# Colour Monitor

USER GUIDE
BENUTZERHANDBUCH
MANUAL D'UTILISATION
GUIDA UTENTE
GUIA DEL USUARIO

MODEL : LB500C

# AGENCY REGULATORY NOTICE

**FCC Compliance Statement**

This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception (which can be determined by turning the equipment off and on), the user is encouraged to try to correct the interference by using one or more of the following measures:

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

**Caution:** Changes or modifications not expressly approved by LG Electronics Inc. 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.

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

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

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

**TCO'95 Compliance**

This monitor complies with TCO'95 (The Swedish Confederation of Professional Employees) guidelines for low frequency electric fields, magnetic fields, static electricity, and visual ergonomic requirements. Futhermore, this model is produced with concern for the environment and contains no harmful substances in any of its components.

**CE Conformity Notice**

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

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

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

# Table of Contents

The **LB500C** 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 **LB500C** is a 15.1-inch (15.1 inches viewable ) intelligent micropro-cessor 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 intelligence allows the monitor to operate in each frequency mode with the precision of a fixed frequency monitor.

The microprocessor-based digital controls allow you to adjust conveniently a variety of image controls by using the OSD (On Screen Display).

It supports resolutions up to 1024x768, and has a wide viewing angle of $\pm60$ degrees horizontal and $\pm45$ degrees vertical.

The monitor is shipped with 14 factory pre-programmed video modes that are permanently resident. In addition, there are 4 user-storable modes, for a total of 18 memory modes.

For greater user health and safety, this monitor complies with the stringent Swedish TCO '95 requirements for low radiation emissions.

# 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.                : _____

## Notice

All rights reserved. Reproduction in any manner, in whole or in part, is strictly prohibited without the written permission of LG Electronics Inc.

## Trademark Acknowledgments

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

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

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

# Important Precautions

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

1. 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 standards (UL/CSA or VDE) 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.

2. 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 your dealer.

3. 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.

4. **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.

5. 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.

6. 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 or office.
   - 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

1. 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.

2. 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.

3. 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.

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

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

6. 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.

7. If possible, use the VESA 1024x768 @60Hz video mode to obtain the best image quality for your LCD monitor. If used under any modes except the VESA 1024x768 @60Hz video mode, some scaled or processed images may appear on the screen. However, this is the characteristics of the LCD panel which has a fixed resolution of 1024x768 at 60Hz.

## On Cleaning

■ Unplug the monitor before cleaning the face of the LCD Screen.
■ Dust the monitor by wiping the screen and the cabinet with a soft, clean cloth. If the screen requires additional cleaning, use a clean, damp cloth.
■ Do not use liquid cleaners or aerosol cleaners.

## 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.

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# Connecting the Monitor

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

## Connect to any IBM PC

**1** Power off both the monitor and PC.

**2** Connect the 15-pin VGA connector of the supplied signal cable to the output VGA video connector on the PC and the matching input connector on the rear of the monitor. The connectors will mate only one way. If you cannot attach the cable easily, turn the connector upside down and try again. When mated, tighten the thumbscrews to secure the connection.

**3** Connect the plug from the AC-DC adapter into the connector on the display unit.❶ Connect one end of the AC power cord into the AC-DC adapter.❷ Plug the other end into a properly grounded three-prong AC outlet. ❸

**4** Power ON the PC, then the monitor.

**5** If you see the **Check Signal Cable** message, check the signal cable and connectors.

**6** After using the system, power OFF the monitor, then the PC.

**Note** : If you see the "Outside Range Limits" message, check to make sure your system is set to one of the factory preset modes.(see page A14)



