

P/N: 97E9500212

HL720S/HL720D HL720A/HL720AD User's Reference TFT LCD Monitor

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 tele-vision 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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Please read the following information

Specifications

Panel Size 17 i 337.92 X 27 Pixel Pitch 0.264 X 0	ve matrix nch 70.336 (mm)		
Panel Size 337.92 X 27 Pixel Pitch 0.264 X 0			
Panel Pixel Pitch 0.264 X 0	70.336 (mm)		
Pixel Pitch 0.264 X 0	0.000 (11111)		
Display Color 8-bit (16,77	.264 (mm)		
	7,216 colors)		
Display Basic 1280x100	24@60Hz		
Resolution Maximum 1280x1024@75Hz	1280x1024@60Hz		
Frequency Horizontal 31.5 ~ 80KHz	31~ 64KHz		
Vertical 56 ~ 75Hz	59 ~ 61Hz		
Connectors 15 pin D-Sub	24pin DVI-D		
Speaker Input / Headphor	Speaker Input / Headphone Output (Audio Cable) *1		
Tilting Degree (U/D) -5°~ 20	-5°~ 20° Degree		
Plug&Play VESA D	VESA DDC 1/2B		
Input Internal type: 100~24	Internal type: 100~240V AC, 50/60Hz, 0.5A		
Power Consumption Under 40W (Spe	Under 40W (Speaker Max 4W *1)		
Standby mode 1W	less		
Power Management Power	PowerSaver		
Environmental Temperature 0~25°C(3.	0~25°C(32°F~77°F)		
Consideration Humidity 90%	less		
Dimensions Outside 373mm x 185mm	x 368mm(WxHxD)		
Weight 3.	lkg		

*1 : For Audio Model Only



This monitor can be installed on any Plug & Play compatible system. Interaction of the monitor and computer systems will provide the best operating conditions and monitor settings. In most cases, monitor installation will proceed automatically, unless the user wishes to select alternate settings.

Precautions

Warning: The following information will help you avoid the risk of electric shock, serious injury, and death.



Plug the power cord into a properly grounded outlet.
There is the risk of electric shock.



If you hear a noise or smell smoke from the computer or adaptor, unplug the power cord immediately, and call the service center. There is the risk of electric shock or fire.



Do not overload an electrical outlet with too many devices. There is the risk of fire.



Do not unplug from the outlet by pulling the power cord or when your hands are wet.

There is the risk of electric shock and fire.



Do not bend the power cord excessively or place heavy objects on it. Keep children and pets away from the power cord as they may damage the power cord. There is the risk of electric shock and fire.



Do not use a damaged power cord or plug. Make sure the plug fits snugly into the outlet. There is the risk of electric shock or fire.

Precautions

Caution: The following information will help you avoid the risk of minor ofr moderate injury, or damage to the monitor.



Use a proper voltage/current level indicated



Do not clean the LCD with abrasive chemicals.

There is the risk of damage to the LCD.



Do not expose the monitor to

the direct sun light.

Do not block the fan louvers. There is the risk of fire or damage to the monitor.



Keep the monitor away from high temperature, humidity, and dust.

■ Operating Degree=0~25°C ■ Operating Humidity=30~80RH

Do not allow any object or liquid to enter inside the monitor. There is the risk of electric shock, fire, or damage to the monitor.



Do not scratch and damage the LCD with sharp objects.



Keep the monitor away from objects and electrical appliances that may generate electromagnetic fields.



Do not attempt to disassemble, fix, or modify the monitor.

There is the risk of electric shock or fire.



Place the monitor on a flat, stable surface. The monitor may fall and there is the risk of damage or injury



Unplug the power cord when the monitor is not in use for a prolonged period of time.

Instruction for Cleaning the Monitor

Make sure the power cord is unplugged.

Do not spill or pour liquid on the monitor.

Cleaning the LCD panel

- 1. Use a clean, soft cloth to wipe off dust from the LCD.
- If still not clean, wipe the LCD with a clean soft cloth with a small amount of glass cleaner without alcohol or ammonia.

· Cleaning other parts of the monitor

- 1. Use a clean, soft cloth to wipe off dust from the monitor.
- If still not clean, wipe the LCD with a clean soft cloth with a small amount of glass cleaner without alcohol or ammonia.

Caution

Do not use alcohol or ammonia based cleaning products. Abrasive chemicals, as alcohol or ammonia, may damage the monitor. The company is not responsible for the damages to the monitor caused by the use of alcohol or ammonia based cleaning products.

Items

◆ LCD Monitor -



Stand, Screw ————

Power Cord —



Enter a piece of screw into stand by users in person



* This is how to assemble them by coin or drive.



