



# Users' Manual

## SWITCHER

Model: HDS6506

VER 3.1



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<http://www.devicewell.com>

# 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

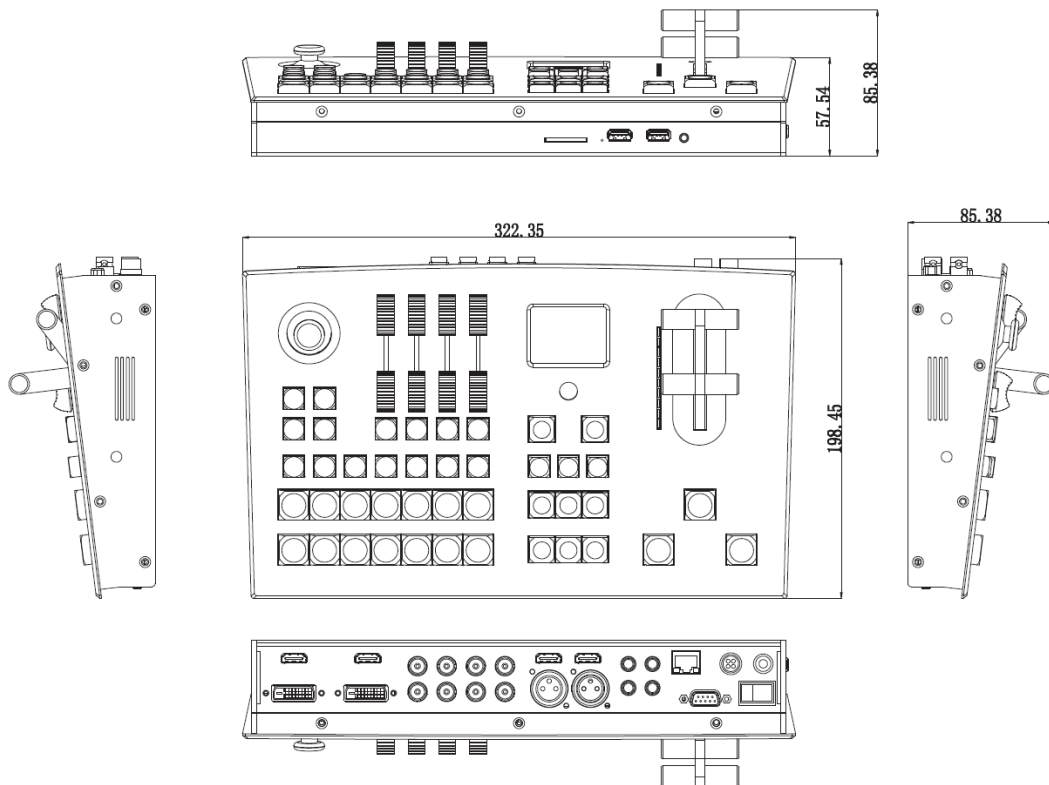
## 1.1 Introduction

The DeviceWell six-channel switcher HDS6506 integrates multiple control modes. The keyboard can be used to set special effects and transition modes. The LCD will display various states of the current device in real time. The built-in menu display function can be more intuitive. Efficiently set up the device.

DeviceWell six-channel switcher HDS6506 is a 4-channel SDI, 2-channel HDMI and 2-channel DVI-I input, 2-channel SDI and 1-channel HDMI output PGM live, 1-channel SDI and 1-channel HDMI output Screen monitoring, suitable for live performance, course recording and in-shed navigation; the switcher has multiple functions, such as multiple format video input and input resolution adaptive, analog and balanced audio input and output, external video, image file import, audio add-on de-embedding, mixing, SD card recording, RS422 and RJ45 control, etc., with remote upgrade capabilities. The user can perform video switching and audio mixing with additional effects through easy operation.



## 2. Size: 442.0mm × 220.0mm × 43.6mm

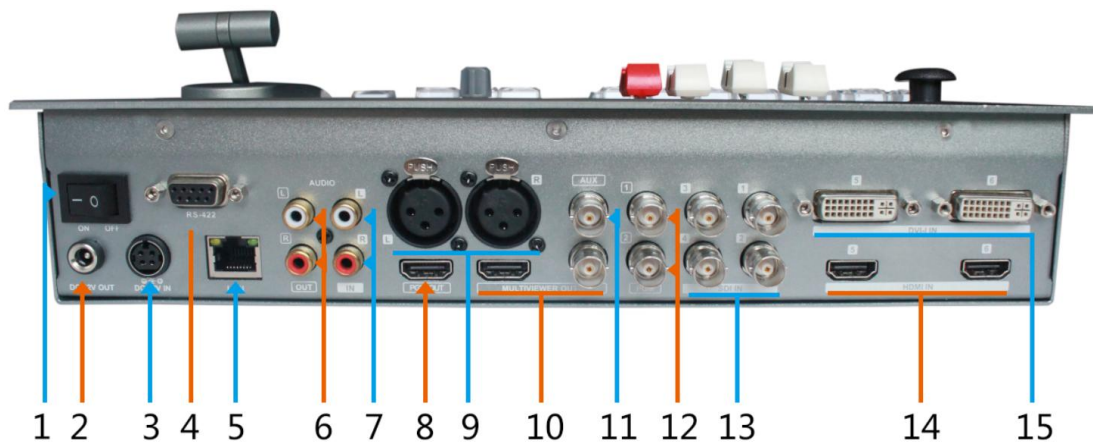


Unit: mm

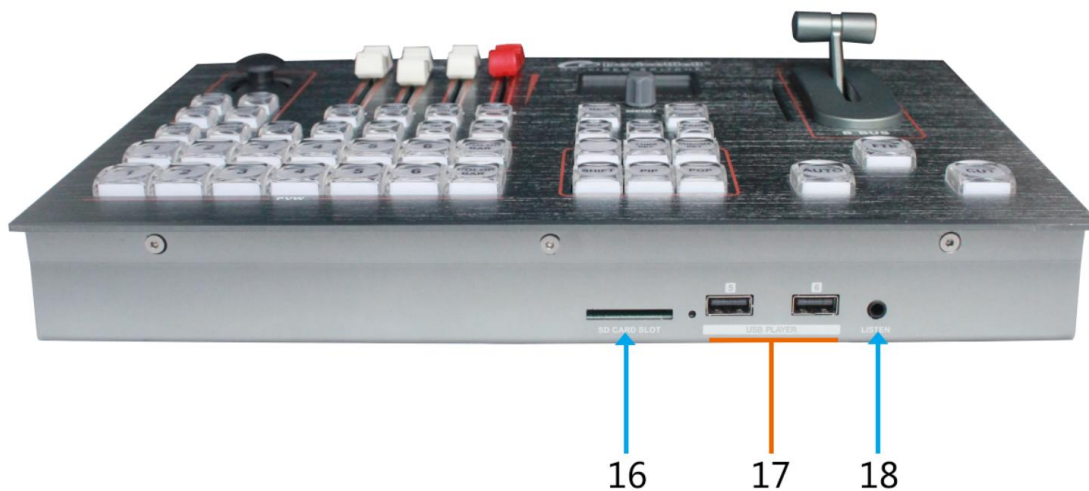
## 3. Interface Specification

### 3.1 Interface Introduction

The DeviceWell HDS6506 interface is shown below.



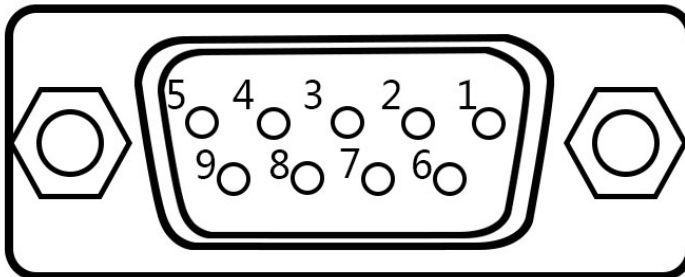
| NO. | Definition | Description   |
|-----|------------|---|
| 1   | POWER      | Power switch  |
| 2   | DC12V      | Extended monitor power output                                 |
| 3   | DC12V      | Main power input  |
| 4   | RS422/DB15 | Optional camera RS422 and DB15 pin TALLY interface (optional) |
| 5   | RJ45       | Network control & upgrade                                     |
| 6   | Audio OUT  | RCA audio output  |
| 7   | Audio IN   | RCA audio Input   |
| 8   | HDMI OUT   | PGM output  |
| 9   | Audio IN   | Cannon analog differential audio input                        |
| 10  | Multiview  | 1*HDMI & 1*SDI Multiview output                               |
| 11  | AUX        | Auxiliary output, custom PGM/PVW                              |
| 12  | SDI OUT    | PGM output  |
| 13  | SDI IN     | 4-CH SDI input  |
| 14  | HDMI IN    | 2-CH HDMI Input   |
| 15  | DVI-I      | 2-CH DVI-I Input(Tally optional)                              |



| NO. | Definition | Description               |
|-----|------------|---------------------------|
| 16  | SD SLOT    | SD card record PGM screen |
| 17  | USB        | Media player              |
| 18  | Audio OUT  | Listen to any audio       |

