

**ATTACHMENT J – USER’S MANUAL**

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# FCC Warning

## Class B Computing Device

### Information to the User

This equipment has been tested and found to comply with the limits for a class B digital device pursuant to part 15 of 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 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 and for additional suggestions.

The user may find the following booklet prepared by the Federal Communications Commission helpful: "How to Identify and Resolve Radio-TV Interference Problems." This booklet is available from the U.S. Government Printing Office, Washington, D.C. 20402, Stock No. 004-000-00345-4.

### FCC Warning

The user is cautioned that changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

NOTE: In order for an installation of this product to maintain compliance with the limits for a Class B device, **shielded cables** must be used.



<http://www.lge.com>

Color Monitor

# FLATRON

## LCD 568LM

### User's Guide

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



## Introduction

**The Monitor has an active matrix TFT (Thin-Film Transistor) LCD (Liquid Crystal Display).**

**This monitor is designed for use in small working areas or for those who need more working space on the desk.**

ENGLISH

### Features

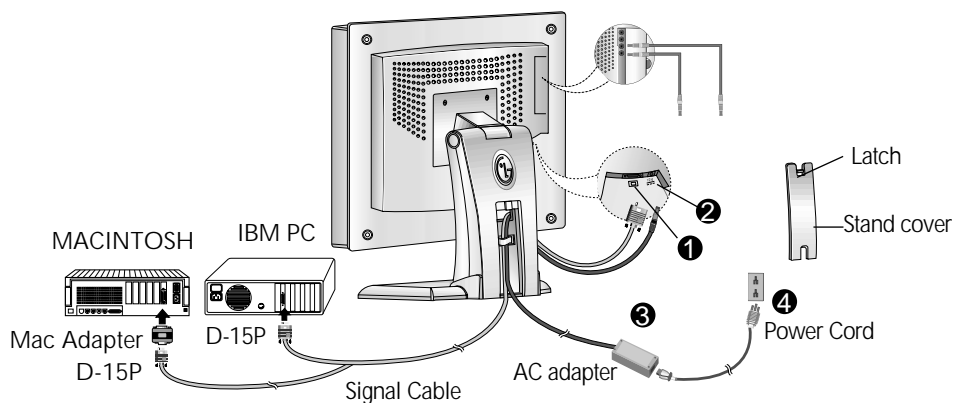
- The Monitor is a 15inch (15 inches viewable) intelligent microprocessor based monitor.
- Digitally controlled auto-scanning is done with the microprocessor for horizontal scan frequencies between 31 and 61kHz, and vertical scan frequencies between 56 and 75Hz.
- The microprocessor-based digital controls allow you to adjust conveniently a variety of image controls by using the OSD (On Screen Display).
- The monitor is shipped with 14 factory pre-programmed video modes that are permanently resident. In addition, there are 16 user-storable modes, for a total of 30 memory modes.
- Plug and play capability if supported by your system.
- This monitor has DDC 2B function.\*
- Compliant with the following regulated specifications :\*
  - EPA ENERGY STAR
  - Swedish TCO'99

*\*For detailed information, please refer to the Reference Guide provided.*

## Connecting the Monitor

To set up the monitor, ensure that the power is turned off to the monitor, computer system, and other attached devices, then follow these steps:

