

User Manual



HD-VP1640A

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Chapter 1 Interface connection

1.1 Front panel



Key Description		
No.	Item	illustrate
1	switch	Control AC Power Input

2	LCD display	Debug display menu, screen parameters and other information
3	IR&MIC	IR: infrared remote control receiver MIC: microphone voice input (optional)
4	Multi-function button	Select menus, adjust screen parameters, and confirm operations
5	MENU	WIN1~WIN4: Select the opened screen window MODE: Quickly call out the preset mode call menu BRIGHT: Enter the image effect setting interface ESC: exit/return key FREEZE: One-click screen freeze BLACK: One key black screen button Function key, key multiplexing function is digital selection, generally used when setting the resolution

6	SOURCE	Input signal selection area
7	USB	USB2.0 input interface (optional) Play video and picture programs in U disk Resolution: Up to 1080p/1920×1200 Refresh rate: Max 30fps U disk file system: only supports U disk with FAT32 file system Video file format: MP4, MKV, TS, AVI Video encoding support: h.264/h.265 Audio encoding support: MP3/AAC Video encoding: MPEG4(MP4), MPEG_SD/HD Image file format: jpg, png, bmp

1.2 Rear Panel



Input interface			
No.	Interface name	quantity	illustrate
2	Type-C	1	type-C input interface Interface form: Type-C

			Signal standard: DP1.2 backward compatible Resolution: VESA standard, $\leq 3840 \times 2160 @ 60\text{Hz}$ support audio input Note: Type-C and DP share a button, and the default is DP mode. If you want to turn on Type-C, you need to go to [Advanced Settings] to turn it on. For specific operations, please refer to the operation manual
	DP	1	DP input interface Interface form: DP Signal standard: DP1.2 backward compatible Resolution: VESA standard, $\leq 3840 \times 2160 @ 60\text{Hz}$
	HDMI		HDMI2.0 input interface $\times 1$ (HDMI1) Interface form: HDMI-A

			Signal standard: HDMI 2.0 backward compatible Resolution: VESA standard, $\leq 3840 \times 2160 @ 60\text{Hz}$ Support audio input HDMI1.4 input interface $\times 1$ (HDMI2) HDMI1.4 input interface $\times 1$ (HDMI3 optional) Interface form: HDMI-A Signal standard: HDMI 1.4 backward compatible Resolution: VESA standard, $\leq 3840 \times 2160 @ 30\text{Hz}$ Support audio input Note: Choose one of HDMI3 and projection function
	DVI	2	DVI input interface Interface form: DVI-I socket Signal standard: DVI1.0, HDMI1.3 backward compatible

			Resolution: VESA standard, PC to 1920x1080, HD to 1080p Note: Standard DVI1 (DVI2 and SDI can only choose one of the two)
	SDI	1	SDI input interface (optional) Interface form: BNC Signal standard: SD-SDI, HD-SDI, 3G-SDI Resolution: VESA standard, ≤1920x1080@60Hz
2	Screen Cast	1	Resolution: Up to 1080p/1920×1200 Refresh rate: Max 30fps Whether to support APP: support Software projection: support Launcher: support

			Transmission distance: up to 20M between the transmitter and the host Frequency band: 2.4GHz or 5GHz (default 5GHz) Video output: HDMI output, adjustable resolution Wireless transmission protocol: IEEE802.11ac/802.11n
2	AUDIO IN	1	TRS 3.5mm two-channel audio input interface
4	Power	1	AC 100 ~ 240V, 50/60Hz

Output interface			
No.	Name	quantity	Description
1	Gigabit Ethernet port	16	Used for cascading receiving cards to transmit RGB data stream The control range of each network port is 650,000 pixels.

1	MONITOR	1	HDMI OUT for monitoring what is playing on the display
2	AUDIO OUT	1	TRS 3.5mm two-channel audio output interface Connect to an audio amplifier for high-power audio output
2	SDI-LOOP	1	SDI signal loop out interface (optional) Interface form: BNC Signal standard: SD-SDI, HD-SDI, 3G-SDI Resolution: VESA standard, $\leq 1920 \times 1080 @ 60\text{Hz}$

Control interface			
No.	Name	quantity	Description
3	USB-B	1	Connect to a computer for debugging the device
	RS232	1	Connect central control equipment for centralized control
	Wi-Fi	1	Connect Wi-Fi Antenna

	IR	1	Used to connect an external infrared remote control extension cable
	4G	1	For connecting 4G antenna (optional)
	SIM	1	SIM card slot (optional) Currently only standard cards are supported: the size is 25mm×15mm×0.8mm
1	Screen Cast Wi-Fi	2	For wireless projection

