# HIKVISION

# DS-1600KI Keyboard

User Manual

# **Legal Information**

#### About this Document

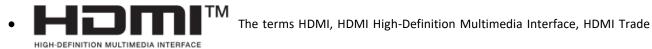
- This Document includes instructions for using and managing the Product. Pictures, charts, images and all other information hereinafter are for description and explanation only.
- The information contained in the Document is subject to change, without notice, due to firmware updates or other reasons. Please find the latest version of the Document at the Hikvision website (<a href="https://www.hikvision.com">https://www.hikvision.com</a>). Unless otherwise agreed, Hangzhou Hikvision Digital Technology Co., Ltd. or its affiliates (hereinafter referred to as "Hikvision") makes no warranties, express or implied.
- Please use the Document with the guidance and assistance of professionals trained in supporting the Product.

#### **About this Product**

This product can only enjoy the after-sales service support in the country or region where the purchase is made.

#### **Acknowledgment of Intellectual Property Rights**

- Hikvision owns the copyrights and/or patents related to the technology embodied in the Products described in this Document, which may include licenses obtained from third parties.
- Any part of the Document, including text, pictures, graphics, etc., belongs to Hikvision. No part of this Document may be excerpted, copied, translated, or modified in whole or in part by any means without written permission.
- **HIKVISION** and other Hikvision's trademarks and logos are the properties of Hikvision in various jurisdictions.
- Other trademarks and logos mentioned are the properties of their respective owners.



dress and the HDMI Logos are trademarks or registered trademarks of HDMI Licensing Administrator, Inc.

#### **LEGAL DISCLAIMER**

- TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, THIS DOCUMENT AND THE PRODUCT DESCRIBED, WITH ITS HARDWARE, SOFTWARE AND FIRMWARE, ARE PROVIDED "AS IS" AND "WITH ALL FAULTS AND ERRORS". HIKVISION MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY, SATISFACTORY QUALITY, OR FITNESS FOR A PARTICULAR PURPOSE. THE USE OF THE PRODUCT BY YOU IS AT YOUR OWN RISK. IN NO EVENT WILL HIKVISION BE LIABLE TO YOU FOR ANY SPECIAL, CONSEQUENTIAL, INCIDENTAL, OR INDIRECT DAMAGES, INCLUDING, AMONG OTHERS, DAMAGES FOR LOSS OF BUSINESS PROFITS, BUSINESS INTERRUPTION, OR LOSS OF DATA, CORRUPTION OF SYSTEMS, OR LOSS OF DOCUMENTATION, WHETHER BASED ON BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE), PRODUCT LIABILITY, OR OTHERWISE, IN CONNECTION WITH THE USE OF THE PRODUCT, EVEN IF HIKVISION HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES OR LOSS.
- YOU ACKNOWLEDGE THAT THE NATURE OF THE INTERNET PROVIDES FOR INHERENT SECURITY RISKS, AND HIKVISION
   SHALL NOT TAKE ANY RESPONSIBILITIES FOR ABNORMAL OPERATION, PRIVACY LEAKAGE OR OTHER DAMAGES
   RESULTING FROM CYBER-ATTACK, HACKER ATTACK, VIRUS INFECTION, OR OTHER INTERNET SECURITY RISKS;
   HOWEVER, HIKVISION WILL PROVIDE TIMELY TECHNICAL SUPPORT IF REQUIRED.
- YOU AGREE TO USE THIS PRODUCT IN COMPLIANCE WITH ALL APPLICABLE LAWS, AND YOU ARE SOLELY RESPONSIBLE
  FOR ENSURING THAT YOUR USE CONFORMS TO THE APPLICABLE LAW. ESPECIALLY, YOU ARE RESPONSIBLE, FOR
  USING THIS PRODUCT IN A MANNER THAT DOES NOT INFRINGE ON THE RIGHTS OF THIRD PARTIES, INCLUDING
  WITHOUT LIMITATION, RIGHTS OF PUBLICITY, INTELLECTUAL PROPERTY RIGHTS, OR DATA PROTECTION AND OTHER
  PRIVACY RIGHTS. YOU SHALL NOT USE THIS PRODUCT FOR ANY PROHIBITED END-USES, INCLUDING THE

DEVELOPMENT OR PRODUCTION OF WEAPONS OF MASS DESTRUCTION, THE DEVELOPMENT OR PRODUCTION OF CHEMICAL OR BIOLOGICAL WEAPONS, ANY ACTIVITIES IN THE CONTEXT RELATED TO ANY NUCLEAR EXPLOSIVE OR UNSAFE NUCLEAR FUEL-CYCLE, OR IN SUPPORT OF HUMAN RIGHTS ABUSES.