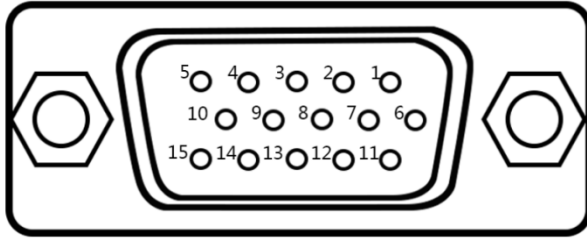
## 3.2 TALLY

DB-9Pin Interface Pin Definition Diagram (Female)



| PIN | RS-422 | RS-485 |
|-----|--------|--------|
| 1   | TX-    | DATE-  |
| 2   | TX+    | DATE+  |
| 3   | RX+    | —      |
| 4   | RX-    | —      |
| 5   | GND    | GND    |
| 6   | —      | —      |
| 7   | —      | —      |
| 8   | —      | —      |
| 9   | —      | —      |

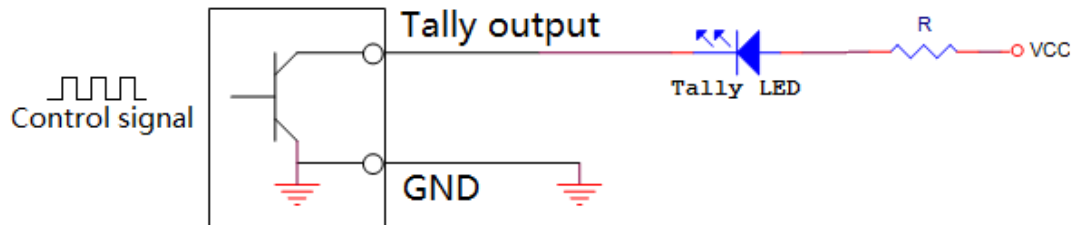




| PIN | Function | PIN | Function |
|-----|----------|-----|----------|
| 11  | PGM-IN1  | 6   | PVW-IN1  |
| 12  | PGM-IN2  | 7   | PVW-IN2  |
| 13  | PGM-IN3  | 8   | PVW-IN3  |
| 14  | PGM-IN4  | 9   | PVW-IN4  |
| 15  | PGM-IN5  | 10  | PVW-IN5  |
| 3   | PGM-IN6  | 4   | PVW-IN6  |
| 5   | GND      |     |          |

Note : PIN1 PIN2 not used.

TALLY : Online schematic



Note : Tally LED: for external display device

Tally output : Active low (Tally LED is lit) High level is invalid (Tally out is off)

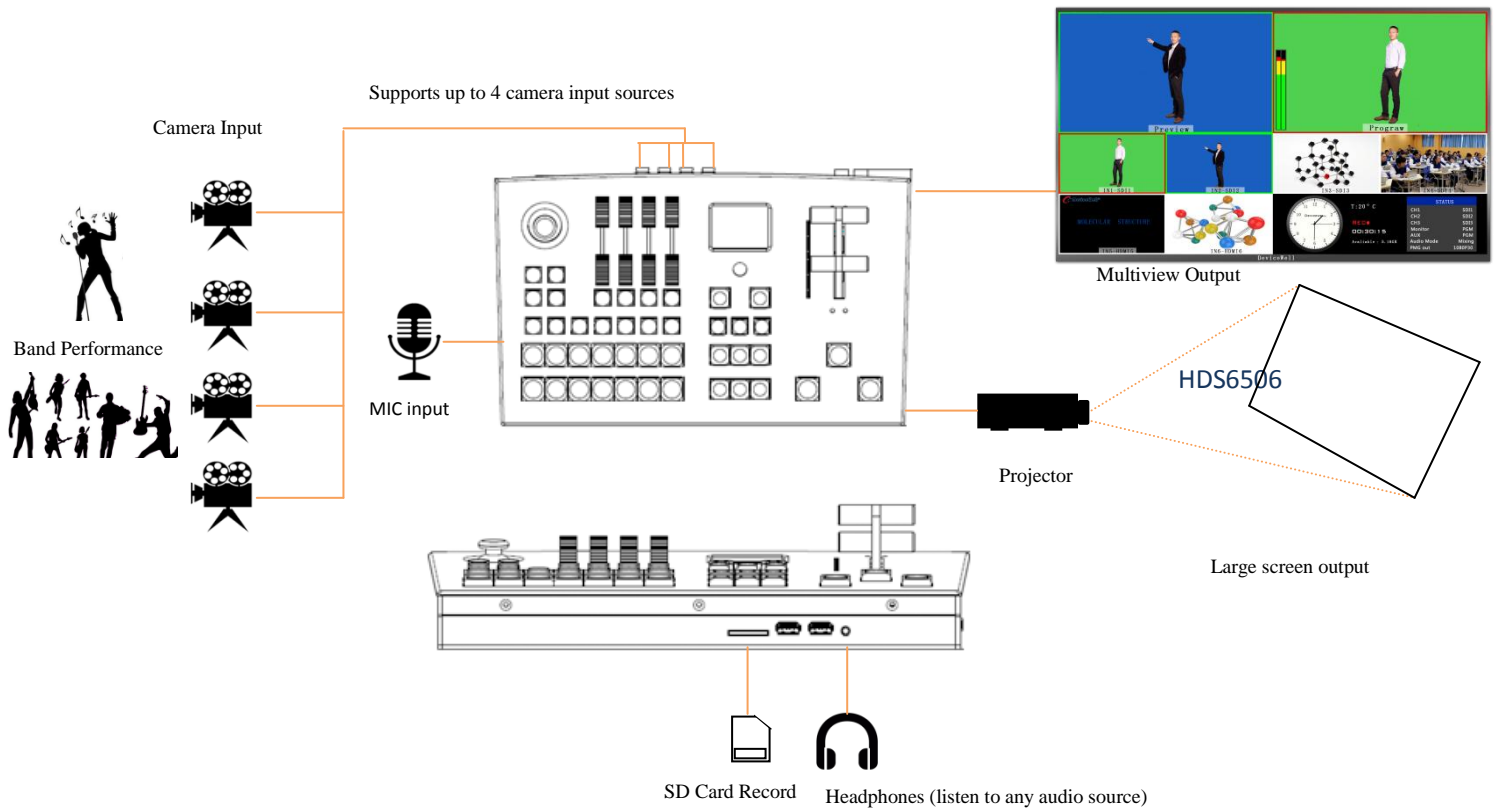
**Note: Optional camera RS422 and DB15 pin TALLY interface (optional one)**

### 3.3 Parameters

|             |   |  |
|-------------|---|--|
| SDI Input   | Input signal  | SDI high-definition serial digital video signal                        |
|             | Bit rate  | 143Mbps~2.97Gbps   |
|             | Connector   | BNC meets the IEC169-8 standard  |
|             | Reflection loss   | >15dB 5MHz~3GHz  |
|             | Signal amplitude  | 800mV $\pm$ 10%  |
|             | Impedance   | 75 $\Omega$  |
|             | Equilibrium   | 100m Belden 1694A high definition<br>200m Belden 8281A high definition |
| SDI Output  | Output signal   | HD-SDI high-definition serial digital video signal                     |
|             | Connector   | BNC meets the IEC169-8 standard  |
|             | Reflection loss   | >15dB 5MHz~3GHz  |
|             | Signal amplitude  | 800mV $\pm$ 10%  |
|             | Impedance   | 75 $\Omega$  |
|             | Rise / fall time  | 0.6ns $\pm$ 100ps  |
|             | DC Offset   | 0V $\pm$ 0.5V  |
|             | Clock recovery  | Auto output optional   |
|             | Overshoot   | <5%  |
|             | Shake   | <0.2UI   |
|             | Support SMPTE259, MSMPTE292M, SMPTE296M, SMPTE425 standards |  |
| HDMI Input  | Input signal  | Standard HDMI signal   |
|             | Resolution  | 480p, Hdmi2.0  |
|             | Connector   | HDMI   |
|             | Signal amplitude  | 800mV $\pm$ 10%(100R)  |
|             | Impedance   | 100 $\Omega$   |
| HDMI Output | Output signal   | Standard HDMI signal   |
|             | Bit rate  | 270Mbps~2.97Gbps   |
|             | Signal amplitude  | 800mV $\pm$ 10%(100R)  |
|             | Impedance   | 100 $\Omega$   |

|       |                    |  |
|-------|--------------------|--|
| AUDIO | Input              | 1 way analog balanced audio, 2 way analog stereo input |
|       | Output             | RCA stereo output                                      |
|       | Response frequency | 550-3.6KHz, < +/-3dB                                   |
|       | THD                | < 3%   |
|       | S/N                | > 50dB   |