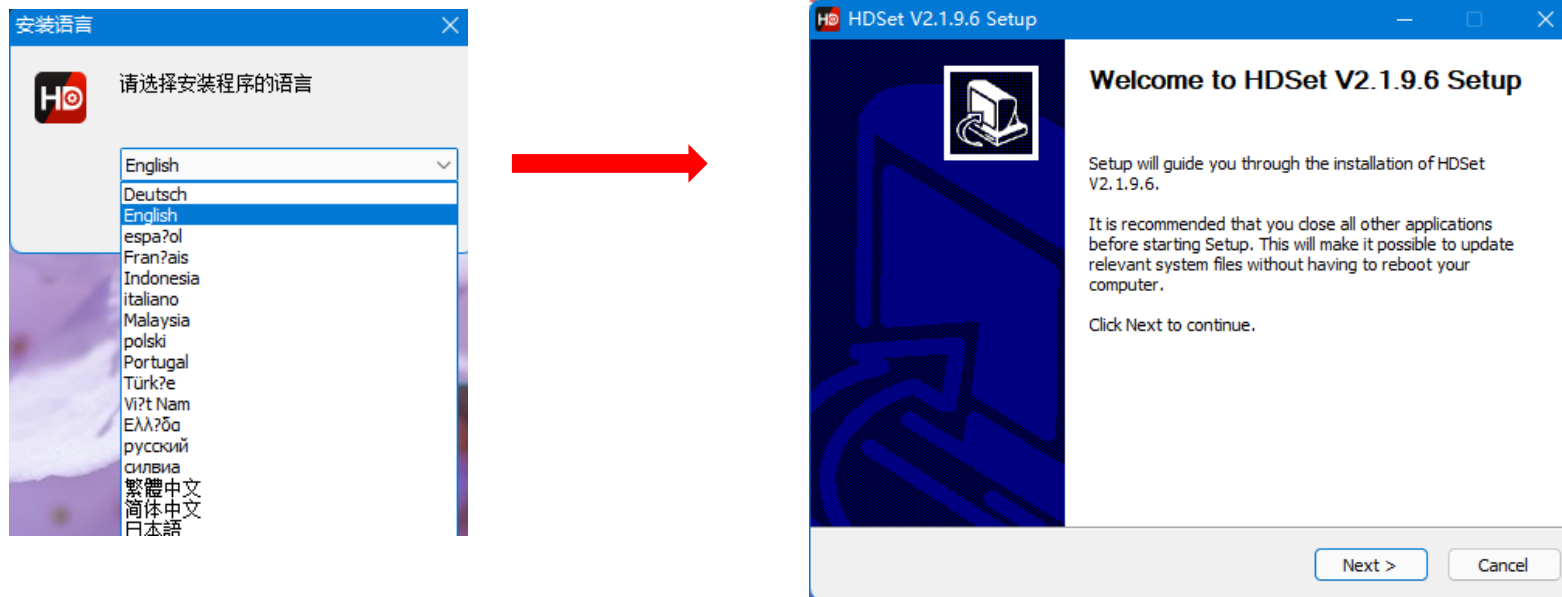
1.3 Hardware connection



Chapter 2 HDSet installation

Please download the installation package of HDSet software from Huidu's official website www.huidu.cn, and complete the installation according to the diagrams below:

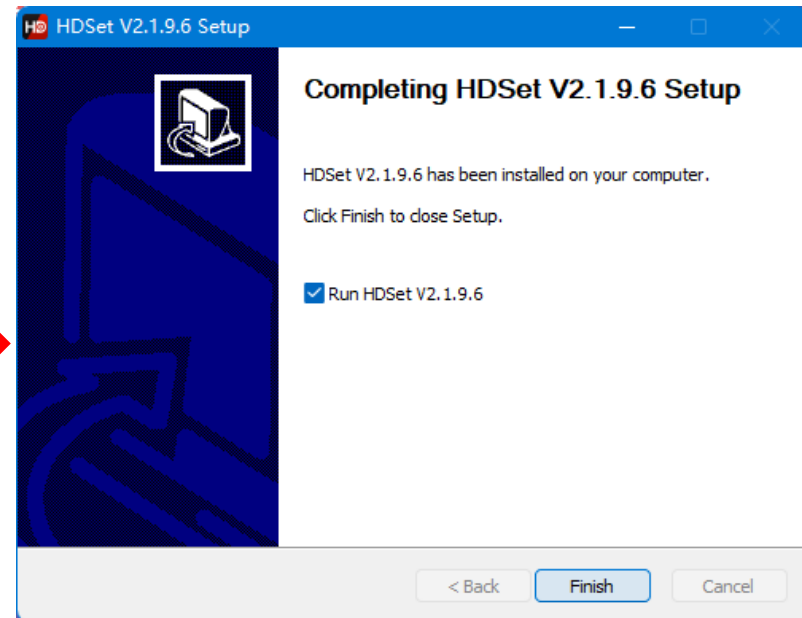
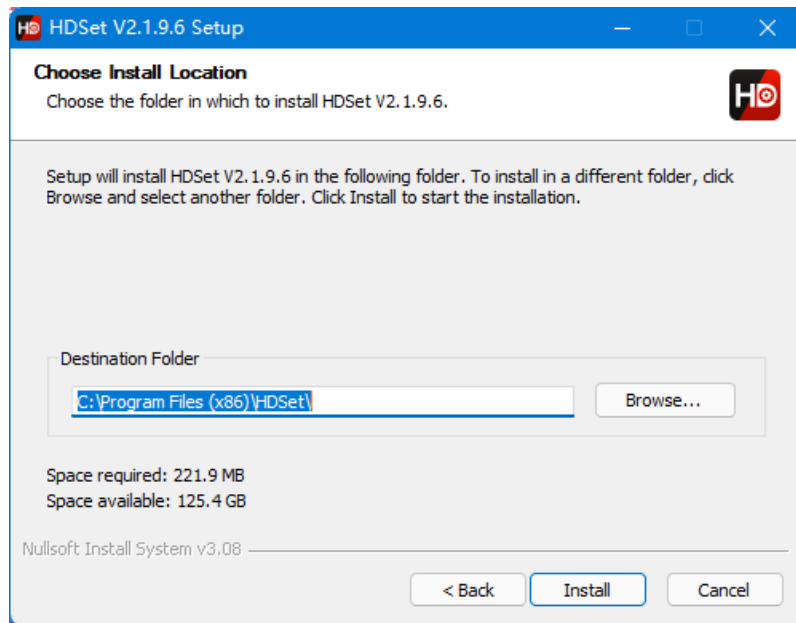
1.Run the software package,then select language for installer. Click [OK] to go on.



2. After selecting a language, an installation wizard like below will appear. Click [Next].

Choose the installation location, click [Browse] to change the default target location, then click [Install] after completing;