- IN THE EVENT OF ANY CONFLICTS BETWEEN THIS DOCUMENT AND THE APPLICABLE LAW, THE LATTER PREVAILS.
- © Hangzhou Hikvision Digital Technology Co., Ltd. All rights reserved.

# **Preface**

# **Applicable Models**

This manual is applicable to the models listed in the following table.

Series	Model
Network Keyboard	DS-1600KI

# **Symbol Conventions**

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

Symbol	Description
<u>Î</u> Danger	Indicates a hazardous situation which, if not avoided, will or could result in death or serious injury.
<u>^</u> Caution	Indicates a potentially hazardous situation which, if not avoided, could result in equipment damage, data loss, performance degradation, or unexpected results.
iNote	Provides additional information to emphasize or supplement important points of the main text.

# **Contents**

Chapter 1 Product Description	
1.1 Product Overview	1
1.2 Appearance	2
Chapter 2 Start-up	5
2.1 Activate Keyboard	5
2.2 Change Password	6
2.3 Login and Logout	7
Chapter 3 Configure Network	9
3.1 Set Wired Network	9
3.2 Set Wireless Network	9
Chapter 4 Manage Keyboard	10
4.1 Manage Device	10
4.1.1 Add and Edit Device	10
4.1.2 Manage Connected Cameras	14
4.1.3 Manage Auto-switch Group	16
4.2 Live View on Screen	18
4.2.1 View Video with Keyboard	18
4.2.2 PTZ Control	19
4.3 Manage Video Wall	21
4.3.1 Edit Video Wall Layout	21
4.3.2 Configure Video Channels on Video Wall	22
4.3.3 Play Video on Video Wall	23
4.3.4 Configure Display Window	24
4.3.5 Save Current Video Wall Settings as a Scene	24
4.3.6 Enable Video Wall Playback Local Decoding	25
4.3.7 Video Wall Playback	25
4.3.8 Smart Scaling on Video Wall	27
4.3.9 Video Wall Preview	27
4.4 Video Playback	28

4.5 Control DVR	29
4.6 Manage User	31
4.6.1 Add New Users with Admin Account	31
4.6.2 Edit User Accounts by Administrator	33
Chapter 5 Control Platform	34
5.1 Control iSecure	34
5.1.1 Login	34
5.1.2 Display a Camera on Video Wall	35
5.1.3 Local Live View	36
5.1.4 Video Wall Playback	37
5.2 Control HikCentral	38
5.2.1 Login	38
5.2.2 Display a Camera on Video Wall	39
5.2.3 Local Live View	40
5.2.4 Video Wall Playback	42
5.3 Control KPS	43
Chapter 6 Configure Web	45
6.1 Login	45
6.2 Add Devices	46
6.2.1 Manually Add	46
6.2.2 Import Input Channels in Batches	47
6.3 Channel Management	48
6.3.1 Edit Channel	48
6.3.2 Camera Group	49
6.4 Network	50
6.5 System Settings	51
6.5.1 Version	51
6.5.2 User Management	51
6.5.3 System Maintenance	53
6.5.4 Log Management	54
6.5.5 Security Settings	54

# DS-1600KI Keyboard • User Manual

6.5.6 View Open Source Software Licenses	55
Chapter 7 Configure System	56
7.1 Set Language	56
7.2 Set Date and Time	
7.3 Set Storage	56
7.4 Maintenance	
7.5 Set Others	
7.6 Upgrade Firmware	

# **Chapter 1 Product Description**

### 1.1 Product Overview

#### Introduction

DS-1600KI is a fully touch-enabled and detachable network keyboard independently developed by Hikvision.

In addition to displaying images, the 10.1" capacitive touchscreen supports DVI and HDMI video outputs. The software system runs on Android 6.0. It is compatible with all series of Hikvision IP cameras, NVRs/DVRs, and control center platform such as HikCentral. It supports recording, picture capturing and two-way audio, as well as the video wall control and scene switch of platform and decoding devices.

The four-axis joystick can be used to the PTZ control of speed dome and quick location of the target. The joystick panel is detachable for convenience.

