PLASMA TELEVISION

Operating Guide for 42EDT41A

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As an ENERGY STAR[®] Partner, Hitachi, Ltd. has determined that this product meets the ENERGY STAR[®] guidelines for energy efficiency.



SAFETY POINTS YOU SHOULD KNOW ABOUT YOUR HITACHI PLASMA TELEVISION

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

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

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

Follow all warnings and instructions marked on this plasma television.





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

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

The 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.

WARNING: •TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS PLASMA TELEVISION TO RAIN OR MOISTURE.
•THE PLASMA TELEVISION SHOULD NOT BE EXPOSED TO DRIPPING OR SPLASHING AND OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHOULD NOT BE PLACED ON THE TELEVISION.

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

CAUTION: Adjust only those controls that are covered in the instructions, as improper changes or modifications not expressly approved by HITACHI could void the user's authority to operate the Plasma Television.

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

POWER SOURCE

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

TO PREVENT ELECTRIC SHOCK, DO NOT USE THE PLASMA TELEVISION'S (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE, OR OTHER OUTLET UNLESS THE BLADES AND GROUND TERMINAL CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

NEVER CONNECT THE PLASMA TELEVISION TO 50Hz, DIRECT CURRENT, OR ANYTHING OTHER THAN THE SPECIFIED VOLTAGE.

NOTE: This Plasma Television will display television closed captioning, (**CC** or **D**), in accordance with paragraph 15.119 of the FCC rules.

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

IMPORTANT SAFETY INSTRUCTIONS



Follow all warnings and instructions marked on this monitor.

- 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.



Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

- 13. Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

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



Note to the CATV system installer: This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

This product contains lead. Dispose of this product in accordance with applicable environmental laws. For product recycling and disposal information, contact you local government agency or the Electronic Industries Alliance at www.eiae.org (in the US) or the Electronic Product Stewardship Canada at www.epsc.ca (in Canada). For more information, call "1-800-HITACHI."

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

PREVENTION OF SCREEN BURN

Continuous on-screen displays such as video games, stock market quotations, computer generated graphics, and other fixed (nonmoving) patterns can cause permanent damage to television receivers. Such "SCREEN BURNS" constitute misuse and are <u>NOT</u> <u>COVERED</u> by your HITACHI Factory Warranty.

PUBLIC VIEWING OF COPYRIGHTED MATERIAL

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

This product incorporates copyright protection technology that is protected by U.S. patents and other intellectual property rights. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited consumer uses only unless otherwise authorized by Macrovision. Reverse engineering or disassembly is prohibited.



FIRST TIME USE

ACCESSORIES

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



CAUTION: Ceiling mounting is not recommended. Mounting the panel on the ceiling does not provide adequate ventilation for the electronics or proper support for the front glass panel. This plasma television product is designed for a maximum tilting angle of 45 degrees from vertical.

- 1. Remote Control Unit CLU-W900 (P# HL02042)
- 2. Two "AA" size, 1.5V batteries (P# FQ00021).
- 3. Power Cord (P#EV01841)
- 4. Cleaning Cloth (P# MS00931).
- 5. Speaker wires (for monitor speakers).

- 6. Speakers (x2) (P# GM01267)
- 7. Speaker Holder (x4)
- 8. Mounting Screws (x8)
- 9. Cushions (x2)

REMOTE CONTROL BATTERY INSTALLATION AND REPLACEMENT

- 1. Open the battery cover. Slide back and remove the battery cover in the direction of the arrow.
- 2. Load batteries. Load two Size AA batteries included observing the correct polarities.
- 3. Close the battery cover. Replace the battery cover in the direction of the arrow and snap it back into place.



 \square

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



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

Securing to a table-top

- 1. Using wood screws (two) fasten the set to the clamping screw holes on the rear of the Plasma Television stand as shown below.
- 2. Using commercially available wood screws, secure the set firmly in position.



Securing to a wall or pillar.

Using a commercially available cord, chain and clamp, secure the set to a firm wall or pillar.



- **NOTES:** 1. Do not block the ventilation holes of the Plasma Television. Blocking the ventilation holes might cause fire or defect. 2. The plasma display has one AC cord. In case of an abnormal symptom, unplug the AC cord.
 - 3. If you purchased the wall mount bracket option, please ask for professional installer. Do not install by yourself.

Caution when moving the main unit

As this product is heavy, whenever it is moved, two people are required to transport it safely. Whenever the unit is moved it should be lifted forward using the two handgrips at the back for the plasma television. When moving the Display Monitor, lift the handles and the bottom frame as shown below. Do not grab the speakers or the back cover when lifting.



ANTENNA

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

LOCATION

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



ATTACH THE SPEAKER SYSTEM TO THE MONITOR.





1. Attach the speaker brackets to the speaker systems.

Attach the screws in a position that allows you to read the speaker holder orientation markers (R), (L).



NOTES: USE OF CUSHIONS

In some cases, there can be a gap between the main unit and the speaker. You can attach the cushions provided to the side of the speaker system, if desired, to eliminate the gap.



2. Attach the speaker systems to the monitor.

Remove two screws on each side of the monitor as shown and keep them for re-install. Loosen two screws on each side of the monitor as shown so that the speaker holders can be slide on to them. Insert the loosened screws into the engaging holes of the speaker holders that are attached to the speaker system, and slide the screws downwards. Next, use the previously-removed screws to fasten the speaker holders into the mounting holes in the monitor. Tighten the four screws to secure.





3. Attach the connection cables to the speaker system.



4. Attach the speaker connection cables to the monitor.



Be sure to insert the speaker cables securely. Lock the connection terminal level securely.



VIEWING

The major benefit of the HITACHI Plasma Television is its large viewing screen. To see this large screen at its best, test various locations in the room to find the optimum spot for viewing. The best picture is seen by sitting directly in front of the TV and about 8 to 18 feet from the screen.

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

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





IMPORTANT NOTES

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No.	Items	Notes
1	Arching sound from plasma display monitor's panel.	A buzzing sound might be heard when the plasma television is turned on in a very quiet room. This is due to the plasma panel drive circuit when it is functioning. This arching sound is normal and it is not a malfunction.
2	Interference for infrared equipment.	Some infrared rays are emitted from the plasma television s panel that might affect other infrared controlling equipment.
3	Bright and dark spots	High-precision technology is used to manufacture the plasma display panel; But in some cases, there are minor defects in some parts of the screen. Points that do not light, points with brightness different from that of the periphery, points with color different from that of the periphery, etc. Some pixels will always be on or always off. Please note that this is not a malfunction.
4	Picture Image (Spectrum)	When receving still picture signals, (e.g. channel number indication or clock indication) for a while, you can see image-like when the picture varied. This is not a defect.
5	Display panel surface temperature is too high	The plasma display panel is lighting the phosphors by the discharge of internal radiation. In some cases, this may cause the temperature of the panel surface to increase. Please note that this is not a malfunction. The Plasma TV surface temperature is higher than a Cathode-ray-tube.
6	Plasma Surface	The plasma panel is made from glass. Heavy shock on the front panel might damage it.
7	Transportation	When the PDP monitor is transported horizontally, the glass panel has the possibility of being broken or increasing the picture defects. At the time of transportation, horizontal style is prohibited. More-over, please treat the plasma panel with great care because of a precision apparatus. Please instruct transporters so that it should be put into the packing box at the time of shipment.(There is a possibility that breakage of the panel or defects will increase.) Rough transportation might cause damage to the panel and pixel failure.
8	Image retention	 The plasma monitor illuminates phosphor to display images. The phosphor has a finite illumination life. After extended periods of illumination, the brightness of the phosphor will be degraded to such extent that stationary images would burn-in that part of the screen as grayed-out images. Tips to prevent such image retention are: Do not display images having sharp brightness differences or hi-contrast images, such as monochrome characters and graphic patterns, for long. Do not leave stationary images appearing for long, but try to refresh them at appropriate intervals of time, or try to move them using screen saver function. Turn down the contrast and brightness controls.
9	Luminosity and contrast	PDP television has luminosity and low contrast compared with CRT television.
10	Granular spots	When a screen is seen at point-blank range, a random fine grain may be visible to a dark part.
11	Disturbance to video apparatus	If an apparatus (VCR, etc.) antenna line is arranged near the monitor, the image may shake, or disturbance may be received.
12	About the use environment of PDP television (temperature)	Electric discharge/luminescence characteristic of the PDP panel also changes with peripheral temperature. Moreover, since there is also high power consumption value, a specified temperature environment is required.
13	Caution on prolonged storage	Storing the plasma television for a period of more than 2 to 3 months without use might cause an unstable picture when the set is turned on.
14	Operating	Operating altitude: 800 to 1,114hPa (6,194ft to -2,484ft). Operating temperature: 41°F to 95°F.
15	Storage	Storage Altitude: 300 to 1,114hPa (31,912ft to -2,484ft). Storage temperature: 5°F to 140°F.
16	Power ON or OFF	Frequent use of the Power ON or OFF might trigger the power protection circuit. If the TV does not turn ON, please wait a little before turning ON again.

HOOKUP CABLES



FIRST TIME USE

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



300-Ohm Twin Lead Connector

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



Phono Connector

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



Stereo Cable (3.5 mm plug to 3.5 mm plug)

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



"F" Type 75-Ohm Coaxial Antenna Connector

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



S-Video (Super Video) Connector

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





D-SUB MINI 15-Pin Cable

This cable is used to connect a computer output to the D-SUB input located on the rear panel of the Monitor. The resolution should be set correctly to display the signal on the Plasma Monitor.



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

When using a 75-Ohm coaxial cable system, connect the outdoor antenna or CATV coaxial cable to the ANT (75-Ohm) terminal.

WF (300-Ohm) antenna/UHF antenna

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

When both VHF and UHF antennas are connected

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



FRONT PANEL CONTROLS

FIRST TIME USE



1 MENU/EXIT button

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

(2) INPUT/SELECT button

Press this button to select the desired input, AVI to AV4, RGB1 and RGB2. Your selection is shown in the top right corner of the screen. This button also serves as the SELECT/OK button when in MENU mode.

3 CHANNEL selector

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

(4) VOLUME level

Press these buttons to adjust the sound level. The volume level will be displayed on the TV screen. These buttons also serve as the cursor left (4) and right (>) buttons when in MENU mode.

