LG

PLASMA MONITOR
OWNER'S MANUAL

MODEL : MU-40PA15
MU-40PA15A
MU-40PA15B
MU-40PA15G
MU-40PA15K
MU-40PA15S

Please read this owner's manual carefully before operating the Monitor.
Retain it for future reference.
Record model number and serial number of the Monitor.
See the label attached on the back of the Monitor and quote this information to your dealer when you require service.

Model number :
Serial number :

P/NO : 3828VA0355A (NP00KC)

WARNING

WARNING

RISK OF ELECTRIC SHOCK
DO NOT OPEN

WARNING:

TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER 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.

WARNING:

TO PREVENT FIRE OR SHOCK HAZARDS, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

FCC NOTICE

• **A Class B digital device**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

• **Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.**

WARNING
TO REDUCE THE RISK OF FIRE AND ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

SAFETY INSTRUCTIONS

Important safeguards for you and your new product

Your product has been manufactured and tested with your safety in mind. However, improper use can result in potential electrical shock or fire hazards. To avoid defeating the safeguards that have been built into your new product, please read and observe the following safety points when installing and using your new product, and save them for future reference.

Observing the simple precautions discussed in this booklet can help you get many years of enjoyment and safe operation that are built into your new product.

This product complies with all applicable U.S. Federal safety requirements, and those of the Canadian Standards Association.

1. Read Instructions
All the safety and operating instructions should be read before the product is operated.

2. Follow Instructions
All operating and use instructions should be followed.

3. Retain Instructions
The safety and operating instructions should be retained for future reference.

4. Heed Warnings
All warnings on the product and in the operating instructions should be adhered to.

5. Cleaning
Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

6. Water and Moisture
Do not use this product near water, for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool.

7. Accessories Carts and Stands
Do not place this product on a slippery or tilted surface, or on an unstable cart, stand, tripod, bracket, or table. The product may slide or fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.

8. Transporting Product
A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.

PORTABLE CART WARNING

9. Attachments
Do not use attachments not recommended by the product manufacturer as they may cause hazards.

10. Ventilation
Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a book-case or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

11. Power Sources
This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company. For products intended to operate from battery power, or other sources, refer to the operating instructions.

12. Power-Cord Polarization
This product is equipped with a three-wire grounding type plug, a plug having a third (grounding) pin. This plug will only fit into the grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding-type plug.
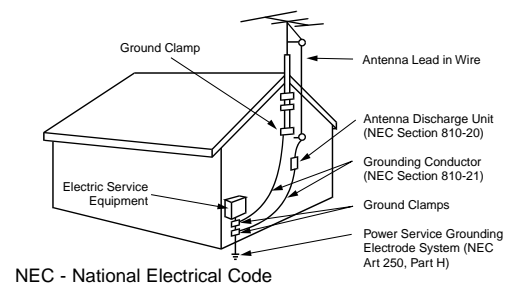
13. Power-Cord Protection
Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.

14. Outdoor Antenna Grounding
If an outside antenna or cable system is connected to the product, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code (U.S.A.), ANSI/ NFPA 70 provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

Example of Grounding According to National Electrical Code Instructions

Ground Clamp

Antenna Lead in Wire

Antenna Discharge Unit (NEC Section 810-20)

Grounding Conductor (NEC Section 810-21)

Electric Service Equipment

Ground Clamps

Power Service Grounding Electrode System (NEC Art 250, Part H)

NEC - National Electrical Code

SAFETY INSTRUCTIONS

(Continued from previous page)

15. Lightning
For added protection for this product (receiver) during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.

16. Power Lines
An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.

17. Overloading
Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.

18. Object and Liquid Entry
Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

19. Servicing
Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

20. Damage Requiring Service
Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
a. If the power-supply cord or plug is damaged.
b. If liquid has been spilled, or objects have fallen into the product.
c. If the product has been exposed to rain or water.
d. If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
e. If the product has been dropped or the cabinet has been damaged.
f. If the product exhibits a distinct change in performance.

18. Object and Liquid Entry
Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

19. Servicing
Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

20. Damage Requiring Service
Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
a. If the power-supply cord or plug is damaged.
b. If liquid has been spilled, or objects have fallen into the product.
c. If the product has been exposed to rain or water.
d. If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
e. If the product has been dropped or the cabinet has been damaged.
f. If the product exhibits a distinct change in performance.

21. Replacement Parts
When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.

22. Safety Check
Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.

23. Wall or Ceiling Mounting
The product should be mounted to a wall or ceiling only as recommended by the manufacturer. The product may slide or fall, causing serious injury to a child or adult, and serious damage to the product.

24. Heat
The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

The explanation about colored dots may be present on PDP screen

The PDP which is the display device of this product is composed of 0.9 to 2.2 million cells and a few cell defects can occur in the manufacture of the PDP. Several colored dots visible on the screen would be acceptable, in line with other PDP manufacturers and would not mean that the PDP is faulty. We hope you will understand that the product which corresponds to this standard is regarded as acceptable. It means that it could not be changed or refunded.
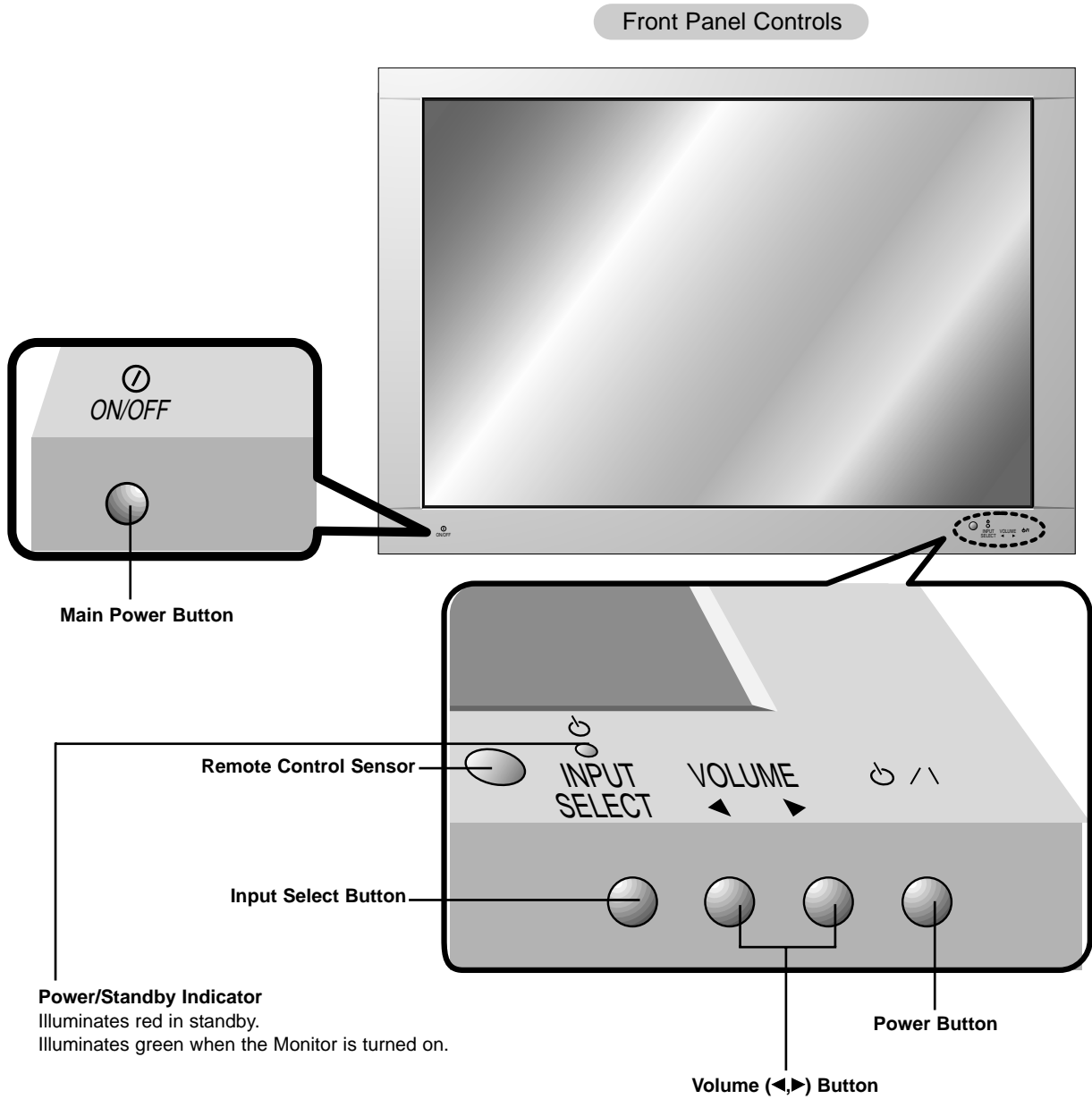We promise that we'll do our best to develop our technology to minimize the cell defects.
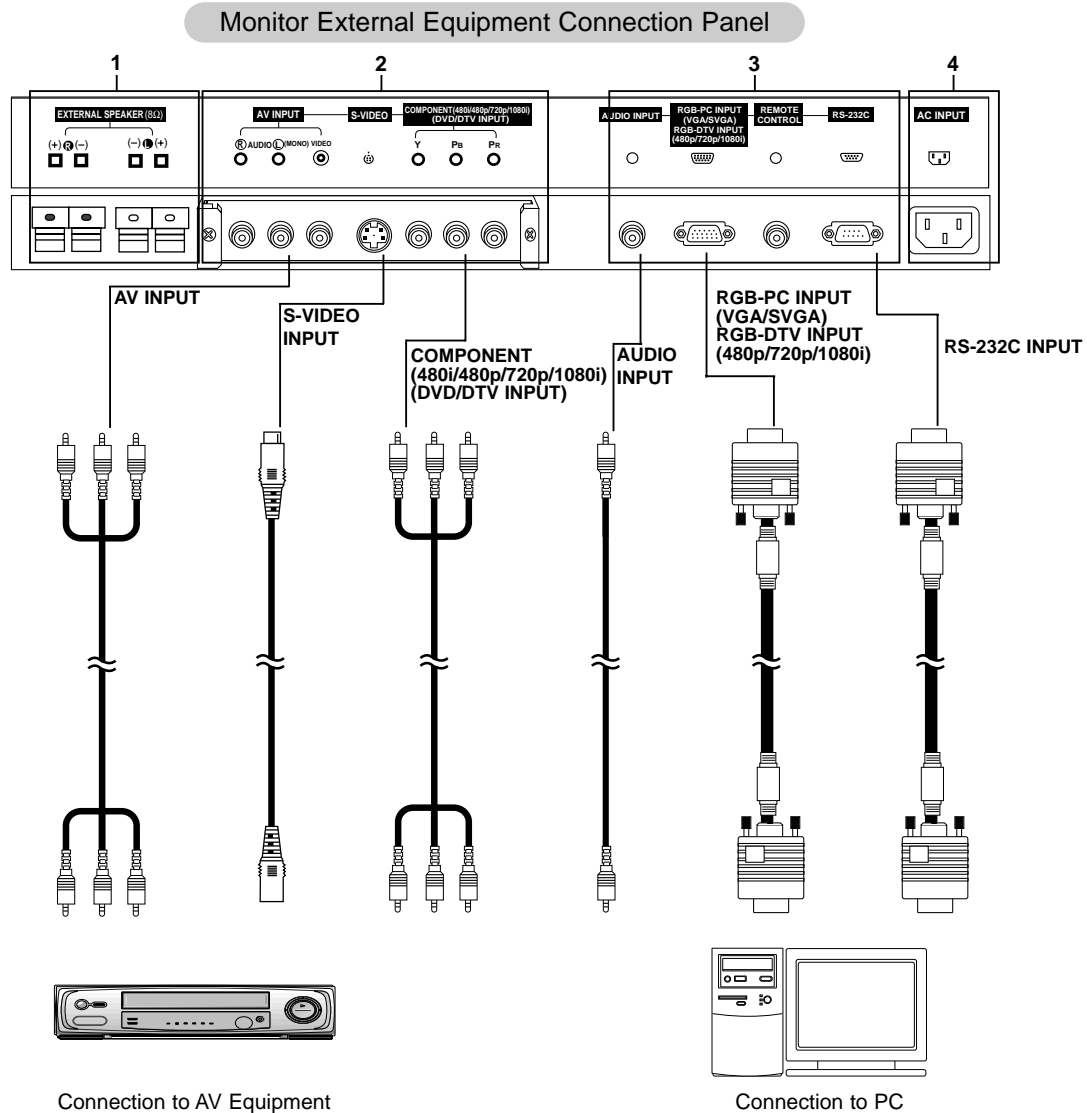
Contents

