

**LCD TELEVISION**

AVC (Audio Video Control Center) & LCD Display Monitor

**Operating Guide for 32HLX61**

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# IMPORTANT SAFETY INSTRUCTIONS





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

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

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

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 LCD television. LCD television consists of AVC center and display Monitor.

 <div style="text-align: center;"><b>CAUTION</b></div> <div style="text-align: center;"><b>RISK OF ELECTRIC SHOCK</b></div> <div style="text-align: center;"><b>DO NOT OPEN</b></div> 	 <p>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 persons.</p>
<p>CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.</p>	 <p>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.</p>

**WARNING:**

- TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE.
- THE LCD TELEVISION SHOULD NOT BE EXPOSED TO DRIPPING OR SPLASHING AND OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHOULD NOT BE PLACED ON THE TELEVISION.

**NOTE:**

- There are no user serviceable parts inside the AVC center/display monitor.
- Model and serial numbers are indicated on back side of the AVC center/display monitor.

**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 authority to operate the television.



**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.


**POWER SOURCE**

**THIS TELEVISION IS DESIGNED TO OPERATE ON 120 VOLTS 60Hz, AC CURRENT. INSERT THE POWER CORD INTO A 120 VOLT 60Hz OUTLET.**

**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 50Hz, DIRECT CURRENT, OR ANYTHING OTHER THAN THE SPECIFIED VOLTAGE.**

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


 **CAUTION:** Never remove the back cover of the AVC center/display monitor as this can expose you to very high voltages and other hazards. If the television does not operate properly, unplug the LCD television and call your authorized dealer or service center.

# IMPORTANT SAFETY INSTRUCTIONS

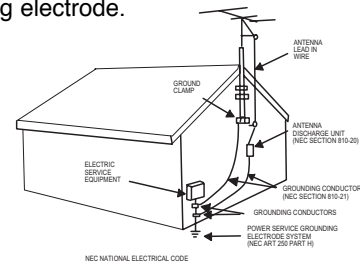


## Read before operating equipment

Follow all warnings and instructions marked on this television.

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
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 type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use the attachments/accessories specified by the manufacturer.
12.  Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
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 antenna-discharge unit, connection to grounding electrodes and requirements for the grounding electrode.



Note to the CATV system installer: This reminder is provided to call the CATV system installer's attention to Article 820-40 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.

**Do not place any objects on the top of the television which may fall or cause a child to climb to retrieve the objects.**

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

## 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.

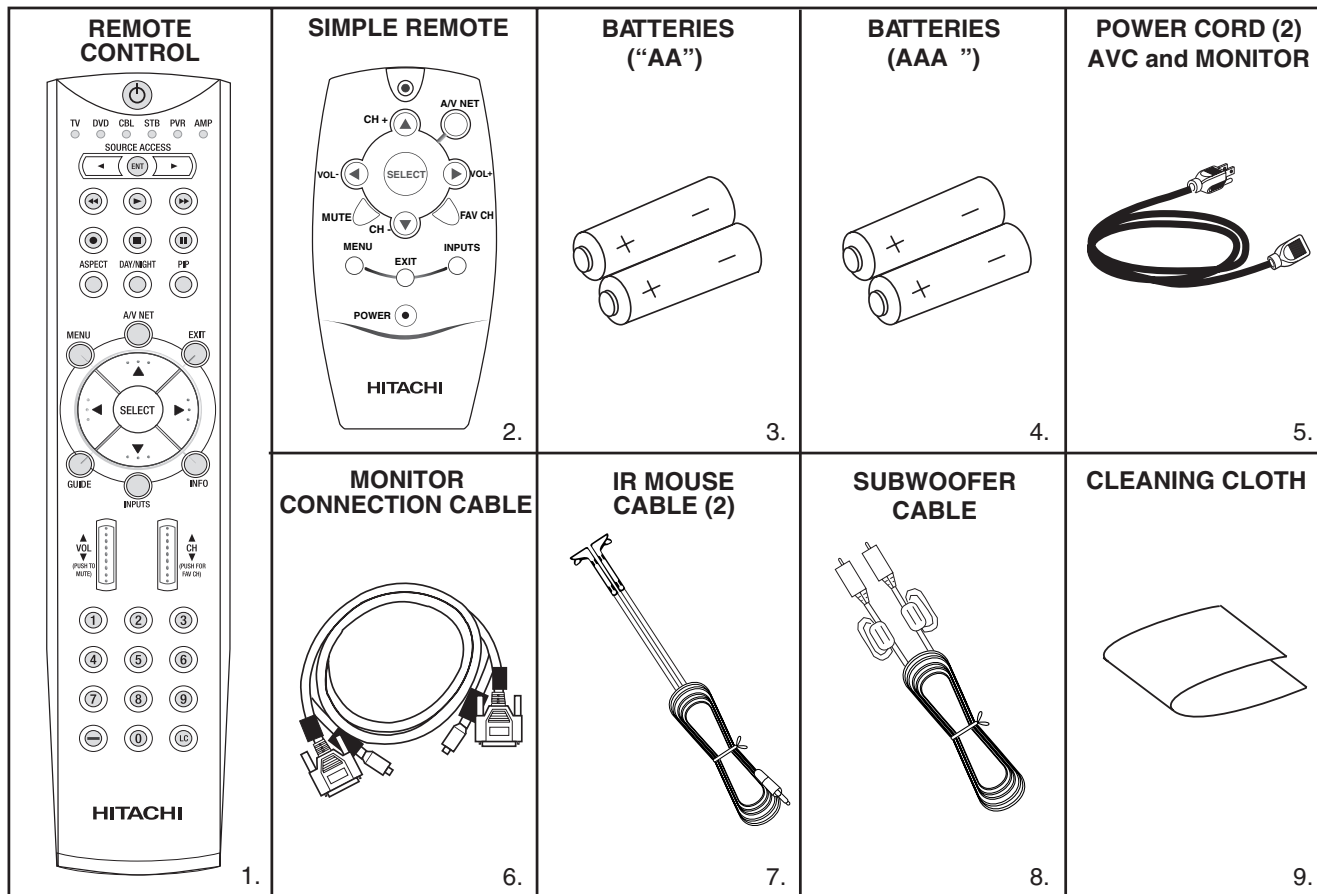
- This digital television is capable of receiving analog basic, digital basic and digital premium cable television programming by direct connection to a cable system providing such programming. A CableCARD provided by your cable operator is required to view encrypted digital programming. Certain advanced 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.
- 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.



# ACCESSORIES

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

FIRST TIME USE



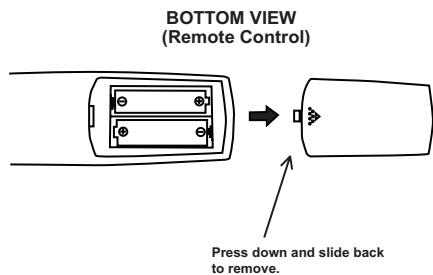
**CAUTION:** 1. Ceiling mounting is not recommended. Mounting the panel on the ceiling does not provide adequate ventilation for the electronics or proper support for the front glass panel.

- 1. Remote Control Unit CLU-3853WL (P# HL02067)
- 2. Simple Remote Control Unit CLU-122S (P# HL01863)
- 3. Two "AA" size, 1.5V batteries (P# FQ00021).
- 3. Two "AAA" size, 1.5V batteries (P# FR00061).
- 5. Power Cord: 32"
- 6. Monitor Connection Cable (P# EW07883).
- 7. Two IR Mouse cables (P# EY01641).
- 8. Sub Woofer Cable (P# VZ11701).
- 9. Cleaning Cloth (P# MS00931).

	32"
LCD Monitor	EV01841
AVC	EV01841

## REMOTE CONTROL BATTERY INSTALLATION AND REPLACEMENT

1. Open the battery cover of the remote control by pushing the notched part of the cover with your fingers and pulling the cover off.
2. Insert two new "AA" and "AAA" size batteries for the remote control and Simple Remote Control respectively. When replacing old batteries, push them towards the springs and lift them out.
3. Match the batteries to the (+) and (-) marks in the battery compartment.
4. Replace the cover.



**CAUTION:** Danger of explosion if battery is incorrectly replaced. Replace with the same or equivalent type.

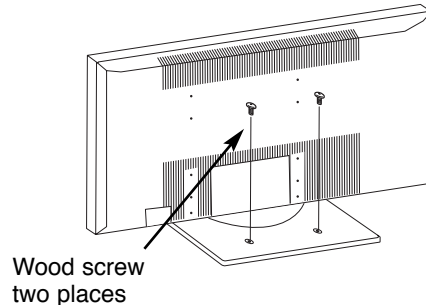
# HOW TO SETUP YOUR NEW HITACHI LCD TELEVISION



To take measures to prevent the LCD Display from tipping over and prevent possible injury it is important to mount the unit in a stable place.

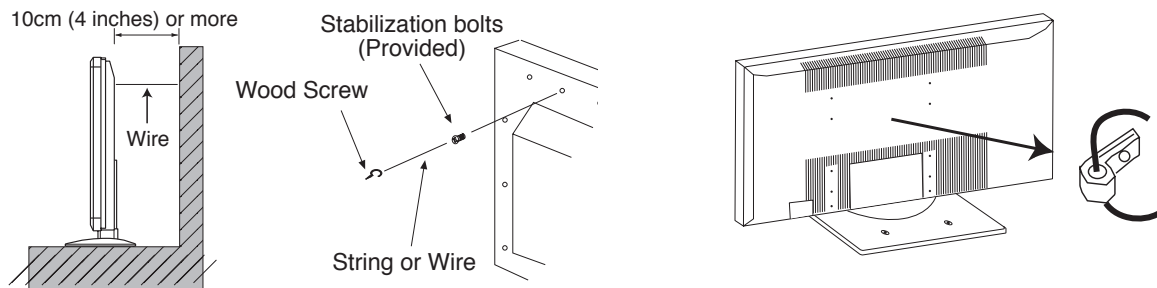
## Securing to a table-top

1. Using wood screws (two) fasten the set to the clamping screw holes on the rear of the LCD Display stand as shown below.
2. Using commercially available wood screws, secure the set firmly in position.
3. Leave some space around the unit for proper operation of the power swivel stand.



## Securing to a wall

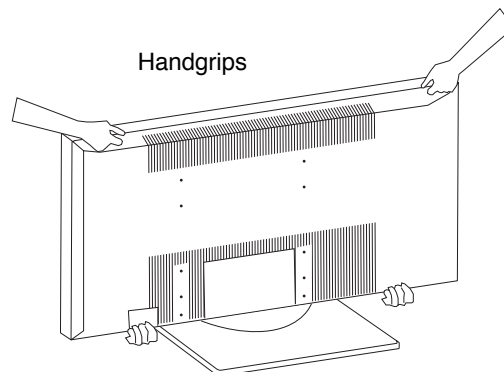
1. Keep the LCD Display monitor four inches away from the wall except those hung to a wall mount bracket.
2. Secure the monitor to the wall as shown below.



- NOTES:**
1. Do not block the ventilation holes of the LCD Display monitor or the AVC center. Blocking the ventilation holes might cause fire or defect.
  2. The LCD television has two AC cords, one on the AVC center and the other on the LCD Display monitor. In case of an abnormal symptom, unplug both AC cords.

## Caution when moving the main unit

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



## ANTENNA

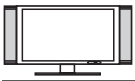
Unless your LCD Television is connected to a cable TV system or to a centralized antenna system, a good outdoor color TV antenna is recommended for best performance. However, if you are located in an exceptionally good signal area that is free from interference and multiple image ghosts, an indoor antenna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

## 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 installing your LCD TV against a wall, keep it at least 10 cm (4 inches) from the wall.

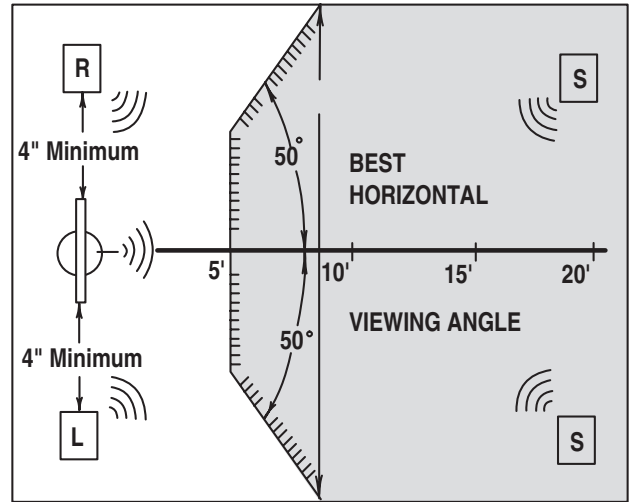
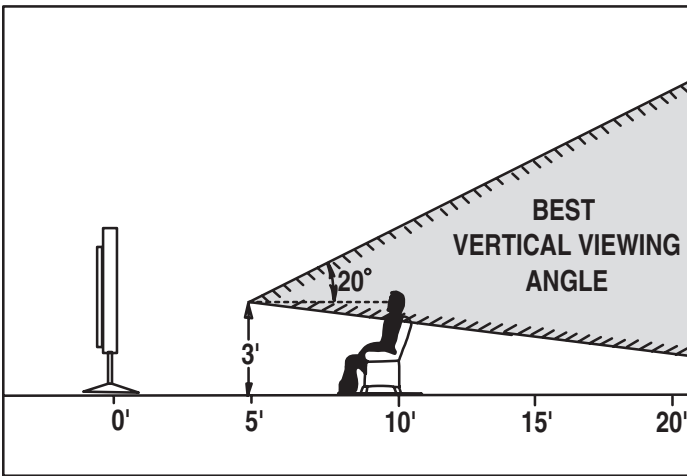


# HOW TO SET UP YOUR NEW HITACHI LCD TELEVISION

## VIEWING

The major benefit of the HITACHI LCD Television 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 8 to 18 feet from the screen. 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.

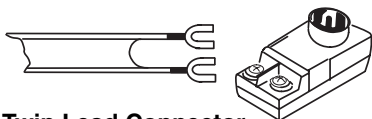
FIRST TIME USE



# HOOKUP CABLES



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.



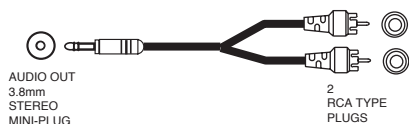
### 300-Ohm Twin Lead Connector

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



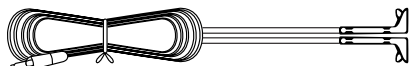
### Phono Connector

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



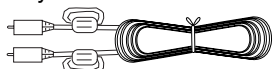
### Stereo Cable (3.5 mm plug to 3.5 mm plug)

This cable is used to connect from external audio out to the audio input of the AVC Center (ex. RGB Input).



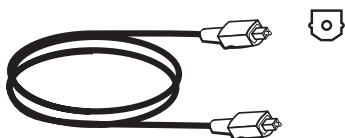
### IR Mouse Cable (Provided)

Connect the IR Mouse to the IR output on your AVC center when A/V Network is used. You must place the IR mouse in front of the corresponding IR window of your cable box and VCR. This connection allows your TV to control your cable box and VCR.



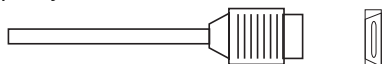
### Subwoofer Cable (Provided)

This cable is used to connect an external audio component input to the subwoofer output of the Display Monitor.



### 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.



### IEEE1394 Cable

This cable is used to connect your digital television to external digital devices. This cable will carry both the video and audio information.



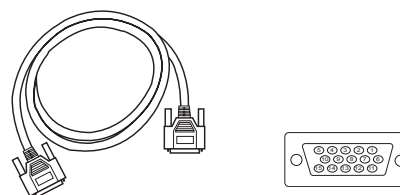
### "F" Type 75-Ohm Coaxial Antenna Connector

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



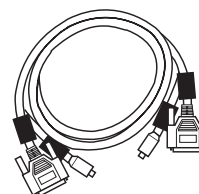
### S-Video (Super Video) Connector

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



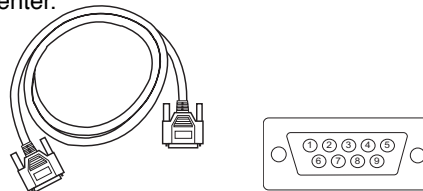
### D-SUB MINI 15-Pin Cable

This cable is used to connect a computer output to the ANALOG input located on the rear panel of the AVC Center. The resolution should be set correctly to display the signal on the LCD Television.



### Monitor Connection Cable (Provided)

This cable is used to connect the Display Monitor to the AVC Center.



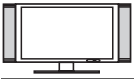
### D-SUB MINI 9-Pin Cable

This cable is used to connect to the RS232C input located on the rear panel so you can control some of your TV functions from an external home control system.



### USB Cable

This cable is used to connect your digital camera to the Photo Input in the front of the AVC.

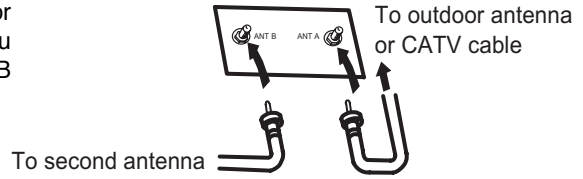


# ANTENNA CONNECTIONS TO REAR PANEL JACKS

FIRST TIME USE

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

When using a 75-Ohm coaxial cable system, connect the outdoor antenna or CATV coaxial cable to the ANT A (75-Ohm) terminal. If you have a second antenna, connect the coaxial cable to the ANT B terminal.



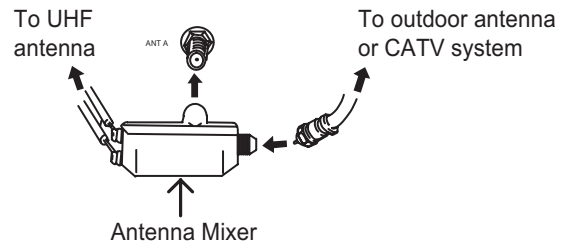
## VHF (300-Ohm) antenna/UHF antenna

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.



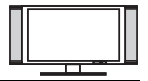
## When both VHF and UHF antennas are connected

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.

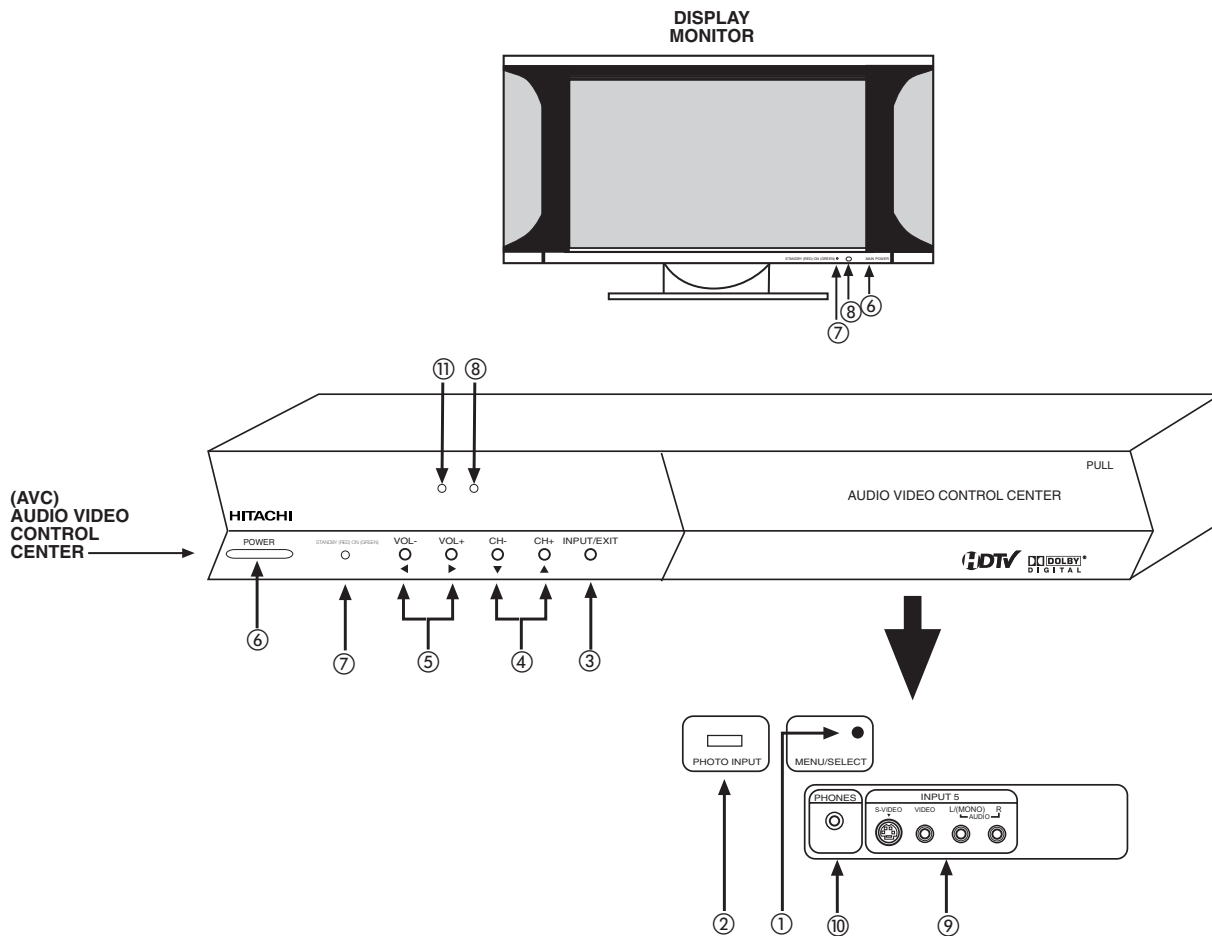




# FRONT PANEL CONTROLS



## FRONT VIEW



FIRST TIME USE

### ① 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.

### ② PHOTO INPUT

Insert USB cable from your Digital Camera to view your digital still pictures (see pages 36-38).

### ③ INPUT/EXIT button

Press this button to access the INPUT menu. Press again to exit the INPUT MENU mode.

### ④ CHANNEL selector

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

### ⑤ VOLUME level

Press these buttons to adjust the sound level. The volume level will be displayed on the TV screen. These buttons also serve as the cursor left (◀) and right (▶) buttons when in MENU mode.



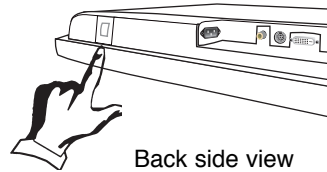
# FRONT PANEL CONTROLS

FIRST TIME USE

## ⑥ POWER button

### Display Monitor “MAIN POWER” button

This power button is for the complete system, and must be turned ON/OFF manually. It is recommended to leave the “MAIN POWER” to ON condition (lights red) for stand-by mode.



Back side view

The Main Power button is located on the Back side, under the label “MAIN POWER”.

### AVC POWER button

The AVC power can be turned ON/OFF manually or by remote control. Turning on the AVC Power will only turn on the AVC box if the “MAIN POWER” of the display monitor is off.

## ⑦ POWER light indicator

To turn the monitor ON, press the main power switch located on the lower right side of the monitor. A red stand-by indicator lamp located on the lower right corner of the front bezel will illuminate. The LCD TV is now ready for remote on/off operation.

Indicating Lamp	Power Status	Operating
Off	Off	When the main power switch is set OFF.
Lights Red	Off (Stand-by)	When the main power switch on the display monitor is ON, and the AVC Center is OFF.
Lights Green	On	Display monitor MAIN POWER is ON and AVC Center power is ON.
Lights Orange	Off (Power Saving)	Display monitor MAIN POWER is ON and AVC Center power is ON, with no signal input except antenna (no sync. signal).
Flicking Green (only in the AVC)	The AVC is preparing to turn ON	When the MAIN POWER switch on the display monitor is ON or OFF and the AVC center power is turning on.

## ⑧ REMOTE CONTROL sensor

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

## ⑨ FRONT INPUT JACKS (for VIDEO: 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 INPUTS button then use the CURSOR PAD and the SELECT button on the remote control to select INPUT 5. If you have mono sound, insert the audio cable into the left audio jack.

## ⑩ PHONES JACK

Use this jack for your head-phones. The TV’s internal speakers can also be heard. Turn off the internal speakers (see page 61) if you wish to listen to the head-phones only.

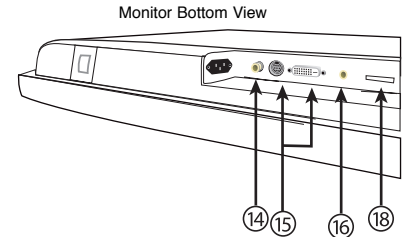
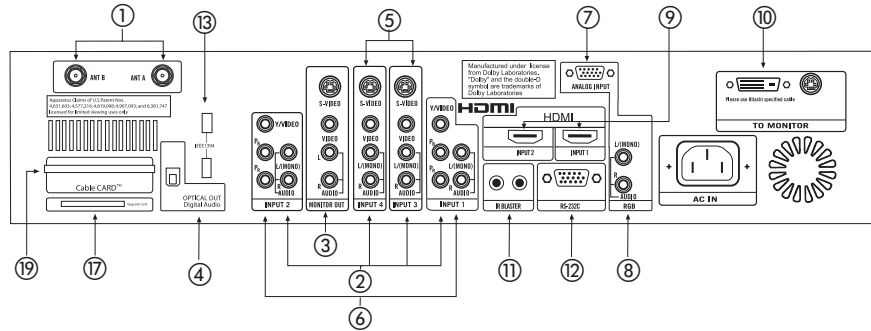
## ⑪ LEARNING AV NET Sensor

- NOTES:**
- Your HITACHI LCD TV will appear to be turned OFF (lights orange) if there is no video input when VIDEO: 1, 2, 3, 4, 5, or RGB is selected. Check the Power Light to make sure the Display Monitor is turned off or in Stand-by mode (lights red) when not in use.
  - Remote Control can not turn ON/OFF the “MAIN POWER” of the display monitor.

# REAR PANEL JACKS



## Audio Video Control Center (AVC)



FIRST TIME USE

- ① Antenna Input**  
 The remote control allows you to switch between two separate 75-Ohm RF antenna inputs, ANT A and ANT B. ANT A input can be displayed as a main picture or sub-picture. ANT B can only be displayed as a main picture (ANT B cannot be displayed as a sub-picture).
- ② Audio/Video Inputs 1, 2, 3 and 4**  
 By using the INPUTS button, the CURSOR PAD (▲ and ▼), and the SELECT button or the CURSOR PAD ► 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).
- ③ MONITOR OUT**  
 These jacks provide fixed audio and video signals (ANT A/B, INPUT 1~5) which are used for recording. Use the S-VIDEO Output for high quality video output. Component signal to Input 1 and 2, RGB and HDMI inputs will not have monitor output.
- ④ Optical Out (Digital Audio)**  
 This jack provides Digital Audio Output for your audio device that is Dolby® Digital and PCM compatible, such as an audio amplifier.
- ⑤ S-VIDEO Inputs 3 and 4**  
 Inputs 3 and 4 provide S-VIDEO (Super Video) jacks for connecting equipment with S-VIDEO output capability.

**NOTES:**

1. You may use VIDEO or S-VIDEO inputs to connect to INPUT 3 and 4, but only one of these inputs may be used at a time.
2. S-VIDEO output may be used for recording, only when the input is of S-VIDEO type.

- ⑥ Component: Y-P<sub>B</sub>P<sub>R</sub> Inputs**  
 Inputs 1 and 2 provide Y-P<sub>B</sub>P<sub>R</sub> jacks for connecting equipment with this capability, such as a DVD player or Set Top Box. You may use composite video signal for INPUTS 1 and 2.

**NOTES:**

1. DO NOT connect composite VIDEO and S-VIDEO to Input 3, 4 or 5 at the same time. S-Video has a higher 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 AVC Box's P<sub>B</sub> input and the components R-Y output to the AVC Box's P<sub>R</sub> input.
3. Your component outputs may be labeled Y-C<sub>B</sub>C<sub>R</sub>. In this case, connect the component C<sub>B</sub> output to the AVC Box's P<sub>B</sub> input and the component C<sub>R</sub> output to the AVC Box's P<sub>R</sub> input.
4. It may be necessary to adjust TINT to obtain optimum picture quality when using the Y-P<sub>B</sub>P<sub>R</sub> inputs (See page 58).
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, RGB and HDMI inputs.



**7 RGB - Analog Input**

Use this 15-pin D-Sub input for your external devices with RGB output (see page 27).

**8 RGB - Audio Input**

Connect audio for RGB input (if you have mono sound, insert the audio cable into the left audio jack).

**9 HDMI - Digital Input (INPUT 1 and INPUT 2)**

About HDMI

HDMI is the next-generation all digital interface for consumer electronics. HDMI enables the secure distribution of uncompressed high-definition video and multi-channel 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.

- NOTES:** 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 input.

**10 To Monitor**

Connect the Monitor Connection Cable to the AVC center's "TO MONITOR" connector, and to the display monitor's "FROM AVC" connector.

**11 IR Blaster**

This jack provides IR output to your external components (VCR, Cable box, DVD player, etc.). With this connection, your external components can automatically be controlled by the A/V network feature. This connection will allow you to control the external components with your LCD Television's remote control in TV mode.

**12 RS232C Input**

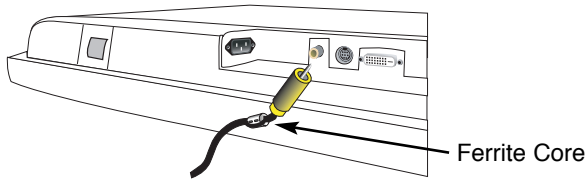
For use with third party home Audio/Video control systems which are commercially available. Please see your dealer regarding these "non Hitachi" home control systems (see page 80 to activate this input).

**13 IEEE1394**

These jacks provide a digital interface for your external digital devices, such as a Digital VCR (D-VHS or Set-Top-Box) by means of a single cable (see page 21). When using IEEE1394 connections, you enable video and audio digital data exchange between a compatible device. This connection also enables you to control basic equipment functions (such as VCR play, rewind, fast forward, stop, etc.) from your TV On-Screen Display.

**14 Subwoofer Out**

Connect this SUB WOOFER OUT output to the external audio component input using the sub woofer cable provided.



Sub-woofer cable (RCA Type)

**15 To AVC**

Connect the Monitor Connection cable from the AVC center's "TO MONITOR" to these connectors ("FROM AVC").

**16 SUB-POWER button**

This power is for serviceman usage.

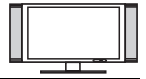
**17 Upgrade Card**

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.

**18 To Power Swivel Connector**

Connects to the Power Swivel Table Top Stand.

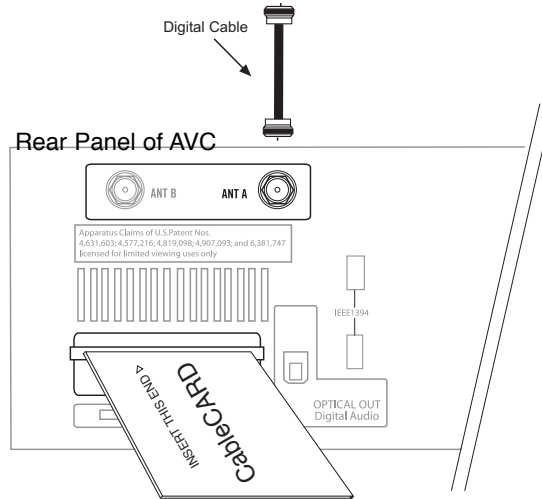
# REAR PANEL JACKS



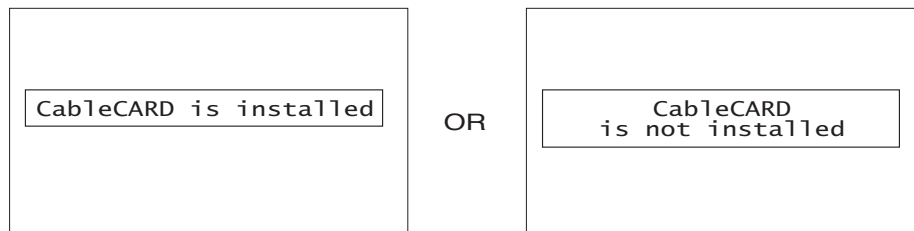
## 19 CableCARD Slot

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).

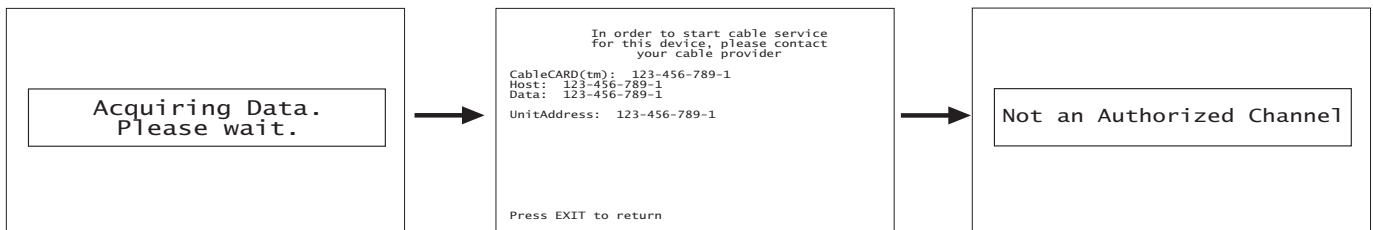
Connect a coaxial cable to ANT A terminal of the Rear Panel Jacks.  
Insert the CableCARD into the slot (Top of card should be facing up as shown).



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

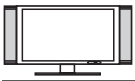


After the CableCARD is installed, wait until the second screen below appears. The third screen below will appear if a channel is not authorized for viewing. Press the EXIT button to exit the second screen.



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.

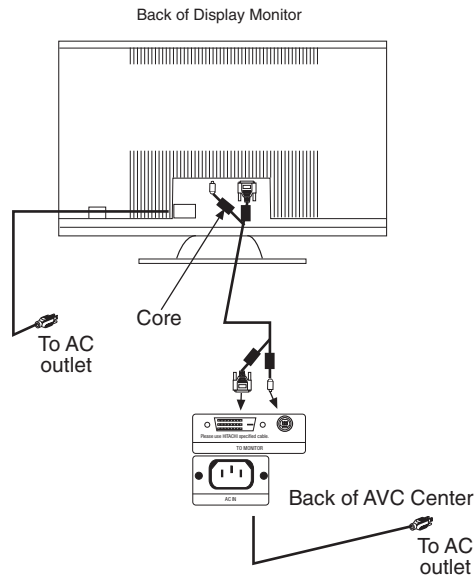
- NOTES:**
1. A digital cable subscription is required.
  2. Antenna B will not be available when CableCARD is inserted.
  3. Do not insert a PCMCIA card into the CableCARD slot.
  4. Please see pages 67-68 and 80 for additional CableCARD information.



# CONNECTING LCD DISPLAY MONITOR TO AVC BOX

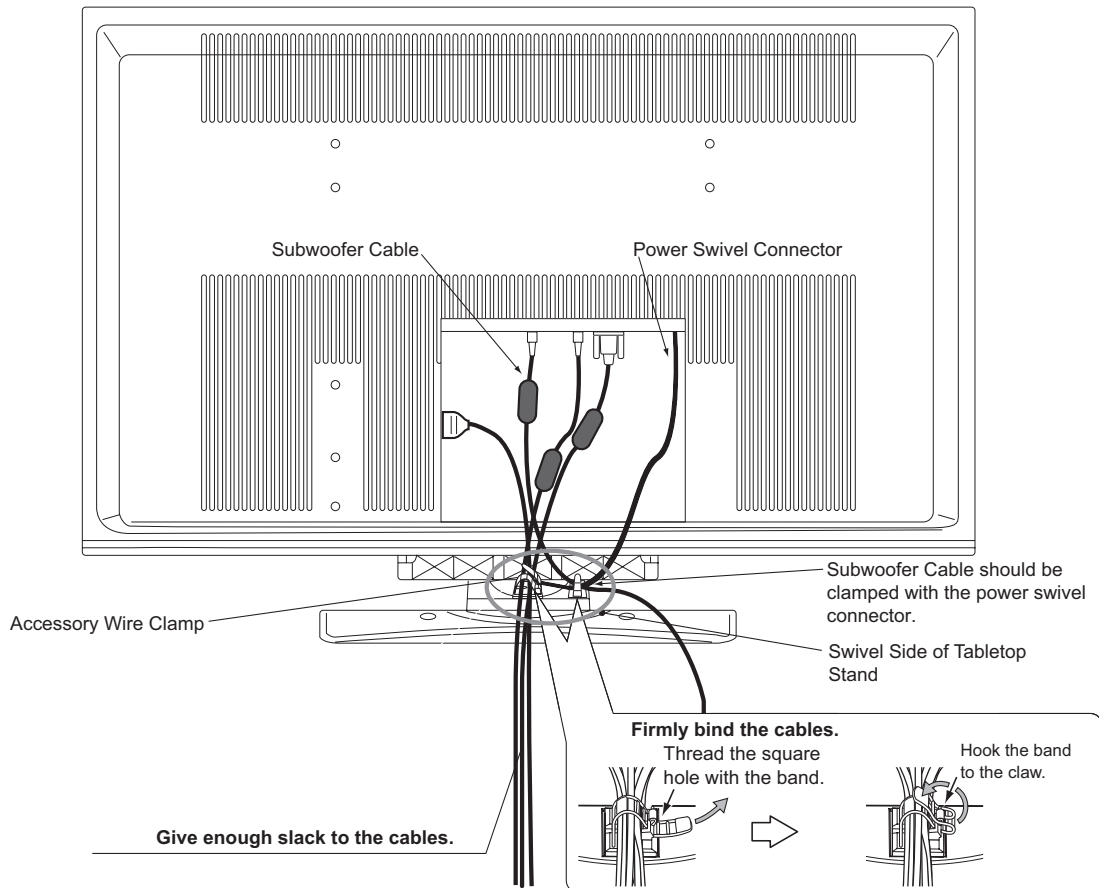
FIRST TIME USE

1. From the owner's accessory you will find the Monitor Connector cable.
2. Firmly, and securely insert the Monitor Connection Cable to the rear panel of the AVC box "TO MONITOR" connectors.
3. Insert the other ends of the Monitor Connection Cable to the display monitor rear panel "FROM AVC" connectors.



