HITACHI Inspire the Next



Audio Video Center

This Audio Video Center is intended to be use with Hitachi Ultra Thin monitors that includes remote controls. This AVC08U does not include a remote control.

- Audio Video Center with ATSC/NTSC/QAM tuning.
- Selectable Upscaling to 1080i/1080p High Definition Output (HDMI).
- (3) HDMI[™] (V.1.3a with CEC) Input, (2) Composite Video Inputs, (2) Component Video Inputs.

Operating Guide

Model Name AVC08U

READ THE ENCLOSED INSTRUCTIONS CAREFULLY. KEEP THIS OPERATING GUIDE FOR FUTURE REFERENCE. Record the serial number of your A/V Center for future reference. SERIAL NO. _____

This serial number is located on the bottom side of the unit

ANY QUESTION ABOUT THIS PRODUCT PLEASE CONTACT 800-HITACHI





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IMPORTANT SAFETY INSTRUCTIONS

SAFETY POINTS YOU SHOULD KNOW ABOUT YOUR HITACHI AUDIO VIDEO CENTER

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

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 Audio Video Center.

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. Model and serial numbers are indicated underneath the product.

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

READ BEFORE OPERATING EQUIPMENT

Follow all warnings and instructions marked on this Audio Video Center.

- 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 the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

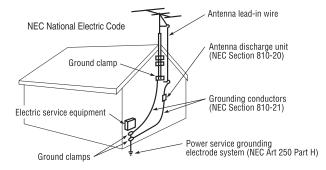
The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of a sufficient magnitude to constitute a risk of electric shock to a person.

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

- 15. Monitors, Televisions and Audio Video Centers 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 A/V Center and the monitor be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges. Section 810 of the National Electric Code, ANSI/NFPA No. 70-1984, provides information with respect to proper grounding for the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding connectors, location of antenna discharge unit, connection to grounding electrodes and requirements for the grounding electrode.

NOTE

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



IMPORTANT SAFETY INSTRUCTIONS (continued)

Warning



- To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
- The A/V Center should not be exposed to dripping or splashing and objects filled with liquids, such as vases, should not be placed on the A/V Center.
- The mains plug is used as the disconnect device and shall remain readily operable.

If problems occur during installation or operation of the product, before calling for technical support or service technicians, please read "TROUBLESHOOTING" ($37 \sim 38$) to determine the symptoms.

If serious problems occur (such as smoke or an abnormal odor from the unit), turn off the main power, unplug the power cord, and then, contact 800-HITACHI immediately.

Lead Notice

This product contains lead. Dispose of this product in accordance with applicable environmental laws. For product recycling and disposal information, contact your local government agency or www.eRecycle.org (in California), the Electronic Industries Alliance at www.eiae.org (in the US) or the Electronic Product Stewardship Canada at www.epsc.ca (in Canada). **FOR MORE INFORMATION, CALL 800-HITACHI.**

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:

- If the Audio Video Center is connected with a Monitor or TV Receiver, 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.

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

Modifications

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

Cables

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

INDUSTRY CANADA AGENCY REGULATORY INFORMATION

Cable Compatible Television Apparatus- Tèlèvision câblocompatible, Canada.

Notes on Closed Captions

This A/V Center will display television closed captioning, (c or), in accordance with paragraph 15.119 and 15.122 of the FCC rules.

INTRODUCTION

Thank you for purchasing the Hitachi Audio Video Center. We hope that you will enjoy the outstanding performance of this product.

This Audio Video Center has been designed to comply with international standards. However, it could cause personal injury and property damage if improperly handled. In order to prevent potential danger and obtain maximum benefit from your set, please read this operating guide carefully before operating this product and observe the following instructions when installing, operating, and cleaning the product. To ensure proper operation, please read and follow ALL the instructions, especially the "IMPORTANT SAFETY INSTRUCTIONS" and "SAFETY PRECAUTIONS".

Keep this manual for future reference and record the serial number of your set in the space provided on the front cover page of this manual.

About This Manual

- The information in this manual is subject to change without notice.
- This manual has been produced with the utmost care. If you have any comments or questions regarding this manual, please contact your local dealer or our Customer Service Center.
- Before operating the set, please fully understand the prerequisites such as specifications or constraints for the hardware and software. Hitachi is not responsible and accept no liability for any loss, damage or injury as a result of misuse.
- Reproduction, copying, utilization, modification and/or transmission in whole or in part of this manual are prohibited except by prior written consent.
- All other products and company names used in this manual are trademarks or registered trademarks of their respective owners.

Trademark Credits

- VESA is a registered trademark of the Video Electronics Standard Association.
- HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.
- **DOLBY**. Manufactured under license from Dolby Laboratories. "Dolby" and the double-D symbol are **DIGITAL** trademarks of Dolby Laboratories.

Even if no special note has been made of company or product trademarks, these trademarks have been fully respected.

Software

It is illegal for you to alter, decompile, disassemble, decrypt, or otherwise reverse-engineer the software installed in this product.

Features

- Audio Video Center with ATSC/NTSC/8VSB/QAM Tuning
- Upscaling to 1080i / 1080p High Definition Output
- -Provides superior uncompressed digital video and audio quality in a simple, user-friendly HDMI connector. [−]HDMI (V.1.3a, Supporting Deep Color, x.v.Color[™], Auto Lip Sync, CEC with HDCP Copy Protection.)
- Dolby Digital Optical utput
- User-friendly on screen control
- Terrestrial Cable, Analog and Digital Tuner
- 3-language On-Screen Display (English, French, and Spanish)
- Parental Locks (Downloadable V-Chip)
- Closed Caption Decoder
- Memory by Input
- Discrete IR Codes
- Sleep Timer

SAFETY PRECAUTIONS

For your safety, please read the following precautions carefully before using this product. Improper use would cause serious personal injury and/or damage to your property or the product.

Explanation of the Symbols

The following are the symbols used in this manual and affixed to the unit itself. Please fully understand the meanings of the symbols before reading the instructions in this section.

A WARNING	Never ignore the instruction. There are risks of serious or fatal injury to the user.
A CAUTION	Do not ignore the instruction. There are risks of personal injury and/or property damage.

Other Symbols		
	The triangle with illustration is intended to alert the users that there are risks of fire, explosion, or high temperature if the product is handled improperly. Each illustration within the triangle specifies the contents in detail. (The figure on the left is an example.)	
	The circle with diagonal line and illustration indicates a prohibited action (the symbol to the left indicates that dismantling is prohibited).	
	This symbol indicates a compulsory action. The contents are clearly indicated in or adjacent to an illustration (the symbol to the left indicates that the power plug should be disconnected from the power outlet).	

There is a risk of fire, electric shock, or serious injury.	
If serious problems occur, unplug the power cord immediately.	
Serious problems such as:	
 Smoke, abnormal odor or noise emitted from the product. 	
 No picture, no sound or distorted picture on the display. 	
 Foreign matter (such as water, metals etc.) entered the unit. 	Disconnect th
Do not continue using the product under these abnormal conditions.	plug from the
Turn off the main power, unplug the power cord, and contact 800-HITACHI immediately.	power outlet
For your safety, never try to repair the product yourself.	
Do not allow liquids or any foreign matter (such as metals or flammable items) to enter the unit.	
• If this does occur, turn off the main power, unplug the power cord, and contact 800-HITACHI immediately.	
Exercise special caution when young children are around the unit.	
Do not remove covers, or modify the product.	
• High-voltage components are installed inside of the unit. Removing covers can expose you to high	. (N
-voltage electric shock, and other hazardous conditions.	Do not
 Contact 800-HITACHI to perform servicing such as inspection, adjustment or repair work. 	DO NOT

SAFETY PRECAUTIONS (continued)

WARNING

There is a risk of fire, electric shock or serious injury.

Install the unit in a proper location where it does not expose anyone to danger.

• If you bump against the edges of the unit, you could be injured.

Do not rest weight on top of the unit.

Objects such as

- Liquid containers (vase, fish tank, flowerpot, cosmetics or liquid medicine).
- If water or any liquid spills onto the unit, it may cause short-circuiting and result in fire or electric shock.
- If this occurs, turn off the main power, unplug the power cord, and contact **800-HITACHI** immediately.
- Do not rest anything heavy on top of the unit.Do not climb on or hang from the unit.
- Do not allow your pets to get on top of the unit

Do not install the unit in an unsuitable location.

This could cause a malfunction or in extreme cases danger of electric shock. Locations where high
moisture is likely, such as bathrooms or shower rooms, close to windows, or outside where rain, snow
or other inclement conditions could occur, should be avoided. Please also avoid installing the unit in a
location where fumes from hot springs could come into contact with it.

Unplug the unit in the event of a lightning storm.

• To reduce the risk of electric shock, do not touch the product when lightning occurs.

Do not do anything that may damage the power cord.

- Do not damage, modify, twist, forcibly bend, heat, or pull excessively on the power cord.
- Do not place heavy objects (including the unit itself) on top of the power cord.
- If the power cord is damaged, contact 800-HITACHI for repairs or exchange.

Use only with designated power supply voltage.

• To prevent the risk of fire and electric shock, operate the product only with the power supply voltage indicated on the unit.

Be careful not to drop or allow any impact to affect the unit.

- Take extra care while moving the unit.
- In the event that you drop the unit or the cabinet is damaged, turn off the main power, unplug the power cord and contact **800-HITACHI** immediately.
- Continuing use of the product under the above conditions may cause fire or electric shock.

■ Clean dust or metals from on or around the pins of the power plug regularly.

• Continuing use of the product under the above conditions may cause fire or electric shock.

• Always unplug the power cord first, then clean the pins using a dry cloth.

Do not place the unit on an unstable surface.

Unstable surfaces such as:

• Tilted surface or shaky shelving, table, stand or trolley.

• If the unit falls down, this could cause personal injury.





Disconnect the plug from the power outlet.









A CAUTION	
 Do not place or use the unit in a dusty location. This could cause a malfunction. 	\bigcirc
 Do not cover or block any ventilation holes on the product. The unit would overheat and this could cause fire or damage to the product which may shorten its service lifetime. Install the product in accordance with the instructions in this manual. Do not place the unit with the ventilation side downward. Do not install the unit on carpeting or bedding. Do not cover the unit with table cloths etc. 	
 Observe the anti-tumble measures described in this manual. If the unit tumbles over, there is a risk of personal, possibly fatal injury. Also, this would damage the product seriously. 	0
 Do not install the unit near medical devices. To prevent malfunction of medical devices, do not use the product and medical devices in the same room. 	\bigcirc
 Disconnect all of the external connection cables and detach the anti-tumble measures before moving the unit. Otherwise fire, electric shock or personal injury may result. 	0
 Connect the power plug securely. Improper connection will cause overheating and may result in fire. Do not touch the pins of the plug while connecting it to the wall socket. This could cause electric shock. If the plug is not suitable for the wall socket, contact your dealer for replacement. 	
 Do not handle the power cord with wet hands. This could result in electric shock. 	
 Do not pull the cord when you unplug the power cord. This may damage the cord and could result in fire or electric shock. Grip the plug when disconnecting it. 	$\overline{\bigcirc}$
Unplug the power cord when you do not intend to use the product for long periods of time.	0
 Handle the batteries properly. Improper or incorrect use of the batteries may cause corrosion or battery leakage, which could cause fire, personal injury or damage to property. Use only the types of batteries which are indicated in this manual. Do not replace batteries with used ones. Install the batteries correctly by observing the polarity (+ and -) indications on the battery compartment. 	\bigcirc

• Do not dispose of used batteries as domestic waste. Dispose of them in accordance with the local regulations.

CAUTION

Do not install the unit in locations where it will be subjected to high temperature.

This could damage the cabinet or components of the product.

- Do not install near any heat sources such as radiators, heating grilles, stoves, or other apparatus that produce heat.
- Keep the unit out of direct sunlight. Otherwise the resulting increase in temperature of the unit may cause a malfunction.

Viewing Advice(when using together with UT Monitors)

- The lighting of the environment in which the product is used should be appropriate. Too bright/dark environments are not good for your eyes.
- Take time to relax your eyes occasionally.
- When you use the product, view from a distance equal to 3 to 7 times the height of the screen. This is the best viewing distance in order to protect your eyes against eyestrain. Example: (3X)= approx: 1.5m (4'), (7X)= approx: 3.5m (9').
- Adjust the volume to an appropriate level, especially during night time.

Transporting the product

• When the product needs to be transported due to moving or repair, use the carton box and buffer material that came with the product.

Keep radios away from the unit while in use.

The unit is designed to meet the international EMI standards to prevent radio interference. However, the unit may generate noise in the radio.

- If noise is heard on the radio, please try the following actions.
 - Adjust the direction of the radio antenna in order not to receive interference from the unit.
 - · Keep the radio away from the unit.

Infrared communication devices

• Infrared communication devices such as cordless microphones or cordless headphones may not operate properly around the unit. This is because of communication failure. Please note that this is not a malfunction.

When you dispose of the product at the end of its service lifetime, follow the regulations in your residential area.
 For more information, contact the local authority or the dealer where you purchased the product.

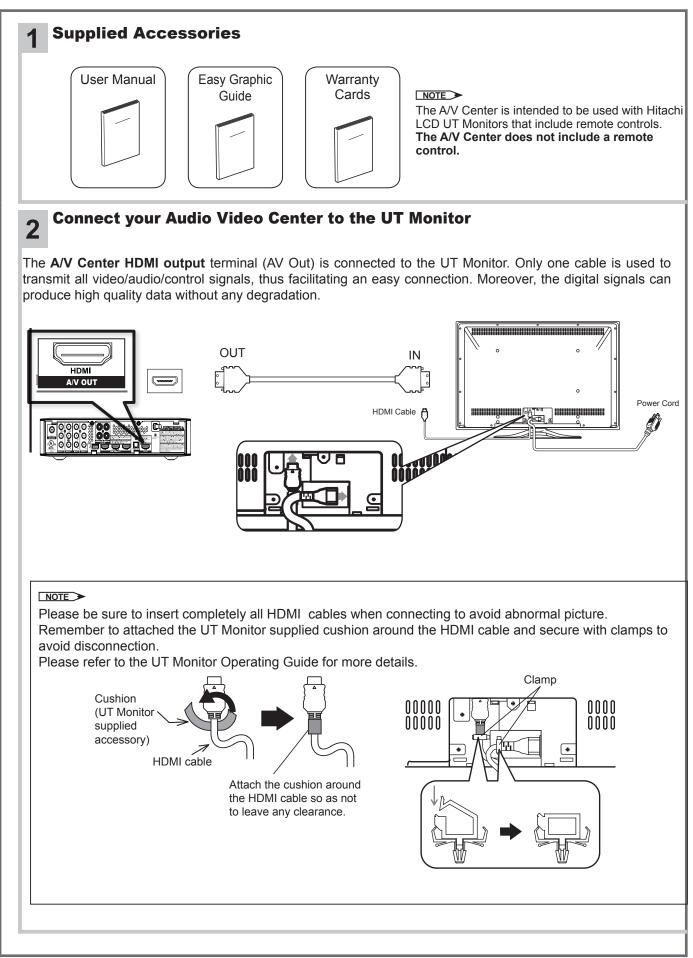
Cleaning and Maintenance

Please make sure to unplug the power cord before cleaning the unit.

How to clean the cabinet of the unit.

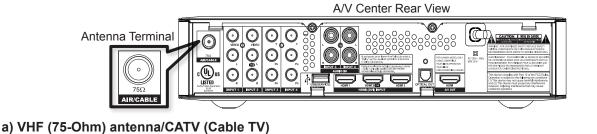
- The following may cause cracking, deformation and peeling of paint.
 - Do not wipe the cabinet with benzene, thinners and other chemical products.
 - Do not spray volatile solutions such as insecticide over the cabinet.
 - Do not leave the cabinet in prolonged contact with plastic or rubber materials.
- Do not use a chemical cloth, cleaner or wax. Depending on the ingredients, these may cause cracking and deformation.
- Use a lint-free cloth (e.g. cloth for cleaning glasses) to clean the cabinet and control panel of the unit. In case of the excessive dirt, wipe with a soft cloth moistened with a diluted neutral detergent solution and then wipe with a soft and dry cloth.
- Never use the following detergents. They could cause cracking, discoloration and scratching.
 - · Acidic/alkaline detergents, alcoholic detergents, abrasive cleaners, soap powder, OA cleaner, car wax, glass cleaner, etc.

