

V-LCD173HR

17.3" Professional LCD Rack Mount / Desktop Monitor



USER MANUAL

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IMPORTANT SAFETY INSTRUCTIONS:



The **V-LCD173HR 17.3" LCD Monitor** has been tested for conformance to safety regulations and requirements and has been certified for international use. However, like all electronic equipment, the V-LCD173HR should be used with care. Please read and follow the safety instructions to protect yourself from possible injury and to minimize the risk of damage to the unit.

- Follow all instructions and warnings marked on this unit.
- Do not attempt to service this unit yourself, except where explained in this manual.
- Provide proper ventilation and air circulation and do not use near water.
- Keep objects that might damage the device and assure that the placement of this unit is on a stable surface.
- Use only the power adapter and power cords and connection cables designed for this unit.
- Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.

1. Introduction, Installation and Setup

■ Introduction and Installation

The **V-LCD173HR 17.3" LCD Monitor** can be mounted in any standard EIA 19" equipment rack. The attached rack ears can be angled to provide the user control over the viewing angle. Adequate ventilation is required when installed to prevent possible damage to the monitor's internal components. Both VESA standard 75mm and 100mm hole pattern allow for custom mounting installations.

■ Package Contents

- 1x V-LCD173HR 17.3" LCD Monitor
- 1x DC Adapter
- 1x TALLY Connector

NOT INCLUDED:

- Optional Marshall "V-ST15" base mount for desktop use
- (4) M4 screws needed to install "V-ST15" base mount

■ Connections, Power-On, and Initial Setup

Plug the power supply into an AC power source. Attach the power connector to the back of the monitor. Connect the required cables for video signal input and output. (Power must be supplied to the V-LCD173HR to activate the loop-through output.) The monitor defaults to 'ON' when power is supplied. Choose the desired signal source by selecting the "SDI", "HDMI" or "VIDEO" button on the front bezel.

2. Panel Features

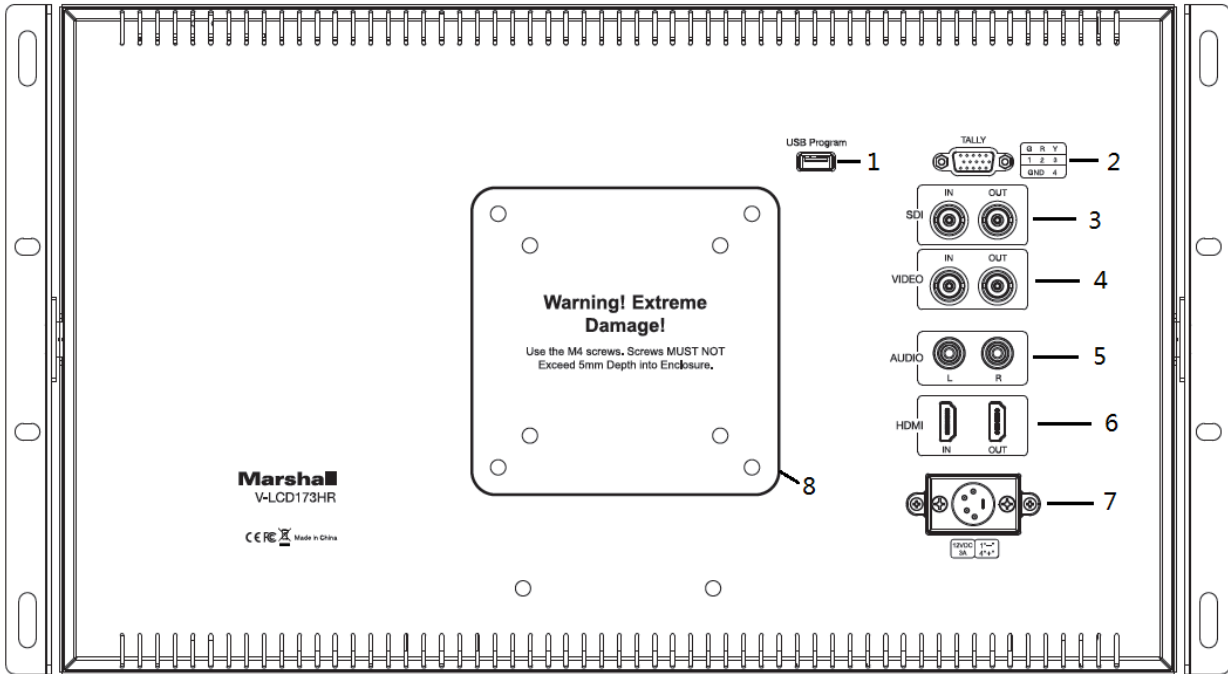
Top and Front Panel Features



<p>1 – Rack Mount Ears: Use rack mount ears to mount 6RU racks or other display applications.</p>	<p>5 – Video Buttons: Indicator lights up when signal switches to VIDEO state.</p>
<p>2 – SDI Button: Indicator lights up when signal switches to SDI state.</p>	<p>6 – Menu Navigation Knob: Turn first for Volume, Brightness, etc or press first for Main Menu.</p>