**NOTE:** The Display Monitor and the AVC Center have their own AC Power. Both AC cords must be completely plugged in to the AVC Center and the display monitor, then plug them in to the AC outlets.

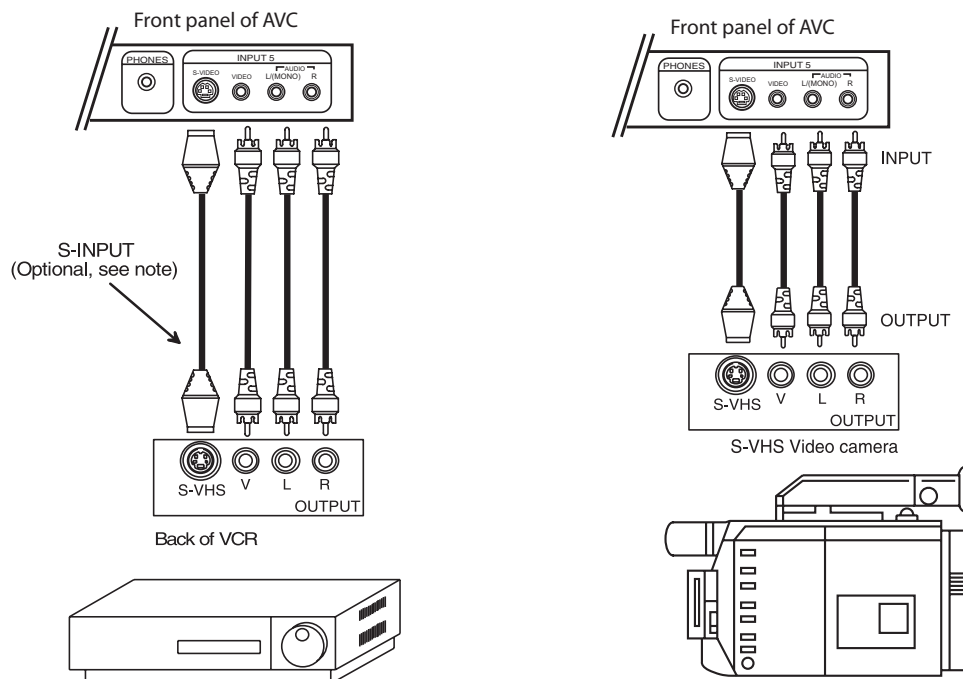
It is recommended that the subwoofer cable will be binded together with the Power Swivel connector using one of the accessory wire clamps (see below).



# CONNECTING EXTERNAL VIDEO SOURCES

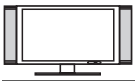


The front panel jacks are provided as a convenience to allow you to easily connect a camcorder or VCR as shown in the following examples:



FIRST TIME USE

- NOTES:**
1. Completely insert connection cord plugs when connecting to front panel jacks. If you do not, the played back picture may be abnormal.
  2. If you have a S-VHS VCR, use the S-INPUT cable in place of the standard video cable.
  3. If you have a mono VCR, insert the audio cable into the left audio jack of your AVC box.
  4. S-VIDEO input takes priority over VIDEO input.
  5. If you have a VHS or 8mm camcorder, use the S-VIDEO cable in place of the VIDEO cable.



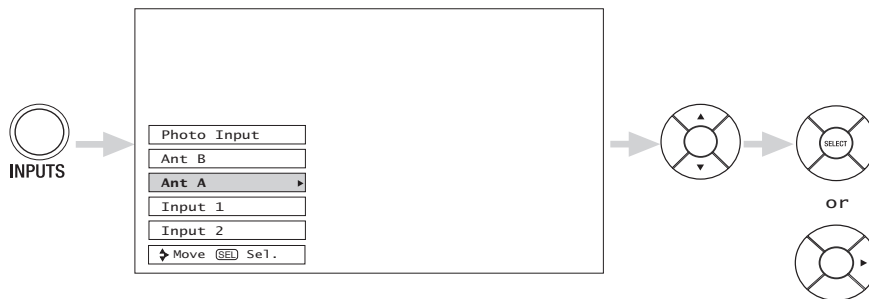
# CONNECTING EXTERNAL VIDEO SOURCES

The exact arrangement you use to connect the VCR, camcorder, laserdisc player, DVD player, or HDTV Set Top Box to your LCD TV 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.

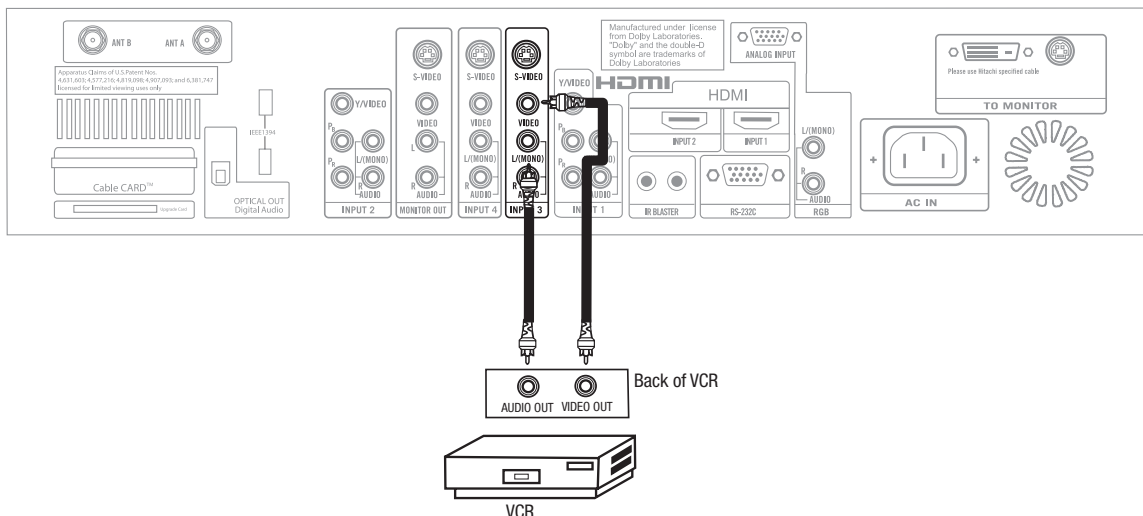
## Before Operating External Video Source

Connect an external source to one of the INPUT terminals, then press the INPUTS button to show the INPUTS menu. Use the CURSOR PAD (▲ and ▼) to select the Antenna or Input of your choice. Then press the SELECT button or the CURSOR PAD ► to confirm your choice (see page 33).



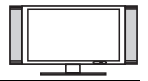
## CONNECTING A MONAURAL AUDIO SOURCE TO INPUT1-INPUT5

1. Connect the cable from the VIDEO OUT of the VCR or the laserdisc player to the INPUT (VIDEO) jack, as shown on the AVC Center below.
2. 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 3 from the INPUTS menu to view the program from the VCR or the laserdisc player. The VIDEO label disappears automatically after approximately four seconds.
4. Select Ant A or B from the INPUTS menu to return to the previous channel.



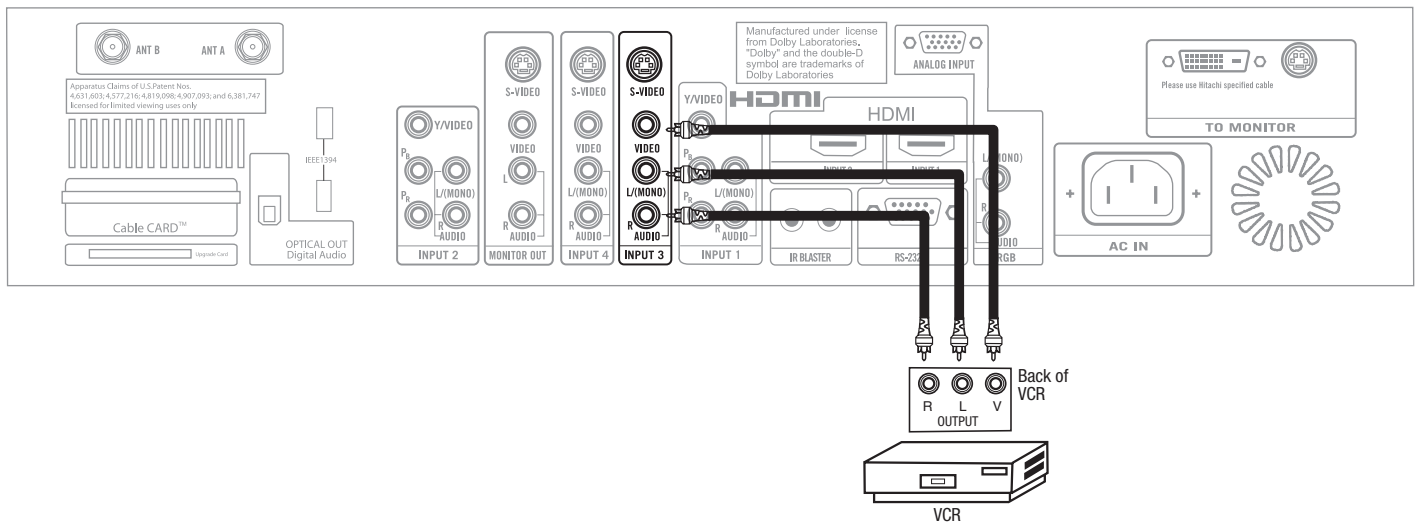


# CONNECTING EXTERNAL VIDEO SOURCES



## CONNECTING A STEREO VCR OR STEREO LASERDISC PLAYER

1. Connect the cable from the VIDEO OUT of the VCR or the laserdisc player to the INPUT (VIDEO) jack, as shown on the AVC Center below.
2. Connect the cable from the AUDIO OUT R of the VCR or the laserdisc player to the INPUT (AUDIO/R) jack.
3. Connect the cable from the AUDIO OUT L of the VCR or the laserdisc player to the INPUT (AUDIO/L) jack.
4. Press the INPUTS button, then select INPUT 3 from the INPUTS menu to view the program from the VCR or laserdisc player. The VIDEO label disappears automatically after approximately four seconds.
5. Select ANT A or B from the INPUTS menu to return to the previous channel.



**NOTES:**

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, but note that a VCR cannot record its own video or line output (INPUT: 4 in example on page 27). Refer to your VCR operating guide for more information on line input-output connections.

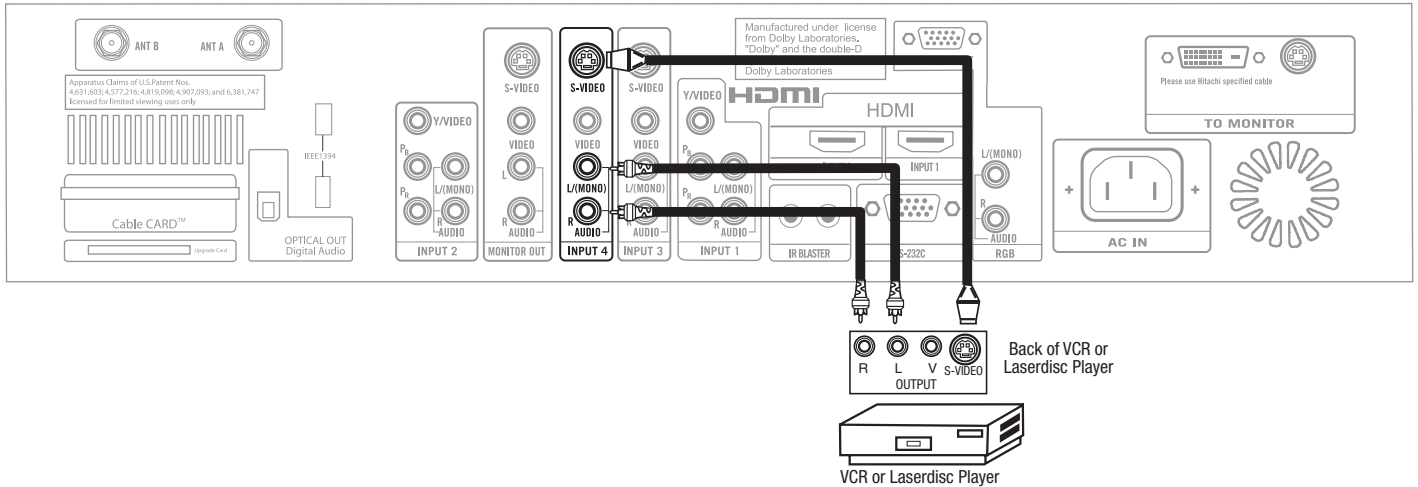


# CONNECTING EXTERNAL VIDEO SOURCES

FIRST TIME USE

## CONNECTING S-VIDEO VCR OR LASERDISC PLAYER

1. Connect the cable from the S-VIDEO OUT of the S-VHS VCR or the laserdisc player to the INPUT (S-VIDEO) jack, as shown on the AVC Center below.
2. Connect the cable from the AUDIO OUT R of the VCR or the laserdisc player to the INPUT (AUDIO/R) jack.
3. Connect the cable from the AUDIO OUT L of the VCR or the laserdisc player to the INPUT (AUDIO/L) jack.
4. Press the INPUTS button, then select INPUT 4 from the INPUTS menu to view the program from the VCR or laserdisc player. The VIDEO label disappears automatically after approximately four seconds.
5. Select ANT A or B from the INPUTS menu to return to the previous channel.



- NOTES:**
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, but note that a VCR cannot record its own video or line output (INPUT: 4 in example on page 27). Refer to your VCR operating guide for more information on line input-output connections.

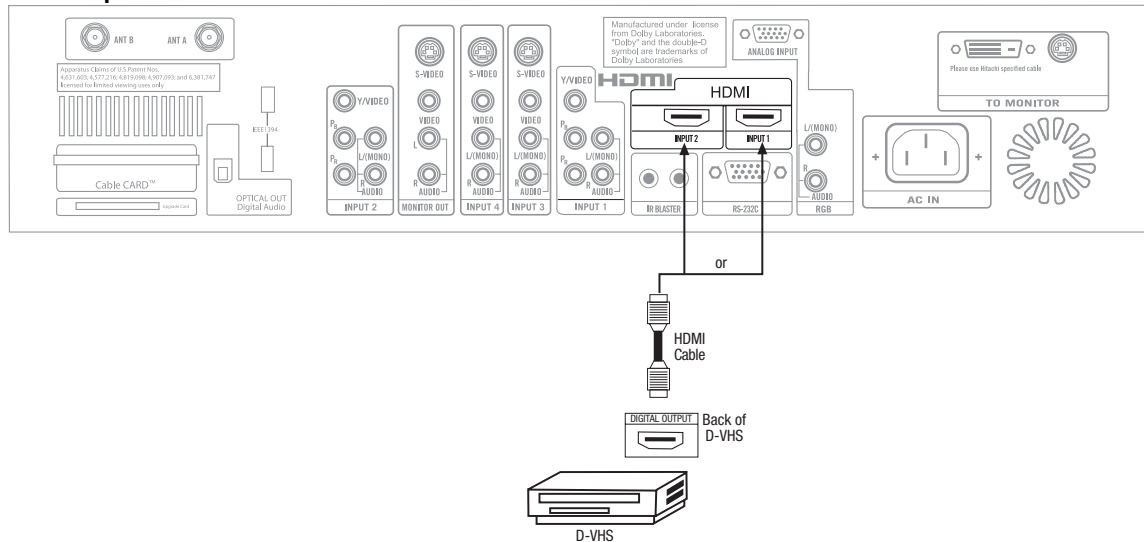
# CONNECTING EXTERNAL VIDEO SOURCES



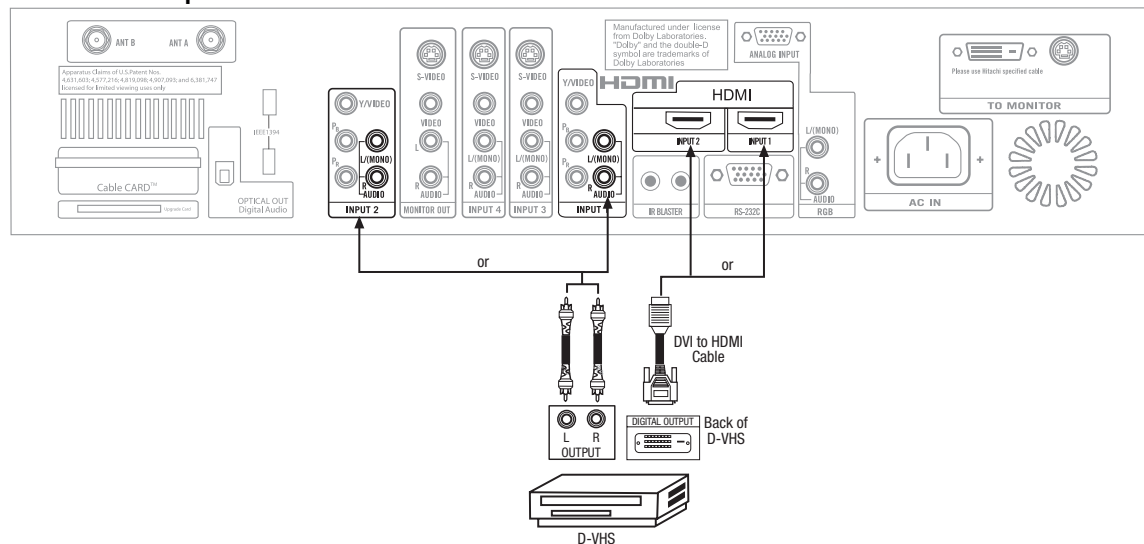
## CONNECTING A COMPONENT SOURCE WITH HDMI or DVI CAPABILITY TO INPUT 1 or INPUT 2

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 AVC Center below.
2. With DVI output, connect the cable from the AUDIO OUT R of the HDTV set top box or DVD player to the INPUT (AUDIO/R) jack.
3. With DVI output, connect the cable from the AUDIO OUT L of the HDTV set top box or DVD player to the INPUT (AUDIO/L) jack.
4. Press the INPUTS button, then select INPUTS 1 or 2 to view the program from the HDTV set top box or DVD player. The VIDEO OSD label disappears automatically after approximately four seconds.
5. Select ANT A or B from the INPUTS menu to return to the previous channel.

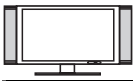
### HDMI input



### DVI to HDMI Input



- NOTES:**
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 or 2 contains the copy protection system called High-bandwidth Digital Content Protection (HDCP). HDCP is a cryptographic system that encrypts video signals when using HDMI connections to prevent illegal copying of video contents.
  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 set-up of device user settings determines final video appearance.

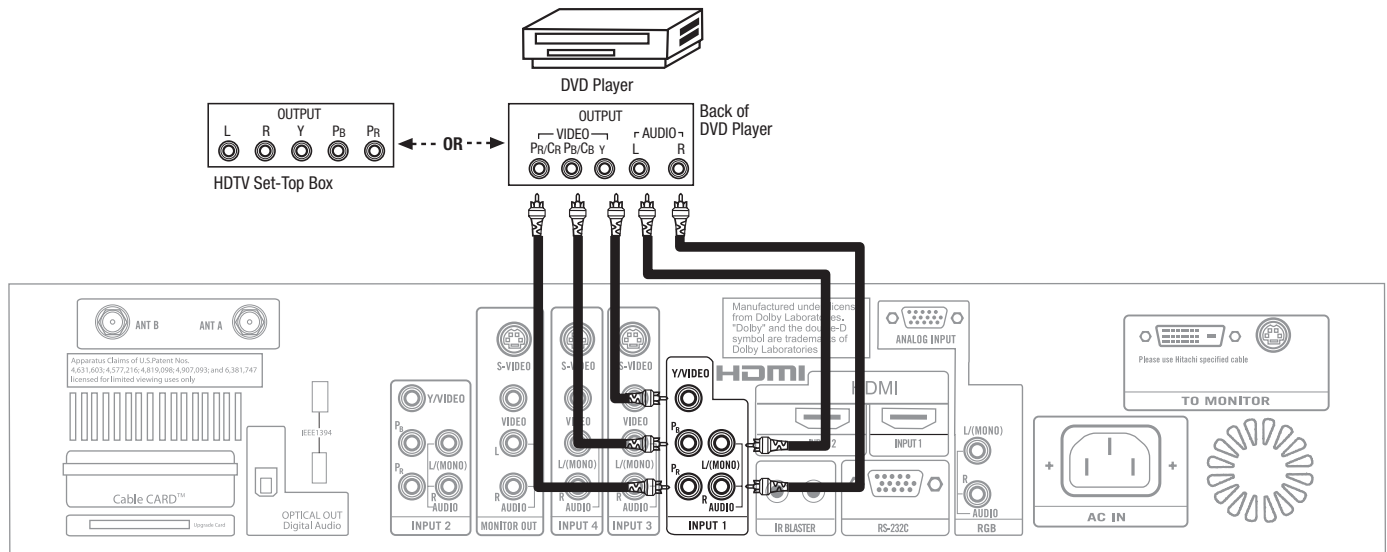


# CONNECTING EXTERNAL VIDEO SOURCES

FIRST TIME USE

## CONNECTING A STEREO LASERDISC/DVD PLAYER OR HDTV SET TOP BOX TO INPUT 1 OR 2 COMPONENT: Y-P<sub>B</sub>P<sub>R</sub>.

1. 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 AVC Center below.
2. Connect the cable from the P<sub>B</sub>/C<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.
3. Connect the cable from the P<sub>R</sub>/C<sub>R</sub> OUT or R-Y OUT of the Laserdisc/DVD player or HDTV set top box to the INPUT (P<sub>R</sub>) 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.
6. Press the INPUTS button, then select INPUT 1 or 2 from the INPUTS menu to view the program from the Laserdisc/DVD player or HDTV set top box. The VIDEO label disappears automatically after approximately four seconds.
7. Select ANT A or B to return to the previous channel.



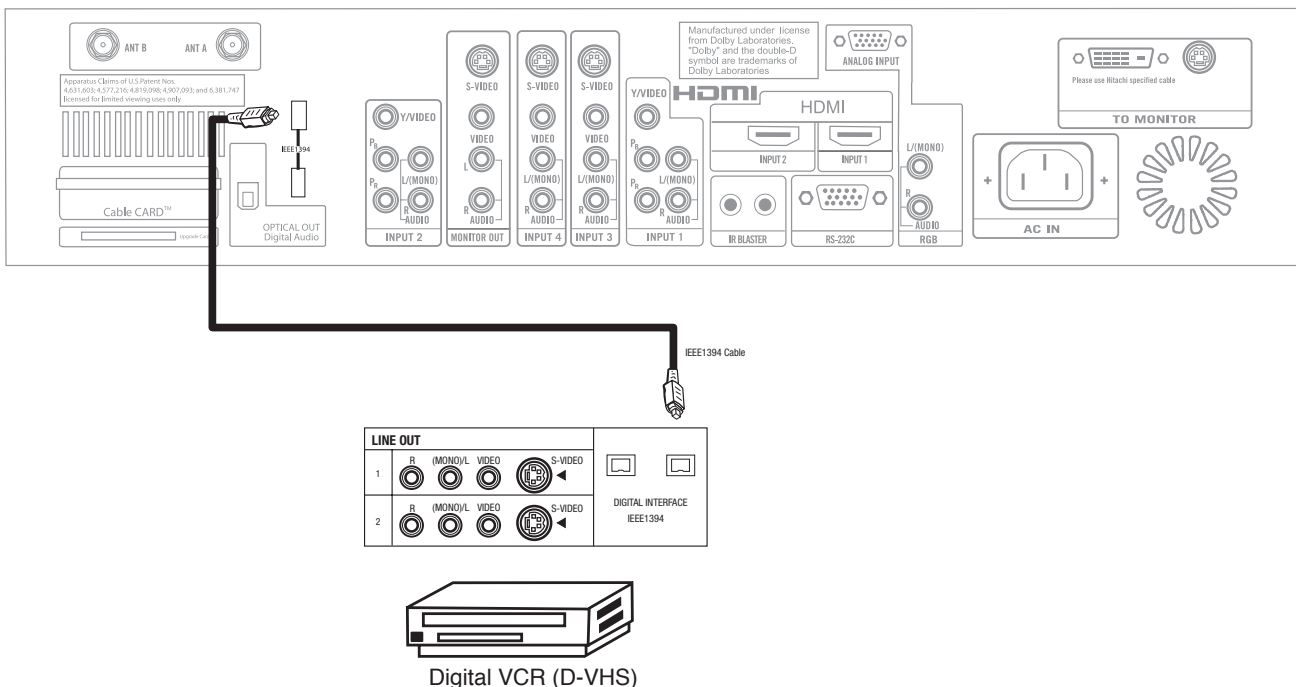
- NOTE:**
1. Completely insert the connection cord plugs when connecting to rear panel jacks. The picture and sound that is played back will be abnormal if the connection is loose.
  2. See page 28 for tips on REAR PANEL CONNECTIONS.

# CONNECTING EXTERNAL VIDEO SOURCES



## CONNECTING A COMPONENT SOURCE WITH DIGITAL INTERFACE CAPABILITY TO IEEE1394 TERMINALS

1. Connect the IEEE1394 cable from the output of the component with IEEE1394 capability, such as a Set-Top-Box or Digital VCR, to the IEEE1394 input terminals shown on the AVC Center below. IEEE 1394 allows the LCD television and the external device to communicate with one another. When using IEEE1394 connections, you enable video and audio digital data exchange between a compatible device. This connection also enables you to control basic equipment functions (such as VCR play, rewind, fast forward, stop, etc.) from your TV On-Screen Display.
2. Press the INPUTS button on the Remote Control.
3. Select the IEEE1394 option (see page 39).



- NOTES:**
1. This LCD TV's IEEE1394 connection is not compatible with a DV camcorder (Digital Video camcorder) and a PC.
  2. With IEEE1394 connection, video and audio will be received by the TV. It will enable you to control the D-VHS from the TV IEEE1394 menu (see page 39).
  3. The IEEE1394 interface contains the copy protection standard called 5C or Digital Transmission Content Protection (DTCP).
  4. See page 28 for tips on Rear Panel Connections.



# CONNECTING AV NETWORK

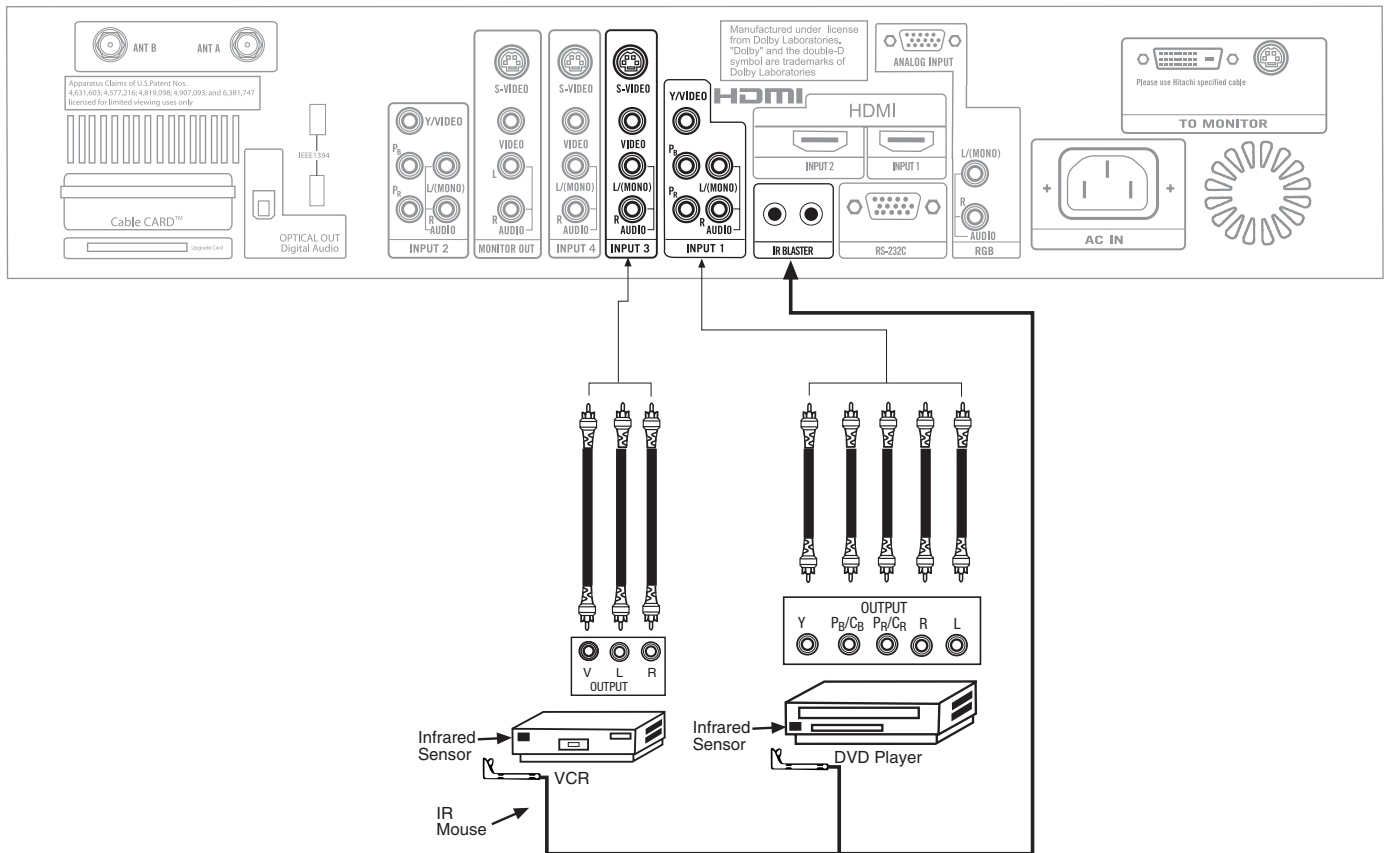


Your Hitachi LCD Television is equipped with an AV Network feature. This feature helps to control your external Audio/Video equipment (VCR, Set Top Box, DVD, etc.). Once this is setup, it allows your IR Mouse connector to control your equipment using your Hitachi LCD TV Remote Control. You can use your Hitachi remote control to control the Audio/Video equipment command without the equipment's remote control.

The LCD Television AVC Center has 2 IR BLASTER jacks. Each IR Mouse cable can connect up to 2 external Audio/Video components. Therefore, you can connect the LCD Television with up to four components. Please see the following example of an AV Network setup between your Hitachi LCD Television and external Audio/Video equipment (VCR and DVD Player).

## CONNECTING EXTERNAL AUDIO/VIDEO COMPONENTS TO IR BLASTER FOR AV NETWORK

1. Connect your external Audio/Video components to the AVC Center shown on pages 16-22.
2. Connect the IR Mouse cable to the IR BLASTER output of the AVC Center.
3. Place the IR mouse in front of the infrared sensor of the external components you wish to control.



4. Follow the setup procedure on pages 24-26.

**NOTES:**

1. The AVC Center has two IR BLASTER outputs which can control up to a total of four external components.
2. The IR Mouse must be placed in front of the external components infrared sensor for the AV Network to work.
3. The correct codes must be entered for each of the Audio/Video components for the AV Network to function properly.
4. Audio/Video component codes for AV network are on page 26.



# AV NETWORK SETUP WIZARD

FIRST TIME USE

## SETUP PROCEDURE USING AV NETWORK DEVICE CODES:

A DVD Setup example is shown below. Setup of DVD2, VCR, VCR2, PV Recorder, Cable Box and Set-Top-Box follows this same procedure. If your device is not listed or the device codes not work after following the setup procedure, please refer to the AV NET Learning wizard procedure on pages 33-35.

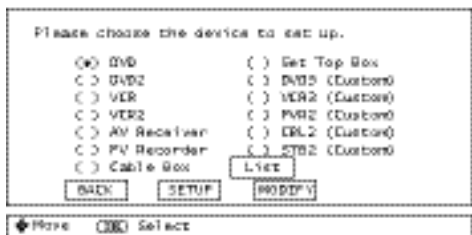
1. Press the A/V Net button on the remote control.



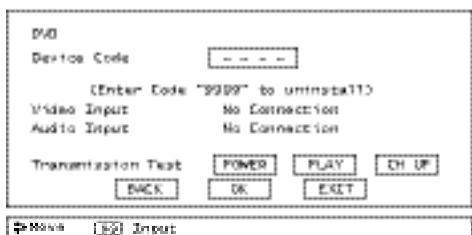
2. Use CURSOR PADS ▲ and ▼ to highlight Device Setup.
3. Press the SELECT button or CURSOR PAD ► on the remote control and the device selection screen appears.



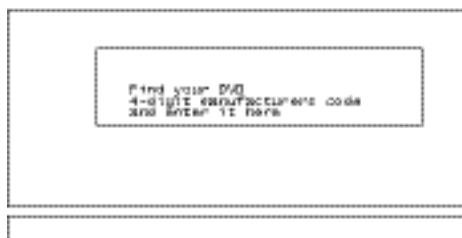
4. Use the CURSOR PADS ▲ and ▼ to choose DVD and press the SELECT button on the remote control.
5. The Setup button on the bottom of the screen becomes highlighted. Press the SELECT button on the remote control to enter the setup screen.



6. Using the remote, enter the four digit Device Code for your equipment, found on page 26.
7. Use the CURSOR PAD ▼ to select Video Input. Press the CURSOR PADS ◀ and ▶ to set the INPUT to which your device is connected.
8. Repeat step 7 for Audio Input. If the DVD is connected to the TV, select "Using TV". If the DVD is connected to an external amplifier, select "no connection".
9. Press CURSOR PAD ▼ to select Transmission Test. Press the CURSOR PADS ◀, ▶ to select Power, Play, or CH UP softkeys, before pressing the SELECT button to perform a Transmission Test of the softkey selected. If the device responds, then it is properly set up. Select OK. (If the Transmission Test failed. try another code.)



10. If "OK" was selected, and the 4 digit code was invalid, the screen below appears, then goes back to the Device entry screen.



11. Repeat Device Setup procedure until the screen below appears.
12. Select CONTINUE to setup another device.



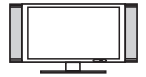
13. Select DONE to finish and the screen below appears to show the device(s) which has been set-up.

Device	Code	Video	Audio
Dvd	0490	INPUT 2	Using TV
DVD2	----	Not Setup	Not Setup
VCR	----	Not Setup	Not Setup
VCR2	----	Not Setup	Not Setup
AVR	----	Not Setup	Not Setup
PVR	----	Not Setup	Not Setup
DBL	----	Not Setup	Not Setup
STB	----	Not Setup	Not Setup
Custom	----	Not Setup	Not Setup

14. Select EXIT to quit.



# AV NETWORK SETUP WIZARD



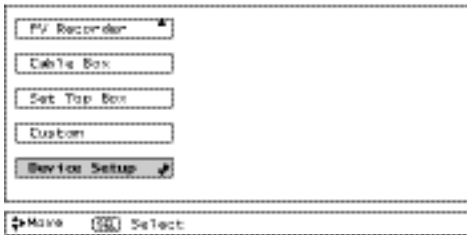
## SETUP PROCEDURE USING AV NETWORK DEVICE CODES:

An AV Receiver Setup example is shown below. If your device is not listed or the device codes not work after following the setup procedure, please refer to the AV NET Learning wizard procedure on pages 33-35.

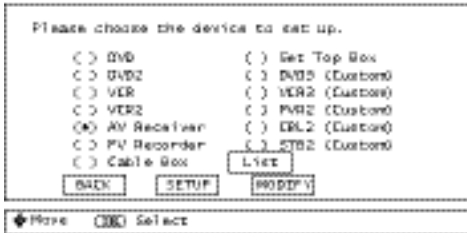
1. Press the A/V Net button on the remote control.



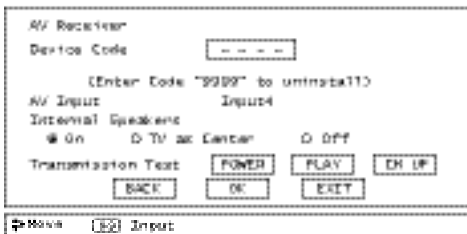
2. Use CURSOR PADS ▲ and ▼ to highlight Device Setup.
3. Press the SELECT button or CURSOR PADS ► on the remote control and the device selection screen appears.



4. Use the CURSOR PADS ▲ and ▼ to choose AV Receiver and press the SELECT button on the remote control.
5. The Setup button on the bottom of the screen becomes highlighted. Press the SELECT button on the remote control to enter the setup screen.



6. Using the remote, enter the four digit Device Code for your equipment, found on page 26.
7. Use the CURSOR PAD ▼ to select AV Input. Press the CURSOR PADS ◀ and ▶ to set the INPUT to which your device is connected.
8. Use the CURSOR PAD ▼ to select Internal Speakers. Press CURSOR PAD ◀ and ▶ to set the Internal Speakers to ON, OFF or TV as Center.
9. Press CURSOR PAD ▼ to select Transmission Test. Press the CURSOR PADS ◀, ▶ to select Power, Play, or CH UP softkeys, before pressing the SELECT button to perform a Transmission Test of the softkey selected. If the device responds, then it is properly set up. Select OK. (If the Transmission Test failed, try another code.)



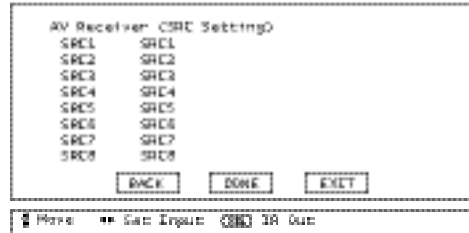
10. If "OK" was selected, and the 4 digit code was invalid, the screen below appears, then goes back to the Device entry screen.



11. Repeat Device Setup procedure until the Source (SRC) Setting Screen appears.

This screen allows you to assign a label for each Source (SRC1 to SRC8) connection on the AV Receiver. Depending on the number of source connections to the AV Receiver, some sources may not be available.

12. To label your sources, use CURSOR PAD ▲ and ▼ to highlight SRC1.
13. Use CURSOR PAD ◀ and ▶ to select the Source (DVD, DVD2, VCR, VCR2, PVR, CBL, STB, TV or Custom). If SRC1 is active, video and audio will be available depending on the connections.
14. Repeat for SRC2 to SRC8 if applicable.
15. Select DONE to continue.



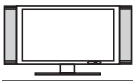
16. Select CONTINUE to setup another device.