♦ 5pin D-Sub Cable ———



◆ User Manua ———



◆ 24pin DVI Cable *1 —————



♦ Audio Cable *2



*1 : For DVI Model Only. *2 : For Audio Model Only.



Please make sure the following items are included with your monitor.

If any items are missing, contact your dealer.

Setting up the LCD monitor

			200		No.	Name	Cable connections
1	e (11111) e	® #### 8	•		1	Power	Power Cord
		T	9	Ŷ	2	PC	15pin D-sub Signal Cable
	l l				3	DVI	DVI-D Cable *1
1	2	3	4	(5)	4	SPK IN	Audio Cable *2
					5	SPK OUT	External Speaker Cable *2

*1 : For DVI Model Only *2 : For Audio Model Only

• 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 30 minutes before making any screen adjustments.



When the condition of the screen is not good, please press the button " AUTO". (This function may cause some noises on the screen according to VGA Cards)

How to use the Function Key

The Function Control Buttons











How to use the Function Key



Menu Key:

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



Select Key: Select a command function.



Down Key:

- Move the on-screen highlighted comand item to the next one.
- 2. Decrease the current option value.

Mute Key: *2

Sound MUTE ON/OFF Button.



Up Key:

- Move the on-screen highlighted comand item to to the previous one.
- 2. Increase the current option value.

Auto Key: *1

This will optimize image quality automatically.



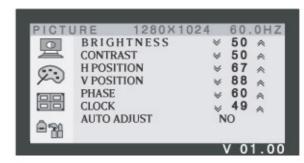
MWE Key: You can manually adjust the screen to your environment on the computer.

ex.) Internet, Games, Movies ...

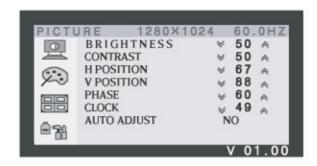
*1 : For Analog Mode Only , *2 : For Audio Model Only.

Adjusting The Monitor

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



PICTURE



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.
H POSITION	Moves to the Left/Right *1
V POSITION	Moves to the Top/Bottom *1
PHASE	When image is not clear, you can use clock/phase menu. *1
CLOCK	When image is not clear, you can use clock/phase menu. *1
AUTO ADJUST	You can select "AUTO ADJUST", this will optimize image quality automatically $\star 1$

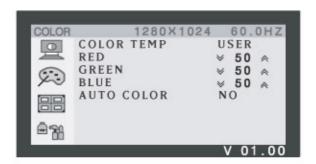
*1 : For Analog Mode Only.



Most of the graphic cards are OK, but some of them are not compatible with the monitor once in a while, which causes some noises on the screen. In this case, you can select "Auto Adjust" to solve this matter immediately.

COLOR

Color adjustment needs to be only for Analog mode.



person, please select user mode.

COLOR

There are user, bluish and reddish modes. In case user has to set up "RED", "GREEN", "BLUE" in

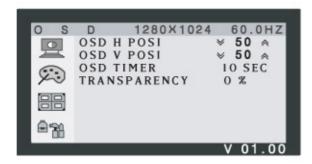
RED,GREEN,BLUE

You can adjust red, green and blue values that you want.

AUTO COLOR

Automatic adjust color(white level) for various input sources white level.

OSD



OSD H POSI

Moves the OSD menu to the horizontal direction.

OSD V POSI

Moves the OSD menu to the vertical direction.

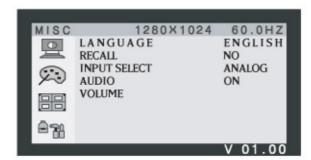
OSD TIMER

Shows the OSD Time displays from 10 to 40sec.

TRANSPARENCY

You can adjust OSD Transparency.

MISC



LANGUAGE

Selects language in OSD menu.

RECALL

Discards current setting and replaced all parameters with the factory default values. INPUT SELECT You can change the display mode.(Analog <=> Digital)

AUDIO Sound Mute On/Off function. *1

VOLUME You can adjust the volume. *1

*1 : For Audio Model Only



The first set-up was done when the goods are released from the factory. After finishing the first set-up, Please press Auto and optimize the screen.

MWE

When you press MWE button, you can get into the following picture.