## 4. Functional Characteristics



1. Media management function, support 2 USB media playback, you can choose to play videos or pictures.
2. Support SD card to record PGM
3. HDMI input supports 4K60, backward compatible
4. LCD panel can easily set the parameters of the device and display the working status of the device in real time.
5. Supports the RS422 interface to connect to the camera.
6. Input resolution adaptive, output resolution adjustable
7. Support SD/HD/3G signal format.
8. 4 SDI, 2 HDMI and 2 DVI-I.  
PGM output: 2 SDI and 1 HDMI  
Multiview output: 1 HDMI and 1 SDI
9. Luma Key/Chroma key
10. Support 6 screen split monitoring, digital clock, analog clock display;
11. Support PIP/POP function, the size and position of the sub-window can be adjusted arbitrarily, and the thickness and color of the border can be set.
12. 1 XLR balanced audio input; 1 RCA analog audio input & output;
13. External audio and SDI/HDMI de-embedded audio can be assigned to any output, supporting audio follow-up and mix switching.
14. Supports MIX/FADE/WIPE switching effects; supports CUT, AUTO&FTB; the switching rate can be set.
15. Built-in color bar signal generator

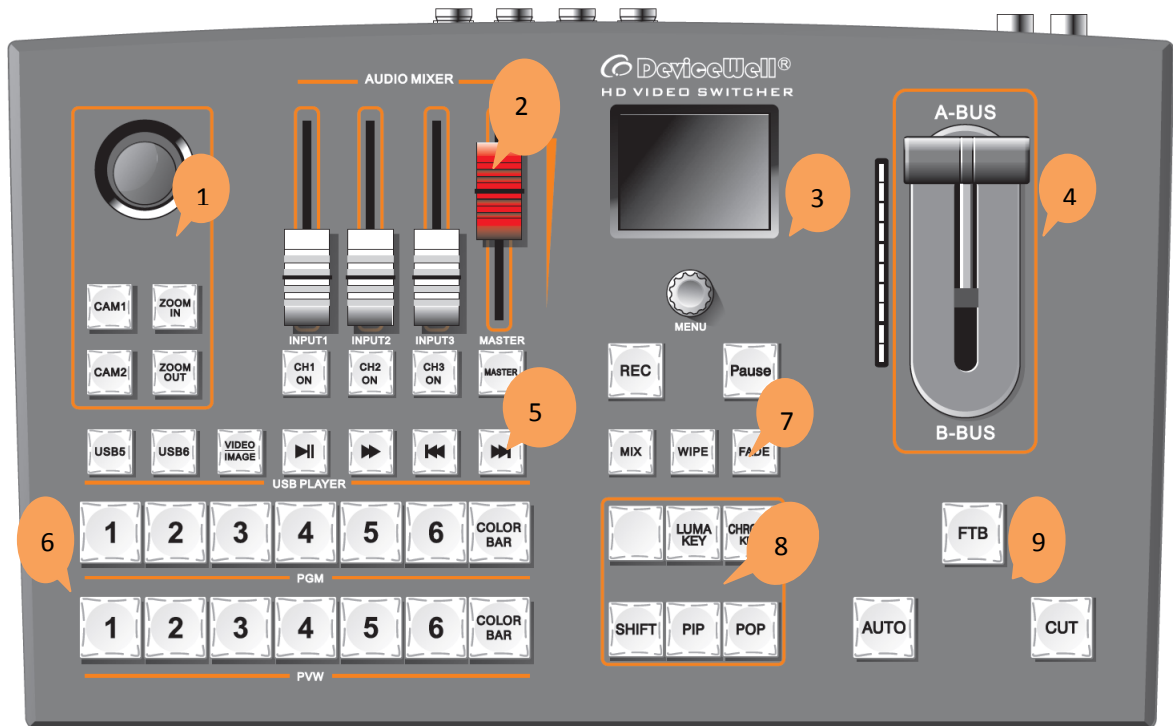
## 5. Control Panel and Interface

Please use the time to read this chapter for a few minutes before using the DW high definition switchboard equipment. This chapter will give you a detailed introduction of the panel and interface of the Sino DW HD switchboard to facilitate your subsequent use and operation.

The new aluminum alloy is made of new aluminum alloy material. The new aluminum alloy has high strength characteristics, which improves the ability of anti - fall, compression and anti-seismic, and effectively protects the components of the equipment. Ultra light features make the equipment more convenient in transportation and maintenance process, without other devices, and have unparalleled heat dissipation performance.

In addition to the innovation of the shell, the Sino Victoria high definition switchboard has also made a brand new optimization for the connector. With the new RoHS standard, the environmental protection materials are more demanding in the durability and environmental protection, providing more stable, cost-effective and environmentally friendly products for customers.

## 5.1 Control Panel





### 5.1.1 Area Description



| NO. | Name                    | Description  |
|-----|-------------------------|--|
| 1   | Camera control area     | Control camera   |
| 2   | Mixer                   | Mainly for audio following, embedding and mixing settings. |
| 3   | LCD Menu&Knob           | Display menu information and system status.                |
| 4   | T-bar system            | Manual control transfer                                    |
| 5   | USB multimedia          | Control the USB player                                     |
| 6.  | PVW& PGM                | Preview& Program selection                                 |
| 7   | Special effect          | Select the special effect of the transition                |
| 8   | Integrated control area | Mainly to control the switcher overlay effects             |
| 9   | Transition control area | AUTO, CUT&FTB  |


## 5.1.2 Key Description


### 1. Camera control area

 &  mean cameras 1 and 2 respectively

There are two cameras corresponding to the button selection.

After CAM1 to CAM2 are lit, you can press  &  to control the camera's distance.

 : Close/longer distance

 : Far/shorter distance



### 2. Mixer

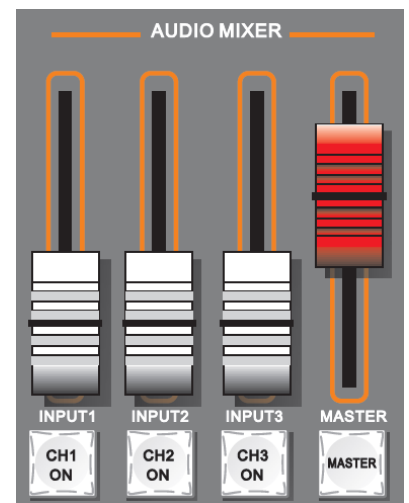
CH1 ON: Assign audio to the SDI1/SDI2/SDI3/SDI4/VIDEO5/VIDEO6/XLR/RCA channels respectively;

CH2 ON: Assign audio to the SDI1/SDI2/SDI3/SDI4/VIDEO5/VIDEO6/XLR/RCA channels respectively;

CH3 ON: Assign audio to the SDI1/SDI2/SDI3/SDI4/VIDEO5/VIDEO6/XLR/RCA channels respectively;

CH1 ON/CH2 ON/CH3 ON/MASTER button is an audio channel switch, and the audio fader controls the volume of the selected channel;

MASTER: Adjust the total audio output.

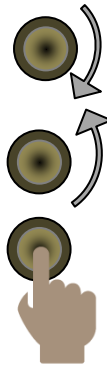


### 3. LCD Menu

LCD menu is mainly divided into status display and menu settings.

The knob control menu is divided into 3 states:

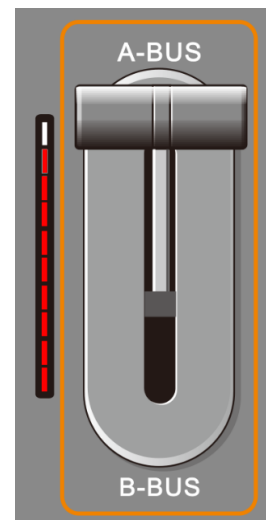
1. Clockwise rotation to downward or larger value.
2. Counter clockwise rotation to upwards or small numbers.
3. press for selected



### 4. T-bar System

The push rod system of the switching platform is composed of a push rod module and an indicator lamp to push the push rod to complete the transition.

Push the push rod at the same time, the indicator lamp will follow the movement, to the top set 1 (push the push rod to the lowest end and the top is to light up a lamp).



### 5. Transition control area

when the T-bar is pushed to the A-BUS, the left indicator is like the right picture, and when only one indicator is displayed, it is pushed to the top, indicating that the PVW and PGM switch have been completed.



AUTO transition with special effect



Hard cut transition without special effect



When clicked, it will flash to indicate that the main output is outputting black.

### 6. Transition control area

MIX, WIPE & FADE are transition special effects buttons.



Mixed effect, yellow indicates that it has been chosen.



WIPE effects, with the use of the arrow keys, the settings are set through the menu function.