5 SUB POWER button

Press this SUB POWER button to turn ON the Plasma television when not using the remote control power button



(6) Plasma Television "MAIN POWER" switch

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

7 POWER light indicator

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

Indicating lamp

Indicating lamp	Power status	Operating		
Off	Off	When the main power switch is set to OFF.		
Lights red	Off (standby)	When the main power switch is ON, and the POWER button on the remote control or the SUB POWER button on the underside of the front of the frame is OFF.		
Lights green	On	When the main power switch is ON, and the POWER button on the remote control or the SUB POWER button on the underside of the front of the frame is ON.		
Lights orange	Off (Power Save)	When the main power switch is ON, and the POWER button on the remote control or the SUB POWER button on the underside of the front of the frame is ON. However, the status will be in POWER SAVE mode when in RGB1 or RGB2 input.		

NOTES: 1. Your HITACHI Plasma Television will appear to be turned OFF (lights orange) if there is no video input when RGB1 or RGB2 is selected. Check the Power Light to make sure the Plasma Television is turned off or in Stand-by mode (lights red) when not in use.

2. Remote Control can not turn ON/OFF the "MAIN POWER" of the Plasma Television.

(8) REMOTE CONTROL sensor

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



REAR PANEL JACKS



FIRST TIME USE



(1) Antenna Input

Use the INPUT button to select Antenna.

(2) Audio/Video Inputs AV1, AV2, AV3 and AV4

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

NOTE: See page 20 for Input AV4 (SCART).

(3) MONITOR OUT

These jacks provide fixed audio and video signals (ANTENNA, AV1~AV4) which are used for recording. Component signal to Input AV1 and AV2, RGB inputs will not have monitor output.

(4) S-VIDEO AV3

AV3 provide S-VIDEO (Super Video) jacks for connecting equipment with S-VIDEO output capability.

(5) Component: Y-P_BP_R Inputs

AV1 and AV2 provide Y-P_BP_R jacks for connecting equipment with this capability, such as a DVD player or Set Top Box. You may use composite video signal for AV1 and AV2.

NOTES: 1. S-Video has a higher priority over video input.
2. Your component outputs may be labeled Y, B-Y, and R-Y. In this case, connect the components B-Y output to the Plasma Monitor's P_B input and the components R-Y output to the Plasma Monitor's P_R input.
3. Your component outputs may be labeled Y-C_BC_R. In this case, connect the component C_B output to the Plasma Monitor's P_B input and the component C_R output to the Plasma Monitor's P_R input.

4. It may be necessary to adjust TINT to obtain optimum picture quality when using the Y-P_BP_R inputs (See page 36).

5. To ensure no copyright infringement, the MONITOR OUT output will be abnormal, when using the Y-P_BP_R jacks, and RGB inputs.

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FIRST TIME USE

6 RGB1 - Digital Input (DVI-PC / DVI-STB)

Use this DVI input for your external devices with DVI output (see pages 20 and 55).

7 RGB2 - Analog Input

Use this 15-pin D-Sub input for your external devices with RGB output (see pages 20 and 55).

(8) RGB1 - Audio Input

Connect audio for RGB1 input (if you have mono sound, insert the audio cable into the same jack).

9 RGB2 - Audio Input

Connect audio for RGB2 input (if you have mono sound insert the audio cable into the same jack).

(10) Service Adjustment Port

This port is for service adjustment only.

CONNECTING EXTERNAL VIDEO SOURCES

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

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

Before Operating External Video Source

Connect an external source to one of the INPUT terminals, then press the INPUT button on the Control panel located at the bottom of the display monitor or the INPUT button on the remote control repeatedly to cycle through the INPUT items.

CONNECTING A MONAURAL AUDIO SOURCE TO AV1~AV4

- 1. Connect the cable from the VIDEO OUT of the VCR or the laserdisc player to the INPUT (VIDEO) jack, as shown on the Monitor Rear Panel below.
- 2. Connect the cable from the AUDIO OUT of the VCR or the laserdisc player to the INPUT (MONO)/L(AUDIO) jack.
- 3. Press the INPUT button, repeatedly till you select AV1 to view the program from the VCR or the laserdisc player. The VIDEO label disappears automatically after approximately four seconds.
- 4. Press the INPUT button repeatedly till you select the ANTENNA input to return to the previous channel.





FIRST TIME USE

CONNECTING A STEREO VCR OR STEREO LASERDISC PLAYER

- 1. Connect the cable from the VIDEO OUT of the VCR or the laserdisc player to the INPUT (VIDEO) jack, as shown on the Monitor Rear Panel below.
- 2. Connect the cable from the AUDIO OUT R of the VCR or the laserdisc player to the INPUT (AUDIO/R) jack.
- 3. Connect the cable from the AUDIO OUT L of the VCR or the laserdisc player to the INPUT (AUDIO/L) jack.
- 4. Press the INPUT button, repeatedly till you select AV1 to view the program from the VCR or laserdisc player. The VIDEO label disappears automatically after approximately four seconds.
- 5. Press the INPUT button repeatedly till you select the ANTENNA input to return to the previous channel.



NOTES: 1. Completely insert the connection cord plugs when connecting to rear panel jacks. The picture and sound that is played back will be abnormal if the connection is loose.

2. A single VCR can be used for VCR #1 and VCR #2, but note that a VCR cannot record its own video or line output. Refer to your VCR operating guide for more information on line input-output connections.

CONNECTING EXTERNAL VIDEO SOURCES



CONNECTING S-VIDEO VCR OR LASERDISC PLAYER

- 1. Connect the cable from the S-VIDEO OUT of the S-VHS VCR or the laserdisc player to the INPUT (S-VIDEO) jack, as shown on the Monitor Rear Panel below.
- 2. Connect the cable from the AUDIO OUT R of the VCR or the laserdisc player to the INPUT (AUDIO/R) jack.
- 3. Connect the cable from the AUDIO OUT L of the VCR or the laserdisc player to the INPUT (AUDIO/L) jack.
- 4. Press the INPUT button, repeatedly till you select AV3 to view the program from the VCR or laserdisc player. The VIDEO label disappears automatically after approximately four seconds.
- 5. Press the INPUT button repeatedly till you select the ANTENNA input to return to the previous channel.



- **NOTES:** 1. Completely insert the connection cord plugs when connecting to rear panel jacks. The picture and sound that is played back will be abnormal if the connection is loose.
 - 2. A single VCR can be used for VCR #1 and VCR #2, but note that a VCR cannot record its own video or line output. Refer to your VCR operating guide for more information on line input-output connections.



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FIRST TIME USE

CONNECTING A STEREO LASERDISC/DVD PLAYER OR HDTV SET TOP BOX TO AV1 OR AV2 COMPONENT: Y-PBPR.

- Connect the cable from the Y OUT of the Laserdisc/DVD player or HDTV set top box to the INPUT (Y) jack, as shown on the Monitor Rear Panel below.
- 2. Connect the cable from the C_B/P_B OUT or B-Y OUT of the Laserdisc/DVD player or HDTV set top box to the INPUT (P_B) jack.
 - Connect the cable from the C_R/P_R OUT or R-Y OUT of the Laserdisc/DVD player or HDTV set top box to the INPUT (P_R) jack.
- 4. Connect the cable from the AUDIO OUT R of the Laserdisc/DVD player or HDTV set top box to the INPUT (AUDIO/R) jack.
- 5. Connect the cable from the AUDIO OUT L of the Laserdisc/DVD player or HDTV set top box to the INPUT (AUDIO/L) jack.
- 6. Press the INPUT button, repeatedly till you select AV1 or AV2 to view the program from the Laserdisc/DVD player or HDTV set top box. The VIDEO label disappears automatically after approximately four seconds.
- 7. Press the INPUT button repeatedly till you select the ANTENNA input to return to the previous channel.



- **NOTES:** 1. Completely insert the connection cord plugs when connecting to rear panel jacks. The picture and sound that is played back will be abnormal if the connection is loose.
 - 2. See page 21 for tips on REAR PANEL CONNECTIONS.

CONNECTING EXTERNAL AUDIO/VIDEO DEVICES



The MONITOR OUT terminal outputs video and audio of the ANTENNA and INPUTS AV1, AV2, AV3 and AV4. It does not output component video.



NOTE: If the OUTPUT (MONITOR) terminal is connected to an external monitor with a 75 Ohm terminal, it is possible to view the same image as on the main unit. But it is possible to monitor only the composite video signal from AV1, AV2, AV3 or AV4 input that is displayed on the screen at the time.



Connecting to a Video Imaging Device

1. Make sure that the power switch of the monitor is turned off.

- 2. Make sure that the power switch of the imaging device is turned off.
- Use a commercially available cable and connector to connect the signal input terminal on the rear panel of this device and the З. signal output terminal of the imaging device.



With DVI-STB and RGB component setup



NOTES: 1. Cables are optional, except when specified.

- 2. The SCART terminal Adaptor for (AV4) is optional.
- 3. If video equipment with an S video output terminal is used, cabling by the S video cable is recommended to provide finer video quality. (If the S video input terminal and the video input terminal of AV3 connect to the monitor at the same time, S video input would govern.)
- 4. If the adaptor is applied to AV4 input as shown in the drawing, it is impossible to receive RGB signal.

TIPS ON REAR PANEL CONNECTIONS

- S-VIDEO, YPbPR, connections are provided for high performance laserdisc players, VCRs etc. that have this feature. Use these
 connections in place of the standard video connection if your device has this feature.
- If your device has only one audio output (mono sound), connect it to the left audio jack on the Monitor Rear Panel.
- Refer to the operating guide of your other electronic equipment for additional information on connecting your hook-up cables.
- A single VCR can be used for VCR #1 and VCR #2, but note that a VCR cannot record its own video or line output. Refer to your VCR operating guide for more information on line input-output connections.
- · Connect only 1 component (VCR, DVD player, camcorder, etc.) to each input jack.
- COMPONENT: Y-P_BP_R (AV1 & AV2) connections are provided for high performance components, such as DVD players and settop-boxes. Use these connections in place of the standard video connection if your device has this feature.
- Your component outputs may be labeled Y, B-Y, and R-Y. In this case, connect the components B-Y output to the Monitor P_B input and the components R-Y output to the Monitor P_R input.
- Your component outputs may be labeled Y-C_BC_R. In this case, connect the components C_B output to the TV's P_B input and the components C_B output to the TV's P_B input.
- It may be necessary to adjust TINT to obtain optimum picture quality when using the Y-P_BP_B inputs.
- To ensure no copyright infringement, the MONITOR OUT output will be abnormal, when using the Y-PBPR, input jacks.
- AV1 or AV2 can accept both component and composite video signal.
- When using a DVI input from a Set-Top-Box, it is recommended to use a 1080i or 720p input signal.

