



Video Camera Control Keyboard User Manual







V1.1




The meaning of symbols

■ Safety instructions

For your safe and correct use of equipments, we use a lot of symbols on the equipments and in the manuals, demonstrating the risk of body hurt or possible damage to property for the user or others. Indications and their meanings are as follow. Please make sure to correctly understand these instructions before reading the manual.

	<p>This is A level product, which may cause radio interference in the living environment. In this case, users may need to take the feasible measures to get around the interference.</p>
	<p>Remind users that the dangerous voltage without insulation occurring within the equipment may cause people suffer from shock.</p>
	<p>CE certification means that the product has reached the directive safety requirements defined by the European Union. Users can be assured about the use of it.</p>
	<p>SGS certification means that the product has reached the quality inspection standards proposed by the world's largest SGS.</p>
	<p>This product passed the ISO9001 international quality certification (certification body: TUV Rheinland, Germany).</p>
	<p>Warning: in order to avoid electrical shock, do not open the machine cover, nor is the useless part allowed to be placed in the box. Please contact the qualified service personnel.</p>

■ General information instructions

	<p>It lists the factors leading to the unsuccessful operation or set and the relevant information to pay attention.</p>
-------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------

Important note



Warning

In order to ensure the reliable performance of the equipment and the safety of the user, please observe the following matters during the process of installation, use and maintenance:

The matters needing attention of installation

- ◆ Please do not use this product in the following places: the place of dust, soot and electric conductivity dust, corrosive gas, combustible gas; the place exposed to high temperature, condensation, wind and rain; the occasion of vibration and impact . Electric shock, fire, wrong operation can lead to damage and deterioration to the product, either;
- ◆ In processing the screw holes and wiring, make sure that metal scraps and wire head will not fall into the shaft of controller, as it could cause a fire, fault, or incorrect operation;
- ◆ When the installation work is over, it should be assured there is nothing on the ventilated face, including packaging items like dust paper. Otherwise this may cause a fire, fault, incorrect operation for the cooling is not free;
- ◆ Should avoid wiring and inserting cable plug in charged state, otherwise it is easy to cause the shock, or electrical damage;
- ◆ The installation and wiring should be strong and reliable, contact undesirable may lead to false action;
- ◆ For a serious interference in applications, should choose shield cable as the high frequency signal input or output cable, so as to improve the anti-jamming ability of the system.

Attention in the wiring

- ◆ Only after cutting down all external power source, can install, wiring operation begin, or it may cause electric shock or equipment damage;
- ◆ This product grounds by the grounding wires .To avoid electric shocks, grounding wires and the earth must be linked together. Before the connection of input or output terminal, please make sure this product is correctly grounded;
- ◆ Immediately remove all other things after the wiring installation. Please cover the terminals of the products cover before electrification so as to avoid cause electric shock.

Matters needing attention during operation and maintenance

- ◆ Please do not touch terminals in a current state, or it may cause a shock, incorrect operation;
- ◆ Please do cleaning and terminal tighten work after turning off the power supply. These operations can lead to electric shock in a current state;
- ◆ Please do the connection or dismantle work of the communication signal cable , the expansion module cable or control unit cable after turning off the power supply, or it may cause damage to the equipment, incorrect operation;
- ◆ Please do not dismantle the equipment, avoid damaging the internal electrical component;
- ◆ Should be sure to read the manual, fully confirm the safety, only after that can do program changes, commissioning, start and stop operation.

Matters needing attention in discarding product

- ◆ Electrolytic explosion: the burning of electrolytic capacitor on circuit boards may lead to explosion;
- ◆ Please collect and process according to the classification, do not put into life garbage;
- ◆ Please process it as industrial waste, or according to the local environmental protection regulations.

Context

- 1. Overview6
 - 1.1. System functions6
 - 1.2. Features6
 - 1.3. Functions6
 - 1.4. Control mode7
- 2. Interface Description7
 - 2.1. Interface Description7
- 3. Key function description8
 - 3.1. Function Key Description8
 - 3.2. Shuttle Knob Description9
- 4. Control Devices connections10
 - 4.1. Adding Network Protocol Cameras10
 - 4.2. System Connection Diagram11
 - 4.3. Analog Protocol Cameras11
 - 4.4. Analog Mode Connection Diagram11
- 5. Network Configuration12
 - 5.1. Homepage Connection and Login12
 - 5.2. WEB Interface Network Settings14
 - 5.3. System Upgrade15
 - 5.4. System Reset16
 - 5.5. System Restart16
 - 5.6. Import Configuration16
 - 5.7. Export Configuration17
 - 5.8. Calibrate17
 - 5.9. Version Information18
- 6. Common Issues and Solutions19

Preface

This manual mainly explains the VISSONIC Video Conference Control Keyboard VIS-CKB2, including its features, panel layout, performance specifications, PC software operation, and troubleshooting guidelines.

If the technical parameters and system usage in this manual are changed, the manufacturer will update the version of the manual. Please use the latest user manual.

The copyright of the manual belongs to VISSONIC ELECTRONICS LIMITED. This manual is protected by the Copyright Law of the People's Republic of China and other intellectual property laws and regulations. Without permission, it is not allowed to copy part or all of the manual or modify this manual.

Version	Update	Date
1.0	Publish	2024.10.20
1.1	Modify	2024.11.5

1. Overview

1.1. System functions



The video conference keyboard features a metal panel with a frosted film top shell and CNC anodized bottom shell, offering excellent control and addressing the challenges of web-based video conferencing camera operation. Its high-end design is both simple and elegant. The industrial-grade LCD screen provides exceptional display quality with clear, detailed characters. It supports VISCA, ONVIF, and PELCO protocols, with full compatibility for VISCA and strong expandability. Its built-in web client ensures a straightforward configuration interface, allowing for easy operation and perfect control of video conferencing cameras in just a few steps.

