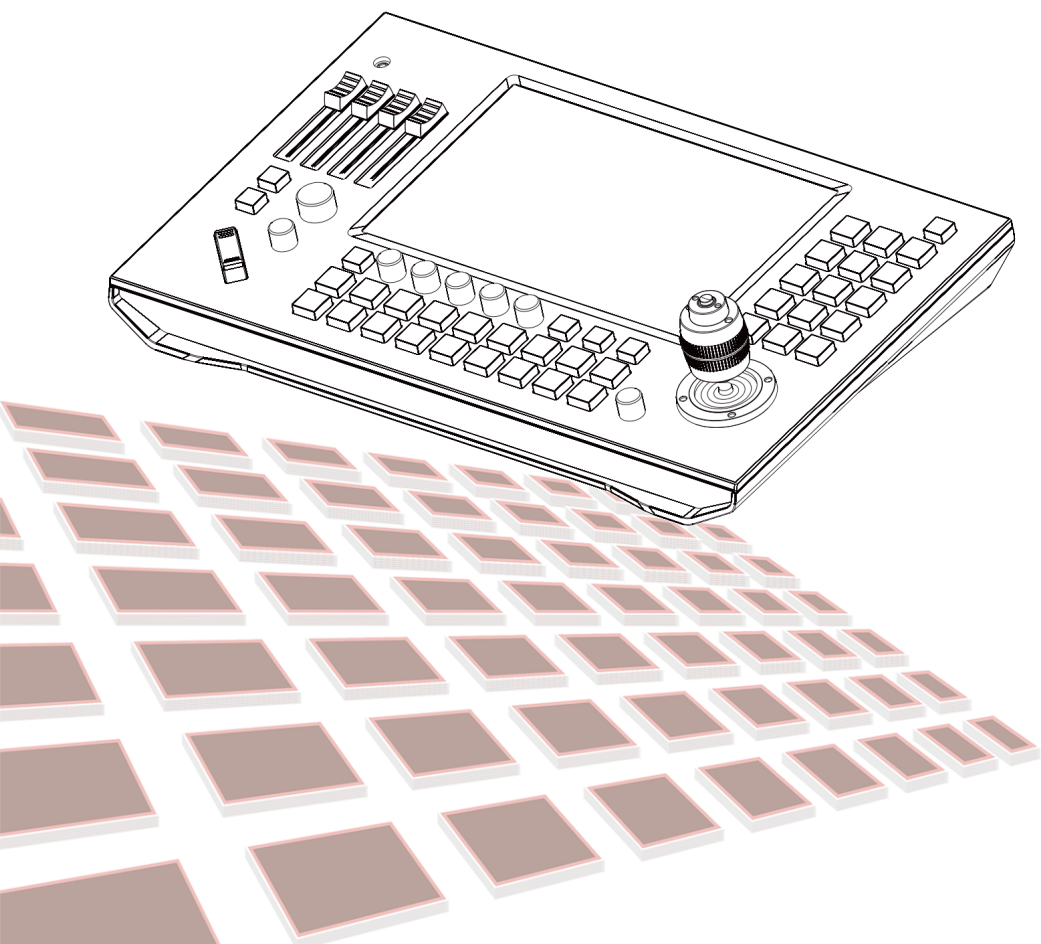


8 Channels Network Broadcasting Switcher Operating Manual



Tips:

Thank you for using our product.

In order to enable you to operate the machine proficiently as soon as possible, please carefully read the instruction manual we have provided for you, from which you can obtain product safety precautions, product introduction and product instructions and other related knowledge. After you have read the manual, please keep it in a safe place for future reference.

If you find any problems during the use of product, please contact our relevant service personnel, thank you for your cooperation.

Precautions:

1. Before connecting to the device, make sure that the power supply voltage is correct. Use only the original uncut(unspliced) power supply that came with the keyboard.

2. If the product does not work normally, please contact your dealer. Never try to disassemble the device yourself. (We do not assume any responsibility for problems caused by unauthorized repairs or maintenance.)

3. This product is an indoor device, please do not place it in a place with water or humidity.

4. When transporting, the equipment should be packed in the original packaging.

5. Do not drop the machine or subject it to physical shocks.

6. Do not use strong detergent to clean the machine. When the dust is thick, wipe it gently with a neutral detergent, and it is limited to external cleaning.