For more information on connecting and using your A/V Center, please be sure to read all instructions in this user manual.



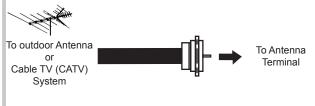
3 Antenna Connection

Unless your A/V Center 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.



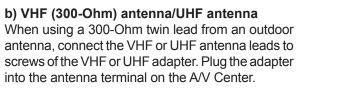
To Antenna Terminal

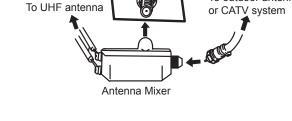
When using a 75-Ohm coaxial cable system, connect CATV coaxial cable to the AIR/CABLE (75-Ohm) terminal. Or if you have an antenna, connect the coaxial cable to the same AIR/CABLE terminal.



c) 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

To outdoor antenna





4 Power On...

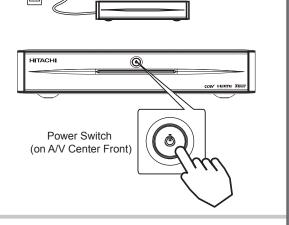
To outdoor VHF or UHF Antenna

1) Connect the plug into the wall socket after all other connections are completed.

ACAUTION

Ensure that end of the power cord is easily accessible.

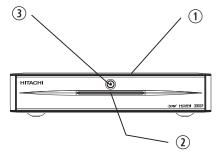
2) Hitachi A/V Center is provided with a Power Off/On button on Front Panel and you can Turn it ON by pushing this button, however Hitachi A/V Center is intended to be used with Hitachi UT Monitors ;A/V Center and Monitor are connected by a "HDMI CEC" connection and A/V Center will turn On/ Off following Monitor condition.



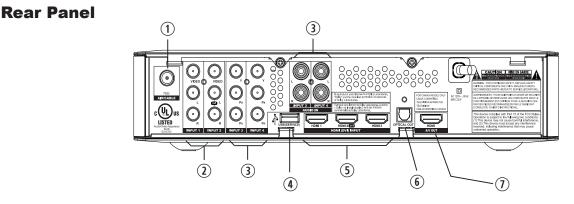
COMPONENT NAMES

Main Unit

Front Panel



- ① Cabinet
- Indicating Lamp
- ③ Power Off/On button



① Antenna Input

To switch between Cable and Air input, go to the Channel Manager option to change the signal source CABLE or AIR.

② Audio/Video inputs 1 and 2 (Composite)

INPUT-1 and 2 provide composite Video jacks for connecting equipment with this capability, such as a DVD player, Game Console or Camcorders.

3 Audio/Video inputs 3 and 4 (Y-P_B P_R Components)

INPUTS 3 and 4 provide Y-P_BP_R and Audio jacks for connecting equipment with this capability, such as a DVD player or Satellite Receiver.

NOTE

- Your component outputs may be labeled Y, B-Y, and R-Y. In this case, connect the components B-Y output to the P^B input and the components R-Y output to the P^R input.
- Your component outputs may be labeled Y-CBCR. In this case, connect the component CB output to the P_B input and the component CR output to the P_R input.
- It may be necessary to adjust TINT to obtain optimum picture quality when using the Y-PBPR inputs .

④ USB Port(For S/W Upgrade only)

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

⑤ HDMI Inputs1 and 3, HDMI 2/DVI Input

Use the HDMI input for your external devices such as Satellite Receiver or DVD players equipped with an HDMI output to assure that pristine high-definition images retain the highest video quality from the source all the way to your monitor screen.

NOTE

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

6 Optical Output

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

NOTE

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

⑦ HDMI Output(To UT Monitor)

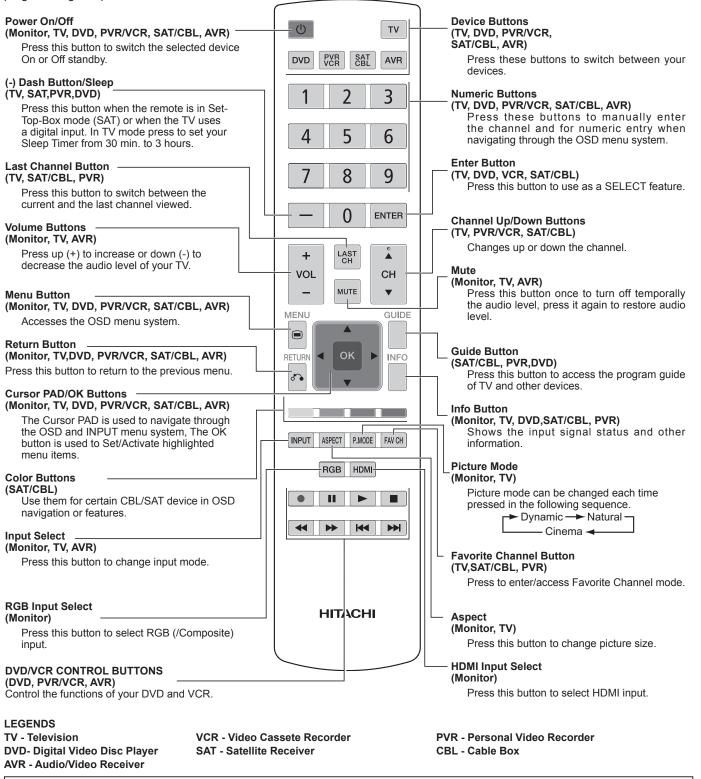
The **A/V Center HDMI output** terminal (AV Out) is connected to the UT Monitor. Only one cable is used to transmit all video/audio/control signals, thus facilitating an easy connection. Moreover, the digital signals can produce high quality data without any degradation.

*Please refer to **14**~**16** for detailed information regarding the connections.

COMPONENT NAMES (continued)

Remote Control(Included with UT LCD Monitors)

In addition to controlling all of the functions on your Hitachi UT LCD Monitor and A/V Center, the new remote control is designed to operate different types of devices, such as, DVD players, Cable Boxes, Set-Top-Boxes, Satellite Receivers, VCR's, PVR's and AVR's. The remote control must be programmed to control the chosen device. Please refer to pages 21~24 for external device programming setup.



NOTE

- Pressing any button will illuminate the backlight for 4 seconds.
- TV Mode is used for LCD Monitor when equipped with Hitachi A/V Center and Monitor is used as a TV.
- For the Record button there is a feature for safety; so this key have to be press twice in order to start recording.

PREPARATION

Remote Control Battery Installation

The remote control operates on 2 "AAA" batteries.

1. Open the battery compartment cover

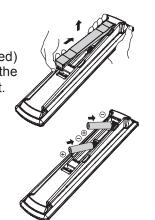
• Push and pull open the battery compartment cover on the backside in the direction of the arrow, and remove the cover.

2. Install the batteries

• Install 2 "AAA" batteries (included) making sure the polarities match the indication inside the compartment.

3. Close the battery compartment cover

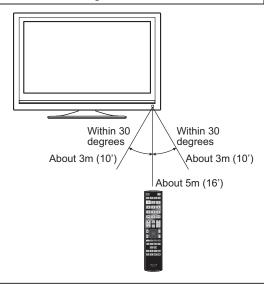
• Make sure the tabs rest in the corresponding holes and push down the compartment cover until it clicks shut.



Handling the Remote Control

Use the remote control within a distance of about 5m (16') from the front of the unit's remote control sensor and within an angle of about 30 degrees on both sides.

NOTE Aim the Remote Control to the Monitor IR sensor, Monitor will transmit the commands to the A/V Center trough their HDMI connection.



CAUTION

Risk of corrosion or battery leakage. Tampering with batteries may result in physical injury and/or property damage including fire.

- Never mix used and new batteries in the device.
- Replace all the batteries in the device at the same time.
- Remove the batteries if the remote control is not going to be used for an extended period of time.

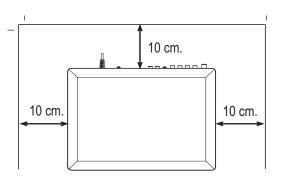
To avoid possible malfunction, read the following instructions and handle the remote control correctly.

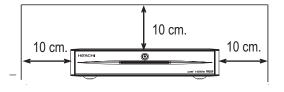
- Do not drop or allow impact to affect the remote control.
- Do not spill water or any liquid on the remote control.
- Do not place the remote control on a wet surface.
- Do not place the remote control under direct sunlight or near sources of excessive heat.

Main Unit Installation

Please leave adequate space around the unit in order to avoid increasing the internal temperature. Make sure not to block any ventilation holes. Do not install the unit in a small space such as inside a cabinet, closet or box without adequate ventilation.

Leave at least 10cm (4") of clearance from each side of the unit and from the top of the unit to ceiling.





CONNECTION

The unit is suitable for various kinds of connections. Make a connection in the following steps. Be sure to turn off the main power first when connecting external equipment.

- 1. Connect your Equipment to the Audio Video Center(A/V Center).
- 2. Connect your A/V Center to the UT Monitor.
- 3. Connect the A/V Center power plug to the wall socket.

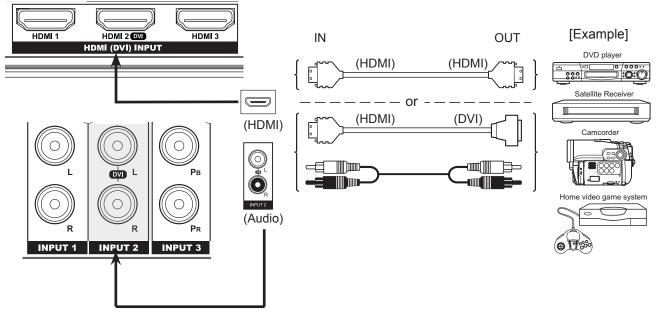
NOTE

Do not connect the power plug to the wall socket until all other connections are completed.

1. Connect your Equipment to the A/V Center

Connecting to Equipment Having HDMI or DVI Output Terminals

The **A/V Center HDMI** Input terminals can be connected to devices with HDMI output. If the external device has a DVI output, this can be connected to the HDMI 2 input terminal using the HDMI-DVI cable. If the HDMI-DVI cable is used, connect the audio signal to the Input 2 Audio terminals.



HDMI-Interfaced System

With "HDMI-CEC" function, you can interface the connected equipment through the HDMI terminal automatically if the connected equipment meets an industry standard "HDMI CEC (Consumer Electronics Control)". Please check if the connected equipment supports HDMI CEC before using this function.

🖾 Information

The HDMI (High Definition Multimedia Interface) is a multimedia I/O (Input/Output) interface. Only one cable is used to transmit all video/audio/control signals, thus facilitating easy connection. Moreover, the digital signals can produce high quality data without any degradation.

P If your external device has an HDMI terminal, HDMI connection is recommended for higher quality picture and sound.

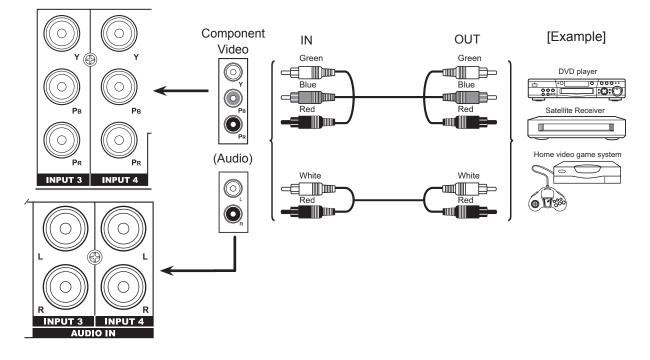
NOTE

Please be sure to insert completely all HDMI or DVI cables when connecting to avoid abnormal picture. Make sure that the video and audio terminals are connected to the same external device. For details of the output format of an external device, refer to "Recommended Signal List" on **40**.

1. Connect your Equipment to the A/V Center (continued)

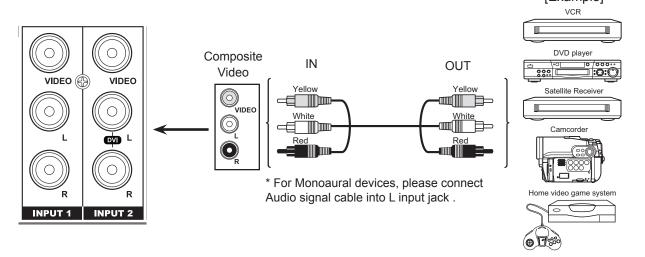
Connecting to Equipment Having a YPbPr Component Output Terminals

The **A/V Center YPbPr** Input 3 and 4 terminals can be connected to devices equipped with YPbPr or YCbCr terminals output. Connect the Y, PB/CB, PR/CR from the Y, PB/CB, PR/CR OUT of the device to the INPUT 3 or 4 YPBPR jacks.Connect the AUDIO OUT signal to the Input 3 and 4 AUDIO IN terminals respectively.



Connecting to Equipment Having Video Output Terminals

The A/V Center Video Composite Input 1 and 2 terminals can be connected to devices equipped with standard Video terminals output. [Example]



NOTE

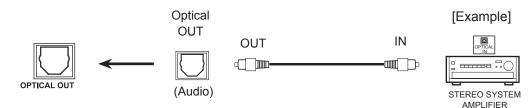
Please be sure to insert completely all cables when connecting to avoid abnormal picture and sound. Make sure that the video and audio terminals are connected to the same external device. Cable plugs are often color-coded. Match colors of plugs and terminals, i.e. connect red to red, white to white, etc.

For details of the output format of an external device, refer to "Recommended Signal List" on **40**.

1. Connect your Equipment to the A/V Center (continued)

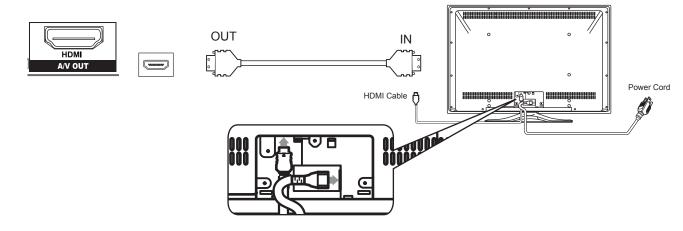
Connecting to Equipment Having a Audio Digital Input Terminal

The **A/V Center "OPTICAL OUT"** Audio terminal can be connected to devices equipped with Optical Input capabilities such as Audio Amplifiers Systems. The "OPTICAL OUT" from the A/V Center Rear Panel is a fixed output. The Volume of the amplifier is controlled by the amplifier, not by the A/V Center Unit. The OPTICAL OUT terminal outputs all audio sources.



2. Connect your Audio Video Center to the UT Monitor

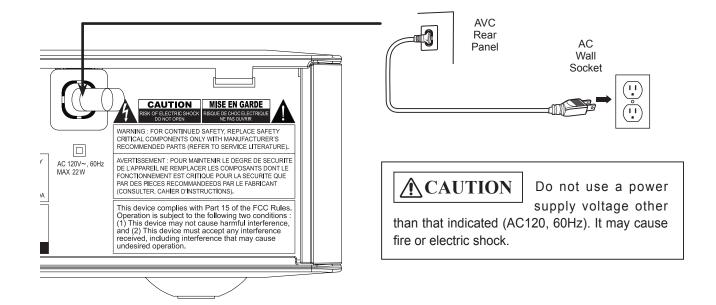
The **A/V Center HDMI output** terminal (AV Out) is connected to the UT Monitor. Only one cable is used to transmit all video/audio/control signals, thus facilitating an easy connection. Moreover, the digital signals can produce high quality data without any degradation.



CONNECTION (continued)

3. Connect the A/V Center Power Plug to the Wall Socket

Connect the power cord after completing all other connections.



ENGLISH

BASIC OPERATION

Power On/Off

Turn On the power of the unit.

• To turn On the power to the unit:

- **1.** Press the **Power Switch** on the A/V Center front or press the Power (On/Off) button on the remote control.
 - The Indicating Lamp turns Blue. The image will display on UT Monitor screen.

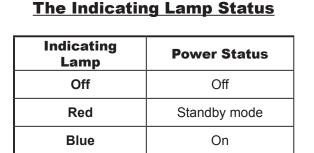
• To turn Off the power to the unit:

1. Press the Power (On/Off) button on the remote control.

- The image disappears from the UT Monitor screen. The Indicating Lamp turns **Red** (Standby mode).
- **2.** Unplug the AC cord from the wall outlet to completely turn Off the power to the unit. The Indicating Lamp turns off.