After reading this manual, keep it in the place where the user can always contact easily.

Monitor Controls

⏻ / ON/OFF

Main Power Button

⏻
INPUT
SELECT

VOLUME
◄ ►

⏻ ⋀

Remote Control Sensor

Input Select Button

Power/Standby Indicator
Illuminates red in standby.
Illuminates green when the Monitor is turned on.

Power Button

Volume (◄,►) Button

Watching External Equipments

Monitor External Equipment Connection Panel

Connection to AV Equipment

Connection to PC

1. **EXTERNAL SPEAKER (8 ohm output)**
   Connect to optional external speaker(s).
   *For further information, refer to 'Speaker & Speaker Stand' manual.

2. **AV INPUT JACKS**
   Connect audio/video out from external equipment to these jacks
   S-VIDEO JACKS
   Connect video out from an S-VIDEO VCR to the S-VIDEO input.
   COMPONENT(480i/480p/720p/1080i)(DVD/DTV INPUT) JACKS

3. **AUDIO INPUT/**
   RGB-PC INPUT (VGA/SVGA)/
   RGB-DTV INPUT (480p/720p/1080i) Jacks
   Connect the monitor output jack of the PC or Digital set-top box to this jack.
   REMOTE CONTROL
   Connect your wired remote control to remote control jack of the monitor.
   RS-232C IN Jack
   Connect to the serial port on a PC.

4. **POWER CORD SOCKET**
   This Monitor operates on an AC power. The voltage is indicated on the Specifications page. Never attempt to operate the Monitor on DC power

Note: All cables shown are not provided with the Monitor, except:
   A D-sub 15 pin cable is supplied to connect the Monitor to a PC.

Watching VCR Setup

- When connecting the Monitor with external equipments, match the colors of connecting ports (Video - yellow, Audio(L) - white, Audio(R) -red).
- If you have a mono VCR, connect the audio cable from the VCR to the AUDIO (L/MONO) input of the Monitor.
- If you connect an S-VIDEO VCR to the S-VIDEO input, the picture quality is improved; compared to connecting a regular VCR to the Video input.
- Avoid having a fixed image remain on the screen for a long period of time. Typically a frozen still picture from a VCR, 16:9 picture format is present; the fixed image may remain visible on the screen.
- To avoid picture noise (interference), leave an adequate distance between the VCR and monitor

1. Press **INPUT SELECT** button on the remote control and select **Video**.
   (If connected to S-VIDEO, select the **S-Video** external input source.)
2. Insert a video tape into the VCR and press the **PLAY** button on the VCR. (See VCR owner's manual)

Watching Cable TV Setup

- After subscribing to a cable TV service from a local provider and installing a converter, you can watch cable TV programming. This monitor cannot display TV programming without a TV tuner device or cable TV converter box connected to the monitor.
- For further information regarding cable TV service, contact your local cable TV service provider(s).

1. Press **INPUT SELECT** button on the remote control and select **Video**.
2. Tune to cable service provided channels using the cable box.

Watching External A/V Source Setup

- When connecting the monitor to an external source, match the colors of A/V input jacks on the monitor with the output jacks on the audio/video equipment: Video = yellow, Audio (Left) = white, Audio (Right) = red.

1. Press **INPUT SELECT** button on the remote control to select **Video**.
2. Operate the corresponding external equipment. See external equipment operating guide.

Watching DVD Setup

How to connect
Connect DVD video inputs to Y, P_B, P_R of COMPONENT (480i/480p/720p/1080i) (DVD/DTV INPUT) or the single RGB-DTV input for video connctions, depending on your DVD connectors. Then make the corresponding audio connections and audio inputs to Audio sockets of AUDIO INPUT.

How to use
1. Turn on the DVD player, and insert a DVD.
2. Use **INPUT SELECT** button on the remote control to select **Component**. Refer to the DVD player's manual for operating instructions.

• **Component Input ports**
You can get better picture quality if you connect DVD player with component input ports as below.

Component ports of the Monitor	Y	P_B	P_R

Video output ports of DVD player	Y	Pb	Pr
	Y	B-Y	R-Y
	Y	Cb	Cr
	Y	P_B	P_R

Watching DTV Setup

- To watch digitally broadcast programs, purchase/connect a digital SET-TOP BOX.

How to connect a user-supplied Digital Set-Top Box
- You can use either the monitor's Y, P_B, P_R of COMPONENT (480i/480p/720p/1080i) (DVD/DTV INPUT) or the single RGB-DTV INPUT for video connections, depending on your set top box connectors. Then make the cprresponding audio connectons.
- Connect DTV set-top box audio outputs to monitor AUDIO INPUT jacks.

How to use
1. Turn on the digital SET-TOP BOX. (Refer to the owner's ,manual for the digital SET-TOP BOX.)
2. Press **INPUT SELECT** on the remote control to select **Component**.