<p>3 – HDMI Button: Indicator lights up when signal switches to HDMI state.</p>	<p>7 – Headphone Jack: Standard 3.5mm stereo mini-phone plug can be used.</p>
<p>4 – User-Definable Function Buttons: Functions can be customized by pressing any User button for 3-5 seconds. These user-definable function buttons are assigned using the on-screen direct access menu.</p>	<p>8 – Power Button: Use the power button to switch the screen ON and OFF.</p>
<p>Default User Function Options: F1: Aspect Ratio F2: Histogram F3: False Color</p>	

Rear Panel Features

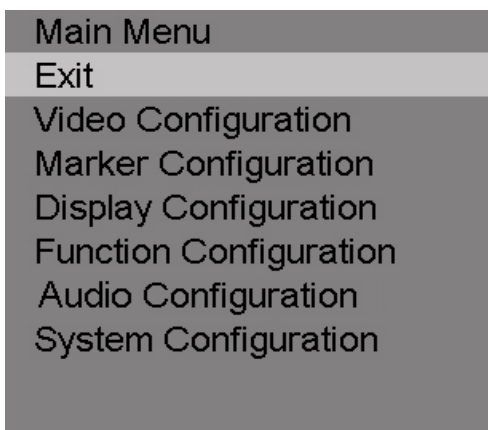


<p>1 – USB Interface: Only for program upgrades. NOT to be used for non-professional use.</p>	<p>5 – Analog Audio “RCA” Connectors: Left and right audio inputs are active when “Video” is selected as the video source. This audio may be monitored at the headphone jack connection.</p>										
<p>2 – Tally Input Connector: The LED tally can be activated by connecting the corresponding pin to ground. A variety of external devices can be used to perform the contact closure. No additional power should be supplied to the HD-15 port. See pinout guide next to connector.</p>	<p>6 – HDMI Digital Video Connectors: HDMI video input and loop output. Embedded audio may be monitored at the headphone jack connection and visually monitored on-screen.</p>										
<p>3 – Serial Digital “BNC” Connectors: SDI input and loop output are compatible with SDI, HDSDI and 3GSDI inputs. Embedded audio may be monitored at the headphone jack connection and visually monitored on-screen.</p>	<p>7 – 4-Pin Power Connector:</p> <table border="1" data-bbox="1013 1624 1364 1780"> <thead> <tr> <th>Pin number</th> <th>Signal</th> </tr> </thead> <tbody> <tr> <td>①</td> <td>GND</td> </tr> <tr> <td>②</td> <td>No connection</td> </tr> <tr> <td>③</td> <td>No connection</td> </tr> <tr> <td>④</td> <td>+12V</td> </tr> </tbody> </table> <p>To be used with 12-volt power supplies only. Caution: 24 volts 4-pin power supplies are NOT compatible with this monitor. Please check label on the power supply before connecting.</p>	Pin number	Signal	①	GND	②	No connection	③	No connection	④	+12V
Pin number	Signal										
①	GND										
②	No connection										
③	No connection										
④	+12V										
<p>4 – Composite Analog “BNC” Connectors: Video input and loop output are used for NTSC or PAL composite (CVBS) video sources.</p>	<p>8 – VESA 75mm and 100mm Hole Patterns: VESA-standard hole-patterns (75mm and 100mm) are provided to accommodate a variety of custom mounting options.</p>										

3. Navigation Menu

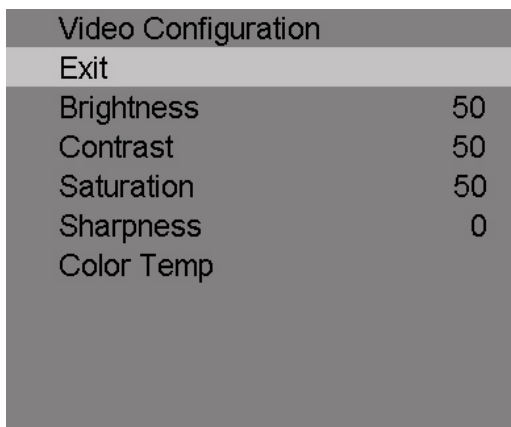
Main Menu: Push the MENU control button on the monitor to adjust the function configurations. To change configurations, select a configuration from the main menu by turning the knob and pressing the menu button once to select. Edit configuration by turning knob to change levels, then press menu button again to confirm the changes. Repeat with each selection as needed.

