LXB-L15C

USER MANUAL

TABLE OF CONTENTS

English

Deutsch

Françai

Español

Italian

TCO'95

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 AC 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.

As an ENERGY STAR® Partner our company has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

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.

1

PRECAUTIONS

- Do not use the monitor near water, e.g. near a bathtub, washbowl, kitchen sink, laundry tub, swimming pool or in a wet basement.
- Do not place the monitor on an unstable cart, stand, or table. If the monitor falls, it can injure a person and cause serious damage to the appliance. Use only a cart or stand recommended by the manufacturer or sold with the monitor. If you mount the monitor on a wall or shelf, use a mounting kit approved by the manufacturer and follow the kit instructions.
- Slots and openings in the back and bottom of the cabinet are provided for ventilation. To ensure reliable operation of the monitor and to protect it from overheating, be sure these openings are not blocked or covered. Do not place the monitor on a bed, sofa, rug, or similar surface. Do not place the monitor near or over a radiator or heat register. Do not place the monitor in a bookcase or cabinet unless proper ventilation is provided.
- The monitor should be operated only from the type of power source indicated on the label. If you are not sure of the type of power supplied to your home, consult your dealer or local power company.
- The monitor is equipped with a three-pronged grounded plug, a plug with a third (grounding) pin. This plug will fit only into a grounded power outlet as a safety feature. If your outlet does not accommodate the three-wire plug, have an electrician install the correct outlet, or use an adapter to ground the appliance safely. Do not defeat the safety purpose of the grounded plug.
- Unplug the unit during a lightning storm or when it will not be used for long periods of time. This will protect the monitor from damage due to power surges.
- Do not overload power strips and extension cords. Overloading can result in fire or electric shock.
- Never push any object into the slot on the monitor cabinet. It could short circuit parts causing a fire or electric shock. Never spill liquids on the monitor.
- Do not attempt to service the monitor yourself; opening or removing covers can expose you to dangerous voltages and other hazards. Please refer all servicing to qualified service personnel.

- To ensure satisfactory operation, use the monitor only with UL listed computers which have appropriate configured receptacles marked between 100 - 240V AC, Min. 3.5A.
- The wall socket shall be installed near the equipment and shall be easily accessible.

SPECIAL NOTES ON LCD MONITORS

The following symptoms are normal with LCD monitor and do not indicate a problem.

NOTES

- Due to the nature of the fluorescent light, the screen may flicker during initial use. Turn off the Power Switch and then turn it on again to make sure the flicker disappears.
- You may find slightly uneven brightness on the screen depending on the desktop pattern you use.
- The LCD screen has effective pixels of 99.99% or more. It may include blemishes of 0.01% or less such as a missing pixel or a pixel lit all of the time.
- Due to the nature of the LCD screen, an afterimage of the previous screen may remain after switching the image, when the same image is displayed for hours. In this case, the screen is recovered slowly by changing the image or turning off the Power Switch for hours.
- When the screen becomes black or flashing, or cannot illuminate any more, contact your dealer or service center to replace parts. Don't repair the screen by yourself!

BEFORE YOU OPERATE THE MONITOR

FEATURES

- 38cm(15") TFT Color LCD Monitor
- Crisp, Clear Display for Windows
- *Recommended Resolutions: 1024 X 768 @60Hz*
- EPA ENERGY STAR$^{®}$
- Ergonomic Design (TCO' 9 5 Approved)
- Space Saving, Compact Case Design

CHECKING THE CONTENTS OF PACKAGE

The product package should include the following items:

1. LCD Monitor
2. Owner's Manual
3. Signal Cable
4. Power Cord
5. Warranty Booklet

POWER CORD

Power Source:

1. Make sure the power cord is the correct type required in your area.
2. This LCD monitor has an External universal power supply that allows operation in either 100/120V AC or 220/240V AC voltage area (No user adjustment is required.)
3. Connect the power cord into your LCD monitor's power input socket, and then plug the other end into a 3-pin AC power outlet. The power cord may be connected to either a wall power outlet or the power outlet socket on your PC, depending on the type of power cord supplied with your LCD monitor.

