



Users' Manual

Multi-viewer

Model: MVP9104

VER 2.1



Precautions

About this device:

- This device belongs to the high-frequency video processing equipment. Therefore, please strictly observe the following points:
- Non-professionals are not allowed to disassemble the equipment case without permission. 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.
- The power supply of the device will generate heat during operation. Therefore, keep the working environment well ventilated to avoid damage to the device due to excessive temperature.
- Do not place system equipment in a location that is too cold or too hot.
- Operate the equipment in an environment where the temperature is between 0-70 degrees Celsius (32-158 degrees Fahrenheit) and the humidity is between 10% and 80%.
- Try to keep the product environment clean and avoid dust, otherwise there is a danger of destroying the product.
- When using the product, keep it away from electromagnetic fields.



- Do not dispose of this product as normal waste. This product is designed to be recyclable.

Copyright:

When using this unit for video and/or audio switching, publishing over the Internet, or the like, in some cases it may be necessary to authorize the copyright owner of the video or audio. In order to protect copyright, please strictly observe the following points when using this device:

- When connecting a recording device to this unit and recording video or audio, be sure to follow the relevant copyright laws.
- It is prohibited by law to display or publish third-party copyrighted video and audio materials, or to allow private or public access without the permission of the copyright holder.
- Even if you have the right to display or publish, for example, editing activities that use this unit to erase or disassemble the original content may still be prohibited by law. For the purpose of copyright protection, the specifications of the video and audio signals that can be input may change without notice due to software upgrades or feature extensions.
- According to copyright laws, recorded video and audio may not be used for purposes other than personal preferences without the permission of the copyright holder. Please note that even if it is based on personal preference,
- It may also limit shooting during live performances, performances or exhibitions.

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1. Overview

1.1 Product Introduction

DeviceWell SDI 4-Screen MVP9104 is a professional-grade multi-picture multi-viewer, which supports 4-CH SDI input, 4-CH SDI loop output, 2-CH SDI multi-screen output, and 1-CH HDMI multi-screen output. The device is configured through the keypad, and supports single-screen full-screen, PIP, POP, and four-screen segmentation. The device supports remote network upgrade and PC software control.