17. Select DONE to finish and the screen below appears to show the device(s) which has been set-up.

Device	Code	Video	Audio
DVD	----	Not Setup	Not Setup
DVD2	----	Not Setup	Not Setup
VCR	----	Not Setup	Not Setup
VCR2	----	Not Setup	Not Setup
AVR	1200	Not Setup	Not Setup
PVR	----	Not Setup	Not Setup
CBL	----	Not Setup	Not Setup
STB	----	Not Setup	Not Setup
STB2	----	Not Setup	Not Setup

18. Select EXIT to quit.

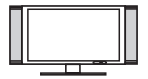


# AUDIO/VIDEO CODES FOR AV NETWORK (not for remote control)

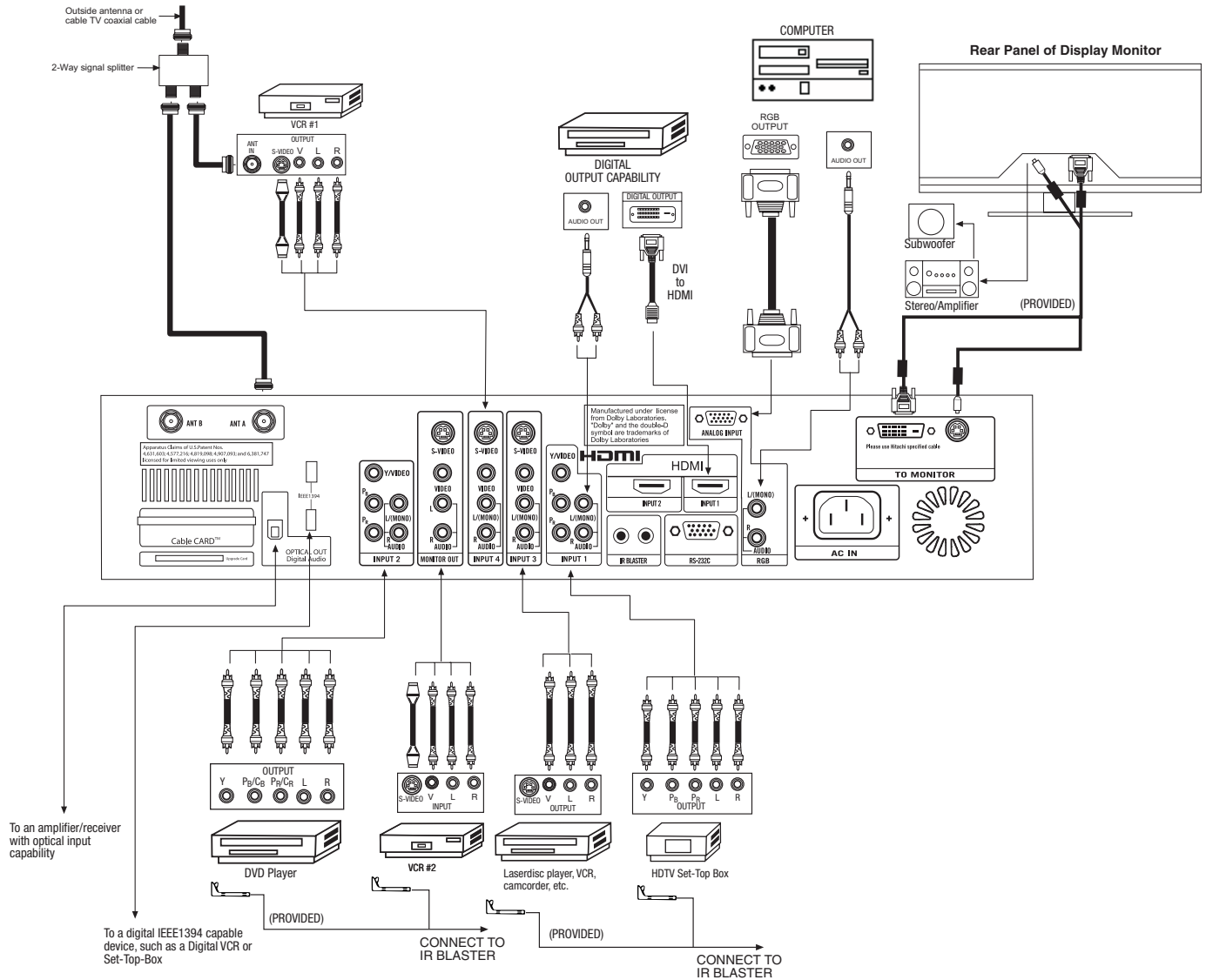
FIRST TIME USE

<b>VCR BRAND</b> .....	<b>CODE</b>	ReplayTV .....	0614, 0616	Yamaha .....	0490, 0545, 0539	Glory Horse .....	1263
Admiral .....	0048, 0209	Runco .....	0039	Zenith .....	0591, 0503	Harman/Kardon .....	0110, 0189
Adventura .....	0000	STS .....	0042			.....	0477, 0891, 0892
Aiko .....	0278	Samsung .....	0045, 0240	<b>CABLE BRAND</b> .....	<b>CODE</b>	Hewlett Packard .....	1181
Aiwa .....	0000, 0037	Sanky .....	0039, 0048	ABC .....	0003, 0008, 0014, 0017	Inkel .....	0062
Akai .....	0041	Sansui .....	0000, 0067, 0209, 0041, 0479, 1479	Americast .....	0899	JBL .....	0110, 0479, 1306
America Action .....	0278	Sanyo .....	0047, 0240, 0104	Bell & Howell .....	0014	JVC .....	0073, 0074, 0331, 1263, 1374
American High .....	0035	Scott .....	0184, 0045, 0121, 0043	Bell South .....	0899	Kenwood .....	0027, 0042, 0077,
Asha .....	0240	Sears .....	0035, 0037, 0047, 0000, 0042, 0104, 1237	Director .....	0476	.....	0186, 0313, 0314, 0569, 1027,
Audiovox .....	0037, 0278	Semp. ....	0045	General Instrument .....	0003, 0476, 0276,	.....	1051, 1052, 1313, 1569, 1570
Beaumarck .....	0240	Sharp .....	0048, 0848	.....	0810	KLH .....	0351
Bell & Howell .....	0104	Shintom. ....	0072	GoldStar .....	0144	Koss .....	0424, 1366
Broksonic .....	0121, 0184, 0002, 0209,	Shogun .....	0240	Hamlin .....	0009, 0273	LXI .....	0181
.....	0479, 1479, 0278	Singer .....	0072	Jerrold .....	0476, 0003, 0276, 0012, 0014, 0810	LeftCoast .....	0892
CCE .....	0072, 0278	Sonic Blue .....	0614, 0616	Memorex .....	0000	Lexicon .....	1076
Calix .....	0037	Sony .....	0035, 0032, 0000, 0033, 0636,	Motorola .....	0476, 1106, 0276, 0810	Linn .....	0189, 0269
Canon .....	0035	.....	1032, 1232	Pace .....	0237	Lloyd's .....	0195
Carver .....	0081	Sylvania .....	0035, 0081, 0000, 0043, 1781	Panasonic .....	0107, 0000	Luxman .....	0165
Cineral .....	0278	Symphonic .....	0000	Philips .....	0305, 0317	MCS .....	0039, 0346
Citizen .....	0278, 0037, 1278	TMK .....	0240	Pioneer .....	0144, 0533, 0877, 1877	Magnavox .....	0325, 1089, 1189, 0128,
Colt .....	0072	Tatung .....	0041	Pulsar .....	0000	.....	0189, 0195, 0269, 0391, 0531
Craig .....	0037, 0072, 0047, 0240	Teac .....	0000, 0041	Quasar .....	0000	Marantz .....	1089, 1189, 0309, 0128, 0189
Curtis Mathes 0035, 0041, 0060, 0162, 0760, 1035		Technics .....	0035, 0162	Regal .....	0273, 0279	.....	0269, 0321, 0892
Cybernex .....	0240	Teknika .....	0000, 0035, 0037	Runco .....	0000	Modulaire .....	0195
Daewoo .....	0278, 1278, 0045	Thomas .....	0000	Samsung .....	0144	Musicmagic .....	1089
Denon .....	0042	Tivo .....	0618, 0636	Scientific Atlanta .....	0877, 0008, 0017,	Nakamichi .....	0321
Dynatech .....	0000	Toshiba .....	0045, 0043	.....	0477, 1877	NAD .....	0320
Electrohome .....	0037	Totevision .....	0037, 0240	Sony .....	1006	Nakamichi .....	0097, 0347
Electro-Phonic .....	0037	Unitech .....	0240	Starcom .....	0003	NEC .....	0235, 0264
Emerex .....	0032	Vector .....	0045	Supercable .....	0276	Nikko .....	0376
Emerson .....	0184, 0002, 0209,	Vector Research .....	0038	.....	0012	Onkyo .....	0100, 0135, 0380, 0842, 1298
.....	0121, 0000, 0037, 0043	Video Concepts .....	0045	.....	0003	Optimus .....	1023, 0042, 0080, 0177,
Fisher .....	0104, 0047	Videomagic .....	0037	.....	0000	.....	0181, 0186, 0219, 0300, 0395, 0531,
Fuji .....	0033, 0035	Videosonic .....	0240	.....	0000, 0525, 0899	.....	0670, 0738, 0801, 1074
Funai .....	0000	Wards .....	0060, 0035, 0048, 0047,	<b>SATELLITE BRAND (Set-Top-Box)</b> .....	<b>CODE</b>	Panasonic .....	1518, 0039, 0309,
GE .....	0035, 0060, 0240, 0760, 0807,	.....	0081, 0240, 0000, 0042, 0072, 0149,	AlphaStar .....	0772	.....	0308, 0367, 0518, 0521, 1288, 1350
.....	1035, 1060	White Westinghouse .....	0072, 1278, 0209	Chapparral .....	0216	Paramount Pictures .....	0317, 0351
Garrard .....	0000	XR-1000 .....	0072, 0000, 0035	Crossdigital .....	1109	Parasound .....	0246
Go Video .....	0432	Yamaha .....	0038	DishPro .....	1005, 0775	Penney .....	0195
GoldStar .....	0037, 0038, 1237	Zenith .....	0039, 0000, 0209, 0033,	EchoStar .....	1005, 0775	.....	1089, 1189, 1269, 0189,
Gradiente .....	0000	.....	0479, 1479, 0033, 0209, 0479	Expressvu .....	0775	Pioneer .....	0269, 0391, 0892, 1120, 1268, 1283
Hi-Q .....	0047	<b>DVD BRAND</b> .....	<b>CODE</b>	GE .....	0566	.....	0013, 1023, 0014, 0080, 0150,
Harley Davidson .....	0000	Aiwa .....	0641	GOI .....	0775	Polk Audio .....	0244, 0300, 0531, 0630, 1343, 1384
Harman/Kardon .....	0038, 0081	Apex .....	0672, 0717, 0755, 0794,	General Instrument .....	0869	Proscan .....	0189, 0269, 0892
Harwood .....	0072	.....	0795, 0796, 0797, 0830	HTS .....	0775	Quasar .....	1254
Hitachi .....	0000, 0041, 0042	Audiologic .....	0736	Hitachi .....	0819	RCA .....	1023, 1254, 0054, 0080,
Hughes Network Systems .....	0042	B & K .....	0655, 0662	Hughes Network Systems .....	1142, 0749,	.....	0056, 0300, 0346, 0360,
JVC .....	0067, 0041	Blue Parade .....	0571	.....	1749	.....	0530, 0531, 1074, 1154, 1390, 1609
Jensen .....	0041	Brooksonic .....	0695	JVC .....	0775	Radio Shack .....	1263
KEC .....	0037, 0278	DVD2000 .....	0521	Magnavox .....	0724, 0722	Realistic .....	0163, 0181, 0195, 0395
KLH .....	0072	Daewoo .....	0784	Memorex .....	0724	Samsung .....	1295
Kenwood .....	0041, 0067, 0038	Denon .....	0490, 0634	Mitsubishi .....	0749	Sansui .....	0189, 0193,
Kodak .....	0035, 0037	Emerson .....	0591	Motorola .....	0869	.....	0321, 0325, 0346, 1089
LXI .....	0037	Enterprise .....	0591	Next Level .....	0869	Sanyo .....	0219, 0801, 1251
Lloyd's .....	0000	Fisher .....	0670	Panasonic .....	0247, 0701	Schneider .....	0376
Logik .....	0072	GE .....	0522, 0717, 0815	Paysat .....	0724	Scott .....	0163, 0322
MEI .....	0035	GPX .....	0769	Philips .....	1142, 0749, 0724, 1076, 0722, 1749	Sharp .....	1286, 0186
MGA .....	0043, 0240	Go Video .....	0715	Proscan .....	0392	Sherwood .....	0062, 0491, 0502
MGN Technology .....	0240	Gradiente .....	0651	RCA .....	0392, 0566, 0855, 0143	Shure .....	0264
MTC .....	0000, 0240	Greenhill .....	0717	RadioShack .....	0869	Sony .....	0010, 0158, 0168, 0220, 0474,
Magnasonic .....	1278	Harman/Kardon .....	0582, 0702	SKY .....	0856	.....	0576, 0689, 1042, 1058, 1158,
Magnavox .....	0035, 0081, 0563,	Hitachi .....	0490, 0573, 0664	Samsung .....	1109	.....	1258, 1458
.....	0000, 0039, 0149, 1781	Hiteker .....	0672	Sony .....	0639	Soundesign .....	0078, 0211, 0376, 0670
Magnin .....	0240	JBL .....	0702	Star Choice .....	0869	SSI .....	0317
Marantz .....	0081, 0035	JVC .....	0623, 0558, 0867	Toshiba .....	0749, 0790, 1749	Stereophonics .....	1023
Marta .....	0037	KLH .....	0717	Uniden .....	0724, 0722	Sunfire .....	1313, 0313, 0314, 1052
Matsushita .....	0035, 0162, 0454	Kenwood .....	0490, 0534, 0682	Zenith .....	0856, 1856	Teac .....	0463, 0163, 1074
Memorex .....	0047, 0037, 0104, 0209,	Konka .....	0711, 0719, 0721			Technics .....	1308, 1309, 1518,
.....	0454, 0048, 0039, 0240, 0000,	Koss .....	0651	<b>AUDIO / RECEIVER / AV RECEIVER</b>		.....	0039, 0208, 0308, 0309, 0518, 0521
.....	0479, 1037, 1162, 1237, 1262	Lasonic .....	0798	<b>AMPLIFIER</b> .....	<b>CODE</b>	Thorens .....	1189
Minolta .....	0042	Magnavox .....	0503, 0675	ADC .....	0531	Victor .....	0074, 0331
Mitsubishi .....	0043, 0067	Malata .....	0782	Adcom .....	0616	Wards .....	0013, 0014, 0054, 0078, 0080,
Motorola .....	0035, 0048	Marantz .....	0539	Aiwa .....	0010, 1089, 1405, 0121, 0158,	.....	0158, 0189, 0211
Multitech .....	0000, 0072	Microsoft .....	0522	.....	0404, 0189, 0405, 0406, 1321, 1388	Yamaha .....	0133, 0176, 0186,
NEC .....	0038, 0041, 0067, 0104	Mintek .....	0717	Akai .....	0076, 0224	.....	0354, 1176
Nikko .....	0037	Mitsubishi .....	0521	Alco .....	1390	Yorx .....	0195, 0376
Noblex .....	0240	Nesa .....	0717	Anam .....	1074, 1609	Zenith .....	0857
Olympus .....	0035	Onkyo .....	0627, 0503	Apex Digital .....	1257		
Optimus .....	1062, 0162, 0037, 0048,	Oritron .....	0651	Arcam .....	1120	<b>SET TOP BOX BRAND</b> .....	<b>CODE</b>
.....	0104, 0432, 0454, 1048, 1162, 1262	Panasonic .....	0490, 1362, 0632	AudioSource .....	0351	Panasonic .....	1120
Orion .....	0184, 0209, 0002, 0479, 1479	Philips .....	0503, 0539, 0646, 0854	Audiotronic .....	1189	Pioneer .....	1010
Panasonic .....	1062, 0035, 0225, 0454,	Pioneer .....	0525, 0571, 0632	Audiovox .....	1390	Princeton .....	0113, 0295
.....	0616, 1035, 1162, 1262	Polk Audio .....	0539	Bose .....	0674, 1229	Samsung .....	1190
Penney .....	0035, 0037, 0240, 0042,	Princeton .....	0674	Capetronic .....	0531	Sensory Science .....	1126
.....	0038, 1035, 1237	Proscan .....	0522	Carver .....	0351, 1089, 1189, 0008,	Sharp .....	1010
Pentax .....	0042	RCA .....	0522, 0571, 1022, 0717	.....	0042, 0189, 0269, 0360	Sony .....	0639
Philco .....	0035, 0209, 0479	Rowa .....	0823	Casio .....	0195	<b>PERSONAL VIDEO RECORDER BRAND</b> .....	<b>CODE</b>
Philips .....	0081, 0035, 0618, 1081, 1181	Sampo .....	0698	Cambridge Soundworks .....	0351	EchoStar .....	0775, 1005
Pilot .....	0037	Samsung .....	0573, 0820	Celestion .....	1264	Hughes .....	1142
Pioneer .....	0067	Sansui .....	0695	Clarinet .....	0195	Panasonic .....	0616
Polk Audio .....	0081	Sanyo .....	0670	Compaq .....	1136	Philips .....	0618
Profitronic .....	0240	Sharp .....	0630	Curtis Mathes .....	0080, 0300	Proscan .....	0392
Proscan .....	0060, 0760, 1060	Sherwood .....	0633	Denon .....	0004, 0160, 0273,	ReplayTV .....	0614, 0616
Protec .....	0072	Sony .....	0533	.....	0771, 1104, 1311, 1360	SonicBlue .....	0614, 0616
Pulsar .....	0039	Sylvania .....	0675	Emerson .....	0424	Sony .....	0639, 0636
Quasar .....	0035, 0162, 0454, 1035, 1162	Technics .....	0490	Fisher .....	0052, 0042, 0219, 0360	Tivo .....	0618, 0636
RCA .....	0060, 0240, 0042, 0149,	Techwood .....	0692	Fosgate .....	0259		
.....	0760, 1035, 1060	Theta Digital .....	0571	GE .....	0078		
Radio Shack .....	0000, 1037	Toshiba .....	0503, 0695	GPX .....	1299		
Radix .....	0037	Urban Concepts .....	0693	Garrard .....	0424, 0463		
Randex .....	0037						
Realistic .....	0035, 0037, 0048, 0047, 0000, 0104						

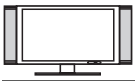
# REAR PANEL CONNECTIONS



FIRST TIME USE



**NOTE:** Cables are optional, except when specified.



## TIPS ON REAR PANEL CONNECTIONS

- S-VIDEO, YPbPR, IEEE 1394 or 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 ( L/(MONO)) on the AVC Center.
- 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: 4 in the example on page 27). Refer to your VCR operating guide for more information on line input-output connections.
- Connect only 1 component (VCR, DVD player, camcorder, etc.) to each input jack.
- COMPONENT: Y-P<sub>B</sub>P<sub>R</sub> (Input 1 & 2) connections are provided for high performance components, such as DVD players and set-top-boxes. Use these connections in place of the standard video connection if your device has this feature.
- Your component outputs may be labeled Y, B-Y, and R-Y. In this case, connect the components B-Y output to the TV's P<sub>B</sub> input and the components R-Y output to the TV's P<sub>R</sub> input.
- Your component outputs may be labeled Y-C<sub>B</sub>C<sub>R</sub>. In this case, connect the components C<sub>B</sub> output to the TV's P<sub>B</sub> input and the components C<sub>R</sub> output to the TV's P<sub>R</sub> input.
- It may be necessary to adjust TINT to obtain optimum picture quality when using the Y-P<sub>B</sub>P<sub>R</sub> inputs. (See page 58)
- To ensure no copyright infringement, the MONITOR OUT output will be abnormal, when using the Y-P<sub>B</sub>P<sub>R</sub>, RGB and HDMI input jacks.
- Input 1 or 2 can accept HDMI signal.
- Input 1 or 2 can accept both component and composite video signal.
- S-VIDEO monitor output may be used for recording only when the input is of S-VIDEO type.
- When using a DVI or HDMI input from a Set-Top-Box, it is recommended to use a 1080i or 720p input signal.

# THE REMOTE CONTROL



In addition to controlling all the functions on your HITACHI LCD TV, the new remote control is designed to operate different types of VCRs, CATV (Cable TV) converters, set-top-box, satellite receiver, DVD players, and other audio/video equipment with one touch. Basic operation keys are grouped together in one area.

To operate your LCD TV, point the remote control at the remote sensor of the AVC box/Display Monitor and select the TV by pressing the ◀ or ▶ button of the Source Access on the remote. The TV mode indicator will blink, indicating that the remote will now control your television.

To operate your VCR, point the remote at the remote sensor of the VCR and select PVR by pressing the ◀ or ▶ button of the Source Access on the remote. The PVR mode indicator will blink, indicating that the remote will now control your VCR (see page 48 for instructions on how to program the remote to control your VCR).

To operate your PVR (Personal Video Recorder), point the remote at the remote sensor of the PVR and select PVR by pressing the ◀ or ▶ button of the Source Access on the remote. The PVR mode indicator will blink, indicating that the remote will now control your PVR (see page 48 for instruction on how to program the remote to control your PVR).

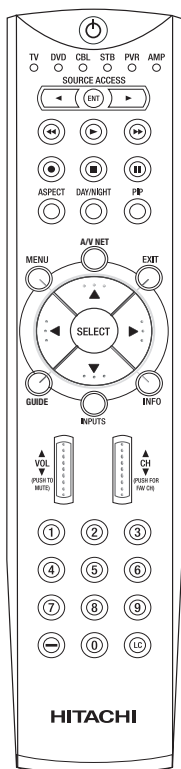
To operate your cable box, point the remote at the remote sensor of the cable box and select the CABLE (CBL) by pressing the ◀ or ▶ button of the Source Access on the remote. The CBL mode indicator will blink, indicating that the remote will now control your cable box (see page 45 for instructions on 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 and select the SET-TOP-BOX (STB) by pressing the ◀ or ▶ button of the Source Access on the remote. If you have a satellite receiver, use this button to program your satellite receiver. The STB mode indicator will blink, indicating that the remote will now control your set-top-box (see page 46 for instructions on how to program the remote to control your set-top-box).

To operate your DVD player, point the remote at the remote sensor of the DVD player and select DVD by pressing the ◀ or ▶ button of the Source Access on the remote. The DVD mode indicator will blink, indicating that the remote will now control your DVD Player (see page 47 for instruction on how to program the remote to control your DVD player).

To operate additional audio equipment, point the remote at the remote sensor of the component you wish to control and select AMP by pressing the ◀ or ▶ button of the Source Access on the remote. The AMP mode indicator will blink, indicating that the remote will now control your audio equipment (see page 49 for instructions on how to program the remote to control additional

THE REMOTE CONTROL



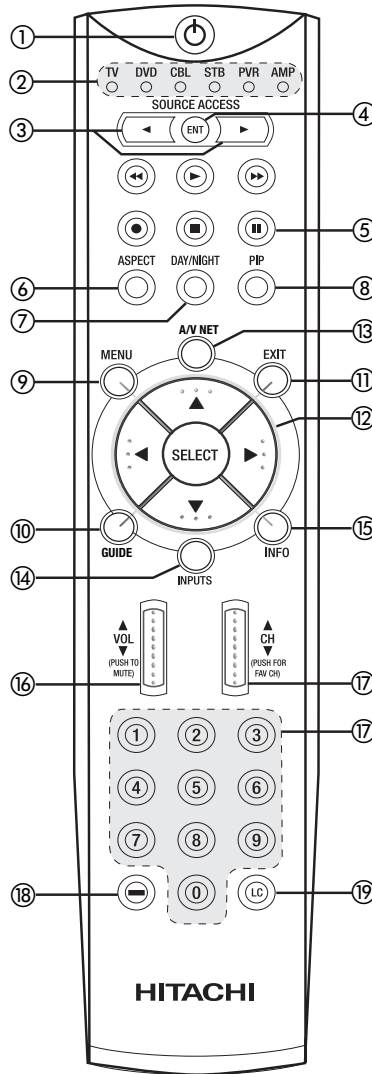
**NOTE:** When you press any remote control button, the buttons will light up. The illumination will light a few seconds during this time. The buttons will appear to light if the room is dark.

**DESCRIPTION:** THE DEFAULT BACK LIGHTING TIME IS 4 SECONDS. THIS LIGHTING TIME CAN BE CHANGED TO A MAXIMUM TIME OF 8 SECONDS OR TURNED OFF. THIS GIVES THE RC A TOTAL OF 3 OPTIONAL LIGHT TIME CYCLES (OFF, 4 SECONDS OR 8 SECONDS.)

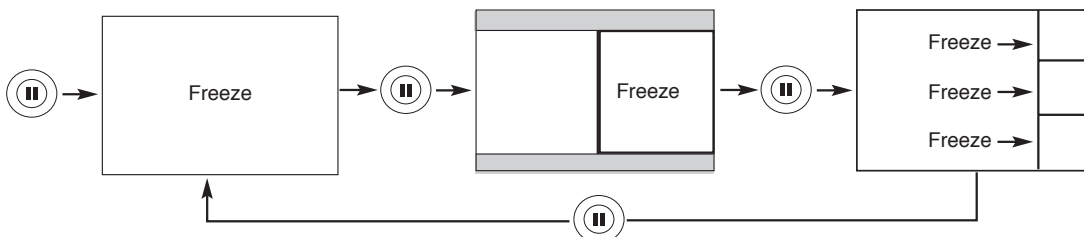
1. PLACE THE RC IN TV MODE.
  1. PROGRAMMING OPTIONAL BACK LIGHT CYCLES.
  2. PRESS AND HOLD THE "ENT" KEY.
  3. WHILE HOLDING DOWN THE "ENT" KEY ENTER THE FOLLOWING KEYS IN SEQUENCE:  
"-" + "-" + "INPUT" + "THE NUMBER KEY OF THE DESIRED LIGHT CYCLE".
2. LIGHT CYCLE EQUIVALENTS
  1. BACK LIGHT TURNED OFF = "0" KEY (ENTERED AS THE LAST KEY OF THE PROGRAM SEQUENCE)
  2. BACK LIGHT FOR 4 SEC = "4" KEY (ENTERED AS THE LAST KEY OF THE PROGRAM SEQUENCE)
  3. BACK LIGHT FOR 8 SEC = "8" KEY (ENTERED AS THE LAST KEY OF THE PROGRAM SEQUENCE)
3. SETUP EXAMPLE
  1. EXAMPLE SETUP FOR 8 SECOND LIGHT CYCLE3. SETUP EXAMPLE
  2. PLACE RC IN TV MODE
  3. PRESS AND HOLD "ENT" KEY
  4. WHILE HOLDING DOWN THE "ENT" KEY ENTER THE FOLLOWING KEYS IN SEQUENCE:
  5. THE TV MODE LED ON THE RC WILL FLASH 3 TIMES IF THE SETUP WAS DONE CORRECTLY  
"-" + "-" + "INPUT" + "8".



# HOW TO USE THE REMOTE TO CONTROL YOUR LCD TV



- ① **POWER button**  
Press this button to turn the TV set on or off when the remote is in TV mode. (See page 29 for instructions on how to set the remote control to TV mode.)
- ② **MODE Indicator**  
Turns on or blinks to show remote control mode.
- ③ **SOURCE ACCESS (◀, ▶) buttons**  
Press these buttons to select remote control mode.
- ④ **SOURCE ACCESS (ENT) button**  
Hold down this button while entering your device code to program the remote (see pages 45-52). You can also use this button in an optional Input access feature (see page 50).
- ⑤ **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 44).



# HOW TO USE THE REMOTE TO CONTROL YOUR LCD TV



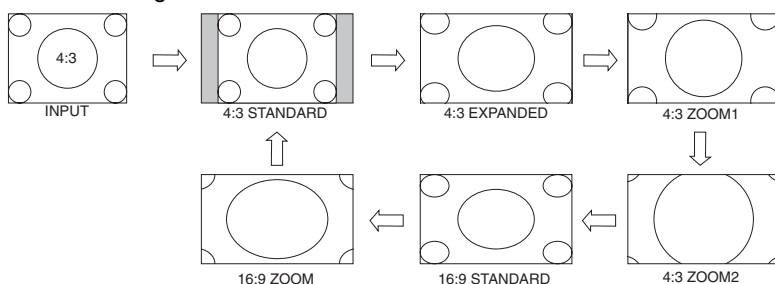
## ⑥ ASPECT button

Press this button to quickly change the picture format ASPECT ratio.

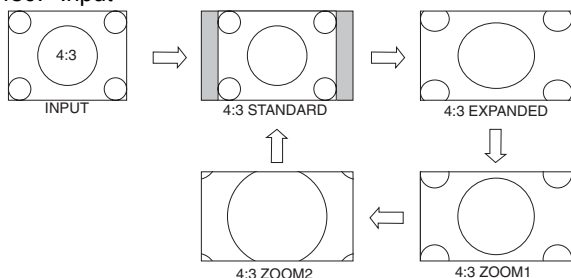
Depending on the input signal format received, the picture format ratio allows you to adjust the images through the following options.

- 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.

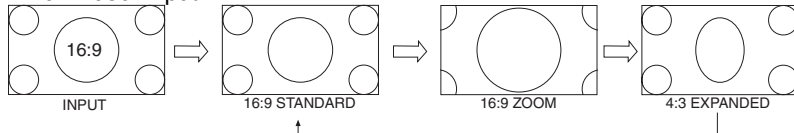
### (1) Antenna Analog Channels



### (2) 480P Input



### (3) 720P/1080i Input



### (4) RGB (Analog Input) ASPECT DISPLAY MODE.

RGB (Analog) INPUT SIGNAL						
	Others	SVGA/XGA	VGA	480p	720p	1080i
ASPECT MODE	X	REAL	REAL	REAL(1)	X	X
AVAILABILITY	NORMAL	NORMAL	NORMAL	NORMAL(1)	X	X
	FULL	FULL	FULL	FULL(1)	FULL(2,3)	FULL(2,3)

For numbers in ( ), please see corresponding note below.

- NOTES:**
1. Lack of raster can be seen in RGB (Analog) when a 480p signal is input.
  2. AUTO ADJUST function (see page 89) is not available in 720p and 1080i input signal.
  3. FULL aspect mode, only 95% of information can be displayed (5% is treated as overscan).
  4. Depending on the Aspect selection, Closed Caption display may be missing.





# HOW TO USE THE REMOTE TO CONTROL YOUR LCD TV

## 7 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 57 for settings changes).

**NOTE:** For automatic DAY/NIGHT picture mode settings, see page 72.

## 8 PICTURE-IN-PICTURE button

See separate section on pages 42-44 for a description.

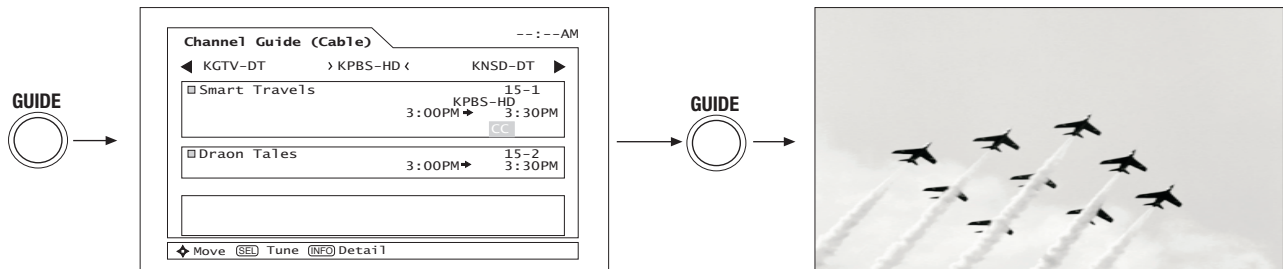
## 9 MENU button

The MENU button will start the On-Screen Display.

## 10 GUIDE button

Press this button to access the Channel Guide. Press the GUIDE button again to return to normal viewing.

Select CHANNEL GUIDE to display available program information. Only scanned programs that are available at the present time will show in the Channel Guide (see Auto Channel Scan on page 64).



Use the CURSOR PAD ▲, ▼, ◀ and ▶ to highlight the channel of choice (example: KPBS-HD). Press the CURSOR PAD ▲ or ▼ to highlight the subchannel of choice (example: 15-1). Press the SELECT button to tune the subchannel of choice.

**NOTE:** The availability of Channel Guide Information will depend on the type of Antenna input (Analog or Digital) and Cable subscription.

## 11 EXIT button

This button will exit all On-Screen Displays.

## 12 CURSOR PAD/SELECT button

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



# HOW TO USE THE REMOTE TO CONTROL YOUR LCD TV



## 13 AV NET button

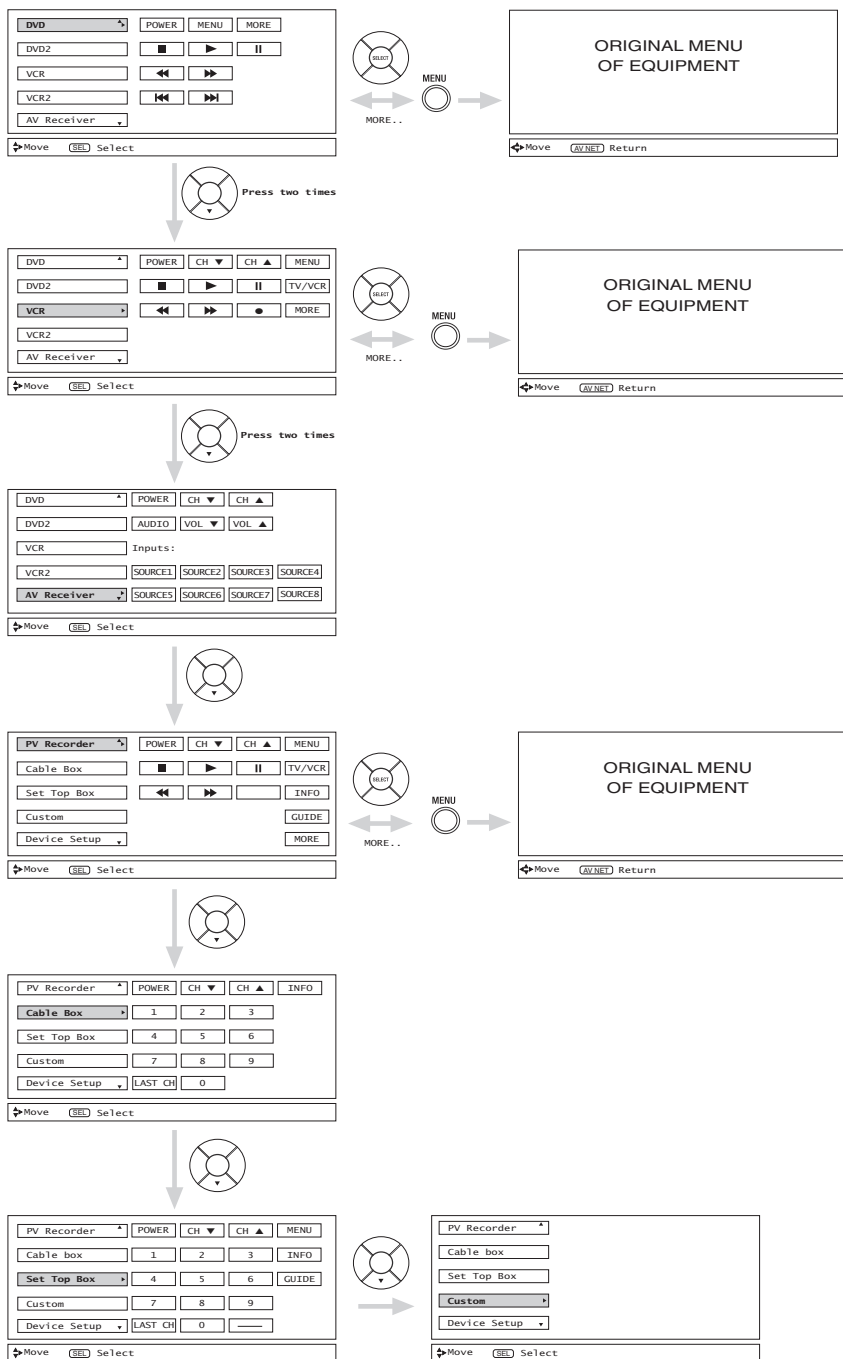
Press this button to access the Audio/Video network (AV Net) menu. The AV Net allows the user to control external components with the LCD TV's remote control. When you press the AV NET button, the following window will pop up within the Display Monitor screen. The window will disappear after 30 seconds if you don't press any buttons.

Select Device Setup to start.

Use CURSOR PAD ▲ and ▼ to navigate and SELECT or CURSOR PAD ► to select button. The command on the button is passed through the IR mouse and onto the AUDIO/VIDEO equipment. These on-screen buttons are called "Soft Keys".

Customize your Audio/Video equipment list and soft keys by selecting the Custom options and following the instructions of the AV NET learning wizard (see page 34).

This window shows the available Audio/Video equipment soft keys. The equipment list will scroll up or down.



THE REMOTE CONTROL

- NOTES:**
1. Devices will not be available until Device Setup is completed (see pages 23-26).
  2. The "Custom" option will not be available until the Custom device Setup is learned and completed. After completion, the "Custom" tag will be replaced with the device tag (see page 34).
  3. The Custom option only accepts one device at a time. The second Custom device setup will replace the first device.



# HOW TO USE THE REMOTE TO CONTROL YOUR LCD TV



## AV NET LEARNING WIZARD

For example, after programming your AV Receiver to the AV NET and the soft keys do not work, the user has to use the AV NET Learning Wizard. The AV NET Learning Wizard will transfer any remote button IR code of your AV Receiver to the soft keys of your AV NET. Since an AVR2 (Custom) is not available in the device setup screen, the user can choose any custom device. For this setup example, we have chosen the PVR2 (Custom) device.

1. Press A/V NET button on the remote control.
2. Use the CURSOR PAD ▼ and ▲ to select DEVICE SETUP, press the SELECT button or CURSOR PAD ▶.
3. Use the CURSOR PAD/SELECT button to choose CUSTOM option (Ex. PVR2).
4. Use the CURSOR PAD to select Setup, press the SELECT button.



