

**ATTACHMENT K – USERS MANUAL**

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# Reference Guide

for Precaution,  
Service and Diskette Install

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*Deutsch*

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## Monitor Registration

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. : \_\_\_\_\_

## Important Precautions

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

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.
- 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.

### On Installation

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.

### LCD Monitor only

*Do not rub or strike the Active Matrix LCD with anything hard as this may scratch, mar, or damage the Active Matrix LCD permanently.*

*Do not press the LCD screen with your finger for a long time as this may incur some afterimages.*

*Some dot defects may appear on the screen, like Red, Green or Blue spots on the screen. However, this will have no impact or effect on the monitor performance.*

*If possible, use the recommended resolution to obtain the best image quality for your LCD monitor. If used under any modes except the recommended resolution, some scaled or processed images may appear on the screen. However, this is the characteristics of the LCD panel which has a fixed resolution.*

### On Cleaning

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

### On Repacking

- 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.

## DDC (Display Data Channel)

DDC is a communication channel over which the monitor automatically informs the host system (PC) about its capabilities.

### DDC protocol

- ① DDC1/DDC2B  
An uni-directional communication channel.
- ② DDC 2AB/DDC2B+/DDC2Bi  
A bi-directional communication channel.

### Note

- PC must support DDC functions to do this.

## 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.

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.

There are 2 signal lines, 4 modes of operation.  
; Normal, Standby, Suspend and Off.

Mode	Horizontal Sync.	Vertical Sync.	LED Color
Normal	On	On	Green
Standby	Off	On	Amber
Suspend	On	Off	Amber
Off	Off	Off	Amber

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.

### Note

- *The energy saving Design for monitors only work when connected to computers that have energy saving features.*

## Service

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.

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.

## Wichtige Hinweise

**Bei der Konstruktion bzw. Herstellung dieses Monitors wurde insbesondere auf eine höchstmögliche Betriebssicherheit geachtet. Um eine eventuell durch Fehlbedienung verursachte Brand - und Stromschlaggefahr auszuschliessen, sollten Sie jedoch bei Inbetriebnahme und Benutzung des Gerätes die nachfolgenden Sicherheitshinweise genau beachten. Beachten Sie ausserdem die am Monitorgehäuse angebrachten warnhinweise und Anweisungen.**

### Zur Sicherheit

Benutzen Sie ausschliesslich das mitgelieferte abgeschirmte Netzkabel. Falls Sie ein anderes als das vom Hersteller gelieferte Netzkabel verwenden, achten Sie darauf, daß es der nationalen Norm entspricht. Wenn das Netzkabel in irgendeiner Weise defekt ist. Wenden Sie sich an den Hersteller oder den nächsten autorisierten Reparaturservice, um Ersatz zu erhalten.

Stellen Sie sicher, dass die angelegte Netzspannung den Geräteanforderungen entspricht (siehe dazu die technischen Daten in diesem Handbuch bzw. die Angaben auf der Rückseite des Monitors). Bei Fragen zur Spannungsversorgung den Händler zu Rate ziehen.

Vermeiden Sie eine Überlastung des benutzten Stromkreises oder einer eventuell eingesetzten Mehrfachsteck1Sie ausserdem unbedingt darauf, dass Netzkabel und -stecker unbeschädigt sind, um Brand und Stromschlaggefahr auszuschliessen. Lassen Sie alle notwendigen Reparaturen von einem qualifizierten Service-Techniker ausführen.

Öffnen Sie den Monitor auf keinen Fall.

- Im Innern des Monitors befinden sich keinerlei vom Benutzer zu wartende Teile.
- Da allerdings selbst bei ausgeschaltetem Monitor im Gehäuse gefährliche Spannungen anliegen, sollte bei einer Fehlfunktion des Monitors unbedingt der Händler zu Rate gezogen werden.

Um eine Verletzung des Benutzers auszuschliessen:

- den Monitor keinesfalls auf einer instabilen unterlage abstellen.
- ausschliesslich vom Hersteller empfohlene Monitorsockel und -tische benutzen.
- den Monitor nicht mit einem Rolltisch über hohe Türschwellen oder sehr weiche Teppiche fahren.

