

CMP4221

USER'S MANUAL

Thank you very much for purchasing the HITACHI Plasma Display Monitor. Before using your monitor, please carefully read the "SAFETY INSTRUCTIONS" and this "USER'S MANUAL" so you will know how to operate the monitor properly. Keep this manual in a safe place. You will find it useful in the future.

Notes on Installation Work:

This product is marketed assuming that it is installed by qualified personnel with enough skill and competence. Always have an installation specialist or your dealer install and set up the product. HITACHI cannot assume liabilities for damage caused by mistake in installation or mounting, misuse, modification or a natural disaster.

Note for Dealers:

After installation, be sure to deliver this manual to the customer and explain to the customer how to handle the product.





IMPORTANT SAFETY INSTRUCTIONS

SAFETY POINTS THAT YOU SHOULD KNOW ABOUT YOUR HITACHI PLASMA MONITOR

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

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 monitor.

Follow all warnings and instructions marked on this monitor.

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



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



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.

ENGLISH

WARNING:

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

NOTE:

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

CAUTION:

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

MODIFICATIONS: The FCC requires that the user 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 MONITOR IS DESIGNED TO OPERATE ON 100-240 VOLT 50/60Hz, AC CURRENT. INSERT THE POWER CORD INTO A 120 VOLT 60Hz OR 240 VOLT 50Hz OUTLET.

TO PREVENT ELECTRIC SHOCK, DO NOT USE THE MONITOR'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 MONITOR TO DIRECT CURRENT OR ANYTHING OTHER THAN THE SPECIFIED VOLTAGE.



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



IMPORTANT SAFETY INSTRUCTIONS

Read before operating the appliance

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 at the point where they exit from the apparatus.
11. Only use the attachments/accessories specified by the manufacturer.

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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 when a 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. To Reduce the Risk of Fire or Electric Shock, Do not Expose This Appliance To Rain or Moisture.
16. Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, shall not be placed on the apparatus.

17. The Shock Hazard Marking and Associated Graphical Symbol is provided on the bottom panel of the unit.
18. This appliance is designed to comply with the recommended safety standards for tilt and stability.
Do not pull the cabinet with excessive force. Doing so can cause the product to overturn, resulting in damage to the product and/or personal injury.
19. Follow instructions for wall, shelf, or ceiling mounting as recommended by the manufacturer.
20. An outdoor antenna should not be located in the vicinity of overhead power lines or other electrical circuits.

ENGLISH

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

Disposal of this product may require specific instructions pertaining to your resident state. For disposal or recycling information, please contact your local authorities or the Electronic Industries Alliance: www.eiae.org.



CAUTION: PREVENTION OF SCREEN BURN IN

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 monitor. Such "SCREEN BURN IN" constitute misuse and are NOT COVERED 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.

Important

Please read this User's Manual thoroughly, especially the Safety Instructions on Page 4 to 7. Mis-use may cause damage to your plasma monitor, which could shorten its lifespan, or cause injury to yourself. Should you encounter any difficulty in the set-up or operation of your monitor, firstly refer to the Troubleshooting guide at the rear of this manual. In the unlikely event of a problem occurring with your plasma monitor, switch off at the mains sockets, pull out the plugs, and contact your dealer immediately.

CAUTION

Under no circumstances remove the rear cover of your plasma monitor. Never guess or take any chances with electrical equipment of any kind - it is better to be safe than sorry!

Software Notice

It is prohibited for the end user of this product to copy, reverse engineer or reverse compile the software included therein, save to the extent permitted by law.

Plasma monitor

After the plasma monitor has been on for any length of time, you will notice that the screen becomes warm. Please note that this is normal. Sometimes the screen might have some tiny bright or dark spots. Please note that this is normal.

CAUTION

To prevent scratches or damages to the plasma screen, do not knock or rub the surface with sharp or hard objects. Clean the screen with a soft cloth moistened with warm water and dry with a soft cloth. A mild soap may be used if the screen is extremely dirty. Do not use harsh or abrasive cleaners!

CAUTION

Use a soft cloth to clean the cabinet and control panel of the monitor. When excessively soiled dilute a neutral detergent in water, wet and wring out the soft cloth and afterward wipe with a dry soft cloth. Never use acid/alkaline detergent, alcoholic detergent, abrasive cleaner, powder soap, OA cleaner, car wax, glass cleaner, etc. especially because they would cause discoloration, scratches or cracks.

FEATURE

Large-screen, high-definition plasma display panel

The 42-inch color plasma display panel, with a resolution of 1024 (H) x 1024 (V) pixels, creates a high-definition, large-screen (aspect ratio : 16:9) and low-profile flat display. Free from electromagnetic interferences from geomagnetic sources and ambient power lines, the panel produces high-quality display images free from color misconvergence and display distortion.

High Performance Digital Processor

A wide range of input signals can be handled, including composite, component, and HDMI. High Definition Digital processor creates the fine-textured image with dynamic contrast. In addition, a wide range of personal computer signals can be handled, from 640 x 400, 640 x 480 VGA to 1600 x 1200 UXGA. (RGB Analog input)

Easy-to-use remote control and on screen display system

The remote control included eases the work of setting display controls. Further, the on-screen display system, displays the status of signal reception and display control settings in an easy-to-view fashion.

Connecting to an Audio Visual Device

- Two composite and S-Video terminal, two component terminal, a PC RGB terminal and a HDMI terminal have been added.
- A wide range of device can besides personal computers.

Options

Ask your local retail dealer for further details.

1. Desktop stand:
 - CMPAD24
2. Plasma monitor speaker:
 - CMPAS24

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Notes about this manual

- The information in this manual is subject to change without notice.
- While meticulous care has been taken in the preparation of this manual, you are requested to notify your dealer or us should you have any comments, views or questions about our product.
- Fully understand the prerequisites to using the product, such as hardware and software specifications and constraints, in using the product. We are not held liable for damages caused by improper handling of the product.
- Reproduction of this manual in whole or in part without our prior written permission is prohibited.
- The product names mentioned in this manual may be trademarks or registered trademarks of their respective owners.

SAFETY INSTRUCTIONS

This Plasma monitor has been designed and manufactured to meet international safety standards, but like any electrical equipment, care must be taken if you are to obtain the best results and safety is to be assured. Before using this product, please read and understand the Safety Instructions thoroughly to ensure correct usage, and follow all the instructions.

About the Symbols

Various symbols are used in this manual, the user's manual and on the product itself to ensure correct usage, to prevent danger to the users and to prevent property damage. The meanings of these symbols are described below. It is important that you read these descriptions thoroughly and fully understand the contents.



WARNING

This symbol indicates information that, if ignored, could possibly result in personal injury or even death due to incorrect handling.



CAUTION

This symbol indicates information that, if ignored, could result possibly in personal injury or physical damage due to incorrect handling.

Typical Symbols



This symbol indicates an additional warning (including cautions). An illustration is provided to clarify the contents.



This symbol indicates a prohibited action. The contents will be clearly indicated in an illustration or adjacent to the symbol (the symbol to the left indicates that disassembly is prohibited).



This symbol indicates a compulsory action. The contents will be clearly indicated in an illustration or adjacent to the symbol. (The symbol to the left indicates that the power plug should be disconnected from the power outlet).



WARNING

Never use the monitor if a problem should occur.

Abnormal operations such as smoke, strange odor, no image, no sound, excessive sound, damaged casing, elements, cables, penetration of liquids or foreign matter, etc. can cause a fire or electrical shock. In such case, immediately turn off the power switch and then disconnect the power plug from the power outlet. After making sure that the smoke or odor has stopped, contact your dealer. Never attempt to make repairs yourself because this could be dangerous.



Disconnect the plug from the power outlet.

Do not insert liquids or foreign objects.

Penetration of liquids or foreign objects could result in fire or electrical shock. Use special caution in households where children are present.

If liquids or foreign objects should enter the projector, immediately turn off the power switch, disconnect the power plug from the power outlet and contact your dealer.

- Do not place the monitor in a bathroom.
- Do not expose the monitor to rain or moisture.
- Do not place flower vases, pots, cups, cosmetics, liquids such as water, etc on or around the monitor.
- Do not place metals, combustibles, etc on or around the monitor.



Do not Disassemble.

Never disassemble or modify the monitor.

The monitor contains high voltage components. Modification could result in fire or electrical shock.

- Never remove any fixed cover.

Do not give the monitor any shock or impact.

If the monitor should be shocked and/or broken, it could result in an injury, and continued use could result in fire or electrical shock. If the glass panel is broken or damaged, immediately turn off the power switch, disconnect the power plug from the power outlet and contact your dealer.



Do not place the monitor on an unstable surface.

If the monitor should be dropped and/or broken, it could result in an injury, and continued use could result in fire or electrical shock.

- Do not place the monitor on an unstable, slant or vibrant surface such as a wobbly or inclined stand.

Do not obstruct the ventilation of the monitor.

If the ventilation is obstructed during the operation of the monitor or just after switching off the power, it could result in damage and shorten the lifespan of your monitor due to overheating. Make sure there is ample ventilation.

- Keep a space of 100mm (10cm) or more between the sides, rear and top of the monitor and other objects such as walls.
- Do not place anything around ventilation openings of the monitor.
- Never block ventilation openings.
- Do not put the plasma screen side up.
- Do not cover the monitor with a tablecloth, etc.
- Do not place the monitor on a carpet or bedding, or near a curtain.



Use only the correct power outlet.

Incorrect power supply could result in fire or electrical shock. Use only the correct power outlet depending on the indication on the monitor and the safety standard.

- The enclosed power cord must be used depending on the power outlet to be used.





WARNING

Be cautious of the power cord connection.

Incorrect connection of the power cord could result in fire or electrical shock.

- Do not touch the power cord with a wet hand.
- Check that the connecting portion of the power cord is clean (with no dust), before using. Use a soft and dry cloth to clean the power plug.
- Insert the power plug into a power outlet firmly. Avoid using a loose, unsound outlet or contact failure.
- Do not cut off the fitted power plug, the removal of which could lead to impaired performance. If you wish to extend the lead, obtain an appropriate extension lead or consult your dealer.
- Should you require replacing the fuse in the molded plug with a new fuse, and then please replace with new one of the same value, type and approval as the original. Ensure the fuse cover is returned to its original position.



Be sure to keep safety ground connection.

Connect the ground terminal of AC inlet of this monitor with the ground terminal provided at the power outlet using the enclosed power cord. If the provided plug does not fit your outlet, consult an electrician for replacement of the obsolete outlet.

Be careful in handling the power cord and external connection cables.

If you keep using a damaged the power cord or cables, it can cause a fire or electrical shock. Do not apply too much heat, pressure or tension to the power cord and cables. If the power cord or cables are damaged (exposed or broken core wires, etc.), contact your dealer.

- Do not place the monitor or heavy objects on the power cord and cables. Also, do not place a spread, cover, etc, over them because this could result in the inadvertent placing of heavy objects on the concealed power cord or cables.
- Do not pull the power cord and cables. When connecting and disconnecting the power cord or cables, do it with your hand holding the plug or connector.
- Do not place the cord near the heater.
- Do not touch the power plug just after disconnecting it from the power outlet to prevent electric shock.
- Do not touch the power plug when lightening is close to you.
- Avoid coiling the power cord and bending it sharply.
- Protect the power cord from being walked on, pinched particularly at plugs, conveniences receptacles, and the point where they exit from the apparatus.
- Do not modify the power cord.



Surely connect the ground wire.



Be careful in handling the battery of the remote control.

