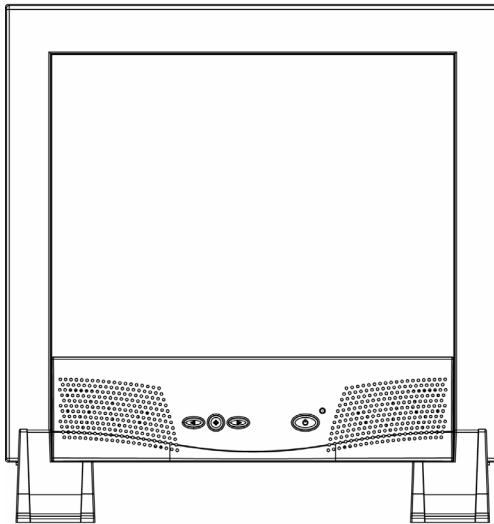


Goodmans

GLCD15M

15" LCD MONITOR



INSTRUCTION MANUAL

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Introduction

This latest LCD monitor has a 15-inch active matrix TFT (thin film transistor) liquid crystal display module. It can be used with set top boxes, DVD players, VCR's and also windows based PC's .

Features

Important features include:

- ⇒ Automatic configuration to the PC video settings with maximum XGA resolution.(1024 x 768)
- ⇒ Three control buttons plus OSD (on-screen display) for monitor settings adjustment and configuration with ease and instant feedback.
- ⇒ Supports analogue video input for direct and immediate replacement of CRT displays.
- ⇒ Supports composite video input for TV signal.
- ⇒ Built-in speakers.
- ⇒ Anti-glare coating on the panel to reduce the reflection of ambient light.
- ⇒ Flicker-free performance across all recommended video modes.
- ⇒ Support for high refresh rates up to 75 Hz for PC use.
- ⇒ VESA DDC2B Plug-and-Display compliant.
- ⇒ Power-saving feature that is compatible with Microsoft® Windows
- ⇒ Compliance with Swedish MPR II guidelines for reduced electromagnetic emissions.

For Safe use of this product

For safe use and the protection of the monitor, please follow these precautions:

ENGLISH

Warning

To completely disconnect power from the display, remove the power cord from the wall outlet and then remove the power cable from the display.

- ⇒ Use only the factory-supplied power adaptor shipped with the monitor.
- ⇒ To prevent electrical shock, do not disassemble the display. The cover should be removed only by qualified service personnel.
- ⇒ Do not cover the air vents.
- ⇒ To avoid the risk of damage to the display and electrical shock, do not expose the display to rain or moisture.

If any of the following conditions occur, unplug the display and contact qualified service personnel:

- ⇒ The power cord or plug is frayed or damaged.
- ⇒ Liquid has been spilled into the display.
- ⇒ The display has been exposed to rain or water.
- ⇒ The display does not operate correctly when the operating instructions are followed.
- ⇒ The display has been dropped or the cabinet has been damaged.

Installation

Please follow the instructions in this chapter to install the LCD Monitor.

Note: *Before connecting the display, first read through the instructions in this chapter and the safety precautions on the previous page.*

Unpacking the Display

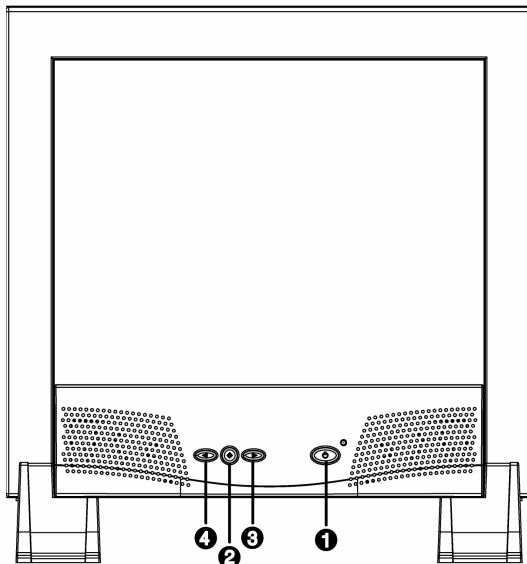
When unpacking the display, make sure that the following items are present:

- ⇒ The LCD monitor
- ⇒ AC power adapter with attached power cable
- ⇒ Power cord with 3 pin mains plug
- ⇒ Analogue video signal cable
- ⇒ Scart video signal cable.
- ⇒ The User's Manual

Note: *Place the display on a flat, sturdy surface. Choose an area free from excessive heat, moisture, and sunlight.*

Locations and Functions of Controls

There are three control buttons and one power button on the front panel of the display, as well as an LED indicator for power status indication.



