



# Instruction Manual

Three-in-one processor  
**HD-VP410H**

V1.0 20240625

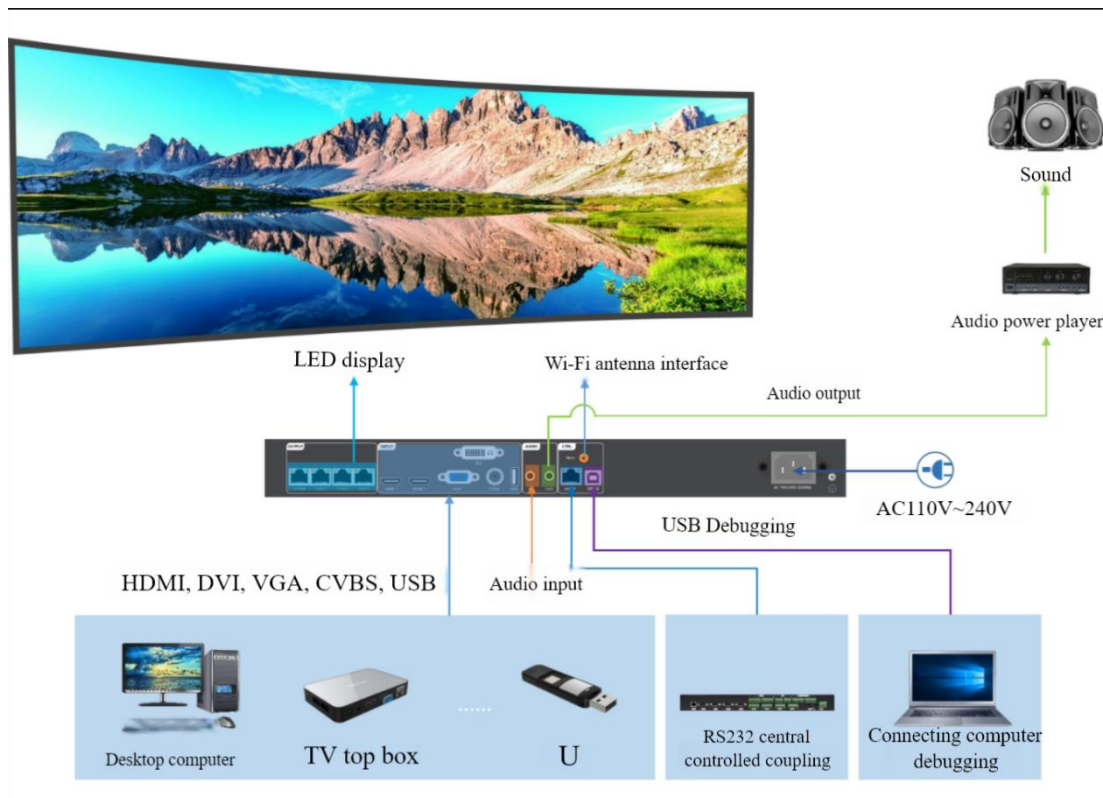
# 1 Introduction

HD-VP410H is a powerful 3-in-1 controller integrating single-screen video processing and sending card functions.

Features:

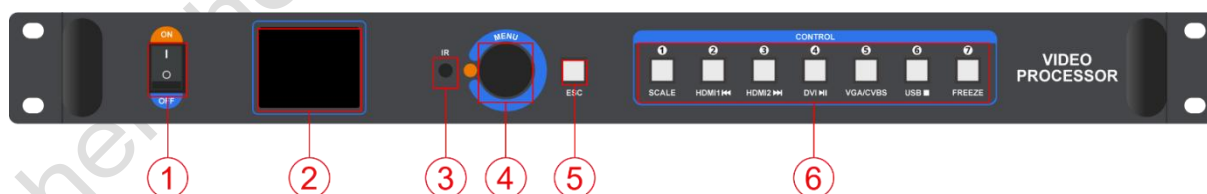
- 1) Load range: 2.6 million pixels, maximum width 3840, maximum height 2500;
- 2) Seamless switching of any channel;
- 3) Other channels Video input, USB plays video and picture files;
- 4) 2 HDMI audio inputs and 1 analog audio input, 1 Audio output;
- 5) Integrated sending card function, 4 Gigabit Ethernet output ports.
- 6) Scene preset saving and calling, support saving 16 user templates;
- 7) Standard Wi-Fi, supports APP wireless control;
- 8) Effective conversion is complete, and the background color is automatically removed under limited input conditions.

