

VK-31BA

IP Control Keyboard

Manual



Menu

A. Product Information	1
- 1. Overview	1
- 2. Features	1
B. Interface	1
- 1. Instructions	1
- 2. Connection diagram	2
C. Keys Instructions	3
- 1. Key Sections	3
- 2. Joystick Instructions	5
D. Adding or delete devices	5
- 1. Adding new IP devices	5
- 2. Adding new analog devices	7
E. Device information and Control	8
- 1. Connect to device	8
- 2. Set / Adjust the preset point	8
- 3. Set / Adjust Patrol	9
- 4. Setting Up a Preset Scan	9
F. Network Setup	10
- 1. Initial Connection and Login	10
- 2. Network Settings via Web Interface	13
- 3. System Upgrade	14
- 4. System Reset	14
- 5. Reboot	15
- 6. Import Settings	15
- 7. Export Settings	16
- 8. Version Information	17
G. Frequently Asked Questions (FAQ)	17

A. Product Information

1. Overview

The new IP control keyboard features a metal plate top shell with a scratch-resistant PC matte film and a die-cast aluminum surface with a powder-coated bottom shell.

The design is simple, elegant, and posh.

Applied 4 position Joystick for precise control. The 5-inch LCD screen delivers excellent quality and supports the standard ONVIF protocol, allowing great compatibility.

It is easy to operate, and the built-in web server provides a simple and user-friendly interface.

Users can perform perfect control over the network PTZ camera within a few steps.

2. Features

(1) Supports both Analog and Internet control, an IP address is available with the Internet control.

(2) Supports both ONVIF and PELCO protocol.

(3) Applied 4-position Joystick for smooth and comfortable handling when controlling.

It allows direct control of omni bearing turns and lens zooming.

(4) Able to set and adjust customized hot keys, such as pre-set spots, patrol routes, and scanning.

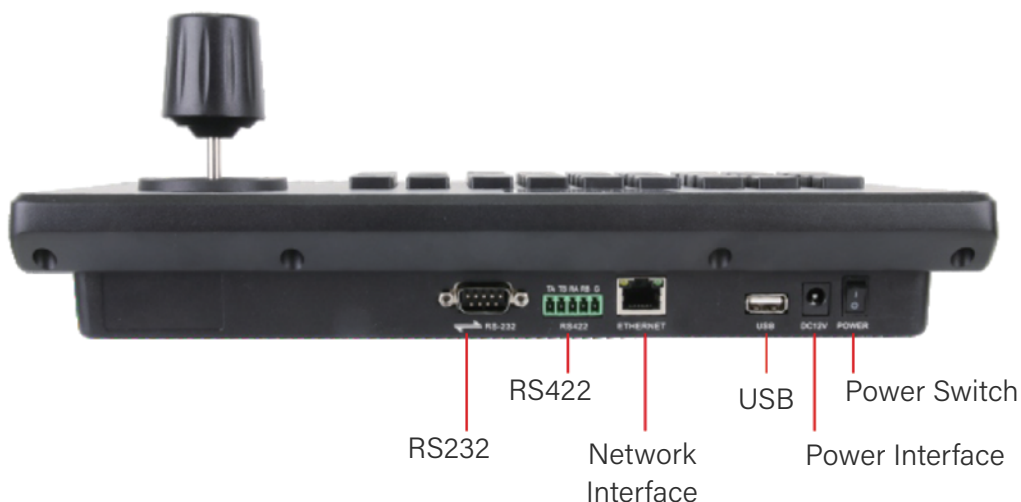
(5) It supports adding front-end equipment with IE browser.

(6) It supports custom keys for hot keys. (Customization required)

(7) It supports standard PoE power supply.

B. Interface

1. Instructions

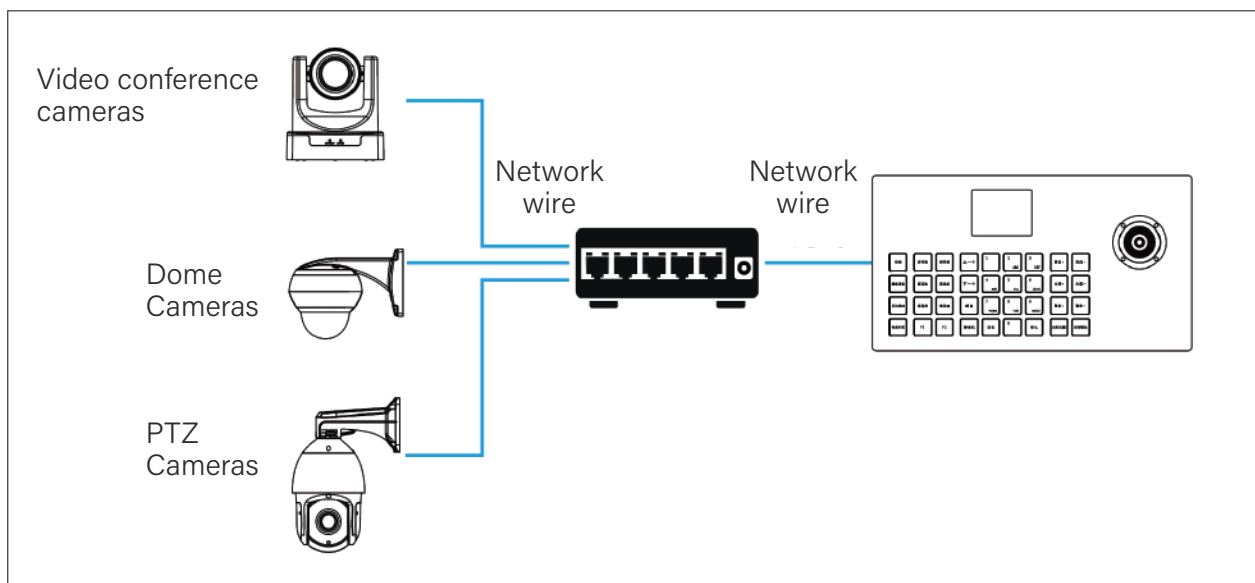


Numbering	Name	Function
1	POWER	Power ON / OFF
2	DC12V	Standard 5.5/2.1 Power supply interface, DC 12V2A \pm 10%
3	USB	Keyboard - Advanced usage
4	ETHERNET	Network Interface- RJ45 wire
5	RS422	RS-422 wire, RS-485 wire
6	RS232	RS-232 wire

2. Connection diagram

(1) Internet connection

VISCA Internet Mode, ONVIF control (Connection diagram)



The keyboard and the PTZ camera must be connected within the same LAN, and the IP locations must be in the same Network segment.

