

LCD Display Wall Unit

User Manual



Foreword

General

This manual introduces the maintenance and configuration of the LCD Display Wall Unit (hereinafter referred to as the "Device"). Read carefully before using the Device, and keep the manual safe for future reference.

Safety Instructions

The following signal words might appear in the manual.

Signal Words	Meaning
 DANGER	Indicates a high potential hazard which, if not avoided, will result in death or serious injury.
 WARNING	Indicates a medium or low potential hazard which, if not avoided, could result in slight or moderate injury.
 CAUTION	Indicates a potential risk which, if not avoided, could result in property damage, data loss, reductions in performance, or unpredictable results.
 TIPS	Provides methods to help you solve a problem or save time.
 NOTE	Provides additional information as a supplement to the text.

Revision History

Version	Revision Content	Release Time
V1.0.4	Updated Packing List and FAQ.	July 2025
V1.0.3	Updated FAQ.	June 2025
V1.0.2	Updated maintenance tips.	December 2022
V1.0.1	Updated product name.	July 2022
V1.0.0	First release.	December 2021

Privacy Protection Notice

As the device user or data controller, you might collect the personal data of others such as their face, audio, fingerprints, and license plate number. You need to be in compliance with your local privacy protection laws and regulations to protect the legitimate rights and interests of other people by implementing measures which include but are not limited to: Providing clear and visible identification to inform people of the existence of the surveillance area and provide required contact information.

About the Manual

- The manual is for reference only. Slight differences might be found between the manual and the product.
- We are not liable for losses incurred due to operating the product in ways that are not in compliance with the manual.
- The manual will be updated according to the latest laws and regulations of related jurisdictions. For detailed information, see the paper user manual, use our CD-ROM, scan the QR code or visit our official website. The manual is for reference only. Slight differences might be found between the electronic version and the paper version.
- All designs and software are subject to change without prior written notice. Product updates might result in some differences appearing between the actual product and the manual. Please contact customer service for the latest program and supplementary documentation.
- There might be errors in the print or deviations in the description of the functions, operations and technical data. If there is any doubt or dispute, we reserve the right of final explanation.
- Upgrade the reader software or try other mainstream reader software if the manual (in PDF format) cannot be opened.
- All trademarks, registered trademarks and company names in the manual are properties of their respective owners.
- Please visit our website, contact the supplier or customer service if any problems occur while using the device.
- If there is any uncertainty or controversy, we reserve the right of final explanation.

Important Safeguards and Warnings

This section introduces content covering the proper handling of the device, hazard prevention, and prevention of property damage. Read carefully before using the device, and comply with the guidelines when using it.

Transportation Requirements



Transport the device under allowed humidity and temperature conditions.

Storage Requirements



Store the device under allowed humidity and temperature conditions.

Installation Requirements



- This device cannot be used independently. To prevent injury, it must be securely installed according to the instructions provided in this document.

- **Stability Hazard**

Possible result: The device might fall down and cause serious personal injury.

Preventive measures (including but not limited to):

- ◇ Only use cabinets and brackets specified for the device.
- ◇ Only use furniture and structures that can safely support the device.
- ◇ Do not place the device on the edge of the furniture or structure that is supporting it.
- ◇ Always educate children about the dangers of climbing furniture to reach the device and its controller.
- ◇ Carefully arrange the cables connected to the device to avoid people tripping over them and pulling on them.
- ◇ Make sure that the device is installed on a stable surface.
- ◇ Do not put the device on tall furniture, such as cabinets and bookcases, without first ensuring that the supporting structure is stable enough to bare the device.
- ◇ Do not place the device on fabric and other similar material.
- ◇ Do not place items, such as toys and remote controls, that may entice children to climb on top of the device or furniture on which the device is placed.



WARNING

- Do not connect the power adapter to the device while the adapter is powered on.
- Strictly comply with the local electrical safety code and standards. Make sure that the ambient voltage is stable and meets the power supply requirements of the device.
- Do not connect the device to two or more kinds of power supplies, to avoid safety risks and damage to the device.
- Please follow the electrical requirements to power the device.
 - ◇ Following are the requirements for selecting a power adapter.
 - The power supply must conform to the requirements of IEC 60950-1 and IEC 62368-1 standards.
 - The voltage must meet the SELV (Safety Extra Low Voltage) requirements and not exceed ES-1 standards.
 - When the power of the device does not exceed 100 W, the power supply must meet LPS requirements and be no higher than PS2.
 - ◇ We recommend using the power adapter provided with the device.
 - ◇ When selecting the power adapter, the power supply requirements (such as rated voltage) are subject to the device label.