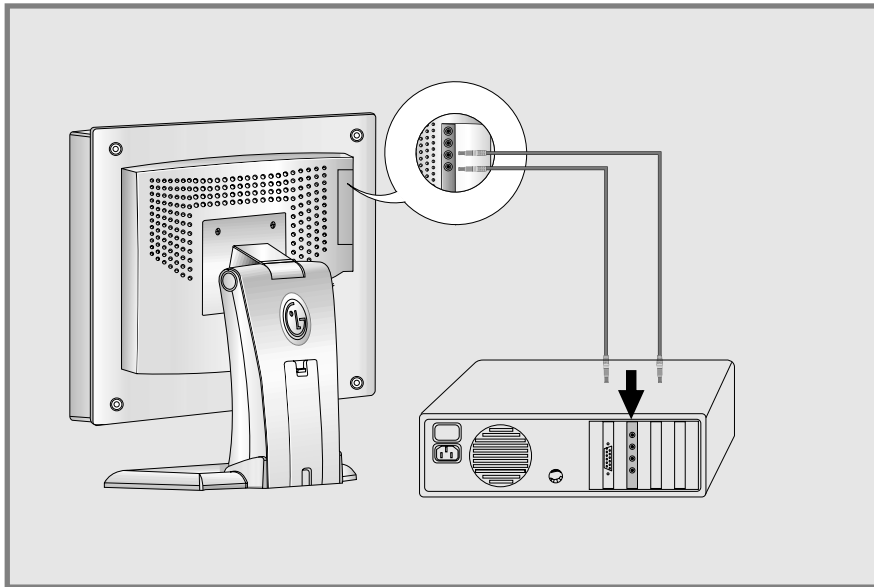
- 1 Place the monitor in a convenient, well-ventilated location near your computer.
- 2 Power off both the monitor and Computer.
- 3 Slightly press and pull the latch on Stand cover.
- 4 Connect the end of monitor signal cable to the connector 1 at the rear panel of your monitor through the slot and cable holder on Stand. Connect the other end to the 15-pin connector on the rear panel of the computer and tighten the screws. Be sure the signal cable aligns with the 15-pin connector.
- 4 Connect the end of monitor signal cable to the connector 1 at the rear panel of your monitor through the slot and cable holder on Stand. Connect the other end of the monitor signal cable to the rear panel of Macintosh computer through a Macintosh adapter and then tighten screws.
- 5 Connect the plug from the AC adapter into the base of the monitor. 2 Connect one end of the AC power cord to the AC adapter 3 and the other end to a properly grounded AC outlet that is easily accessible and close to the monitor. 4
- 6 After connecting cables, put stand cover correctly into the holes unders stand. If securely connected, you can hear click sound from the latch.
- 7 Power ON the PC, then the monitor.
- 8 If you see the **NO SIGNAL** message, check the signal cable and connectors.
- 9 After using the system, power OFF the monitor, then the PC.



\* **NOTE** : If you see the "OUT OF RANGE" message, check to make sure your system is set to one of the factory preset modes.(see page A9)