3.1 Main Menu Navigation



Press the MENU knob on the monitor and function menus will pop-up on the screen. Rotate left or right to select an option. Then press the knob again to open the selection. When an arrow pointer appears in the menu, turn the Menu knob again to access the item or to confirm a selection.

3.2 Video Configuration Submenu



ITEMS	OPTIONS
Video Configuration	
Exit	
Brightness	0 – 100 (50 is default)
Contrast	0 – 100 (50 is default)
Saturation	0 – 100 (50 is default)
Sharpness	0 – 100 (0 is default)
Color Temp (White Bal)	6500K, 7300K, 9300K, User

	Color Temp R	0 – 255	Note: These three items appear when “User” mode is selected.
	Color Temp G	0 – 255	
	Color Temp B	0 – 255	

■ **Brightness**

The Brightness level ranges from 0 to 100.

■ **Contrast**

The Contrast level ranges from 0 to 100.

■ **Saturation**

The Saturation level ranges from 0 to 100.

■ **Sharpness**

The Sharpness level ranges from 0 to 100.

■ **Color Temp**

Choose one of three color temperature presets (6500K, 7300K or 9300K) or define the color with the USER mode.

3.3 Marker Configuration Submenu

Marker Configuration	
Exit	
Center Marker	OFF
Aspect Marker	OFF
Safety Marker	OFF
Marker Color	Red
Marker Mat	1
Thickness	2

ITEMS	OPTIONS
Marker Configuration	
Exit	
Center Marker	OFF, ON (OFF is default)
Aspect Marker	OFF, 4:3, 14:9, 13:9, 15:9, 1.85:1, 2.35:1 (OFF is default)
Safety Marker	OFF, 95%, 93%, 90%, 88%, 85%, 80% (OFF is default)
Marker Color	Red, Green, Blue, White, Black (Red is default)
Marker Mat (background)	OFF, 1– 7 (1 is default)
Thickness	1, 2, 3, 4, 5, 6, 7 (2 is default)

■ **Marker Enable**

Turn 'ON' to display a Marker Enable on the screen.

■ **Center Marker**

Turn 'ON' to display a Center Marker on the screen.

■ **Aspect Marker**

Set the Aspect Marker on the screen. Options: OFF, 4:3, 14:9, 13:9, 15:9, 1.85:1, 2.35:1.

■ **Safety Marker**

Use this to superimpose one of 6 Safety Markers on the screen. Options: OFF, 95%, 93%, 90%, 88%, 85%, 80%.

■ **Marker Color**

Choose from 5 Marker Colors: Red, Green, Blue, White, or Black.

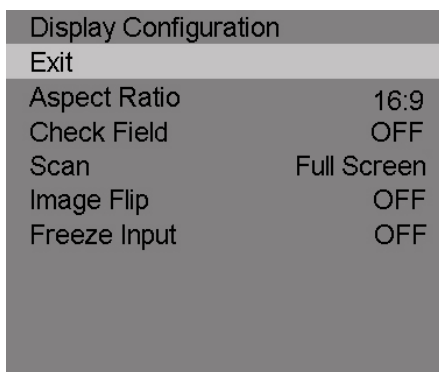
■ **Marker Mat (marker background)**

Choose the Marker Mat transparency. Options: OFF, 1-7.

■ **Thickness**

Choose the Marker Line Thickness ranging from 1 to 7.

3.4 Display Configuration Submenu



ITEMS	OPTIONS
Display Configuration	
Exit	
Aspect Ratio	16:9, 4:3 (16:9 is default)
Check Field	OFF, Mono, Red, Green, Blue (OFF is default)
Scan	Full Screen, Overscan, Underscan, Pixel-to-Pixel (Full Screen is default)
Image Flip	OFF, H, V, H/V (OFF is default)
Freeze Input	OFF, ON (OFF is default)

■ **Aspect Ratio**

Option to switch between 16:9 and 4:3 Aspect Ratio.