Incorrect handling of the battery could result in fire or personal injury. The battery may explode if not handled properly.

- Keep the battery away from children and pets. If swallowed consult a physician immediately for emergency treatment.
- Do not allow the battery to be exposed to fire or water.
- Avoid fire or high-temperature environment.
- Do not hold the battery with metallic tweezers.
- Keep the battery in a dark, cool and dry place.
- Do not short circuit the battery.
- Do not recharge, disassemble or solder the battery.
- Do not physically impact the battery.
- Use only the battery specified in the manual of this monitor.
- Make sure the plus and minus terminals are correctly aligned when loading the battery.
- If you observe a leakage of the battery, wipe out the liquid and then replace the battery. If the liquid adheres your body or clothes, rinse well with water.
- Obey the local laws on disposing the battery.



SAFETY INSTRUCTIONS(continued)



CAUTION

Be careful in moving the monitor.

Neglect could result in an injury or damage.

- Do not move the monitor during use. Before moving, disconnect the power plug and all external connections.
- You are advised to move the monitor with two persons.
- Avoid any impact or shock to the monitor; particularly take care of glass screen.

Do not put anything on top of the monitor.

Placing anything on the monitor could result in loss of balance or falling, and cause an injury or damage. Use special caution in households where children are present.

Avoid a humid or dusty place.

Placing the monitor in a smoke, a highly humid, dusty place, oily soot or corrosive gas could result in fire or electrical shock.

- Do not place near the kitchen, a humidifier or other place where there is oil, smoke or humidity.

Avoid a high temperature environment.

The heat could have adverse influence on the monitor and other parts, and could result in transformation, melting or fire.

- Do not place the monitor, the remote control and other parts in direct sunlight or near a hot object such as heater, etc.
- Do not put the monitor in a place where the temperature is widely changing.

Remove the power cord for complete separation.

- For safety purposes, disconnect the power cord if the monitor is not to be used for prolonged periods of time.
- Before cleaning, turn off and unplug the monitor. Neglect could result in fire or electrical shock.



Disconnect the plug from the power outlet.

Never remove the back cover of the monitor as this can expose you to very high voltages and other hazards

- If the monitor does not operate properly, unplug the monitor and call your authorized dealer or service center.

Prevention of screen burn in

- 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 monitor. Such "SCREEN BURN IN" constitutes misuse and is NOT COVERED by our Factory Warranty.

These servicing instructions are for use by qualified service personnel only

- To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.

Do not place any objects on top of the monitor

- They may fall or cause a child to climb up to retrieve the objects.

PRECAUTIONS

Installation environment

Do not obstruct a ventilation hole.

Do not put the monitor on carpet or blanket, or near a curtain which has a possibility of obstructing a ventilation hole of the monitor.

Do not put the monitor in the following places.

- Hot places such as near heater, place exposed to the direct rays of the sun.
- A place where the temperature is widely changing.
- Places with soot, dust or high humidity.
- Poor air ventilation place.
- Place near fire.
- A wet place such as bathroom, or shower room.
- Place where you can trip over it.
- Always vibrating or strongly vibrating places.
- Distorted or unstable places.

How to view the monitor

If you use the monitor in too dark a room, your eyes may become tired.

Please use it in a reasonably bright room.

Avoid direct rays of the sun to the screen in order to prevent eye fatigue.

Your eyes will get fatigued after viewing the monitor for long period of time.

Relax your eyes by viewing away from the monitor from time to time.

Please watch the monitor in downward direction.

Note on 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.

Please refer to the user manual for this model for instruction on how to use these features.

- Ensure screen saver mode is activated.
- Always display the image in a mode that fills the screen.
- Avoid using split screen mode for long periods of time.
- Do not allow the "On Screen Display" to stay on for long periods of time.
- Do not display still images, such as menus from game consoles, T/Text, PCs or logos, on the panel for long periods of time.
- We recommend that the "Contrast" and "Brightness" level is reduced as much possible.

How to clean the plasma screen panel of the monitor

Before cleaning the monitor, turn off the monitor and disconnect the power plug from the power outlet.

To prevent scratching or damaging the plasma screen face, do not knock or rub the surface with sharp or hard objects. Clean the screen with a soft cloth moistened with warm water and dry with a soft cloth. If it is not enough, then use a cloth with mild detergent. Do not use harsh or abrasive cleaners.

ENGLISH

How to clean the cabinet of the monitor

Use a soft cloth to clean the cabinet and control panel of the monitor. When excessively soiled dilute a neutral detergent in water, wet and wring out the soft cloth and afterward wipe with a dry soft cloth.

Never use acid/alkaline detergent, alcoholic detergent, abrasive cleaner, powder soap, OA cleaner, car wax, glass cleaner, etc. especially because they would cause discoloration, scratches or cracks.

Prevention of an obstacle to Radio receivers

This monitor has been designed pursuant to the international EMI standards. This is to prevent a problem to Radio receivers.

- 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.

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.

Precautions for the cable connection

- Do ensure that all connections, (including the power plug, extension leads and interconnections between the pieces of equipment), are properly made and in accordance with the manufacturers instructions. Switch off and withdraw the power plug before making or changing connections.
- Confirm the connector is fixed tightly when the signal cable is connected.
Also confirm the screws on the connector are tightened.
- Plug the power cord of the monitor into a different socket from that for other equipment, such as Radio etc.
- Use a plug with ground terminal and make sure that it connects to the ground.

Precaution during transportation

Please pay attention when you transport this monitor because it is heavy.

Furthermore, use the original carton box and its packaging materials when the monitor is transported.

Failure to transport the monitor in any carton except the original carton may result in damage to the monitor.

Save the original carton box and all packing material.

Do not physically impact the remote control.

- A physical impact could cause damage or malfunction of the remote control.
- Take care not to drop the remote control.
- Do not place heavy objects on the remote control.

Avoid strong rays.

Any strong rays (such as direct sun rays or room lighting) onto the remote control sensors could invalidate the remote control.

Avoid radio interference.

Any interfering radiation could cause distorted images or noises.

- Avoid radio generator such as a mobile telephone, transceiver, etc. around the monitor.

Set the sound volume at a suitable level.

It is better to keep the volume level low and close the windows at night to protect the neighborhood environment.

Precautions for the installation

- Do not use makeshift stands and NEVER fix legs with wood screws - to ensure complete safety, always fit the manufacturers approved stand or legs with the fixings provided according to the instructions.
- 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.
- This product is 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 that could cause the product to overturn resulting in product damage and/or personal injury.
- Follow instructions for wall, shelf or ceiling mounting as recommended by the manufacturer.
- Only use the attachments/accessories specified by the manufacturer.
- Consult your dealer if you are in any doubt about installation, operation or safety of your equipment.

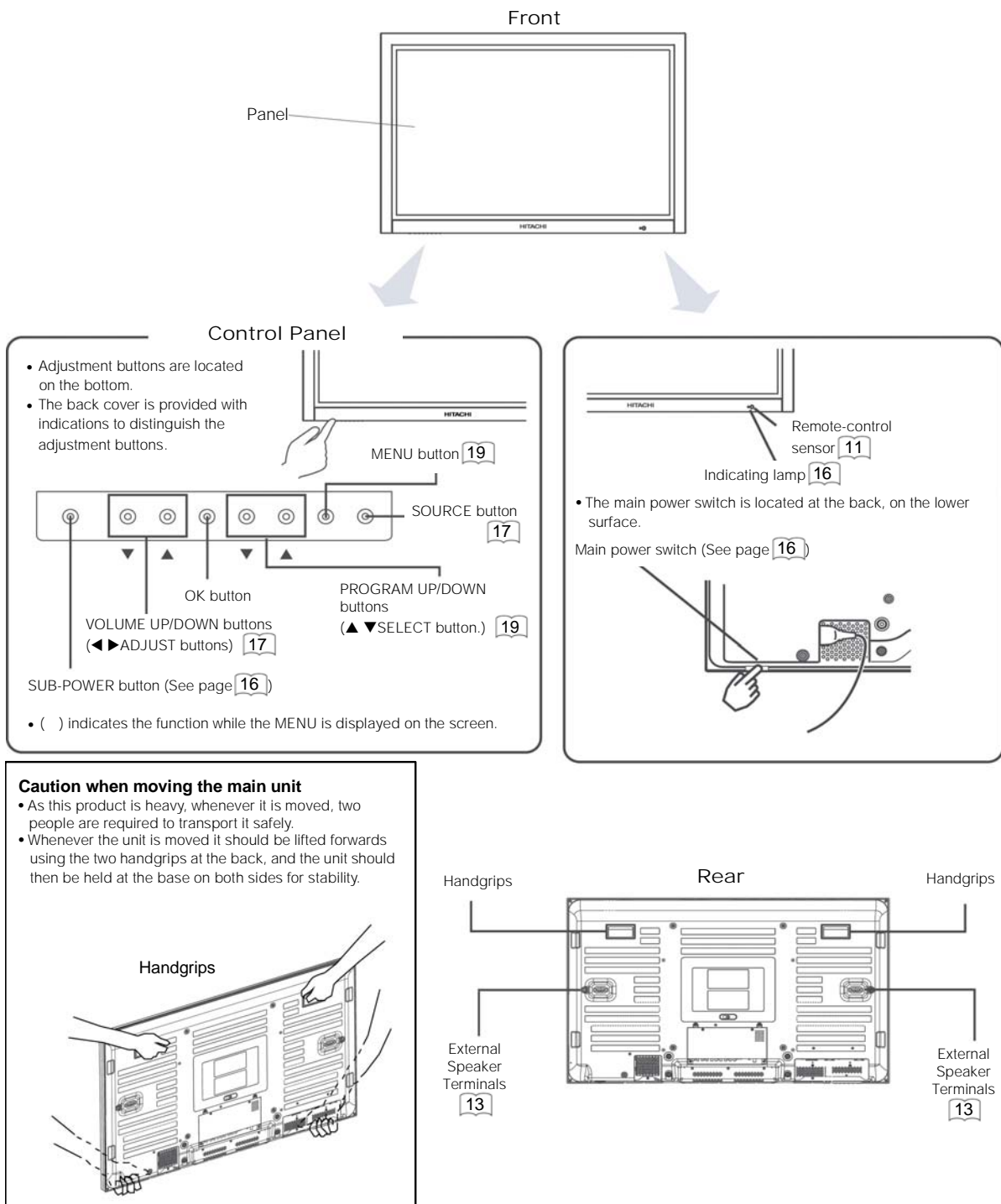
Other precautions

- Do not leave equipment switched on when it is unattended unless it is specifically stated that it is designed for unattended operation or has a stand-by mode. Switch off using the switch on the equipment and show your family how to do this. Make special arrangements for infirm or handicapped people.
- Disposal of this product may require specific instructions pertaining to your resident region.
- Never guess or take any chances with electrical equipment of any kind - it is better to be safe than sorry!