Applicable video signals for each input terminal (See PRODUCT SPECIFICATIONS for details.)

Terminal		RCA	\/SCART		D	VI	D-sub		
Signal	CVBS	S-video	Component	RGB	PC	STB	RGB	Component	
AV1	0		0						
AV2	0		0	0					
AV3	0	0							
AV4	0	0		0					
RGB1					0	0			
RGB2			-				0	0	



THE REMOTE CONTROL

HOW TO USE THE REMOTE TO CONTROL YOUR PLASMA TELEVISION



(1) POWER button

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

2 PICTURE MODE button

Press this button repeatedly to cycle through the Day and Night automatic picture mode settings.

NOTE: Not available on RGB1 and RGB2 inputs.

3 AUDIO MODE button

Press this button repeatedly to cycle through the automatic audio mode settings.

(4) SURROUND button

Press this button to set the Matrix Surround setting to ON or OFF.

HOW TO USE THE REMOTE TO CONTROL YOUR PLASMA TELEVISION



5 INPUT button

Press this button repeatedly to cycle through the Seven (7) available Inputs (ANT, AV1, AV2, AV3, AV4, RGB1 and RGB2).

6 RECALL button

Press this button when you want to check the channel being received, the picture or input signal source, the OFF timer and ON timer.



7 MPX button

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

STEREO SELECTED







MONO SELECTED



8 MULTI PIC. (Picture-in-Picture) button

See separate section on pages 27-30 for a description.

9 MULTI PICTURE MODE buttons

See separate section on pages 27-30 for a description.





Press the ON button to turn ON the Closed Caption and press the OFF button to turn OFF the Closed Caption.

(11) MENU button

Press the MENU button to start the On-Screen Display (OSD) mode. Press it again to EXIT/quit.

(12) RETURN button

Use this button while in the On-Screen Display mode. Press the RETURN button to navigate back one (1) On-Screen Display at a time.

(13) CURSOR buttons / OK button

All the On-Screen Display features can be set or adjusted by using the CURSOR buttons and the OK button, except for numeric entries.



(4) CHANNEL UP (CH+ (▲)) / CHANNEL DOWN (CH- (♥))

Press these buttons to select desired program channels.

(15) VOLUME UP (VOL+ (▶)) / VOLUME DOWN (VOL- (◄))

Press these buttons to select desired volume level.

(16) DVD CONTROL buttons

Use these buttons to operate the selected brand of DVD player.

(17) MUTE button

Press the MUTE button to turn the sound completely off. To restore the sound, press the MUTE button again or the VOLUME UP (VOL+ (►)).

(18) FREEZE button

Press the button to freeze the picture.



HOW TO USE THE REMOTE TO CONTROL YOUR PLASMA TELEVISION



(19) ZOOM button

Each time the ZOOM button is pressed, the screen display size will change in sequence and the status will be displayed at the bottom of the screen.

NOTES:	1. During VIDEO signal input (AV1, AV2, AV3, AV4, RGB1 (set to [DVI-STB]) and RGB2 (set to [Component])).
	→ 4:3 → Panoramic → Zoom → Zoom → Full ← Cinema ←
	2. The size will fix as Full mode and not change when receiving the component signal of 1080i/50, 1080i/60, or 720p/60.
	[]
	Full

Display size selection diagram

When you want to	Set the display size	Input signal	Display screen	Remarks
Play a 4:3 image in a 16:9 screen faithfully.	4 : 3		$\circ \bigcirc \circ$	Blanking occurs on both sides.
Play a 4:3 image in a 16:9 screen with the height and width of the middle of the screen enlarged on equal scales and with both sides appearing somewhat enlarged.	Panoramic	(4:3 signal)	000	
Play a 16:9 VISTA size image in the 4:3 image faithfully reproduced on the 16:9 screen.	Zoom	o ◯ O (Vista)	$\circ \bigcirc \circ$	 The 4:3 image is called a letterbox image. In some cases, some slight blanking may remain at the top and bottom.
Play a 21:9 Cinema size image in the 4:3 image expanded vertically on the 16:9 screen.	Cinema	Cinema)	0 0	In some cases, some slight blanking may remain at the top and bottom.
Play a 4:3 image faithfully in a 16:9 screen in the standard vertical size and horizontally squeezed.*	Full	(Squeeze)	000	* An image with an aspect ratio of 16:9 shrunk horizontally to 4:3 to display in a 4:3 screen

Display area selection diagram (RGB input)

Resolution	Full display			Circular display		
Display	Full	Normal	Real	Zoom1	Zoom2	Zoom3
640 X 480 (VGA)						
800 X 600 (SVGA)	$\left[\bigcirc \right]$	[6]			(\bigcirc)	$\left(\left(\bigcirc \right) \right)$
1024 X 768 (XGA)				ROV		
1280 X 1024 (SXGA)						
1600 X 1200 (UXGA)			* VGA and W-VGA only			

Processes such as compression (thinning) and expansion are performed for the above signal display. Because of this, there is a possibility that flicker may become noticeable on Zoom $(1 \sim 3)$ depending on the display contents. If this occurs, turning the Vertical Filter On (see page 66) can reduce the flicker.



HOW TO USE THE REMOTE **TO CONTROL YOUR PLASMA MONITOR**

Vertical picture position can be adjusted for [Panoramic], [Zoom] and [Cinema] mode as follows.

- 1. Press ZOOM button and ▲, ▼ SELECT buttons during picture size display.
- 2. Position display will appear.
- 3. Adjustment range of each picture size are as shown below. -12 to +12
 - [Panoramic]
 - [Zoom] and [Cinema] - 31 to + 31
- 4. When 1080i/50 or 1080i/60 component signal is received, vertical position can be adjusted only one step up. (The range: 0 to +1)



USING A WIDE-SCREEN MONITOR

- NOTES: 1. This monitor has a screen mode selection feature. If an incompatible screen mode is selected to play certain software, such as a TV program, the image would appear different from the original. Take this into consideration when making screen mode choices.
 - 2. Use of this monitor in its enlarged display mode with the wide feature enabled in coffee shops, hotels and other establishments for commercial or pubic viewing purposes could infringe on the copyright holder's right protected by Copyright Law.
 - 3. When a normal 4:3 image is displayed over the entire screen in the Panoramic mode, parts of the periphery of the image may disappear and/or appear distorted in some cases. Use the 4:3 mode to view images, which were created in 4:3 mode. This mode allows 4:3 content to be viewed without picture distortion.

(20) **CHANNEL SELECTOR buttons**

The CHANNEL SELECTOR buttons are used to select channels, lock access code, etc. Use the CHANNEL SELECTOR buttons to enter one, two or three numbers to select channels. Enter "0" first for channels 1 to 9, or simply press the single digit channel you wish to tune then wait for a few seconds for the TV to tune. Enter "1" first for channels 100 and above, wait for a few seconds till the 3 digit channel display icon appears then press the next 2 digits to completely tune the channel.

(2]) VIDEO (AV1 to AV4) / RGB (RGB1 and RGB2) buttons

Press these buttons to directly access the desired Input.

C.C / TEXT buttons

Press these buttons to directly change the Captions Mode to Captions and Text.

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



Use above connection to view VCR program as a sub-picture while viewing another program as main picture (ANT, AV1, AV2, AV3, AV4, RGB1 or RGB2).

Displaying MULTI PICTURE

If the MULTI PICTURE button on the remote control is pressed, multi pictures will display. And then three types of the screen can be selected by pressing the MULTI MODE button on the remote control. The multi picture mode will change in the following sequence each time the MULTI MODE button is pressed.



Activating the Split mode from the TV screen

- Pressing the MULTI PICTURE button one time will display 2 pictures.
- The speaker icon can be shifted left and right by pressing the A/B button; the audio will be output from the side on which the speaker icon is located.
- The same signal input cannot be selected for both screens at the same time.
- The TV channel can be changed by pressing the ▲ and ▼ PROGRAM UP/DOWN buttons on the remote control.
- The same signal input mode cannot be selected for each screens at the same time.
- Pressing the MULTI PICTURE button at the 2 picture mode will cancel the multi picture mode. And then, pressing the MULTI PICTURE button again will display the 4 pictures.
- Refer to the table for 2 pictures mode.

2 Pictures (Split)										
Input terr	Input terminal		AV1-AV4		AV1, AV2					RGB2
	Sub Main	NTSC-M	NTSC-M	576i 576p	480i 480p	1080i/50	1080i/60	720p/60	STB	Component
ANT	NTSC-M		0	0	0	0	0	0		
AV1-AV4	NTSC-M	0	0	0	0	0	0	0		
AV1, AV2	576i, 576p	0	0							
	480i, 480p	0	0							
	1080i/50	0	0							
	1080i/60	0	0							
	720p/60	0	0							
RGB1	STB									
RGB2	Component	0	0	0	0	0	0	\circ		



Main	Sub

Activating the 4 pictures mode from the TV screen

- Pressing the MULTI MODE button one time at the 2 pictures mode will display 4 pictures.
- Press [A/B] button to select picture A or picture B indicated by a red triangle. For pictures on right, press ▲ ▼ SELECT buttons to select picture. The selected channel number would change green.
- The TV channel can be changed by pressing the ▲ and ▼ PROGRAM UP/DOWN buttons on the remote control.
- The audio can only be output from picture A in 4 pictures mode.
- The same signal input mode cannot be selected for each screens at the same time.
- Pressing the MULTI PICTURE button at the 4 picture mode will cancel the multi picture mode. And then, pressing the MULTI PICTURE button again will display the 4 pictures.
- Refer to the table for 4 pictures mode.