PC Setup

- To enjoy vivid picture and sound, connect a PC to the Monitor.
- Avoid keeping a fixed image on the monitor's screen for a long period of time. The fixed image may become permanently imprinted on the screen; use a screen saver when possible.
- Connect PC to the **RGB-PC INPUT(VGA/SVGA) RGB-DTV INPUT(480p/720p/1080i)** port of the Monitor: changing the resolution output of PC accordingly.
- Synchronization input form; Separate

Setup Instructions to Connect a PC to your Monitor
- Set the video mode of PC to VGA/SVGA to obtain the best picture quality for the Monitor.
- If the resolution of PC is over SVGA, there will be no picture on the Monitor.
- Connect the signal cable from the monitor output port of the PC to the **RGB-PC INPUT(VGA/SVGA) RGB-DTV INPUT (480p/720p/1080i)** port of the Monitor.
- Connect the audio cable from the PC to the Audio ports of the Monitor. (Audio cables not included with the Monitor)
- In case of using a sound card adjust PC sound properly.
- If the resolution of PC is over SVGA, connect to the RGB INPUT(VGA/SVGA) port of the Monitor after changing the resolution of PC under SVGA.
- If picture isn't be displayed properly by connecting a non-standard PC, contact your dealer for more information.
- It maybe occur a picture noise.according to any contrast or brightness in PC mode. In this case, adjust contrast or brightness level to get better picture quality.
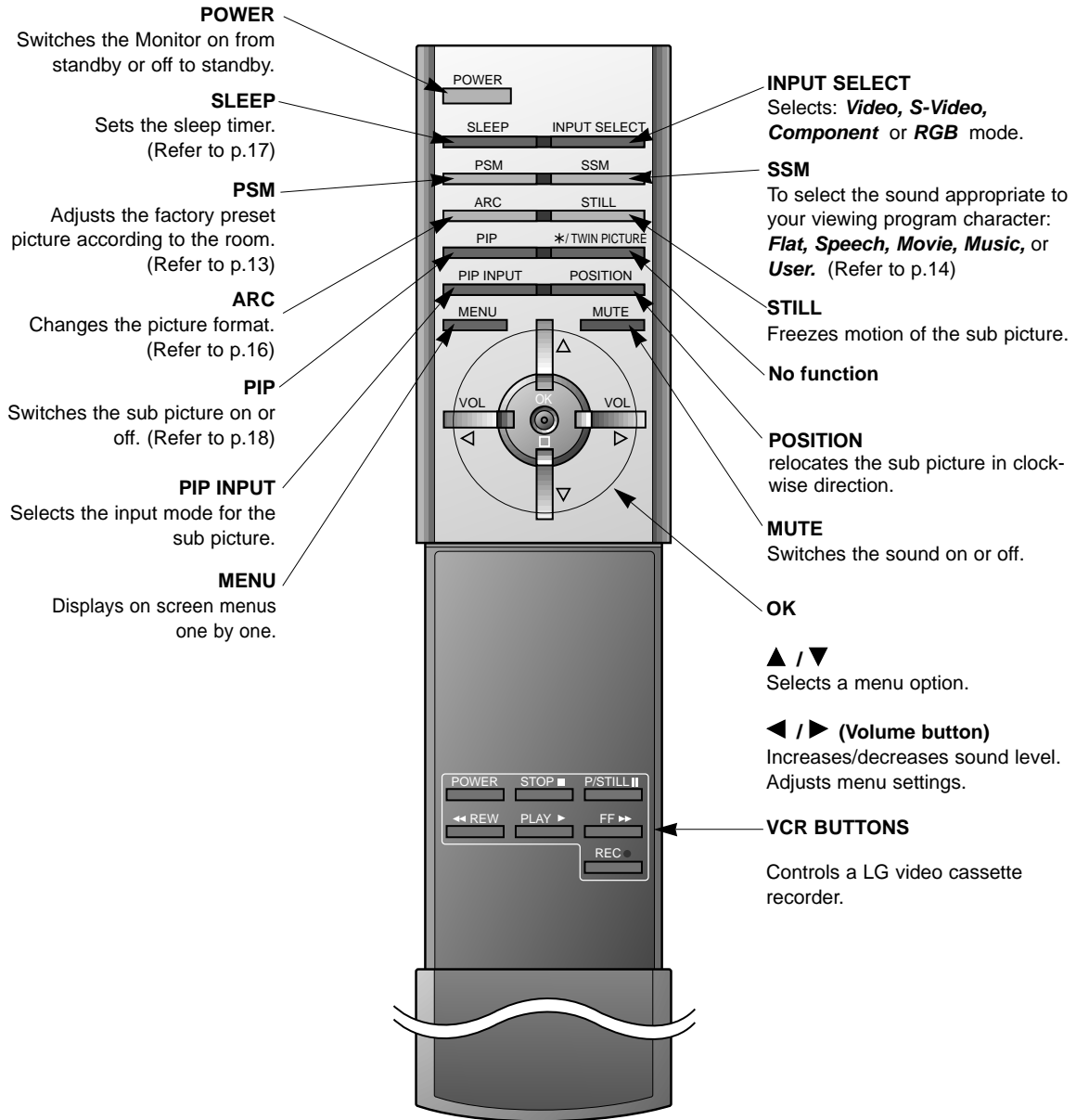
PC Setup
1. Turn on the PC and apply power to the Monitor.
2. Turn on the display by pressing the **POWER** button on the Monitor's remote control.
3. Use the **INPUT SELECT** button on the remote control to select the RGB input source.
3. Set the resolution output of the PC under SVGA (800x600).

Monitor Display Specifications

Resolution	Horizontal Frequency (KHz)	Vertical Frequency (Hz)	Resolution	Horizontal Frequency (KHz)	Vertical Frequency (Hz)
640x350	31.468	70.09	640x480	53.011	100.04
	37.861	85.08		64.062	120.00
640x400	31.469	70.08	800x600	35.156	56.25
	37.927	85.03		37.879	60.31
640x480	31.469	59.94		48.077	72.18
	35.000	66.66		46.875	75.00
	37.861	72.80		53.674	85.06
	37.500	75.00		56.000	90.00
	43.269	85.00		64.016	100.00
	45.913	90.03	832x624	49.725	74.55

Remote Control Key Functions

- When using the remote control aim it at the remote control sensor of the Monitor.

POWER
Switches the Monitor on from standby or off to standby.

SLEEP
Sets the sleep timer.
(Refer to p.17)

PSM
Adjusts the factory preset picture according to the room.
(Refer to p.13)

ARC
Changes the picture format.
(Refer to p.16)

PIP
Switches the sub picture on or off. (Refer to p.18)

PIP INPUT
Selects the input mode for the sub picture.

MENU
Displays on screen menus one by one.

POWER

SLEEP   INPUT SELECT

PSM   SSM

ARC   STILL

PIP   */ TWIN PICTURE

PIP INPUT   POSITION

MENU   MUTE

VOL   OK   VOL

POWER   STOP ■   P/STILL ❚❚

◀◀ REW   PLAY ▶   FF ▶▶

REC ●

INPUT SELECT
Selects: *Video, S-Video, Component* or *RGB* mode.

SSM
To select the sound appropriate to your viewing program character: *Flat, Speech, Movie, Music,* or *User.* (Refer to p.14)

STILL
Freezes motion of the sub picture.

No function

POSITION
relocates the sub picture in clock-wise direction.

MUTE
Switches the sound on or off.

OK

▲ / ▼
Selects a menu option.

◀ / ▶ (Volume button)
Increases/decreases sound level.
Adjusts menu settings.

VCR BUTTONS
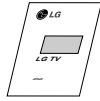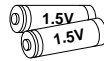Controls a LG video cassette recorder.

Installing Batteries

- Open the battery compartment cover on the back side and insert the batteries with correct polarity.
- Install two 1.5V alkaline batteries of AAA type. Don't mix used batteries with new batteries.
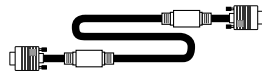
Monitor overview

Accessories

Owner's Manual

Alkaline batteries

Remote control handset

D-sub 15 pin cable

Power cord

Monitor Installation Options

- The Monitor can be installed in various ways such such as on a wall, or on a desktop etc.
- Install this monitor only in a location where adequate ventilation is available.
- It is recommended that this product only be used at an altitude of less than 5250 feet (1600m) to get the best quality picture and sound.

