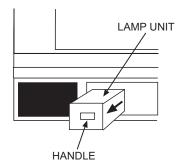
3. Remove the screw securing the lamp cover with a Phillips head screw driver as shown. Remove the lamp cover.



- **CAUTION:** The lamp is very hot and may cause fire or severe burns. Wait at least 30~45 minutes to allow the lamp to cool before proceeding with lamp removal.
- 4. Remove the two screws that hold the lamp in place. Remove the lamp unit by holding the lamp handle, then pulling outwards. Exercise caution when removing the lamp unit to avoid injury to your fingers.

NOTE: Do not put your hand in the Lamp Storage area after the Lamp Unit is removed, your may get burned.

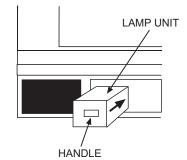


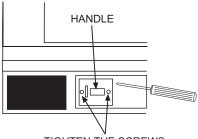


5. Replace with the new lamp.

Place the removed lamp into the empty box of the replacement lamp. Do not touch the front glass of the new lamp or its receptacle. This may shorten the life of the lamp and reduce the picture quality.

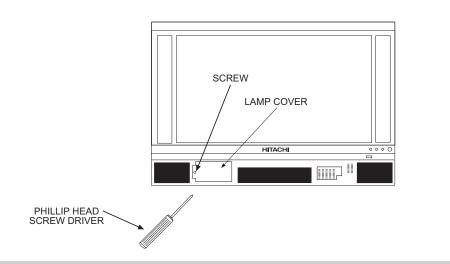
- Push the lamp unit back to its original position.
- Tighten the screws firmly on the lamp unit. If they are loose, the TV may not operate correctly.





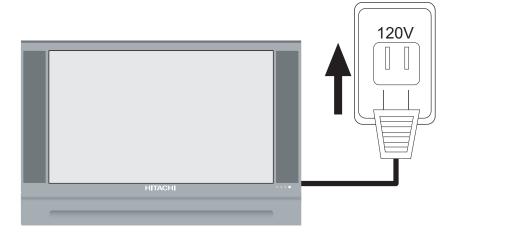


6. If the lamp cover is not installed, be sure to install the lamp cover by re-engaging the two clips and tighten the screws before turning the power on, otherwise it may cause unusual colors.



**NOTE:** If power is connected before the Lamp Cover is installed, the power will be off and the Lamp Indicator will flash (see page 9).

- 7. Install the front cover as shown below. Put the front cover back in and align the snap on quick connect then push inwards holding the left and right side of the front cover until you hear a snap. Push the other snap on gently to make a good fit.
- 8. Plug power cord into AC outlet and turn on the main power switch.



NOTE: (H9) This product contains lead and a lamp that contains mercury. Dispose of this product and its lamp in accordance with applicable environmental laws. For lamp recycling and disposal information, go to www.lamprecycle.org. For product recycling and disposal information, contact your local government agency or eRecycle.org (in California), the Electronic Industries Alliance at www.eiae.org (in the US) or Electronic Product Stewardship Canada atwww.epsc.ca (in Canada). For more information, call "1-800-Hitachi".

#### **OPure**Glare

# **Equipment Care and Troubleshooting**

#### DO

Dust the screen and cabinet with a soft DRY cloth.

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

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

#### DO NOT

Do NOT use a wet cloth to clean the screen.

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

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

Do not touch the screen too often.

Do not subject the remote control to shocks such as dropping it on the floor, etc. Physical damage to the precision parts may result.

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 cease operation.

When the batteries run down, remote control operation will become erratic or possibly stop altogether. Replace the old batteries with two new "AA" size batteries as soon as possible to preserve the remote control precodes that were set for the devices. Pressing a remote control button with a "DEAD" battery might erase all precodes in memory. Do not use an old battery with a new battery.

Exposure of the viewing screen to prolonged direct sunlight or heat may cause the screen to permanently warp, resulting in a distorted picture..

#### TROUBLESHOOTING

**HITACHI** LCD Rear Projection Television incorporates advanced power surge protection technology designed to protect against component or circuit damage due to external or internal voltage power surges.

IF YOUR TELEVISION SHOULD APPEAR TO HAVE A LOSS OF POWER, PLEASE FOLLOW THIS PROCEDURE:

- 1. Press the POWER SWITCH (ON/OFF SWITCH) once.
- If there is still no power, wait 30 seconds and press the **POWER** SWITCH 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 SWITCH** again.

This protective technology should provide for years of lasting entertainment from your **HITACHI** LCD Rear Projection Television.

	WV THESE AL TTEN		Be Sin Connection is	Swine, Diugged	Checi Change Checi Oly	Checi antenna co.	Check antenna for . Unections (ho	e and lead	dojina dor local inte	ist co	Pese -	control	ntrol	e control
SYMPTOMS	HI 14.	Be sur	Be SIL	Type.	Checi Perc	Cheor anten	Checi anten	Check outside and	40/11/0C	Adjine	Adjine Brightness	Adjuer Color contract	Adjuce	o Volume control
No Picture, no sound														
Sound OK, picture poor														
Picture OK, sound poor														
Picture blurred														
Lines or streaks in picture	•													
Poor reception on some channels	\$			•	•			•						
Picture rolls vertically	r													
No color														
Poor colo														



# **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.



#### **BLOCK NOISE (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 weak 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 equipment from the TV set to a considerable distance.