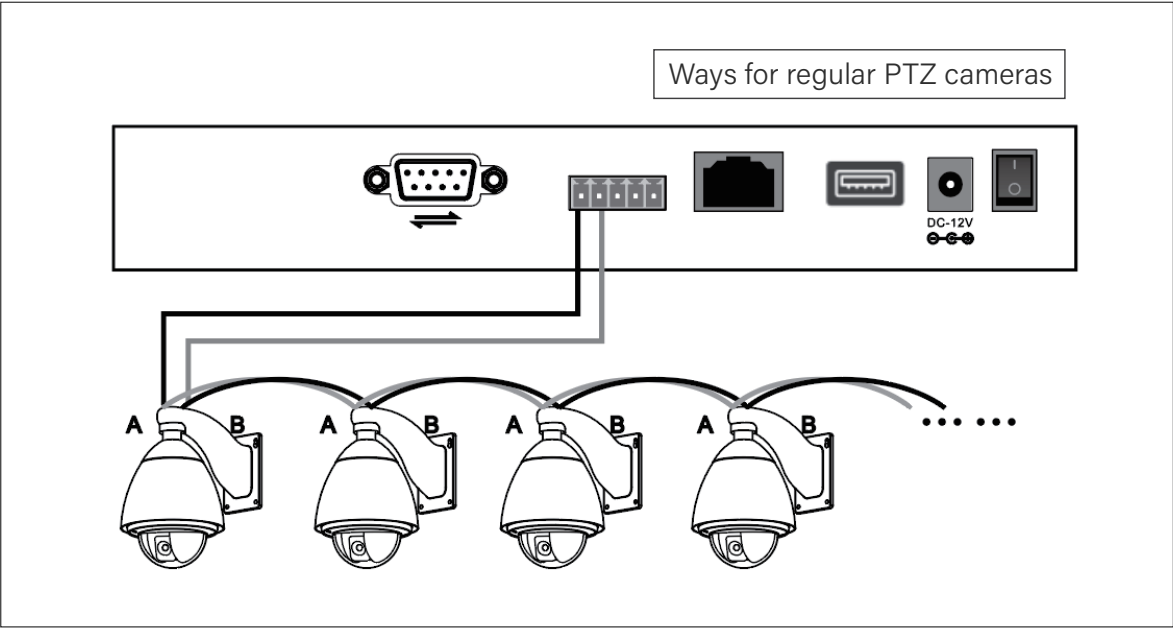
For example, 192.168.1.123 and 192.168.1.111 belong to the same segment

while 192.168.1.123 and 192.168.0.125 are not, and the IP location of the keyboard or the camera needs to be adjusted in such a situation.

The keyboard is defaulted to require the IP by DHCP.

(2) RS-485 connection

RS-485 Analog model control (Connection diagram)



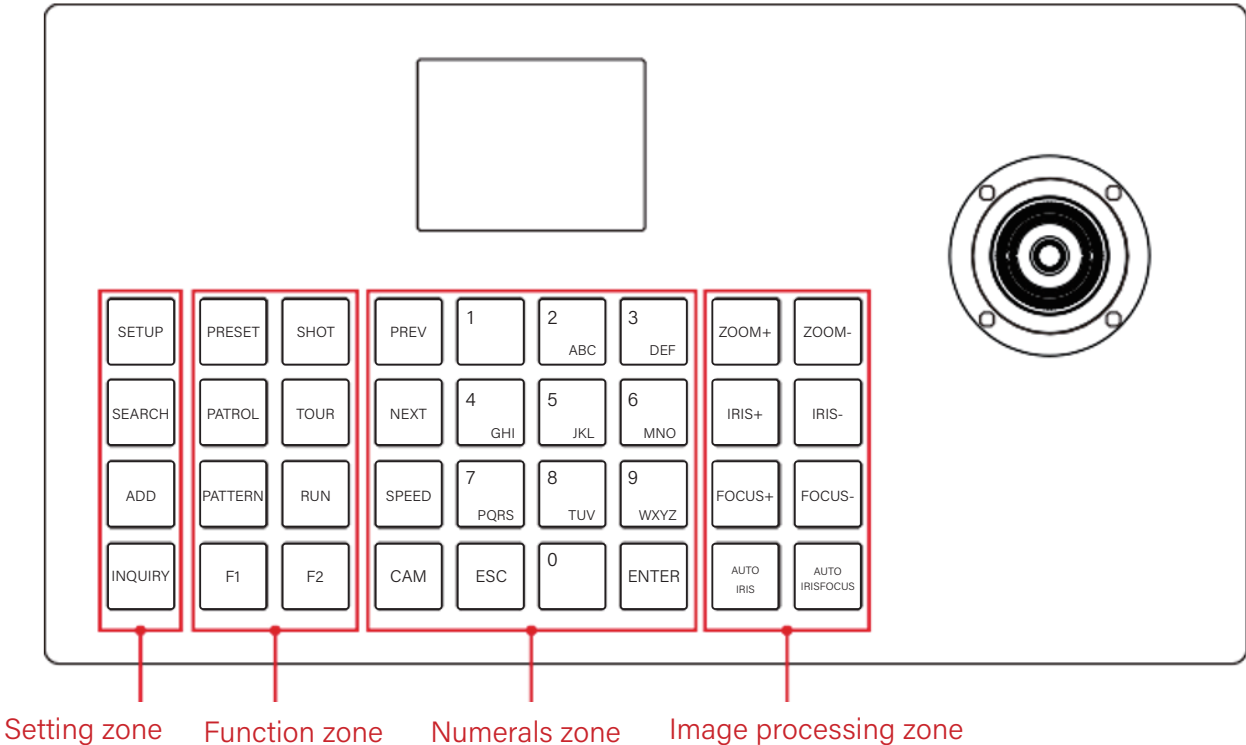
Output:

Ta for the RS485+ connection to the keyboard.

Tb for the RS485- connection to the keyboard.







C. Keys Instructions

1. Key Sections



1. Setting zone	SETUP	Enter Keyboard Settings Interface
	SEARCH	In Network mode, use this function to search for available online cameras. Note: This function is disabled in Analog mode.
	ADD	Add Device Manually
	INQUIRY	View Stored Device Information
2. Function zone	PRESET	Move the camera to the desired position. Press this key, enter a numeric ID, and press [Confirm] to save the preset successfully.
	SHOT	Press the [Adjust Preset Point] , enter the preset ID, and press [Confirm].
	PATROL	Press the [Set Patrol] , and follow the on-screen prompts to enter parameters, and press [Confirm].
	TOUR	Press the [Adjust Patrol] , enter the patrol ID, and press [Confirm] to start the patrol. Use the joystick to stop the patrol.
	PATTERN	Press the [Set Scan] , move the camera using the joystick to define the scan path. Press the Set Scan key again to save the scan successfully.
	RUN	Call the saved Scanned path. Use the joystick to stop the scanning.
	F1 , F2	Reserved Key
3. Numerals zone	PREV	Quickly switch to the previous device on the device control page.
	NEXT	Quickly switch to the next device on the device control page.
	SPEED	Set Pan/Tilt Speed Level
	CAM	Press the Camera key, enter the camera ID, and press [Confirm] to quickly switch to the specified camera.
	0-9	Number key: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9
	ENTER	Confirm
	ESC	Exit and Cancel
4. Image processing zone	Zoom+/-	Manual Zoom+/-
	IRIS+/-	Manual Aperture Adjustment
	FOCUS+/-	Manual Focus
	AUTO IRIS	Auto Aperture
	AUTO FOCUS	Auto Focus

2. Joystick Instructions

Operation	Output Control	Operation	Output Control	Operation	Output Control
	Up		Down		Left
	Right		Zoom+ (3 Direction only)		Zoom- (3 Direction only)

- Clockwise : Zoom+
- Counter Clockwise : Zoom-
- Short press on the middle button : "Confirm"
- Long press on the middle button : Switch IP / Analog

D. Adding or delete devices

1. Device : Adding

(1)Search to add

- Search [Device]
- Swing the joystick left and right to select.
- [Confirm] to fill in the User name, passwords, and camera codes.
- [Confirm] to add

Keyboard settings

> 1. Device : Adding

2. Switch to IP

3. List of devices

4. Internet attribute : Static

5. Native language : Mandarin

6. Key tone : OFF

7. Restore default settings

8. System information

(2) Add device

Click the "Settings" on the keyboard to enter the menu at the Control Keyboard page.