To install as wall mounting type
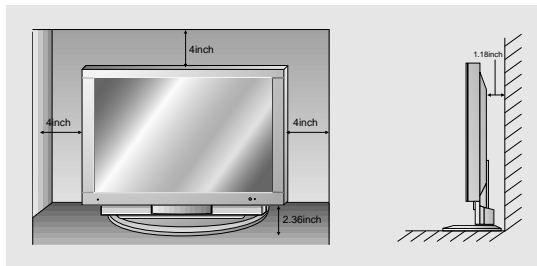Wall mount minimum allowable clearances for adequate ventilation

4inch
4inch
4inch
4inch
1.18inch
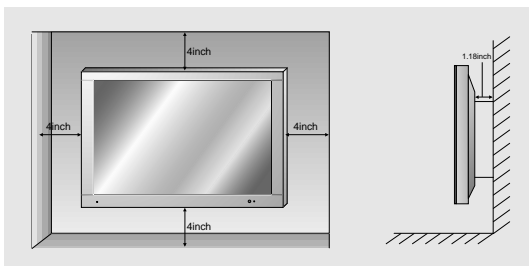
To install as desktop type
Pedestal mount minimum allowable clearances for adequate ventilation

4inch
4inch
4inch
2.36inch
1.18inch

Turning on the Monitor

Turning on the Monitor just after installation

1. Connect power cord correctly.

2. Press the ⏻ **ON/OFF** button on the Monitor. At this moment, the Monitor is switched to standby mode. Press the **INPUT SELECT** button on the Monitor or press the **POWER**, **INPUT SELECT** button on the remote control and then the Monitor will be switched on.

Turning on the Monitor (power cord is still connected)

1. **If the Monitor is turned off with the ⏻ON/OFF button on the Monitor**
    • Press the ⏻**ON/OFF** button on the Monitor to turn on the Monitor.

2. **If the Monitor is turned off with the remote control and also the ON/OFF button on the Monitor**
    • Press the ⏻**ON/OFF** button on the Monitor and then press the **INPUT SELECT** button on the Monitor or press the **POWER**, **INPUT SELECT** button on the remote control to turn on the Monitor.
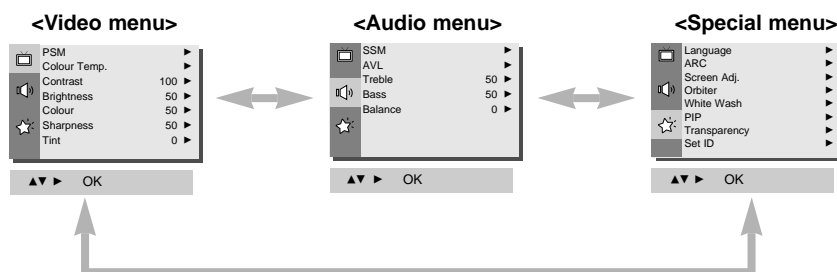
Menu language setup

- The menus can be shown on the screen in the selected language. First select your language.

1. Press the **MENU** button and then use ▲ / ▼ button to select the ☆ menu.

2. Press the ► button and then use ▲ / ▼ button to select *Language*.

3. Press the ► button and then use ▲ / ▼ button to select your desired language.
    From this point on, the on-screen display will be shown in the language of your choice.

4. Press the **OK** button.

Function checking

1. Press the **MENU** button.

2. Press the ▲ / ▼ button.

    • Each time you press this button you can see menus shown below.

<Video menu>	<Audio menu>	<Special menu>
PSM ►	SSM ►	Language ►
Colour Temp. ►	AVL ►	ARC ►
Contrast 100 ►	Treble 50 ►	Screen Adj. ►
Brightness 50 ►	Bass 50 ►	Orbiter ►
Colour 50 ►	Balance 0 ►	White Wash ►
Sharpness 50 ►		PIP ►
Tint 0 ►		Transparency ►
		Set ID ►
▲▼ ► OK	▲▼ ► OK	▲▼ ► OK

3. Press the ► button and then use ▲ / ▼ / ◄ / ► button to select a function you want to use.

    • Press the **OK** button to exit.

Video Menu Options

PSM (Picture Status Memory)

- This function adjusts the Monitor to the best picture appearance
- This function is not available in PC mode and PIP.

1. Press the **PSM** button to select the picture appearance setup option.

   • Each press **PSM** button changes the screen display as shown below.

   Dynamic ⟶ **Mild** ⟶ **User**

   • You can also select **Dynamic**, **Mild** or **User** in the □ menu.
   • The picture **Dynamic** and **Mild** are programmed for good picture reproduction at the factory and cannot be changed.

Adjusting Auto Color Control

- Adjustments also affect the color temperature if other input sources. Readjust color temperature for PC input (RGB) if necessary.
- To initial values (reset to default settings), select the '**Normal**' option.

1. Press the **MENU** button and then use ▲ / ▼ button to select the □ menu.

2. Press the ▶ button and then use ▲ / ▼ button to select **Colour Temp.**.

3. Press the ▶ button and then use ▲ / ▼ button to select **CSM**.

4. Press the ▶ button and then use ▲ / ▼ button to select the desired color temperature.
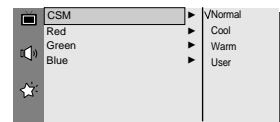
   • Each press of ▲ / ▼ button changes the screen display as shown below.

   Normal ⟷ **Cool** ⟷ **Warm** ⟷ **User**

5. Press the **OK** button.

Manual Color Temperature Control (User option)

- You should be adjust colour temperature in PC mode again although color temperature is adjusted in other input source.
- To initialize adjusted value, select '0' in **Red**, **Green** and **Blue**.
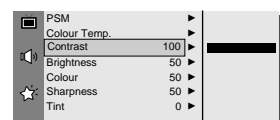
1. Press the **MENU** button and then use ▲ / ▼ button to select the □ menu.

2. Press the ▶ button and then use ▲ / ▼ button to select the **Colour Temp.**.

3. Press the ▶ button and then use ▲ / ▼ button to select a color.

4. Press the ▶ button and then use ◀ / ▶ button to make appropriate adjustments.

   • The adjustment range of **Red**, **Green** and **Blue** is -50~+50.

5. Press the **OK** button.
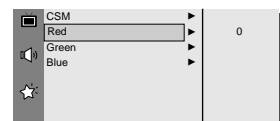
Manual Picture Control (User Option)

- You can adjust picture contrast, brightness, colour, sharpness and tint to the levels you prefer.
- PIP settings are not adjustable.

1. Press the **MENU** button and then ▲ / ▼ button to select the □ menu.

2. Press the ▶ button and then ▲ / ▼ button to select the desired picture item.

3. Press the ▶ button and then ◀ / ▶ button to make appropriate adjustments.
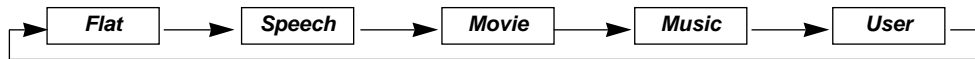
4. Press the **OK** button.

Audio Menu Options

SSM (Sound Status Memory)

- This function lets you enjoy the best sound without any special adjustment because the Monitor automatically selects the appropriate sound option based on the program content.

1. Press the **SSM** button to select the picture appearance setup.

```
→  Flat  →  Speech  →  Movie  →  Music  →  User  →
```

- You can also select *Flat*, *Speech*, *Movie*, *Music* or *User* in the ◖))) menu.

AVL (Auto Volume Leveler)

- This feature maintains an equal volume level; even if you change channels.

1. Press the **MENU** button and then use ▲ / ▼ button to select the ◖))) menu.
2. Press the ► button and then use ▲ / ▼ button to select *AVL*.
3. Press the ► button and then use ▲ / ▼ button to select *On* or *Off*.
4. Press the **MENU** button.

SSM	►	
AVL	►	√On
Treble	50 ►	Off
Bass	50 ►	
Balance	0 ►	
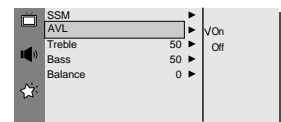
Adjusting Sound (Manual Setting)

1. Press the **MENU** button and then use ▲ / ▼ button to select the ◖))) menu.
2. Press the ► button and then use ▲ / ▼ button to select the desired sound item.
3. Press the ► button and then use ◄ / ► button to make appropriate adjustments.
4. Press the **MENU** button.

SSM	►	
AVL	►	
Treble	50 ►	
Bass	50 ►	
Balance	0 ►	
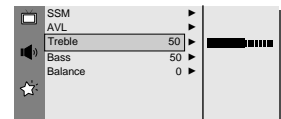
Special Menu Options

Setting Picture Format

- If 16:9 is on the screen for a long time, that fixed image may remain visible.
- Don't display 16:9 picture format on screen above 10 hours continuously.
- You are available to 4:3 in RGB-PC (Except 800x600) mode.
- You can also select *4:3*, *16:9* or *Zoom* in the ☆ menu.

1. Press the **ARC** button to select a desired picture format.

- *4:3*
-This picture format is 4 to 3 of general monitor.

- *16:9*
- You can enjoy the cinema (the picture format of 16:9) or general monitor program through the 16:9 mode.
- The screen 16:9 is viewed just like that but the screen 4:3 is magnified to the left and right so that the screen 16:9 is full.
- A RGB-DTV (720p/1080i) and Component (720p/1080i) source can only use the 16:9 screen aspect ratio.

