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 qualifed 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

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 852 (H) x 480 (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 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.

Power saving system

When connected to a VESA DPMS-compliant PC, the monitor cuts its power consumption while it is idle.

CONTENTS

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.

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 Disassemble.

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, 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.

Surely connect the ground wire.

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.

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" constitute misuse and are 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.

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!
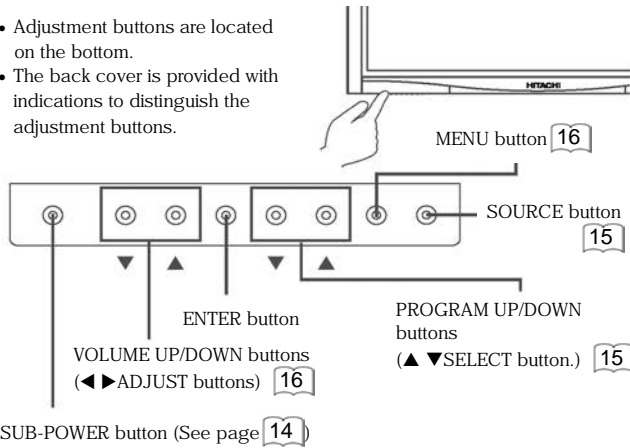
COMPONENT NAMES
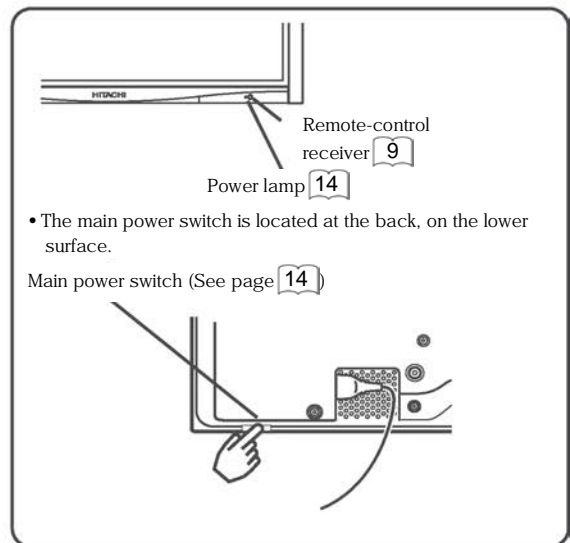
Main Unit

Front
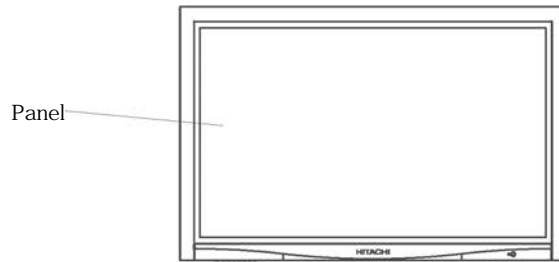
Panel

Control panel

- Adjustment buttons are located on the bottom.
- The back cover is provided with indications to distinguish the adjustment buttons.

MENU button [16]

SOURCE button [15]

ENTER button

PROGRAM UP/DOWN buttons (▲ ▼SELECT button.) [15]

VOLUME UP/DOWN buttons (◀ ▶ADJUST buttons) [16]

SUB-POWER button (See page [14])

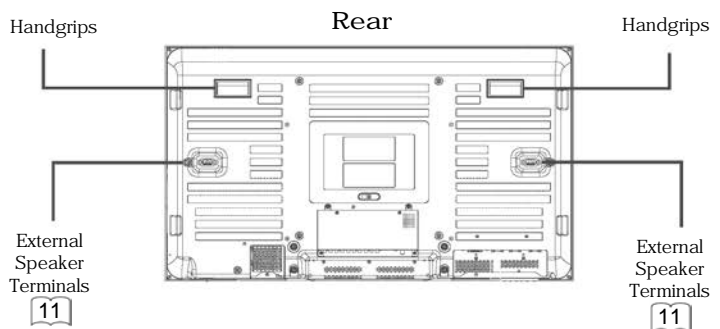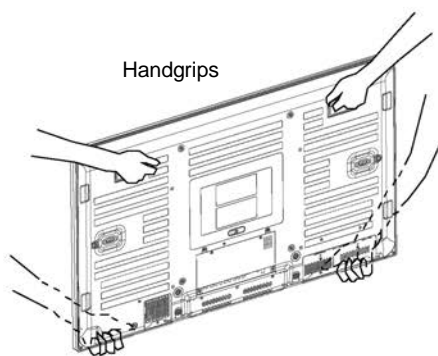- ( ) indicates the function while the MENU is displayed on the screen.

Remote-control receiver [9]

Power lamp [14]

- The main power switch is located at the back, on the lower surface.

Main power switch (See page [14])

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 forwards using the two handgrips at the back, and the unit should then be held at the base on both sides for stability.


Handgrips

Rear

Handgrips

Handgrips

External Speaker Terminals [11]

External Speaker Terminals [11]

Remote Control

PIP button 24
ASPECT button 31
DISPLAY button 32
ZOOM button 32
MENU button 16
ENTER button 16

AV1 button 15
RGB1 button 15
AV2 button 15
RGB2 button 15

14 POWER ON/OFF button
32 SWAP button
32 SLEEP button
15 VOLUME UP/DOWN buttons
15 MUTE button
16 SELECT/ADJUST button
15 AV4 button
15 SOURCE button
15 AV3 button
32 STILL button

HITACHI

Loading Batteries

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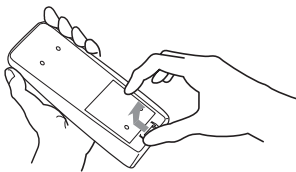
2. Load batteries.
Load two Size AAA batteries included observing the Polarities.
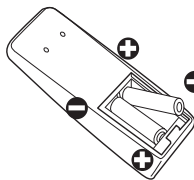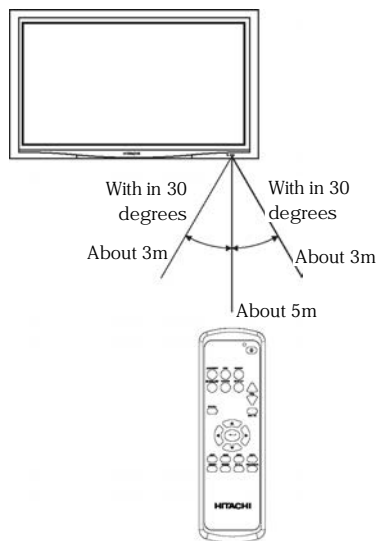
3. Close the battery cover.
Replace the battery cover in the direction of the arrow and snap it back into place.

⚠ 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.

Handing 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.

With in 30 degrees
With in 30 degrees
About 3m
About 3m
About 5m

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

• 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 thisourself. 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. (*)
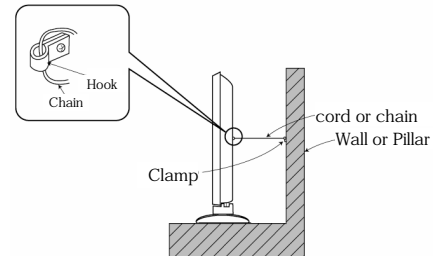
10cm (4 inches) or more*

Clamp

Cord or chain
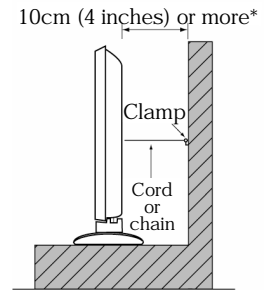
Anti-tumble measures

⚠ **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.

Hook
Chain
cord or chain
Wall or Pillar
Clamp

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.

Wood
Two places
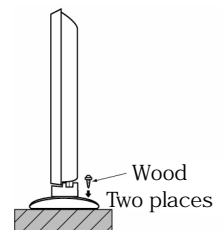
INSTALLATION INSTRUCTIONS (continued)

Read SAFETY INSTRUCTIONS (4 to 7) 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. 38 ~ 41

(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.**
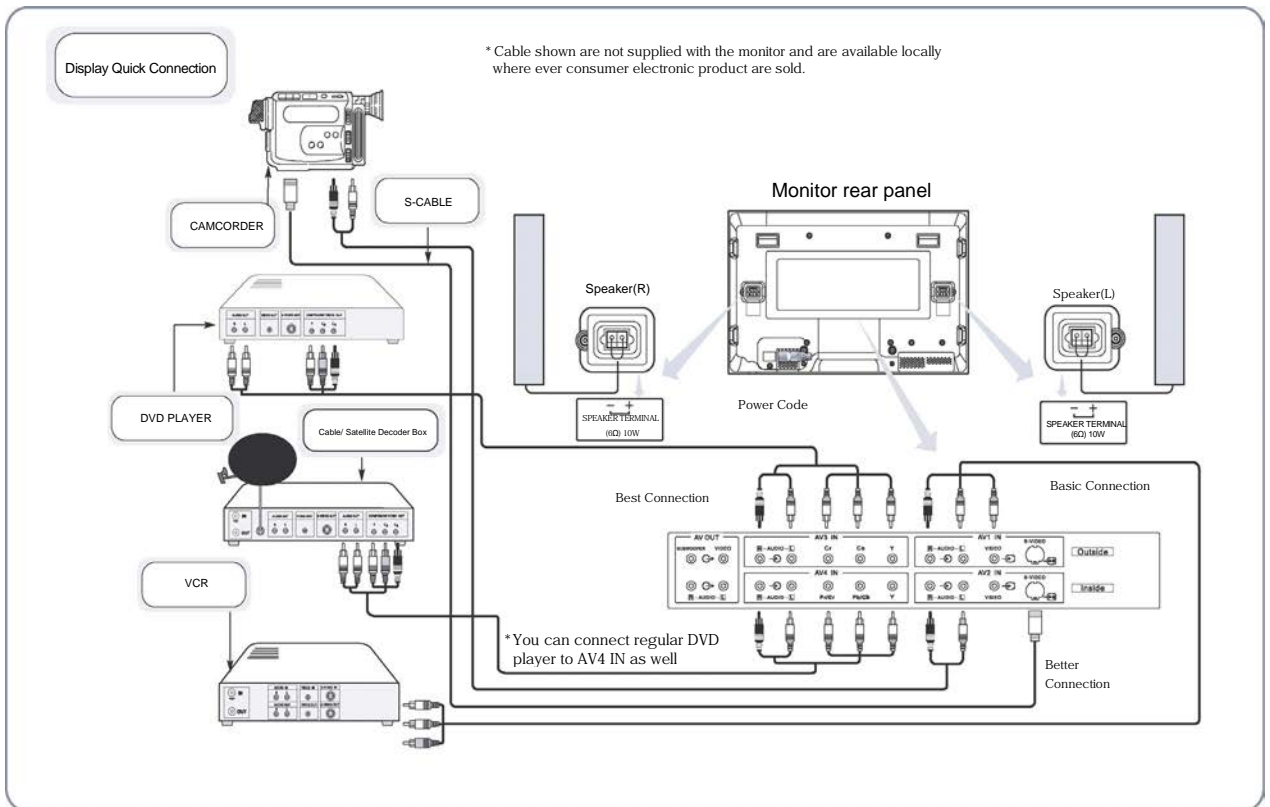
[An example of connecting video components]

- If the OUTPUT (MONITOR) 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 vedio output terminal is used, cabling by the S vedio cable is recommended to provide finer vedio quality. (If an S vedio input terminal and a vedio input terminal of AV3 connect to the monitor at the same time, S vedio input would govern.)