Fade in and fade out special effect

## 7. Integrated control area

The main purpose is to control the special effects of switcher. Before you use them, please be sure to read them so that you can operate the equipment.



LUMA key, dig out the special effects button, press the button to black and background source stack.



CHROMA key, chroma to dig out the special effects button, press the button to specify the color, and stack with the background source.



SHIFT, choose the DVI/VGA/USB channel with the PVW keypad 5 and 6.



Picture-in-picture special effect key, opening PIP function.



Picture-out-picture special effect key, opening POP function.

## 8. USB multimedia control area





Among them, USB5 and USB6 are control choices, and USB5 is USB5.VD/PIC chooses video or picture, and default is playing video.



Playback and pause



Speed, the maximum can be 32 times



Previous, Press twice in order to take effect



Next

## 9. Channel selection area

The main choice is PGM and PVW output channel, red indicates that it is PGM, green indicates PVW.

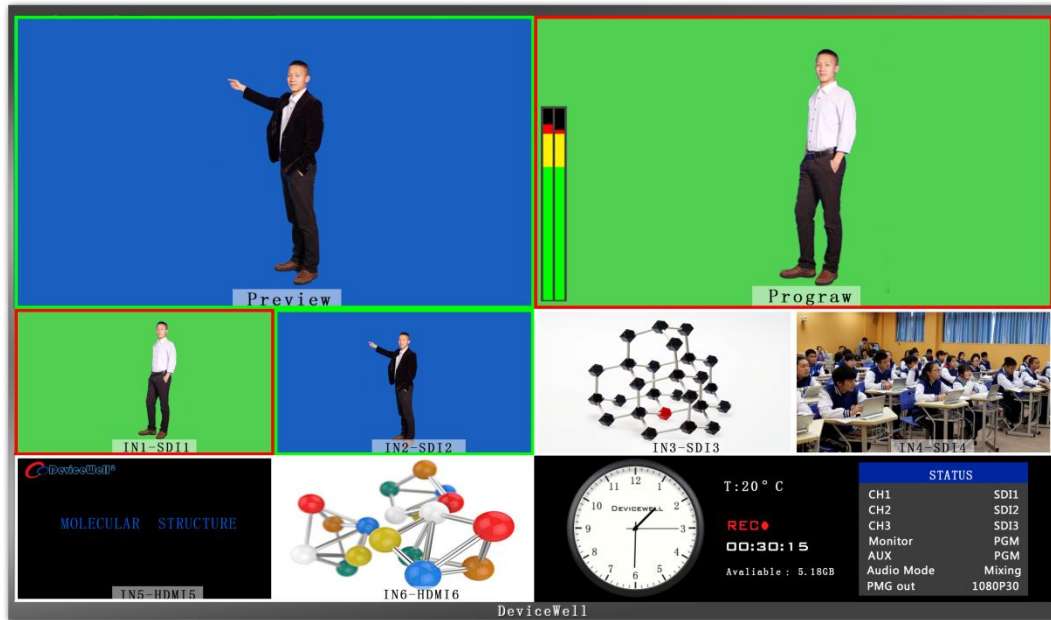


Color bar output

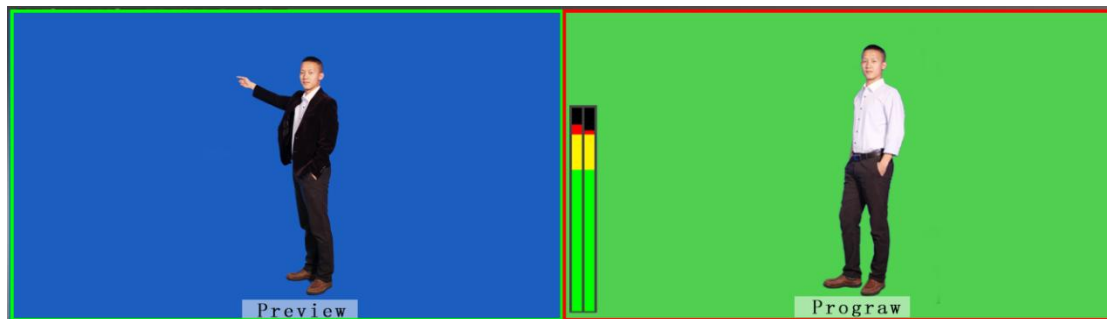


# 6. Operation Description

## 6.1 Introduction of multiview output



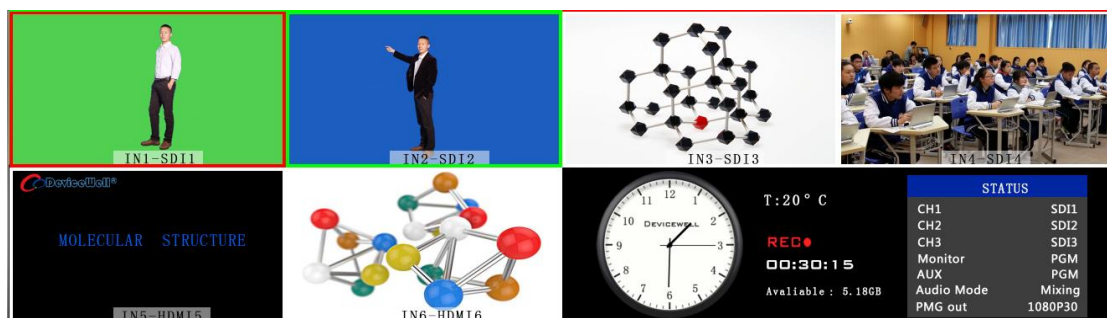
PVW and PGM are preview and Program respectively, as show below:



Preview

Program

There are 6 windows below, which are input source monitoring, SDI and USB or DVI.



The lower right corner is the information display of the switcher, the digital clock, the analog clock and the system state of the switcher (CH1-CH3 audio is the source of the audio channel in the right state).

## 6.2 PGM and PVW switching

### 6.2.1 T-bar calibration

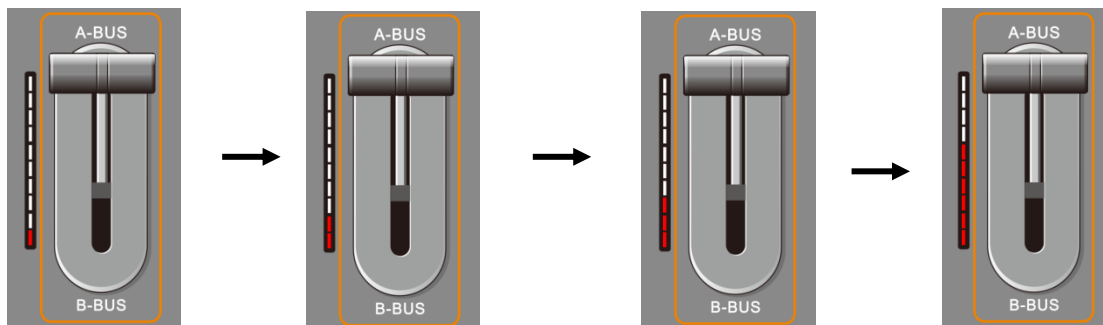
In the use of the switcher, the T-bar misalignment may occur, and the shift of the original point coordinates of the T-bar will be offset, so the T-bar system should be calibrated before use.

First, press the 1 and 2 keys in the PGM area at the same time when the device is off. The following diagram

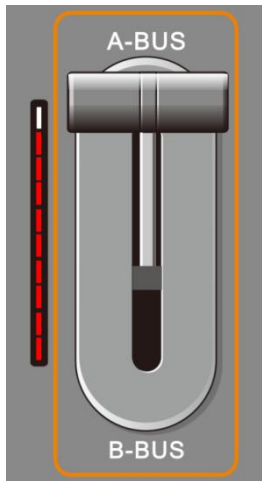


Note: the 1 and 2 keys are not allowed to be released during calibration.

Then turn on the power switch. After the boot is completed, the instructions next to the putter will be lit up in sequence.



Push the T-bar back and forth until the indication is normal. (all up or all down) are shown below.