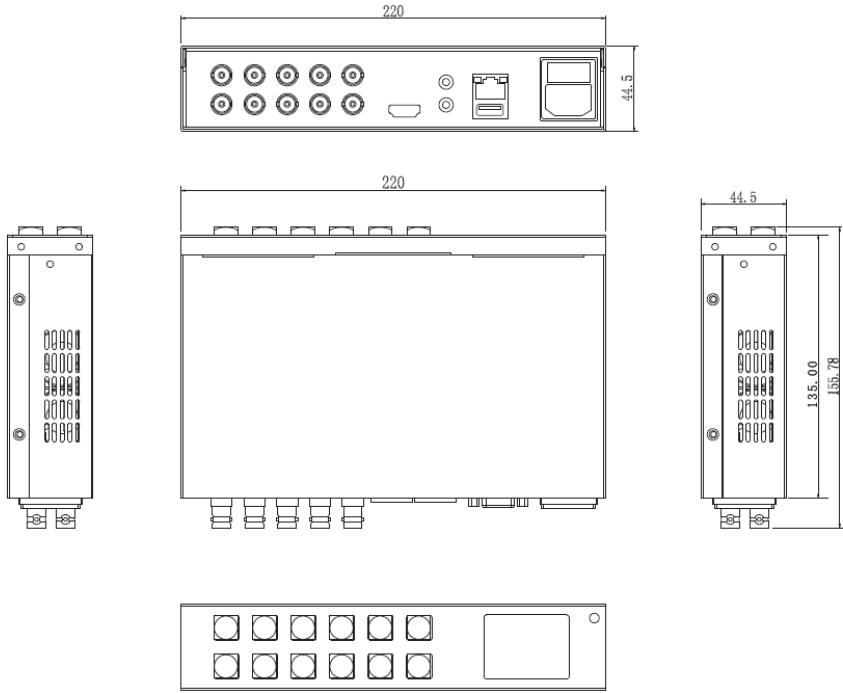
2. Equipment Unpacking



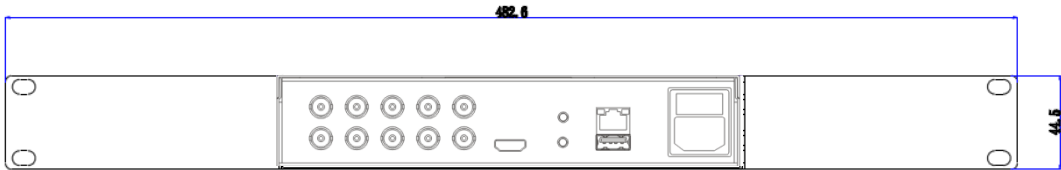
When unpacking inspection, if the sealing label or packaging is found to be damaged, stop unpacking and report the situation to the equipment dealer. If the quantity of the goods is correct and the packaging is intact, the goods can be inspected.

2.1 Size

No Hanging Ear Size:



With Hanging Ear Size:



3. Preparation Before Installation



Caution

- During transportation, handling, and installation of the equipment, avoid collisions between the equipment and doors, walls, shelves, etc.
- When the equipment is unpacked and transported, it is strictly forbidden to put it down and drag it gently to avoid damage to the equipment.
- Do not place the equipment in a flammable, explosive atmosphere or smoke environment. Do not perform any operation in this environment.
- Operating equipment should be kept away from water and moisture. The water in the equipment or moisture will cause damage to the circuit of the equipment.
- A certain amount of heat will be generated during the operation of the equipment. Ensure that the equipment is ventilated and the switcher device can operate normally.



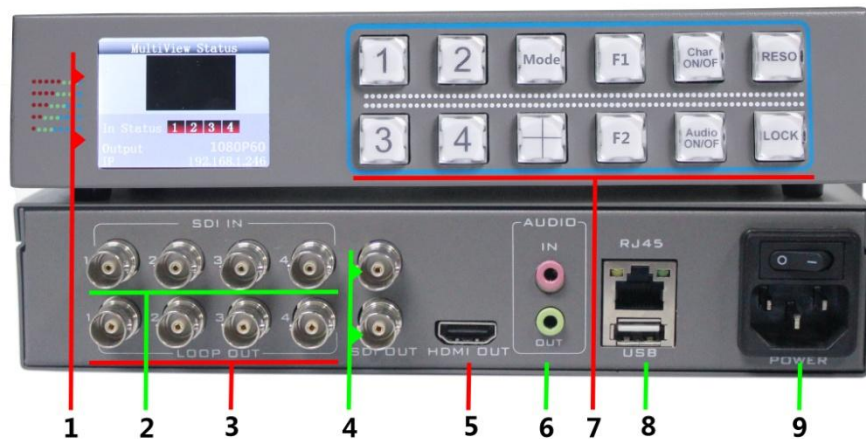
Danger

- It is a fatal hazard that indirect contact with the power supply by wet objects is prohibited. Unregulated, incorrect high-voltage operation can cause accidents such as fire or electric shock.
- It is forbidden to install and remove the switchgear equipment and power cord. When the power cord is in contact with the conductor, an arc or spark may be generated, which may result in fire or electric shock.

4. Interface Specification

4.1 Interface Introduction

DeviceWell MVP9104 interface is shown below.



NO.	Difinition	Description
1	LCD	System information and settings
2	SDI IN	SDI input
3	SDI OUT	SDI Loop output
4	SDI OUT	Multi-screen split output
5	HDMI OUT	Multi-screen split output
6	Headphone Holder	Reserved
7	Control Panel	Configuring device
8	RJ45/USB	Remote network upgrade and control /Upgrade and keyboard control
9	POWER IN	AC 220V input