# **Features and Specifications**

#### FEATURES:

- Superfine Picture Quality; 1280 Line Horizontal Resolution
- Remote (Controls many PVR/VCR brands, cable boxes, satellite boxes, and other audio equipment).
- New Easy-to-Use (3-Language) On-Screen Menu
- Full Set of Input Jacks, including S-Video
- COMPONENT VIDEO: Y-PB/PR
- Six Aspect Modes
- Closed Caption Decoder
- 2-Tuner Picture in Picture
- 2 Antenna Inputs (Either for Analog/Digital)
- Video Input Sensor
- HDMI (High Definition Multimedia Interface) (High Bandwidth Digital Content Protection V1.1 compatible).
- Digital Audio Output (Dolby® Digital and PCM)
- 3 Dimensional Y/C Comb Filter
- Compatible with 1080i, 720p, 480p and 480i input signals.
- CableCARD<sup>™</sup> compatible Contact your local cable operator for more information.
- Technology.

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Technology.

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#### INPUTS:

•	Power Input	AC 120V, 60	)Hz
---	-------------	-------------	-----

- Stand-by Power.....Less than 1 Watt
- Power Consumption Refer to rear panel at the back of the T.V.
- VHF-Band ......2 13 UHF-Band ......14 – 69 CATV Band ......14 – 135, A – I
- Video ......1.0Vp-p, 75 Ohm
- S-Video
   Luminance (Y) ......1.0Vp-p, 75 Ohm
   Chrominance (C) .....0.286Vp-p, 75 Ohm
- Component Video Luminance (Y) ......1.0Vp-p, 75 Ohm Chrominance (PB/PR) .....0.7Vp-p, 75 Ohm
   Audio input Impedance
- HDMI.....HDMI 19 PIN

#### OUTPUTS:

- Video .....1.0Vp-p. 75 Ohm
- Audio (Fixed) ......470mVrms, 1k Ohm
- S-Video Luminance (Y) .....1.0Vp-p, 75 Ohm Chrominance (C) .....0.286Vp-p, 75 Ohm
- Optical Out (Digital Audio) ......1 optical connector

#### **DIMENSIONS:**

	50C20	
Height (in.)	35 1/2	
(mm)	901.0	
Width (in.)	54 5/8	
(mm)	1,387.0	
Depth (in.)	16 3/8	
(mm)	415.0	
Weight (lbs.)	90	
(kg.)	40.8	

**NOTE:** Due to improvements, specifications in this operating guide are subject to change without notice.

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# HITACHI

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# Appendixes

#### **Appendix A:**

IMAGE INPUT					
INPUT	TYPE	FORMAT	ASPECT	VIDEO ID	AUTO ASPECT
Air or Cable		NTSC	4:3		On/Off
(Analog Channels)					
Input 1	HDMI	480i/480p	16:9	16:9	Off
			Letter	Letter	Off
			4:3	4:3	Off
				No Info.	On/Off
Inputs 1-5	S-Video <sup>1</sup>	NTSC	16:9	16:9	Off
	Video		Letter	Letter	Off
			4:3	4:3	Off
				No Info.	On/Off
Inputs 3 & 4	Y-P <sub>b</sub> P <sub>r</sub>	480i/480p	16:9	16:9	Off
	~ .		Letter	Letter	Off
			4:3	4:3	Off
				No Info.	On/Off

<sup>1</sup>S-Video = Not available in Input 3 & 4

#### Appendix B:

IMAGE INPUT					
INPUT	TYPE	FORMAT	ASPECT	VIDEO ID	AUTO ASPECT
Air or Cable		1080i	4:3		On/Off
(Digital Channels)					
Input 1	HDMI	480i/480p	Letter	Letter	On
			4:3	4:3	On
Inputs 1-5	S-Video <sup>2</sup>	NTSC	Letter	Letter	On
	Video		4:3	4:3	On
Inputs 3 & 4	Y-P <sub>b</sub> P <sub>r</sub>	480i/480p	Letter	Letter	On
			4:3	4:3	On

<sup>2</sup>S-Video = Not available in Input 3 & 4

#### Appendix C:

#### **IMAGE INPUT** TYPE | FORMAT | ASPECT | VIDEO ID | AUTO ASPECT INPUT Input 1 HDMI 480i/480p 16:9 16:9 On Inputs 1-5 S-Video<sup>3</sup> NTSC 16:9 16:9 On Video Y-P<sub>b</sub>P<sub>r</sub> 480i/480p On Inputs 3 & 4 16:9 16:9

<sup>3</sup>S-Video = Not available in Input 3 & 4

#### Appendix D:

IMAGE INPUT					
INPUT	TYPE	FORMAT	ASPECT	VIDEO ID	AUTO ASPECT
Air or Cable		1080i	16:9		On/Off
(Digital Channels)					
Input 1	HDMI	1080i/720p	16:9		On/Off
Inputs 3 & 4	Y-P <sub>b</sub> P <sub>r</sub>	1080i/720p	16:9		On/Off

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