# Instruction Manual



# **IMPORTANT SAFETY INSTRUCTIONS:**

The device has been tested for conformance to safety regulations and requirements, and has been certified for international use. However,

like all electronic equipment, the device 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.

- Please do not place the display screen towards the ground to avoid scratching the LCD surface.
- Please avoid heavy impact.
- Please do not use chemical solutions to clean this product. Simply wipe with a clean soft cloth to maintain the brightness of the surface.
- Please do not block any vent hole.
- Please follow the instructions and trouble-shooting to adjust the product.
- Internal adjustments or repairs must be performed by a qualified technician.
- Please keep user guide for future reference.
- Please unplug the power and remove the battery if long-term no-use, or thunder weather.

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# 1. PRODUCT DESCRIPTION

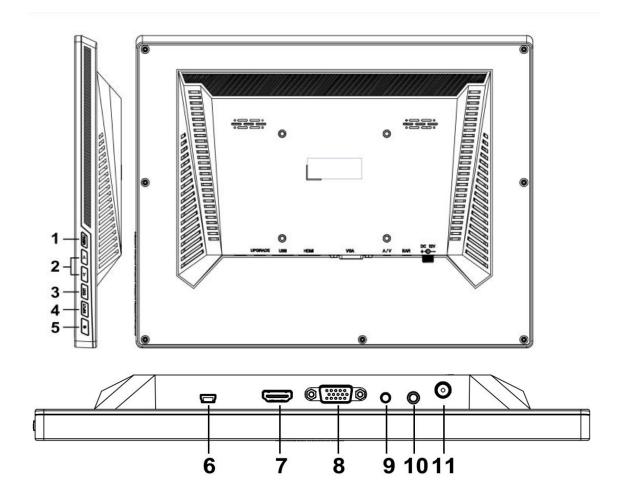
## 1.1 Overview

The 12.1" monitor utilizing a 1024\*768, 800cd/m2 high brightness LED backlit LCD panel which housed in a lightweight case. It is compatible with HDMI, VGA, composite signals which can be controlled by USB touch. The monitor is widely used in various environments, i.e. commercial public display, external screen, industrial operation, etc.

#### 1.2 Main Features

- Supports multiple video input interfaces: HDMI, VGA, CVBS, DVI(optional)
- Support 4K 30Hz HDMI input
- High brightness 800cd/m2
- Capacitive touch screen is optional
- Individual adjustments of Brightness, Contrast, Brightness, Saturation,
   Sharpness, Aspect and Color Temp, etc.
- Support Scan, Underscan, Zoom, Freeze functions
- Equipped with 75mm VESA holes
- Built-in high level components to support 10V to 24V power supply voltage
- Wide working temperature -20~70° C

# 2. CONNECTIONS AND CONTROLS



#### 1. Menu

- Activate menu displayed on screen after power on.
- Confirm after option selected.

#### 2. ▲ ▼

- Select the functions on OSD
- Adjust the volume, Contrast, Saturation, Tint up or down

#### 3. Exit

- Return
- Exit.

#### 4. Input

• Switch input signal after power on

# 5. **U**

Power ON/OFF

#### 6. Upgrade

 This port is used for maintenance, firmware update or further function upgrading. Only by the original manufacturer. For customers, please DO NOT uses this service port.

#### 7. HDMI Input

Video and audio input from a device with HDMI

#### 8. VGA Input

Video input from the device with VGA

#### 9. AV Input

Video and audio input from a device with CVBS

#### 10. Earphone Jack

 3.5mm headphone socket. Internal speaker circuit will automatically mute when earphone jack is connected.

#### 11. DC Power Input

DC In socket for connecting power supply.

# 3. MENU SETTING

Before setting the functions, please make sure the device is connected correctly.

#### 3.1 Shortcut Keys

#### 3.1.1 ▲ ▼

Pressing the ▲or▼ buttons when power on, volume will appear at the bottom of the screen. Then press the menu button to switch among of volume, brightness, contrast, saturation, tint, and exit. User can adjust the value of the selected option via the ▲ and ▼ buttons..

### 3.2 Menu Operation

When powered on, press the menu button on the device to activate the menu setting. Press the buttons ▲ and ▼ to choose menu option and press menu button to confirm it. The selected one will be green highlighted.