4.2 Interface Parameters

Name	MVP9104 SDI 4- Screen Multi-viewer	
SDI Input	Input Signal	SDI HD serial digital video signal
	Rate	143Mbps~2.97Gbps
	Connector	BNC complies with IEC169-8
	Reflection loss	>15dB 5MHz~3GHz
	Signal amplitude	800mV ±10%
	Impedance	75Ω
	Balance	100m Belden 1694A HD 200m Belden 8281A HD
SDI Output	Output Signal	HD-SDI HD serial digital video signal
	Connector	BNC complies with IEC169-8
	Reflection loss	>15dB 5MHz~3GHz
	Signal amplitude	800mV ±10%
	Impedance	75Ω
	Up/Down time	0.6ns±100ps
	DC offset	0V ±0.5V
	Clock recovery	Auto output optional
	Overshoot	<5%
	Jitter	<0.2UI
HDMI Output	Output Signal	Standard HDMI signal
	Rate	270Mbps~2.97Gbps
	Signal amplitude	800mV ±10%(100R)
	Impedance	100Ω

AUDIO	Input	1 set of XLR balanced audio cannon input/1 channel analog audio input
	Output	1 channel analog audio output
	Response frequency	550-3.6KHz, < +/-3dB
	THD	< 3%
	S/N	> 50dB
Control Parameter	Local control	button (front panel)
	Serial control	RS232
	Connection port	RJ45 standard network interface (UDP/HTTP)
	Control software	WINDOWS (customizable IOS/Android)
	Optional components	Central control keyboard
General Parameters	Power supply	100-240V/AC 50/60Hz
	Power Rating	25W-150W, According to host type
	Size	Half 1U (standard power supply)
	Control Panel	Yes
	Weight	2.1KG
	Operating Temperature	0°C~50°C without condensation
	Storage Temperature	-20°C~75°C
	Working Humidity	20%~70%RH
	Storage Humidity	0%~90%RH, No condensation

5. Function Features



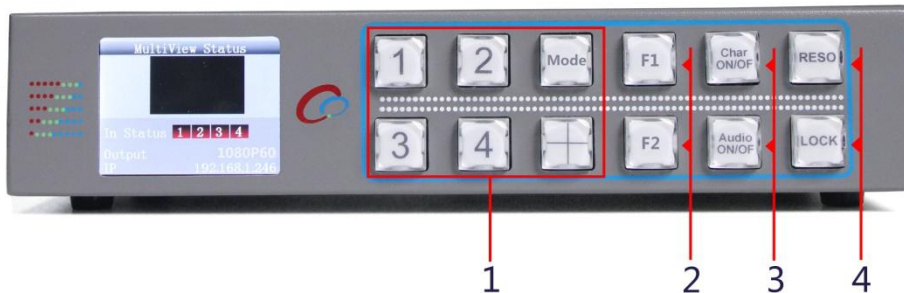
1. Half 1U body design, can be a single device on the rack, or two devices can be assembled into a standard 1U.
2. Support single screen full screen, PIP, POP, multiple 3-screen division, 4- screen division
3. Support LCD status display (multi-screen split mode, channel signal detection alarm, etc.)
4. Support character overlay, size and position color can be customized
5. Support LCD status display (multi-screen split mode, current channel signal status, etc.)
6. Input OSD, audio column display
7. Output port: SDI \times 4 loop output; SDI \times 2 / HDMI \times 1 multi-screen split output.
8. The output supports multiple resolution switching.
9. Input 3G/HD/SD SDI Adaptive
10. Support control panel shortcut control
11. Support network, RS422 control
12. Support network upgrade system function
13. Special features can be customized

6. Control Panel & Interface Definition

DeviceWell HD SDI 4-screen equipment case is made of iron, and the high strength of iron improves the anti-drop, anti-shock and shock-proof ability of the whole machine, and effectively protects the internal components of the equipment. Ultra-lightweight features make the unit easier to transport and maintain without the need for additional equipment; it also offers unparalleled thermal performance.

In addition to the innovation of the case, the HD SDI 4-screen MVP9104 has also been completely optimized for the interface connector. Environmentally friendly materials with new RoHS standards are more demanding in terms of durability and environmental protection, providing customers with more stable, cost-effective and environmentally friendly products.

6.1 Control Panel



6.1.1 Area Description

NO.	Description
1	Multi-screen output mode setting
2	Reserved function key
3	Character switch and audio column switch
4	Output resolution switching and case lock

6.1.2 Button Definition

The button is as shown below:



The button below is the multi-screen split output mode selection.