4 Pictures

Input terminal		ANT	AV1-AV4	/1-AV4 AV1, AV2					RGB1	RGB2
	Sub Main	NTSC-M	NTSC-M	576i 576p	480i 480p	1080i/50	1080i/60	720p/60	STB	Component
ANT	NTSC-M		0							
AV1-AV4	NTSC-M	0	0							
AV1, AV2	576i, 576p	0	0							
	480i, 480p	0	0							
	1080i/50	0	0							
	1080i/60	0	0							
	720p/60	0	0							
RGB1	STB									
RGB2	Component	0	0							

Main Sub 1 Sub 2 Sub 3

$_{\circ}$	•	Λv	an	ub	10	/	

Activating the 12 pictures mode from the TV screen

- Pressing the MULTI MODE button one time at the 4 pictures mode will display 12 pictures.
 Starting from channel 1, preset channels will automatically display in sequence on the 12 windows.
- This function activates only in TV mode.
- After several seconds, it refreshes the picture one by one.
- Pressing the MULTI PICTURE button at the 12 picture mode will cancel the multi picture mode. And then, pressing the MULTI PICTURE button again will display the 12 pictures again.
- Pressing the MULTI MODE button at the 12 picture mode will display the 2 pictures (Split) mode.

NOTES: 1. Even if the input of the horizontal / vertical synchronizing signal (or video signal) stops in the multi picture display, the mode will not change to power save mode.

2. Please be careful since image retention will occur if display is left in a multi picture display state for a long period of time

1	2	3	4
5	6	7	8
9	10	11	12







Displaying MULTI PICTURE

If the PinP button on the remote control is pressed MULTI PICTURE will display.



Activating the P-in-P mode from the RGB input screen

- Pressing the PinP button one time will display 2 pictures.
 This mode can be available from RGB1(DVI-PC) and RGB2(RGB) Input.
- The speaker icon can be shifted up and down by pressing the A/B button; the audio of the video will be output from the side on which the speaker icon is located.
- The sub-screen position can be selected up and down by pressing ▲ and ▼ SELECT buttons.
- The sub-screen can be selected with the AV1, AV2, AV3, AV4 and TV channel number buttons from the status that the speaker icon appears on the left side of AV* as shown in the diagram to the right.
- Pressing the PinP button again or the RETURN button will cancel the 2 pictures display.
- "Frequency Mode" in the Setup Menu should be set to Movie when sub-screen is the component signal of 1080i/50 or 1080i/60.

AV1: Displays the VIDEO input signal of the sub-screen.

Activating the Split mode from the video input screen Pressing the PinP button one time will display 2 pictures.

- The speaker icon can be shifted left and right by pressing the A/B button; the audio of the video will be output from the side on which the speaker icon is located.
- The same video input mode cannot be selected for both screens at the same time.
- Pressing the PinP button again or the RETURN button will cancel the 2 pictures display.
- When the Video input is set to RGB Video, this Split mode is not possible.
- Refer to the table for 2 pictures (Split) mode.

RGB2 ⊲≬ AV1

AV1	AV2

Picture Freezing



THE REMOTE CONTROL

When the FREEZE button on the remote control is pressed, the screen transfers into the freeze mode.

- There are two types of freezing screen mode, Split and Strobe. These are possible to select at the "Freeze Mode" setting of the Function Menu.
- The Split mode will display 2 pictures from the same source on the screen with one active picture and the other still.
- The Strobe mode will display 12 pictures with the last picture active, while other 11 windows are still.
- Pressing the FREEZE button again changes the screen back to the normal picture.
- This function is also available from video input mode besides TV mode. Refer to the table for Freeze function as below:

	Split	Strobe
NTSC-M	0	0
576i	0	0
480i	0	0
576p	0	
480p	0	
1080i / 50	0	
1080i / 60	0	
720p / 60	0	
RGB, DVI-PC		

(O Available)

[Split]



|--|

1	2	3	4
5	6	7	8
9	10	11	12 Active

HOW TO USE THE REMOTE TO CONTROL DVD FUNCTIONS



DVD Player Selection

You can use this remote control to operate the selected brand of DVD player by pressing the following buttons on the remote control simultaneously.

Brands of DVD Player	Press	Brands of DVD Player	Press	
Hitachi	RECALL 1	RCA	RECALL 9	
Pioneer	RECALL 2	Mitsubishi	RECALL 0	
Panasonic	RECALL 3	Onkyo	RECALL AV1	
Toshiba	RECALL 4	Zenith	RECALL AV2	
Philips	RECALL 5	Orion	RECALL AV3	
JVC	RECALL 6	Shinco	RECALL TEXT	
Samsung	RECALL 7	Skyworth	RECALL AV4	
Sony	RECALL 8	Bubuko	RECALL C.C.	

Example

To operate HITACHI DVD player, press and hold the RECALL button, followed by the (1) button.



NOTE: Not all models of the listed brands can be operated using this remote control.

- 1. Press MENU on the remote control to display the different features on your HITACHI Plasma Display Monitor.
- 2. Use the CURSOR buttons and the OK button to navigate to a different menu item.
- 3. Use the RETURN button to navigate back one On-Screen Display at a time.
- 4. Press the MENU button again on the remote control to quickly exit from a menu.

OK) Set



shows which Remote Control buttons to use.

• 🗆

HITACH

OSD (On-Screen Display)

		1
	Picture Mode	Select between the two picture modes; Day and Night.
	Contrast	Adjust contrast.
	Brightness	Adjust brightness.
	Color	Adjust color.
	Sharpness	Adjust sharpness.
	Tint	Adjust tint.
	Color Temperature	Set this to Cool for less intense color with more blue, set to Normal
		for natural color, set to Warn for standard colors or Black and
		White for more reddish color.
[]	Contrast Mode	Adjust Contrast automatically.
Picture	Reset	Reset/Restore to original factory settings.
· · · · · · · · · · · · · · · · · · ·	YNR	Adjust to reduce picture signal noise.
	CNR	Adjust to reduce color signal noise.
	Film Mode	Turn ON/OFF the 3:2 Pulldown detection feature.
	PAL Comb Filter	Function not available (grayed out)
	LTI	Adjust the sharpness of the picture signal.
	СТІ	Adjust the sharpness of the color signal.
	Black Enhancement	Use this function to enhance the shadow detail in dark scenes.
	Auto Color	The AUTO COLOR function automatically monitors and adjusts the
	7410 00101	color to maintain constant color levels even after a program or channel
		changes. It also maintains natural flesh tones while preserving fidelity
		of background colors.
	Reset	
	Color Temp. Adjust	Reset/Restore to original factory settings. Select ON/OFF to change color temperature depending on the user's
	Color temp. Adjust	
	O atau Mana a ann ant	preferences.
	Color Management	Adjust and balance individual colors to make either deeper or more
	Color Development	pure according to preference.
	Color Decoding	Adjust the percentage of Red, Green and Color according to preference.
	Audio Mode	Calact preset Audia Madea
	Treble	Select preset Audio Modes.
Audio	Bass	Adjust the treble.
Auuro		Adjust the bass.
	Balance	Adjust the balance.
	SRS TruBass	Select SRS settings (Off, Wide, Normal).
	Matrix Surround	Select Matrix Surround (On, Off).
	Perfect Volume	Adjust volume in fixed setting.
	Reset	Reset/Restore to original factory settings.



PICTURE



Picture Mode

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



Use CURSOR buttons ◀ or ▶ to select Picture Mode settings.

Function	Day	Night	Reset
Contrast	+ 31	+ 10	Reset the video
Brightness	0	+ 3	menu settings on
Color	+ 5	- 10	current input to the
Sharpness	+ 5	- 5	Day or Night
Tint	0	0	conditions depending
Color Temperature	Cool	Warm	on the selected
Contrast Mode	Dynamic	Normal	PICTURE mode.
YNR	High	Off	
CNR	Low	Off	
Film Mode	Off	Off	
PAL Comb Filter	Not Available	Not Available	
LTI	Middle	Off	
CTI	Middle	On	
Black Enhancement	High	Off	
Auto Color	Off	Off	

Press MENU to quit menu or press the RETURN button to return to previous menu.

MENU	Picture Audio Timer Function Setup Locks Captions Language \$ Select OK Set	Picture Picture Mode Contrast Brightness Color Sharpness Tint Color Temperature Contrast Mode Reset \$ Select (▲ Return	Day +31 0 +5 0 Black/white Dynamic Reset (@) Exit
Press the OK buttor Press the CURSOR	uttons ▲ or ▼ to highlight the function to be to select the function settings. button ◀ or ► to adjust the function. button to navigate back one On-Screen Disp menu.		

Contrast	Use this function to change the contrast between black and white levels in the picture.
Brightness	Use this function to adjust overall picture brightness.
Color	Use this function to adjust the level of color in the picture.
Sharpness	Use this function to adjust the amount of fine detail in the picture.
Tint	Use this function to adjust flesh tones so they appear natural.
Color Temperature	Set this to Cool for cooler color with more blue, set to Normal for more natural color, set to Warm for accurate color or set to Black/White for more reddish color.
Contrast Mode	Use this function to choose between 3 Contrast Mode settings. Set to Dynamic for darker images more in the level of Black, set to Normal for a balanced White to Black level, and set to Auto for automatic Contrast selection.
Black Enhancement	Use this function to enhance the shadow detail in dark scenes using the settings off, low, middle and high.
and SHARF	ST is selected, you are adjusting CONTRAST. The additional menu items BRIGHTNESS, COLOR, TINT, NESS can be selected and adjusted in the same manner. ecessary to adjust TINT to obtain optimum picture quality when using the COMPONENT VIDEO Y-P _B P _R
PICTURE



Use CURSOR buttons to highlight functions.

Press the OK button to set the Reset Video Settings.

Use the CURSOR buttons ▼ to access other video settings.

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

If RESET is selected in AV1 Input, only AV1 Input will return to factory conditions.



 Film Mode
 The Film Mode function turns ON or OFF the 3:2 PULLDOWN DETECTION SPECIAL FEATURE. Theatrical movies are shot on film at 24 frames or still pictures per second, instead of 30 frames or 60 fields like video. When film is transferred to video for television viewing, the disparity between the two frame rates must be reconciled. This involves a process known as 3:2 pulldown.

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

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

 2. All Video settings are independent of each other based on it's input (ANT, AV1~AV4).

PAL Comb Filter	This function will not be available (grayed out).
LTI	Set to adjust the sharpness of the picture signal.
CTI	Set to adjust the Sharpness of the Color Signal.
Black Enhancement	Use this function to enhance the shadow detail in dark scenes.
Auto Color	The AUTO COLOR function automatically monitors and adjusts the color to maintain constant color levels even after a program or channel changes. It also maintains natural flesh tones while preserving fidelity of background colors.
NOTE: When using Cor	mponent or DVI-HDTV input. Auto Color will not be available (graved out).



