DS-1200KI/DS-1006KI Keyboard

User Manual

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Preface

Applicable Models

This manual is applicable to DS-1200KI and DS-1006KI keyboard models.

Symbol Conventions

The symbols that may be found in this document are defined as follows.

Symbol	Description
Note	Provides additional information to emphasize or supplement important points of the main text.
Caution	Indicates a potentially hazardous situation, which if not avoided, could result in equipment damage, data loss, performance degradation, or unexpected results.
Danger	Indicates a hazard with a high level of risk, which if not avoided, will result in death or serious injury.

Safety Instructions

Caution

- In the use of the product, you must be in strict compliance with the electrical safety regulations of the nation and region.
- The socket-outlet shall be installed near the device and shall be easily accessible.
- Do not touch the bare components (such as the metal contacts of the inlets) and wait for at least 5 minutes, since electricity may still exist after the device is powered off.
- This device is not suitable for use in locations where children are likely to be present.
- CAUTION: Risk of explosion if the battery is replaced by an incorrect type.
- Improper replacement of the battery with an incorrect type may defeat a safeguard (for example, in the case of some lithium battery types).
- Do not dispose of the battery into fire or a hot oven, or mechanically crush or cut the battery, which may result in an explosion.

- Do not leave the battery in an extremely high temperature surrounding environment, which may result in an explosion or the leakage of flammable liquid or gas.
- Do not subject the battery to extremely low air pressure, which may result in an explosion or the leakage of flammable liquid or gas.
- Dispose of used batteries according to the instructions.

Note

- Provide a surge suppressor at the inlet opening of the device under special conditions such as the mountain top, iron tower, and forest.
- + identifies the positive terminals of the device which is used with, or generates direct current, and - identifies the negative terminals of the device which is used with, or generates direct current.
- The serial port of the device is used for debugging only.
- The interface varies with the models. Please refer to the product datasheet for details.
- The USB port of the device is used for connecting to a mouse, a keyboard, or a USB flash drive only. The current for the connected device shall be not more than 0.1 A.
- Make sure that the power has been disconnected before you wire, install, or disassemble the device.
- The device shall not be exposed to water dripping or splashing, and no objects filled with liquids, such as vases, shall be placed on the device.
- No naked flame sources, such as lighted candles, should be placed on the device.
- If smoke, odor, or noise arises from the device, immediately turn off the power, unplug the power cable, and contact the service center.
- The ventilation should not be impeded by covering the ventilation openings with items, such as newspapers, table-cloths, curtains. The openings shall never be blocked by placing the device on a bed, sofa, rug, or other similar surface.

Contents

Chapter 1 Overview

1.1 Introduction

DS-1200KI and DS-1006KI series products are new generation and cost effective control keyboards. The keyboards work well with a large variety of devices, such as network cameras, speed domes, DVRs and NVRs, decoders, multi-functional video centers (MVCs), video wall controllers, and matrix access gateways (MAGs). Featuring a 4-axis Hall effect joystick, a 128 × 64 dot-matrix screen, easy-to-operate press keys, our products are a perfect solution for medium and small sized monitor centers in industries such as intelligent building, transportation, and public security.

In this manual, both Web configuration and keyboard operation sections apply to DS-1200KI network keyboards, while only the keyboard operation section applies to DS-1006KI serial keyboards.

1.2 Features

- 128 × 64 screen
- 4-axis joystick
- Accessible to the multi-functional video centers (MVCs), matrix access gateways (MAGs), video wall controllers, decoders, and shortcut operation of camera/camera groups switch on video wall
- Connectable to domes and realize PTZ control and picture capture via joystick operation
- Accessible to DVRs/NVRs (with KB ports) via network or serial ports, and operation of front panel buttons
- 16 user accounts management: 1 admin and 15 operators
- System upgrade and import/export of configuration files via USB-flash disk
- DS-1200KI keyboard supports both network and serial communication; DS-1006KI supports serial communication only
- DS-1200KI keyboard: network access, configuration, and batch import of devices and input channels via Web browser; up to 1000 devices, 2000 input channels, and 256 output channels can be managed in the keyboard operation mode
- DS-1200KI keyboard supports access to HikCentral
- DS-1006KI keyboard: accessible to devices via RS-485/422 serial ports

1.3 Appearance

Except for the network port, DS-1200KI keyboards are the same as DS-1006KI keyboards in appearance. See Figure 1-1 for the appearance of the keyboard.

Figure 1-1 Keyboard Appearance

1.3.1 Ports and Buttons

See Figure 1-2 for the ports and joystick of the keyboard.

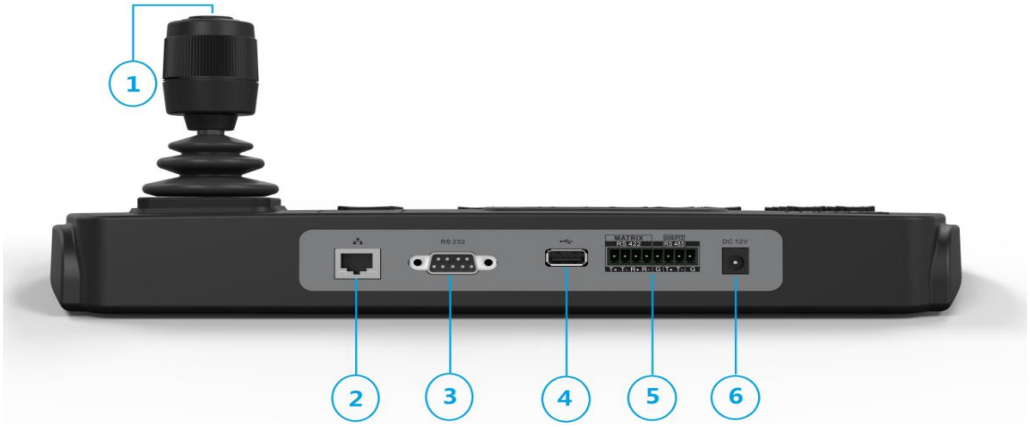

Figure 1-2 Ports

See Figure 1-2 for the ports and joystick of the keyboard.

Table 1-1 Description of Rear Panel

SN	Item	Description
1	4-axis joystick	In menu mode: ● Move up/down to select the menu for configuration. ● Move left/right to select items in menu. ● When entering the value in the field, move to the left to clear the previous character. ● Press the central button to confirm. In shortcut operation mode: ● Move the joystick to realize pan/tilt movement in 8 directions. And the PTZ speed is depending on the joystick

		movement range. ● Rotate the joystick in clockwise/anti-clockwise directions to l to realize the zoom in/out control. ● Press the central button to capture picture. In DVR operation mode: ● In preview mode, move to up/down or left/right to switch between screens (previous/next). ● In playback mode, move up/down to speed up or slow down playback videos at a normal speed.
2	Network port (for DS-1200KI only)	10/100 Mbps Ethernet port
3	RS-232 serial port	● Connect with analog matrixes ● Connect with analog speed domes via VISCA
4	USB port	Universal Serial Bus (USB) port for additional devices such as USB-flash disk
5	RS-422 serial port	Connect with MAGs
	RS-485 serial port	Connect with DVRs/NVRs or analog speed domes
6	Power supply	12 VDC power input

1.3.2 Functional Buttons

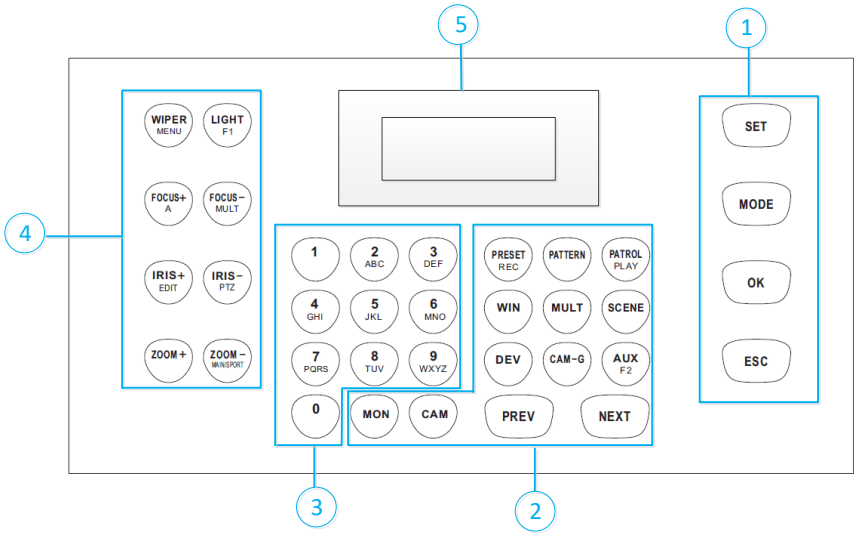

Figure 1-3 Functional Buttons

Buttons on the front panel are used to control PTZ functions of cameras, video wall operations, and local keyboard menu operations. See Table 1-2 for the description of each button. When your

keyboard is connected to DVR/NVR, the keyboard can be used to call the device menu and realize PTZ control through the virtual panel. For remote device menu operations, see Table 1-3 for the description of each button.

Table 1-2 Description of Buttons for Keyboard Operation

SN	Item	Button	Description
1	Common Buttons	SET	Enter the main menu of the system.
		MODE	Enter the 6 operation modes page.
		OK	Confirm the menu item selection and operation.
		ESC	Cancel and back to the pervious menu.
2	Video Wall Control	MON	Use this button with the numeric buttons to select the monitor.
		CAM	Use this button with the numeric buttons to select the camera.
		RRESET/REC	Use this button with the numeric buttons to call the preset.
		PATTERN	• Press *PATTERN* directly or *0 + PATTERN* to call the auto scanning. • Use this button with the numeric (> 0) buttons to call the pattern.
		PATROL/PLAY	Use this button with the numeric buttons to call the patrol.
		WIN	• Use this button with the numeric buttons to select window of video wall. • Press *WIN* directly to zoom in or zoom out the selected window.
		MULT	Use this button with the numeric buttons to select the window division modes of video wall.
		SCENE	• Press *SCENE* directly to display the scene list. • Use this button with the numeric buttons to switch the scenes.
		DEV	Use this button with the numeric buttons to select the device ID. **Note** As IPCs and network speed domes do not have device IDs but channel IDs, use CAM IDs instead when selecting

			the devices.
		CAM-G	Use this button with the numeric buttons to select the camera group.
		Wall/AUX	• Use this button with the numeric buttons to select the video wall ID or joint screen ID. • In iVMS Platform operation mode, obtain the video wall list, and use this button with the numeric buttons to select a video wall. • In iVMS Platform operation mode, press *SCENE* directly to obtain the scene list, and use this button with the numeric buttons to select a scene.
		PREV	In the shortcut operation mode, switch to the previous camera ID or camera group ID.
		NEXT	In the shortcut operation mode, switch to the next camera ID or camera group ID.
3	Alphanumeric Buttons	0-9/A-Z/a-z	Inputs numbers and characters in edit mode. Press FOCUS+/A button to switch between upper case letters (A-Z) and lower case letters (a-z).
4	PTZ Control	WIPER/ MENU	In PTZ control mode, turn on/off the wiper.
		LIGHT/F1	In PTZ control mode, turn on/off the light.
		FOCUS+/A	• In PTZ control mode, operate the focus far. • In edit mode, switch the character input mode: numerals (123), upper case (ABC) and lower case (abc).
		FOCUS– /MULT	In PTZ control mode, operate the focus near.
		IRIS+/EDIT	In PTZ control mode, operate the iris open.
		IRIS–/PTZ	In PTZ control mode, operate the iris close.
		ZOOM+	In PTZ control mode, operate the zoom in.
		ZOOM– MAIN/SPOT	In PTZ control mode, operate the zoom out.
5	LCD Display		128 × 64 pixel screen for display of menu.