7. Keep the RJ-45 port free of dust and moisture.

8. Avoid moving the machine between places that are too cold or too hot to avoid fogging inside the machine and affect its service life.

Affirm:

1. We have done our best for the completeness and correctness of the contents of this manual, but there will inevitably be errors and omissions. We will not be responsible for any technical or typographical errors in the manual.

2. The appearance of the product shown in this manual is for reference only and may differ from the actual appearance of the equipment you purchased.

3. This manual guides multiple product models, so it is not used for any specific product alone.

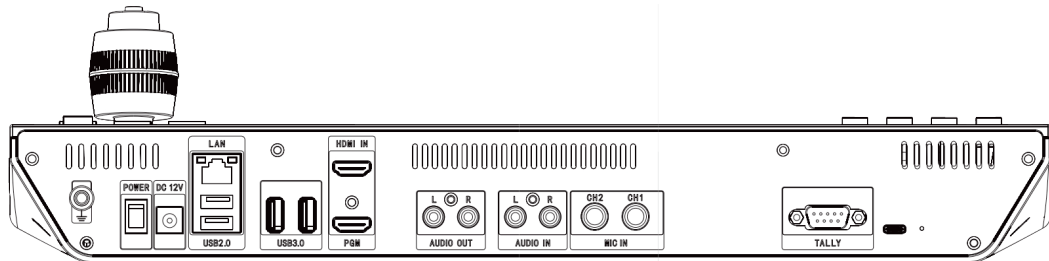
4. The display interface, parameters, drawings and model value ranges in this manual and illustrations may be different. For details, please refer to the actual product.