- ① Power button
- ② Select button
- ③ Right navigation
- ④ Left navigation

The power button is located on the lower right of the panel.
The functions of the three control buttons, which are located at the lower middle-left side of the front panel of the display, are described as below:

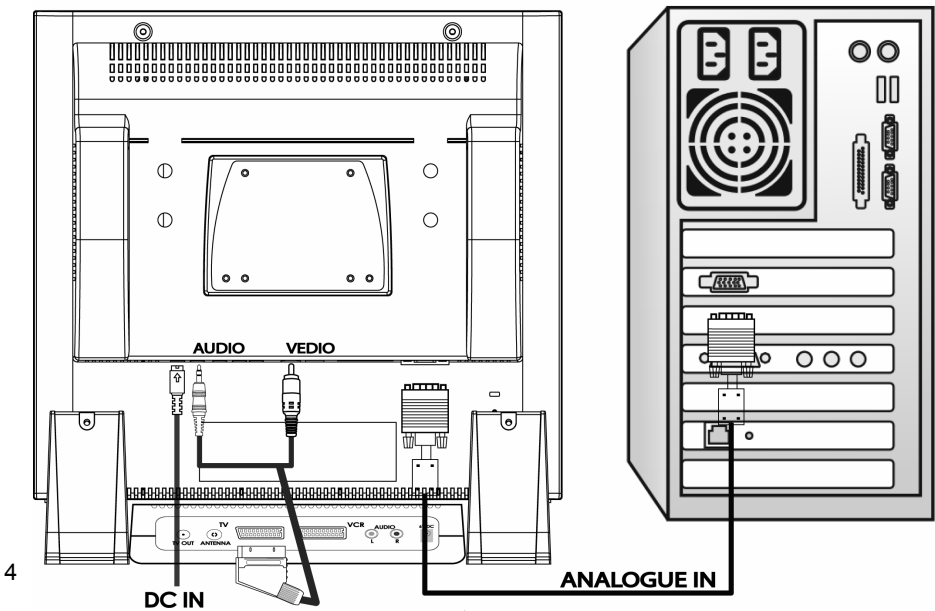
Button	Function Description
Select	(1) Bring-up OSD Main Menu. (2) Select item for user adjustment.
Right (▷)	(3) Item selection move upward or user-adjustable value increasing (in main menu). (4) Bring-up Audio/Video Menu (Direct-key function).
Left (◁)	(5) Item selection move downward, user-adjustable value decreasing (in Main Menu) . (6) Auto Setup (Direct-key function, PC input signal only).

Making the Connections

Before connecting any cables, make sure that the computer and display are turned off.

To connect the power and video signal cables:

1. Locate the AC power adapter with attached power cable.
2. Connect the power cable to the DC input socket on the rear of the display ("DC IN" as shown below).
3. Plug the three-pin power cord into a power outlet, and plug the other end into the AC power adapter.



When using with a PC:

4. Plug the analogue video signal cable into the Analogue Video Input port on the back of the display ("ANALOG IN" as shown above).
5. Connect the other end of the video cable into the computer's video port. (Please check the computer's documentation if you're not sure where the port is located.)

Note: For best display performance, it is strongly recommended that Auto Setup is used to automatically configure the display's settings (only for Analogue input).