Um die Gefahr eines Brandes oder elektrischen Schlages auszuschliessen:

- den Monitor ausschalten, wenn Sie ihn für längere Zeit nicht benutzen bzw. wenn Sie das Büro oder die Wohnung verlassen.
- auf keinen Fall irgendwelche Gegenstände in die Gehäuseschlitze stecken, da spannungsführende Teile berührt oder Kurzschlüsse verursacht werden könnten.
- Keine Zubehöerteile installieren, die nicht für diesen Monitor geeignet sind.
- bei Gewitter oder wenn Sie den Monitor für längere Zeit nicht benutzen, das Netzkabel aus der Steckdose ziehen.
- keine magnetisch aufgeladenen Gegenstände wie permanentmagneten oder Motoren id die Nähe des Bildschirms bringen.

### Zur Installation

Stellen Sie keine Gegenstände auf das Netzkabel. Plazieren Sie den Monitor so, dass das Netzkabel auf keinen Fall beschädigt werden kann.

## Sistema de Gerenciamento de Energia

Este monitor está de acordo com o programa Energy Star da EPA (Agência de Proteção Ambiental Americana), cujo objetivo é determinar aos produtores de equipamentos de informática padrões para projetos de circuitos que gastam menos energia quando não estão em uso.

Quando o monitor for utilizado com Green ou EPA Energy Star PC ou com um PC com software protetor de tela de acordo com o protocolo VESA Display Power Management Signalling (DPMS), este monitor pode economizar uma quantidade considerável de energia reduzindo seu consumo enquanto não estiver sendo utilizado.

Existem 2 linhas de sinal, 4 modos de operação; Normal, Em espera, Suspenso e Desligado.

Modo	Sinc. Horiz.	Sinc. Vert.	Cor do LED
Normal	Ligado	Ligado	Verde
Em espera	Desligado	Ligado	Laranja
Suspenso	Ligado	Desligado	Laranja
Desligado	Desligado	Desligado	Laranja

Quando você acionar o PC pressionando alguma tecla ou movendo o mouse, o monitor também será acionado, passando para o modo normal de operação, indicado pela luz verde do LED.

### Observação

- *O Projeto de economia de energia para monitores funciona somente se eles estiverem conectados a computadores com esse recurso.*

## Manutenção

Desligue o monitor da tomada e procure por serviço autorizado, quando:

- O cabo de força ou plugue estiver danificado ou rompido.
- Houve queda de líquido no monitor.
- O monitor foi exposto à chuva ou água.
- O monitor não opera normalmente seguindo as instruções de operação. Ajuste somente os controles descritos nas instruções de operação. Uma tentativa de ajuste de outros controles invalidará a garantia, além de exigir diversas horas de trabalho de pessoal qualificado para restaurar as condições originais de funcionamento do monitor.
- O monitor caiu ou está com o gabinete quebrado.
- O monitor exibe uma distinta mudança de performance.
- O monitor emite estalos ou estouros continuamente durante sua operação normal. Para alguns monitores é normal se ouvirem estalos quando se liga ou desliga o monitor ou quando há mudança de modo de vídeo.

Não tente efetuar a manutenção do monitor você mesmo. Abrir ou remover as tampas do gabinete deixarão expostos pontos de alta tensão em diversas partes do monitor. Procure sempre pessoal qualificado para execução de serviços de manutenção.

## FCC Compliance Statement

This equipment has been tested and found to comply within the limits of 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 on and off), 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.

### NOTICE

The regulations are applied only to the products with the ID LABEL indicating specific requirements.

## Canadian DOC 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.

### NOTICE

The regulations are applied only to the products with the ID LABEL indicating specific requirements.

**Color Monitor**

# **FLATRON**

## **LCD 680UM**

**User's Guide**  
**Benutzerhandbuch**  
**Manuel d'utilisation**  
**Guida Utente**  
**Guia del Usuario**  
**Manual do proprietário**  
**Handleiding**

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.