→ Joystick downwards to select [2. Switch to IP]

→ Press [Confirm]

Press [Settings], and choose [1. Device : Add]

→ Press [Confirm] to enter.

→ Fill in the IP location, Port number, User name, Password, and Camera code.

→ Press [Confirm] again and complete adding.

Enter the list of devices, swing the joystick left and right to select the newly added device.

→ Press the central button on the joystick or [confirm] to control.

Add ONVIF device	
IP location	192.168.0.181
Port number :	8999
User name :	admin
Password :	8999
Camera code :	2-

2. Adding new analog devices

Steps to add new analog devices using the keyboard are as follows.

(1) Click the "Settings" on the keyboard to enter the menu at the Control Keyboard page.

→ Joystick downwards to select [2. Switch to analog]

→ Press [Confirm]

Press [Settings], and choose [1. Device : Add]

→ Press [Confirm] to enter.

→ Choose to set sole address code or all address code.

→ Select the Communication Protocol, Communication Serial Transmittal Rate, and Address Rate.

→ Press [Confirm] again and complete adding.

Enter the list of devices, swing the joystick left and right to select the newly added device.

→ Press the central button on the joystick or [confirm] to control.

Add PELCO device	
Select :	Set an address code
Communication Protocol :	PELCO-D
Communication Serial Transmittal Rate :	9600
Communication Address Rate :	1-

E. Device information and Control

1. Connect to device

(1) Click "Settings" on the keyboard to open the settings menu.

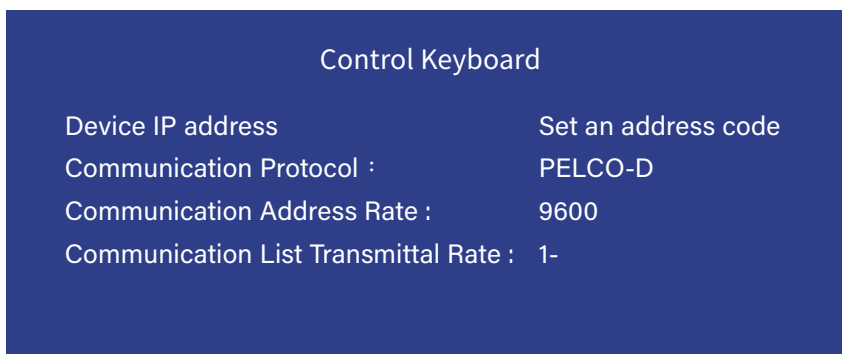
→ Swing the joystick upward and downward to select [List of devices] .

→ Press [Confirm] to check added devices

(2) Swing the joystick left and right to select saved devices.

→ Press the central button on the joystick or [confirm].

→ Select the device and control.



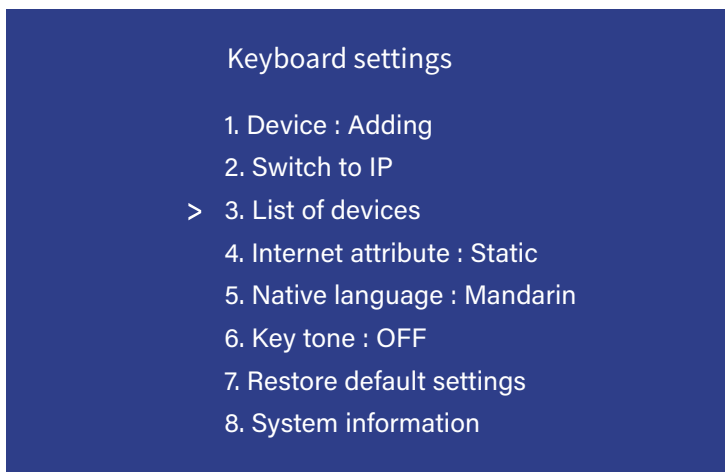
2. Set / Adjust the preset point

Set Preset Point 1

Press [Set Preset Point] → Enter number [1] → Press [Confirm]

Adjust Preset Point 1

Press [Adjust Preset Point] → Enter number [1] → Press [Confirm]



3. Set / Adjust Patrol

Set Patrol 1, and add preset point 1, 2, 3 :

Press [Set Patrol] → Enter [1] → Press [Confirm]

Add Preset Point 1: Press [1] → Press [Confirm]

→ Enter [15] (Set dwell time at Preset 1 to 15 seconds) → Press [Confirm]

→ Enter [10] (Set transition speed from Preset 1 to Preset 2 to level 10) → Press [Confirm]

Add Preset 2: Press [2] → Press [Confirm]

→ Enter [15] (Dwell time) → Press [Confirm]

→ Enter [20] (Speed) → Press [Confirm]

Add Preset 3: Press [3] → Press [Confirm]

→ Enter [15] (Dwell time) → Press [Confirm]

→ Enter [30] (Speed) → Press [Confirm]

Adjust Patrol Point 1 :

Press [Adjust Patrol] → Enter [1] → Press [Confirm]

4. Setting Up a Preset Scan

Set Scan Point 1:

Press [Set Scan] → Enter the number [1] → Press [Confirm] (The screen will display ""Recording scan..."")

→ Use the joystick to control the camera and record the desired scan path.

→ When finished, press [Set Scan] once more to complete the setup.

Adjust Scan Point 1 :

Press [Adjust Scan] → Enter the number [1] → Press [Confirm]

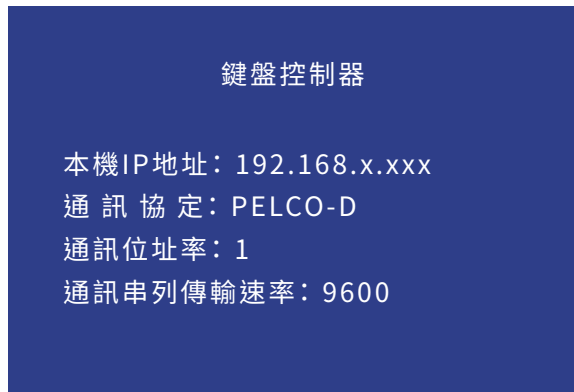
F. Network Setup

1. Initial Connection and Login

Connect the keyboard's power cable and plug in the network cable.

Once the keyboard has fully started, the display will show:

[Local IP Address: 192.168.x.xxx]



◀ Enter this IP address into your web browser to access the configuration page.

