

## AGENCY REGULATORY NOTICE

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### FCC Compliance Statement

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 using one or more of the following measures:

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

**Caution:** Changes or modifications not expressly approved by the party responsible for compliance could void the user's (or your) authority to operate the equipment. Only peripherals (digital input/output devices, terminals, printers, etc.) certified to comply with the Class B limits may be attached to this monitor. Operation with non-certified peripherals is likely to result in interference to radio and TV reception.

Only shielded Signal Cables may be used with this System.

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**Canadian  
D.O.C.  
Notice**

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

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

**CE  
Conformity  
Notice**



Products with the "CE" Marking comply with the EMC Directive(89/336/EEC) and LOW VOLTAGE Directive (73/23/EEC) issued by the Commission of the European Community.

Compliance with these directives implies conformity to the following European Norms :

EN 55022 ; Radio Frequency Interference  
EN 50082-1:1992 ; Electromagnetic Immunity  
EN 60555-2 ; Power Line Harmonics  
EN 60555-3 ; Voltage Fluctuations  
EN 60950 ; Product Safety

## Table of Contents

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<b>Introduction</b>	
Features .....	A1
<b>Monitor Registration</b>	
Notice.....	A2
Trademark Acknowledgments .....	A2
<b>Important Precautions</b>	
On Safety .....	A3
On Installation .....	A4
On Cleaning.....	A4
On Repacking .....	A4
<b>Connecting the Monitor</b> .....	A5
<b>Location and Function of Controls</b>	
Front View .....	A6
Rear View .....	A6
<b>Control Panel Function</b>	
Front Panel Controls .....	A7
OSD Button .....	A7
$\Delta \nabla / \triangleleft \triangleright$ Buttons.....	A7
SET Button.....	A7
Power Button .....	A7
Power Indicator .....	A7
<b>On Screen Display (OSD) Control Adjustment</b> .....	A8
<b>On Screen Display (OSD) Selection and Adjustment</b> .....	A9
<b>Video Memory Modes</b>	
Display Modes(Resolution) .....	A12
User Modes.....	A12
Recalling Display Modes.....	A12
<b>Energy Saving Design</b>	
Power Consumption.....	A13
<b>MPR II, Self Diagnostics and DDC</b>	
Low Radiation Compliance (MPR II).....	A14
Self Diagnostics .....	A14
DDC (Display Data Channel) .....	A14
<b>Troubleshooting and Service</b>	
Troubleshooting .....	A15
Service .....	A16
<b>Specifications</b>	
Specifications .....	A17

## **Introduction**

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Thank you for purchasing a high resolution monitor. It will give you high resolution performance and convenient reliable operation in a variety of video operating modes.

### **Features**

- The monitor is a 15 inches (13.8 inches viewable ) intelligent, microprocessor based monitor compatible with most analog RGB (Red, Green, Blue) display standards, including IBM PC®, PS/2®, Apple®, Macintosh®, Centris®, Quadra®, and Macintosh II family.
- The monitor provides crisp text and vivid color graphics with VGA, SVGA, XGA, and VESA Ergonomic modes (non-interlaced), and most Macintosh compatible color video cards when used with the appropriate adaptor. The monitor's wide compatibility makes it possible to upgrade video cards or software without purchasing a new monitor.
- Digitally controlled auto-scanning is done with the microprocessor for horizontal scan frequencies between 30 and 70kHz, and vertical scan frequencies between 50-160Hz. The microprocessor-based intelligence allows the monitor to operate in each frequency mode with the precision of a fixed frequency monitor.
- The microprocessor-based digital controls allow you to conveniently adjust a variety of image controls by using the OSD (On Screen Display).
- This monitor is capable of producing a maximum horizontal resolution of 1280 dots and a maximum vertical resolution of 1024 lines. It is well suited for CAD work and sophisticated windowing environments.
- For low cost of monitor operation, this monitor is certified as meeting the EPA Energy Star requirements, and utilizes the VESA Display Power Management Signalling (DPMS) protocol for power saving during non-use periods.