5. The content of this manual is subject to change without notice.

6. If the software version is upgraded and does not conform to this manual, please refer to the software.

1. Interface Instructions

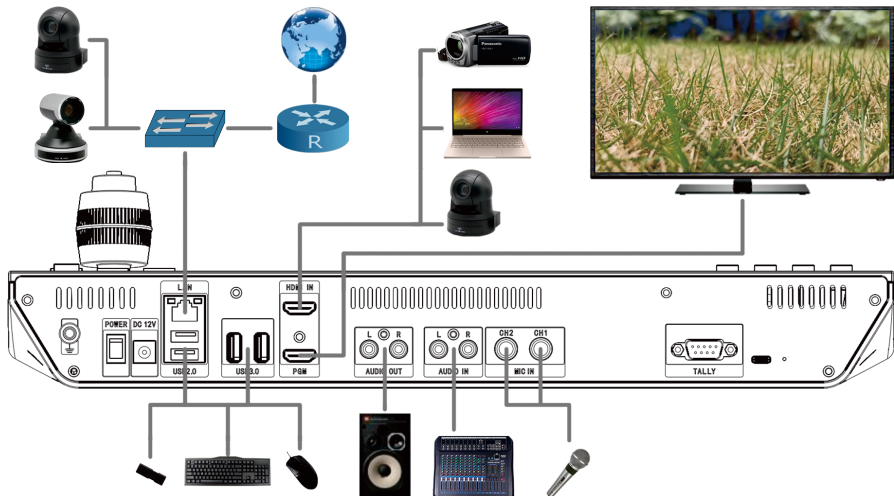
1-1. Interface Layout



1-2. Interface Introduction

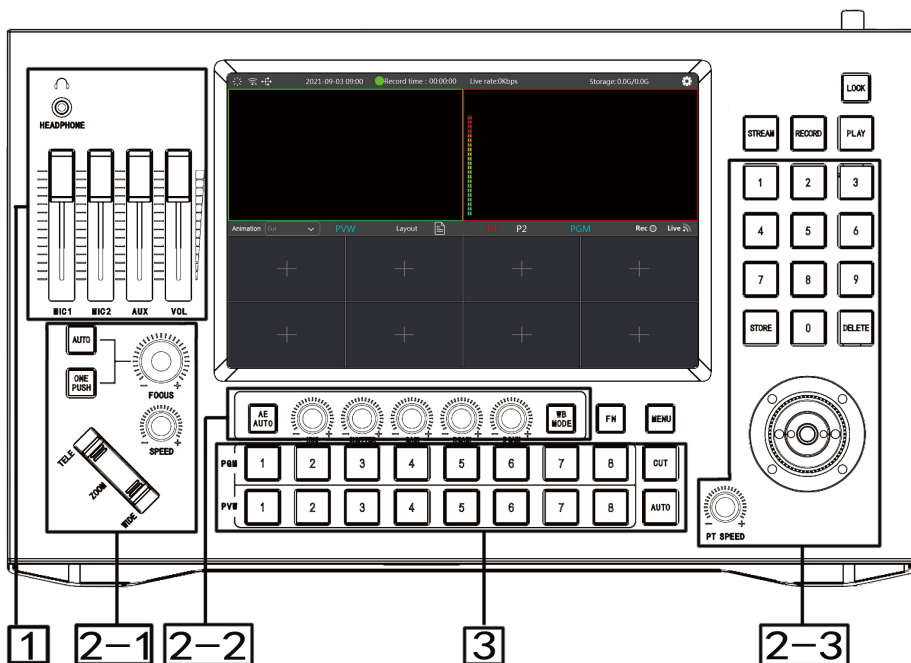
- POWER switch
- LAN interface: Input/output stream interface, RJ45(1000Mb)
- USB2.0: Storage interface, USB2.0(support U disk, mouse, keyboard plug in)
- USB3.0: Storage interface, USB3.0(support U disk, mouse, keyboard plug in)
- HDMI IN: HDMI signal input interface;
PGM: PGM signal source, HDMI output interface
- AUDIO OUT L/R: Analog dual-channel audio output interface, RCA
AUDIO IN L/R: Analog dual-channel audio input interface, RCA
MIC IN CH1/CH2: MIC sound source output/input interface, support active/passive
- TALLY: Reserved interface
- SYS: Reserved interface

1-3. Device Connection



2. Panel Button Introduction

2-1. Button Layout



2-2. Button Function

- Section 1

HEADPHONE: Monitor output port

MIC 1 slider: MIC IN CH1 volume adjustment

MIC 2 slider: MIC IN CH2 volume adjustment

AUX slider: AUDIO volume adjustment

VOL slider: PGM volume adjustment

- Section 2-1(camera control zone)

AUTO button: Set focus mode to auto focus;

ONE PUSH button: Set focus mode to ONE PUSH;

FOCUS +/- knob: Rotate the knob to adjust the lens focal length;

ZOOM ship-shape control: Adjust lens zoom;

SPEED +/- knob: Rotate the knob to adjust the speed level of ZOOM ship-shape control to adjust lens zoom;

- Section 2-2(camera control zone)

AE AUTO button: Set the camera exposure mode to automatic exposure;

IRIS +/- knob: Control the aperture parameter value of the camera in manual exposure mode;

SHUTTER +/- knob: Control the shutter parameter value of the camera in manual exposure mode;

GAIN +/- knob: Control the gain parameter value of the camera in manual exposure mode;

WB MODE button: Cycle switching camera white balance mode;

RGAIN +/- knob: Adjust the red gain value of the camera in manual white balance mode;

BGAIN +/- knob: Adjust the blue gain value of the camera in manual white balance mode;

- Section 2-3(camera control zone)

STORE button: Set preset position button;

DELETE button: Delete preset position button;

0-9 number button: Call preset position;

PT SPEED +/- knob: Rotate the knob to adjust the speed level of the joystick to control camera pan/tilt movement

Joystick: The left and right direction of the joystick is panning, and the up and down is tilting. When you release the joystick, the camera will stop moving;

When you rotate the knob on the joystick, the field of view will become larger(zoom in), otherwise it will be smaller(zoom out);

The function of the button on the top of the joystick is to reset the pan/tilt lens;

Section 3

PGM1~PGM8: PGM channel buttons, signal will be output to the PGM after pressing the channel button;

PVW1~PVW8: PVW channel buttons, signal will be output to the PVW after pressing the channel button;

CUT: Hard cut transition button, press it and output PVW signal directly to PGM

AUTO: Special effect trigger button, press it and set special effects time according to PVW signal and automatically output to PGM according to selected transition special effects;