Table 1-3 Description of Buttons for Controlling DVR/NVR

SN	Item	Button	Description
1	Common Buttons	OK	● Confirm the selection and operation. ● In preview mode, start or stop previewing when the switch time is not set as 0.
		ESC	● Exit the PTZ mode. ● Return to the previous menu.
2	Playback Control	RRESET/REC	● In preview mode, enable or disable all-day scheduled recording for all channels.
		PATROL/PLAY	● In preview mode, open the playback mode. ● In playback mode, select entry and exit date and time.
		WALL/AUX	● Switch between playback modes
3	Alphanumeric Buttons	0-9	● In edit mode, input digits. ● In preview mode, switch between preview channels. ● In playback mode, switch between playback channels.
4	DVR Control	WIPER/ MENU	● In preview mode, focus on the Preview button in the navigation bar; in other modes, go to the preview page. ● Select all the list on the main menu.
		LIGHT/F1	● In playback mode, forward or playback the recording files ● In preview mode, instantly start playing back recordings of the last 5 minutes.
		FOCUS+/A	In edit mode, switch the character input mode: numerals (123), upper case (ABC) and lower case (abc).
		FOCUS–/MULT	In preview and playback mode, divide the screen.
		IRIS+/EDIT	● Go to the edit mode. ● In edit mode, delete characters before the cursor. ● Select checkboxes.
		IRIS–/PTZ	In preview mode, go to the PTZ mode.
		ZOOM–/ MAIN/SPOT	Switch between the main and auxiliary page.

Chapter 2 Prerequisite Configuration

2.1 Activate Your Device

For the first-time access, you need to activate the device by setting an admin password. No operation is allowed before activation. You can also activate the device via SADP as well.

Step 1 In the device activation page, enter the admin user password.

Note

- In edit mode, you can press the FOCUS+/A button on the keyboard panel to switch the character input mode: numerals (123), upper case (ABC) and lower case (abc).
- The password must be a string of at least 8 characters and must contain at least two of the following character types: digits, lowercase letters, uppercase letters.
- The password cannot contain the user name (in the forward order and backward order), 123, a string of at least four consecutive digits (such as 1234, 12345, 4321, etc.), or a string of at least four repeating characters (such as 1111, 8888, aaaa, etc.).
- The password cannot contain the following case insensitive string, including admin, 1qaz2wsx, 1qaz@WSX, !@#$QWER, p@ssword, passw0rd, and p@ssw0rd.
- The password cannot contain the following case insensitive string, including hik, hkws, and hikvision.
- Change the password regularly to better protect the system.

Figure 2-1 Activation Page

Step 2 Click **Confirm** to finish the device activation.

Note

- After the device is activated, you need to adjust the date and time settings.
- If you have restored the device to default settings, you need to reactivate the device.

2.2 Login

You must log in to the device before configuring the keyboard, and operating the menu and other functions. DS-1200KI keyboards support two ways of login: local login and remote login (by Web browser). DS-1006KI keyboards support local login only.

2.2.1 Local Login

Step 1 In the login page, enter the user name.

Step 2 Enter the password.

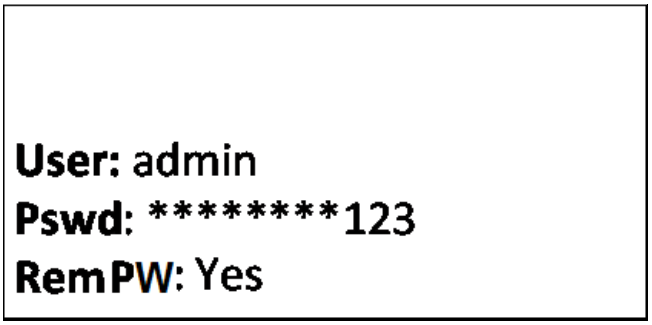

Figure 2-2 Login Page

Step 3 Press the **OK** button to log in to the device.

Note

- In the login dialog box, if you enter the wrong password 7 times for admin user or 5 times for operators, the current user account will be locked for 30 minutes.
- If you select **Remember Password**, the system will remember the password for the current user without remembering the previous one.

2.2.2 Remote Login (via Web browser)

This section applies to DS-1200 KI keyboards.

Step 1 On the keyboard, enter the network settings menu.

System > **Network**

Step 2 Use the joystick to set the DHCP **OFF** or **ON**.

- If you set the DHCP to ON, the system automatically obtains a network address.

- If you set the DHCP to OFF, continue to set the network parameters, including the IP Address, Gateway and Subnet Mask.

Step 3 Press **OK** to save the settings.

Step 4 Open the Web browser, and enter the address (**https**://IP address) to enter the device login page.

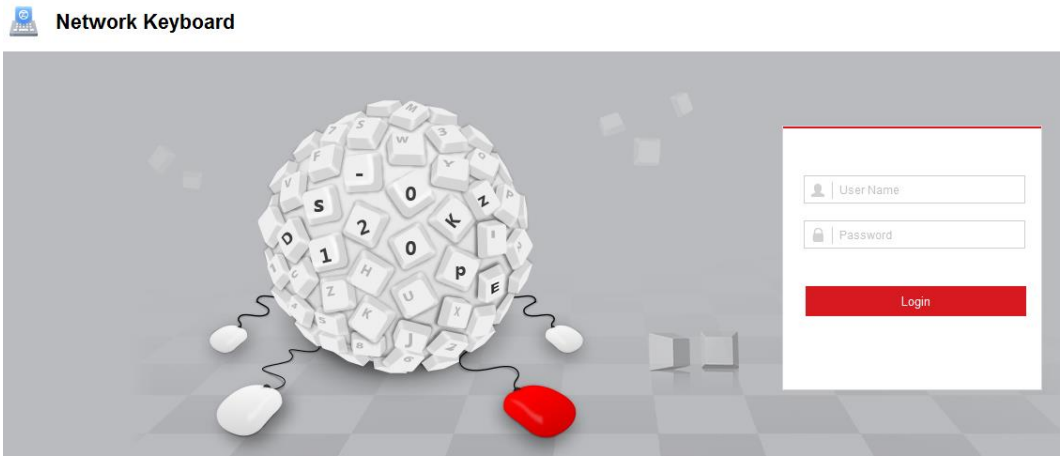

Figure 2-3 Login Page

Step 5 Enter the user name and password.

Step 6 Click **Login** to log in to the device.

2.3 System Menu

This section uses the DS-1200KI keyboard as an example to show the system menu items.

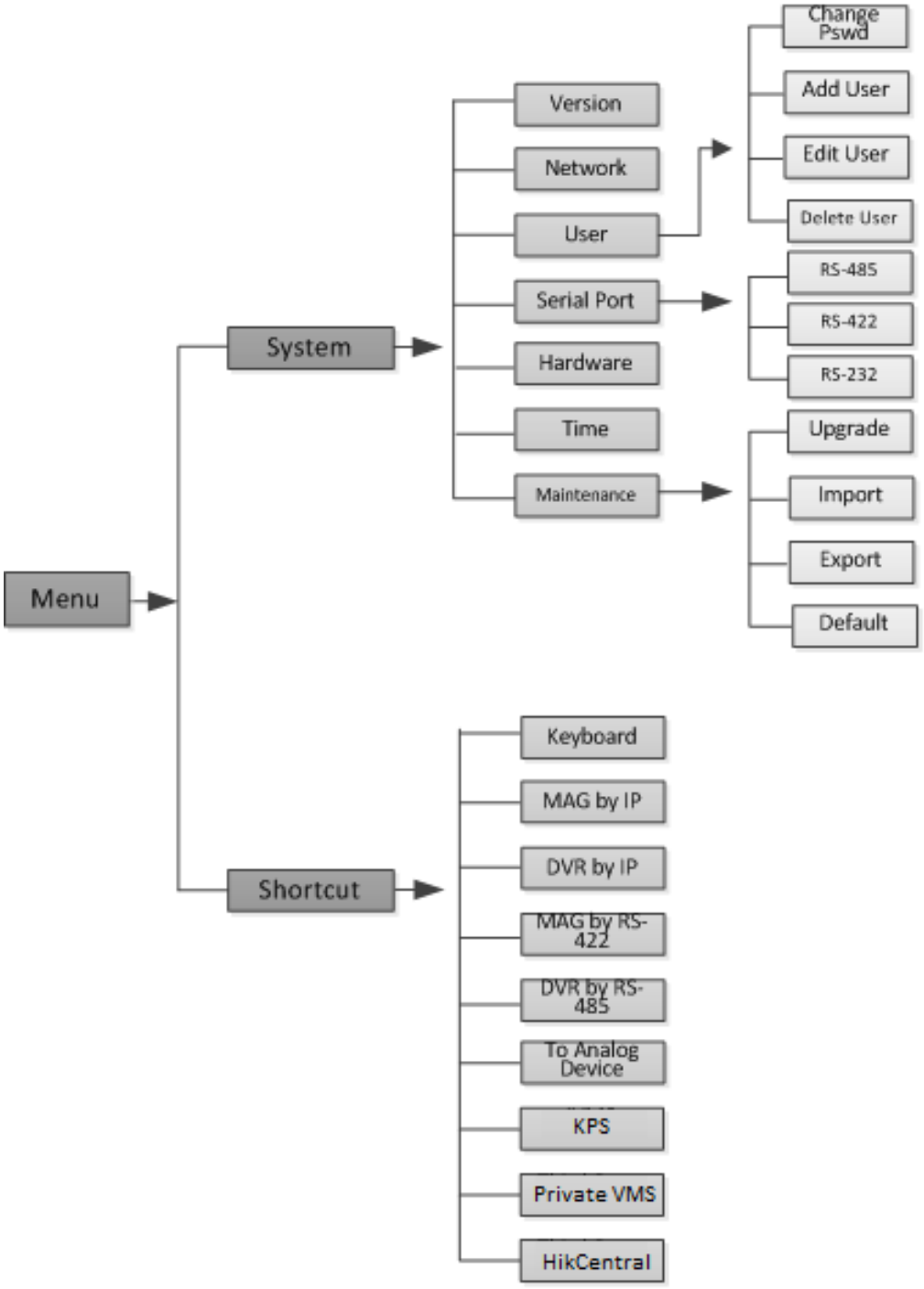

Figure 2-4 DS-1200KI System Menu

Chapter 3 Web Configuration

This section applies to DS-1200KI keyboards only.

3.1 Device Mangement

3.1.1 Add Devices

In Keyboard Operation mode, follow instructions in this section to add devices first before realizing the operation and control of the devices on the keyboard.

You are recommended to back up and edit the channel list using an Excel file. For adding devices for the first time, add a couple of devices first and then export it as a template. For details, see section 3.1.2 Manage Input/Output Channels.

Step 1 Log in to the device.

Step 2 Go to **Device Management** > **Device List**.