NOTES

A certified power supply cord has to be used with this equipment. The relevant national installation and/or equipment regulations shall be considered. A certified power supply cord not lighter than ordinary polyvinyl chloride flexible cord according to IEC 60227 (designation H05VV-F 3G 0.75mm^2 or H05VVH2-F2 3G 0.75mm^2) shall be used. Alternatively a flexible cord of synthetic rubber according to IEC 60245 (designation H05RR-F 3G 0.75mm^2) may be used.

CONTROLS AND CONNECTORS

Connecting the signal cable: Connect the signal cable's 15 pin plug to monitor's signal input port, locked it with screws. Then plug the other end to display card output port,locked it with screws.

Connecting the Power Cord: Plug the power cord into the LCD monitor's AC power socket. Then plug the power cord into a grounded AC outlet or UL-approved power strip or the power output socket on your PC.
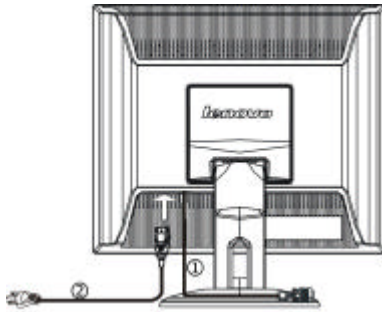
Figure 1   Connecting Cables

1.	Signal Cable
2.	AC Power Cord

ADJUSTING THE VIEWING ANGLE

- For optimal viewing it is recommended to look at the full face of the monitor, then adjust the monitor's angle to your own preference.
- Hold the stand so you do not topple the monitor when you change the monitor's angle.
- You are able to adjust the monitor's angle from -3° to 20°.
- You can conveniently adjust the height of your monitor by slightly lifting the display. In addition, you can also turn the display by 90° into the vertical position. To do this you must slightly lift the display and turn it clockwise.(See Figure 3)
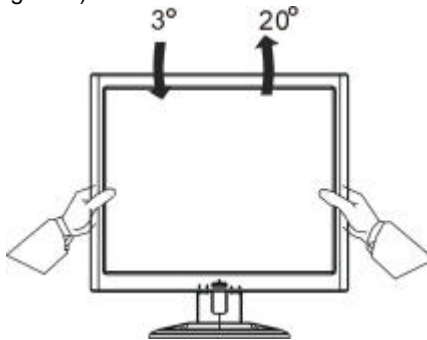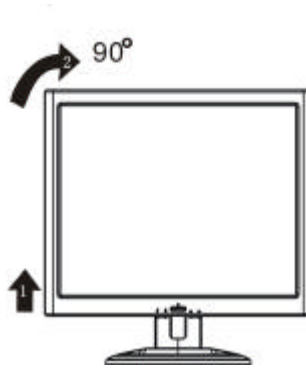

Figure 2

Figure 3

- Do not touch the LCD screen when you change the angle. It may cause damage or break the LCD screen.
- Careful attention is required not to catch your fingers or hands when you change the angle.

OPERATING INSTRUCTIONS

GENERAL INSTRUCTIONS

Press the power button to turn the monitor on or off. The other control knobs are located at front panel of the monitor (See Figure 4). By changing these settings, the picture can be adjusted to your personal preferences.

- Connect the video cable from the monitor to the video card.
- Press the power button to turn on the monitor position. The power indicator will light up.
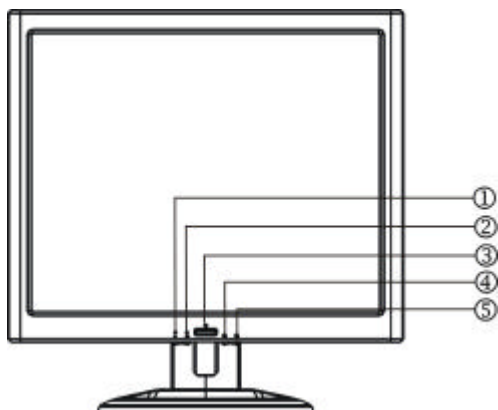
Figure 4   External Control Knob