Applicable video signals for each input terminal (See PRODUCT SPECIFICATIONS for details, 40)

| Terminal	RCA			D-sub	DVI	Remarks
	Composite	S-video	Component	RGB 1	RGB 2	
AV1	○	○				
AV2	○	○				
AV3			○			480i, 567i Video Signal only
AV4			○			480i, 576i, 480p, 576p, 720p/50, 720p/60, 1080i/50, 1080i/60, inputs Video Signal
RGB1				○		
RGB2					○	

(O: Available)

Connecting to a PC

(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. 38 ~ 41

(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 Monitor 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.
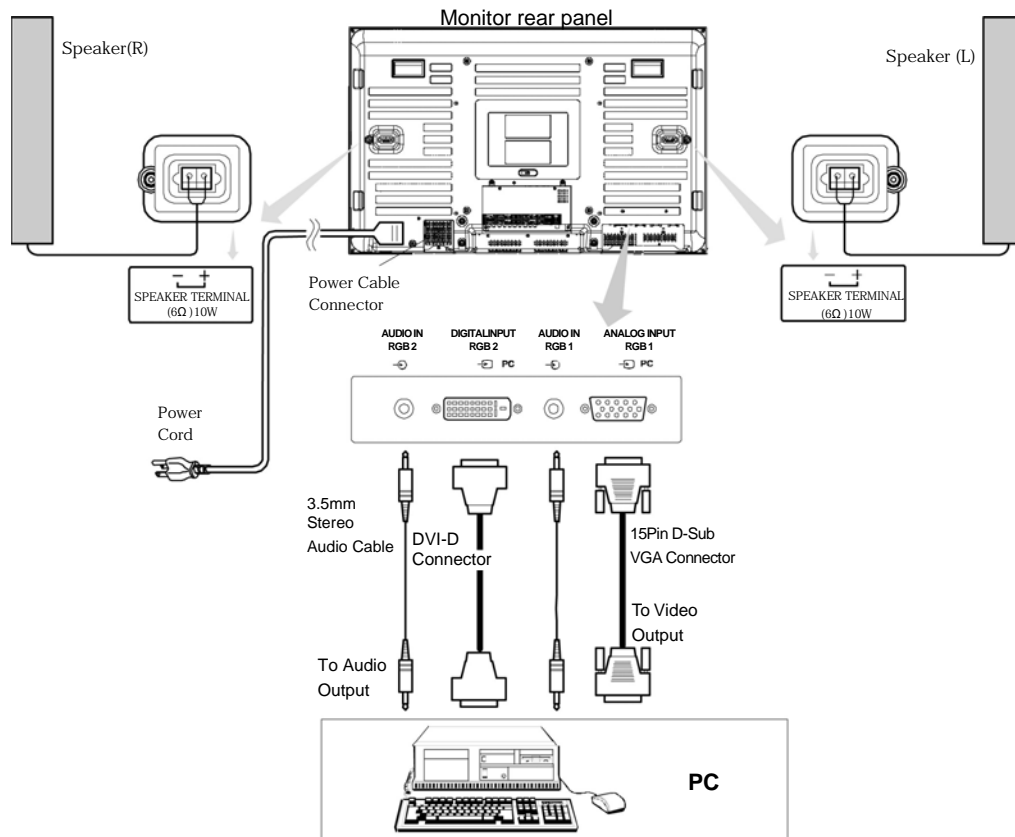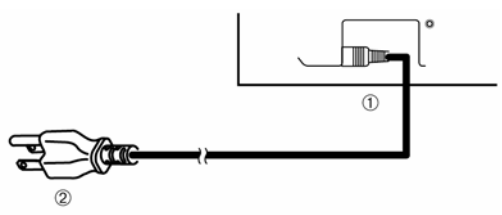
INSTALLATION INSTRUCTIONS (continued)

Mounting the Speaker Unit (option)

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

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.
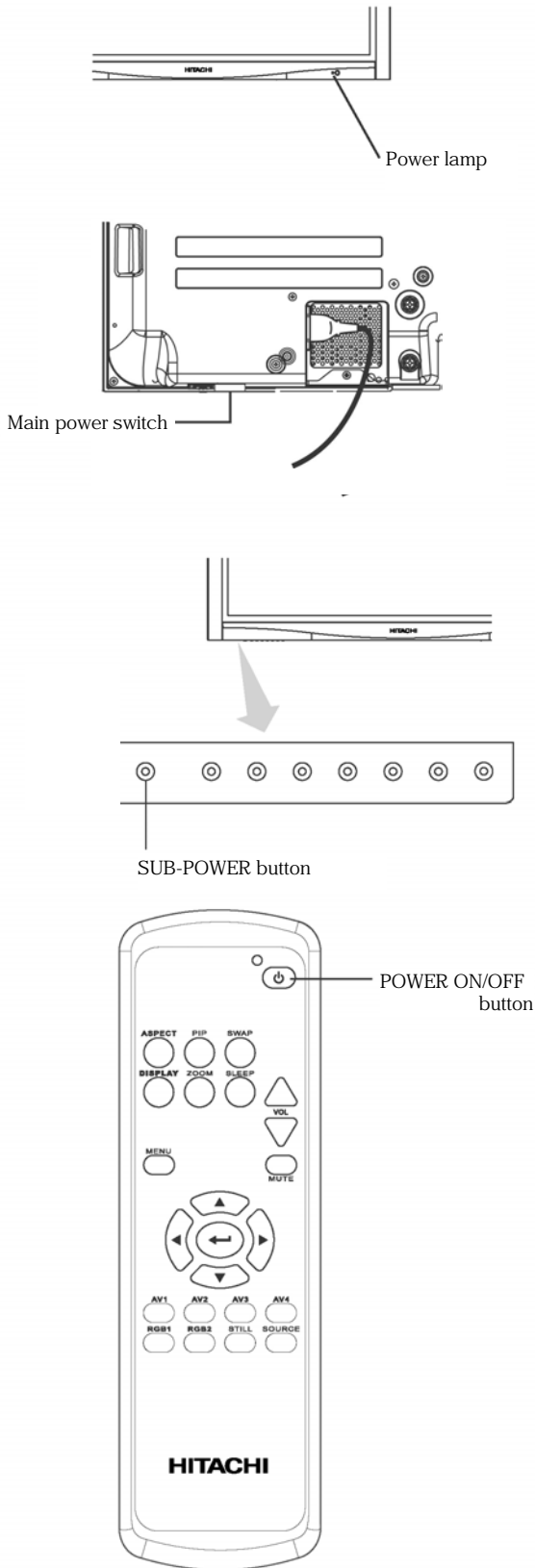

⚠ WARNING

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 anappropriate extension lead or consult your dealer.
● Should you require replacing the fuse in the molded plug with a new fuse, 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.

Power lamp

Main power switch

SUB-POWER button

POWER ON/OFF button

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	Off (standby)	When the main power switch is ON, and the OFF 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 ON 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 ON button on the remote control or the SUB POWER button on the underside of the front of the frame is ON. However, the state in POWER SAVE mode.

When the indicating lamp lights in orange or the message "No cable connected" and "Going to sleep" appears on the screen, there is omething unusual about the status of reception. See "Power Save Mode" (In RGB1 or RGB2 mode) or "Symptoms That Seemingly Appear to be Failures." 33 35
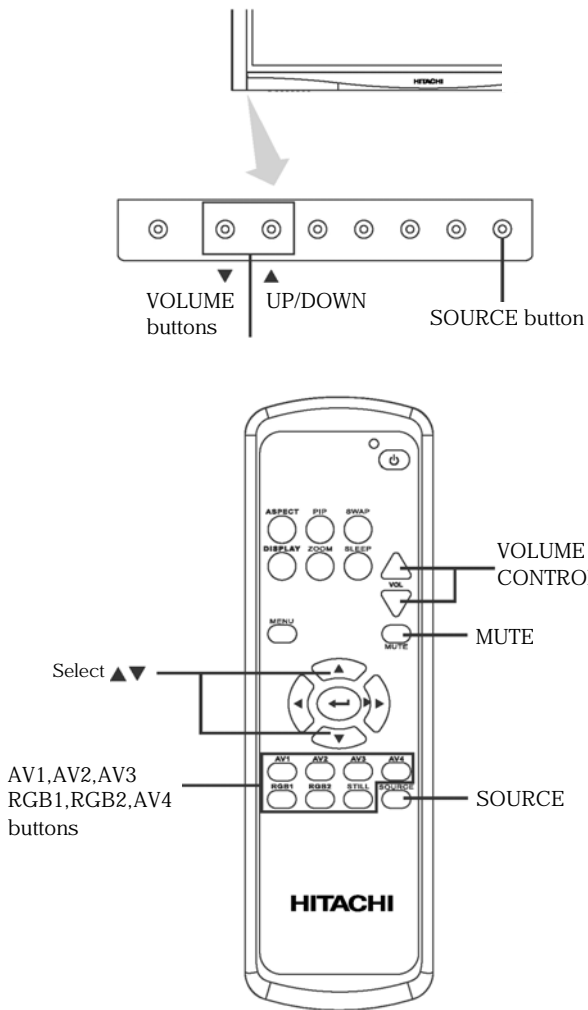

ATTENTION

- 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.
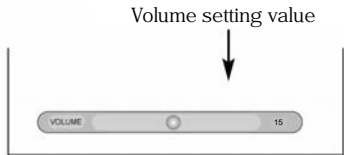
OPERATING INSTRUCTIONS (continued)

VOLUME buttons UP/DOWN SOURCE button

VOLUME CONTROL

MUTE

Select ▲▼

AV1,AV2,AV3
RGB1,RGB2,AV4
buttons

SOURCE

HITACHI

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).

Volume setting value

Adjustment status guide display

● **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

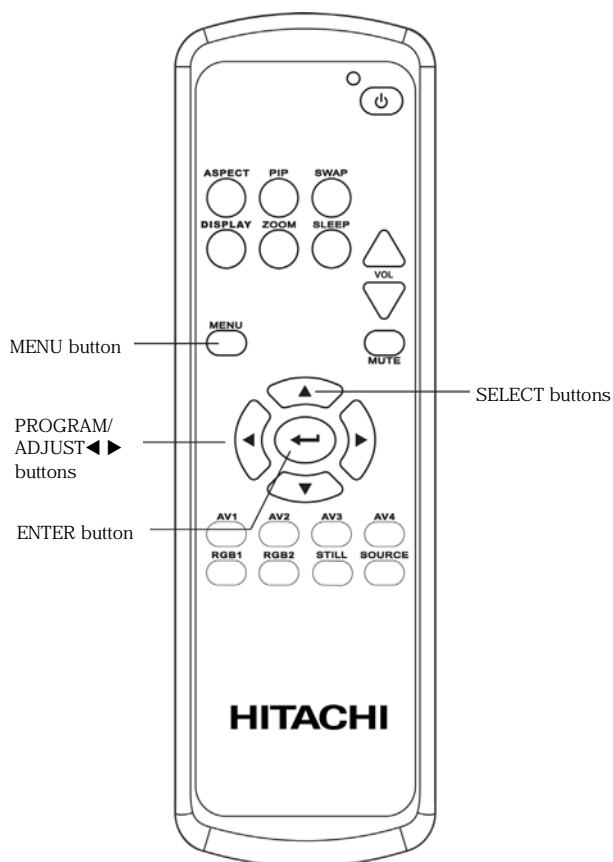**The audio volume can be temporarily muted by pressing the MUTE button of the remote control.**

● **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.

Input Switching

- **Input can be switched by pressing the AV1, AV2, AV3, AV4, RGB1, or RGB2 buttons.**

- **Input can be switched in the sequence AV1-Video →AV1-Svideo → AV2-Video → AV2-SVideo → AV3 YCbCr → AV4 YPbPr/YCbCr → RGB1 VGA→ RGB2 DVI-D by pressing the SOURCE button and then select the Input with the select keys▲▼and then press the ENTER button.**

AV1 → AV1S → AV2 → AV2S
RGB2 ← RGB1 ← AV4 ← AV3

OPERATING INSTRUCTIONS (continued)

MENU button

SELECT buttons

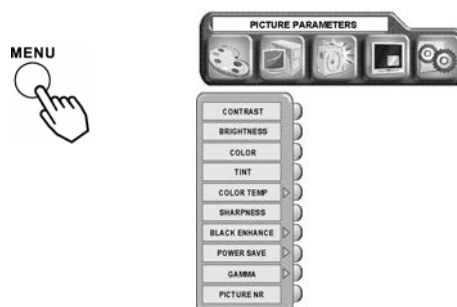PROGRAM/
ADJUST◀ ▶
buttons

ENTER button

HITACHI
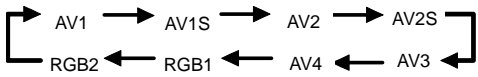
Using the Menu Screen (On-screen display system)

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

Refer to 17 - 32 concerning the adjustment items and the settings.