D-15P

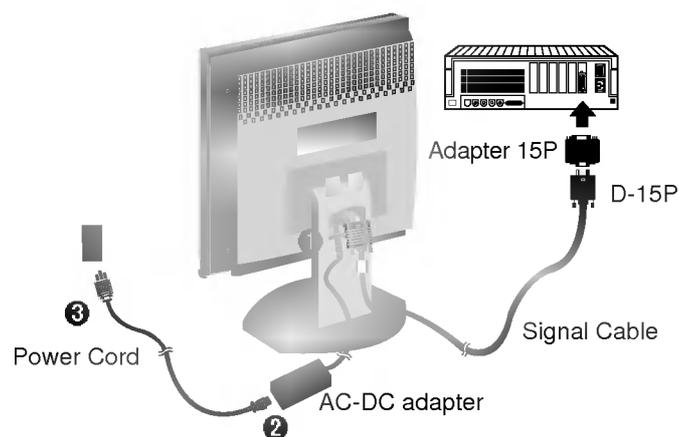Power Cord

AC-DC adapter

Signal Cable

❷
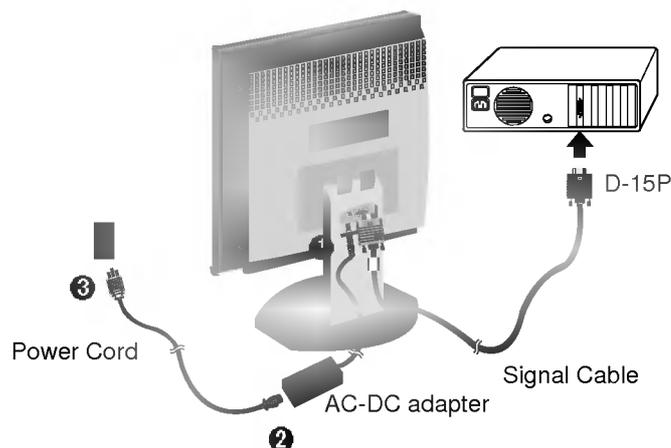
## Connect to an APPLE Macintosh System

Figure shows the connection to an Apple Macintosh, using a separately purchased adapter. For more information on adapter requirements, contact your authorized dealer, reseller, or service provider.
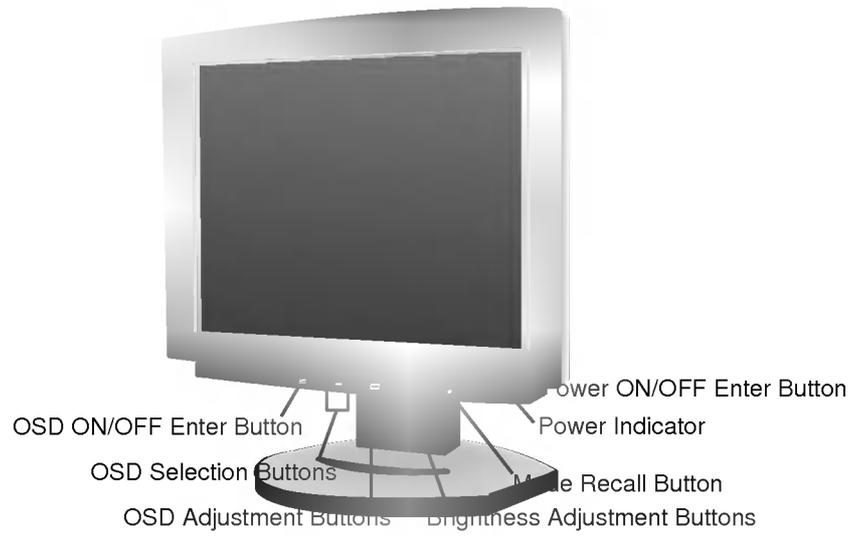
**1** Power OFF both the monitor and the PC.

**2** Locate the appropriate MAC to VGA adapter block at your local computer store. This adapter changes the high density 3 row 15 pin VGA connector to the correct 15 pin 2 row connection to mate with your MAC. Attach the other end of the signal cable to the side of the adapter block with 3 rows.

