

## Installstion and Operating Instructions

Before operating the monitor please read this manual thoroughly. This manual should be retained for future reference.

### **FCC Class B Radio Frequency Interference Statement**

#### **WARNING: (FOR FCC CERTIFIED MODELS)**

NOTE: 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 one or more of the following measures:

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

#### **Notice:**

1. The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
2. Shielded interface cables and A.C. power cord, if any, must be used in order to comply with the emission limits.
3. The manufacturer is not responsible for any radio or TV interference caused by unauthorized modification to this equipment. It is the responsibilities of the user to correct such interference.

#### **Warning:**

To prevent fire or shock hazard, do not expose the monitor to rain or moisture. Dangerously high voltages are present inside the monitor. Do not open the cabinet. Refer servicing to qualified personnel only.

## Swivel Base

**To attach the swivel base to the monitor, do the following:**

- Carefully turn the monitor on its side or upside down. ( see figure 1 )
- Locate the cavities at the bottom front of the monitor.
- Insert the pegs on the swivel base into these cavities. Push the swivel base forward until the swivel base locks in place.
- To remove the swivel base, hold the bottom of the swivel base, then push it out.

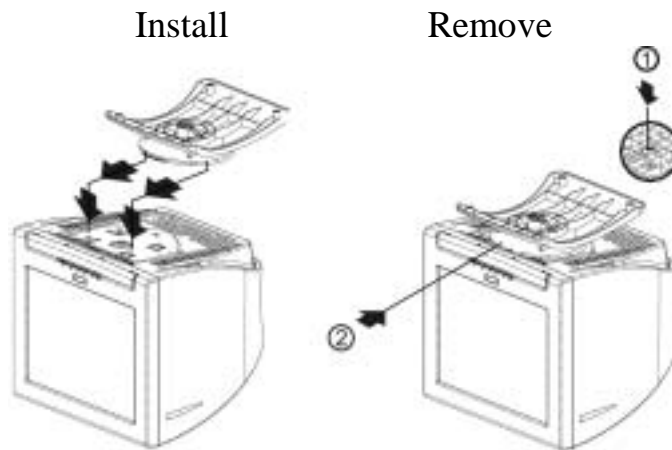


Figure 1 Installing and Removing the Swivel Base

## Power Cord

### Power Source:

1. Make sure the power cord is the correct type that required in your area.
2. This monitor has a universal power supply that allows operation in either 100/120V AC or 220/240V AC voltage area ( No user adjustment is required. )

## Video cable

**Connecting the Video Cable:** The monitor comes with a built-in video cable. Plug the signal cable's 15-pin connector into the computer's video port and tighten the two screws on the cable connector.

**Caution:** *Don't bend the signal cable, otherwise it will break the inner wire.*

**Connecting the Power Cord:** Plug the power cord into the monitor's AC power jack. Then plug the power cord into the power output socket on your PC.

**Caution:** *If the AC outlet is not grounded, install the proper grounding adapter (not supplied).*

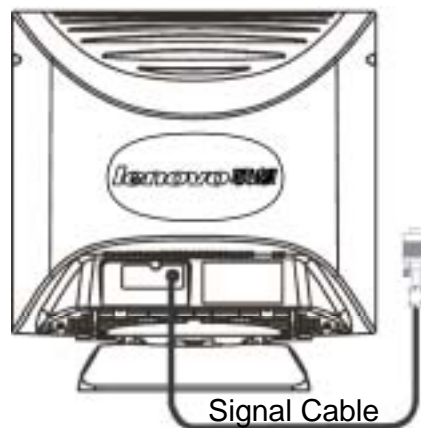


Figure 2 Connecting Cables

## OPERATING INSTRUCTIONS

### General Instructions

The power switch is located at front panel of the monitor. Press the power switch to turn the monitor on or off. The other control knobs are located at the base of the monitor (See Figure 3). By changing these settings, the picture can be adjusted to your personal preferences.

- The power cord should be connected.
- Connect the video cable from the monitor to the video card.
- To turn the monitor on, press the POWER switch to ON position. The power indicator will light up.
- Your monitor features a unique quick switch system which provides a picture within seconds after the monitor is switched on.