Example: Selecting the picture screen

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

MENU

PICTURE PARAMETERS

CONTRAST
BRIGHTNESS
COLOR
TINT
COLOR TEMP
SHARPNESS
BLACK ENHANCE
POWER SAVE
GAMMA
PICTURE NR

2. Select the Picture Parameters screen with the◀and ▶PROGRAM ADJUST buttons and press the ENTER button.
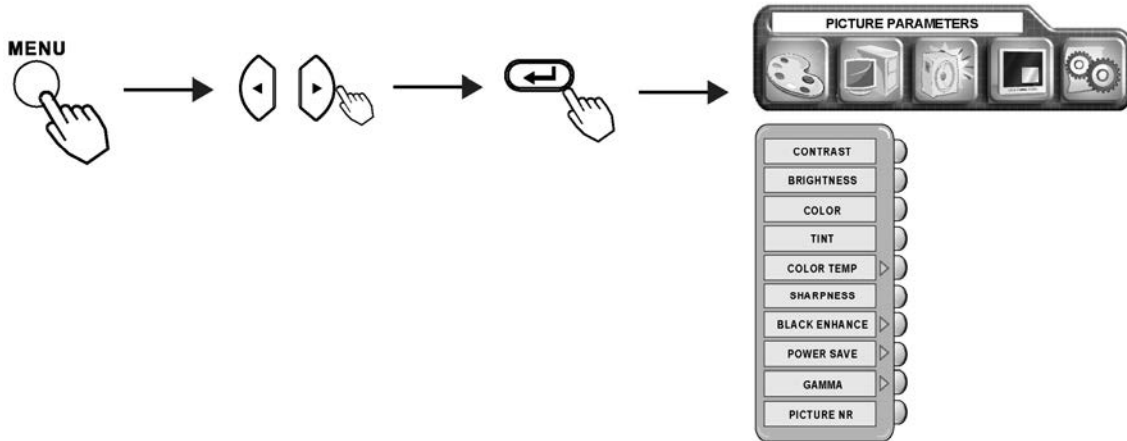
AUDIO SETTING

BASS
TREBLE
BALANCE
SURROUND

3. Use the▲and ▼SELECT buttons to select the item to be adjusted and then use the◀and ▶to adjust (example: Brightness.)

CONTRAST
BRIGHTNESS
COLOR
TINT
COLOR TEMP
SHARPNESS
BLACK ENHANCE
POWER SAVE
GAMMA
PICTURE NR
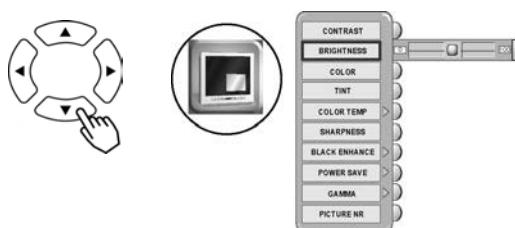
● Press the MENU button to return to the previous screen.
● If there is no operation for a period of one minute, the Adjustment Menu screen will disappear.

OPERATING INSTRUCTIONS (continued)

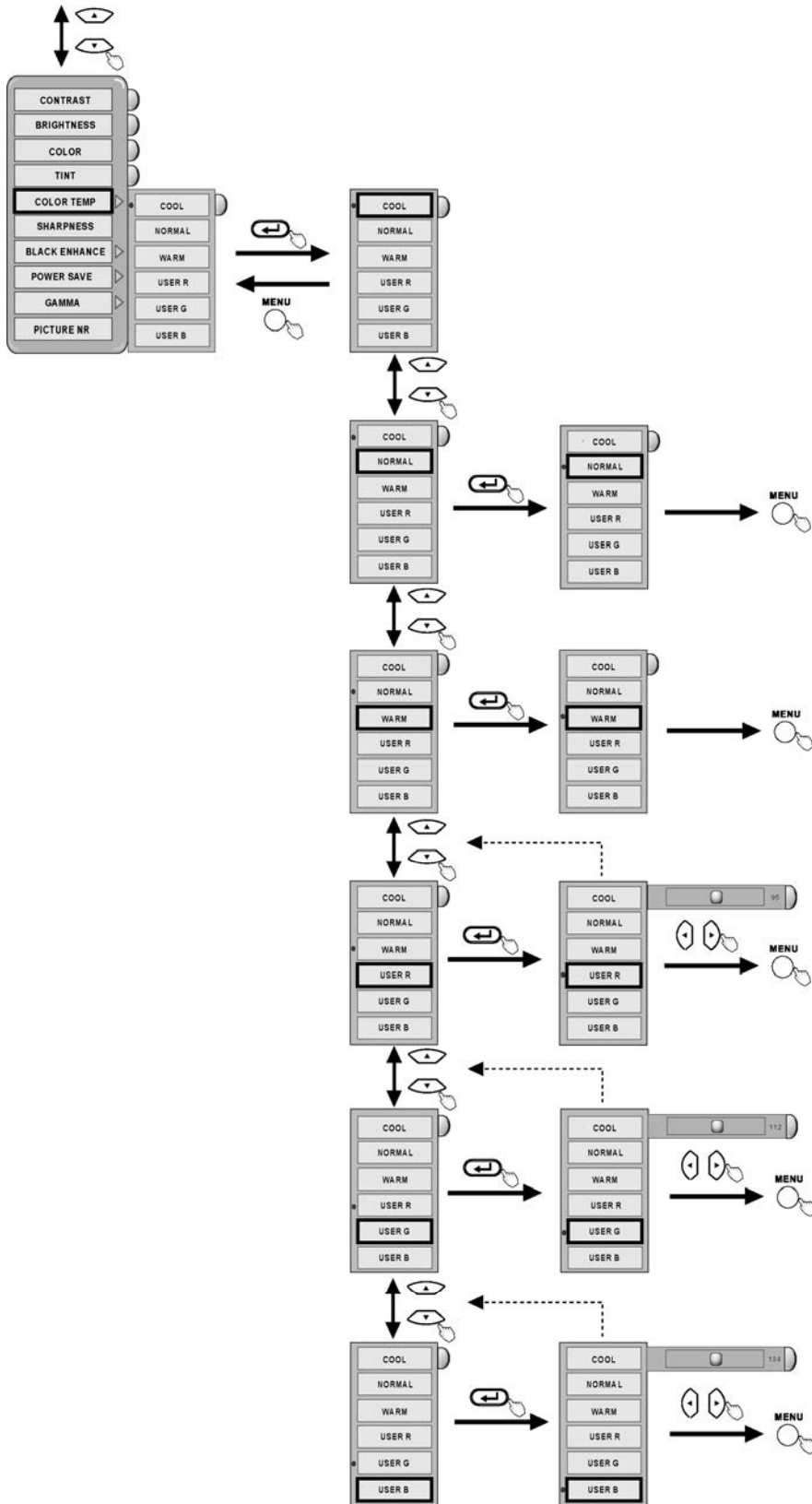|	PICTURE PARAMETERS	PC PARAMETERS	AUDIO SETTINGS	PICTURE IN PICTURE	GENERAL SETTINGS
	CONTRAST	AUTO	BASS	PIP POSITION	OSD POSITION
	BRIGHTNESS	CLOCK	TREBLE	PIP SIZE	OSD TIMEOUT
	COLOR	PHASE	BALANCE	MULTI PIP	OSD LANGUAGE
Selected characters	TINT	POSITION	SURROUND		SLEEP TIMER
	COLOR TEMP				I/P INFO
	SHARPNESS				FACTORY RESET
	BLACK ENHANCE				SCREEN SAVER
	POWER SAVE				SCREEN WIPE
	GAMMA				STANDBY WHITE
	PICTURE NR				INVERSE

PICTURE PARAMETERS

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

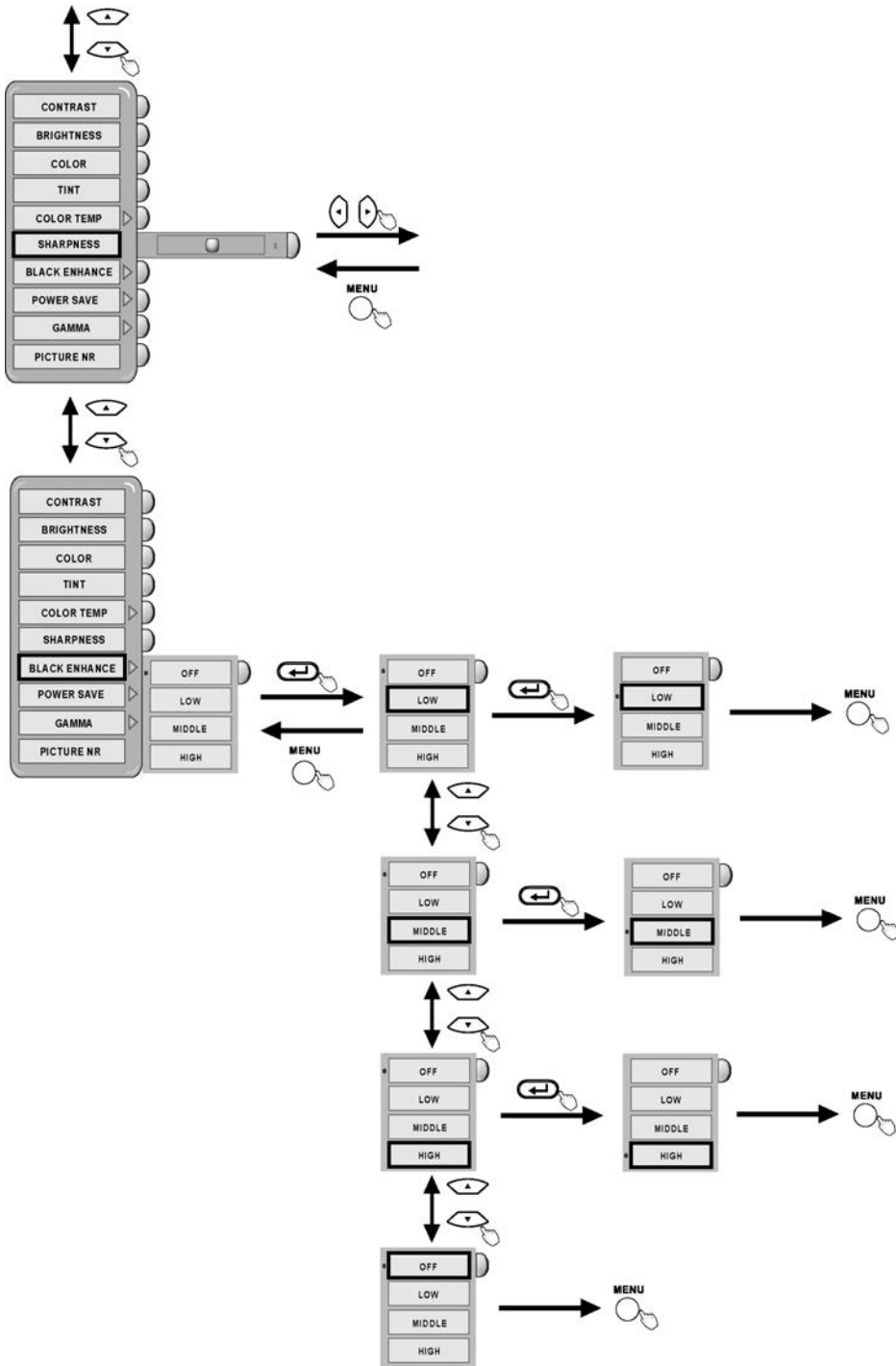| Selected characters	◀	▶	Setup hint
CONTRAST	Narrows the gap between light and dark.	Broadens the gap between light and dark.	Adjust for imum visibility to suit the ambient brightness.
BRIGHTNESS	Black is increased for overall darkness.	Black is decreased for overall brightness.	Adjust as desired.
COLOR	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 greyed out. Adjust as desired for photo realistic skin color.