Default login credentials are:

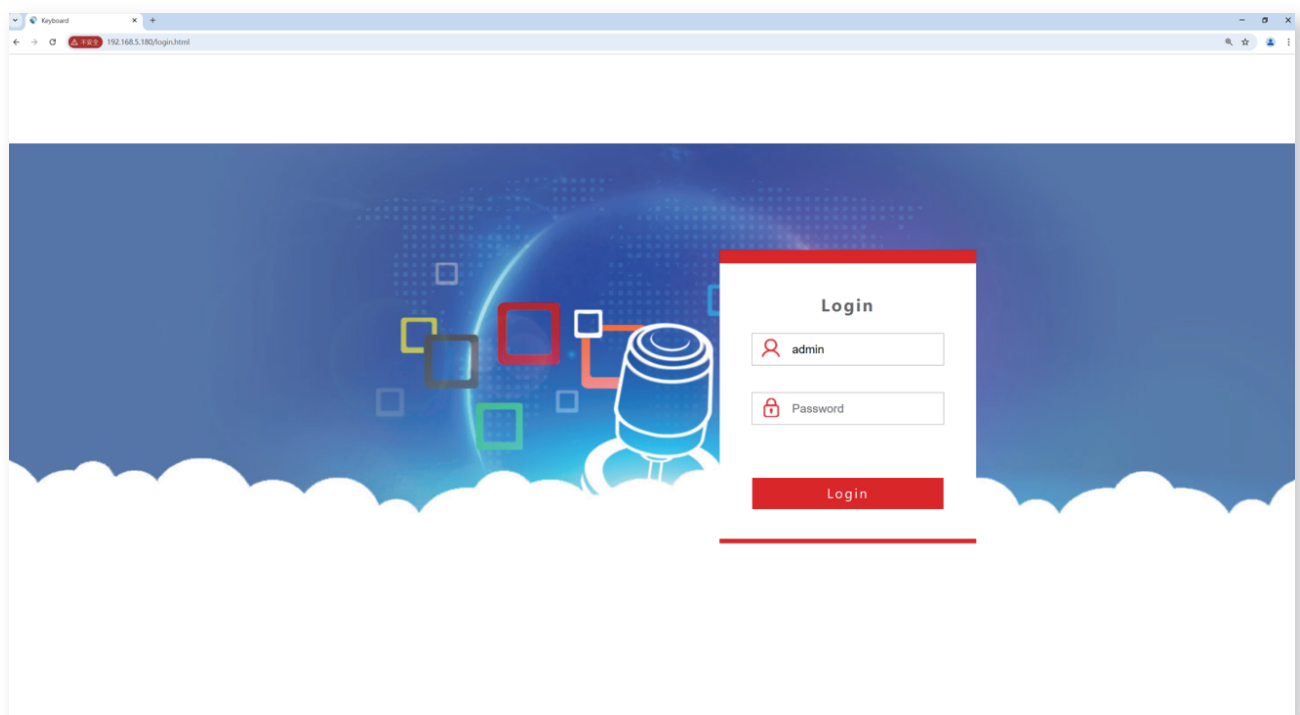
Username: admin

Password: (leave blank)

(1) Make sure both the keyboard and the computer are connected to the same local area network (LAN).

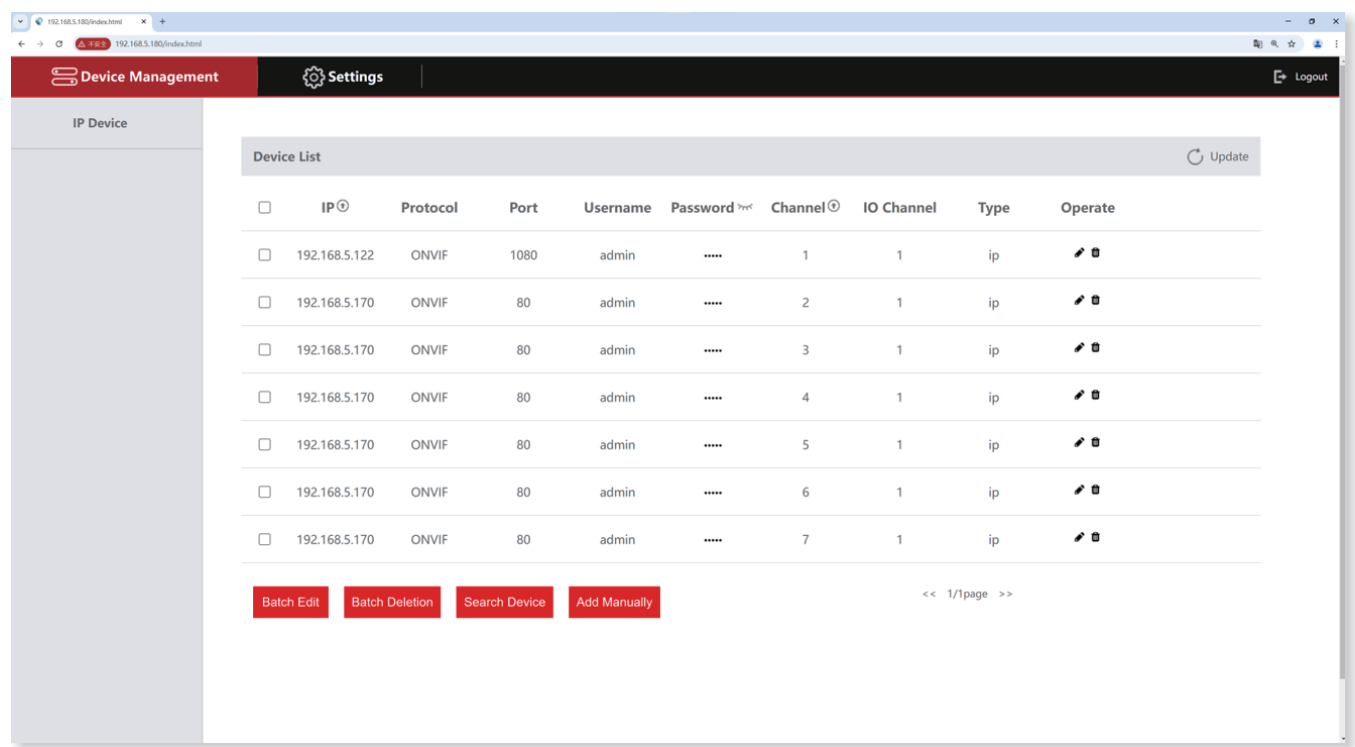
Enter the keyboard's IP address in the web browser.