Buttons F1 and F2 are reserved
function keys



Audio column switch



Character switch



Resolution switching




Key lock




Note: The above picture belongs to the composite picture; the actual button is subject to the actual object.

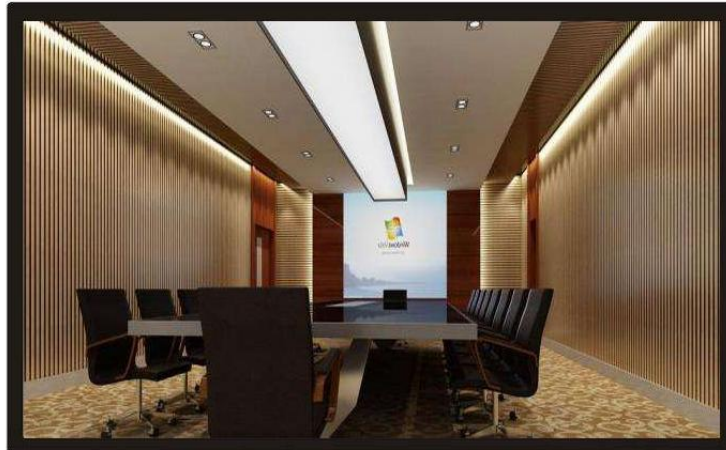
7. Operating instructions


7.1 Control panel operation

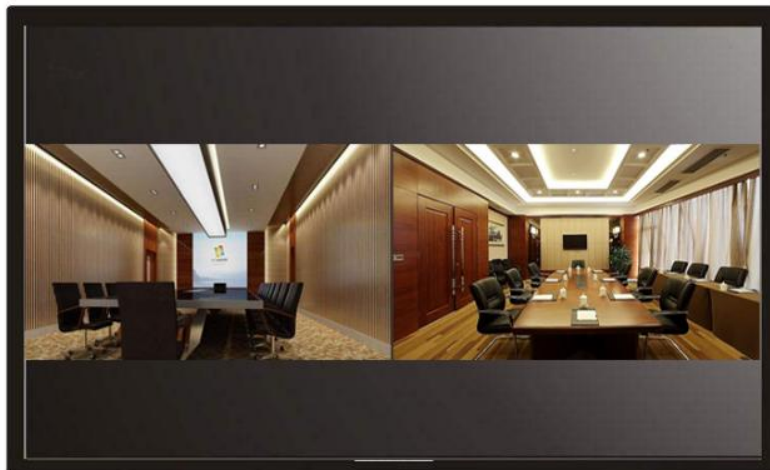
When the button is pressed, the button will light green to indicate that the device is displaying the button mode.

When the button  is pressed, the output image is the single-screen full-screen image of


input channel 1, and so on. When the ,  and  keys are pressed, the output image is a single-screen full-screen image of input channels 2, 3, and 4, and the display effect is as follows:



When the button  is pressed, the output image is the left and right normal ratio display of the input channels 1, 2, and when the button is pressed again, the output image is the left and right normal ratio display of the input channels 3 and 4, and the display effect is as follows:





When the button  is pressed, the output image is displayed in full screen on four screens.

The effect is as follows:



Press to switch the output resolution;



When  pressed, the device enters the locked state. At this time, pressing other buttons is