## 2 Application Scenarios



## 3 Appearance

Front Panel

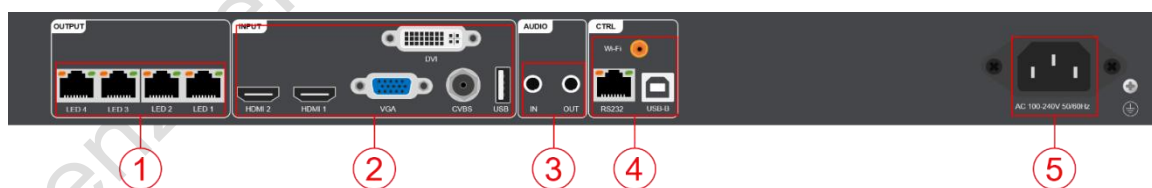


### Key Description

| Serial number | button      | illustrate                                                  |
|---------------|-------------|-------------------------------------------------------------|
| 1             | switch      | Control AC power input                                      |
| 2             | LCD Display | Debug display menu, screen parameters and other information |

|   |           |                                                                                                                                |
|---|-----------|--------------------------------------------------------------------------------------------------------------------------------|
| 3 | IR        | Receive infrared remote control                                                                                                |
| 4 | MENU knob | Press the knob to enter a submenu or confirm a selection<br>The selection button is used to select menus or adjust parameters. |
| 5 | ESC       | Exit key/Back key                                                                                                              |
| 6 | SCALE     | Partial/full screen switch button                                                                                              |
|   | HDMI1     | Select HDMI signal to play/play the last USB program                                                                           |
|   | HDMI2     | Select HDMI signal to play/play the next USB program                                                                           |
|   | DVI       | Select DVI signal playback/U disk program playback and pause                                                                   |
|   | VGA/CVBS  | Select VGA/CVBS signal playback                                                                                                |
|   | USB       | Select to play the USB program/stop playing the USB program                                                                    |
|   | FREEZE    | One-click freezing                                                                                                             |

## Rear Panel



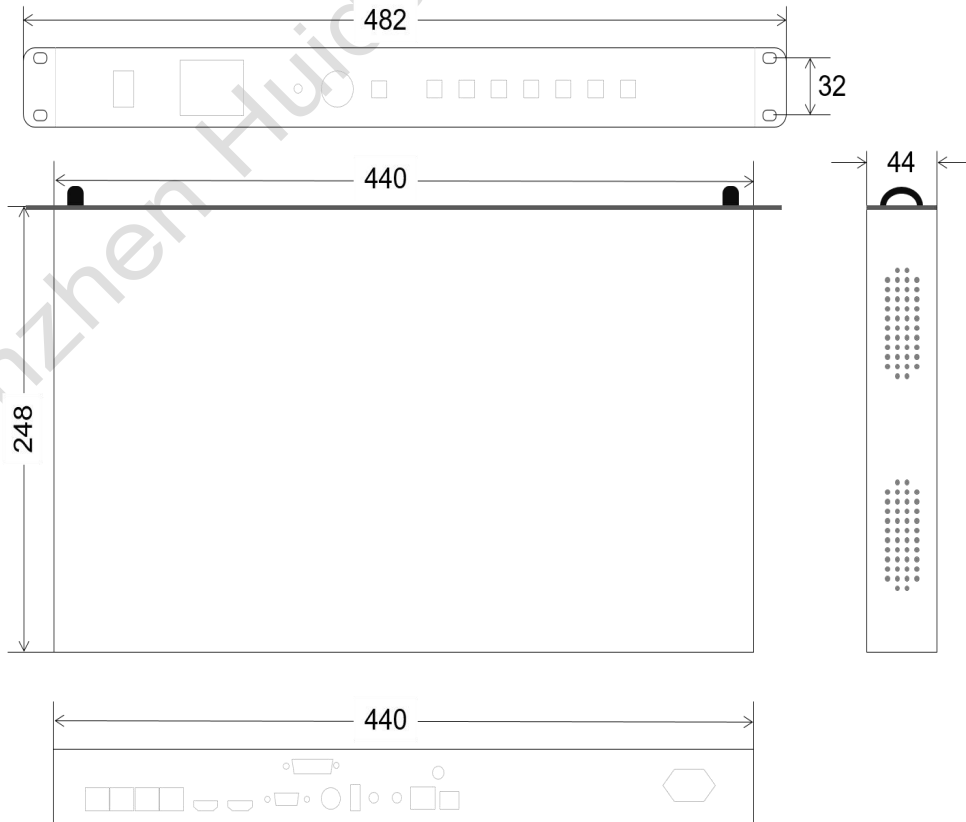
| input interface |                |          |                                                                                                                                                                                                                                                                                                          |
|-----------------|----------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Serial number   | Interface Name | quantity | illustrate                                                                                                                                                                                                                                                                                               |
| 2               | USB            | 1        | USB2.0 input interface<br>Can insert U disk to play videos and pictures<br>Video file formats: mp4, avi, mpg, mkv, mov, vob and rmvb;<br>Video encoding: MPEG4(MP4), MPEG_SD/HD, H.264(AVI, MKV), FLV;<br>Image file formats: jpg, jpeg, png and bmp<br>Video resolution: Maximum support 1920×1080@30Hz |
|                 | HDMI           | 2        | HDMI input interface                                                                                                                                                                                                                                                                                     |