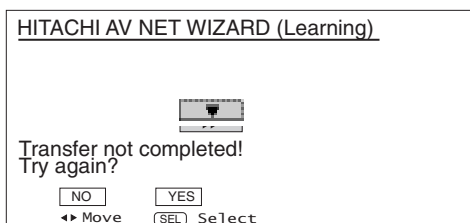
5. Use the CURSOR PAD to select the preferred Softkeys (Ex. ▼ button) to learn, press the SELECT button.



6. Press and hold the ▼ button of the AVR remote control while pointing directly at the learning AV NET sensor of the LCD Television (located behind the screen) at a distance of 2 to 3 meters or 5 to 10 feet.



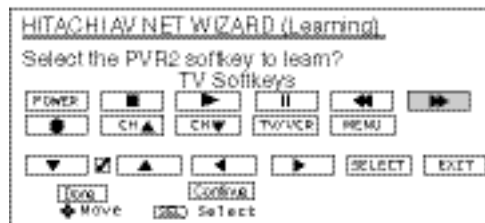
7. If the code is not accepted, the screen below appears.



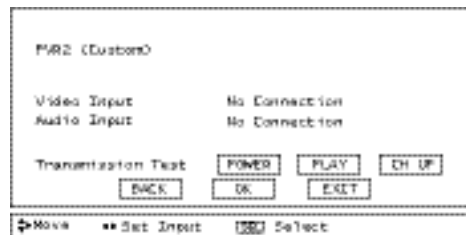
8. If the code transfer was successful, the screen below appears.
9. Select OK to continue.



10. A check mark appears next to the programmed softkey. Select DONE to EXIT or CONTINUE to learn another softkey.



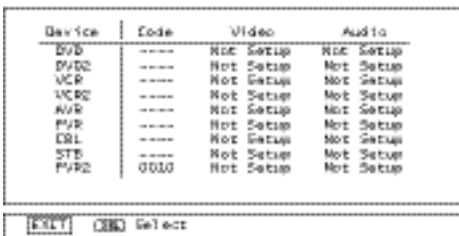
11. Use the CURSOR PAD ▼ to select Video Input. Press the CURSOR PADS ◀▶ to set the INPUT to which your device is connected.
12. Repeat step 11 for Audio Input. If the AVR is connected to the TV, select "Using TV". If the AVR is connected to an external amplifier, select "no connection".
13. Press CURSOR PAD ▼ to select Transmission Test. Perform a Transmission Test by selecting Power, Play, or CH UP softkeys. If the device responds, then it is properly set up. Select OK.



14. Press Done.



15. Press Exit to Quit.



**NOTES:**

1. To access the Menu function of a specific equipment, select the "MENU" soft key on OSD, then press the MENU button of the LCD Television remote control. In order to use CURSOR PAD and EXIT button of the LCD Television remote control, "arrows, select, and EXIT" button must be learned. Then the menu of the programmed equipment can be controlled with the LCD Television remote control.
2. When using the Learned device with the Timer Recording function, the Power, Stop and Record soft Keys should be learned first.

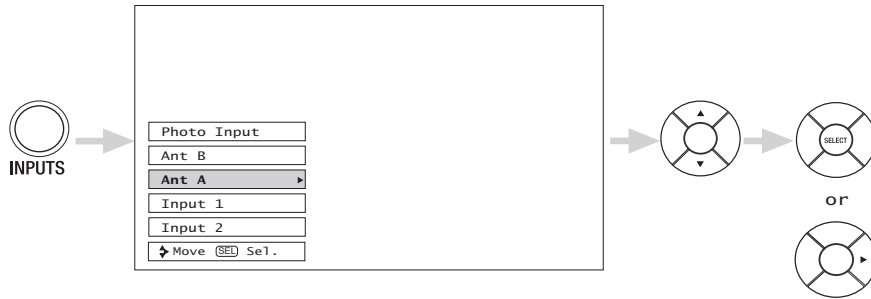
THE REMOTE CONTROL



# HOW TO USE THE REMOTE TO CONTROL YOUR LCD TV

## ⑭ INPUTS button

When the remote control is in TV mode, press this button to access the INPUTS menu. Use the CURSOR PAD ▼, ▲, and SELECT button or CURSOR PAD ► to 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.



### Photo Input

Select to access your pictures from a digital camera connected to the Photo Input in the front panel of the AVC (see page 37).

### Ant B

Select to choose Antenna B.

### Ant A

Select to choose Antenna A.

### Input 1

Select to choose Input 1 for Video 1.

### Input 2

Select to choose Input 2 for Video 2.

### Input 3

Select to choose Input 3 for Video 3.

### Input 4

Select to choose Input 4 for Video 4.

### Input 5

Select to choose Input 5 for Video 5.

### RGB

Select to choose for RGB input (see pages 82-91).

### IEEE 1394

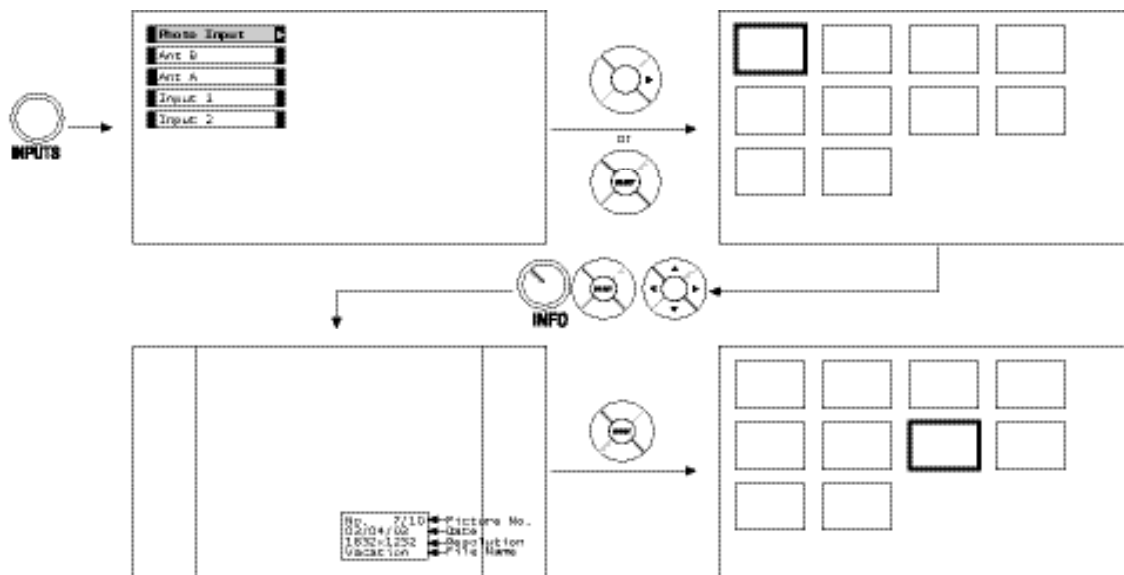
Select to choose for IEEE 1394 Input (see page 39).

# HOW TO USE THE REMOTE TO CONTROL YOUR LCD TV



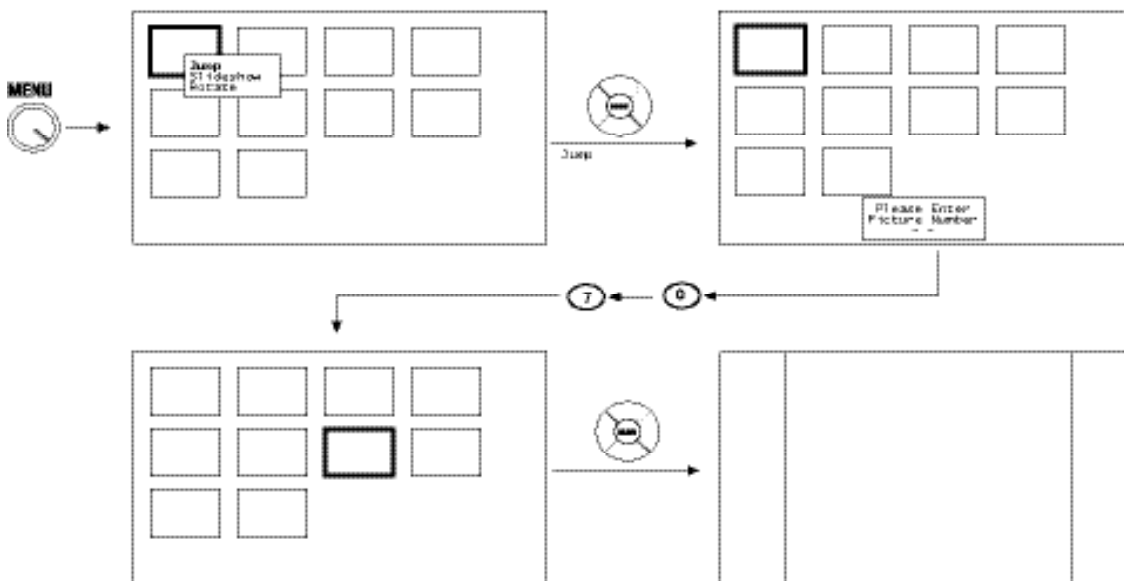
## PHOTO INPUT

This feature is useful for viewing digital still pictures from your digital camera using the Photo Input in the front panel of the AVC.



## JUMP

Select this menu item to view the chosen picture number.



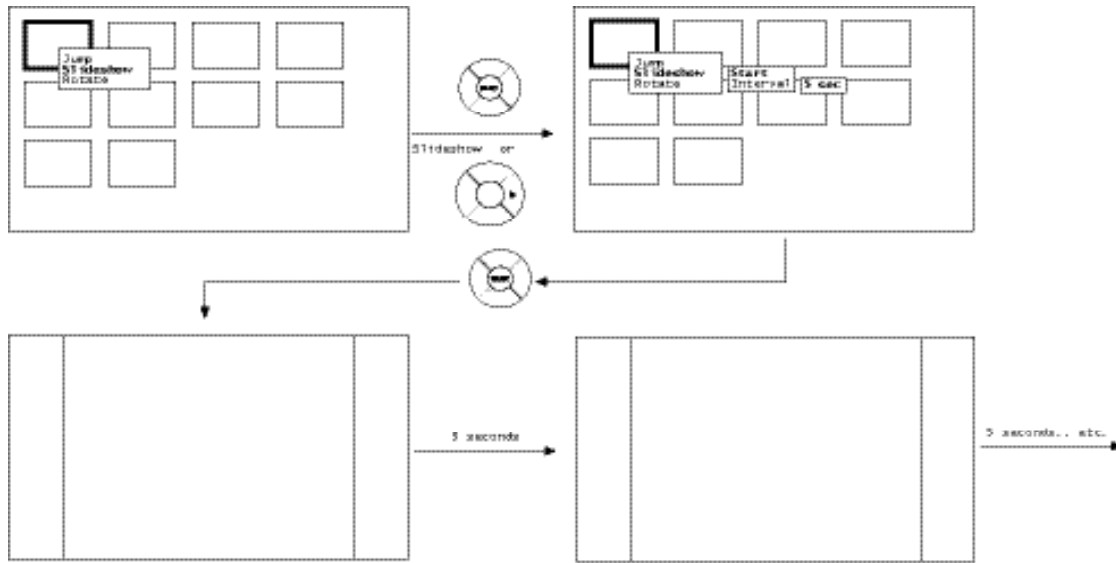
- NOTES:**
1. The maximum number of digital Photos that can be displayed is 999.
  2. Press INFO button to show Picture Numbers in Thumbnail view, plus other information in individual photos.
  3. Digital photos recorded on a DVD-RAM disc may not work with this Photo Input.
  4. Certain types of digital cameras may not work with this Photo Input.
  5. Digital cameras with low battery power may not properly display your photos in this input.
  6. The screen may show "Input device not detected" if the digital camera's large capacity memory is fully loaded. Please wait 1 or 2 minutes before checking your Photo Input connections.
  7. The screen may show "Input device not detected" due to slow access time on some digital cameras. Please wait 1 or 2 minutes before checking your Photo Input connections.



# HOW TO USE THE REMOTE TO CONTROL YOUR LCD TV

## SLIDESHOW

Select this menu item to start a slideshow of the Photos in the Digital Camera. Time interval selections can be set from 5, 10 and 30 seconds.



Use CURSOR PAD ▲ or ▼ to highlight Slideshow item.

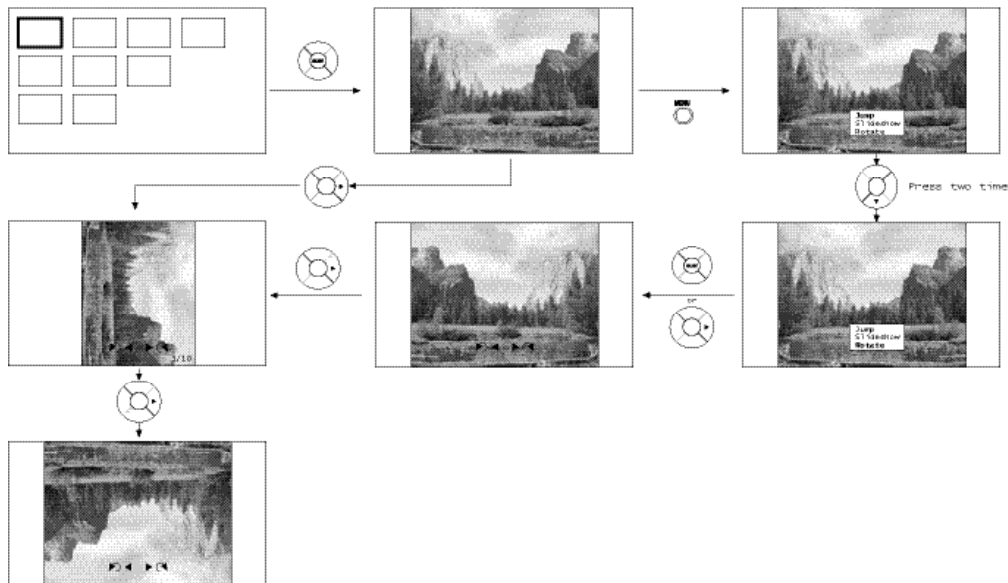
While interval is highlighted, press SELECT to change interval time from 5, 10 and 30 seconds. Each press will change interval time from the three mentioned choices.

Press SELECT to stop on a chosen picture of the slideshow. After 30 seconds, the slideshow will resume, or press SELECT again to continue the slideshow.

## ROTATE

Select this menu item to rotate selected photos either clockwise (CURSOR PAD ►) and counterclockwise (CURSOR PAD ◀).

Rotate menu item is also available in THUMBNAIL view.



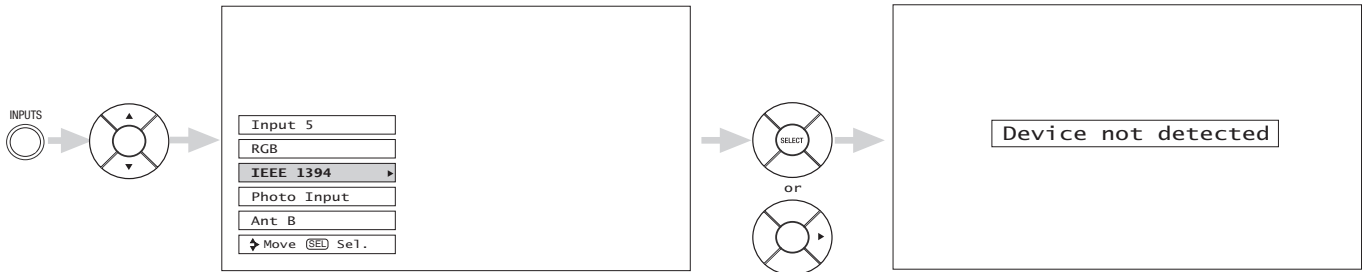
- NOTES:**
1. Photo file names modified on a computer should be 8 characters (Ex. ABCD1234.jpg). 1st character: letters; 2nd to 4th: letters or numbers; 5th to 8th: numbers. Photo files should be first placed on a sub directory name with 8 characters (Ex. 123ABCDE). 1st to 3rd: number; 4th to 8th: letters. The sub directory then should be placed on a main directory with a "dcim" file name format.
  2. Supported image types are up to 3072 x 2304; JPEG format should conform with DCF Standard (Design rule for Camera File System).
  3. This TV set displays only digital pictures from digital cameras which meet DCF Standard. Pictures that were copied, edited or modified on a computer may not be displayed on the TV set.

# HOW TO USE THE REMOTE TO CONTROL YOUR LCD TV

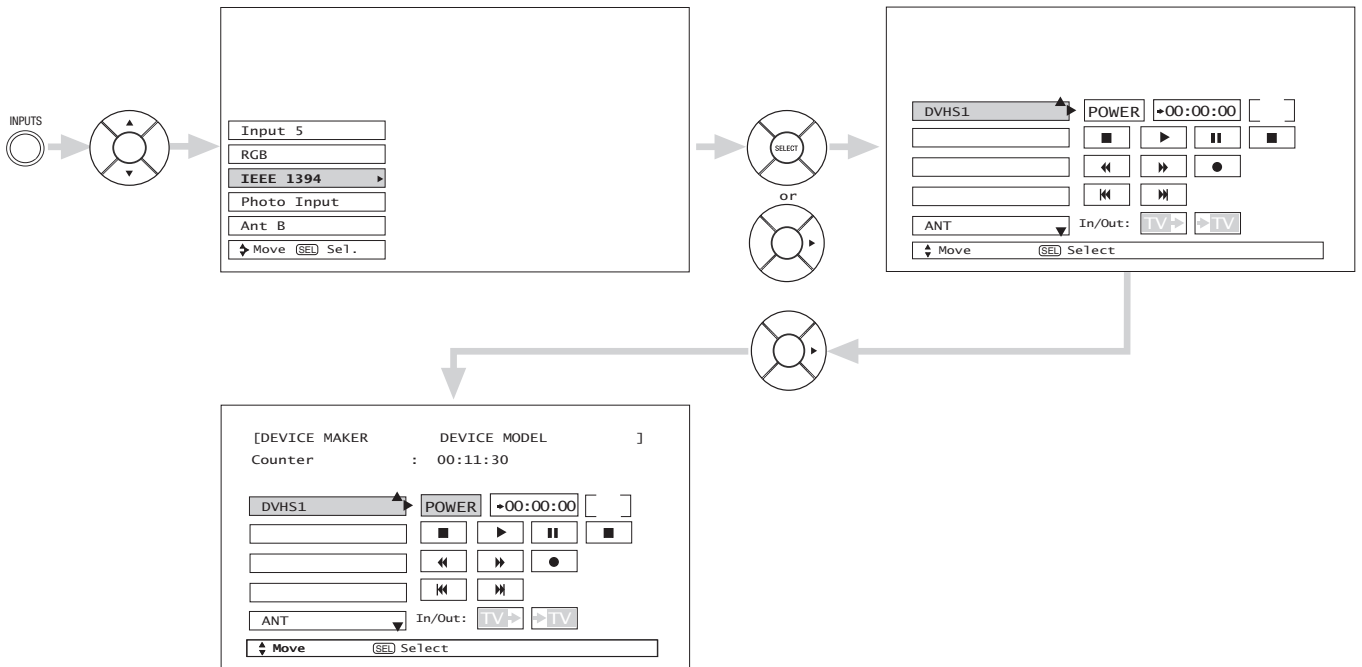


**IEEE1394** Use this function to control your devices with digital interface capability. Press the INPUTS button, CURSOR PAD and SELECT button to select IEEE 1394.

(When an IEEE1394 device is not connected)



(When an IEEE1394 device is connected)



Use CURSOR PAD ▲ or ▼ to highlight connected device (example D-VHS1).  
 Use CURSOR PAD ► to select connected device (example D-VHS1).  
 Use CURSOR PAD cursors to highlight POWER.  
 Press the SELECT button to power on the device.  
 Use CURSOR PAD cursors to select D-VHS operation.  
 Press down on the CURSOR PAD to enable the selected operation.  
 Use CURSOR PAD cursors to highlight the TV IN/OUT operation.  
 Press SELECT to select: TV IN is DVHS  
 TV OUT is ANT A

- NOTES:**
1. The digital device will be automatically recognized if properly connected.
  2. Four (4) IEEE1394 devices can be listed on the menu, but only 1 device at a time can be used. If a fifth device is connected, it will replace the first device on the menu list.
  3. This TV's IEEE1394 connection is not compatible with a DV camcorder (Digital Video Camcorder) or a PC.
  4. The On-Screen-Display will not disappear until the EXIT button is pressed.
  5. Not all devices with IEEE1394 capability are compatible with this TV. Any compatibility problems with other manufacturers devices should be brought to the attention of those manufacturers.
  6. TV IN/OUT functions are not available when DVHS is in playback or recording.



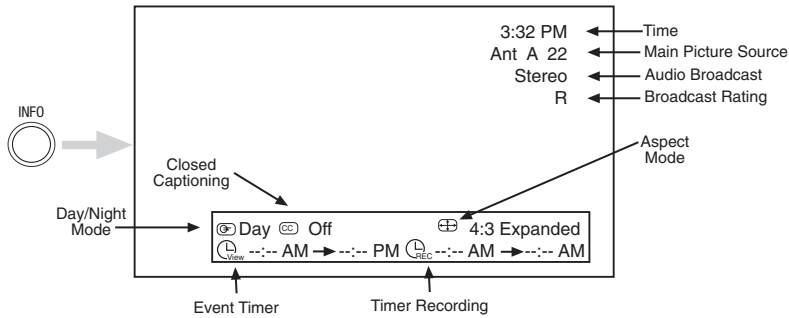


# HOW TO USE THE REMOTE TO CONTROL YOUR LCD TV

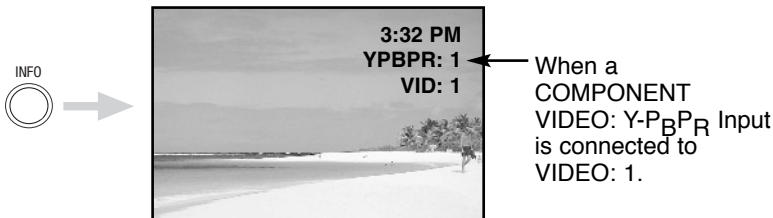
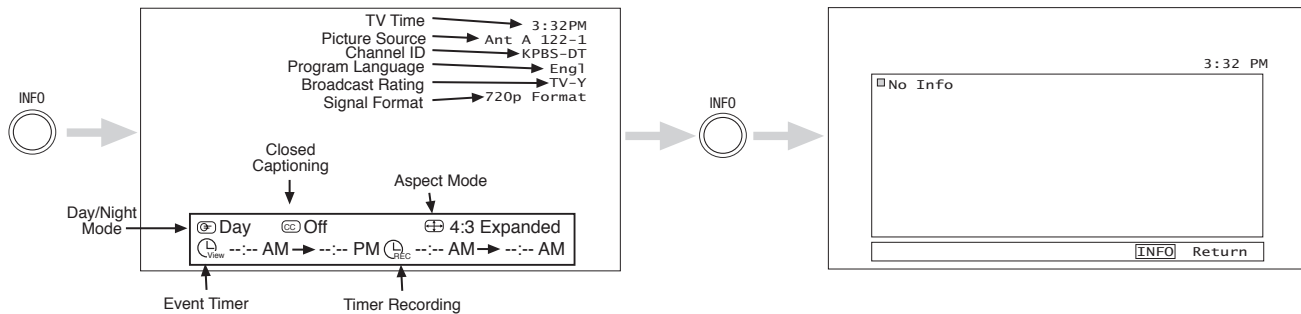
## 15 INFO button

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

### ANALOG CHANNELS



### DIGITAL CHANNELS



- NOTES:**
1. The Sleep Timer info will show momentarily after releasing INFO button.
  2. Press the INFO button again or the EXIT button to return to normal viewing.



# HOW TO USE THE REMOTE TO CONTROL YOUR LCD TV



## ⑩ VOLUME (VOL) WHEEL, MUTE button

Use the VOL WHEEL (▲ or ▼) 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 VOL wheel down. Press the VOL wheel again to turn the sound off completely (MUTE). To restore the sound, press the VOL wheel one more time, or VOL Up (▲).



Closed Captioning will display automatically when MUTE/SOFT MUTE is on and Closed Caption is set to AUTO (see page 79).

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.

## ⑪ CHANNEL (CH) WHEEL/CHANNEL SELECTOR buttons

The CHANNEL wheel or the CHANNEL SELECTOR buttons are used to select channels, lock access code, etc. Use the CHANNEL WHEEL (▲ or ▼) to select the desired channel. 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. For Digital Channels, use the CHANNEL SELECTOR buttons with the (-) DASH button. Channel selection may also be performed by CHANNEL WHEEL up (▲) or CHANNEL WHEEL down (▼).

Press the channel (CH) wheel 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 Channel (CH) wheel 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 Channel (CH) wheel until the displayed channel turns highlighted GREEN to WHITE.



## ⑫ (-) DASH button

Use the (-) DASH button with the CHANNEL SELECTOR buttons to enter Digital Channels that have subchannel numbers indicated by (-) DASH (example 15-1).

## ⑬ LAST CHANNEL (LC) button

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

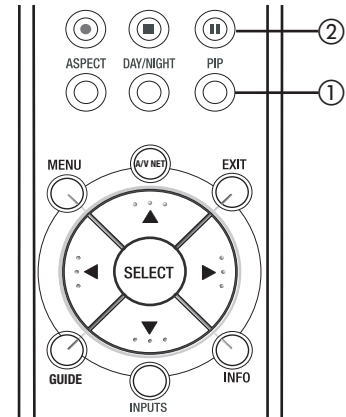
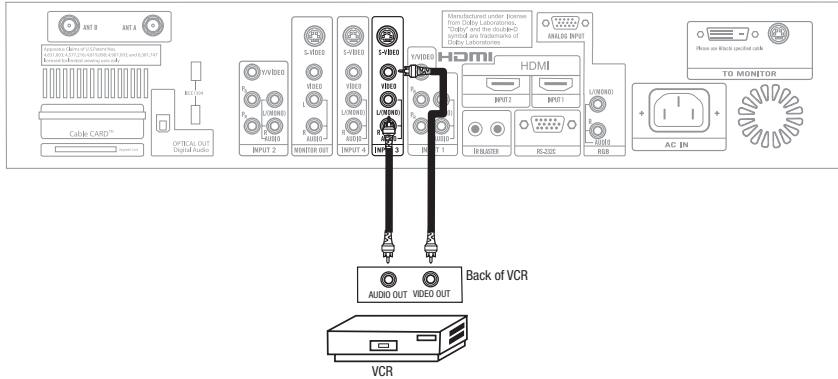


# PICTURE-IN-PICTURE (PIP)

Your HITACHI LCD 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.

ANT A input can be viewed as both the main picture and the sub-picture simultaneously. ANT B can only be viewed as a main picture. To select between main picture and PIP sub-picture tuning, use the CURSOR PAD on the remote. The green highlighted channel display will move with every press of the CURSOR PAD (◀ or ▶).

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.



THE REMOTE CONTROL

Use above connection to view VCR program as a sub-picture while viewing another program as main picture (ANT A, ANT B, INPUT:1, INPUT:2, INPUT:4, or INPUT:5). You may also view the VCR program as a main picture while viewing another program as a sub-picture (ANT A, INPUT:1, INPUT:2, INPUT:4 or INPUT:5).

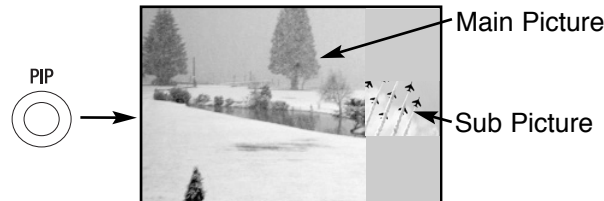
When installing a CableCARD, connect your coaxial cable to ANT A (see page 13). ANT B will not be available while using a CableCARD.

## ① 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 PAD (▲ or ▼) to move the sub-picture. This feature is not available with a 1080i signal. Please refer to the PICTURE-IN-PICTURE MODES Table (see page 43).



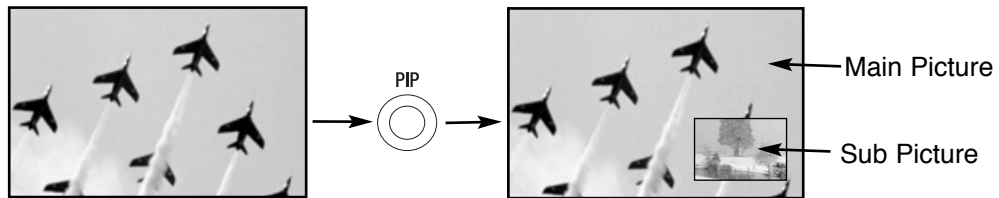
- NOTES:**
1. Digital Channels cannot be viewed as a sub-picture.
  2. PIP MODE Picture-in-Picture is only available with a 1080i signal.
  3. Press the CURSOR PAD (◀ or ▶) to enable the sub-picture sound.
  4. Sub-picture channel availability depends on the channel list.

# PICTURE-IN-PICTURE (PIP)



## PIP MODE PICTURE-IN-PICTURE

This feature is only available with a 1080i signal.



## 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 Pictures or Thumbnail channels.



**NOTE:** Selecting individual sub-pictures while in Surf mode is not available.

PICTURE-IN-PICTURE (PIP) MODES

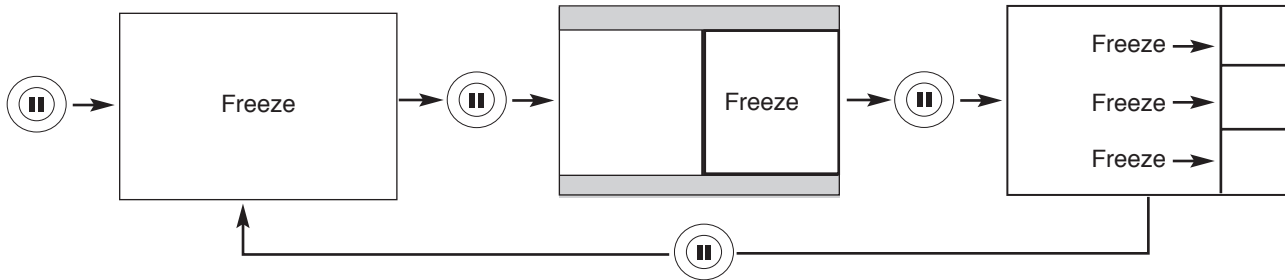
PIP Mode	Sub		NTSC	480i	480p	720p	1080i
	Main						
POP	NTSC		Yes	Yes	-	-	Yes
	480i		Yes	Yes	-	-	Yes
PIP 4x3	1080i		Yes	Yes	-	-	-
PIP 16x9	1080i		Yes	Yes	-	-	Yes
SPLIT	NTSC		Yes	Yes	Yes	Yes	Yes
	480i		Yes	Yes	Yes	Yes	Yes
	480p		Yes	Yes	Yes	Yes	Yes
	720p		Yes	Yes	Yes	Yes	Yes
	1080i		Yes	Yes	Yes	Yes	Yes
12 Pix	-		Ant A/B	-	-	-	-



# PICTURE-IN-PICTURE (PIP)

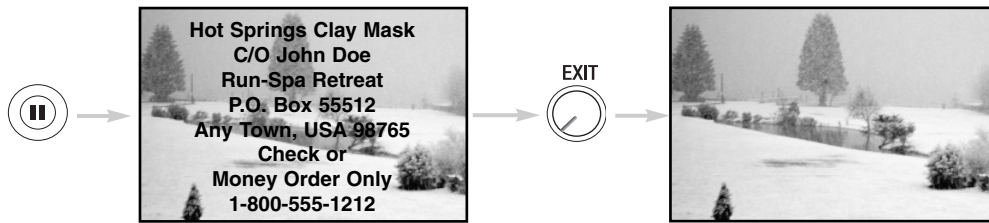
## ② PAUSE button

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).



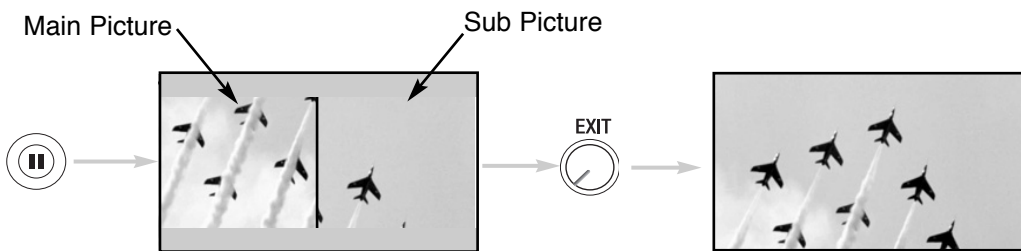
### MAIN FREEZE

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.



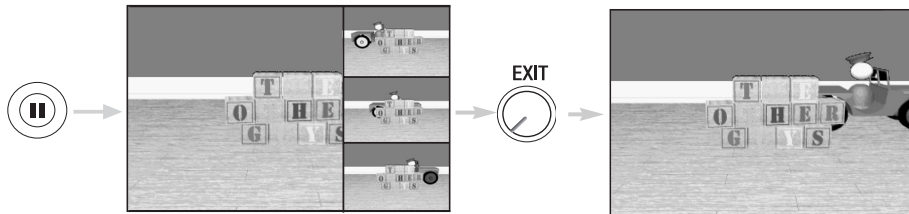
### SPLIT FREEZE

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.



- NOTES:**
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 in Strobe Freeze is delayed about 0.1 (1/10) second.
  3. Strobe Freeze is not available in 480p/720p/1080i inputs.

# HOW TO USE THE REMOTE TO CONTROL CABLE BOX FUNCTIONS



## Operating the precoded function for your cable box.

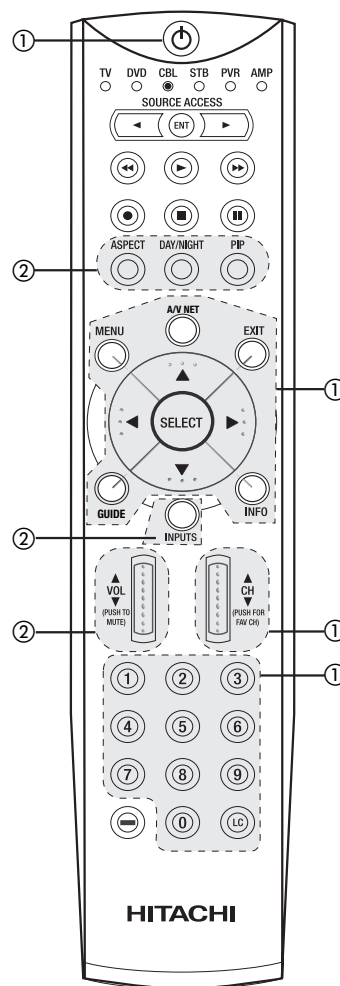
This remote is designed to operate different types of cable boxes. You must first program the remote to match the remote system of your cable box (refer to pages 51-52 for pre-codes).

1. Turn ON your cable box.
2. Aim the remote control at the front of your cable box.
3. To switch to Cable (CBL) pre-coded mode, use the SOURCE ACCESS buttons (◀ or ▶) on the remote control to position the LED light to the corresponding selection.
4. Hold down the ENT button on the remote and enter the four digit preset code that matches your cable box as shown on pages 51-52. Release the ENT button. The indicator light will flash 3 times if the code was accepted.
5. Aim the remote at the cable box and press the POWER button. The remote will turn off your cable box when the correct four digit preset code is entered. When this occurs, the remote control is programmed for your cable box. If the cable box does not turn off, try a different four digit preset code.
6. The remote will now control your Cable box.

### NOTES:

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.

- ① **PRECODED CABLE BOX buttons**  
These buttons transmit the chosen precoded cable codes.
- ② **EXCLUSIVE TV buttons**  
These buttons are for operating the TV.



THE REMOTE CONTROL

**MY CABLE BOX CODE IS:** \_\_\_\_\_

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



# HOW TO USE THE REMOTE TO CONTROL SET-TOP-BOX/SATELLITE 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 to pages 51-52 for pre-codes).

1. Turn ON your set-top-box/satellite systems.
2. Aim the remote control at the front of your set-top-box/satellite systems.
3. To switch to set-top-box/satellite (STB) pre-coded mode, use the SOURCE ACCESS buttons (◀ or ▶) on the remote control to position the LED light to the corresponding selection.
4. Hold down the ENT button on the remote and enter the four digit preset code that matches your set-top-box/satellite receiver as shown on page 51-52. Release the ENT button. The indicator light will flash 3 times if the code was accepted.
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 four digit preset code is entered. When this occurs, the remote control is programmed for your set-top-box/satellite receiver. If the set-top-box/satellite receiver does not turn off, try a different four digit preset code.
6. The remote will now control your set-top-box/satellite receiver.

### NOTES:

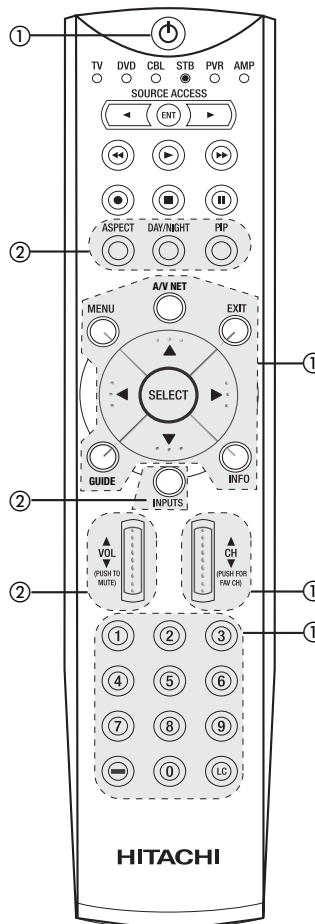
1. If your set-top-box/satellite receiver cannot be operated after performing the above procedures, your set-top-box/satellite receiver code has not been precoded into the remote.
2. In the unlikely event that your set-top-box/satellite receiver cannot be operated after performing the above procedures, 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.

### ① PRE-CODED SET-TOP-BOX/SATELLITE RECEIVER buttons

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

### ② EXCLUSIVE TV buttons

These buttons are for operating the TV.