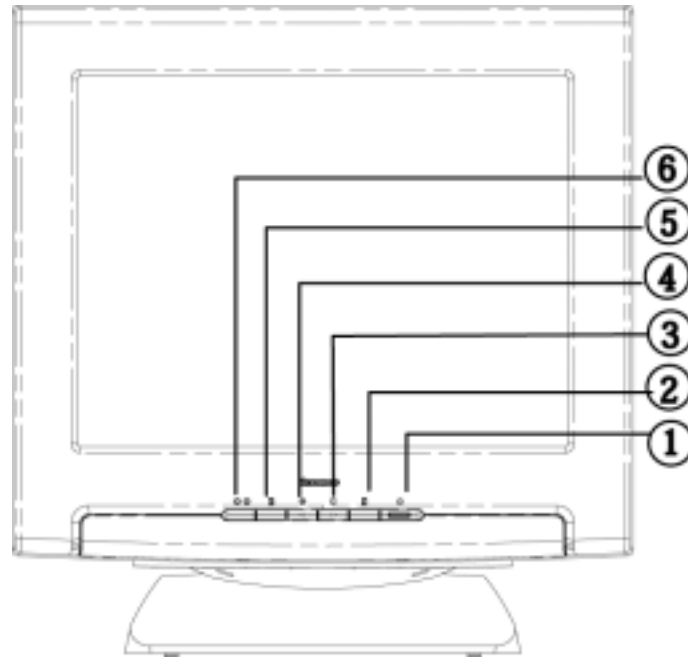


Figure 3 External Control Knob

#### EXTERNAL CONTROLS

1.	POWER/POWER INDICATOR	2.	MENU
3.	CONTRAST ◀ / ▶	4.	BRIGHTNESS ☀ / ◀
5.	EXIT	6.	HIGH BRIGHTNESS

#### Notes

- Do not install the monitor in a location near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, or excessive dust or mechanical vibration or shock.
- Save the original shipping carton and packing materials, as they will come in handy if you ever have to ship your monitor.
- For maximum protection, repackage your monitor as it was originally packed at the factory.
- To keep the monitor looking new, periodically clean it with a soft cloth. Stubborn stains may be removed with a cloth lightly dampened with a mild detergent solution. Never use strong solvents such as thinner, benzene, or abrasive cleaners, since these will damage the cabinet. As a safety precaution, always cut off the monitor before cleaning it.

#### Front Panel Control

- **Power/Power indicator:** Press this knob to switch ON/OFF of monitor's

power and display the monitor's state.

Green — Power On mode.

Flash Green — Stand-by mode, Suspend mode, or Off mode.

- **MENU** : Active OSD menu or function adjust confirm.
- **CONTRAST** / **▶** : Adjust contrast or function adjust.
- **BRIGHTNESS** / **◀** : Adjust brightness or function adjust.
- **HIGH BRIGHTNESS** : Under non-OSD, press this key will enable High Brightness function. It will be disable when you press the key again.
- **EXIT** : Exit a function or inactive OSD menu. Under non-OSD, display the current mode.

## How to adjust a setting

The monitor controls are accessed by pressing button MENU to enable OSD (On-Screen-Display). The main menu will be displayed as follows.

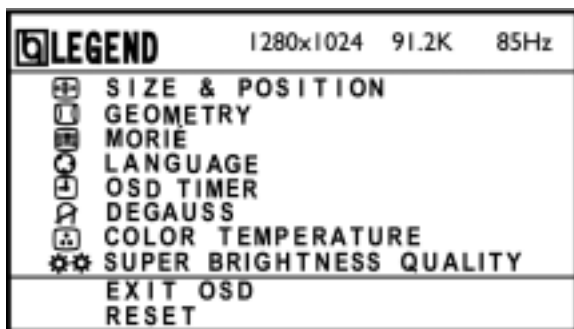


Figure 4 Chinese OSD Message



Figure 5 English OSD Message

**Note:** If adjustment or selection of any OSD menu is not made for more than 10 seconds, the current setup will be saved and the OSD will disappear automatically.

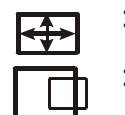
## Adjusting the picture
















The description for functional control icons

1. SIZE AND POSITION

### 1.1 H-CENTER

Adjust the horizontal position of the picture.