ENTERTAIN Movies, Video games

TEXT Documents

INTERNET Internet

NORMAL Normal

Appendix

Display Modes and frequency

Mode	Resolution	Horizontal Frequency(KHz)	Vertical Frequency(Hz)	Pixel Clock (MHz)	Sync Polarity(H/V)
	720 X 400	31.468	70.087	28.322	-/+
VGA		31.468	59.940	25.175	-/-
	640 X 480	35.000	66.670	30.240	-/-
		37.500	75.000	31.500	-/-
		37.879	60.300	40.000	+/+
SVGA 800 X 600	800 X 600	48.077	72.188	50.000	+/+
		46.875	75.000	49.500	+/+
	XGA 1024 X 768	48.363	60.004	65.000	-/-
XGA		56.476	70.000	75.000	-/-
		60.023	75.029	78.750	+/+
		63.981	60.020	108.000	+,-/+,-
SXGA	SXGA 1280 X 1024	79.976*1	75.025 *1	135.000*1	+/+ *1

*1 : For Analog Mode Only.

15pin D-Sub Connector



■ Input signal : Analog RGB

■ 15pin D-Sub connector

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

24pin DVI Connector



24 pin DVI Cable

- ■Input signal : Digital
- ■24pin DVI connector

Pin No.	Signal Name	Pin No.	Signal Name	Pin No.	Signal Name
1	TMDS DATA2-	9	TMDS DATA1-	17	TMDS DATA-
2	TMDS DATA2+	10	TMDS DATA1+	18	TMDS DATA+
3	DGND	11	DGND	19	DGND
4	NC	12	NC	20	NC
5	NC	13	NC	21	NC
6	DDC CLOCK	14	+5V POWER	22	DGND
7	DDC DATA	15	AGND	23	TMDS CLOCK+
8	ANALOG SYNC	16	NC	24	TMDS CLOCK-

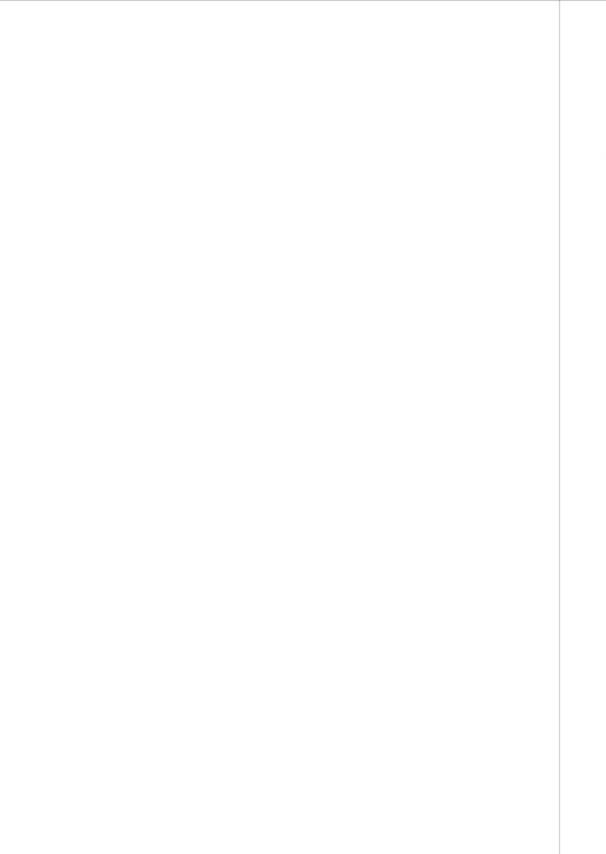
Troubleshooting

PowerSaver

This monitor has a built-in power management system called PowerSaver. This system saves energy by switching your monitor into a low-power mode when it has not been used for a certain amount of time. The monitor automatically returns to normal operation when you press a key on the keyboard. For energy conservation, turn your monitor OFF when it is not needed, or when leaving it unattended for long periods.

State	Power consumption	Recovery Time	LED Color
ON	Under 40W	_	Green
OFF	Less than 1W	Within 2 sec	Amber

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.
"VIDEO MODE NOT SUPPORTED" 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" 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 screen.	Executes "Auto Adjust".
Screen is blank and power indicator light is steady amber.	The monitor is using its power management system. Move the computer's mouse or press a key on the keyboard.



Disposal of Used Electrical & Electronic Equipment

he meaning of the symbol on the product, its accessory or packaging indicates that this product shall not be treated as household waste. Please, dispose of this equipment at your applicable collection point for the recycling of electrical & electronic equipments waste. In the European Union and Other European countries which there are separate collection systems for used electrical and electronic product. By ensuring the correct disposal of this product, you will help prevent potentially hazardous to the environment and to human health, which could otherwise be caused by unsuitable waste handling of this product. The recycling of materials will help conserve natural resources. Please do not therefore dispose of your old electrical and electronic equipment with your household waste. For more detailed information about recycling of this product, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