MY SATELLITE RECEIVER/STB CODE IS: \_\_\_\_\_

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

# HOW TO USE THE REMOTE TO CONTROL DVD FUNCTIONS



## Operating the precoded function for your DVD player.

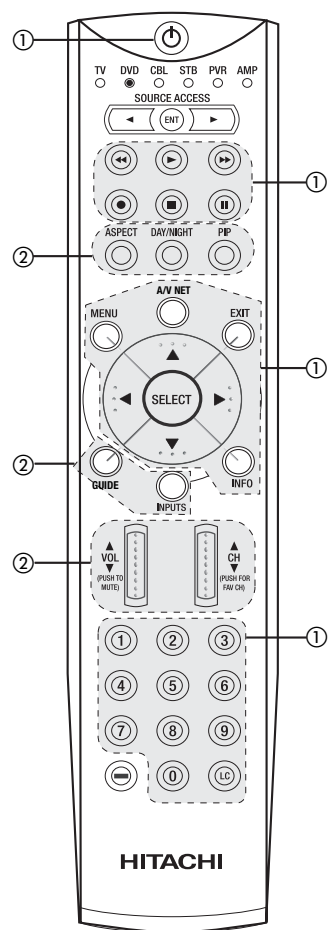
This remote is designed to operate different types of DVD players. You must first program the remote to match the remote system of your DVD player (refer to pages 51-52 for pre-codes).

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, use the SOURCE ACCESS buttons (◀ or ▶) on the remote control to position the LED light to the corresponding selection.
4. Hold down the ENT button on the remote and enter the four digit preset code that matches your DVD player, as shown on pages 51-52. Release the ENT button. The indicator light will flash 3 times if the code was accepted.
5. Aim the remote at the DVD player and press the POWER button. The remote will turn off your DVD player when the correct four 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 four 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.

**NOTES:**

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.

- ① **PRECODED DVD Buttons**  
These buttons transmit the chosen precoded DVD codes.
- ② **EXCLUSIVE TV Buttons**  
These buttons are for operating the TV.



**THE REMOTE CONTROL**

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

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





# HOW TO USE THE REMOTE TO CONTROL VCR/PVR FUNCTIONS

## Operating the precoded function for your VCR/PVR (Personal Video Recorder).

This remote is designed to operate different types of VCRs/PVRs. You must first program the remote to match the remote system of your VCR/PVR (refer to pages 51-52 for pre-codes).

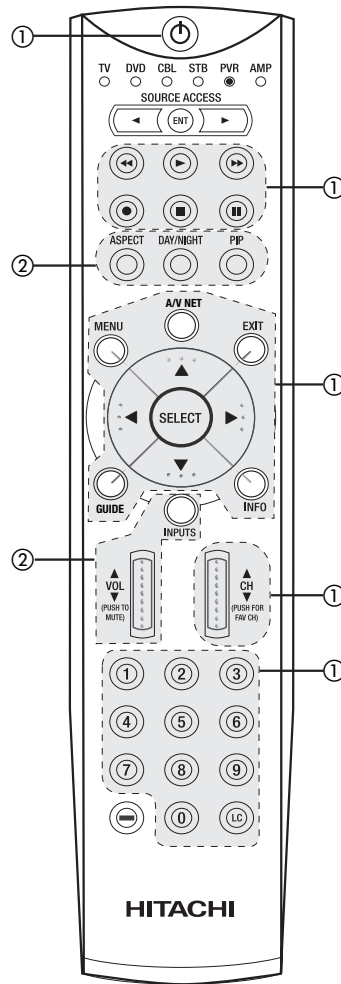
1. Turn ON your VCR/PVR.
2. Aim the remote control at the front of your VCR/PVR.
3. To switch to VCR/PVR pre-coded mode, use the SOURCE ACCESS buttons (◀ or ▶) on the remote control to position the LED light to the corresponding selection.
4. Hold down the ENT button on the remote and enter the four digit preset code that matches your VCR/PVR, as shown on pages 51-52. Release the ENT button. The indicator light will flash 3 times if the code was accepted.
5. Aim the remote at the VCR/PVR and press the POWER button. The remote will turn off your PVR when the correct four digit preset code is entered. When this occurs, the remote control is programmed for your VCR/PVR. If the VCR/PVR does not turn off, try a different four digit preset code.
6. The remote will now control your VCR/PVR.

THE REMOTE CONTROL

### NOTES:

1. If your PVR cannot be operated after performing the above procedures, your PVR's code has not been precoded into the remote.
2. In the unlikely event that your PVR cannot be operated after performing the above procedures, please consult your PVR 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. VCR precode library is included in the PVR mode. Default device for this mode is Hitachi VCR.
5. INFO, GUIDE and LC (Last Channel) buttons are for PVR devices, not for VCR.

- ① **PRECODED VCR/PVR Buttons**  
These buttons transmit the chosen precoded VCR/PVR codes.
- ② **EXCLUSIVE TV Buttons**  
These buttons are for operating the TV.



MY VCR/PVR CODE IS: \_\_\_\_\_

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



# HOW TO USE THE REMOTE TO CONTROL ADDITIONAL AUDIO EQUIPMENT



## Operating the precoded function for your Audio component.

This remote is designed to operate different types of Audio component. You must first program the remote to match the remote system of your Audio component (refer to pages 51-52 for pre-codes).

1. Turn ON your Audio component you wish to control with the Remote.
2. Aim the remote control at the front of your Audio component.
3. To switch to Audio (AMP) component pre-coded mode, use the SOURCE ACCESS buttons (◀ or ▶) on the remote control to position the LED light to the corresponding selection.
4. Hold down the ENT button on the remote and enter the four digit preset code that matches your Audio component, as shown on pages 51-52. Release the ENT button. The indicator light will flash 3 times if the code was accepted.
5. Aim the remote at the Audio component and press the POWER button. The remote will turn off your Audio component when the correct four digit preset code is entered. When this occurs, the remote control is programmed for your Audio component. If the Audio component does not turn off, try a different four digit preset code.
6. The remote will now control your Audio component.
7. Repeat steps 1 - 6 if you wish to program the remote to control another Audio component.

### NOTES:

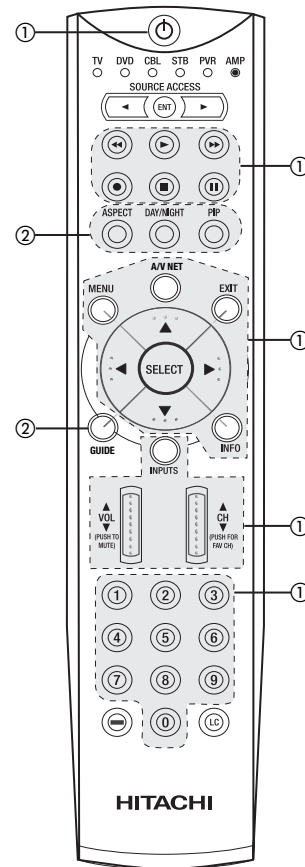
1. If your Audio component cannot be operated after performing the above procedures, your Audio component's code has not been precoded into the remote.
2. In the unlikely event that your Audio component cannot be operated after performing the above procedures, please consult your Audio equipment operating 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. CD precode library is included in the AMP mode. Default device for this mode is Hitachi Audio/Video Receiver (AVR/AMP).
5. INPUT, GUIDE, Channel (up/down), Volume (up/down) and REC button are not for CD devices.

### ① PRECODED AUDIO Buttons

These buttons transmit the chosen precoded Audio component codes.

### ② EXCLUSIVE TV Buttons

These buttons are for operating the TV.



THE REMOTE CONTROL

**MY AUDIO EQUIPMENT CODE IS:**

CD \_\_\_\_\_  
AMP/RCVR \_\_\_\_\_

- NOTES:**
1. The REC (Record) button only applies to some precoded amplifier/receiver codes.
  2. Refer to instruction manual of the Audio equipment for operation of the buttons exclusively for the Audio equipment.



# HOW TO USE THE REMOTE "ENT" BUTTON TO ACCESS THE SPECIFIED INPUT OF THE LCD TV

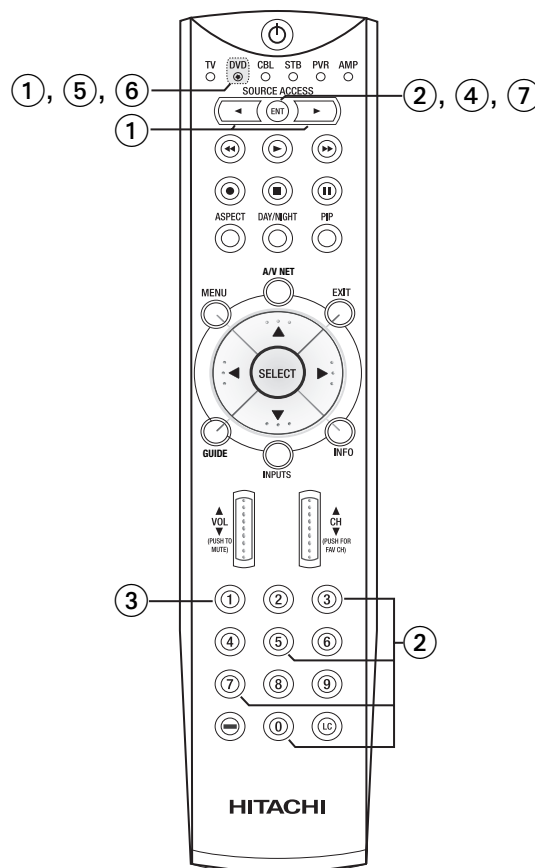
## INPUT ACCESS

This optional feature allows the user of the remote control to setup it's ENTER (ENT) button to access the specified input of the TV. Setup for this feature is applicable to the remote control's normal mode only and only applies to the DVD, CBL, STB, PVR and AMP modes.

1. Select the desired device mode (DVD, CBL, STB, PVR, or AMP) by using your SOURCE ACCESS buttons (◀ or ▶) to position the LED indicator to the corresponding selection.
2. Hold down the ENTER (ENT) button on the remote and enter the four digit preset code that matches your device as shown on pages 51-52.
3. Then enter the assigned input number (1-5) that the device is related to.
4. Release ENTER (ENT) button.
5. If done correctly, the device LED indicator will flash 3 times to confirm proper setup.
6. The remote will now control the desired device.
7. Pressing the ENTER (ENT) button will now access the video input (1-5) of the desired device.

### SETUP EXAMPLE (Hitachi DVD with precode 0573 connected to INPUT 1 of the TV)

- 1 Select DVD mode by using your SOURCE ACCESS buttons (◀ or ▶) to position the LED indicator to DVD.
- 2 Hold down the ENTER (ENT) button and press the numbers 0, 5, 7 and 3.
- 3 Then press the number 1 for the assigned input number of the DVD player.
- 4 Release ENTER (ENT) button.
- 5 If done correctly, the device LED indicator will flash 3 times to confirm proper setup.
- 6 The remote will now control the DVD player.



- NOTES:**
1. This feature is optional.
  2. Assigned input numbers can be used more than once if applicable.

# PVR/VCR, CABLE, SATELLITE, DVD AND AUDIO CODES FOR REMOTE CONTROL



VCR BRAND	CODE	Matsushita	0035, 0162, 1162	Totevision	0037, 0240	Philips	0503, 0539, 0646, 0854
ABS	1972	Media Center PC	1972	Touch	1972	Pioneer	0525, 0571, 1902
Admiral	0048, 0209	Memorex	0035, 0162, 0037, 0048, 0039, 0047, 0240, 0000, 0104, 0209, 0046, 0307, 0479, 1037, 1162, 1262	Unitech	0240	Polaroid	1061, 1086
Adventura	0000	Microsoft	1972	Vector	0045	Polk Audio	0539
Aiko	0278	Mind	1972	Vector Research	0038	Proscan	0522
Aiwa	0000, 0037, 0307	Minolta	0042, 0105	Video Concepts	0045, 0061	Qwestar	0651
Akai	0041, 0061, 0106	Mitsubishi	0061, 0043, 0067	Videomagic	0037	RCA	0522, 0571, 0717, 0790, 0822, 1974
Alienware	1972	Motorola	0035, 0048	Videosonic	0240	Recco	0698
America Action	0278	Multitech	0000, 0072	Viewsonic	1972	Rio	0869
American High	0035	NEC	0038, 0041, 0067, 0104	Wards	0060, 0062, 0035, 0048, 0047, 0081, 0240, 0000, 0042, 0072, 0212	Rotel	0623
Asha	0240	Nikko	0037	White Westinghouse	0072, 0209	Rowa	0823
Audiovox	0037, 0278	Noblex	0240	XR-1000	0072, 0000, 0035	Sampo	0698, 0752
Beaumarck	0240	Northgate	1972	Yamaha	0038	Samsung	0490, 0573, 0820, 0744, 1075
Bell & Howell	0104	Olympus	0035	ZT Group	1972	Sansui	0695
Broksonic	0121, 0184, 0002, 0209, 0479	Optimus	0593, 1062, 0162, 0037, 0048, 0104, 0432, 1048, 1162, 1262	Zenith	0039, 0000, 0209, 0033, 0479, 1479	Sanyo	0670, 0695, 0873
CCE	0072, 0278	Optonica	0062			Semp	0503
Calix	0037	Orion	0184, 0209, 0002, 0479	<b>DVD BRAND</b>	<b>CODE</b>	Sharp	0630, 0752
Canon	0035	Panasonic	0162, 1062, 0035, 0616, 1162, 1262	AMW	0872	Shinsonic	0533, 0839
Carver	0081	Penney	0035, 0037, 0240, 0042, 0038	Aiwa	0641	Sonic Blue	0869
Cineral	0278	Pentax	0042, 0105	Allegro	0869	Sony	0533
Citizen	0278, 0037	Philco	0035, 0209, 0479, 0561	Apex Digital	0672, 0717, 0755, 0794, 0796, 0797, 1004, 1020, 1056, 1061, 1100, 1915, 1937	Sylvania	0675
Colt	0072	Philips	0081, 0035, 0618, 1081, 1181, 0062	Audiovox	0790, 1072	Symphonic	0675
Craig	0037, 0072, 0047, 0240, 0271	Pilot	0037	Axion	1072	TYT	0705
Curtis Mathes	0035, 0041, 0060, 0162	Pioneer	0067	Blaupunkt	0717	Teac	0790
CyberPower	1972	Polk Audio	0081	Blue Parade	0571	Technics	0490
Cybernex	0240	Profitronic	0240	Brooksonic	0695	Theta Digital	0571
Daewoo	0278, 0045, 0561	Proscan	0060, 0202, 0761	CAVS	1057	Tivo	1996
Dell	1972	Protec	0072	CineVision	0876, 0869	Toshiba	0503, 0695, 1045, 1988, 1996, 2006
Denon	0042	Pulsar	0039	Classic	1917	Tredex	0799, 0803
Durabrand	0039, 0038	Quarter	0046	Coby	1086	US Logic	0839
Dynatech	0000	Quartz	0046	Curtis Mathes	1087	Urban Concepts	0503
Electrohome	0037	Quasar	0035, 0162, 1162	CyberHome	0816, 1023, 1024	Venturer	0790
Electroponic	0037	RCA	0060, 0240, 0042, 0105, 0106, 0202, 0761, 0880	DVD2000	0521	XBox	0522
Emerex	0032	Radio Shack	0000, 1037	Daewoo	0784, 0705, 0833, 0869, 1918	Yamaha	0490, 0545, 0539
Emerson	0037, 0184, 000, 0121, 0043, 0209, 0002, 0278, 0061, 0208, 0212, 0479, 0561, 1593	Radix	0037	Denon	0490, 0634	Zenith	0591, 0503, 0869
Fisher	0104, 0047, 0066	Randex	0037	Dual	1068, 1085		
Fuji	0033, 0035	Realistic	0035, 0037, 0048, 0047, 0000, 0104, 0046, 0062, 0066	Emerson	0591, 0675	<b>CABLE BRAND</b>	<b>CODE</b>
Funai	0000, 1593	ReplayTV	0614, 0616	Enterprise	0591	ABC	0003, 0008, 0011, 0013, 0014, 0017
GE	0035, 0060, 0240, 0202, 0761	Runco	0039	Fisher	0670	Allegro	0153, 0315
Garrard	0000	STS	0042	Funai	0675	Americast	0899
Gateway	1972	Samsung	0045, 0240, 0432	GE	0522, 0717, 0815	Antronix	022
Go Video	0432, 0526	Sanky	0039, 0048	GPX	0699, 0769	Archer	022, 0153, 0797
GoldStar	0037, 0038	Sansui	0000, 0067, 0209, 0041, 0479, 1479, 0271	Gateway	1073	Bell & Howell	0014
Gradiente	0000, 0008	Sanyo	0047, 0240, 0104, 0046	Go Video	0744, 0715, 0783, 0833, 0869, 1075	Bell South	0899
HI-Q	0047	Scott	0184, 0045, 0121, 0043, 0210, 0212	Gradiente	0651	Cabletenna	0022
HP	1972	Sears	0035, 0037, 0047, 0000, 0042, 0104, 1237, 0046, 0066, 0105	Greenhill	0717	Cableview	0022
Harley Davidson	0000	Semp	0045	Grundig	0705	Century	0153
Harman/Kardon	0038, 0081	Sharp	0048, 0848, 0062	Harman/Kardon	0702	Citizen	0153, 0315
Harwood	0072	Shintom	0072	Hitachi	0573, 0664, 0695	ClearMax	0883
Headquarter	0046	Singer	0072	Hiteker	0672	Clearmaster	0883
Hewlett Packard	1972	Sonic Blue	0614, 0616	IRT	0783	Colour Voice	0025, 0031
Hitachi	0000, 0041, 0042, 0105	Sony	0035, 0032, 0000, 0033, 0636, 1032, 1972	Initial	0717	Comtronics	0040
Howard Computers	1972	Sylvania	0035, 0081, 0000, 0043, 0593, 1593	Integra	0627	Contec	0019
Hughes Network Systems	0042	Symphonic	0000, 0593, 1593	Hiteker	0672	Coolmax	0883
iBuy Power	1972	Systemax	1972	JBL	0702	Digi	0637
JVC	0067, 0041, 0008	TMK	0240, 0208	JVC	0623, 0558, 0867, 1901	Director	0476
Jensen	0041	Tagar Systems	1972	KLH	0717, 0790, 1020	Dumont	0637
KEC	0037, 0278	Tatung	0041	Kawasaki	0790	Emerson	0797
KLH	0072	Teac	0000, 0041	Kenwood	0490, 0534	Everquest	0015, 0040
Kenwood	0041, 0067, 0038	Technics	0035, 0162	Koss	0651	Focus	0400
Kodak	0035, 0037	Teknika	0000, 0035, 0037	Lasonic	0798	Garrard	0153
LG	0037	Thomas	0000	Lite-On	1058	Gemini	0015, 0797
LXI	0037	Tivo	0618, 0636, 1503	Magnavox	0503, 0675, 1914, 1976	General Instrument	0003, 0011, 0476, 0276, 0810
Lloyd's	0000, 0208	Toshiba	0045, 0043, 0066, 0210, 0212, 0366, 0845, 1008, 1145, 1503, 1972	Marantz	0539	GoldStar	0040, 0144
Logik	0072			Memorex	0695	Goodmind	0797
MEI	0035			Microsoft	0522	Hamlin	0009, 0020, 0034, 0273
MGA	0043, 0240, 0061			Mintek	0717, 0839	Hitachi	0011
MGN Technology	0240			Mitsubishi	0521, 1521	Jasco	0015, 0153, 0315
MTC	0000, 0240			Nesa	0717	Jerrold	0003, 0011, 0012, 0014, 0015, 0024, 0276, 0476, 0810
Magnasonic	0593			Norcent	1003, 0872	Memorex	0000
Magnavox	0035, 0081, 0563, 0000, 0039, 0593			Onkyo	0627, 0503	Motorola	0276, 0476, 0810, 1106, 1254, 1376
Magnin	0240			Oritron	0651	Movie Time	0063
Marantz	0081, 0035			Panasonic	0490	Multivision	0012
Marta	0037			Philco	0790		

THE REMOTE CONTROL



# PVR/VCR, CABLE, SATELLITE, DVD AND AUDIO CODES FOR REMOTE CONTROL

NSC	0063
Novaplex	0618
Oak	0019
Optimus	0021
Pace	0237, 1877
Panasonic	0000, 0021, 0107
Panther	0637
Paragon	0000
Philips	0305, 0317
Pioneer	0023, 0025, 0031, 0153, 0144, 0533, 0877, 1877
Popular Mechanics	0400
Pulsar	0000
Quasar	0000
RCA	0021
RadioShack	0015, 0315, 0797, 0883
Recoton	0400
Regal	0020, 0273, 0279
Rembrandt	0011
Runco	0000
SL Marx	0040
Samsung	0040, 0144
Scientific Atlanta	0877, 0008, 0017, 0477, 1877
Signal	0015, 0040
Signature	0011
Sony	1006
Sprucer	0021
Starcom	0003, 0015
Stargate	0015, 0040, 0797
Starquest	0015
Supercable	0276
Supermax	0883
TFC	0310
TV86	0063
Tandy	0258
TeleCaption	0221
Television	0040
Timeless	0040
Tocom	0012, 0013
Torx	0003
Toshiba	0000
Tristar	0883
Tusa	0015
Unika	0022, 0153
Universal	0022, 0153, 0191
V2	0883
ViewMaster	0883
Viewstar	0063, 0258
Vision	0883
Vortex View	0883
Zenith	0000, 0054, 0525, 0899
Zentek	0400

## SATELLITE BRAND (Set-Top-Box) . . . . . CODE

AlphaStar	0772
Amway	0043, 0075
Astro Industries	0095
BSR	0095
Cable Innovations	0554
Capetronic	0095
Century	0856
Channel Master	0018, 0212
Chapparral	0053, 0209, 0216
Conifer	0004
Crossdigital	1109
Curtis Mathes	061
DX Antenna	0041
DirecTV	0392, 0566, 0639, 1639, 1142, 0247, 0749, 1749, 0724, 0819, 1856, 1076, 1109, 0099, 1052, 1053, 1054, 1442, 1443, 1444
Dish Network System	1005, 0775, 1170
DishPro	1005, 0775
Drake	0018, 0064, 0245
Echostar	1005, 0775, 0148, 0269, 0280, 1170
Expressvu	0775
GE	0566

GOI	0775
General Instrument	0869, 0547, 0554
Gradiente	0856
HTS	0775
Hitachi	0819
homecable	0238
Hughes Network Systems	1142, 0749, 1749, 1442, 1443, 1444
Hytek	0095
IQ	0210
IQ Prism	0210
Innova	0099
Intersat	0043
JVC	0775, 1170
Janeil	0152
Legend	0269
Macom	0018, 0061
Magnavox	0724, 0722
Memorex	0724, 0269
Mitsubishi	0749
Motorola	0869
Netsat	0099
Next Level	0869
Norsat	0004
Pace	0455
Panasonic	0247, 0701, 0152
Paysat	0724
Philips	1142, 0749, 0724, 1076, 0722, 1749, 0856, 0099
Pico	0075
Proscan	0392, 0566
RCA	0392, 0566, 0855, 0143
Radioshack	0869, 0554
Ramsey	0075
Realistic	0052
SKY	0856, 1856, 0099
STS	0041, 0210
Samsung	1276, 1109
Sony	0639, 1639
Star Choice	0869
Star Trak	0180, 0421, 0547
Strong	0421
Tivo	1142, 1442, 1443, 1444
Toshiba	0749, 1749, 0790, 0061, 0082, 1052, 1053, 1054, 1285, 1286, 1287, 1289
Town & Country	0547
Uniden	0724, 0722, 0052, 0074, 0076, 0238, 0370, 0554
Zenith	0856, 1856, 0061, 0064

## AMPLIFIER BRAND . . . . . CODE

Aiwa	0406
Bose	0674
Carver	0269
Curtis Mathes	0300
Denon	0160
Durabrand	1561
GE	0078
Harman/Kardon	0892
JVC	0331
Left Coast	0892
Lenox	1561
Linn	0269
Luxman	0165
Magnavox	0269
Marantz	0269, 0321, 0892
NEC	0264
Nakamichi	0321
Optimus	0395, 0300
Panasonic	0308, 0521
Parasound	0246
Philips	0269, 0892
Pioneer	0013, 0300
Polk Audio	0269, 0892
RCA	0300
Realistic	0395
Sansui	0321
Shure	0264
Sony	0815, 0689, 0220

Soundesign	0078, 0211
Technics	0308, 0521
Toshiba	0353
Victor	0331
Wards	0013, 0078, 0211
Yamaha	0354, 0133

## RECEIVER BRAND (Amplifier) CODE

ADC	0531
Aiwa	1405, 0121, 0158, 0189, 0405
Anam	1074, 1609
Arcam	1120
Audiotronic	1189
Bose	0639, 1229, 1253
Capetronic	0531
Carver	1189, 0042, 0189
Casio	0195
Clarinette	0195
Coby	1263
Compaq	1136
Curtis Mathes	0080
Dell	1383
Denon	0004, 1360
Fisher	0042
Garrard	0463
Glory Horse	1263
Harman/Kardon	0891, 0110, 0189
Hewlett Packard	1181
Hitachi	0228
Integra	0135
JBL	0110
JVC	0074, 1263
KLH	1428
Kenwood	1313, 1570, 1569, 0027, 0042, 0186, 0239
LXI	0181
Linn	0189
Lloyd's	0195
MCS	0039
Magnavox	1189, 1269, 0189, 0195, 0391, 0531
Marantz	1189, 0039, 0189, 1269
Mitsubishi	1393
Modulaire	0195
Musicmagic	1089
Nakamichi	0097
Onkyo	0135, 0842
Optimus	1023, 0042, 0080, 0177, 0181, 0186, 0219, 0531, 0670, 0738, 0801, 1074
Panasonic	1518, 0039, 0309, 0367
Penney	0195
Philips	1189, 1269, 0189, 0391, 1120
Pioneer	1023, 0014, 0080, 0150, 0244, 0531, 0630
Polk Audio	0189
Proscan	1254
Quasar	0039
RCA	1023, 1254, 0080, 0531, 1074, 1609
Radio Shack	1263
Realistic	0181, 0195
Rio	1383
Sansui	0189
Sanyo	0801, 1251
Scott	0163, 0322
Sharp	0186
Sharper Image	1263
Sherwood	0491, 0502
Sonic Blue	1383
Sony	1058, 1441, 1759, 0158, 0474, 1349, 1406, 1442
Soundesign	0670
Stereophonics	1023
Sunfire	1313
Teac	0463, 1074
Technics	1308, 1518, 0039, 0309
Thorens	1189
Toshiba	1572
Victor	0074

Wards	0014, 0080, 0158, 0189
Yamaha	0176, 0186, 1176
Yorx	0195
Zenith	0857

## AUDIO BRAND . . . . . CODE

Aiwa	0010, 0159
AudioSource	0351
Cambridge Soundworks	0351
Carver	0351
Fisher	0052
Fosgate	0259
Harmon/Kardon	0477
JBL	0477
JVC	0073
KLH	0351
Magnavox	0325
Nikko	0376
Paramount Pictures	0317, 0351
RCA	0056
SSI	0317
Sansui	0325
Schneider	0376
Sony	0010, 0576
Soundesign	0376
Yorx	0376

## SET TOP BOX BRAND . . . . . CODE

Panasonic	1120
Pioneer	1010
Princeton	0113, 0295
Samsung	1190
Sensory Science	1126
Sharp	1010
Sony	0639

## PERSONAL VIDEO RECORDER BRAND . . . . . CODE

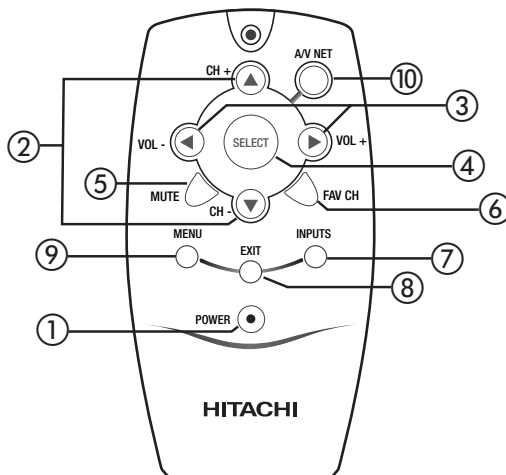
Panasonic	0616
Philips	0618
ReplayTV	0614, 0616
SonicBlue	0614, 0616
Sony	0636
Tivo	0618, 0636

THE REMOTE CONTROL

# SIMPLE REMOTE



HITACHI has provided a second remote control for your convenience. The Simple Remote Control has the basic features that are most often used.

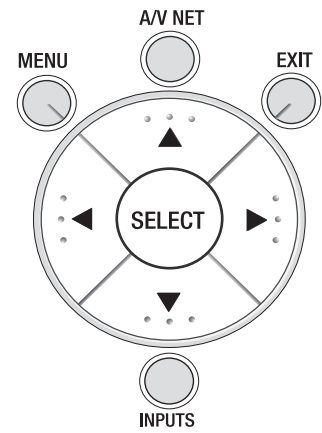


- ① **POWER button**  
Press Power button to turn the LCD Television ON or OFF.
- ② **CH+ (▲) and CH- (▼)**  
Press the CH+ (▲) up or CH- (▼) down buttons to select desired channel or to navigate the on screen display features when in AV NET mode.
- ③ **VOL- (◀) and VOL+ (▶)**  
Press the VOL- (◀) down or VOL+ (▶) up buttons to select desired sound level or to navigate the on screen display features when in AV NET mode.
- ④ **SELECT button**  
Press SELECT button to Select when in MENU and AV NET mode.
- ⑤ **MUTE button**  
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 press the VOLUME Up (▶) button.
- ⑥ **FAV CH button**  
Press FAV CH button to access your favorite channels.
- ⑦ **INPUTS button**  
Pressing the INPUTS button repeatedly will cycle through the input items (see example on page 36).
- ⑧ **EXIT button**  
When in MENU mode, this button will exit all On-Screen Displays.
- ⑨ **MENU button**  
Press the MENU button to start the On-Screen Display.
- ⑩ **AV NET button**  
Press this button to access the Audio/Video network (AV Net) menu. The AV Net allows the user to control external components with the TV's remote control. (See complete explanation and example on pages 33-35)

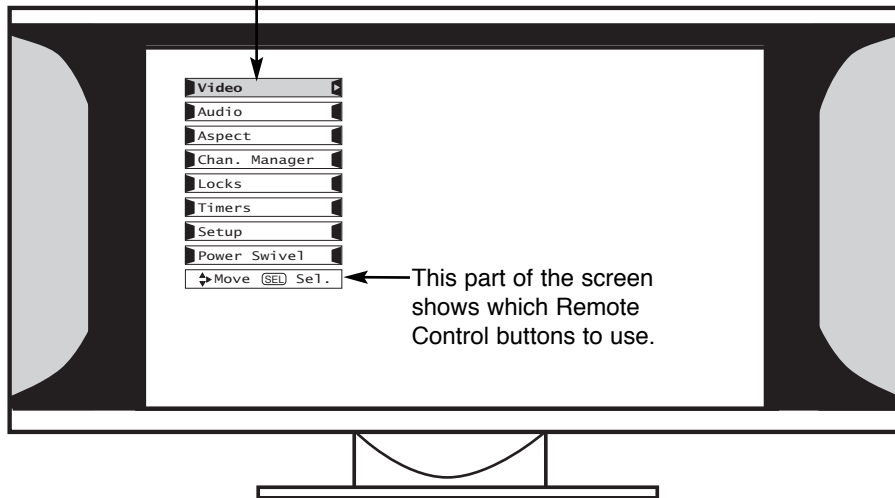
**NOTE:** The Simple Remote cannot be programmed to control external components.

# OSD (On-Screen Display)

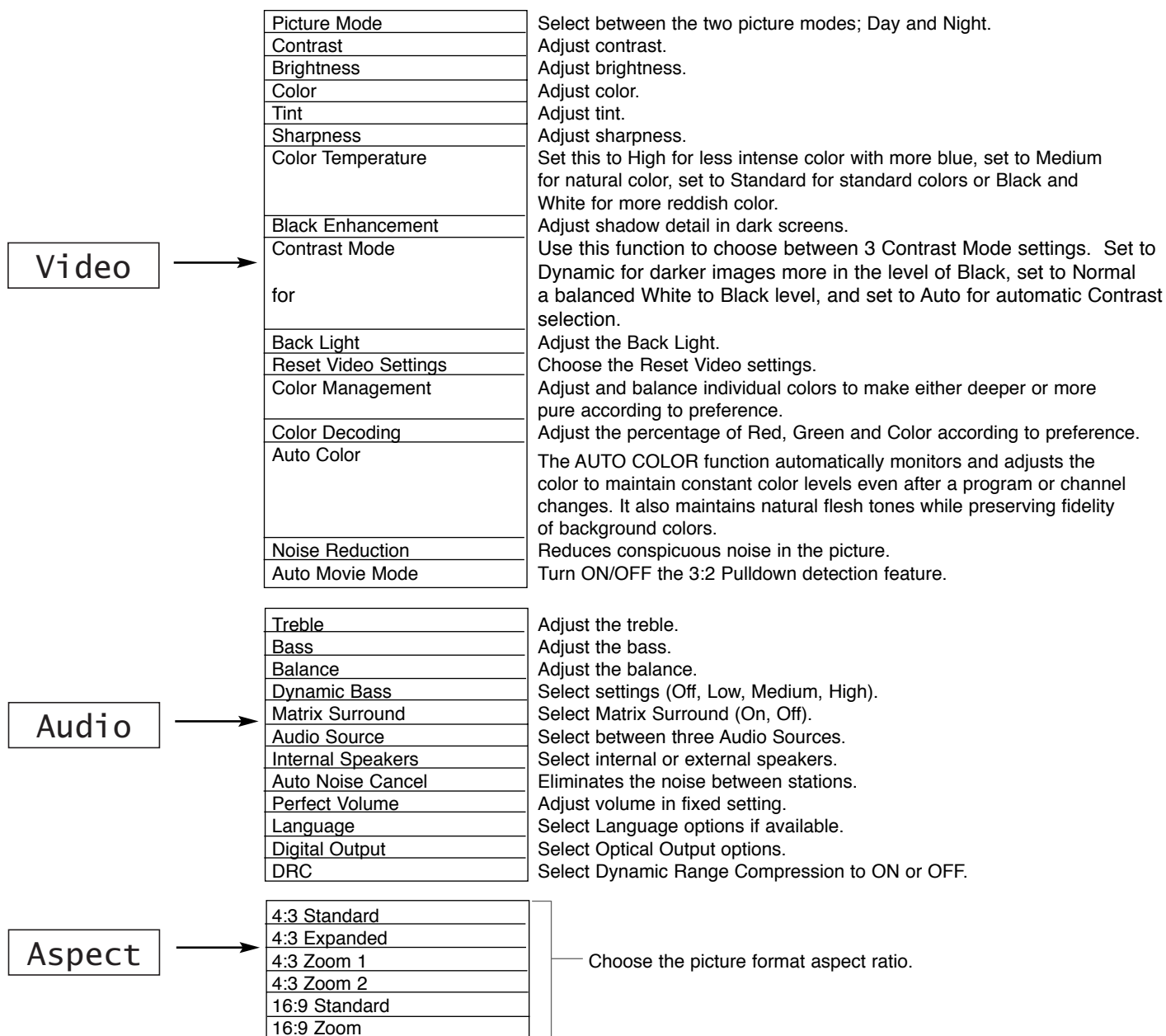
1. Press MENU on the remote control to display the different features on your HITACHI LCD TV.
2. Use the CURSOR PAD (buttons ▲, ▼, ◀ and ▶) to navigate to a different menu item.
3. Press EXIT on the remote control to quickly exit from a menu.
4. Press the A/V NET button on the remote control to access the AV Network menu to control external components.



This part of the screen shows which selections are available.



# OSD (On-Screen Display)



**NOTE:** The Language, Digital Output, and the Dynamic Range Compression feature of the Audio OSD are only available for Digital channels.



Channel Manager	Set the Antenna	Set Antenna settings.
	Auto Channel Scan	Set Auto Channel Scan.
	Signal Meter	Access Signal Meter.
	Channel List	Set Channel List.
Locks	Change Access Code	Change Lock access code.
	Engage Lock	Choose to lock channel, video input, and/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	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.
	Set Timer Recording	Set Timer Recording for IEEE 1394 devices.
Setup	Menu Preference	Choose English, French, or Spanish text.
	Screen Saver	Set Screen Saver to prevent screen burn.
	Set The Inputs	Label Video Inputs , VCR, DVD, etc.
	Set Black Side Panel	Set the gray side bars on/off when watching 4:3 signals in standard mode.
	Set Closed Captions	Feature to display dialogue/text.
	Set Monitor Out	Set Monitor Out source.
	CableCARD Info	Select to access CableCARD information.
	Set AV Control	Select to set RS232C feature.
	Upgrades	Select to upgrade TV software.
Set Stand-By Mode	Set the IEEE 1394 function in stand by.	
Power Swivel	Unlocked	Power Swivel enabled. Control the motorized stand.
	Locked	Power Swivel disabled.

- NOTES:**
1. The Signal Meter feature of the Channel Manager OSD is only available for Digital signals.
  2. The CableCARD information feature of the Setup OSD is only available when a CableCARD from your cable operator is installed in the rear panel of the Audio Video Control Center (AVC).