- Personnel working at heights must take all necessary measures to ensure personal safety including wearing a helmet and safety belts.
- Do not place the device in a place exposed to sunlight or near heat sources.
- Keep the device away from dampness, dust, and soot.
- Install the device in a well-ventilated place, and do not block its ventilation.
- Prevent liquid from dripping or splashing on the device. Do not put any objects filled with liquid, such as a vase, on top of the device.
- Use an adapter or cabinet power supply provided by the manufacturer.
- The device is a class I electrical appliance. Make sure that the power supply of the device is connected to a power socket with protective earthing.
- When installing the device, make sure that the power plug can be easily reached to cut off the power.
- The signal output devices and the LCD Display must be on the same grounding, and the earth impedance must be less than 1 Ω .
- To ensure heat dissipation, make sure the gap is wide enough between the device and the surrounding area.
- A 16 A overcurrent protection device must be installed in the external power circuit of the product. If multiple devices are connected in parallel, the rated value must be increased accordingly.

- Operating temperature: 0 °C to 40 °C (32 °F to 104 °F).

Operation Requirements



-   The device or remote control contains button batteries. Do not swallow the batteries due to the risk of chemical burns.

Possible result: The swallowed button battery can cause serious internal burns and death within 2 hours.

Preventive measures (including but not limited to):

- ◇ Keep new and used batteries out of reach of children.
 - ◇ If the battery compartment is not securely closed, stop using the product immediately and keep out of reach of children.
 - ◇ Seek immediate medical attention if a battery is believed to be swallowed or inserted inside any part of the body.
- Battery Pack Precautions

Preventive measures (including but not limited to):

- ◇ Do not transport, store or use the batteries in high altitudes with low pressure and environments with extremely high and low temperatures.
- ◇ Do not dispose the batteries in fire or a hot oven, or mechanically crush or cut the batteries to avoid an explosion.
- ◇ Do not leave the batteries in environments with extremely high temperatures to avoid explosions and leakage of flammable liquid or gas.
- ◇ Do not leave the batteries in environments with extremely high temperatures to avoid explosions and leakage of flammable liquid or gas.



- In a domestic environment this may cause radio interference in which case you may be required to take adequate measures.
-    Do not use multiple devices together to avoid generating high current.

Preventative measure: Ground the device to protective ground before you power it on.



- Check whether the power supply is correct before use.
- Do not unplug the power cord on the side of the device while the adapter is powered on.
- Operate the device within the rated range of power input and output.
- Use the device under allowed humidity and temperature conditions.

- Do not drop or splash liquid onto the device, and make sure that there is no object filled with liquid on the device to prevent liquid from flowing into it.
- Do not disassemble the device without professional instruction.

Maintenance Requirements



Replacing unwanted batteries with the wrong type of new batteries might result in explosion.

Preventive measures (including but not limited to):

- Replace unwanted batteries with new batteries of the same type and model to avoid the risk of fire and explosion.
- Dispose of the old batteries as instructed.



- Power off the device before maintenance.
- The appliance coupler is a disconnection device. Keep it at a convenient angle when using it.

Table of Contents

Foreword	I
Important Safeguards and Warnings	III
1 Maintenance	1
1.1 Environmental Requirements	1
1.2 Maintenance Tips	1
2 Packing List	4
3 Device Introduction	5
3.1 Appearance	5
3.2 Ports	5
3.3 Remote Control	6
4 Local Configuration	7
4.1 Picture	8
4.2 System	9
4.3 Input Source	11
5 System Update	13
6 FAQ	14
Appendix 1 Security Recommendation	15

1 Maintenance

1.1 Environmental Requirements

- The Device can only be installed indoors. It is recommended that the room where the Device is installed be equipped with air conditioner. The Device cannot be operated in environment with high humidity and heavy dust.
- Do not block the vent of the Device and the airflow around it; otherwise the temperature of the Device will increase, and fire might occur.

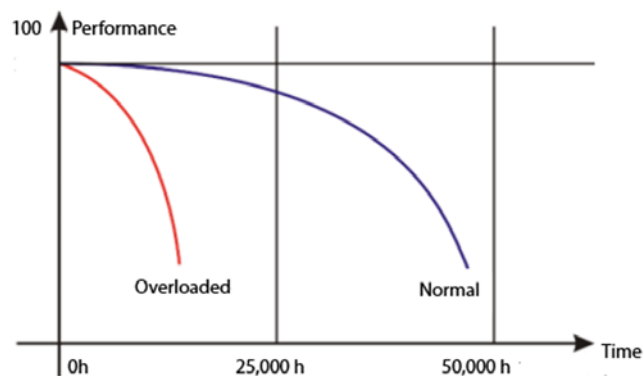
1.2 Maintenance Tips

Comply with the maintenance rule strictly to prolong the life span of the Device and to implement energy conservation and emission reduction.

Operating Time

Because of high temperature, electronic products will age rapidly if they are operated for a long time. The relation of operating time and performance of the Device is as follows.

Figure 1-1 Performance



To prolong the life span of the Device and save maintenance expenses, follow the suggestions bellow.

- If the Device has worked for ten hours, turn it off and then turn it on after 15–30 minutes.
- If the Device has worked for 7×24 hours, turn it off and then turn it on after two hours.