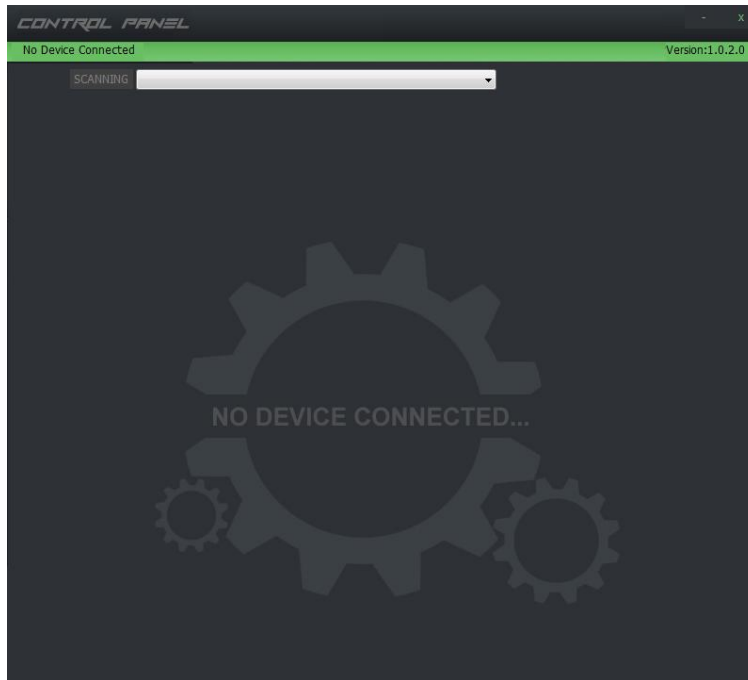


invalid. Press the button  again to release the lock.

7.2 Software Control

1. Open the software

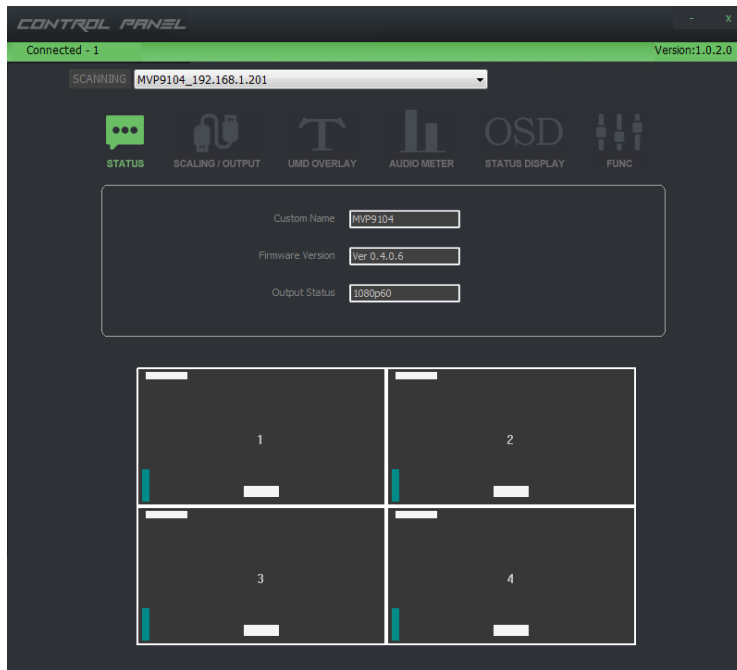
The main interface is as shown below



2. Search device

The factory default IP of the device is 192.168.1.218, so you need to ensure that the network field of the PC running the software is 192.168.1.X.

Click the "SCANNING" button, if it will normally jump to the following software interface.



If the search fails, the list shows No device, which may be the following two reasons.

2.1 The network field of the PC is inconsistent with the network field of the device.

2.2 If you are using a laptop, you can disable the wireless network card of the laptop, change the connection method of the network cable, and then try to search.

Note: If you need to change the IP, click the small button in the lower left corner, in the pop-up interface, enter the IP,

Click on the "change ip" button to change the device.

8. Failure and Maintenance

8.1 Common Faults and Solutions

- (1) The output image is disturbed and may be disturbed by other devices.
- (2) When plugging in the audio and video interface, if there is obvious static electricity, the device power ground wire may not be good grounding, please ground in the correct way; otherwise it will easily damage the host and shorten the life of the mainframe.
- (3) When RJ45 (generally: computer serial port) cannot control the screen splitter, check whether the communication port set by the control software corresponds to the serial port of the connected device; check if the communication port of the computer is good.

8.2 Maintenance

Use a soft, dry cloth to clean the device. Do not use alcohol, paint thinner or benzene to clean. Make sure that the device is stored and operated in an environment away from liquids and stains.

8.2.1 Warranty information

The company guarantees that the process and materials of the product are not defective within 12 months after purchase from the company or its authorized distributors, under normal use and service support. We offer a one-year warranty after sale.



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