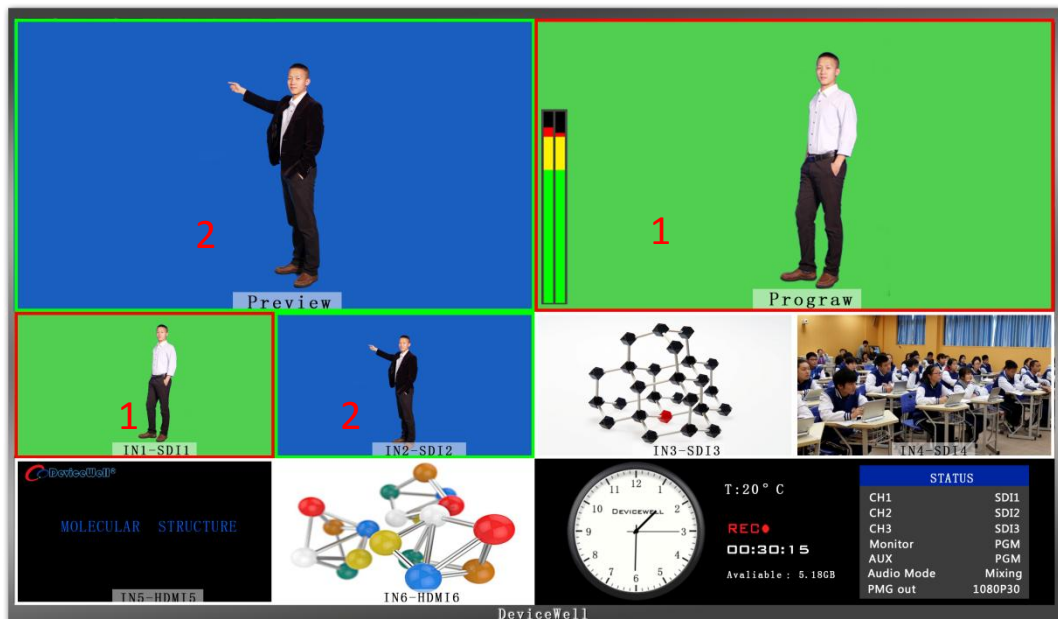


If the right picture is shown to indicate that the calibration is completed, the 1 and 2 keys pressed before can be released.

The picture on the left shows the status of the push indicator light from bottom to top.



After the device connection is completed, enter the SDI camera 1 and the camera 2, by default it will be displayed in the lower red mark 1 and 2; then press the control panel PVW and the PGM area to press the corresponding signal source with the PVW and the PGM frame above the 1 and 2, respectively.



Then press the AUTO or CUT of the control panel, or manually push the T-bar to switch operation. AUTO for automatic switching can set transition effects, CUT hard cutting, no transition effect, manual T-bar can set special effects, speed and switch speed is proportional to the



speed.

Note: when the AUTO or T-bar is in the process of transition, the 1 key of PGM and the 2 key of PVW are all red at this time, and the channel to switch PGM or PVW is invalid. The following diagram




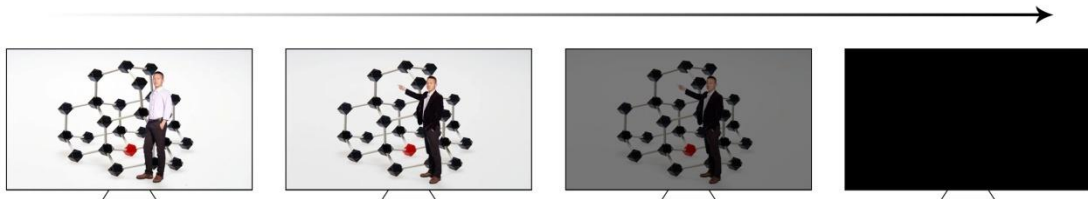
### 6.2.2 Transition Control

The control mode of the transition of HDS6506 portable switcher is mainly divided into two kinds. One is the transition with special effect and the other is the transition without the special effect.

1. No transition special effect: Press , CUT key for hard cut, if select preview (PVW), screen directly switches to the main output (PGM), because it is no delay of seamless switching, so no transition effect.
2. Transition with special effect:
  - ✧ AUTO key, first select the special effect of the transition, and then set the rate of the transition, the transition effect has been access: MIX, WIEP, FADE (after the special effect of detailed explanation). Finally, press  will be able to carry out special effects.
  - ✧ T-Bar transition and AUTO special effect settings are consistent, the difference is that the speed of driving determines the speed of the transition is directly proportional to the two, more flexible.

### 6.2.3 PGM Output Black

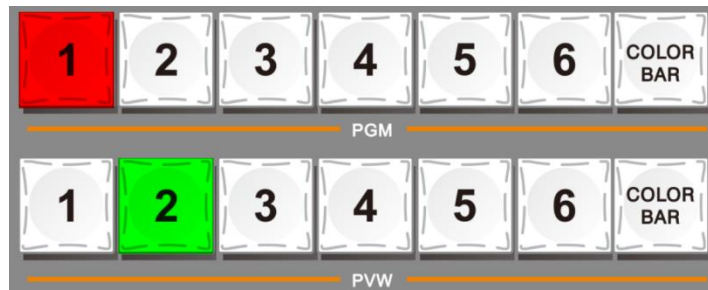
In the integrated control area FTB key  this key function: PGM output black field, press FTB key will flicker the main output will fade, can deal with all kinds of sudden situation, the effect such as the lower figure.



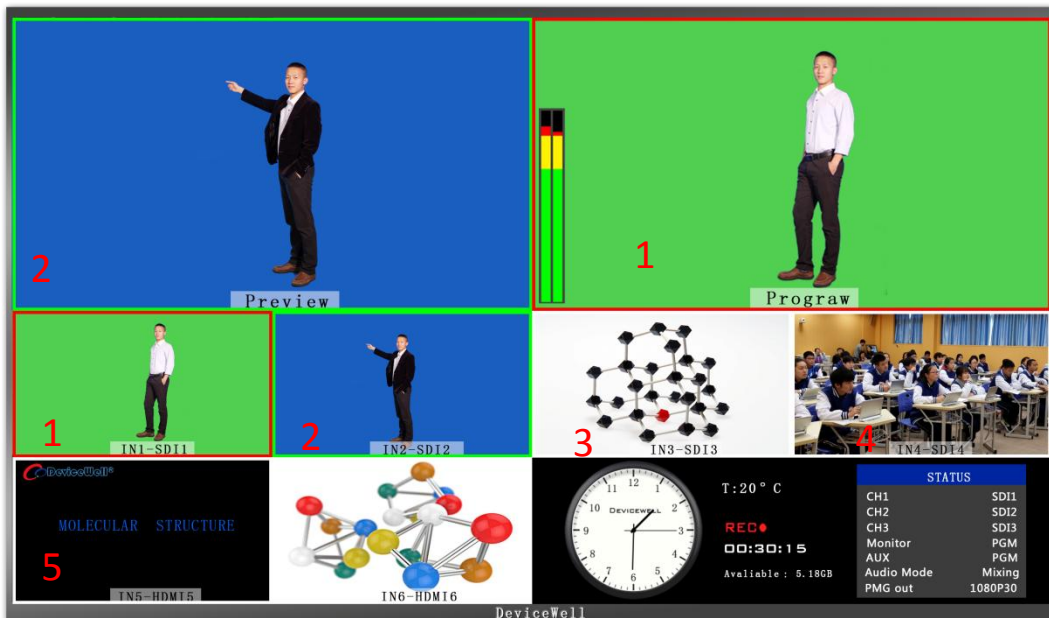
If you find the PGM output is black and turn black, check whether the FTB button is pressed (blinking). Press down the black field again.

## 6.2.4 PGM and PVW channel selection

The key board PGM corresponds to the 1-6 channel in PVW, which is the 6 sub screen under the 10 picture segmentation. (Channel to source switch)



As shown above, press the selection in the PGM area and the key will turn red. The PVW press will show the green.

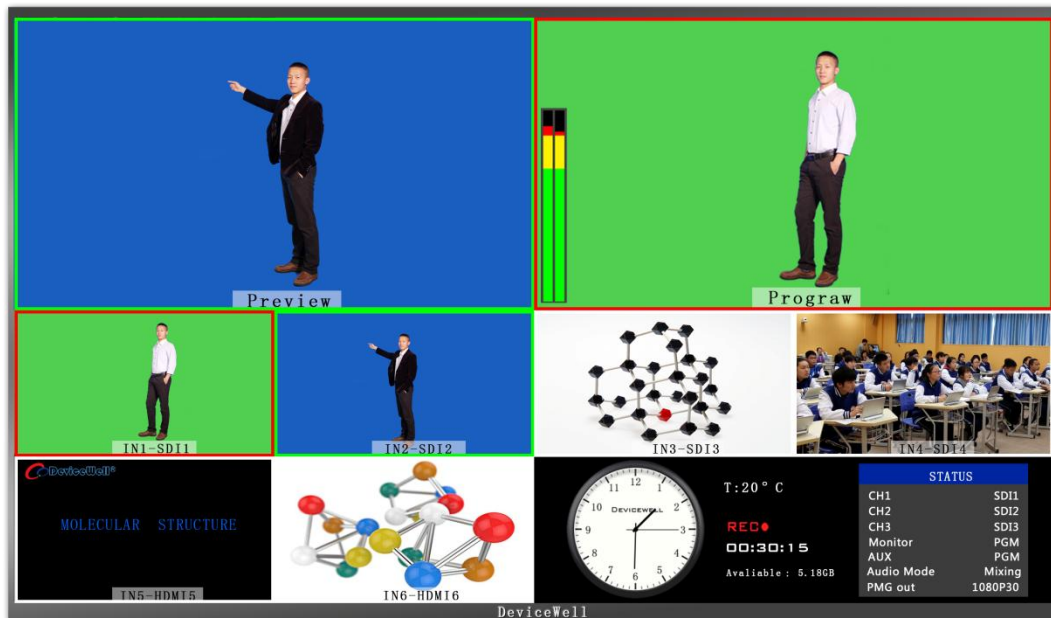



If you want to display the source of the SDI1 interface in the PGM, the source of the SDI2 interface is displayed in PVW, press the 1 key directly in the PGM area, and PVW press 2. As above.