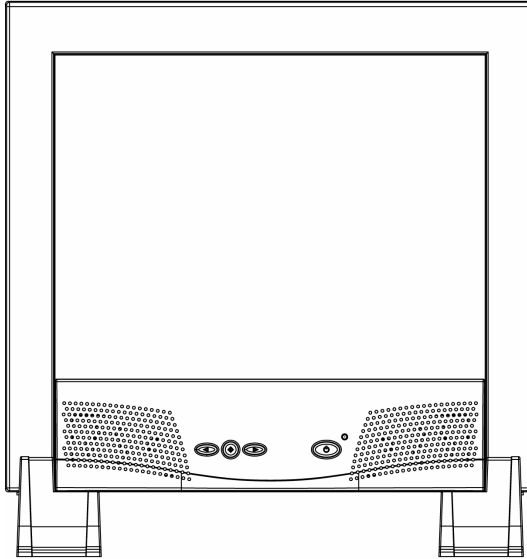
Connecting a set top box / DVD players

6. Locate the scart to composite video/video cable.
7. Insert the scart plug into the scart socket of the set top box / DVD player.
8. Connect the larger RCA plug to the composite video in socket on the rear of the panel.
9. Connect the smaller 3.5 mm jack plug of the audio in socket on the rear of the panel.

Using The Display

Turning the Display On and Off

Use the power button located at the lower right side of the front panel of the display to turn the display on and off. When the display is on, the LED near the Power button is illuminated. The indicator will illuminate green when both the display is active and amber when the display is in reduced power mode.(PC only)



Note : For PC use only.

If the PC supplies power saving signals to the display, the display's power management features reduce power consumption to low levels when the PC goes into its power-saving mode. See "Minimizing Power Consumption" on page 7 for more information.

If the PC doesn't use industry standard power-save signaling techniques, power consumption can be reduced by turning off the display when not in use.

Note: *Because of the technology used in LCD panels, screen savers will not prolong the life of the display. So if the display will not be used for an extended period, be sure to turn it off.*

Warning

To completely disconnect power from the display, you must remove the power cord from the wall outlet and then remove the power cable from the display.

Setting the Video Mode (PC only)

Since the inherent format of this display is 1024 pixels by 768 lines, the display will perform best when a PC is set to a screen resolution of 1024 x 768. If using a lower resolution (such as 640 x 480), the image is expanded to fill the screen.

The display supports many common video modes, as shown in “Video Modes” on page 17. Check the documentation supplied with the PC and video adapter card to find out which modes they support.

To check the video mode of the PC, please check the Windows’ settings feature.

Setting the Refresh Rate (PC only)

The image *refresh rate* is the number of times per second that the image is refreshed; it is also known as the *vertical frequency*.

On standard CRT displays, we recommend that the highest possible refresh rate supported by your PC at the current screen resolution should be used. This is necessary to avoid screen flickering and to minimize eyestrain. However, with an LCD Monitor, flicker is not an issue. It is flicker-free at all supported refresh rates.

The table in “Video Mode” on page 17 shows the image refresh rates supported by the display at different screen resolution. Although this LCD monitor supports up to 75 Hz for analogue video input, we recommend that is used at **60 Hz** refresh rate for best performance.

To set the refresh rate with a standard Windows installation, follow the steps mentioned in the Windows’s or graphic card’s user’s manual.

Minimizing Power Consumption (PC only)

Many PCs support industry standard power-save signaling techniques. Power management features reduce the display’s power consumption after a period of keyboard inactivity.

When the display is in a power-saving mode, the screen is blank and the power indicator is amber. Pressing a key on the keyboard or moving the mouse restores the image in several seconds. Consult the PC documentation for information about setting the power-saving modes.

The display accepts the signals for the three standard power-saving modes – Standby, Suspend, and Sleep. For any of these conditions, the display will go into Sleep mode.

Caring for and Cleaning the Display

To maximize screen life and prevent damage to the LCD panel, we recommend to:

- ⇒ Use the display power management system (if available on the PC).
- ⇒ If a power management system is not used, turn off the display when it won't be used for an extended period.
- ⇒ Don't press, rub, or poke the display with fingers or other objects.
- ⇒ Handle the display with care.

The LCD module is a high-quality optical device that requires special care when cleaning.

Warning

Don't use liquid, aerosol, or abrasive cleaning solutions to clean the screen.

To clean the screen:

1. Turn off and unplug the display.
2. Gently dust the screen with a dry, soft, line-free cloth.

Note: *If the screen is still dirty, a dampened cloth with several drops of distilled water can be used. Make sure the LCD panel is completely dry before turning back on.*

Adjusting The Display

Summary of Control Buttons

There are three control buttons located at the lower part of the front panel of the display:

⇒ **Select** : Display the On-Screen Display (OSD) “**Main Menu**” and selects items for user adjustment.