■ **Check Field**

Use these modes for monitor calibration or for individual color component image analysis. In Monochrome mode, color is disabled and grayscale image is shown. In Blue, Green, and Red Check Field modes, only the selected color is shown.

■ **Scan**

Use to enable the Scan mode. Options: Full screen, Overscan, Underscan, Pixel-to-Pixel.

■ **Image Flip**

Select to enable Image Flip mode. Options: OFF, H (Horizontal), V (Vertical), H/V (Horizontal and Vertical).

■ Freeze Input

Turn 'ON' to enable Freeze Input mode. A still image will remain on the screen until Freeze is turned off or power is removed from the monitor.

3.5 Function Configuration Submenu

Function Configuration	
Exit	
Peaking	OFF
Peaking Color	Red
Peaking Level	50
False Color	OFF
Exposure	ON
Exposure Level	15
Histogram	Y
DSLR SCALE	OFF

ITEMS	OPTIONS
Function Configuration	
Exit	
Peaking	OFF, ON (OFF is default)
Peaking Color	Red, Green, Blue, White, Black (Red is default)
Peaking Level	0 – 100 (50 is default) Note: This option is disabled when Peaking is set to OFF.
False Color	OFF, ON (OFF is default)
Exposure	ON, OFF (OFF is default)
Exposure Level	0 – 100 (15 is default) Note: This option is disabled when Exposure is set to OFF.
Histogram	OFF, Y, RGB, Color (Y is default)
DSLR Scale	OFF, ON (Available for HDMI input only.)

■ Peaking

Turn 'ON' to enable Peaking mode.

■ Peaking Color

When Peaking Mode is enabled, the monitor will add color to sharply defined edges and objects in an image. This is intended as a tool to aid in judging sharp camera focus. When a camera is adjusted for best focus, the object of interest will have colored edges. Choose from 5 Peaking Colors: Red, Green, Blue, White, or Black. Normally, this function is turned on only as long as needed for focus adjustment and then turned off for normal monitor operation.

■ Peaking Level

The Peaking Level ranges from 0 to 100.

■ False Color

Turn 'ON' to enable False Color mode. When this is on, the picture will have colors added based on video level. It is useful to make a quick check to see if level exceed normal black and white limits or to make a comparison between one scene or lighting situation and another.

■ **Exposure**

Turn 'ON' to enable Exposure Level mode.

■ **Exposure Level**

The Exposure Level setting ranges from 0 to 100. This function mimics the “zebra pattern” display that is often used in many camera viewfinders. It provides a quick check for proper camera exposure. When it is turned ON, diagonal lines will appear in the image areas where the brightness matches the level Exposure Level setting. This is useful when a camera angle has been changed and it is important to keep certain objects at the same brightness. On a typical video scale of 0 – 100, the Exposure number relation is shown in the table below. That is, “zebra patterns” appearing on the image indicates that the area covered by the zebra pattern matches or exceeds the selected video level.

EXPOSURE LEVEL NUMBER	APPROXIMATE VIDEO LEVEL
15	100%
40	90%
70	80%
100	70%

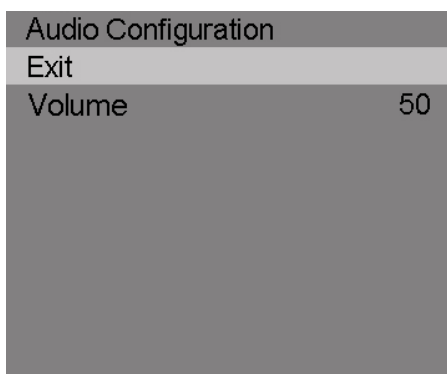
■ **Histogram**

Use to enable the Histogram mode. Options: OFF, Y (shown), RGB (with color), Color (RGB colors individually shown). The Histogram display is similar to displays used in DSLR cameras and desktop color processing applications. It provides a graphic representation of the amount of dark, mid and light tones in an image. It is useful for comparing the average “balance” between different “real” images, not test patterns.

■ **DSLR SCALE (HDMI Input Only)**

Turn 'ON' to enable DSLR Scale mode.

3.6 Audio Configuration Submenu



ITEMS	OPTIONS
Function Configuration	
Exit	
Audio	0 – 100 (50 is default)

■ **Audio**

The Audio level ranges from 0 to 100.