|   |              |   |                                                                                                                                                                                                                            |
|---|--------------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   |              |   | Interface type: HDMI-A<br>Signal standard: HDMI1.4 backward compatible<br>Resolution: VESA standard, ≤1920×1080p@60Hz<br>Support audio input                                                                               |
|   | CVBS         | 1 | CVBS input interface<br>Interface type: BNC<br>Signal standard: PAL/NTSC 1Vpp±3db (0.7V Video+0.3v Sync) 75 ohm<br>Resolution: 480i, 576i                                                                                  |
|   | DVI          | 1 | DVI input interface<br>Interface form: DVI-I socket<br>Signal standard: DVI1.0 backward compatible<br>Resolution: VESA standard, 1080p                                                                                     |
|   | VGA          | 1 | VGA input interface<br>Interface form: DB15 socket<br>Signal standard: R, G, B, Hsync, Vsync:0 to1Vpp±3dB (0.7V Video+0.3v Sync )<br>75 ohm black level: 300mV Sync-tip: 0V<br>Resolution: VESA standard, ≤1920×1080p@60Hz |
|   | SDI          | 1 | SDI input interface (optional)<br>Interface type: BNC<br>Signal standards: SD-SDI, HD-SDI, 3G-SDI<br>Resolution: VESA standard, ≤1920x1080@60Hz                                                                            |
| 3 | AUDIO IN     | 1 | TRS 3.5mm dual-channel audio input interface                                                                                                                                                                               |
| 5 | power supply | 1 | AC 100~240V, 50/60Hz                                                                                                                                                                                                       |

| Output Interface |                  |          |                                                                                                                                                 |
|------------------|------------------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Serial number    | Interface Name   | quantity | illustrate                                                                                                                                      |
| 1                | Gigabit Ethernet | 4        | Used to cascade receiving cards to transmit RGB data streams; each network port controls 650,000 pixels.<br>Support docking multi-function card |
| 3                | AUDIO OUT        | 1        | TRS 3.5mm dual-channel audio output interface<br>Connect to an audio amplifier for high-power external speakers                                 |

| Control interface |                |          |                                                         |
|-------------------|----------------|----------|---------------------------------------------------------|
| Serial number     | Interface Name | quantity | illustrate                                              |
| 4                 | USB-B          | 1        | Connect to a computer for debugging the device          |
|                   | Wi-Fi          | 1        | Connect a Wi-Fi antenna to enhance Wi-Fi signal         |
|                   | RS232          | 1        | RJ45 interface, connected to the central control device |

## 4 Dimensions



## 5 Product Use

### 5.1 Operation steps

Step 1 Connect the display power supply to power on the screen

Step 2 Connect a playable input source to the HD-VP410H

Step 3 Use USB-B serial cable to connect to the computer to debug screen parameters (refer to HDset user manual)

### 5.2 Input source switching

HD-VP410H supports simultaneous access to 6 signal sources and can switch to the input source to be played at any time according to needs.

There are 4 ways to switch input sources. One is to press the input source button on the front panel to switch quickly. One is to select and switch the input source through the software HDSet. One is to use the remote control (**Remote control option**) to select and switch the input source and APP.

### 5.3 Zoom settings

HD-VP410H supports full screen zoom and point-to-point zoom

#### Full Screen Zoom

The system adaptively scales the current input resolution to full-screen display according to the screen resolution in the display configuration.