#### 3.2.1 Picture



| ITEMS                      | OPTIONS      |           |   |
|----------------------------|--------------|-----------|---|
| Brightness                 | 0 – 100      |           |   |
| Contrast                   | 0 – 100      |           |   |
| Saturation                 | 0 – 100      |           |   |
| Tint                       | 0 – 100      |           |   |
| Color Temp. 6500 K/7500K/9 |              | 300K/USER |   |
|                            | Red gain     | 0 - 255   |   |
|                            | Green gain   | 0 - 255   | Note: Only evallable when                             |
|                            | Blue gain    | 0 - 255   | Note: Only available when under "User" mode to choose |
|                            | Red offset   | 0 - 511   | the color value needed.                               |
|                            | Green offset | 0 - 511   | THE COIDE VALUE HEEGEG.                               |
|                            | Blue offset  | 0 - 511   |   |

#### Brightness

Adjust the general brightness of the LCD. For example, if the user is outside in bright conditions, increase the LCD brightness to make it easier to view.

#### Contrast

Increases or decreases the range between the bright and dark areas of the image. High contrast can reveal detail and depth in the image, and low contrast can make the image appear soft and flat.

#### Saturation

Adjust the color intensity from 0 to 100.

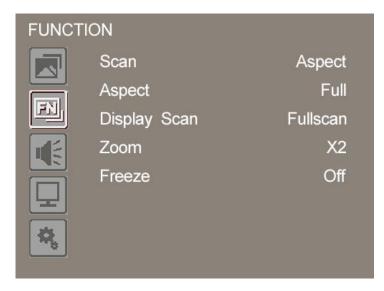
#### Tint

Use this setting to choose the tint from 0 to 100.

#### Color Temp.

Adjust the color temperature to make the image warmer (Yellow) or colder (Blue). Increase the value to make the image be warmer, decrease the value to make the image be colder. User can use this function to strengthen, weaken or balance the image color according requirements. The standard white light color temperature is 6500K. Note: Only available under "User" mode to adjust Color Bias and Gain.

#### 3.2.2 Function



| ITEMS        | OPTIONS                       |  |  |
|--------------|-------------------------------|--|--|
| Scan         | Aspect, Pixel to Pixel, Zoom  |  |  |
| Aspect       | Full/16:9/1.85:1/2.35:1/3:2   | Only available under Aspect Mode.                |  |
| Display Scan | Fullscan, Underscan, Overscan | Only available under Zoom ,Aspect and HDMI Mode. |  |
| Zoom         | X1.5/X2/X3/X4                 | Only available when the Scan is under Zoom mode. |  |
| Freeze       | Off, On                       |  |  |

#### Scan

Use this menu option to choose Scan mode. There are three modes preset.

#### Aspect:

Select Aspect under Scan option, then use Aspect option to switch between several aspect ratio setting. Users can select related aspect ratio according to different signal input to meet the best viewing experience.

#### Pixel to Pixel

The pixel to pixel is a monitor set to 1:1 pixel mapping with native fixed pixels, which avoids loss of sharpness due to scaling artifacts and normally avoids incorrect aspect ratio due to stretching.

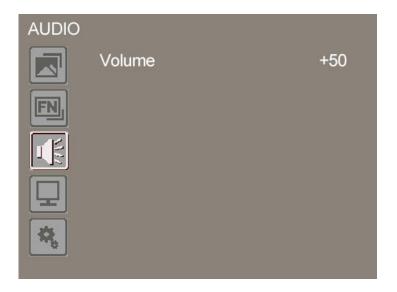
#### Zoom

The image can be enlarged by X1.5/X2/X3/X4 ratios. To select the "Zoom" under Scan, choose the times under Zoom option.

#### Freeze

Freeze or unfreeze the current image on the screen.

#### 3.2.3 **Audio**

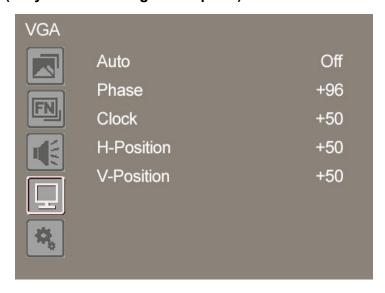


| ITEMS  | OPTIONS |
|--------|---------|
| Volume | 0-100   |

#### Volume

Adjust the volume for the built in speaker and earphone jack audio signal.

