

# **APPENDIX F :**

## **USER'S MANUAL**

# User's Guide

## L1510P

**M**ake sure to read the **Important Precautions** before using the product.

Keep the User's Guide(CD) in an accessible place for future reference.

**S**ee the label attached on the back cover and quote this information to your dealer when you require service.



## Regulatory Information

### 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.

### CE Conformity Notice (for Europe)

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 55022:1998 ; Radio Frequency Interference
- EN 55024:1998 ; Electromagnetic Immunity
- EN 61000-3-2 ; Power Line Harmonics
- EN 61000-3-3 ; Voltage Fluctuations
- EN 60950 ; Product Safety

#### NOTICE

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

### Low Radiation Compliance (MPR II)

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.

### TCO95



#### Congratulations!

You have just purchased a TCO'95 approved and labelled product! Your choice has provided you with a product developed for professional use. Your purchase has also contributed to reducing the burden on the environment and to the further development of environmentally-adapted electronic products.

#### Why do we have environmentally labelled computers?

In many countries, environmental labelling has become an established method for encouraging the adaptation of goods and services to the environment. The main problem as far as computers and other electronic equipment are concerned is that environmentally harmful substances are used both in the products and during their manufacture. Since it has not been possible so far for the majority of electronic equipment to be recycled in a satisfactory way, most of these potentially damaging substances sooner or later enter Nature.

There are also other characteristics of a computer, such as energy consumption levels, that are important from both the working and natural environment viewpoints. Since all types of conventional electricity generation have a negative effect on the environment (acidic- and climatic-influencing emissions, radioactive waste, etc.), it is vital to conserve energy. Electronic equipment in offices consumes an enormous amount of energy, since it is often routinely left running continuously.

#### What does the environmental labelling involve?

This product meets the requirements for the TCO'95

## Regulatory Information cont.

scheme, which provides for international environmental labelling of personal computers. The labelling scheme was developed as a joint effort by the TCO (The Swedish Confederation of Professional Employees), Naturkyddsfröningen (The Swedish Society for Nature Conservation), and NUTEK (The National Board for Industrial and Technical Development in Sweden), and SEMKO AB (an international certification agency).

The requirements cover a wide range of issues: environment, ergonomics, usability, emission of electrical and magnetic fields, energy consumption and electrical and fire safety.

The environmental demands concern, among other things, restriction on the presence and use of heavy metals, brominated and chlorinated flame retardants, CFCs (freons), and chlorinated solvents. The product must be prepared for recycling, and the manufacturer is obliged to have an environmental plan, which must be adhered to in each country where the company implements its operational policy.

The energy requirements include a demand that the computer and/or display, after a certain period of inactivity, shall reduce its power consumption to a lower level, in one or more stages. The length of time to reactivate the computer shall be reasonable for the user.

Labeled products must meet strict environmental demands, for example, in respect of the reduction of electric and magnetic fields, along with physical and visual ergonomics and good usability.

The following is a brief summary of the environmental requirements met by this product. The complete environmental criteria document may be ordered from:

TCO Development Unit  
Lindegatan 14, S-11494 Stockholm, Sweden  
FAX +46-8 782 92 07  
E-mail (Internet): development@tco.se

Current information regarding TCO'95 approved and labelled products may also be obtained on the Internet using the address: <http://www.tco-info.com/>

TCO'95 is a co-operative project between:



Naturskydds  
föreningen



NUTEK

SEMKO

Närings- och teknikutvecklingsverket

### Environmental requirements

Brominated flame retardants are present in printed circuit boards, cabling, casings, and housings, and are added to delay the spread of fire. Up to 30% of the plastic in a computer casing can consist of flame-retardant substances. These are related to another group of environmental toxins, PCBs, and are suspected of giving rise to similar harm, including reproductive damage in fish-eating birds and mammals. Flame retardants have been found in human blood, and researchers fear that they can disturb fetus development.

Bio-accumulative<sup>1</sup> TCO'95 demands require that plastic components weighing more than 25 grams must not contain flame retardants with organically bound chlorine or bromine.

Lead can be found in picture tubes, display screens, solder, and capacitors. Lead damages the nervous system and in higher doses causes lead poisoning. The relevant bio-accumulative TCO'95 requirement permits the inclusion of lead, as no replacement has yet been developed.

Cadmium is present in rechargeable batteries and in the color-generating layers of certain computer displays. Cadmium damages the nervous system and is toxic in high doses. The relevant bio-accumulative TCO'95 requirement states that batteries may not contain more than 25 ppm (parts per million) of cadmium. The color-generating layers of display screens must not contain any cadmium.

Mercury is sometimes found in batteries, relays and switches. Mercury damages the nervous system and is toxic in high doses. The relevant bio-accumulative TCO'95 requirement states that batteries may not contain more than 25 ppm of mercury and that no mercury is present in any of the electrical or electronic components concerned with the display unit.

CFCs (freons) are sometimes used for washing printed circuit boards and in the manufacture of expanded foam for packaging. CFCs break down ozone and thereby damage the ozone layer in the atmosphere, causing increased reception on Earth of ultra-violet light with consequent increased risks of skin cancer (malignant melanoma). The relevant TCO'95 requirement: Neither CFCs nor HCFCs may be used during the manufacture of the product or its packaging.