**3** Connect the attached adapter block/signal cable to the video output on your MAC.

**4** Connect the plug from the AC-DC adapter into the connector on the display unit. ❶ Connect one end of the AC power cord into the AC-DC adapter.❷ Plug the other end into a properly grounded three-prong AC outlet.❸

**5** Power ON the PC, then the monitor.

**6** If you see the **Check Signal Cable** message, check the signal cable and connectors.

**7** After using the system, power OFF the monitor, then the PC.

**Note** : If you see the "Outside Range Limits" message, check to make sure your system is set to one of the factory preset modes.(see page A14)

Adapter 15P

D-15P

Signal Cable

❸

Power Cord

AC-DC adapter

❷

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# Location and Function of Controls

## Front View

OSD ON/OFF Enter Button
OSD Selection Buttons
OSD Adjustment Buttons
Power ON/OFF Enter Button
Power Indicator
Mode Recall Button
Brightness Adjustment Buttons

## Rear View

ID Label

DC Power Connecter
D-Sub Signal Connecter
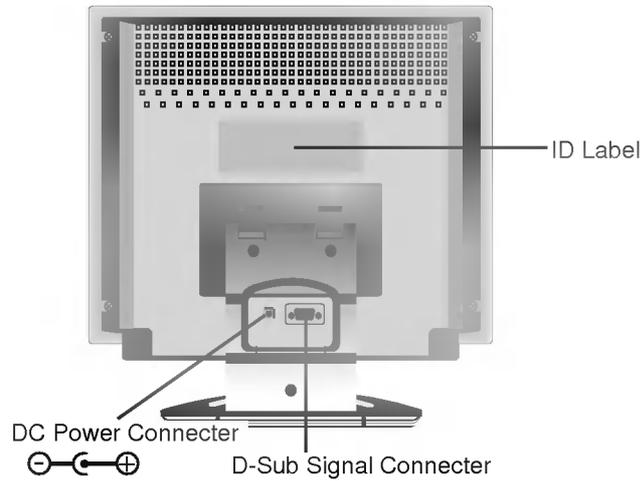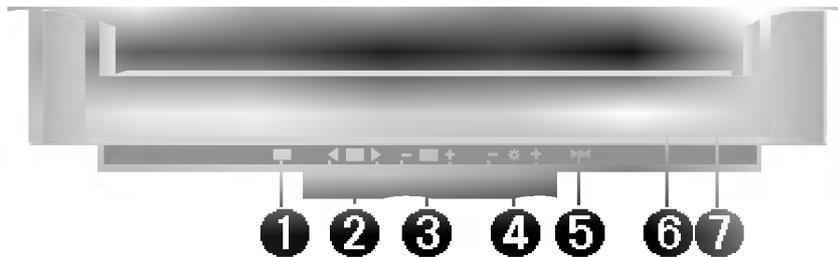
## On Screen Display(OSD) Control Adjustment

**❶** ➡️ **❷** ➡️ **❸** ➡️ **❶**

Start the OSD    **( ◄ ► )** Select an OSD icon to be adjusted    **( - + )** Adjust the level of the selected item    Exit the OSD
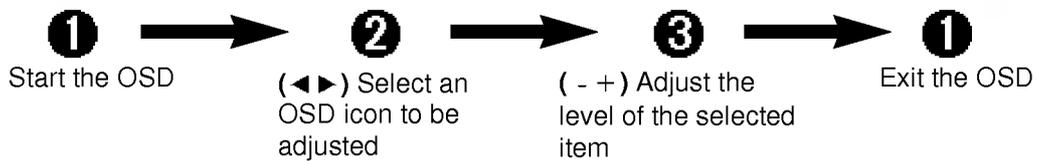
## Control Panel Function

Buttons on the underside of the monitor allow you to adjust the image easily through an OSD menu. As you choose controls, the selected icon shows you what the chosen control will do. These pictures give you immediate understanding of the controls. The following is a description of use for each button.

**❶ OSD ON/OFF Enter Button ( ☰ )**

Use this button to start and exit from the On Screen Display (OSD).