#### 3.2.4 PC (Only for connecting to computer)



| ITEM       | OPTIONS |
|------------|---------|
| Auto       | On, Off |
| Phase      | 0-100   |
| Clock      | 0-100   |
| H-position | 0-100   |
| V-position | 0-100   |

Note: Only available under PC mode.

#### Auto

Select [On], the monitor can adjust the position of the image automatically. Select [Off], users can adjust the position of the image manually.

#### Phase

Adjust internal phase sequence difference. There is no obvious change when adjusting this item's value.

#### Clock

Adjust internal oscillation frequency when interference occurs. Adjust this item, the image can be compressed or stretched left or right.

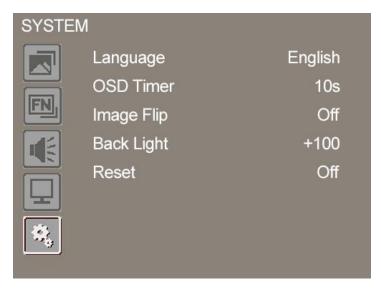
#### • H-Position

Horizontally adjust the position of the image on the screen.

#### V-Position

Vertically adjust the position of the image on the screen.

#### **3.2.5** System



| ITEM       | OPTION         |
|------------|----------------|
| Language   | English/中文     |
| OSD timer  | 10s, 20s, 30s  |
| Image flip | Off, H/V, V, H |
| Back light | 0-100          |
| Reset      | Off, On        |

#### Language

Switch between English, Chinese.

#### OSD Timer

It supports setting the exit time of OSD. For example, the OSD will be closed automatically after 10s if without any operation when selected 10s. It can be selected among 10s, 20s, and 30s.

#### Image Flip

Use this setting to activate or deactivate the Image Flip function. It has three modes to be chose: H/V, H, V

#### Back Light

Adjust the back light of display panel from 0-100.

#### Reset

If there is any problem unknown, press to confirm after selecting. The monitor will return to default set.

# 4. PARAMETERS

| Display Screen        | 12.1 inch 8bits       |
|-----------------------|-----------------------|
| Physical Resolution   | 1024x768              |
| Brightness            | 800cd/m <sup>2</sup>  |
| Contrast              | 900:1                 |
| Viewing Angle         | 170°/170° (H/V)       |
| Input Signal          | CVBS(AV),HDMI, VGA    |
| Touch Function        | Capacitive (Optional) |
| Input Voltage         | DC 12-24V             |
| Power Consumption     | ≤ 13W                 |
| Operating Temperature | -30~80°C              |
| Storage Temperature   | -30~85°C              |
| Dimension(LWD)        | 284.4×224.1×33.4mm    |
| Weight                | 1.27kg                |

# **5. ACCESSORIES**

# Standard



| • | 12V DC Adapter                | 1pc |
|---|-------------------------------|-----|
| • | VGA Cable                     | 1рс |
| • | HDMI A/A                      | 1рс |
| • | Audio/Video RCA Cable         | 1рс |
| • | Driver Disk ( For touch only) | 1pc |
| • | USB Cable ( For touch only)   | 1рс |
| • | Manual                        | 1pc |

#### **Optional**







| • | 75MM VESA | Fold Mount | 1pc |
|---|-----------|------------|-----|
|   |           |            |     |

HDMI to DVI Cable
 1pc

Remote Control

# 6. TROUBLE SHOOTING

#### Only black-and-white display:

Check whether the color saturation is properly setup or not.

#### Power on but no pictures:

Check whether the cables of AV, HDMI, and VGA are correctly connected or not.

Please use the standard power adapter coming with the product package. Improper power input may cause damage.

#### Wrong or abnormal colors:

Check whether the cables are correctly and properly connected or not. Broken or loose pins of the cables may cause a bad connection.

#### • When on the picture shows size error:

Please press "MENU → FUNCTION → Display Scan → Underscan" to zoom in/out pictures automatically when receiving HDMI signals

#### • Other problems:

Please press "MENU $\rightarrow$ SYSTEM $\rightarrow$  Reset  $\rightarrow$ ON" to do the factory reset.

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