- 1.2 V-CENTER  :
- Adjust the vertical position of the picture.
- 1.3 H-SIZE  :
- Adjust the picture's horizontal size.
- 1.4 V-SIZE  :
- Adjust the picture's vertical size.
- 1.5 ZOOM  :
- Adjust the picture's horizontal and vertical size simultaneously.
2. GEOMETRY  :
- 2.1 ROTATION  :
- Adjust the picture tilt to horizontal position.
- 2.2 PINCUSHION  :
- Adjust the pincushion and barrel.
- 2.3 PIN-BALANCE  :
- Adjust to compensate the pincushion unbalance.
- 2.4 TRAPEZOID  :
- Adjust the picture's trapezoid distortion.
- 2.5 PARALLELOGRAM  :
- Adjust the picture to be a rectangle.
3. MOIRE  :
- Moiré is the result of interference between the phosphor layout and the video signal. In some cases, you may find the moiré very noticeable. Press the MENU to enter in the moiré reduce setting. Please adjust the level to the optimum condition. Note: Too high of a setting will cause the picture to shake.
4. LANGUAGE  :
- Select the language as you like.
5. OSD TIMER  :
- Choose OSD window display time.
6. DEGAUSS  :
- If color impurity occurs when moving or swiveling the monitor, press MENU Key and degauss to fix the picture condition.
7. COLOR TEMPERATURE  :
- 7.1 6500K/9300K ( COLOR TEMPERATURE)
- The color temperature for 6500K is  $x=0.313$ ,  $y=0.329$  and 9300K is  $x=0.283$ ,  $y=0.297$ . It presents two different color sets on the screen. You can select 9300K or 6500K by pressing MENU Key.
- 7.2 USER COLOR ( Red / Green/ Blue )

If the 9300K normal white or 6500K warmer white do not satisfy your desire, properly adjust R .G. B GAIN controls to obtain your optimum whiteness level.

8. **SUPER BRIGHTNESS QUALITY**  
Shift the function of Super B rightness Quality.



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9. **EXIT OSD :**  
Close OSD window.

10. **RESET :**  
Press RESET to restore the monitor to factory settings.

## FEATURES

### Green monitor

- The monitor has a power saving function that conforms to the VESA DPMS standard. This feature will only work if your PC is a green PC. This feature is similar to a screen saver, except that your monitor will turn itself off instead of activating the screen saver.

To activate this feature in Windows® 95/98/ME/2000/XP:

In Windows® 95/98/ME/2000/XP, this feature can be activated and customized under the screen saver setting of the display properties.

- Right click on the desktop and choose Properties.
  - Click on the tab that says Screen Saver. If your system supports Green PC, there will be a section entitled “Energy Saving Features of Monitor.” If there isn’t a section like that, then your PC does not support Green Monitor. The monitor will behave just like a normal monitor, so you will have to turn it off manually to save energy.
  - In the “Energy Saving Features of Monitor” sections are two boxes, Standby and Shut off. To activate either one, click the box next to each one.
  - You can specify the amount of inactive time before your monitor enters standby mode or shuts off.
  - This model of monitor can automatic degauss when switched on. You can use the perform degauss function knob on OSD menu to degauss by yourself.
- The power-saving mode can be indicated by the light-emitting diode (LED) on the front panel:

Mode	Signal				Power	
	Cable	H-Sync	V-Sync	Video	Indicator	Consumption
On*	Attached	Yes	Yes	Active	Green	≤ 75 W
Stand-by	Attached	No	Yes	Blank	Flash Green	≤ 2 W

Suspend	Attached	Yes	No	Blank	Flash Green	$\leq 2\text{ W}$
Off	Attached	No	No	Blank	Flash Green	$\leq 2\text{ W}$

**THIS MONITOR WILL APPEAR TO BE NON-FUNCTIONAL IF THERE IS NO VIDEO INPUT SIGNAL. IN ORDER FOR THIS MONITOR TO OPERATE PROPERLY, THERE MUST BE A VIDEO INPUT SIGNAL.**

This monitor meets the Power Management standards as set by the Video Electronics Standards Association (VESA) and/or the United States Environmental Protection Agency (EPA) and The Swedish Confederation Employees ( NUTEK ). This feature is designed to conserve electrical energy by reducing power consumption when there is no video input signal present. When there is no video input signal this monitor, following a time-out period, will automatically switch to an OFF mode. This reduces the monitor's internal power supply consumption. After the video input signal is restored, full power is restored and the display is automatically redrawn. The appearance is similar to a "Screen Saver" feature except the display is completely off. The display is restored by pressing a key on the keyboard, or clicking the mouse.

## **Plug and play**

### **Plug & Play DDC2B Feature**

This monitor is equipped with VESA DDC2B capabilities according to the VESA DDC STANDARD. It allows the monitor to inform the host system of its identity and, depending on the level of DDC used, communicate additional information about its display capabilities.

The DDC2B is a bidirectional data channel based on the I<sup>2</sup>C protocol. The host can request EDID information over the DDC2B channel.

