HL500S

User's Manual

High Resolution
TFT LCD Monitor

WOO YOUNG Telecom CO.,LTD.

FCC 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, with can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and 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.
- Only shielded interface cable should be used.

Finally, any changes or modifications to the equipment by the user not expressly approved by the grantee or manufacturer could void the users authority to operate such equipment.

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1 Before setting up

This is 15.0 inch TFT-LCD monitor. Before setting up the LCD Monitor, please read this manual to help your understanding of the LCD Monitor.

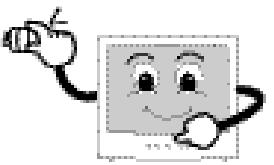
Brief Specification of LCD Monitor

Resolution : 15.0 inch XGA (1024 X 768@75Hz)
Color display : 16,777,216 colors
DPMS (Display Power Management Signaling)
OSD (On Screen Display)
Auto Configuration : Hot key
DDC 1/2B : Plug & Play

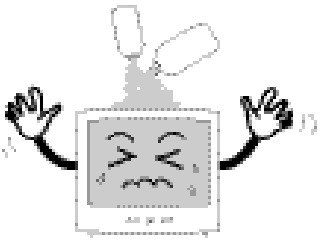
Notice

According to PC system, DDC 1/2B may not be supported. If you meet Error message,check your video card which compatibility with DDC. If you eant to know more information, please contact our service center.

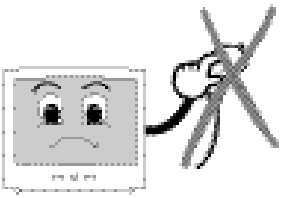
Precautions



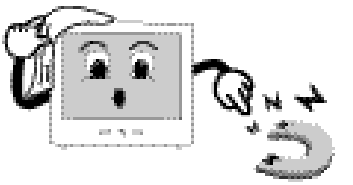
Check the voltage corresponds to the local electrical supply before connecting the AC power cord.



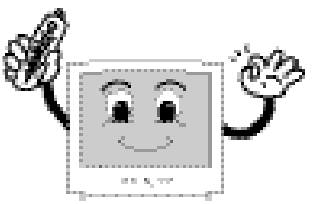
Do not use Ketone type material (ex. Acetone), Ethyl Alcohol, Toluene, Ethyl Acid or Methyl chloride, to clear the panel. It might permanently damage the panel.



Never use the damaged AC power cord.

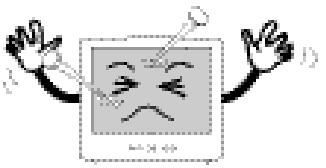


Keeps it away from stoves, heaters, fireplaces and other sources of heat and magnets.

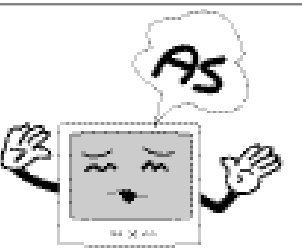


Dont' put your LCD monitor in a location with high humidity and dust.
Temperature : 0~40 ℃
Humidity : 90% less

Place the LCD monitor on a solid surface. If dropped, the screen can be damaged easily.



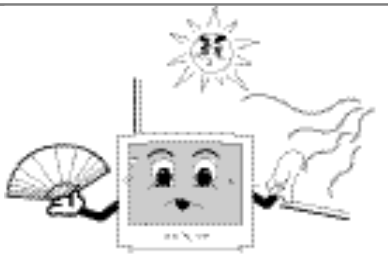
Don't touch the screen with a acute nail and pin



The LCD monitor consists of electrical devices.
If the LCD monitor is damaged, contact immediately our service center.

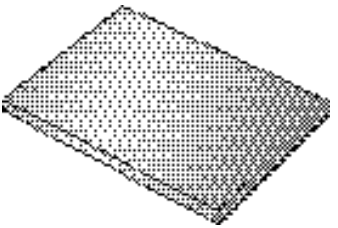
The LCD monitor can be damaged easily by shock.

If you don't use the LCD monitor for a long time, unplug the LCD monitor.