Others

LOCK button: Lock keyboard button and touch screen button;

STREAM button: Turn on broadcast streaming output;

RECORD button: Turn on PGM signal recording(recording files are stored in the root directory of the U disk, indexed by system time);

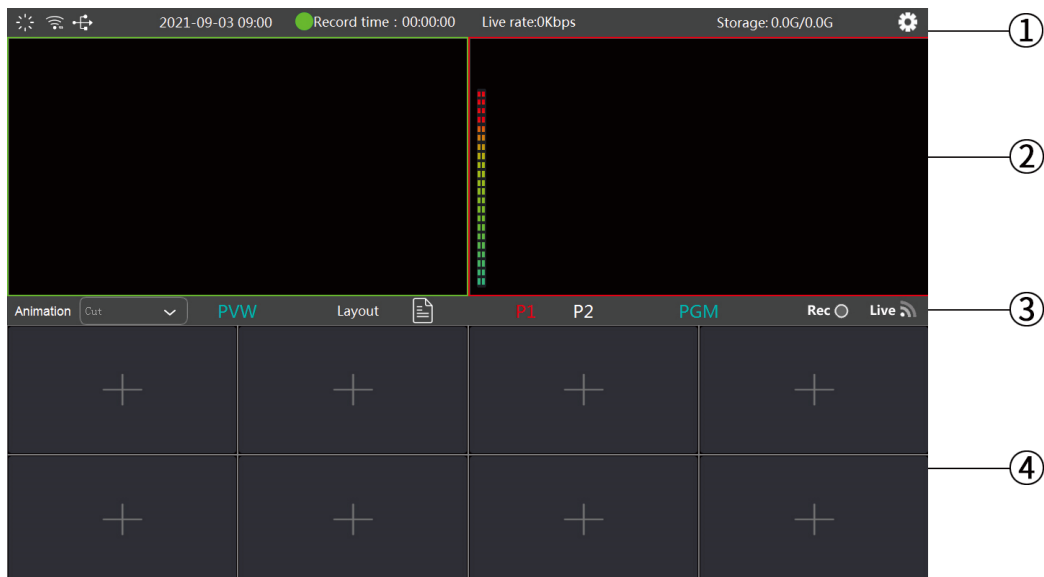
PLAY button: Enter the recording and playback interface;

FN button: Make PVW image full screen;

MENU button: Enter system setting interface;

3. Display Interface Introduction

3-1-1. Display Interface



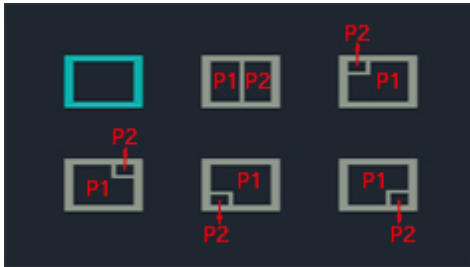
Area 1: Status bar. From left to right are network status, U disk status, system time(modifiable), recording status light, recording time, broadcast bitrate, U disk storage capacity, system setting button;

Area 2: PVW signal display window; PGM signal display window;

Area 3: From left to right they are,

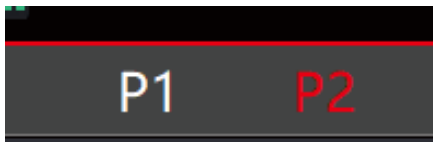
Toggle special effects drop-down box: Signal switching special session special effects; use with special effect trigger button”AUTO”;

Layout button: PVW/PGM channel image synthesis layout mode selection box;(in image synthesis mode, the 2-signal distribution is as below)



Book page button: Enter recording file playback interface;

P1/P2 button: Activated when layout mode is selected as 2 channel signal, it will point to one of the signals in the image synthesis mode, do the corresponding signal switch;(as shown in the picture, P2 icon is lit up, when switching the signal, P2 signal of synthesis image is modified)

