DeviceWell®

中帝威科技

Users' Manual

SDI 24-Screen Multiview

MVP9124

VAR 1.0

www.devicewell.com

Precautions

To ensure the reliability, use and safety of the equipment, please observe the following when installing, using and maintaining:

Before the device is powered on, it is necessary to check to ensure that the chassis is well grounded to prevent electrostatic discharge from the chassis and endanger the equipment and personal safety, and to provide good shielding effect.

◆Do not place system equipment in a location that is too cold or too hot.

◆The power supply of the device will generate heat during operation, so keep the working environment well ventilated to avoid damage to the device due to excessive temperature.

◆Turn off the main power switch when it is rainy or wet or when it is not used for a long time.

◆Non-professionals, please do not try to open the equipment case without permission, and do not repair it yourself to avoid accidents or damage to the equipment.

◆Do not spill any chemicals or liquids on or near the equipment.

Contents

1. Product introduction

1.1. Product overview

This is a professional-grade SDI multiview that supports 24-channel SDI signal input and 2-channel 12G SDI output and 1-channel 4K60 HDMI output. You can use the front panel keyboard to change the display resolution to 2160P50 / 60, 2160p24/ 25 / 30. The device can be connected to 24-channel SDI signals, and can be used as a 24-channel switcher when single-screen full-screen display; when performing multi-screen synthesis, there are 4-screen, 9-screen, 16-screen and 24-screen modes to choose from. The device supports network and button control, all functions can be remotely operated through the network port, and supports network interface to update the internal software, which can realize more functions and is easy to operate.

1.2. Main Functions

◆ Art design style
◆ 24channel signal input, 3-channel Multiview output
◆ Support single picture amplification, 4 screens, 9 screens, 16 screens& 24 screens modes
◆ Input port: SDI × 24
◆ Output port: SDI×2 ; HDMI × 1
◆ SDI input HD / SD adaptation
◆ Support network and key control
◆ Support network upgrade
◇ Special functions can be customized

1.3. Product Parameters

Product name	**SDI 24-Screen Multiview**	
SDI Input	Input signal	SDI HD serial digital video signal
	Bit rate	143Mbps~2.97Gbps
	Connector	BNC complies with IEC169-8 standard
	Reflection loss	>15dB 5MHz~3GHz
	Signal amplitude	800mV±10%
	impedance	75Ω
	equilibrium	100m Belden 1694A HD
		200m Belden 8281A HD
SDI Output	Output signal	SDI HD serial digital video signal
	Connector	BNC complies with IEC169-8 standard
	Code Rate	12 Gbps
	Signal amplitude	800mV±10%
	impedance	75Ω
	Overshoot	<5%
	shake	<0.2Ul
HDMI Output	Output signal	HDTV HD digital video signal
	Bit rate	270Mbps~2.97Gbps
	Signal amplitude	800mV±10%(100R)
	impedance	100Ω
Control parameters	Local control	Key (front panel)
	Connection port	RJ45 Standard network interface(UDP)
	control software	WINDOWS(Customizable IOS/Android)
	Optional components	Central control keyboard
General parameters	Power Supply	100-240V/AC 50/60Hz
	power	<40W
	Host size	1U(Standard power supply)
	control panel	YES
	weight	2.1KG
	working temperature	0℃~50℃ non-condensing
	Storage temperature	-20℃~75℃
	Working humidity	20%~70%RH
	Storage humidity	0%~90%RH， No condensation

1.4. Standard list

◆ Multiview main part
◆ AC power cord x1
◆ Control software x1
◆ User Manual x1

2. Operation and Function Description

2.1. Equipment operation

Note: please use the following installation sequence. If the installation sequence is not followed correctly, the equipment may not work or work normally。

(1) Connect the signal output port of the signal source to the input port of the equipment.

(2) Configure the corresponding I / O card according to the I / O on site.

(3) Connect the signal output port of the equipment to the signal input port of the display equipment.

(4) Turn on the power of the equipment and turn on the power key switch.