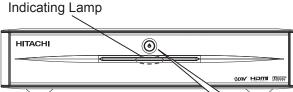
NOTE

• Due HDMI-CEC function pressing the power on/off button on the remote control will power down both the UT Monitor and the A/V Center.



NOTE

- If the image does not appear on the UT Monitor screen at all, or if there is any problem with it, see "TROUBLESHOOTING" on 37~38. This may help you to solve the problems.
- After turning On, it takes about 6 seconds until the A/V Center starts up. Please note that buttons on the remote control and the unit (such as the Power button) do not work during this period of time.
- If power is interrupted during use of the unit, to avoid sudden surges of electricity when the power comes back on, unplug AC cord before leaving home.



Power Switch (on A/V Center Front)



BASIC OPERATION (continued)

Volume Up/Down

- **1.** To increase the sound volume, press the **Volume Up** button on the remote control or control panel.
 - The Volume Indicator value on the screen will shift to the right.
- **2.** To decrease the sound volume, press the **Volume Down** button on the remote control or control panel.
 - The Volume Indicator value on the screen will shift to the left.

Mute

- **1.** To mute sounds, press the \underbrace{MUTE} button on the remote control.
 - The sound of the unit is temporarily turned Off.
 - The color of the Volume Indicator will turn into **grey** while muting the volume.
- **2.** To turn the sound back on, press the <u>MUTE</u> button again, or press the **Volume Up** button on either the remote control or control panel.
 - The color of the Volume Indicator will turn back to blue.

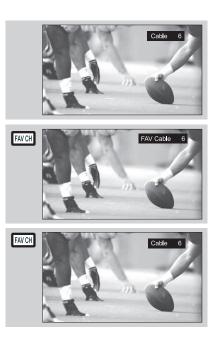
NOTE

• You can decrease the volume by pressing the **Volume Down** button while the sound is muted.

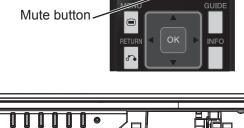
Channel Selector/Favorite Channel

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

Press the FAV CH button to switch to Favorite(FAV) channel mode. You will know you are in Favorite Channel mode when (FAV) is displayed and the displayed channel is GREEN. Press it again to return to your regular tuned channels. You can add or delete any channel to your Favorite channel list by pressing FAV CH button on A/V Center/Setup/ Channel List menu.



Volume Up/Down button On UT Monitor



0

ENTER

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Volume Up/Down

button

19

BASIC OPERATION (continued)

Input Switching MUTE MENU Press the button INPUT to access the INPUTS menu. Use the CURSOR and OK buttons to scroll and select the inputs that are being used. Pressing the INPUT button repeatedly will also cycle through the Inputs Input Select ്ം menu items. Then press the || and || | buttons to select. button AIR/CABLE Select between Air or Cable signal. HDMI 2/DVI INPUT 1 Select to choose Input 1. HDMI 3 INPUT ASPECT P.MODE FAV CH **INPUT 2** Select to choose Input 2. Air/Cable Select to choose Component Input 3. **INPUT 3** Input 1 RGB HDMI **INPUT 4** Select to choose Component Input 4. Input 2 HDMI 1 Select to choose HDMI 1 Input. OK Select **↓** Move HDMI 2/DVI Select to choose HDMI 2/DVI Input.

GUIDE HSITON

Input Signal Screen Display

Select to choose Side HDMI Input.

HDMI 3

The input signal status can be displayed on the screen by pressing the button on the remote control. • The display will go out in approximately 6 seconds.

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HDMI mode	HDMI: 1 DVI 720p Signal mo	
	* When D is detec	
YPbPr Component mode	YPbPr:3 480p Signal mo	
Video Composite mode	Input:1	INPUT ASPECT P.MODE FAV CH
	Alternate Rating DIGITAL CHANNELS Digital Channel ogram ormation District Channel Digital Channel Main Picture Source Air 15-1 ST DTvCC TV-G 1080i 3:25 PM T t t t t Audio Digital Broadcast Picture Broadcast Captions Broadcast Format Clock Digital Channel Main Picture Source Contemported Contemporte	n
	Closed Caption Setting	 Press the INFO button again to return to normal viewing.
	Analog Channel MALOG CHANNELS Analog Channel Star Picture Source & Channel Indication Broadcast Channel ST TV-G 480i 3:17 PM Clock Clock Clock	 The Aspect setting will not be shown if the channel is locked.
	t t Closed Caption Audio Source Setting Selection	

SETUP OPERATION

How to Use the Remote to Control your External Devices

OPERATING THE PRECODED FUNCTIONS FOR YOUR EXTERNAL DEVICES.

The new remote control is designed to operate different types of VCRs, cable boxes, set-top-boxes, satellite receivers, DVD players, and other audio/video equipment. You must first program the remote to match the remote system of your external equipment (refer to pages $25 \sim 26$ for precodes).

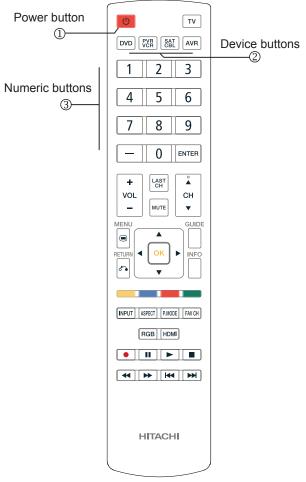
EXTERNAL DEVICE CONTROL SETUP PROCEDURE

- 1. Turn on your external device.
- 2. Select the desired device mode DVD, PVR/VCR, SAT/CBL or AVR by pressing the corresponding device button.
- Hold down the device button (DVD, PVR/VCR, SAT/CBL or AVR) on the remote and enter the four digit preset code that matches your device as shown on pages 25 ~ 26.
- 4. Release the device button.
- 5. If done correctly, the device LED indicator will blink 3 times to confirm proper setup.
- 6. The remote will now control the desired device.

SETUP EXAMPLE (Hitachi Cable Box with precode 0003)

- 1. Turn ON your Cable box.
- 2. Select Cable mode by using your SAT/CBL button to position the LED indicator on SAT/CBL.
- 3. Hold down the SAT/CBL button on the remote and press the numbers 0, 0, 0 and 3.
- 4. Release the SAT/CBL button.
- 5. The indicator light will flash 3 times if the code was accepted.
- 6. Aim the remote 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.
- 7. The remote will now control your Cable box.

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



Remote Control Backlight Feature

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.

Disabling Remote Control Backlight Feature

- 1. Place the RC in TV mode.
- 2. Press and HOLD the TV mode key.
- 3. While holding the TV mode key enter ASPECT, MUTE in sequence.
- To re-enable the backlight feature do steps 1~3 again (these steps toggle the Backlight Feature on and off, default is ON).

NOTE

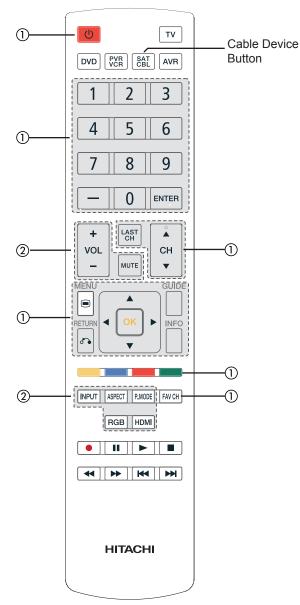
• If your external device cannot be operated after performing the above procedures, your external device code has not been precoded into the remote.

• In the unlikely event that your external device cannot be operated after performing the above procedures, please consult your external device operating guide.

• The remote control will remember the codes you have programmed even after the batteries are removed from the remote control. To reset all programmed codes to factory default place remote control in TV mode, then press and hold TV mode key and enter "9", "8", "1" in sequence.

• Depending of your UT Monitor model your remote control could have or not Backlight function.

How to Use the Remote to Control your External Devices





NOTE

• Refer to the operating guide of the Cable Box for operation of the buttons exclusively for the Cable Box.

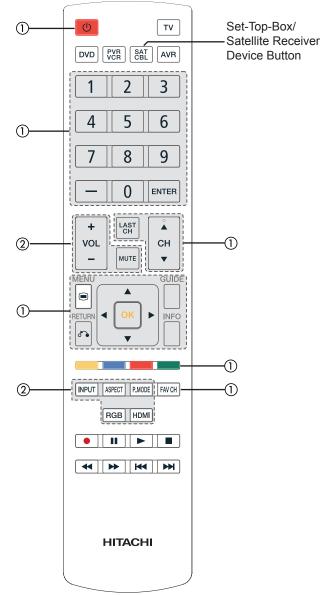
① PRECODED CABLE BOX buttons

These buttons transmit the chosen precoded cable codes :

-Power	-Cursor & OK	-Number PAD
-Menu	-Info	-Enter
-Return	-Channel Up & Down	-Fav CH
-Guide	-Dash(-)	-Color Buttons
-Last CH		

② EXCLUSIVE TV mode (Monitor) buttons

These buttons are for operating the TV :			
-P. Mode	-HDMI	-Input	
-Aspect	-Vol Up & Down		
-RGB	-Mute		



MY SET-TOP-BOX/SATELLITE RECEIVER CODE IS:_____

NOTE

• Refer to the operating guide of the Set-Top-Box/Satellite Receiver for operation of the buttons exclusively for the Set-Top-Box/Satellite Receiver.

① PRECODED SET-TOP-BOX/SATELLITE buttons These buttons transmit the chosen precoded STB/Satellite codes :

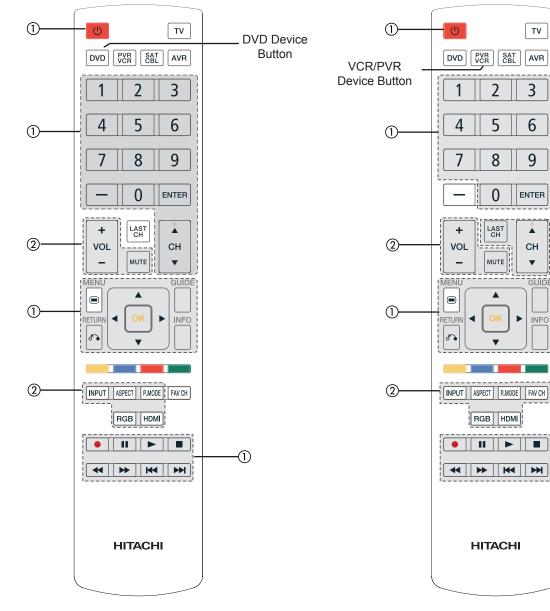
-Power	-Cursor & OK	-Number PAD
-Menu	-Info	-Enter
-Return	-Channel Up & Down	-Fav CH
-Guide	-Dash(-)	-Color Buttons
-Last CH		

2 EXCLUSIVE TV mode (Monitor) buttons

These butto	ns are for operating the	e TV :
-P. Mode	-HDMI	-Input
-Aspect	-Vol Up & Down	
-RGB	-Mute	

ENGLISH

How to Use the Remote to Control your External Devices



MY DVD PLAYER CODE IS:

_

• Refer to the operating guide of the DVD Player for operation of the buttons exclusively for the DVD Player.

① PRECODED DVD buttons

These buttons transmit the chosen precoded DVD codes :

-Power -Menu	-Cursor & OK -Info	-Play, Stop, Pause, RWD, FWD, Skip
-Return	-Number PAD	RWD, Skip FWD, Rec
-Guide	-Dash(-)	-Enter

2 EXCLUSIVE TV mode (Monitor) buttons These buttons are for operating the TV :

These bullons are for operating the TV.				
-P. Mode	-HDMI -Input			
-Aspect	-Vol Up & Down			
-RGB	-Mute			

MY VCR/PVR CODE IS:

NOTE >

• Refer to the operating guide of the VCR/PVR for operation of the buttons exclusively for the VCR/PVR.

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LAST CH

MUTE

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(1) PRECODED VCR/PVR buttons

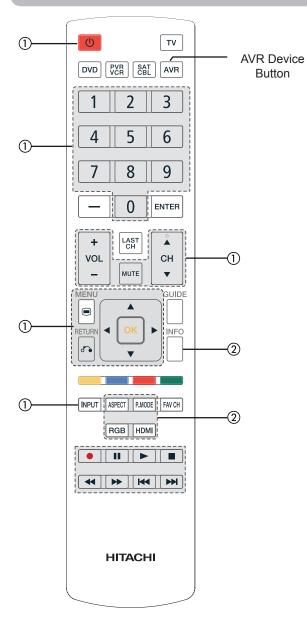
These buttons transmit the chosen precoded VCR/PVR codes :

-Power	-Cursor & OK	-Record
-Menu	-Channel Up & Down	-Play, Stop,
-Return	-Number PAD	Pause, RWD, FWD, Skip
-Info	-Last CH	(FWD,RWD)
-Guide	-FAV CH	

2 EXCLUSIVE TV mode (Monitor) buttons

These buttons are for operating the TV :				
-P. Mode	-HDMI	-Input		
-Aspect	-Vol Up & Down			
-RGB	-Mute			

How to Use the Remote to Control your External Devices



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

NOTE

• Refer to the operating guide of the AVR for operation of the buttons exclusively for the AVR.

① PRECODED AVR buttons

These buttons transmit the chosen precoded cable codes			
-Power	-Channel Up & Down	-Input	
-Number PAD	-Vol Up & Down	-Mute	
-Cursor PAD	-Menu	-Return	