**❷ OSD Selection Buttons ( ◄ ► )**

Use these buttons for selecting (highlighting) an OSD icon to be adjusted.

**❸ OSD Adjustment Buttons ( - + )**

Use these buttons for adjusting the level of the selected item.

**❹ Brightness Adjustment Buttons ( ☼ )**

Use these buttons for adjusting the brightness of screen.



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**⑤** **Mode Recall Button (▶○◀)**

If the monitor is operating in a factory preset mode, this control will reset the image to the factory preset mode.
If the monitor is operating in a user mode, this control has no effect.

```
▶◀ Mode Recall

NO        ▬▬
```
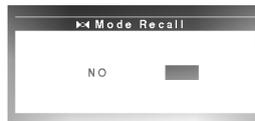
**⑥** **Power Indicator ( o )**

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.

**⑦** **Power ON/OFF Enter Button ( ⏻ )**

This button is used to turn the monitor ON and OFF.

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# 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 |
|---|---|
| ◐ **Contrast** | To adjust the display to the contrast desired. |
| **H Position** | To move picture image left and right.<br><br>- Moves the screen image left.<br>+ Moves the screen image right. |
| **V Position** | To move image up and down.<br><br>- Moves the screen image down.<br>+ Moves the screen image up. |
| **Clock** | To adjust the horizontal size of the image.<br><br>- Decrease the horizontal size of the image.<br>+ Increase the horizontal size of the image. |
| **Clock Phase** | To adjust the focus of the display.<br>This item allows you to remove any horizontal noise and clear or sharpen the image of characters. |

| OSD Adjust | Description |
|---|---|
| ⌛ **OSD Time** | To select OSD display duration time. (5 - 100 seconds) |
| 🌐 **Color Select** | To select color temperature, 9300K/ 6500K and USER.<br><br>**9300K** : Slightly bluish white.<br>**6500K** : Warm-white tone, similar to white paper or daylight. This temperature is good for video-image display. This is the default setting for your monitor.<br><br>Select the desired color temperature or select user to set your own color levels.<br>To adjust **USER**, select the + button. Allow for specific adjustments to Red, Green, Blue (R/G/B) and (Color) Recall. Select the **Recall** to reset the color to the default setting. |
| 🔲 **OSD Position** | This item gives access to 2 elements : Horizontal position and Vertical position.<br>Press the select button to select the desired item to change.<br>To correct OSD image's Horizontal position and Vertical position.<br>**Horizontal position** : To move image right and left.<br>**Vertical position** : To move image up and down. |

| OSD Adjust | Description |
|---|---|
| 🌐 **Language Select**<br><br>🌐 Language<br>DE FR ES IT<br>[English] | To choose the language in which the control names are displayed.<br>OSD Menus are available in five language : **English, German, French, Spanish, and Italian.** |
| ⓘ **Information**<br><br>ⓘ Information<br>1024X768/75Hz<br>Preset Mode: 14<br>User Mode: 0<br><br>1 31.5kHz / 70Hz<br>2 31.5kHz / 70Hz<br>3 31.5kHz / 60Hz<br>4 35.0kHz / 67Hz<br>5 37.9kHz / 73Hz<br>6 37.5kHz / 75Hz<br>7 35.2kHz / 56Hz<br>8 37.9kHz / 60Hz ▾ | To inform users of preset and user mode data. |
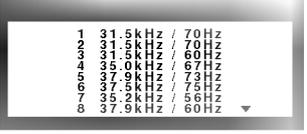
# Video Memory Modes

The monitor has 18 memory locations for display modes, 14 of which are factory preset to popular video modes.