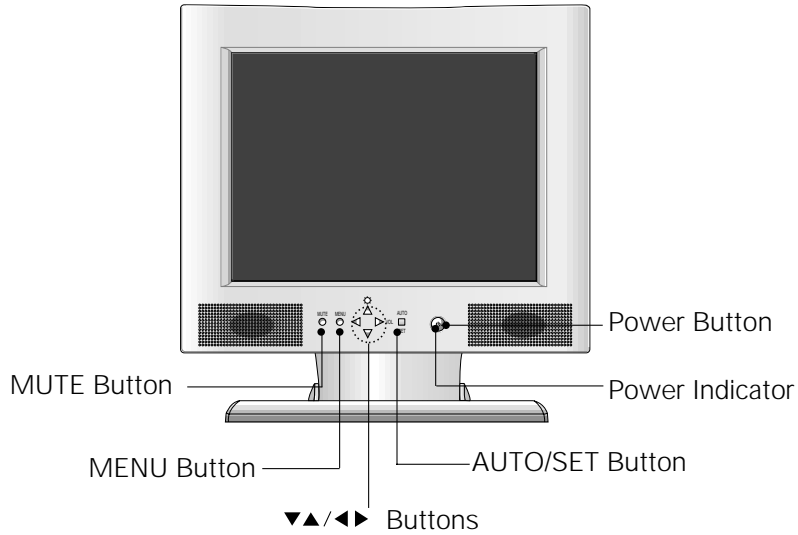
## Connecting the Monitor

### Connection the Audio

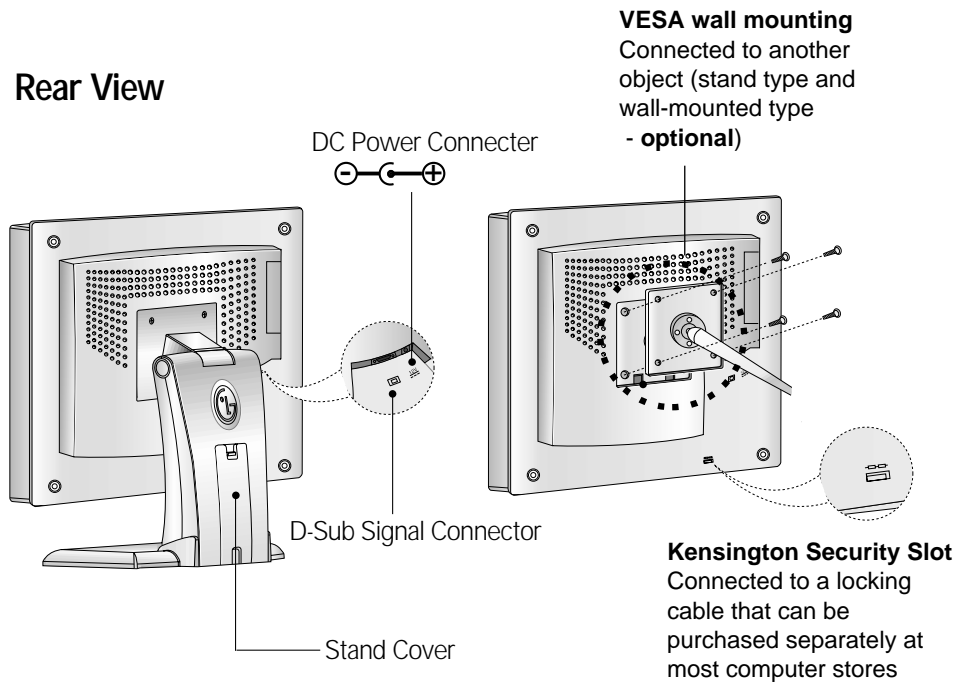


# Location and Function of Controls

## Front View



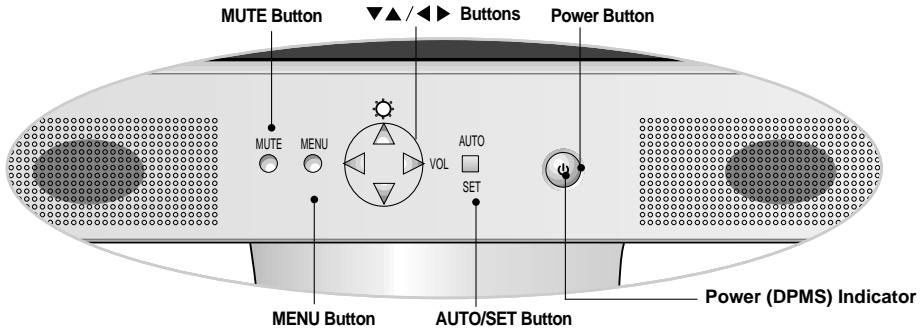
## Rear View



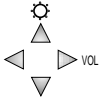





**NOTE :** This monitor accept a 75mm x 75mm VESA-compliant mounting interface pad.

# Control Panel Function

## Front Panel Controls



| Control   | Function  |
|---|---|
|  <b>MUTE Button</b>              | Use this button to turn the audio on or off.  |
|  <b>MENU Button</b>            | Use this button to enter and from the on screen display (OSD).  |
|  <b>▼▲/◀▶ Buttons</b>          | Use these buttons to choose or adjust items in the on screen display.   |
|  <b>AUTO/SET Button</b>        | Use this button to enter a selection in the on screen display.<br><b>* AUTO adjustment function</b><br>Touch the <b>AUTO/SET</b> button before using OSD menu. This button is for the automatic adjustment of the screen position, clock and phase.<br><b>Note:</b> Some signal from some graphics boards may not function properly. If the results are unsatisfactory, adjust your monitor's Position, Clock and Phase manually. |
|  <b>Power (DPMS) Indicator</b> | 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.  |
|  <b>Power Button</b>           | Use this button to turn the monitor on or off.  |



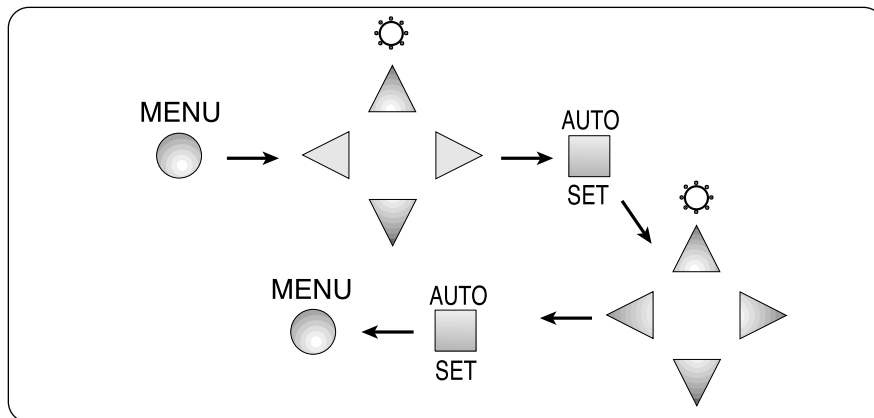
## On Screen Display (OSD) Control Adjustment

Making adjustments to the image size, position and operating parameters of the monitor are quick and easy with the On Screen Display Control system. A quick example is given below to familiarize you with the use of the controls. Following 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.