(5) Use the manual button to select the input and output ports
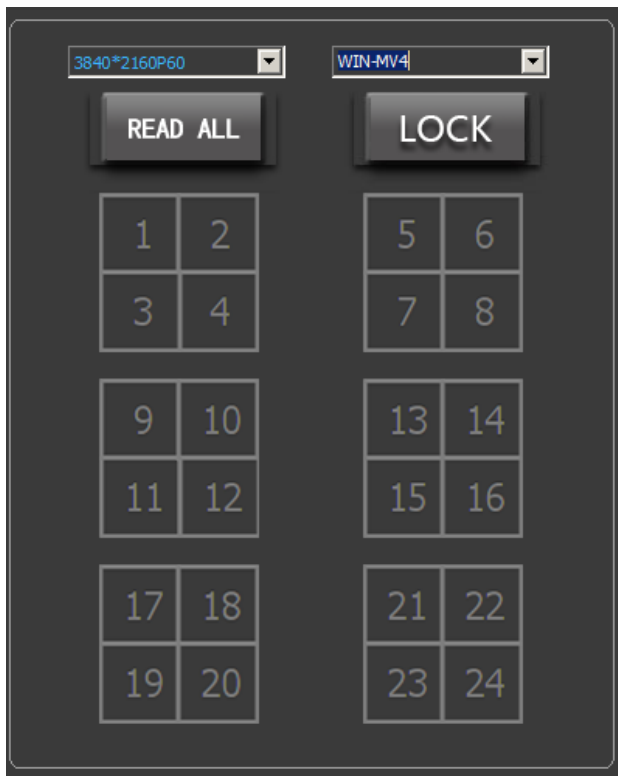
(6) Rear panel interface description:

1.4K60 HDMI（Multiview output）　　2.12G　SDI×2　（Multiview output）
3.SDI×24 Input　　　　　　　　　　4. Network interface
5. power supply（AC 100 － 240V）　　6. RS422 Interface
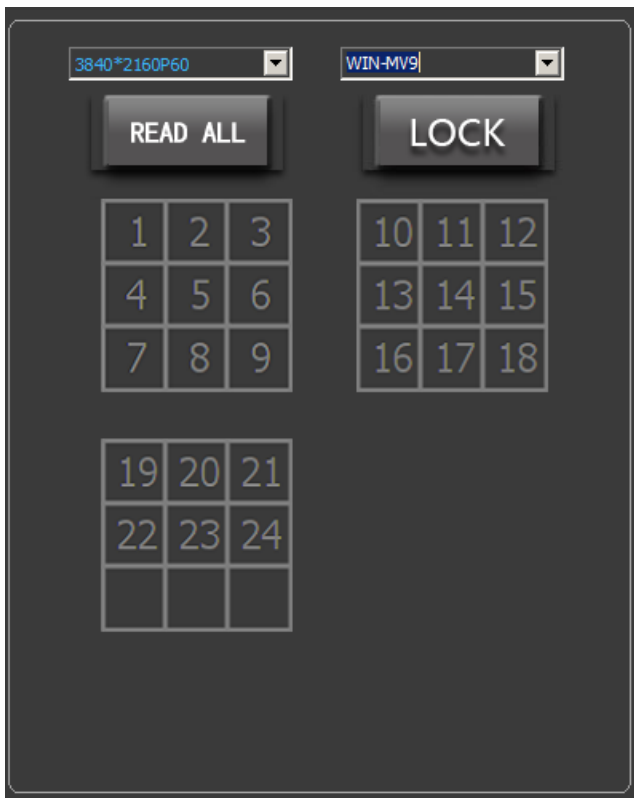
2.2. Multiview mode description
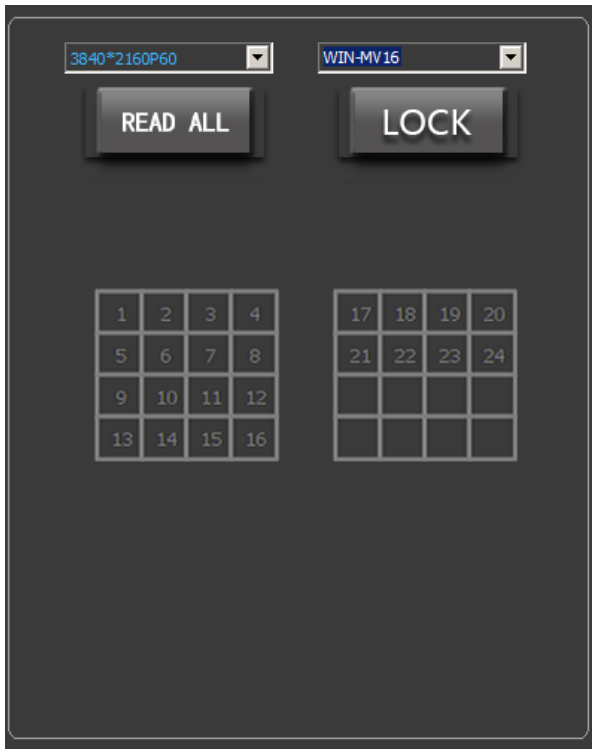
2.2.1.　1-screen mode
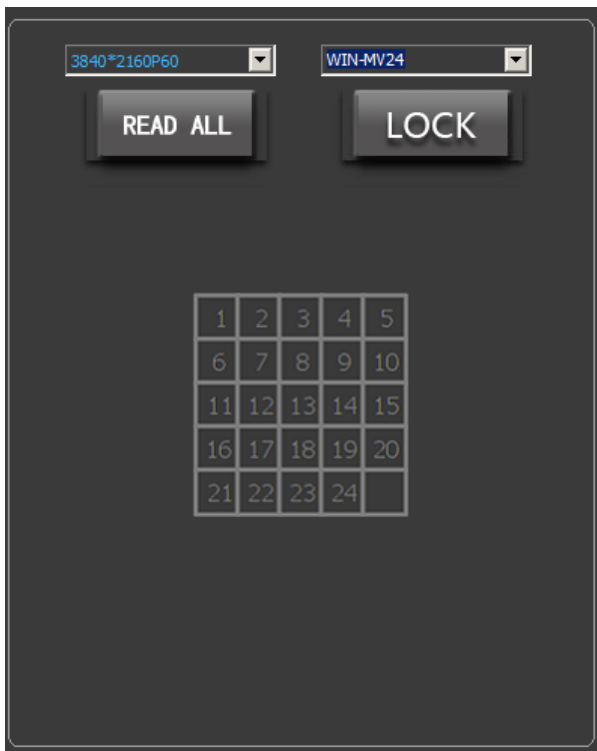