## 6.2.5 5 and 6 channel source switching in PVW

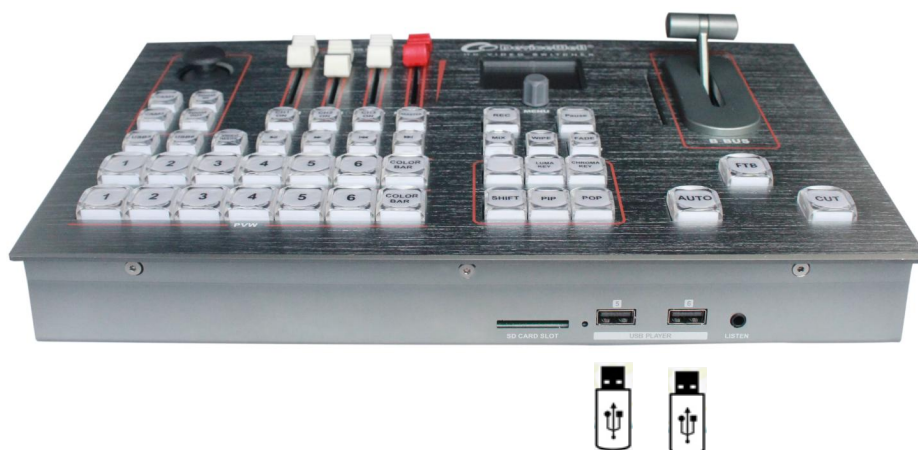
Among them, 5 and 6 channels have 4 kinds of signal sources, which are DVI, USB, HDMI, VGA, can be set by button on control panel..



First press (do not release)  of the integrated control area. Press to select the key source 5 or 6 in the PVW that needs to be switched. Press the channel selection button multiple times to cycle through the selected channel source. After confirming, release the button.

## 6.2.6 USB media player

Before use, please make sure that the U disk is connected, then select 5 or 6 channel for USB and use control panel to control





Press Select USB5 or USB6 to select the USB channel to be controlled, and USB5 correspond to the USB5 of the front interface panel.

## 6.2.7 SD Card Record


Insert the SD card after connecting the device first.

(Note: Plug in the power and wait the device working properly, then insert the SD card, the recording resolution is PGM output resolution)



When the SD card is inserted, the system detects the SD card, and the SD card indicator will light up. If the LED is not lit, please check if the SD card is plugged in.

Note: (Before using the SD card, format the SD card first, the system format is FAT32/exFAT, the maximum support 128G SD card) When the LED indicator is normally lit, press the recording and

source , switching area to PGM Output video for recording, click the PAUSE button to pause.

The recorded resolution is the same as the PGM output.

The recorded bit rate is divided into 4 levels: low 6M, medium 12M, high 18M, and ultra high 24M. (Through the knob to enter the recording settings in the main menu, the code rate setting level is shown in the figure below, from left to right, respectively, from high to low)

| Record Setting |     | Record Setting |        | Record Setting |      | Record Setting |            |
|----------------|-----|----------------|--------|----------------|------|----------------|------------|
| Rate Control   | 6M  | Rate Control   | 12M    | Rate Control   | 18M  | Rate Control   | 24M        |
| Level          | Low | Level          | Medium | Level          | High | Level          | Super high |
| Exit           |     | Exit           |        | Exit           |      | Exit           |            |

Note: After switching the output format, if you want to record, please record after



re-powering; if the inserted SD card does not recognize the remaining capacity, please re-insert the SD card or replace the SD card.

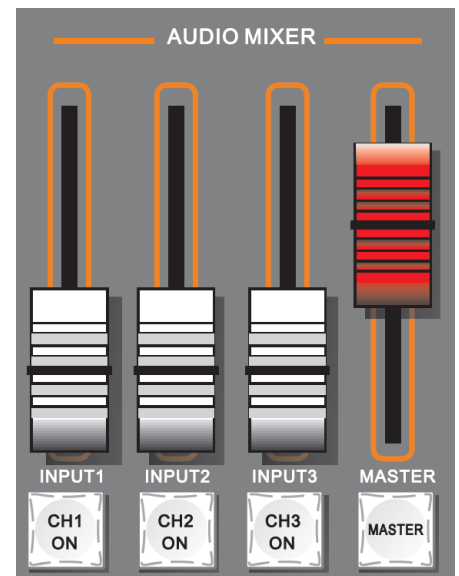
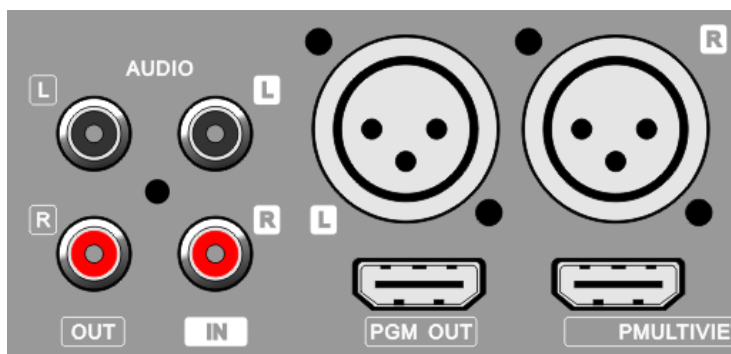
The LED will flash during recording, and the status of the recording will be displayed in real time in the status bar of the switcher.



## 6.3 Audio settings

### 6.3.1 Audio introduction

1 XLR balanced audio input; 1 RCA analog audio input; 1 RCA audio output. Audio mode is divided into mixing and following



#### Mixing mode

There is no audio output on the device, and the audio channel is selected by the knob to open the corresponding CH1 ON, CH2 ON, CH3 ON, MASER audio switch, and audio mixing can be realized.

## Following mode

The device has no audio output on the device. Using the knob to select the audio following mode in the LCD menu, the output volume can be controlled by opening the MASER audio switch, and the CH1 ON, CH2 ON, and CH3 ON cannot be operated under the audio following mode.

## Audio channel setting of a mixer

The boot menu shows the following figure:

| Status     |         |
|------------|---------|
| CH1        | SDI1    |
| CH2        | SDI2    |
| CH3        | SDI3    |
| Lis Src    | PGM     |
| Aux Output | PGM     |
| Audio Mode | Mix     |
| Reso       | 1080P30 |

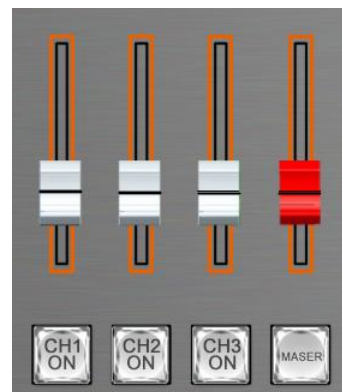
Set the knob into the setting with clockwise rotation.



The following figure shows that

CH1-CH3 corresponds to the CH1-CH3 of the control panel mixer.

| Status     |         |
|------------|---------|
| <b>CH1</b> | SDI1    |
| CH2        | SDI2    |
| CH3        | SDI3    |
| Lis Src    | PGM     |
| Aux Output | PGM     |
| Audio Mode | Mix     |
| Reso       | 1080P30 |



Turn the knob to the required channel and press the knob to set up the page as shown below.



| Status     |             |
|------------|-------------|
| CH1        | <b>SDI1</b> |
| CH2        | SDI2        |
| CH3        | SDI3        |
| Lis Src    | PGM         |
| Aux Output | PGM         |
| Audio Mode | Mix         |
| Reso       | 1080P30     |

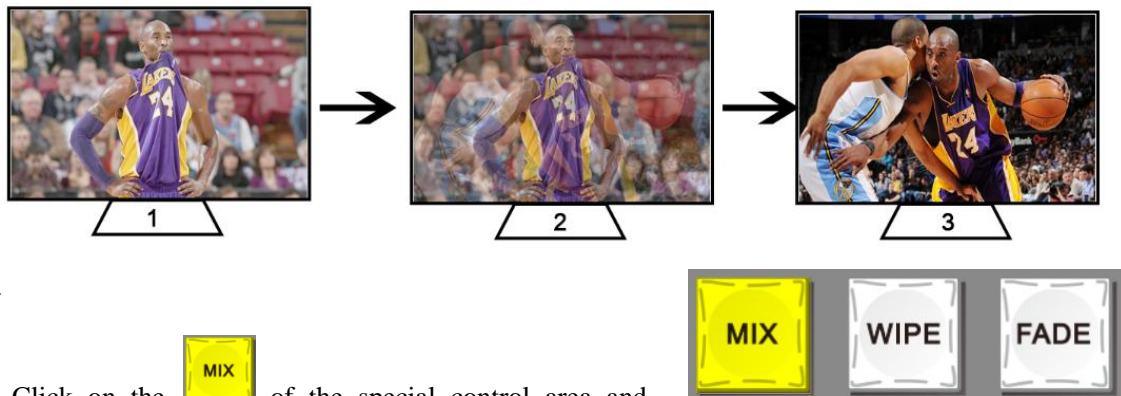
The rotary knob channel will be switched and rotated to the designated channel, then press the knob to confirm and exit. If you keep rotating counter clockwise, you can exit the audio status page settings.