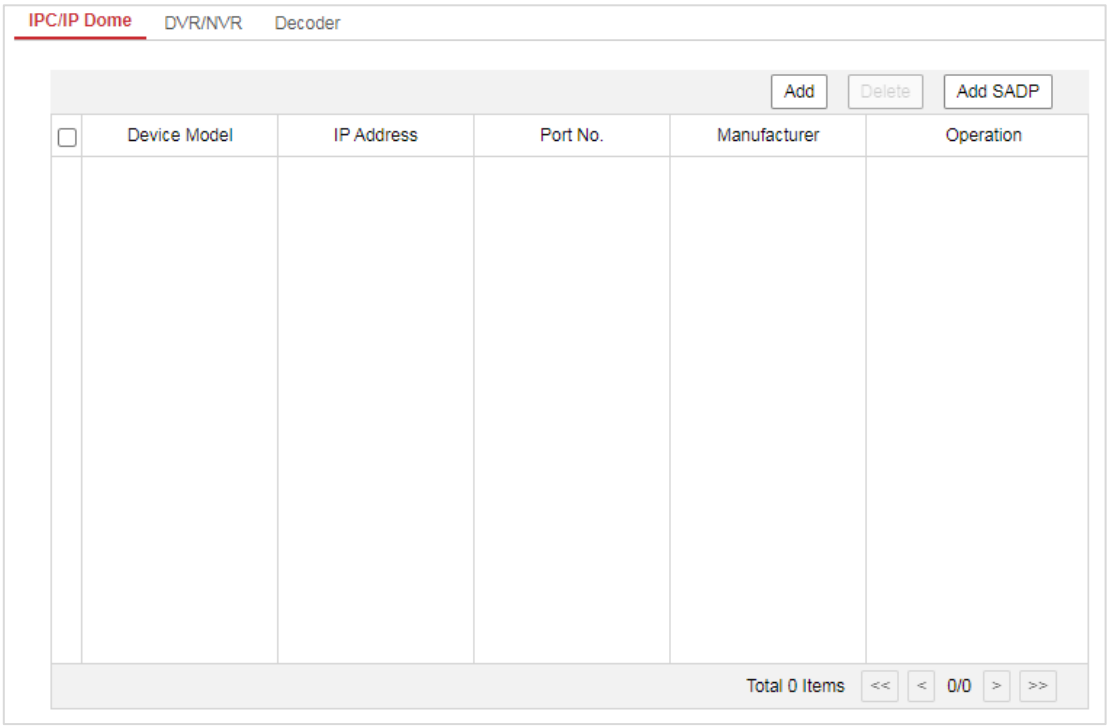

Figure 3-1 Device List

Step 3 Select a device type (IPC/IP Dome, DVR/NVR or Decoder) and click **Add** to add the devices.

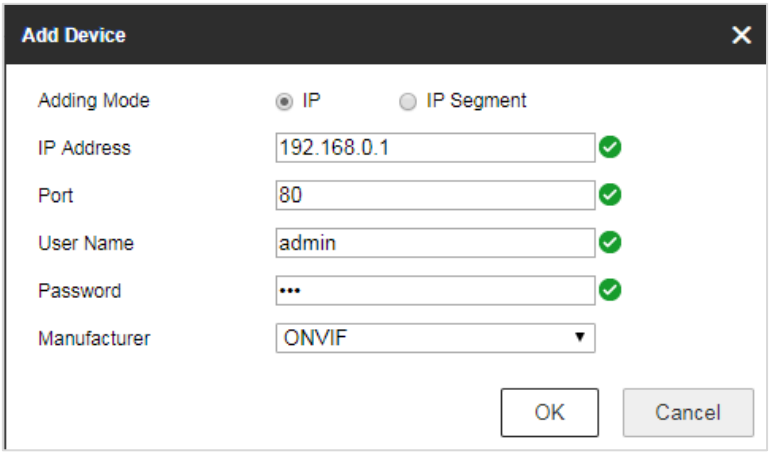

Figure 3-2 Add Device

Step 4 You can add the device by IP or by IP segment. Enter the network parameters, including the IP address, port, login user name, and password.

Step 5 Select **Manufacturer**.

Note

You can add devices of ONVIF protocol.

Step 6 Click **OK** to save the settings. The successfully added device is shown in the list.

Figure 3-3 Successfully Added Device

Note

You can also click the **Add SADP** to add the online devices in the same network segment.

Step 7 (Optional) After adding the device, you can click **Edit** to edit the parameters, or click **Delete** to delete the added device.

3.1.2 Manage Input/Output Channels

You can manage the importing and exporting of input channels in batch, input group, and output channels via web browser.

Import and Export Input Channel List

Step 1 Go to **Device Management** > **Input Channel** > **Input List**.

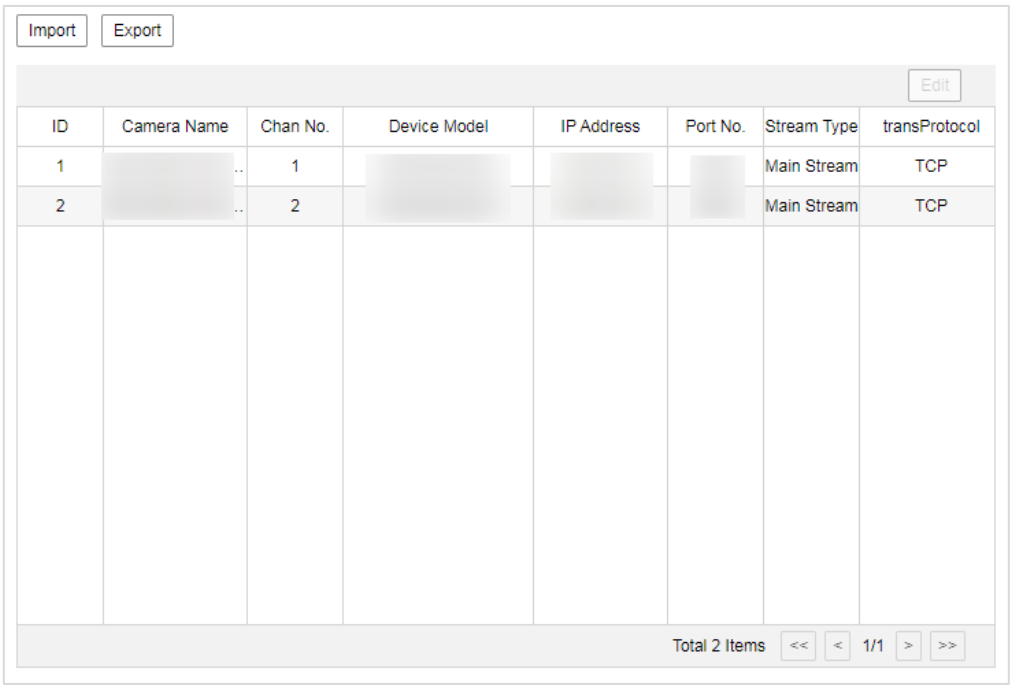

Figure 3-4 Input List

Step 2 (Optional) You can select an input channel from the list and click **Edit** to edit the parameters including the input channel ID, camera name, stream type, and protocol type.

Step 3 Import input channel list from the local directory.

1) Click **Import**.
2) Click **Browse** to select the input channel list (in excel) from the local directory.
3) Enter the admin **Password**.
4) Click **OK**.

Figure 3-5 Import Input Channel List

Step 4 Export input channel list to the local directory.

1) Click **Export**.
2) Enter the admin **Password**.
3) Click **OK**.

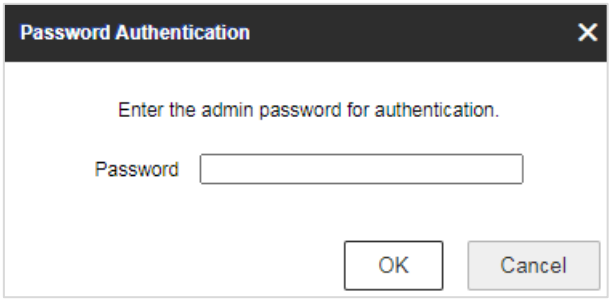

Figure 3-6 Export Input Channel List

Note

You are recommended to save the exported list first, and then open it. Opening it directly is not recommended.

Add Auto-Switch Groups

You can classify the input channels, and realize the auto switch of one group of cameras.

Step 1 Go to **Device Management** > **Input Channel** > **Input Group**.

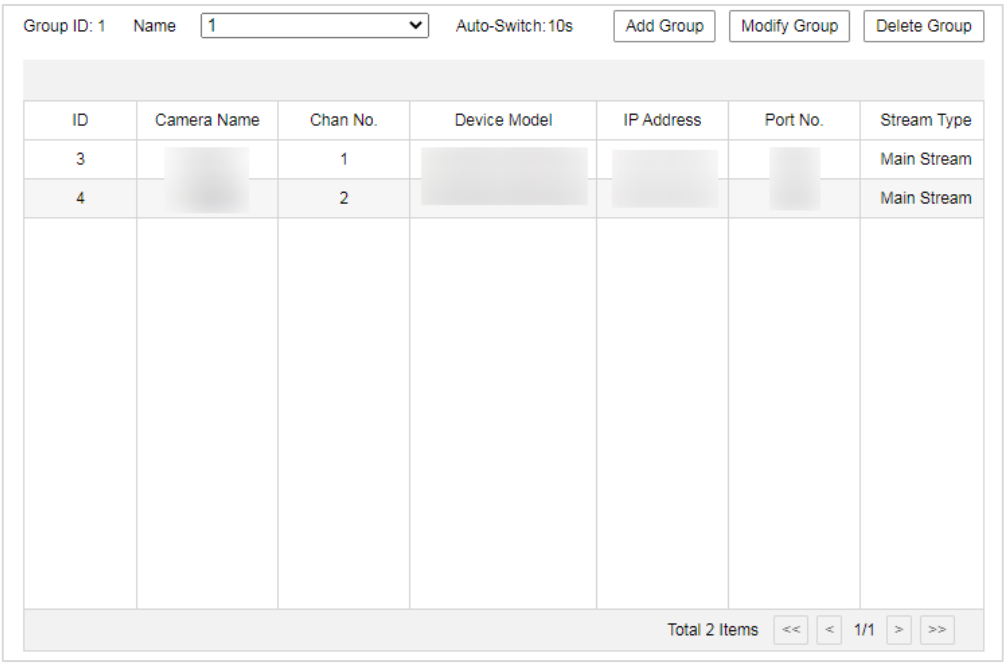

Figure 3-7 Input Group

Step 2 Add input group.

1) Click **Add Group**.
2) Check the channels to be added into one group.
3) Enter the group name and auto-switch interval (10 to 10000 sec).

4) Click **OK**.

