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Thank you for purchasing a high resolution monitor. It will give you high resolution performance and convenient reliable operation in a variety of video operating modes.

Features

- The monitor is a 19 inches (18.0 inches viewable) intelligent, microprocessor based monitor compatible with most analog RGB (Red, Green, Blue) display standards, including IBM PC®, PS/2®, Apple®, Macintosh®, Centris®, Quadra®, and Macintosh II family.
- The monitor provides crisp text and vivid color graphics with VGA, SVGA, XGA, and VESA Ergonomic modes (non-interlaced), and most Macintosh compatible color video cards when used with the appropriate adaptor. The monitor's wide compatibility makes it possible to upgrade video cards or software without purchasing a new monitor.
- Digitally controlled auto-scanning is done with the micro-processor for horizontal scan frequencies between 30 and 96kHz, and vertical scan frequencies between 50-160Hz.
- This monitor is capable of producing a maximum horizontal resolution of 1600 dots and a maximum vertical resolution of 1200 lines.
- The microprocessor-based digital controls allow you to adjust conveniently a variety of image controls by using the OSD (On Screen Display).
- Plug and play capability if supported by your system
- This monitor has DDC 1 and DDC 2B function.*
- Compliant with the following regulated specifications :*
 - EPA ENERGY STAR
 - Swedish MPR II
 - Swedish TCO'99

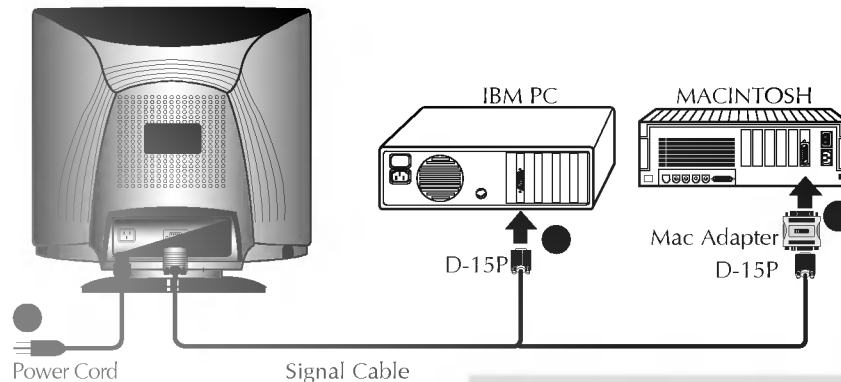
** For detailed information, please refer to the **Reference Guide** provided.*

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

- Power off both the monitor and PC.
- Connect the 15 pin VGA connector of the supplied signal cable to the output VGA video connector on the PC. 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.
- 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.

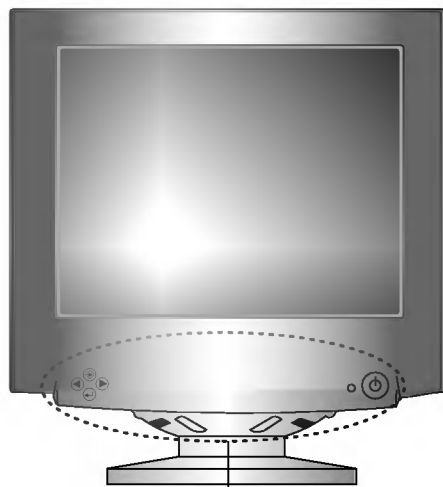
Connect the attached adapter block/signal cable to the video output on your MAC.

- One end of the AC power cord is connected into the AC power connector on the back of the monitor. The other end is plugged into a properly grounded three-prong AC outlet.
- Power ON the PC, then the monitor.
- If you see the **SELF DIAGNOSTICS** message, check the signal cable and connectors.
- After using the system, power OFF the monitor, then the PC.



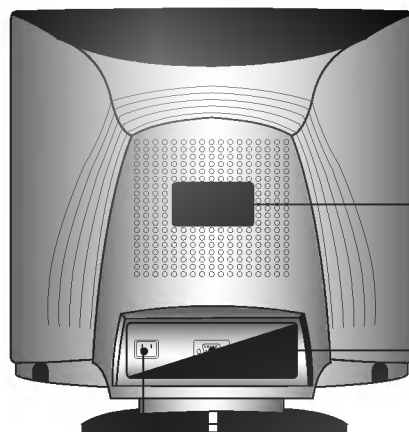
* **NOTE** : For Apple Macintosh use, a separate plug adapter is needed to change the pin high density (3 row) D-sub VGA connector on the supplied cable to a pin low connector.