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**The FLATRON LCD 680UM Flat Panel 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.**

## Features

- The FLATRON LCD 680UM is a 15.7-inch (15.7 inches viewable) intelligent microprocessor based monitor.
- Digitally controlled auto-scanning is done with the micro-processor for horizontal scan frequencies between 30 and 80kHz, and vertical scan frequencies between 56 - 85Hz.
- The microprocessor-based digital controls allow you to adjust conveniently a variety of image controls by using the OSD (On Screen Display).
- It supports resolutions up to 1280x1024, and has a wide viewing angle of  $\pm 60$  degrees horizontal and  $\pm 45$  degrees vertical.
- The monitor is shipped with 16 factory pre-programmed video modes that are permanently resident. In addition, there are 10 user-storable modes, for a total of 26 memory modes.
- Plug and play capability if supported by your system.
- This monitor has DDC 2B function.\*
- Compliant with the following regulated specifications :\*
  - Swedish TCO'99

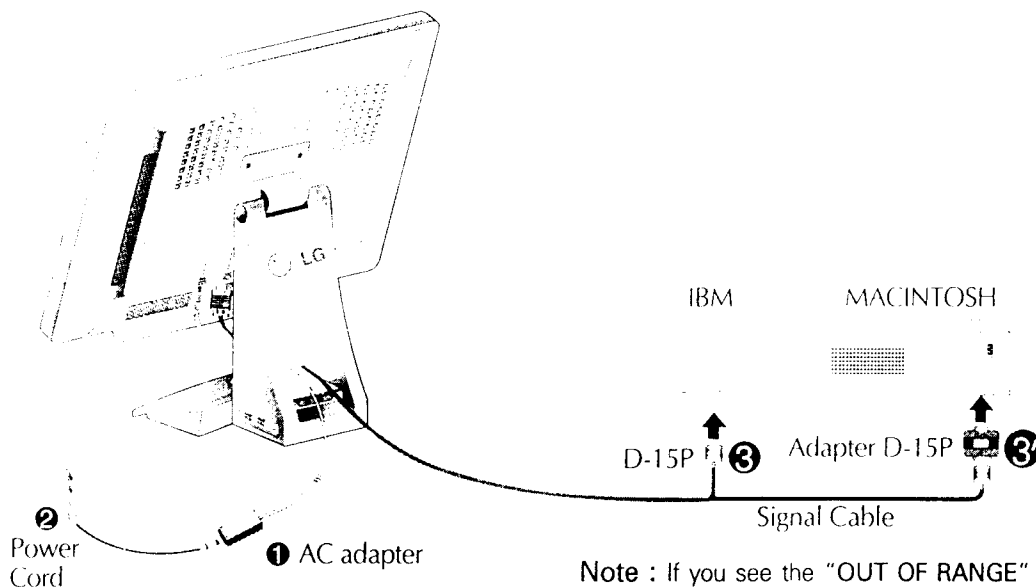
*\*For detailed information, please refer to the Reference Guide provided*

# Connecting the Monitor

To set up the monitor, ensure that the power is turned off to the monitor, computer system, and other attached devices. Connect the cables to monitor with it lying on a cushion or a cloth.

Follow these steps:

- 1 Power off both the monitor and computer.
- 2 Connect one end of the monitor signal cable to the input connector on the rear panel of the monitor.
- 3 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.
- 3 Connect the other end of the monitor signal cable to the rear panel of Macintosh computer through a Macintosh adapter and then tighten screws.
- 4 Connect the plug from the AC adapter into the base of the monitor 1. Connect one end of the AC power cord to the AC adapter and the other end to a properly grounded AC outlet that is easily accessible and close to the monitor 2.
- 5 Power on the computer, then the monitor.
- 6 If you see the NO SIGNAL message, check the signal cable and connectors.
- 7 After using the system, power OFF the monitor, then the computer.