## Monitor Registration

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The model and serial numbers are found on the rear of this unit. These numbers are unique to this unit and not available to others. You should record requested information here and retain this guide as a permanent record of your purchase. Staple your receipt here.

Date of Purchase : \_\_\_\_\_  
Dealer Purchased From : \_\_\_\_\_  
Dealer Address : \_\_\_\_\_  
Dealer Phone No. : \_\_\_\_\_  
Model No. : \_\_\_\_\_  
Serial No. : \_\_\_\_\_

### Notice

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### Trademark Acknowledgments

**LG** is a trademark of **LG Electronics Inc.**

**IBM** is a registered trademark and **VGA** is a trademark of International Business Machines Corporation.

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**Warning** : To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.

**Avertissement** : Ne pas placer cet appareil dans un endroit humide. Cela peut entraîner un incendie ou une décharge électrique.

## Important Precautions

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This unit has been engineered and manufactured to assure your personal safety, but improper use can result in potential electrical shock or fire hazard. In order not to defeat the safeguards incorporated in this monitor, observe the following basic rules for its installation, use, and servicing. Also follow all warnings and instructions marked directly on your monitor.

### On Safety

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Use only the power cord supplied with the unit. In case you use another power cord, make sure that it is certified by the applicable national standards if not being provided by the supplier.

If the power cable is faulty in any way, please contact the manufacturer or the nearest authorized repair service provider for a replacement.

Operate the monitor only from a power source indicated in the specifications of this manual or listed on the monitor. If you are not sure what type of power supply you have in your home, consult with your dealer.

Overloaded AC outlets and extension cords are dangerous. So are frayed power cords and broken plugs. They may result in a shock or fire hazard. Call your service technician for replacement.

### Do not Open the Monitor

- There are no user serviceable components inside.
- There are Dangerous High Voltages inside, even when the power is OFF.
- Contact your dealer if the monitor is not operating properly.

### To Avoid Personal Injury :

- Do not place the monitor on a sloping shelf unless properly secured.
- Use only a stand recommended by the manufacturer.
- Do not try to roll a stand with small casters across thresholds or deep pile carpets.

### To Prevent Fire or Hazards:

- Always turn the monitor OFF if you leave the room for more than a short period of time. Never leave the monitor ON when leaving the house.

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- Keep children from dropping or pushing objects into the monitor's cabinet openings. Some internal parts carry hazardous voltages.
  - Do not add accessories that have not been designed for this monitor.
  - During a lightning storm or when the monitor is to be left unattended for an extended period of time, unplug it from the wall outlet.
  - Do not bring magnetic devices such as magnets or motors near the picture tube.
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### **On Installation**

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Do not allow anything to rest upon or roll over the power cord, and do not place the monitor where the power cord is subject to damage.

Do not use this monitor near water such as near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool.

Monitors are provided with ventilation openings in the cabinet to allow the release of heat generated during operation. If these openings are blocked, built-up heat can cause failures which may result in a fire hazard. Therefore, NEVER:

- Block the bottom ventilation slots by placing the monitor on a bed, sofa, rug, etc.
  - Place the monitor in a built-in enclosure unless proper ventilation is provided.
  - Cover the openings with cloth or other material.
  - Place the monitor near or over a radiator or heat source.
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### **On Cleaning**

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- Unplug the monitor before cleaning the face of the picture tube.
  - Use a slightly damp (not wet) cloth. Do not use an aerosol directly on the picture tube because overspray may cause electrical shock.
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### **On Repacking**

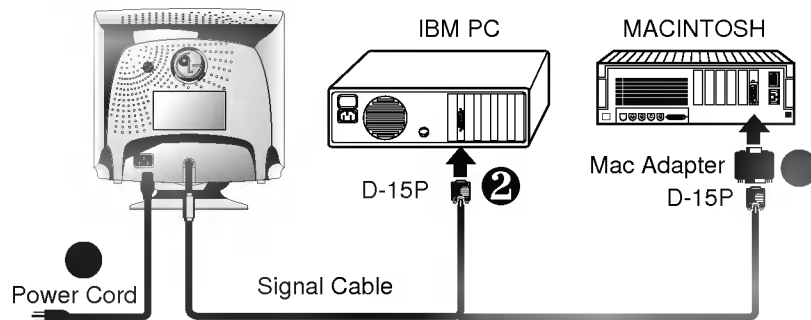
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- Do not throw away the carton and packing materials. They make an ideal container in which to transport the unit. When shipping the unit to another location, repack it in its original material.
-