#### **Key Features**

- 10.1" capacitive touchscreen, with 1280 × 800 resolution
- Android operation system and detachable design of the touchscreen and joystick
- Capable of decoding 4-ch at 1080p resolution
- Up to 4-division window display
- Supports H.265/H.264 encoding format, up to 1-ch 4k or 4-ch 1080p
- Live view on touchscreen
- DVI and HDMI outputs to monitor
- Local playback of video
- Accessible to private products including DVR, DVS, NVR, network camera, speed dome, etc.
- Control of decoders for video decoding and output on video wall
- Accessible by platforms and matrix access gateway
- Supports video wall configuration and scene switch
- Smart scaling of video wall layout
- Flexible PTZ control including setting and calling the preset, calling the patrol, auto-scan, setting
  and calling the pattern, light on/off, wiper on/off, focus control and iris control; You can control
  the directions, zoom in, zoom out and capture pictures via the joystick
- Upgrade and configuration files import/export by USB flash drive
- Recording, picture capturing and two-way audio; Saving files in USB flash drive or uploading to FTP server
- Two-level user authority and up to 32 user accounts are configurable, including 1 admin and 31 operators
- Wired and Wi-Fi network connection

### 1.2 Appearance

The DS-1600KI keyboard consists of a touchscreen and a joystick panel. The joystick panel is detachable and can be separated from the keyboard.

Refer to the following figure for keyboard appearance.



Figure 1-1 DS-1600KI Keyboard Appearance

#### **Front Panel**

Refer to the following table for description of keyboard appearance.

Number Description Name 10.1" capacitive touchscreen for display, configuration 1 Touchscreen and operation of the keyboard. Used for PTZ control. 2 **Joystick** 3

Used for picture capture.

**Table 1-1 Keyboard Appearance Description** 

Refer to the following table for description of joystick operations.

**Capture Button** 

**Table 1-2 Joystick Operation Description** 

Operation	Function
Up	PTZ control mode: Move the PTZ up.
Down	PTZ control mode: Move the PTZ down.
Left	PTZ control mode: Move the PTZ left.
Right	PTZ control mode: Move the PTZ right.
Upper left	PTZ control mode: Move the PTZ upper left.

Operation	Function
Upper right	PTZ control mode: Move the PTZ upper right.
Lower left	PTZ control mode: Move the PTZ lower left.
Lower right	PTZ control mode: Move the PTZ lower right.
Rotate anticlockwise	Zoom out (ZOOM-)
Rotate clockwise	Zoom in (ZOOM+)

### **Interfaces**

Eight interfaces and one button are provided on the rear panel of DS-1600KI keyboard.

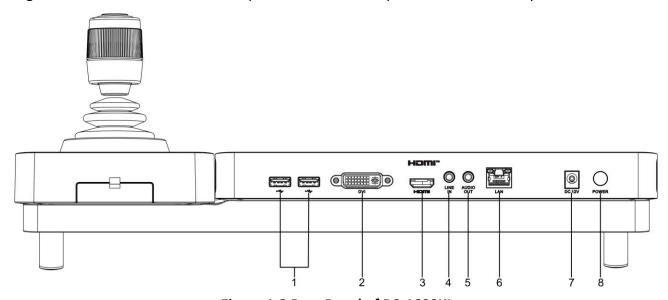


Figure 1-2 Rear Panel of DS-1600KI

Refer to the following table for description of the interfaces.

**Table 1-3 Description of Interfaces** 

No.	Name	Description
1	USB Port	One for connecting to the USB drive formatted in FAT32. One for connecting to the joystick.
2	DVI Port	Use the DVI cable to connect the monitor.
3	HDMI Port	Use the HDMI cable to connect the monitor.
4	Audio Input Interface (LINE IN)	Connect the audio input cable.
5	Audio Output Interface (AUDIO OUT)	Connect the audio output cable.
6	LAN Network Interface	1 10M/100M/1000M adaptive Ethernet interface.

# DS-1600KI Keyboard • User Manual

No.	Name	Description
7	12 VDC Power Supply	Connect the power cord and support PoE.
8	Power Switch	Press to wake up the touchscreen, or turn the keyboard into sleeping mode.  Hold (for 3 s) to power on/off, or reboot the device.