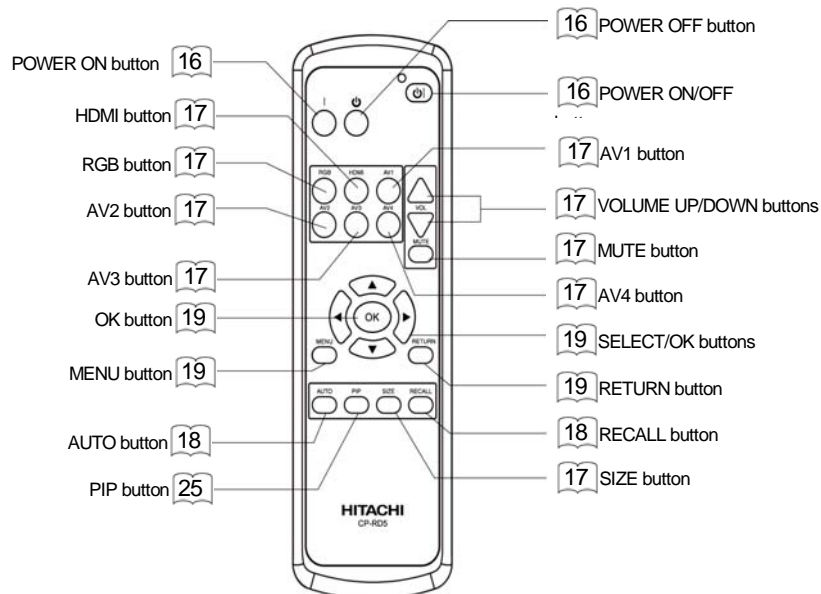
COMPONENT NAMES

Main Unit

ENGLISH



Remote Control

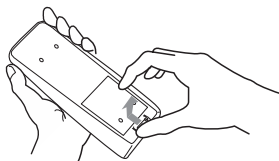


ENGLISH

Loading Batteries

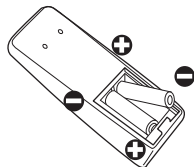
1. Open the battery cover.

Slide back and remove the battery cover in the direction of the arrow.



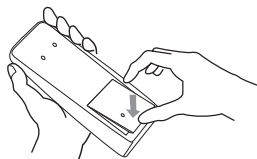
2. Load batteries.

Load two Size AAA batteries included observing the Polarities.



3. Close the battery cover.

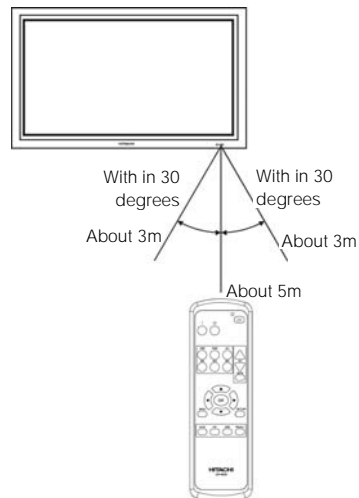
Replace the battery cover in the direction of the arrow and snap it back into place.



Handling the Remote Control

Handling the Remote Control

Use the remote control within about 5m from the front of the unit's remote-control sensor and within 30 degrees on both sides.



CAUTION

- Do not use new and old batteries together. The batteries could explode or leak, resulting in fires, physical injury, or stains.
- When loading batteries, observe their correct polarities as marked on the product. If loaded in the wrong direction, the batteries could explode or leak, resulting in fires, physical injury, or stains.

ATTENTION

- Do not drop or impact the remote control.
- Do not splash the remote control with water or put it on a wet object.
- Before leaving the remote control out of use for an extended period of time, remove the batteries from it.
- If the remote control begins to lack responsiveness, replace the batteries.
- Strong light, such as direct sunlight, shining on the photoreceptor of the remote control can cause operational failure. Position this unit to avoid direct contact with such light.

INSTALLATION INSTRUCTIONS

Installation the Desktop stand (option)

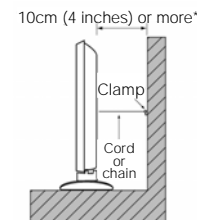
- If you have purchased the model without the stand attached:
When installing the monitor, use the optional Desktop stand.
The Desktop stand has been used for the illustrations in this manual.

WARNING

Use one of the special mount units to install this product. A mount of insufficient strength or inadequate design can cause overturning or dropping and result in fire, electrical shock or injury. Please note that our company assumes absolutely no responsibility for personal injuries or property damage caused by use of other mount units or improper installation.

CAUTION

- Installation of the wall mount unit and ceiling mount unit can be dangerous, so do not attempt this by our self. Ask your dealer to provide the name of a qualified installer.
- In order to prevent an internal temperature increase, maintain a space of 10cm (4 inches: For a desktop set- up) or more between the sides and other objects such as walls, etc., so that the ventilation holes are not blocked. (*)



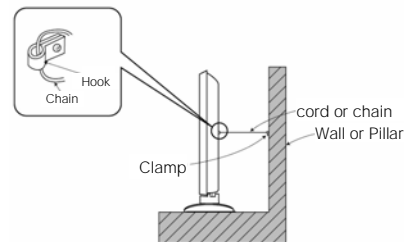
Anti-tumble measures

CAUTION

Have this unit mounted in a stable place. Take measures to prevent it from tumbling down to avoid possible physical injury.

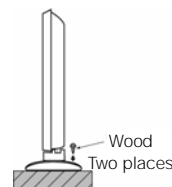
Securing to a wall or pillar

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



Securing desktop

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



Mounting the Speaker Unit (option)

Refer to the instruction manual concerning mounting of the optional speaker unit.

INSTALLATION INSTRUCTIONS (continued)

Read **SAFETY INSTRUCTIONS** (2 to 9) carefully to ensure maximum safety before proceeding to these steps:

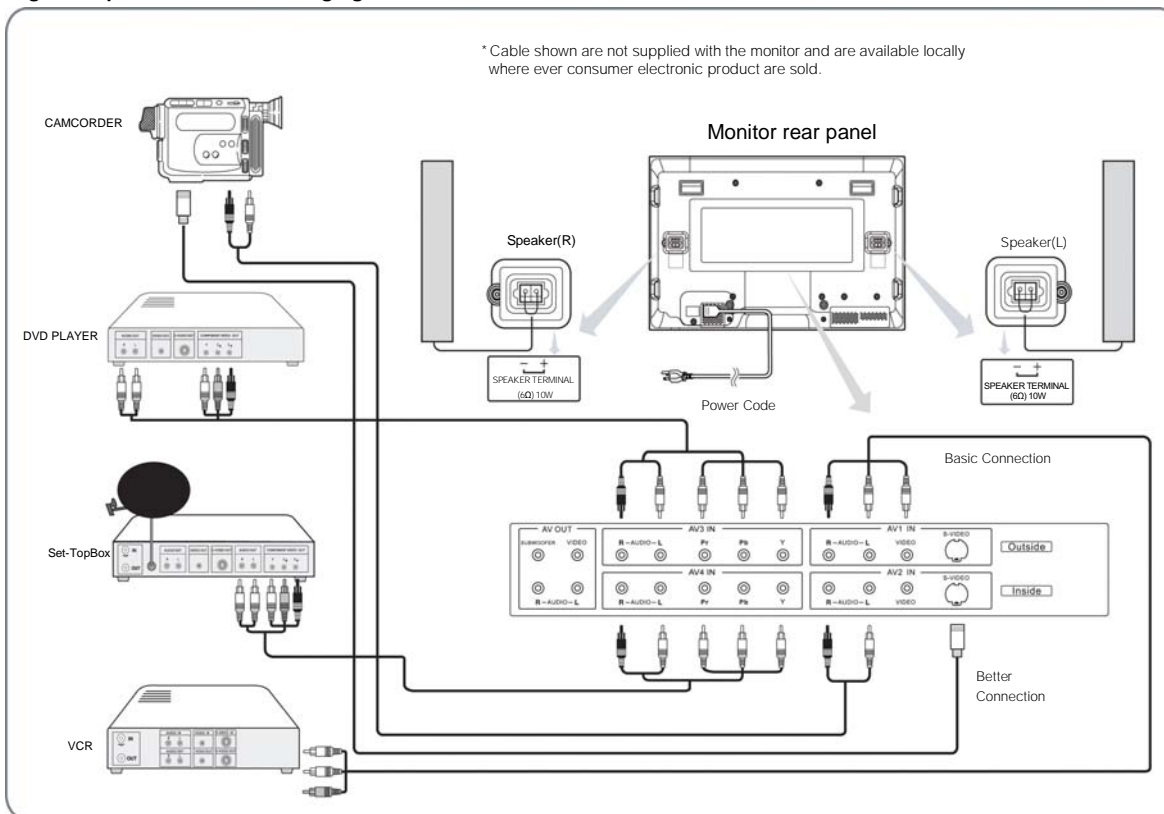
Choose an appropriate site and install the product on a level table where the stand is secure.

- Install the monitor to have ready access to a power socket available.

Make sure that the power switch of this device is turned off.

Connecting to Video Imaging Device

- (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. 35 - 37
- (2) Make sure that the power switch of the monitor is turned off.
- (3) Make sure that the power switch of the imaging device is turned off.
- (4) Use a commercially available cable and connector to connect the signal input terminal on the rear panel of this device and the signal output terminal of the imaging device.



[An example of connecting video components]

- If the AV OUT terminal is connected to a 2nd monitor, it is possible to view the same image as on the main source. The composite video signal from AV1, AV2 input will be displayed on both screens at the same time.
- If video equipment with an S video output terminal is used, cabling by the S video cable is recommended to provide finer video quality.

Applicable signals for each input terminal (See PRODUCT SPECIFICATIONS for details, 35)

Terminal	Applicable Signal	S-video	RCA	D-sub	HDMI
	Composite		Component		
AV1	○	○			
AV2	○	○			
AV3			○		
AV4			○		
RGB				○	
HDMI					○

(O: Available)

Connecting to a PC or a HDMI device

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

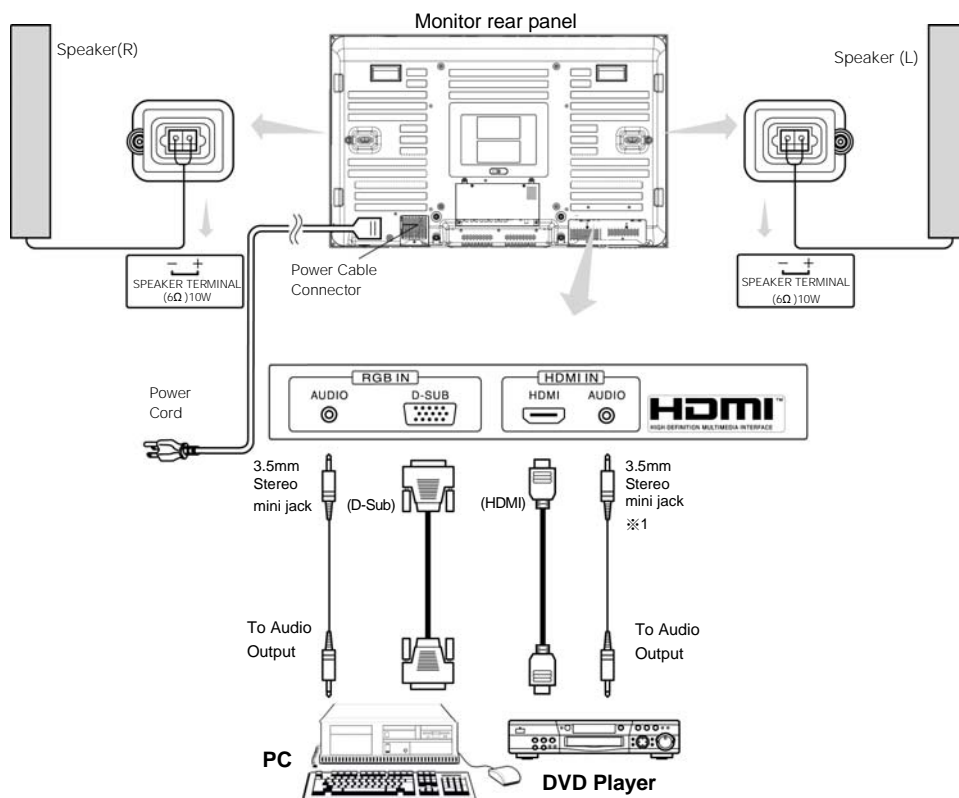
- See "Product Specifications" concerning the specifications of this device. 35 - 37

(2) Make sure that the power switch of the personal computer or the DVD player is turned off.