EXTERNAL CONTROLS

1.	◀ / Brightness
2.	▶ / Contrast
3.	Power Key /Power Indicator
4.	Auto Config / Exit
5.	MENU/Enter

FRONT PANEL CONTROL

- **Power /Power indicator:**
  Press this button to switch ON/OFF of monitor' s power. And display the monitor's state.
  Green — Power on mode.
  Organge — Power off mode.
- **MENU/ENTER:**
  Activate OSD menu or function adjusts confirmation.
- **Contrast ◑ / ▶ :**
  Adjust contrast or function adjustment.
- **Brightness ☼ / ◀ :**

8

Adjust brightness or function adjustment.

- **Auto Config Key / EXIT:**
  1. When OSD menu is in active status, this knob will act as EXIT-KEY (EXIT OSD menu)
  2. When OSD menu is in off status, press this knob over 1 seconds to be in Auto Adjustment function.

     The Auto Adjustment function is used to set the HPos, VPos, Clock and Focus automatically.

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 maintain the cleanness of your LCD display, wipe it periodically with clean and soft cloth. The screen may be damaged by any liquid splash.
- 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 unplug the monitor before cleaning it.

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 (see figure 5). If OSD window is in Chinese when power on (see figure 6), press the Contrast/UP Key or Brightness/Down Key to choose the next window. Choose the English, then press MENU Key for confirming. OSD window will display in English.

1. Press the MENU-Key to show the OSD window. See figure 6.
2. Press ◀ or ▶ to select the adjusted item, then press the MENU-key.
3. Press ◀ or ▶ to change the settings of selected item. Press MENU-key when desired setting is done.
4. If you want to adjust any other items, repeat steps 2-4.

5. To exit and save the setting, press ◀ or ▶ to the exit item and press MENU-key, or leave the monitor alone for 10 seconds.
6. When the OSD window is active, it shows the input signal timing. The "H" Stands for the horizontal frequency and "V" stands for the vertical frequency.
7. Press ◀ and ▶ during the power switch on.The OSD menu will be displayed rotated by 90°, and reapeat this action, the display will come back the factory mode.
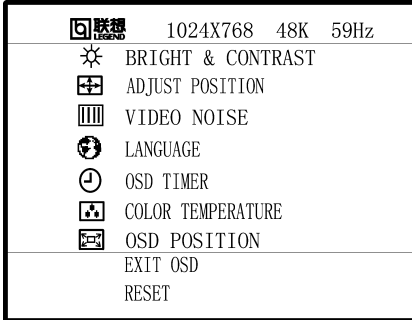
🔲联想	1024X768 48K 59Hz	
☼	BRIGHT & CONTRAST	
⊞	ADJUST POSITION	
▥	VIDEO NOISE	
🌐	LANGUAGE	
🕐	OSD TIMER	
▦	COLOR TEMPERATURE	
▨	OSD POSITION	
	EXIT OSD	
	RESET	

Figure 5   English OSD Message

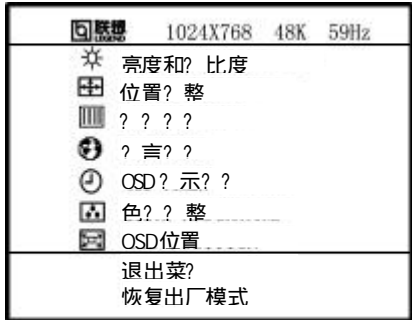|		
🔲联想	1024X768 48K 59Hz	
☼	?	
⊞	?	
▥	? ? ? ?	
🌐	? ? ?	
🕐	OSD ?___? ?	
▦	_?_? _____	
▨	OSD _____	
	?	

Figure 6 Chinese OSD Message

ADJUSTING THE PICTURE

The description for function control LEDS

   1. BRIGHTNESS & CONTRAST

      1.1 BRIGHTNESS

        Adjust the picture brightness.