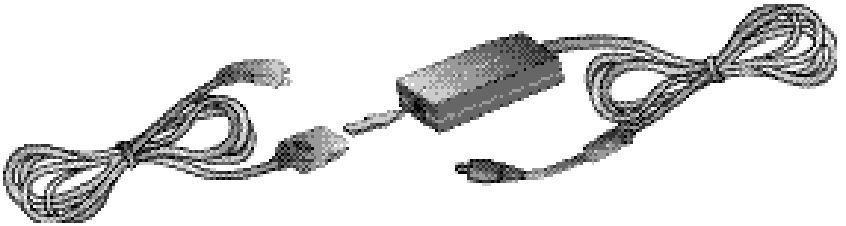
Don't use your LCD monitor under direct sunlight.

2 Items

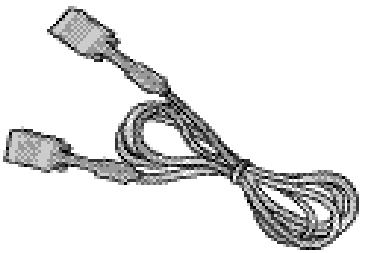


User Manual

LCD Monitor



Power card, DC Adapter



15-pin D-Sub Signal Cable

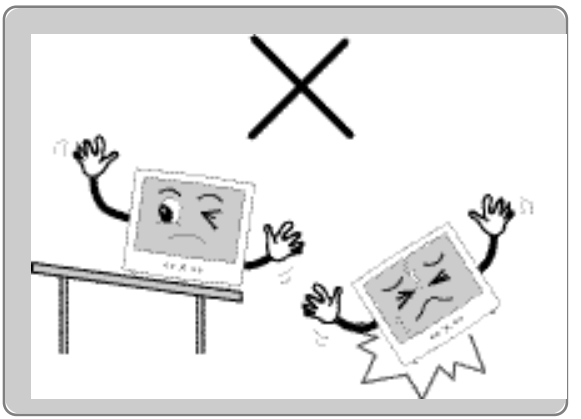
Notise

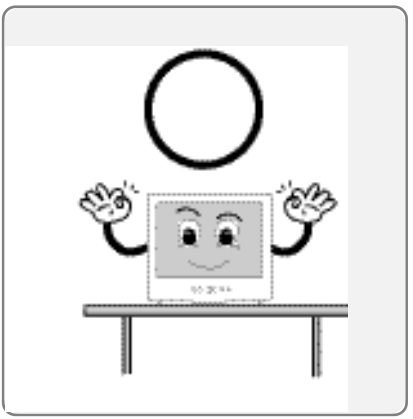
Please make sure the following items are included with your monitor.
If any items are missing, contact your dealer.

3 Setting up the LCD monitor

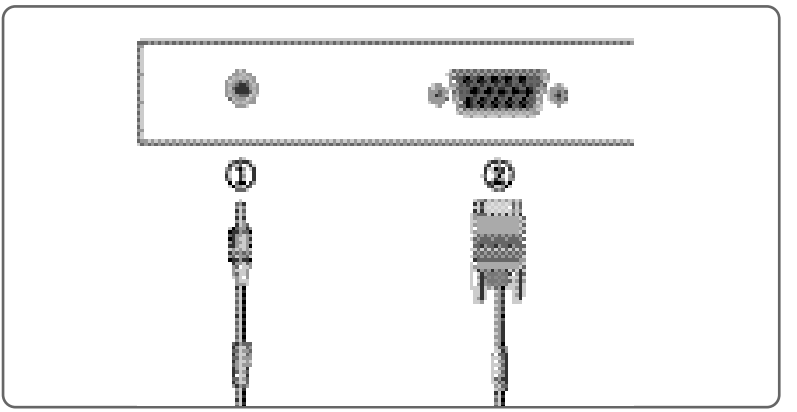
Where is a good place to position the monitor?

Place the LCD monitor on a solid and flat surface. If dropped, the screen can be damaged easily.





How to connect the power cord and the several cables to the LCD monitor.