# **Chapter 2 Start-up**

# 2.1 Activate Keyboard

The network keyboard is inactive by default. You should activate it before performing other operations. Then you can log in and log out of the keyboard. Here we introduce the local operation. Refer to SADP user manual for SADP operation.

Set an admin password to activate the keyboard for the first time access. No operation is allowed before activation. You can activate it by the local keyboard operation or changing settings in SADP software.

#### **Steps**

1. Enter the device password.



- Passwords are divided into 4 types: digits, lowercase letters, uppercase letters, and special symbols. Passwords are classified into 4 levels:
  - Level 0 (risky password): password length < 8 or only one type of character.
  - Level 1 (weak password): password length ≥ 8 and two types of characters. The character combination includes digits + lowercase letters and digits+ upper case letters.
  - Level 2 (medium password): password length ≥ 8 and two types of characters. The character combination cannot be digits + lowercase letters or digits+ upper case letters.
  - Level 3 (strong password): password length ≥ 8 and three types of characters.
- Do not use the risky passwords. To better protect your product, reset your password regularly.
- The password cannot contain the user name (in the forward order and backward order), 123, admin (case insensitive), 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.).
- The password cannot be 1qaz2wsx, 1qaz@WSX, !@#\$QWER, p@ssword, passw0rd, or p@ssw0rd.
- 2. Confirm the password and click **Activate**.



You can activate the network keyboard on the Web when PC and the keyboard are on the same network segment.

#### What to do next

You can log in the keyboard and operate it now.

# 2.2 Change Password

You can reset the keyboard password by SADP.

- 1. Select the checkbox before the ID of the DS-1600KI keyboard.
- 2. Click Forgot Password.

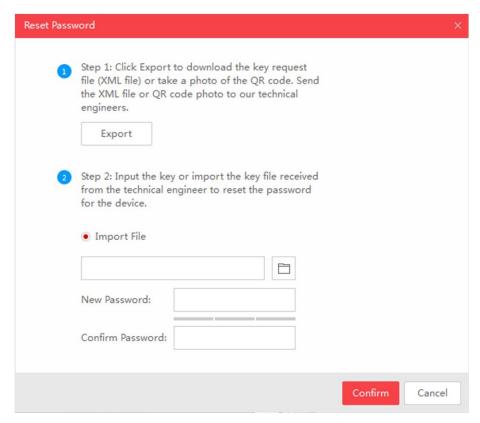


Figure 2-1 Reset the Password

- 3. Click **Export** to download the key request file.
- 4. Set the file path in the pop-up window.
- 5. Click **Select Folder** to save the device key request file on your PC.



The exported key request file is XML file which is named as **Device Serial No.-System Time**.

- 6. Send the key request file to our technical engineers and the engineer will send you a key file back.
- 7. Click to select the key file (XML file) returned by the technical engineer.
- 8. Click Open.
- 9. Enter the new password in New Password and Confirm Password.

# **!**Caution

- Passwords are divided into 4 types: digits, lowercase letters, uppercase letters, and special symbols. Passwords are classified into 4 levels:
  - Level 0 (risky password): password length < 8 or only one type of character.
  - Level 1 (weak password): password length ≥ 8 and two types of characters. The character combination includes digits + lowercase letters and digits+ upper case letters.
  - Level 2 (medium password): password length ≥ 8 and two types of characters. The character combination cannot be digits + lowercase letters or digits+ upper case letters.
  - Level 3 (strong password): password length ≥ 8 and three types of characters.
- Do not use the risky passwords. To better protect your product, reset your password regularly.
- The password cannot contain the user name (in the forward order and backward order), 123, admin (case insensitive), 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.).
- The password cannot be 1qaz2wsx, 1qaz@WSX, !@#\$QWER, p@ssword, passw0rd, or p@ssw0rd.
- 10. Click **Confirm** to reset the password.

# 2.3 Login and Logout

Log in the keyboard to operate it. Log out to lock your operation.

- 1. Click **Keyboard** on the menu.
- 2. Select the account and enter the password to login.

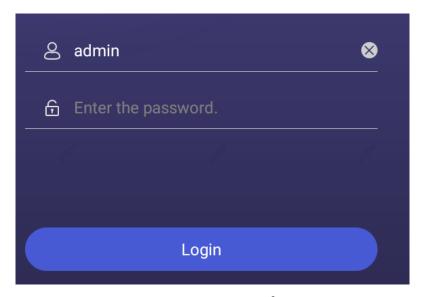


Figure 2-2 Login Interface

- 3. Optional: You can log out the keyboard anytime.
  - 1) Click **Keyboard** on the menu.
  - 2) Click ≡ on the upper-left corner.
  - 3) Click Users.
  - 4) Click , then a logout message box will pop up.
  - 5) Click **Logout**.