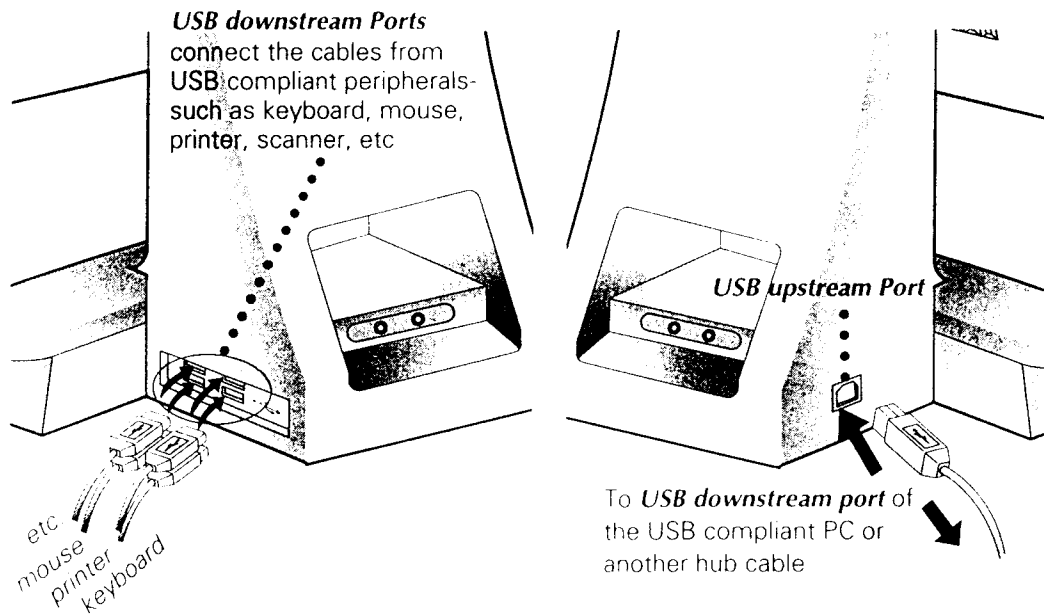
**Note :** If you see the "OUT OF RANGE" message, check to make sure your system is set to one of the factory preset modes (see page A8), or is set to a resolution and refresh rate within the specification limits of this monitor.

# Making use of USB (Universal Serial Bus)

USB (Universal Serial Bus) is an innovation in connecting your different desktop peripherals conveniently to your computer. By using the USB, you will be able to connect your mouse, keyboard, printer, and other peripherals to your monitor instead of having to connect them to your computer. This will give you greater flexibility in setting up your system. USB allows you to connect chain up to 120 devices on a single USB port, and you can “hot” plug (attach them while the computer is running) or unplug them while maintaining Plug and Plug auto detection and configuration. This monitor has an integrated self-powered USB hub, allowing up to 4 other USB devices to be attached it.

## USB connection

1. Connect the upstream port of the monitor to the downstream port of the USB compliant PC or another hub using the USB cable (Computer must have a USB port).
2. Connect the USB compliant peripherals to the downstream ports of the monitor.