No.	Name	Cable connections
1	DC12V	DC Adaptor
2	PC	15-pin D-Sub Signal Cable

Plug & Play

The adoption of the new VESA Plug and Play solution eliminates complicated and time consuming setup. It allows you to install your monitor in a Plug and Play compatible system without the usual hassles and confusion. Your PC system can easily identify and configure itself for use with your display. This monitor automatically tells the PC system its Extended Display Identification Data (EDID) using Display Data Channel (DDC) protocols so the PC system can automatically configure itself to use the flat panel display.

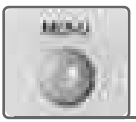
Warm-up Time

All LCD monitors need time to become thermally stable whenever you turn on the monitor after letting the monitor be turned off for a couple of hours. Therefore, to achieve more accurate adjustments for parameters, allow the LCD monitor to be warmed up for at least 20 minutes before making any screen adjustments.

4 Adjusting The Monitor

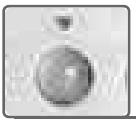
The Function Control Buttons

How to use the function Key.



1. First click : The OSD main menu appears.
2. Second click : The OSD menu disappears.

1. Select a command function.
2. When you push Auto button, this will optimize image quality automatically.



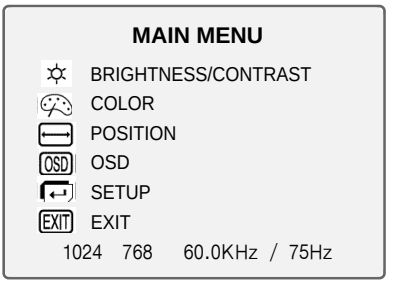
Down : 1. Move the on-screen highlighted command item to the next one.
2. Decrease the current option value.

UP : 1. Move the on-screen highlighted command item to the Previous one.
2. Increase the current option value.

Power On/Off toggle button.

Main OSD Menu

When you push the menu button, you can see below main OSD menu.

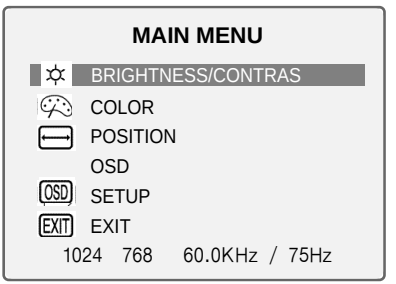


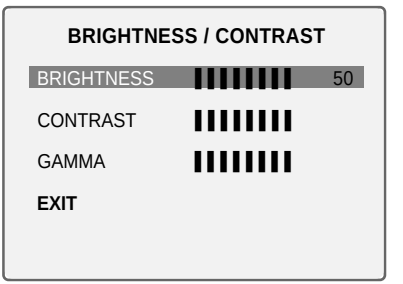
BRIGHTNESS/CONTRAST

Brightness : Changes the overall light intensity of the images being displayed.

Contrast : Changes the ratio of light intensity between the brightest white and darkest black.

Gamma : Change the gamma value.





Notice

Adjusting Gamma Value is useful in case of game or movie screen.

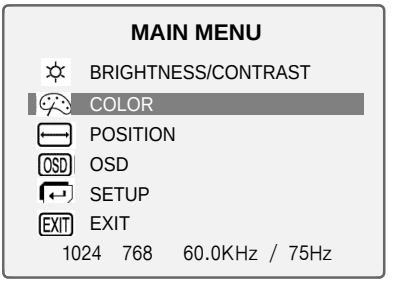
COLOR

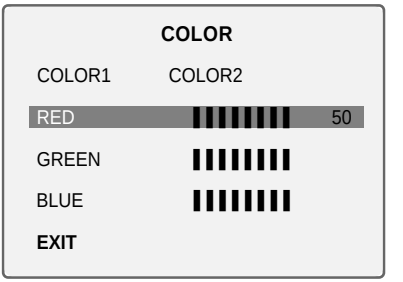
The tone of color can be changed form bluish white to reddish white.

Color1 - Blue type

Color2 - Red type

RED, GREEN, BLUE - You can adjust red, green and blue values that you want.