(3) Connect the signal input terminal (RGB) or HDMI on the rear panel of this device.

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.



※1 In case of using analog audio, when connecting with DVI-HDMI transformation connector, use HDMI audio terminal for input.

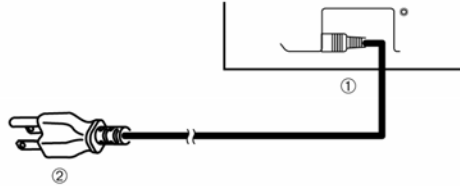
HDMI™

- HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.
- HDMI (High-Definition Multimedia Interface) is a digital interface based on DVI (Digital Visual Interface), which is an added function for audio visual equipment.
 - It does not have degradation by transmission since it is digital.
 - With only one cable, it is possible to transmit both picture signals and audio signals.

INSTALLATION INSTRUCTIONS (continued)

Power Cord Connection

Connect the power cord, after completing all other connections.



- ① Connect the power cord to this device.
- ② Connect the power cord plug to the power outlet.
(The type of plug is different from this drawing for some countries.)

CAUTION

- Use only the power cord provided.
- Do not use a power supply voltage other than that indicated (AC100-240V, 50/60Hz) as this may cause fire or electric shock.

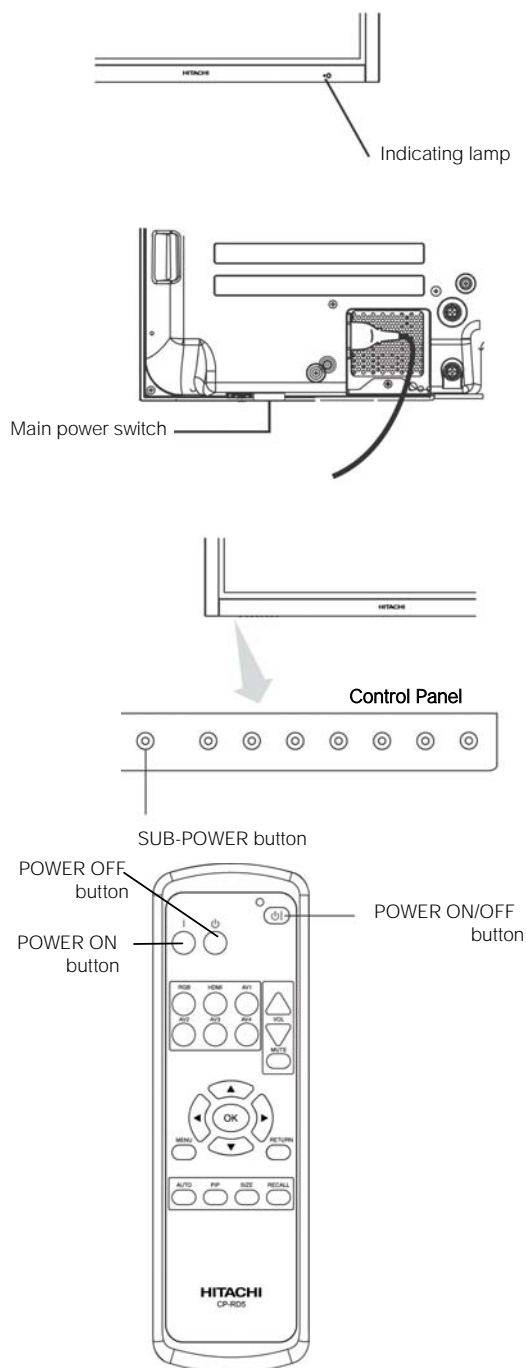
WARNING

Be cautious of the power cord connection.

Incorrect connection of the power cord could result in fire or electrical shock.

- Do not touch the power cord with a wet hand.
- Check that the connecting portion of the power cord is clean (with no dust), before using. Use a soft and dry cloth to clean the power plug.
- Insert the power plug into a power outlet firmly. Avoid using a loose, unsound outlet or contact failure.
- Do not cut off the fitted power plug, the removal of which could lead to impaired performance. If you wish to extend the lead, obtain an appropriate extension lead or consult your dealer.
- Should you require replacing the fuse in the molded plug with a new fuse, and then please replace with new one of the same value, type and approval as the original. Ensure the fuse cover is returned to its original position.

OPERATING INSTRUCTIONS



Turing Power On and Off

To turn the monitor power ON, press the main power switch on the monitor main unit to ON, and then press the SUB POWER button or the ON/OFF or ON button on the remote control.

To turn the monitor power OFF, press the SUB POWER button or the ON/OFF or OFF button on the remote control, and then press the main power switch on the monitor main unit to OFF.

- During normal use, the main power switch is set in the ON position, and the monitor can then be turned ON/OFF using the SUB POWER button or the ON/OFF button on the remote control.

Indicating lamp

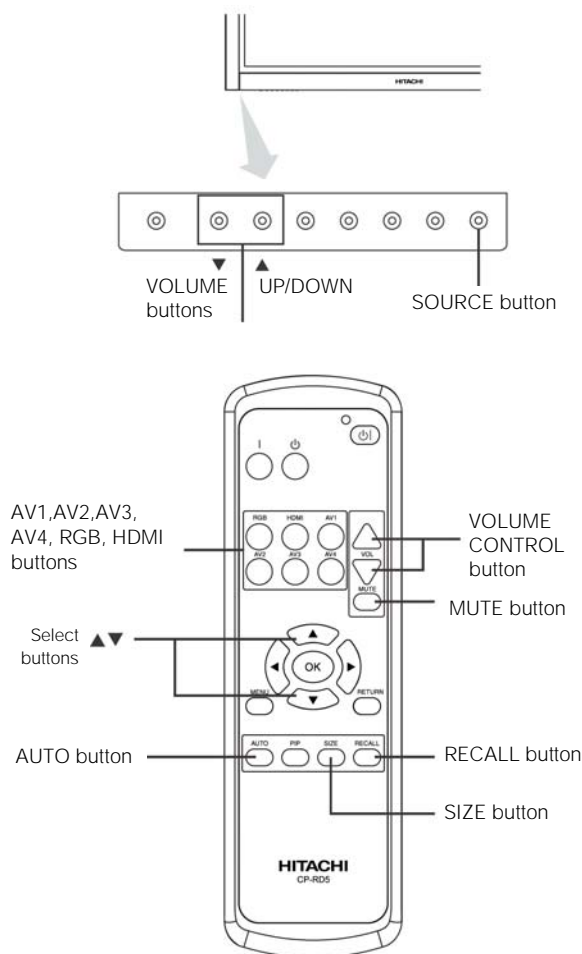
Indicating lamp	Power status	Operating
OFF	OFF	When the main power switch is set to OFF.
Lights red	ON	When the main power switch is set to ON.
Lights green	ON	When the main power switch is ON, and the ON button on the remote control or the SUB POWER button on the underside of the front of the frame is ON.

ATTENTION

- Avoid repeatedly turning the monitor on and off at short time intervals. Failures might result from such operation.
- Turn off the main power switch before leaving the monitor out of use for an extended period of time.
- If a power failure occurs while the main unit is running, it would be powered on upon recovery from the failure. Turn off the unit main power switch before leaving the main unit.

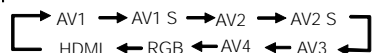
ENGLISH

OPERATING INSTRUCTIONS (continued)



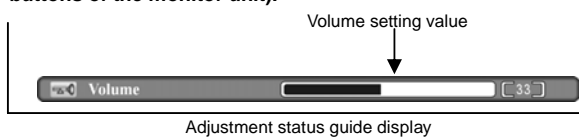
Input Switching

- Input can be switched by pressing the AV1, AV2, AV4, AV4, HDMI, or RGB buttons of the remote control.
- AV1 S (AV2 S) Video Input can be selected by two times pressing the AV1 (AV2) button of the remote control.
- Input can be switched in the sequence by pressing the SOURCE button of the control panel.



Volume Adjustment

The volume can be adjusted by pressing the VOL▲ and VOL▼ buttons of the remote control (or the ▲ and ▼ volume buttons of the monitor unit).



- When a button is pressed, the volume adjustment status guide will be displayed.
- The volume will increase when the VOL ▲ button is pressed while the guide is being displayed.
- The volume will decrease when the VOL ▼ button is pressed while the guide is being displayed.

Audio Mute

The audio volume can be temporarily muted by pressing the MUTE button of the remote control.



When the MUTE button is pressed, the above icon will appear.

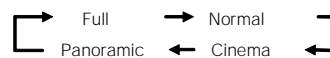
- The volume setting can be lowered by pressing the VOL ▼ button while the audio is muted.
- Muting can be cancelled by pressing the VOL ▲ button or the MUTE button while the audio is muted.

Size Switching

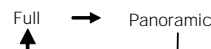
Each time the SIZE button of the remote control, the screen display area will change in sequence and the status will be displayed at the bottom of the screen.

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

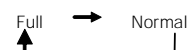
- (1) 4:3 Input signal of AV1, AV2, AV3, AV4



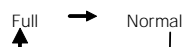
- (2) 16:9 Input signal 720p/60, 1080i/60 of AV3, AV4, HDMI



- (3) RGB Input



- (4) HDMI Input











- The size will fix as Full mode and not change when receiving 720p/60, or 1080i/60

OPERATING INSTRUCTIONS (continued)

Size Switching (continued)

Display area selection diagram (RGB input)

When you want to	Set the display size to	Input signal	Display screen	Remarks
Play a 4:3 image faithfully in a 16:9 screen in the standard vertical size and horizontally squeezed.	Full	 (Squeeze)		An image with an aspect ratio of 16:9 shrunk horizontally to 4:3 to display in a 4:3 screen.
Play a 4:3 image in a 16:9 screen faithfully.	Normal	 (4:3 signal)		Blanking occurs on both sides.
Play a 21:9 Cinema size image in the 4:3 image expanded vertically on the 16:9 screen.	Cinema	 (Cinema)		In some cases, some slight blanking may remain at the top and bottom.
Play a 4:3 image faithfully in a 16:9 screen with the height and with of the middle of the screen enlarged on equal scales and with both sides appearing somewhat enlarged.	Panoramic	 (4:3 Signal)		An image with an aspect ratio of Panoramic shrunk horizontally to 4:3 to display in a 4:3 screen.

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ATTENTION

Using a wide-screen monitor

- 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.
- Use of this monitor in its enlarged display mode with the wide feature enabled in coffee shops, hotels and other establishments for commercial or public viewing purposes could infringe on the copyright holder's right protected by Copyright Law.
- 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.

Automatic Adjustment of Screen Position and the Clock

Adjustment of the screen to a position suitable for the PC signal and the clock adjustment can be performed automatically by pressing the AUTO button of the remote control.

CAUTION

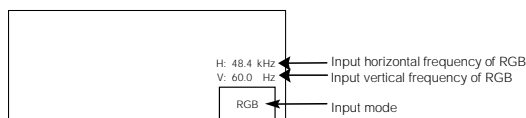
Perform this adjustment for RGB and for each signal.