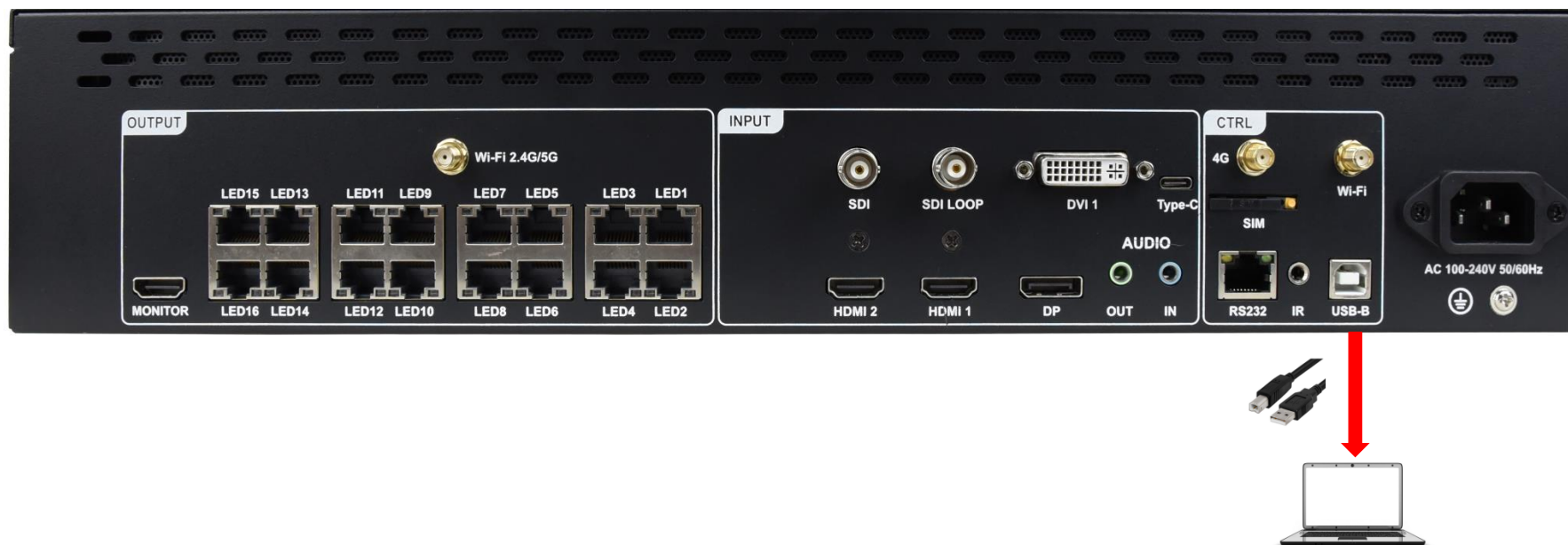
After the installation is complete, you are ready to use HDSet.



Chapter 3 HD-VP1640A Parameter settings

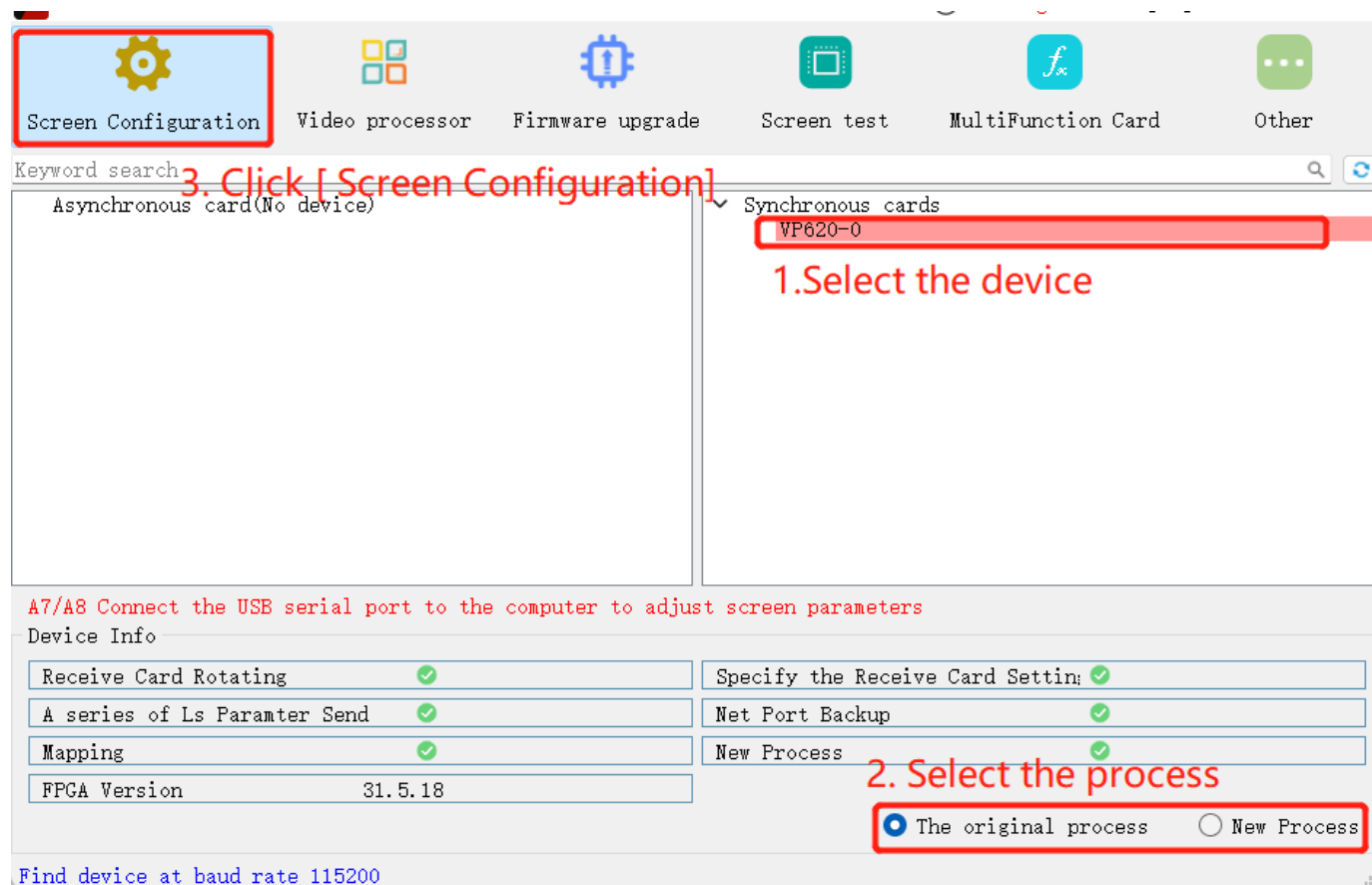
3.1 Connection

Connect the VP1640A to the computer by USB-B type cable.