Display as follow:

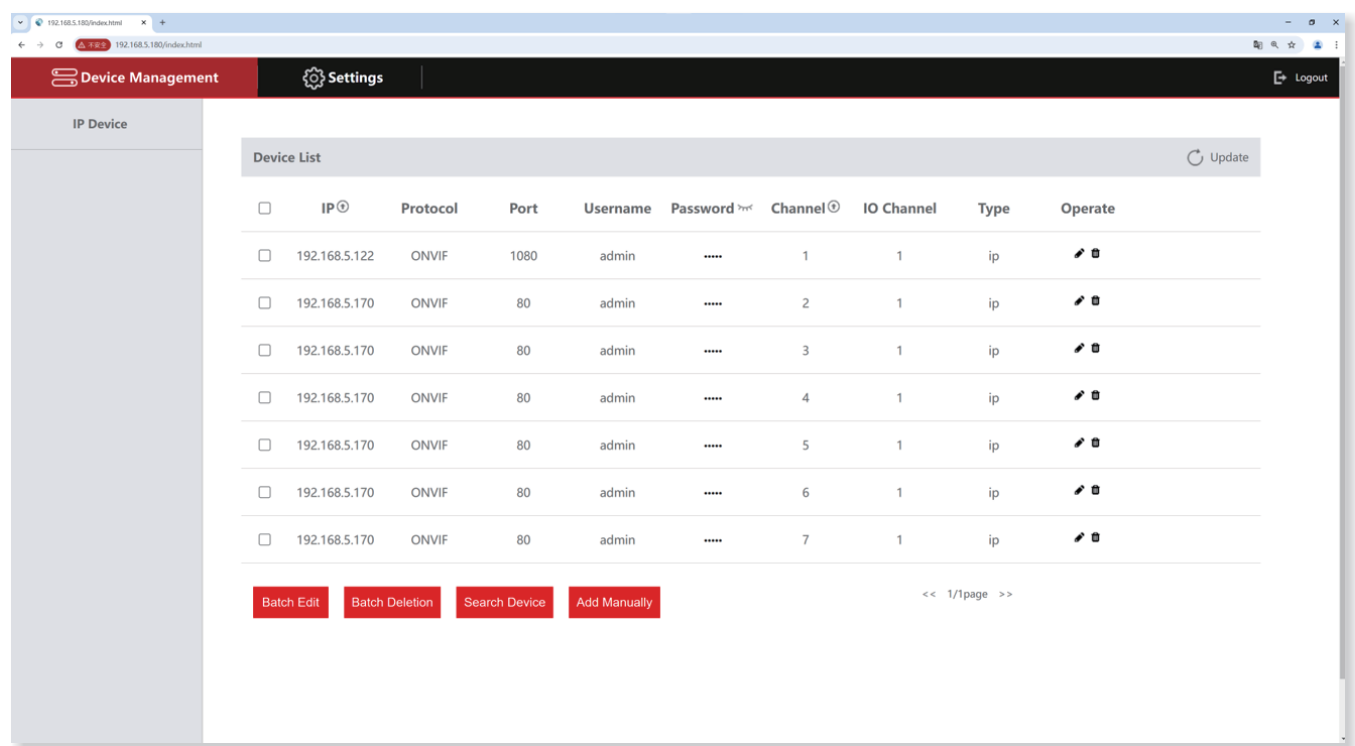


(2) Default Username: admin / Password: (leave blank)

(3) After logging in, the device's web interface will be displayed as shown below:

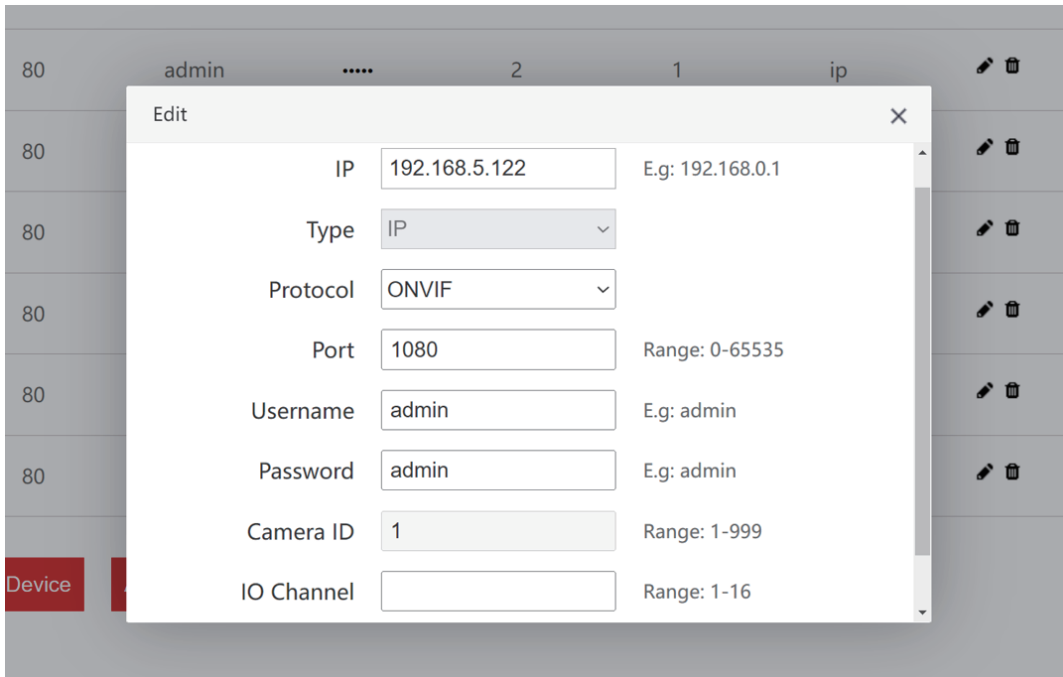


(4) On the homepage, you can view detailed device parameters and make changes if necessary.



(5) Click the 「」 button to add or modify device settings within the LAN.

The interface will display as shown below:



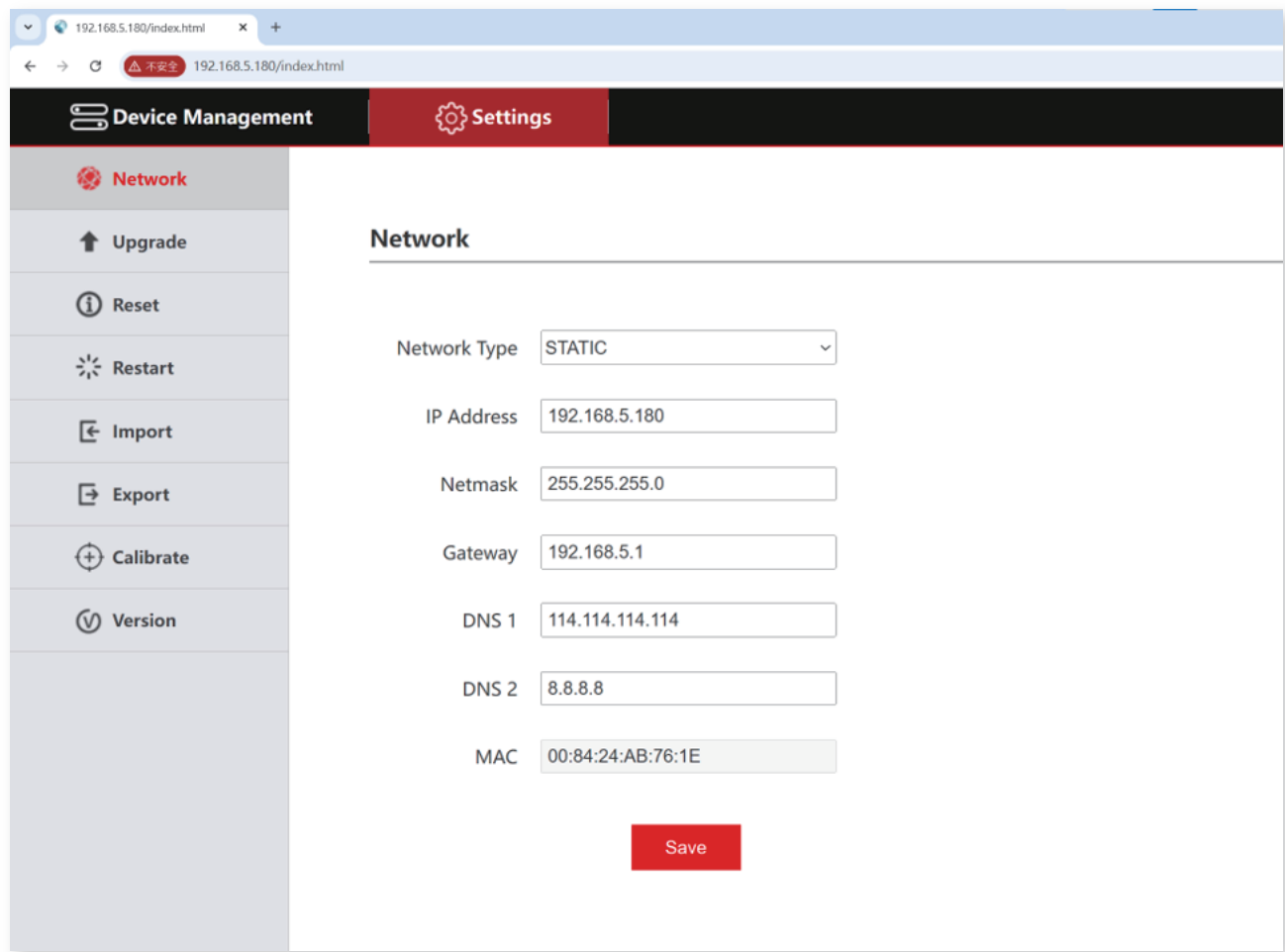
(Enter the device number, corresponding IP address, port number, and username, then click 「Save」 to complete the setup.)