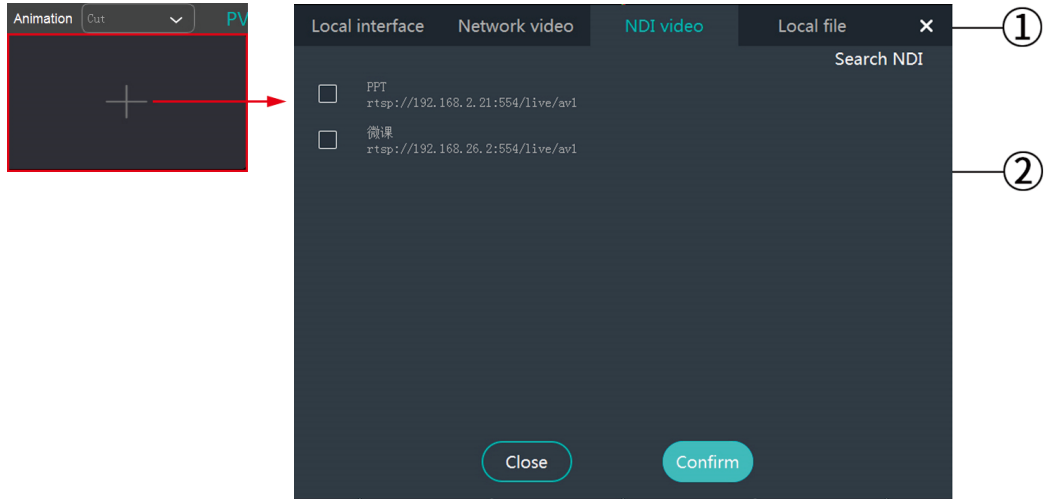


REC status light: Display recording status, red light is on when recording;

LIVE status light: Display broadcast status, green light is on when broadcasting;

Area 4: Eight channel signal display box: touch to enter adding signal interface

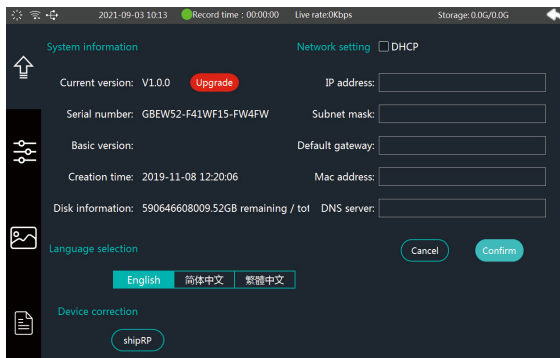
3-1-2. Signal Selection Interface



- Area 1: Input signal source type selection, from left to right they are
- Local interface: Fixed addition of local HDMI signal source
 - Network video: RTSP signal source can be added, support onvif protocol automatic address selection; (the video source addresses and file settings can be imported in batched via external NetStream.ini file, see Appendix 1 for details)
 - NDI video: NDI|HX signal source can be added, support NDI protocol automatic address selection (optional);
 - Local file: Local video file signal can be added, support U disk automatic search video file, support video format Mp4;

Area 2: Select any channel signal from the multiple signal sources under current signal source type and add it to the current channel;

3-2. System Information Interface



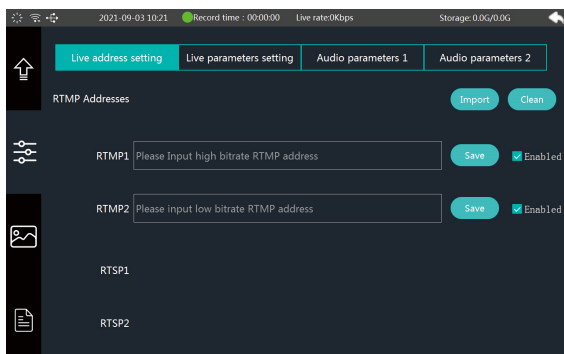
System information: Display current version information, support U disk to update software version (the upgrade file is placed in the root directory of U disk)

Language selection: Support English, Simplified Chinese, Traditional Chinese, three versions;

Engineering correction: Used in camera control zone, ZOOM ship-shape control correction;

Network setting: Support automatic acquisition, manual setting;

3-3-1. Broadcast Address Setting



RTMP address import: Quickly import external rtmp.ini file that has been set up to rtmp streaming address via U disk; (See Appendix 1 for details for document setting)