3.7 System Configuration Submenu

System Configuration	
Exit	
Language	English
HDMI/SDI Convert	OFF
Menu Timer	10s
Back Light	100
Reset	OFF
ISP	
Firmware Version	V 2.8

ITEMS	OPTIONS
System Configuration	
Exit	
Language	English, Chinese (English as default)
HDMI/SDI Convert	OFF, ON (OFF as default)
Menu Timer	10s, 20s, 30s (10s as default)
Back Light	0 – 100 (100 as default)
Reset	OFF, ON
ISP	
Firmware Version	V3.3

■ **Language**

Choose Language: English or Chinese.

■ **HDMI/SDI Convert**

Turn 'ON' to enable HDMI/SDI Convert mode.

■ **Menu Timer**

The menu timer level ranges from 10s, 20s, 30s.

■ **Back Light**

The Back Light level ranges from 0 to 100. Back Light adjustment is commonly used to compensate for ambient light levels in the viewing environment and is preferred over using Contrast and Brightness for this.

■ **Reset**

Turn 'ON' to enable reset mode.

■ **ISP**

ISP is for service use only.

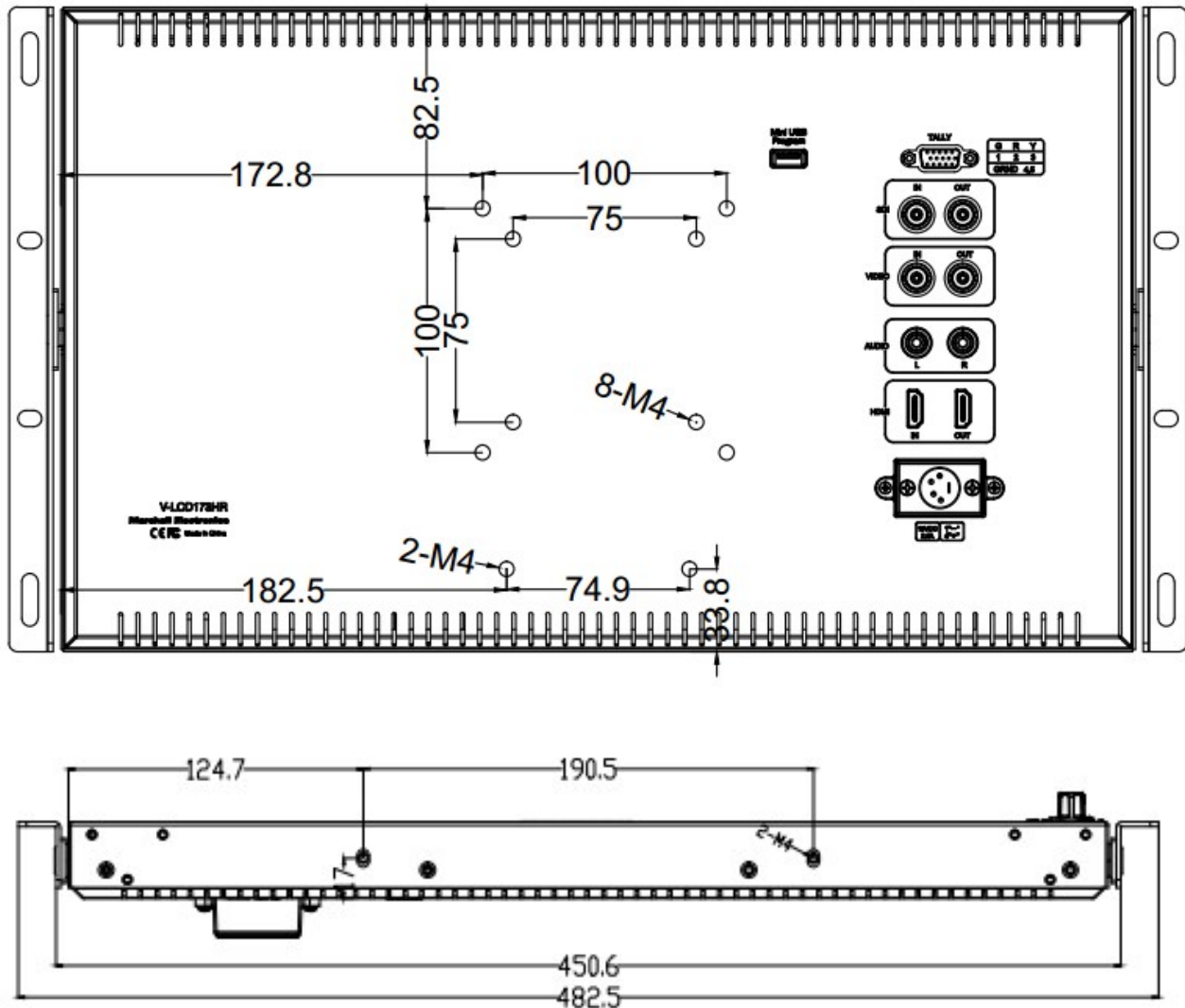
■ **Firmware Version**

Display firmware version (V3.3 at the time this manual was prepared).