1.2. Features

- 1) Wide protocol support: VISCA, PELCO D/P, ONVIF, VISCA over IP.
- 2) Cross-protocol mixed control via RS232/RS422 and IP.
- 3) Quick access to key camera functions.
- 4) Variable-speed four-dimensional joystick control.
- 5) Dual power input options: 12V DC and PoE.

1.3. Functions

- 1) The controller supports mixed control via RS-232, RS-422/485, and IP, allowing control of cameras in a single system.
- 2) Through IP control, the controller can automatically search for IP cameras in the system and quickly assign IP addresses. Supports Onvif and VISCA over IP.
- 3) Unlimited controllers can operate on a single network, controlling up to 255 cameras (using

combinations of PELCO, VISCA, ONVIF IP, and VISCA over IP protocols).

- 4) Features an imported variable-speed four-dimensional joystick for comfortable control, allowing full movement and zoom adjustment of conference cameras with speed based on joystick pressure.
- 5) Zoom adjustment is conveniently managed with a boat-type switch, providing powerful functionality.
- 6) Supports parameter configuration for front-end devices via IE browser.
- 7) Up to 6 shortcut control buttons for quick operation of conference video cameras.
- 8) Dual power input options: 12V DC and PoE.

1.4. Control mode

Supports five control protocols: network protocols (ONVIF, IP VISCA, NDI) and analog protocols (PELCO, VISCA).

2. Interface Description

2.1. Interface Description



Figure 1 Back panel of VIS-CKB2

- ① Power button: Keyboard power switch.
- ② 12V DC power input: Wide voltage range of DC9V-DC18V, connects to the included DC power adapter and power cable.
- ③ IP interface / RJ-45 port: Connects the keyboard to the network / PoE.
- ④ RS-232 interface: RJ-45 port.
- ⑤ RS-422/485 interface / RJ-45 port (1~4): Connects RS-422 control lines, supporting up to 7

daisy-chained RS-422 cameras; connects RS-485 control lines, supporting up to 255 cameras.

- ⑥ Tally / Contact: Tally control interface.

3. Key function description



Figure 2 Key Panel




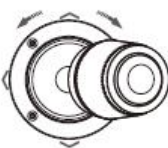


3.1. Function Key Description

Camera functions
HOME
AUTO EXPOSURE
EXPOSURE CYCLE
AUTO WHITE BALANCE
WHITE BALANCE CYCLE
BACKLIGHT ON
BACKLIGHT OFF
MENU ON
MENU OFF
MENU ENTER
MENU BACK
NEAR
FAR
AUTO FOCUS
Knob Function Area
IRIS/SHUTTER
R GAIN

B GAIN		
FOCUS SPEED		
PRESET SPEED		
PT SPEED		
ZOOM SPEED		
SHUTTLE KNOB		
Keyboard Function Keys		
SETUP		
CALL PRESET		
CAM ID		
ESC		
ENTER		
Numeric keys 0-9		
Shortcut function area		
CAM1-7	1-7 Camera Switch Buttons	
F1-F2	Custom Hex Command Key	
Keyboard Settings	Description	
Add Network Device	Can add: ONVIF, VISCA over IP (TCP) (UDP)	
Add Analog Device	Can add: VISCA, PELCO (D) (P)	
Switch Keyboard Mode	Switch keyboard to Network Mode/Analog Mode	
Device List	Display camera information added to the keyboard	
Type: Static/Dynamic	Network Type	Use joystick to switch left/right, press [ENTER] to confirm
	Dynamic	Dynamic allocation based on switch settings
	Static	Fill in IP, Gateway, Subnet Mask, must be in the same subnet as the camera
System Language: EN/Chinese	Use joystick to switch left/right, press [ENTER] to confirm	
Key Sound: On/Off	Use joystick to switch left/right, press [ENTER] to confirm	
Restore Factory Settings	Press [ENTER] twice to enter recovery mode, [ESC] to cancel	
System Information	Display version number and local network parameters	
VICSA Feedback: Enable/Disable	Use joystick to switch left/right, press [ENTER] to confirm	

3.2. Shuttle Knob Description

Operation	Output Control	Operation	Output Control	Operation	Output Control
-----------	----------------	-----------	----------------	-----------	----------------

	UP		Down		Left
Operation	Output Control	Operation	Output Control	Operation	Output Control
	Right		Zoom In+ (3D Only)		Zoom Out- (3D Only)

Joystick [Up/Down/Left/Right]: Controls the pan-tilt movement of the camera.

Joystick [Right/Left Rotation]: Adjusts the zoom function; rotating right zooms in, while rotating left zooms out.

4. Control Devices connections

- 255 cameras using RS485 PELCO protocol.
- 7 cameras controlled via VISCA through an RS422 group.
- 255 cameras using VISCA-Over-IP protocol.
- A total of 255 cameras can be controlled through cross-protocol mixed control.

4.1. Adding Network Protocol Cameras

- 1) Press the confirm button to enter the camera ID.
- 2) Select the IP VISCA (ONVIF) (Sony VISCA) protocol.
- 3) Press the ENTER button to save.
- 4) Enter the camera IP address and press the ENTER button to save.
- 5) Enter the port number and press the ENTER button to save.
- 6) Enter the camera username and press the ENTER button to save.
- 7) Enter the camera password and press the ENTER button to save.
- 8) For IP VISCA (Sony VISCA) protocol, no username or password is required.

Port: The control port for IP.

The default for Sony VISCA is 52381.