PICTURE PARAMETERS (continued)

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

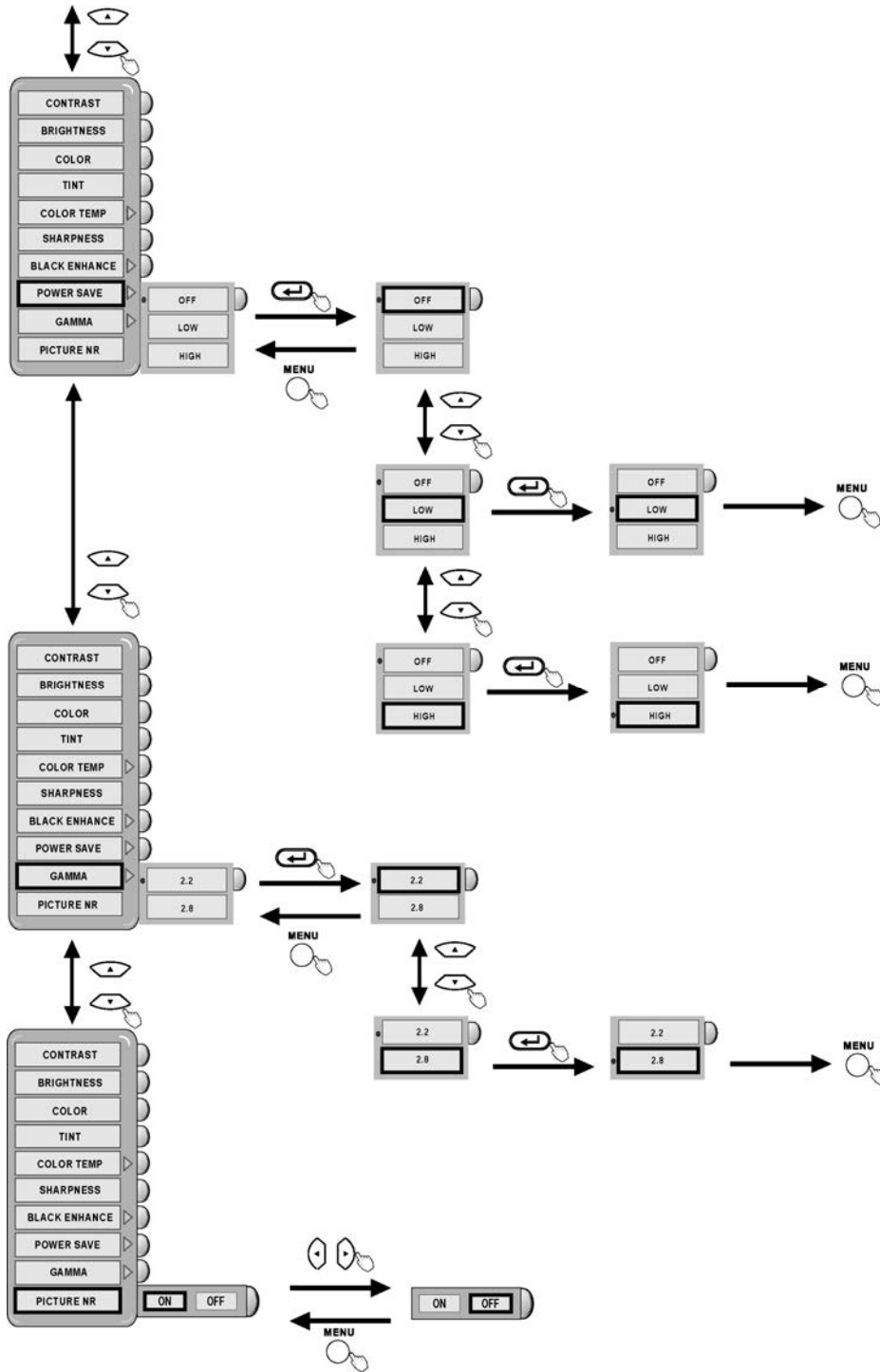| Selected characters	◄	►	Setup hint
COLOR TEMP	COOL ◄► NORMAL ◄► WARM ◄► USER R ◄► USER G ◄► USER B		Adjust color temperature depending on the user's preference. These settings are independently stored in each of the 3 Color Temperature

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

Selected characters	◄	►	Setup hint
SHARPNESS	Softens picture	Sharpness picture	Adjust sharpness of picture depending on the user's preference.
BLACK ENHANCE	LOW ◄──► MIDDLE ◄──► HIGH ◄──► OFF		Normally set to LOW. Adjusts the black level compensation.

NOTE
The noise appears on the screen according to the content of the picture when this is set in the direction of ► Sharp.
In that case, it is possible to improve it by this setting to the ◄ Soft side.
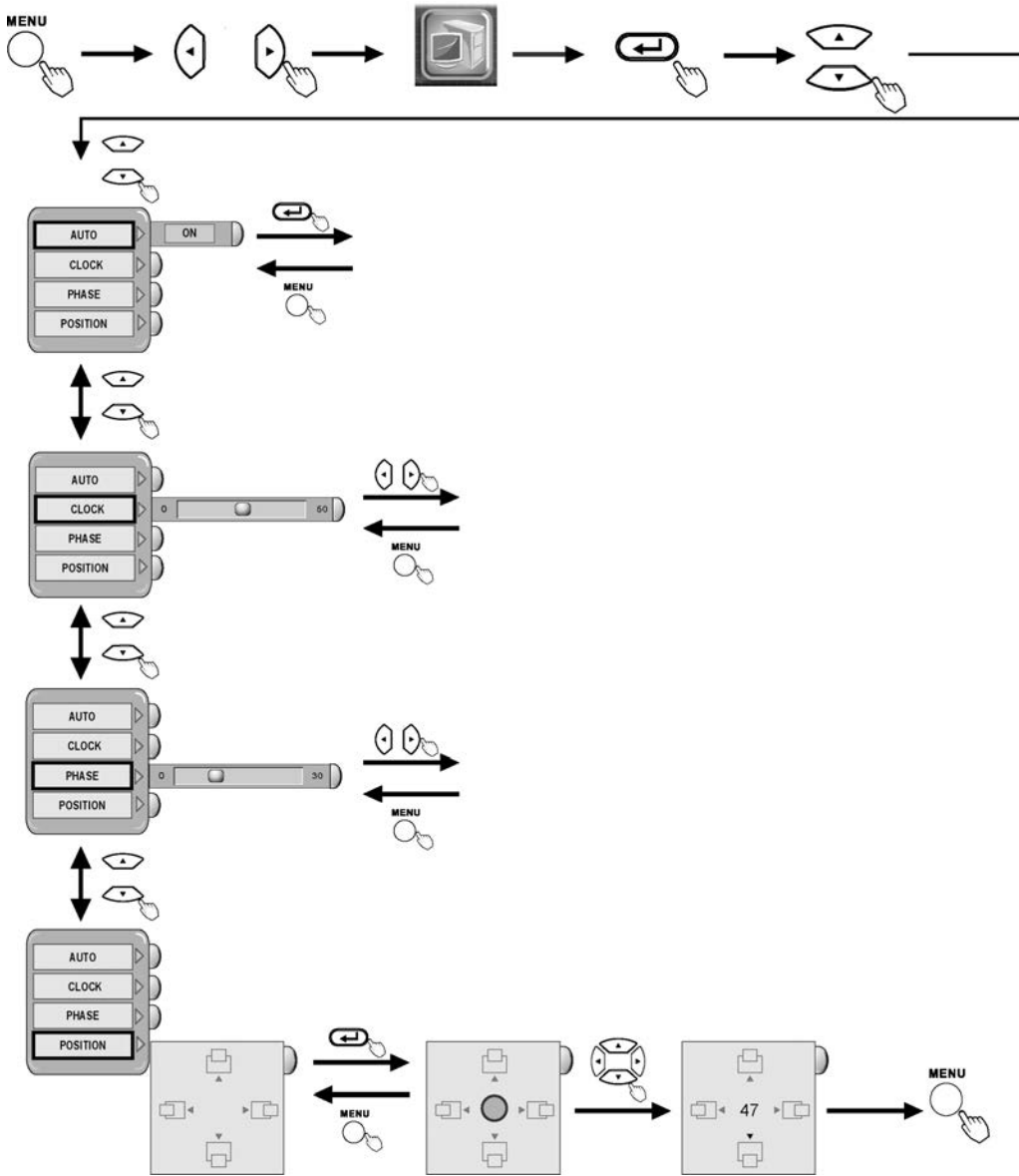
PICTURE PARAMETERS (continued)

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

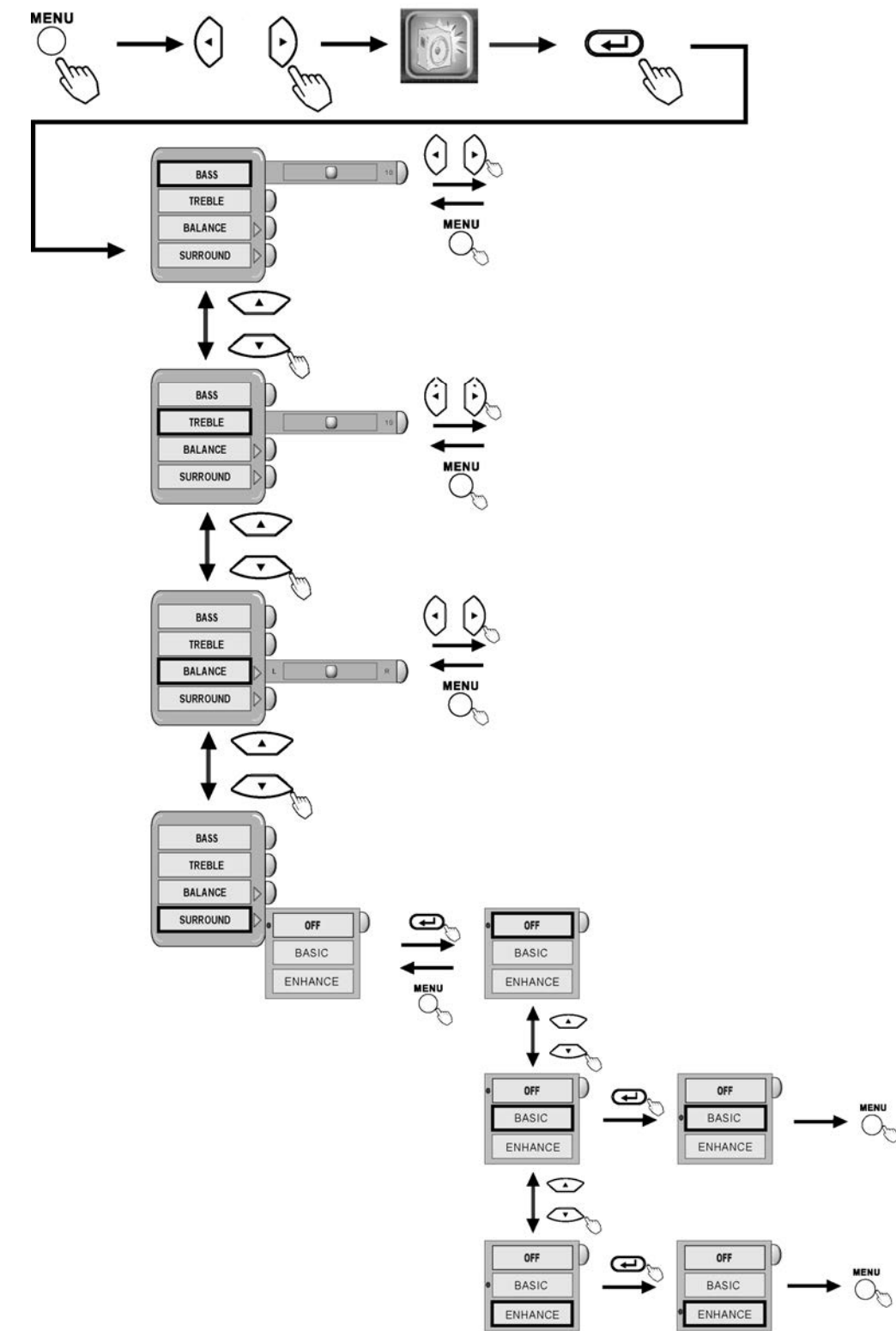| Selected characters	◀	▶	Setup hint
POWER SAVE	OFF ⟷ LOW ⟷ HIGH		Normally set to OFF. By this control, power consumption can be reduced or degradation of a panel can be mitigated. The order of power consumption is HIGH < LOW < OFF..
GAMMA	2.2 ⟷ 2.8		Normally set to 2.2.
PICTURE NR	ON ⟷ OFF		Normally set to ON If this is set to ON, it helps to reduce the noise interference visible on the screen.