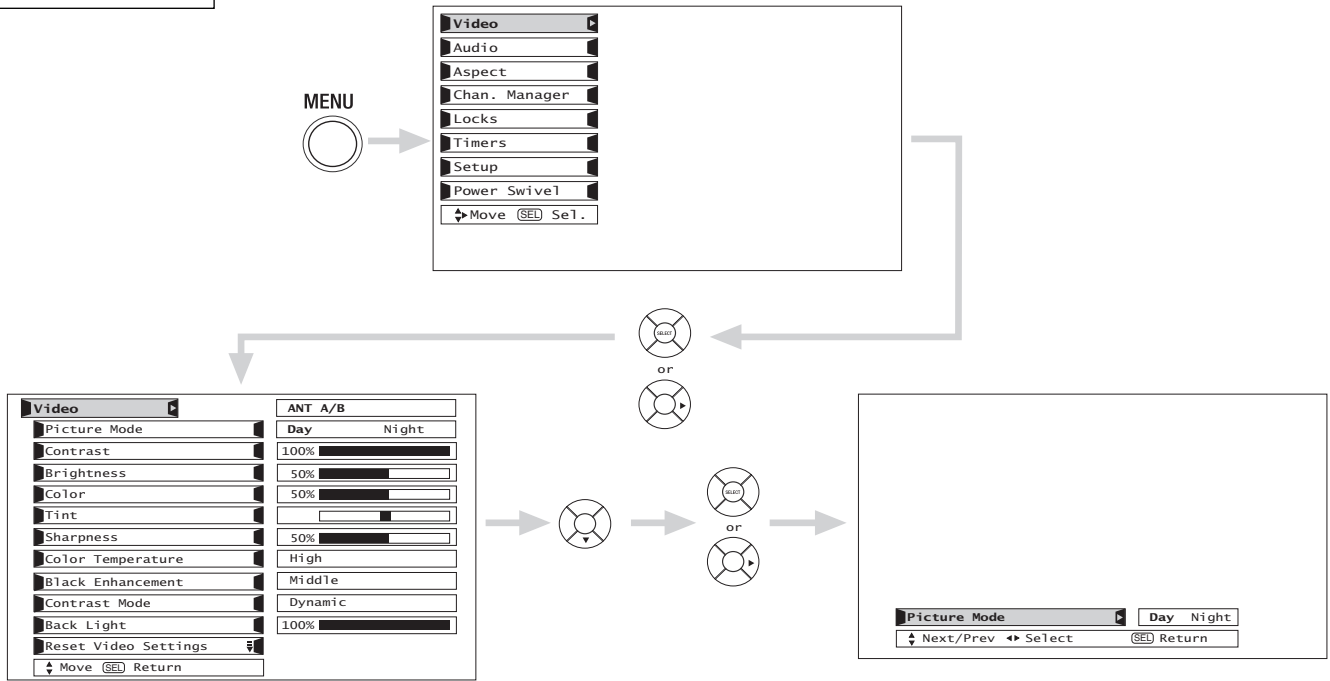
# VIDEO

## 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.

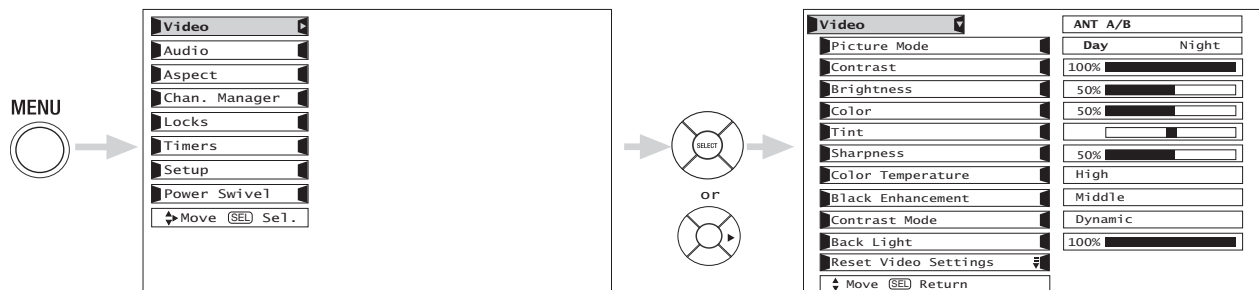
## Picture Mode

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



Use CURSOR PAD ◀ or ▶ to highlight and select Picture Mode settings (Day or Night), then press the SELECT button to set the Mode and return to the Video menu or press EXIT to quit menu.

Function	Day	Night	Reset
Contrast	100%	91%	Reset the video menu settings on current input automatically to Day Mode.
Brightness	50%	53%	
Color	50%	25%	
Tint	50%	50%	
Sharpness	50%	40%	
Color Temperature	High	Standard	
Black Enhancement	Low	Off	
Contrast Mode	Dynamic	Normal	
Back Light	100%	50%	
Color Management (Set User Colors)	Off	Off	
Auto Color	Off	Off	
Noise Reduction	Low	Off	
Auto Movie Mode (TV/Cinema Detection)	Off	On	



Use the CURSOR PAD ▲ or ▼ to highlight the function to be adjusted.  
 Press the SELECT button or the CURSOR PAD ► to select the function settings.  
 Press the CURSOR PAD ◀ or ▶ to adjust the function.  
 Press MENU to return to main menu.  
 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.

**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 the shadow detail in dark scenes using the settings off, low, middle and high.

- NOTES:**
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-P<sub>B</sub>P<sub>R</sub> input jacks.

**Contrast Mode**

Use this function to choose between 3 Contrast Mode settings. Set to Dynamic for darker images more in the level of Black, set to Normal for a balanced White to Black level, and set to Auto for automatic Contrast selection.

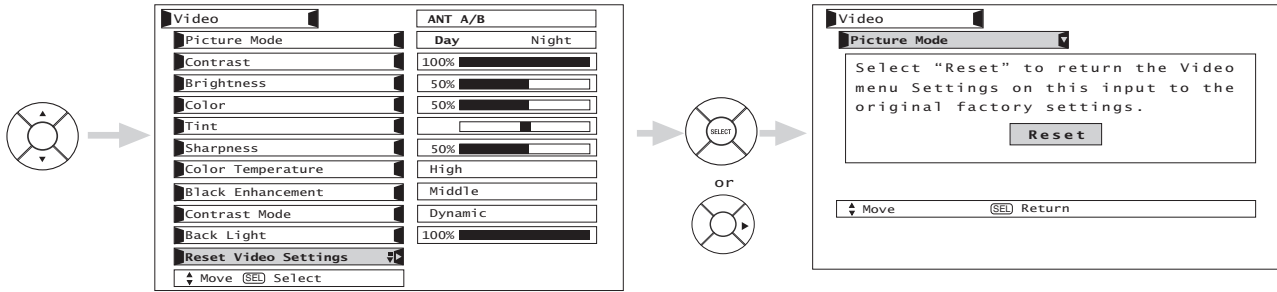
**Back Light**

Use this function to adjust the amount of Back Light.

# VIDEO

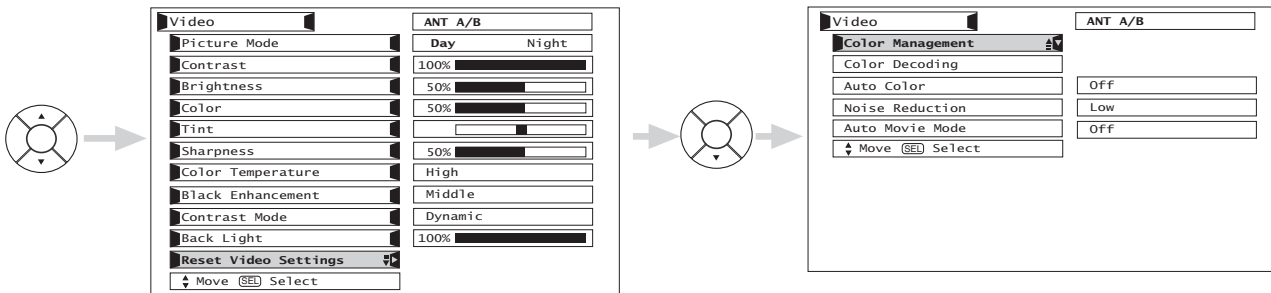
## Reset Video Settings

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



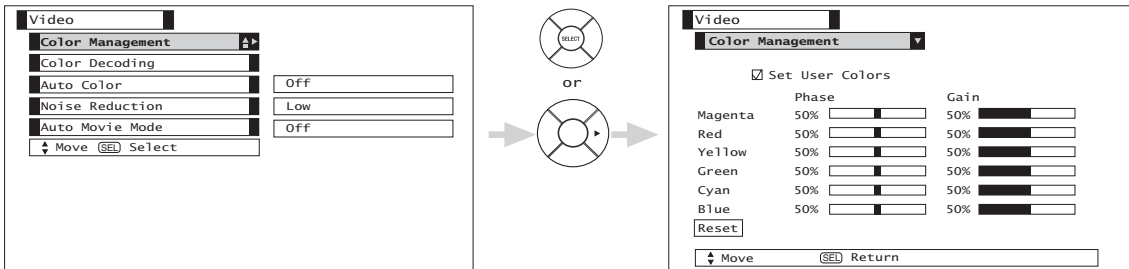
Use CURSOR PAD ▲ or ▼ to highlight functions.  
 Press the SELECT button or CURSOR PAD ► to select Reset Video Settings.  
 Use the CURSOR PAD ▼ to access at the Reset softkey.  
 Press the SELECT button to Reset the Video Settings.  
 You can customize each of the Video Inputs to your preference to 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 Video:1 Input, only Video:1 Input will return to factory conditions.



## Color Management

Use this function to adjust and balance the listed individual colors to make them either deeper or more pure depending on the user's preference. Adjust the GAIN settings to make the color brighter (+) or darker (-). Adjust the PHASE settings to make the colors deeper (+) or normal (-) to match real life colors.

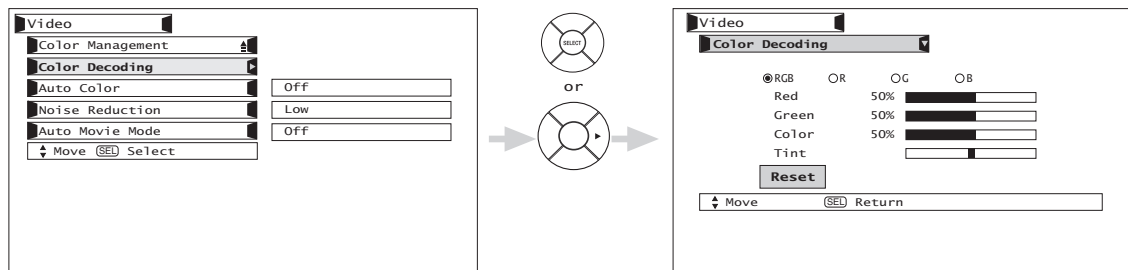


Use the CURSOR PAD ▲ or ▼ to highlight function.  
 Press the SELECT button or CURSOR PAD ► to select User Colors setting. When the function has a “√” in the box called “Set User Colors”, it is ON.  
 Press the CURSOR PAD ◀, ▶, ▼, ▲ and SELECT button to highlight and adjust individual colors.  
 Use the CURSOR PAD ▲ and ▼ to highlight and select “Reset” then press the SELECT button to return all colors to default settings.

**NOTE:** When the Set User Colors box is not checked, the listed colors will be grayed out.

## Color Decoding

Use this function to adjust and balance the percentage of Red, Green and Blue according to the user's preference in each of the four color temperature settings. Use TINT to adjust flesh tones so they appear natural.



Use CURSOR PAD ▲, ▼, ◀ and ▶ to highlight the function RGB, R, G or B, then press SELECT button to select it. Press down to select from 4 menu items.

Press CURSOR PAD ◀, ▶, ▼ and ▲ to highlight and adjust Red, Green, Color and Tint.

Use CURSOR PAD to highlight and select "Reset" to return all settings to default.

**NOTE:** Color Decoding settings are independently stored in each of the 4 Color Temperature settings.

## Auto Color

The AUTO COLOR function automatically monitors and adjusts the color to maintain constant color levels even after a program or channel changes. It also maintains natural flesh tones while preserving fidelity of background colors.

**NOTE:** When using Component or DVI-HDTV input, Auto Color will not be available (grayed out).

## 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.

## Auto Movie Mode

The Auto Movie Mode function turns ON or OFF the 3:2 PULLDOWN DETECTION SPECIAL FEATURE. 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 Television will activate the circuitry for this special feature to improve video performance when watching film based sources.

**NOTES:** 1. When using Progressive Scan Component or HDMI OR DVI input (Ex. 480p, 720p), Auto Movie Mode will not be available (grayed out). Please see table below for additional information.

ANT A/B, VIDEO, 480i	480p/720p/1080i
AVAILABLE	GRAYED OUT

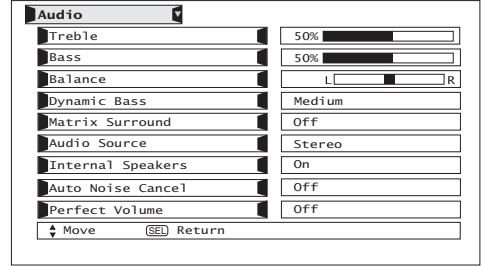
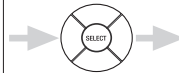
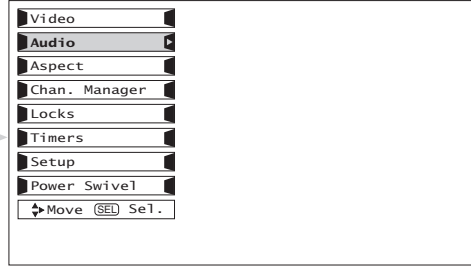
2. All Video settings are independent of each other based on it's input (ANT A/B, Input 1~5, Photo Input).

# AUDIO

## Audio

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

MENU



Press CURSOR PAD ▲ or ▼ to select menu item.  
 Press CURSOR PAD ◀ or ▶ to adjust the function.  
 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 LCD TV internal speakers.

### Dynamic Bass

This function complements and enhances bass performance.

### Matrix Surround

The Matrix Surround features the spacious sound effects of a stadium that can be turned ON or OFF.

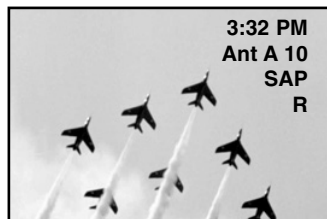
### Audio Source

Multi-Channel Television Sound will allow you to select STEREO (a stereo broadcast), MONO (monaural sound) used when receiving a weak stereo broadcast or 2nd Audio Prog (SAP) which may be a secondary language, weather report, etc. The sources received will be displayed at the top right edge of the TV. The source you select will be displayed above the sources received. See example below for each selection when both stereo and second audio are received (monaural is always received).

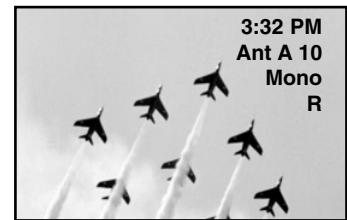
STEREO SELECTED



SAP SELECTED



MONO SELECTED



### Internal Speakers

This function is useful when setting up the external speakers. If you prefer to use only speakers from a separate stereo system, turn this feature OFF. When set to OFF, the LCD TV speakers and the sub-woofer output are OFF. Also, set to OFF, if you prefer to use only your head-phones.

### Auto Noise Cancel

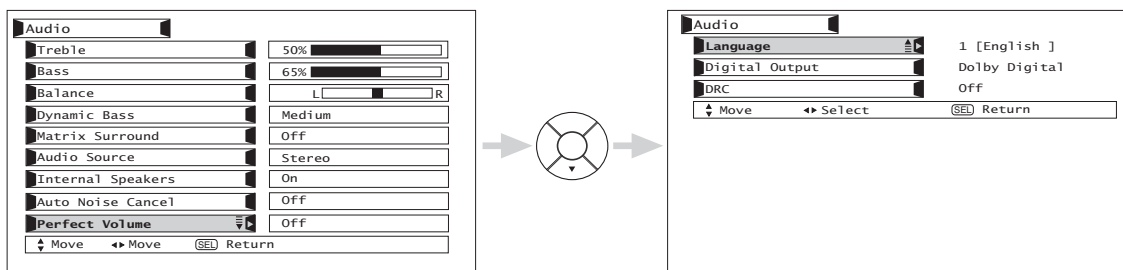
This function eliminates the noise between stations. If a channel is tuned and is noisy, this function will automatically eliminate the audio for that channel.

### Perfect Volume

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

ON-SCREEN DISPLAY

Use the functions below if your TV is connected to an amplifier/receiver with optical digital input with Dolby Digital or PCM decoder capabilities.



## 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® Digital** - Select this feature if the TV is connected to an amplifier/receiver with a Dolby® 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 PAD ◀, ▶ to select the chosen options.

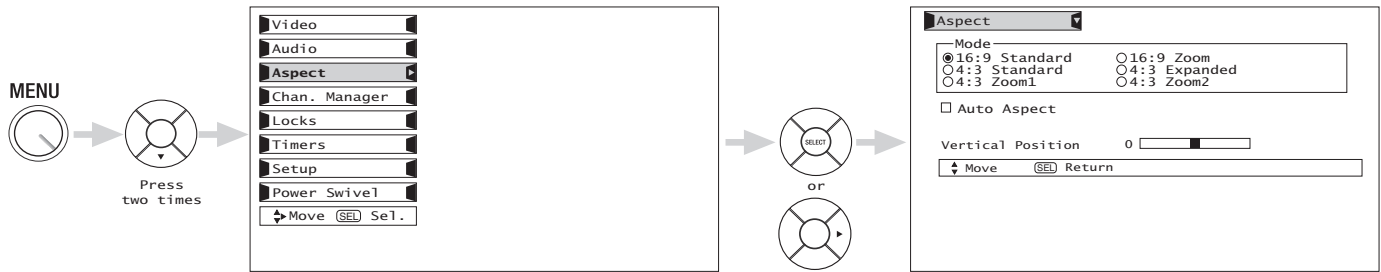
**NOTE:** The functions Language, Digital output and DRC are only available when viewing digital programs.

# ASPECT

## Aspect

Use this function to select the Picture Format Aspect Ratio.

Press CURSOR PAD ▲, ▼, ◀ and ▶ to choose the aspect ratio that are enclosed in the Mode window.  
Press the SELECT button to select the Mode settings.



### Auto Aspect

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

Press CURSOR PAD ▲, ▼, to select menu item.

Press the SELECT button to select. A "✓" in the box indicates that the feature is ON.

- NOTES:**
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, and 480i component signals.
  3. See page 31 for Aspect Mode availability.

### 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).

Press CURSOR PAD ▲ and ▼ to select menu item.

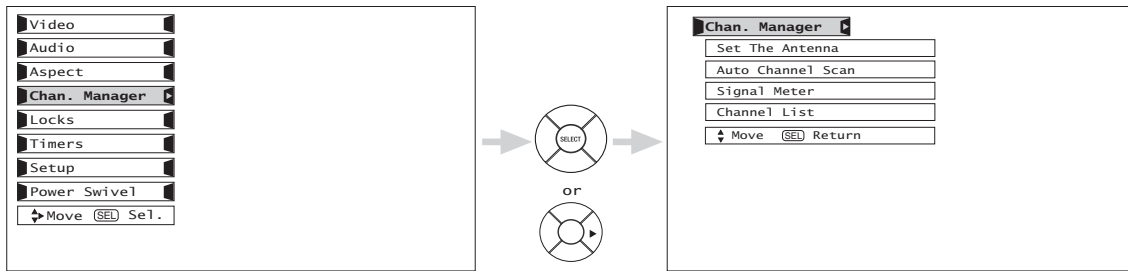
Press CURSOR PAD ◀ or ▶ to adjust the function.

Press EXIT to quit the MENU, or select Aspect to return to the main menu.

**NOTE:** Vertical Position will not be available in 4:3 Standard and 16:9 Standard modes.

## Chan. Manager

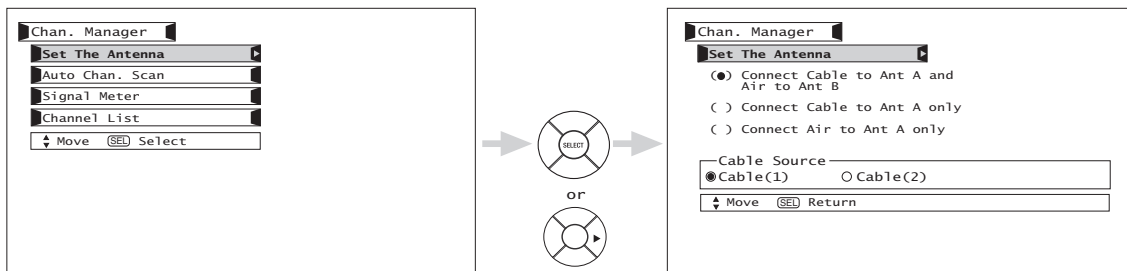
Select Channel Manager to set your Antenna options, run Auto Channel Scan, Check Signal Meter and Set Channel List.



Press CURSOR PAD ▲, ▼ to highlight function, the press the SELECT button or CURSOR PAD to select.

## Set The Antenna

This feature will select Antenna options.

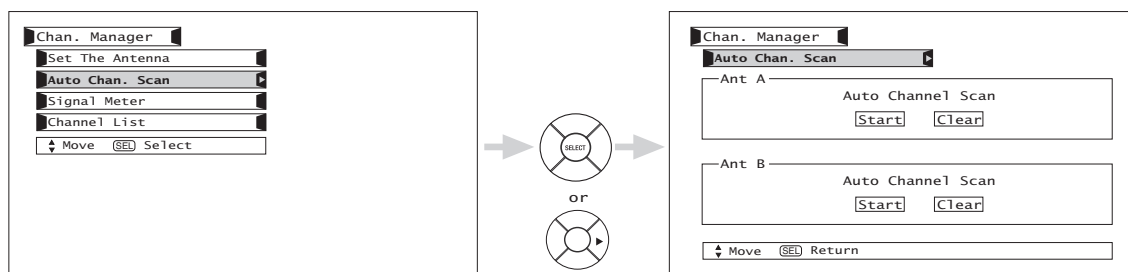


Press CURSOR PAD ▲, ▼ to highlight function, the press the SELECT button or CURSOR PAD to select.  
Press the EXIT button to quit or select SET THE ANTENNA to return to the previous menu.

**NOTE:** When a CableCARD is installed, antenna settings will be set automatically to “Connect Cable to Ant A only”.

## Auto Channel Scan

This feature will automatically store active Analog and Digital channels in Auto Channel Scan memory.



Press CURSOR PAD ▲ or ▼ to highlight Ant A or Ant B.  
Press CURSOR PAD ◀ or ▶ to highlight the Start or Clear option.  
Press the SELECT button to start Auto Channel Scan.

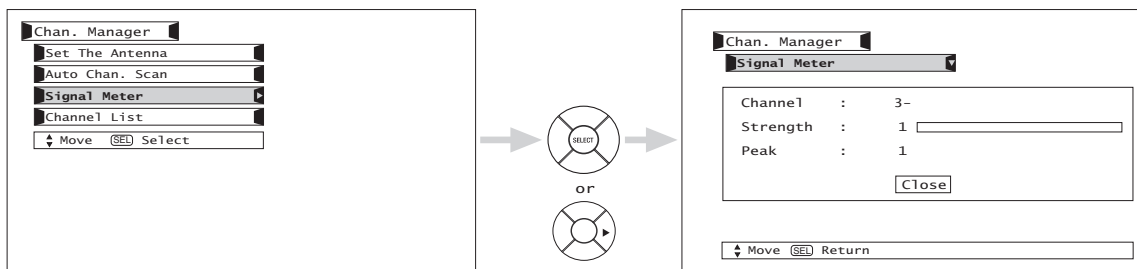
**NOTE:** When a CableCARD is installed, Auto Channel Scan will not be available since channels will be fixed based on what was agreed upon by you and your cable operator.



# CHANNEL MANAGER

## 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.

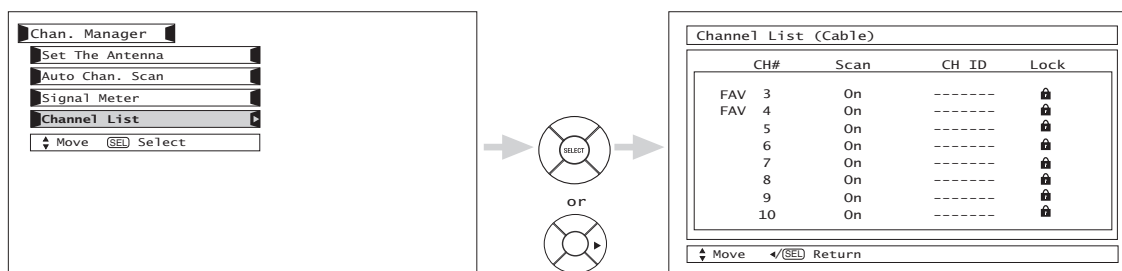


Use the CURSOR PADS and the SELECT button to highlight and select “close” to exit.

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

## 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.



Use the CURSOR PADS to navigate the Channel List.

Press the CURSOR PAD (▲ or ▼) to select On or Off on the Scan column.

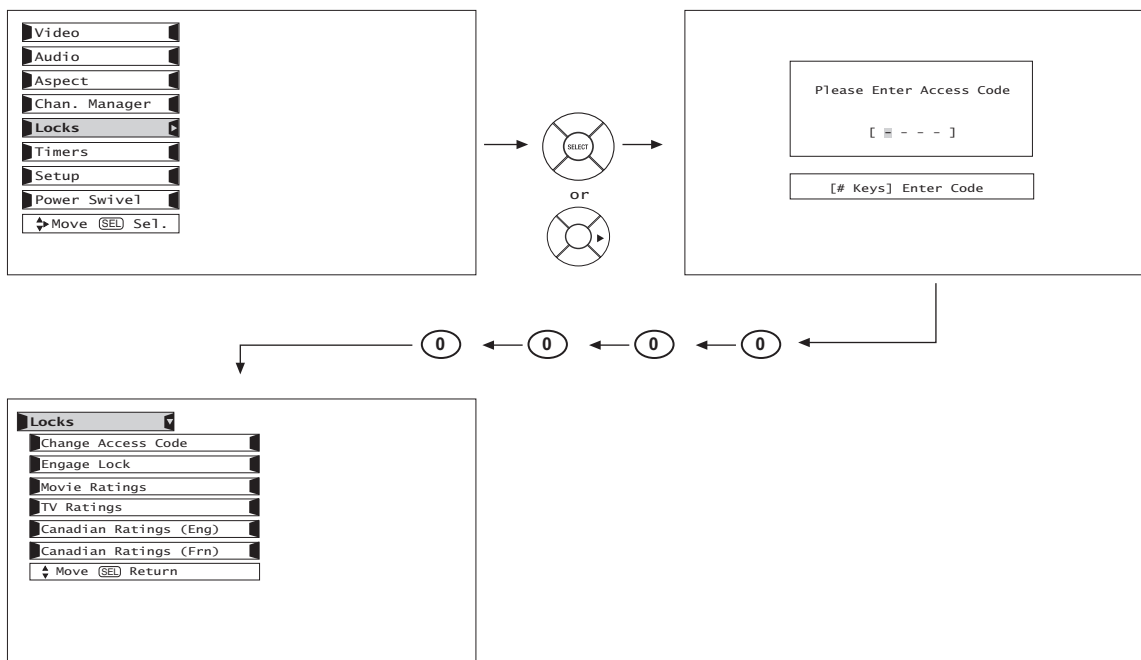
Press the EXIT button to return to normal viewing.

**NOTE:** When a CableCARD is installed, the Channel List will be dependent on channels agreed upon by you and your cable operator.

## Locks

This function will block out the picture and sound of the selected channel or video input. It can also be used to keep the TV from being viewed for a scheduled time period that you set.

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.



Use the CURSOR PAD ▲ or ▼ to highlight function and then press the SELECT button or CURSOR PAD ► to select some option of the LOCKS menu.

To change the access code number, select CHANGE ACCESS CODE. Enter a new four digit number.

Select CHANGE ACCESS CODE to change the factory preset code (0000) to your preference.

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

When SET CHANNEL LOCK is turned on (when option box is checked “✓”), the picture and sound for the chosen channel will be blocked out.

When SET INPUT LOCK is turned on (when option box is checked “✓”), the picture and sound for all video inputs and the picture and sound for channels 3, 4 will be blocked out.

When FRONT PANEL LOCK is turned on (when option box is checked “✓”), 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 67).

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 68).

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 69-70).

If you forget your access code, use the factory code 7777 to erase your key number. This will reset the access code number back to the factory preset 0000.

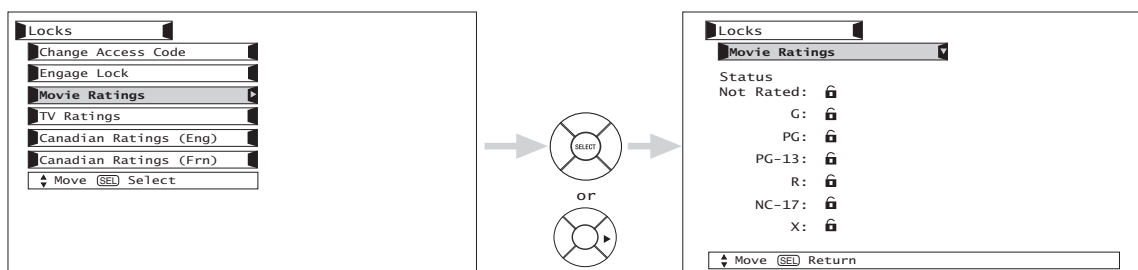
Press EXIT to quit the menu.

**NOTE:** If MOVIE/TV Ratings Lock function settings are ON, SURF will be deactivated.

# LOCKS

## Movie Ratings

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



Use the CURSOR PAD ▲ 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.

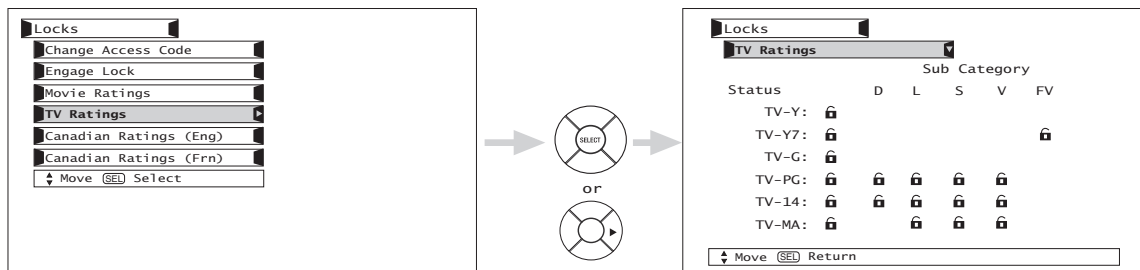
## Motion Picture Ratings Table

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

- NOTES:**
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 LCD 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 PAD ▲, ▼, ◀ and ▶ to highlight the category that you want to block. Press SELECT to block the TV RATINGS that you have selected. Press EXIT to quit the menu or select TV RATINGS to return to the previous menu.

## TV Parental Guide Ratings Table

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

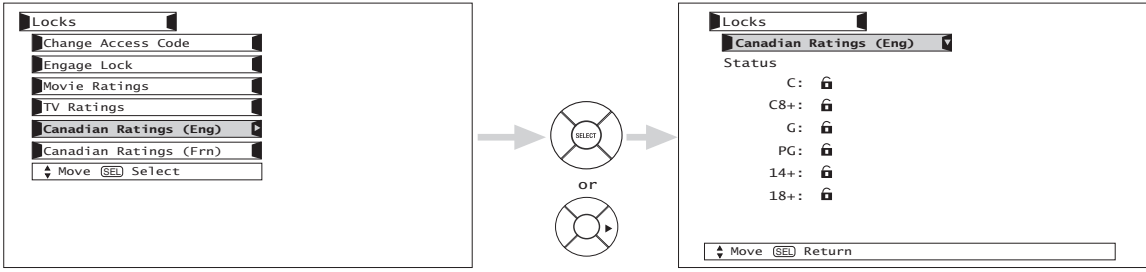
## NOTES:

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 LCD 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.

# LOCKS

## 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 PAD ▲ or ▼ to select the CANADIAN RATINGS (Eng) category that you want to block. Press SELECT to set 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. Press EXIT to quit menu or select CANADIAN RATINGS (ENG) to return to the previous menu.

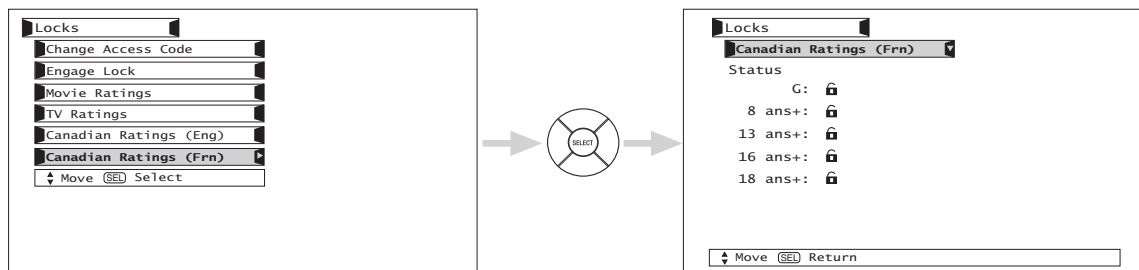
### Canadian Ratings English Table

C	<b>Programming intended for children under age 8</b> - Violence Guidelines: Careful attention is paid to themes, which could threaten children's sense of security and well-being. There will be no realistic scenes of violence. Depictions of aggressive behaviour will be infrequent and limited to portrayals that are clearly imaginary, comedic or unrealistic in nature. Other Content Guidelines: There will be no offensive language, nudity or sexual content.
C8+	<b>Programming generally considered acceptable for children 8 years and over to watch on their own</b> - Violence Guidelines: Violence will not be portrayed as the preferred, acceptable, or only way to resolve conflict; or encourage children to imitate dangerous acts which they may see on television. Any realistic depictions of violence will be infrequent, discreet, of low intensity and will show the consequences of the acts. Other Content Guidelines: There will be no profanity, nudity or sexual content.
G	<b>General Audience</b> - Violence Guidelines: Will contain very little violence, either physical or verbal or emotional. Will be sensitive to themes which could frighten a younger child, will not depict realistic scenes of violence which minimize or gloss over the effects of violent acts. Other Content Guidelines: There may be some inoffensive slang, no profanity and no nudity.
PG	<b>Parental Guidance</b> - Programming intended for a general audience but which may not be suitable for younger children. Parents may consider some content inappropriate for unsupervised viewing by children ages 8-13. Violence Guidelines: Depictions of conflict and/or aggression will be limited and moderate; may include physical, fantasy, or supernatural violence. Other Content Guidelines: May contain infrequent mild profanity, or mildly suggestive language. Could also contain brief scenes of nudity.
14+	<b>Programming contains themes or content which may not be suitable for viewers under the age of 14</b> - Parents are strongly cautioned to exercise discretion in permitting viewing by pre-teens and early teens. Violence Guidelines: May contain intense scenes of violence. Could deal with mature themes and societal issues in a realistic fashion. Other Content Guidelines: May contain scenes of nudity and/or sexual activity. There could be frequent use of profanity.
18+	<b>Adult</b> - Violence Guidelines: May contain violence integral to the development of the plot, character or theme, intended for adult audiences. Other Content Guidelines: May contain graphic language and explicit portrayals of nudity and/or sex.

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 PAD ▲ or ▼ to highlight the category that you want to block.

Press SELECT to set 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 automatically blocked.

Press EXIT to quit menu or select the CANADIAN RATINGS (FRN) to return to the previous menu.

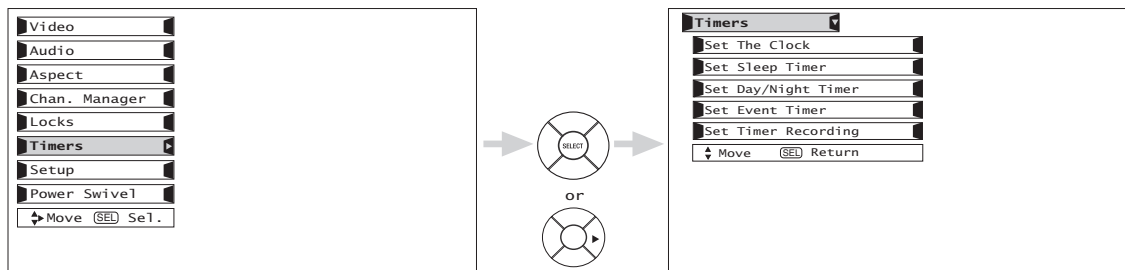
### Canadian Ratings French Table

G	<b>General</b> - 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 +	<b>8 + General - Not recommended for young children</b> - 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 +	<b>Programming may not be suitable for children under the age of 13</b> - 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 +	<b>Programming is not suitable for children under the age of 16</b> - Contains frequent scenes of violence or intense violence.
18 ans +	<b>Programming restricted to adults</b> - Contains constant violence or scenes of extreme violence.

# TIMERS

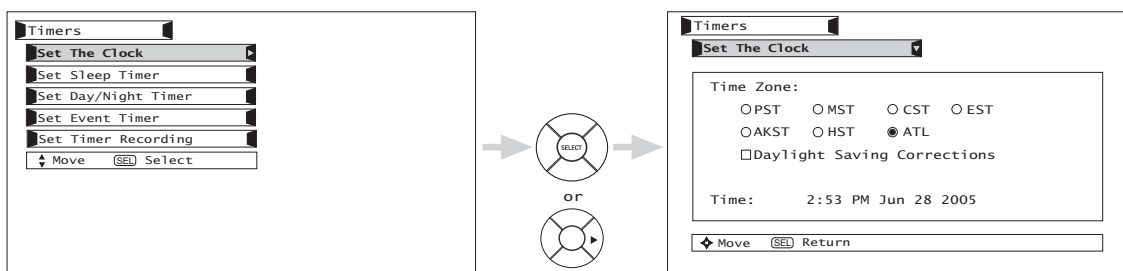
## Timers

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



## Set The Clock

The Clock must be adjusted before you can use the “Set Event Timer” or Day/Night Timer” feature.



Use the CURSOR PAD ▲, ▼, ◀ and ▶ to highlight the chosen Time Zone settings.

Press the SELECT button to select.

If you observe daylight savings, use CURSOR PAD to highlight “Daylight Saving Correction” and press the SELECT button to select.

Use the CURSOR PAD ▲, ▼, ◀, ▶ to highlight the current time (hour and minute), AM or PM, Month, Day, and Year.

Use the CURSOR PAD ▲, ▼ to adjust settings.