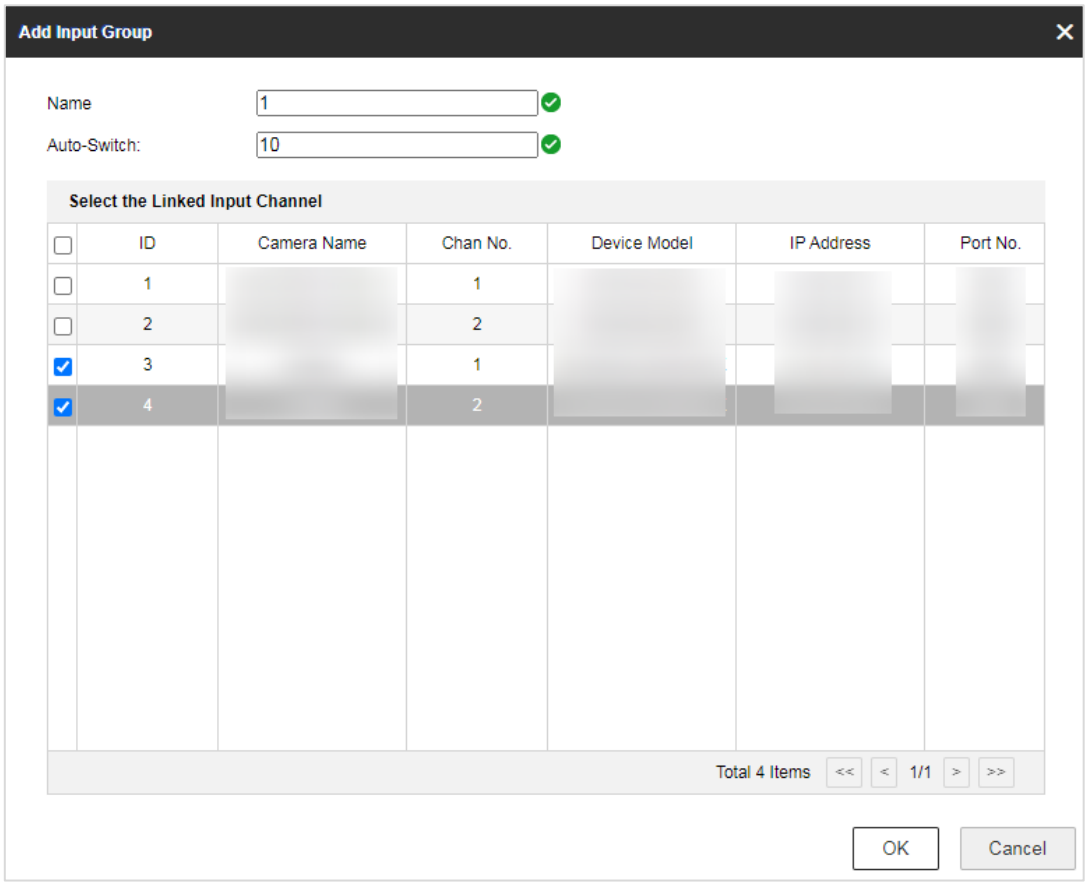

Figure 3-8 Add Input Group

Step 3 (Optional) Select a group from the list, and click **Modify Group** to edit. Click **Delete Group** to delete the added group.

Note

Up to 16 input groups can be added, and up to 64 input channels can be added for each group.

Manage Output Channel

Step 1 Go to **Device Management** > **Output Channel**.

Step 2 You can check the output channel information, or select an output channel from the list and edit the channel ID.

3.2 System Management

3.2.1 View Version Information

Go to **System Management > Version > Version** to view the device version information. Go to **System Management > Version > About**, and click **View License** to view the open source software license.

3.2.2 User Management

The default user account of the device is admin (administrator), and the password is set when you start the device for the first time. The admin user account has the permission to add and delete operator accounts and configure user parameters, and add the related devices for the added users.

Note

You can set 1 administrator and 15 operator accounts.

Step 1 Go to **System Management** > **User Management** > **User Management**.

Step 2 Click **Add** to add user.

Step 3 Edit the user name, enter the admin password, set password for the added user, and confirm the password.

Note

- The password must be a string of at least 8 characters and must contain at least two of the following character types: digits, lowercase letters, uppercase letters.
- The password cannot contain the user name (in the forward order and backward order), 123, a string of at least four consecutive digits (such as 1234, 12345, 4321, etc.), or a string of at least four repeating characters (such as 1111, 8888, aaaa, etc.).
- The password cannot contain the following case insensitive string, including admin, 1qaz2wsx, 1qaz@WSX, !@#$QWER, p@ssword, passw0rd, and p@ssw0rd.
- The password cannot contain the following case insensitive string, including hik, hkws, and hikvision.
- Change the password regularly to better protect the system.

Step 4 Select the linked device(s) from the list for the user.

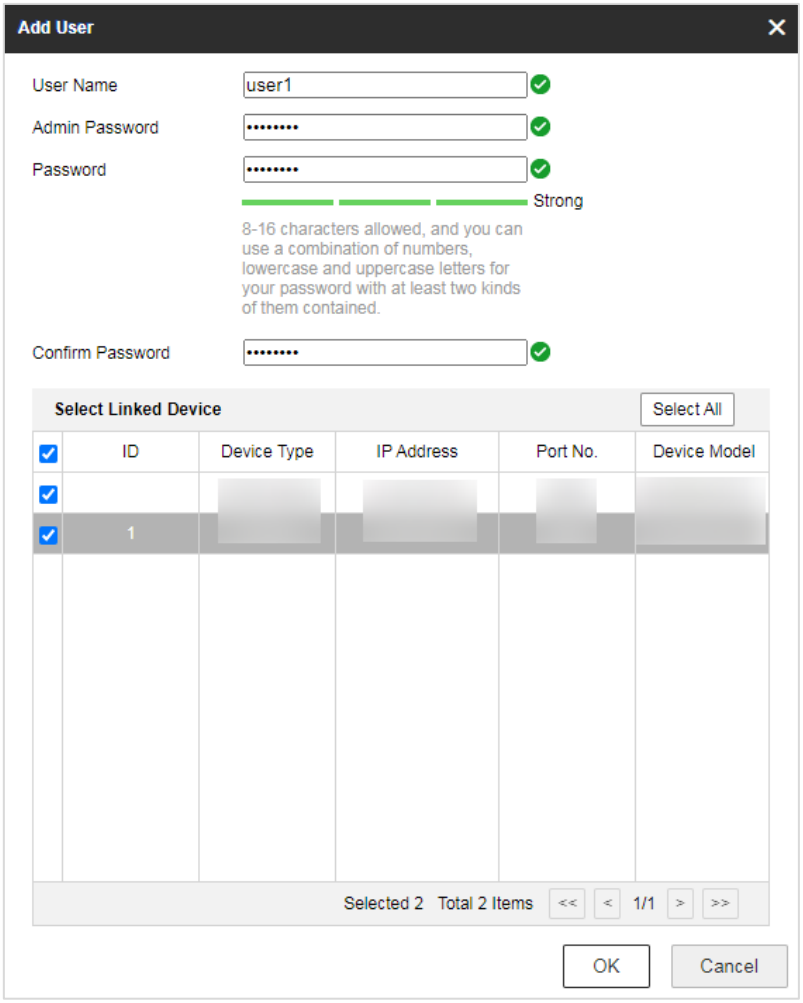

Figure 3-9 Add User

Step 5 Click **OK**.

Step 6 (Optional) Select the admin or added user from the user list, and click **Edit** to edit the parameters. Or select the added user and click **Delete** to delete the user.

3.2.3 Maintenance

Reboot Device

Step 1 Go to **System Management > Maintenance > Maintenance > Remote Reboot**.

Step 2 Click **Remote Reboot**.

Step 3 Click **OK** to reboot the device.

Restore Device to Factory Settings

Step 1 Go to **System Management > Maintenance > Maintenance > Restore the factory defaults**.

Step 2 Click **Complete**.

Step 3 Enter the admin password, and click **OK** to restore the device to the factory settings.

Export Configuration File

You can export the parameters of one device, and import them to another device to set the two devices with the same parameters.

Step 1 Go to **System Management > Maintenance > Maintenance > Export Config**.

Step 2 Click **Config File**.

Step 3 Enter **Admin Password**.

Step 4 Set **File Password**, and confirm the file password.

Note

The password is used for importing the configuration file of the current device to other devices.

Step 5 Click **OK**.

Import Configuration File

Import the configuration file of another device to the current device to set the same parameters.

Before You Start

Save the configuration file to the computer.

Note

Importing configuration file is only available to the devices of the same model and same version.

Step 1 Go to **System Management > Maintenance > Maintenance > Import Config**.

Step 2 Click **Browse** to select the configuration file.

Note

The configuration file is in the format of BIN.

Step 3 Click **Import**.

Step 4 Click **OK** on the popup window.

The device will reboot automatically after the configuration file is imported.

Upgrade

Upgrade the system when you need to update the device version.

Before You Start

Prepare the upgrade file. It is named as “digicap.dav”.

Steps

Step 1 Go to **System Management > Maintenance > Maintenance > Remote Upgrade**.

Step 2 Click **Browse** to select the upgrade file.

Step 3 Click **Upgrade**.

Step 4 Click **OK** in the popup window.

Note

- The upgrade process will take 1 to 10 minutes. Do not cut off the power supply.
- The device will reboot automatically after upgrade.

Search Log

Log helps to locate and troubleshoot problems.

Step 1 Go to **System Management > Maintenance > Log**.

Step 2 Set search conditions.

Step 3 Click **Search**.

The matched logs will be displayed on the log list.

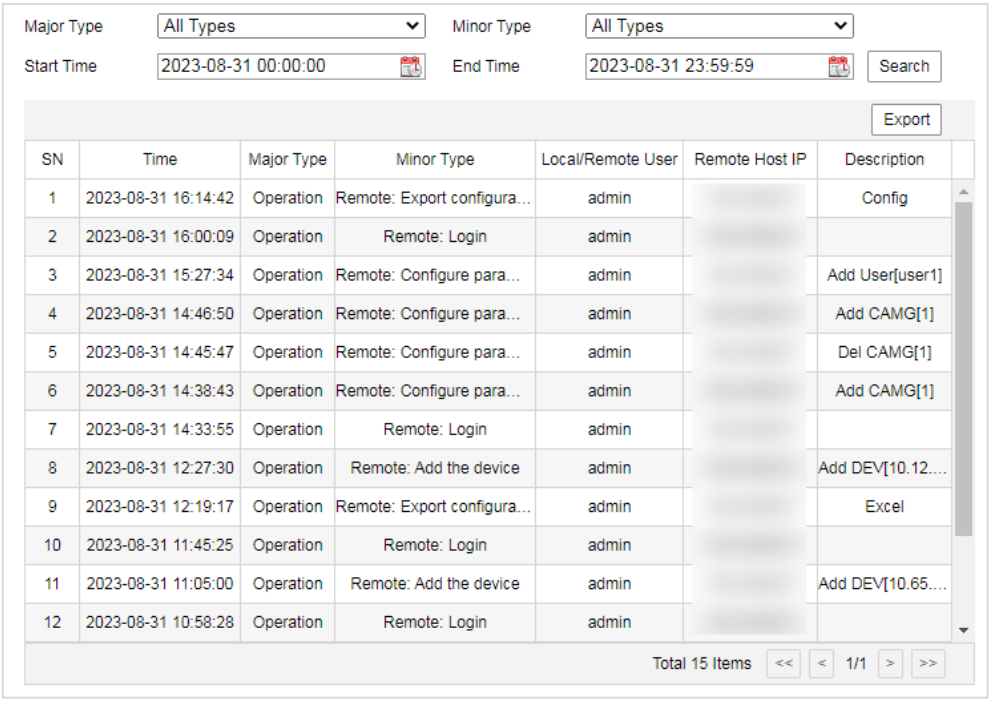

Figure 3-10 Log

Step 4 (Optional) Click **Export** and enter the admin password to save the log files to your computer.