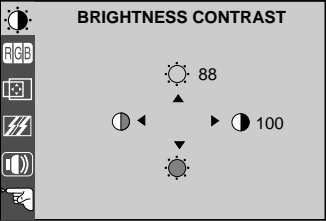




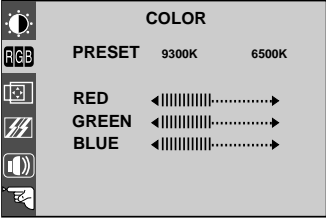
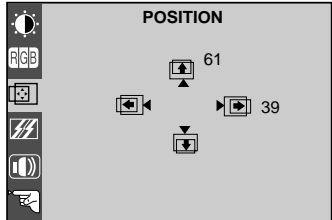


To make adjustments in the On Screen Display, follow these steps:



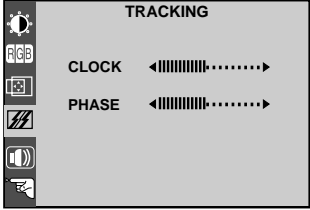
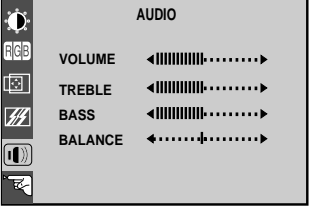

- 1** Press the **MENU** Button, then the main menu of the OSD appears.
- 2** To access a control, use the **▼▲** Buttons. When the icon you want becomes highlighted, press the **AUTO/SET** Button.
- 3** Use the **▼▲/◀▶** Buttons to adjust the item to the desired level.
- 4** Accept the changes by pressing the **AUTO/SET** Button.
- 5** Exit the OSD by Pressing the **MENU** 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>  <b>Brightness</b><br/>Used to adjust the brightness of the screen.</p> <p>  <b>Contrast</b><br/>Adjust the display to the contrast desired.</p> |
|   | <p><b>PRESET 9300K/ 6500K</b><br/>To appear the displays color temperature.</p> <ul style="list-style-type: none"> <li>• 9300K:Slightly bluish white.</li> <li>• 6500K:Slightly reddish white.</li> </ul> <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> <b>Vertical Positio</b><br/>To move image up and down.</p> <p> <b>Horizontal Position</b><br/>To move picture image left and right.</p>  |

## On Screen Display(OSD) Selection and Adjustment

| OSD Adjust  | Description   |
|---|---|
|    | <p><b>CLOCK</b> To minimize any vertical bars or stripes visible on the screen background. The horizontal screen size will also change.</p> <p><b>PHASE</b> To adjust the focus of the display. This item allows you to remove any horizontal noise and clear or sharpen the image of characters.</p> |
|   | <p><b>VOLUME</b> Used to adjust the volume</p> <p><b>TREBLE</b> Used to adjust the treble</p> <p><b>BASS</b> Used to adjust the bass</p> <p><b>BALANCE</b> Used to adjust the balance</p>   |
|  | <p><b>LANGUAGE</b> To choose the language in which the control names are displayed.</p> <p><b>OSD POSITION</b> To adjust position of the OSD window on the screen.</p> <p><b>BEEP</b> To select beep ON or OFF.</p> <p><b>ELAPSED TIME</b> To display the use time of monitor</p>                     |

## Video Memory Modes

The monitor has 30 memory locations for display modes, 14 of which are factory preset to popular video modes.

### Display Modes (Resolution)

|    | Display Modes (Resolution) | Horizontal Freq.(kHz) | Vertical Freq.(Hz) |
|----|----------------------------|-----------------------|--------------------|
| 1  | VGA 640 x 350              | 31.47                 | 70                 |
| 2  | VGA 720 x 400              | 31.47                 | 70                 |
| 3  | VGA 640 x 480              | 31.47                 | 60                 |
| 4  | MAC 640 x 480              | 35.00                 | 67                 |
| 5  | VESA 640 x 480             | 37.86                 | 73                 |
| 6  | VESA 640 x 480             | 37.50                 | 75                 |
| 7  | VESA 800 x 600             | 35.16                 | 56                 |
| 8  | VESA 800 x 600             | 37.88                 | 60                 |
| 9  | VESA 800 x 600             | 48.08                 | 72                 |
| 10 | VESA 800 x 600             | 46.88                 | 75                 |
| 11 | MAC 832 x 624              | 49.72                 | 75                 |
| 12 | VESA 1024 x 768            | 48.36                 | 60                 |
| 13 | VESA 1024 x 768            | 56.48                 | 70                 |
| 14 | VESA 1024 x 768            | 60.02                 | 75                 |

**Note :** This LCD monitor has been pre-adjusted to the video mode of VESA 1024x768 @75Hz.

### User Modes

- Modes 15-30 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 15.

