# Model No. : EC-24" 1080 1080p 23.6inch LED Monitor



# **INSTRUCTION MANUAL**

Please read this manual thoroughly before use, and keep it for future reference.

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# **1. GENERAL INFORMATION**

#### Dear Customer,

Thank you for having purchased this product. This document describes how to install and use the LED backlit LCD color monitor. Read this manual which contains information for correct, safe use carefully. Keep this manual at hand so that you can refer to it when needed.

#### 1.1 PRODUCT DESCRIPTION AND TYPE OF USE

The LED backlit LCD color monitor presents a very rugged structure. It is designed for continuous operation and can be used in closed circuit TV systems without risks of excessive fatigue. The Flat Panel Display has an active matrix, thin-film transistor (TFT), liquid crystal display (LCD).

#### **1.1.1 GENERAL FEATURES**

- DC 12V Power Input
- Display area
- > VGA Input video input Interface
- > HDMI Input video input Interface

Multilingual OSD menu for easy setting and optimization of the display

#### 1.2 OPENING THE BOX

Check that the packing and the contents are not visibly damaged. Contact the retailer immediately if parts are either missing or damaged. Do not attempt to use the device in this case. Send the product back in its original packing if it is damaged.

#### 1.2.1 CONTENTS OF THE BOX

- > Monitor
- Power Adapter
- Power cable
- > HDMI cable
- User's manual

Important Note: Accessories may be changed without prior notice.

#### 1.3 WARNINGS

#### 1.3.1 **POWER**

 $\succ$  Only use the power unit provided to power the device. Check mains rating before plugging the power unit in.

> Do not pull the cable to unplug the device.

#### **1.3.2 SAFETY PRECAUTIONS**

> Keep the device away from rain and humidity to prevent risk of fire and electrocution. Do not introduce material (solid or liquid) inside. If this should accidentally occur, disconnect the device from the mains and have it inspected by qualified personnel.

> Never open the device. In all cases, contact the qualified personnel or authorized service center for repairs.

> Keep the device away from children, to prevent accidental damage.

> Do not touch the device with wet hands to prevent electrical shock or mechanical damage.

> Do not use the device if it should fall or the external casing is damaged. Risk of electrocution if the device is used in such conditions. Contact the retailer or authorized installer.

> It is advisable to disconnect the power wire if the monitor is not used for a certain time.

#### **1.3.3 INSTALLATION PRECAUTIONS**

> To prevent overheating the device, arrange it in a position allowing the flow of air through the slots in the casing. Ensure at least 5 cm of free space when installing inside a rack. For the same reason, do not install sources of heat, such as radiators or hot air ducts. Keep away from direct sunlight. Do not install in areas subject to excessive dust, mechanical vibrations or shocks.

> Do not arrange this device on an unstable surface, such as a tottering or slanted table. The device could fall causing injury or mechanical failures.

> Do not install the device in a place where it could be exposed to humidity or water. Do not direct a jet of water onto the device: risk of fire, electrocution or mechanical failure.

Stop using the device if water or other material should penetrate inside: risk of fire and electrocution. Contact the retailer or authorized installer.

Slots and openings in the cabinet are provided for ventilation. These openings must not be blocked or covered.

> Do not place heavy or heat generating objects on top of the device: this could damage the casing and/or increase internal temperature causing faults.

> Do not cover the device with a cloth while it is running to prevent deforming the external casing and overheating the internal parts: risk of fire, electrocution and mechanical failure.

Keep magnets and magnetized objects away from the device to prevent faults.

> Do not use the device in presence of smoke, vapor, humidity, dust or intense vibrations.

> Wait for a while before operating a device immediately after transporting it from a cold place to a warm place and vice versa. Wait on average for three hours: this will allow the device to adapt to the new ambient (temperature, humidity, etc.).

> The monitor is provided with a plastic base and rubber feet. It can be positioned on a horizontal surface, such as a desk or a table. Make sure that the device is fastened firmly and that it is not resting on unstable supports or surfaces. Dropping could cause severe injury and damage the device.

Remember to adjust the brightness and contrast to obtain a perfect image.

> The monitor can also be installed on the wall by means of a bracket (not provided).

#### 1.3.4 CLEANING THE DEVICE

Rub delicately with a dry cloth to remove dust and dirt.

> Dip the cloth in neutral detergent if dirt cannot be eliminated with a dry cloth alone.

> Do not use volatile liquids (such a petrol, alcohol, solvents, etc.) or chemically treated clothes to clean the device to prevent deformation, deterioration or scratches to the paint finish.

#### 1.3.5 PRI VACY AND COPYRI GHT

> The monitor is a device for surveillance and media systems. Recording of images is subject to the laws in force in your country. Recording of images protected by copyright is forbidden.