- *Zoom*
- You can enjoy the cinema in a vast screen through the Zoom mode. The screen 4:3 is magnified to the upper/lower sides so that the screen 16:9 is full. The bottom and top of the picture may be lost.
- You are available to Zoom in RGB-PC (800x600).
- A RGB-DTV (720p/1080i) and Component (720p/1080i) source can't use the Zoom screen aspect ratio.

Screen Adjustments (Video, S-video and Component 480i mode only)

- Use this function to correct jittering or picture instability while viewing a video tape.
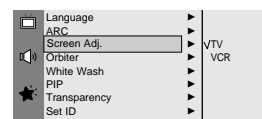
1. Press the **MENU** button and then use ▲ / ▼ button to select the ☆ menu.

2. Press the ▶ button and then use ▲ / ▼ button to select *Screen adj.*.

3. Press the ▶ button and then use ▲ / ▼ button to to select *TV* or *VCR*.

- Select the *VCR* option if watching a VCR.
- Select the *TV* option for other equipment.(Except VCR)

4. Press the **OK** button.

Language ►	
ARC ►	
Screen Adj. ►	VTV
Orbiter ►	VCR
White Wash ►	
PIP ►	
Transparency ►	
Set ID ►	

Auto Adjustments (RGB mode only)

- Automatically adjusts picture position and minimizes image shaking.
- Although the image is still not correct, your Monitor is functioning properly but needs further adjustment.

1. Press the **MENU** button and then use ▲ / ▼ button to select the ☆ menu.

2. Press the ▶ button and then use ▲ / ▼ button to select *Screen adj.*.

3. Press the ▶ button and then use ▲ / ▼ button to select *Auto-configure*.

4. Press the ▶ button.
- When *Auto-configure* has finished, *OK* will be shown on screen.
- If the position of the image is still not correct, try Auto adjustment again.

5. If picture needs to be adjusted more after Auto adjustment in *RGB*, you can adjust the *V-Position*, *H-Position* and *Phase*.

Auto-Configure ►	To set
V-Position ►	
H-Position ►	
Phase ►	
Reset ►	

Adjusting Horizontal / Vertical Position (RGB mode only)

1. Press the **MENU** button and then use ▲ / ▼ button to select the ☆ menu.

2. Press the ▶ button and then use ▲ / ▼ button to select **Screen Adj.**.

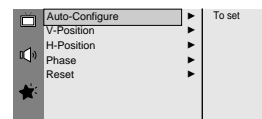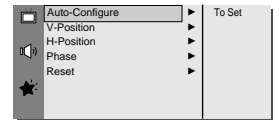3. Press the ▶ button and then use ▲ / ▼ button to select **V-Position** or **H-Position**.

   • Select **V-Position** for vertical position adjustment.
   • Select **H-Position** for horizontal position adjustment.

4. Press the ▶ button and then use ◀ / ▶ button to adjust until you get desired horizontal or vertical position and then press the **OK** button.

   • Based on the input mode, the adjustment range of **V-Position** or **H-Position** may change.
   • Based on the input signal, the position of the picture may not change even though you have adjusted the horizontal or vertical position with this function.

Auto-Configure	▶	To Set
V-Position	▶	
H-Position	▶	
Phase	▶	
Reset	▶	
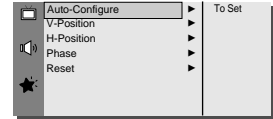
Adjusting Phase (RGB mode only)

Adjusting phase (RGB mode only)

- If the picture isn't clear after auto adjustment and especially if characters are still jittery, adjust the picture phase manually.
- When watching PIP, **Screen** option is not available in ☆ menu.

1. Press the **MENU** button and then use ▲ / ▼ button to select the ☆ menu.

2. Press the ▶ button and then use ▲ / ▼ button to select **Phase**.

3. Press the ▶ button and then use ◀ / ▶ button to adjust phase.

   • The adjustment range of **Phase** is 0 ~ 63.

4. Press the **OK** button.

Auto-Configure	▶	To Set
V-Position	▶	
H-Position	▶	
Phase	▶	
Reset	▶	

Initializing (Reset to Factory value (RGB mode only)

• To initialize the adjusted value, select **Reset** with the ▲ / ▼ button and then press the ▶ button.

Orbiter

- Avoid keeping a fixed image remain on the Monitor's screen for a long period of time. A frozen still picture from a PC/video game set displayed on the screen for prolonged periods will result in an image ghost remaining even when you change the image.
- To avoid a permanent image on the screen, the screen will move every 2 minutes.
- The Orbiter feature may help prevent ghost images. However, it is best not to allow any fixed image to remain on the screen.

1. Press the **MENU** button and then use ▲ / ▼ button to select the ☆ menu.

2. Press the ▶ button and then use ▲ / ▼ button to select **Orbiter**.

3. Press the ▶ button and then use ▲ / ▼ button to select **On** or **Off**.

4. Press the **OK** button.

Language	▶	
ARC	▶	
Screen Adj.	▶	
Orbiter	▶	VOn
White Wash	▶	Off
PIP	▶	
Transparency	▶	
Set ID	▶	
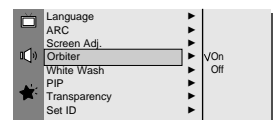
White Wash

- White Wash removes permanent images from the screen.
- Set *White Wash* '*On*' until fixed image disappears.

1. Press the **MENU** button and then use ▲ / ▼ button to select the ☆ menu.

2. Press the ► button and then use ▲ / ▼ button to select *White Wash*.

3. Press the ► button and then use ▲ / ▼ button to select *On* or *Off*.
   • When you select **ON**, the screen changes to white.

4. Press the **OK** button.

Language	►	
ARC	►	
Screen Adj.	►	
Orbiter	►	
White Wash	►	√On
PIP	►	Off
Transparency	►	
Set ID	►	

Adjusting OSD Transparency

1. Press the **MENU** button and then use ▲ / ▼ button to select the ☆ menu.

2. Press the ► button and then use ▲ / ▼ button to select *Transparency*.

3. Press the ► button and then use ◄ / ► button to adjust OSD transparency.
   • The adjustment range of *Transparency* is 0 ~ 5.
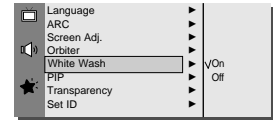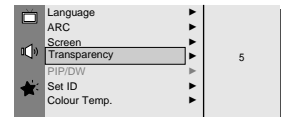
4 Press the **OK** button.

Language	►	
ARC	►	
Screen	►	
Transparency	►	5
PIP/DW	►	
Set ID	►	
Colour Temp.	►	

Sleep Timer

- Sleep timer turns the monitor off at the preset time.
- Press the **SLEEP** button to select the number of minutes. The display ◄ --- ► will appear on the screen, followed by *10*, *20*, *30*, *60*, *90*, *120*, *180* and *240*. The timer begins to count down from the number of minutes selected.
- When the sleep time you want is displayed on the screen, don't press the sleep button. After 20 seconds, the screen display disappears and sleep time is set.

a. To check the remaining sleep time, press the **SLEEP** or **OK** button just once.

b. If you turn the Monitor off after setting the sleep timer, the setting is erased. The sleep timer will then have to be set again.

c. To release sleep time setting, press the **SLEEP** or ◄ / ► button repeatedly to select ◄ --- ►.

d. ' ⚠ ⏻ 1 ' is displayed, one minute before the Monitor is due to switch off.

PIP (Picture-in-Picture) Feature

- PIP lets you view 2 different inputs (sources) on your monitor screen at the same time. One source will be large, and the other source will show a smaller inset image.
- Select **RGB** input source before pressing PIP
- This function works only in the following resolution;
  Component (480p, 720p, 1080i), RGB-PC 640x480, 800x600 (only in Vertical frequency 60 Hz)
- With PIP active, not all picture formats can be used for the main/sub picture.

Watching PIP

Press the **PIP** button to show the sub picture.

• Press the PIP button again to turn PIP off.

Selecting a Input Signal Source for the PIP

Press the **PIP INPUT** button in PIP mode.

• Each time you press **PIP INPUT** button, you toggle **Video**, **S-Video** and **Component**.

   Component source only works in 480i mode.

Selecting PIP Sound Options

- Select **RGB** input source before pressing PIP.
- To use this function, connect PC video port to RGB-PC INPUT(VGA/SVGA) socket and connect PC audio port to AUDIO INPUT.
- **Sound Select** is always selected **Sound[M]** regardless of prior sound choice.

1. Press the **MENU** button and then use ▲ / ▼ button to select the ☆ menu.

2. Press the ► button and then use ▲ / ▼ button to select **PIP**.

3. Press the ► button and then use ▲ / ▼ button to select **Sound Select**.

4. Press the ► button and then use ▲ / ▼ to select main image sound (**Sound[M]**) or PIP (inset image) sound (**Sound[S]**).