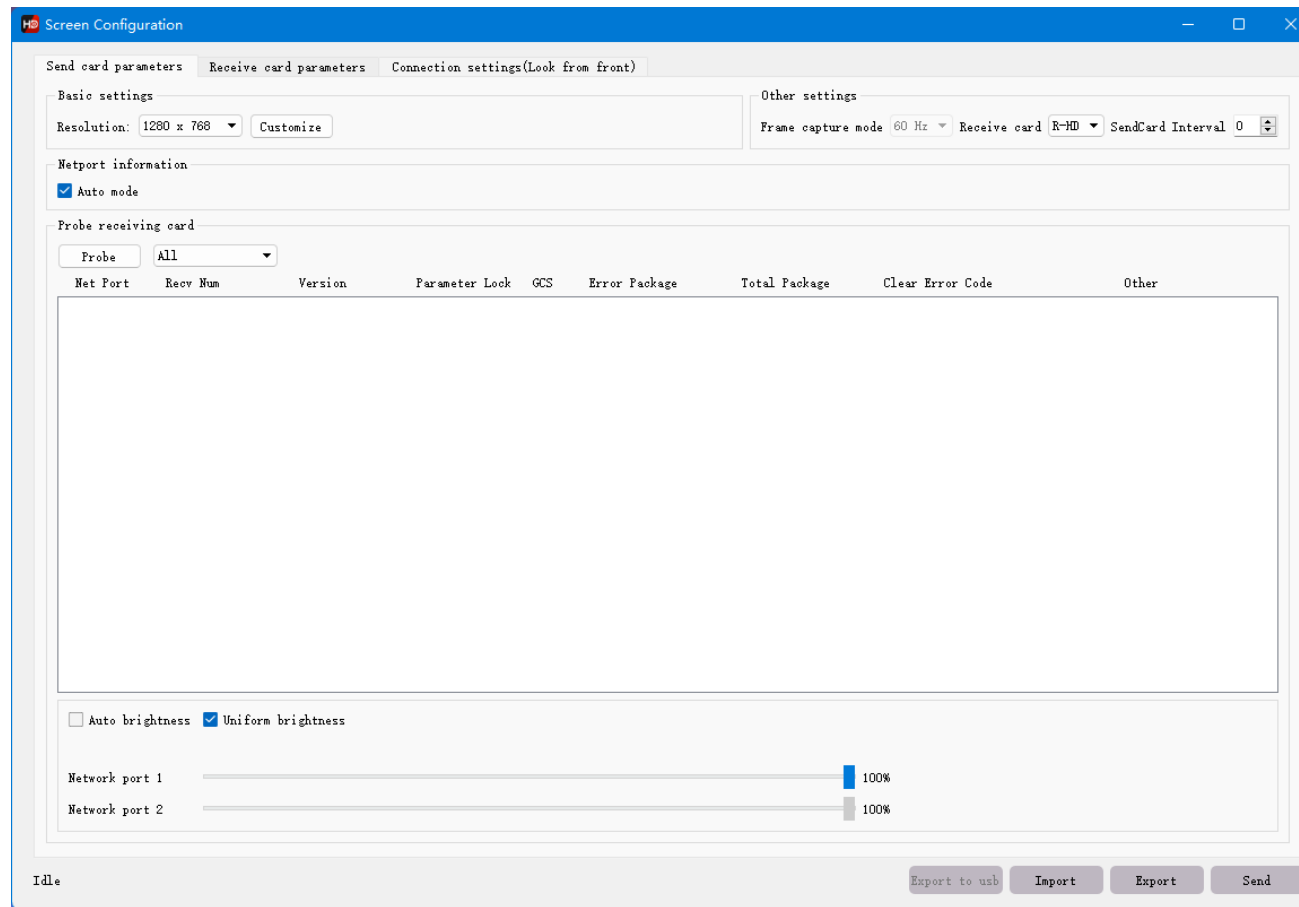


3.2 Screen Configuration

1. Run HDset software, then select device and process, click [Screen Configuration].



2. you can debug receiving cards.



Send card parameters

Receive card parameters

Connection settings(Look from front)

Basic parameters

Refresh rate:

120

Refresh rate acceleration:

2

Gradation:

512

Brightness level:

Normal brightness

DCLK Frequency:

20.8MHz

Priority mode:

Refresh rate priori

Phase

1

Gray mode

Low gray balance

Blanking Line

25

Line break time

0

☐ Refresh optimization

HUB settings

☐ HUB75-12 (24RGB)
 ☐ HUB75-10 (20RGB)

☐ HUB75-16 (32RGB)
 ☐ HUB75-20 (extended)

☐ R505 (28RGB)
 ☐ Serial 128 group

Other

Load File

Smart settings

Advanced settings

Data group exchange

Color channel

Data set offset

Tips

Module type

Full Color

Scan

1 / 16

Decoding method

138

Data polarity

Low effective

OE polarity

Low effective

Highly effective

68.39%

Min OE

1328

Drive

Conventional chip

[etails Of Modul](#)