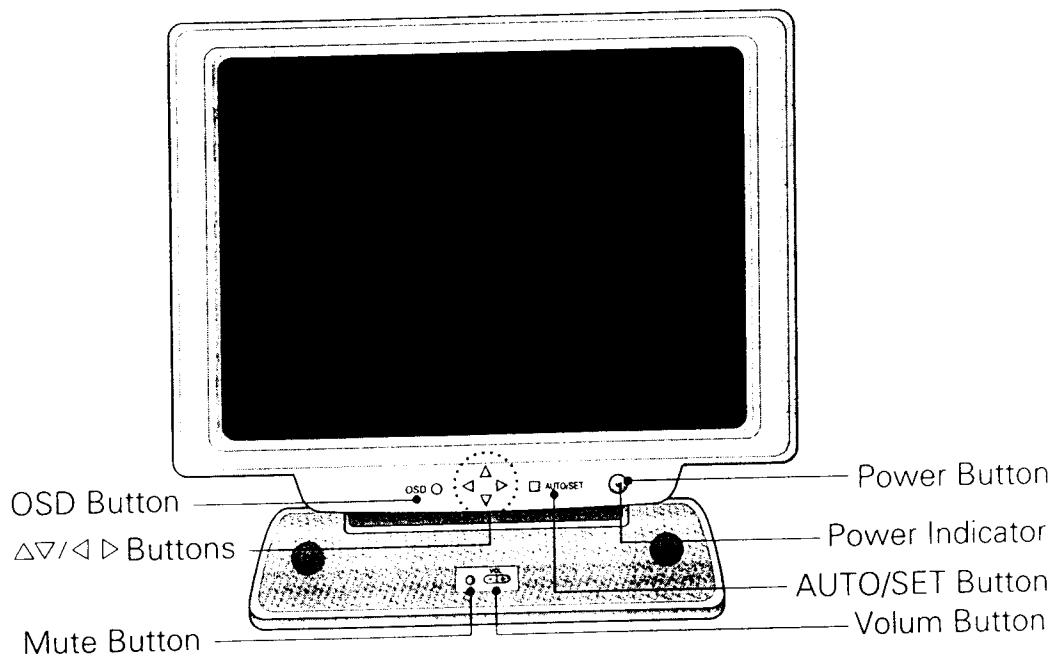


## NOTE

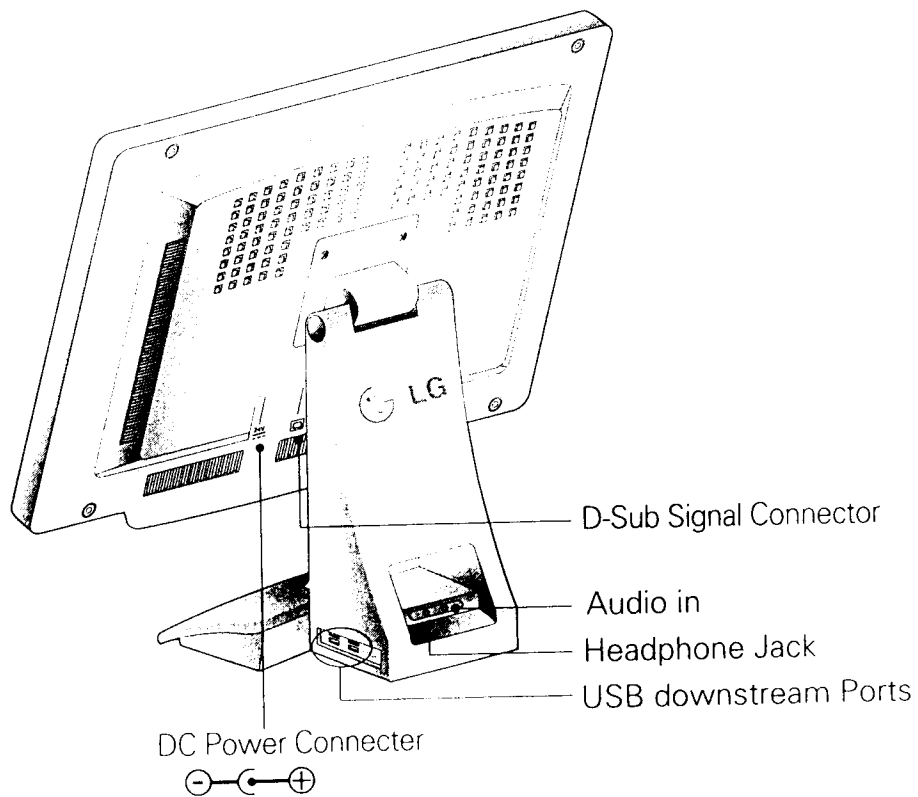
- To activate the USB hub function, the monitor must be connected to a USB compliant PC(OS) or another hub with the USB cable(enclosed).
- When connecting the USB cable, check that the shape of the connector at the cable side matches the shape at the connecting side.
- When the monitor is not plugged into an electric socket, the peripherals connected to the downstream ports will not operate.
- Even if the monitor is in a power saving mode, USB compliant devices will function when they are connected the USB ports(both the upstream and downstream) of the monitor.