## Factory Preset Timing Signal Chart
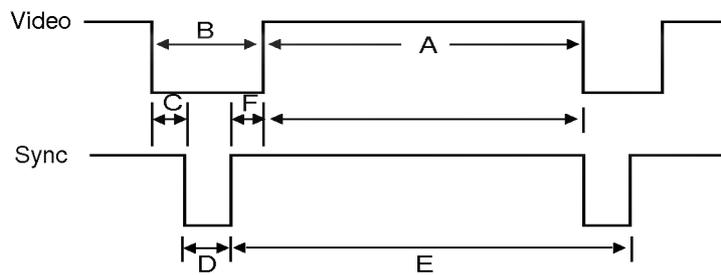


| | | | Mode1 | Mode2 | Mode3 | Mode4 | Mode5 | Mode6 | Mode7 | Symbol |
|---|---|---|---|---|---|---|---|---|---|---|
| **H** | **Polarity** | | + | - | - | - | - | - | + | |
| **O** | **Frequency** | kHz | 31.468 | 31.468 | 31.469 | 35.00 | 37.861 | 37.50 | 35.156 | |
| **R** | **Total Period** | pixels | 800 | 900 | 800 | 864 | 832 | 840 | 1024 | E |
| **I** | **Data Period** | pixels | 640 | 720 | 640 | 640 | 640 | 640 | 800 | A |
| **Z** | **Blanking** | pixels | 160 | 180 | 160 | 224 | 192 | 200 | 224 | B |
| **O** | | | | | | | | | | |
| **N** | **Front Porch** | pixels | 16 | 17 | 16 | 64 | 24 | 16 | 24 | C |
| **T** | **Pulse Width** | pixels | 96 | 108 | 96 | 64 | 40 | 64 | 72 | D |
| **A** | | | | | | | | | | |
| **L** | **Back Porch** | pixels | 48 | 55 | 48 | 96 | 128 | 120 | 128 | F |
| **V** | **Polarity** | | - | + | - | - | - | - | + | |
| **E** | **Frequency** | Hz | 70 | 70 | 60 | 66.67 | 72.8 | 75.0 | 56.25 | |
| **R** | **Total Period** | lines | 449 | 449 | 525 | 525 | 520 | 500 | 625 | E |
| **T** | **Data Period** | lines | 350 | 400 | 480 | 480 | 480 | 480 | 600 | A |
| **I** | **Blanking** | lines | 99 | 49 | 45 | 45 | 40 | 20 | 25 | B |
| **C** | **Front Porch** | lines | 37 | 13 | 10 | 3 | 9 | 1 | 1 | C |
| **A** | | | | | | | | | | |
| **L** | **Pulse Width** | lines | 2 | 2 | 2 | 3 | 3 | 3 | 2 | D |
| | **Back Porch** | lines | 60 | 34 | 33 | 39 | 28 | 16 | 22 | F |
| | **Resolution** | | 640 × 350 | 720 × 400 (Text) | 640 × 480 | 640 × 480 | 640 × 480 | 640 × 480 | 800 × 600 | |
| | **Recall** | | YES | YES | YES | YES | YES | YES | YES | |

|   |   |   | Mode8 | Mode9 | Mode10 | Mode11 | Mode12 | Mode13 | Mode14 | Symbol |
|---|---|---|---|---|---|---|---|---|---|---|
| H O R I Z O N T A L | Polarity |  | + | + | + | - | - | - | + |  |
|  | Frequency | kHz | 37.879 | 48.077 | 46.875 | 49.725 | 48.363 | 56.476 | 60.023 |  |
|  | Total Period | pixels | 1056 | 1040 | 1056 | 1152 | 1344 | 1328 | 1312 | E |
|  | Data Period | pixels | 800 | 800 | 800 | 832 | 1024 | 1024 | 1024 | A |
|  | Blanking | pixels | 256 | 240 | 256 | 320 | 320 | 304 | 288 | B |
|  | Front Porch | pixels | 40 | 56 | 16 | 32 | 24 | 24 | 16 | C |
|  | Pulse Width | pixels | 128 | 120 | 80 | 64 | 136 | 136 | 96 | D |
|  | Back Porch | pixels | 88 | 64 | 160 | 224 | 160 | 144 | 176 | F |
| V E R T I C A L | Polarity |  | + | + | + | - | - | - | + |  |
|  | Frequency | Hz | 60.3 | 72.188 | 75.0 | 74.55 | 60.0 | 70.0 | 75.0 |  |
|  | Total Period | lines | 628 | 666 | 625 | 667 | 806 | 806 | 800 | E |
|  | Data Period | lines | 600 | 600 | 600 | 624 | 768 | 768 | 768 | A |
|  | Blanking | lines | 28 | 66 | 25 | 43 | 38 | 38 | 32 | B |
|  | Front Porch | lines | 1 | 37 | 1 | 1 | 3 | 3 | 1 | C |
|  | Pulse Width | lines | 4 | 6 | 3 | 3 | 6 | 6 | 3 | D |
|  | Back Porch | lines | 23 | 23 | 21 | 39 | 29 | 29 | 28 | F |
| Resolution |  |  | 800 × 600 | 800 × 600 | 800 × 600 | 832 × 624 (MAC) | 1024 × 768 | 1024 × 768 | 1024 × 768 |  |
| Recall |  |  | YES | YES | YES | YES | YES | YES | YES |  |