⇒ **Right (>)** : Move upwards through the options in the OSD submenu. If an adjustment bar is displayed, this button increases the setting value.

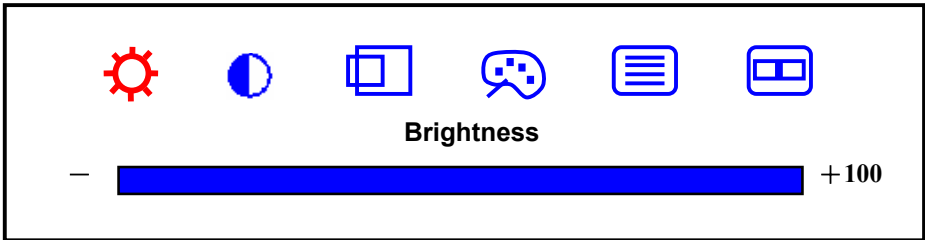
Note : This key is also used as ‘direct key’ to bring-up OSD “AUDIO/VIDEO”.

⇒ **Left (<)** : Move downward through the options in the OSD submenu. If an adjustment bar is displayed, this button decreases the setting value.

Note : This key is also used as ‘direct key’. When the OSD “Main Menu” is inactive, press this key will bring-up ‘AUTO SETUP’ submenu.(PC only)

Displaying the OSD “Main Menu”

To display the OSD “**Main Menu**”, please press the ‘**Select**’ button.



The following table briefly describes each of the items in the OSD “**Main Menu**”.

Item	Description
Brightness	Controls the brightness of the display. The default setting of brightness is maximum.
Contrast	Adjust the level of difference between light and dark areas of the image. The default setting of contrast is at 50.
Display (PC mode only)	Open the “ Display ” submenu where you can select horizontal (H.) or vertical (V.) position for further adjustment.
Color	Open the “ Color ” submenu where Color Temperature, Luminance, Hue, Color and Sharpness can be adjusted. See “Making Adjustments Via the OSD Menu” on page 10.
Clock/Phase (PC mode only)	Open the “ Clock/Phase ” submenu to select Auto Setup or Clock or Phase for further adjustment.
Management	Open the “ Management ” submenu to select display mode information (Mode Info), OSD Display, select input signal (source), and recall factory settings for further adjustment. See “Making Adjustments Via the OSD Menu” on page 10.

Selecting Items in the OSD Menu

To select items in the OSD “**Main Menu**”, use the ‘**Select**’ button on the front panel of the display.

To select items in the OSD submenus, use all three control buttons. To select a specific submenu, use the ‘**Select**’ button to locate the required option. Then choose any item in the selected submenu by using ‘**Right**’ or ‘**Left**’ buttons, and then select it by press ‘**Select**’ button.

Making Adjustments Via the OSD Menu

Adjusting Brightness

- Press the **SELECT** button to show the OSD menu.
- The brightness icon will be highlighted (RED)
- Using the **left** and **right** control buttons increase or decrease the brightness level as required between the limits of “0” and “100”.

Adjusting Contrast

- Press the **SELECT** button to show the OSD menu..
- The brightness icon will be highlighted (RED)
- Press the **SELECT** button again the contrast icon will now change to RED to indicate it is the active function.
- Use the **left** and **right** control buttons increase or decrease the brightness level as required between the limits of “0” and “100”.

Adjusting Display Properties (only available when connected to a PC)

Press the **SELECT** button to show the OSD menu

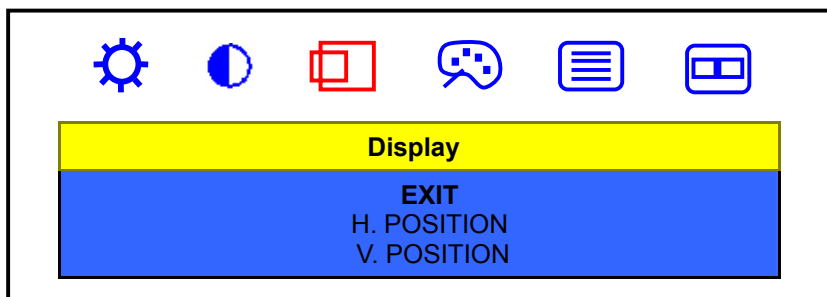
The brightness icon will be highlighted (RED)

Press the **SELECT** button twice the Disply icon will now change to RED to indicate it is the active function,

Using the **left** and **right** control buttons select the required feature from the sub menu **H.Position** or **V.Position** or to exit this menu select **EXIT**, press the **SELECT** button to confirm the required option.