## **Video Cable Pin Assignments:**

1. Red	5. Ground	9. NC	13. H-sync
2. Green	6. R-Ground	10. Ground	14. V- sync
3. Blue	7. G-Ground	11. Monitor Ground	15. DDC-Serial Clock
4. Ground	8. B-Ground	12. DDC-Serial Data	

## **TECHNICAL SUPPORT (FAQ)**



Problem & Question	Possible Solution
Power LED is not on	<ul style="list-style-type: none"> <li>*Check if the Power Switch is in the ON position</li> <li>*Power Cord should be connected</li> </ul>
No Plug & Play	<ul style="list-style-type: none"> <li>*Check if the PC system is Plug &amp; Play compatible</li> <li>*Check if the Video Card is Plug &amp; Play compatible</li> <li>*Check if the D-15 plug pin of Video Cable is bent</li> </ul>
No picture	<ul style="list-style-type: none"> <li>*Computer Power Switch should be in the ON position</li> <li>*Computer Video Card should be snugly seated in its slot</li> <li>*The Signal Cable should be completely connected to the computer</li> <li>*Check the color of the Power LED indicator. If it is orange, then the monitor and the PC system are in power-saving mode. You need press your keyboard or move the mouse to reactivate the system.</li> </ul>
Picture is fuzzy	*Adjust the Contrast and Brightness Controls.
Picture bounces or a wave pattern is present in the picture	*Move electrical devices that may cause electrical interference.
Monitor is stuck in "Power Saving Mode"	<ul style="list-style-type: none"> <li>*Make sure monitor's video cable is properly connected to the computer.</li> <li>*Inspect monitor's video cable and make sure none of the pins are bent.</li> <li>*Make sure computer is operational by hitting the CAPS LOCK key on the keyboard while observing the CAPS LOCK LED. The LED should either turn ON or OFF after hitting the CAPS LOCK key.</li> </ul>
Missing one of the primary colors (RED, GREEN, or BLUE)	*Inspect the monitor's video cable and make sure that none of the pins are bent.

## APPENDIX A – SPECIFICATIONS

CRT	43cm(17"), pure flat and 90° deflection, 29mm neck, 0.25mm dot pitch non-glare screen.
Viewable Image Size	40cm (16.0"), diagonal
Display Color	Unlimited colors

Input Signal	Analog input All timing that meets scanning frequencies
<ul style="list-style-type: none"> <li>• Video</li> <li>• Sync.</li> </ul>	<ul style="list-style-type: none"> <li>• Analog R, G, B 0.7Vpp positive/75 ohm</li> <li>• Horizontal sync. : Positive/Negative</li> <li>• Vertical sync. : Positive/Negative</li> </ul>
Synchronization	
<ul style="list-style-type: none"> <li>• Horizontal</li> <li>• Vertical</li> </ul>	30kHz to 96kHz automatically 48Hz to 130Hz automatically
Max. Resolution	1920 × 1440
Video Dot Rate	234MHz
Factory Preset Timings :	9
User mode Timings :	7
Misconvergence	
<ul style="list-style-type: none"> <li>• Center</li> <li>• Corner</li> </ul>	0.25mm Max. 0.35mm Max.
Power Source	Switching mode power supply AC 100-240V, 50Hz/60Hz full range
Operating Humidity	0°C to 40°C ambient 10% to 85% relative, non-condensing
Weight	16.6kg (Net)
Dimensions	
<ul style="list-style-type: none"> <li>• Monitor</li> </ul>	410 (W) × 430 (H) × 451 (D)mm
Signal Cable	15 pin mini D-Sub
External Controls: Switch	<ul style="list-style-type: none"> <li>• Power/Power indicator</li> <li>• MENU Key</li> <li>• Contrast/UP Key</li> <li>• Brightness/Down Key</li> <li>• Exit Key</li> </ul>

Functions ( OSD )	<ul style="list-style-type: none"> <li>• Size and Position</li> <li>• Geometry</li> <li>• Moire</li> <li>• Language</li> <li>• OSD Timer</li> <li>• Degauss</li> <li>• Color Temperature</li> <li>• Super Brightness Quality</li> </ul>
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Plug & Play Power management Power consumption Preset display area  Regulations	<ul style="list-style-type: none"> <li>• EXIT OSD</li> <li>• Reset</li> </ul> DDC2B EPA , VESA DPMS 75 Watts Max. 300mm × 230 mm  FCC, MPRII, CCC
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## APPENDIX B – FACTORY PRESET TIMING TABLE

STANDARD	RESOLUTION	HORIZONTAL FREQUENCY	VERTICAL FREQUENCY
IBM	720×400	31.5kHz	70Hz
IBM	640×480	31.5kHz	60Hz
VESA	640×480	43.5kHz	85Hz
VESA	800×600	46.8kHz	75Hz
VESA	800×600	53.6kHz	85Hz
VESA	1024×768	60.0kHz	75Hz
VESA	1024×768	68.7kHz	85Hz
VESA	1280×1024	80.0kHz	75Hz
VESA	1280×1024	91.2kHz	85Hz