## 6.4 Special effect operation description


### 6.4.1 Mix Transitions

MIX effect is a transition effect. After setting the transition, the original live screen will be lightened at the main output and then know the full hour transition to the new live screen, as shown below.




Click on the  of the special control area and click on it, then use T-bar or AUTO to switch.

### 6.4.2 Wipe Transitions

After you press  you choose the image pattern, which has a total of 8 modes. You can choose the way of selecting the image by menu, then you can see the effect of transition if you operate the AUTO key or push T-bar.



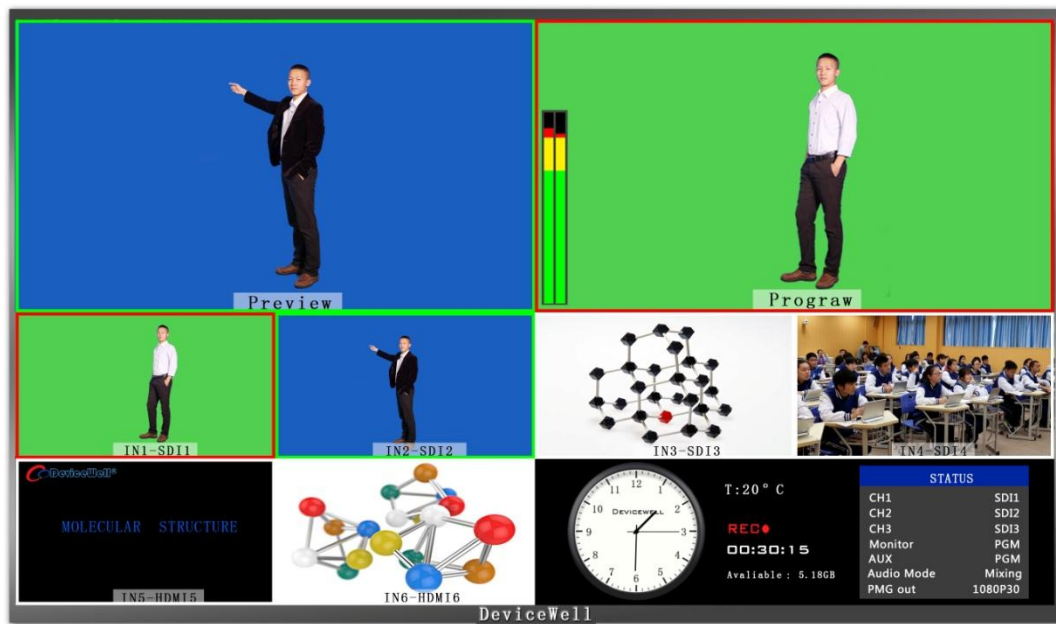
### 6.4.3 FADE Transitions

Click on the  of the special control area and click on it, then use T-bar or AUTO to

switch.

#### 6.4.4 PIP Picture in picture effects

The T-bar operates in the B-BUS state. Clicking on the PIP button will cause a small screen to appear in the upper left corner of the preview. The source signal of the SDI1 is displayed by default. The default background is PVW. As shown below



At this time, the information on the LCD screen will be switched to the PIP picture-in-picture setting. After pressing the knob, it can be set according to the requirements. As shown below

| PIP               |       |
|-------------------|-------|
| Screen Select     | 1     |
| <b>Horizontal</b> | 960   |
| Vertical          | 540   |
| Display size      | Large |
| Border switch     | ON    |
| Border width      | 7     |
| Border color      | Green |
| Back              |       |

## PIP size and position

You can use the knob to set the parameters of the PIP picture-in-picture, as follows:

Horizontal position setting: The value from the top left to the top right is 0-1280, and the value of each rotation knob is increased/decreased by 10.

Vertical position setting: The value from the top left to the bottom left is 0-760, and the value of each rotation knob is increased/decreased by 10.

Display size setting: Small/medium/large settings can be selected.

Border switch setting: You can select the on/off setting.

Border width setting: The border width can be selected from 2-7 thickness borders, and the value of each rotation knob is increased/decreased by 1.

Border color setting: You can choose white/red/blue/green to set the border color.

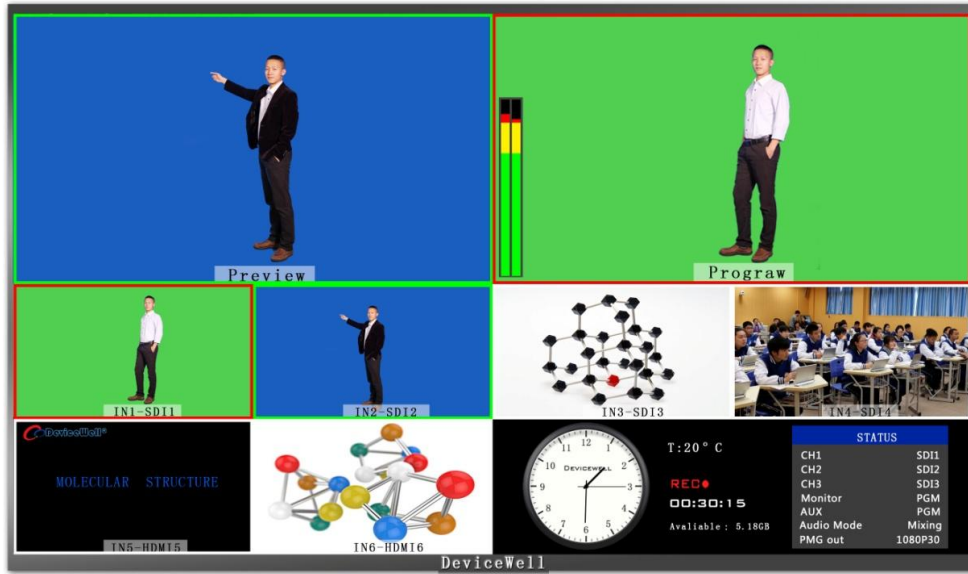
## Picture in picture source switch

Then press 1, 2, 3 in the PVW number key. You can switch the input source of the picture in the picture.



## 6.4.5 POP Picture out picture effects

The T-bar operates in the B-BUS state. Clicking on the POP button will cause a small screen to appear in the upper left corner of the preview. The source signal of the SDI1 is displayed by default. The default background is PVW. As shown below



At this time, the information on the LCD screen will be switched to the POP picture-out-picture setting. After pressing the knob, it can be set according to the requirements. As shown below

| POP           |       |
|---------------|-------|
| Screen Select | 1     |
| Horizontal    | 960   |
| Vertical      | 540   |
| Display size  | Large |
| Border switch | ON    |
| Border width  | 7     |
| Border color  | Green |
| Back          |       |

## POP size and position

You can use the knob to set the parameters of the POP drawing, as follows

Screen selection setting: You can select 1/2 two screens.

Horizontal position setting: The value from the top left to the top right is 0-960, and the value of each rotation knob is increased/decreased by 10.

Vertical position setting: The value from the top left to the bottom left is 0-540, and the value of one rotation per knob is increased/decreased by 10.

Border switch setting: You can select the on/off setting.

Border width setting: The border width can be selected from 2-7 thickness borders, and the value of each rotation knob is increased/decreased by 1.

Border color setting: You can choose white/red/blue/green to set the border color.