Front View



Front Panel Controls

Rear View



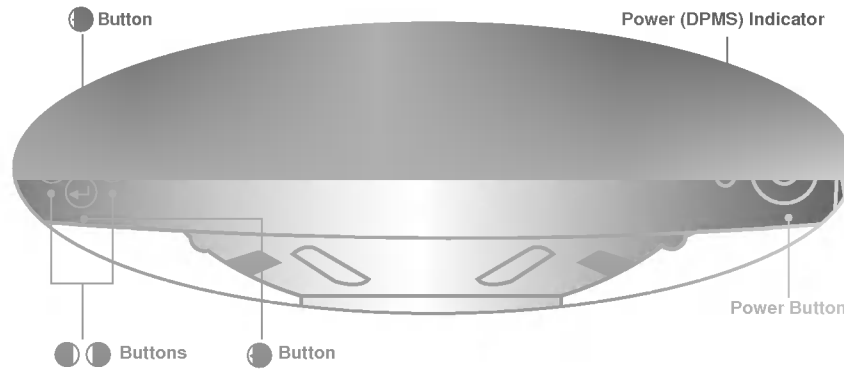
ID Label











D-Sub Signal Connector

AC Power Socket



Front Panel Controls



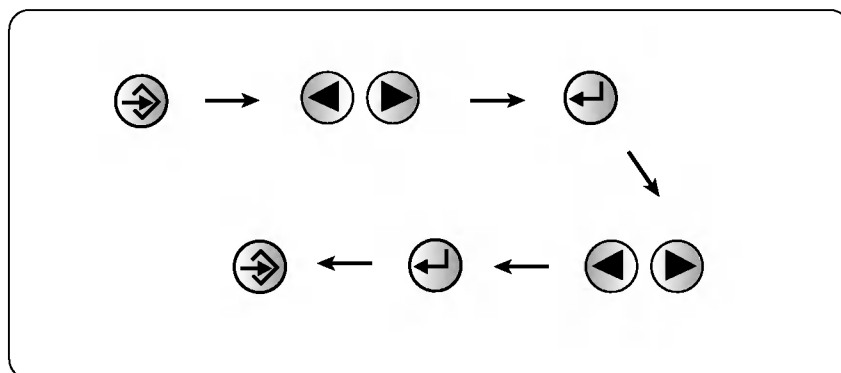
Control	Function
  Button	Use this button to enter or exit the onscreen display.
    Buttons	Use these buttons to choose or adjust items in the onscreen display.
  Button	Use this button to enter a selection in the onscreen display.
 Power (DPMS) Indicator	This Indicator lights up green when the monitor operates normally. If the monitor is in DPM (Energy Saving) mode (stand-by/suspend/off), this indicator color changes to amber.
 Power Button	Use this button to turn the monitor on or off.









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

NOTE

- Allow the monitor to stabilize for at least 30 minutes before making image adjustment.

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



- 1** Press the  **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  **Button**.
- 3** Use the   **Buttons** to adjust the item to the desired level.
- 4** Accept the changes by pressing the  **Button**.
- 5** Exit the OSD by Pressing the  **Button**.

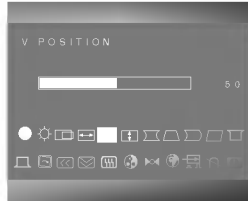



You were introduced to the procedure of selection and adjusting an item using the OSD system. Listed below are the icons, icon names, and icon descriptions of the items that are shown on the Menu.