3
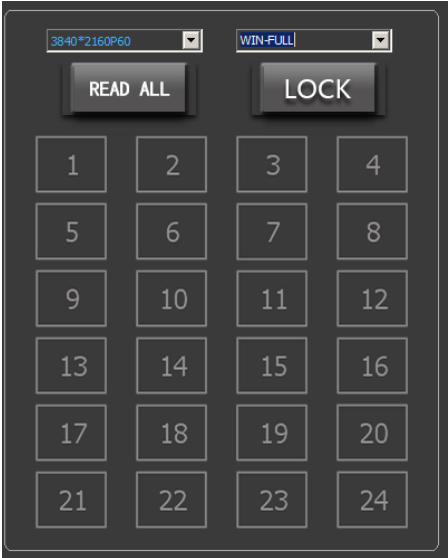
2.2.2. 4-screen mode

2.2.3. 9 -screen mode

2.2.4. 16-screen mode

2.2.5. 24 screen mode

2.3. Key board operating instructions

2.3.1. Full Panel

During multi screen switching, you can select one channel for full screen display. Press the full panel to enter the full screen, and then press the channel to be selected (for example, press the fifth input in the 24 channels to display in full screen, press the full panel to enter the full screen, press in, and then press 5. The 19th input is displayed in full screen, you need to press the 10+ button, and then press the number key 9), and press the full panel key again to return to the multi screen state.

2.3.2. Mode switching

Multi-screen mode switching, a total of 1, 4, 9, 16, 24 many modes to select, you can press the Mode button to cycle.

2.3.3. Lock key board

After pressing the lock key, the key light will always be on. At this time, the key board is locked and the functions of other keys have failed. After pressing the lock key again, the key light goes out, the equipment is unlocked, and the key board returns to normal function.

2.3.4. Knob

Control the LCD menu of the front panel.