Note:

- (1) Once a device is successfully added via the keyboard's web interface, it will automatically sync with the keyboard.
- (2) After a device is added successfully through the web interface, you can control the corresponding PTZ camera by pressing the matching number on the keyboard.

2. Network Settings via Web Interface

The network settings allow users to modify how the device obtains its IP address and configure the port number. Details are as follows:



Dynamic IP Address (DHCP) [Default]:

The keyboard will automatically request an IP address from the router. Once the request is successful, the IP address will be displayed on the keyboard's screen.

Displaying in the format: "Local IP: xxx.xxx.xxx.xxx"

Static IP Address (STATIC):

When users need to manually assign the IP segment, change the network type to Static IP and enter the required network information to complete the configuration.

3. System Upgrade

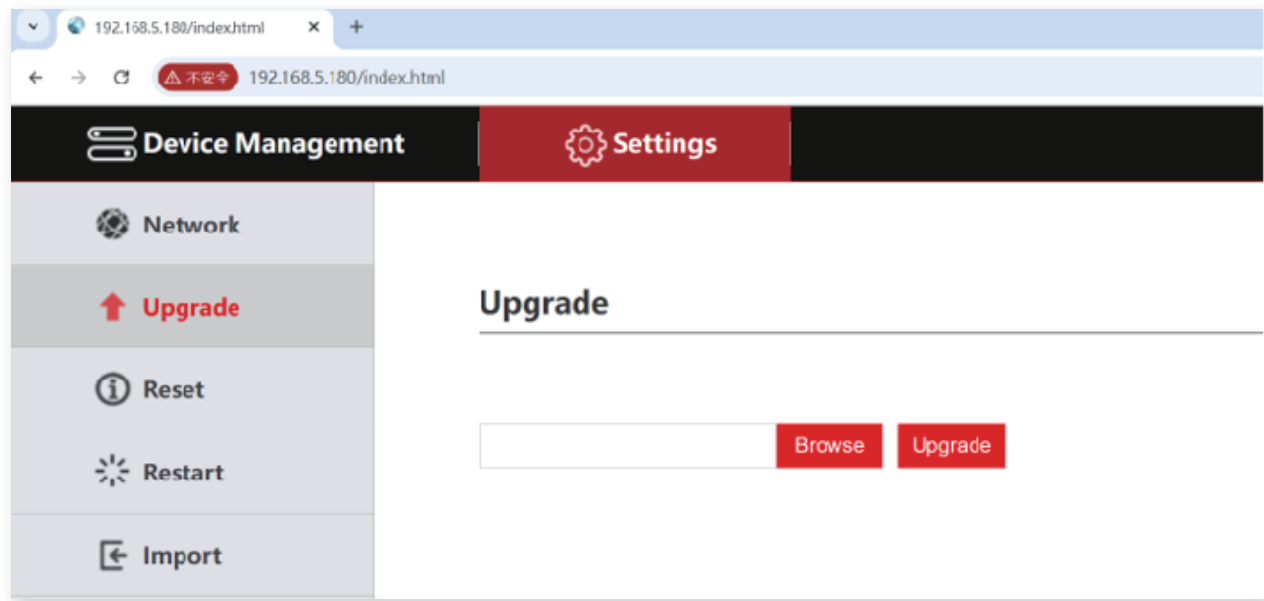
This function is used for maintenance and firmware updates for the keyboard.

Enter the upgrade page, select the correct firmware upgrade file, click [Start] to begin the upgrade process.

After the upgrade is completed, the device will reboot automatically.

Note:

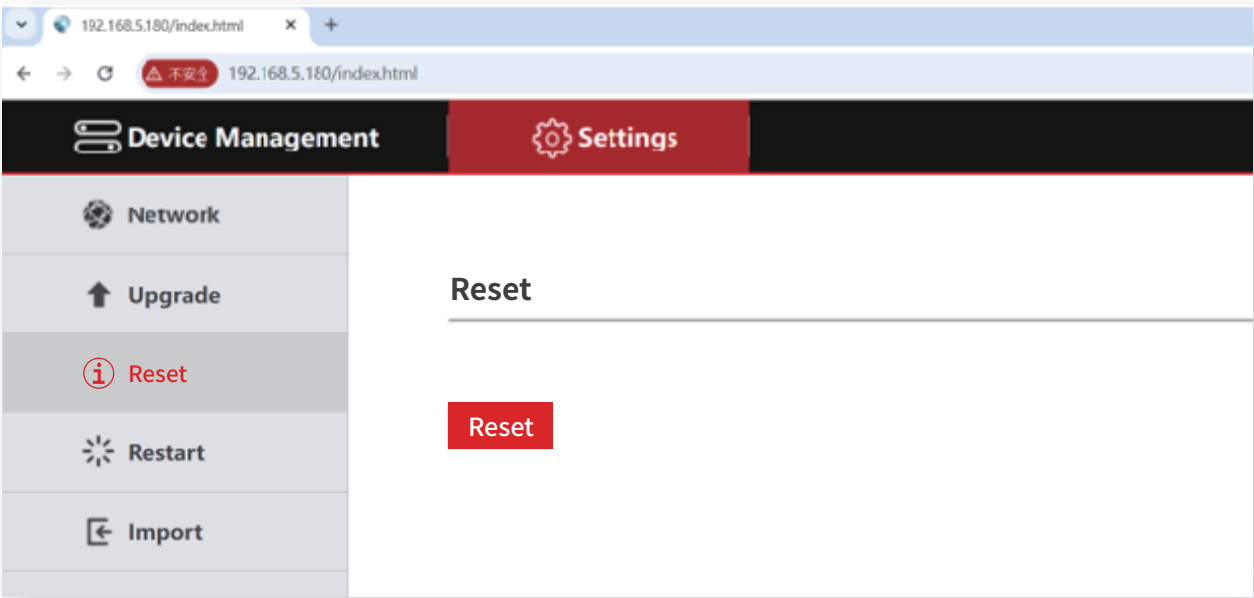
Do not operate the device during the upgrade process. Please ensure stable power supply and network connection throughout the upgrade.