Case

Mode

Single separate

Width

128

<= 443

Height

128

<= 512

Read back

Network port 1

Card 1

Idle

Export to usb

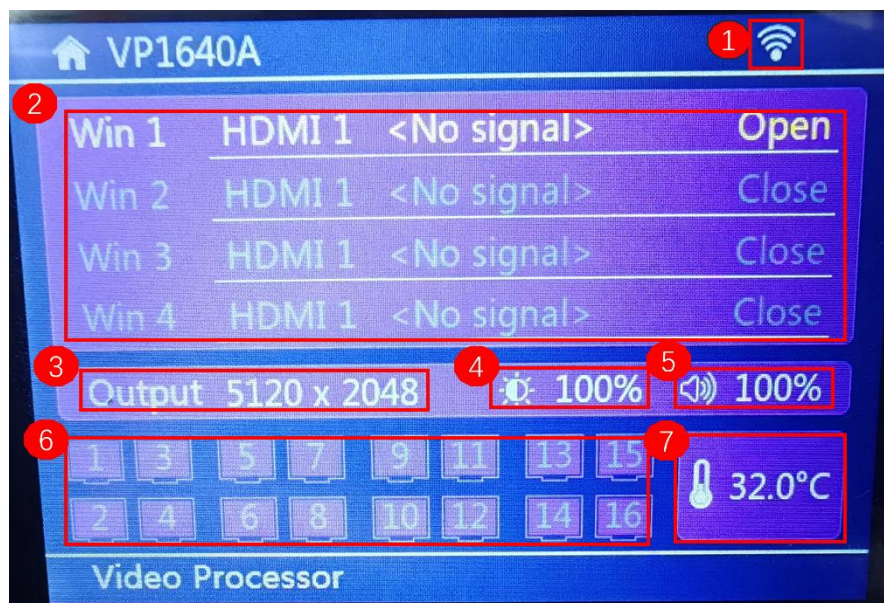
Import

Export

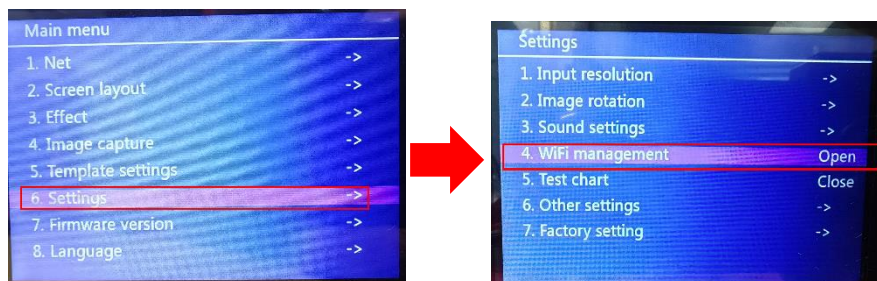
Send

Chapter 4 HD-VP1640A Product Operation

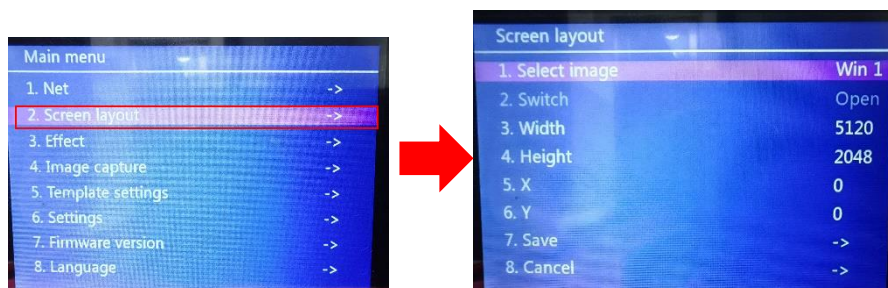
4.1 Interface Description



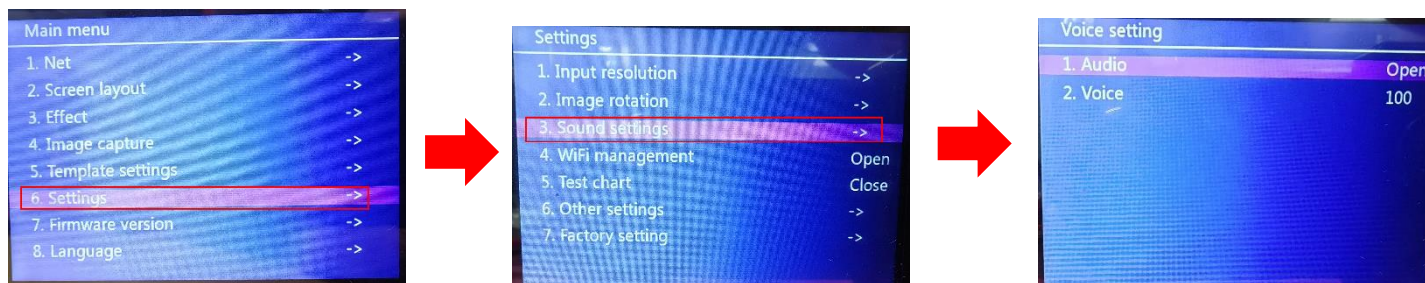
1. Wi-Fi, you can follow the steps below to turn on and off WiFi.



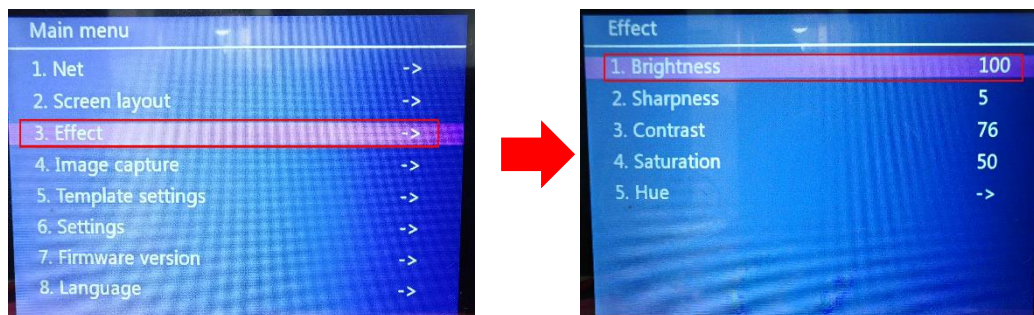
2. Input source for Win 1-4, input resolution and refresh rate. You can follow the steps to open windows.



3. Output resolution, output to screen resolution.
4. Screen layout, show the screen layout of the current window.
5. Sound, you can adjust the volume by the following steps.



6. Brightness, the screen brightness, you can adjust the brightness by the following steps.



7. LED Network port, display the number of network ports currently in use.

8. Temperature, show the temperature inside the processor.

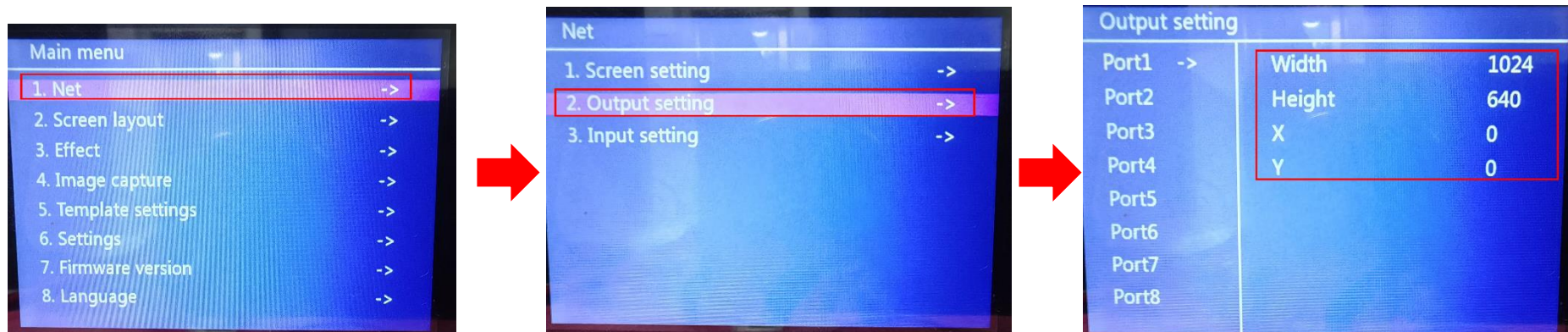
4.2 Input source switching



The HD-VP1640A supports simultaneous access to six signal sources, and can switch to the input source that needs to be played at any time as required. You can quickly switch by pressing the key in the "SOURCE" area of the front panel.