<sup>1</sup> Bio-accumulative means that the substance accumulates within living organisms.

### Shipping Package

The packaging material can be recycled, or you can save it to return the monitor to a service center for repair or disposal.

### CFC Compounds in Distribution Packaging

Cushioning material used for shipping finished monitors are not manufactured with nor do they contain any CFC compounds.

### Design for Disassembly/Recycling

These monitors have been designed for easy end-of-life disassembly and recycling. Fasteners are generally of the same type for efficient disassembly. Components made of different materials can be easily separated and plastics have been identified using international symbols to aid in recycling.

### Monitor Disposal

#### WARNING

If you need to dispose of a monitor, ask a qualified service representative for the proper procedure. Improper disposal could result in personal injury from implosion.

## Regulatory Information cont.

### TCO'99



Congratulations!

You have just purchased a TCO'99 approved and labelled product! Your choice has provided you with a product developed for professional use. Your purchase has also contributed to reducing the burden on the environment and also to the further development of environmentally adapted electronics products.

#### Why do we have environmentally labelled computers?

In many countries, environmental labelling has become an established method for encouraging the adaptation of goods and services to the environment. The main problem, as far as computers and other electronics equipment are concerned, is that environmentally harmful substances are used both in the products and during their manufacture. Since it is not so far possible to satisfactorily recycle the majority of electronics equipment, most of these potentially damaging substances sooner or later enter nature.

There are also other characteristics of a computer, such as energy consumption levels, that are important from the viewpoints of both the work (internal) and natural (external) environments. Since all methods of electricity generation have a negative effect on the environment (e.g. acidic and climate-influencing emissions, radioactive waste), it is vital to save energy. Electronics equipment in offices is often left running continuously and thereby consumes a lot of energy.

#### What does labelling involve?

This product meets the requirements for the TCO'99 scheme which provides for international and environmental labelling of personal computers. The labelling scheme was developed as a joint effort by the TCO (The Swedish Confederation of Professional Employees), Svenska Naturskyddsforeningen (The Swedish Society for Nature Conservation) and Statens Energimyndighet (The Swedish National Energy Administration).

Approval requirements cover a wide range of issues: environment, ergonomics, usability, emission of electric and magnetic fields, energy consumption and electrical and fire safety.

The environmental demands impose restrictions on the presence and use of heavy metals, brominated and chlorinated flame retardants, CFCs (freons) and chlorinated solvents, among other things. The product must be prepared for recycling and the manufacturer is obliged to have an environmental policy which must be adhered to in each country where the company implements its operational policy.

The energy requirements include a demand that the computer and/or display, after a certain period of inactivity, shall reduce its power consumption to a lower level in one or more stages. The length of time to reactivate the computer shall be reasonable for the user.

Labelled products must meet strict environmental demands, for example, in respect of the reduction of electric and magnetic fields, physical and visual ergonomics and good usability.

Below you will find a brief summary of the environmental requirements met by this product. The complete environmental criteria document may be ordered from:

#### TCO Development

SE-114 94 Stockholm, Sweden

Fax: +46 8 782 92 07

Email (Internet): [development@tco.se](mailto:development@tco.se)

Current information regarding TCO'99 approved and labelled products may also be obtained via the Internet, using the address: <http://www.tco-info.com/>

#### Environmental requirements

##### Flame retardants

Flame retardants are present in printed circuit boards, cables, wires, casings and housings. Their purpose is to prevent, or at least to delay the spread of fire. Up to 30% of the plastic in a computer casing can consist of flame retardant substances. Most flame retardants contain bromine or chloride, and those flame retardants are chemically related to another group of environmental toxins, PCBs. Both the flame retardants containing bromine or chloride and the PCBs are suspected of giving rise to severe health effects, including reproductive damage in fish-eating birds and mammals, due to the bio-accumulative\* processes. Flame retardants have been found in human blood and researchers fear that disturbances in foetus development may occur.

The relevant TCO'99 demand requires that plastic components weighing more than 25 grams must not contain flame retardants with organically bound bromine or chlorine. Flame retardants are allowed in the printed circuit boards since no substitutes are available.

##### Cadmium\*\*

Cadmium is present in rechargeable batteries and in the colour-generating layers of certain computer displays. Cadmium damages the nervous system and is toxic in high doses. The relevant TCO'99 requirement states that batteries, the colour-generating layers of display screens and the electrical or electronics components must not contain any cadmium.

## Regulatory Information cont.

### Mercury\*\*

Mercury is sometimes found in batteries, relays and switches. It damages the nervous system and is toxic in high doses. The relevant TCO'99 requirement states that batteries may not contain any mercury. It also demands that mercury is not present in any of the electrical or electronics components associated with the labelled unit.

### CFCs (freons)

The relevant TCO'99 requirement states that neither CFCs nor HCFCs may be used during the manufacture and assembly of the product. CFCs (freons) are sometimes used for washing printed circuit boards. CFCs break down ozone and thereby damage the ozone layer in the stratosphere, causing increased reception on earth of ultraviolet light with e.g. increased risks of skin cancer (malignant melanoma) as a consequence.

### Lead\*\*

Lead can be found in picture tubes, display screens, solders and capacitors. Lead damages the nervous system and in higher doses, causes lead poisoning. The relevant TCO'99 requirement permits the inclusion of lead since no replacement has yet been developed.