Temperature, Humidity and Ventilation

- The appropriate ambient temperature range for the Device is $22\text{ }^{\circ}\text{C} \pm 4\text{ }^{\circ}\text{C}$, and the appropriate relative humidity range is 30%–70%, no condensation. There must be no great temperature and humidity difference.
- If the Device is used in environment with high temperature and humidity, there will be tiny water drops on the surface and frame of the Device. The water drops will flow inside the Device. As a

result, the glass structure will be damaged, and the liquid crystal molecule aggregation and outflow will occur. The phenomenon is displayed in Figure 1-2.

Figure 1-2 Liquid crystal leakage



During the operation, pay attention to the following points.

- Before turning off the Device, make sure that the temperatures of the air conditioners in the server room and the room where the Device is installed are the same.
- If the Device has been off for a long time, check if there are water drops on the surface. If there are water drops, do not dry the surface with wet cloth. Dry the surface with absorbent paper, do not power the device, and contact the after-sales personnel.



Free warranty service is not applicable to damage (includes but not limited to the damage to the Device and damage to the user or the third party) caused by incorrect use and maintenance.

Cleaning

- Use degreasing cotton or cloth to clean the screen.
- The ideal detergent is isopropanol or n-hexane. Do not use ketone (such as acetone) to clean the screen.
- Before you clean the screen, pull the plug out of the socket.
- Wet cloth is not allowed to clean the Device because there will be tiny water drops on the surface and frame of the Device. The water drops will flow inside the Device. As a result, the glass structure will be damaged, and the liquid crystal molecule aggregation and outflow will occur.
- The panel is fragile. As a result, you cannot press or scratch the surface of the screen with great force.

Power Supply

Stable 100–240 VAC single phase power supply is needed; otherwise the Device cannot work normally. To get stable voltage and prevent damage result from electrical surge, use the stabilized voltage supply.

Storage Requirement

- If the Device is not in use for a long time, cover it with the dust-cloth.
- If the Device has not been used for over six months before you start to use it again, do dust removal first, or contact professional company to do the maintenance.



If the Device is not in use for a long time, it will gather dust and heat radiation will be influenced.

Dust-Proof Requirement

During debugging and operation, the dust concentration of the working area should not exceed 10 mg/m³.

If the Device must be used in environment with high temperature and high humidity, or the Device must be in single display mode for a long time, we strongly recommend you to contact engineers of our company to get suggestions. Otherwise the reliability and performance could be greatly influenced.



Airports, banks and stock markets are places with great dust and wide differences in temperature and humidity.



Playing a static image for a long time can cause a burning screen. If you want to play a static image, switch to a dynamic video every two hours and play it for more than 15 minutes.

Screen Usage Requirements

Playing static images for a long time can damage the screen and cause images to glitch. If this cannot be avoided, take the following measures:

- Avoid playing static images 24/7.
- We recommend playing static and motion images alternately.
For example, you can alternate between playing static images for 5 minutes and motion images for 10 seconds.
- When the screen is connected to a computer, use motion images as the screen saver.

2 Packing List

Check Table 2-1 to see whether the components are complete.



The appearance, items, or quantity might be different depending on the model that you purchased.

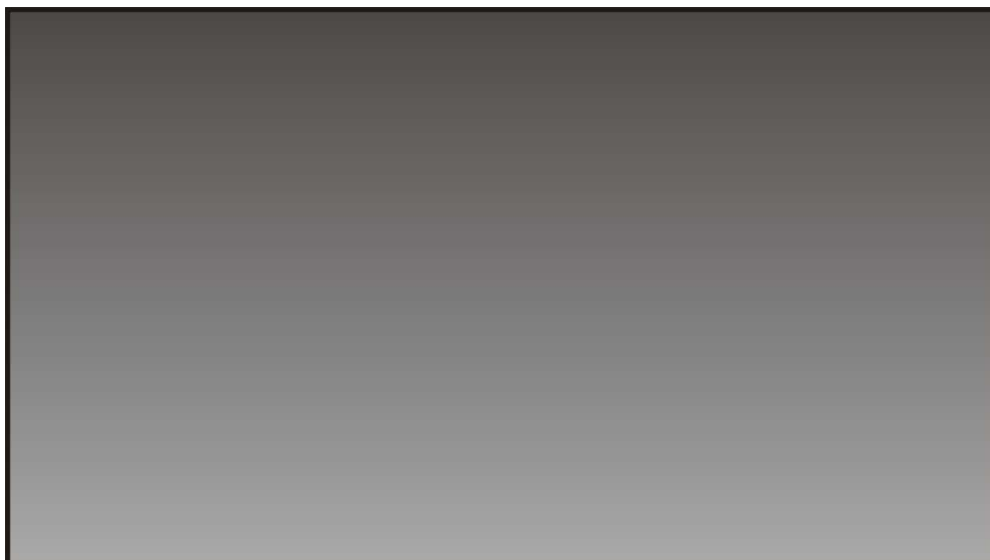
Table 2-1 Packing list

Component	Quantity
LCD display wall unit	1
AC power cable	1
Network cable	1
Remote control	1
AAA battery	2
HDMI cable	1
Hexagon screw	4  Adapt to other brackets.
M6 screw	2
M5 screw	8–10  The number of M5 screws might be different depending on the device models.