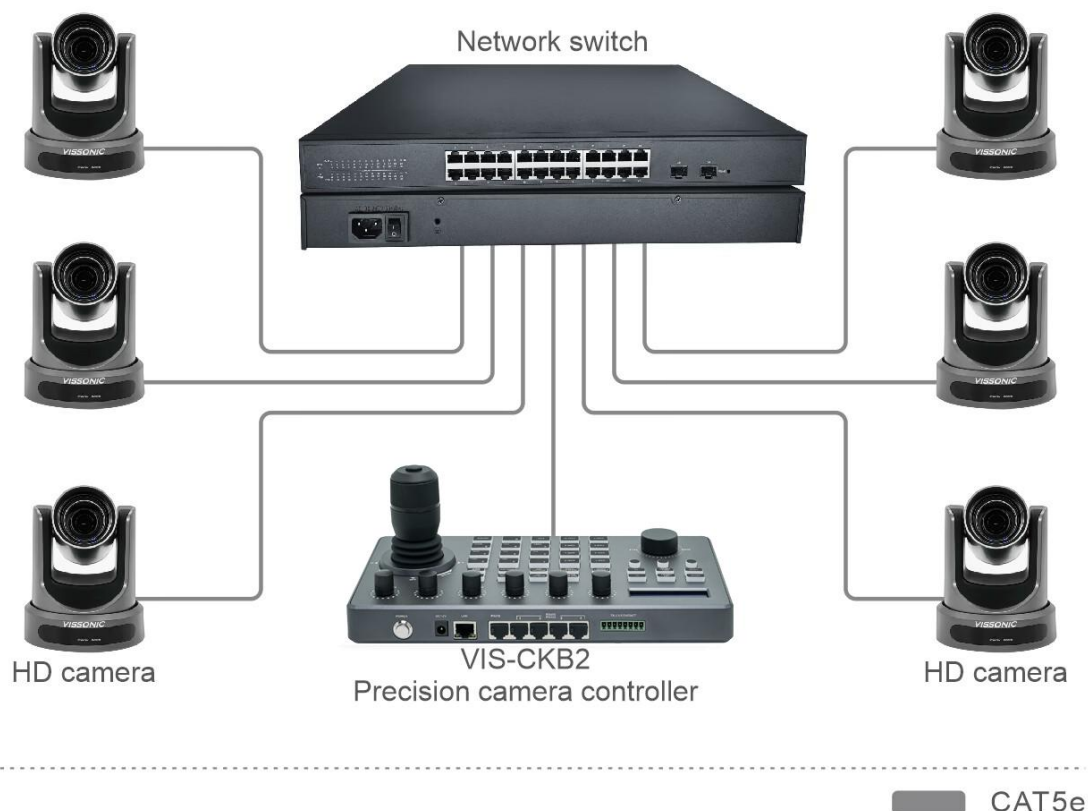
The default for IP VISCA is 1259.

The default for ONVIF is either 2000 or 80.

If you have VISCA Over IP cameras from multiple manufacturers, you may need to set different camera ports for each.

4.2. System Connection Diagram

The keyboard and camera must be on the same local network with matching IP subnets (e.g., 192.168.1.123 and 192.168.1.111). If they're not, modify one device's IP address. The keyboard defaults to dynamic IP allocation.

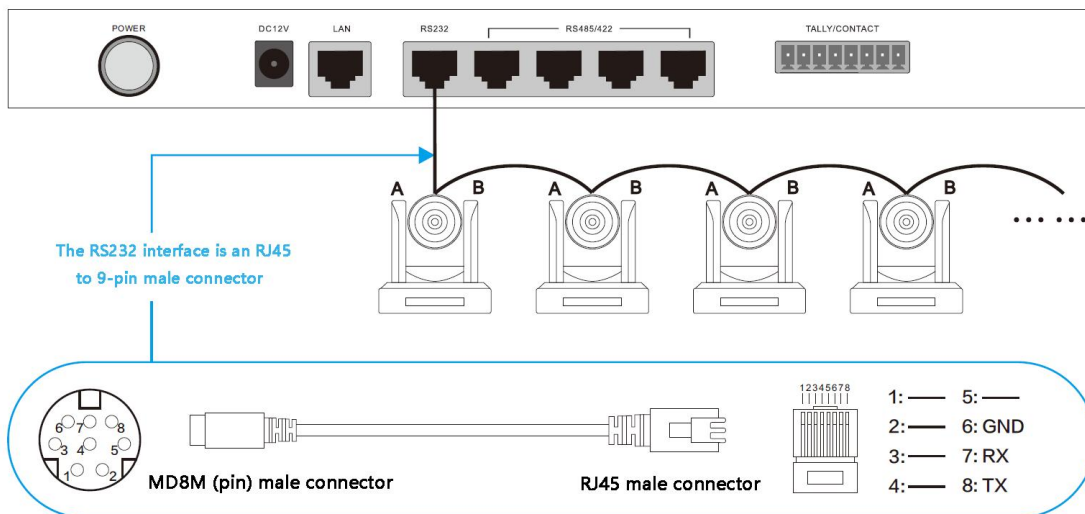


4.3. Analog Protocol Cameras

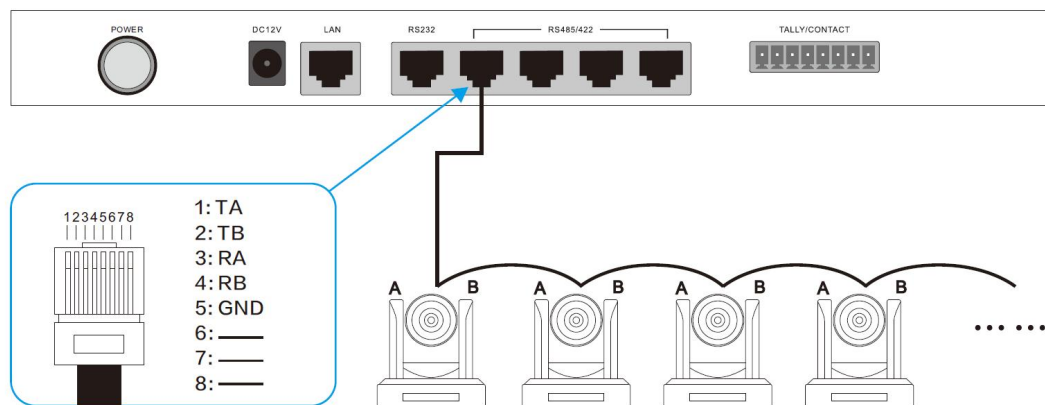
- 1) Press the confirm button to enter the camera ID, select the VISCA (PELCO) protocol, and press the ENTER button to save.
- 2) Enter the camera address code and press the ENTER button to save.
- 3) Enter the camera baud rate and press the ENTER button to save.
- 4) Enter the serial port ID and press the ENTER button to save.