3.2.4 Security

Step 1 Go to **System Management > Security Settings > Security Settings**.

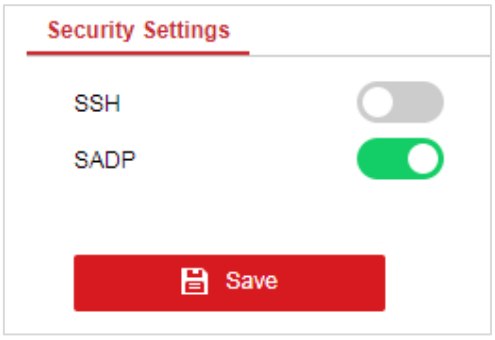

Figure 3-11 Security

Step 2 Set **SSH** and **SADP**.

- **SSH**: You are recommended to disable SSH service.
- **SADP**: If you enable the function, the device can be searched via the SADP software in the same network segment.

Step 3 Click **Save**.

3.3 Network Management

Set the IP address of the device.

Step 1 Go to **Network Management > IP Address Settings**.

Figure 3-12 Set IP Address

Step 2 Set the IP address in two ways.

- Check **DHCP**. The device will automatically get the IP parameters from the network. The device IP address is changed after enabling the function. You can use SADP to get the device IP address.

Note

The network that the device is connected to should support DHCP (Dynamic Host Configuration Protocol).

- Uncheck **DHCP**, and set the IP address manually. Enter **IP Address**, **Gateway**, and **Subnet Mask**.

Step 3 Click **Save**.

3.4 Serial Port Settings

Set the RS-485, RS-422, and RS-232 serial port parameters. Use RS-485 serial port when connecting with analog speed domes and DVR/NVRs. Use RS-422 serial port when connecting with gateways and iVMS. Use RS-232 serial port when connecting with analog matrixes or speed domes via VISCA.

Step 1 Click **Serial Port Settings**.

Step 2 Select **RS485**, **RS422**, or **RS232** to set the corresponding parameters.

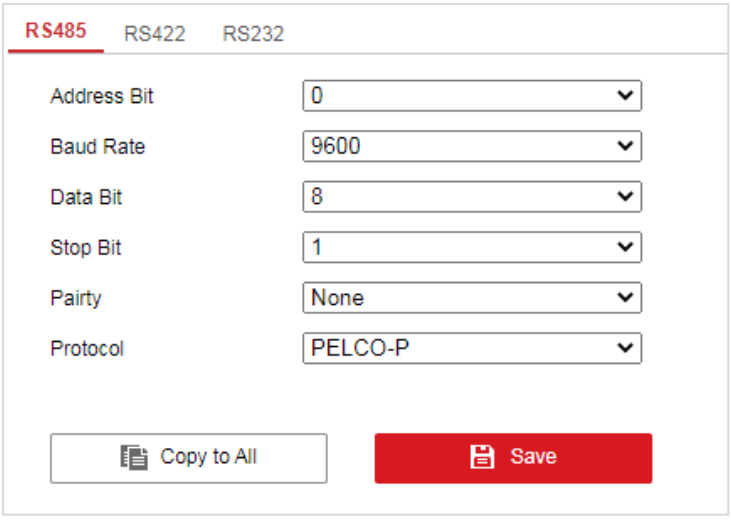

Figure 3-13 Set Serial Port

Step 3 (Optional) Click **Copy to All** to copy the settings to other serial ports of the same type.

Step 4 Click **Save**.

3.5 Matrix Access Gateway

The device can connect with the matrix access gateway, and realize the video wall control, PTZ control, etc.

Step 1 Click **Matrix Access Gateway**.

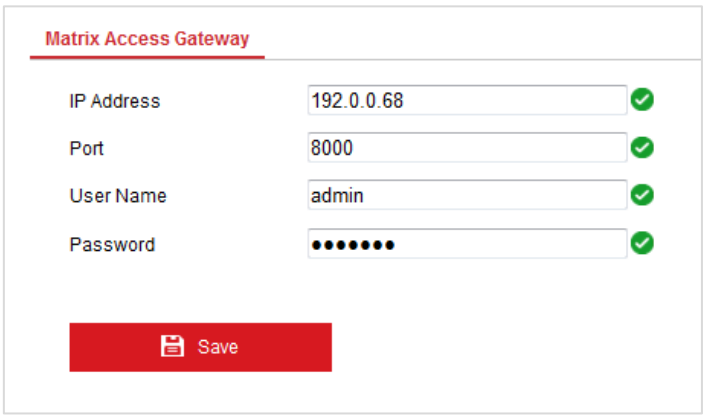

Figure 3-14 Matrix Access Gateway

Step 2 Set the parameters of the matrix access gateway.

Step 3 Click **Save**.

3.6 Platform Access

3.6.1 Connect to KPS

KPS refers to Keyboard Proxy Service. DS-1200KI keyboard can be used as a control terminal to connect to KPS to perform video wall and PTZ control.

Step 1 Go to **Platform Access > KPS**.

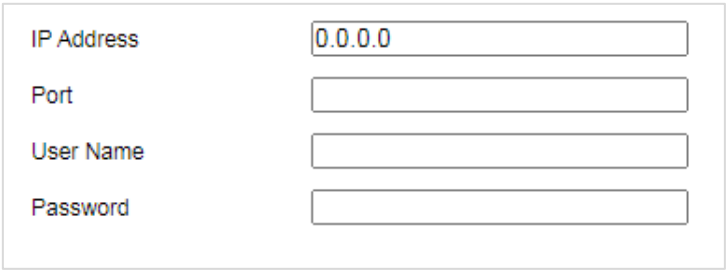

Figure 3-15 KPS

Step 2 Set **IP Address**, **Port**, **User Name**, and **Password** of KPS.

Step 3 Click **Save**.

3.6.2 Connect to Third-Party Platform

The keyboard can be used as a control terminal to connect to the third-party platform to realize the configuration via the third-party platform.

Step 1 Go to **Platform Access > Third-Party Platform**.

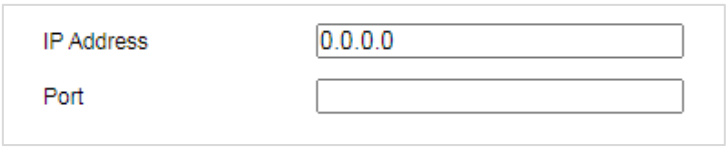

Figure 3-16 Third-Party Platform

Step 2 Set **IP Address** and **Port** of the third-party platform.

Step 3 Click **Save**.

3.6.3 Connect to HikCentral

The keyboard can be used as a control terminal to connect to the HikCentral client to perform video wall and PTZ control.

Step 1 Go to **Platform Access > HikCentral**.

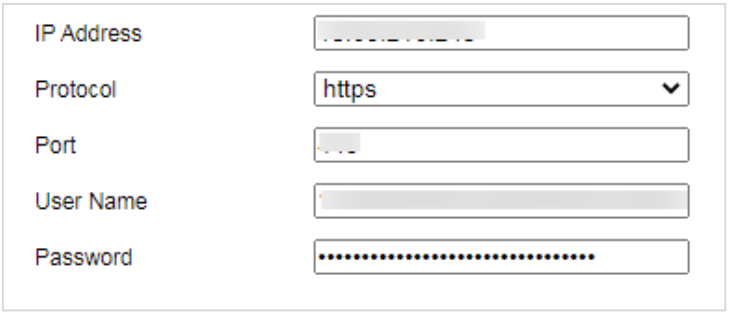

Figure 3-17 HikCentral

Step 2 Set **IP Address**, **Protocol**, **Port**, **User Name**, and **Password** of HikCentral.

Step 3 Click **Save**.

Chapter 4 Keyboard Operation

This section describes how to control devices using the keyboard.

On the keyboard, Press the MODE button on the panel to enter the operation for different devices. DS-1200KI keyboards support the following 9 operation modes, while DS-1006KI keyboards support mode 4, 5, and 6.

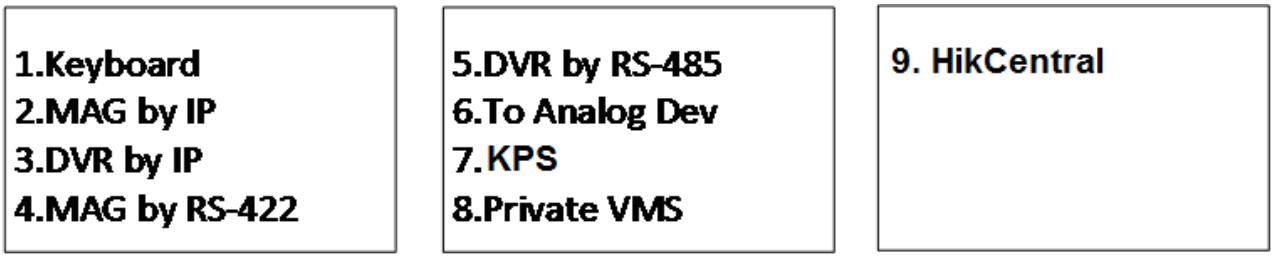

Figure 4-1 Operation Mode

See the following table for the description of each keyboard mode.

Table 4-1 Description of Keyboard Mode

SN	Operation Mode	Description
1	Keyboard	The keyboard can be used for managing the devices (including the IPC, IP dome, DVR/NVR, MVC, decoder, video wall controller, etc.) for control. The keyboard can add the devices via Web browser and assign each of them the unique device ID, and finally manage to communicate with and realize the video wall or PTZ control through the *device ID*+*command* operation.
2	MAG by IP	The keyboard can connect with the matrix access gateway, and realize the video wall control, PTZ control, etc.
3	DVR by IP	The keyboard can connect with the DVR/NVR and remotely call the device menu and realize PTZ control through the virtual panel.
4	MAG by RS-422	The keyboard can connect with the matrix access gateway via RS-422 serial port, and realize the video wall control, PTZ control, etc.
5	DVR by RS-485	The keyboard can connect with the DVR/NVR via RS-485 serial port, and remotely call the device menu and realize PTZ control through the virtual panel.
6	To Analog Dev	The keyboard can connect with the analog dome or PTZ unit via RS-485 serial port, and realize PTZ control; or connect to analog matrix via RS-232 port.

SN	Operation Mode	Description
7	KPS	DS-1200KI keyboard can be used as a control terminal to connect to KPS (Keyboard Proxy Service) to perform video wall and PTZ control.
8	Private VMS	Use the keyboard as terminal to connect to a third-party platform and support video operations through the platform.
9	HikCentral	The keyboard can be used as a control terminal to connect to the HikCentral client to perform video wall and PTZ control.

4.1 Keyboard Operation

The keyboard can be used for managing the devices (including the IPC, IP dome, DVR/NVR, MVC, decoder, video wall controller, etc.) for control.

4.1.1 Video Wall Control

You can select different window-division display modes for the selected output channel. The configurable multi-division display modes depend on the decoders, video wall controller, or MVCs.

Note

The 1/2/4/6/8/9/12/16/25/32/36 window-division display modes are configurable.

Step 1 In the **Keyboard** operation mode, press the *Num + DEV* buttons on the keyboard panel to select the device ID (decoder, MVC and video wall controller).