## 2.4. Description of screen character setting control software

Run the exe file and click the gear icon in the lower left corner to set whether it is serial port communication or network port communication. After the software runs, the default is network port communication. After selection, click the "SCANNING" button to list the devices. Select the corresponding device with the left button of the mouse, and you can perform mode switching and resolution switching operations on the current device. Before operating the device for the first time, you can click the READ ALL button to read the mode status and resolution status of the current device.
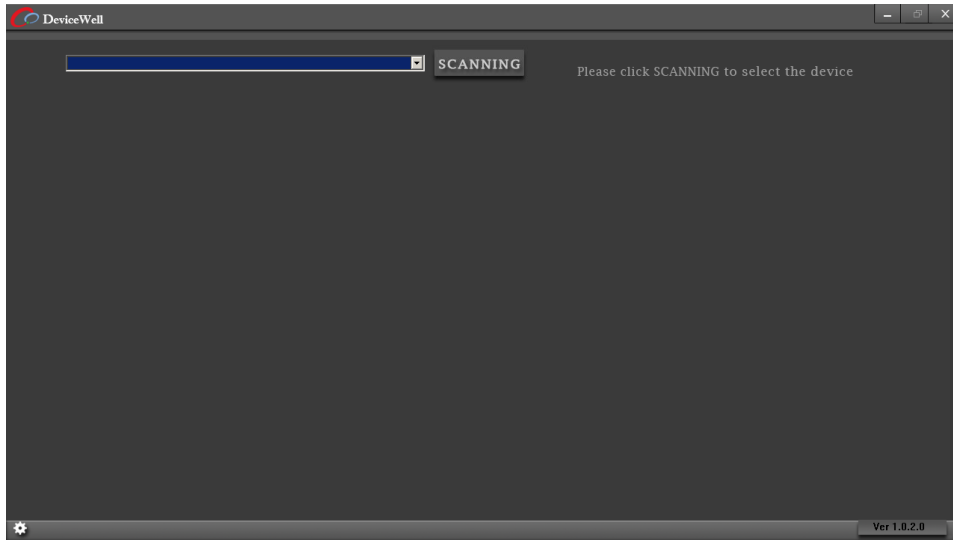
The initial interface after running the software
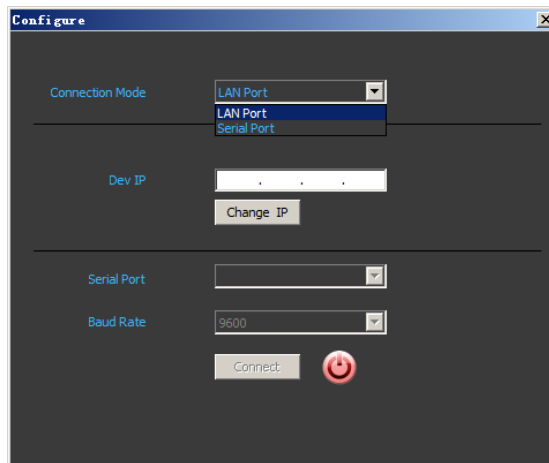
Set the communication mode interface
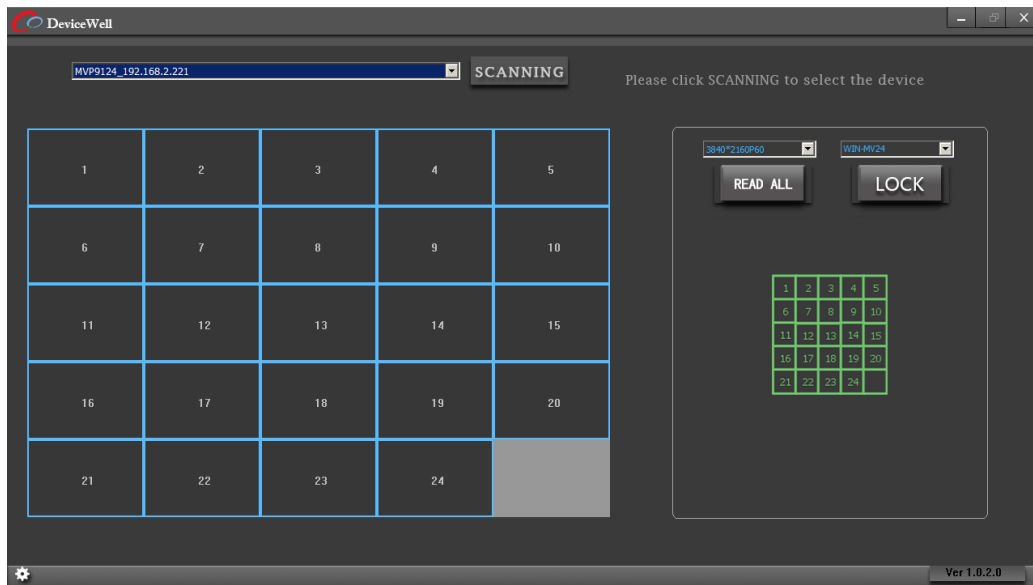
Device operation interface