\* Bio-accumulative is defined as substances which accumulate within living organisms

\*\* Lead, Cadmium and Mercury are heavy metals which are Bio-accumulative.

## EPA (U.S.A only)

ENERGYSTAR is a set of power-saving guidelines issued by the U.S. Environmental Protection Agency(EPA).



EPA POLLUTION PREVENTER

As an ENERGY STAR Partner LG Electronics U.S.A.,Inc. has determined that this product meets the ENERGY STAR guidelines for energy efficiency.

## NOM MARK (Mexico only)



## GOST MARK



BZ03

Internet Address:<http://www.lg.ru>

Информационная служба LG

Electronics (095)742-77-77

## Important Precautions

**This unit has been engineered and manufactured to ensure your personal safety, however improper use may result in potential electrical shock or fire hazards. In order to allow the proper operation of all safeguards incorporated in this display, observe the following basic rules for its installation, use, and servicing.**

### 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.

The power supply cord is used as the main disconnection device. Ensure that the socket-outlet is easily accessible after installation.

Operate the display only from a power source indicated in the specifications of this manual or listed on the display. 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 Display.

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

To Avoid Personal Injury :

- Do not place the display on a sloping shelf unless properly secured.
- Use only a stand recommended by the manufacturer.

To Prevent Fire or Hazards:

- Always turn the display OFF if you leave the room for more than a short period of time. Never leave the display ON when leaving the house.
- Keep children from dropping or pushing objects into the display's cabinet openings. Some internal parts carry hazardous voltages.
- Do not add accessories that have not been designed for this display.
- During a lightning storm or when the display is to be left unattended for an extended period of time, unplug it from the wall outlet.

## Important Precautions

### On Installation

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

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

Displays 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 display on a bed, sofa, rug, etc.
- Place the display in a built-in enclosure unless proper ventilation is provided.
- Cover the openings with cloth or other material.
- Place the display near or over a radiator or heat source.

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 cause some afterimages.

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

If possible, use the recommended resolution to obtain the best image quality for your LCD display. If used under any mode except the recommended resolution, some scaled or processed images may appear on the screen. However, this is characteristic of the fixed-resolution LCD panel.

### On Cleaning

- Unplug the display before cleaning the face of the display screen.
- Use a slightly damp (not wet) cloth. Do not use an aerosol directly on the display screen because over-spraying 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.

### On Disposal

- The fluorescent lamp used in this product contains a small amount of mercury.
- Do not dispose of this product with general household waste.  
Disposal of this product must be carried out in accordance to the regulations of your local authority.



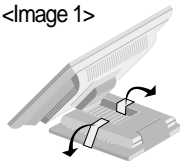
## Connecting the Display

- Before setting up the monitor, ensure that the power to the monitor, the computer system, and other attached devices is turned off.

### Positioning your display

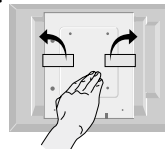
1. Remove the tape.

<Image 1>



Put the set as the picture below <Image 1> to remove the tape.

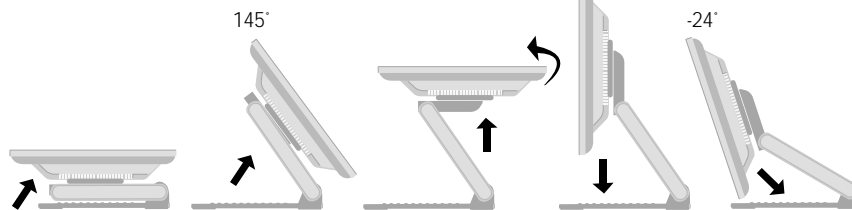
<Image 2>



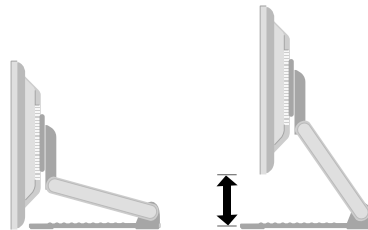
Do not remove the tape with the set up side down as the <Image 2> The base part may spring up to injure your hand.

2. Adjust the position of the panel in various ways for maximum comfort.

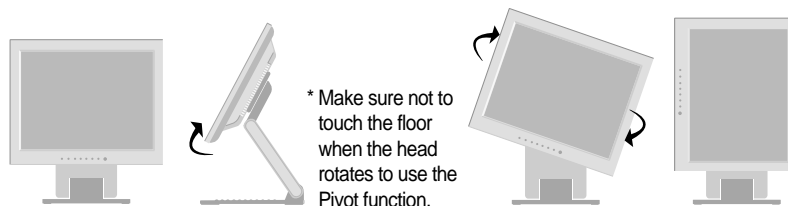
- Tilt Range : -24° ~ 145°



- Height Range : maximum 3.39inch (86.1mm)



- Landscape & Portrait : You can rotate the panel 90° clockwise.  
(\* For detailed information, please refer to the Pivot Software CD provided.)



### Ergonomic

It is recommended that in order to maintain an ergonomic and comfortable viewing position, the forward tilt angle of the monitor should not exceed 5 degrees.