② EXCLUSIVE TV mode buttons

These buttons	s are for operating	g the TV :
-P. Mode	-HDMI	-Info
-Aspect	-RGB	

Remote Control Codes

ACCUPHASE 0 ACORN 0 ACTION 0 ACTION 0 ACTION 0 ACTIVE 0 ADB 2 ARCHER 0 BRITISH 0 TELECOM 0 BRITISH 0 TELECOM 1 DIGEO 1 DIGEO 1 DIGEO 1 DIGECTOR 0 GENERAL 0 GENERAL 0 GENERAL 0 GENERAL 0 GENERAL 0 GENERAL 0 GIBRALTER 0 GENERAL 0 MINSIGHT 0 JERROLD 0 MINSUBISHI 0 MOTOROLA 1 NOVA VISION 0 NOVAPLEX 0 NSC 0 PACE 1)237,0003,0008)003)237)237)237)237)237)237)237)23	DISH NETWORK SYSTEM DISHPRO ECHOSTAR EXPRESSVU FORTEC STAR FUNAI GE GENERAL INSTRUMENTS GOI HITACHI HOUSTON HTS HUGHES NETWORK SYSTEMS INNOVA JERROLD	0639,1639,1142 0247,0749,1749 0819,1856,1076 1108,0099,1109 1392,1414,1442 1443,1609,1640 1505,1005,0775 1775 1505,1005,0775 1775 1505,1005,0775 1770 1770,1775 0775,1775 1821 1377 0392,0566 0869 0775,1775 0749,0819,1250 0749,0819,1250 0775,1775 1142,0749,1749	AIKO AIWA AKAI ALIENWARE ALLEGRO AMERICA ACTION AMERICAN HIGH AMSTRAD ASHA ASTRA AUDIOVOX AVIS BEAUMARK BEAL & HOWELL BROKSONIC CALIX CANDLE CANON CAPEHART CARRERA CARVER CCE		ITT NOKIA JANEIL JENSEN JVC KEC KEC KEV KODAK KTV LG LINKSYS LLOYD'S LOEWE LOGIK LUMATRON LUXOR LXI M ELECTRONIC		RADIOSHACK RADIX RANDEX RCA REALISTIC REPLAY TV RICAVISION RUNCO SAMSUNG SAMTRON	1162 0035,0162,0 0048,0047,0 0003,0104,0 0037,1162 0037 0060,0035,0240,0045,0 0042,0065,0 0042,0065,0 0035,0162,0 0035,0162,0 0035,0162,0 0035,0162,0 0035,0162,0 0035,0162,0 0035,0162,0 0035,0162,0 0035,0162,0 0035,0162,0 0035,0162,0 0035,0162,0 0035,0162,0 0035,0162,0 0035,0162,0 0035,0162,0 0035,0162,0 0035,0162,0 0035,0162,0 0040,0045,0 0040,0045,0 0040,0040,0 0040,0040,
ACCUPHASE 0 ACORN 0 ACTION 0 ACTION 0 ACTION 0 ACTIVE 0 ADB 2 ARCHER 0 BRITISH 0 TELECOM 0 BRITISH 0 TELECOM 1 DIGEO 1 DIGEO 1 DIGEO 1 DIGECTOR 0 GENERAL 0 GENERAL 0 GENERAL 0 GENERAL 0 GENERAL 0 GENERAL 0 GIBRALTER 0 GENERAL 0 MINSIGHT 0 JERROLD 0 MINSUBISHI 0 MOTOROLA 1 NOVA VISION 0 NOVAPLEX 0 NSC 0 PACE 1	0003 1237 1237 1237 1237 12092,2586 1237 1237 1237 1237 1237 1237 1237 1237 1237 1237 1237 1237 1237 12476 1257 12476 1257 1276	NETWORK SYSTEM DISHPRO ECHOSTAR EXPRESSVU FORTEC STAR FUNAI GE GENERAL INSTRUMENTS GOI HITACHI HOUSTON HTS HUGHES NETWORK SYSTEMS INNOVA	0819,1856,1076 1108,0099,1109 1392,1414,1442 1443,1609,1640 1505,1005,0775 1775 1505,1005,0775 1775 1505,1005,0775 1775 1505,1005,0775 1775 1775 1821 1377 0392,0566 0869 0775,1775 0749,0819,1250 0775 0775,1775	AKAI ALBA ALIENWARE ALLEGRO AMERICA ACTION AMERICAN HIGH AMSTRAD ASTRA AUDIOVOX AVIS BEAUMARK BEALMARK BEAL & HOWELL BROKSONIC CALIX CANDLE CANON CAPEHART CARRERA CARVER	0041,0175 0209,0072,0278 1972 0039 0035,0081 0000 0240 0035,0081 0000 0000,0072 0240 0035,0081 0000 0000,0072 0240 0035,0048,0039 0000,0104,0046 0479 0184,0121,0209 0002,0479 0037,0038 0035 0002	JENSEN JVC KEC KENWOOD KLH KODAK KTV LG LINKSYS LLOYD'S LOEWE LOGIK LUMATRON LUXOR LXI M ELECTRONIC	0067,0041 0067,0041,1162 0037,0278 0067,0041,0038 0046 0072 0035,0037 0000 0037,0240,0038 1037 1972 0240,0000,0072 0081 0240,0000,0072 0278 0046 0037,0000,0042 0067 0240	RADIX RANDEX RCA REALISTIC REPLAY TV RICAVISION RUNCO SAMSUNG	0048,0047,0 0000,0104,0 0037,1162 0037 0060,0035,0 0240,0045,0 0042,0065,0 0035,0162,0 0035,000,000,000,000,000,000,000,000,000
ACORN 0. ACTION 0. ACTION 0. ACTIVE 0. ADB 2. ARCHER 0. SCC 0. BRITISH 0. TELECOM 0. DIGEO 1. DIGEO 1. DIGEO 0. DIRECTOR 0. DIRECTOR 0. SE 0. SENERAL 0. SOLDSTAR 0. MITACHI 0. MEMOREX 0. MOTOROLA 1. VOVA VISION 0. VOVAVISION 0. VACE 1.	0237 0237 0237 0209,2586 0237 0276 0003 0008 1187,2187 0637 0637 0637 0637 0637 0276 0637 0276 003 003 0003 0003 0003 0003 0003 0008 003,008 0476,0810,0276 0003 0003 0000 003,008 0476,0810,0276 0003 0000 003,008 0000 003,008 0000 003,008 0000 003,008 0000 003,008 0000 003,008 0000 003,008 0000 003,008 00000 0	NETWORK SYSTEM DISHPRO ECHOSTAR EXPRESSVU FORTEC STAR FUNAI GE GENERAL INSTRUMENTS GOI HITACHI HOUSTON HTS HUGHES NETWORK SYSTEMS INNOVA	1108.0099.1109 1392.1414.1442 1443.1609.1640 1505.1005.0775 1170.1775 1505.1005.0775 1775 1505.1005.0775 1770.1775 1821 1377 0392.0566 0869 0775.1775 0749.0819.1250 0775 0775.1775	ALBA ALIERWARE ALLEGRO AMERICA ACTION AMERICA ACTION AMSTRAD ASTRA ASTRA AUDIOVOX AVIS BEAUMARK BEAL & HOWELL BROKSONIC CALIX CANDLE CANON CAPEHART CARRERA CARVER	0209,0072,0278 1972 0039 1 0278 0035,0081 0000 0240 0035,0081 0000 0000,0072 0240 0035,0048,0039 0000,0104,0046 0479 0184,0121,0209 0002,0479 0037 0037,0038 0035 0002	JVC KEC KENWOOD KLH KODAK KTV LG LINKSYS LLOYD'S LOEWE LOGIK LUMATRON LUXOR LXI M ELECTRONIC	0067,0041,1162 0037,0278 0067,0041,0038 0046 0072 0035,0037 0000 0037,0240,0038 1037 1972 0240,0000,0072 0038 00240,0000,0072 0081 0240,0000,0072 0278 0046 0037,0000,0042 0067 0240	RANDEX RCA REALISTIC REPLAY TV RICAVISION RUNCO SAMSUNG	0000,0104, 1037,1162 0037 0060,0035, 0240,0045, 0042,0065, 0880 0035,0162, 0048,0047, 0000,0104, 0278,0046, 1162 0614,0616 1972 0039 0060,0240, 0000,0038, 0739 0240
ACTION 0. ACTIVE 0. ADB 2. ARCHER 0. GCC 0.0 SRTISH 0. FELECOM 0. DIGEO 1. DIGI 0. DIGECTOR 0. DIGECTOR 0. DIGECTOR 0. DIGECTOR 0. DIGECTOR 0. DIGECTOR 0. DIGECTOR 0. GE 0. G)237)237 2092,2586)237)276)003)008 1187,2187)637)77)77)77)77)77)77)77)	NETWORK SYSTEM DISHPRO ECHOSTAR EXPRESSVU FORTEC STAR FUNAI GE GENERAL INSTRUMENTS GOI HITACHI HOUSTON HTS HUGHES NETWORK SYSTEMS INNOVA	1392,1414,1442 1443,1609,1640 1505,1005,0775 1775 1505,1005,0775 1775 1505,1005,0775 1775 170,1775 0775,1775 1821 1377 0392,0566 0869 0775,1775 0749,0819,1250 0775 0775,1775 1142,0749,1749	ALIENWARE ALLEGRO AMERICA ACTION AMERICAN HIGH AMSTRAD ASHA ASTRA AUDIOVOX AVIS BEAUMARK BEAUMARK BEAL & HOWELL BROKSONIC CALIX CANDLE CANON CAPEHART CARRERA CARVER	1972 0039 1 0278 0035,0081 0000 0240 0035,0081 0000 0000,0072 0240 0035,0048,0039 0000,0104,0046 0479 0184,0121,0209 0082,0479 0037 0037,0038 0035 0002	KEC KENWOOD KLH KODAK KTV LG LINKSYS LLOYD'S LOEWE LOGIK LUMATRON LUXOR LXI M ELECTRONIC	0037,0278 0067,0041,0038 0046 0072 0035,0037 0000 0037,0240,0038 1037 1972 0240,0000,0072 0038 0081 0240,0000,0072 0278 0046 0037,0000,0042 0067 0240	RANDEX RCA REALISTIC REPLAY TV RICAVISION RUNCO SAMSUNG	0037 0060,0035, 0240,0045, 0042,0065, 0035,0162, 0037,0162, 0037,0162, 0037,0162, 0037,0162, 0037,0162, 0037,0162, 0037,0162, 0037,0162, 0037,0162, 0037,0162, 0037,0162, 0037,0162, 0037,0162, 0035,0162,004,004,004,000,000,000,000,000,000,00
ACTIVE 0. ADB 2: ARCHER 0. GC 0. GC 0. GRITISH 0. CENTURY 0. DIGE 1. CENTURY 0. DIGE 1. DIGE	2237 2092,2586 2237 2276 3003 30008 1187,2187 3637 30476 3057 30476 3057 3076 3076 3076 3003 30003 30003 30003 30476,0810,0276 3003 30000 30003 30000 30003 30000 30003 30000 30003 30000 30003 3076,0476,0810	NETWORK SYSTEM DISHPRO ECHOSTAR EXPRESSVU FORTEC STAR FUNAI GE GENERAL INSTRUMENTS GOI HITACHI HOUSTON HTS HUGHES NETWORK SYSTEMS INNOVA	1505,1005,0775 1170,1775 1505,1005,0775 1775 1505,1005,0775 1170,1775 1821 1377 0392,0566 0869 0775,1775 0749,0819,1250 0775 0775,1775 1142,0749,1749	ALLEGRO AMERICA ACTION AMERICAN HIGH AMSTRAD ASTRA AUDIOVOX AVIS BEAUMARK BELL & HOWELL BROKSONIC CALIX CANDLE CANON CAPEHART CARRERA CARVER	0039 1 0278 0035,0081 0000 0240 0035,0081 0000 0000,0072 0240 0035,0048,0039 0000,0104,0046 0479 0184,0121,0209 0002,0479 0037 0037,0038 0035 0002	KLH KODAK KTV LG LINKSYS LLOYD'S LOEWE LOGIK LUMATRON LUXOR LXI M ELECTRONIC	0046 0072 0035,0037 0000 0037,0240,0038 1037 1972 00240,0000,0072 0038 0081 00240,0000,0072 0278 0046 0037,0000,0042 0067 0240	RANDEX RCA REALISTIC REPLAY TV RICAVISION RUNCO SAMSUNG	0037 0060,0035, 0240,0045, 0880 0035,0162, 0048,0047, 0048,0047, 0048,0047, 1162 0039,0104, 0614,0616 1972 0039 0060,0240, 0060,0240, 0739 0240
NDB 2 RCHER 0. IGC 0. SCT 0. SENTURY 0. DIGEO 1* JOIGI 0. DIGEO 0. DOMONT 0. OOSGATE 0. DENECTOR 0. DENERAL 0. DISTRUMENT 0. DOLDSTAR 0. MITACHI 0. MOTOROLA 1. MOTOROLA 1. MOVA VISION 0. IQVA VISION 0. VACE 1.	2092,2586)237)276)003)008 1187,2187)637)476)637)276)144)476,0810,0276)003)003)003)144)003,0008)476,0810)476,08000)476,08000)476,0800)476,08000)476,08000)	NETWORK SYSTEM DISHPRO ECHOSTAR EXPRESSVU FORTEC STAR FUNAI GE GENERAL INSTRUMENTS GOI HITACHI HOUSTON HTS HUGHES NETWORK SYSTEMS INNOVA	1170,1775 1505,1005,0775 1775 1505,1005,0775 1170,1775 1821 1377 0392,0566 0869 0775,1775 0749,0819,1250 0775 0775,1775 1142,0749,1749	AMERICAN HIGH AMSTRAD ASHA ASTRA AUDIOVOX AVIS BEAUMARK BELL & HOWELL BROKSONIC CALIX CANDLE CANON CAPEHART CARRERA CARVER	035,0081 0240 0240 0035,0081 0000 0000,0072 0240 0035,0048,0039 0000,0104,0046 0479 0184,0121,0209 0002,0479 0037 0037,0038 0035 0002	KODAK KTV LG LINKSYS LLOYD'S LOEWE LOGIK LUMATRON LUXOR LXI M ELECTRONIC	0072 0035,0037 0000 0037,0240,0038 1037 1972 0240,0000,0072 0081 0240,0000,0072 0278 0046 0037,0000,0042 0067 0240	RCA REALISTIC REPLAY TV RICAVISION RUNCO SAMSUNG	0060,0035, 0240,0045, 0042,005,0102, 0048,0047,0 0048,0047,0 0000,0104, 0278,0046,0 1162 0614,0616 1972 0039 0060,0240, 0000,0038,0 0739 0240
NDB 2 RCHER 0. IGC 0. SCT 0. SENTURY 0. DIGEO 1* JOIGI 0. DIGEO 0. DOMONT 0. OOSGATE 0. DENECTOR 0. DENERAL 0. DISTRUMENT 0. DOLDSTAR 0. MITACHI 0. MOTOROLA 1. MOTOROLA 1. MOVA VISION 0. IQVA VISION 0. VACE 1.)237)276)2003)2008 1187,2187)637)476 0637)276)144)476,0810,0276)003)003)1144)4076,0810,0276)003)144)003,0008)476,0810)476,0810)476,0810)003)000)003)376,0476,0810	SYSTEM DISHPRO ECHOSTAR EXPRESSVU FORTEC STAR FUNAI GE GENERAL INSTRUMENTS GOI HITACHI HOUSTON HTS HUGHES NETWORK SYSTEMS INNOVA	1505,1005,0775 1775 1505,1005,0775 1170,1775 0775,1775 1821 1377 0392,0566 0869 0775,1775 0749,0819,1250 0775 0775,1775 1142,0749,1749	AMSTRAD ASTRA AUDIOVOX AVIS BEAUMARK BELL & HOWELL BROKSONIC CALIX CANDLE CANON CAPEHART CARRERA CARVER	0000 0240 0035,0081 0000 0000,0072 0240 0035,0048,0039 0000,0104,0046 0479 0184,0121,0209 0002,0479 0037,0038 0035 0035	KODAK KTV LG LINKSYS LLOYD'S LOEWE LOGIK LUMATRON LUXOR LXI M ELECTRONIC	0035,0037 0000 0037,0240,0038 1037 1972 0240,0000,0072 0081 0240,0000,0072 0278 0046 0037,0000,0042 0067 0240	REALISTIC REPLAY TV RICAVISION RUNCO SAMSUNG	0240,0045, 0042,0065, 0880 0035,0162, 0048,0047, 0000,0104, 0278,0046, 1162 0614,0616 1972 0039 0060,0240, 0000,0038, 0739 0240
RCHER 0. ICC 0. RITISH 0. ELECOM 10 ENTURY 0. IGEO 1. IGE 1. IGE 0. IGE 0. IGE 0. IGE 0. IGE 0. SEMERAL 0. SENERAL 0. SIGBALTER 0. SIGBALTER 0. ITACHI 0. ITACHI 0. ITACHI 0. IOTOROLA 1. IOTOROLA 1. IOVAVISION 0. IOVAVISION 0. ISC 0.)237)276)2003)2008 1187,2187)637)476 0637)276)144)476,0810,0276)003)003)1144)4076,0810,0276)003)144)003,0008)476,0810)476,0810)476,0810)003)000)003)376,0476,0810	DISHPRO ECHOSTAR EXPRESSVU FORTEC STAR FUNAI GE GENERAL INSTRUMENTS GOI HITACHI HOUSTON HTS HUGHES NETWORK SYSTEMS INNOVA	1775 1505,1005,0775 1170,1775 0775,1775 1821 1377 0392,0566 0869 0775,1775 0749,0819,1250 0775 0775,1775 1142,0749,1749	ASHA ASTRA AUDIOVOX AVIS BEAUMARK BELL & HOWELL BROKSONIC CALIX CANDLE CANON CAPEHART CARRERA CARVER	0240 0035,0081 0000 0000,0072 0240 0035,0048,0039 0000,0104,0046 0479 0184,0121,0209 0002,0479 0037 0037,0038 0035 0002	KTV LG LINKSYS LLOYD'S LOEWE LOGIK LUMATRON LUXOR LXI M ELECTRONIC	0000 0037,0240,0038 1037 1972 0240,0000,0072 0038 0081 0240,0000,0072 0278 0046 0037,0000,0042 0067 0240	REPLAY TV RICAVISION RUNCO SAMSUNG	0042,0065, 0880 0035,0162, 0048,0047, 0008,0104, 0278,0046, 1162 0614,0616 1972 0039 0060,0240, 0000,0038, 0739 0240
ACC 0. IRITISH 0. FELECOM 0. SENTURY 0. DIGEO 1°. DIGEO 1°. DIGEO 1°. DIGE 0. DIGEO 1°. DIGEO 0. DIGEO 1°. DIGEO 0. DIGEO 0. DIGEO 0. SE 0. SENERAL 0. ODLDSTAR 0. NSIGHT 0. NSIGHT 0. MEMOREX 0. MITSUBISHI 0. MOTOROLA 1°. NOVA VISION 0. IOVAPLEX 0. SC 0.)276)0003)008 187,2187)637)476 0537)2276)144 1476,0810,0276)003)144 144)003,0008)476,0810 144 1476,0810 1476,0810 1476,0810 1476,0810 003)000 3)000	ECHOSTAR EXPRESSVU FORTEC STAR FUNAI GE GENERAL INSTRUMENTS GOI HITACHI HOUSTON HTS HUGHES NETWORK SYSTEMS INNOVA	1775 1505,1005,0775 1170,1775 0775,1775 1821 1377 0392,0566 0869 0775,1775 0749,0819,1250 0775 0775,1775 1142,0749,1749	ASTRA AUDIOVOX AVIS BEAUMARK BELL & HOWELL BROKSONIC CALIX CANDLE CANON CAPEHART CARRERA CARVER	0035,0081 0000 0000,0072 0240 0035,0048,0039 0000,0104,0046 0479 0184,0121,0209 0002,0479 0037 0037,0038 0035 0002	LG LINKSYS LLOYD'S LOEWE LOGIK LUMATRON LUXOR LXI M ELECTRONIC	0037,0240,0038 1037 1972 0240,0000,0072 0038 0081 0240,0000,0072 0278 0046 0037,0000,0042 0067 0240	REPLAY TV RICAVISION RUNCO SAMSUNG	0880 0035,0162, 0048,0047, 0000,0104, 0278,0046, 1162 0614,0616 1972 0039 0060,0240, 0000,0038, 0739 0240
RITISH 0 ELECOM 0 ELECOM 0 DIGEO 1 DIGEO 1 DIGI 0 DIGI 0 DIGI 0 DIGI 0 DIGECTOR 0 OSE 0 SE 0 GOLDSTAR 0 OSIGHT 0 SIGHT 0 NSTRUMENT 0 MITACHI 0 MITACHI 0 MOTOROLA 1 MOTOROLA 1 NOVA VISION 0 IOVAPLEX 0 MACE 1	0003 0008 1187,2187 0637 0637 0637 0276 0144 0476,0810,0276 0003 0144 0003,0008 0476,0810 0476,0810 0476,0810 0476,0810 0476,0810 0476,0810 003 0003	EXPRESSVU FORTEC STAR FUNAI GE GENERAL INSTRUMENTS GOI HITACHI HOUSTON HTS HUGHES NETWORK SYSTEMS INNOVA	1505,1005,0775 1170,1775 1821 1377 0392,0566 0869 0775,1775 0749,0819,1250 0775 0775,1775 1142,0749,1749	AUDIOVOX AVIS BEAUMARK BELL & HOWELL BROKSONIC CALIX CANDLE CANON CAPEHART CARRERA CARVER	0000 0000,0072 0240 0035,0048,0039 0000,0104,0046 0479 0184,0121,0209 0002,0479 0037 0037,0038 0035 0002	LINKSYS LLOYD'S LOGIK LUMATRON LUXOR LXI M ELECTRONIC	1037 1972 0240,0000,0072 0038 0081 0240,0000,0072 0278 0046 0037,0000,0042 0067 0240	REPLAY TV RICAVISION RUNCO SAMSUNG	0035,0162, 0048,0047, 0000,0104, 0278,0046, 1162 0614,0616 1972 0060,0240, 0000,0240, 0000,0038, 0739 0240
TELECOM TELECOM CENTURY DIGEO DIGEO DIGE DIRECTOR DIRECTOR DIRECTOR DIRECTOR DIRECTOR DIRECTOR DIRECTOR DIRECTOR DIRECTOR SE O SENERAL O SOLDSTAR O NSIGHT O MITSUBISHI MOVAVISION IOVAVISION IOVAVISION ISC VACE	0008 1187,2187 1637 1476 10637 1276 10144 1476,0810,0276 1003 1003 1003 1044 144 1003,0008 1444 1003,0008 14476,0810 10476,0810 10476,0810 10476,0810 103 1005 105 1	EXPRESSVU FORTEC STAR FUNAI GE GENERAL INSTRUMENTS GOI HITACHI HOUSTON HTS HUGHES NETWORK SYSTEMS INNOVA	1170,1775 0775,1775 1821 1377 0392,0566 0869 0775,1775 0749,0819,1250 0775 0775,1775 1142,0749,1749	AVIS BEAUMARK BELL & HOWELL BROKSONIC CALIX CANDLE CANON CAPEHART CARRERA CARVER	0000,0072 0240 0035,0048,0039 0000,0104,0046 0479 0184,0121,0209 0002,0479 0037 0037,0038 0035 0002	LLOYD'S LOEWE LOGIK LUMATRON LUXOR LXI M ELECTRONIC	1972 0240,0000,0072 0038 0081 0240,0000,0072 0278 0046 0037,0000,0042 0067 0240	RICAVISION RUNCO SAMSUNG	0000,0104, 0278,0046, 1162 0614,0616 1972 0039 0060,0240, 0000,0038, 0739 0240