4.4. Analog Mode Connection Diagram

1) Analog Mode RS232



2) Analog Mode RS485/RS422

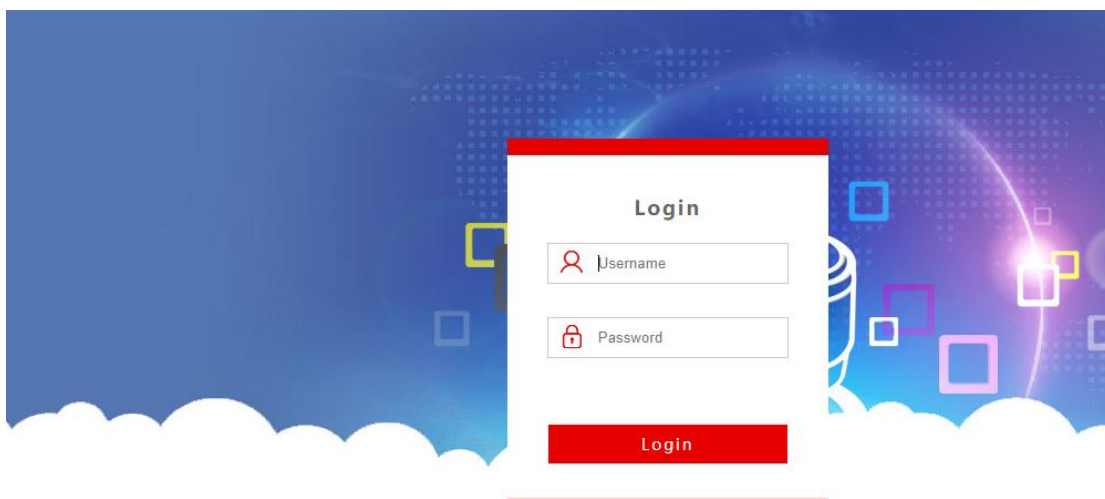


5. Network Configuration

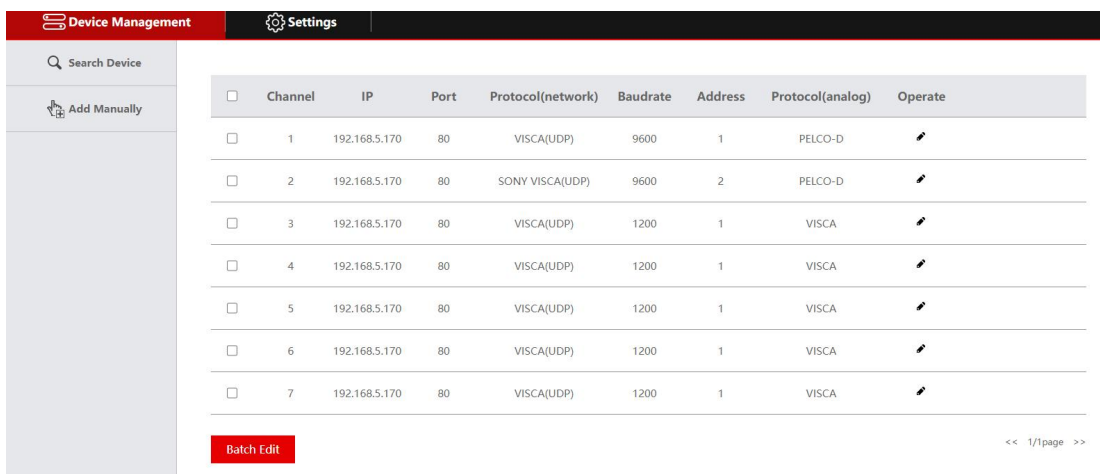
5.1. Homepage Connection and Login

Connect the keyboard's power cable and network cable. Once the keyboard is powered on, it will display the IP address on the screen: 192.168.x.xxx. Enter this IP address in a browser to access the configuration page. The default username is "admin" and the password is empty.

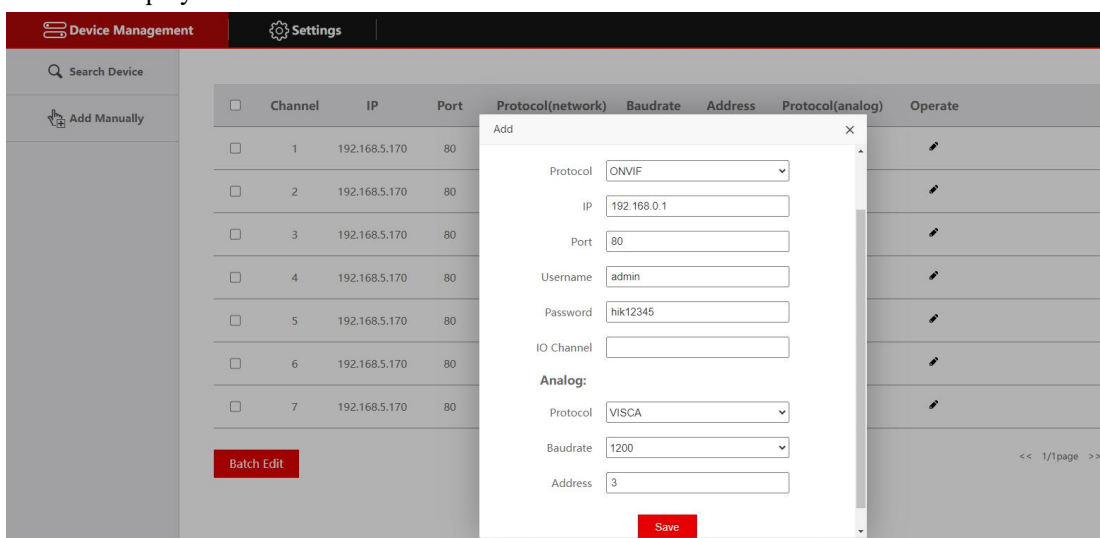
- 1) Ensure the keyboard and computer are on the same local area network, then enter the keyboard's IP address in the browser. The page will display as follows: (Default username: admin; password: empty)