5. Press the **OK** button.

Language ►	
ARC ►	
Screen Adj. ►	
Orbiter ►	
White Wash ►	► To Set
PIP ►	
Transparency ►	
Set ID ►	
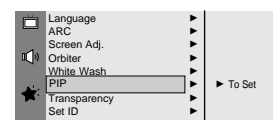
Moving the Sub Picture

Press the **POSITION** button in PIP mode.

• Each press of the **POSITION** button will change the position of the sub picture on the screen clockwise.

18

External Control Device Setup

- Connect the RS-232C input jack to an external control device (such as a computer or an A/V control system) and control the Monitor's functions externally.
- Connect the serial port of the control device to the RS-232C jack on the Monitor back panel.
- RS-232C connection cables are not supplied with the Monitor.
- The Monitor remote control and front panel controls (except main power) will not be functional if the Monitor is controlled by a PC computer or other external device.
- When you connect a control (RS-232C) cable to this monitor, use control cable attached the ferrite core. If you do not do this, this monitor will not conform to mandatory CISPR22 (EN55022) standards.

Type of connector; D-Sub 9-pin male

No.	Pin name
1	No connection
2	RXD (Receive data)
3	TXD (Transmit data)
4	DTR (DTE side ready)
5	GND
6	DSR (DCE side ready)
7	RTS (Ready to send)
8	CTS (Clear to send)
9	No Connection
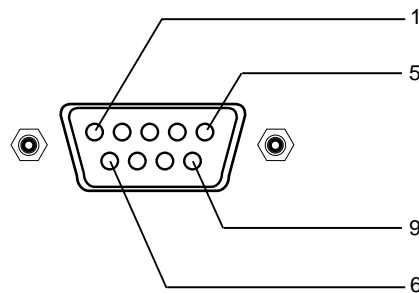
* Use a null modem cable.
  Wire the 7-Wire cable so that each pair of data lines cross between the two devices. These data line pairs are RXD (Receive data) and TXD (Transmit data), DTR (DTE side ready) and DSR (DCE side ready), and RTS (Ready to send) and CTS (Clear to send).
  When using the 3-Wire cable connected to RXD, TXD and GND; Pin No. 4 (DTR) and Pin No. 6 (DSR) must be connected to the monitor. (The cable must be disconnected from the Monitor to be able to use the remote control and Monitor front panel controls.)
* With the RS-232 input connected, the Monitor cannot be controlled by both an external control device and the remote control at the same time. The Monitor can only be controlled by either the remote control or the external control device.

RS-232C configurations

7-wire configuration
(Standard RS-232C cable)

	PC			PDP	
RXD	2			3	TXD
TXD	3			2	RXD
GND	5			5	GND
DTR	4			6	DSR
DSR	6			4	DTR
RTS	7			8	CTS
CTS	8			7	RTS
	DB 9			DB 9	

Control line

3-wire configuration
(Not standard)

	PC			PDP	
RXD	2			3	TXD
TXD	3			2	RXD
GND	5			5	GND
DTR	4			4	DTR
DSR	6			6	DSR
RTS	7			7	RTS
CTS	8			8	CTS
	DB 9			DB 9	
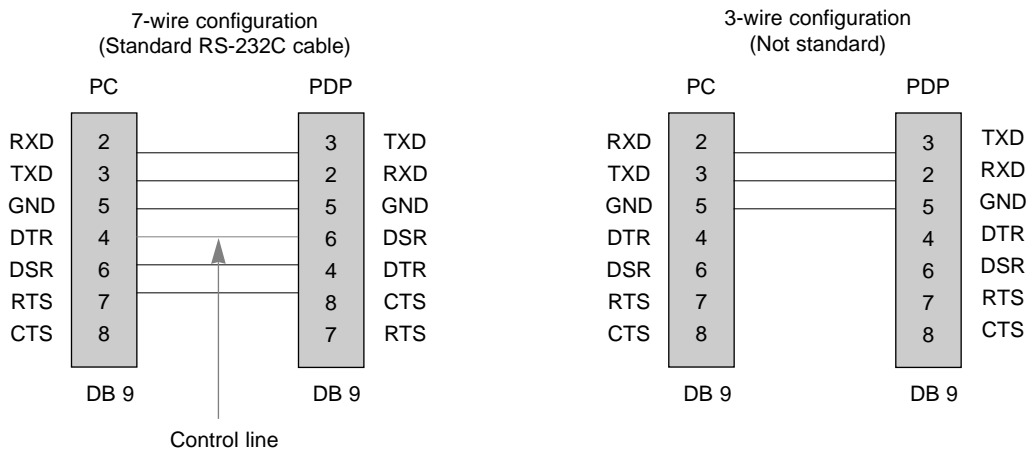
Set ID

- Use this function to specify a monitor ID number.

1. Press the **MENU** button and then use ▲ / ▼ button to select the ☆: menu.

2. Press the ► button and then use ▲ / ▼ button to select *Set ID*.

3. Use the ◄ / ► button to adjust *Set ID* to choose the desired monitor ID number.

    • The adjustment range of *Set ID* is 1 ~ 99.
    • Refer to 'Real Data Mapping 1'. See page 22.

▢ Language	►	
ARC	►	
Screen Adj.	►	
◁▷ Orbiter	►	
White Wash	►	
PIP	►	
★ Transparency	►	
Set ID	►	1

- The RS-232C input jack is used to control the Monitor's functions using an external contro device.

Communication Parameters

• Baud rate : 115200 bps (UART)
• Data length : 8 bits
• Parity : None
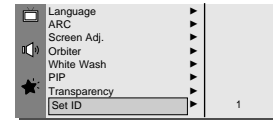• Stop bit : 1 bit
• Communication code : ASCII code

* If the command interval is interrupted for more than 4 seconds, only Command 1 will be recognized. Be careful when using the power command.

Command Reference List

	COMMAND 1	COMMAND 2	DATA (Hexadecimal)
01. Power	k	a	00 ~ 01
02. Input Select	k	b	00 ~ 03
03. Aspect Ratio	k	c	00 ~ 02
04. Screen mute	k	d	00 ~ 01
05. Volume mute	k	e	00 ~ 01
06. Volume control	k	f	00 ~ 64
07. Contrast	k	g	00 ~ 64
08. Brightness	k	h	00 ~ 64
09. Color	k	i	00 ~ 64
10. Tint	k	j	00 ~ 64
11. Sharpness	k	k	00 ~ 64
12. OSD select	k	l	00 ~ 01
13. Remote control lock mode	k	m	00 ~ 01
14. PIP	k	n	00 ~ 01
15. Sound input select	k	p	00 ~ 01
16. PIP position	k	q	00 ~ 03
17. Treble	k	r	00 ~ 64
18. Bass	k	s	00 ~ 64
19. Balance	k	t	00 ~ 64
20. Color temperature	k	u	00 ~ 03
21. R adjustment	k	v	00 ~ 64
22. Green adjustment	k	w	00 ~ 64
23. Blue adjustment	k	$	00 ~ 64
24. PIP input source	k	y	00 ~ 03

Transmission/Receiving Protocol

Transmission

[Command1][Command2][ ][Set ID][ ][Data][Cr]

* [Command 1]   : k
* [Command 2]   : To control PDP set.
* [Set ID]   : You can adjust the set ID to choose desired monitor ID number in special menu.
             Adjustment range is 1 ~ 99.
             When selecting Set ID '0', every con-nected PDP set is controlled.
* [DATA]   : To transmit command data. Transmit 'FF' data to read status of command.
* [Cr]   : Carriage Return ASCII code '0x0D'
* [ ]   : ASCII code 'space (0x20)'

OK Acknowledgement

[Command2][ ][Set ID][ ][OK][Data][x]

* The Monitor transmits ACK (acknowledgement) based on this format when receiving normal data. At this time, if the data is data read mode, it indicates present status data. If the data is data write mode, it returns the data of the PC computer.

Error Acknowledgement

[Command2][ ][Set ID][ ][NG][Data][x]

* The Monitor transmits ACK (acknowledgement) based on this format when receiving abnormal data from non-viable functions or communication errors.

01. Power (Command:a)

▶ To control Power On/Off of the Monitor.

Transmission

[k][a][ ][Set ID][ ][Data][Cr]

Data 0 : Power Off   1   : Power On

Acknowledgement

[a][ ][Set ID][ ][OK][Data][x]

Data 0 : Power Off   1   : Power On

▶ To show Power On/Off.

Transmission

[k][a][ ][Set ID][ ][FF][Cr]

Data 0 : Power Off   1   : Power On

Acknowledgement

[a][ ][Set ID][ ][OK][Data][x]

Data 0 : Power Off   1   : Power On

* In like manner, if other functions transmit 'FF' data based on this format, Acknowledgement data feed back presents status about each function.

02. Input select (Command:b) (Main picture input)

▶ To select input source for the Monitor.
   You can also select an input source using the INPUT SELECT button on the Monitor's remote control.