* Depending on the signal, satisfactory adjustment may not be possible in some cases. In such case, adjust by referring to the Image Menu item.

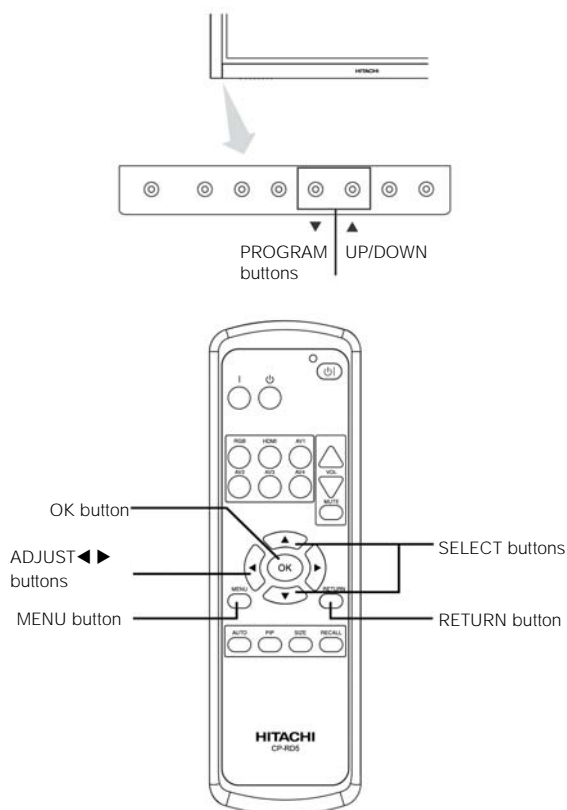
Input Signal Screen Display

The input signal status can be displayed on the screen by pressing the RECALL button of the remote control.

- The display will go out in approximately 2 seconds.



OPERATING INSTRUCTIONS (continued)



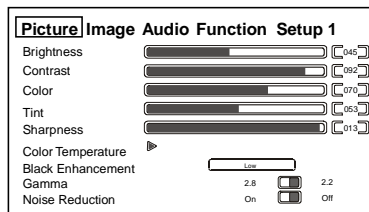
Using the Menu Screen (On-screen display system)

When the MENU button is pressed, the adjustment menu screen will appear. Adjustment and setting are possible by using the SELECT buttons; ADJUST buttons and the OK button.

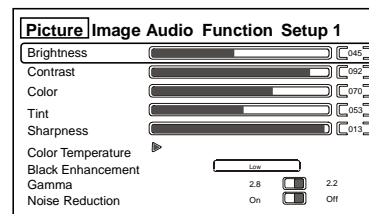
Refer to 20-28 concerning the adjustment items and the settings.

Example: Selecting the Picture screen

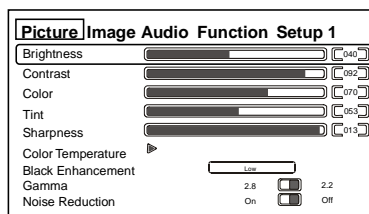
1. Press the MENU button to display the Main Menu screen.



2. Press OK button then Use the▲and ▼SELECT buttons to select the item.

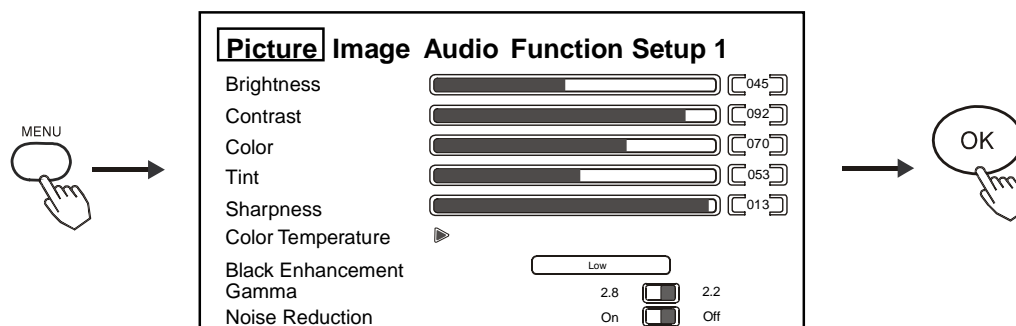


3. Use the◀and ▶to adjust (example: Brightness)



- Press the RETURN button to return to the previous screen.
- If there is no operation for a period of 20 seconds, the Adjustment Menu screen will disappear.

OPERATING INSTRUCTIONS (continued)



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1. AV1~AV4, HDMI Input

	Picture	Image	Audio	Function	Setup 1	Setup 2
Selected characters	Brightness	Picture Size	Volume	PIP H Position	Language	System Reset
	Contrast		Treble	PIP V Position	Off Timer	Freeze Mode
	Color		Bass	PIP Layout	Screen Saver	Black Side Panel
	Tint		Balance	Window Layout ^{*1}	Screen Wipe	Control Panel Lock
	Sharpness		Mute	Main Picture ^{*1}	Standby White	
	Color Temperature		Audio Source ^{*1}	Sub Picture ^{*1}	Inverse	
	Black Enhancement				Panel Life	
	Gamma					
	Noise Reduction					

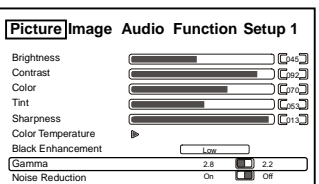
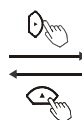
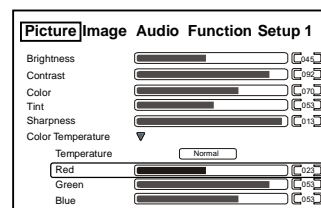
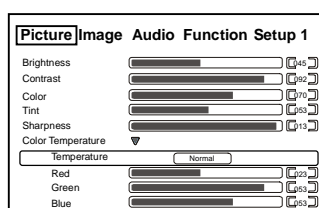
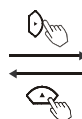
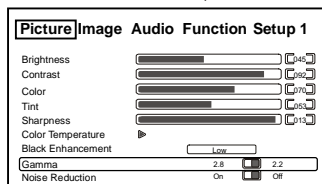
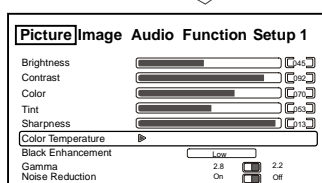
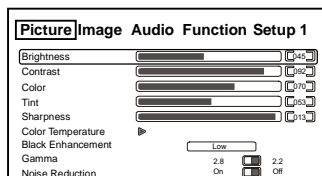
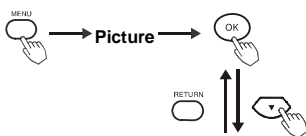
^{*1} Only available in the PIP mode.

2. RGB Input

	Picture	Image	Audio	Function	Setup 1	Setup 2
Selected characters	Brightness	Auto Adjustment	Volume	PIP H Position	Language	System Reset
	Contrast	H Position	Treble	PIP V Position	Off Timer	Freeze Mode
	Color Temperature	V Position	Bass	PIP Layout	Screen Saver	Black Side Panel
	Black Enhancement	Horizontal Clock	Balance	Window Layout ^{*1}	Screen Wipe	Control Panel Lock
	Gamma	Clock Phase	Mute	Main Picture ^{*1}	Standby White	
	Noise Reduction	Mode Display	Audio Source ^{*1}	Sub Picture ^{*1}	Inverse	
		WVGA Type			Panel Life	
		Vertical Filter				
		Frequency Mode				
		Picture Size				

^{*1} Only available in the PIP mode.

PICTURE MENU



*Press "RETURN" button to return to Main Menu, then press "MENU" button to exit OSD.

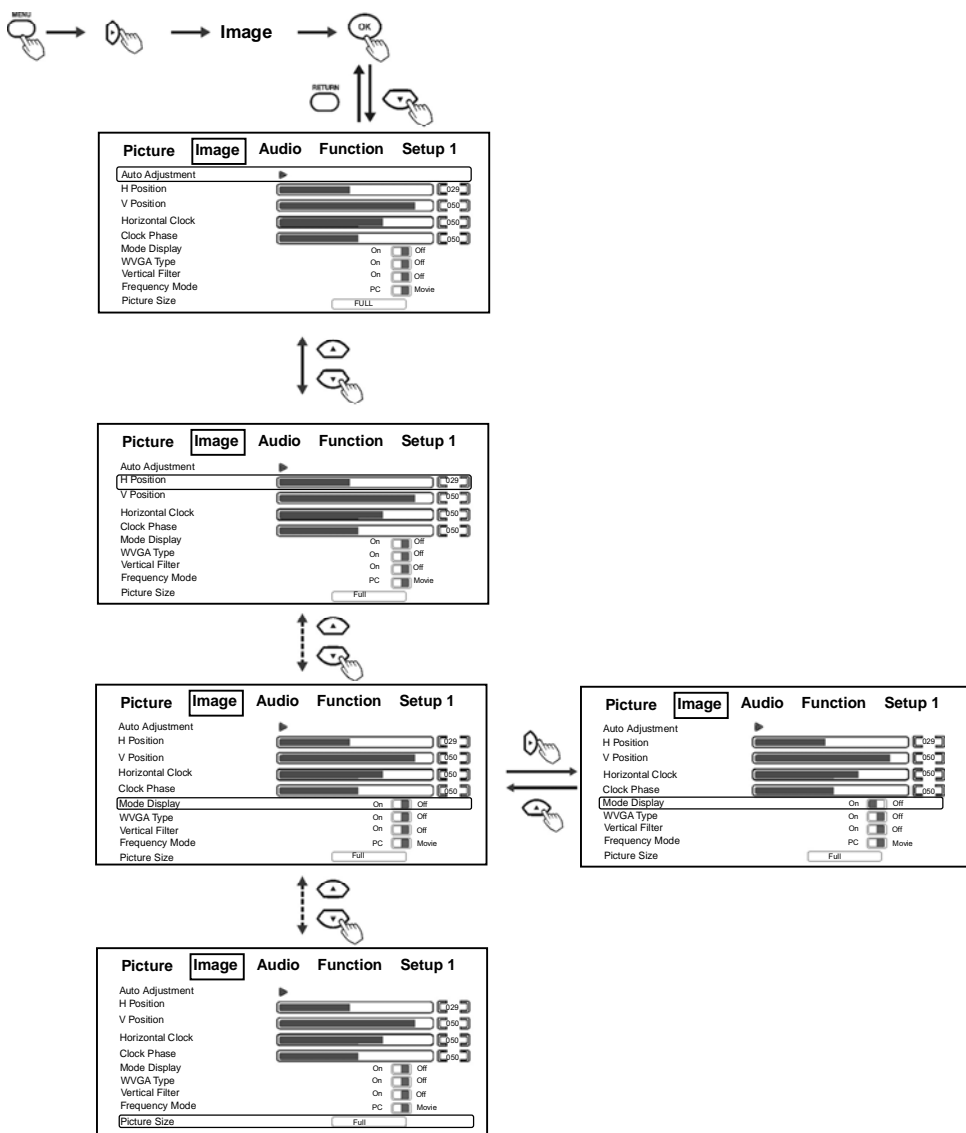
Selected characters		◀	▶	Setup hint
Brightness		Black is increased for overall darkness.	Black is decreased for overall brightness.	Adjust as desired.
Contrast		Narrows the gap between light and dark.	Broadens the gap between light and dark.	Adjust for maximum visibility to suit the ambient brightness.
Color*		Decrease color level.	Increase color level.	Adjust as desired.
Tint*		Enhances red and weakens green.	Enhances green and weakens red.	This can be adjusted when receiving the signal and will be grayed out. Adjust as desired for photo realistic skin color.
Sharpness*		Softens picture	Sharpness picture	Adjust sharpness of picture depending on the user's preference.
Color Temperature	Temperature	Cool ↔ Normal ↔ Warm ↔ User		Adjust color temperature depending on the user's preference. These settings are independently stored in each of the 4 Color Temperature modes.
	Red	Decrease Red level.	Increase Red level.	
	Green	Decrease Green level.	Increase Green level.	
	Blue	Decrease Blue level.	Increase Blue level.	
Black Enhancement		Off ↔ Low ↔ Middle ↔ High		Normally set to Low. Adjusts the black level compensation.
Gamma		2.8 ↔ 2.2		Normally set to 2.2. Adjust the Gamma level of picture.
Noise Reduction		On ↔ Off		If this is set to On, it helps to reduce the noise interference visible on the screen.