2) After entering the device's web client, the page will display as shown below



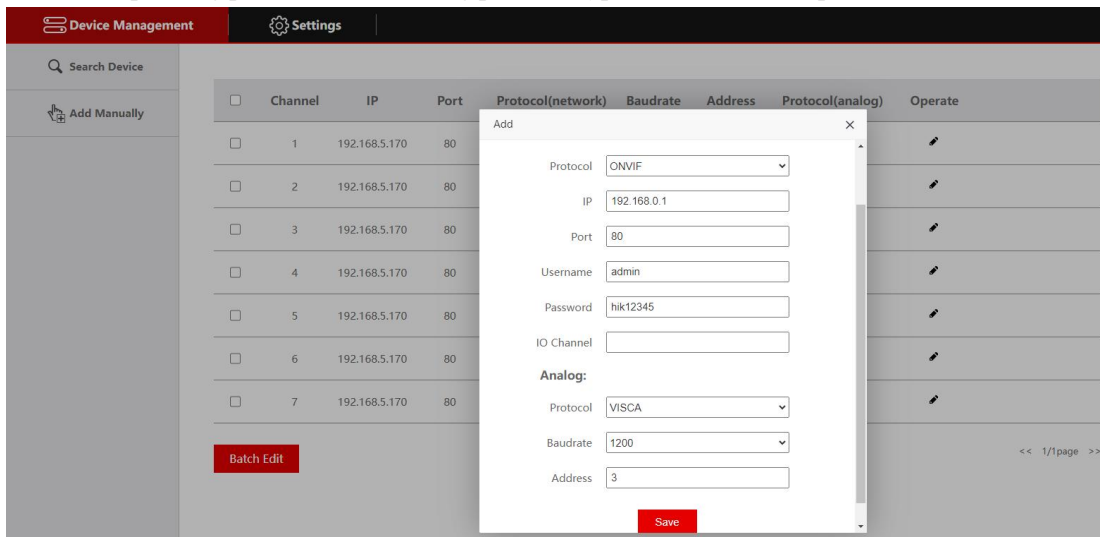
3) Click button to add or modify device parameters within the local area network. The page will display as follows:



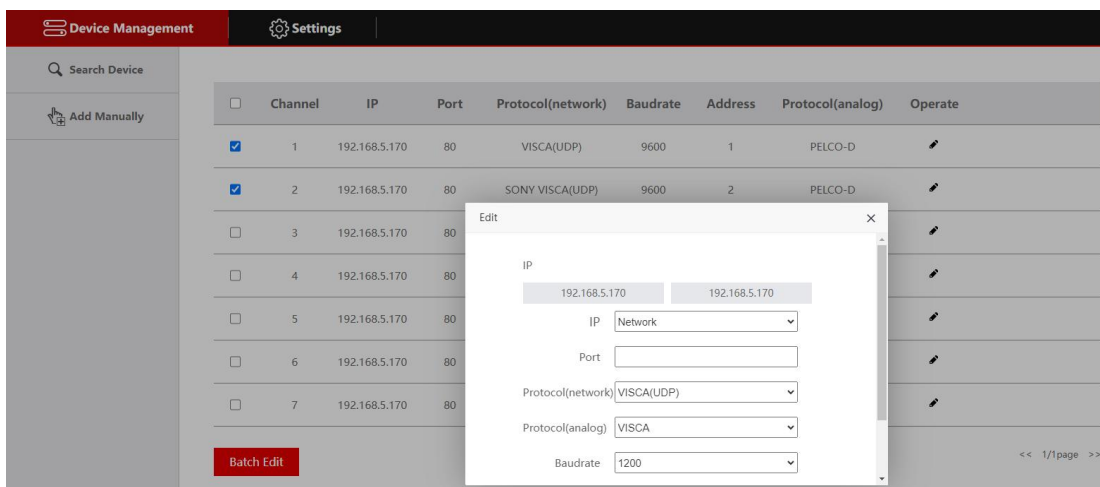
(Network data: Select protocol type, corresponding IP address, port number, brand display, and username. Analog data: Select protocol type, baud rate, address code display, and serial port

number. After setting, click save. Note: When successfully adding a device on the keyboard's web interface, it syncs with the keyboard. After successfully adding a device on the webpage, click the corresponding number on the keyboard to control the camera.)

- 4) Click "Add Manually " to add the camera devices you want to control and set their corresponding parameters, including protocol type, IP address, and port number.