3 Device Introduction

3.1 Appearance

Figure 3-1 Appearance



3.2 Ports

Figure 3-2 Ports

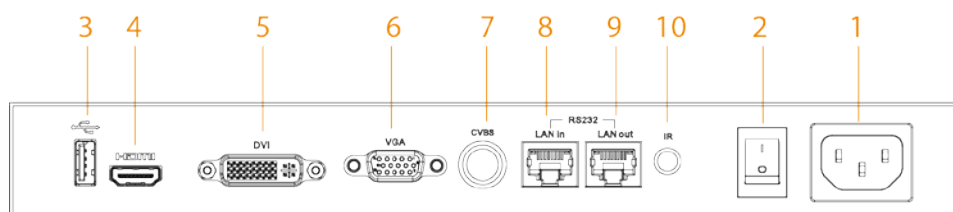


Table 3-1 Port description

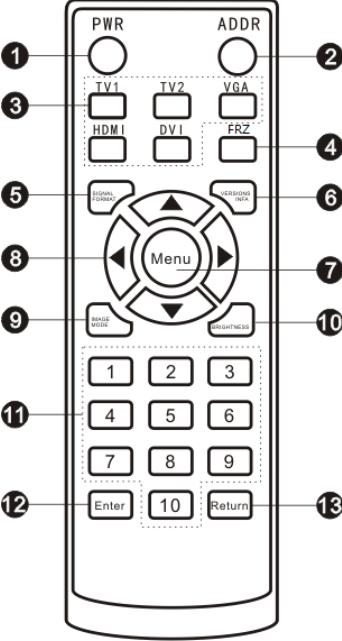
No.	Port	Function
1	Power input port	Inputs AC power.
2	Power switch	Controls the on and off of the AC input port.
3	USB port	Used for system update.
4	HDMI in	Inputs HDMI signals. Supports up to 1080p@60 Hz.
5	DVI in	Inputs DVI signals. Supports up to 1080p@60 Hz.
6	VGA in	Inputs VGA signals. Supports up to 1080p@60 Hz.
7	CVBS input	Inputs CVBS signals.
8	LAN in	An RJ-45 port that inputs RS-232 signals. It controls the screen.
9	LAN out	An RJ-45 port that outputs RS-232 signals. It controls signal loop-through.

No.	Port	Function
10	IR port	Connected to the IR extension cord.

3.3 Remote Control

Remote control is a must-have device.