OPERATING INSTRUCTIONS (continued)

PC PARAMETERS

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

Selected characters	◄	►	Setup hint
AUTO	Press the ⏎ ENTER button to make the word "ON" light on.		Normally set to off mode. Adjust automatically for clock, phase and position.
CLOCK	Reduces the dot clock.	Increases the dot clock.	Adjust for maximum character clarity.
PHASE	Slows the dot clock. Phase.	Advances the dot clock Phase.	Adjust for clear character visibility.
POSITION	Press the ADJUST button to adjust the display position.		Adjust the horizontal and vertical display positions.

NOTE
PC PARAMETERS all function could be selected in RGB1 and only position setting active in AV4.

AUDIO SETTINGS

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

| Selected characters	◄	►	Setup hint
BASS	Suppresses bass.	Enhances bass.	Adjust to taste.
TREBLE	Suppresses treble.	Enhances treble.	Adjust to taste.
BALANCE	Suppresses right-side sound.	Suppresses left-side sound.	Adjust to taste.
SURROUND	OFF ◄► BASIC ◄► ENHANCE		Creates a surround sound effect.

OPERATING INSTRUCTIONS (continued)

PICTURE IN PICTURE (PIP)

Selecting PIP size

When the PIP button on the remote control is pressed, a black box will appear on the screen.
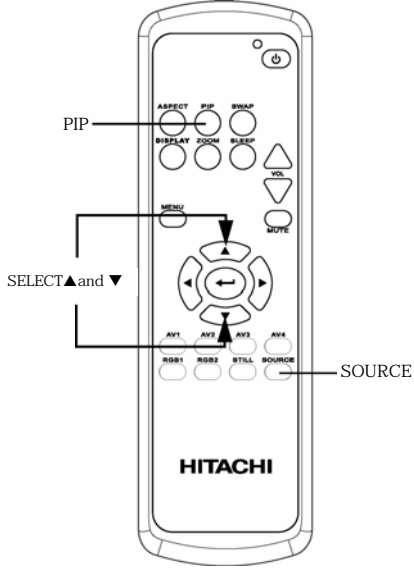
Each time the PIP button is pressed, the size of box changes as follows.

OFF → SMALL → MEDIUM → LARGE → SPLIT

| PIP-OFF | SMALL | MEDIUM | LARGE | SPLIT |
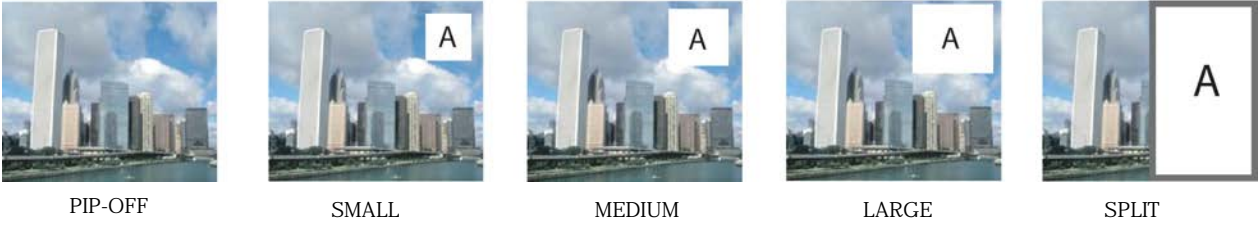
Selecting PIP Source

While a black box appears on the screen, press SOURCE button and PIP SOURCE menu appears. Picture mode will change in the following sequence, each time the remote button is pressed.

Select the SOURCE by using the ▲ ▼ select keys on the remote control. Then, press the ⏎ ENTER button
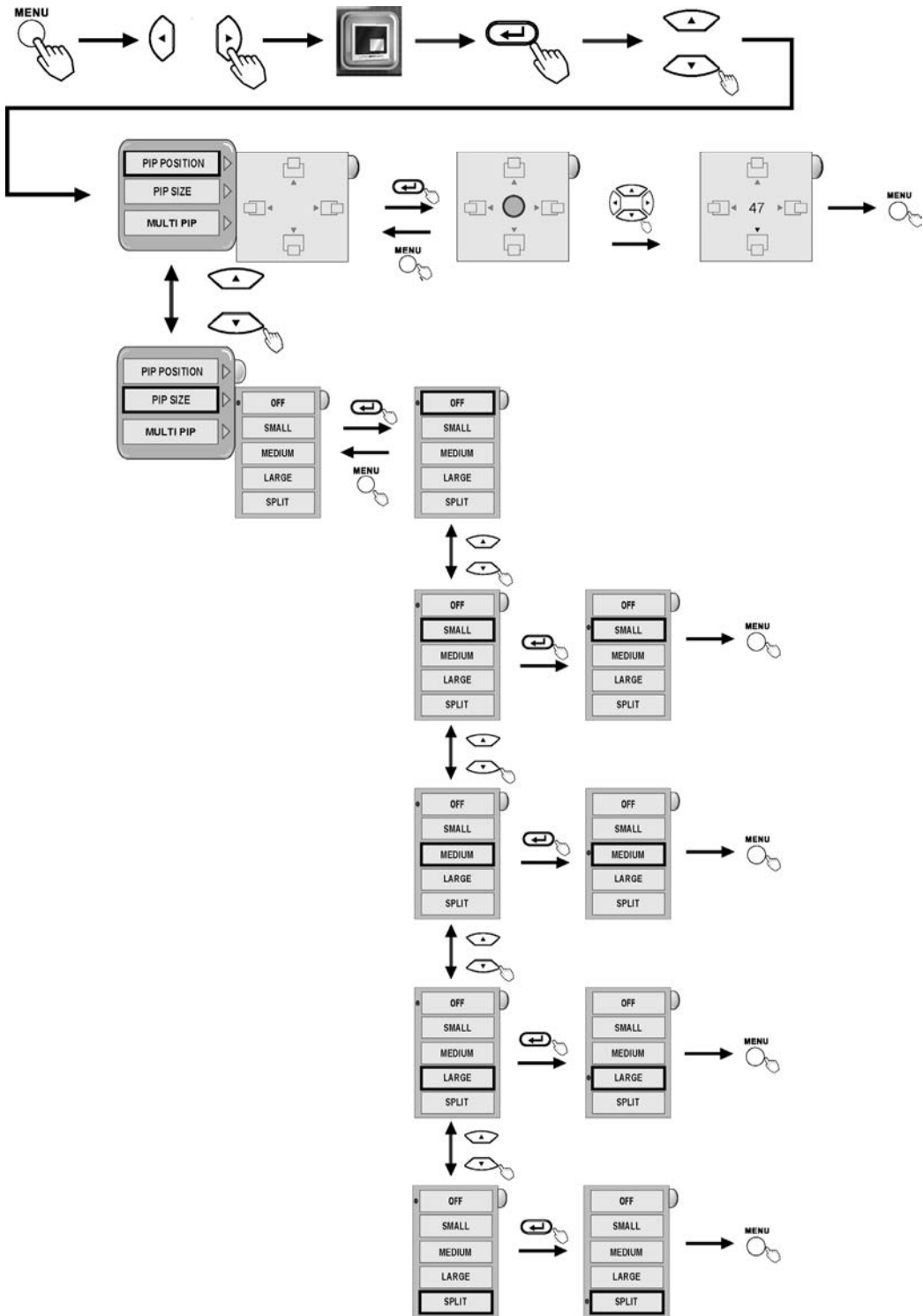
PIP Combination Table

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

|		Sub Source					
		AV1	AV2	AV3	AV4	RGB1	RGB2
Main Source	AV1	X	○	○	○	○	○
	AV2	○	X	○	○	○	○
	AV3	○	○	X	○	○	○
	AV4	○	○	○	X	X	○
	RGB1	○	○	○	X	X	○
	RGB2	○	○	○	○	○	X

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OPERATING INSTRUCTIONS (continued)

PICTURE IN PICTURE(PIP) (continued)

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

Selected characters	◀	▶	Setup hint
PIP POSITION	Use the ▲ ▼buttons to adjust pictures to the up or down positions. Use the ◀ ▶buttons to adjust pictures to the right or left positions.		Change PIP display position.
PIP SIZE	↦OFF → SMALL → MEDIUM → LARGE → SPLIT ↲		Change PIP display Size.

25
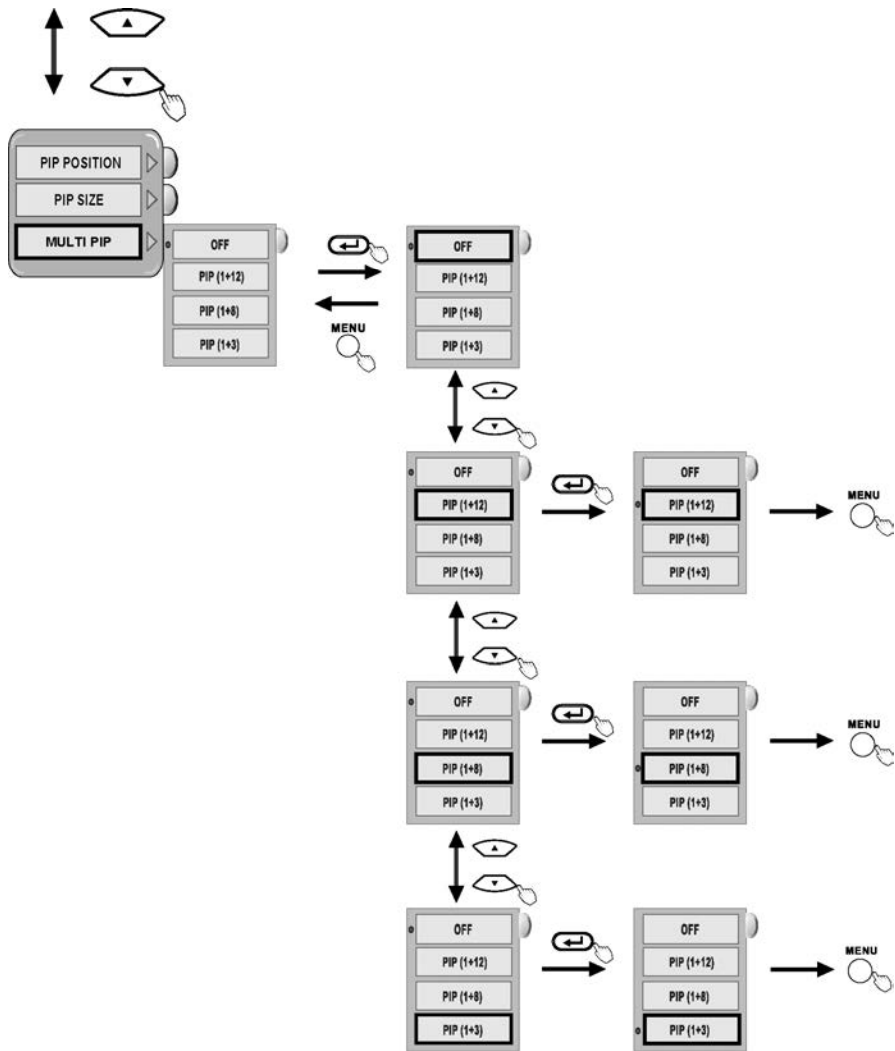
PIP(1+12) PIP(1+8) PIP(1+3)