EENTURY 0 DIGE 1 DIGESCARE 0 OSGGATE 0 SE 0 DENERAL 0 DENERAL 0 DISBRALTER 0 NSIGHT 0 NSIGHT 0 MITSUBISHI 0 MOTOROLA 1 IOVA VISION 0 IOVA VISION 0 ISC 0 VACE 1	1187,2187 1637 1637 1647 1667 1276 1144 1476,0810,0276 1003 10144 1003,0008 1444 1003,0008 1446,0810 1476,0810 1476,0810 1476,0810 1003 1000 1003 1376,0476,0810 1376,0476,0800 1376,0476,0800 1376,0476,0800 1376,0476,0800 1376,0476,0800 1376,0476,0476,0476,0800 1376,0476,0476,0800 1376,0476	FORTEC STAR FUNAI GE GENERAL INSTRUMENTS GOI HITACHI HOUSTON HTS HUGHES NETWORK SYSTEMS INNOVA	0775,1775 1821 1377 0392,0566 0869 0775,1775 0749,0819,1250 0775 0775,1775 1142,0749,1749	BEAUMARK BELL & HOWELL BROKSONIC CALIX CANDLE CANON CAPEHART CARRERA CARVER	0240 0035,0048,0039 0000,0104,0046 0479 0184,0121,0209 0002,0479 0037 0037,0038 0035 0002	LLOYD'S LOEWE LOGIK LUMATRON LUXOR LXI M ELECTRONIC	0240,0000,0072 0038 0081 0240,0000,0072 0278 0046 0037,0000,0042 0067 0240	RICAVISION RUNCO SAMSUNG	0278,0046, 1162 0614,0616 1972 0039 0060,0240, 0000,0038, 0739 0240
DIGEO 1' DIGI 0 DIRECTOR 0 DUMONT 0 OOSGATE 0 DESENERAL 0 DIBRALTER 0 OOLDSTAR 0 GOLDSTAR 0 HITACHI 0 NSIGHT 0 MEMOREX 0 MOTOROLA 1 NOVA VISION 0 IOVAVISION 0 VACE 1	1187,2187 1637 1637 1647 1667 1276 1144 1476,0810,0276 1003 10144 1003,0008 1444 1003,0008 1446,0810 1476,0810 1476,0810 1476,0810 1003 1000 1003 1376,0476,0810 1376,0476,0800 1376,0476,0800 1376,0476,0800 1376,0476,0800 1376,0476,0800 1376,0476,0476,0476,0800 1376,0476,0476,0800 1376,0476	FORTEC STAR FUNAI GE GENERAL INSTRUMENTS GOI HITACHI HOUSTON HTS HUGHES NETWORK SYSTEMS INNOVA	1821 1377 0392,0566 0869 0775,1775 0749,0819,1250 0775,1775 0775,1775 1142,0749,1749	BELL & HOWELL BROKSONIC CALIX CANDLE CANON CAPEHART CARRERA CARVER	0035,0048,0039 0000,0104,0046 0479 0184,0121,0209 0002,0479 0037 0037,0038 0035 0002	LOEWE LOGIK LUMATRON LUXOR LXI M ELECTRONIC	0038 0081 0240,0000,0072 0278 0046 0037,0000,0042 0067 0240	RICAVISION RUNCO SAMSUNG	1162 0614,0616 1972 0039 0060,0240, 0000,0038, 0739 0240
DIGI 0 DIRECTOR 0 DIRECTOR 0 DIMECTOR 0 COSGATE 0 OSE 0 SE 0 GENERAL 0 OIDSTRUMENT 0 GOLDSTAR 0 HITACHI 0 NSIGHT 0 MEMOREX 0 MOTOROLA 1 NOVA VISION 0 IOVAPLEX 0 VACE 1	0637 0476 0537 0276 0144 0476,0810,0276 0003 0144 0003,0008 0144 0003,0008 0476,0810,0276 0003 0004 0476,0810,0276 0003 0000 0003 00	FUNAI GE GENERAL INSTRUMENTS GOI HITACHI HOUSTON HTS HUGHES NETWORK SYSTEMS INNOVA	1377 0392,0566 0869 0775,1775 0749,0819,1250 0775 0775,1775 1142,0749,1749	BROKSONIC CALIX CANDLE CANON CAPEHART CARRERA CARVER	0000,0104,0046 0479 0184,0121,0209 0002,0479 0037 0037,0038 0035 0002	LOGIK LUMATRON LUXOR LXI M ELECTRONIC	0081 0240,0000,0072 0278 0046 0037,0000,0042 0067 0240	RICAVISION RUNCO SAMSUNG	0614,0616 1972 0039 0060,0240, 0000,0038, 0739 0240
DIRECTOR 0. DUMONT 0. VOSGATE 0. SE 0. SE 0. SENERAL 0. OSDATES 0. SIBRALTER 0. OIDSTAR 0. NITACHI 0. VISIGHT 0. MITSUBISHI 0. MOTOROLA 1. NOVA VISION 0. IOVA VISION 0. ISC 0.	0476 0637 1276 0144 144 144 144 144 1003 1003 1044 1003 1044 1003 1044 1003 1047	GE GENERAL INSTRUMENTS GOI HITACHI HOUSTON HTS HUGHES NETWORK SYSTEMS INNOVA	0392,0566 0869 0775,1775 0749,0819,1250 0775 0775,1775 1142,0749,1749	CALIX CANDLE CANON CAPEHART CARRERA CARVER	0479 0184,0121,0209 0002,0479 0037 0037,0038 0035 0002	LÚMATRON LUXOR LXI M ELECTRONIC	0278 0046 0037,0000,0042 0067 0240	RICAVISION RUNCO SAMSUNG	1972 0039 0060,0240, 0000,0038, 0739 0240
JUMONT 0 OSGATE 0 SE 0 SENERAL 0 VSTRUMENT 0 JBRALTER 0 JBRATT 0 JBRATT 0 VSTRUMENT 0 IDTACHI 0 VSIGHT 0 MITSUBISHI 0 IOTOROLA 1 IOVA VISION 0 IOVA VISION 0 ISC 0 ACE 1)637)276)476,0810,0276)003)003)003)1144)003,008)476,0810)476,0810)476,0810)476,0810)003)000)003)376,0476,0810	GE GENERAL INSTRUMENTS GOI HITACHI HOUSTON HTS HUGHES NETWORK SYSTEMS INNOVA	0392,0566 0869 0775,1775 0749,0819,1250 0775 0775,1775 1142,0749,1749	CALIX CANDLE CANON CAPEHART CARRERA CARVER	0184,0121,0209 0002,0479 0037 0037,0038 0035 0002	LUXOR LXI M ELECTRONIC	0046 0037,0000,0042 0067 0240	RUNCO SAMSUNG	0039 0060,0240, 0000,0038, 0739 0240
JUMONT 0 OSGATE 0 SE 0 SENERAL 0 VSTRUMENT 0 JBRALTER 0 JBRATT 0 JBRATT 0 VSTRUMENT 0 IDTACHI 0 VSIGHT 0 MITSUBISHI 0 IOTOROLA 1 IOVA VISION 0 IOVA VISION 0 ISC 0 ACE 1)637)276)476,0810,0276)003)003)003)1144)003,008)476,0810)476,0810)476,0810)476,0810)003)000)003)376,0476,0810	GENERAL INSTRUMENTS GOI HITACHI HOUSTON HTS HUGHES NETWORK SYSTEMS INNOVA	0869 0775,1775 0749,0819,1250 0775 0775,1775 1142,0749,1749	CANDLE CANON CAPEHART CARRERA CARVER	0037 0037,0038 0035 0002	LXI M ELECTRONIC	0037,0000,0042 0067 0240	SAMSUNG	0060,0240, 0000,0038, 0739 0240
OSGATE 0. SE OSGATE 0 SENERAL 0 SIBRALTER 0 SOLDSTAR 0 IITACHI 0 SOLDSTAR 0 IITACHI 0 SOLDSTAR 0 IITACHI 0 IITSUBISHI 0 IOTOROLA 1 IOVA VISION 0 IOVAPLEX 0 ACE 1	0276 1144 1476,0810,0276 1003 1003 10144 1003,0008 1476,0810 1476,0810 1476,0810 1476,0810 1003 1000 1376,0476,0810	INSTRUMENTS GOI HITACHI HOUSTON HTS HUGHES NETWORK SYSTEMS INNOVA	0775,1775 0749,0819,1250 0775 0775,1775 1142,0749,1749	CANDLE CANON CAPEHART CARRERA CARVER	0037,0038 0035 0002	M ELECTRONIC	0067 0240		0000,0038, 0739 0240
E 0 ENERAL 0 ISTRUMENT 0 IBRALTER 0 IDOLDSTAR 0 ITACHI 0 ITACHI 0 ITACHI 0 ITACHI 0 ITSUBISHI 0 IOTOROLA 1 IOTOROLA 1 IOVA VISION 0 IOVAPLEX 0 ACE 1)144)476,0810,0276)003)103)144)003,0008)476,0810)476,0810)476,0810,0276)003)000)003]376,0476,0810	GOI HITACHI HOUSTON HTS HUGHES NETWORK SYSTEMS INNOVA	0749,0819,1250 0775 0775,1775 1142,0749,1749	CANON CAPEHART CARRERA CARVER	0035 0002		0240	SAMTRON	0240
IBRALERAL USTRUMENT IBRALTER OOLDSTAR ITACHI ITACHI ITACHI ITSUBISHI IOTOROLA IOTOROLA IOVA VISION IOVA VISION IOVA VISION IOCA ICAC I ISC I I I I I I I I I I I I I	0476,0810,0276 0003 0103 0144 0476,0810 0476,0810 0476,0810,0276 0003 0000 0003 0376,0476,0810	HITACHI HOUSTON HTS HUGHES NETWORK SYSTEMS INNOVA	0749,0819,1250 0775 0775,1775 1142,0749,1749	CAPEHART CARRERA CARVER	0002			SAMTRON	
NSTRUMENT 0 IBRALTER 0 IGLDSTAR 0 ITACHI 0 ISIGHT 0 VSIGHT 0 VSIGHT 0 IEMOREX 0 IITSUBISHI 0 IOTOROLA 1 OVA VISION 0 IOVAPLEX 0 SC 0 ACE 1	0003 0003 0144 0003,0008 0476,0810 0476,0810,0276 0003 0000 0003 0003 0376,0476,0810	HOUSTON HTS HUGHES NETWORK SYSTEMS INNOVA	0775 0775,1775 1142,0749,1749	CARRERA CARVER		MAGNASONIC	0027 0240 0000		
IBRALTER 0 IDLDSTAR 0 ITACHI 0 ITACHI 0 ISIGHT 0 ERROLD 0 IEMOREX 0 ITSUBISHI 0 IOTOROLA 1 IOTOROLA 1 IOVA VISION 0 IOVAPLEX 0 SC 0 ACE 1	0003 0144 0003,0008 0476,0810 0476,0810,0276 0003 0000 0003 1376,0476,0810	HTS HUGHES NETWORK SYSTEMS INNOVA	0775,1775 1142,0749,1749	CARVER		MAGNASONIC	0037,0240,0000 0072,0278	SANKY	0048,0039
COLDSTAR 0 IITACHI 0 IITACHI 0 SIGHT 0 ERROLD 0 IEMOREX 0 IITSUBISHI 0 IOTOROLA 1 IOVA VISION 0 IOVAPLEX 0 SC 0 ACE 1	0144 0003,0008 0476,0810 0476,0810,0276 0003 0000 0003 1376,0476,0810	HUGHES NETWORK SYSTEMS INNOVA	1142,0749,1749		0240	MAGNAVOX	0035,0037,0048	SANSUI	0240,0000,
IITACHI 0 ISIGHT 0- ERROLD 0- IEMOREX 0- IITSUBISHI 0- IOTOROLA 1- 0- IOVA VISION 0- IOVA VISION 0- IOVAPLEX 0- SC 0- ACE 1-	0003,0008 0476,0810 0476,0810,0276 0003 0000 0003 1376,0476,0810	NETWORK SYSTEMS INNOVA			0033,0081		0039,0081,0240		0209,0041, 0002,0479
NSIGHT 0 ERROLD 0 MEMOREX 0 INTSUBISHI 0 IOTOROLA 1. IOVA VISION 0 IOVAPLEX 0 ISC 0 ACE 1	0476,0810 0476,0810,0276 0003 0000 0003 1376,0476,0810	NETWORK SYSTEMS INNOVA	1442,1443	CINERAL	0278		0000,0563,0618	SANYO	0047,0240,
ERROLD 0 IEMOREX 0 IITSUBISHI 0 IOTOROLA 1 IOVA VISION 0 IOVAPLEX 0 SC 0 ACE 1	0476,0810,0276 0003 0000 0003 1376,0476,0810	INNOVA		CITIZEN	0035,0037,0240		1593	0/1110	0104,0046,
ERROLD 0 IEMOREX 0 IITSUBISHI 0 IOTOROLA 1 IOVA VISION 0 IOVAPLEX 0 SC 0 ACE 1	0476,0810,0276 0003 0000 0003 1376,0476,0810				0000,0209,0278	MAGNIN	0240		0479
IEMOREX 0 IITSUBISHI 0 IOTOROLA 1: 0 IOVA VISION 0 IOVA VISION 0 IOVAPLEX 0 SC 0 ACE 1:	0003 0000 0003 1376,0476,0810		0099		0479	MARANTZ	0035,0081,0038	SCOTT	0184,0045,
IEMOREX 0 IITSUBISHI 0 IOTOROLA 1: 0 IOVA VISION 0 IOVAPLEX 0 ISC 0 ACE 1:	0000 0003 1376,0476,0810		0869	CLASSIC	0037	MARTA	0037	05453	0043
IITSUBISHI 0 IOTOROLA 1 1000A VISION 0 IOVAPLEX 0 ISC 0 ACE 1)003 1376,0476,0810	JVC	0775,1170,1775	COLORTYME	0060,0035,0045	MATSUI MATSUSHITA	0037,0209 0035,0162,0081	SEARS	0060,0035,
IOTOROLA 1: 0. 10VA VISION 0 10VAPLEX 0 1SC 0 ACE 1	1376,0476,0810	LG	1414		0278	MILIOUSTIIA	1162		0037,0048, 0047,0033,
IOVA VISION 0 IOVA VISION 0 IOVAPLEX 0 ISC 0 ACE 1				COLT	0000,0072	MEDIA CENTER			0047,0033,
11 IOVA VISION 01 IOVAPLEX 01 ISC 01 ACE 11		MAGNAVOX	0722	CRAIG	0037,0047,0240 0072	PC			0067,0043,
OVA VISION 0 OVAPLEX 0 ISC 0 ACE 1)276,1187,1254 I106	MCINTOSH	0869	CRITERION	0072	MEI	0035		0041,0072,
OVAPLEX 0 ISC 0 ACE 1		MITSUBISHI	0749	CROSLEY	0035,0081,0000	MEMOREX	0035,0162,0037		0065,0105
ACE 0	0008	MOTOROLA	0869,0856	CROWN	0072,0278		0048,0039,0047	SHARP	0048,0047,
ACE 1	8000	NETSAT	0099	CURTIS MATHES	0060,0035,0162		0240,0000,0104	CHINTON	0000,0065,
	0637	NEXT LEVEL	0869		0240,0000,0041		0209,0072,0278 0046,0479,1037	SHINTOM	0039,0240, 0072
	1877,0877,0237				0278,0432		1162	SHOGUN	0072
0	0008	PANASONIC	0247,0701	CYBERNEX	0240	METZ	0037	SIEMENS	0240
ANASONIC 0	0000,0008,0144	PANSAT	1807	CYBERPOWER	1972	MGA	0060,0240,0043	SIGNATURE	0060,0035,
	0637	PHILIPS	1142,0749,1749	DAEWOO	0037,0045,0278	MGN	0240	ololi v li oli L	0048,0000,
			0775,0819,1076		0046	TECHNOLOGY			0065,0479
	0000,0008,0525		0722,0099,1442	DAYTRON DELL	0037,0278 1972	MICROSOFT	1972	SINGER	0037,0240,
	0000,0637	PIONEER PRIMESTAR	1142,1442 0869	DENON	0081,0042	MIDLAND	0240	SONIC BLUE	0614,0616
PHILIPS 1	1305,0317	PROSCAN	0392,0566	DERWENT	0041	MIND	1972	SONOGRAPHE	0046
	1877,0877,0144	RADIOSHACK	0566,0775,0869	DIRECTV	0739	MINOLTA	0042,0105	SONY	0035,0047,
0)533	RCA	0392,0566,1142	DUAL	0000	MITSUBISHI	0060,0048,0047 0000,0042,0067		0033,0000, 0046,0636,
ULSAR 0	0000	Ron	0775,0855,0143	DURABRAND	0039,0038		0043,0041		1972
UASAR 0	0000		1392,1442	DYNATECH	0240,0000	MOTOROLA	0035,0048	SOUNDMASTER	0000
	0276	SAMSUNG	1377,1142,1276	ELECTROHOME	0060,0037,0240	MOVIE WALKER		STACK 9	1972
	0000		1108,1109,1442		0000,0043,0209	MTC	0240,0000,0072	STS	0042,0105
		CIV/	1609 0856.0099	ELECTROPHONIC		MTX	0000	SV2000	0000,0072
	0003,0144	SKY SONY		EMERALD	0184,0121	MULTITECH	0039,0000,0072	SVA	0000
ASKTEL 1	1737	STAR CHOICE	0639,1639,1640 0869	EMEREX	0032	NAD	0240,0104	SYLVANIA	0035,0081,
	1877,0877,0477	STAR TRAK	0869	EMERSON	0037,0184,0240 0000,0121,0043	NEC	0104,0067,0041		0043,1593
	0237,0003,0000	THOMSON	0392.0566		0209,0002,0278		0038	SYMPHONIC	0240,0000, 1593
	8000	TIVO	1142,1442,1443		0479,1593	NEW TECH	0072	SYSTEMAX	1972
ONY 1	1006	TOSHIBA	0749,1749,0790	FISHER	0039,0047,0000	NIKKO	0037,0278	TAGAR SYSTEMS	
PRUCER 0)144	ULTIMATE TV	1392,1640		0104,0046	NIKKODO NISHI	0037,0278 0240	TANDY	0000,0104
TARCOM 0	0003	ULTRASAT	1806	FUJI	0035,0033	NIVEUS MEDIA		TASHIKO	0037
	0637	UNIDEN	0722	FUJITSU	0000	NOBLEX	0240	TATUNG	0048,0081,
		VOOM	0869	FUNAI	0037,0000,0072	NORTHGATE	1972		0067,0041
	0276	ZENITH	0856,1856,1810		0278,1593	OLYMPUS	0035,0162,0104	TEAC	0000,0067,
	0003	0.47/71/7	00055	GARRARD GATEWAY	0000 1972	ONKYO	0222	TECHNICS	0035,0162
	0000	SAT/PVR	CODES	GE	0060,0035,0048	OPTIMUS	1062,0035,0162		0000
NITED CABLE 0	0276,0003	COMBO	0775 1170	JL .	0240.0000.0065		0037,0048,0047	TEKNIKA	0035,0037,
	276,0003,0008	BELL EXPRESSVU	0775,1170	GEMINI	0060		0240,0000,0104	TELECORDER	0240
LECTRONICS		DIRECT TV	1377,0392,0639	GENEXXA	0037,0000,0278		0432,1048,1162	TELEFUNKEN TEVION	0041 0479
IDEOWAY 0	0000	2	1142,1076,0099	GO VIDEO	0240,0432,0526	ORION	0184,0240,0000 0104,0121,0209	THOMAS	0479 0000.0002
	0000,0525		1392,1442,1443		0614		0104,0121,0209 0002,0278,0479	THOMAS	0000,0002
			1640	GOLDSTAR	0035,0037,0039	PANAMA	0035	TISONIC	0000,0041
	20052	DISH	1505,0775	0000044410	0000,0278,0038	PANASONIC	1062,0035,0162	TIVO	0618,0636,
ABLE/PVR C OMBO	CODES	NETWORK SYSTEM		GOODMANS	0037,0081,0000 0072,0278		0000,0225,0614		1337
	1107 2107	DISH PRO	1505,0775	GRADIENTE	0072,0278		0616,1162	TMK	0240,0000
	1187,2187	ECHOSTAR	1505,0775,1170	GRADIENTE	0081.0042	PENNEY	0035,0162,0037	TNIX	0037
	0810	EXPRESSVU	0775	GRUNDIG	0081,0042		0047,0081,0240	TOCOM	0240
ISTRUMENTS		HUGHES	1142,1442,1443	HARLEY DAVISON			0000,0042,0067 0038	TOSHIBA	0240,0045,
	0810	NETWORK		HARMAN/	0081,0038	PENTAX	0038		0043,0209,
	1376,0810,1187	SYSTEMS		KARDON		PHILCO	0035,0081,0000	TOSONIC	1008,1972,
	1106	JVC	1170	HARVARD	0072		0209,0479	TOSONIC TOTEVISION	0278 0037,0240
ACE 1	1877,0237	MOTOROLA	0869	HARWOOD	0072	PHILIPS	0035,0162,0048	TOUCH	1972
IONEER 1	1877,0877	PHILIPS	1142,1442	HEADQUARTER	0046		0081,0045,0000	TRIX	0037
	1737	PROSCAN	0392	HEWLETT	1972		0209,0616,0618	ULTRA	0045,0278
		RCA	1392	PACKARD	0025 0047 0000		0739,1081,1181	UNITECH	0240
TLANTA	1877,0877	SAMSUNG	1442	HI-Q	0035,0047,0000	PILOT PIONEER	0037 0162,0081,0042	VECTOR	0045
	1006	SONY	0639,1640	HITACHI	0035,0037,0045	FIUNEER	0162,0081,0042	VECTOR	0184,0038
	1006	STAR CHOICE	0869		0000,0042,0041	POLK AUDIO	0067,1337	RESEARCH	
UPERCABLE 0	0276		1142,1442,1443	HOWARD	0065,0105 1972	POLK AUDIO PORTLAND	0081	VEXTRA	0072
		ZENITH	1810	COMPUTERS	1012	PORTLAND	1593	VICTOR	0067,0041
ATELLITEC	CODES	VCP Prend	CODES	HP	1972	PROFITRONIC	0240	VIDEO	0045
ATELLITE C RAND		VCR Brand A-MARK	CODES 0037,0240,0000	HUGHES	0042,0739	PROSCAN	0240	CONCEPTS	
Set Top Box)			0037,0240,0000 0278,0046	NETWORK	,	PROTEC	0000,0072	VIDEOMAGIC	0037
ELL 0	0775,1170	ABS	1972	SYSTEMS		PROTECH	0072	VIDEOSONIC	0240,0000,
XPRESSVU	., .	ACCURIAN	0000	HUMAX	0739,1797,1988	PULSAR	0039,0240,0278	VIEWSONIC	1972
HAPARRAL 0	0216	ADMIRAL	0060,0048,0039	HUSH	1972	PULSER	0240	VILLAIN	0000
	1806,2147		0047,0104,0209 0065,0479	HYTEK IBUYPOWER	0047,0000,0072 1972	QUARTER	0046	VOODOO	1972