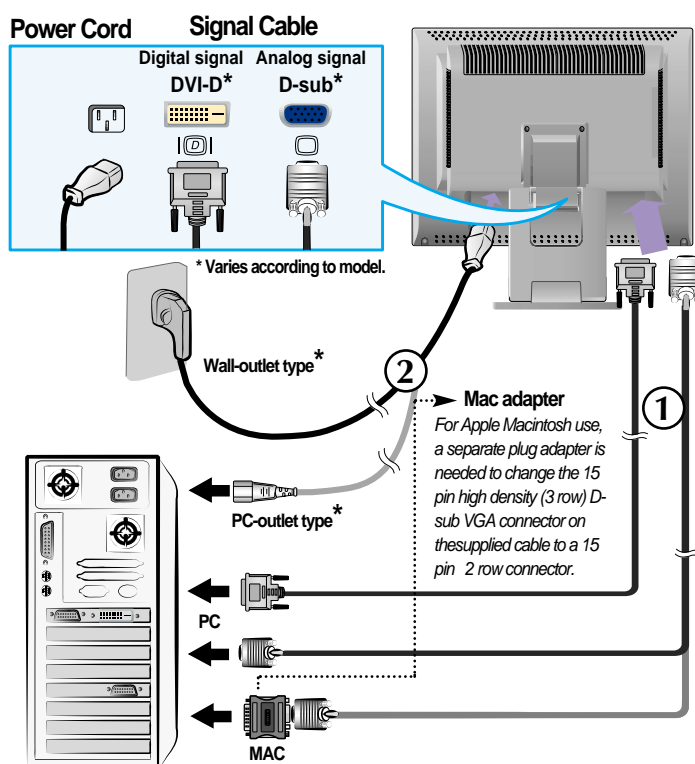
## Connecting the Display


### Using the Computer

1. Connect the signal cable. When attached, tighten the thumbscrews to secure the connection.
2. Connect the power cord into a proper power outlet that is easily accessible and close to the display.

#### NOTE

- This is a simplified representation of the rear view.
- This rear view represents a general model; your display may differ from the view as shown.



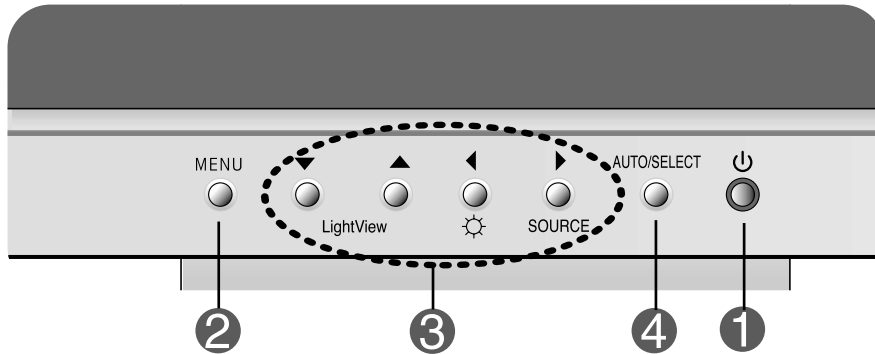
3. Press  button on the front switch panel to turn the power on. When monitor power is turned on, the 'Self Image Setting Function' is executed automatically.

#### NOTE

'Self Image Setting Function'? This function provides the user with optimal display settings. When the user connects the monitor for the first time, this function automatically adjusts the display to optimal settings for individual input signals. If you want to adjust the monitor while in use, or wish to manually run this function once again, push the 'AUTO' button on the front panel of the monitor. Otherwise, you may execute the 'Factory reset' option on the OSD adjustment menu. However, be aware that this option initializes all the menu items except 'Language'.

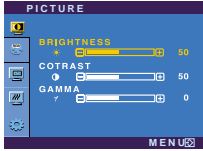
## Control Panel Functions

### Front Panel Controls



Control	Function
<b>1</b> Power Button	Use this button to turn the display on or off.
<b>Power (DPMS) Indicator</b>	This Indicator lights up green when the display operates normally. If the display is in DPM (Energy Saving) mode, this indicator color changes to amber.
<b>2</b> MENU Button	Use this button to enter or exit the On Screen Display.
<b>3</b> ▼▲◀▶ Buttons	Use these buttons to choose or adjust items in the On Screen Display.
<b>4</b> AUTO/SELECT Button	Use this button to enter a selection in the On Screen Display.

# Control Panel Functions

Control	Direct Access Function
<p><b>3</b></p> <p><b>DAY</b> <b>NIGHT</b></p> <p>DAY TEXT</p> <p>NIGHT TEXT</p>	<p><b>LIGHTVIEW</b></p> <p>This feature lets you easily select the best desired image condition optimized to the environment (ambient illumination, image types etc).</p> <ul style="list-style-type: none"> <li>• <b>DAY</b> : Bright ambient illumination</li> <li>• <b>NIGHT</b> : Dark ambient illumination</li> <li>• <b>TEXT</b> : For text images (Word processing etc.)</li> <li>• <b>MOVIE</b> : For animation images in videos or movies</li> <li>• <b>PHOTO</b> : For pictures or drawings</li> <li>• <b>NORMAL</b> : This is under normal operating conditions</li> </ul> <p>LIGHTVIEW → LIGHTVIEW → <b>MENU</b></p> <hr/> <p>Bring up Contrast and Brightness adjustment.</p> <p>☀ : ☀ → ▼ ▲ ← → <b>MENU</b></p>
	