* Only un available in the RGB input.

ENGLISH

OPERATING INSTRUCTIONS (continued)

IMAGE MENU




*Press "RETURN" button to return to Main Menu, then press "MENU" button to exit OSD.

Selected characters	◀	▶	Setup hint
Auto Adjustment*	Press the ▶ button to auto-adjust the display parameters to optimum.		Adjust automatically for clock, phase and position.
H Position*	Press the ◀ or ▶ button to adjust the display position.		Adjust the horizontal display position.
V Position*	Press the ◀ or ▶ button to adjust the display position.		Adjust the vertical display position.
Horizontal Clock	Reduces the dot clock frequency (shrinks the right side).	Increases the dot clock frequency (expands the right side).	Adjust for maximum character clarity.
Clock Phase*	Slows the dot clock. Phase.	Advances the dot clock Phase.	Adjust for clear character visibility.

(* Only available in RGB input)

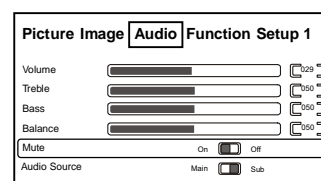
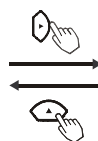
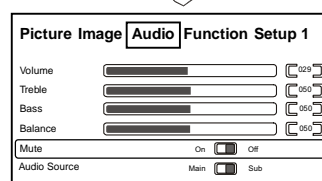
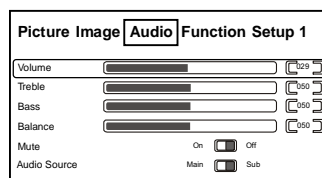
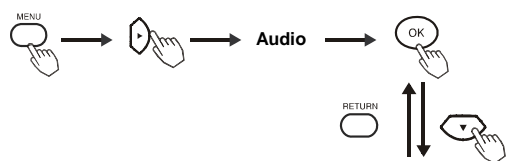
ENGLISH

*Press "RETURN" button to return to Main Menu, then press "MENU" button to exit OSD.

Selected characters	◀ ▶	Setup hint
Mode Display*	On ↔ Off	This can display the Input Signal Screen Display every time the input mode and signal mode are changed. Set to Off if the Input Signal Screen Display is not needed when switching signals.
WVGA Type*	On ↔ Off	This is only available for W-VGA signal. When it is set to On, the display area mode can be selected Full or Real.
Vertical Filter*	On ↔ Off	Turn On when concerned about screen flicker.
Frequency Mode*	PC ↔ Movie	Set to Movie when viewing moving images on a personal computer.
Picture Size	Full ↔ Normal ↔ Cinema ↔ Panoramic 	Change picture size by press ◀ or ▶ button. Refer to Size Switching [17]

* Only available in RGB mode

AUDIO MENU



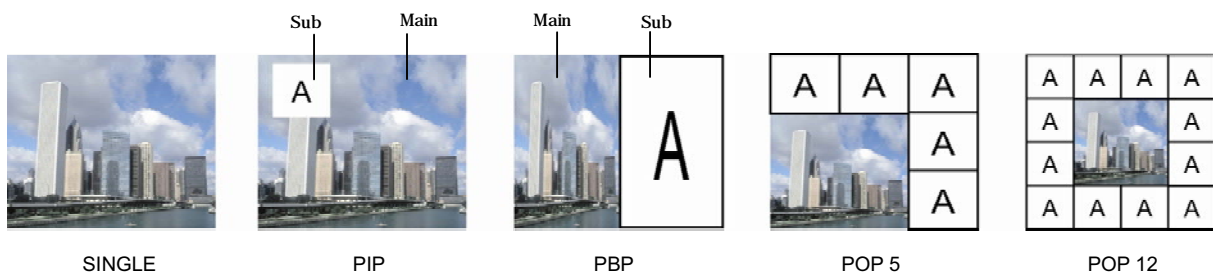
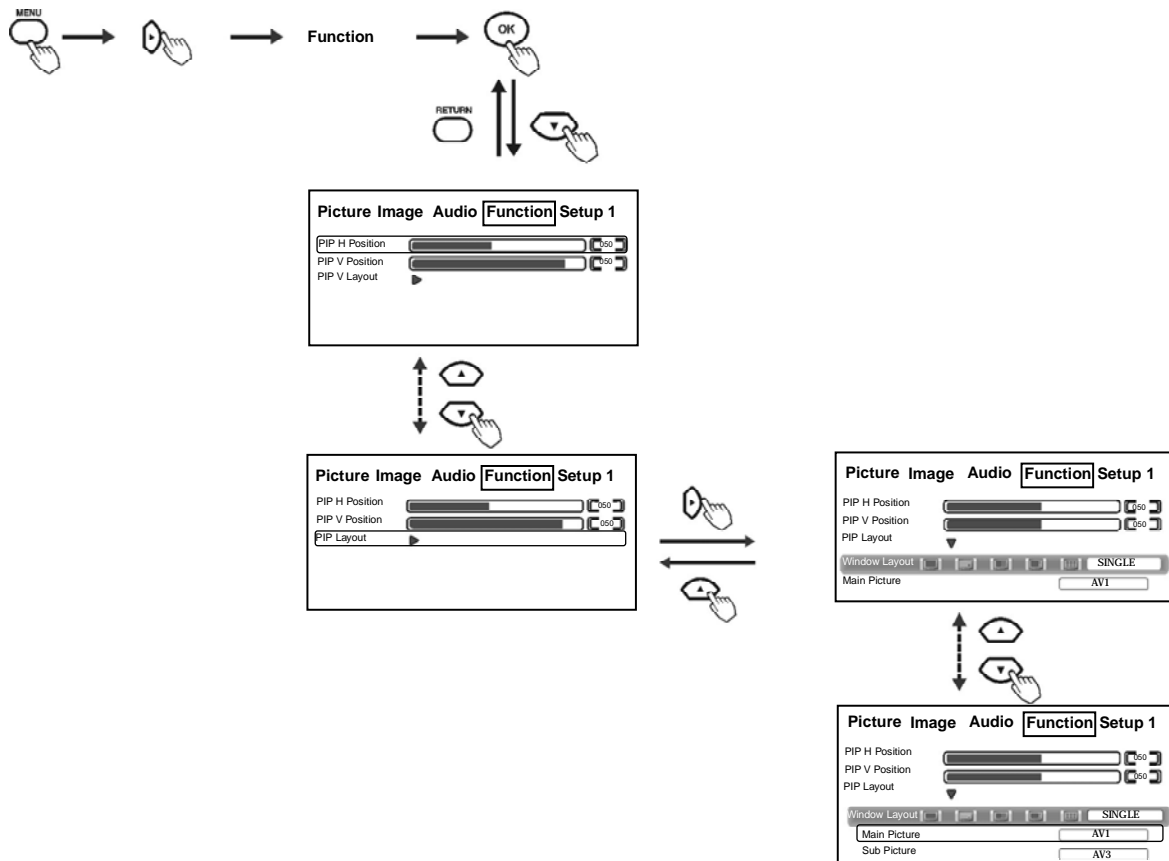
*Press "RETURN" button to return to Main Menu, then press "MENU" button to exit OSD.

Selected characters	◀	▶	Setup hint
Volume	Suppresses volume.	Enhances volume.	Adjust to taste.
Treble	Suppresses treble.	Enhances treble.	Adjust to taste.
Bass	Suppresses bass.	Enhances bass.	Adjust to taste.
Balance	Suppresses right-side sound.	Suppresses left-side sound.	Adjust to taste.
Mute	On ↔ Off		To turn off the audio.
Audio Source*	Main ↔ Sub		Select audio of Main picture or Sub picture

*Only available in the PIP mode.

OPERATING INSTRUCTIONS (continued)

FUNCTION MENU



*Press "RETURN" button to return to Main Menu, then press "MENU" button to exit OSD.

Selected characters	◀ ▶	Setup hint
PIP H Position	Use the ◀ ▶ buttons to adjust pictures to the right or left positions.	Change PIP horizontal display position.
PIP V Position	Use the ▲ ▼ buttons to adjust pictures to the up or down positions.	Change PIP vertical display position.
PIP Layout		
Window Layout	SINGLE ↔ PIP ↔ PBP ↔ POP 5 ↔ POP 12	Change PIP display layout.
Main Picture	Composite AV1 ↔ Svideo AV1 ↔ Composite AV2 HDMI ↔ RGB ↔ AV4 ↔ AV3 ↔ Svideo AV2	Set the input of main picture.
Sub Picture	Svideo AV1 ↔ Composite AV1 ↔ Svideo AV2 RGB ↔ HDMI ↔ AV3 ↔ AV4 ↔ Composite AV2	Set the input of sub picture.

FUNCTION SETTINGS (continued)

PIP Combination Table

Available signals are limited in PIP mode as shown in the table below.

PIP or PBP

Input terminal		Sub Source					
		AV1 Composite	AV2 Composite	AV3 component	AV4 component	RGB	HDMI
Main Source	AV1 Composite		○	○	○	○	○
	AV2 Composite	○		○	○	○	○
	AV3 component	○	○		○	○	○
	AV4 component	○	○	○		○	○
	RGB	○	○	○	○		○
	HDMI	○	○	○	○	○	

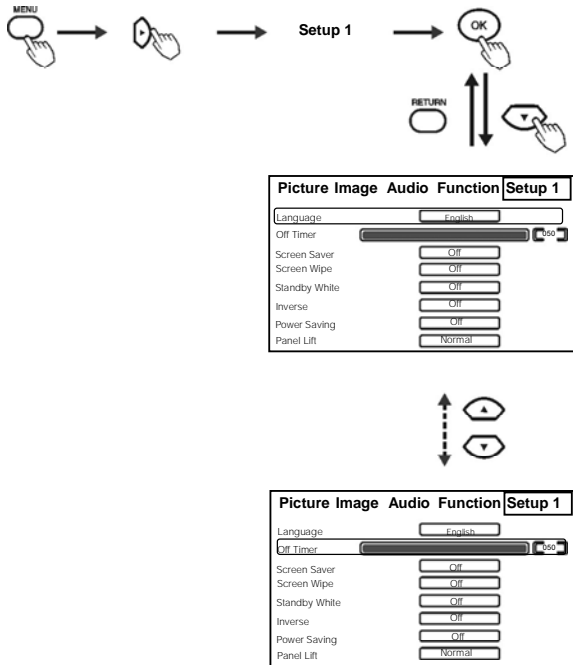
POP5 or POP12

Input terminal		Sub Source					
		AV1 Composite	AV2 Composite	AV3 component	AV4 component	RGB	HDMI
Main Source	AV1 Composite		○				
	AV2 Composite	○					
	AV3 component	○	○				
	AV4 component	○	○				
	RGB	○	○				
	HDMI	○	○				

NOTE

- Please be careful since image retention will occur if display is left in the PIP display state for a long period of time.
- It is normal condition if the sub source is slightly dim while the PIP function is on.