Transmission

[k][b][ ][Set ID][ ][Data][Cr]

Data 0 : RGB   2   : Video
      1 : Component   3   : S-Video

Acknowledgement

[b][ ][Set ID][ ][OK][Data][x]

Data 0 : RGB   2   : Video
      1 : Component   3   : S-Video

03. Aspect Ratio (Command:c) (Main picture format)

▶ To adjust the screen format.
   You can also adjust the screen format using the ARC (Aspect Ratio Control) button on remote control or in the Special menu.

Transmission

[k][c][ ][Set ID][ ][Data][Cr]

Data 0 : Wide screen (16:9)
      1 : Normal screen (4:3)
      2 : Full screen (Zoom)

Acknowledgement

[c][ ][Set ID][ ][OK][Data][x]

Data 0 : Wide screen (16:9)
      1 : Normal screen (4:3)
      2 : Full screen (Zoom)

04. Screen mute (Command:d)

▶ To select screen mute on/off.

Transmission

[k][d][ ][Set ID][ ][Data][Cr]

Data 0 : Screen mute on (Picture off)
      1 : Screen mute off (Picture on)

Acknowledgement

[d][ ][Set ID][ ][OK][Data][x]

Data 0 : Screen mute on (Picture off)
      1 : Screen mute off (Picture on)

05. Volume mute (Command:e)

▶ To control volume mute on/off.
   You can also adjust mute using the MUTE button on remote control.

Transmission

[k][e][ ][Set ID][ ][Data][Cr]

Data 0 : Volume mute on (Volume off)
      1 : Volume mute off (Volume on)

Acknowledgement

[e][ ][Set ID][ ][OK][Data][x]

Data 0 : Volume mute on (Volume off)
      1 : Volume mute off (Volume on)

06. Volume control (Command:f)

▶ To adjust volume.
   You can also adjust volume with the volume buttons on remote control.

Transmission

[k][f][ ][Set ID][ ][Data][Cr]

Data   Min : 00 ~ Max : 64
       * Refer to 'Real data mapping1'.

Acknowledgement

[f][ ][Set ID][ ][OK][Data][x]

Data   Min : 00 ~ Max : 64

07. Contrast (Command:g)

▶ To adjust screen contrast.
  You can also adjust contrast in the Video menu.

Transmission

[k][g][ ][Set ID][ ][Data][Cr]

Data   Min : 00 ~ Max : 64
      * Refer to 'Real data mapping1'.

Acknowledgement

[g][ ][Set ID][ ][OK][Data][x]

Data   Min : 00 ~ Max : 64

08. Brightness (Command:h)

▶ To adjust screen brightness.
  You can also adjust brightness in the Video menu.

Transmission

[k][h][ ][Set ID][ ][Data][Cr]

Data   Min : 00 ~ Max : 64
      * Refer to 'Real data mapping1' as shown below.

Acknowledgement

[h][ ][Set ID][ ][OK][Data][x]

Data   Min : 00 ~ Max : 64

09. Color (Command:i)

▶ To adjust the screen color.
  You can also adjust color in the Video menu.

Transmission

[k][i][ ][Set ID][ ][Data][Cr]

Data   Min : 00 ~ Max : 64
      * Refer to 'Real data mapping1' as shown below.

Acknowledgement

[i][ ][Set ID][ ][OK][Data][x]

Data   Min : 00 ~ Max : 64

10. Tint (Command:j)

▶ To adjust the screen tint.
  You can also adjust tint in the Video menu.

Transmission

[k][j][ ][Set ID][ ][Data][Cr]

Data   Red : 00 ~ Green : 64
      * Refer to 'Real data mapping1' as shown right.

Acknowledgement

[j][ ][Set ID][ ][OK][Data][x]

Data   Red : 00 ~ Green : 64

11. Sharpness (Command:k)

▶ To adjust the screen sharpness.
  You can also adjust sharpness in the Video menu.

Transmission

[k][k][ ][Set ID][ ][Data][Cr]

Data   Min : 00 ~ Max : 64
      * Refer to 'Real data mapping1' as shown below.

Acknowledgement

[k][ ][Set ID][ ][OK][Data][x]

Data   Min : 00 ~ Max : 64

12. OSD select (Command:l)

▶ To select OSD (On Screen Display) on/off.

Transmission

[k][l][ ][Set ID][ ][Data][Cr]

Data   0 : OSD off
       1 : OSD on

Acknowledgement

[l][ ][Set ID][ ][OK][Data][x]

Data   0 : OSD off
       1 : OSD on

13. remote control lock mode (Command:m)

▶ To lock the front panel controls on the monitor and
  remote control.

Transmission

[k][m][ ][Set ID][ ][Data][Cr]

Data   0 : off
       1 : on

Acknowledgement

[m][ ][Set ID][ ][OK][Data][x]

Data   0 : off
       1 : on

* In not use the remote control, you can set this mode.

* Real data mapping 1

0 : Step 0
⋮
A : Step 10 (SET ID 10)
⋮
F : Step 15 (SET ID 15)
10 : Step 16 (SET ID 16)
⋮
64 : Step 100

* Real data mapping 2

0 : -10
5 : -9
A : -8
⋮
2D: -1
32: 0
37: +1
⋮
5F: +9
64: +10

14. PIP (Command:n)

► To control the PIP (Picture In picture).
You can also control the PIP using the PIP button on the remote control or in the Special menu.

Transmission

[k][n][ ][Set ID][ ][Data][Cr]

Data 0 : PIP off
     1 : PIP on

Acknowledgement

[n][ ][Set ID][ ][OK][Data][x]

Data 0 : PIP off
     1 : PIP on

15. SoundInput Select (Command:p)

► To select main or sub(inset) sound for PIP picture.
You can also select sound in PIP on the Special menu.

Transmission

[k][p][ ][Set ID][ ][Data][Cr]

Data 0 :   Main picture sound
     1 :   Sub picture sound

Acknowledgement

[p][ ][Set ID][ ][OK][Data][x]

Data 0 :   Main picture sound
     1 :   Sub picture sound

16. PIP Position (Command:q)

► To select sub picture position for PIP.
You can also adjust the sub picture position using the POSITION on the remote control or in the Special menu.

Transmission

[k][q][ ][Set ID][ ][Data][Cr]

Data 0 : Right down on screen
     1 : Left down on screen
     2 : Left up on screen
     3 : Right up on screen

Acknowledgement

[q][ ][Set ID][ ][OK][Data][x]

Data 0 : Right down on screen
     1 : Left down on screen
     2 : Left up on screen
     3 : Right up on screen

17. Treble (Command:r)

► To adjust treble.
You can also adjust treble in the Audio menu

Transmission

[k][r][ ][Set ID][ ][Data][Cr]

Data   Min : 00 ~ Max : 64
      * Refer to 'Real data mapping1'. See page 22.

Acknowledgement

[r][ ][Set ID][ ][OK][Data][x]

Data   Min : 00 ~ Max : 64

18. Bass (Command:s)

► To adjust bass.
You can also adjust bass in the Sound menu.

Transmission

[k][s][ ][Set ID][ ][Data][Cr]

Data   Min : 00 ~ Max : 64
      * Refer to 'Real data mapping1'. See page 22.

Acknowledgement

[s][ ][Set ID][ ][OK][Data][x]

Data   Min : 00 ~ Max : 64

19. Balance (Command:t)

► To adjust balance.
You can also adjust balance in the Sound menu.

Transmission

[k][t][ ][Set ID][ ][Data][Cr]

Data   Min : 00 ~ Max : 64
      * Refer to 'Real data mapping1'. See page 22.

Acknowledgement

[t][ ][Set ID][ ][OK][Data][x]

Data   Min : 00 ~ Max : 64

20. Color Temperature (Command:u)

► To adjust Color Temperature.
You can also adjust CSM in the Video menu.

Transmission

[k][u][ ][Set ID][ ][Data][Cr]

Data   o: Normal   1: Cool   2: Warm   3: User

Acknowledgement

[u][ ][Set ID][ ][OK][Data][x]

Data   o: Normal   1: Cool   2: Warm   3: User

21. Red Adjustment (Command:v)

▶ To adjust red in color temperature.

Transmission

[k][v][ ][Set ID][ ][Data][Cr]

Data　Min : 00 ~ Max : 64
  ∗ Refer to 'Real data mapping2'. See page 22.

Acknowledgement

[v][ ][Set ID][ ][OK][Data][x]

Data　Min : 00 ~ Max : 64

22. Green Adjustment (Command:w)

▶ To adjust green in green temperature.

Transmission

[k][w][ ][Set ID][ ][Data][Cr]

Data　Min : 00 ~ Max : 64
  ∗ Refer to 'Real data mapping2'. See page 22.

Acknowledgement

[w][ ][Set ID][ ][OK][Data][x]

Data　Min : 00 ~ Max : 64

23. Blue Adjustment (Command:$)

▶ To adjust blue in green temperature.