# Location and Function of Controls

## Front View

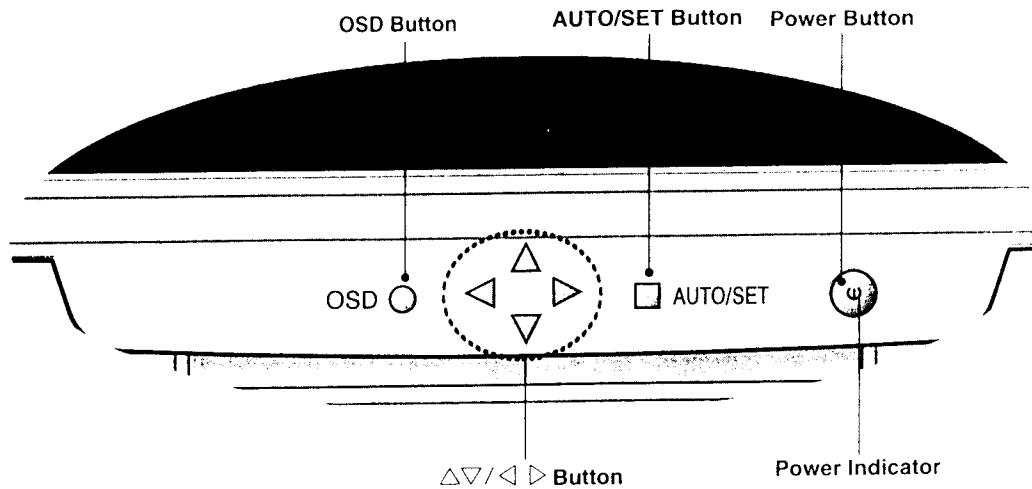



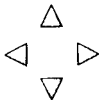
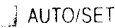

## Rear View



# Control Panel Function

## Front Panel Controls



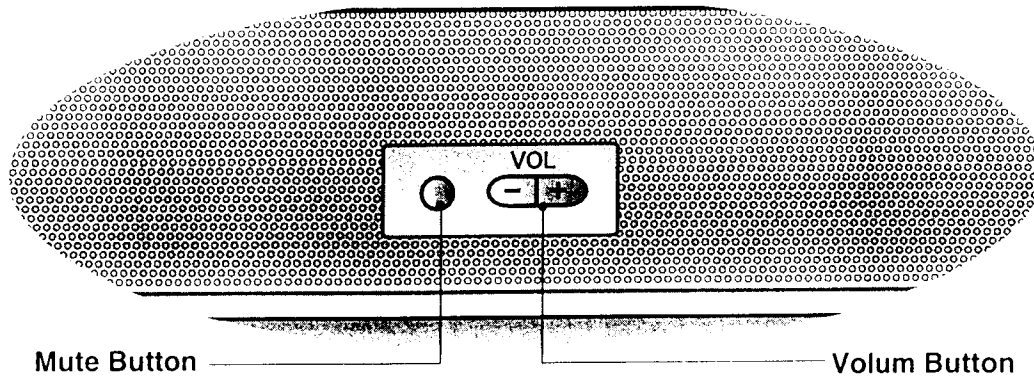
Control	Function
 <b>OSD Button</b>	Use this button to enter or exit the on screen display.
 <b>Δ▽/◀▶ Button</b>	Use these buttons to choose or adjust items in the on screen display.  <b>&lt;Shortcut Keys&gt;</b> <ul style="list-style-type: none"> <li>Brightness and Contrast can be adjusted directly without entering the On Screen Display (OSD) system. Touch the Δ▽/◀▶ buttons to adjust the settings and then the <b>OSD button</b> to save all changes. The Brightness and Contrast functions are also available in the On Screen Display (OSD) menu.</li> </ul>
 <b>AUTO/SET Button</b>	Use this button to enter a selection in the on screen display.  <b>* AUTO adjustment function</b> 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. <b>Note:</b> Some signal from some graphics boards may not function properly. If the results are <b>unsatisfactory</b> , adjust your monitor's Position, Clock and Phase manually.
 <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.