# **Chapter 3 Configure Network**

### 3.1 Set Wired Network

Setting the wired network parameters to connect to the network.

#### **Before You Start**

Make sure the network cable is appropriately connected.

#### **Steps**

- 1. Click on the home page and choose **Ethernet**.
- 2. Switch on **Ethernet** to enable Ethernet configuration.
- 3. Set network parameters. You can connect to network by two following ways.

Static IP Static IP addresses don't change. Using the static IP method, you must

set your own IP address, network gateway, subnet mask and other

parameters.

**DHCP** With DHCP, you don't need to set your IP address; it is assigned

dynamically.

### 3.2 Set Wireless Network

The keyboard has Wi-Fi module that can connect to wireless network.

#### **Before You Start**

A Wi-Fi network must be appropriately configured.

#### Steps

- 1. Click on the home page and choose **WLAN**.
- 2. Switch on WLAN to enable automatic acquisition of WLAN information.

You can obtain Wi-Fi information nearby or enter Wi-Fi information manually to add network.

3. Connect to an existing Wi-Fi hotspot or add a new network.

Connect to a nearby Wi-Fi hotspot

- 1. Click the Wi-Fi hotspot in the Wi-Fi list.
- 2. Enter the password and connect to the network.

Add a new Wi-Fi network

- 1. Click Add Network at the bottom of the Wi-Fi list.
- 2. Enter the SSID name manually.
- 3. Select the Security Type.
- 4. Enter the password to connect to the network.

# **Chapter 4 Manage Keyboard**

# 4.1 Manage Device

#### 4.1.1 Add and Edit Device

#### **Add Device Manually**

You can add devices manually by inputting device parameters. Up to 8,000 devices can be added by the admin.

#### **Steps**

- 1. Click Keyboard.
- 2. Click ≔.
- 3. Click Device.

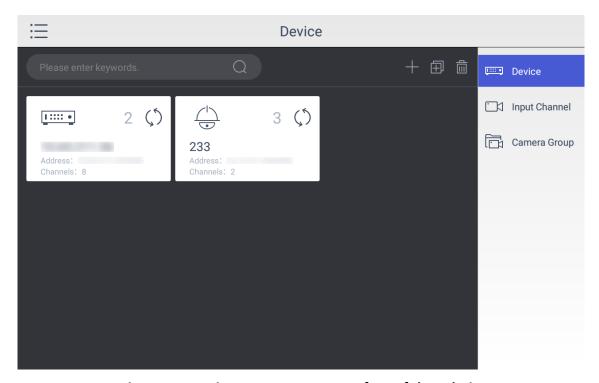


Figure 4-1 Device Management Interface of the Admin

- 4. Click to enter the **Add Device** interface.
- 5. Input device parameters including Name, Address, Port, User Name, Password, and Protocol.

Note

• It will keep using the original device name if you leave **Device Name** empty.

• In **Protocol**, you can select **Default** for same brand devices, or select **ONVIF** for devices from other manufacturers.

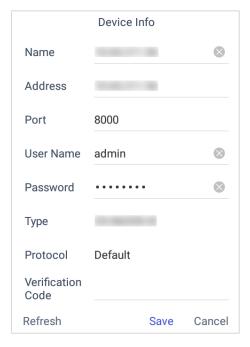


Figure 4-2 Add Device Manually

6. Click Save to finish adding.

### **Add Device by Searching Online Devices**

You can also add devices by online searching

- 1. Click **Keyboard**.
- 2. Click ≔.
- 3. Click **Device**.
- 4. Click to enter **Auto Search** interface. All online devices in the same network segment will be displayed in the list.

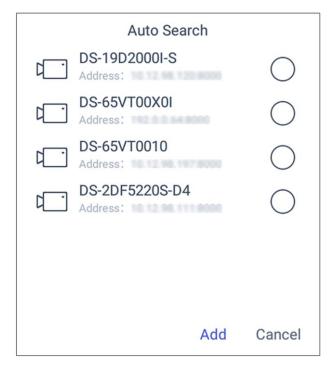


Figure 4-3 Auto Search Result

- 5. Select the device(s) as you desired.
- 6. Enter User Name, and Password.
- 7. Click Save.