Product users shall be responsible for checking and respecting all local rules and regulations concerning monitoring and recording video signals. The manufacturing SHALL NOT BE LIABLE for use of this product not in compliance with the laws in force.

# 2. INTERFACES, CONTROLS & SETTINGS



Interfaces instruction			
DC12V The main power input of monitor, DC12V			
Audio In	The Audio Input Source		
VGA IN	The VGA Input Source		
HDMI IN	The HDMI Input Source		

# **Monitor Control Buttons**



1. Auto

Select an input source(HDMI/VGA)

2. Menu

Enter the MENU, save the adjustment of sub-menu and exit the OSD

### 3. Up

Change the value on selected menu/ Switch a menu on OSD

#### 4. Down

Change the value on selected menu/ Switch a menu on OSD

5. Power

Monitor power on / off

## **Monitor Button Function**

All picture, sound settings and setup can be adjusted in OSD (On Screen Display) menu.

To adjust the OSD screen:

1. Press the **MENU** button to enter the **OSD MENU**.

2. Press the Up / Down buttons to select the desired **main-MENU**. The selected **main-MENU** is highlighted.

3. Press the Up / Down buttons to select the desired **sub-MENU**. The selected **sub-MENU** is highlighted.

- 4. Change the value you wish to adjust by using the Up / Down buttons.
- 5. Press the **MENU** button to confirm the adjustment on **sub-MENU**.
- 6. Press the **MENU** button to exit the **sub-MENU** and go back to the **main-MENU**.
- 7. Press the **MENU** button to exit the **OSD MENU**.

## 3. OSD MENU CONTROLS

#### A. Luminance



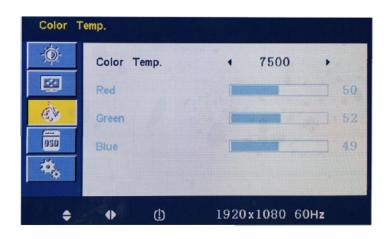
Option	Function	Value	
Luminance	Adjust the image color setting.	See table below	
Brightness	Adjust the Brightness	0 ~ 100	
Contrast	Adjust the contrast ratio	0 ~ 100	
ECO MODE	Adjust the power consumption	Standard/weak/strong	
DCR	Adjust the dynamic contrast ratio	ON / OFF	

## B. I mage Setup



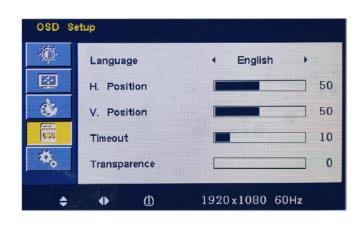
Image Setup			
H. Position	Move the screen picture horizontally(0-100)		
V. Position	Move the screen picture vertically (0-100)		
Clock	Move the clock horizontally		
Phase	Move the phase position (0-100)		
Image Ratio	Adjust the aspect ratio (Auto /Wide/4:3)		

### C. Color Temperature



Option	Function	Value
Color temp	Adjust color temperature	USER / 7500k/6500k/9300k
red	Adjust red color effect	0 ~ 100
green	Adjust green color effect	0 ~ 100
blue	Adjust blue color effect	0 ~ 100

## D. OSD Setup



Option	Function	Value
OSD Language	Set the language of the OSD menu	English, Chinese etc
H. Position	Move the menu position horizontally	0~ 100
V. Position	Move the menu position vertically	0~ 100
Time out	Adjust the standing time of the menu	5~ 100
transparence	Adjust the transparency of the menu	0~7

#### E. RESET



Option	Function	Value
Source	Adjust the signal source	HDMI/VGA
Reset	Restore the factory settings	
Auto Config	Auto restore the picture setting	
Auto color	Auto restore the color setting	
Volume	Adjust the volume	0 ~ 100

## 4. SPECI FI CATI ONS

Display				
Screen Size	18.5"	19.5"	21.5"	23.6"
Backlight type		LE	ED	
Aspect Ratio	16: 9			
Brightness (Typical)		220 c	cd/m²	
Contrast Ratio (Typical)	700:1 Static CR			
Resolution	1366 x 768	1600 x900	1920 x 1080	
Response Time (Typical)	5ms(G2G)			
Viewing Angle	178º/178º	150º/120º	170º/150º	178º/178º
(Horizontal/ Vertical)	(CR>10)	(CR>10)	(CR>10)	(CR>10)
Color Support	16.7M			
Signal Input				
Video Signal		Analo	g RGB	
Sync. Signal	Separate H/V, Composite, SOG			
Connector	VGA+ HDMI			
Power				
Power Consumption	Typical 18W	Typical 18W	Typical 21W	Typical 26W
Stand By Power (DPMS)	<0.5W			
Туре	DC 12V 2A		DC 12V 3A	
Features				
Plug & Play	Supported			
Cabinet Color	Glossy Black			
Audio (Optional)	2x2W(Optional)			