SETUP1 MENU

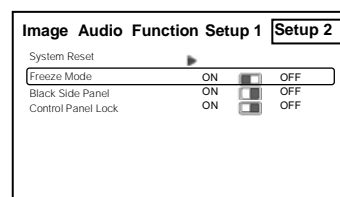
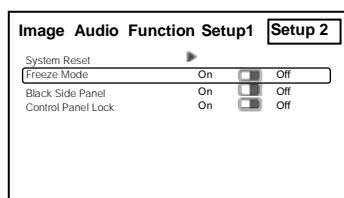
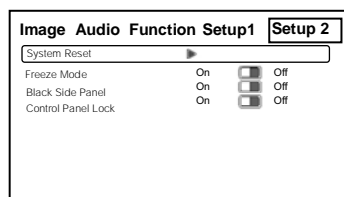
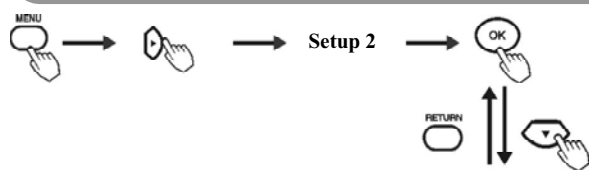


ENGLISH

*Press "RETURN" button to return to Main Menu, then press "MENU" button to exit OSD.

Selected characters	◀ ▶	Setup hint
Language	English ↔ Français ↔ Español	Sets the language for the OSD.
Off Timer	0 ↔ 180	Set the display off time of unit 0 ~ 180 min.
Screen Saver	Off ↔ 5 Min. ↔ 15 Min. ↔ 30 Min.	This moves the picture around the screen in small amounts, at set intervals, to reduce the panel image retention. This is where stationary objects such as screen logos; leave a slight image visible after they should have disappeared.
Screen Wipe	Off ↔ 30 Min. ↔ 60 Min.	This is used to reduce the panel image retention that can occur with stationary pictures by the white field signal. Select 30. Min or 60 Min. (time limit operation) and press the MENU button on the remote control to return to normal viewing.
Standby White	Off ↔ 30 Min. ↔ 60 Min.	This function is also provided against the image retention. If time is set for this item, the screen changes into the white pattern when the monitor enters power save mode, and it will continue for the period of setting time.
Inverse	Off ↔ On ↔ 60 Min.	This function can change each level of RGB signal invert to reduce the panel image retention. When this function is required. Select On (continuous operation) or 60Min. (time limit operation) and press the OK button. And press the Menu or Return button to exit.
Panel Life	Normal ↔ Extend 1 ↔ Extend 2	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.

SETUP2 MENU



*Press "MENU" button to return to Main Menu, then press "MENU" button to exit OSD.

Selected characters	◀	▶	Setup hint
System Reset			Reset the parameters of above items back to factory setting by pressing the OK button.
Freeze Mode	On	Off	Freeze the picture immediately.
Black Side Panel	On	Off	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.
Control Panel Lock	On	Off	Turn On to lock fuction of control Panel.

OTHER FEATURES

Automatic Store

Approximately 1 sec. after adjustment is completed; the adjustments will be recorded as shown in the table below.

Menu	Display	Registration condition
Picture	Brightness	For every input, 1 setting is registered.
	Contrast	
	Color	
	Tint	
	Sharpness	
	Color Temperature	
	Black Enhancement	
	Gamma	
	Noise Reduction	
Image	Auto Adjustment	For RGB input and another input, 1 setting is registered.
	H Position	
	V Position	
	Horizontal Clock	
	Clock Phase	
	Mode Display	
	WVGA Type	
	Vertical Filter	
	Frequency Mode	
	Picture Size	
Audio	Volume	For every input, 1 setting is registered.
	Treble	
	Bass	
	Balance	1 setting is registered.
	Mute	For every input, 1 setting is registered.

Menu	Display	Registration condition
Function	PIP H Position	1 setting is registered.
	PIP V Position	
	PIP Layout	
	Window Layout	
Setup 1	Language	1 setting is registered.
	Off Timer	
	Screen Saver	
	Screen Wipe	
	Standby White	
	Inverse	
Setup 2	Panel Life	(not registered)
	System Reset	
	Freeze Mode	1 setting is registered.
	Black Side Panel	
	Control Panel Lock	

- The previously recorded items will be lost.
- The signal mode can be identified by the horizontal/vertical sync frequency and the sync signal polarity. Different signals where all the elements are the same or similar will be handled as the same signal.

OTHER FEATURES (continued)

Signal Check (RGB Input)

Changes in the signal status are displayed on the screen.

Status	Display	Action
When Mode display is set to ON, the input signal is switched.	A guide is displayed for the input terminal.	
When the sync signal is no longer detected.	A guide displays NO SIGNAL.	Recheck the personal computer power switch status and the connection status.
When the input signal does not match the monitor specifications or is in an unstable status.	A guide displays OUT OF RANGE.	Recheck the input signal specifications. 36 ~ 37

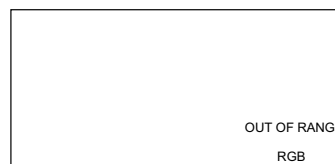
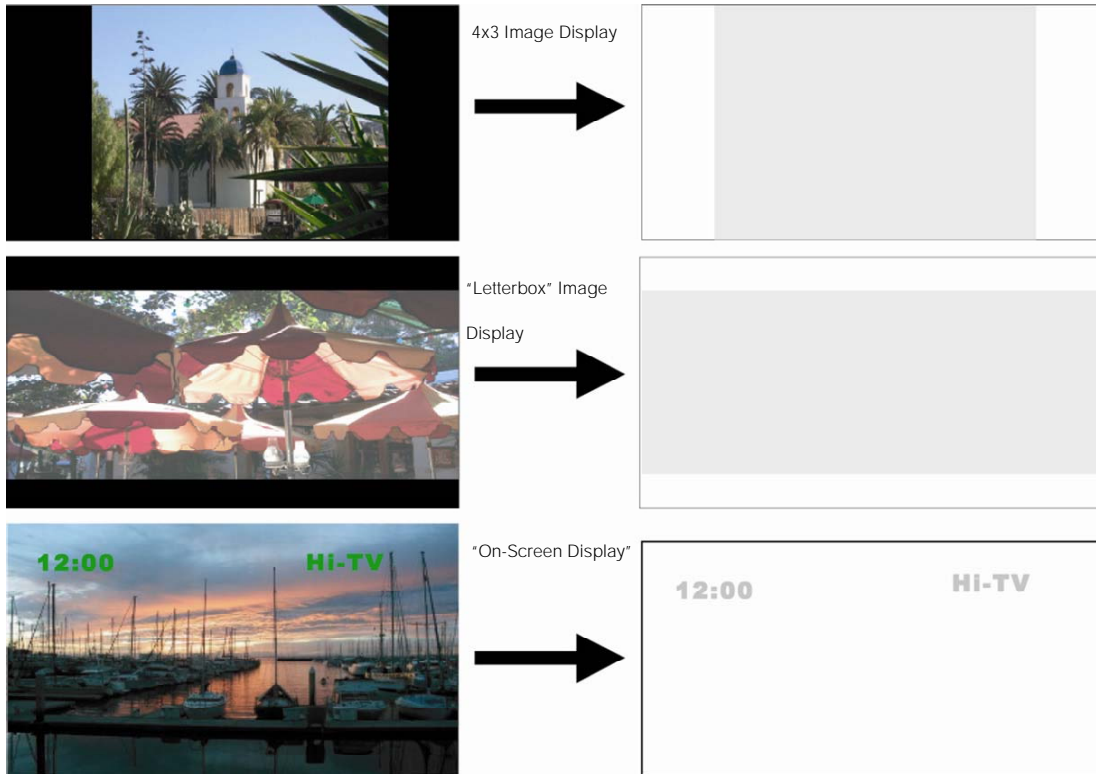


IMAGE RETENTION

Image Retention can be an issue for any plasma display, and is caused by displaying fixed (non-moving) images for extended periods of time. If you follow this simple guideline below you will enjoy a high quality picture for many years to come.

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Examples of Image Retention



Hitachi has included a number of features, which help to reduce image retention. Please refer to the user manual for this mode for additional instructions on how to use these features. To avoid image retention, please follow these simple guidelines.

Activate the Screen Saver Mode.

Use Aspect Ratio modes that completely fill the screen with picture.

- Make sure 4 x 3 aspect ratio and letterbox images are not displayed more than 15 of total viewing time.

Avoid using split screen (PIP) modes for long periods of time.

Do not display still images, such as menus from game consoles, PCs or logos, on the monitor screen for long periods of time.

Reduce the "Contrast" level setting to the lowest acceptable setting.

NOTE

About screen defects

- High precision technology is used in the making of plasma panels but there may be dark spots (points that do not illuminate) and bright spots (points that are too bright) in some cases. These do not indicate a malfunction.

About residual Images

- In some cases, residual images may remain after the short-term display of still images and another image is displayed, but these will disappear and return to normalcy. This is not a malfunction.

About the panel screen

- Plasma displays display images by means of electrical discharges inside the panel. Because of this, the temperature of the panel surface may rise in some cases. Also, plasma displays are made of finely processed glass. A reinforced glass filter is installed over the panel surface but avoid strong impact because there is still danger of glass breakage.

TROUBLESHOOTING

Symptoms That Seemingly Appear to be Failures

Make the checks suggested below depending on the symptoms observed. If the symptoms remain uncorrected, contact your dealer.



WARNING

Self servicing can be hazardous.