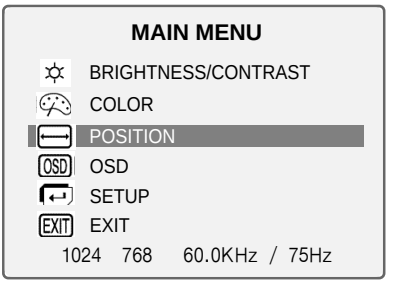


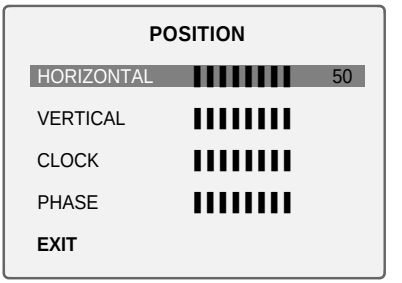
POSITION & CLOCK/PHASE

CLOCK/PHASE

When image is not clear, you can use clock/phase menu.

PHASE/ CLOCK : Although 'Auto Adjustment' automatically finds the optimum values of Clock and Phase parameters as well as image position, it may be necessary for you to adjust those parameters manually. It is recommended for you to use 'Auto Adjustment' first. If the adjustment results are not satisfactory, then use Clock and Phase adjustment features to get the best adjustment results. Bear in mind that Clock and Phase adjustment may change the width of the image and affect image position as well. If the image is clear while out of center by a couple of pixels, use image position to center the image.





POSITION

Changes the location of the image.
H-Position : Moves to the Left/Right
V-Position : Moves to the Bottom/Top

Notice

If image is not clear (noise), you can adjust Clock/Phase.

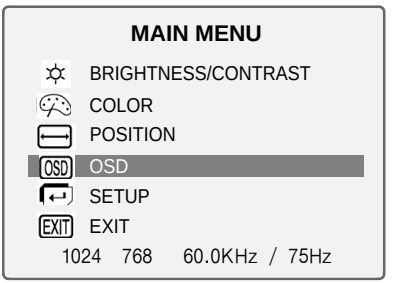
OSD MENU ADJUSTMENT & INPUT SOURCE

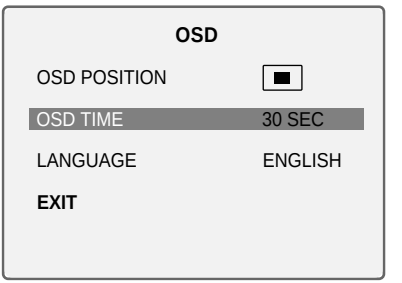
Sets the OSD menu display position.

OSD Position : Moves the OSD menu to the horizontal or vertical direction.

OSD TIME : Shows the OSD TIME displays from 5 to 60sec.

LANGUAGE : Select language in OSD menu.



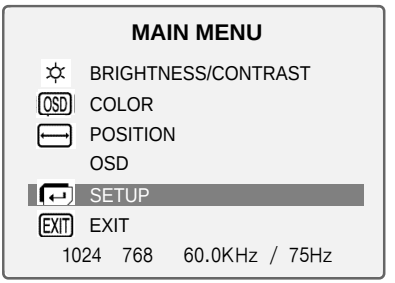


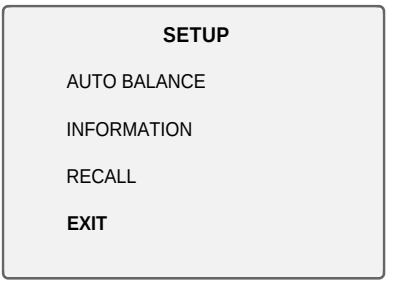
SETUP MENU

White balance : Automatic djust color (white level) for various input source's white level.

Information : display monitor's information.

Recall : Discards current setting and replaced all paramotors with the factory default values.