 <p>The image shows the 'CONTRAST' OSD menu. At the top, there is a circular icon with a horizontal line. Below it, the word 'CONTRAST' is displayed. A horizontal slider bar is shown with a white segment on the left and the number '100' at the right end. Below the slider, there is a row of icons including a gear, a square, a rectangle, a circle, and a triangle. At the bottom, there is a row of navigation icons including a left arrow, a right arrow, a double left arrow, a double right arrow, a power button, and a refresh button.</p>	<p>Adjust the display to the contrast desired.</p>
 <p>The image shows the 'BRIGHTNESS' OSD menu. At the top, there is a gear icon. Below it, the word 'BRIGHTNESS' is displayed. A horizontal slider bar is shown with a white segment on the left and the number '100' at the right end. Below the slider, there is a row of icons including a square, a rectangle, a circle, and a triangle. At the bottom, there is a row of navigation icons including a left arrow, a right arrow, a double left arrow, a double right arrow, a power button, and a refresh button.</p>	<p>Used to adjust the brightness of the screen.</p>
 <p>The image shows the 'H POSITION' OSD menu. At the top, there is a square icon with a horizontal line. Below it, the words 'H POSITION' are displayed. A horizontal slider bar is shown with a white segment on the left and the number '5.0' at the right end. Below the slider, there is a row of icons including a gear, a square, a rectangle, a circle, and a triangle. At the bottom, there is a row of navigation icons including a left arrow, a right arrow, a double left arrow, a double right arrow, a power button, and a refresh button.</p>	<p>☰ move picture image left and right. ● Move the screen image left. ● Move the screen image right.</p>
 <p>The image shows the 'H SIZE' OSD menu. At the top, there is a square icon with a horizontal double-headed arrow. Below it, the words 'H SIZE' are displayed. A horizontal slider bar is shown with a white segment on the left and the number '5.0' at the right end. Below the slider, there is a row of icons including a gear, a square, a rectangle, a circle, and a triangle. At the bottom, there is a row of navigation icons including a left arrow, a right arrow, a double left arrow, a double right arrow, a power button, and a refresh button.</p>	<p>☰ adjust image width. ● Decrease the size of the screen image. ● Increase the size of the screen image.</p>



V POSITION




 move image up and down.

- Move the screen image down.
- Move the screen image up.

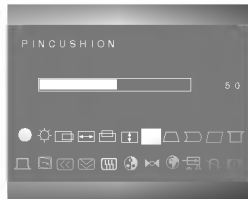
V SIZE



 adjust image height.

- Decrease the size of the screen image.
- Increase the size of the screen image.

PIN CUSHION




 correct the bowing in and out of the image.

- Curve the image's edges inwards.
- Curve the image's edges outwards.

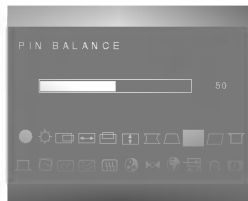
TRAPEZOID




 correct geometric distortion.

- Make the screen image narrower at the top.
- Move the screen image wider at the top.

PIN BALANCE



 correct the balance of both sides bowing.

- Curvature of the sides to the right.
- Curvature of the sides to the left.

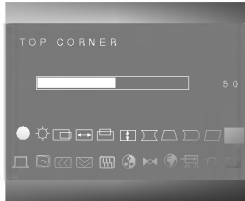
PARALLELOGRAM



This control adjusts for askewing of the screen image.

- Tilt the screen image leftward.
- Tilt the screen image rightward.

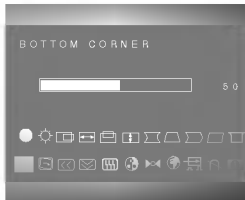
TOP CORNER



To correct the irregular distortion of the displayed image.

- Make the screen image narrower at the top.
- Move the screen image wider at the top.

BOTTOM CORNER



To correct the irregular distortion of the displayed image.

TILT



To correct image rotation.

- Tilt the screen image left.
- Tilt the screen image right.

H MOIRE



Reduce horizontal moire when interference patterns of dark steady wavy lines appear on your screen.

The moire adjustments may affect the focus of the screen.

V MOIRE



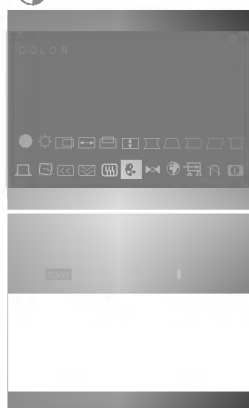
Reduce vertical moire when interference patterns of dark steady wavy lines appear on your screen.
The moire adjustments may affect the focus of the screen.