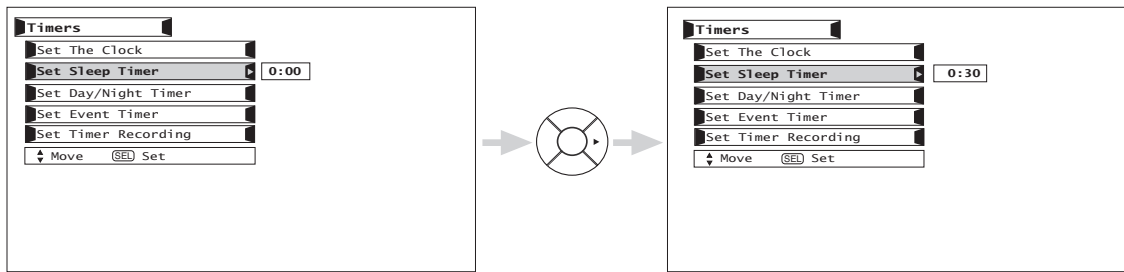
Press the SELECT button to set the Time and Date.

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

**NOTES:** When “Daylight Saving Correction” is checked “✓”, the TV will automatically calculate the clock adjustment for Daylight Saving.

## Set Sleep Timer

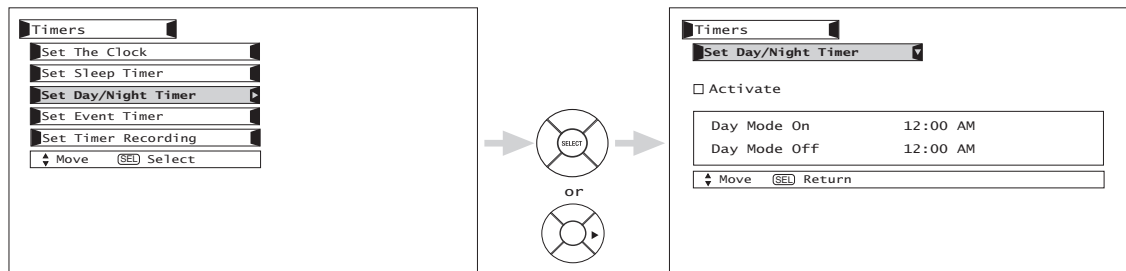
Select this feature to set your Sleep Timer from 30 minutes to 3 hours (30 minute increments).



Press the CURSOR PAD ► repeatedly to set your Timer from 0:00, 0:30, 1:00, 1:30, 2:00, 2:30 and 3:00.  
Press the EXIT button to quit or select SET THE SLEEP TIMER to return to the previous menu.

## Set Day/Night Timer

Select this feature to activate and set your TV's Day/Night Picture Mode automatically.



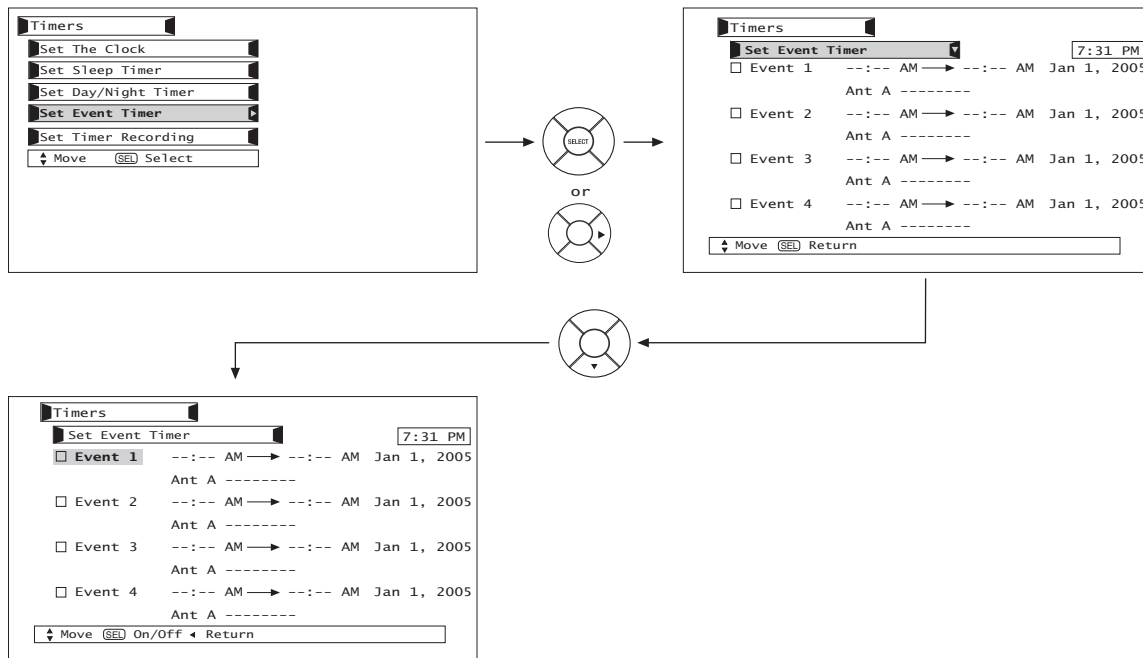
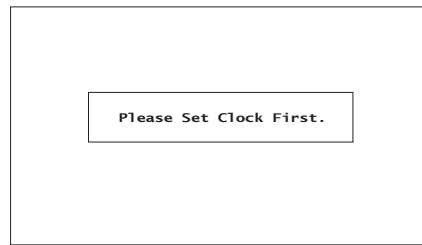
Use the CURSOR PADS and the SELECT button to activate the Day/Night Timer.  
Use the CURSOR PADS to select Day Mode On and to set its timer.  
Use the CURSOR PADS to select Day Mode Off and to set its timer.  
Press the EXIT button to quit or select SET THE DAY/NIGHT TIMER to return to the previous menu.



# TIMERS

## Set Event Timer

This function will automatically operate the 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 71).



- Use CURSOR PAD ▲, ▼ to highlight Event 1, Event 2, Event 3 or Event 4.
- Use CURSOR PAD ►, ▲, ▼ to highlight and select START TIME Hour/Minute.
- Use CURSOR PAD ►, ▲, ▼ to highlight and select START TIME AM/PM.
- Use CURSOR PAD ►, ▲, ▼ to highlight and select FINISH TIME Hour/Minute.
- Use CURSOR PAD ►, ▲, ▼ to highlight and select FINISH TIME AM/PM.
- Use CURSOR PAD ► to highlight the MONTH.
- Use CURSOR PAD ▲ to select a MONTH or CURSOR PAD ▼ to select Daily, Weekly - Sunday to Monday. Use CURSOR PAD ▲ to return to MONTH.
- Use CURSOR PAD ►, ▲, ▼ to highlight and select the DAY of the MONTH.
- Use CURSOR PAD ►, ▲, ▼ to highlight and select the YEAR.
- Use CURSOR PAD ►, ▲, ▼ to highlight and select Ant A or Ant B.
- Use CURSOR PAD ►, ▲, ▼ or NUMBER buttons to set the channel the TV will tune into. Press SELECT two times to return and enable the event timer that you have chosen.

A “/” in the box means it is enabled.

**NOTE:**

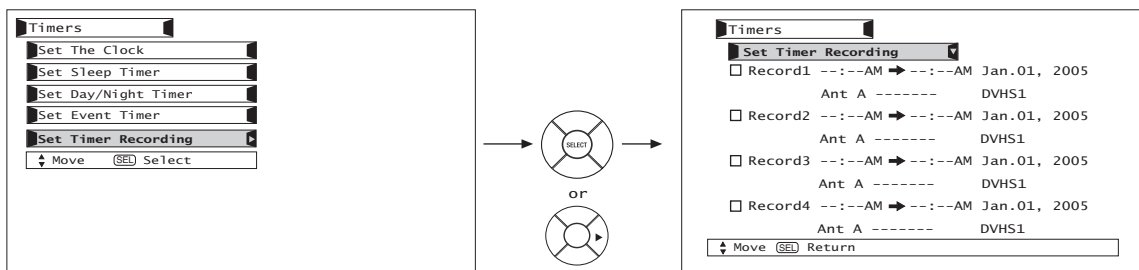
1. When the INFO button is pressed, the Event Timer Icon will only display the current date ON/OFF timer.
2. The Off Timer will only activate if the TV was turned on by the On Timer and no channel selection was made after this time. If you change the channel after the On Timer has been activated, the 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.



**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.

## Set Timer Recording

Select this feature to set and record digital channels using your device connected to the IEEE 1394 jacks (ex. D-VHS).



Use CURSOR PAD ▲, ▼ to highlight Record 1, Record 2, Record 3 or Record 4.

Use CURSOR PAD ►, ▲, ▼ to highlight and select START TIME Hour/Minute.

Use CURSOR PAD ►, ▲, ▼ to highlight and select START TIME AM/PM.

Use CURSOR PAD ►, ▲, ▼ to highlight and select FINISH TIME Hour/Minute.

Use CURSOR PAD ►, ▲, ▼ to highlight and select FINISH TIME AM/PM.

Use CURSOR PAD ► to highlight the MONTH.

Use CURSOR PAD ▲ to select a MONTH or CURSOR PAD ▼ to select Daily, Weekly - Sunday to Monday. Use CURSOR PAD ▲ to return to MONTH.

Use CURSOR PAD ►, ▲, ▼ to highlight and select the DAY of the MONTH.

Use CURSOR PAD ►, ▲, ▼ to highlight and select the YEAR.

Use CURSOR PAD ►, ▲, ▼ to highlight and select ANT C channel # to be recorded.

Use CURSOR PAD ►, ▲, ▼ to highlight and select 1394 Device to be used.

Press the SELECT button to return and highlight Record 1.

Press SELECT button again to enable the Timer Recording that you have chosen.

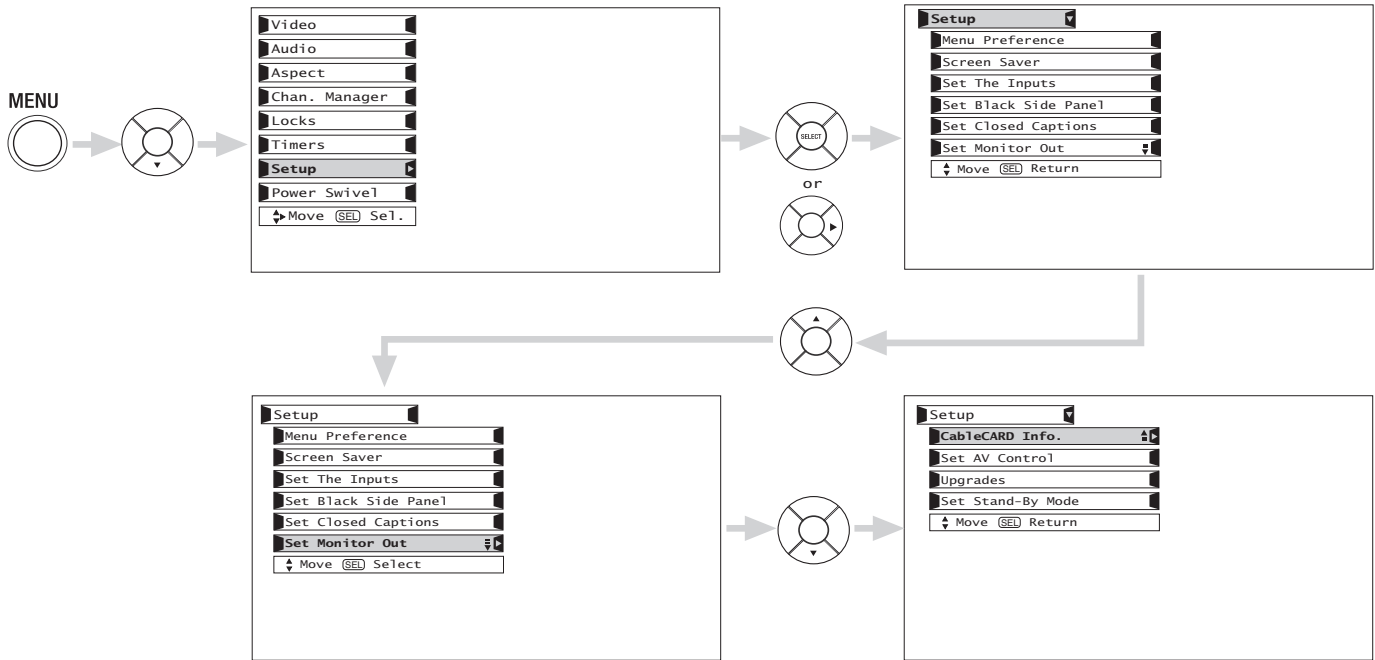
A "v" in the box means it is enabled.

- NOTES:**
1. Set the Time and connect the IEEE1394 devices before using this feature.
  2. The Timer Recording has priority over the Event Timer. If the Timer Recording is set at the same time as the Event Timer or overlaps with each other, the TV will only perform the function of the Timer Recording.

# SETUP

## Setup

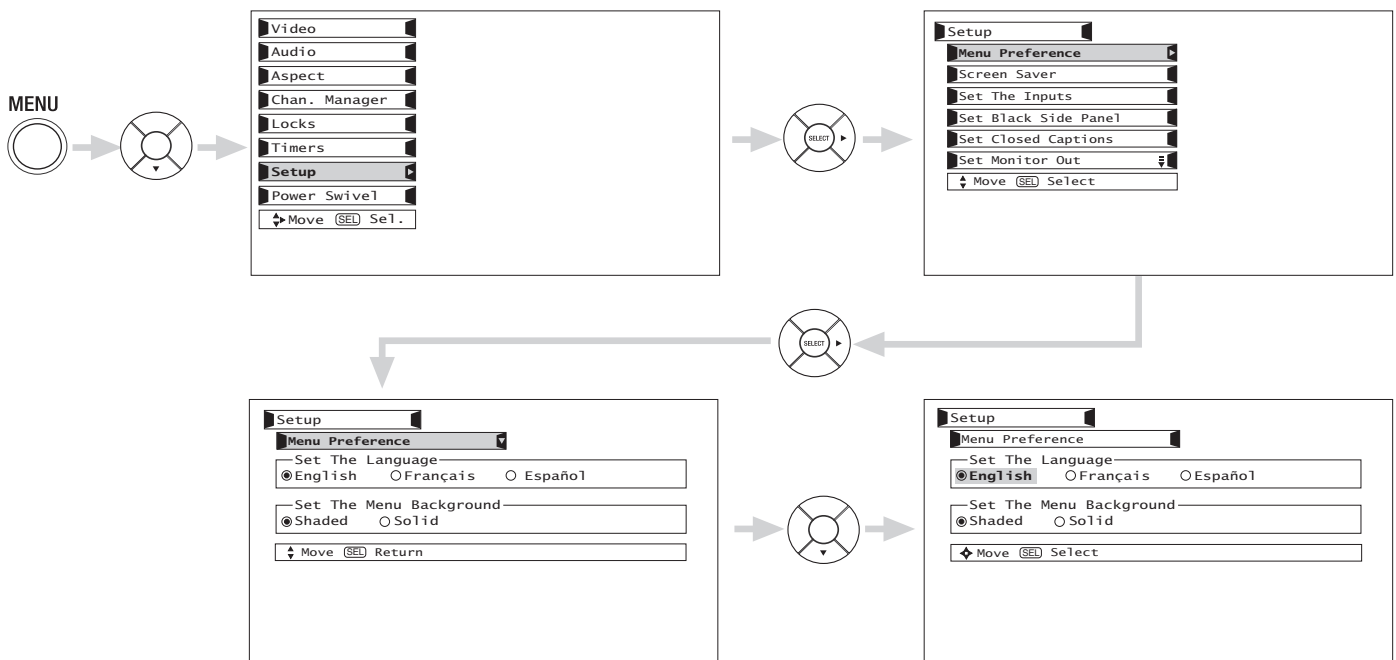
Select SETUP when setting up your TV for the first time. Use the CURSOR PAD ▲ or ▼ on the remote to highlight the function desired.



Use CURSOR PAD (▲,▼,◀ and ▶) to select the sub-menu of your choice. Press the SELECT button to select.

## Menu Preference

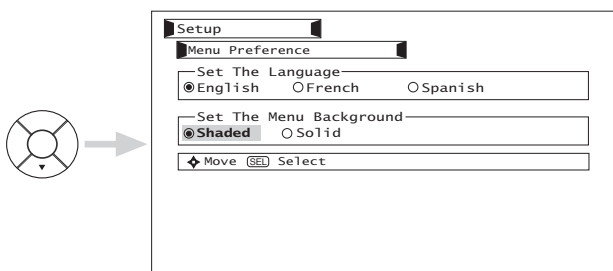
This feature will allow you to select any one of three different languages for all on-screen displays.



Use CURSOR PAD ◀ or ▶ to highlight the language of your choice. Press SELECT to select the highlighted language. Press EXIT to quit the menu or select MENU PREFERENCE to return to the previous menu.

## Menu Background

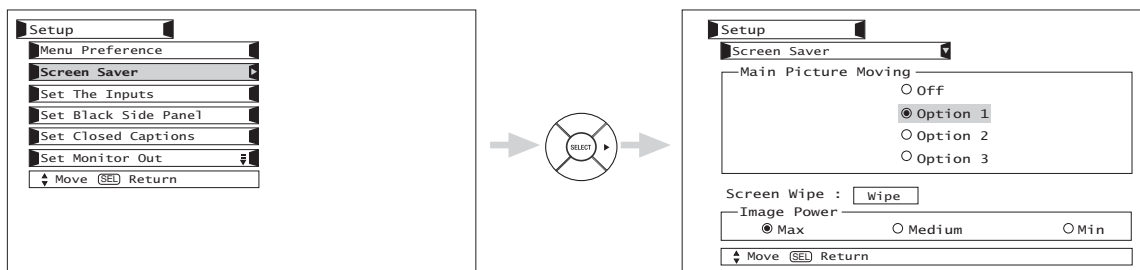
This function allows you to choose from two menu backgrounds.



Use CURSOR PAD ◀ or ▶ to highlight SET THE MENU BACKGROUND (shaded or solid), and the SELECT button to select the setting. Press EXIT to quit the menu or select MENU PREFERENCE to return to the previous menu. Select SOLID and background is visible (no picture can be seen behind menu screen), select SHADED and a light background is visible.

## Screen Saver

Continuous on-screen displays such as video games, stock market quotations, computer generated graphics, and other fixed (non-moving) patterns can cause permanent damage to the LCD Television. Use the SCREEN SAVER feature to hide screen burn.



Use CURSOR PAD ▲ or ▼ to highlight Screen Saver's Main Picture Moving options. Press down on CURSOR PAD to select and EXIT to quit.

### Option 1

The whole picture will shift every 20 minutes by two pixels.

### Option 2

The whole picture will shift every 40 minutes by two pixels.

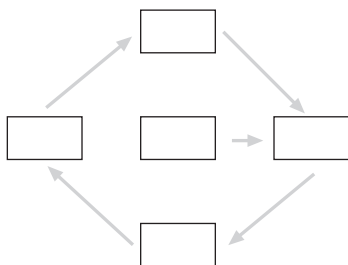
### Option 3

The whole picture will shift every 60 minutes by two pixels.

### Screen Wipe

If pattern mark occurs, use Screen Wipe (White Field Signal) for at least 10 minutes to refresh any damage that may have occurred from a pattern mark. Screen Wipe can resolve pattern mark to a certain degree, if caution is not used, permanent damage may occur. Press the EXIT button to return to normal viewing.

### Screen Saver Picture's Movement



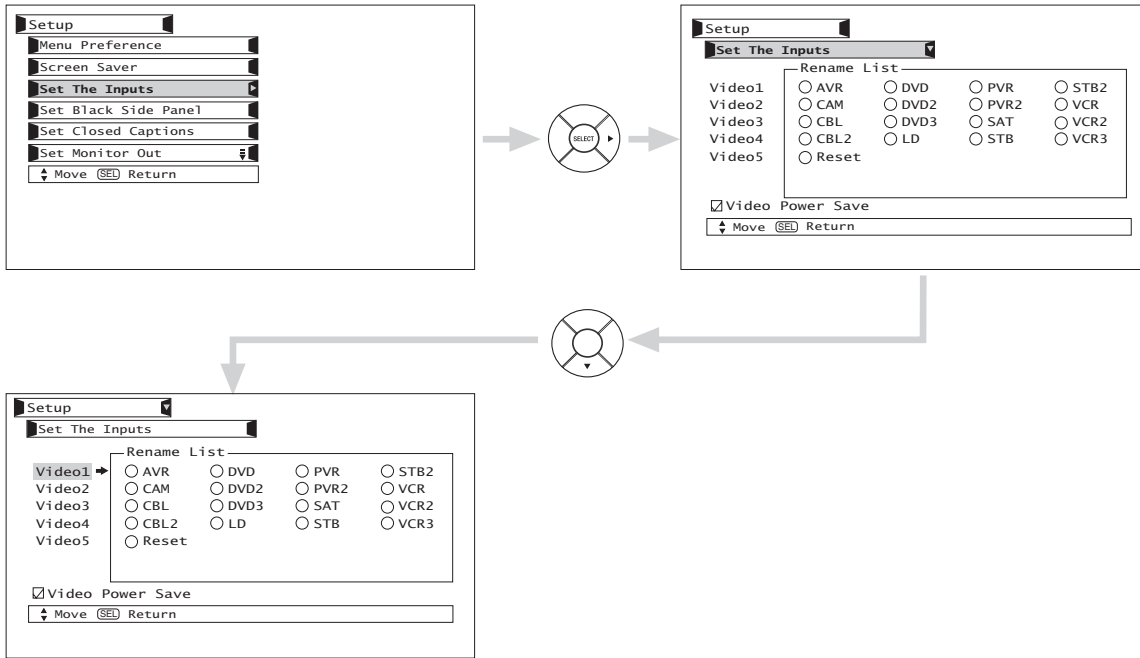
## Image Power

This function allows you to choose Power Consumption reduction.

# SETUP

## Set The Inputs

Use this feature to give a name to any of the five video inputs.



Press CURSOR PAD ▲, ▼ to highlight the name of the video inputs.

Press the CURSOR PAD ► to access the RENAME LIST.

Use the CURSOR PAD to navigate into the RENAME LIST and choose a name to the video input.

Press the SELECT button to select the desired input name.

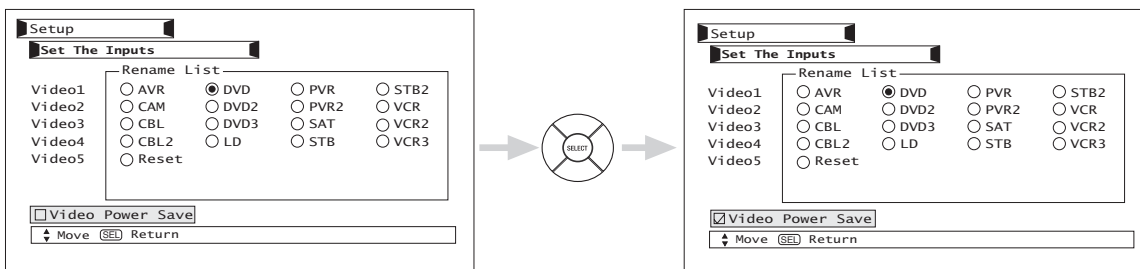
Select RESET to set video names to original factory preset condition.

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

**NOTE:** The video input name will be displayed only when video input is displayed as main picture.

## Video Power Save

Use this feature to reduce power consumption for video input when there is no video input signal. In RGB mode, this feature will always be on.



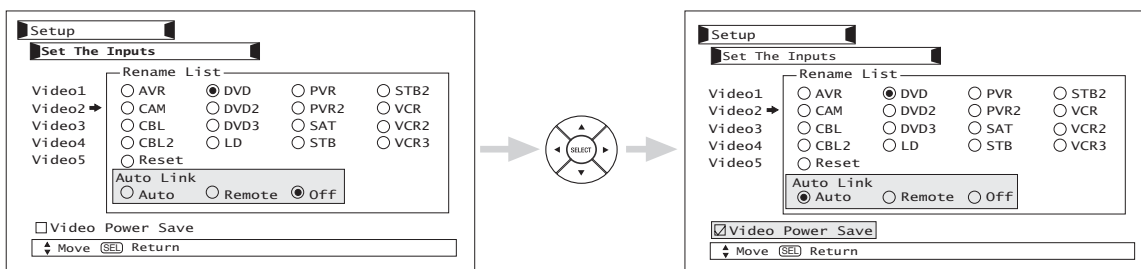
Press CURSOR PAD ▼ to highlight VIDEO POWER SAVE.

Press the SELECT button to select.

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

## Video 2 Auto Link

Use this function to automatically turn the TV on and tune to Video 2 when it detects a video signal to input 2.



Use CURSOR PAD ▲, ▼, ◀ and ▶ then press the SELECT button to change AUTO LINK setting.

When AUTO is selected, the TV will turn on and switch to Video2 automatically, when the Video2 input device is turned on. This is convenient when you want to watch a movie with your VCR, laserdisc player, or DVD player.

When REMOTE is selected, the TV will turn on and switch to Video2 automatically when the Video2 input device is turned on (VCR, laserdisc, or DVD) and any of the buttons on your remote control is pressed.

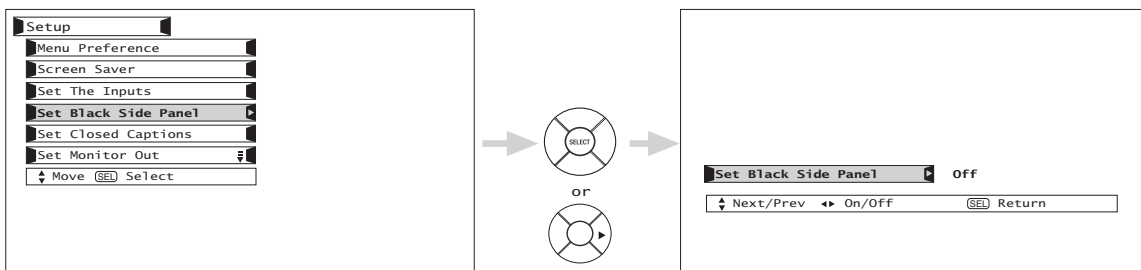
Select Off to disable this function.

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

- NOTES:**
- 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.
  - 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.
  - 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 Black Side Panel

The BLACK SIDE PANEL function turns the gray side bars on/off when watching 4:3 signals in Standard mode.



Press the CURSOR PAD ◀ or ▶ to set to ON or OFF.

Press EXIT to quit menu or select SET BLACK SIDE PANEL to return to the previous menu.

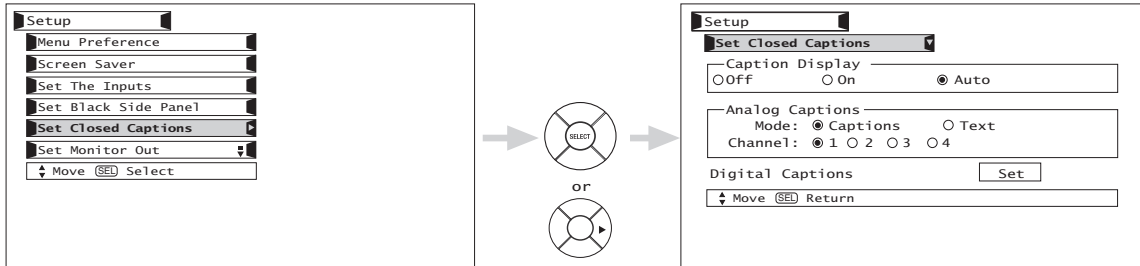
Signal \ Setting	Off	On	Auto 1	Auto 2	Recommended Aspect
NTSC/480i/480p Aspect: 4:3 standard	Gray	Black	Gray	Gray	4x3 Expanded
1080i (4x3 source) Aspect: 16:9 standard	Black	Black	Gray	Gray	4x3 Expanded
1080i (4x3 source with logo on corner) Aspect: 16:9 standard	Black	Black	Black	Gray	4x3 Expanded

- NOTES:**
- To prevent screen burn when watching 4:3 signal, turn off the BLACK SIDE PANEL. It is recommended to watch 4:3 signal with gray side bar.
  - Depending on received signals, some images and Closed Caption displays may be missing when the Black Side Panel is set to Auto 1 or Auto 2.

# SETUP

## 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 **CC** or



**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.

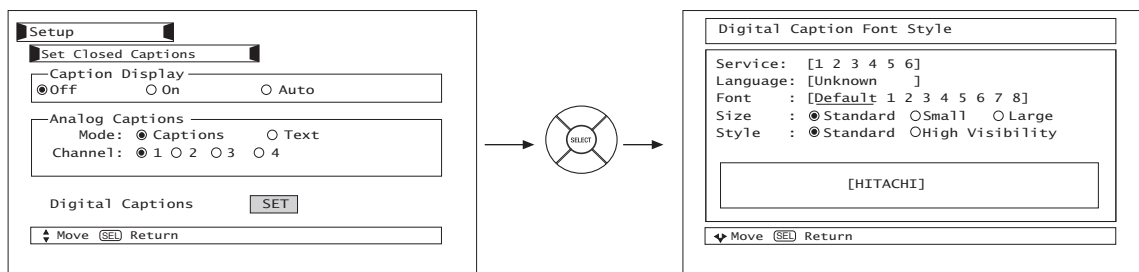
**Caption Mode:** **Captions** is for the program you are viewing.

**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).

Use the CURSOR PAD ▲, ▼, ◀ and ▶ to highlight the function to change then press the SELECT button to select the function. Press EXIT to quit menu or select SET CLOSE CAPTION to return to the previous menu.

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

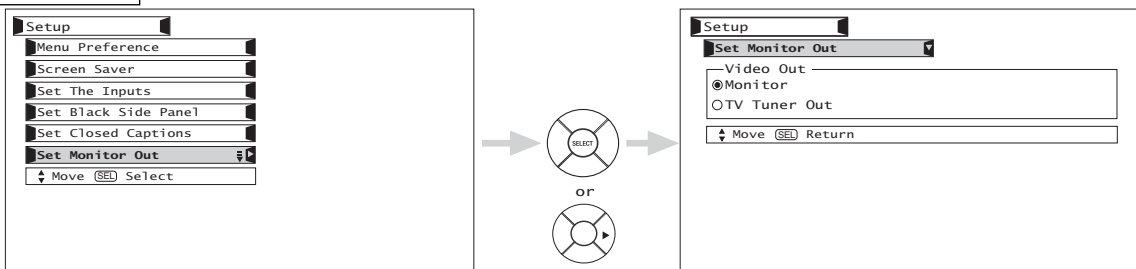


Use the CURSOR PAD ▲, ▼, ◀ and ▶ to highlight desired Digital Captions feature. Press the SELECT button to select desired feature. Press EXIT to quit menu or select SET CLOSE CAPTION to return to the previous menu.

- NOTES:**
1. Depending on the source, some types of digital closed captions may not work with this TV.
  2. CAPTION DISPLAY will not work when viewing a 480p, 720p, or 1080i input via the COMPONENT: Y-P<sub>B</sub>P<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.



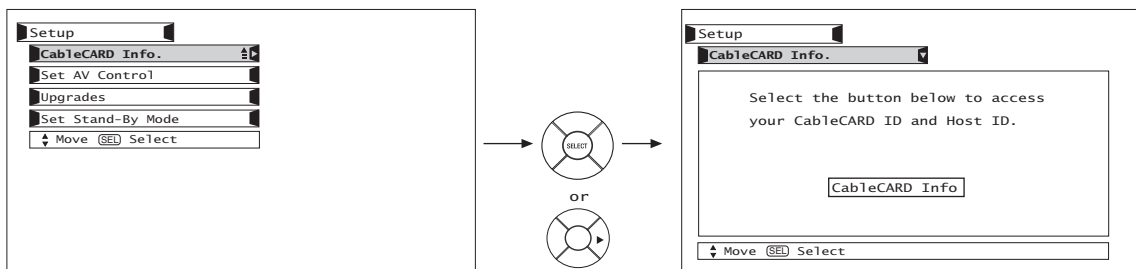
Monitor- Select Monitor to output the audio and video signals of the chosen input source (ANT A, ANT B, VID1-VID5) to a VCR or other AV device.

TV Tuner Out- Select TV Tuner Out to output the audio and video signals of the last watched Antenna Source (ANT A, ANT B).

Use CURSOR PAD ▲ and ▼ to highlight the function to change then press the SELECT button to select the function. Press EXIT to quit menu or select SET MONITOR OUT to return to the previous menu.

## CableCARD Info

Select this feature to access your CableCARD ID and HOST ID. Please have this information ready when you call your cable operator (see also page 13).

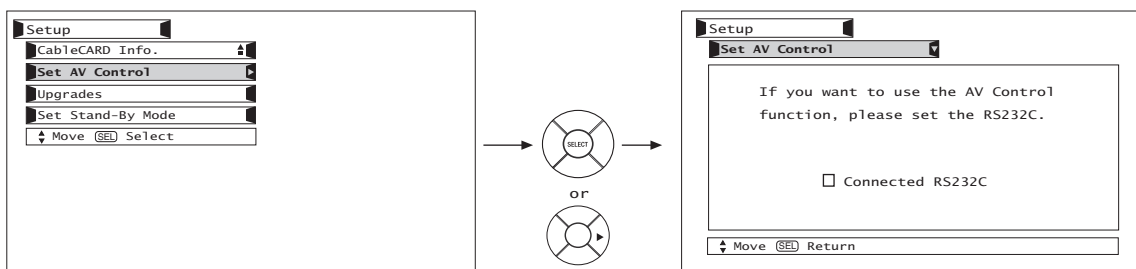


Use the CURSOR PADS and the SELECT button to access the CableCARD INFO. Press EXIT to quit menu or select CableCARD INFO to return to the previous menu.

**NOTE:** This feature will not be available (grayed out) if the CableCARD is not installed properly.

## Set AV Control

This feature will select the AV Control feature. Set this feature if you want to control some of the TV functions from an external home control system.



Use the CURSOR PADS and the SELECT button to check the Connected RS232C box. Press EXIT to quit menu or select SET AV CONTROL to return to the previous menu.

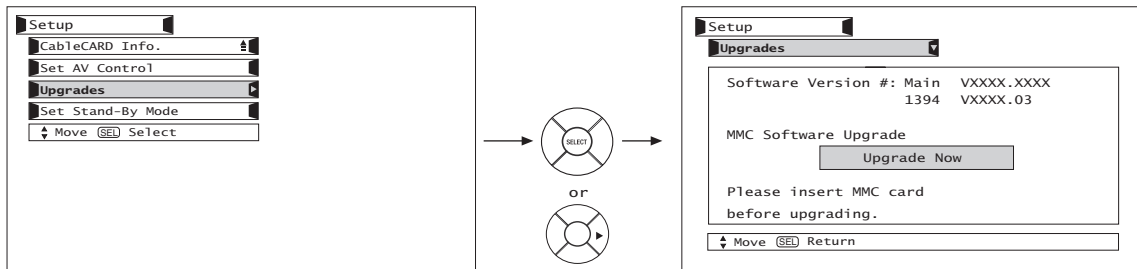
**NOTE:** For use with third party home Audio/Video control systems which are commercially available. Please see your dealer regarding these “non Hitachi” home control systems.



# SETUP

## 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.

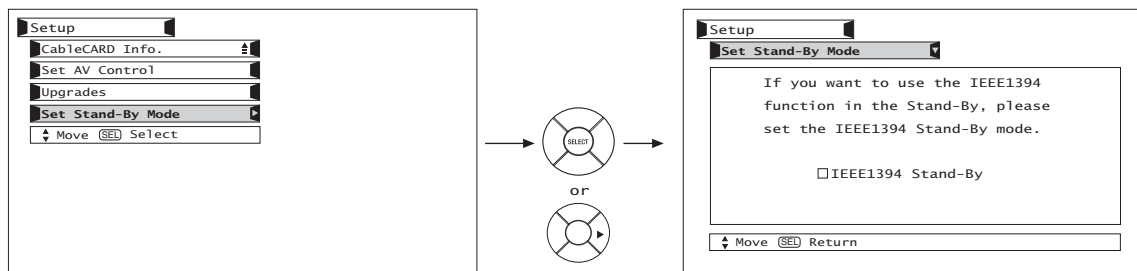


Insert MMC card, then press the CURSOR PAD ▲ or ▼ to highlight “Upgrade Now”. Press the SELECT button to select and start upgrading.

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

## Set Stand-By Mode

This function sets the IEEE1394 in Stand-By Mode to ON or OFF. Certain digital devices have a power save feature, in which the device automatically powers OFF when not in use (sleep mode). Only by setting the IEEE1394 function in Stand-By mode to ON, will the TV be able to control a device that is in sleep mode.

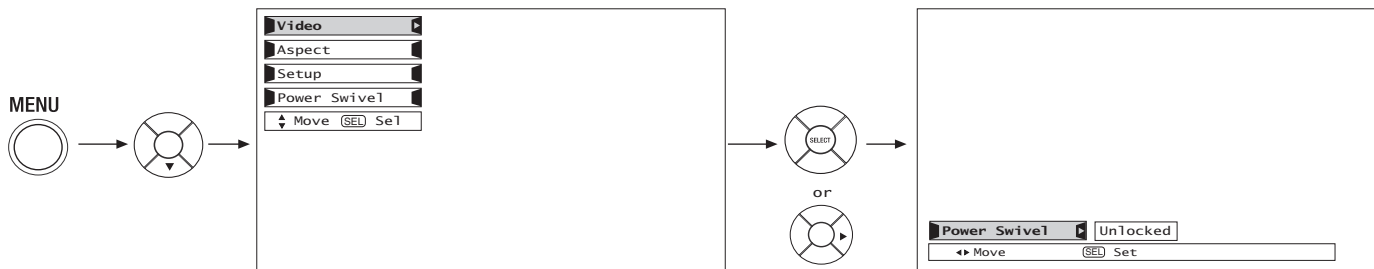


Use the CURSOR PAD ▲ or ▼ to highlight “IEEE1394 Stand-By”. Press the SELECT button to select.

**NOTE:** By turning ON the IEEE1394 function, your TV set will no longer be set for power saving Stand-By mode. The IEEE1394 Stand-By function must be set to OFF to return your TV set to the power saving Stand-By mode.

## Power Swivel

This feature controls the motorized stand. It allows the customer to turn the LCD display left or right using the remote control.



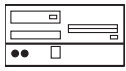
Use the CURSOR PAD ◀ or ▶ to unlock or lock the Power Swivel. Exit OSD menu system before controlling the motorized stand.

Use CURSOR PAD ▶ to rotate the TV to the right.

Use CURSOR PAD ◀ to rotate the TV to the left.

Release the CURSOR PAD to stop rotation.