Note

If you want to add multiple devices, all device user names and passwords must be the same.

#### Add Device by Importing from USB Flash Drive

You can add devices in batch by importing device information from USB flash drive.

#### **Before You Start**

You need a USB flash drive to import devices. Make sure you have added at least one device.

- 1. Click **Keyboard**.
- 2. Click ≔.
- 3. Click Camera.
- 4. Optional: If you don't know the import file format, you can export a file to find out.
  - 1) Click 🖺.
  - 2) Enter the admin password.
  - 3) Select a file where you want to export.
  - 4) Click **Export** to export the excel file.
  - 5) Edit the excel sheet in other device, then save it in USB flash drive.

- 5. Click 🔁.
- 6. Enter the admin password.
- 7. Select the import file from the USB flash drive.
- 8. Click Confirm.

#### **Find Added Devices**

In the device/camera management interface, you can quickly search the added device/camera by IP address, keywords, or name.

#### Steps

- 1. Click Keyboard.
- 2. Click ≔.
- 3. Click **Device**.
- 4. You can input device ID, IP address, keywords or name in the text field to search device.
- 5. Click Q.

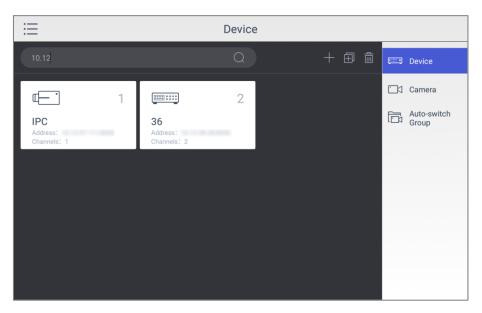


Figure 4-4 Search Device

#### **Edit Device Property**

You can view and edit details of the added devices in **Device** interface.

#### **Before You Start**

Ensure you have at least added one device.

- 1. Click Keyboard.
- 2. Click ≔.
- 3. Click **Device**.

- 4. Click on the name of the added device to view device details.
- 5. Modify the device parameters on the pop-up window.

Note

Only Name, User Name, and Password are editable.

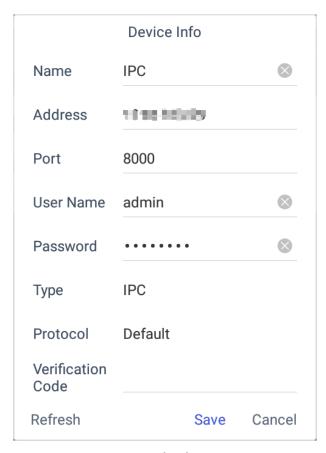


Figure 4-5 Edit the Device

6. Click **Save** to confirm the modification.

# **4.1.2 Manage Connected Cameras**

You can view and edit connected camera information.

#### **Before You Start**

Ensure you have added at least one camera and logged in the admin user account.

- 1. Click **Keyboard**.
- 2. Click ≔.
- 3. Click **Device**  $\rightarrow$  **Camera**.
- 4. Click the camera as you desired and then you can view its details.

#### Name

The camera name.

#### **Channel ID**

The camera serial number according to the added sequence.

#### **Protocol**

The transfer protocol.

#### **Stream**

The stream type.

#### **Device**

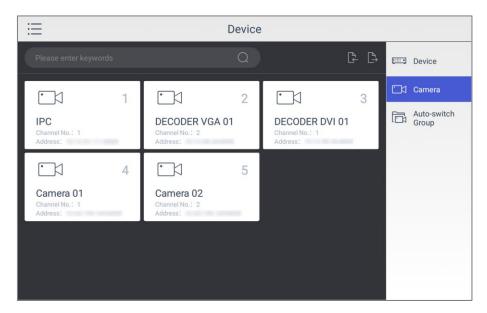
The device name.

#### **Address**

The IP address and port of the corresponding device.

#### Channel No.

The channel number of added camera.



**Figure 4-6 Camera Management Interface** 

5. Modify the camera details. Only Name, Channel ID, Protocol, and Stream are editable.



The range of **Channel ID** is from 1 to 99999999, and the ID cannot be repeated.