Transmission

[k][$][ ][Set ID][ ][Data][Cr]

Data　Min : 00 ~ Max : 64
  ∗ Refer to 'Real data mapping2'. See page 22.

Acknowledgement

[$][ ][Set ID][ ][OK][Data][x]

Data　Min : 00 ~ Max : 64

24. PIP input select (Command:y)

▶ To select input source for sub picture in PIP mode.

Transmission

[k][y][ ][Set ID][ ][Data][Cr]

Data　1 : Component
  2 : Video
  3 : S-Video

Acknowledgement

[y][ ][Set ID][ ][OK][Data][x]

Data　1 : Component
  2 : Video
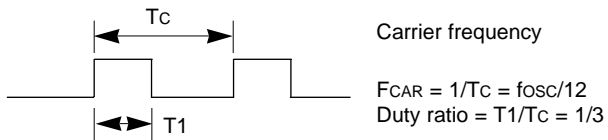 3 : S-Video

IR CODE (NEC format)

How to connect

▶ Connect your wired remote control to remote control jack of the monitor.
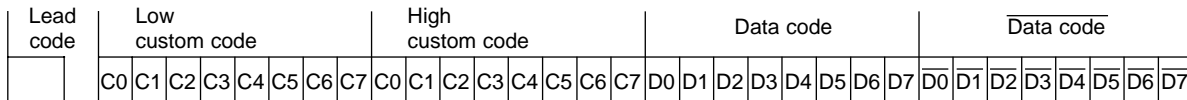
Remote Control IR Code (NEC Format)

▶ **Output waveform**

Single pulse, modulated with 37.917KHz signal at 455KHz
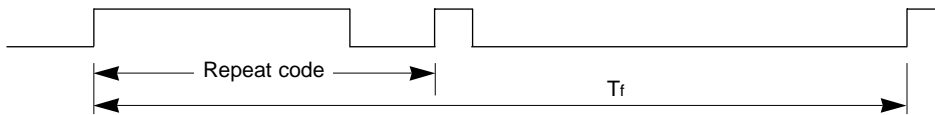
Carrier frequency

$F_{CAR} = 1/T_C = f_{OSC}/12$
Duty ratio $= T_1/T_C = 1/3$

▶ **Configuration of flame**

• 1st flame

Lead code	Low custom code								High custom code								Data code								$\overline{\text{Data code}}$							
	C0	C1	C2	C3	C4	C5	C6	C7	C0	C1	C2	C3	C4	C5	C6	C7	D0	D1	D2	D3	D4	D5	D6	D7	D0	D1	D2	D3	D4	D5	D6	D7

• Repeat flame

Repeat code

T_f

▶ **Lead code**

9 ms

4.5 ms

▶ **Repeat code**

0.55 ms

9 ms

2.25 ms

► **Bit description**

- Bit "0"

0.56 ms

1.12 ms

- Bit "1"

0.56 ms

2.24 ms
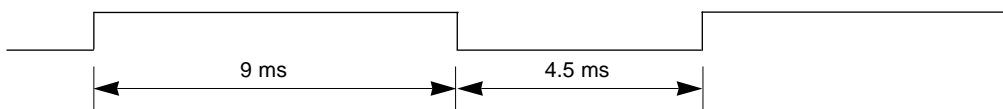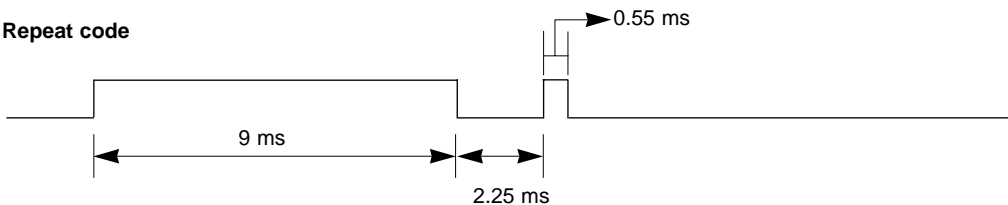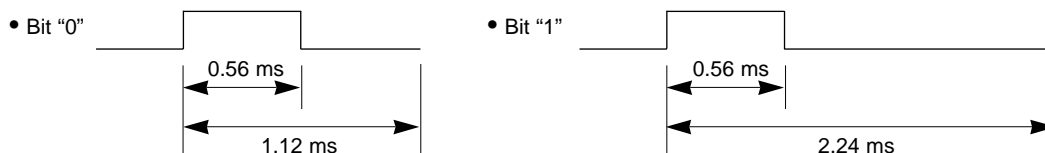
► **Flame interval : Tf**

The transmitted waveform as long as a key is depressed.

Tf

Tf

Tf=108ms @455KHz
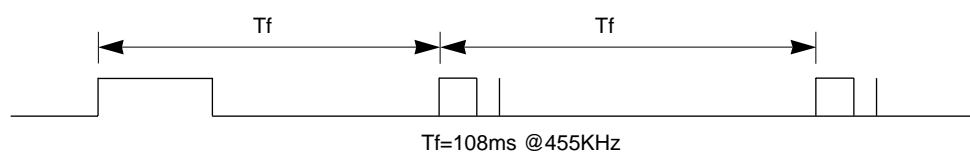
Code (Hexa)	Function	Note
00H	UP (▲)	R/C Button
01H	DOWN (▼)	R/C Button
02H	VOL+ (►)	R/C Button
03H	VOL- (◄)	R/C Button
08H	POWER	R/C Button (Power On/Off)
C4H	POWER ON	Discrete (Only Power On)
C5H	SYSTEM OFF	Discrete (Only System Off)
09H	MUTE	R/C Button
0BH	INPUT SELECT	R/C Button
98H	RGB	Discrete (Input RGB & Power On)
5AH	VIDEO	Discrete (Input VIDEO & Power On)
51H	S-VIDEO	Discrete (Input S-VIDEO & Power On)
BFH	COMPONENT	Discrete (Input COMPONENT & Power On)
0EH	SLEEP	R/C Button
1BH or 44H	OK (■)	R/C Button
42H	MENU	R/C Button
47H	SSM	R/C Button
4DH	PSM	R/C Button
60H	PIP	R/C Button
61H	PIP INPUT	R/C Button
62H	(PIP)POSITION	R/C Button
65H or BCH	STILL	R/C Button
79H	ARC	R/C Button
77H	ARC (16: 9)	Discrete (Only 16:9 mode)
76H	ARC (4 : 3)	Discrete (Only 4:3 mode)
AFH	ARC (ZOOM)	Discrete (Only ZOOM mode)

Maintenance

- Early malfunctions can be prevented. Careful and regular cleaning can extend the amount of time you will have your new Monitor. Be sure to turn the power off and unplug the power cord before you begin any cleaning.

Cleaning the Screen

1. Here's a great way to keep the dust off your screen for a while. Wet a soft cloth in a mixture of lukewarm water and a little fabric softener or dish washing detergent. Wring the cloth until it's almost dry, and then use it to wipe the screen.

2. Make sure the excess water is off the screen, and then let it air-dry before you turn on your Monitor.

Cleaning the Cabinet

To remove dirt or dust, wipe the cabinet with a soft, dry, lint-free cloth.
Please be sure not to use a wet cloth.

Extended Absence

If you leave your Monitor dormant for a long time (such as a vacation), it's a good idea to unplug the power cord to protect against possible damage from lightning or power surges.

Troubleshooting Checklist

No picture & No sound	• Check whether the Monitor is turned on. • Power cord inserted into wall outlet? • Plug another product's power cord into the wall outlet where the Monitor's power cord was plugged in.

Picture OK & No sound	• Press the **VOLUME** (▶) button. • Sound muted? Press **MUTE** button.

The remote control doesn't work	• Check to see if there is any object between the Plasma Display and the remote control causing obstruction. • Check to see if the batteries are installed with the correct polarities. (Refer to p.10) • Install new batteries. (Refer to p.10)

No or Poor color or Poor picture	• Select *Colour* in the VIDEO menu and press the **VOLUME** (▶) button. (Refer to p.13) • Keep a certain distance between the Monitor and the VCR. • Activate any function to restore the brightness of the picture. (If still picture is on the screen for more than 5 minutes, the screen gets dark.)

No output from one of the speakers	• Adjust *Balance* in the AUDIO menu. (Refer to p.14)

Strange sound from the Monitor	• Typical sound due to normal Monitor operation, Monitor is not faulty.

Note

Note

Product specifications

MODEL	MU-40PA15/B/G/K/S
Width (inches)	36.6
Height (inches)	28
Depth (inches)	3.1
Weight (pounds)	71.8
Power requirement	AC 120V, 60Hz
Resolution	640 x 480 (Dot)
Color	16,770,000 (256 steps of each R, G and B)

- This product specifications above can be changed without notice for quality improvement.