## Connecting the Monitor

On the back of the monitor are two plug-in connections; one for the AC power cord, and the other for the signal cable from the video card.

- ① Power off both the monitor and PC.
- ② Connect the 15 pin VGA connector of the supplied signal cable to the output VGA video connector on the PC and the matching input connector on the rear of the monitor. The connectors will mate only one way. If you cannot attach the cable easily, turn the connector upside down and try again. When mated, tighten the thumbscrews to secure the connection.
- Locate the appropriate MAC to VGA adapter block at your local computer store. This adapter changes the high density 3 row 15 pin VGA connector to the correct 15 pin 2 row connection to mate with your MAC. Attach the other end of the signal cable to the side of the adapter block with 3 rows.
- Connect the attached adapter block/signal cable to the video output on your MAC.
- One end of the AC power cord is connected into the AC power connector on the back of the monitor. The other end is plugged into a properly grounded three-prong AC outlet.
- ④ Power ON the PC, then the monitor.
- ⑤ If you see the **SELF DIAGNOSTICS** message, check the signal cable and connectors.
- ⑥ After using the system, power OFF the monitor, then the PC.



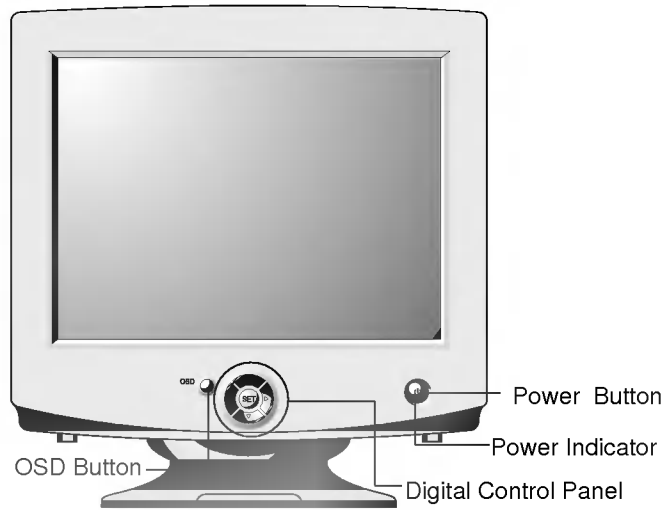
\* **NOTE** : For Apple Macintosh use, a separate plug adapter is needed to change the 15 pin high density (3 row) D-sub VGA connector on the supplied cable to a 15 pin 2 row connector.