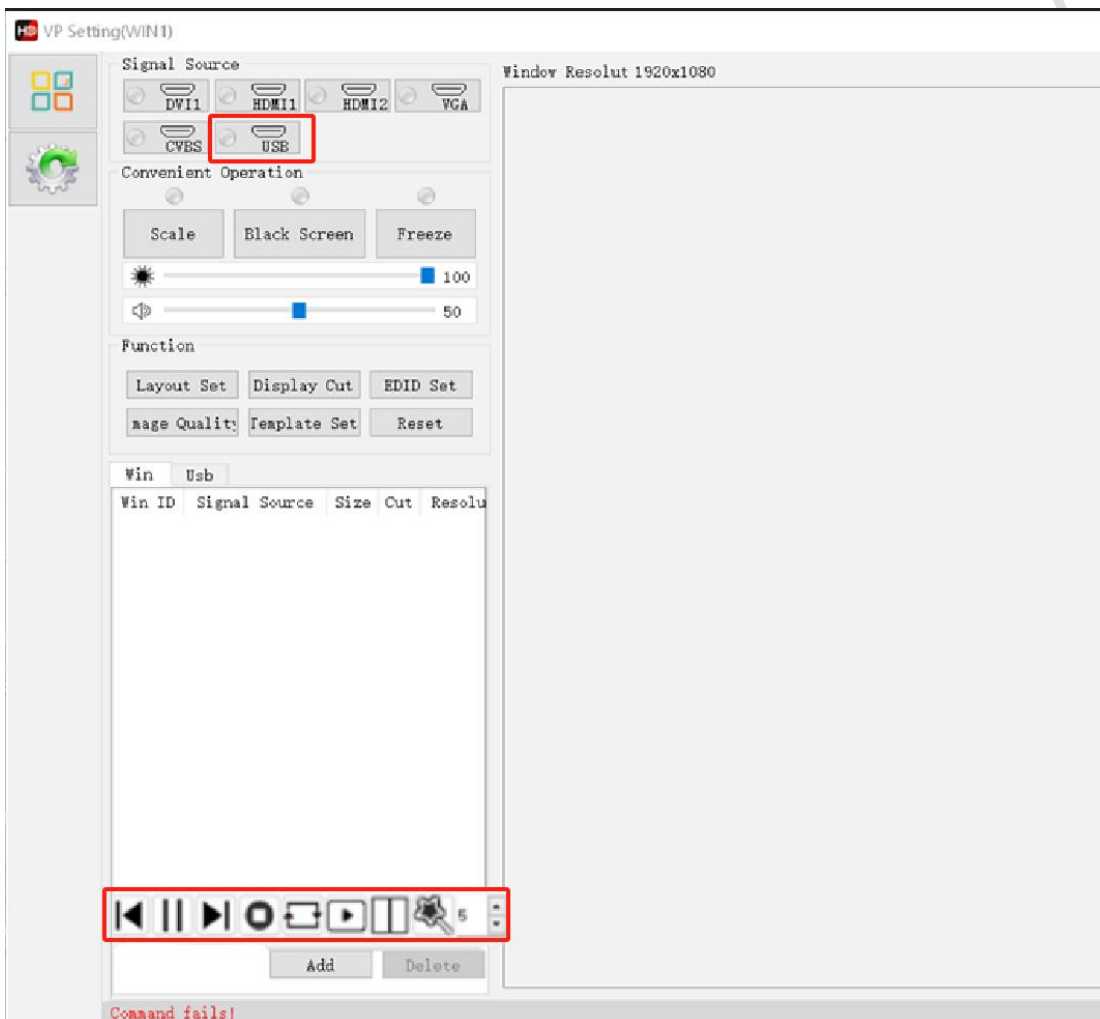
peer to peer

Point-to-point display, without scaling, press the SCALE button, the SCALE button indicator lights up and the display is point-to-point.