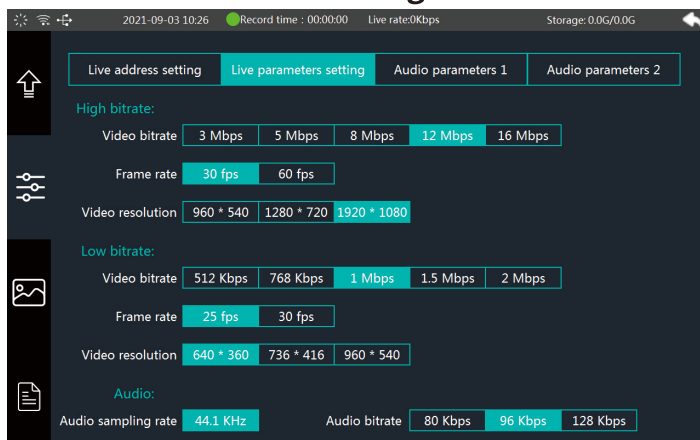
RTMP1: Set PGM signal HD code stream broadcast rtmp streaming address via touch screen/external keyboard

RTMP2: Set PGM signal SD code stream broadcast rtmp streaming address via touch screen/external keyboard

RTSP1: Default rtsp address output PGM signal HD code stream

RTSP2: Default rtsp address output PGM signal SD code stream

3-3-2. Broadcast Parameter Setting

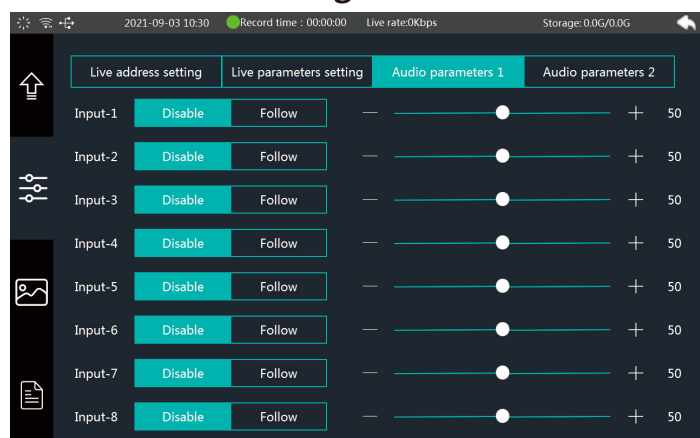


High code stream: Set PGM signal high code stream video bitrate, video frame rate, resolution;

Low code stream: Set PGM signal low code stream video bitrate, video frame rate, resolution;

Audio: Set audio sample rate, audio bitrate;

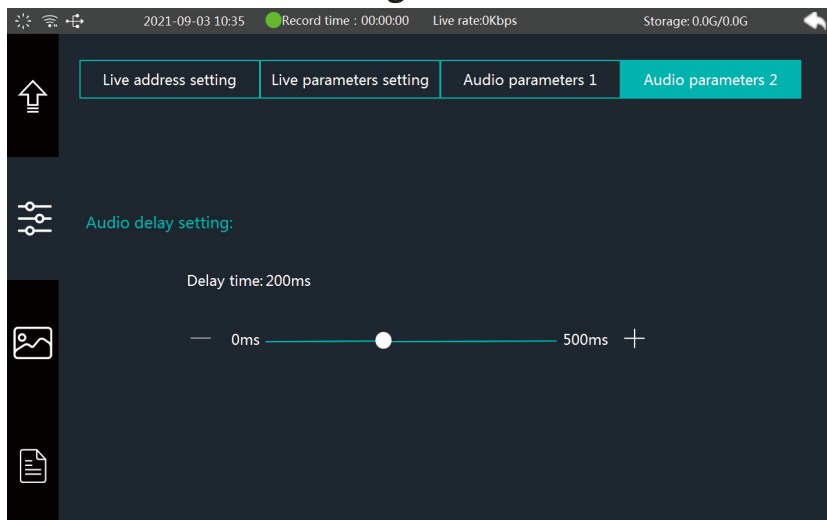
3-3-3. Audio Parameter Setting 1



Audio control of 8 channel input signals:

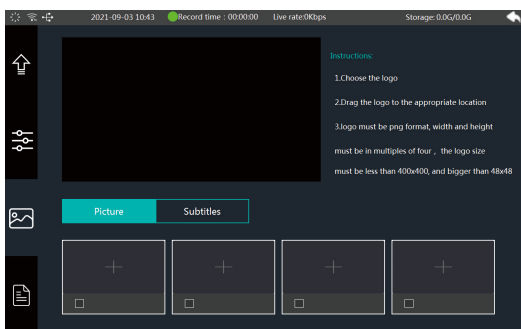
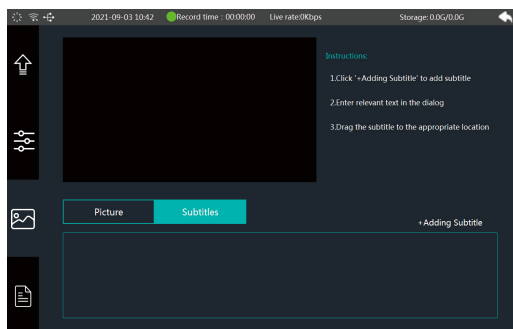
1. Follow/disable, i.e. control input signal embedded sound to follow or disable;
2. Input signal embedded sound volume adjustment;

3-3-4. Audio Parameter Setting 2



Audio delay setting: Set the delay time of PGM mixed audio;

3-4. Logo, Subtitles Addition



Logo addition:

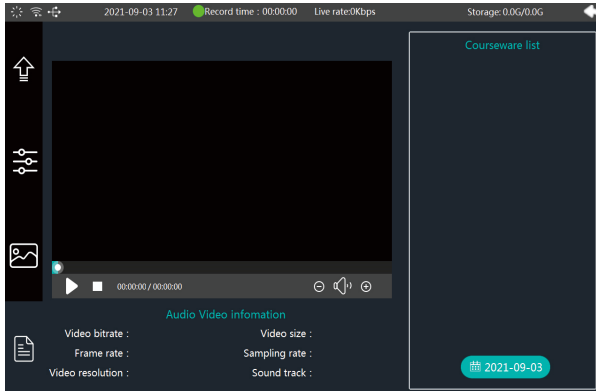
Add logo via U disk(file placed in the root directory), 4 logos can be preset;

You can drag the logo to the appropriate position via touch screen and mouse by yourself;

Subtitles addition:

Enter text via touch screen floppy disk/external keyboard;
Standard subtitles and rolling subtitles can be added;

3-5.Final Video File Playback



Final Video files can be played back, deleted and other editing methods
Courseware list: Index recorded file by time;
Audio and video information: Display property information of current recorded file;

4. Camera Remote Control

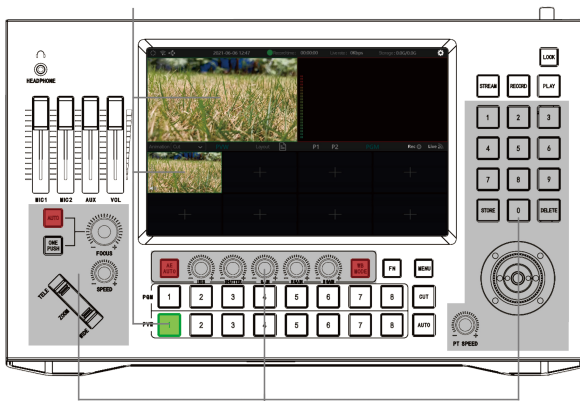
IP camera is required to support VISCA_IP or NDI(partial control functions of NDI protocol are incomplete)

Select channel 1, add RTSP signal source of IP camera(camera 1)(rtsp://192.168.1.118:554/stream/main);

Switch channel 1 signal source to PVW channel;

Then the IP camera(camera 1) can be controlled correspondingly via buttons, knobs and joystick of the broadcast keyboard camera control zone;

Add channel 1 video to PVW



Camera control zone

In PVW/PGM image synthesis mode

Select channel 1, add RTSP signal source of IP camera(camera 1)(rtsp://192.168.1.118:554/stream/main)

Select channel 2, add RTSP signal source of IP camera(camera 2)(rtsp://192.168.1.119:554/stream/main)