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

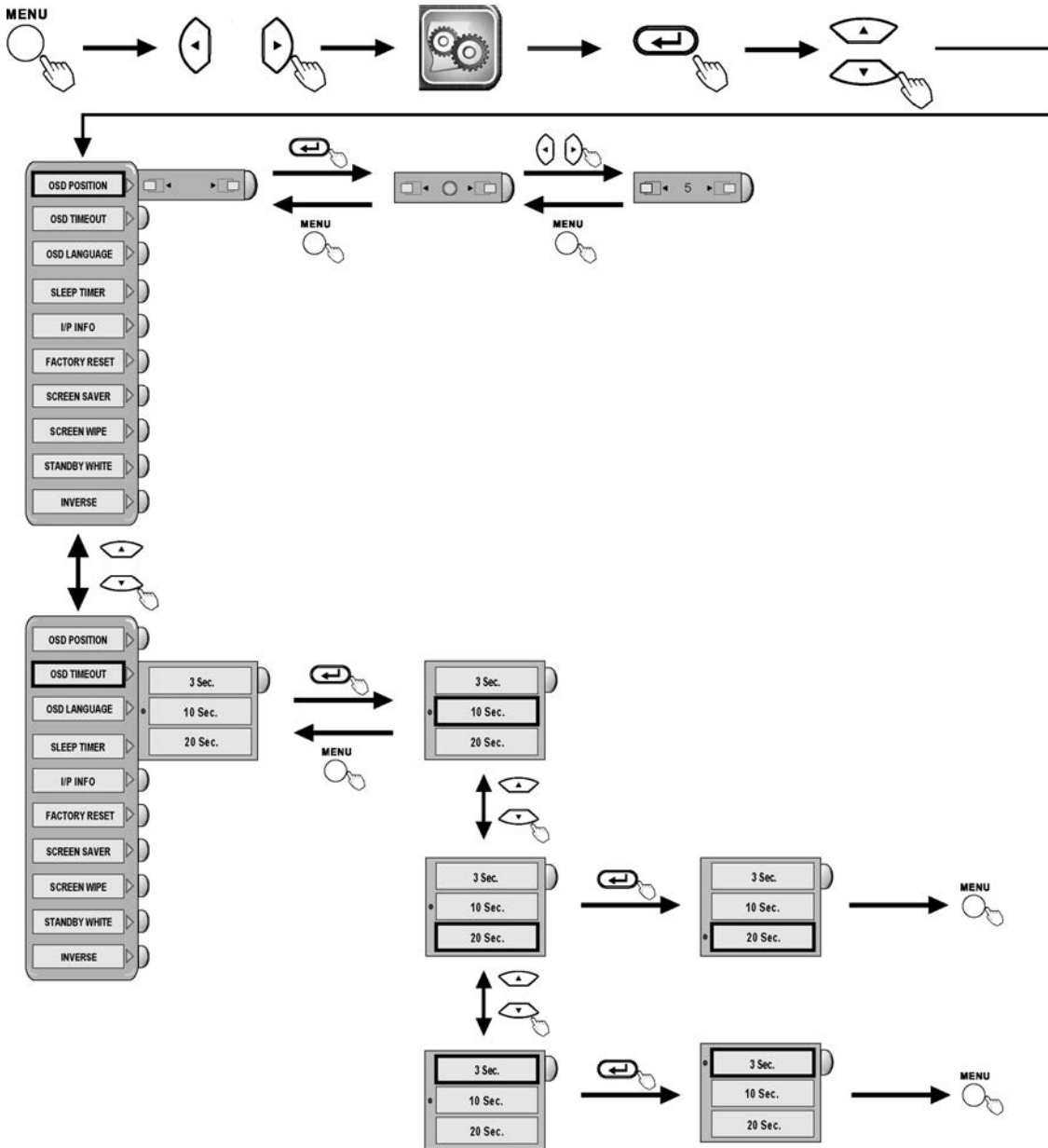| Selected characters	◄	►	Setup hint
MULTI PIP	OFF → PIP(1+12) → PIP(1+8) → PIP(1+3)		Use the ▲ ▼ / ◄ ► buttons to select the PIP setting.

NOTE
- 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.
- Please be careful since image retention will occur if display is left in a MULTI PICTURE 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.

OPERATING INSTRUCTIONS (continued)

GENERAL SETTINGS

OSD POSITION
OSD TIMEOUT
OSD LANGUAGE
SLEEP TIMER
I/P INFO
FACTORY RESET
SCREEN SAVER
SCREEN WIPE
STANDBY WHITE
INVERSE

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

Selected characters	◄	►	Setup hint
OSD POSITION	Use the ◄ ► buttons to adjust the OSD to right or left position		Adjusts the OSD horizontal position.
OSD TIMEOUT	10 Sec. ←→ 20 Sec. ←→ 3 Sec.		Adjusts OSD display and on-screen time.
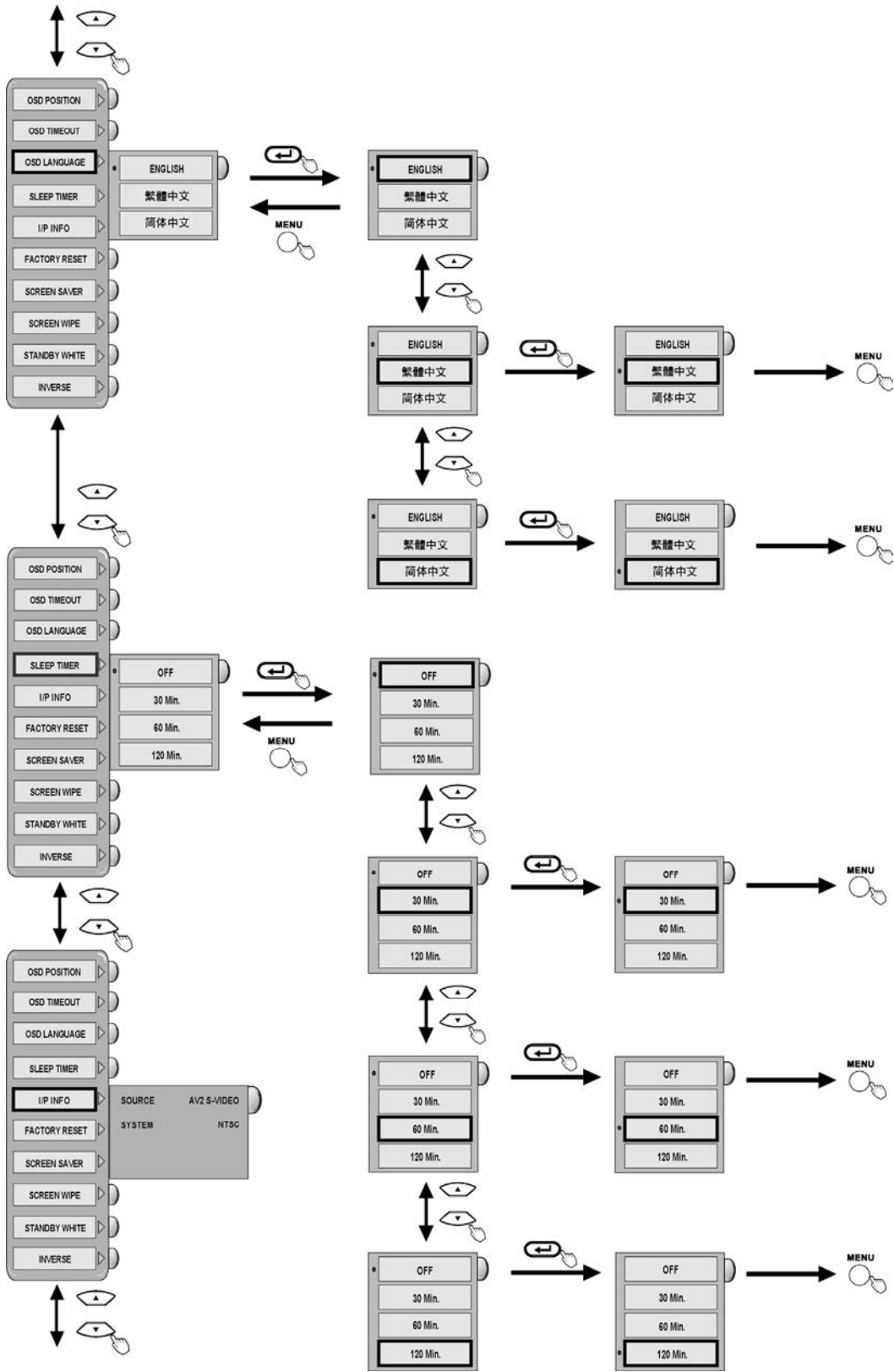
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*Press "MENU" button to return to Main Menu, then press "MENU" button to exit OSD.