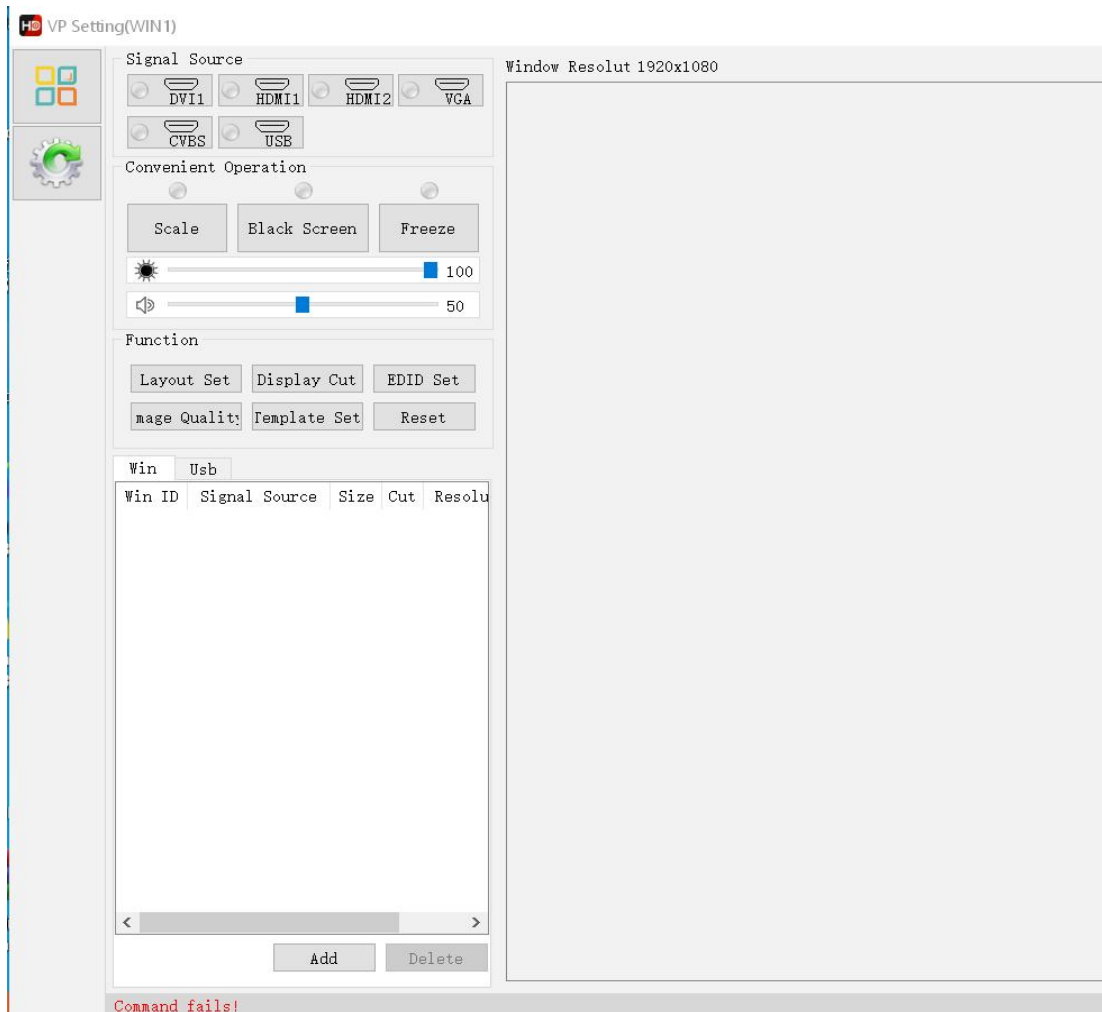
### 5.4 USB playback

HD-VP410H supports playing pictures or video files stored in USB flash drives.

When the media type is "Picture", it also supports turning on and off "Picture Effects" and setting the picture switching interval. The front panel can manually set the U disk playback content. The software operation is as shown below







-  Play the previous file of the current file;
-  Play or Pause;
-  Play the next file of the current file;
-  Stop play;
-  Play mode switch;
-  Switch the playback file category;
-  Display mode switching;
-  Special effects turned on.

## Playback Controls

Press "USB" in the input source area of the front panel to switch to the USB input source, and press the USB button again to enter the USB playback control. After enabling USB playback control, the HDMI1 and HDMI2 button lights are on, and the corresponding multiplexing function of the enabled button. Press USB again to exit playback control.

**HDMI1**  Play or Pause;

**HDMI2**  Stop play;

**SCALE**  Play mode switch (sequential play or single file loop);

**FREEZE**  Switch the playback file category.

### 5.5 Key lock

**ESC + FREEZE** Press HDMI1, FREEZE, 3S at the same time to turn on the key lock function. The HDMI1, HDMI2, and USB lights will all light up, and the lights of non-current input sources will flash. When in the key lock state, press HDMI1, FREEZE, 3S at the same time again to release the key lock.