4.3 Net

4.3.1 Output



Output settings are used to set the coordinates and range of the network port.

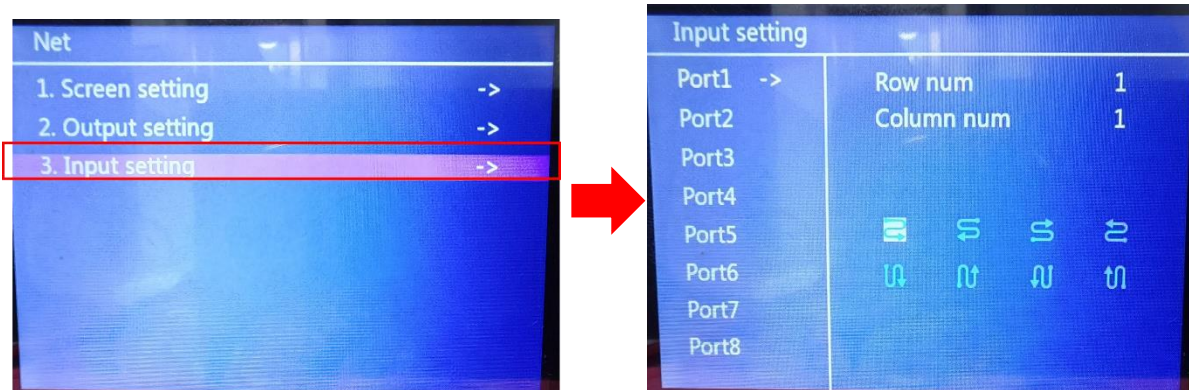
Horizontal width: 1024—the width of the LED screen;

Vertical height: 640—the height of the LED screen;

X: Horizontal start: setting parameter range = LED screen width-horizontal width;

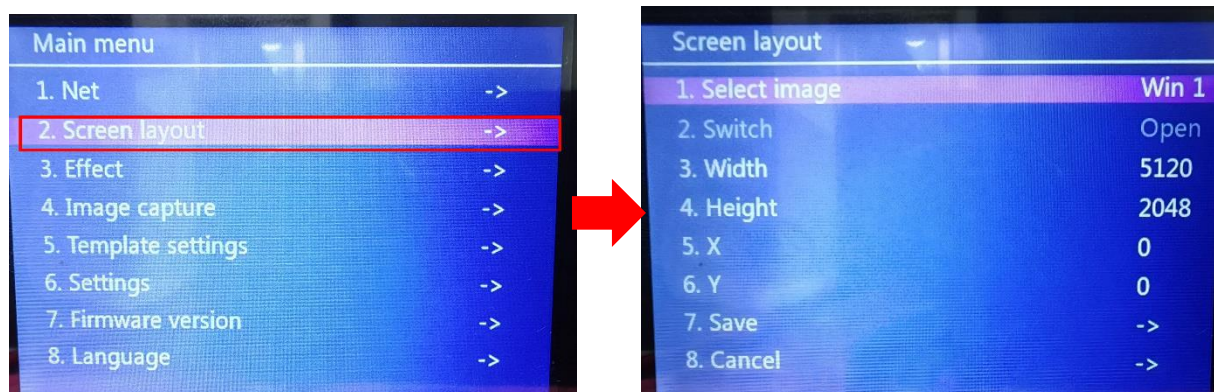
Y: Vertical start: setting parameter range = LED screen height-vertical height;

4.3.2 Input setting



The connection relationship is set as the connection relationship processing of the receiving card. Currently, only standard general mode is supported, and complex connection relationships are not supported.

4.4 Screen layout

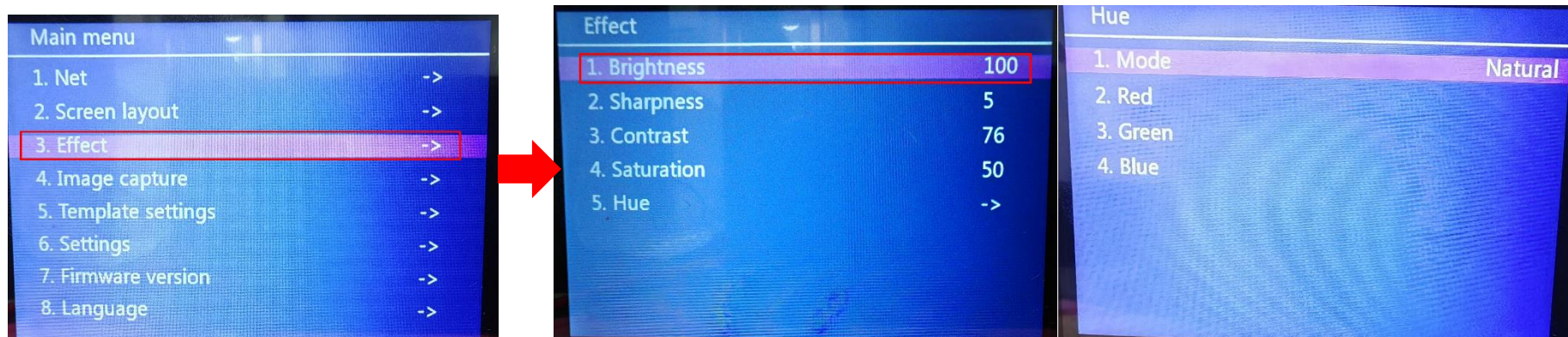


The screen switch setting of screen 1 cannot be set to off.

Horizontal starting value + horizontal width cannot exceed the width of the LED screen.

The vertical starting value + vertical width cannot exceed the height of the LED screen.