6. Click Save to finish modification.

### 4.1.3 Manage Auto-switch Group

#### **Create Auto-switch Group**

It would be easier to manage your devices by adding relevant cameras into a group. For example, you can add all the underground garage cameras into one auto-switch group, so you can view the group to view the cameras in it.

#### **Steps**

- 1. Click **Keyboard**.
- 2. Click ≔.
- 3. Click **Device** → **Auto-switch Group**.
- 4. Click 

  ...
- 5. Enter the group parameters.

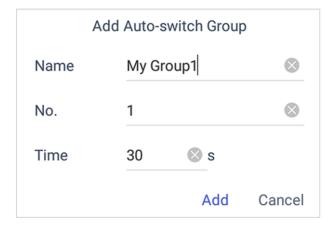


Figure 4-7 Create a New Group

#### Name

Enter the group name as desired. Special characters, including /: \*?'" <> |%, are not allowed, and the length cannot exceed 32 characters.

#### No.

Enter the group number as desired. The range is from 1 to 16, and it cannot be repeated. Up to 64 cameras can be added in each group, no more than 16 groups can be added.

#### Time

Enter the cycle dwell time for each channel as desired. The range is from 10s to 10000s. The default dwell time is 30s.

#### 6. Click Add.

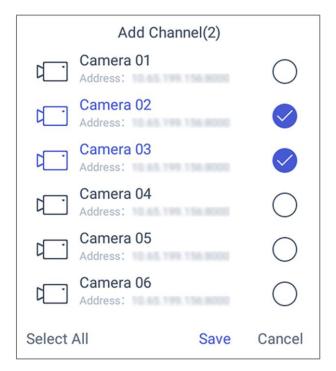


Figure 4-8 Add Camera(s) to the New Group

- 7. Select the camera(s).
- 8. Click **Save** to finish creating auto-switch group.

#### **Edit Auto-switch Group**

You can view and modify auto-switch group details in **Auto-switch Group** interface.

#### **Before You Start**

Ensure you have groups added.

- 1. Click **Keyboard**.
- 2. Click ≔.
- 3. Click **Device** → **Auto-switch Group**.
- 4. Click on the added group.

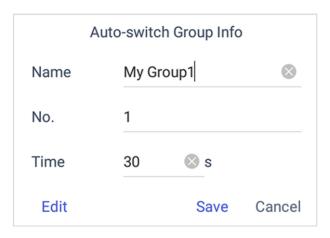


Figure 4-9 Edit the Group

- 5. Edit group parameters of Name, No., and Time.
- 6. Click **Edit** to edit channel(s) in the group.
- 7. Click Save to confirm the modification.

#### 4.2 Live View on Screen

### 4.2.1 View Video with Keyboard

After device is successfully added, you can view the live video of the added network cameras or video encoders.

#### **Steps**

- 1. Click Keyboard.
- 2. Click ≔.
- 3. Click Live View.
- 4. Optional: You can click 1 to select the window division mode.
- 5. Select a display window.
- 6. Select a camera to display by two selectable ways.

#### In keyboard panel

Enter the serial number in the numeric panel, and click or to play the live video of corresponding camera or camera group on the window.

#### In the list

- 1. Click **List** or **Group**.
- 2. Select a camera or group from the list to play.

# Note

- Up to 4 cameras can be selected for live view at the same time.
- For group, auto-switch is not supported in multi-screen mode.
- Hold down the title bar to move the channel selection panel.

- Click 🗵 to delete the entered information if you entered incorrectly.
- Click ⋈ or ⋈ to preview the previous or next camera or group.
- Enter **0** in the numeric panel and click to stop the live view.
- 7. Optional: You can click for to perform operations including full screen, capture picture, record video, two-way audio, and view parameters of the camera on live view.

# Note

If you perform operations of capture picture and record video, make sure to connect the keyboard with a USB flash drive, or provide a valid and correct network connection between PC (running FTP server) and the keyboard, and set the FTP parameters of keyboard correctly. Refer to Set Storage for FTP configuration.

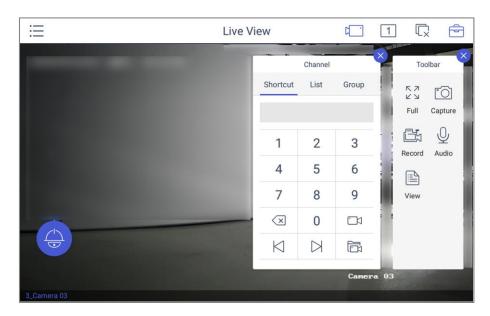


Figure 4-10 Live View

#### 4.2.2 PTZ Control

You can click in the live view mode to achieve PTZ control operation. The PTZ control should be supported by the added device.