Using the **left** and **right** control buttons adjust the image position, in H.Position mode the **left** button shifts the image left and the **right** button shifts the image right.

In V.Position mode the **left** button shifts the image DOWN and the **right** button shifts the image the image UP.

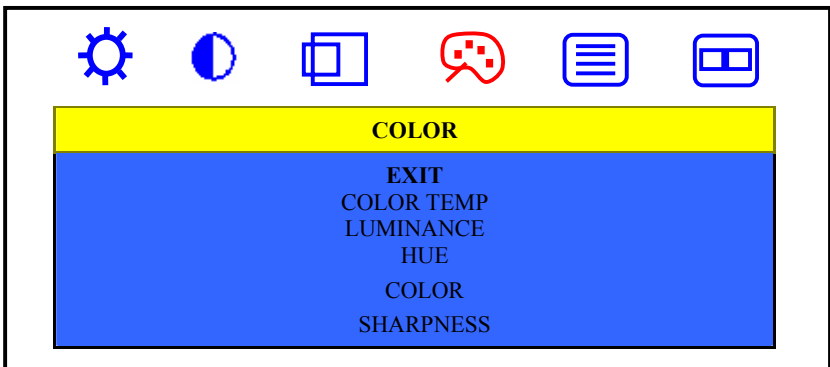


Adjusting Colour Properties

- Press the **SELECT** button to show the OSD menu.
- The brightness icon will be highlighted (RED)
- Press the **SELECT** button until the colour icon changes to RED to indicate it is the active function.
- Using the **left** and **right** control buttons highlight the required option and then press **SELECT** button to access the adjustment options.

Note : With the exception of **COLOR TEMP** all other options can be adjusted to values between “0” and “100”, with regard to **COLOR TEMP** this can be changed between **COOL**, **NEUTRAL** or **WARM**, neutral is the default setting .

All changes made are live and require no additional confirmation.



Adjusting Clock/Phase Properties (only available when connected to a PC)

Press the **SELECT** button to show the OSD menu

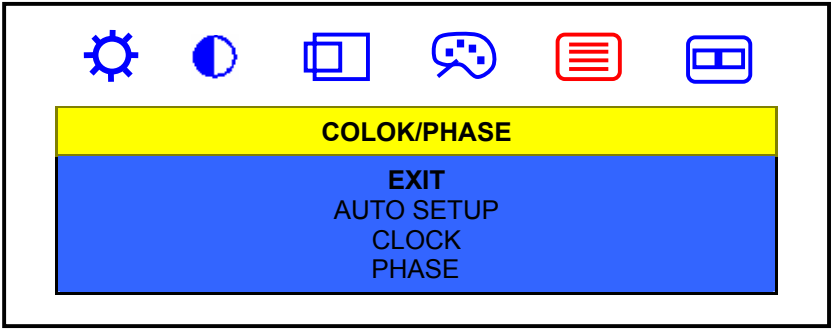
The brightness icon will be highlighted (RED)

Press the **SELECT** button until the Clock/Phase icon changes to RED to indicate it is the active function,

Using the **left** and **right** control buttons select the required feature from the sub menu **AUTO SETUP**, **CLOCK** or **PHASE** or to exit this menu select **EXIT**, press the **SELECT** button to confirm the required option.

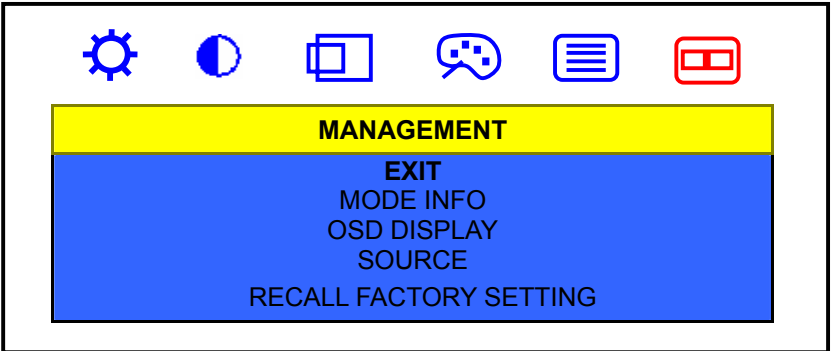
If **AUTO SETUP** is selected the Auto setup function will operate for more detail see later in this manual.