H CONVERGENCE



This item allows you to adjust the horizontal convergence.
The horizontal convergence control adjust the alignment of the red and blue horizontal fields.



COLOR



- **9300** : To appear the display's color temperature. Slightly bluish white.
- **6500** : To appear the display's color temperature. Slightly reddish white.
-  : To set your own color levels. Allow for specific adjustments to Red, Green and Blue (R/G/B).
-  : Temperature range is from 500K to 10000K. So, use easily color set without adjustment Red, Green and Blue (R/G/B).
-  : To exit the COLOR OSD.

RECALL



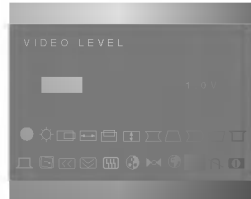
You can use this function when you want to go back to the screen display of the time you purchased the product after adjusting to modify it in the Preset Mode.
When you are in the User mode, you can recall only   items. After using Recall, adjust the screen display again if necessary. If you want more information on the Preset Mode, refer to A page.

LANGUAGE



To choose the language in which the control names are displayed. OSD Menus are available in 11 languages: **English, German, French, Spanish, Italian, Swedish, Finnish, Portuguese, Korean, Chinese and Russian.**

VIDEO LEVEL



This item is used to select the monitor's input signal level. The normal level used for most PC's is 0.7V

When the screen suddenly gets brightened or blurry, please select 10V and try again.

DEGAUSS



To manually demagnetize the screen which may show some image or color incorrectly.

i INFORMATION



informusersofpresetandusermodedata.

- :PRESEMODE
- :USERMODE

VideoMemoryModes

The monitor has 19 memory locations for display modes, 4 of which are factory preset to popular video modes.

Preset Modes (Resolution)

Display Modes (Resolution)	Horizontal Freq.(kHz)	Vertical Freq.(Hz)
1 VSA 640x480	43.269	85
2 VSA 800x600	5.674	85
3 VSA 1024x768	68.677	85
4 VSA 1280x1024	91.46	85

User Modes

- Modes 5-19 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 5.

If you use up the 15 blank modes and still have more new video modes, the monitor replaces the information in the user modes starting with mode 5.

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 4 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.

Check the following before calling for service.

SELF DIAGNOSTICS message.

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

OUT OF FREQUENCY message appears.

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

* Horizontal Frequency : 30-96kHz


* Vertical Frequency : 50-160Hz

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

The power LED is illuminated amber.

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

The image on the SCREEN is not centered, or too small, or not a rectangle shape.

- Image adjustment not been done yet in the current operating mode. Use the ,  and  buttons to set the image to your liking.

The monitor doesn't enter the power saving off mode (Amber).

- Computer video signal is not VESA DPMS standard. Either the PC or the video controller card is not using the VESA DPMS power management function.

Picture Tube	19 inch (18.0 inches viewable) FST	
	90 degree deflection	
	0.26mm dot pitch	
	ARAS(Anti-Reflective Anti-Static) coating, U-coating	
Sync Input	Horizontal Freq.	30 - 96kHz (Automatic)
	Vertical Freq.	50 - 160Hz (Automatic)
	Input Form	Separate TTL, Positive/Negative Composite TTL, Positive/Negative
	Signal Input	15 pin D-Sub Connector
Video Input	Input Form	Separate, RGB Analog, 0.7V _{p-p} /75 ohm, Positive
	Resolution(max)	1600 x 1200@75Hz
Power	Max.	≤ 110W
Consumption	Normal	≤ 90W
	Stand-by/Suspend	≤ 8W
	Power Off	≤ 3W
Dimensions (with tilt/ swivel stand)	Width	45.8 cm / 18.0 inches
	Height	46.8 cm / 18.4 inches
	Depth	47.9 cm / 18.9 inches
	Europe	AC 200-240V 50Hz 1.0A
	Others	AC 100-240V 50/60Hz 2.0A
	The products should be used according to the Power requirements of each ID LABEL.	
	Net	22.0 kg (48.50 lbs)
	Operating Condition	
	Temperature	10 °C to 40 °C
	Humidity	10 % to 90 % non-Condensing
	Storage Condition	
	Temperature	0 °C to 60 °C
	Humidity	5 % to 90 % non-Condensing