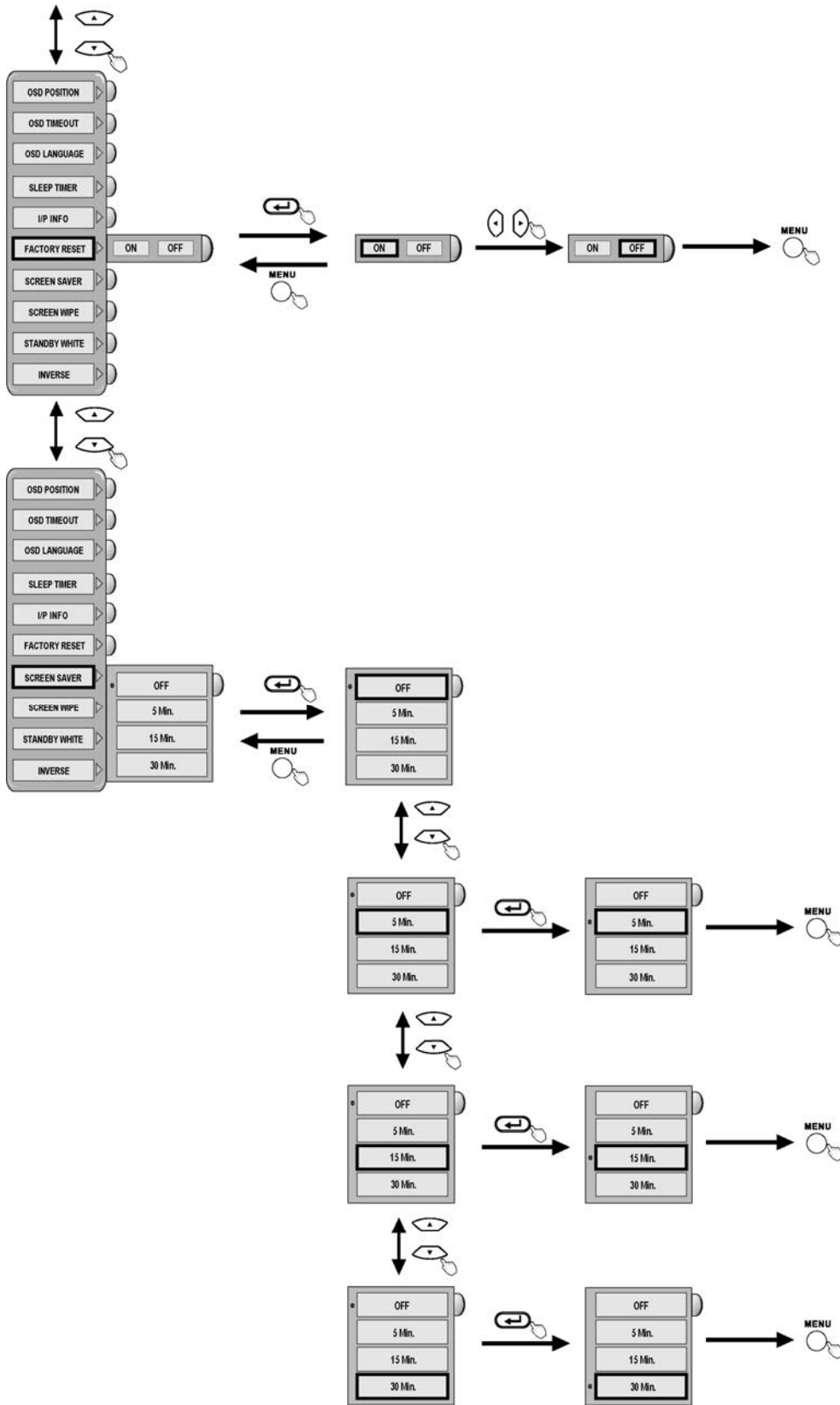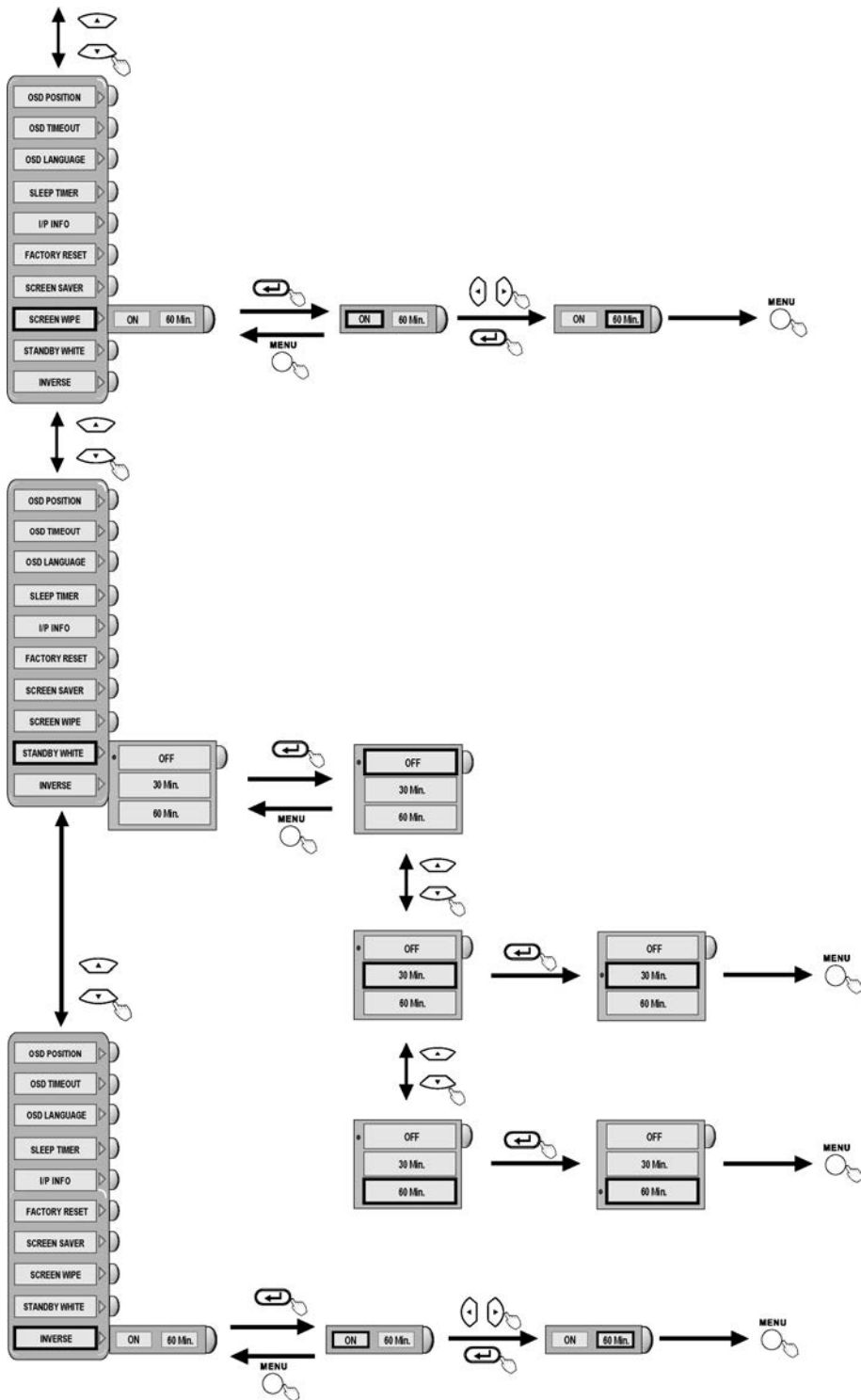| Selected characters	◄	►	Setup hint
OSD LANGUAGE	ENGLISH ◄─► 繁體中文 ◄─► 简体中文		Sets the language for the OSD.
SLEEP TIMER	OFF ◄─► 30 Min. ◄─► 60 Min. ◄─► 120 Min.		Set the display off time for each mode.
I/P INFO	To display information about the input signal.		Displays information about the input signal.

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GENERAL SETTINGS (continued)

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

Selected characters	◄	►	Setup hint
FACTORY RESET	ON	OFF	Resets all settings to FACTORY defaults.
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.

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

Selected characters	◄	►	Setup hint
SCREEN WIPE	ON	60 Min.	This is used to reduce the panel image retention theat can occur with stationary pictures by the white field signal. Select On (continuous operation) or 60 Min. (time limit operation) and press the ENTER button. 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	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 ENTER button. And press the Menu or Return button to exit.

Size Switching (ASPECT)

The ASPECT button will select how the video image appears on the monitor's screen.

There are 4 selections.

16:9	Displays a wide screen image.
4:3	Displays a 4:3 square picture with letterbox bands.
PANORAMIC	Stretches the picture to fill the screen, while leaving images in the center of the picture the same.
CINEMA	Magnifies the image to fill the screen with a picture.

16:9 ───────→ 4:3
  ↑   │
  │   ↓
CINEMA ←─── PANORAMIC ←──
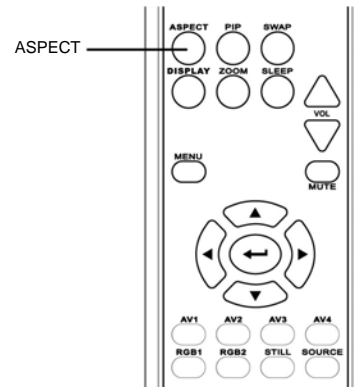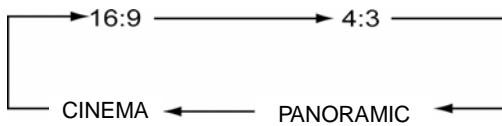
ASPECT

Note:
· **You can select 4:3 and 16:9 aspect functions in RGB1 VGA, RGB 2 DVI and AV4 mode.**
· **The Aspect function has no active at AV4 1080i, 720p input signals.**

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.	16:9	(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.	4:3	(4:3 signal)		Blanking occurs on both sides.
Play a 4:3 image faithfully in a 16:9 screen with the height and witch of the middle of the screen enlarged on equal scales and with both sides appearing somewhat enlarged.	PANORAMIC			
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.

OPERATING INSTRUCTIONS (continued)

ZOOM

Each time the ZOOM button of the remote control is pressed, the Image on the screen will be enlarged. There are 10 selections, Zoom 0(=Normal size) to Zoom 9.

DISPLAY

Press this button to show the input signal information.

STILL

Press this button to freeze the picture.
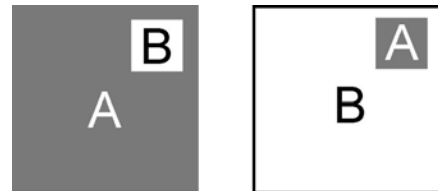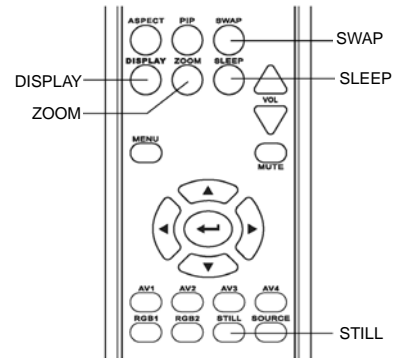**Press it again to return to normal operation.**

SLEEP

Press this button to activate the SLEEP TIMER menu.

OFF ⟷ 30Min. ⟷ 60Min. ⟷ 120Min.

SWAP

Press this button to exchange main picture with PIP picture.

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
	CONTRAST	For every input function, 1 setting is registered.
	BRIGHTNESS	
	COLOR	
	TINT	
	COLOR TEMP	
	SHARPNESS	
	BLACK ENHANCE	
	POWER SAVE	
	GAMMA	
	PICTURE NR	
	BASS	For every Audio Mode, 1 setting is registered.
	TREBLE	
	BALANCE	1 setting is registered.
	SURROUND	For every Audio Mode, 1 setting is registered.

Menu	Display	Registration condition
	PIP POSITION	1 setting is registered.
	PIP SIZE	
	MULITI PIP	
	OSD POSITION	1 setting is registered.
	OSD TIMEOUT	
	OSD LANGUAGE	
	SLEEP TIMER	
	I/P INFO	
	FACTORY RESET	
	SCREEN SAVER	
	SCREEN WIPE	
	STANDBY WHITE	
	INVERSE	

● 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 sync. Detected, and Power Save (for approx. 5 sec.) When the condition continues where the sync signal cannot be detected, indicator lamp of power source changes to orange and the mode switches to power save mode.	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 Invalid Mode.	Recheck the input signal specifications. 39 ~ 41

RGB

RGB2 DVI-D

No sync Detected

Invalid Mode
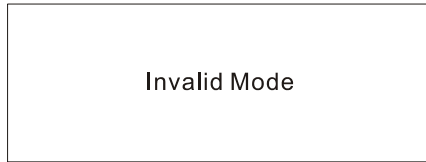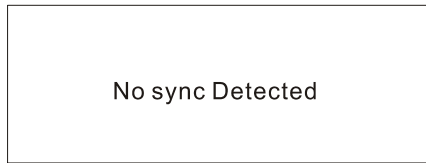
Power Save mode (RGB Input)

When the RGB1, RGB2 input is selected
● When this unit is connected to a VESA DPMS computer, the Power Save (Off) mode can be set to be activated automatically when the computer is not being used to reduce power consumption by this unit.

RGB sync signal	Horizontal	Yes	No	Yes	No
	Vertical	Yes	Yes	Non	No
PC signal		Active (normal display)		Blank (no display)	
Operation mode		On		Off	
Indicating lamp		Lights green		Lights orange	
Power consumption		310W		3W or less (RGB1,RGB2)	

Returning to operating status
● Operate the personal computer, or press either the INPUT SELECT button of the main unit or the RGB1/RGB2 buttons of the remote control.

IMAGE RETENTION OF PLASMA DISPLAY

There are different characteristics that result in panel image retention depending on how the plasma display is used. Situations and effective usage methods related to ghosting are provided below.

### Image retention characteristics of a plasma display

The image retention phenomenon of a plasma panel occurs because of partial phosphor degradation arising from partial character and figure display.