<p><b>4</b></p> <p><b>AUTO IMAGE ADJUSTMENT</b></p> <p>PROCESSING AUTO IMAGE ADJUSTMENT FOR OPTIMAL DISPLAY CHANGE RESOLUTION TO 1024 x 768</p>	<p>When adjusting your display settings, always press the <b>AUTO/SELECT</b> button before entering the On Screen Display(OSD). This will automatically adjust your display image to the ideal settings for the current screen resolution size (display mode).</p> <p>The best display mode is <b>1024x768</b>.</p>
<p><b>OSD LOCKED</b></p> <p><b>OSD UNLOCKED</b></p>	<p><b>OSD LOCKED/UNLOCKED</b> <b>: MENU</b></p> <p>This function allows you to secure the current control settings, so that they cannot be inadvertently changed. Press and hold the MENU button for 5 seconds: the message “<b>OSD LOCKED</b>” appears.</p> <p>You can unlock the OSD controls at any time by pushing the MENU button for 5 seconds: the message “<b>OSD UNLOCKED</b>” will appear.</p>

## On Screen Display (OSD) Control Adjustment

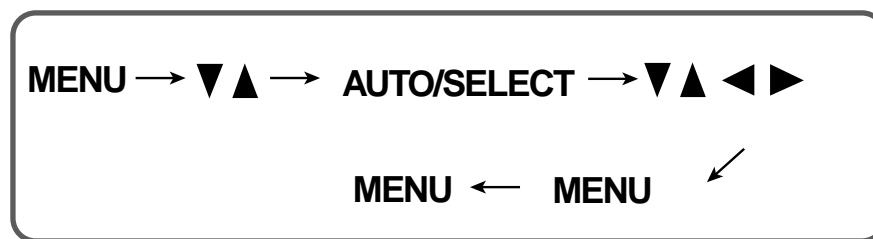
### Screen Adjustment

Making adjustments to the image size, position and operating parameters of the display is quick and easy with the On Screen Display Control system. A short example is given below to familiarize you with the use of the controls. The following section is an outline of the available adjustments and selections you can make using the OSD.

#### NOTE

- Allow the display to stabilize for at least 30 minutes before making image adjustments.

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 ▼ or ▲ Buttons. When the icon you want becomes highlighted, press the AUTO/ SELECT Button.
- 3 Use the ▼ ▲ ◀ ▶ Buttons to adjust the item to the desired level.
- 4 Accept the changes by pressing the MENU Button.
- 5 Exit the OSD by pressing the MENU Button.

## On Screen Display(OSD) Selection and Adjustment

The following table indicates all the On Screen Display control, adjustment, and setting menus.

Main menu	Sub menu		A	D	Reference
<b>PICTURE</b>	BRIGHTNESS		●	●	To adjust the brightness, contrast and gamma of the screen
	CONTRAST		●	●	
	GAMMA		●	●	
<b>COLOR</b>	PRESET	6500K	●	●	To customize the color of the screen
		9300K	●	●	
	RED		●	●	
	GREEN		●	●	
	BLUE		●	●	
<b>POSITION</b>	HORIZONTAL		●		To adjust the position of the screen
	VERTICAL		●		
<b>TRACKING</b>	CLOCK		●		To improve the clarity and stability of the screen
	PHASE		●		
<b>SETUP</b>	LANGUAGE		●	●	To customize the screen status for a user's operating environment
	OSD POSITION	HORIZONTAL	●	●	
		VERTICAL	●	●	
	WHITE BALANCE		●		
	POWER INDICATOR		●	●	
	FACTORY RESET		●	●	
<p>● : Adjustable  <b>A : Analog Input</b>  <b>D : Digital Input</b></p>					

### NOTE

- The order of icons may differ depending on the model (A8-A10).

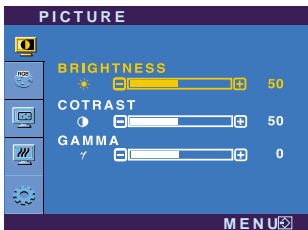



## On Screen Display(OSD) Selection and Adjustment

You were introduced to the procedure of selecting and adjusting an item using the OSD system. Listed below are the icons, icon names, and icon descriptions of the all items shown on the Menu.


### NOTE

- OSD (On Screen Display) menu languages on the monitor may differ from the manual.

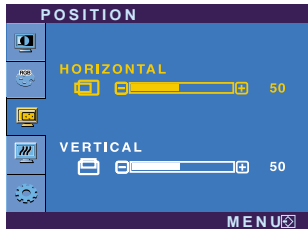


### To adjust the brightness and contrast of the screen

OSD Adjust	Description
	<p> <b>BRIGHTNESS</b> To adjust the brightness of the screen.</p> <p> <b>CONTRAST</b> To adjust the contrast of the screen.</p> <p> <b>GAMMA</b> Set your own gamma value. (-50~50) On the monitor, high gamma values display whitish images and low gamma values display high contrast images.</p>