2.4.1. Screen Mode

Click the mode drop-down bar, all window modes will be listed. After clicking the window mode to be displayed, all sub-modes in the mode will be listed below. Finally, click the sub-mode to be used, the icon will light green, and the device will output the corresponding picture mode.
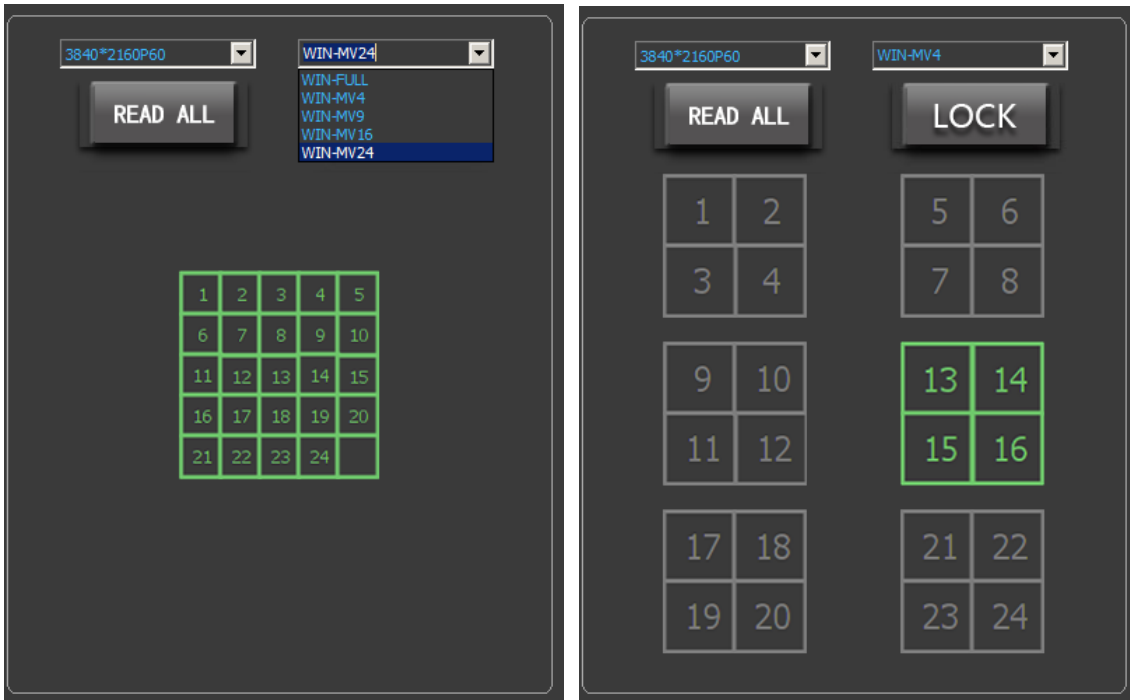
2.4.2. Output resolution

Click the resolution drop-down bar, all resolutions supported by this device will be listed. After clicking the resolution to be used, the output interface of the device will output the corresponding resolution.
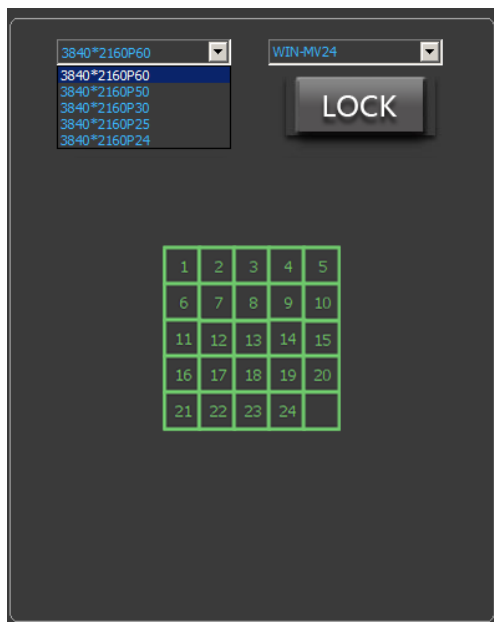
2.5. Menu usage and LCD display instructions