- NOTES:**
1. The Power Swivel has a maximum turning radius of 30° (left and right).
  2. Do not place any objects on the path of the monitor when using the power swivel feature.
  3. Before using the power swivel feature, please make sure that the path of the monitor is clear of any fingers, hands or any other body parts to avoid causing injury.
  4. When the Picture-in-Picture (PIP) or Freeze mode is ON, the Power Swivel is disabled.

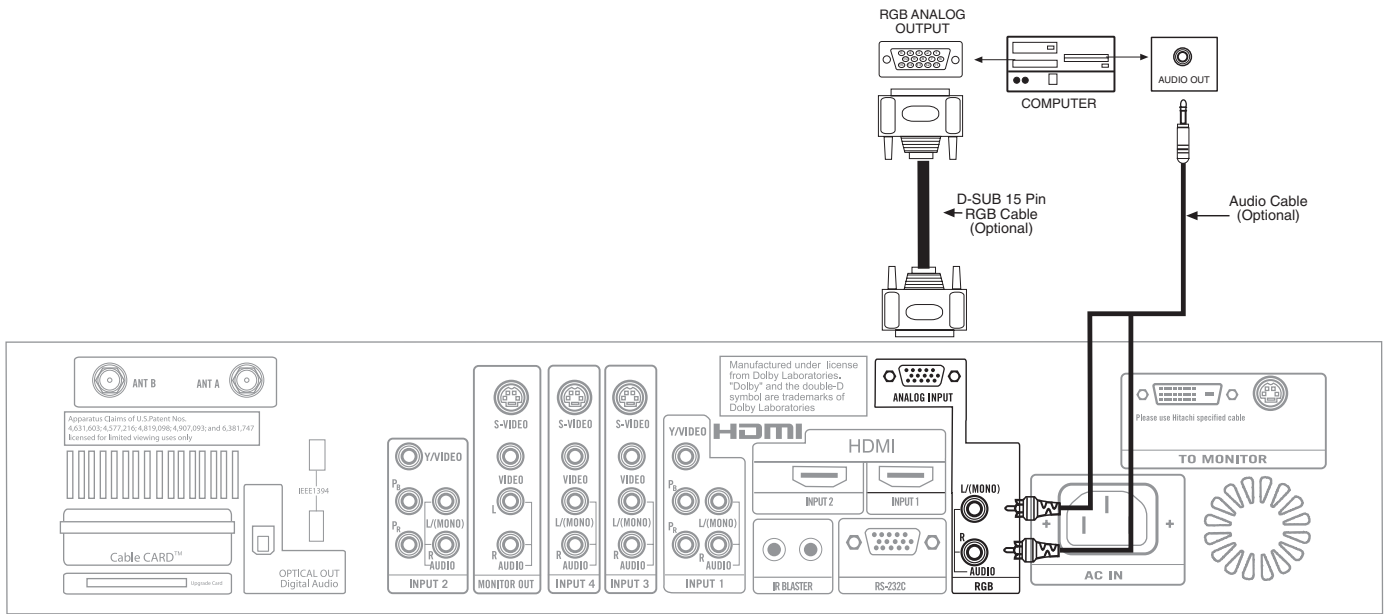


# RGB ON SCREEN DISPLAY

**IMPORTANT:** TURN OFF THE AVC BOX, THE DISPLAY MONITOR AND THE EXTERNAL COMPONENT BEFORE CONNECTING OR DISCONNECTING ANY CABLES.

USING THE RGB INPUT

1. AVC rear panel connection to an external component with an analog RGB output.



This LCD Television can automatically detect and display the signal format below.

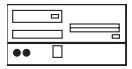
1. RGB input signal.  
This LCD Television can accept the following signal formats.

**Recommended Signal List**

No.	Signal Mode			Horizontal Frequency (kHz)
	Signal Name	Resolution	Vertical Frequency (Hz)	
1	VESA	640 x 400	70.09	31.47
2	VGA	640 x 480	59.94	31.47
3	VESA	640 x 480	72.81	37.86
4		640 x 480	75.00	37.50
5		800 x 600	56.25	35.16
6		800 x 600	60.32	37.88
7		800 x 600	72.19	48.08
8		800 x 600	75.00	46.88
9		1024 x 768	60.00	48.36
10		1024 x 768	70.07	56.48
11		1024 x 768	75.03	60.02
12		1280 x 1024	60.02	63.98
13	1280 x 1024	75.03	79.98	
14	1080i	1080	59.94	33.72
15	720p	720	59.94	44.96
16	480p	480	59.94	31.47

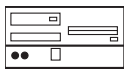
**NOTE:** 1. Dots correspond to the true resolution in Real Mode of aspect ratio, when you select VGA 640 x 480 signal from the table above. (One dot corresponds to one pixel).  
2. Always reset AUTO ADJUST feature when setting new display setting or when changing to a new computer (see page 89).

# RGB ON SCREEN DISPLAY



2. The new setting (horizontal position, vertical position, clock, and phase) of the signal will be stored. The monitor can store up to 13 settings in addition to the 15 pre-set signal timing. Any additional new settings (more than 15) will over-write the first user's setting, second setting and so on.
3. Operation in RGB mode in relation to TV functions are shown below.

No.	Item	Operation
1	Video Control	Contrast and brightness work separately, however, other picture controls are not available.
2	AV Net	Available.
3	Audio Settings	Not available.
4	Closed Caption	Not available.
5	Clock	Clock indication is shown.
6	Monitor Out	Both picture and audio are not available.
7	Lock	Not available.
8	Auto Link	Not Available.



## RGB ON SCREEN DISPLAY

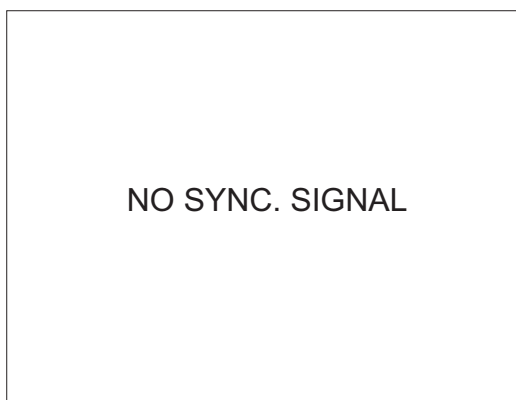
4. Other signal formats may not be displayed correctly. Use AUTO ADJUST to automatically adjust the horizontal position, vertical position, clock, and phase. We recommend you use a signal, which has more than 50% of amplitude of white area at each corner of the picture, when performing Auto Adjustment. It may not work correctly with dark picture (see page 85).

5. Input signal level.

SYNC	TTL level H/V separate signal
RGB INPUT	0.7Vpp/1.0Vpp

**NOTE:** Interlaced signal is not available.

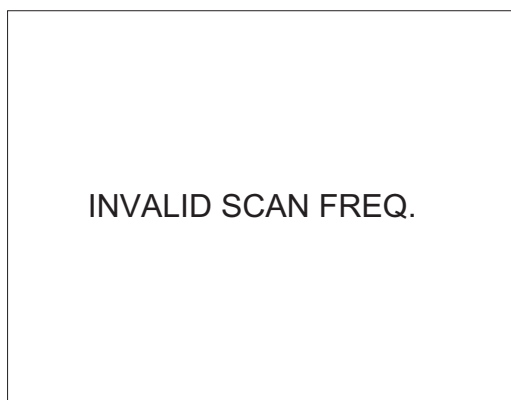
6. RGB input signal will not appear at all when receiving a signal which is not supported by this product. If the setting is wrong, the Display Monitor will display:



NO SYNC. SIGNAL

Without sync

POWER SAVING mode will come on after 10 seconds.



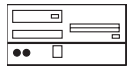
INVALID SCAN FREQ.

Either horizontal or vertical frequency is inappropriate or out of range.

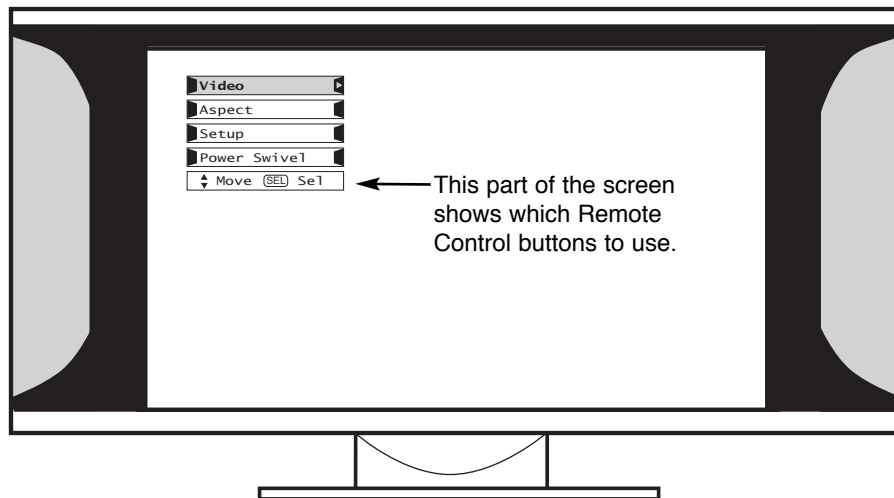
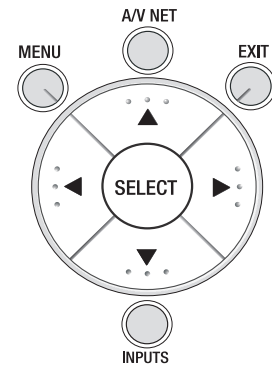
INVALID SCAN FREQ. will disappear after 60 seconds.

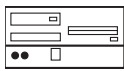
**NOTE:** 1. If the Display Monitor cannot display a signal, please try AUTO ADJUST to display the signal. This is used to initialize the MultiScan Converter.  
 2. Not all signals have AUTO ADJUST feature (see page 85).  
 3. Set-Top-Box and DVD player input signal does not have AUTO ADJUST feature.

# RGB ON SCREEN DISPLAY



1. Press the MENU button, then use the CURSOR PAD ▲ or ▼ and SELECT button or CURSOR PAD ► on the remote control to display the different features in RGB MODE.
2. Press EXIT on the remote control to quickly exit from a menu.

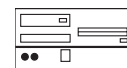




# RGB ON SCREEN DISPLAY

Video	Contrast	Change the contrast between black and white levels in the picture.
	Brightness	Adjust overall picture brightness.
	Color Temperature	Select between HIGH (9,300K), MEDIUM (7,500K), STANDARD (6,500K), or Black/White (5,400K).
	Enhancer	Enhance picture details (Off, Low, Medium or High).
	Back Light	Adjust overall back light illumination.
	Reset	Recall the factory preset data of the RGB Video Settings.
Aspect	Real	Aspect as it is presented in its true resolution.
	Normal	Aspect in 4:3 standard.
	Full	Aspect in 16:9 standard.
	WXGA Mode	Select WXGA Settings
Setup	Auto Adjust	Automatically adjust the geometry to fit the screen.
	Horizontal Position	Adjust horizontal position.
	Vertical Position	Adjust vertical position.
	Horizontal Clock	Adjusts the dot clock frequency to reduce the vertical stripe.
	Clock Phase	Adjusts the phase to correct blurred or unstable images.
	Reset	Recall the factory preset data of the RGB setup settings.
	Input Level	Set the preferred input signal level.
Black Side Panel	Turns the gray side bars ON/OFF when watching Aspect in Real and Normal signals in standard mode.	
Power Swivel	Unlock	Power Swivel enabled. Controls motorized stand.
	Lock	Power Swivel disabled.

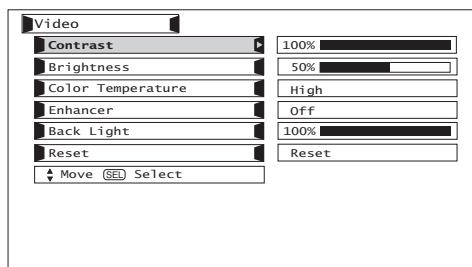
# RGB ON SCREEN DISPLAY



**VIDEO ADJUSTMENTS** The following adjustments are independent of the TV mode:

- Press MENU in RGB mode for on screen display. Use the CURSOR PAD ▲ or ▼ to select VIDEO and then press SELECT or CURSOR PAD ► to be inside the video menu
- Press CURSOR PAD ▲ or ▼ to highlight the item to be adjusted.
- Press SELECT or CURSOR PAD ► to select the highlighted item. This feature allows you to adjust the contrast in RGB mode.

## CONTRAST

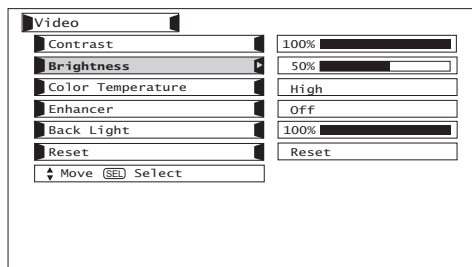


Use CURSOR PAD ◀ or ▶ to adjust contrast. Press MENU button to return to RGB MODE MENU or EXIT to quit.

**NOTES:** 1. Contrast can be set up to 110% if CURSOR PAD ► is pressed and held for more than 3 seconds.  
2. See TV contrast feature for additional information regarding contrast.

## BRIGHTNESS

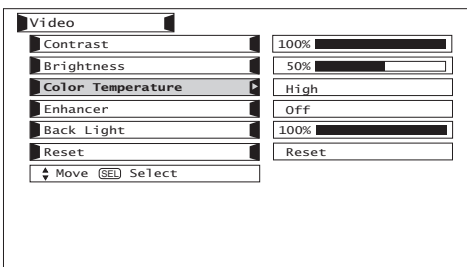
This feature allows you to adjust brightness in RGB Mode.



Use CURSOR PAD ◀ or ▶ to adjust brightness. Press MENU button to return to RGB MODE MENU or EXIT to quit.

## COLOR TEMPERATURE

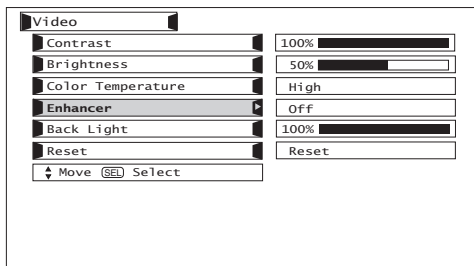
Use the CURSOR PAD ◀ or ▶ to change the COLOR TEMPERATURE. Set to HIGH for a cooler picture with more blue (1,200K), set to MEDIUM for more natural color (9,300K), or set to STANDARD for accurate color (6,500K), or Black/White (5,400K).



Press MENU button to return to RGB MODE MENU or EXIT to quit.

## ENHANCER

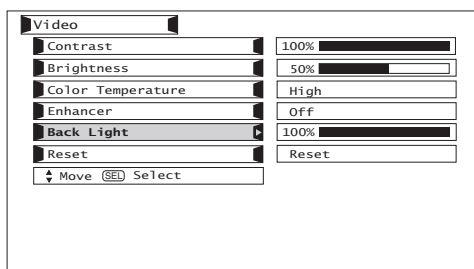
Enhances the picture detail.



Use CURSOR PAD ◀ or ▶ to set ENHANCER Off, Low, Medium or High. Press the MENU button to return to RGB MODE MENU or EXIT to quit.

## BACK LIGHT

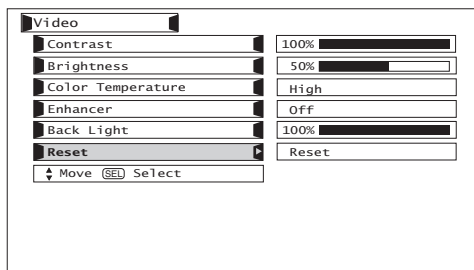
Adjusts the overall back light illumination.



Use CURSOR PAD ◀ or ▶ to adjust Back Light. Press the MENU button to return to RGB MODE MENU or EXIT to quit.

## RESET

Set CONTRAST, BRIGHTNESS, COLOR TEMPERATURE, and ENHANCER to factory preset condition.

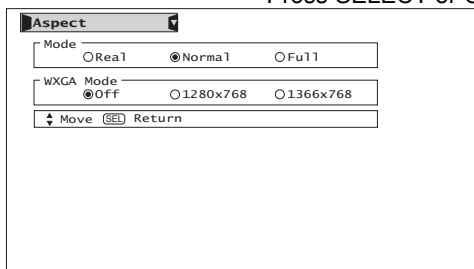


Use CURSOR PAD ◀ or ▶ to highlight Reset. Press the SELECT button to RESET to factory preset settings. Press the MENU button to return to RGB MODE MENU or EXIT to quit.

## ASPECT

Use this function to select the picture format aspect ratio while using RGB input.

- Press the MENU button in RGB mode.
- Use the CURSOR PAD ▲ or ▼ to select ASPECT.
- Press SELECT or CURSOR PAD ▶ to access ASPECT menu.



Use CURSOR PADS to highlight chosen selections. Press SELECT button to set and EXIT button to quit.

### Recommendation

Input Signal	Mode	WXGA Mode
XGA	Normal	Off
WXGA (1280x768)	Full	1280x768
WXGA (1366x768)	Full	1366x768

### RGB ASPECT DISPLAY MODE.

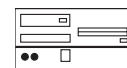
ASPECT MODE AVAILABILITY	RGB (Analog) INPUT SIGNAL					
	Others	SVGA/XGA	VGA	480p	720p	1080i
	X	REAL	REAL	REAL(1)	X	X
	NORMAL	NORMAL	NORMAL	NORMAL(1)	X	X
	FULL	FULL	FULL	FULL(1)	FULL(2,3)	FULL(2,3)

For numbers in ( ), please see corresponding note below.

- NOTES:**
1. Lack of raster can be seen in RGB when a 480p signal is input.
  2. AUTO ADJUST function (see page 89) is not available in 720p, 1080i, and 480p input signal.
  3. FULL aspect mode, only 95% of information can be displayed (5% is treated as overscan).



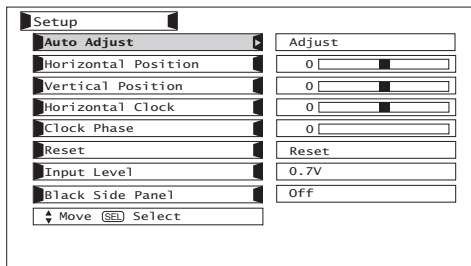
# RGB ON SCREEN DISPLAY



## AUTO ADJUST

HORIZONTAL POSITION, VERTICAL POSITION, HORIZONTAL CLOCK and CLOCK PHASE for current RGB format are adjusted automatically.

- Press the MENU button in RGB mode.
- Use the CURSOR PAD ▲ or ▼ to select AUTO ADJUST.
- Press SELECT or CURSOR PAD ► to access AUTO ADJUST menu.

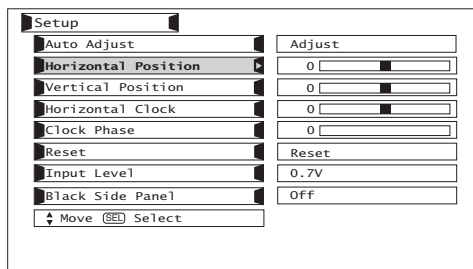


Use CURSOR PAD ◀ or ▶ cursors to highlight adjust. Press SELECT to select AUTO ADJUST.

- NOTES:**
- Press SELECT to AUTO ADJUST the RGB mode.
  - The other functions do not operate while AUTO ADJUST is in progress.
  - Allow the LCD TV to warm up for 20 minutes before performing AUTO ADJUST.
  - Select a bright image for display while AUTO ADJUST takes place.
  - If AUTO ADJUST terminates unsuccessfully, try AUTO ADJUST again. If AUTO ADJUST fails several times in succession, try using manual adjustment to adjust Vertical Frequency, Aspect Ratio, Timing Frequency and Picture.
  - Always reset AUTO ADJUST when setting new display setting or when changing to a new

## H POSITION

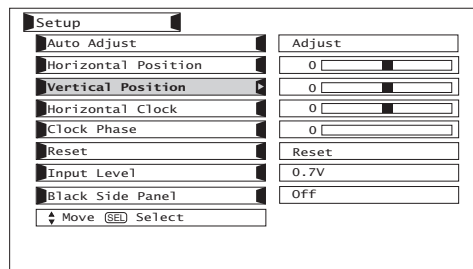
This feature allows you to adjust the horizontal position of the display.



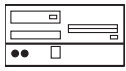
Use CURSOR PAD ◀ and ▶ to adjust the horizontal position. Press the MENU button to return to RGB Mode menu. Press EXIT to quit.

## V POSITION

This feature allows you to adjust the vertical position in RGB mode.

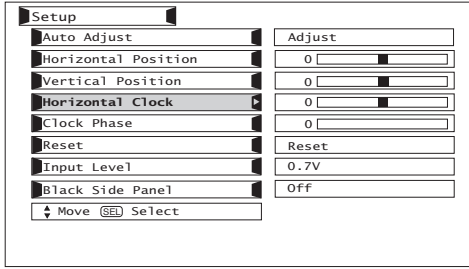


Use CURSOR PAD ◀ and ▶ to adjust the vertical position. Press MENU button to return to RGB Mode menu. Press EXIT to quit.



## HORIZONTAL CLOCK

Adjusts the pixel clock frequency to reduce the vertical stripe.

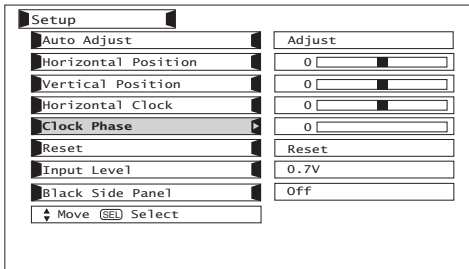


Use CURSOR PAD ◀ and ▶ to adjust the horizontal clock. Press the MENU button to return to previous menu. Press EXIT to quit.

**NOTE:** Due to varying signal content, you may see vertical or horizontal lines bend occasionally in RGB mode. However, this phenomenon is not a defect. It's caused by a lack of picture content due to under-scanning in RGB mode.

## CLOCK PHASE

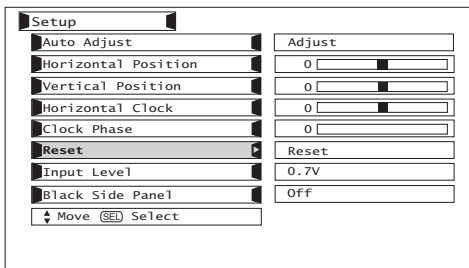
Adjusts the phase to correct blurred or unstable images.



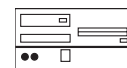
Use CURSOR PAD ◀ and ▶ to adjust the clock phase. Press the MENU button to return to previous menu item. Press EXIT to quit.

## RESET

Set HORIZONTAL POSITION, VERTICAL POSITION, HORIZONTAL CLOCK and CLOCK PHASE to factory preset, for current RGB format.

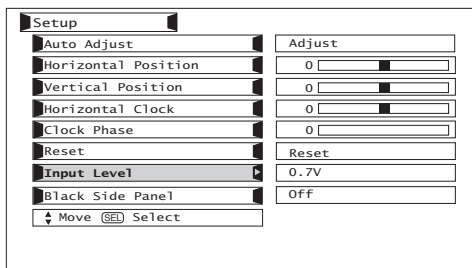


Use CURSOR PAD ◀ or ▶ to highlight Reset. Press the SELECT button to RESET to factory preset settings.



## INPUT LEVEL

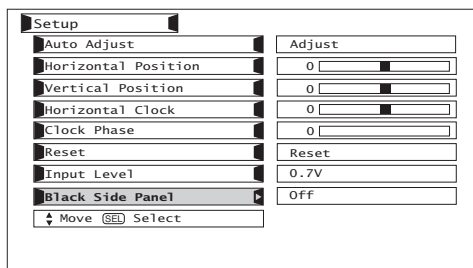
Select the Input Level voltage between 0.7V and 1.0V.



Use CURSOR PAD ◀ or ▶ to select between 0.7V and 1.0V depending on the amount of brightness in the picture.

## BLACK SIDE PANEL

The BLACK SIDE PANEL function turns the gray side bars ON/OFF when watching Aspect in Real and Normal signals in Standard Mode.

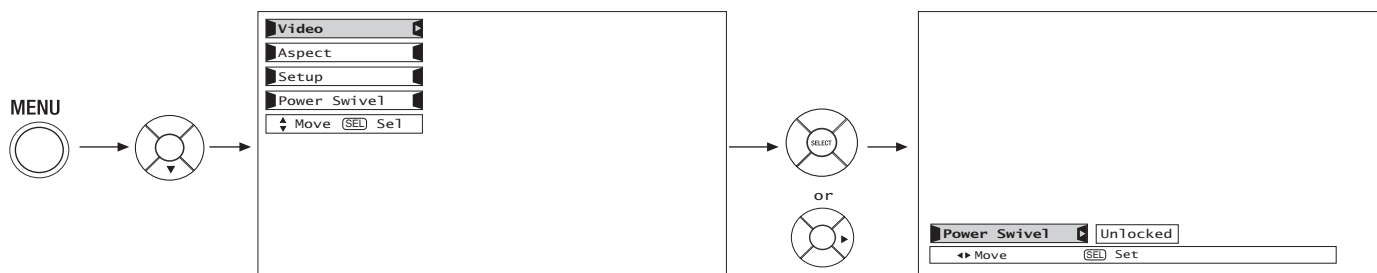


Press the SELECT button to select BLACK SIDE PANEL ON/OFF.

## POWER SWIVEL

This feature controls the motorized stand. It allows the customer to turn the LCD display left or right using the remote control.

- Press the MENU button in RGB mode.
- Use the CURSOR PAD ▲ or ▼ to select POWER SWIVEL.
- Press SELECT or CURSOR PAD ▶ to access POWER SWIVEL menu.



Use CURSOR PAD ◀ or ▶ to Unlock or Lock the POWER SWIVEL. Exit OSD menu system before controlling the motorized stand.

Use CURSOR PAD ▶ to rotate the TV to the right.

Use CURSOR PAD ◀ to rotate the TV to the left.

Release the CURSOR PAD to stop rotation.

- NOTES:**
1. The Power Swivel has a maximum turning radius of 30° (left and right).
  2. Do not place any objects on the path of the monitor when using the power swivel feature.
  3. Before using the power swivel feature, please make sure that the path of the monitor is clear of any fingers, hands or any other body parts to avoid causing injury.
  4. When the Picture-in-Picture (PIP) or Freeze mode is ON, the Power Swivel is disabled.



# CARE OF YOUR HITACHI LCD DISPLAY AND YOUR REMOTE CONTROL

## DO

Dust the screen and frame with a cleaning cloth from the accessories pack.

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

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

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

## DO NOT

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

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

Avoid repeatedly touching the screen.

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

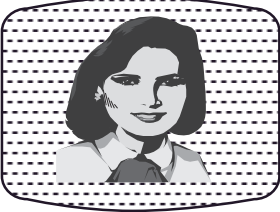



Avoid placing the remote control in a high humidity place or getting it wet. Do not leave it on or near a heater. Excessive heat or moisture may cause the remote control unit to fail.

When the batteries run down, remote control operation will become erratic or possibly stop altogether. Replace the old batteries with two new "AA" or "AAA" 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.

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

# RECEPTION PROBLEMS



	<ul style="list-style-type: none"><li>• <b>IGNITION NOISE:</b> 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.</li></ul>
	<ul style="list-style-type: none"><li>• <b>GHOSTS:</b> 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.</li></ul>
	<ul style="list-style-type: none"><li>• <b>SNOW:</b> 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.</li></ul>
	<ul style="list-style-type: none"><li>• <b>RADIO FREQUENCY INTERFERENCE:</b> The interference produces moving ripples or diagonal streaks, and in some cases, causes loss of contrast in the picture.</li></ul>

**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.



SYMPTOMS	CHECK THESE ITEMS AND TRY THESE ADJUSTMENTS												
	Be sure external connection is correct	Be sure power cord is plugged in	Be sure TV is switched "ON"	Try another channel (station trouble)	Check antenna connections (back of TV)	Check antenna for broken lead-in wire	Check outside antenna	Adjust Contrast control	Adjust Brightness control	Adjust Color control	Adjust Tint control	Adjust Volume control	Replace Lamp
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				●				●					
No color	●			●	●	●	●			●			
Poor color	●			●	●	●	●			●	●		
Dark Picture								●	●				●

HITACHI Liquid Crystal Display 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.
2. 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 Liquid Crystal Display.

# USEFUL INFO



## IMPORTANT NOTES

No.	Items	Notes
1	Arching sound from LCD display monitor's panel.	A buzzing sound might be heard when the LCD display monitor is turned on in a very quiet room. This is due to the LCD panel drive circuit when it is functioning. This arching sound is normal and it is not a malfunction.
2	Interference for infrared equipment.	Some infrared rays are emitted from the LCD display monitor's panel that might affect other infrared controlling equipment.
3	Picture Image (Spectrum)	When receiving still picture signals, (e.g. channel number indication or clock indication) for a while, you can see image-like when the picture varied. This is not a defect.
4	LCD Surface	The LCD panel is made from glass. Heavy shock on the front panel might damage it.
5	Transportation	When the LCD monitor is transported horizontally, the glass panel has the possibility of being broken or increasing the picture defects. At the time of transportation, horizontal style is prohibited. More-over, please treat the LCD panel with great care because of a precision apparatus. Please instruct transporters so that it should be put into the packing box at the time of shipment. (There is a possibility that breakage of the panel or defects will increase.) Rough transportation might cause damage to the panel and pixel failure.
6	Granular spots	When a screen is seen at point-blank range, a random fine grain may be visible to a dark part.
7	Black dots and Bright Points	Black dots and Bright points may appear on the LCD screen. This is a structural property of the LCD panel and is not a defect.
8	Disturbance to video apparatus	If an apparatus (VCR, etc.) antenna line is arranged near the monitor, the image may shake, or disturbance may be received.
9	Lip Sync	There is some time lag between the picture and the sound. You can see lip motion that is delayed compared to the sound.
10	Caution on prolonged storage	Storing the LCD television for a period of more than 2 to 3 months without use might cause an unstable picture when the set is turned on.
11	Operating	Operating altitude: 800 to 1,114hPa (6,194ft to -2,484ft). Operating temperature: 41°F to 95°F. Avoid operating the LCD TV below 41°F LCD response speed may slow down when operating at these temperatures. This is a normal operating characteristic of the LCD monitor.
12	Storage	Storage Altitude: 300 to 1,114hPa (31,912ft to -2,484ft). Storage temperature: 5°F to 140°F.
13	Power ON or OFF	Frequent use of the Power ON or OFF might trigger the power protection circuit. If the TV does not turn ON, please wait a little before turning ON again.



This LCD Television complies with VESA DDC2B specifications, Plug & Play is a system with computer, peripherals (including monitors) and operating system. It works when the monitor is connected to a DDC ready computer that is running an operating system software that is capable for the plug & play.

When a Plug and Play PC is powered on, it sends a command to the Monitor requesting identification. The Monitor sends back a string of data including its characteristics.



## TRADEMARK ACKNOWLEDGMENT

DDC™ is a trademark of Video Electronics Standard Association.

IBM PC/AT and VGA are registered trademarks of International Business Machines Corporation of the U.S.A.

Apple and Macintosh are registered trademarks of Apple Computer, Inc.

VESA is a trademark of a nonprofit organization, Video Electronics Standard Association.



This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Cable Compatible Television Apparatus- Télévision câblocompatible, Canada.

### Notes on Closed Caption:

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





## AGENCY REGULATORY INFORMATION

### Federal Communications Commission Notice

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

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

### Modifications

The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by Hitachi Home Electronics (America), Inc. may void the user's warranty.

### Cables

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

Any cables that are supplied with the system must be replaced with identical cables in order to assure compliance with FCC rules. Order Hitachi spares as replacement cables.

### Declaration of Conformity

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

For questions regarding this declaration, contact:

Hitachi America, LTD.  
Home Electronics Division  
900 Hitachi Way  
Chula Vista, CA 91914-3556  
Tel. 1-800-448-2244 (1-800-HITACHI)  
ATTN: CUSTOMER RELATIONS



## Features:

- New Easy-to-Use On-Screen Menu Control (3 Language)
- New AV Network System Control
  - Control up to 4 components with one remote
  - 2 IR Mouse cables included
  - Control Codes Stored in AV Control Center
- Two Tuner Split Screen except RGB modes.
- Illuminated and Preprogrammed Remote Control
- Power Management: ON/OFF via signal detection
- Menu Control Keys accessible from AV Control Center
- Picture Enhancement
- Input Signal Identification
- CableCARD compatible - Contact your local cable operator for more information
- HDMI (High Definition Multimedia Interface)(High Bandwidth Digital Content Protection V1.1 Compatible)
- Photo Input (for your digital camera)

## Video:

- 1366 x 768 Display Resolution (32")
- Wide Viewing Angle: More than 170°
- 4 Color Temperature Presets: Black/White-5400K, Standard-6500K, Medium-9300K, High-1200K.
- Multiple Screen Fill Modes (4:3 Standard/Expanded/Zoom1/Zoom2/16:9 Standard/Zoom)<sup>1</sup>
- 4MB 10-bit 3D Y/C Comb Filter
- Picture Modes (Day and Night)
- Computer Display: VGA, (SVGA, XGA, SXGA-scaled) (32")

## Inputs:

- Power Input . . . . . AC 120V, 60Hz
- Power Consumption
  - Refer to rear panel at the back of the LCD Monitor and AVC Center
- Antenna input impedance . . . . . 75 Ohm
- Channel coverage . . . . . 191ch.
  - VHF-Band . . . . . 2 ~ 13
  - UHF-Band . . . . . 14 ~ 69
  - CATV Mid Band . . . . . A-5 ~ A-1
  - . . . . . A-I
  - Super Band . . . . . J-W
  - Hyper Band . . . . . W+1 - W+28
  - Ultra Band . . . . . W+29 - W+94
- 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 (P<sub>B</sub>/P<sub>R</sub>) . . . . . 0.7Vp-p, 75 Ohm
- Audio input Impedance . . . . . 47k Ohm
- Average input level . . . . . 470mVrms
- RGB . . . . . 0.7Vp-p, 75 Ohm
- HDMI . . . . . (19 PIN)

## Outputs:

- Video . . . . . 1.0Vp-p. 75 Ohm
- Audio . . . . . 470mVrms, 1k Ohm
- Optical Out (Digital Audio) . . . . 1 Optical Connector

## Audio:

- MTS Stereo/SAP
- Dynamic Bass and Matrix Surround
- 10W+10W
- Soft Mute (50% and 100%)

## Supplied Accessories:

- Remote Control (2)
- Batteries
- 9' Monitor Connection Cable
- 6' AC Cable (2)
- Subwoofer Cable
- IR Mouse Cable (2)

## INPUTS/OUTPUTS

- Inputs: . . . . . RGB, VIDEO 1-5
- Wideband Component Y, Pb,Pr . . . . . 2
- RGB: Analog Input . . . . . 1
- Composite Video . . . . . 5
- S-Video . . . . . 3
- Antenna (RF) Inputs . . . . . 2
- Audio Output . . . . . 1
- Monitor Output . . . . . 1
- Headphone Output . . . . . 1
- Subwoofer Output . . . . . 1
- HDMI . . . . . 2
- Photo Input . . . . . 1
- IEEE 1394 . . . . . 2

## SPECIFICATIONS

- Multi-Scanning: . . . . . 24-109kHz (h), 50-85Hz (v)
- Pixel Pitch . . . . . 0.51(horiz.) x 0.51(vert.) mm (32")
- FCC class: . . . . . B for Consumer Use
- Power Requirements: . . . . . 108-132V, 60Hz

## DIMENSIONS

- |                |         |                 |                     |
|----------------|---------|-----------------|---------------------|
| • Height (in.) | 23 3/16 | • Depth (in.)   | 12 11/16 (w/ stand) |
| (mm)           | 589.1   | (mm)            | 323                 |
| • Width (in.)  | 37 2/8  | • Weight (lbs.) | 62.7                |
| (mm)           | 946.6   | (kg)            | 28.6                |

## Audio Video Control Center

- |                |          |                 |       |
|----------------|----------|-----------------|-------|
| • Height (in.) | 3 3/16   | • Depth (in.)   | 10    |
| (mm)           | 85.0     | (mm)            | 255.4 |
| • Width (in.)  | 16 15/16 | • Weight (lbs.) | 9.2   |
| (mm)           | 430.0    | (kg)            | 4.2   |

<sup>1</sup> Screen mode availability varies by input format

HDTV Monitors display HDTV when combined with an HDTV Tuner and Source.

All specifications, weights, and dimensions are subject to change without prior notice. Please access [www.hitachi.com/tv](http://www.hitachi.com/tv) for detailed specifications and dimensions for custom installations.

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**HDMI**™ HIGH-DEFINITION MULTIMEDIA INTERFACE  
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7 days a week, 24 hours a day

**800 HITACHI**

**(1-800-448-2244)**

## **Hitachi America, LTD. Home Electronics Division**

Hitachi has made every effort to assure you hours of trouble free operation from your unit. However, should you require service, a network of Hitachi Authorized Service Facilities has been established in all 50 states and Puerto Rico. Each facility will provide you with convenient and expedient assistance. Our service hotline operator will direct you to the Hitachi Authorized Service Facility nearest you. Just present proof of purchase and/or delivery receipts to the Hitachi Authorized Service Facility, and service will be rendered in accordance with the terms of the limited warranty as stated on your warranty card or operating guide.

***Should you have any questions regarding warranty, service, operation, or technical assistance, please contact:***

**Hitachi America, LTD.  
Home Electronics Division  
900 Hitachi Way  
Chula Vista, CA 91914-3556**



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**Hitachi Canada, LTD.  
Digital Media Division**

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*Should you have any questions regarding warranty, service, operation, or technical assistance, please contact:*

**In Canada:  
1-800-HITACHI  
(1-800-448-2244)**

**Monday - Friday EST 9:00am - 7:00pm  
Saturday EST 9:00am - 5:00pm**

*Look for your French Manual on the outside of the box.  
If the manual is missing, call*

**1-800-HITACHI  
(1-800-448-2244)**

*for a copy.*

---

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

**Au Canada:  
1-800-HITACHI  
(1-800-448-2244)**

**Lundi - Vendredi L'EST 9:00am - 7:00pm  
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*pour obtenir votre copie.*

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