      1.2 CONTRAST

        Adjust the picture contrast.

   2. ADJUST POSITION

     2.1 HORIZONTAL POSITION

        Adjust the horizontal position of the picture.

     2.2 VERTICAL POSITION

        Adjust the vertical position of the picture.

   3. VIDEO NOISE

     3.1 FOCUS

        Adjust the picture Focus.

     3.2 CLOCK

        Adjust the picture Clock.

4. LANGUAGE

>   Muti-Language selecion.

5. OSD TIMER

>   Choose OSD window display time.

6. COLOR TEMPERATURE

> 6.1 7800K/6500K (COLOR TEMPERATURE)
>
> The color temperature for 7800K is x=0.296, y=0.311 and 6500K is x=0.313, y=0.329. It presents two different color sets on the screen. You can select 7800K or 6500K by pressing MENU Key.
>
> 6.2 USER MODE (Red / Green/ Blue)
>
> If the 7800K normal white or 6500K warmer white do not satisfy your desire, properly adjust R .G. B GAIN controls to obtain your optimum whiteness level.

7. OSD POSITION

> 7.1 HORIZINTAL OSD
>
> Adjust the horizontal position of the OSD menu.
>
> 7.2 VERTICAL OSD
>
> Adjust the vertical position of the OSD menu.

8. EXIT OSD

>   Close OSD window.

9. RESET

>   Press RESET to restor the monitor to factory settings.

PLUG AND PLAY

Plug & Play DDC1/2B Feature

This monitor is equipped with VESA DDC1/2B 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 communication channel is defined in two levels, DDC1 and DDC2B.

The DDC1 is a unidirectional data channel from the display to the host that continuously transmits EDID information. The DDC2B is a bidirectional data channel based on the I²C protocol. The host can request EDID information over the DDC2B channel.

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 Green monitor 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.

TECHNICAL SUPPORT (FAQ)

Problem & Question	Possible Solution
Power LED is not on	*Check if the Power Switch is in the ON position *Power Cord should be connected
No Plug & Play	*Check if the PC system is Plug & Play compatible *Check if the Video Card is Plug & Play compatible *Check if the D-15 plug pin of Video Cable is bent *Make sure the Monitor Drivers are installed
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.
The power LED is ON (orange) but there's no video or no picture.	*Computer Power Switch should be in the ON position. *Computer Video Card should be snugly seated in its slot *Make sure monitor's video cable is properly connected to the computer. *Inspect monitor's video cable and make sure none of the pins are bent. *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.
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.

Screen image is not centered or sized properly.	*Adjust pixel frequency (CLOCK) and FOCUS or press hot-key (AUTO)
Picture has color defects (white does not look white)	*Adjust RGB color or select color temperature
Poor brightness or contrast	*When the brightness of the screen lowers after being used for a certain period and the function of the display is affected, send it to our authorized service center for repair.
Horizontal or vertical disturbancies on the screen	*Use win 95/98/2000/ME/XP shut-down mode Adjust CLOCK and FOCUS or perform hot- key (AUTO-key).

CLOCK (pixel frequency) controls the number of pixels scanned by one horizontal sweep. If the frequency is not correct, the screen shows vertical stripes and the picture has not correct width.

FOCUS adjust the phase of the pixel clock signal. With a wrong phase adjustment the picture has horizontal disturbances in light picture.

For FOCUS and CLOCK adjustment use "dot-pattern" or win 95/98/2000/ME/XP shut-down mode pattern.

NOTES

It is not recommended to rotate the monitor when executing the following operations.

- Display of vedio documents.
- Execute real-time 3D procedures.
- Execute full-screen game operation.

14

ERROR MESSAGE & POSSIBLE SOLUTION

CABLE NOT CONNECTED :

1. Check that the signal-cable is properly connected , If the connector is loose, tighten the connector' s screws.
2. Check the signal-cable' s connection pins for damage.