Set to change color temperature depending on preference. Adjust Amplitude to increase/decrease colors Red, Green, Blue in Brighter scenes. Adjust Cut Off to increase/decrease Red, Green, Blue in Dark scenes.



Press CURSOR buttons ◀, ► to set to On/Off. Press CURSOR buttons ▲, ▼ to select color options. Press the OK button then use the CURSOR buttons ◀, ► to adjust settings. Press the MENU button to exit.

PICTURE

Color Management

Use this function to adjust and balance the listed individual colors to make them either deeper or more pure depending on the user's preference.



Use the CURSOR buttons ◀, ► to set On/Off.

Press the CURSOR buttons ◀, ▶, ♥, ▲, to highlight and adjust individual colors.

Use the CURSOR buttons to highlight and select "Reset" to return all colors to default settings.

Color Decoding

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



Use CURSOR buttons to highlight function.

Press the OK button to select from 4 menu items.

Press CURSOR buttons ◀, ▶, ▼, ▲, to highlight and adjust Red, Green, Color and Tint. Use CURSOR buttons to highlight and select "Reset" to return all settings to default.

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

	AUDIO
Audio	of AUDIO to adjust the TV to your preference and to improve the sound quality.
MENU	Picture Audio Audio Timer Function Setup Locks Captions Language \$ Select © Set
Press CURSOR buttons	s ▲, ♥, to select menu item. s ◀ or ▶ to adjust the function. /IENU, or select Audio to return to the main menu.
Audio Mode	Use this function to choose from automatic audio settings to optimize your TV's performance.
Treble	This function controls the high frequency audio to all speakers.
Bass	This function controls the low frequency audio to all speakers.
Balance	This function will control the left to right balance of the Plasma TV internal speakers.
	is selected you are adjusting treble. The additional menu items Bass and Balance can be selected and the same manner.

SRS(O)

TruBass is an audio enhancement technology from SRS Labs that provides deep, rich bass on any speaker system without the need for a subwoofer or additional extra physical components. For systems with a subwoofer, TruBass complements and enhances the bass performance. This feature can be set to Off, Low, Medium and High.

NOTES		SRS and the () symbol are trademarks of SRS Labs, Inc. TruBass technology is incorporated under rom SRS Labs, Inc.
ATTIX Matrix	Surround	The Matrix Surround features the spacious sound effects of a stadium that can be turned ON or OFF.
۵	t Volume	This function will automatically adjust volume so each channel and input has the same average volume level.
	eset	Reset/Restore to original factory settings.
RING RING		

TIMER

Timer

Use this function to set the power to standby status and from standby status to ON.



Press CURSOR buttons ▲, ▼ to select options.
Press CURSOR buttons ◀, ► to select OFF Timer settings (- -, 30, 60, 90, 120 min).
Press CURSOR buttons ◀, ► to select hour or minute of On Timer settings.
Press CURSOR buttons ▲, ▼ to adjust On Timer settings.
Press the MENU button to exit.

Function

Select Function to set the listed options.



Press CURSOR buttons to highlight and adjust options. Press the MENU button to exit.

Continuous on-screen displays such as video games, stock market quotations, computer generated graphics, and other fixed (non-moving) patterns can cause permanent damage to the Plasma Television. Use this feature to move the picture around the screen in small amounts, at set intervals, to reduce the panel image retention.

Screen Wipe

This is used to reduce the panel image retention that can occur with stationary pictures by the white field signal. Select On (continuous operation) or 60 Min. (time limit operation) and press the OK button. When the 60 minutes option is chosen and the 60 minutes elapses, the Plasma television will automatically set to standby mode. Press the MENU or RETURN button on the remote control to return to normal viewing.



This turns the gray sidebars On/Off when watching normal mode screen size area. It is always set to Off when the monitor powered On. It is recommended to set to Off to reduce the panel image retention.

This is used to reduce power consuption for video input when there is no video signal. Setting it On will leads the monitor to the standby mode when the AV input with no signal is selected.



This selects the display condition of the FREEZE mode between Split (2pictures) and Strobe (12 pictures).

This selects the screen display size that appears first when the power is turned on.

Reset

The original factory settings for the items of this Menu page can be restored by pressing the OK button.

FUNCTION

Panel Life	This function is to suppress the contrast of the screen regardless of the Contrast setting in the Picture Menu. By this control, power consumption can be reduced or degradation of a panel can be mitigated. The order of power consumption is Extend 2 < Extend 1 < Normal. If the Contrast setting is changed when this item is set to Extend 1 or 2, it will be changed to Normal automatically.
Mode Display	Not Available (grayed out)
ID Number	Not Available (grayed out)
Inverse	Not Available (grayed out)
Standby White	Not Available (grayed out)
Gamma	Not Available (grayed out)

Setup

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







Press the CURSOR buttons to select the Sub-menu of your choice. Press the OK button to select.

Auto Tuning

Select Antenna input options from Air, CATV1 and CATV2.



Use the CURSOR buttons (\mathbf{V}, \mathbf{A}) to select the source.

Use the CURSOR buttons (◀, ►) to change the source from Air, CATV1 and CATV2.

Press the OK button to set.

Use the CURSOR buttons to select the search option.

Setup Auto Tuning Source CATV1 Search Select OK Set A Return	Setup Auto Tuning Scanning Channel Number: 23 Cancel	
--	--	--

ON-SCREEN DISPLAY

Press OK to CANCEL Press the MENU button to quit the menu.

SETUP

Manua]

Select this feature to manually tune each channel.



Use the CURSOR buttons (\mathbf{V}, \mathbf{A}) to select other sub-menu items.

Channel Number	Use the CURSOR buttons (\blacktriangleleft , \blacktriangleright) to set the channel numbers.		
Name	Use the CURSOR buttons ($oldsymbol{V}$, $oldsymbol{A}$) to edit and enter channel name.		
Color System	Use the CURSOR buttons (◀, ►) to set and choose between 2 different Color System settings (Auto, NTSC-M).		
Skip	Use the CURSOR buttons (\blacktriangleleft , \blacktriangleright) to set. If this is set to ON, that channel will be skipped while using the channel CH+ (\blacktriangle) and CH- (\triangledown) buttons. Skip is automatically set to ON for those non-broadcasting channels after channel search has been made.		
NR	Use the CURSOR buttons (◀, ►) to set. If this is set to ON, it helps to reduce the noise interference visible on the screen especially in the weaker signal reception areas.		
Fine Tuning	This feature is used to adjust the frequency data for the tuner depending on the user's preference.		
	Setup 35 Auto Tuning 0 Manual 0 Fine Tuning 0 Auto Off Image: Construction of the set of		

Use the CURSOR buttons $(\blacktriangleleft, \triangleright)$ to adjust frequency data. Press the Menu button to exit.

Select

🔊 Return

🔳 Exit

Auto Off

If set to ON, the power will be turned off when there is no transmission signal and no operation for about 10 minutes in the TV mode.

ОK

Setup

Select SETUP when setting up your TV for the first time in AV1, AV2, AV3, AV4 input. Use the CURSOR buttons ▲ or ▼ on the remote to highlight the function desired.





Select System 1 for Europe/Asia, System 2 for North America.



Press the CURSOR buttons ◀ or ► to set.

Color System

ON-SCREEN DISPLAY

Select the Color System that corresponds to the color system of the signal from the equipment that is connected to the corresponding Video input terminal (AV1, AV2, AV3 and AV4). Set to Auto for automatic signal detection.



Use the CURSOR buttons $(\mathbf{\nabla}, \mathbf{A})$ to select the Video Input. Use the CURSOR buttons $(\mathbf{\triangleleft}, \mathbf{P})$ to set Color System.

NOTES: 1. Normally set to Auto to automatically recognize the signal.

- 2. When a component signal is received, the Color System and Auto Color options will be grayed out.
- 3. PAL, SECAM and NTSC 4.43 signals are not available in North America.

SETUP

Video Input

Select the Video input that corresponds to the signal mode of the signal from equipment that is connected to the corresponding video input terminal (AV1, AV2, AV4).



Use the CURSOR buttons (V, \blacktriangle) to select the Video Input. Use the CURSOR buttons $(\triangleleft, \blacktriangleright)$ to set the Video Input.

AV1:	Auto, HDTV, SDTV/DVD
AV2 (1st Step):	RGB, Composite/Component
AV2 (2nd Step):	Auto, HDTV, SDTV/DVD
AV4:	S-Video, Composite

NOTE: The RGB signal will be automatically recognized.

Audio Input

Select the Audio input that corresponds to the Audio signal from equipment that is connected to the corresponding audio input terminal (AV1, AV2, AV3, AV4).



Use the CURSOR buttons $(\triangledown, \blacktriangle)$ to select the Video Input. Use the CURSOR buttons $(\blacktriangleleft, \blacktriangleright)$ to set the Audio Input.

NOTE: If the Audio Input is a monaural sound, set to L/Mono.

Scart Output Set to

put Set to TV or monitor.



RGB2 (1st Step)

Set to RGB or Component.

RGB2 (2nd Step) Set to Auto, HDTV, SDTV/DVD

ON-SCREEN DISPLAY



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

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



Use the CURSOR buttons ▲ or ▼ to highlight function and then press the OK button. To change the access code number, select Change Access Code. Enter a new four digit number.

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

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

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

When SET INPUT LOCK is turned on, the picture and sound for all video inputs and the picture and sound for channels 3, 4 will be blocked out.

When PANEL LOCK is turned on, all buttons on the Front Panel will be deactivated, except the Power button.

When MOVIE RATINGS is selected, you can block various types of movies and video tapes based on motion picture ratings. Picturein-Picture will also be blocked automatically (see page 49).

When TV RATINGS is selected, various types of television programming based on a parental guide ratings will be blocked. Picture-in-Picture will also be blocked automatically (see page 50).

Use CANADIAN RATINGS to block various types of movies and television programs based on the two rating systems used in Canada that you feel may be inappropriate due to its content (see pages 51-52).

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

NOTE: If MOVIE/TV Ratings Lock function settings are ON, STROBE freeze and MULTI PICTURE (12 Pictures) will be deactivated.

LOCKS



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



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

Press EXIT to quit the menu or select MOVIE RATING to return to the previous menu.

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
NOT RATED (NR)	Contains no rating. Not Rated (NR) and Not Applicable (NA) programs. Movie has not been rated or ratings do not apply.

announcements, religious programs and weather.