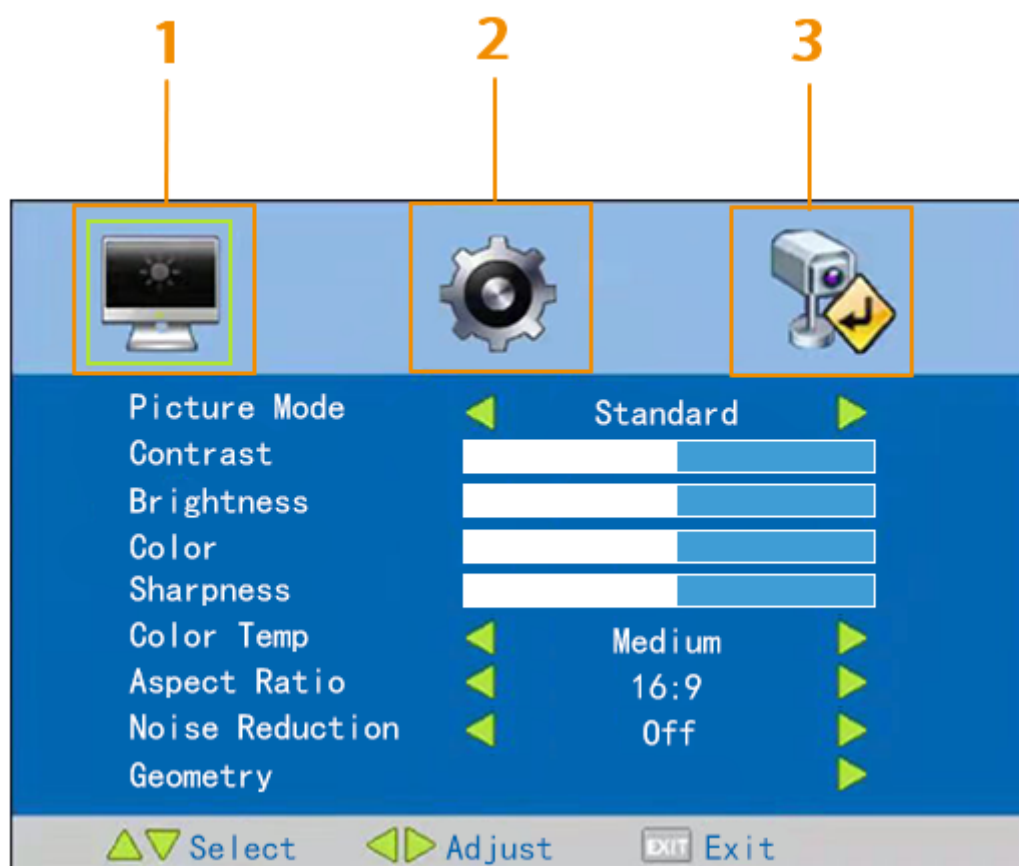
Table 3-2 Button functions

Picture	No.	Name	Function
	1	Power	Power on/Standby.
	2	Address	Address setting (dedicated to monitors).
	3	Signal source	Signal source selection. - TV1: Switch signals to CVBS signal. - TV2: Not available. - VGA: Switch signals to VGA signal. - HDMI: Switch signals to HDMI signal. - DVI: Switch signals to DVI signal.
	4	FRZ	Pause button, used to stop playing videos.
	5	Signal format	Displays current input signals.
	6	Version info	Displays version of the system.
	7	Menu	Press Menu to display or exit the menu interface. Press Menu to confirm the operation you have done.
	8	Direction button	Left and right direction button: Use direction buttons to select items on the left or right of the current parameter on the screen (if you have selected voice, you can use these buttons to adjust the volume). Up and down direction button: Use it to select items up or below the current item you have selected on the screen.
	9	Image mode	Select image mode.
	10	Brightness	Select brightness mode.
	11	Number buttons	Press number buttons to enter numbers.
	12	Enter	Press Enter to confirm and enter the multimedia interface.
	13	Return	Press Return to exit the multimedia interface.

4 Local Configuration

Use the remote control to configure parameters for the Device. Press the menu button, the menu of the Device is displayed in Figure 4-1.

Figure 4-1 Menu



For introduction of icons on the menu, see Table 4-1.

Table 4-1 Icon description

No.	Menu	Description
1	Picture	Set imaging effect for the Device.
2	System settings	Configure parameters for the system.
3	Input source	Select signal mode.



- Press Menu on the remote control, the menu bar is displayed on the Device, and then you can adjust relevant parameters.
- Press Menu on the remote control or select **Menu** on the menu bar to exit the current menu.

4.1 Picture

Press **Menu** on the remote control, the menu bar is displayed on the Device. The default menu bar is **Picture** menu bar.

Figure 4-2 Picture

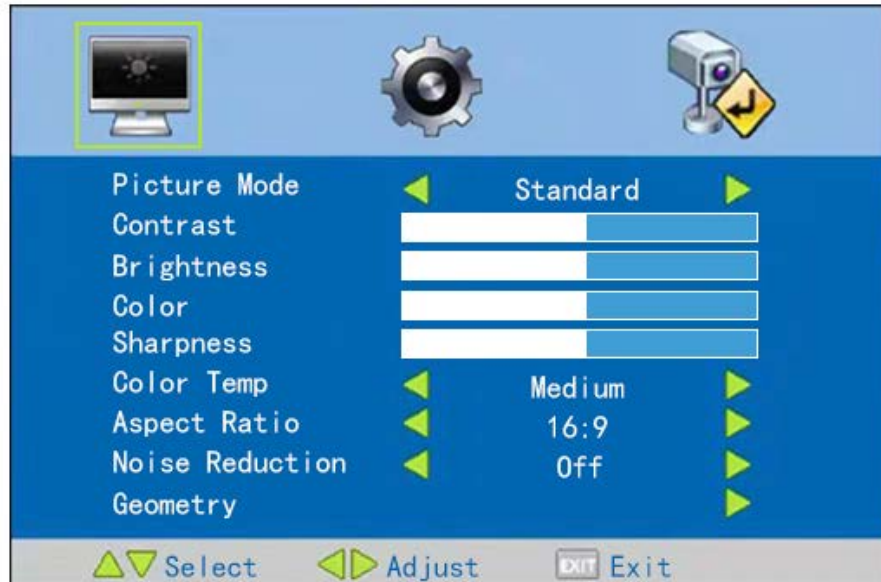
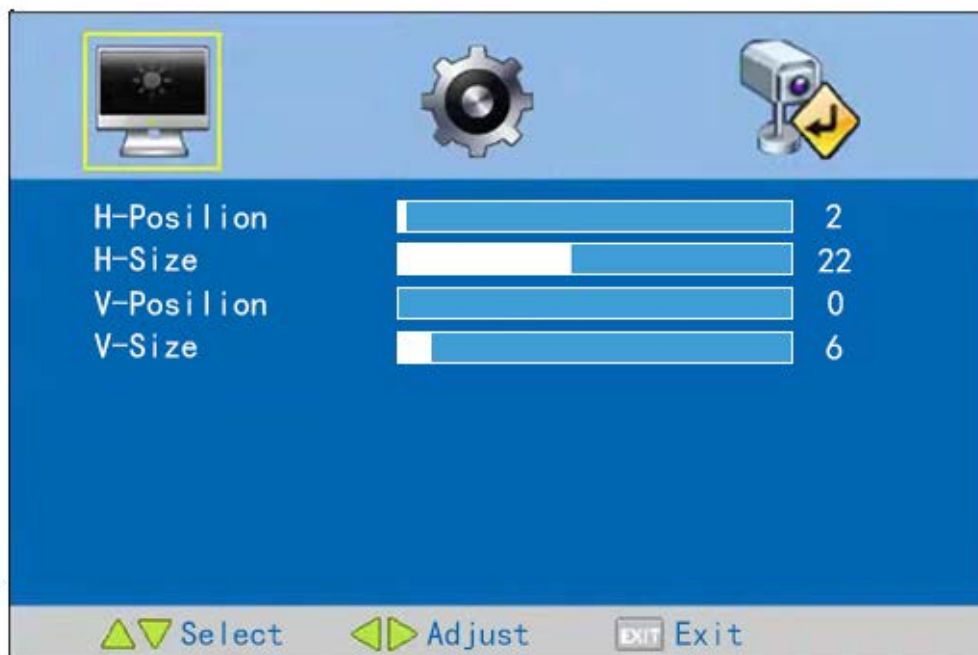