### To customize the color of the screen

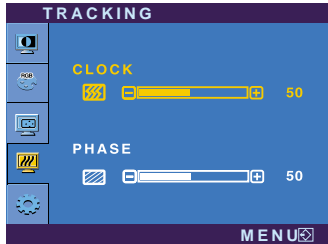
OSD Adjust	Description
	<p><b>PRESET 6500K/9300K</b> Select the screen color. • 6500K: Slightly reddish white. • 9300K: Slightly bluish white.</p> <p><b>RED GREEN BLUE</b> Set your own color levels.</p>

### To adjust the position of the screen

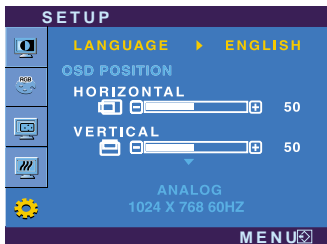
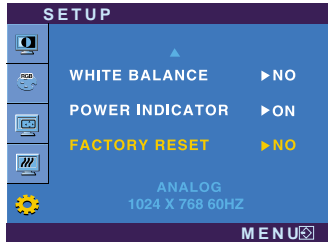
OSD Adjust	Description
	<p> <b>Horizontal Position</b> To move image left and right.</p> <p> <b>Vertical Position</b> To move image up and down.</p>

## On Screen Display(OSD) Selection and Adjustment

### To improve the clarity and stability of the screen

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>

### To customize the screen status for a user's operating environment

OSD Adjust	Description
	<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>WHITE BALANCE</b> If the output of the video card is different the required specifications, the color level may deteriorate due to video signal distortion. Using this function, the signal level is adjusted to fit into the standard output level of the video card in order to provide the optimal image. Activate this function when white and black colors are present in the screen.</p>
	<p><b>POWER INDICATOR</b> Use this function to set the power indicator on the front side of the monitor to <b>ON</b> or <b>OFF</b>. If you set <b>OFF</b>, it will go off after 15 seconds. If you set <b>ON</b> at any time, the power indicator will automatically be turned on.</p> <p><b>FACTORY RESET</b> Restore all factory default settings except "LANGUAGE." Press the ► button to reset immediately.</p>

If this does not improve the screen image, restore the factory default settings. If necessary, perform the white balance function again. This function will be enabled only when the input signal is an analog signal.



## Troubleshooting

Check the following before calling for service.

No image appears	
● Is the power cord of the display connected?	<ul style="list-style-type: none"><li>• Check and see if the power cord is connected properly to the power outlet.</li></ul>
● Is the power indicator light on?	<ul style="list-style-type: none"><li>• Press the Power button.</li></ul>
● Is the power on and the power indicator green?	<ul style="list-style-type: none"><li>• Adjust the brightness and the contrast.</li></ul>
● Is the power indicator amber?	<ul style="list-style-type: none"><li>• If the display is in power saving mode, try moving the mouse or pressing any key on the keyboard to bring up the screen.</li><li>• Make sure if the power is on.</li><li>• Try to turn on the PC.</li></ul>
● Do you see an "OUT OF RANGE" message on the screen?	<ul style="list-style-type: none"><li>• This message appears when the signal from the PC (video card) is out of horizontal or vertical frequency range of the display. See the 'Specifications' section of this manual and configure your display again.</li></ul>
● Do you see a "CHECK SIGNAL CABLE" message on the screen?	<ul style="list-style-type: none"><li>• This message appears when the signal cable between your PC and your display is not connected. Check the signal cable and try again.</li></ul>

Do you see a "OSD LOCKED" message on the screen?	
● Do you see "OSD LOCKED" when you push MENU button?	<ul style="list-style-type: none"><li>• You can secure the current control settings, so that they cannot be inadvertently changed. You can unlock the OSD controls at any time by pushing the <b>MENU</b> button for 5 seconds: the message "OSD UNLOCKED" will appear.</li></ul>

## Troubleshooting

### Display image is incorrect

- |   |  |
|---|--|
| <ul style="list-style-type: none"><li>● <b>Display Position is incorrect.</b></li><br/><li>● <b>On the screen background, vertical bars or stripes are visible.</b></li><br/><li>● <b>Any horizontal noise appearing in any image or characters are not clearly portrayed.</b></li><br/><li>● <b>The screen color is mono or abnormal.</b></li><br/><li>● <b>The screen blinks.</b></li></ul> | <ul style="list-style-type: none"><li>• Press the <b>AUTO/SELECT</b> button to automatically adjust your display image to the ideal setting.<br/>If the results are unsatisfactory, adjust the image position using the <b>H position and V position</b> icon in the on screen display.</li><li>• Check <b>Control Panel --&gt; Display --&gt; Settings</b> and see if the frequency or the resolution were changed. If yes, readjust the video card to the recommend resolution.</li><br/><li>• Press the <b>AUTO/SELECT</b> button to automatically adjust your display image to the ideal setting.<br/>If the results are unsatisfactory, decrease the vertical bars or stripes using the <b>CLOCK</b> icon in the on screen display.</li><br/><li>• Press the <b>AUTO/SELECT</b> button to automatically adjust your display image to the ideal setting.<br/>If the results are unsatisfactory, decrease the horizontal bars using the <b>PHASE</b> icon in the on screen display.</li><li>• Check <b>Control Panel --&gt; Display --&gt; Settings</b> and adjust the display to the recommended resolution or adjust the display image to the ideal setting. Set the color setting higher than 24 bits (true color).</li><br/><li>• Check if the signal cable is properly connected and use a screwdriver to fasten if necessary.</li><li>• Make sure the video card is properly inserted in the slot.</li><li>• Set the color setting higher than 24 bits (true color) at <b>Control Panel - Settings</b>.</li><br/><li>• Check if the screen is set to interlace mode and if yes, change it to the recommend resolution.</li><li>• Make sure the power voltage is high enough, It has to be hgher than <b>AC100-240V 50/60Hz</b>.</li></ul> |
|---|--|