Use image synthesis mode, select layout mode in the main interface as

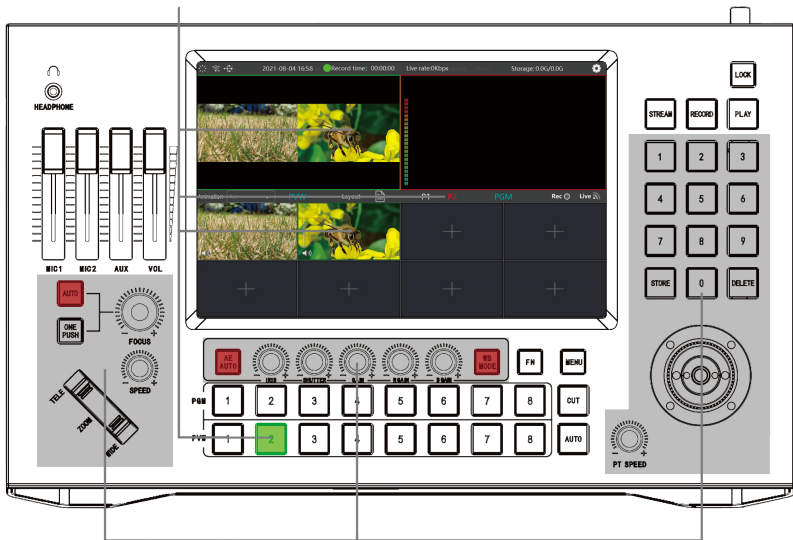


Light up P1 icon on the main interface of touch screen, switch channel 1 signal source to PVW channel P1;

Light up P2 icon on the main interface of touch screen, switch channel 2 signal source to PVW channel P2;

P2 icon on the main interface stays lit, then P2 signal source in PVW channel synthesis image and IP camera(camera 2) can be controlled correspondingly via buttons, knobs and joystick of broadcast keyboard camera control zone;

When displaying on two screens, add channel 2 video to PVW P2



Camera control zone

Appendix 1:

The .ini files can be opened with notepad to modify the parameters;

rtmp.ini file content

```
[Scene1]
RTMP1=rtmp://scene2/RTMP1
RTMP2=rtmp://scene2/RTMP2
[Scene2]
RTMP1=rtmp://scene2/RTMP1
RTMP2=rtmp://scene2/RTMP2
[Scene3]
RTMP1=rtmp://scene3/RTMP1
RTMP2=rtmp://scene3/RTMP2
[Scene4]
RTMP1=rtmp://scene4/RTMP1
RTMP2=rtmp://scene4/RTMP2
[Scene5]
RTMP1=rtmp://scene5/RTMP1
RTMP2=rtmp://scene5/RTMP2
[Scene6]
RTMP1=rtmp://scene6/RTMP1
RTMP2=rtmp://scene6/RTMP2
```

Copy the cloud broadcast address to this column;

NetStream.ini file content

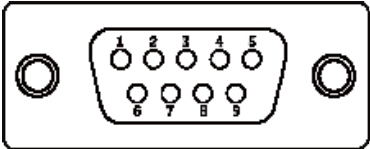
```
[Stream1]
name=net1
url=rtsp://192.168.5.103/Stream/live/1
[Stream2]
name=net2
url=rtsp://192.168.5.103/Stream/live/2
[Stream3]
name=net3
url=rtsp://192.168.5.103/Stream/live/3
[Stream4]
name=net4
url=rtsp://192.168.5.103/Stream/live/4
[Stream5]
name=net5
url=rtsp://192.168.5.103/Stream/live/5
[Stream6]
name=net6
url=rtsp://192.168.5.103/Stream/live/6
[Stream7]
name=net7
url=rtsp://192.168.5.103/Stream/live/7
[Stream8]
name=net8
url=rtsp://192.168.5.103/Stream/live/8
```

Set camera stream name

Add RTSP streaming address of camera to this column;

Appendix 2:

TALLY output

Interface	
Pin Definition	<ul style="list-style-type: none">1、TALLY 12、TALLY 23、TALLY 24、TALLY 25、TALLY 26、TALLY 27、TALLY 28、TALLY 29、GND