4. System Reset

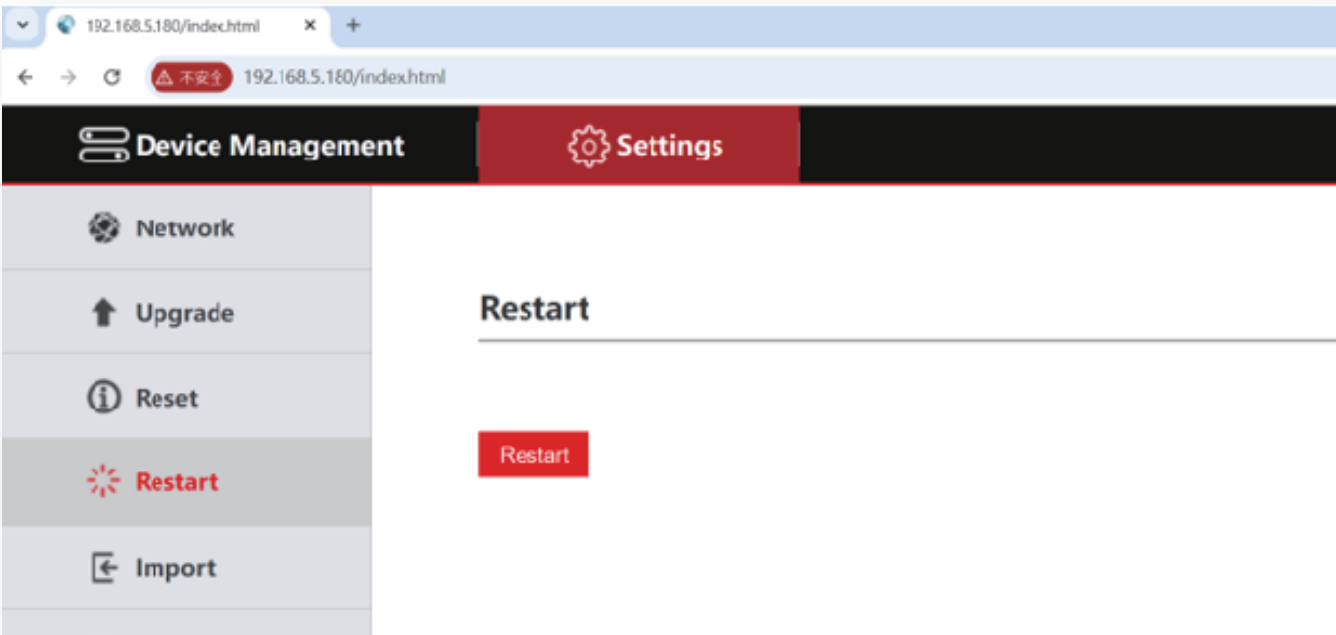
Click [Reset] to clear all data on the keyboard.

Caution: This action is irreversible. Please proceed with care.



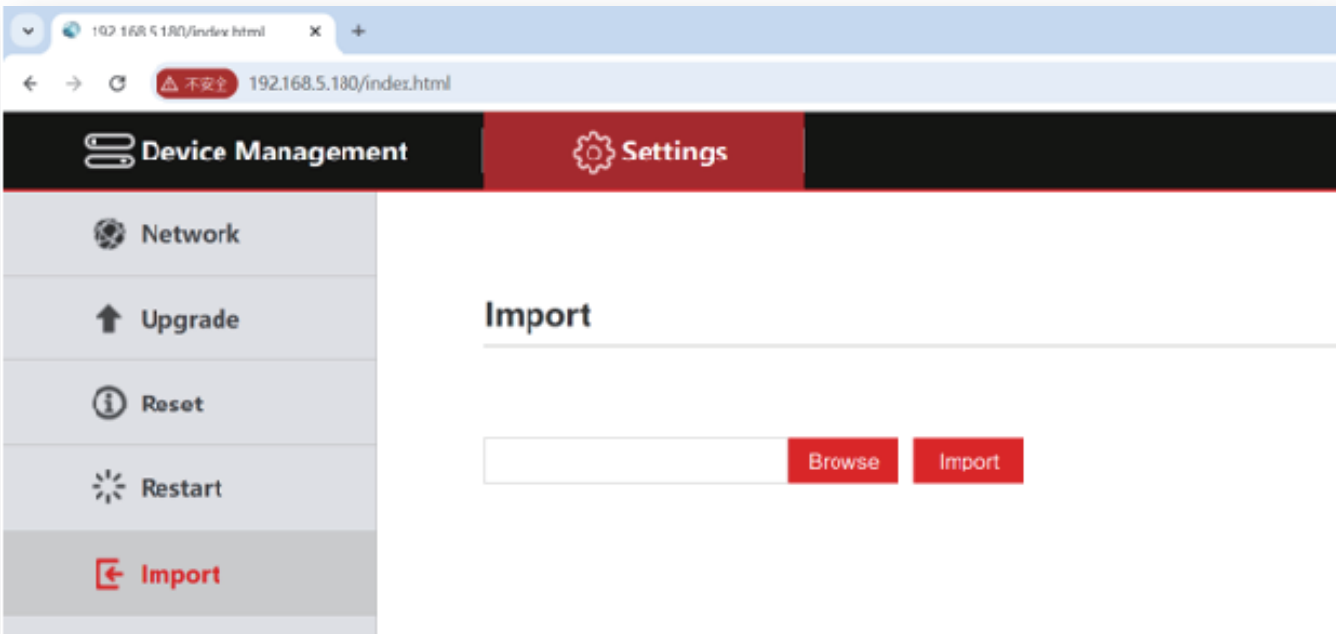
5. Reboot

When the device requires maintenance after long periods of operation, click [Reboot] to restart the device.