For **CLOCK** and **PHASE** options use the **left** and **right** control buttons to adjust the clock and phase values, before this is attempted it is strongly recommended that Auto Setup is used.



Adjusting Management Preferences

- Press the **SELECT** button to show the OSD menu.
- The brightness icon will be highlighted (RED)
- Press the **SELECT** button until the management icon changes to RED to indicate it is the active function.
- Using the **left** and **right** control buttons highlight the required option and then press **SELECT** button to access the adjustment options.



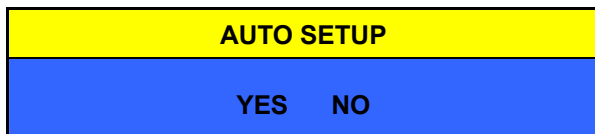
- The options available are :
 - Mode info** - displays the horizontal and vertical frequency information – no adjustment is possible.
 - OSD Display** – Allows the default position of the OSD menu to be changed using the **left** and **right** buttons.
 - SOURCE** – The input source can be selected as either Analogue(PC) or Video (composite video Set top box , DVD player etc)
 - RECALL FACTORY SETTINGS** – selecting this option resets all adjusted values back to their default positions as set at the time of first manufacture.

Direct Function Access using the Left or Right Buttons

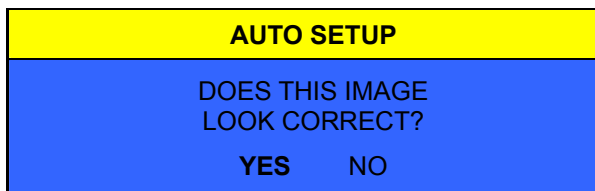
As a short cut to accessing some features the left and right buttons can be used to call up a shortened menu as follows.

Monitor connected to a PC

Press the **left** button when the main menu OSD is not on screen this calls up the Auto setup menu

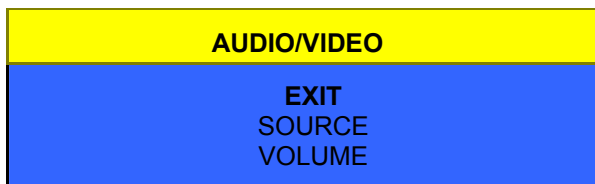


Use the **left** and **right** buttons to highlight **yes** and then press the select button to activate Auto Setup



Press **Select** to confirm the image looks correct.

Press the right button when the main menu OSD is not on screen this calls up the Audio/Video menu.



Use the left and right buttons to select the required function and then press the select button to activate it.

Select EXIT to cancel the menu.

Monitor connected to a Set top box, DVD player or VCR

With the monitor connected to a set top box, DVD player or VCR ONLY the right button has any function , it's function being as above.

Troubleshooting

This chapter contains information about how to troubleshoot your LCD Monitor. If you have tried all of the items listed below, please contact a qualified service personnel.

- A. My display **doesn't** work, even though the computer appears to work.
1. Make sure the power cable is securely plugged into the display.
 2. Make sure the display is turned on.
 3. Try turning the display off and then turning it on again.
 4. Make sure the display's power cord is plugged into a power outlet and into the AC power adapter. Check to see whether the outlet works by plugging another device (such as a lamp) into the outlet. (If the light on the front of the display is lighted, it is getting power. Try the next item on this procedure.)
 5. Check the cable connection between the display and the computer. The cable connectors must be pushed in all the way.
- B. The message "No Sync" appears on my display.
- This message appears when there is no video signal from the computer with cable already connected.
1. Make sure that the computer's power is turn on.
 2. Make sure that your graphic card has its output already.
- C. The message "Signal Out of Range" appears on my display.
- This message appears when the input signal is beyond the display's capability.
- Set your PC to a supported video mode, preferably 1024 x 768 at 60 Hz. See "Setting the Video Mode" on page 7.
- D. The image is very unstable.
1. Set your PC to a supported video mode, preferably 1024 x 768 at 60 Hz. See "Setting the Video Mode" on page 7.
 2. Restore the original factory settings by choosing **Recall Factory Setting** in the OSD "**Management**" submenu.
 3. Perform the Auto Setup function. See "Direct Function Access using the Left and Right Buttons" on page 15.