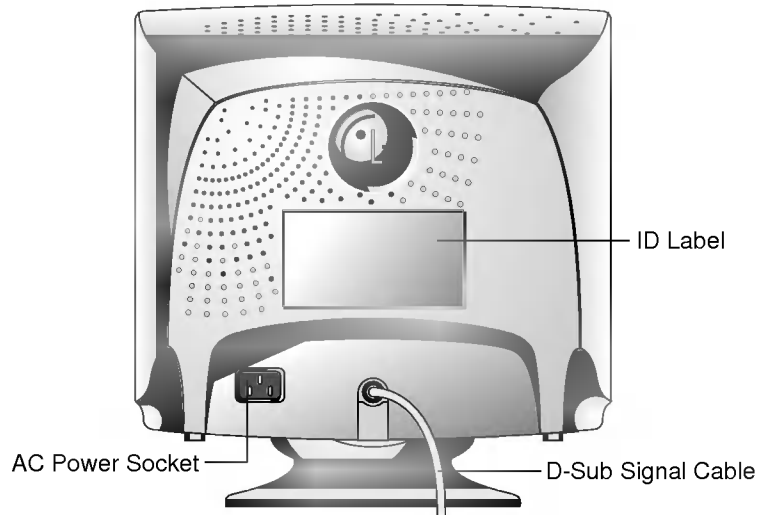
## Location and Function of Controls

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### Front View

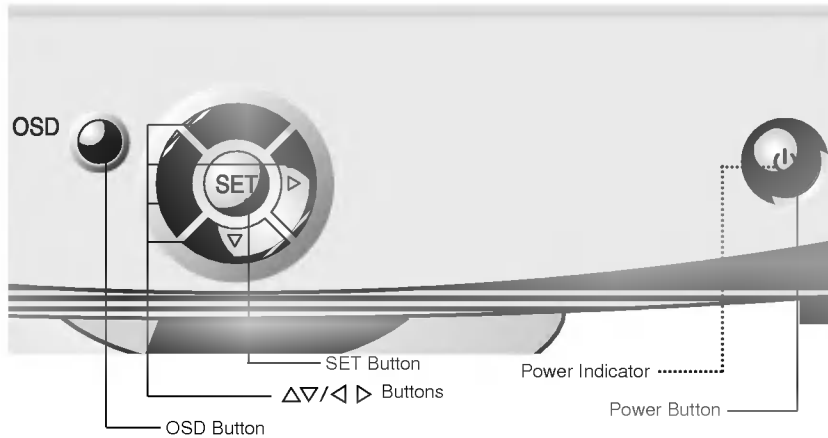






### Rear View



## Control Panel Function

### Front Panel Controls



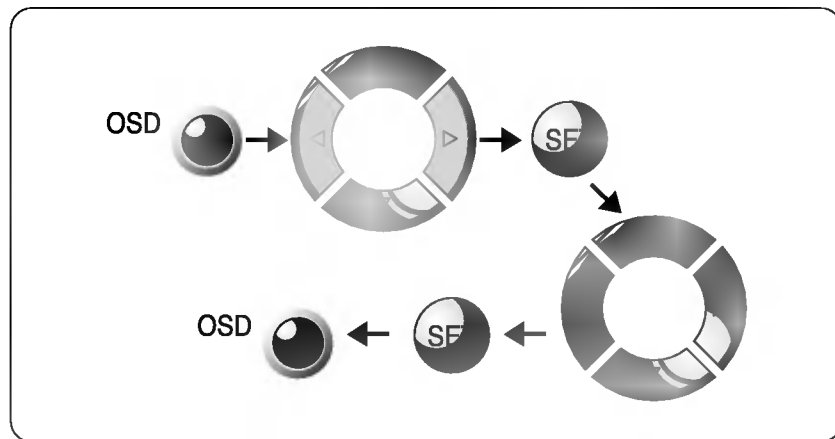
Control	Function
 <b>OSD Button</b>	Use this button to enter or exit the on screen display .
 <b>Δ▽/◀▶ Buttons</b>	Use these buttons to choose or adjust items in the on screen display.
 <b>SET Button</b>	Use this button to enter a selection in the on screen display.
 <b>Power Button</b>	Use this button to turn the monitor on or off.
<b>Power Indicator</b>	The power indicator light is shown in the power button. This indicator lights up green when the monitor operates normally. If the monitor is in DPM (Energy Saving) mode (stand-by/ suspend/power off), this indicator color changes to amber.

## On Screen Display (OSD) Control Adjustment

Making adjustments to the image size, position and operating parameters of the monitor are quick and easy with the On Screen Display Control system, using only the Enter button and Adjustment Control buttons. A quick example is given below to familiarize you with the use of the controls. Following this section is an outline of the available adjustments and selections you can make using the OSD.