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Symptom		Point to check	See Page
<ul style="list-style-type: none"> There is no picture and the indicating lamp is off. 		<ul style="list-style-type: none"> Check to see that the power cable is properly connected. Press the main switch. 	<div>15</div> <div>16</div>
<ul style="list-style-type: none"> In RGB mode, the message "NO SIGNAL" is displayed. In Video mode, the message "NO SIGNAL" is displayed. There is no picture and the indicating lamp lights orange. 		No sync signal is detected. <ul style="list-style-type: none"> Check that the signal cable is properly connected. Make sure that the computer, imaging equipment, etc., is turned on. Make sure the computer is not in power-save mode. Ensure that the input selection matches the connection terminal. 	<div>13</div> <div>14</div>
<ul style="list-style-type: none"> The message "OUT OF RANGE" is displayed. 		An input signal is received abnormally. <ul style="list-style-type: none"> Ensure that the input signal matches the monitor specifications. Check to see that the signal cable is properly connected. 	<div>13</div> <div>14</div>
<ul style="list-style-type: none"> The indicating lamp is lit normally but there is no picture. 		<ul style="list-style-type: none"> Check the contrast and brightness settings (adjust them for higher contrast and brightness). Check to see that the signal cable is properly connected. 	<div>21</div> <div>13</div> <div>14</div>
<ul style="list-style-type: none"> The display image appears slanted. Text displayed across the screen appears vertically streaked, with the characters in vertical columns blurred. 		<ul style="list-style-type: none"> Adjust the clock frequency and the phase. (Adjust the clock frequency first, the dot clock phase next.) (RGB input) 	<div>22</div> <div>34</div>
<ul style="list-style-type: none"> Text displayed across the screen appears blurred. A fine pattern flickers when displayed on the screen. 		<ul style="list-style-type: none"> Adjust the clock phase till the desired clarity is obtained. (RGB input) 	<div>22</div> <div>34</div>
<ul style="list-style-type: none"> The remote control does not work. 		<ul style="list-style-type: none"> Ensure that the batteries in the remote control are inserted with the correct polarity. Check to see that the batteries in the remote control are functional. 	<div>11</div>

TROUBLESHOOTING (continued)

Symptoms That Seemingly Appear to be Failures(continued)

Symptom	Point to check	See Page
<ul style="list-style-type: none"> The temperature of the display panel surface is high. 	<ul style="list-style-type: none"> 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. 	-
<ul style="list-style-type: none"> There are locations on the screen that are different from the periphery(*) * Points that do not light, points with brightness different from that of the periphery, points with color different from that of the periphery, etc. 	<ul style="list-style-type: none"> High-precision technology is used to manufacture the plasma display panel, however in some cases; there are minor defects in some parts of the screen. Please note that this is not a malfunction. 	-
<ul style="list-style-type: none"> Vertical stripes appear, depending on the screen contents. 	<ul style="list-style-type: none"> The plasma display panel is lighting the phosphors on it 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. 	-
<ul style="list-style-type: none"> Coarse horizontal stripes appear in 16:9 display. 	<ul style="list-style-type: none"> Adjusting the Clock Phase will reduce the horizontal stripes. (RGB input) 	22
<ul style="list-style-type: none"> Flickering in the form of horizontal lines oscillating up and down. (RGB INPUT only) 	<ul style="list-style-type: none"> If the direct frequency from the computer is below 85Hz, try a higher frequency (upper limit 85Hz). There may be a slight attenuation of the current image. 	-
<ul style="list-style-type: none"> The top of the monitor heats up. 	<ul style="list-style-type: none"> When used for long periods of time, the top surface of the monitor may heat up. This is not a malfunction. 	-
<ul style="list-style-type: none"> Text characters are displayed with varying thicknesses. 	<ul style="list-style-type: none"> The thicknesses of characters and lines may vary if images with a vertical resolution greater than 480 lines are displayed; however this is not a malfunction. 	-
<ul style="list-style-type: none"> The brightness contrast in the display seems not bright enough. 	<ul style="list-style-type: none"> The ambient temperature of the monitor may be low. When used in the ambient temperatures less than about 15 degrees, it may cause lower luminance. It happens in an operation of the panel protect circuit, and this is not a malfunction. The luminance will recover by turning on electricity for a while. 	-
<ul style="list-style-type: none"> The screen becomes dark and the images cannot be seen during VTR special playback (fast forward, rewind). 	<ul style="list-style-type: none"> This sometimes occurs when a component output VTR such as the 480i is connected. This is not a malfunction; therefore, please take note that this may occur. When it does occur, change to composite output, or S.video output. 	

TROUBLESHOOTING (continued)

Actions to Correct Abnormal Displays (RGB Input)





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Depending on the kind of system equipment used, images may not be displayed normally. In this case, make the adjustments suggested below. (only for RGB)

Symptom 1	Text displayed across the screen appears vertically streaked, with some characters blurred (Figure 1). The display image appears flowing (Figure 2) (RGB input).	
Example	<div>Figure 1</div> <div><div><div>Vertical Streaks</div><div>Before adjustment. Some characters are blurred.</div><div><div>ABC</div><div>After adjustment. All characters appear crisp now.</div><div>After adjustment. All characters are blurred.</div></div></div></div>	
Adjustment procedure	<div>1) Press the MENU button. The Main Menu will be displayed.</div> <div>2) Press the OK key and ◀▶button then Select Image.</div> <div>3) Press the ▲ ▼ SELECT button and select Auto Adjustment.</div> <div>4) Press the ▶ button to auto configuration.</div> <div>When adjustment is not possible with Auto Adjust:</div> <div>5) Press the MENU button. The Main Menu will be displayed.</div> <div>6) Press the OK key and ◀▶button and select Image.</div> <div>7) Press the ▲ ▼SELECT button and select Frequency Mode.</div> <div>8) Press the▶ or ◀ buttons and search for clear characters over the entire screen.</div> <div>9) Perform adjustment for symptom 2 below, when the characters are blurred on the entire screen.</div>	
• The display image may be momentarily disturbed during clock adjustment but this is not a failure.		
Symptom 2	Text displayed across the screen appears blurred in its entirety (Figure 2). A fine pattern flickers when displayed on the screen (Figure 3).	
Example	<div>Figure 2</div> <div><div>Before adjustment</div><div><div>ABC</div><div>After adjustment</div></div></div>	<div>Figure 3</div> <div><div>Before adjustment</div><div><div>After adjustment</div></div></div>
Adjustment procedure	<div>1) Press the MENU button. The Main Menu will be displayed.</div> <div>2) Press the ◀▶button and Select Image.</div> <div>3) Press the ▲ ▼SELECT button and select Auto Adjustment.</div> <div>4) Press the ▶ button to auto configuration.</div> <div>When adjustment is not possible with Auto Adjust</div> <div>5) Press the MENU button. The Main Menu will be displayed.</div> <div>6) Press the OK key and◀▶ button and select Image.</div> <div>7) Press the ▲ ▼SELECT button and select Clock PHASE.</div> <div>(Displays fine patterns as characters or a vertical striped pattern over the entire screen during Clock Phase adjustment.)</div> <div>8) Press▶ or ◀ buttons to make the text appear clean across the screen.</div> <div>9) Press▶or ◀ buttons to make the text appear without flickering</div>	

PRODUCT SPECIFICATIONS

ENGLISH

Panel	Display dimensions	Approx. 42 inches (920 (H) x 518 (V) mm, diagonal 1059mm)
	Resolution	1024 (H) x 1024 (V) pixels
Net dimensions (excluding Speakers/Stand)		1030 (W) x 636 (H) x 91 (D) mm
Net weight (excluding Speakers/Stand)		34kg
Ambient conditions	Temperature	Operating: 5°C to 35°C, Storage: -15°C to 60°C
	Relative humidity	Operating: 20 to 80 , Storage: 20 to 90 (non-condensing)
Power supply		AC100-240 V, 50/60Hz, 340 W
Audio output		10W 10W (6 Ω) (Without speaker)
(RGB input)		
Input signals	Input terminals	Analog RGB analog input terminal (D-sub 15-pin) Audio input terminal (3.5mm Stereo Mini Jack)
	Video signals	0.7 V
	Sync signals	H/V separate, TTL level 2k Ω H/V composite, TTL level 2k Ω Sync on green, 0.3 Vp-p 75 Ω
Recommended signal		26 modes 
(Video input)		
Input signals	Input terminals	AV1 : Composite video input terminal(RCA) AV1 S: S video input terminal AV1 : L/R audio input terminal(RCA) AV2 : Composite video input terminal(RCA) AV2 S: S video input terminal AV2: L/R audio input terminal(RCA) AV3 : Component (YPbPr) input terminal(RCA) AV3 : L/R audio input terminal (RCA) AV4 : Component (YPbPr) input terminal (RCA) AV4 : L/R audio input terminal (RCA) HDMI: HDMI input terminal
	Video signals	AV1 : NTSC-M, PAL-N AV2 : NTSC-M, PAL-N AV3 : 480i, 480p, 720p/60, 1080i/60 AV4 : 480i, 480p, 720p/60, 1080i/60 HDMI: 18 modes 
Output Signal		OUTPUT (MONITOR): composite video output terminal (RCA) OUTPUT (MONITOR): L/R audio output terminal (RCA)
Recommended signal		24 modes  

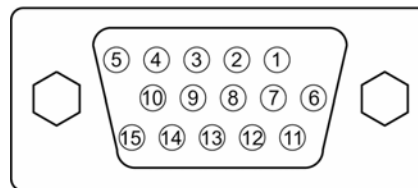
- The monitor takes at least 30 minutes to attain the maximum picture quality.

PRODUCT SPECIFICATIONS (Continued)

Signal Input

RGB Input (D-sub 15-pin connector)

Pin	Input signal
1	R
2	G or sync on green
3	B
4	No connection
5	No connection
6	R.GND
7	G.GND
8	B.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
Frame	GND



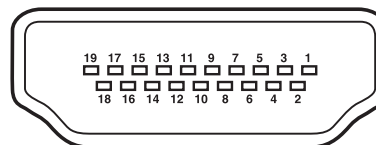
- When different kinds of input signals are simultaneously input to the monitor via a graphics board or the like, the monitor will automatically select the signals in the following priority order:

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, or H/V composite sync.

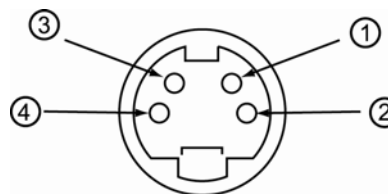
HDMI Input

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



S-input connector pin specifications

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



PRODUCT SPECIFICATIONS (continued)

Recommended Signal List

With Analog RGB signal input (RGB input)

No.	Signal mode			Horizontal frequency (kHz)	Dot clock frequency (MHz)	Remark
	Signal name	Resolution	Vertical frequency (Hz)			
1	VGA	640 x 400	70.08	31.47	25.18	
2		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	VESA	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		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	67.05	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	Macintosh	1600 x 1200	60.00	75.00	162.00	
21		640 x 480	66.67	35.00	30.24	
22		832 x 624	74.55	49.72	57.28	
23		1024 x 768	74.93	60.24	80.00	
24	W-XGA	1152 x 870	75.06	68.68	100.00	
25		1280 x 768	59.833	47.986	81.00	
26		1280 x 768	69.997	56.137	94.76	

- The type of video board or connecting cable used, may not allow for correct display 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 512 lines of vertical resolution at Full display (compressed display) can result in the interpolation of stripes.

With HDMI input

No.	Signal mode			Horizontal frequency (kHz)	Dot clock frequency (MHz)
	Signal name	Resolution	Vertical frequency (Hz)		
1	VGA	640 x 480	70.08	31.47	25.18
2		640 x 480	59.94	31.47	25.18
3	W-VGA	864 x 480	59.94	31.47	34.24
4	VESA	640 x 480	72.81	47.86	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		1024x 768	60.00	48.36	65.00
13		1024x 768	70.07	56.48	75.00
14		1024x 768	75.03	60.02	78.75
15	480i	720 x 480	59.94	15.73	27.00
16	480p	720 x 480	59.94	31.47	27.00
17	1080i/60	1920 x 1080	60	33.75	74.25
18	720p/60	1280 x 720	60	45.00	74.25

- 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 512 lines of vertical resolution at Full display (compressed display) can result in the interpolation of stripes.
- Make sure that the signal of the equipment to be connected is compatible with the specifications of this list.

With Composite Input and S-video Input (AV1 and AV2 input)

No.	Signal mode			Horizontal frequency (kHz)	Remarks
	Signal name	Resolution	Vertical frequency (Hz)		
1	NTSC-M	525	59.94	15.73	
2	PAL-N	625	50	15.63	

With Component YPb, Pr input (AV3 and AV4 input)

No.	Signal mode			Horizontal frequency (kHz)	Remarks
	Signal name	Resolution	Vertical frequency (Hz)		
1	480i	480	59.94	15.73	
2	480p	480	59.94	31.47	
3	1080i/60	1080	60	33.75	
4	720p/60	720	60	45.00	

- 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.