2.5.1. Startup LCD status display

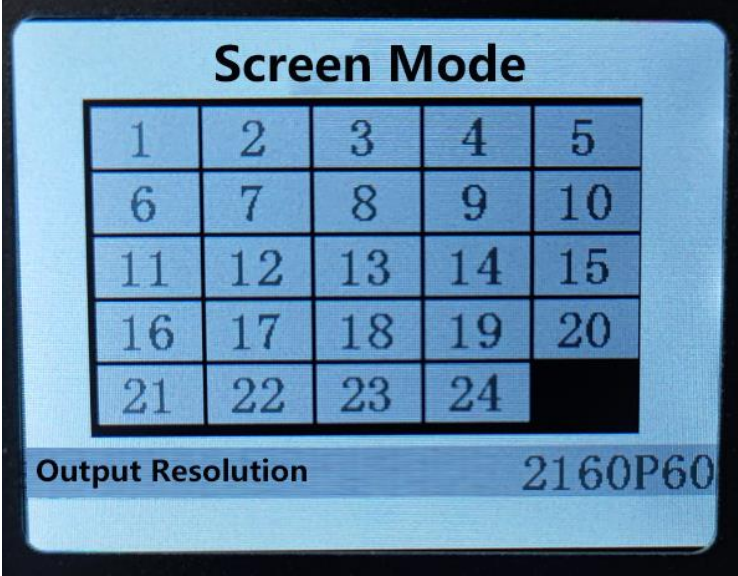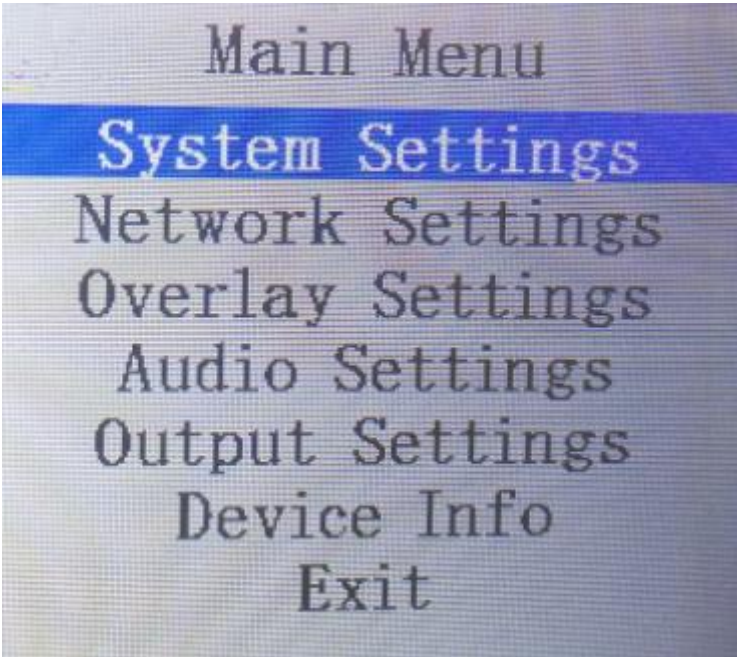After starting up, you can see the current mode status and resolution status of the device on the LCD panel. As shown below.