**Note** : Allow the monitor to stabilize for at least 30 minutes before making image adjustment.

To make adjustments in the On Screen Display, follow these steps:

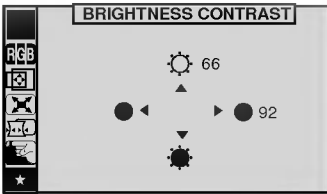
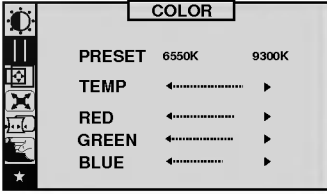
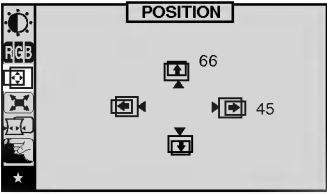


- 1** Press the **OSD Button**, then the main menu of the OSD appears.
- 2** To access a control, use the **Δ** or **∇** **Buttons**. When the icon you want becomes highlighted, press the **SET Button**.
- 3** Use the **Δ∇/◀ ▶** **Buttons** to adjust the item to the desired level.
- 4** Accept the changes by pressing the **SET Button**.
- 5** Exit the OSD by Pressing the **OSD Button**.

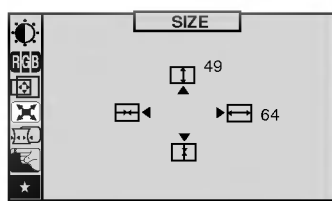
## On Screen Display(OSD) Selection and Adjustment

You were introduced to the procedure of selection and adjusting an item using the OSD system.

Listed below are the icons, icon names, and icon descriptions of the items that are shown on the Menu.

OSD Adjust	Description
 <p>The OSD menu for BRIGHTNESS CONTRAST shows a vertical list of icons on the left. The main area displays 'BRIGHTNESS' with a value of 66 and 'CONTRAST' with a value of 92. Each has a sun-like icon and a slider bar with a central dot.</p>	<p><b>Brightness</b> Used to adjust the brightness of the screen.</p> <p><b>Contrast</b> Adjust the display to the contrast desired.</p>
 <p>The OSD menu for COLOR shows a vertical list of icons on the left. The main area displays 'PRESET' with options 6550K and 9300K, and 'TEMP' with left and right arrows. Below are 'RED', 'GREEN', and 'BLUE' each with a left and right arrow.</p>	<p><b>PRESET 6550K/ 9300K</b> To appear the displays color temperature. 6550K:Slightly reddish white. 9300K:Slightly bluish white.</p> <p><b>TEMP</b> User easily color set without adjustment Red, Green and Blue (R/G/B).</p> <p><b>RED</b> To set your own color levels.</p> <p><b>GREEN</b> To set your own color levels.</p> <p><b>BLUE</b> To set your own color levels.</p>
 <p>The OSD menu for POSITION shows a vertical list of icons on the left. The main area displays 'POSITION' with a value of 66 and '45'. It features four directional arrow icons (up, down, left, right) around a central point.</p>	<p><b>Vertical Position</b> To move image up and down.</p> <p><b>Horizontal Position</b> To move picture image left and right.</p>

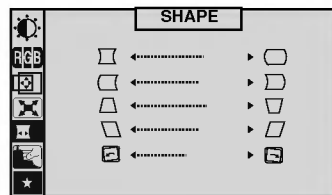
OSD Adjust	Description
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**Vertical Size**  
To adjust image height.



**Horizontal Size**  
To adjust image width.



**Side Pincushion**  
To correct the bowing in and out of the image.



**Side pincushion balance**  
To correct the balance of both sides bowling.



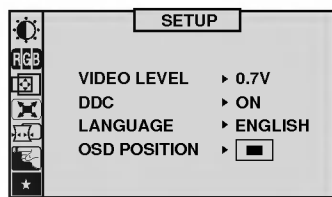
**Trapezoid**  
To correct geometric distortion.