Remote Control Codes

WARDS	0060,0035,0037 0048,0047,0081
	0033,0240,0045
WHITE	0041,0072,0038
WESTINGHOUSE	
XR-100	0209,0002,0479
YAMAHA	0072 0041,0038
ZENITH	0037,0039,0033 0000,0209,0041
ZT GROUP	0278,0479,1139 1972
PVR Brand	CODES
ABS	1972
ALIENWARE CYBERPOWER	1972 1972
DELL	1972
DIRECTV GATEWAY	0739 1972
GO VIDEO	0614 1972
HEWLETT PACKARD	
HOWARD COMPUTERS	1972
HP	1972 0739
HUGHES NETWORK	0759
SYSTEMS HUMAX	0739,1797,1988
HUSH	1972 192
IBUYPOWER LINKSYS	192
MEDIA CENTER PC	1972
MICROSOFT	1972
MIND NIVEUS MEDIA	1972 1972
NORTHGATE	1972
PANASONIC PHILIPS	0614,0616 0618,0739
PIONEER	1337
RCA	0880
REPLAY TV SAMSUNG	0614,0616 0739
SONIC BLUE	0614,0616
SONY STACK 9	0636,1972 1972
SYSTEMAX	1972
TAGAR SYSTEMS	1972
TIVO	0618,0636,0739 1337
TOSHIBA	1008,1972,198
TOUCH VIEWSONIC	1972 1972
VOODOO ZT GROUP	1972 1972
DBS/PVR	CODES
COMBO DIRECTV	0739
HUGHES	0739
NETWORK SYSTEMS	
PHILIPS SAMSUNG	0739 0739
TIVO	0739
DVD/PVR COMBO	CODES
HUMAX PIONEER	1797,1988 1337
RCA SYLVANIA	0880 0000
TIVO TOSHIBA	1337 1008,1988
3D LAB	CODES 0503,0539
ACCURIAN ACOUSTIC	0675,1416 0730
SOLUTIONS ADCOM	1094
AFREEY AIWA	0698 0641
AKAI	
	0695,0705,0770 1089

ALBA

ALCO

ALLEGRO

0672

0790

0869

7 1	AMPHION MEDIA WORKS	0872
-5 -3	AMW	0872
8	APEX DIGITAL	0533,0672,10
6 2	ARRGO	1056,1061 1023
	ASPIRE	1168
'9 10	DIGITAL	
0	AUDIOVOX AWA	0790 0730
3	B&K	0655,0662
1	BBK	1224
9	BEL CANTO	1571
	DESIGN BLUE PARADE	0571
	BLUE SKY	0695
	BROKSONIC	0695
	CALIFORNIA	0490
	AUDIO LABS CELESTIAL	1020
	CENTREX	0672
	CINEA	0831
	CINEVISION	0876,0833,08
	CITIZEN	1003,0695,12 1587,2116
	CLAIRTONE	0571
	COBY	0778,0852,10
		1086,1107,11
	CRAIG	1177,1351 0831
	CREATIVE	0503,0539
8	CURTIS	1087
	MATHES	
	CYBERHOME	0816,0874,10 1024,1129,15
		1537
	CYTRON	0705
	DAEWOO	0784,0705,0 0833,0869,1
		1172,1234,12
	DANSAI	0770
	DAYTEK	0872
	DECCA DENON	0770 0490,0634
	DENVER	0778
	DIGITREX	0672
	DISNEY	0675,1270
	DI VIDO	0705
	DUAL DURABRAND	0675 1127
	DVD2000	0521
	EMERSON	1003,2116
	ENTERPRISE	0591,0675
39	ENTIVO	0503,0539
	ENZER FISHER	0770 1919
38	FUNAI	0675
	GATEWAY	1073,1077,17
	GE	0522,0815
	GO VIDEO	0573,0744,07
		0741,0783,08
		0869,1044,10 1099,1144,11
	GOLDSTAR	1304,1730
	GOODMANS	0741,0869 0790
	GPX	0769
	GRADIENTE	0490
	GRUNDIG	0539,0705
	HARMAN/ KARDON	0582,0702
	HELLO KITTY	0831
	HITACHI HITEKER	0573,0664,19 0672
	INSIGNIA	2095
	INTEGRA IRT	0571,0627 0783
	JBL	0702
	JMB JSI	0695 1423
	JVC	0558,0623,08
	JWIN	1164 1049,1051
	KAWASAKI	0790
	KENWOOD KLH	0490,0534 0790,1020,11
	KLOSS	0533
0	KONKA KOSS	0711,0721
	LASONIC	0769,1061,14 0627
	LECSON	1533
	LENOXX LG	1127 0591,0741,08