Step 2 (Optional): Press the *Num + Video Wall* buttons to select the video wall or joint screen.

Step 3 Press the *Num + MON* buttons to select the display window for the output channel.

Step 4 (Optional) Press the *Num + MULT* buttons to set the window-division display mode for the output channel.

Step 5 Press the *Num + WIN* buttons to set the sub-window to play the decoded video. The selected sub-window ID is shown in [ID] on the page, e.g., [02].

Step 6 Press the *Num + CAM/CAM-G* buttons to select the input channel or input channel group. You can press the PREV/NEXT buttons to switch to the previous or next camera / camera group ID.

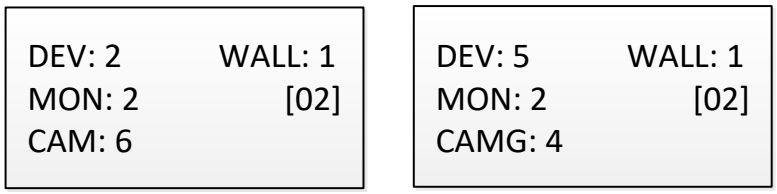

Figure 4-2 Video Wall Operation

Note

- When you enter no device ID (DEV), the first decoder found is set for control by default. And if you enter no WIN ID, the window 01 is set to play the decoded video by default.
- To directly operate the PTZ control, press the *Num + CAM* buttons. Press the *0 + CAM* buttons to stop decoding of the current camera, or press the *0 + CAM-G* buttons to stop cycle decoding of the camera group.
- To control the local decoding channels of NVRs/DVRs, firstly go to the web interface of the NVRs/DVRs and view the input channel IDs, and then press *Num + CAM* buttons to control the channels.
- For DS-9600 series NVRs, if a decoding card is used for decoding output, you need to firstly drag the output channel to the corresponding display window on the video wall using a client software. Then press *Num + DEV + Num + WIN + Num + CAM/CAM-G* to control the camera without pressing the MON ID.

Step 7 Operate the PTZ control on the video wall.

- Move the joystick to realize pan/tilt movement in 8 directions and zoom in/out control.
- Rotate the joystick in clockwise/anti-clockwise directions to l to realize the zoom in/out control.
- The central button of the joystick can be used to capture picture.

4.1.2 Call Presets/Patrols/Patterns

The keyboard can be used to control the PTZ function of the connected IP dome camera, including the pan/tilt movement, zoom/iris/focus adjustment, and preset/patrol/pattern calling.

Step 1 In the **Keyboard** operation mode, press the *Num + MON* buttons to select the output channel ID.

Step 2 Press the *Num + WIN* buttons to set the sub-window to play the decoded video.

Step 3 Press the *Num + CAM* buttons to select the input channel for PTZ control.

Step 4 Call the preset/patrol/pattern.

- Press the *Num + PRESET* buttons on the keyboard panel to call the defined preset.
- Press the *Num + PATROL* buttons on the keyboard panel to call the defined patrol.
- Press the *Num + PATTERN* buttons on the keyboard panel to call the defined pattern.

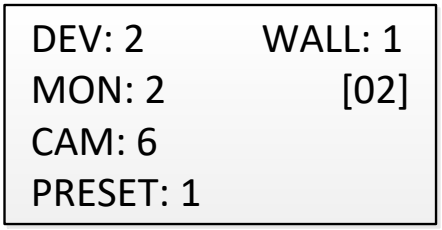

Figure 4-3 Preset Calling

Note

- The preset/patrol/pattern must be pre-configured.
- Whether PTZ functions are available or not depends on the capabilities of speed domes. If the speed domes do not support a PTZ function, the keyboard does not respond.

4.1.3 Call Scenes

For the MVC, video wall controller, and decoder added to the keyboard, you can configure the scene via the client software first and follow the steps below to switch the scene.

Step 1 In the **Keyboard** operation mode, press the *Num + DEV* buttons on the keyboard panel to select the device ID (decoder, MVC and video wall controller).

Step 2 Press the *Num + SCENE* buttons on the keyboard panel to switch to the defined scene.

Note

The scene of the video wall must be pre-configured for the decoder or MVC via client software.

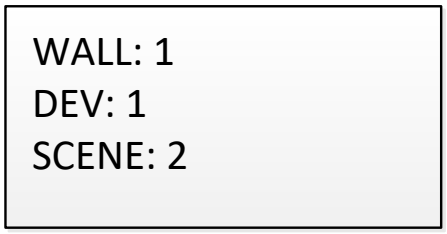

Figure 4-4 Scene Calling

4.2 MAG by IP

The keyboard can connect with the matrix access gateway, and realize the video wall control, PTZ control, etc.

Step 1 Set the network parameters of the matrix access gateway via web browser. Refer to *3.5 Matrix Access Gateway* for details.

Step 2 Enter the **MAG by IP** operation mode on the keyboard.

Step 3 Press the *Num + MON* buttons to select the display window for the output channel.

Step 4 Press the *Num + WIN* buttons to set the window to play the decoded video.

Step 5 Press the *Num + CAM* buttons to select the input channel group. You can press the PREV/NEXT buttons to switch to the previous or next camera ID.

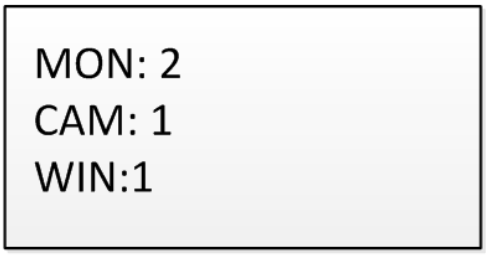

Figure 4-5 MAG by IP

Note

For the initial use of MAG, you must use the configuration kits software to configure the input/output channel ID of the MAG. Please see the related user manual for details. The input/output channel ID is used for switching on the video wall or PTZ control during keyboard operation.

Step 6 Operate the PTZ control on the video wall.

4.3 DVR by IP

The keyboard can connect with the DVR/NVR and remotely call the device menu and realize PTZ control through the virtual panel.

Step 1 Add NVR/DVR devices via web browser. Refer to *3.1.1 Add Devices* for details.

Step 2 Enter the **DVR by IP** operation mode on the keyboard.

Step 3 Press the *Num + DEV* buttons on the keyboard panel to select the device ID (viewed on the **Device Management** > **Device List** > **DVR/NVR**).

Figure 4-6 DVR by IP

Step 4 Operate the buttons on the keyboard panel to realize the corresponding functions. Refer to the Quick Start Guide to check the description of the DVR/NVR control buttons.

4.4 MAG by RS-422

The keyboard can connect with the matrix access gateway via RS-422 serial port, and realize the video wall control, PTZ control, etc.

Before You Start

Check the connection between the MAG and the keyboard. Connect the T+ ad T- terminals of the RS-422 serial port of the keyboard with that of the MAG. See the following figure.

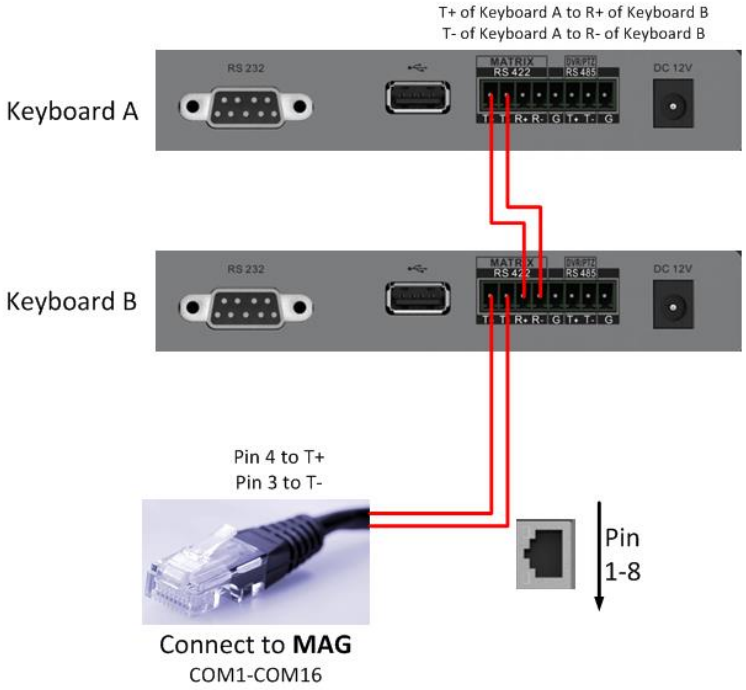

Figure 4-7 Connection between Cascaded Keyboards and MAG

See the following figure as an example for the network cable (568B). The pin 3 and pin 4 are colored in green-white and blue.

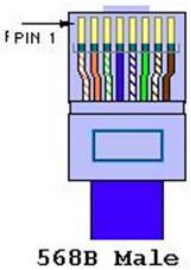

Figure 4-8 Network Cable

Step 1 Enter the **MAG by RS-422** operation mode on the keyboard.

Step 2 Press the *Num + MON* buttons to select the display window for the output channel.

Step 3 Press the *Num + WIN* buttons to set the window to play the decoded video.

Step 4 Press the *Num + CAM* buttons to select the input channel.

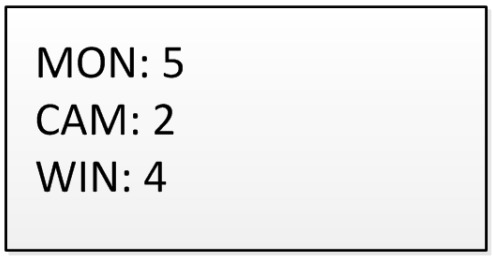

Figure 4-9 Matrix Operation

Step 5 You can operate the PTZ control on the video wall for the connected dome.

Note

- You can also press the *Num* + CAM buttons to select the input channel, and operate the PTZ control.
- For the initial use of MAG, you must use the configuration kits software to configure the input/output channel ID of the MAG. Please see the related user manual for details. The input/output channel ID is used for switching on the video wall or PTZ control during keyboard operation.

4.5 DVR by RS-485

Note

- In DVR by RS-485 mode, the keyboard screen will display a prompt message asking you to confirm your device version. If your NVR is of a 4.1.50 or later version, select **Yes**; otherwise, select **No**. If your DVR is of a 3.5.35 or later version, select **Yes**; otherwise, select **No**. Please note that selecting an incorrect device version may result in function unavailability.
- If you encounter a camera control problem, try to change the device ID of your NVR or DVR to a digit from 1 to 16.

The keyboard can connect with the DVR/NVR via RS-485 serial port, and remotely call the device menu and realize PTZ control through the virtual panel.

Before You Start

Check the connection between the DVR/NVR and the keyboard. Connect the **T+** ad **T-** terminals of the RS-485 serial port of the keyboard with the KB port on the DVR/NVR rear panel respectively.

Note

Our keyboard products support DVR/NVR with KB ports only.

Figure 4-10 RS-485 Serial Port

Step 1 Enter the **DVR by RS-485** operation mode on the keyboard.

Step 2 Press the *Num + DEV* buttons on the keyboard panel to select the device ID (corresponding to the remote ID on ClientDemo).

Figure 4-11 DVR by RS-485

Step 3 Move the joystick and operate the buttons on the keyboard panel to realize the corresponding functions. Refer to the Quick Start Guide to check the description of the DVR control buttons.