**Parallelogram**  
This control adjusts for a skewing of the screen image.



**Tilt**  
To correct image rotation.

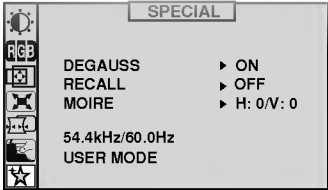


**VIDEO LEVEL** To select input signal Level.(0.7V/1.0V)

**DDC** To select the DDC function.(ON/OFF)

**LANGUAGE** To choose the language in which the control names are displayed.

**OSD POSITION** To adjust position of the OSD window on the screen.

OSD Adjust	Description
 <p>The screenshot shows a vertical menu titled 'SPECIAL' with the following items: DEGAUSS (with a right-pointing arrow), RECALL (with a right-pointing arrow), MOIRE (with a right-pointing arrow), 54.4kHz/60.0Hz, and USER MODE (with a right-pointing arrow). To the left of the text are several small icons representing different OSD functions.</p>	<p><b>DEGAUSS</b> To manually demagnetize the screen which may show some image or color incorrectly.</p> <p><b>RECALL</b> If the monitor is operating in a factory preset mode, this control will reset the image to the factory preset mode. If the monitor is operating in a user mode, this control has no effect.</p> <p><b>MOIRE</b> This item allows you to reduce the moire (Moire is caused by interference Horizontal Scan Line with the periodical dot screen). It is normally <b>OFF</b>(H:0/V:0) The moire adjustments may affect the focus of the screen.</p>

## Video Memory Modes

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The monitor has 31 memory locations for display modes, 6 of which are factory preset to popular video modes.

### ■ Display Modes (Resolution)

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Display Modes (Resolution)	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
VESA 640 x 480	37.50	75
VGA 720 x 400	31.47	70
VESA 800 x 600	46.88	75
VESA 800 x 600	53.67	85
VESA 1024 x 768	68.677	85
VESA 1280 x 1024	63.98	60

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### ■ User Modes

Modes 1-25 are empty and can accept new video data. If the monitor detects a new video mode that has not been present before or is not one of the preset modes, it stores the new mode automatically in one of the empty modes starting with mode 1.

If you use up the 25 blank modes and still have more new video modes, the monitor replaces the information in the user modes starting with mode 1.

### ■ Recalling Display Modes

When your monitor detects a mode it has seen before, it automatically recalls the image settings you may have made the last time you used that mode.

You may, however, manually force a recall of each of the 6 preset modes by pressing the Recall button. All preset modes are automatically recalled as the monitor senses the incoming signal.

The ability to recall the preset modes is dependent on the signal coming from your PC's video card or system. If this signal does not match any of the factory modes, the monitor automatically sets itself to display the image.

## Energy Saving Design

This monitor complies with the EPA's Energy Star program, which is a program designed to have manufacturers of computer equipment build circuitry into their products to reduce power consumption during time of non-use.

This monitor also goes into its energy saving mode if you exceed the monitor's operating limits, such as the maximum resolution of 1280x1024 or the frequency refresh rates of 30-70kHz horizontal or 50-160Hz vertical. When this monitor is used with a Green or EPA Energy Star PC, or a PC with a screen blanking software following the VESA Display Power Management Signalling (DPMS) protocol, this monitor can conserve significant energy by reducing power consumption during periods of non-use. When the PC goes into the energy saving mode, the monitor will go into a suspended operation state, indicated by the Power LED light changing from a green color to an amber color. After an extended period in the suspended mode, the monitor will then enter a semi-OFF mode to conserve more energy. In the semi-OFF mode or DPMS OFF mode as we call it in our specifications, the Power LED will still show an amber color. When you awaken your PC by hitting a key or moving the mouse, the monitor will also awaken to its normal operating mode, indicated by the green Power LED light. By following these conventions, the power consumption can be reduced to the following levels:

### Power Consumption

	Hori.	Verti.		Power	
Normal(Max.)	On	On	Normal	≤100W	Green
Stand-by	Off	On	Off	≤ 15W	Amber
Suspend	On	Off	Off	≤ 15W	Amber
Off	Off	Off	Off	≤ 5W	Amber



## Low Radiation Compliance (MPR II)

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This monitor meets one of the strictest guidelines available today for low radiation emissions, offering the user extra shielding and an antistatic screen coating. These guidelines, set forth by a government agency in Sweden, limit the amount of emission allowed in the Extremely Low Frequency (ELF) and Very Low Frequency (VLF) electromagnetic range.