# Control Panel Function

## Front Panel Controls

Turn on the speaker with power button and adjust volum to proper level



**Mute Button**

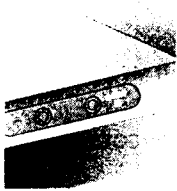
used to turn ON/OFF mute



**Volum Button**

Used to adjust volum

## Rear Panel Jacks



**Headphone Jack**



Headphone Jack that automatically mutes the speaker volume when headphone is attached.

**Audio In**

Connects speaker sound to PC via cable attachment.

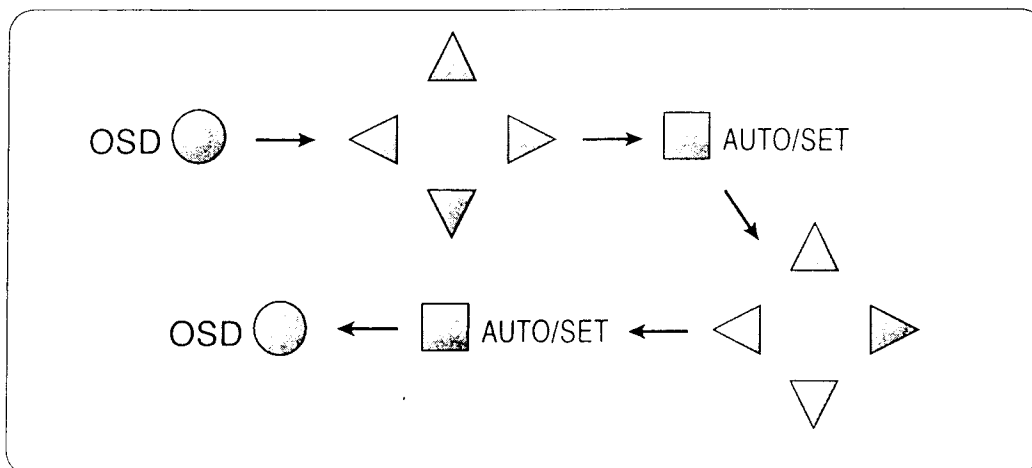
# On Screen Display (OSD) Control Adjustment

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:

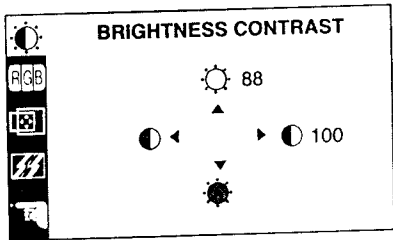
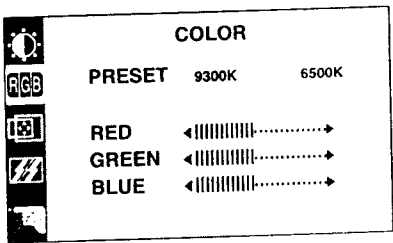
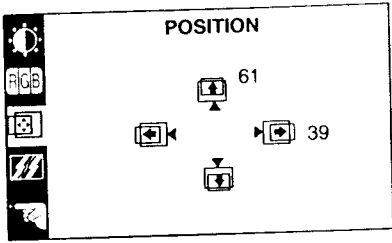


- 1 Press the OSD Button, then the main menu of the OSD appears.
- 2 To access a control, use the  $\Delta$  or  $\nabla$  Buttons. When the icon you want becomes highlighted, press the AUTO/SET Button.
- 3 Use the  $\Delta\nabla/\triangleleft\triangleright$  Buttons to adjust the item to the desired level.
- 4 Accept the changes by pressing the AUTO/SET Button.
- 5 Exit the OSD by Pressing the 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.

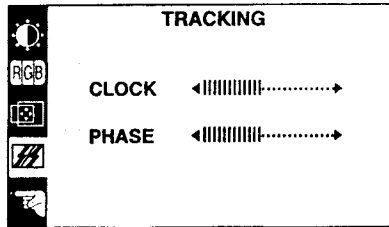
Listed below are the icons, icon names, and icon descriptions of the items that are shown on the Menu.