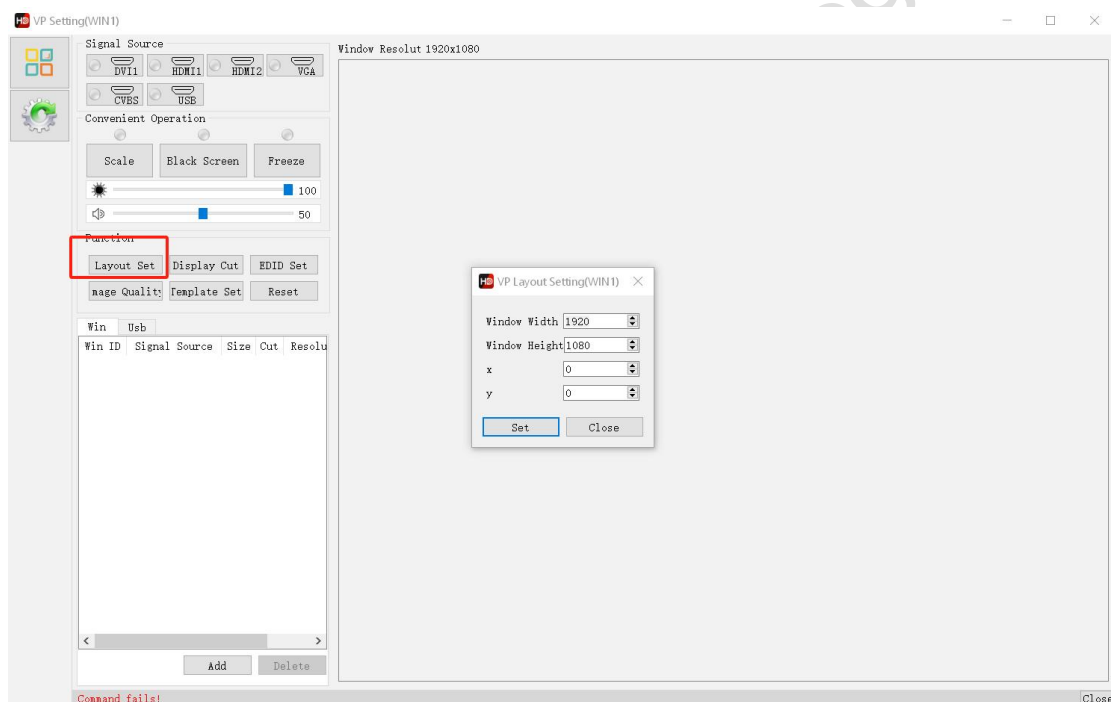
### 5.6 Button Indicator Light Description

- 1) When the power is turned on (i.e. when the device is started), the indicator lights cycle from left to right - a marquee;
- 2) The indicator light of the currently selected input source with signal input is always on, and the indicator light of the currently selected signal source without signal flashes;
- 3) When the key lock is enabled, the indicator light of the current input source is always on, and the indicators of other input sources flash;
- 4) In USB playback, quick operation mode, the HDMI1 and HDMI2 USB indicators are always on;

- 5) In upgrade mode, the HDMI2 and USB FREEZE indicators flash;
- 6) In the debt collection mode, all indicator lights are always on when the debt is due;
- 7) In point-to-point mode (local mode), the SCALE indicator light is always on;
- 8) In freeze mode, the FREEZE indicator light is always on.

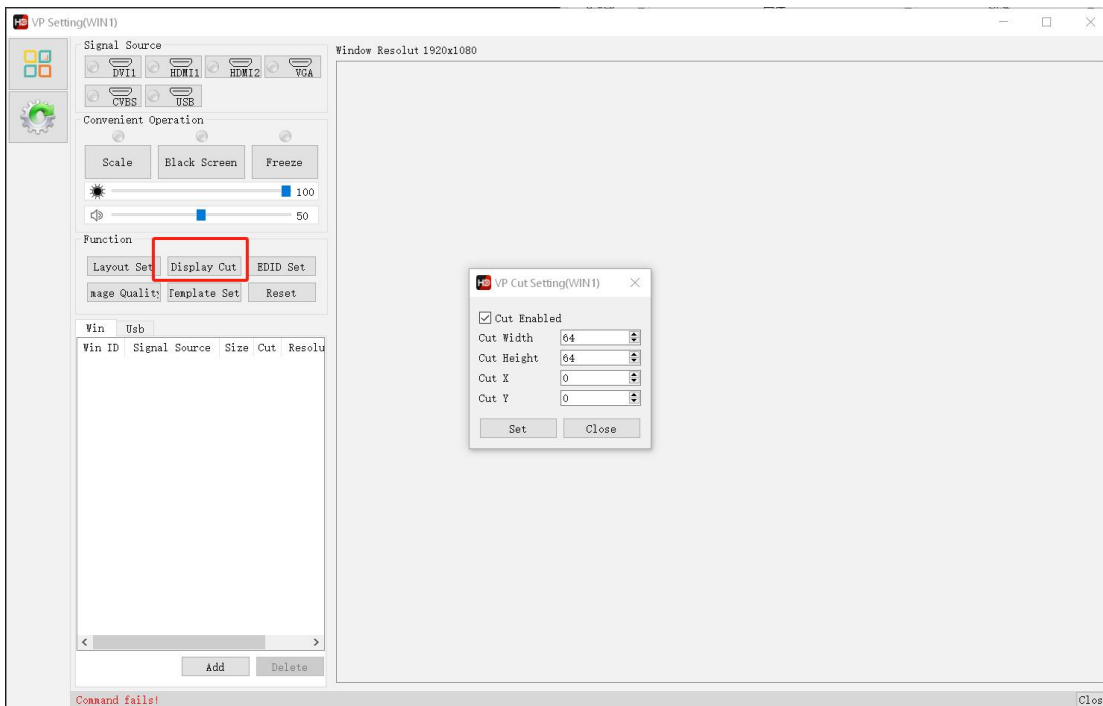
## 5.7 Screen Layout

HD-VP410H supports users to manually adjust the image size and position, as shown below