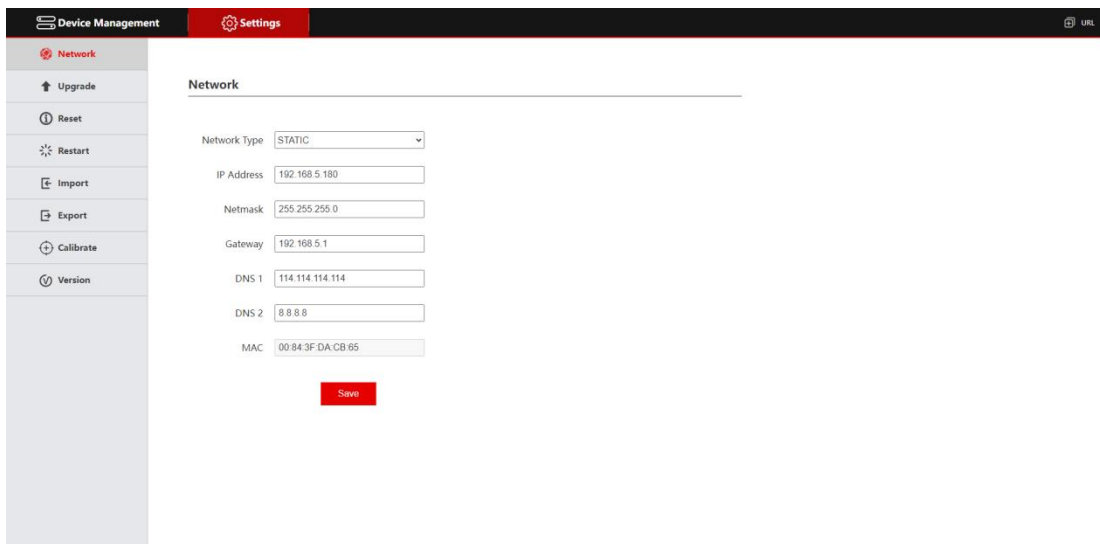


- 5) Click Batch Modify to set the parameters of multiple camera devices. (Ensure that the number of edits is 2~10)



5.2. WEB Interface Network Settings

The local area network settings allow you to modify the device's IP acquisition method and port parameters, as shown in the figure below:

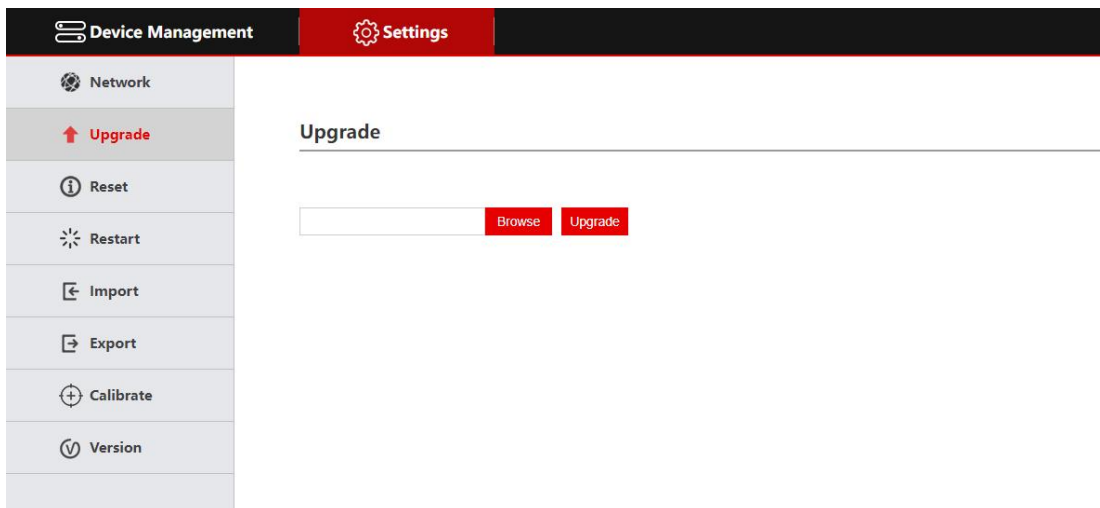


Static Address (STATIC): If the user needs to set the subnet manually, change the network type to static and fill in the desired subnet information. Dynamic Address (DHCP) (default method): The keyboard will automatically request an IP address from the router, and once successful, it will display on the keyboard screen in the format "Local IP: XXX.XXX.XXX.XXX"

5.3. System Upgrade

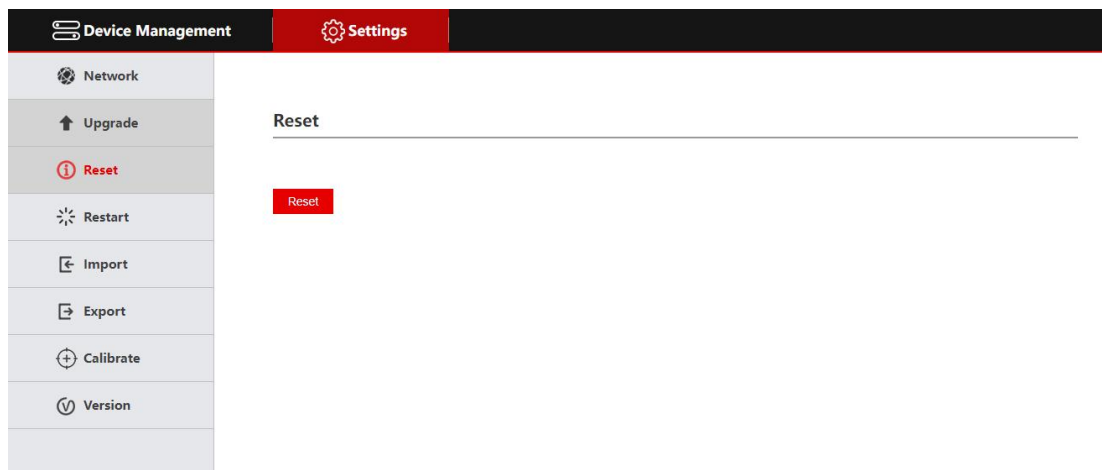
The upgrade function is used for maintaining and updating the keyboard's features. After entering the upgrade page, select the correct upgrade file and click "Start" to begin. The device will automatically restart after the upgrade is complete.