2.5.2. Menu interface

Press the knob on the front panel to enter the main menu interface, as shown in the following figure
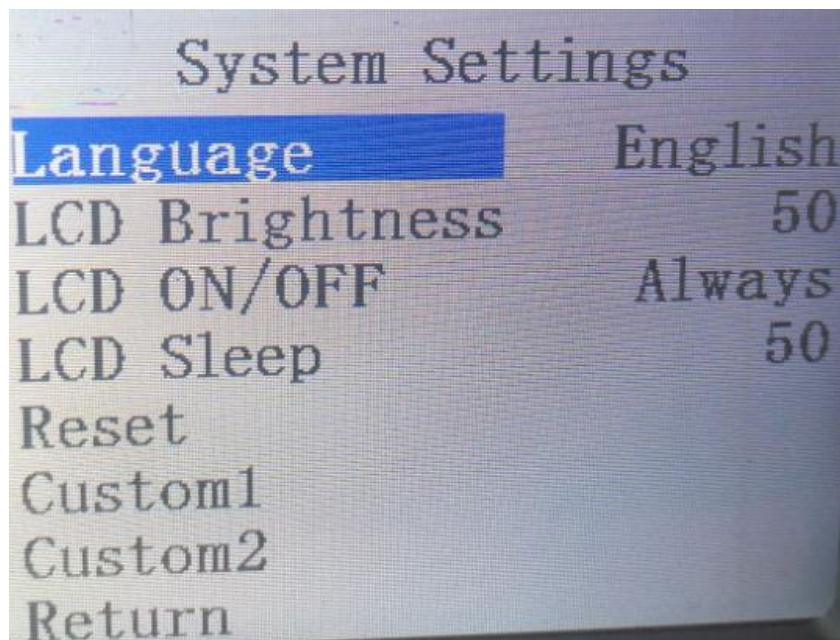
2.5.2.1.　How to use the knob

1) Rotate clockwise to select downward.

2) Counterclockwise is the up selection.

3) When selected, the font background is blue.

4) Press to confirm.

2.5.2.2.　System settings

Select the system menu and press the knob to enter the system setting interface, as shown in the following figure

System settings include language settings, LCD screen brightness settings and reset settings.

    1) Language setting supports two languages, simplified Chinese and English. Setting method: turn the knob to language selection → press the knob → turn the knob to select the language to be set → press the knob.

    2) Screen brightness setting: the brightness of the LCD panel can be adjusted through the knob. The setting method is the same as above.

    3) Reset setting: this option returns to the factory setting. After setting, all previous settings will be cleared.

2.5.2.3. Network settings

Select the network and press the knob to enter the network setting interface. As shown below
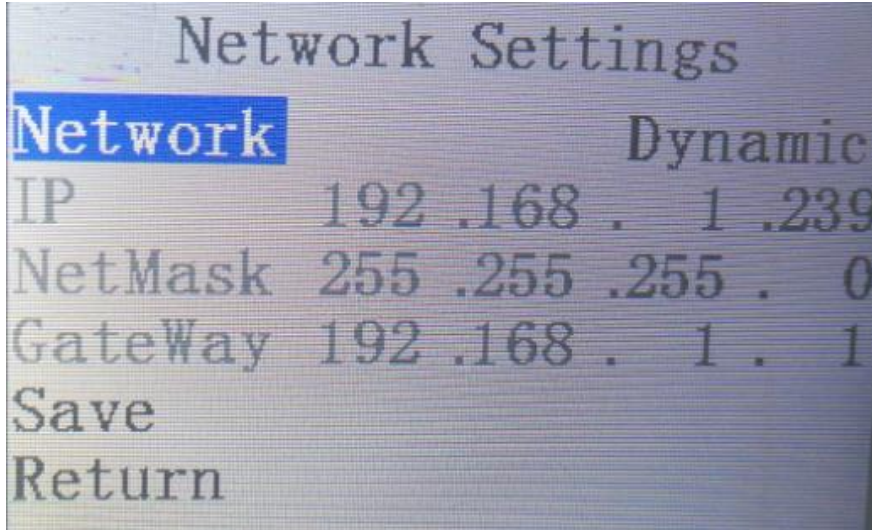
The IP of the device can only be obtained in static mode, and the static IP address can be set for the IP, subnet mask, and network management of the device.

Set the IP address: select the IP address and press the knob → you can set the first section of the IP as shown in Figure 192. By rotating the knob, you can adjust the number up and down → enter the second section to set the above picture 168, and press the knob after setting → Set After the third section is completed, press the knob → set the last section. After setting 216 in the above picture, press the knob, and then set the subnet mask and gateway. The setting method is the same as above. Remember to save after setting, if you exit without saving, the setting will be invalid.