If you use up the 16 blank modes and still have more new video modes, the monitor replaces the information in the user modes starting with mode 15.

## Troubleshooting

### **Check the following before calling for service.**

#### **Display Position is incorrect.**

- Push the **AUTO/SET** Button.
- If the results are unsatisfactory, adjust the image position using the H position and V position icon in the on screen display.

#### **On the screen background, vertical bars or stripes are visible.**

- Push the **AUTO/SET** Button.
- If the results are unsatisfactory, decrease the vertical bars or stripes using the **CLOCK** icon in the on screen display.

#### **Any horizontal noise appearing in any image or characters are not clearly portraided.**

- Push the **AUTO/SET** Button.
- If the results are unsatisfactory, decrease the horizontal bars using the **PHASE** icon in the on screen display.

#### **NO SIGNAL message.**

- The signal cable is not connected, or is loose. Check and secure the connection.

#### **OUT OF RANGE message appears.**

##### **Picture is blank.**

- The frequency of the signal from the video card is outside the operating range of the monitor.

Horizontal Frequency: 31kHz-61kHz

Vertical Frequency: 56Hz-75Hz

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

\* You can change the setup to the supported resolution using the **Safe Mode** (Press the F8 key during booting the system).


#### **The power LED is illuminated amber.**

- The monitor is in its display power management mode.
- There is no active signal coming from the PC.
- The signal cable is not fastened securely.
- Check the computer power and graphics adapter configuration.

#### **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.

## Specifications

|                               |                          |   |
|-------------------------------|--------------------------|---|
| <b>Display</b>                | Type                     | 15inch (38.1cm) Flat Panel Active matrix-TFT LCD<br>Anti-Glare coating                          |
|                               | Viewable Size            | 15inch (38.1cm)   |
|                               | Pixel pitch              | 0.297 x 0.297mm   |
|                               | True color               | 16 million color  |
| <b>Sync Input</b>             | Horizontal Freq.         | 31kHz - 61kHz (Automatic)   |
|                               | Vertical Freq.           | 56Hz - 75Hz (Automatic)   |
|                               | Input form               | Separate, TTL, Positive/Negative  |
|                               | Signal input             | 15 pin D-Sub connector  |
| <b>Video Input</b>            | Display Area             | 304 x 228mm / 12.0 x 9.0inch  |
|                               | Input Form               | Separate, RGB Analog, 0.714Vp-p/75ohm,<br>Positive  |
|                               | Resolution (max.)        | VESA 1024 x 768 @ 75Hz  |
| <b>Audio</b>                  | RMS Audio Output         | 2W(R + L)   |
|                               | Input Sensitivity        | 0.7Vrms   |
|                               | Speaker Impedance        | 4Ω  |
| <b>Power Consumption</b>      | Normal(Max.)             | ≤ 36W   |
|                               | Stand-by/Suspend         | ≤ 3W  |
|                               | Power Off                | ≤ 3W  |
| <b>Dimensions</b>             | Width                    | 389.2 cm / 15.3 inches  |
|                               | Height                   | 382.4 cm / 15 inches  |
|                               | Depth                    | 16.18 cm / 6.37 inches  |
| <b>Power Input</b>            | DC 12V 3A                |   |
| <b>AC Adapter</b>             | Input                    | AC 100-240V, 50 - 60Hz, 1.2A - 0.6A   |
|                               | Output                   | DC 12V  3A |
| <b>Weight</b>                 | Net                      | 4.8 kg / 10.6 lbs   |
| <b>Tilt Range</b>             | Down                     | 5°  |
|                               | Up                       | 30°   |
| <b>Environment Conditions</b> | Operating condition      |   |
|                               | Temperature              | 10°C to 35°C  |
|                               | Humidity                 | 10% to 80% non-condensing   |
|                               | Storage condition        |   |
| Temperature                   | -20°C to 60°C            |   |
| Humidity                      | 5% to 95% non-condensing |   |

### NOTE

- Information in this document is subject to change without notice.