## Troubleshooting



### Have you installed the display driver?

- |  |   |
|--|---|
| <ul style="list-style-type: none"><li>● <b>Have you installed the display driver?</b></li><li>● <b>Do you see an "Unrecognized monitor, Plug&amp;Play (VESA DDC) monitor found" message?</b></li></ul> | <ul style="list-style-type: none"><li>• Be sure to install the display driver from the display driver CD (or diskette) that comes with your display. Or, you can also download the driver from our web site: <a href="http://www.lge.com">http://www.lge.com</a>.</li><li>• Make sure to check if the video card supports Plug&amp;Play function.</li></ul> |
|--|---|

### USB function

- |  |  |
|--|--|
| <ul style="list-style-type: none"><li>● <b>USB function cannot be setup.</b></li></ul> | <ul style="list-style-type: none"><li>• Check if the USB cable is correctly connected.</li><li>• Check if the PC and OS are USB compliant. For verification of USB support, consult the manufacturer of each system.</li></ul> |
|--|--|

## Specifications

<b>Display</b>	15 inches (38.1cm) Flat Panel Active matrix-TFT LCD Anti-Glare coating 15 inches viewable 0.297mm pixel pitch	
<b>Sync Input</b>	Horizontal Freq.	30 - 63kHz (Automatic)
	Vertical Freq.	56 - 75Hz (Automatic)
	Input Form	Separate TTL, Positive/Negative SOG (Sync On Green) Digital
<b>Video Input</b>	Signal Input	15 pin D-Sub connector DVI - D connector (Digital)
	Input Form	RGB Analog (0.7Vp-p/75ohm), Digital
<b>Resolution</b>	Max	Digital : VESA 1024 x 768@75Hz Analog : VESA 1024 x 768@75Hz
	Recommend	VESA 1024 x 768@60Hz
<b>Plug&amp;Play</b>	DDC 2B	
<b>Power Consumption</b>	Normal	: 25W
	Stand-by/Suspend	≤ 2W
	DPMS Off	≤ 2W
<b>Dimensions &amp; Weight (with tilt stand)</b>	<b>Full Up Position</b>	
		
	Width	35.60 cm / 14.02 inches
	Height	38.00 cm / 14.96 inches
	Depth	22.90 cm / 9.02 inches
	Net	5.1 kg (11.24 lbs)
<b>Folded Position</b>		
		
Width	35.60 cm / 14.02 inches	
Height	10.33 cm / 4.07 inches	
Depth	29.14 cm / 11.47 inches	
<b>Tilt Range</b>	Tilt Range	-24° ~ 145° (Head)
	Height Range	3.89inch (86.1mm)
	Rotate	90° clockwise (Landscape->Portrait)
<b>Power Input</b>	AC 100-240V ~50/60Hz 0.6A	
<b>Environmental Conditions</b>	<b>Operating Conditions</b>	
	Temperature	10°C to 35 °C
	Humidity	10 % to 80 % non-Condensing
	<b>Storage Conditions</b>	
Temperature	-20°C to 60 °C	
Humidity	5 % to 95 % non-Condensing	
<b>Tilt Stand</b>	Attached( O ), Detached ( )	
<b>Signal cable</b>	Attached( ), Detached ( O )	
<b>Power cord</b>	Wall-outlet type or PC-outlet type	

### NOTE

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

## Specifications

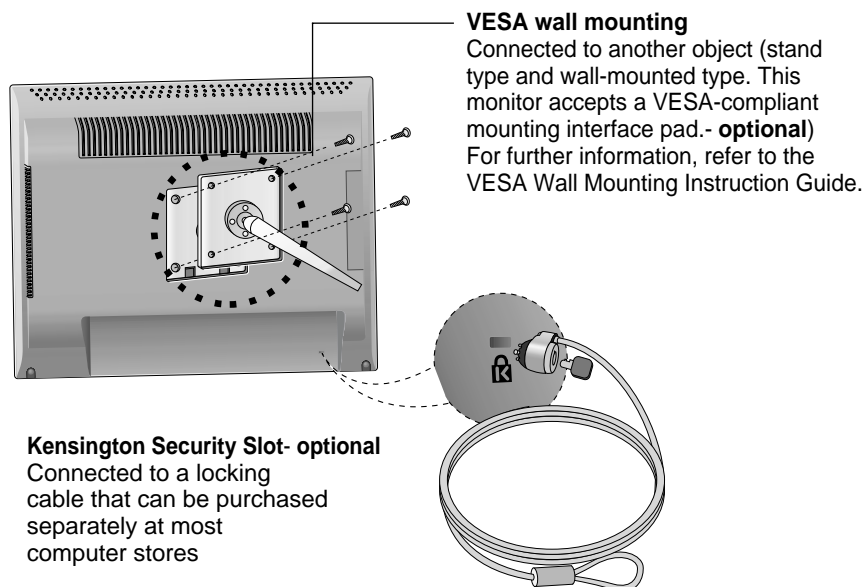
### Preset Modes (Resolution)