Table 4-2 Picture parameters

Parameter	Description
Picture Mode	Select a mode for the overall effects of images. There are four image modes: User mode, dynamic mode, standard mode, and soft light mode.
Contrast	Adjust contrast to make objects in images distinguishable. The value ranges from 0 through 100.
Brightness	Adjust the brightness of images. The value ranges from 0 through 100.
Color	Adjust color saturation. The value ranges from 0 through 100.
Sharpness	The higher the sharpness, the clearer the images but meanwhile the more noise. The value ranges from 0 through 100.
Color Temp	Adjust the color temperature of images.
Aspect Ratio	Adjust the display scales of images. You can select 16:9, 4:3 or panorama.
Noise Reduction	Reduce noise to improve image quality. You can select the level of noise reduction from Off , Low , Middle , and High .
Geometry	Adjust the position and size of images. 1. Press ▲ or ▼ to select Geometry , and then press ►. 2. Press ▲ or ▼ to select the geometry parameter to be adjusted. 3. Press ◀ or ▶ to adjust the value. The value ranges from 0 through 50.

Figure 4-3 Geometry



4.2 System

On the main menu, press ◀ or ▶ to select .

Figure 4-4 System settings



Table 4-3 Parameters of system settings

Parameter	Description
Osd Language	Select a system language from Chinese and English.

Parameter	Description
Osd Duration	Set how long the menu is displayed on the screen. You can select 15 s, 30 s, off or 5 s.
Backlight	Select a backlight mode for the screen.
Turn Off Auto	If the function is enabled, the screen will automatically become off when there is no input signal.
Restore Default	Restore all the parameters except language to default settings.
White Balance	Adjust the white balance to balance the color temperature of images. 1. Press ▲ or ▼ to select White Balance , and then press ►. 2. Select a white balance color and then adjust the value.
Address Set	1. Press ▲ or ▼ to select Address Set , and then press ►. 2. Select the parameter to be adjusted. 3. Press ▲ or ▼ to adjust the value.