INPUT NOT SUPPORT :

Your computer has been set to unsuitable display mode ,Set the computer to display mode given in the following table.
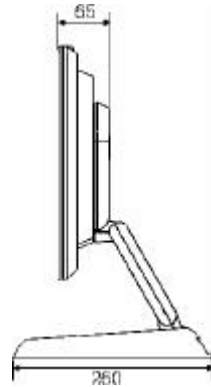
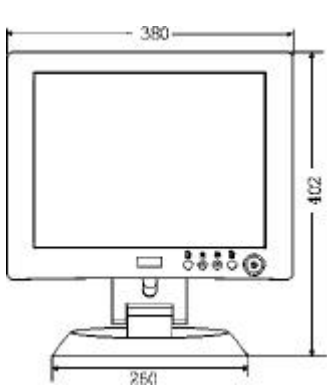**UNSUPPORTED MODE TRY DIFFERENT VIDEO CARD SETTING:**

Your computer resolution is out of VESA-SPEC

APPENDIX

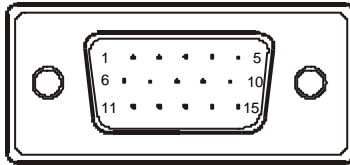|		
LCD Panel	Driving system	TFT Color LCD
	Size	38 cm(15.0")
	Pixel pitch	0.297mm(H) x 0.297mm(V)
	Viewable angle	120° (H) 100° (V)
	Response time	40 ms
Input	Video	R,G,B Analog Interface
	Separate Sync.	H/V TTL
	H-Frequency	30kHz – 61kHz
	V-Frequency	50-75Hz
Display Colors		16.7 million Colors
Dot Clock		80MHz
Max. Resolution		1024 x 768
Plug & Play		VESA DDC1/2B™
EPA ENERGY STAR®	ON Mode	≤35 Watts
	OFF Mode	≤3 Watts
Input Connector		D-Sub 15pin
Input Video Signal		Analog:0.7Vp-p(standard), 75 OHM, Positive
Maximum Screen Size		Horizontal : 12.0" (304.1mm) Vertical : 9.0" (228.1mm)
Power Source		90---264VAC /47– 63HZ
Environmental Considerations		Operating Temp: 0°C to 50°C Storage Temp.: -20°C to 65°C Operating Humidity : 10% to 80%
Weight (N. W.)		3.9kg

	Switch	• Auto Adjust Key/EXIT
		• ◀ / Brightness
		• ▶ / Contrast
		• Power Key
		• MENU/ENTER
External Controls:	Functions	• BRIGHTNESS & CONTRAST
		• ADJUST POSITION
		• VIDEO NOISE
		• LANGUAGE
		• OSD TIMER
		• COLOR TEMPERATURE
		• OSD POSITION
		• EXIT OSD
		• RESET
Regulatory Compliance		UL, FCC, TCO' 9 5

FACTORY PRESET TIMING TABLE

STANDARD	RESOLUTION	HORIZONTAL FREQUENCY	VERTICAL FREQUENCY
VGA	640 × 480	31.469kHz	59.94Hz
	640 × 480	37.861kHz	72.809Hz
	640 × 480	37.50kHz	75Hz
SVGA	800 × 600	35.156kHz	56.25Hz
	800 × 600	37.879kHz	60Hz
	800 × 600	48.077kHz	72.188Hz
	800 × 600	46.875kHz	75Hz
XGA	1024 × 768	48.363kHz	60Hz
	1024 × 768	56.476kHz	70.069Hz
	1024 × 768	60.023kHz	75.029Hz

CONNECTOR PIN ASSIGNMENT

15 - Pin Color Display Signal Cable

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1.	Red	9.	NC
2.	Green	10.	Logic Ground
3.	Blue	11.	Ground
4.	Ground	12.	DDC-Serial Data
5.	Ground	13.	H-Sync
6.	R-Ground	14.	V-Sync
7.	G-Ground	15.	DDC-Serial Clock
8.	B-Ground		