4. Specifications

Model Name	V-LCD173HR
Role of Usage	17.3" LCD Monitor
Connectors	
Inputs	<ul style="list-style-type: none"> • SDI BNC x 1 with Loop Out • HDMI x 1 with Loop Out • Composite BNC x 1 with Loop Out • Audio L/R RCA x 2 Line Level • Tally HD-15 Pin compatible with GPI open collector or contact closure to ground/earth • USB 3.0 USB-A x 1 (Firmware Updates) • XLR-12V 4 pin x 1
Outputs	<ul style="list-style-type: none"> • 3.5 mm Front Panel Stereo Headphone Jack
Hardware	
	<ul style="list-style-type: none"> • Included Rack Ears x 2 (6RU height) for standard 19" rack mount • Back Panel Supports VESA 100x100mm and 75x75mm mounting systems • Optional Desktop Stand Model V-ST15 Available • Weight 7.9 lbs. (3.6 Kg) • Product Dimension: 1.29" x 17.75" x 10.5" / 3.28cm x 45cm x 26.7cm (D x L x W)
Panel Information	
	<ul style="list-style-type: none"> • Native Resolution:1920x1080 pixels • Contrast Ratio: 700:1 • Luminance: 300 nits • Display colors: 16 million colors • Viewing Angle: 178-degrees H & V
Supported Formats / Frame Rates	
Composite Input	<ul style="list-style-type: none"> • NTSC • PAL
SD-SDI Input	<ul style="list-style-type: none"> • 480i 59.94Hz • 576i 50Hz
HD-SDI	<ul style="list-style-type: none"> • 720p 25, 29.97, 30, 50, 59.94, 60 Hz • 1080i 50, 59.94, 60 Hz • 1080psf 23.98, 24.00 Hz • 1080p 23.98, 24, 25, 29.97, 30 Hz
3G-SDI Level A	<ul style="list-style-type: none"> • 1080p 50, 59.94, 60 Hz • 10800i 50, 59, 60 Hz • 1080psf 23, 24, 25, 29.97, 30 Hz • 1080p 23.98, 24, 25, 29.97, 30 Hz
SD - HDMI	<ul style="list-style-type: none"> • 480i 59.94, 60 Hz • 576i 50 Hz • 480p 59.94, 60 Hz • 576p 50Hz
HD - HDMI	<ul style="list-style-type: none"> • 720p 25, 29.97, 30, 50, 59.94, 60 Hz • 1080i 50, 59.94, 60 Hz • 1080psf 23.98, 24 Hz • 1080p 23.98, 24, 25, 29.97, 30 Hz

5. Dimensions



6. Monitor Care

Screen Cleaning

Periodically clean the screen surface using ammonia-free cleaning wipes (Marshall Part No. V-HWP-K). A clean micro-fiber cloth can also be used with only non-abrasive and ammonia-free cleaning agents. Do not use paper towels. Paper towel fibers are coarse and may scratch the surface of the polycarbonate faceplate or leave streaks on the surface. Antistatic and fingerprint resistant cleaning agents are recommended. Do not apply excessive pressure to the screen to avoid damaging the LCD.

Faceplate Dusting

Dust the unit with a soft, damp cloth or chamois. Dry or abrasive cloths may cause electrostatic charge on the surface, attracting dust particles. Neutralize static electricity effects by using the recommended cleaning and polishing practice.

7. Warranty

Marshall Electronics warrants to the first consumer that this **V-LCD173HR 17.3" LCD Monitor** will, under normal use, be free from defects in workmanship and materials, when received in its original container, for a period of one year from the purchase date. This warranty is extended to the first consumer only, and proof of purchase is necessary to honor the warranty. If there is no proof of purchase provided with a warranty claim, Marshall Electronics reserves the right not to honor the warranty set forth above. Therefore, labor and parts may be charged to the consumer. This warranty does not apply to the product exterior or cosmetics. Misuse, abnormal handling, alterations or modifications in design or construction void this warranty. No sales personnel of the seller or any other person is authorized to make any warranties other than those described above, or to extend the duration of any warranties on behalf of Marshall Electronics, beyond the time period described above.

Note: Due to constant effort to improve products and product features, specifications may change without prior notice.

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