OSD Adjust	Description
	<p><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><b>PRESET 9300K/ 6500K</b> 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 Position</b> To move image up and down.</p> <p><b>Horizontal Position</b> To move picture image left and right.</p>



# On Screen Display(OSD) Selection and Adjustment

OSD Adjust	Description
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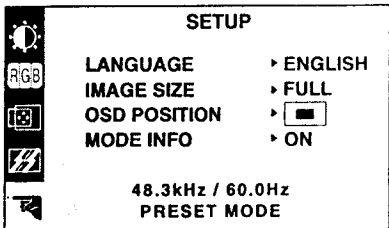


**CLOCK**

To minimize any vertical bars or stripes visible on the screen background. The horizontal screen size will also change.

**PHASE**

To adjust the focus of the display. This item allows you to remove any horizontal noise and clear or sharpen the image of characters.



**LANGUAGE**

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

**IMAGE SIZE**

This function displays the image in its original size or enlarged size so as to fit in the full screen of the LCD panel.

**OSD POSITION**

To adjust position of the OSD window on the screen.

**MODE INFO**

This function displays the current mode information on the screen when power on the monitor.

# Video Memory Modes

The monitor has 26 memory locations for display modes, 16 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	VESA	640 x 480	37.50	75
5	VESA	640 x 480	43.27	85
6	VESA	800 x 600	37.88	60
7	VESA	800 x 600	46.88	75
8	VESA	800 x 600	53.67	85
9	MAC	832 x 624	49.73	75
10	VESA	1024 x 768	48.36	60
11	VESA	1024 x 768	60.12	75
12	VESA	1024 x 768	68.67	85
13	VESA	1152x870	68.68	75
14	VESA	1152x900	61.80	66
15	VESA	1280x1024	63.98	60
16	VESA	1280x1024	79.98	75

**Note :** This LCD monitor has been pre-adjusted to the video mode of VESA 1280x1024 @60Hz.

## User Modes

- Modes 17-26 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 17.

If you use up the 10 blank modes and still have more new video modes, the monitor replaces the information in the user modes starting with mode 17.

# 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 portraid.**

- 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: 30kHz-80kHz

Vertical Frequency: 56Hz-85Hz

\*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.

## NOTE

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

# Specifications

<b>Display</b>	Type	15.7inch (39.83cm) Flat Panel Active matrix-TFT LCD Anti-Glare coating
	Viewable Size	15.7inch (39.83cm)
	Pixel pitch	0.243 x 0.243mm
	True color	16.7 million color
<b>Sync Input</b>	Horizontal Freq.	30kHz - 80kHz (Automatic)
	Vertical Freq.	56Hz - 85Hz (Automatic)
	Input form	Separate, TTL, Positive/Negative
	Signal input	15 pin D-Sub connector
<b>Video Input</b>	Display Area	311 x 248.8 mm / 12.2 x 9.79 inch
	Input Form	Separate, RGB Analog, 0.714Vp-p/75ohm, Positive
	Resolution (max.)	VESA 1280 x 1024 @ 75Hz
<b>USB specifications</b>	USB standard	Rev. 1.1 complied self-powered hub
	Downstream power supply	500mA for each (MAX)
	Communication speed	12 Mbps (full), 1.5 Mbps (low)
	USB port	1 Upstream port 4 Downstream ports
<b>Audio</b>	RMS Audio Output	1W x 1W, 1.5W x 1.5W (MAX)
	Input Sensitivity	0.7Vrms
	Speaker Impedance	8Ω
<b>Power Consumption</b>	Normal	≤ 48W
	Stand-by/Suspend	≤ 5W
	Power Off	≤ 5W
<b>Dimensions</b>	Width	37.0 cm / 14.57 inches
	Height	38.77 cm / 15.26 inches
	Depth	13.4 cm / 5.28 inches
<b>Power Input</b>	DC 24V 1.2A	
<b>AC Adapter</b>	Input	AC 100-240V, 50 - 60Hz, 1.2A - 0.6A
	Output	DC 24V $\equiv$ 2.0A $\ominus$ $\oplus$
<b>Weight</b>	Net	4.7 kg (10.36 lbs)
<b>Tilt Range</b>	Down	-5°
	Up	35°
<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.



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P/NO : 3828TUL151A (S-0012)

Printed in Korea