6. Import Settings

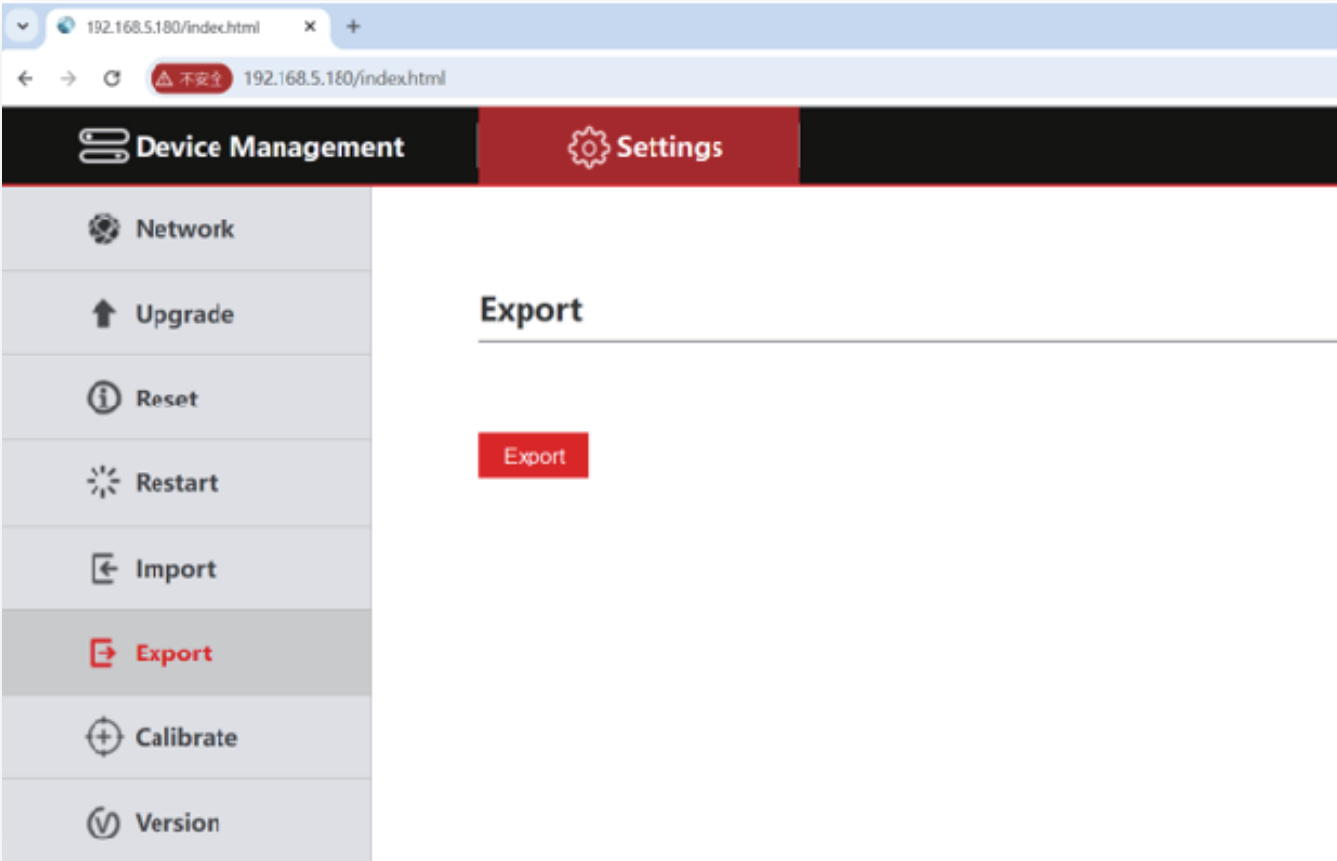
Import previously saved keyboard configuration data.
(For example: You may import a previously exported multi-device configuration file to a new keyboard for setup purposes, or to transfer settings to another device.)



7. Export Settings

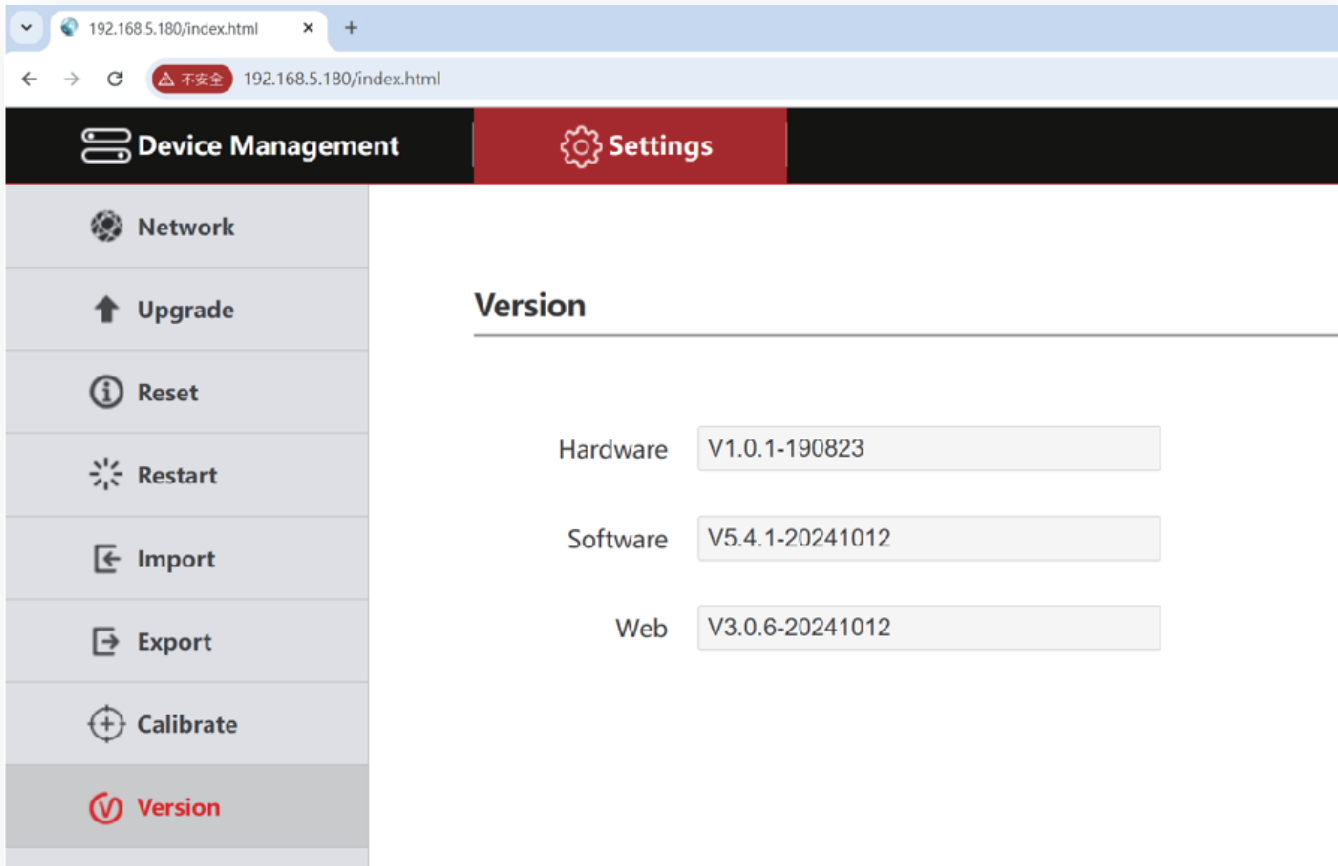
Export the current multi-device configuration from the keyboard.

The exported file can be used as a configuration file for other keyboard devices.



8. Version Information

Display the current software and hardware version information of the keyboard.



G. Frequently Asked Questions (FAQ)

Note:

If you receive a failure message when adding a device using the ONVIF protocol, please check whether ONVIF support is enabled on the camera.



For more product information,
Please visit vacron official website
<https://www.vacron.com>
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