Motion Picture Ratings Chart

NOTES: 1. A movie rating is dependent upon the movie that is viewed. If the movie does not carry a rating, the TV will not block it. Blocking "NOT RATED (NR)" programs may block emergency programming, sports, news, public service 2.

TV Ratings

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



Locks Change Access Code Engage Lock TV Time Lock Movie Ratings TV Ratings Canadian Ratings (Eng) Canadian Ratings (Frn) ∲ Move ② Return



Use the CURSOR buttons (\blacktriangle , \triangledown) to highlight the category that you want to block. Press the OK button to block the TV RATINGS that you have selected. Press the MENU button to quit the menu

TV Parental Guide Ratings Chart

N/A	None.
TV-Y	All children . The themes and elements in this program are specifically designed for a very young audience, including children from ages 2-6.
TV-Y7	Directed to older children. Themes and elements in this program may include mild physical or comedic violence, or may frighten children under the age of 7.
TV-G	General audience. It contains little or no violence, no strong language, and little or no sexual dialogue or situations.
TV-PG	Parental guidance suggested. The program may contain infrequent coarse language, limited violence, some suggestive sexual dialogue and situations.
TV-14	Parents strongly cautioned . This program may contain sophisticated themes, intense sexual situation, more intense violence and intensely suggestive dialogue.
TV-MA	Mature audiences only. This program may contain mature themes, indecent language, graphic violence, and explicit sexual content.
FV	Fantasy Violence
V	Violence
S	Sexual Situation
L	Adult Language
D	Sexually Suggestive Dialogue.

NOTES:

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

LOCKS

Canadian Ratings (Eng)

; Use Canadian Ratings (Eng) to block any type of movie and television program in Canada that you feel might be inappropriate in its content.



Use the CURSOR buttons (\blacktriangle , \blacktriangledown) to select the CANADIAN RATINGS (Eng) category that you want to block. Press the OK button to set the CANADIAN RATINGS (Eng) that you have selected. Once rating is selected, for example C8+, all movies and television programs rated C8+ and higher (G, PG, 14+ and 18+) will be blocked automatically. Press the MENU button to quit the menu

Canadian	Ratings	English	Chart
----------	---------	---------	-------

ā,	
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 (Frn)

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



Use the CURSOR buttons (\blacktriangle , \triangledown) to highlight the category that you want to block.

Press the OK button to set the CANADIAN RATINGS (FRN) that you have selected.

Once rating is selected, for example 8 ans+, all movies and television programs rated 8 ans+ and higher will be automatically blocked.

Press the MENU button to quit the menu

Canadian Ratings French Chart

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

CAPTIONS

Captio	ns 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 or or or
Set Loci Cap	io Io io Io ion Io ip Io ions Io guage Io elect Io
Caption Display	On/Off will turn the CC display on or off.
	Auto will turn the CC display on when Mute is on.
Caption Mode:	Captions is for the program you are viewing.
	Text is for additional information such as news reports or a TV program guide. This information covers the entire screen and viewing the TV program is not possible. Text may not be available with every CC program.
CHANNEL:	 is used for the primary language (usually English). is sometimes used for a second language (may vary by region). is sometimes used for a third language (may vary by region). is sometimes used for a fourth language (may vary by region).
	R buttons ▲, ♥, ◀, ▶ to highlight the function to change then press the OK button to select the function. button to exit or the RETURN button to return to previous menu.

NOTES: 1. CAPTION DISPLAY will not work when viewing a 480p, 720p, or 1080i input via the COMPONENT: Y-P_BP_R inputs.
 2. When the MULTI PICTURE (12 picture) Mode is on, Closed Caption will not work.

3. Closed Caption availability and content depends on the broadcaster. Closed Caption is available when Closed Caption icon is displayed on screen.

Language

This feature will select the language options of the OSD.



Use CURSOR buttons ▲, ▼ to highlight the function to change then press the OK button to select the function. Press the MENU button to quit menu.

CONNECTING TO A PC (RGB1 or RGB2)

- •• ·
- 1. Make sure that the display signal of the personal computer to be used is compatible with the specifications of this device.

See "Product Specifications" concerning the specifications of this device.

- 2. Make sure that the power switch of the personal computer is turned off.
- 3. Connect the signal input terminal (RGB 1 or RGB 2) on the rear panel of this device to the display signal output terminal of the personal computer.
 - Use a cable that fits the input terminal of this device and the output terminal of the personal computer.
 - Depending on the type of personal computer being connected, the use of an optional conversion adapter or the adapter provided with the personal computer may be necessary in some cases. For details, refer to the instruction manual of the personal computer or ask the personal computer manufacturer or your local retail dealer.



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USING THE RGB INPUT

- 1. Other signal formats may not be displayed correctly. Use AUTO ADJUST to automatically adjust the horizontal position, vertical position, clock, and phase. We recommend you use a signal, which has more than 50% of amplitude of white area at each corner of the picture, when performing Auto Adjustment. It may not work correctly with dark picture (see page 63).
- 2. Input signal level.

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

NOTE: Interlaced signal is not available.

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

! NO SYNC. SIGNAL	! INVALID SCAN FREQ.
Without sync POWER SAVING mode will come on after 10 seconds.	Either horizontal or vertical frequency is inappropriate or out of range. INVALID SCAN FREQ. will disappear after 60 seconds.

NOTES: 1. If the Display Monitor cannot display a signal, please try AUTO ADJUST to display the signal. This is used to initialize the MultiScan Converter.

2. Not all signals have AUTO ADJUST feature (see page 63).

3. Set-Top-Box and DVD player input signal does not have AUTO ADJUST feature.

- 1. Press the INPUT and MENU button, then use the CURSOR buttons and the OK button on the remote control to display the different features in RGB MODE.
- 2. Press the MENU button on the remote control to quickly exit from a menu.





USING THE RGB INPUT

RGB ON SCREEN DISPLAY



NOTE: When RGB1 is selected, Horizontal position, Vertical position, Horizontal clock, Reset, WVGA Type and WXGA Mode will not be available (grayed out).





VIDEO ADJUSTMENTS

- The following adjustments are independent of the TV mode:
- •Press MENU in RGB mode for on screen display.
 - •Press CURSOR buttons \blacktriangle or \blacktriangledown to highlight the item to be adjusted.
- •Press the OK button to select the highlighted item.

CONTRAST

This feature allows you to adjust the contrast in RGB mode.



Use CURSOR buttons ◀ or ► to adjust contrast. Press the RETURN button to return to RGB MODE MENU and Press MENU to exit.

NOTE: See TV contrast feature for additional information regarding contrast.

BRIGHTNESS

This feature allows you to adjust brightness in RGB Mode.

Contrast	+31
Brightness	0
Color	
Tint	
Picture Enhancement	High
Color Temperature	Normal
Color Temp. Adjust	
Reset	Reset
\$ Select ເກັງ Return	(P) Fy)+

Use CURSOR buttons ◀ or ► to adjust brightness. Press the RETURN button to return to RGB MODE MENU and Press MENU to exit.

COLOR

This feature allows you to adjust Color in RGB Mode.

Contrast	+31
Brightness	0 8
Color	0
Tint	0
Picture Enhancement	High
Color Temperature	Normal
Color Temp. Adjust	
Reset	Reset
Select (7) Return	(B) Fxit

Use CURSOR buttons ◀ or ► to adjust brightness. Press the RETURN button to return to RGB MODE MENU and Press MENU to exit.



TINT

This feature allows you to adjust Tint in RGB Mode.



Use CURSOR buttons ◀ or ► to adjust tint. Press the RETURN button to return to RGB MODE MENU and Press MENU to exit.

PICTURE ENHANCEMENT

This feature sets the clarity of small details to desired level in RGB Mode.



Use CURSOR buttons ◀ or ► to set.

COLOR TEMPERATURE

Use the CURSOR buttons ◀ or ► to change the COLOR TEMPERATURE. Set to COOL for a cooler picture with more blue (12,000K), set to NORMAL for more natural color (9,300K), or set to WARM for accurate color (6,500K), or Black/White (5,400K).

Contrast	+31
Brightness	0 🛛
Color	0
Tint	0
Picture Enhancement	High
Color Temperature	Normal
Color Temp. Adjust	
Reset	Reset
출 Select 중 Return	(@) Exit







AUTO ADJUST

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

Auto Adjust	Adjust
Horizontal Position	0
Vertical Position	0
Horizontal Clock	0 8
Clock Phase	0 📓
Reset	Reset
\$ Select 🙆 Return	🛞 Exit

Use CURSOR buttons ◀, ► cursors to highlight adjust. Press the OK button to select AUTO ADJUST.

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

H POSITION

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

Horizontal Position	
Vertical Position	0
Horizontal Clock	0
Clock Phase	0
Reset	Reset
\$ Select 🙆 Return	📵 Exit

Use CURSOR buttons ◀, ► to adjust the horizontal position. Press the RETURN button to return to previous menu item. Press MENU to quit.

V POSITION

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

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Use CURSOR buttons ◀, ► to adjust the vertical position. Press RETURN button to return to previous menu item. Press MENU to quit. **USING THE RGB INPUT**



Adjusts the pixel clock frequency to reduce the vertical stripe.

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

CLOCK PHASE

Adjusts the phase to correct blurred or unstable images.



Use CURSOR buttons ◀, ► to adjust the clock phase. Press the RETURN button to return to previous menu item. Press MENU to quit.

RESET

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

Vertical Position 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		_
Clock Phase 0 M Reset		
Reset	Horizontal Clock	
	Clock Phase 0	
A Salart (A) Ratura (A) Evit	Reset	
V Selece OD Recall (OD Exit	🛊 Select 🚯 Return 🛞 Exit	

Use CURSOR buttons ◀, ► to highlight Reset. Press the the OK button to RESET to factory preset settings.



INPUT LEVEL

Setup 0.7V 0n Input Level Frequency Display Off WVGA Type WXGA Mode Off Vertical Filter Off Freque PC юу DVI-PC RGB1 RG82 RGB 🕢 Return 🔹 Select

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

Use CURSOR buttons ◀, ► to select between 0.7V and 1.0V depending on the amount of brightness in the picture.

NOTE: When RGB1 is selected, this function will be deactivated.

FREQUENCY DISPLAY Set this to Off if the frequency information of the Input Signal Screen Display is not required.