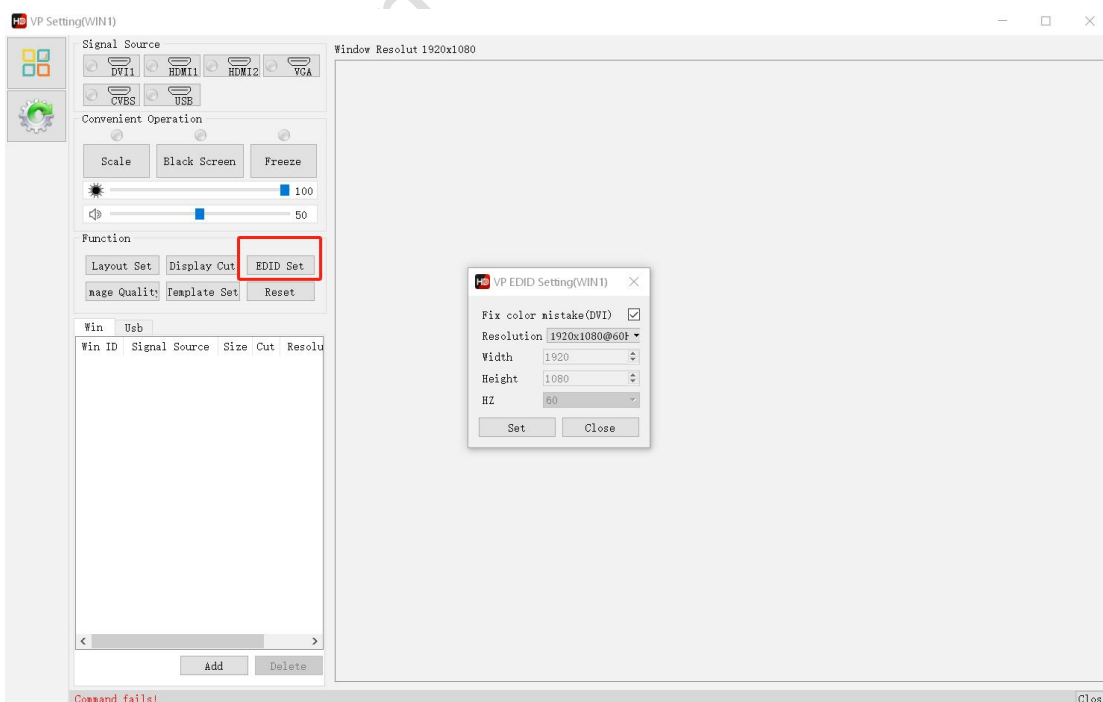
## 5.8 Interception

HD-VP410H supports users to manually intercept input signals, as shown below



## 5.9 EDID settings

Modify the input resolution, you can customize the input resolution; HDMI input, if the display is green, check the HDMI correction color cast, and the setting is successful. As shown below