Figure 4-5 White balance

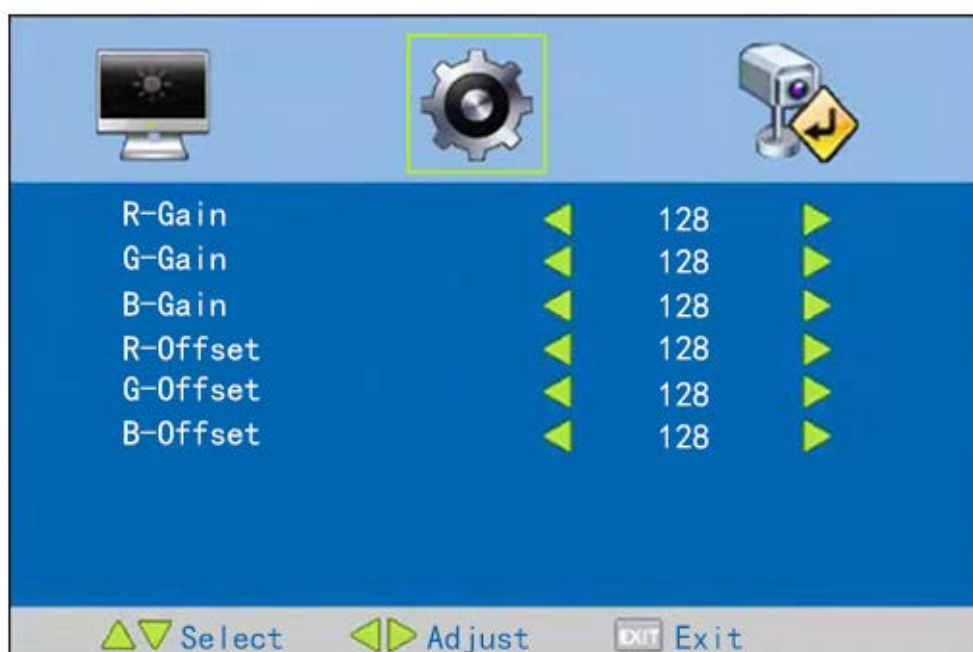


Figure 4-6 Address setting

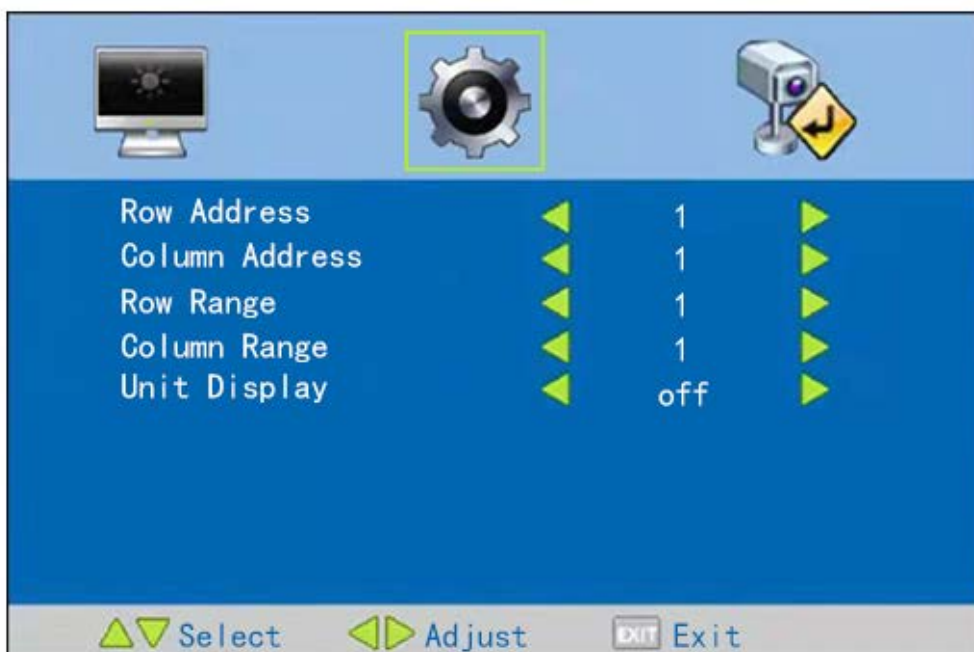


Table 4-4 Soft address parameters.

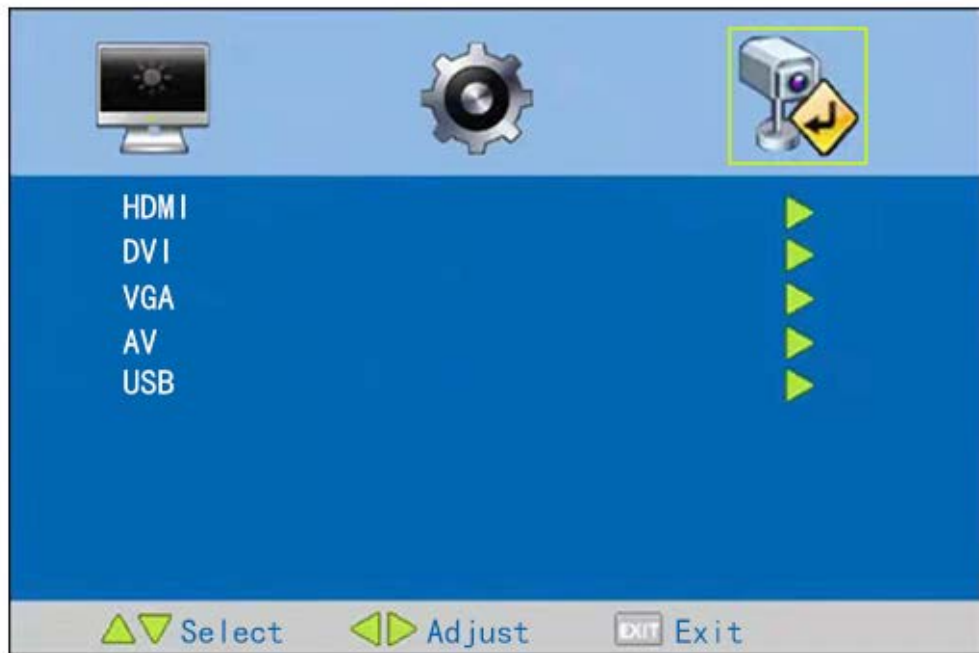
Parameter	Description
Row Address	Row address of the screen.
Column Address	Column address of the screen.
Row Range	Row range of the screen.
Column Range	Column range of the screen.
Unit Display	Enable or disable unit display.

4.3 Input Source

You can select a type of input signal source for the Device. **HDMI**, **DVI**, **VGA**, **AV**, and **USB** are available.

Step 1 On the main menu, press ◀ or ▶ to select .

Figure 4-7 Input source



Step 2 Press ▲ or ▼ to select an input signal type, and then ► to configure the parameters.



You can press the signal source buttons to set the input source.

5 System Update

The product involves complicated operations. To protect the rights of the customer, update and maintenance must be conducted by our technicians. Do not dismantle the Device or update the system on your own. We are not liable for any errors or damages incurred therefrom.