Input Level		0.7V	
Frequency Dis	play	On	
WVGA Type		Off	
WXGA Mode		Off	
Vertical Filt	:er	Off	
Frequency Mod	le	PC	
RG81		DVI-PC	
RGB2		RGB	
\$ Select	∢⊧ Set	(🟠) Return	

Use CURSOR buttons ◀ or ▶ to set.

WVGA MODE

This is only available for W-VGA signal. When it is set to On, the display area mode can be selected Full or Real.

Input Level	0.7V
Frequency Display	On
WVGA Type	Off
WXGA Mode	Off
Vertical Filter	Off
Frequency Mode	PC
RGB1	DVI-PC
RGB2	RGB
Select <► Set	🚯 Return

Use CURSOR buttons ◀ or ▶ to set.

WXGA MODE

This is only available for (PC) WXGA signal. The display area mode is selected [1280x768] or [1366x768].

Input Level	0.7V
Frequency Display	On
WVGA Type	Off
WXGA Mode	Off
Vertical Filter	Off
Frequency Mode	PC
RGB1	DVI-PC
RG82	RGB
\$ Select ↔ Set	(2) Return

Use CURSOR buttons ◀ or ► to set.



RGB1

This should correspond to the signal mode of the signal from the equipment that is connected to RGB1 DVI terminal.

Input Level	0.7V
Frequency Display	On
WVGA Type	Off
WXGA Mode	Off
Vertical Filter	Off
Frequency Mode	PC
RGB1	DVI-PC
RGB2	RGB
Select ∢> Set	🕢 Return

Use CURSOR buttons ◀ or ► to set.

RGB2

This should correspond to the signal mode of the signal from the equipment that is connected to RGB2 D-sub terminal.

Setup	
Input Level	0.7V
Frequency Display	On
WVGA Type	Off
WXGA Mode	Off
Vertical Filter	Off
Frequency Mode	PC
RGB1	DVI-PC
RGB2	RGB
‡Select ∢►Set	🚯 Return

Use CURSOR buttons ◀ or ► to set.

LOCKS

See pages 48-52.

CAPTIONS

See pages 53.

LANGUAGE

See pages 54.

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CARE OF YOUR HITACHI PLASMA DISPLAY AND YOUR REMOTE CONTROL

DO

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

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

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

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

DO NOT

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

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

Avoid repeatedly touching the screen.

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

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

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

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

RECEPTION PROBLEMS



	 IGNITION NOISE: Black spots or horizontal streaks may appear, picture may flutter or drift. Usually caused by interference from automobile ignition systems, neon lamps, electrical drills, and other electrical appliances.
	• GHOSTS: Ghosts are caused by the television signal following two paths. One is the direct path and the other is reflected from tall buildings, hills or some other objects. Changing the direction or position of the antenna may improve reception. Ghosting may also be caused by defects in the antenna system such as unshielded leads or connecting several sets to the same antenna without using multiple antenna couplers.
	 SNOW: If your receiver is located in the fringe area of a television station where the signal is weak, your picture may be marred by the appearance of small dots. When the signal is extremely weak, it may be necessary to install a special antenna to improve the picture.
	 RADIO FREQUENCY INTERFERENCE: The interference produces moving ripples or diagonal streaks, and in some cases, causes loss of contrast in the picture. PREVENTION OF AN OBSTACLE TO RADIO RECEIVERS This monitor has been designed pursuant to the FCC class B Rules. This is to prevent a problem to Radio receivers. If this monitor causes a problem to Radio receivers, then take the following steps: Keep the monitor away from Radio. Adjust Radio antennas in order for the monitor not to receive interference. The antenna cable of Radio should be kept away from the monitor. Use a coaxial cable for antenna. You can check if this monitor influences Radio receivers by turning off all other equipment other than the monitor. If you find a problem receiving Radio when using the monitor, check the instructions mentioned above.
 The display image appears scrolling diagonal. Text displayed across the screen appears vertically streaked, with the characters in vertical columns blurred. 	• Adjust the horizontal clock and clock phase. (Adjust the horizontal clock first, the clock phase next.) (RGB input)
 Text displayed across the screen appears blurred. A fine pattern flickers when displayed on the screen. 	• Adjust the clock phase for the clearest viewing. (RGB input)
Vertical stripes appear, depending on the screen contents.	• The plasma display panel is lighting the phosphors by the discharge of internal radiation. Depending on the screen contents, in rare cases this may cause vertical stripes to appear because of failure to light. Please note that this is not a malfunction.
Coarse horizontal stripes appear in FULL display.	• Adjusting the clock phase will reduce the horizontal stripes. (RGB input)
 The display dims to make the picture invisible during special playback of a VCR (FF, REW). 	• This condition may occur when the unit is connected to a VCR with component output, such as 480i, but it is not a failure. But when it occurs, switch to composite output or S1 (S2) output).

USEFUL INFO

SYMPTOMS	Been THESE ISE IS	Be Sure external ADULSTIS AND	Be Sur Dolner Connection is	Ty No Swind Deci	Check Channel Oly	Check anterna co. (station tro.)	Cheer, anterna for, (based)	Check Outside and Orden leads	Action local internation in wife	Adjust Contract Contraction	Adjust Brightness	Adius Color control	Aquist bound
No Picture, no sound									ĺ	ĺ	ĺ		
Sound OK, picture poor				•	۲	۲	۲	۲		۲			
Picture OK, sound poor	•			۲	۲	۲	۲	۲					
Picture blurred				۲	۲	۲	۲	۲					
Lines or streaks in picture				۲	۲	۲	۲	۲					
Poor reception on some channels				۲	•	۲	۲						
Picture rolls vertically													
No color	•				۲	۲					•		
Poor color					•	۲							

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

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

TRADEMARK ACKNOWLEDGMENT

DDC[™] is a trademark of Video Electronics Standard Association.

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

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

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

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

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

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

Cable Compatible Television Apparatus- Tèlèvision câblocompatible, Canada.

Notes on Closed Caption:

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







AGENCY REGULATORY INFORMATION

Federal Communications Commission Notice

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

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

Modifications

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

Cables

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

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

Declaration of Conformity

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

For questions regarding this declaration, contact:

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



Features:

- New Easy-to-Use On-Screen Menu Control (3 Language)
- Preprogrammed Remote Control
- Power Management: ON/OFF via signal detection
- Picture Enhancement

Video:

- 852 x 480 Display Resolution
- High-Contrast Pure-Color Glass Shield
- Wide Viewing Angle: More than 160°
- 4 Color Temperature Presets: Black/White-5400K, Normal-9300K, Warm-6500K, Cool-12000K.
- Multiple Screen Fill Modes (4x3/Panoramic/ Zoom/Full/Cinema)¹
- 4MB 10-bit 3D Y/C Comb Filter
- Picture Modes (Day and Night)
- Computer Display: VGA, (SVGA, XGA, SXGA-scaled)

Inputs:

- Power InputAC 120V, 60Hz
- Power Consumption
 Refer to rear panel at the back of the Plasma Monitor

٠	Channel coverage
	VHF-Band
	UHF-Band
	CATV Mid Band
	Super BandJ~W
	Hyper BandW+1 ~ W+28
	Ultra Band

- Component Video Luminance (Y)1.0Vp-p, 75 Ohm Chrominance (P_B/P_B)0.7Vp-p, 75 Ohm

- RGB0.7Vp-p, 75 Ohm

Outputs:

- Video1.0Vp-p. 75 Ohm

Audio:

- MTS Stereo/SAP
- TruBass and Matrix Surround
- 12W + 12W

Supplied Accessories:

- Remote Control
- Batteries
- AC Cable
- Speakers (x2)
- Cleaning Cloth
- Speaker Wires
- Speaker Holder (x4)
- Cushion (x2)
- Mounting Screws (x8)

INPUTS/OUTPUTS

Inputs:	.RGB1, RGB2, AV1-AV3
Component Y, Pb,Pr	3
RGB (Analog)	
RGB (Digital)	1
Composite Video	
S-Video	
Antenna (RF)	
Audio L/R	
Inputs:	
RGB (Analog)	
Composite Video	
S-Video	
Composite Video	
Audio L/R	
Outputs:	Monitor
Composite Video	
Audio L/R	
Outputs:	
Composite Video	
Audio L/R	
	1

SPECIFICATIONS

- Multi-Scanning: 15.73 KHz/24-107KHz (h), 50-85Hz (v)
- Pour Demuirementer
- Power Requirements:108-132V, 60Hz

¹ Screen mode availability varies by input format

HDTV Monitors display HDTV when combined with an HDTV Tuner and Source. All specifications, weights, and dimensions are subject to change without prior notice. Please access www.hitachi.us/tv for detailed specifications and dimensions for custom installations.

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Plasma Television with Speakers and Table Top Stand (SET DIMENSIONS)



G



НПАСНІ

Rul?

To locate an authorized HITACHI service facility in the continental U.S.A. and Canada.

DIAL TOLL FREE

7 days a week, 24 hours a day

(1-800-448-2244)

Hitachi America, LTD. Home Electronics Division

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

0

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

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



Hitachi Canada, LTD. Digital Media Division

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

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

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

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

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

for a copy.

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

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

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

La version française de votre manual se trouve á l'extérieur de la boîte. Si le manuel est manquant, coposez le

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

pour obenir votre copie.