5 Appendix

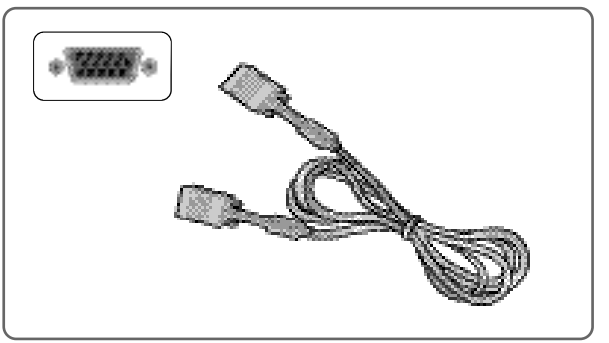
Display Modes

Mode	Resolution	Horizontal Frequency(KHz)	Vertical Frequency(Hz)	Pixel Clock Frequency(MHz)	Sync Polarity(H/V)
VGA	720 X 400	31.468	70.087	28.322	-/+
	640 X 480	31.468	59.940	25.175	-/-
		35.000	66.670	30.240	-/-
		37.500	75.000	31.500	-/-
SVGA	800 X 600	37.879	60.300	40.000	+/+
		48.077	72.188	50.000	+/+
		46.875	75.000	49.500	+/+
XGA	1024 X 768	48.363	60.004	65.000	-/-
		56.476	70.000	75.000	-/-
		60.023	75.029	78.750	+/+

15-pin D-Sub Connector

Input signal : Analog RGB
15-pin D-Sub connector

Pin No.	Signal Name	Pin No.	Signal Name	Pin No.	Signal Name
1	Analog Red Input	6	Analog Red Ground	11	Ground
2	Analog Green Input	7	Analog Green Ground	12	DDC Data
3	Analog Blue Input	8	Analog Blue Ground	13	Horizontal Sync
4	Ground	9	No Connect	14	Vertical Sync
5	DDC Ground	10	Sync Ground	15	DDC Clock



15pin D-Sub Signal Cable

DPMS Power Saving Mode

This monitor has a built-in power management system called DPMS Power Saving Mode. This system saves energy by switching your monitor into a low-power mode when it has not been used for a certain period of time. The available modes are “ON”, “Standby”, “Suspend”, and “OFF”.

State	Signal			Power Consumption	Recovery Time	LED Color and Operting status
	H-sync	V-sync	RGB			
ON	Active	Active	Active	Under 30Watt	-	Green
Stanby mode	Inactive	Active	Blanked	Less than 5Watt	Within 2Sec	Alternating Green/Orange (0.5 Sec interval)
Stanby mode	Active	Inactive	Blanked			Alternating Green/Orange (1 Sec interval)
OFF	Inactive	Inactive	Blanked			Orange

6 Troubleshooting

What you see	Suggested Actions
Screen is blank and power indictor is off	Ensure that the power cord is firmly connected and the LCD monitor is on.
“out of range” message	Check the maximum resolution and the frequency of the video adaptor. Compare these values with the data in the Display Modes Timing Chart.
“No signal input” message	Ensure that the signal cable is firmly connected to the PC or video sources. Ensure that the PC or video sources are turned on.
Image is not stable and may appear to vibrate	Check that the display resolution and frequency from your PC or video board is an available mode for your monitor. On your computer check : Control Panel, Display, Settings Note : Your monitor supports multiscan display functions within the following frequency domain:
The image is too light or too dark	Adjust the Brightness and Contrast. Refer to the Brightness/Contrast
The image color is not good	Adjust the Color Refer to the Color
Image is not centered on the screen	Executes Auto Configuration.
Screen is blank and power indicator light is steady amber or blinks every 0.5 or 1 seconds	The monitor is using its power management system. Move the computer’s mouse or press a key on the key-board.

Appendix A. Specifications

Panel	Type	TFT active matrix
	Size	15 inch
		304.1 228.1(mm)
	Pixel Pitch	0.297 0.297(mm)
	Display Color	8-bit (16,777,216 colors)
Display Resolution	Basic	1024 768@60Hz
	Maximum	1024 768@75Hz
Frequency	Horizontal	31.5~60KHz
	Vertical	56~75Hz
Sync Signal		TTL, P. or N.
Tilting Degree (U/D)		-5 ~30 Degree
Plug&Play		VESA DDC 1/2B
Power	Input	90~265VAC
	Output	Adapter DC 12V, 4.16A
	Consumption	Under 30W
	Standby mode	5W less
Power Management		VESA DPMS
Environmental Consideration	Temperature	0~40 C (32 F~104 F)
	Humidity	90% less
Dimensions	Outside	362mm(W) 345mm(D) 268mm(H)
Weight	Monitor	3.2kg
	Carton	1.4kg

The specification of this monitor is subject to be changed without notice to improve performance.