6 FAQ

Most problems can be solved by the following solutions. If problems that you encountered are not covered in the following table, contact after-sales personnel.



Some models use local dimming technology. In certain scenarios, the image might be overexposed, which is normal.

Table 6-1 FAQ

Problems	Solutions
When you turn on the Device, there are no images on the screen (blank screen).	● Check whether the power source (110 VAC or 220 VAC) is connected to alternating current. ● Check whether the power cord is broken. ● Check whether the power switch is on. ● Check whether the power switch is broken. ● Check whether the indicator light is on.
Blank screen (no signal displayed).	● Check whether the signal wires are in bad contact. ● Check whether there is signal source output. ● Check whether the signal wires are broken. ● Check whether the input signal type does not belong to the types allowed by the Device.
Color missing.	● Check whether the signal wires are in bad contact. ● Check whether the signal wires are broken.
Remote control cannot control the screen.	Check whether batteries of the remote control are installed correctly.
Temperature of the Device is too high.	Check whether the ventilation around the Device is good.

Appendix 1 Security Recommendation

1. Account Management

1.1 Use complex passwords

Please refer to the following suggestions to set passwords:

- The length should not be less than 8 characters;
- Include at least two types of characters: upper and lower case letters, numbers and symbols;
- Do not contain the account name or the account name in reverse order;
- Do not use continuous characters, such as 123, abc, etc.;
- Do not use repeating characters, such as 111, aaa, etc.

1.2 Change passwords periodically

It is recommended to periodically change the device password to reduce the risk of being guessed or cracked.

1.3 Allocate accounts and permissions appropriately

Appropriately add users based on service and management requirements and assign minimum permission sets to users.

1.4 Enable account lockout function

The account lockout function is enabled by default. You are advised to keep it enabled to protect account security. After multiple failed password attempts, the corresponding account and source IP address will be locked.

1.5 Set and update password reset information in a timely manner

Our device supports password reset function. To reduce the risk of this function being used by threat actors, if there is any change in the information, please modify it in time. When setting security questions, it is recommended not to use easily guessed answers.

2. Service Configuration

2.1. Enable HTTPS

It is recommended that you enable HTTPS to access Web services through secure channels.

2.2 Encrypted transmission of audio and video

If your audio and video data contents are very important or sensitive, we recommend you to use encrypted transmission function in order to reduce the risk of your audio and video data being eavesdropped during transmission.

2.3 Turn off non-essential services and use safe mode

If not needed, it is recommended to turn off some services such as SSH, SNMP, SMTP, UPnP, AP hotspot etc., to reduce the attack surfaces.

If necessary, it is highly recommended to choose safe modes, including but not limited to the following services:

- SNMP: Choose SNMP v3, and set up strong encryption and authentication passwords.
- SMTP: Choose TLS to access mailbox server.
- FTP: Choose SFTP, and set up complex passwords.
- AP hotspot: Choose WPA2-PSK encryption mode, and set up complex passwords.

2.4 Change HTTP and other default service ports

It is recommended that you change the default port of HTTP and other services to any port between 1024 and 65535 to reduce the risk of being guessed by threat actors.

3. Network Configuration

3.1 Enable Allow list

It is recommended that you turn on the allow list function, and only allow IP in the allow list to access the device. Therefore, please be sure to add your computer IP address and supporting device IP address to the allow list.

3.2 MAC address binding

It is recommended that you bind the IP address of the gateway to the MAC address on the device to reduce the risk of ARP spoofing.

3.3. Build a secure network environment

In order to better ensure the security of devices and reduce potential cyber risks, the following are recommended:

- Disable the port mapping function of the router to avoid direct access to the intranet devices from external network.
- According to the actual network needs, partition the network: if there is no communication demand between the two subnets, it is recommended to use VLAN, gateway and other methods to partition the network to achieve network isolation.
- Establish 802.1x access authentication system to reduce the risk of illegal terminal access to the private network.

4. Security Auditing

4.1 Check online users

It is recommended to check online users regularly to identify illegal users.

4.2 Check device log

By viewing logs, you can learn about the IP addresses that attempt to log in to the device and key operations of the logged users.

4.3 Configure network log

Due to the limited storage capacity of devices, the stored log is limited. If you need to save the log for a long time, it is recommended to enable the network log function to ensure that the critical logs are synchronized to the network log server for tracing.

5. Software Security

5.1 Update firmware in time

According to the industry standard operating specifications, the firmware of devices needs to be updated to the latest version in time in order to ensure that the device has the latest functions and security. If the device is connected to the public network, it is recommended to enable the online upgrade automatic detection function, so as to obtain the firmware update information released by the manufacturer in a timely manner.

5.2 Update client software in time

It is recommended to download and use the latest client software.

6. Physical Protection

It is recommended that you carry out physical protection for devices (especially storage devices), such as placing the device in a dedicated machine room and cabinet, and having access control and key

management in place to prevent unauthorized personnel from damaging hardware and other peripheral equipment (e.g. USB flash disk, serial port).