2.5.2.4. Device Info.

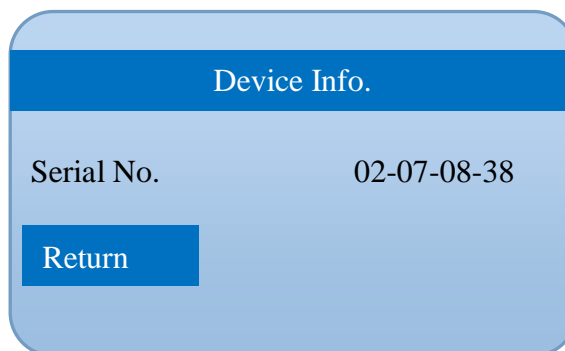Select the device info., press the knob to enter the device information interface, as shown in the figure below

The firmware version number of the current device will be listed here, so that users can check whether the device has the latest firmware.

3. Fault and maintenance

3.1. Common faults and Solutions

(1)The output image will flicker when disturbed. It may be that the quality of the wire used is poor and the shielding layer of the wire is not done well. When there is a strong radio near the use environment, the radio wave will interfere with the signal transmission, resulting in unstable signal flicker. Please use wires produced by regular manufacturers,such as BELDEN，CANARE.

(2)When unplugging the audio and video interface, if you feel obvious static electricity, it is possible that the equipment power ground wire is not well grounded. Please grounding according to the correct method, otherwise it is easy to damage the host and shorten the service life of the host.

(3)When RJ45cannot control the picture splitter, check whether the communication port set by the control software corresponds to the serial port of the connected equipment; Check whether the communication port of the computer is in good condition.

3.2. Maintain

Please clean the equipment with a soft, dry cloth. Do not use alcohol, paint thinner or gasoline for cleaning. Ensure that the equipment is stored and operated in an environment away from liquids and stains. There are no parts handled by the user. For all service and maintenance matters, please contact our company or other authorized distributors.

3.3. Warranty description

3.3.1. Guarantee information

Devicewell provides a 12-month warranty for this product from the date of purchase. If the product fails during the warranty period, Devicewell can provide free repair or replacement of parts for the product, and replace the defective product if necessary. In order to ensure that users have the right to enjoy the services in the warranty terms, in case of product failure, you must contact Devicewell after-sales service department within the warranty period, and properly arrange the warranty after confirmation. For defective products, the user shall be responsible for packaging and sending the products to the designated service center of Devicewell for repair, and the freight shall be borne by the user and paid in advance. If the user returns the goods for any reason, all the freight, insurance premium, customs duty and other taxes and other expenses incurred shall be borne by the user.

3.3.2 Warranty limitations and exceptions

In addition to the above limited warranty, this warranty does not apply to any defect, failure or damage caused by improper use, maintenance or poor maintenance. If the product is

damaged due to abuse, misuse, negligence, accident, abnormal physical pressure or voltage, unauthorized modification, tampering, change, or services provided by others other than the company or its authorized agent, the company will not bear additional obligations. Except for faults caused by normal use or correct use of the product in the application applicable to the product. According to this warranty service, the warranty service scope of devicewell during the warranty period does not include the following contents: 1. Repair the damage caused by installation, repair or maintenance performed by non devicewell professionals; 2. Repair the damage caused by improper use or connection to incompatible equipment; 3. Repair the damage or failure caused by the use of parts not produced or provided by devicewell; 4. Carry out maintenance and repair for products modified or assembled with other products (the time required for maintenance and repair or maintenance difficulty will be increased after product modification or assembly). This warranty is provided by devicewell and supersedes all other warranties, express or implied. Devicewell and its suppliers disclaim any implied warranties of merchantability and fitness for a particular purpose. Devicewell is responsible for providing users with repair or replacement services for defective products, which is a complete and exclusive remedy, regardless of whether devicewell or its suppliers are aware of the possibility of indirect, special, accidental or inevitable damage in advance. Devicewell is not responsible for the illegal use of this device by the user. Devicewell is not responsible for any loss caused by the use of this product. The operation risk of this product is borne by the user. Devicewell reserves all rights and has the final right to interpret all the above contents.

4. Appendix

4.1. Version and production information

Version number	Producer	Production time
V1.0	Engineering Department	Jan. 12, 2023