Note: *Even if your PC's setting is out of the range of video modes that are supported by your LCD monitor, it may still be displayed with reduced quality. This provides you with an opportunity to change your PC's setting to a correct one.*

Technical Information

This chapter contains technical information about your LCD Monitor.

Display Information

LCD Module	15-in (38.1 cm), active matrix TFT , anti-glare coating, 0.297 mm pixel pitch
Display Size	304.1 mm x 228.1 mm
Viewing Angle Left/Right Up/Down	-70° ~ 70° -60° ~ 65°
Luminance	250 cd/m ² (Typical)
Contrast Ratio	450 : 1 (Typical)
Display Colors	16.2Million
Power Input	100 ~ 240 V _{AC} Full Range , 50/60 Hz , < 1.2 A @ 110V ; < 0.6 A @ 230V
Maximum power consumption	< 35W
Signal Input Video Signal Sync signals	Analog : RGB positive 0.7V _{PP} , 75Ω Separate, TTL Level Video : NTSC/ PAL Composite
Line(horizontal) frequency	Analog : 31.5 kHz ~ 60 kHz Video : 15.625 kHz / 16.734 kHz
Raster(vertical) frequency	Analog : 56 Hz ~ 75 Hz Video : 50Hz / 60 Hz
Pixel dot clock	79 MHz (maximum)
Recommended mode	1024 x 768 @ 60 Hz
Dimensions (W x H x D)	376 mm x 395.5 mm x 143 mm
Net weight Gross weight	4.2 kg 6.2 kg
Operating Conditions Temperature Humidity Altitude	5° ~ 40°C at altitude 0 ~ 2000m ; 5° ~ 30°C at altitude 2000 ~ 3000m 20% ~ 85% RH , non-condensing 3000m Max.
Storage Conditions Temperature Humidity Altitude	-20° ~ 60°C 5% ~ 95% RH 10000m Max.

Video Modes

Your LCD monitor supports the following industry-standard combinations of screen resolution and refresh rates. Other combinations are possible, but may require adjustments to the image.

For optimum performance, set your PC to a screen resolution of 1024 x 768 at a 60 Hz refresh rate.

Analog :

Supported Resolution (dots x lines)		Vertical Frequency (Refresh Rate)
VGA	640 x 350	70 Hz
	640 x 480	60 Hz
	640 x 480	72 Hz
	640 x 480	75 Hz
	640 x 350	70 Hz
SVGA	800 x 600	56 Hz
	800 x 600	60 Hz
	800 x 600	72 Hz
	800 x 600	75 Hz
	800 x 600	56 Hz
XGA	1024 x 768	60 Hz
	1024 x 768	70 Hz
	1024 x 768	75 Hz
	1024 x 768	60 Hz
US TEXT	720 x 400	70 Hz
Power MAC	832 x 624	75 Hz
	640 x 480	67 Hz

Video :

Supported Resolution (lines x horizontal frequency)		Vertical Frequency (Refresh Rate)
NTSC M	525 x 15.734 kHz	60 Hz
PAL B/G/H/I/D/K	625 x 15.625 kHz	50 Hz

Note: *The display is capable of going beyond these recommended modes.*

Unknown Video Modes

Like all other monitors, the your LCD monitor is designed to work with standard video modes. However, not all video/graphic cards use only standard display modes.

Your LCD monitor uses state-of-the-art technology, which is designed to synchronize to any display mode. We recommend choosing one of the supported modes listed above. If you choose an unknown mode, you will need to manually adjust the clock, phase, and image position.

If you must use an unknown mode, you can run Auto Setup at first. If Auto Setup doesn't provide adequate image adjustment, then you must manually adjust the clock, phase, horizontal position, and vertical position.