0872	LITEON
0872 0533,0672,1020 1056,1061 1023	LOEWE LOGIX MAGNASONIC MAGNAVOX
1168	MALATA MARANTZ
0790 0730 0655,0662	MCINTOSH MEMOREX
1224 1571 0571	MICROSOFT MINATO MITSUBISHI MUSTEK
0695 0695 0490	MYRAD NAD NAIKO NEC NEXXTECH
1020 0672 0831	NINTAUS NORCENT
0876,0833,0869 1003,0695,1277	ONKYO OPPO
1587,2116 0571 0778,0852,1077 1086,1107,1165	OPTIMUS PALSONIC PANASONIC
1177,1351 0831 0503,0539	PHILCO PHILIPS
1087 0816,0874,1023	PIANODISC PIONEER
1024,1129,1502 1537 0705	POLAROID POLK AUDIO PORTLAND
0784,0705,0770 0833,0869,1169 1172,1234,1242	PRESIDIAN PRIMA PROCEED
0770 0872	PROSCAN PROVISION RADIONETTE
0770 0490,0634 0778	RADIOSHACK RCA
0672 0675,1270	REALISTIC REOC RIO
0705 0675	RJTECH ROTEL SAMPO
1127 0521 1003,2116	SAMSUNG
0591,0675 0503,0539	SANSUI SANYO
0770 1919 0675	SCHNEIDER SCHWAIGER SENSORY SCIE SHARP
1073,1077,1158 0522,0815 0573,0744,0715	SHERWOOD
0741,0783,0833 0869,1044,1075 1099,1144,1158 1304,1730	SHINSONIC SLIM ART SM ELECTRON SONIC BLUE
0741,0869 0790	SONY
0769 0490 0539,0705	SYLVANIA SYMPHONIC
0582,0702 0831	TAG MCLAREN TATUNG TEAC
0573,0664,1919 0672 2095	TECHNICS TECHNIKA TECHSONIC
0571,0627 0783 0702	THETA DIGITAL THOMSON
0695 1423 0558,0623,0867	TIVO TOSHIBA
1164 1049,1051 0790	TREDEX
0490,0534 0790,1020,1149 0533	UNIMAX UNITED UNIVERSUM
0711,0721 0769,1061,1423 0627	URBAN CONCE V
1533 1127 0591,0741,0869	VENTURER VIZIO

	1058 1440 0741 0783	,1 [,]	158	s,14	16
;	0675 0503 0675				
	1159 0503 0675	,0; .1;	539 354	9,06 1.15	646 506
	0675 1533 0695	,1: ,0	273 831	,12	270
	2213 0522 0752	,20	083	3	
	1521 0730 0894	,0	521		
	0741 0770				
	0785 1402 1051	,08	865)	
	1003 1265				
	0503 0575 2185				
	0571 0672 0503				71
	0703 0675	,1(641	,17	'62
	0503 0675 1354	,1:	267	7,13	340
	1024 0525	,0	571	,01	
	0631 1020 0539	,14 ,1(571 061	,10	86
	0770 0675	2	107	,	
	2126 0672 0522	,2	121		
	0778 0741 0571				
	0522 0822				'90
	0571 0752 0869				
	1360 0623 0698	,1 [,]	178	5	
	0490 0199	,0; ,0;	573 820	3,07),10	
	1075 0695 0675				373
	1919 0783	, -		,	
ENCE	0752 1158 0630	,0(675	5,07	752
	1256 0633 1077	,0	770),10)43
	0533 0784				
NIC	0730 0573 0869	,0; .1(715 099	5,07	783
	0869 0533 1033	,1(070),14	864 131
	1516 0675 0675	,1:	530)	
N	0894 0770 0571	0.	790)	
	0490 0770	,0	703	3	
L	0730 0571				
	0522 1503				
	0503 0695 1608	.11	154	.15	
	0800 0770	,0	803	3	
	0730 0591				
EPTS	0503 1064				
	0790 1064	,1:	226	6	

1360 0522,2083 0490,0539,0545 0497 0872 0503,0591,0741 0869 0784 1265 CODES 0741 1641 2084
0142 0199 1516 CODES 1730 0490 1340 0631
0522 1256 1033,1070,1536 0675 1503 CODES 0741 2083
1769 1769 1769 2083 CODES 1405,0189,0121
1405,0188,0121 1243,1388,1641 1390 1609 1774 1189 1189 0820,0840 0639,1253,1933 1602 0189 0189,0189,0121 0014 1414 1360,0121,1142 1360,0121,1142 1360,0121,1142 1360,0121,1142 1360,0121,1142 1360,0121,1142 1360,0121,1142 1360,0121,1142 1360,0121,1142 1360,0121,1142 1360,0121,1142 1360,012,1142 1360,012,1142 1300 1855 1306 1257,1569 1390,1428 1390 1570,1569 1390,1428 1397 1390,1428 1397 1390,1428 1497 2197 0189 1497 1189,1269,0189 1393 1189 0097,1555 0842,1298,1320 1805 1023,0014,0121 0670 1497 1308,1518,1288 1316,1548,1633 1763,1764,2967 1189,1266,0189 0891,1266 1023,0014,0121 0670 1497 1497 149,1266,0189 0891 1308,1518,1288 1316,1548,1633 1763,1764,2967 1384,1935

RCA REALISTIC REVOX SAMSUNG SANGEAN SANSUI SHERWOOD SIRIUS SONY	1023,1609,1390 1609,0121 0189 1304,1500,1868 2165 1189,0189 1913 1602,1811 1058,1441,1258 1759,1622,1406 1558,1658,1758
SOUNDESIGN STEREOPHONICS TEAC TECHNICS THORENS TOSHIBA VENTURER WARDS XM YAMAHA	1858 0670
AUDIO	CODES
AMPLIFIER Brand ADCOM BOSE CARVER CARY AUDIO DESIGN CLASSE FLEXTRONICS HALCRO HARMAN/ KARDON KRELL LEFT COAST LEXICON MARANTZ MARK LEVINSON PARASOUND PHILIPS	
POLK AUDIO PRIMARE YAMAHA	0892 1395 0354
TELEVISION HITACHI	CODES 1445,1643,2143 2243

ENGLISH

SETUP OPERATION

How to Use the On-Screen Display (OSD) System

You can use the On-Screen Display system to access the various kinds of the features and functions of your A/V Center.

button.

• Basic Operation

- 1. Press the <a>button on the remote control or the Menu button on the control panel underneath the UT monitor. The Main Menu is displayed on the screen as shown on the right.
- To select the A/V Center menu, press the button.
 The A/V Center item will be highlighted in Yellow.
- Press the or button to set your selection.
 The A/V Center unit menu page will be displayed on the screen.
- **4.** Use the **+** button to choose the item on the menu page.

Press the $\bigcirc^{\circ \kappa}$ button to set your selection.

- 5. Use the button to adjust the item values or choose options.
 Press the K button to set your selection.
- 6. To exit from the menu, press the or the

NOTE

- The OSD menu screen will be closed automatically when no operation has been made for about one minute.
- If the item on the menu is shown in gray, it means that it cannot be selected or adjusted.
- In order to appear A/V Center menu on Main Menu, A/V Center Control need to be activated on Funcion/HDMI Control menu.

Select Language

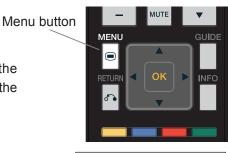
Select the language from the list so that the OSD menu can be displayed in the selected language. The default setting is English (US).

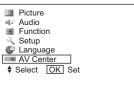
• How to set Language

- 1. Enter the "Language" menu from the Main Menu.
- Select your preferred language from the list using the button.
 The selected item will be highlighted in Yellow.
- **3.** Press the \bigcirc button to set your selection.
 - The mark on the left turns into a double circle when the selection is fixed.
- **4.** Press the button to exit from the entire OSD menu.

NOTE

• When the Language is set on Main Menu the A/V Center menu automatically set to that language, please note that English, Spanish and French are supported by A/V Center.

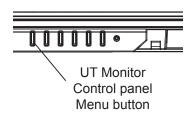




<Main Menu>

Audio/Video
Channel Manager
Locks
Timers
Setup
✦ Move OK Select

<A/V Center Menu>





On-Screen Display

This part of the screen shows which selections are available.



Main Menu List

Menu		Page	
	Video Resolution	Select between 2 resolution modes.	29
	Auto Movie Mode	Adjust to make the moving image smooth.	29
	3D Comb Filter	Reduce the color blurring to reproduce purer color.	29
Audio/Video	Audio Source	Select between 3 Audio Sources.	29
Audio/video	Audio Language	Select Language options if available.	29
	Digital Output	Select Optical Output options.	29
	DRC	Select Dynamic Range Compression to ON or OFF.	29
	Lyp Sync	Synchronizes audio with video signal on digital and analog sources.	29

NOTE

• "3D Comb Filter" is only available to Composite Inputs and Analog Channels.

- "Audio Language", "Digital Output" and the "DRC" are only available for Digital Channels.
- "Auto Movie Mode" and "Lyp Sync" can be stored for each of inputs.

Menu		Page	
	Signal Meter	Access Signal Meter.	30
Channel Manager	Auto Channel Scan	Set Auto Channel Scan.	30
	Channel List	Set Channel List.	30

NOTE

^{• &}quot;Signal Meter" is only available for Digital Channels..

Menu			Page
	Change Access Code	Change Lock access code.	31
	Movie Ratings	Block various types of movies and video types based on motion picture ratings.	31
Locks	TV Ratings	Block various types of movies and television programming based on a parental guide ratings.	31
LUCKS	Canadian Ratings (ENG)	Block various types of movies and television programming based on the Canadian ratings system.	31
	Canadian Ratings(FRN)	Block various types of movies and television programming based on the Canadian French ratings system.	31
	Region 5	Ratings system for DTV Signal to block various types of programs.	31

NOTE

• "Region 5" is only available for Digital Channels..

		Menu	Page
Timoro	Set The Clock	Set Clock Settings.	34
Timers	Set Sleep Timer	Set Sleep Timer intervals (30 min. intervals, 00:30-3:00).	34

Menu			Page
	Set The OSD & Panel Options	Choose OSD Contrast. and Side Panel Color.	35
Setup	Set The Inputs	Label Video Inputs, VCR, DVD, etc	35
Setup	Set The Closed Captions	Feature to display dialogue/text and change its appearance.	35
	Reset The Software	Select to upgrade A/V Center software	36

Audio/Video

You can adjust some settings of the display and audio condition.

Select "Audio/Video" from Menu list.



Audio/Video	Air/Cable
Video Resolution	> 1080p
Auto Movie Mode	On
3D Comb Filter	Off
Audio Source	Stereo
Audio Language	1[Unknown]
Digital Output	Dolby Digital
DRC	On
Lyp Sync[Analog]	0
SEL Select	

Selected Items		Setup hint
Video Resolution	1080p	You can make the selection for A/V Center output resolution,
	1080i	depending of your preference.
Auto Movie Mode	On	On: Automatically identifies if it is a movie and faithfully reproduces the original film images.
	Off	Off: Set to Off if the image does not look natural.
3D Comb Filter	On	This reduces the dot and color blurring in minute scales so that it can
	Off	reproduce purer color.
	Stereo	Multi-Channel Television Sound will allow you to select STEREO (a
Audio Source	Mono	stereo broadcast), MONO (monaural sound) used when receiving a weak stereo broadcast or SECOND AUDIO PROG (SAP) which may
	SAP	be a secondary language, weather report, etc.
Audio Language	1[English] 2~4[Others]	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	*Dolby®Digital DOLBY . DIGITAL PCM	This function allows you to select between Dolby®Digital and PCM. This setting is fed into Optical Output. 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).
DRC	On	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. The default setting is ON.
Lyp Sync	-2~+5	Selecting this feature will allow you to synchronize the audio with the picture signal. AUTO option automatically synchronize the audio and picture, if result is not satisfactory, please use the \checkmark button to synchronize the picture and the audio signal manually. The default value is set to 0.

NOTE

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

Channel Manager

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

Ν	1ENL	ļ
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>

SELECT	Channel Manager
	Signal Meter 🗸 🗸
OR	Auto Channel Scan
	Channel List
	Move SEL Select

Selected Items	Setup hint
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.
	This feature will automatically store active Analog and Digital channels in Auto Channel Scan memory.
Auto Channel Scan	1Use the 🕩 button to highlight AIR or CABLE source.
	2Then use the ➡ and ^{ox} buttons to highlight and select the START or RESET
	option.
	This function allows you to review which channels are labeled (ID), which have been added to CHANNEL MEMORY (SKIP), which are protected by LOCK and which are your FAVORITE (FAV) CHANNELS.
	1Use the 🕩 button to navigate the Channel List.
Channel List**	2Use the or button to select ON or OFF on the SCAN and LOCK columns.
	3To select LOCK column, input the access code.(Default access code: 0000).
	4Press the FAV CH button to set or remove the FAVORITE settings.

NOTE

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

• **The Channel List cannot be updated by only changing the cable source. Auto Channel Scan must be performed for the Channel List to be updated.

IMPORTANT NOTICE

United States federal law requires broadcasters to stop transmitting analog (non-digital) television signals after February 17, 2009. Accordingly, this TV's analog tuner will not be capable of receiving over-the-air analog television broadcasts after such analog broadcasts are no longer available.

After February 17, 2009, this TV's analog tuner will continue to work with compatible cable and satellite TV systems, gaming consoles, VCRs, DVD players and other similar products.

Both before and after February 17, 2009, this TV's digital tuner will receive available over-the-air digital television broadcasts using an antenna and other digital television broadcasts using compatible cable, satellite or other digital television system connections. Please review this Operating Guide for further information regarding such connections.

Hitachi supports the DTV transition and as a member of the DTV Transition Coalition urges consumers to visit these web sites for interactive guides and further detailed information:

- www.dtvtransition.org
- www.myceknowhow.com
- www.dtv2009.gov
- www.youtube.com

Locks

This function will block out the picture and sound of the selected channel Select **"Locks"** from the Menu list.

MENU	Audio/Video Channel Manager Locks	SELECT	Please Enter Access Code Access Code		Locks Change Access Code → Movie Ratings TV Ratings
+	Timers	OR	[# Keys] Enter Code		Canadian Ratings (Eng)
	Setup			0	Canadian Ratings (Frn)
	✦ Move SEL Select				Region 5 ↓ Move SEL Select
				0	

- 1. Use the I button to select the RATING CATEGORY (MOVIE, TV, etc.) that you want to block.
- 2. Use the $\bigcirc K$ button to block the RATING that you have selected.

Selected Items	Setup hint
	Select CHANGE ACCESS CODE to change the factory preset code (0000) to your preference.
Change Access Code	If you forget your ACCESS CODE NUMBER, use the factory code 7777 to erase your key number. This will reset the access code number back to the factory preset (0000).
Movie Ratings	Use Movie Ratings to prevent viewing of any movie that you feel may be inappropriate due to its content (see page 32).
TV Ratings	Use TV Ratings to prevent viewing of any TV program that you feel may be inappropriate due to its content(see page 32).
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 (see page 32).
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 (see page 33).
Region 5*	Use REGION 5 to block various types of movies and television pograms based on ratings systems used in U.S. that you feel may be inappropriate due to its content (see page 33). Due Region 5 ratings are downloaded from broadcaster signal, they are not fixed, UPDATE function will let you receive latest rating data.

NOTE

• *The REGION 5 option will operate for Digital Channels(ATSC) only.

Locks(continued)

Motion Picture Ratings Table

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

NOTE

- 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.
- Blocking NOT RATED programs may block emergency programming, sports, news, public service announcements, religious programs and weather.

TV Parental Guide Ratings Table

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

NOTE

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

Canadian Ratings English Table

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

Canadian Ratings French Chart

G	General - Programming intended for audiences of all ages. Contains no violence, or the violence content is minimal or is depicted appropriately with humor or caricature or in an unrealistic manner.
8 ans+	8 + General - Not recommended for young children - Programming intended for a broad audience but contains light or occasional violence that could disturb young children. Viewing with an adult is therefore recommended for young children (under the age of 8) who cannot differentiate between real and imaginary portrayals.
13 ans+	Programming may not be suitable for children under the age of 13 - Contains either a few violent scenes or one or more sufficiently violent scenes to affect them. Viewing with an adult is therefore strongly recommended for children under 13.
16 ans+	Programming is not suitable for children under the age of 16 - Contains frequent scenes of violence or intense violence.
18 ans+	Programming restricted to adults - Contains constant violence or scenes of extreme violence.