Note

The baud rate, protocol and other parameters of RS-485 of the keyboard must be configured to 9600, 8, 1, and none parity.

4.6 To Analog Device

4.6.1 Dome by RS-485

The keyboard can connect with the analog dome or PTZ unit via RS-485 serial port, and realize PTZ control.

Before You Start

Check the connection between the dome and the Keyboard. Connect the **T+** ad **T-** terminals of the keyboard's RS-485 serial port with the **RS485+** and **RS485-** terminals of the dome respectively.

Step 1 Enter the **To Analog Dev** operation mode on the keyboard.

Step 2 Press the *Num + CAM* buttons to select the dome site.

Step 3 Use the joystick and operate the buttons on the keyboard panel to realize the corresponding functions.

Figure 4-12 Dome by RS-485

Note

The address, baud rate, protocol, and other parameters of RS-485 must be configured the same with those of the dome.

4.6.2 Dome by RS-232

The keyboard can connect with the analog dome via RS-232 serial port, and control the dome via VISCA protocol.

Step 1 Connect the analog dome to the RS-232 serial port of the keyboard.

Figure 4-13 Analog Dome Connection

Step 2 Set the RS-232 parameters. You can set via both the local keyboard and the web browser. Select **Protocol** as **VISCA**. Refer to *3.4 Serial Port Settings* for details.

Note

The address, baud rate, protocol, and other parameters of RS-232 must be configured the same with those of the dome.

Step 3 Press **MODE** button on the keyboard, and select **To Analog Dev > RS232**.

Step 4 Press the *Num + CAM* buttons to select the dome site.

Step 5 Use the joystick and operate the buttons on the keyboard panel to realize the corresponding functions.

Figure 4-14 Dome by RS-232

4.6.3 Analog Matrix by RS-232

Step 1 Connect analog matrix to the RS-232 port of the keyboard using RS-232 cable as shown below.

Figure 4-15 Analog Matrix RS-485 Connection

Step 2 Log in to the keyboard, select **Mode** > **To Analog Dev** and enter *Num + DEV*, *Num + MON* and *Num + CAM* to select the camera to control.

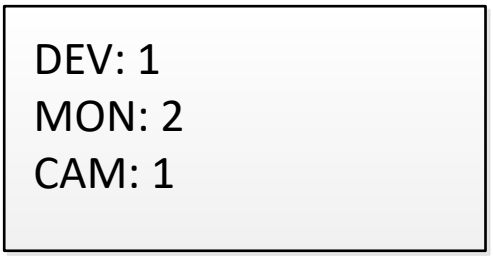

Figure 4-16 Analog Matrix By RS-485

4.7 Platform Access

4.7.1 Access to KPS by Network

Step 1 Set the network parameters of KPS via web browser. Refer to *3.6.1 Connect to KPS* for details.

Step 2 Log in to KPS to view the MON ID and CAM ID.

Step 3 Log in to the keyboard, select **Mode** > **iVMS Platform** and enter *Num + WALL*, *Num + MON* and *Num + CAM*, or directly *Num + CAM* to select the camera to control.

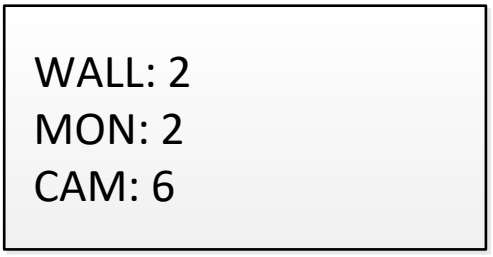

Figure 4-17 iVMS Platform Settings

Note

- The parameters configurable through Web are also available when you log in to the keyboard and select **Mode** > **iVMS Platform**.
- Log in to the iVMS platform to check which device is corresponding to the number entered for MON and CAM. For details about the operations, see the related iVMS platform operation manual.

4.7.2 Access to Third-Party Platform by Network

Step 1 Set the network parameters of the third-party platform via web browser. Refer to *3.6.2 Connect to Third-Party Platform* for details.

Step 2 Log in to the keyboard, select **Mode** > **Private VMS** and enter *Num + MON*, *Num + WIN* and *Num + CAM* to select the camera to control.

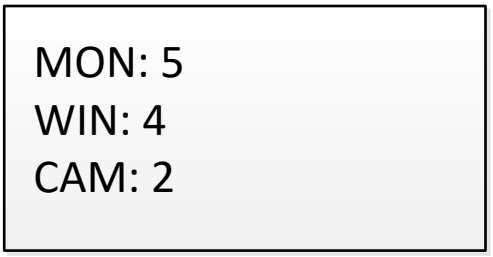

Figure 4-18 Private VMS Settings

Note

The parameters configurable through Web are also available when you log in to the keyboard and select **Mode** > **Private VMS**.

4.7.3 Access to HikCentral

Step 1 Set the network parameters of HikCentral via web browser. Refer to *3.6.3 Connect to HikCentral* for details.

Step 2 Log in to HikCentral to view MON ID and CAM ID.