## Self Diagnostics



This monitor can sense when there is a possible problem present, and informs you of this condition by presenting you with a **SELF DIAGNOSTICS** OSD. This OSD may pop up when it is On but no signal is detected. In this case the message **CHECK SIGNAL CABLE** will be high lighted, alerting you to check the signal cable connections.

## DDC (Display Data Channel)

DDC is a communication channel over which the monitor automatically informs the host system (PC) about its capabilities. This monitor has two DDC function; DDC2B carries out uni-directional communication between the PC and the monitor. Under these situations, the PC sends display data to the monitor but not commands to control the monitor settings.

**Note** : PC must support DDC functions to do this.

If your monitor is displaying a mono chrome image or the wrong resolution, select the DDC OFF function.

## Troubleshooting

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### Self diagnostics message.

- The signal cable is not connected.
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### OUT OF FREQUENCY message appears.

- The frequency of the sync input is outside the operating range of the monitor.

\*Horizontal Frequency: 30-70kHz

\*Vertical Frequency: 50-160Hz

Use the graphics board's utility software to change the frequency setting (Refer to the manual for graphics board).

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### The power LED is illuminated amber.

- Display power management mode.
  - There is no sync signal.
  - The signal cable is not fastened securely.
  - Check the computer power and graphics adapter configuration.
- 

### The image on the SCREEN is not centered, or too small, or not a rectangle shape.

- Image adjustment not been done yet in the current operating mode. Use the **OSD**, **SET** and  $\Delta \nabla / \triangleleft \triangleright$  buttons to set the image to your liking.
- 

### The monitor doesn't enter the power saving off mode (Amber).

- Computer video signal is not VESA DPMS standard. Either the PC or the video controller card is not using the VESA DPMS power management function.

**Note** : If the power indicator(LED) light is blinking amber, may result in abnormal condition of the monitor. Then press a power button on the front panel control and call your service technician for more information.

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## **Service**

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Unplug the monitor from the wall outlet and refer servicing to qualified service personnel when :

- The power cord or plug is damaged or frayed.
- Liquid has been spilled into the monitor.
- The monitor has been exposed to rain or water.
- The monitor does not operate normally following the operating instructions. Adjust only those controls that are covered in the operating instructions. An improper adjustment of other controls may result in damage and often requires extensive work by a qualified technician to restore the monitor to normal operation.
- The monitor has been dropped or the cabinet has been damaged.
- The monitor exhibits a distinct change in performance.
- Snapping or popping from the monitor is continuous or frequent while the monitor is operating. It is normal for some monitors to make occasional sounds when being turned on or off, or when changing video modes.

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Do not attempt to service the monitor yourself, as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

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## Specifications

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### Picture tube

- 15 inches (13.8 inches viewable) FST, 90° deflection
- 0.28 mm dot pitch, Non-glare, Darkface
- AR-ASC (Anti-Reflective Anti-Static Coating)

### Sync Input

- Horizontal Frequency : 30 - 70kHz (Automatic)
- Vertical Frequency : 50 - 160Hz (Automatic)
- Input Form : Separate, Positive/Negative
- Signal input : 15 pin D-Sub Connector

### Video Input

- Input Form : Separate, RGB Analog, 0.7 Vp-p/75 ohm, Positive
- Resolution : 1280 x 1024, 60Hz

### Power Input

- 100-240VAC 50/60Hz 1.5A

### Dimensions (with tilt/swivel stand)

- Width : 360 mm/14.2 inches
- Depth : 391.5 mm/15.4 inches
- Height : 389.5 mm/15.3 inches

### Weight

- Net : 12.6kg (27.78lbs)

### Environment

- Operating condition
  - Temperature : 10°C to 35°C
  - Humidity : 10% to 90% non-condensing
- Storage condition
  - Temperature : 0°C to 60°C
  - Humidity : 5% to 90% non-condensing

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