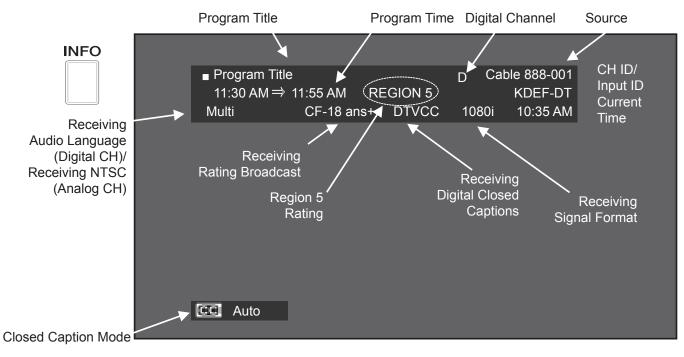
Region 5 Alternate Ratings (Example Only)

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

NOTE

• In order to set the Region 5 Ratings the ATSC Digital channel received must include Region 5 Ratings data. To see if the channel has Region 5 Ratings, press the INFO key on the R/C. See fig. (1) below for reference.

• Once the TV has received Region 5 Ratings data, the Region 5 option in the lock menu will display the data.





Timers

Select TIMERS to set your Clock and the Sleep Timer Select **"Timers"** from the Menu list.

MENU	Audio/Video	
	Channel Manager	SELECT Timers
	Locks	Set The Clock: AM PST
+	Timers >	OR Set Sleep Timer 0 : 00
	Setup	↓ Move SEL Select
	♣ Move SEL Select	

Selected Items	Setup hint
Set The Clock*	Use the [▲] button to highlight and setup the TIME ZONE settings. If you observe daylight savings, use the [●] button to highlight the DAYLIGHT SAVING CORRECTION checkbox and the ^{OK} button to activate it. Use the [●] button to highlight and setup the CURRENT TIME (hour and minute), AM or PM, MONTH, DAY, and YEAR.
Set Sleep Timer**	Select this feature to set your SLEEP TIMER from 30 minutes to 3 hours (30 minute increments). Use the \checkmark button repeatedly to set your Timer from 0:00, 0:30, 1:00, 1:30, 2:00, 2:30 and 3:00.

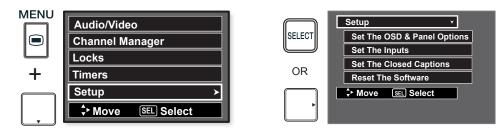
NOTE

- **The Sleep Timer info will show for 30 seconds before the TV turns off.
- Dash Button(-) can be used also to activate Sleep Timer.

^{• *}When AUTOMATICALLY ADJUST CLOCK FOR DAYLIGHT SAVING CHANGES is checked ✓, the TV will automatically calculate the clock adjustment for Daylight Saving.

Setup

Select SETUP when setting your TV up for the first time. Select **"Setup"** from the Menu list.



Selected Items		Setup hint	
Set The OSD & Panel Options	OSD Contrast	 "OSD Contrast" allows you to change the contrast of OSD based on 4 levels (min, low, medium and max). Use the button to highlight and setup the option of your choice. Select MAX, MEDIUM, LOW or MIN depending of your choice of 	
	Side Panel Color	contrast between letters/frame and background. The "Side Panel Color" function turns the black side bars from black to gray when watching 4:3 signals in Standard mode.	
Set The Inputs		Use this feature to give a name to any of the seven video inputs. Select Game Name when playing with a Video game system to avoid delay between picture and user control of the game machine.	
	Analog Captions	Closed Captions are the dialogue, narration, and/or sound effects of a television program or home video which are displayed on the TV screen. Your local TV program guide denotes these programs as CC or D. Analog Captions are for Analog programs. Caption Mode: CAPTIONS is for the program you are viewing.	
Set The Closed Captions	Digital Captions	 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: is used for the primary language (usually English). 2,3,4 are sometimes used for a others languages(may vary by region). Digital Captions are for digital programs. 	
		This function will help choose and set available language, font, size, color and background style of digital captions.	

NOTE

- Some types of digital closed captions will not work with this A/V Center.
- Caption Display will not work when viewing a 480i, 480p, 720p or 1080i input via the COMPONENT: Y-PBPR or HDMI inputs .
- Closed Caption and Digital Captions availability and content depends on the broadcaster. Closed Caption is available when Closed Caption icon is displayed on screen.
- Digital Captions language will not be available (grayed out) when using analog channels.

Setup (continued)

Selected Items	Setup hint
Reset The Software	This feature shows software information and easy upgrade procedure. This function allows the TV software to be upgraded by using a USB flash drive. If a future software upgrade is required for your TV, HITACHI will notify and provide proper instructions to get this upgrade. In order to receive written notification, please complete and return the warranty card.
	 1Insert the USB flash drive. 2Press the ok button to select UPGRADE NOW and start upgrading. 3Unplug the AC power cord when the UPGRADE is complete.

NOTE

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

• For further information about A/V Center software upgrade procedure, please contact 800-HITACHI or visits us on the web: www.hitachi.us/tv

TROUBLESHOOTING

About LCD Display Technology

The following are common phenomena occurring when viewing LCD display devices due to its characteristics. Please note that these are not malfunctions.

Defective Spots on Panel

The LCD panel is manufactured with high-precision technology. However, there might be some spots that are not illuminated, or are brighter than others, or are in different colors, etc.

Surface on Panel

The LCD panel displays images by the fluorescent lamps internally. This can raise the temperature of the display surface.

In addition, do not allow any heavy impact to the front of the panel because the LCD panel is made of high precision glass.

Use Under Low Temperature Conditions

Because of the structural characteristics of the LCD panel, the response speed of the LCD panel becomes slower when the ambient temperature becomes too low. In some cases, this may result in a residual image. The residual image will disappear of its own accord as the temperature rises again to a normal level.

Before calling a service technician, check the following tables first. If the problem cannot be solved with the suggested procedures, contact **800-HITACHI**. For your safety, NEVER try to repair the product yourself.

When the Following Messages Appear on the Screen

Message	Condition / Action	Page
Power Save	This message comes from UT Monitor not A/V Center, indicates Monitor is in Power Save Mode(example: if you turn off only A/V Center and Power Save Mode is activated on UT Monitor). The indicating lamp lights in orange on UT Monitor.	
No Sync. Signal	 The unit cannot detect any signals from any input terminals. Check if the cable is connected correctly and firmly. Check if the power of any external equipment is ON. Check if the input selection matches the connection terminal. 	14~17
Weak Signal or Channel not available.	This shows the selected channel is not available. • Check the signal meter.	30

Symptom and Checklist

Symptoms	Checklist	Page
• No picture - no sound	 Check if the power of the A/V Center and UT Monitor or external equipment is ON. Check the connection of the power cord and/or other cables. Check if the correct mode is selected. Check if the UT Monitor is in "Standby mode" or "Power Save mode". Adjust the values in "Picture" and "Audio" on UT Monitor menu". 	14~17 29
Multiple images-normal sound	 Check the connections to external equipment. 	14~17
Intermittent interference	 Check if the source of interference is shielded correctly. Move these kinds of electrical devices away from the unit. 	

Symptom and Checklist (continued)

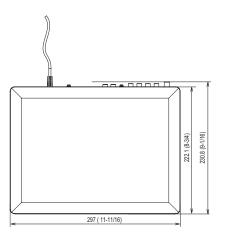
Symptoms	Checklist	Page
 Normal picture, but no sound 	 Check the volume level. Check audio settings on HDMI source must be set to PCM. Check if the MUTE button has been pressed or not. Check the connections to external equipment. Check if input signal is HDMI or DVI by pressing the button, remember DVI must be connected on HDMI 2 and audio must be input by separate. 	29 <u>,</u> _14 ~ 17
• No picture - normal sound	Check the level of "Brightness" and "Contrast" in UT Monitor "Picture Menu".	
• The remote control does not work.	 Check if the batteries are installed correctly. The batteries might be exhausted. Replace them with new ones. Remove all obstructions from in front of the sensor window on the unit. 	13
 Picture Frezze and/or the buttons on both the remote control and control panel do not work. 	 Unplug and connect after 5 minutes the power cord or turn Main switch Off and On after 5 minutes both A/V Center and UT Monitor. Hold down the Reset button on the UT Monitor control panel for over a second. 	
Normal picture but no color-normal sound	Check the connections to external equipment.	14~17
• No picture UT Monitor Indicating lamp \rightarrow Off	 Check if the power cord is plugged into the socket securely for UT Monitor. Check if the main switch is on for UT Monitor. 	10
 No picture UT Indicating lamp → Orange It means that UT monitor is in "Power Save mode". 	 Check if the A/V Center to UT Monitor cable is connected correctly and securely. Check if the power of the A/V Center is ON. Refer to "When the Following Messages Appears on the Screen". 	37 14 ~ 17
 No picture UT Monitor indicating lamp → Green 	 Check if the signal cable is connected correctly and securely. Check if the A/V Center to UT Monitor cable is connected correctly and securely. Adjust the level of Brightness and Contrast lower. 	14~17
 The top of the unit and surface of the panel heat up. 	• This may occur if you use the unit for a long time. Turn off the main power to the unit for a while. Please note that this is not a malfunction.	
 Some screen display aspects are not possible. 	• Check the signal status by pressing the button on the remote control. The available screen display aspect is different depending on the current signal status.	20
 Image cannot be displayed from HDMI input. 	 Check if the cables are connected correctly. Turn off A/V Center and HDMI source, then turn A/V Center on first then HDMI source. Check the output format of the equipment. (Please refer to "CONNECTION" and "Recommended Signal List".) 	40 , 37
 Some digital programming looks blurry during fast changing scenes 	• This is normal and its due regular digital compression scheme, please note this is not a malfunction.	
Turns Off by itself	Check or ensure Timer settings are not activated.	31
 Picture may "block" or freeze when watching a digital channel. 	Check signal strength and noise levels under "Signal Meter"	30
 No sound from TV Optical Out when using HDMI devices 	 Change Digital Output selection. As an option, use audio optical output from HDMI source device directly to separate Audio Amplifier 	29
 Picture flickers during channel change w/using HDMI Set Top Boxes 	 This is normal operation from the source switching delay itself. It's not an indicator of a TV malfunction. 	

PRODUCT SPECIFICATIONS

SPECIFICATION					
A/V Center dimensions			231(D) x 297(W) x 66(H) mm or less 9 1/16(D) x 11 11/16(W) x 2 9/16(H) in		
Net w	veight			2.2 kg/ 4.85 lbs	
Ambient Temperature		ture	Operating : 0°C to 40°C, Storage : -15°C to 60°C		
condi	conditions Relative humidity		humidity	Operating : 20% to 80%, Storage : 20% to 90% (non-condensing)	
Powe	er supply			AC120V, 60Hz	
Powe	Power consumption/ at standby		у	22 W, 0.26 A/< 0.5 W	
FCC	Class			B for Consumer Use	
	1 Int	tegrated Tu	ner	NTSC/ATSC/8VSB/64QAM/256QAM	
	2 Composite	2 Composite Video and L/R Audio Audio		Composite 1.0 +/- 0.2 Vp-p Input Impedance: 75 Ohm +/- 10%	
nput	and L/R Aud			470 mVrms, Max.: 2 Vrms or less Input Impedance: 270KOhm or more	
Input Terminals	2 Component Video and L/R Audio		Video	Luminance (Y): 1.0 +/- 0.2 Vp-p PBPR: 0.7 +/-0.14 Vp-p	
als	3 HDMI V.1.3a			Resolution: 480i/480p/720p/1080i/1080p (Deep Color, x.v.Color™, Lip Sync, CEC, HDCP (High Bandwidth Digital Content Protection)	
	USB 1.1			For S/W Upgrade only	
Terminals Digital Audio			Resolution: 1080i/1080p (Deep Color,x.v.Color™, Lip Sync, CEC, HDCP (High Bandwidth Digital Content Protection)		
out nals	Digital Audio			Optical	
Eropt	Kov	Power O	n/Of switch	Yes	
Front Key Power Indicator LED		dicator LED	2 LED's: StandBy (Red) / On (Blue)		

Dimensions

Units: mm (inches)

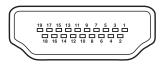




Signal Input

HDMI connector pin specifications

Pin	Input signal	Pin	Input signal
1	TMDS Data2+	11	TMDS Clock Shield
2	TMDS Data2 Shield	12	TMDS Clock-
3	TMDS Data2-	13	CEC
4	TMDS Data1+	14	Reserved(N.C. on device)
5	TMDS Data1 Shield	15	SCL
6	TMDS Data1-	16	SDA
7	TMDS Data0+	17	DDC/CEC Ground
8	TMDS Data0 Shield	18	+5V Power
9	TMDS Data0-	19	Hot Plug Detect
10	TMDS Clock+		



Recommended Signal List

With HDMI input

	Signal mode				
No.	Signal Name	Resolution	Vertical frequency (Hz)		
1	VGA	640 X 480	59.94		
3	480i	720(1440) X 480	59.94		
5	480p	720 X 480	59.94		
6	1080i/59.94	1920 X 1080	59.94		
7	1080i/60	1920 X 1080	60.00		
8	720p/59.94	1280 X 720	59.94		
9	720p/60	1280 X 720	60.00		
10	1080p/59.94	1920 X 1080	59.94		
11	1080p/60	1920 X 1080	60.00		
12	1080p/24	1920 X 1080	24.00		

With Component input With Composite input

480i(525i) @59.94/60Hz	-NTSC
480p(525p) @59.94/60Hz	480i(525i) @59.94Hz
1080i(1125i) @59.94/60Hz	
720p(750p) @59.94/60Hz	

SERVICE INFORMATION

800.HITACHI (800.448.2244)

Operational, hook up and warranty questions for your product.

Monday ~ Sunday 8:00 am - 8:30 pm CST

www.hitachi.us/tv

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HITACHI has made every effort to assure you hours of trouble free operation from your Hitachi product. Should you require service assistance with OPERATIONAL, HOOK UP, TECHNICAL ASSISTANCE OR WARRANTY SUPPORT, please contact our Support Hotline at 800. HITACHI (800.448.2244).

Our Support Hotline will provide you with the assistance you need and if necessary the location of the nearest Authorized Service Facility in your area. Please 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.

Hitachi Home Electronics (America), Inc. Customer Service Support PO Box 3900 Peoria, IL 61612 customerservice.ce@hhea.hitachi.com



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

In Canada: 800.HITACHI (800.448.2244)

 Monday~ Friday
 9:00 am - 7:00 pm EST

 Saturday
 9:00 am - 5:00 pm EST

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

Au Canada: 800.HITACHI (800.448.2244)

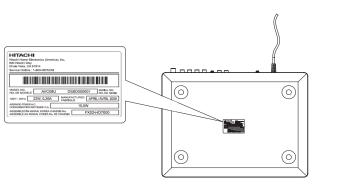
Lundi~ Vendredi	9:00 am – 7:00 pm L'EST
Samedi	9:00 am - 5:00 pm L'EST

Hitachi Home Electronics (Canada) Customer Service Support PO Box 3900 Peoria, IL 61612

Customer Record

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

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



Model Name_

LIMITED WARRANTY

Congratulations on your purchase of a new Hitachi display product.

Register your product online at www.hitachi.us/tv or mail the included warranty registration card:



SERVICE LOCATION: In-home warranty service, which includes either in-home repair or free pick-up and delivery (at Hitachi's option), applies to all Products except: (i) 26-inch and smaller LCD Flat Panel Televisions or LCD Flat Panel Monitors; (ii) Products located outside the U.S.A. or Puerto Rico; (iii) Products located more than seventy-five (75) driving miles from Hitachi's nearest Authorized Service Facility. If the foregoing clauses (i), (ii), (iii)apply, then the Product owner will be responsible for bringing/delivering the Product to a Hitachi Authorized Service Facility and, following warranty service, retrieving the Product from such Authorized Service Facility.



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IMPORTANT:

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

Warranty Limitations

This Hitachi Limited Warranty does not cover:

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

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Visit our website and register your product online:

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To register your new Hitachi display product online, go to: www.hitachi.us/tv Support and Contact/Warranty Registration

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

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