4.5 Effect



Brightness: 0-100 default 100

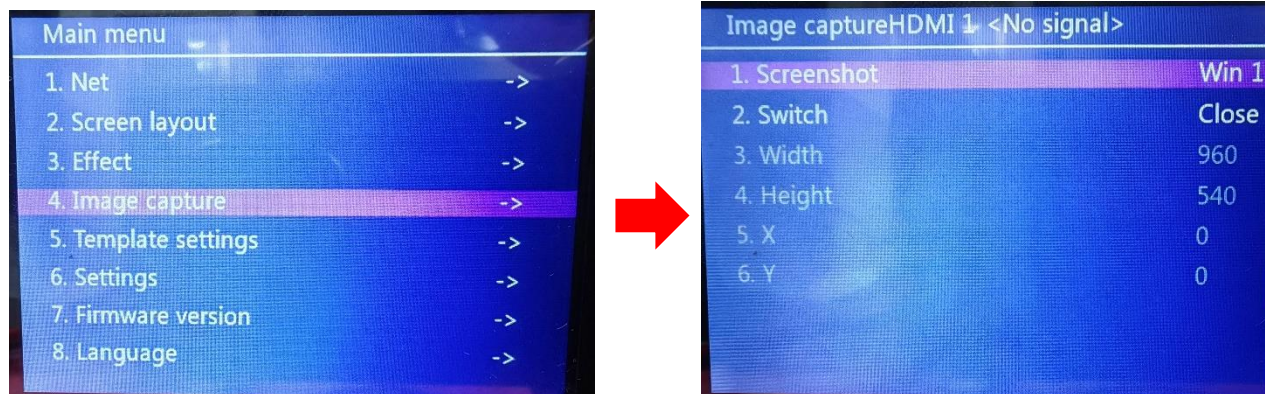
Sharpness: 0-10, default 5

Contrast: 0-100, default 76

Saturation: 0-100, default 50

Hue: Natural,warmer,, colder, customize. Default: Natural

4.6 Capture



When the intercept switch is off, the knob cannot select the intercept width, height, horizontal, and vertical start.

Intercept width: 960—Maximum width of input source

Intercept height:540—Maximum height of input source

X: Horizontal start: horizontal start value range = input source width-interception width

Y: Vertical start: vertical start value range = input source width-interception width.

Note: If the size of the captured screen is the same as the screen size, it will be displayed point-to-point. If the size of the captured screen is different from the screen size, it will be displayed by zooming.

4.7 Template setting

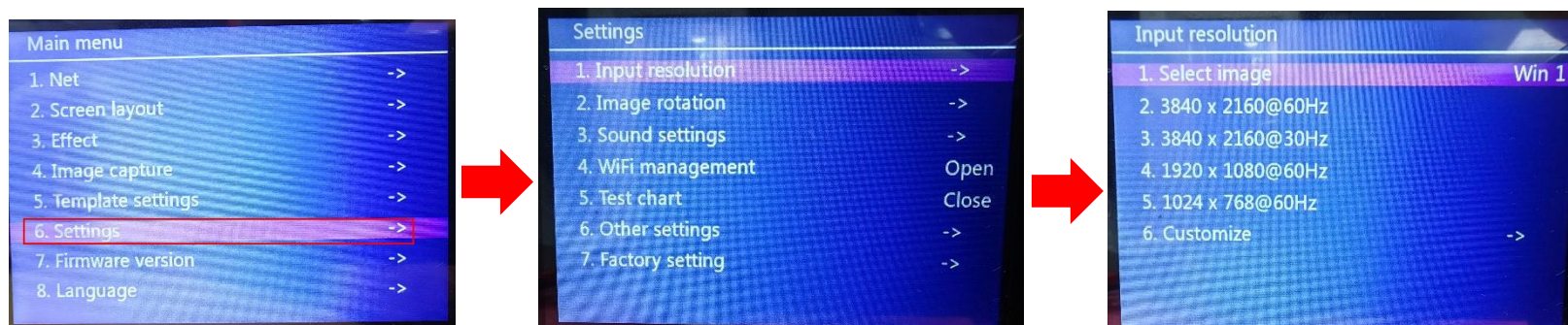


You can save up to 8 templates. '★' mean this template is already occupied.

Existing templates support replacement, deletion, and loading non-existent template option, supports saving up to 8 template files

4.8 Settings

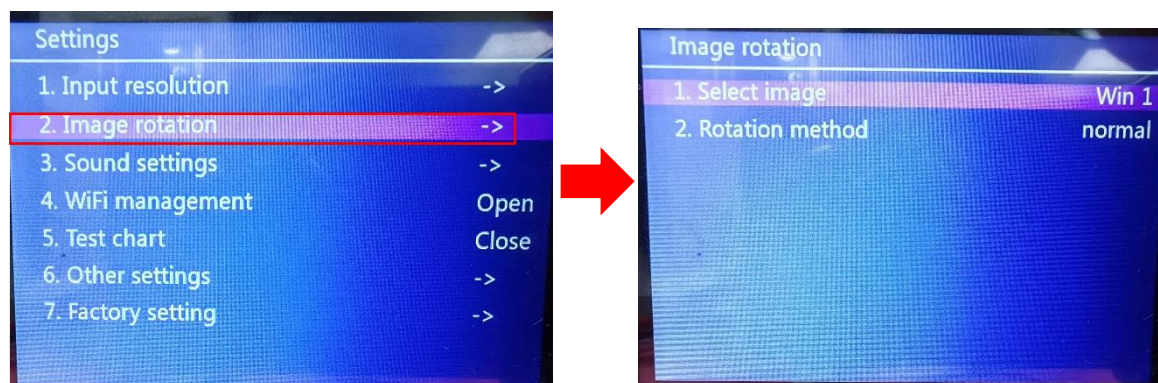
4.8.1 Input resolution



Supports three sets of general resolutions and supports custom resolution settings.

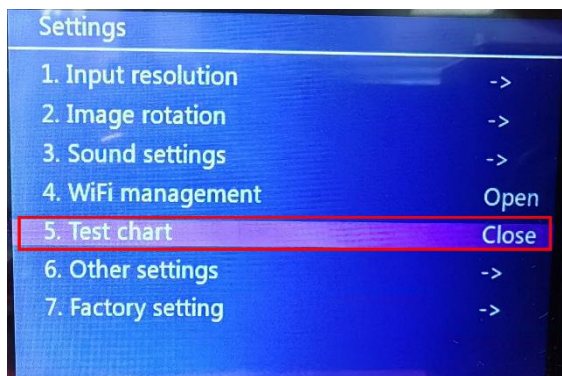
The default is 60Hz.