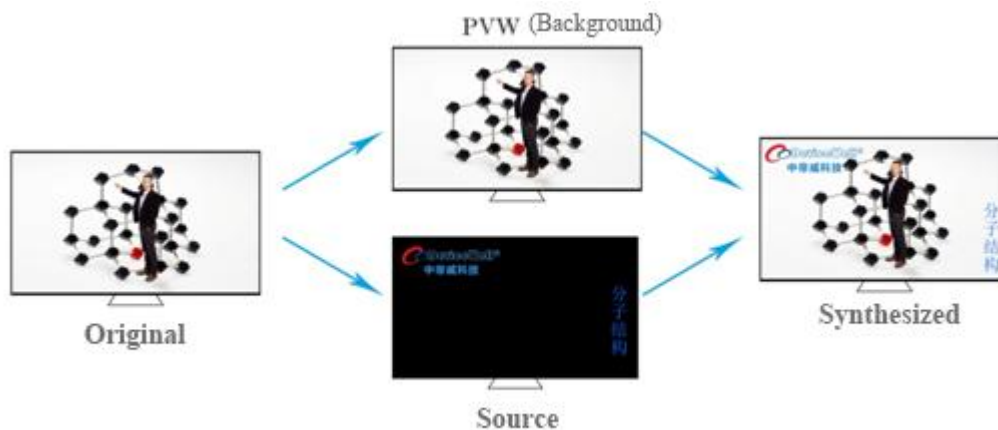
## Picture out picture source switch

Then press 1, 2, 3 in the PVW number key. You can switch the input source of the picture out picture.



## 6.4.6 Luma KEY

Turning on this function will deduct the black part of the key source. Then it overlaps with the background image to achieve the purpose of s to image and superimpose the background. This function is generally used for superimposing subtitles in virtual studios.

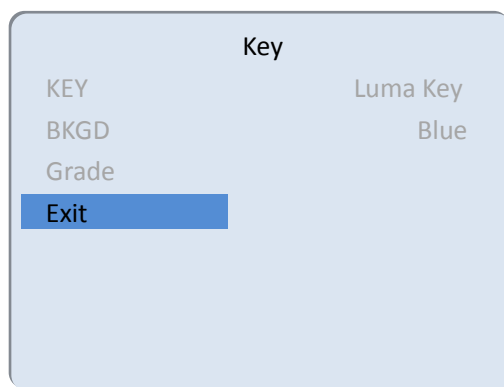


### 6.4.7 Panels for Luma Key

Switch the video or picture of the black background white font to the PVW preview window, and turn on the Luma KEY brightness key function. At this time, the LCD will display a Luma key parameter setting interface, and then use the CUT/AUTO/T-Bar switch to superimpose the characters to PGM

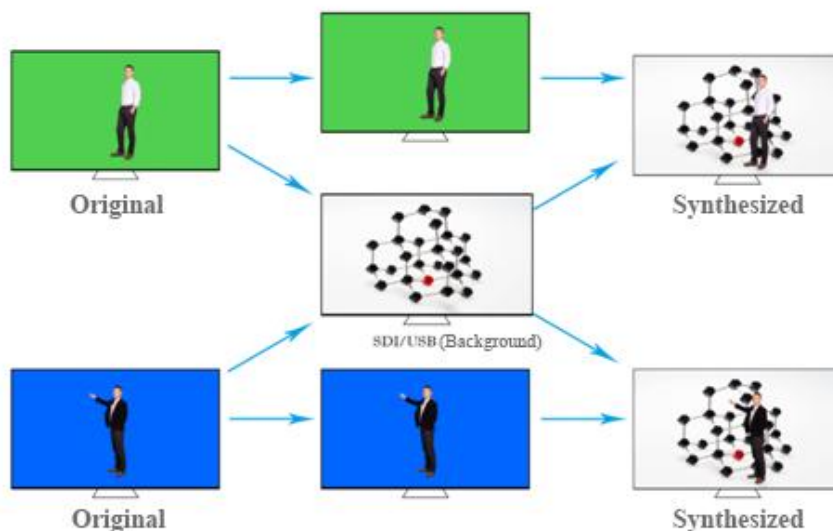
Image information settings:

After pressing the Luma key, the LCD panel displays the current Luma key image information as shown below.



### 6.4.8 Chroma KEY

Turning on this function will deduct the specified color of the key source. Then it overlaps with the background image to achieve the purpose of keying and superimposing the background. This function is generally used for superimposing subtitles in virtual studios.




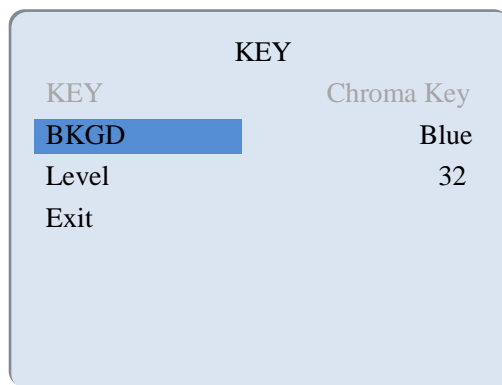


### 6.4.9 Panels for Chroma Key

Switch the blue background or green background to the PVW preview window. When the KEY2 chroma key function is enabled, a parameter setting interface of the chroma key will appear on the LCD screen. Select the background of your key through the knob. The image is achieved by CUT/AUTO/T-Bar, and the image you want to superimpose appears in the PGM;



When the button  is pressed, the LCD panel displays the current chroma key image information as shown below.

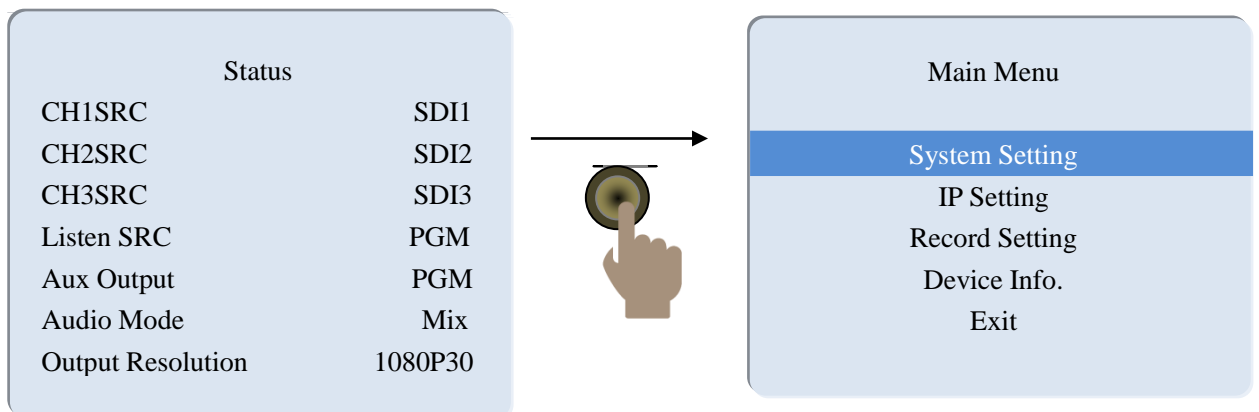


The video source item can choose the key source; the KEY type has the chroma key, the green and the chroma key blue.

## 6.5 System Menu Setting

In the menu, you can perform IP settings on the device, restore the system to factory settings, change the language, etc.

In the power-on default state, press the knob to enter the main menu. As shown below



### 6.5.1 System Setting

After turning the knob to the system setting, you can click the knob to enter the system setting submenu, as shown below

| System Setting    |         |
|-------------------|---------|
| Language          | English |
| Screen brightness | 50      |
| Backlight status  | Bright  |
| Backlight time    | 50      |
| Time setting      | Analog  |
| Reset             |         |
| Exit              |         |

In this menu, you can choose between Chinese or English. If you encounter an unknown error during use, you can choose to restore the factory settings and reset it.

### 6.5.2 IP Setting

| IP Setting   |               |
|--------------|---------------|
| IP obtaining | Static IP     |
| IP address   | 192.168.1.215 |
| Subnet mask  | 255.255.255.0 |
| Gateway      | 192.168.1.1   |
| Save         |               |
| Exit         |               |

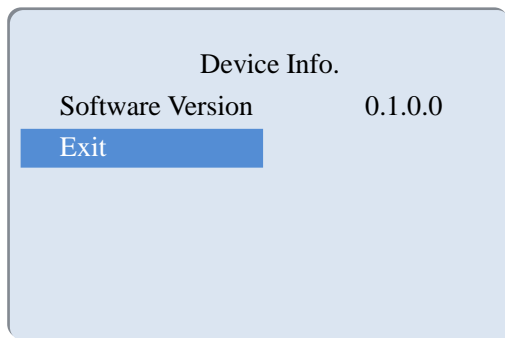
There are two modes for obtaining an IP address. One is dynamic configuration, and the other is a static IP address that needs to be manually configured. Remember to save and exit after the setup is complete.

Note: When setting the device IP address, do not repeat the IP address to avoid address conflicts.

### 6.5.3 Record Setting

| Record Setting |        |
|----------------|--------|
| Rate Control   | VBR    |
| Level          | Middle |
| Exit           |        |

#### 6.5.4 Device Info.



## 7. Failure and Maintenance

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### 7.1 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.

## 7.2 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.

### 7.2.1 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.