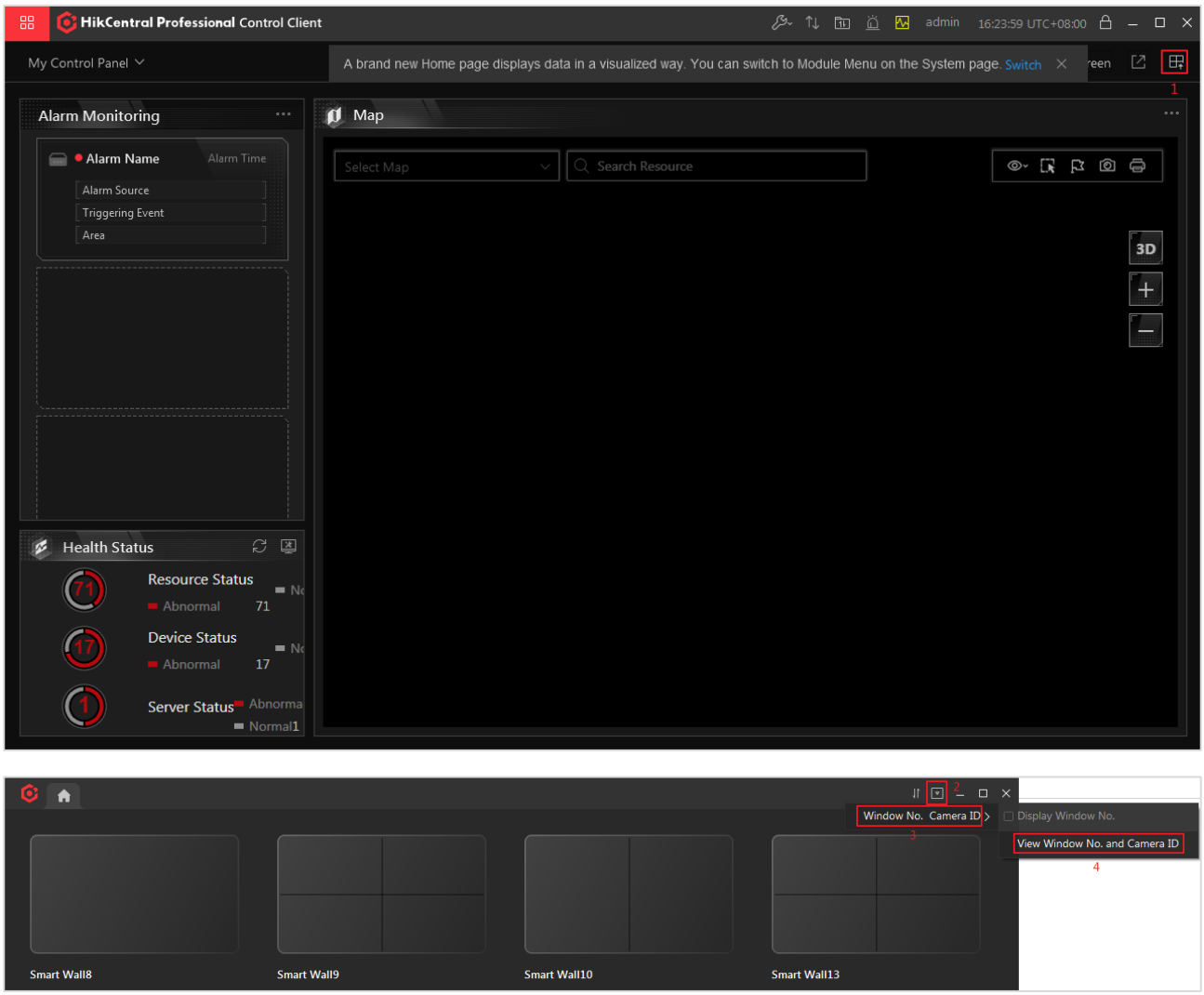

Figure 4-19 View Window No. and Camera ID via HikCentral

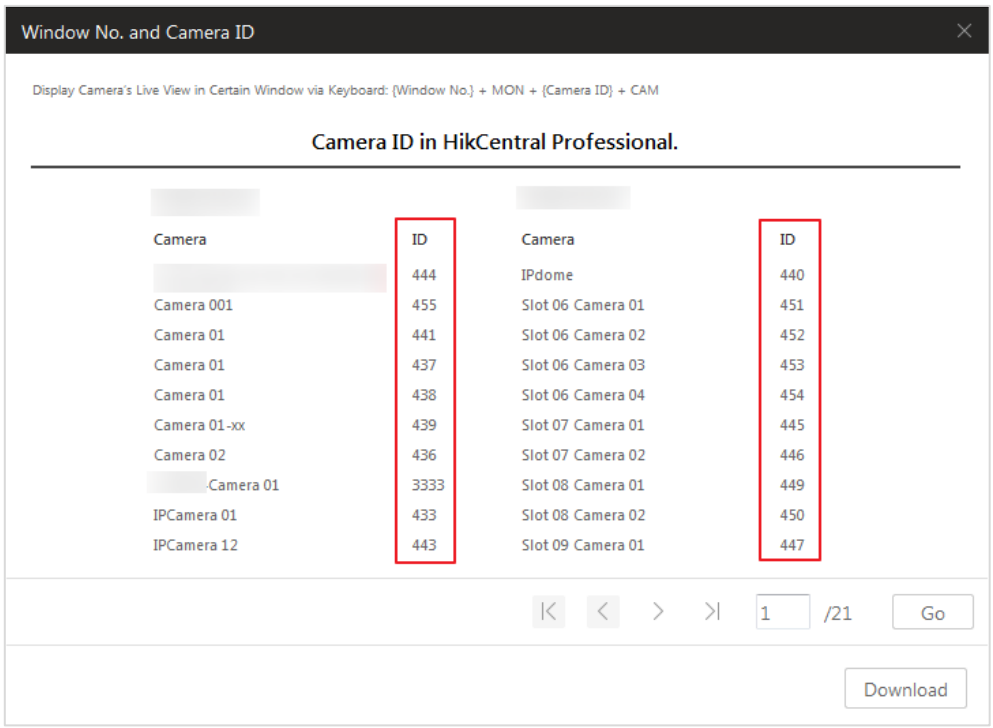

Figure 4-20 View CAM ID

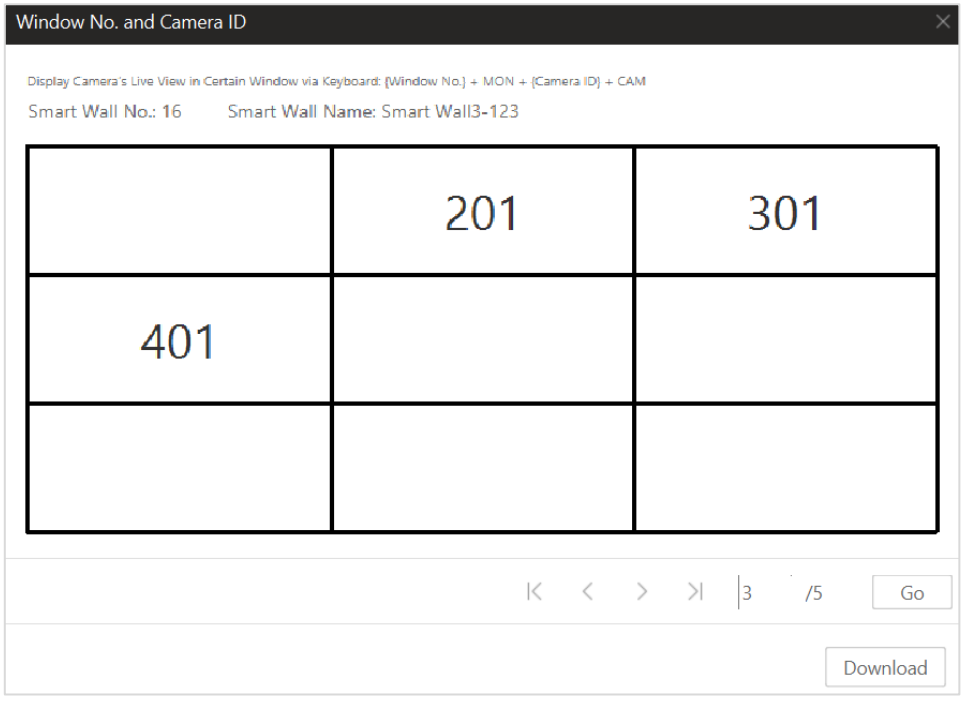

Figure 4-21 View MON ID

Step 3 Log in to the keyboard, and select **Mode** > **HikCentral**.

Step 4 Do the following operations.

- Switch video walls

Enter *Num + WALL (AUX)* to switch the video walls. You can press *WALL (AUX)* to view all the video walls.

- Select the output window (MON)

  Enter *Num + MON* to select the output window. Enter *Num + MULT* to divide the window. Enter *Num + WIN* to select the sub-window (WIN) after dividing.

- Display on the video wall

  Enter *Num + CAM* to select the camera to display on the video wall.

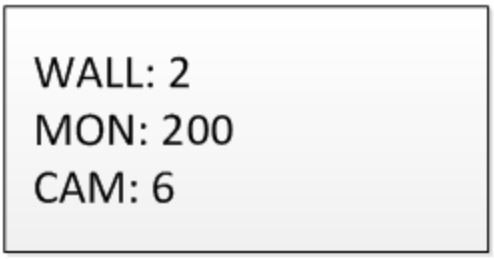

Figure 4-22 HikCentral Control

- Switch the previous/next camera

  Press **PREV/NEXT** button to switch the previous or next camera.

- Tag the video

  For the camera already displayed on the video wall and set recording schedule, press the top button on the joystick to tag the video.

- Control the camera directly

  Exit from the video wall, and enter *Num + CAM* to control the camera independently.

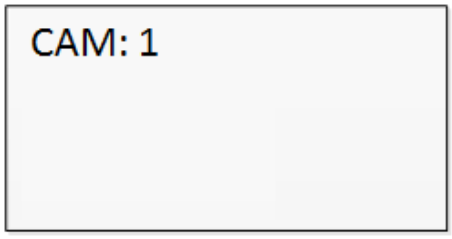

Figure 4-23 Control Camera Directly

Note

Refer to the Quick Start Guide for the detailed descriptions of the functions of keyboard buttons.

4.8 Shortcut Operation

The device control via keyboard can be realized by shortcut operation.

Step 1 On the login page, enter the user name and password to log in to the device.

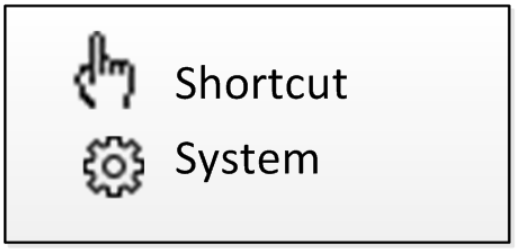

Figure 4-24 Menu

Step 2 Use the joystick to select the **Shortcut** to enter the shortcut operation mode.

Step 3 Press the *Num + DEV/MON/CAM/CAM-G/PRESET/PATROL/PATTERN/WIN/MULT/SCENE* on the keyboard buttons to realize the corresponding device operation and control.

Chapter 5 System Menu Configuration

On the main menu after login, you can select **System** to check the version, and configure the system configuration, including network, user, RS-485, RS-422, hardware, time and maintenance.

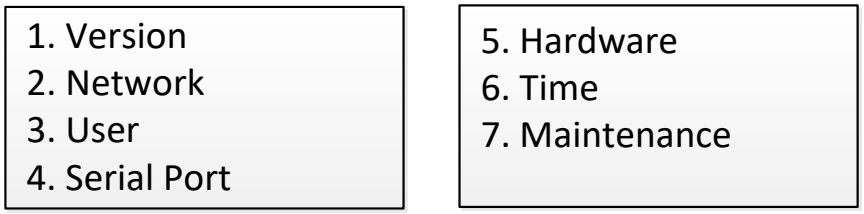

Figure 5-1 Main Menu

5.1 Version

Select **Version** to check the version information of the keyboard, including the firmware version, panel version, hardware version, core version, and serial No.

5.2 Network

5.2.1 DHCP

If you enable **DHCP**, the device will automatically get the parameters such as the IP address, subnet mask, and gateway.

If you enable **DHCP**, you can set the IP address manually. Set **IP Address**, **Gateway**, and **Subnet Mask**.

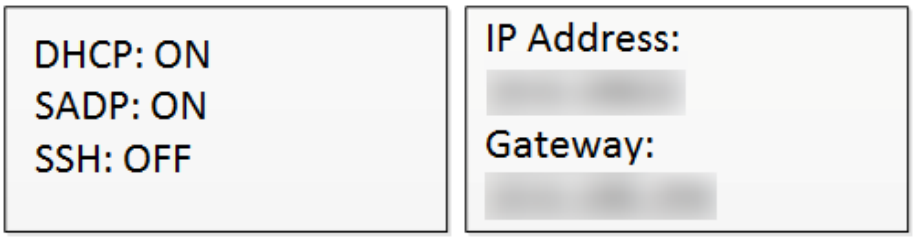

Figure 5-2 DHCP

5.2.2 SADP

If you enable SADP, the device can be searched via the SADP software in the same network segment. It is enabled by default.

5.2.3 SSH

You are recommended to disable SSH service to guarantee the security.

5.3 User Management

Step 1 Select **User** to enter the user management page. You can change the admin user password, add new user, edit user or delete the user.

Step 2 Click **OK** button or the central button of joystick to save the settings.

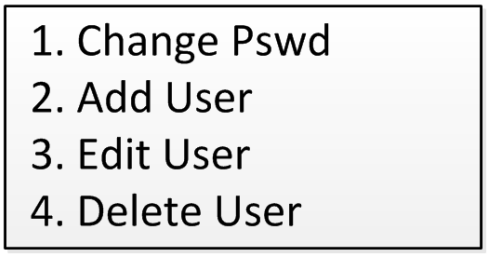

Figure 5-3 User Management

Note

- Only the admin user is allowed to add/edit/user the user (operator).
- The password must be a string of at least 8 characters and must contain at least two of the following character types: digits, lowercase letters, uppercase letters.
- The password cannot contain the user name (in the forward order and backward order), 123, a string of at least four consecutive digits (such as 1234, 12345, 4321, etc.), a string of at least four repeating characters (such as 1111, 8888, aaaa, etc.), 123,.
- The password cannot contain the following case insensitive string, including admin, 1qaz2wsx, 1qaz@WSX, !@#$QWER, p@ssword, passw0rd, and p@ssw0rd.
- The password cannot contain the following case insensitive string, including hik, hkws, and hikvision.
- Change the password regularly to better protect the system.

5.4 Serial Port Settings

You can connect analog dome or DVR with the keyboard via RS-484 serial port, MVC/MAG via RS-422 serial port and analog matrix via RS-232 serial port.

Step 1 Select **Serial Port** to enter the settings.

Step 2 You can configure the address bit (RS-485 only), baud rate, data bit, protocol, stop bit, parity, and copy all settings.

When you set the **Copy All** to **Yes** for RS-485 serial port, the current settings will be copied to the connection of all other RS-485 devices.

Step 3 Click the **OK** button or the central button of joystick to save the settings.

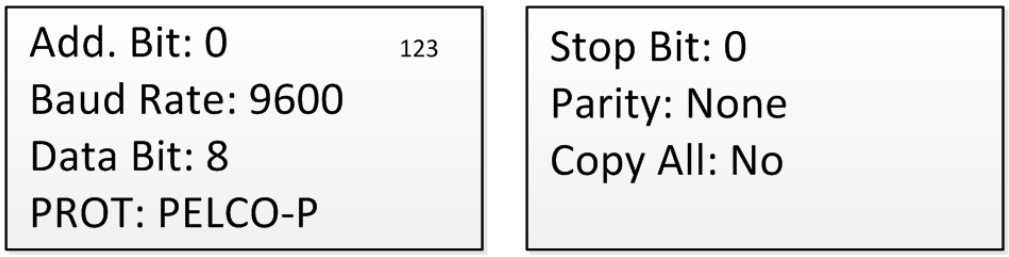

Figure 5-4 RS-485 Settings

Note

The RS-485/RS-422/RS-232 parameters configured here must be the same with the connected dome/DVR or MAG.

5.5 Hardware

You can set the click sound, auto-logoff, and backlight feature of the keyboard.

Step 1 Select **Hardware** to enter the following page, and move (left/right) the joystick to set the function.

- If you enable **Click Sound**, there will be sound when you press the keyboard buttons.
- When the auto-logoff is set to ON, the system will automatically log off after the device is not operated for 30 minutes.
- The duration of backlight can be set as **Open** (always turned on), **5min**, **10min**, **30min**, and **60min**.

Step 2 Click **OK** button or the central button of joystick to save the settings.

Figure 5-5 Hardware Settings

5.6 Time Settings

Step 1 Select **Time** to enter the system time settings page.

Step 2 You can set the value of year, month, date, time format, hour, minute and second.

Step 3 Click **OK** button or the central button of joystick to save the settings.

5.7 Maintenance

Select **Maintenance** to enter the system maintenance settings page. You can upgrade the device, import and export the configuration files, and recover the device to the factory default settings.

Figure 5-6 Maintenance

Note

- You should connect the U-flash disk to the keyboard before upgrading, and importing/exporting the files.
- The upgrade file and configuration file must be located in the root directory of the U-flash disk.
- The upgrade file must be in *digicap.dav*; and the configuration file in *kbCfg.bin*.


See Far, Go Further