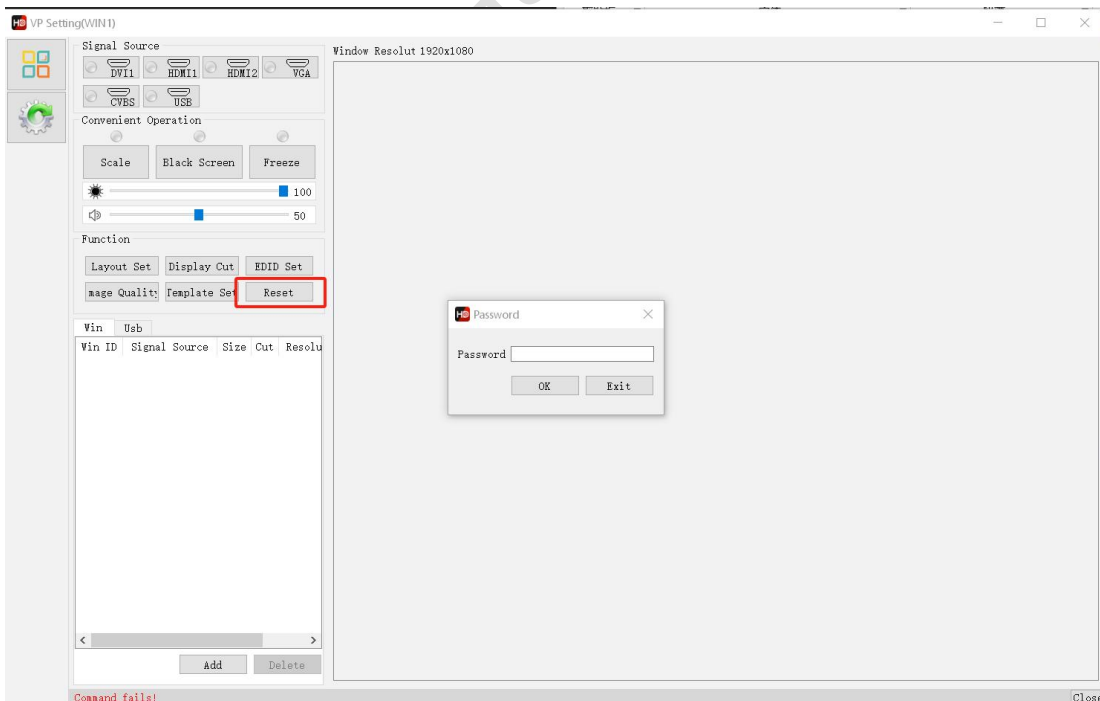


## 5.10 Image Quality Adjustment

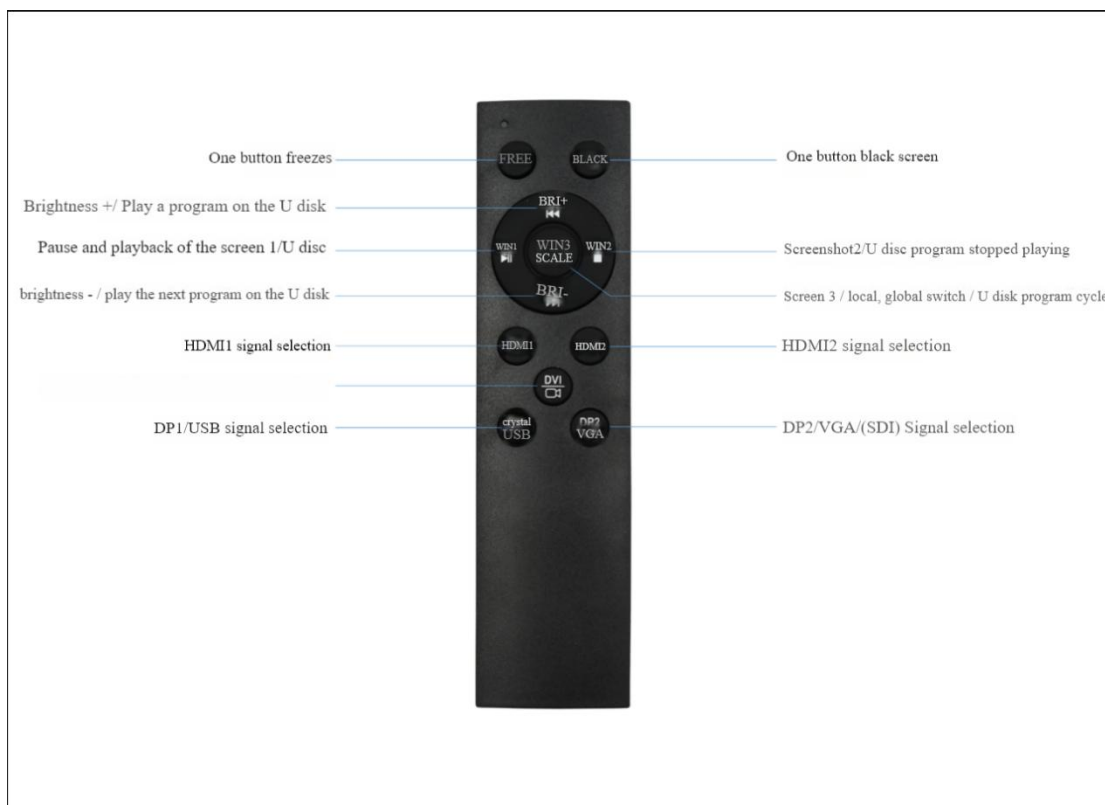
HD-VP410H supports users to manually adjust the image quality of the output image, making the large-screen display more delicate and bright, and improving the display effect. When adjusting the image quality, you need to observe and adjust it at the same time, and there is no specific reference value. **This type of operation requires the software HDSet to set, the software operation is as shown below. (This setting can also be entered by manually setting the processor front panel)**

## 5.11 Factory Reset

HD-VP410H supports users to factory reset the device, password 168, as shown below



## 5.12 Remote Control (Optional) Description



#### other instructions:

1. Welcome to choose Huidu Technology products. There may be slight differences between the product pictures in the specification and the actual appearance. If you have any questions, please contact technical support or salesperson for confirmation.