HITACHI CANADA, LTD. 2495 Meadowpine Blvd. Mississauga, ON L5N 6C3

PRODUCT SPECIFICATIONS

Panel	Display dimensions	Approx. 42 inches (920 (H) x 518 (V) mm, diagonal 1059mm)						
ranci	Resolution	852 (H) x 480 (V) pixels						
Net dimension (excluding Sp	ns eakers/Stand)	1030 (W) x 636 (H) x 91 (D) mm						
Net weight (including Sp	eakers/Stand)	42.8 Kg/ 114.7 lbs.						
Ambient	Temperature	Operating : 5°C to 35°C, Storage : -15°C to 60°C						
conditions	Relative humidity	Operating : 20% to 80%, Storage : 20% to 90% (non-condensing)						
Power supply		NC 120V, 60Hz						
Power consur	mption/at standby	310W / <3W						
Audio output		12W + 12W (6Ω)						
(RGB input)		L						
<u> </u>	Input terminals	RGB1 DVI input terminal (DVI-D) RGB1 audio input terminal (3.5mm Stereo Mini Jack) RGB2 analog RGB input terminal (D-sub 15-pin) RGB2 audio input terminal (3.5mm Stereo Mini Jack)						
Input signals	Video signals	0.7 V/1.0 Vp-p, analog RGB (Recommended Signal) 480i, 576i, 480p, 576p, 1080i/50, 1080i/60, 720p/60						
	Sync signals	H/V separate, TTL level [2KΩ] H/V composite, TTL level [2KΩ] Sync on green, 0.3 Vp-p [75Ω]						
Recommende	d signal	47 modes						
(Video input)								
Input signals	Input terminals	AV1: composite video input terminal (RCA) AV1: Y PB PR video input terminal (RCA) AV1: L/R audio input terminal (RCA) AV2: Composite video input terminal (RCA) AV2: Y(G PB/B PR/R video input terminal (RCA) AV2: L/R audio input terminal (RCA) AV3: composite video input terminal (RCA) AV3: s video input terminal (RCA) AV3: S video input terminal (RCA) AV3: L/R audio input terminal (RCA) AV3: L/R audio input terminal (RCA) AV4: composite video / S video / RGB / L/R audio input terminal (Scart)						
	Video signals	AV1: NTSC-M AV1: 480i, 576i, 480p, 576p, 1080i/50, 1080i/60, 720p/60 AV2: NTSC-M AV2: 480i, 576i, 480p, 576p, 1080i/50, 1080i/60, 720p/60, RGB AV3: NTSC-M AV4: NTSC-M AV4: NTSC-M AV4: RGB						
Video output Signal		OUTPUT (MONITOR): composite video monitor-output terminal (RCA) OUTPUT (MONITOR): L/R audio monitor- output terminal (RCA) AV4: composite video / L/R audio output terminal (SCART)						
Recommended signal		15 modes						
(RF input)								
	Input terminals	ANT : 75Ω Unbalanced						
Input signals	RF Video System	NTSC-M						

• The monitor takes at least 30 minutes to attain the status of optimal picture quality.



Signal Input

DVI terminal (DVI-D)

Pin	Input signal	Pin	Input signal
1	T.M.D.S. Data2-	14	+5V Power
2	T.M.D.S. Data2+	15	Ground (for+5V)
3	T.M.D.S. Data2/4 Shield	16	Hot Plug Detect
4	T.M.D.S. Data4-	17	T.M.D.S. Data0-
5	T.M.D.S. Data4+	18	T.M.D.S. Data0+
6	DDC Clock	19	T.M.D.S. Data0/5 Shield
7	DDC Data	20	T.M.D.S. Data5-
8	No Connect	21	T.M.D.S. Data5+
9	T.M.D.S. Data1-	22	T.M.D.S. Clock Shield
10	T.M.D.S. Data1+	23	T.M.D.S. Clock+
11	T.M.D.S. Data1/3 Shield	24	T.M.D.S. Clock-
12	T.M.D.S. Data3-	Frame	GND
13	T.M.D.S. Data3+		

RGB terminal (D-sub 15-pin connector)

Pin	Input signal
1	R (Pr/Cr)
2	G or sync on green (Y)
3	В (Рв/Св)
4	No connection
5	No connection
6	R.GND (PR/CR, GND)
7	G.GND (Y, GND)
8	B.GND (Рв/Св, GND)
9	No connection
10	GND
11	No connection
12	[SDA]
13	H. sync or H/V composite sync
14	V.sync. [V.CLK]
15	[SCL]

(): With component input

S-input connector pin specifications

Pin	Input signal
1	Y
2	Y-GND
3	С
4	C-GND
Frame	GND

Scart connector pin specifications

Pin	Signal	Pin	Signal
1	AUDIO OUT (RIGHT)	12	Not Used
2	AUDIO IN (RIGHT)	13	RGB-R GND
3	AUDIO OUT (LEFT/MONO)	14	GND
4	AUDIO GND	15	RGB-R / S.VHS CHROMINANCE IN
5	5 RGB-B GND		BLANKING SIGNAL
6	AUDIO IN (LEFT/MONO)	17	COMPOSITE VIDEO GND
7	RGB-B IN	18	BLANKING SIGNAL GND
8	AUDIO/RGB SWITCH / 16:9	19	COMPOSITE VIDEO OUT
9	RGB-G GND	20	COMPOSITE VIDEO / S.VHS LUMINANCE IN
10	Not Used	21	GND / SHIELD (CHASSIS)
11	RGB-G IN		

11	1	2	3	4	5	6	7	8	/
$\backslash [$	9	10	11	12	13	14	15	16	──/
	17	18	19	20	21	22	23	24	/



 When different kinds of input signals are simultaneously input to the monitor via a graphics board or the like, the monitor will automatically select the signals in the following priority order:

Sync signal type	Priority
H/V separate sync.	1
H/V composite sync.	2
sync.on Green *	3

*Even in the case of the recommended signals shown on the following page, there may be instances when correct display is not possible. In this case, use H/V separate sync, H/V composite sync.



\\ ***** ******



Recommended Signal List

With Digital RGB signal input (RGB1 input)

		Signal mod	e	Horizontal	Dot clock	Setup Men		
No.	Signal Name	Resolution	Vertical frequency (Hz)	frequency (kHz)	frequency (MHz)	DVI-PC	DVI-STB	Remarks
1	VGA	640 X 400	70.08	31.47	25.18	0		
2	VGA	640 X 480	59.94	31.47	25.18	0	0	
3	W-VGA	864 X 480	59.94	31.47	34.24	0		
4		640 X 480	72.81	37.86	31.50	0		
5		640 X 480	75.00	37.50	31.50	0		
6		640 X 480	85.01	43.27	36.00	0		
7	ĺ	800 X 600	56.25	35.16	36.00	0		
8	ĺ	800 X 600	60.32	37.88	40.00	0		
9	VESA	800 X 600	72.19	48.08	50.00	0		
10	[800 X 600	75.00	46.88	49.50	0		
11]	800 X 600	85.06	53.67	56.25	0		
12		1024 X 768	60.00	48.36	65.00	0		
13		1024 X 768	70.07	56.48	75.00	0		
14		1024 X 768	75.03	60.02	78.75	0		
15	480p	720 X 480	59.94	31.47	27.00		0	E I A-861
16	720p/60	1280 X 720	60.00	45.00	74.25		0	E I A-861
17	1080i/60	1920 X 1080	60.00	33.75	74.25		0	E I A-861

• Make sure that the signal of the equipment to be connected is compatible with the pecifications of this list. (O: acceptable)

With Analog RGB signal input (RGB2 input)

		Signal mod	le	Horizontal	Dot clock frequency	Remarks
No.	Signal Name	Resolution	Vertical frequency (Hz)	frequency (kHz)	(MHz)	
1	VGA	640 X 400	70.08	31.47	25.18	
2	VGA	640 X 480	59.94	31.47	25.18	
3	W-VGA	864 X 480	59.94	31.47	34.24	WVGA type : On
4		640 X 480	72.81	37.86	31.50	
5		640 X 480	75.00	37.50	31.50	
6		640 X 480	85.01	43.27	36.00	
7		800 X 600	56.25	35.16	36.00	
8		800 X 600	60.32	37.88	40.00	
9		800 X 600	72.19	48.08	50.00	
10		800 X 600	75.00	46.88	49.50	
11		800 X 600	85.06	53.67	56.25	
12		1024 X 768	60.00	48.36	65.00	
13	VESA	1024 X 768	70.07	56.48	75.00	
14		1024 X 768	75.03	60.02	78.75	
15		1024 X 768	85.00	68.68	94.50	
16		1152 X 864	75.00	67.50	108.00	
17		1280 X 1024	60.02	63.98	108.00	
18		1280 X 1024	75.03	79.98	135.00	
19		1280 X 1024	85.02	91.15	157.50	
20		1600 X 1200	60.00	75.00	162.00	
21		1600 X 1200	75.00	93.75	202.50	
22		1600 X 1200	85.00	106.25	229.50	
23		640 X 480	66.67	35.00	30.24	
24	Macintosh	832 X 624	74.55	49.72	57.28	
25	พละเกเบรก	1024 X 768	74.93	60.24	80.00	
26		1152 X 870	75.06	68.68	100.00	



PRODUCT SPECIFICATIONS

27		1280 X 768	59.833	47.986	81.00	
28		1280 X 768	69.997	56.137	94.760	
29	W-XGA	1280 X 768	59.876	47.776	79.50	WXGA Mode:(1280x768)
30		1366 X 768	60.015	47.712	89.50	WXGA Mode:(1366x768)

• The type of video board or connecting cable used may not allow for correct displays adjustment of Horizontal Position, Vertical Position, Horizontal Clock and Clock Phase.

• The monitor may fail to display an animation image correctly when a signal having a vertical frequency of 85Hz or higher is input to it.

• The monitor differentiates the signal modes according to the horizontal and vertical frequencies and the horizontal and vertical sync signal polarities. Note that different signals having all these elements alike may be handled as the same signal.

• Displaying images with more than 480 lines of vertical resolution at Full diplay (compressed display) can result in the interpolation of stripes.

With Composite Input(AV1~AV4 input) and S-video Input (AV3 and AV4 input).

			Signal mode		Horizontal	Dot clock	
000000000000000000000000000000000000000	No.	Signal Name	Resolution	Vertical frequency (Hz)	frequency (kHz)	frequency (MHz)	Remarks
0000000000	1	NTSC-M	525	59.94	15.73		

With R, G, B Video input (AV2 and AV4 input).

0000000			Signal mode		Horizontal	Dot clock	
N	о.	Signal Name	Resolution	Vertical frequency (Hz)		frequency (MHz)	Remarks
-	1	(NTSC-M)	525	59.94	15.73	_	

With component input (AV1, AV2 and RGB2-component input).

000000		Signal mode		Horizontal	Dot clock	
No.	Signal Name	Resolution	Vertical frequency (Hz)	frequency (kHz)	frequency (MHz)	Remarks
1	576i	576	50.00	15.63	-	
2	480i	480	59.94	15.73		
3	576p	576	50.00	31.26		
4	480p	480	59.94	31.47	-	
5	1080i/50	1080	50.00	28.13	_	
6	1080i/60	1080	60.00	33.75		
7	720p/60	720	59.94	44.96	_	

• The monitor differentiates the signal modes according to the horizontal and vertical frequencies and the horizontal and vertical sync signal polarities. Note that different signals having all these elements alike may be handled as the same signal.

• Displaying images with more than 480 lines of vertical resolution at Full diplay (compressed display) can result in the interpolation of stripes.

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