**Note** : This LCD monitor has been pre-adjusted to the video mode of VESA 1024x768 @60Hz.

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## User Modes

Modes 15-18 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 the 4 blank modes and still have more new video modes, the monitor replaces the information in the user modes starting with mode 15.

## Recalling Display Modes

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

You may, however, manually force a recall of each of the 14 preset modes by pressing the Recall button. All preset modes are automatically recalled as the monitor senses the incoming signal.

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

# Power Management System

This monitor incorporates new circuitry for lowering energy usage during idle time, following the Display Power Management Signalling (DPMS) guide lines of the Video Electronics Standards Association (VESA), and is certified as exceeding the EPA's Energy Star program for reduced power usage.
For the power savings feature to operate, the monitor must be used with a PC having power saving circuitry. The monitor has three power-saving states, and the power saving operation is indicated by the power indicator on the front panel. When the power indicator is green, operation is normal. When the power indicator is amber, the monitor is in a power saving mode.
If the power indicator is amber, press the power button to turn on the monitor. If the power indicator is amber and you wish to use the PC again, move your mouse pointer or touch a keyboard button. When the monitor is not in use, save energy by turning it off.

## Power Consumption

| Mode | H.Sync | V.Sync | Video | Power Consumpion | LED Color |
|---|---|---|---|---|---|
| Normal(Max.) | On | On | Normal | $\leq$ 40W | Green |
| Stand-by | Off | On | Off | $\leq$ 5W | Amber |
| Suspend | On | Off | Off | $\leq$ 5W | Amber |
| Power off | Off | Off | Off | $\leq$ 5W | Amber |

## 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 anti-static screen coating. These guidelines, set forth by a government agency in Sweden, limit the amount of emission allowed in the Extremely Low Frequency (ELF) and Very Low Frequency (VLF) electromagnetic range.

## Self Diagnostics

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

## DDC (Display Data Channel)

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

**NOTE :** ■ PC must support DDC functions to do this.
■ Some older computer systems are not compatible with the DDC standard. If your monitor is displaying a monochrome image or the wrong resolution, you need to change to a DDC compatible VGA card.

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# Troubleshooting

**Symptom :** Any horizontal noise appearing in any image or characters are not clearly portraid.
**Possible Causes :**
- The input signal data has not been optimized for the current operating mode. (Adjust the CLOCK PHASE by using the OSD function.)

**Symptom : Check Signal Cable** message.
**Possible causes :**
- The signal cable is not connected.

**Symptom :** ■ **Outside Range Limits** message appears.
　　　　　　 ■ Picture is blank.
**Possible causes :**
- The frequency of the sync input 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 **Safety Mode** (Press the F8 key during booting the system.).

**Symptom :** The power LED is illuminated amber.
**Possible causes :**
- Display power management mode.
- These is no sync signal.
- The signal cable is not fastened securely.
- Check the computer power and graphics adapter configuration.