For example, when the character image as shown in Fig. A at the right is continuously displayed for a long period of time, the only part of the phosphor (Red, Green, Blue) that will degrade will be the color of the applicable character display portion. Consequently, when a white image is displayed on the entire screen as shown in Fig. a, the character marks displayed up to that time will become a color difference visible to the eye.

Fig. A   Fig. a
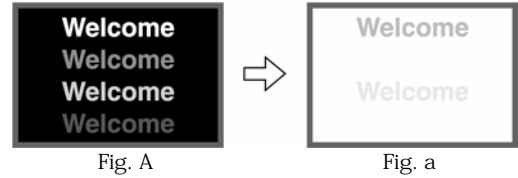
■ The degree of image retention is proportional to the brightness of the characters and figures displayed as well as the display time.

● The tendency of the phosphor is to degrade more the brighter the characters and figures are displayed. When images of figures with different levels of brightness, as shown in Fig. B, are continuously displayed for a long period of time, it becomes easier to see image marks at locations when the brighter figures are displayed to see.

Fig. B   Fig. b
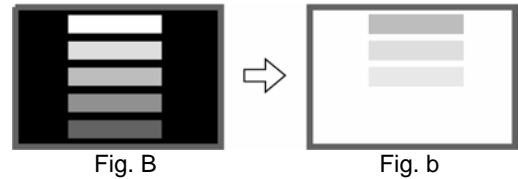
* The image retention images in this document are exaggerated for the purpose of explanation. The actual manner in which the image retention is seen differs depending on the operation time and brightness.

Methods to Reduce the Occurrence of Image Retention

● Lower the Contrast and Brightness settings of the plasma display as much as possible.

● Set the plasma monitor to "Screen Wipe" or "Inverse" display.

The occurrence of image retention when displaying images of identical patterns, such as static images, for long periods of time can be reduced by displaying a reversed color or completely white screen for about 1 ~ 2 hours after terminating the display.

(Settings can be made using Screen Wipe and Inverse of Function MENU shown on 30)

● Using in combination with moving images

Since the degradation of the fluorescent material progresses comparatively uniformly for moving images, the occurrence of partial image retention can be minimized .We recommend to use in combination with moving images such as a DVD.

 * Please be careful since image retention will occur if display is left in a two screen display state for a long period of time.

 * Television broadcasts include images displayed for long periods of time in which the left and right or top and bottom of the image are cut and broadcast station name or time are displayed in the same portion of the screen. Image retention in these portions can be expected to occur, so please be aware.

NOTES

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.

Symptom		Point to check	See Page
• There is no picture and the power-indicating lamp is off.		• Check to see that the power cable is properly connected. • Press the main switch.	13 14
• In RGB mode, the message "No cable connected" and "Going to sleep" is displayed. • In Video mode, the message "No sync Detected" is displayed. • There is no picture and the power indicating lamp lights orange.	No sync Detected	No sync signal is detected. • 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.	12
• The message "Invalid Mode." is displayed.	Invalid Mode	An input signal is received abnormally. • Ensure that the input signal matches the monitor specifications. • Check to see that the signal cable is properly connected.	12
• The power indicating lamp is lit normally but there is no picture.		• Check the contrast and brightness settings (adjust them for higher contrast and brightness). • Check to see that the signal cable is properly connected.	18 12
• The display image appears slanted. Text displayed across the screen appears vertically streaked, with the characters in vertical columns blurred.		• Adjust the clock frequency and the phase. (Adjust the clock frequency first, the dot clock phase next.) (RGB input)	22 37
• Text displayed across the screen appears blurred. A fine pattern flickers when displayed on the screen.	A	• Adjust the clock phase till the desired clarity is obtained. (RGB input)	22 37
• The remote control does not work.		• 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.	9

TROUBLESHOOTING (continued)

Symptoms That Seemingly Appear to be Failures(continued)

Symptom	Point to check	See Page
• The temperature of the display panel surface is high.	• The plasma display panel is lighting the phosphors by the discharge of internal radiantion. In some cases, this may cause the temperature of the panel surface to increase. Please note that this is not a malfunction.	-
• 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.	• 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.	-
• Vertical stripes appear, depending on the screen contents.	• 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.	-
• Coarse horizontal stripes appear in16:9 display.	• Adjusting the Clock Phase will reduce the horizontal stripes. (RGB input)	22
• Flickering in the form of horizontal lines oscillating up and down. (RGB INPUT only)	• 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.	-
• The top of the monitor heats up.	• When used for long periods of time, the top surface of the monitor may heat up. This is not a malfunction.	-
• Text characters are displayed with varying thicknesses.	• 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.	-
• The brightness contrast in the display seems not bright enough.	• 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.	-

TROUBLESHOOTING (continued)

Actions to Correct Abnormal Displays

Depending on the kind of system equipment used, images may not be displayed normally. In this case, make the adjustments suggested below. (only for RGB1)

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	Figure 1
Adjustment procedure	1) Press the MENU button. The Main Menu will be displayed. 2) Press the ◀ ▶button and Select PC PARAMETERS. 3) Press the ENTER button. 4) Press the ▲ ▼ SELECT button and select Auto. 5) Press the ENTER button twice to auto configuration.
	When adjustment is not possible with Auto Adjust: 6) Press the MENU button. The Main Menu will be displayed. 7) Press the ◀ ▶button and select PC PARAMETERS. 8) Press the ENTER button. 9) Press the ▲ ▼SELECT button and select Clock. 10) Press the▶ or ◀ buttons and search for clear characters over the entire screen. 11) Perform adjustment for symptom 2 below, when the characters are blurred on the entire screen.

• 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	Figure 2	Figure 3
Adjustment procedure	1) Press the MENU button. The Main Menu will be displayed. 2) Press the ◀ ▶button and Select PC PARAMETERS. 3) Press the ENTER button. 4) Press the ▲ ▼SELECT button and select Auto. 5) Press the ENTER button twice to auto configuration.	
	When adjustment is not possible with Auto Adjust 6) Press the MENU button. The Main Menu will be displayed. 7) Press the ◀ ▶ button and select PC PARAMETERS. 8) Press the ENTER button. 9) Press the ▲ ▼SELECT button and select PHASE. (Displays fine patterns as characters or a vertical striped pattern over the entire screen during Clock Phase adjustment.)	
	10) Press▶ or ◀ buttons to make the text appear clean across the screen.	10) Press ▶or ◀ buttons to make the text appear without flickering.

PRODUCT SPECIFICATIONS

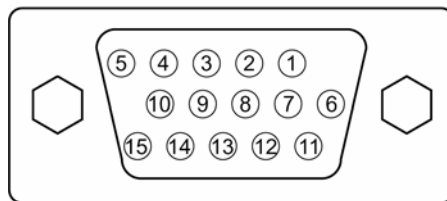|		
Panel	Display dimensions	Approx. 42 inches (920 (H) x 518 (V) mm, diagonal 1059mm)
	Resolution	852 (H) x 480 (V) pixels
Net dimensions (excluding Speakers/Stand)		1030 (W) x 636 (H) x 91 (D) mm
Net weight (excluding Speakers/Stand)		33.7 kg
Ambient conditions	Temperature	Operating: 5°C to 35°C, Storage: -15°C to 60°C
	Relative humidity	Operating: 20% to 80%, Storage: 20% to 90% (non-condensing)
Power supply		AC100 - 240V, 50/60Hz
Power consumption/at standby		310W / <3W
Audio output		10W + 10W (6 Ω) (Without speaker)
(RGB input)		
Input signals	Input terminals	RGB1-VGA analog RGB input terminal (D-sub 15-pin) RGB1-VGA audio input terminal (3.5mm Stereo Mini Jack) RGB2 DVI-D input terminal (DVI-D) RGB2 DVI-D 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		45 modes 40 41
(Video input)		
Input signals	Input terminals	AV1 : Composite video input terminal(RCA) AV1 : S video input teminal AV1 : L/R audio input terminal(RCA) AV2 : Composite video input terminal(RCA) AV2 : S video input teminal AV2 : L/R audio input terminal(RCA) AV3 : Component input (Y-CbCr) (RCA) AV3 : L/R audio input terminal (RCA) AV4 : Component input (YPbPr/ YCbCr) (RCA) AV4 : L/R audio input terminal (RCA)
	Video signals	AV1 : PAL, SECAM, NTSC AV2 : PAL, SECAM, NTSC AV3 : 480i, 576i AV4 : 480i, 576i, 480p, 576p, 720p/50, 720p/60, 1080i/50, 1080i/60,
Video output Signal		OUTPUT (MONITOR): composite video monitor-output terminal (RCA) OUTPUT (MONITOR): L/R audio monitor- output terminal (RCA)
Recommended signal		13 modes 40 41

● It takes at least 30 minutes to attain the maximum picture quality.

PRODUCT PECIFICATIONS (Continued)

Signal Input

RGB1 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

RGB2 (DVI-D) Input

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+		
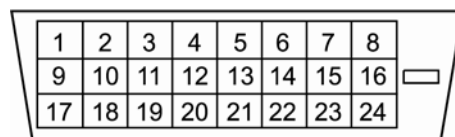
S-input connector pin specifications

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

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Recommended Signal List

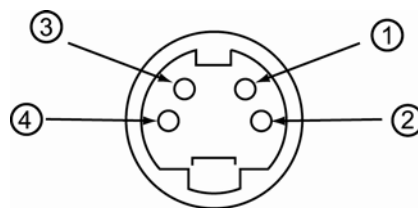**With Composite Input and S-video Input (AV1~AV2 input)**

No.	Signal mode			Horizontal frequency (kHz)	Remarks
	Signal name	Resolution	Vertical frequency (Hz)		
1	NTSC-M	525	59.94	15.734	
2	PAL	625	50	15.63	
3	SECAM	625	50	15.63	

With Y, Cb, Cr input (AV3 component input)

No.	Signal mode			Horizontal frequency (kHz)	Remarks
	Signal name	Resolution	Vertical frequency (Hz)		
1	480i	480	59.94	15.734	
2	576i	625	50	15.63	

With Y, Cb, Cr / Y, Pb, Pr input (AV4 component input)

No.	Signal mode			Horizontal frequency (kHz)	Remarks
	Signal name	Resolution	Vertical frequency (Hz)		
1	480i	480	60	15.734	
2	576i	576	50	15.63	
3	480p	480	60	31.47	
4	576p	576	50	31.26	
5	720p/50	720	50	37.5	
6	720p/60	720	60	44.96	
7	1080i/50	1080	50	28.13	
8	1080i/60	1080	60	33.75	

● 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 display (compressed display) can result in the interpolation of stripes.

With Analog RGB signal input (RGB 1 input)

No.	Signal mode		Horizontal frequency (kHz)	Dot clock frequency (MHz)
	Resolution	Vertical frequency (Hz)		
1	640 x 400	70.08	31.47	25.18
2	640 x 480	59.94	31.47	25.18
3	864 x 480	59.94	31.47	34.24
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	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	1600 X 1200	60.00	75.00	162.00
19	640 X 480	66.67	35.00	30.24
20	832 X 624	74.55	49.72	57.28
21	1024 X 768	74.93	60.24	80.00
22	1152 X 870	75.06	68.68	100.00
23	1280 x 768	59.833	47.986	81.00
24	1280 x 768	69.997	56.137	94.76
25	1366 x 768	60.015	47.712	89.50

- 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 480 lines of vertical resolution at Full display (compressed display)can result in the interpolation of stripes

With Digital RGB signal input (RGB 2 input)

No.	Signal mode			Horizontal frequency (kHz)	Dot clock frequency (MHz)
	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
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	480p	720 x 480	59.94	31.47	27.00
16	576P	720 x 576	50.00	31.25	27.00
17	720p/50	1280 x 720	50.00	37.50	74.29
18	720p/60	1280 x 720	60.00	45.00	74.25
19	1080i/50	1280 x 720	50.00	28.13	74.25
20	1080i/60	1920 x 1080	60.00	33.75	74.25