Note: Do not operate the device, and do not power off or disconnect the network during the upgrade process!



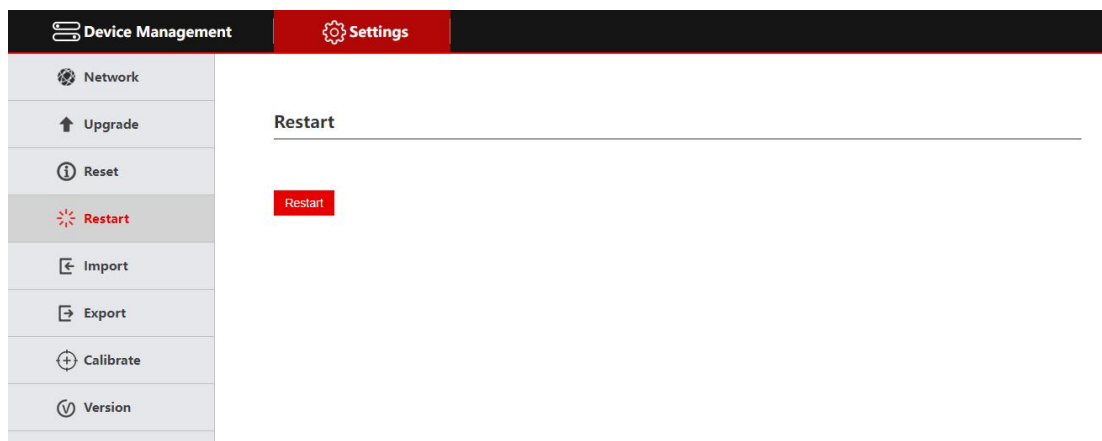
5.4. System Reset

When you click on the device reset option, the keyboard will delete all configuration information and clear any added devices.



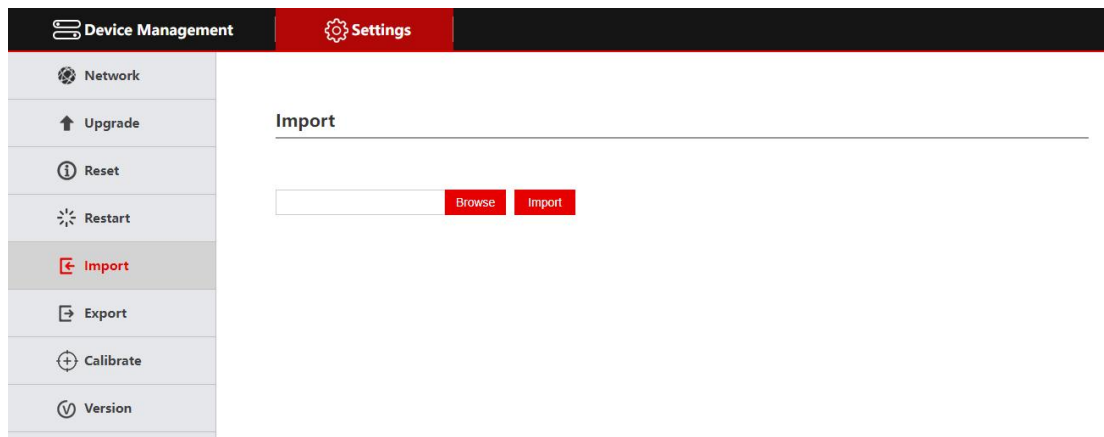
5.5. System Restart

When the device has been running for a long time and needs to be restarted for maintenance, simply click "Restart" to achieve this.



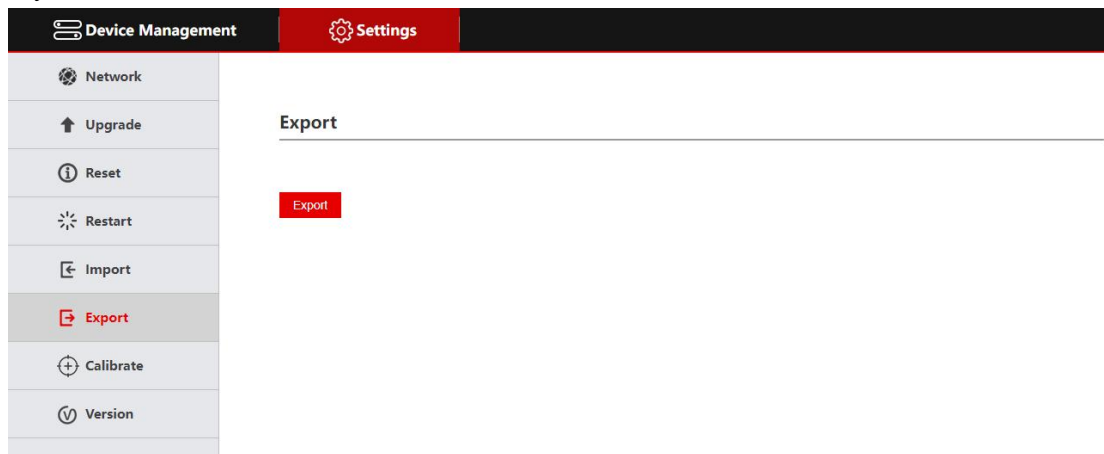
5.6. Import Configuration

Import previously saved device information from the keyboard (e.g., when multiple devices were added before). This file type can be used to import settings into a new keyboard or another device.