	Display Modes (Resolution)		Horizontal Freq. (kHz)	Vertical Freq. (Hz)
1	VGA	640 x 350	31.468	70
2	VGA	720 x 400	31.468	70
3	VGA	640 x 480	31.469	60
4	VESA	640 x 480	35.000	66.67
5	VESA	640 x 480	37.861	72.8
6	VESA	640 x 480	37.500	75
7	VESA	800 x 600	35.156	56.25
8	VESA	800 x 600	37.879	60
9	VESA	800 x 600	48.077	72
10	VESA	800 x 600	46.875	75
11	MAC	832 x 624	49.725	75
12	VESA	1024 x 768	48.363	60
13	VESA	1024 x 768	56.476	70
14	VESA	1024 x 768	60.023	75

### Indicator

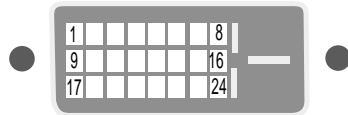
MODE	LED Color
Normal	green
Stand-by/Suspend	amber
DPMS Off	amber

## Specifications



# Specifications

## Signal Connector Pin Assignment



### ■ DVI-D Connector

Pin	Signal(DVI-D)	Pin	Signal(DVI-D)
1	T. M. D. S. Data2-	16	Hot Plug Detect
2	T. M. D. S. Data2+	17	T. M. D. S. Data0-
3	T. M. D. S. Data2/4 Shield	18	T. M. D. S. Data0+
4	T. M. D. S. Data4-	19	T. M. D. S. Data0/5 Shield
5	T. M. D. S. Data4+	20	T. M. D. S. Data5-
6	DDC Clock	21	T. M. D. S. Data5+
7	DDC Data	22	T. M. D. S. Clock Shield
8	Analog Vertical Sync.	23	T. M. D. S. Clock+
9	T. M. D. S. Data1-	24	T. M. D. S. Clock-
10	T. M. D. S. Data1+		
11	T. M. D. S. Data1/3 Shield		
12	T. M. D. S. Data3-		
13	T. M. D. S. Data3+		
14	+5V Power		
15	Ground (return for +5V, H. Sync. and V. Sync.)		

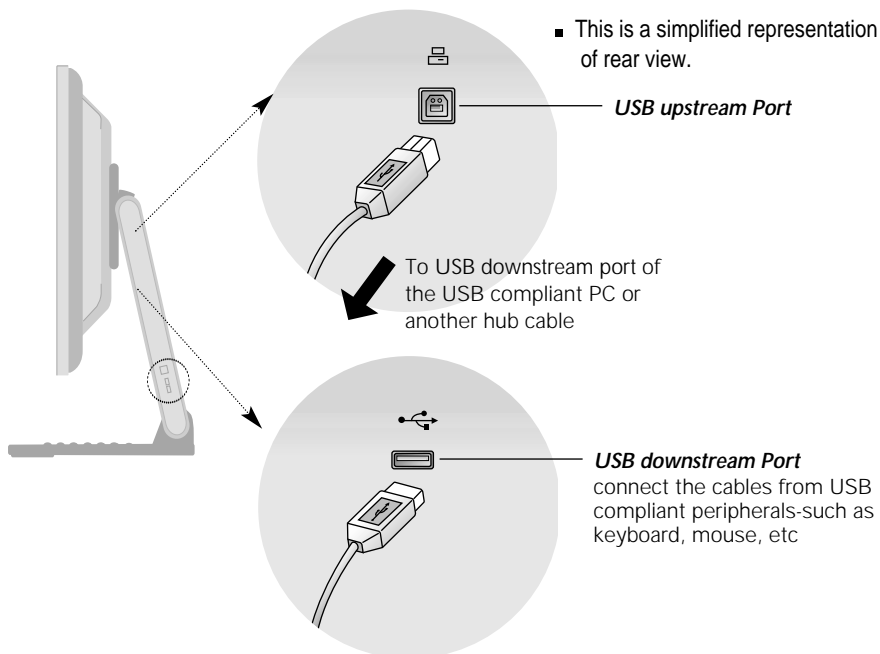
T. M. D. S. (Transition Minimized Differential Signaling)

## Making use of USB (Universal Serial Bus) - Optional

**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, and other peripherals to your display 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 a chain of 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 the Plug and the Plug auto detection and configuration. This display has an integrated BUS-powered USB hub, allowing up to 2 other USB devices to be attached it.**

### USB connection

1. Connect the upstream port of the display 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 display.



### NOTE

- To activate the USB hub function, the display 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.
- Even if the display 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 display.



## Making use of USB (Universal Serial Bus) - Optional

### USB Specifications

<b>USB standard</b>	Rev. 1.1 complied BUS-powered hub
<b>Downstream power supply</b>	100mA for each (MAX)
<b>Communication speed</b>	12 Mbps (full), 1.5 Mbps (low)
<b>USB port</b>	1 Upstream port 2 Downstream ports

**IMPORTANT:** These USB connectors are not designed for use with high-power USB devices such as a video camera, scanner, etc. LGE recommends connecting high-power USB devices directly to the computer

Digitally yours ■■■■■.....