**Symptom :** The image on the SCREEN is not centered, too small, or too large.
**Possible Causes:**
- Image adjustment not been done yet in the current operating mode. Use the SELECT and - or + buttons to set the image to your liking (H/V Position, Clock).

**Symptom :** The monitor doesn't enter the power saving off mode (Amber).
**Possible Causes :**
- 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.

**Sympton :** During the adjustment of the vertical position, the screen image can suddenly disappear.
**Possible Causes :**
- Some input signal data not described in the manual may have this phenomenon because the image processor has limitations covering all the image process. (Adjust the vertical position again by using the OSD function.)
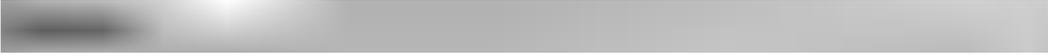
1. Unplug the monitor from the wall outlet and refer servicing to qualified service personnel when:
   - The power cord or plug is damaged or frayed.
   - Liquid has been spilled into the monitor.
   - The monitor has been exposed to rain or water.
   - The monitor does not operate normally following 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.

2. 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.

3. When replacement parts are required, have the service technician verify in writing that the replacements used have the same safety characteristics as the original parts. Use of manufacturer specified replacements can prevent fire, shock, and other hazards.

4. Upon completion of any service or repairs to the monitor, ask the service technician to perform the safety check described in the manufacturer's service manual.

5. When a video monitor reaches the end of its useful life, improper disposal could result in a picture tube implosion. Ask a qualified service technician to dispose of the monitor.

# Specifications

## Sync Signal type

| Type | H. sync | V.sync |
|---|---|---|
| Separate sync | H. sync | V. sync |

## Signal Connector Pin Assignment
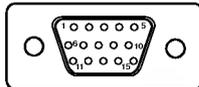


| Pin | Separate Sync | Pin | Separate Sync |
|---|---|---|---|
| 1 | Red | 9 | NC |
| 2 | Green | 10 | Ground |
| 3 | Blue | 11 | Ground |
| 4 | Ground | 12 | SDA |
| 5 | Self-Test | 13 | Horizontal Sync |
| 6 | Red Ground | 14 | Vertical Sync |
| 7 | Green Ground | 15 | SCL |
| 8 | Blue Ground | | |

## AC-DC Adapter

| Input | AC 100-240V 50-60Hz 81-120VA 1.2A |
|---|---|
| Out put | DC 24V 1.9A |

Manufacturer : AMBIT Microsystems Corporation
Model : APA-45AA

Use only the AC-DC adapter supplied with the monitor.

# Specifications

| Display | |
|---|---|
| Type | 15.1inch (38.35cm) Flat Panel Active matrix-TFT LCD, Anti-Glare coating |
| Viewable Size | 15.1inch (38.35cm) |
| Pixel pitch | 0.3 x 0.3mm |
| True color | 16.5million |
| **Sync Input** | |
| Horizontal Freq. | 31kHz - 61kHz (Automatic) |
| Vertical Freq. | 56Hz - 75Hz (Automatic) |
| Input form | Separate, TTL, Positive/Negative |
| Signal input | 15 pin D-Sub connector |
| **Video Input** | |
| Display Area | 307 x 230mm |
| Input Form | Separate, RGB Analog, 0.714Vp-p/75ohm, Positive |
| **Resolution** | **XGA 1024 x 768/ 75Hz max** |
| **Power Input** | DC 24V  1.2A |
| **Dimensions** (WxDxH) | 15.95 x 7.18 x 14.24inch / 405.2 x 182.4 x 361.6mm |
| **Weight ( net )** | 5.6kg / 12.35lbs |
| **Tilt Range** | |
| Down | 5˚ |
| Up | 30˚ |
| **Environment** | |
| 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 |

Information in this document is subject to change without notice and does not represent a commitment on the part of LG Electronics Inc.