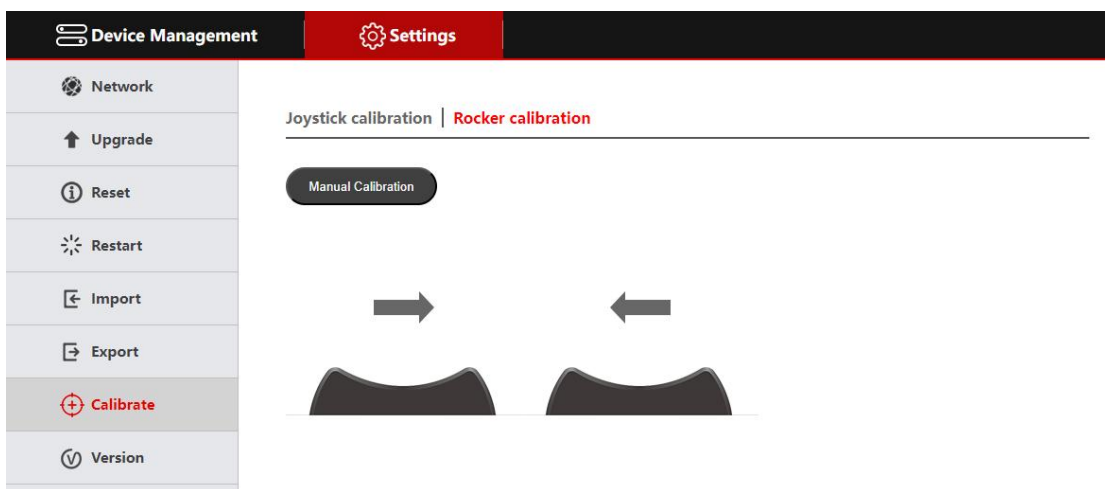
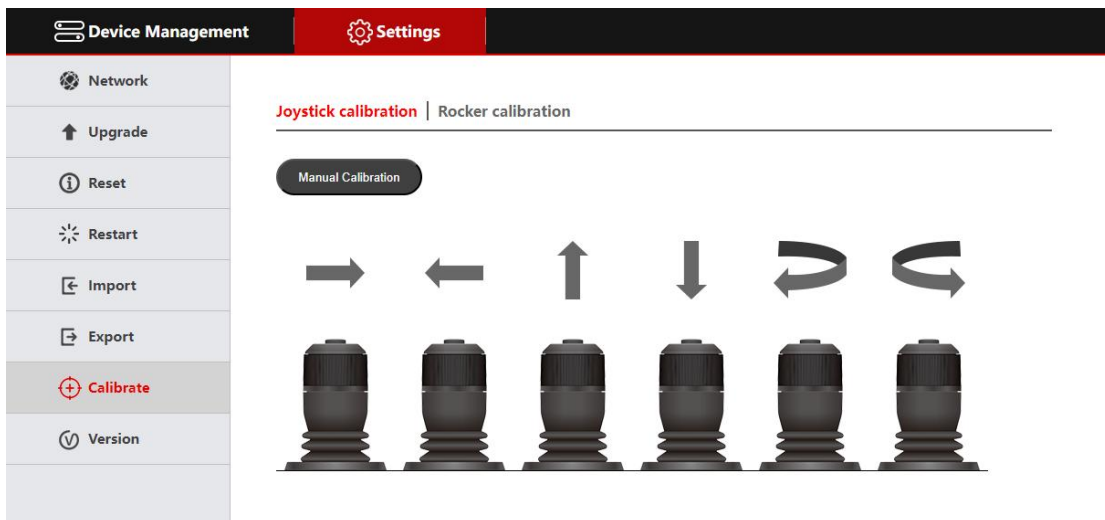
5.7. Export Configuration

Export the information of multiple devices added to the current keyboard for use on other keyboard devices.



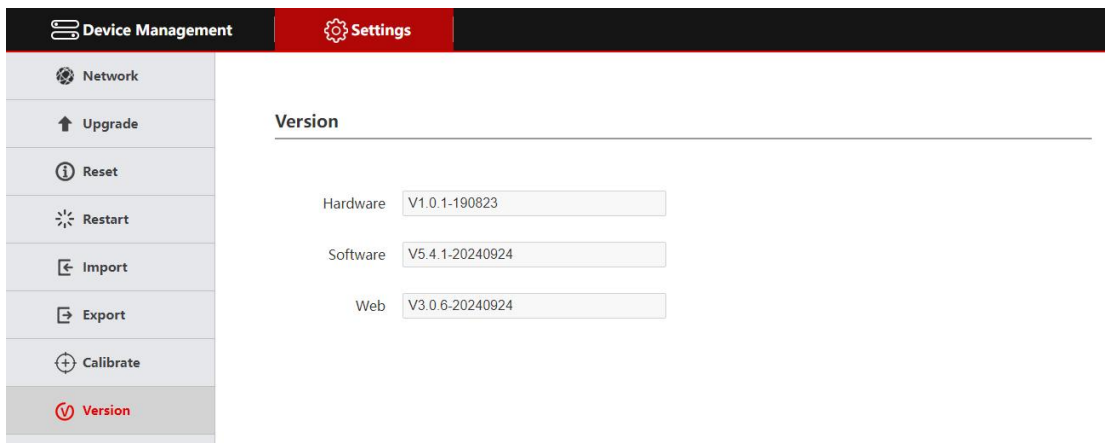
5.8. Calibrate

Manually calibrate the joystick and boat switch positions, then click confirm to complete.



5.9. Version Information

Displays the current software and hardware information of the keyboard.



6. Common Issues and Solutions

Fault Symptoms	Solutions
Screen displays "Connection Failed"	Check if the device with the corresponding IP is properly connected to the local network.
Screen displays "Username or Password Incorrect"	Verify that the username and password for the added device are correct.
Adding devices of other brands via ONVIF protocol fails	Ensure that the camera has the ONVIF protocol enabled.
Note: 1. Device addition is manual.2. Ensure the correct port number and device connection protocol are entered during the addition process.	