4.8.2 Image rotation



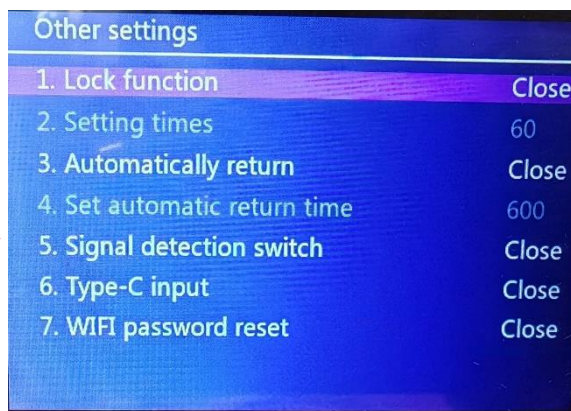
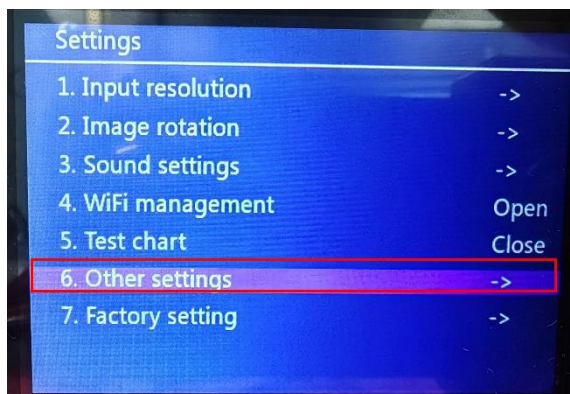
Select the window that needs to be rotated, support normal, Horizontal mirror, Vertical mirror, HV mirror.

4.8.3 Test Chart



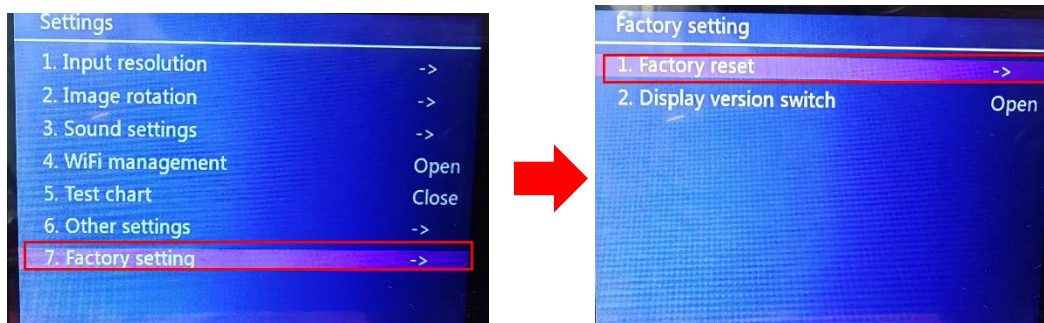
Support testing color.

4.8.4 Other settings



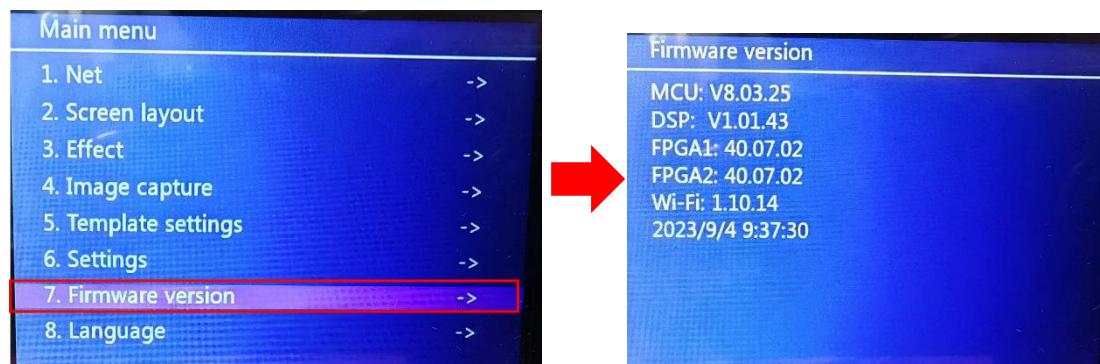
The key lock, the maximum support time is 3600 seconds, the key lock is automatically locked after the set time, except that the key lock button functions normally, other buttons are locked, and the function does not work, the button of “LOCK” will light up, you can press the “LOCK” button to unlock.

4.8.5 Factory setting



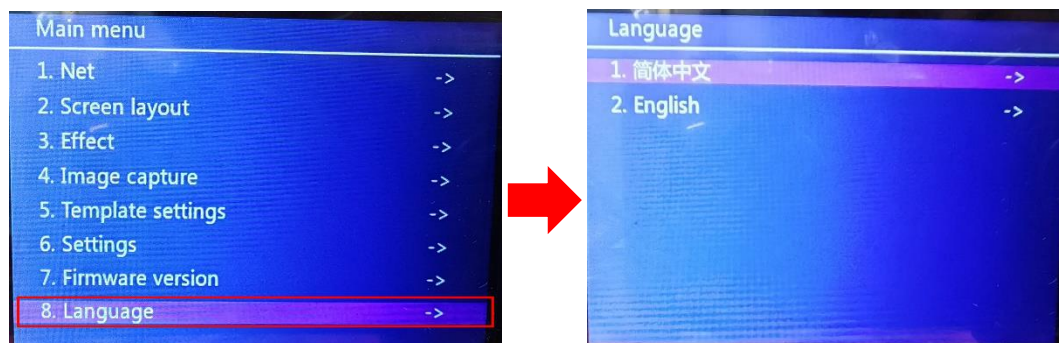
Restore the device to factory settings.

4.9 Firmware version



Check the device's MCU, DSP ,FPGA and Wi-Fi version.

4.10 Language



Language selection: support English, Chinese.