#### **Set and Call a Preset**

A preset is a predefined image position which contains information of pan, tilt, zoom, focus and other parameters.

- 1. Click **Preset** in the PTZ control panel.
- 2. Use the joystick to move the camera to the desired scene.

	20 2000
	iNote
В	efore using the joystick, make sure the joystick is connected to the USB interface of the
	eyboard.
3. Cl	lick 🕉 to set the preset.
	iNote
U	p to 300 presets can be configured.
_	
	at to do next
You	can click a preset from the list to call the preset.
Call	l a Patrol
•	etrol is a scanning track specified by a group of user-defined presets, with the scanning speed ween two presets and the dwell time at the preset separately programmable.
Befo	ore You Start
Set t	the patrol for the camera through Web Browser, client software, etc.
Step	os
-	lick <b>Patrol</b> in the PTZ control mode.
2. Cl	lick a patrol from the list to call it.
	Note
U	p to 8 pre-defined patrols can be called.
_	procepto dominos para otrados
Set	and Call a Pattern
You	can record the pan/tilt movements and zoom control of the PTZ camera, and call the pattern.
Step	os .
1. Ta	ap <b>Pattern</b> in the PTZ control panel.
	ap 💿 to start recording path of the desired pattern.
	se the joystick and other buttons to control the PTZ movement, including pan/tilt movements,
	pom and focus control, auto-scanning, etc.  ap   to stop recording of this pattern path.
7	
L 	Note
U	p to 4 patterns can be configured.

#### What to do next

You can tap a pattern from the list to call the pattern.

# 4.3 Manage Video Wall

## 4.3.1 Edit Video Wall Layout

You can edit the layout of the video wall, including the name, row and column.

#### Steps

- 1. Click **Keyboard**.
- 2. Click ≔.
- 3. Click Video Wall.
- 4. Click 😑.
- 5. Click Config on toolbar panel.
- 6. Click **2**.
- 7. Enter the parameters of video wall.



You can add 2 to 10 rows and 2 to 15 columns.

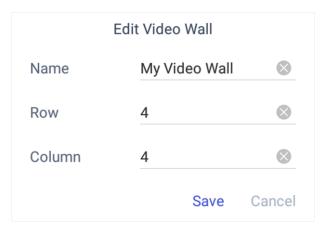


Figure 4-11 Edit the Video Wall

#### Name

Edit a name for the video wall as desired.

#### Row

The row of the video wall.

#### Column

The column of the video wall.

8. Click **Save** to save the settings.

### 4.3.2 Configure Video Channels on Video Wall

You can select and configure the output channel for each video wall window. For some other video wall devices, you can get the output channels automatically.

#### **Steps**

- 1. Click **Keyboard**.
- 2. Click ≔.
- 3. Click Video Wall.
- 4. Click 😑.
- 5. Click Config on the toolbar panel.
- 6. Select the playing window on the video wall.

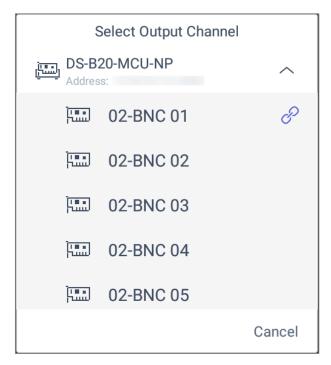


Figure 4-12 Select the Output Channel

7. Select the output channel as you desired.



- If you want to delete the output channel, hold the configured window and click ☑ on the upper-right corner
- At Video Wall interface, you can also open, close, and move window by holding the window.

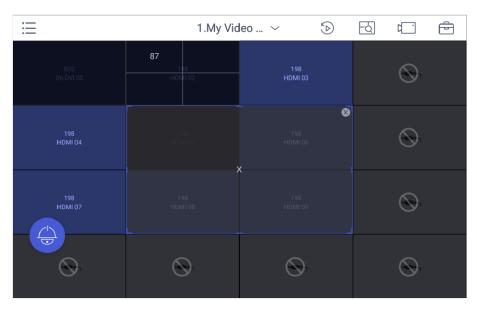


Figure 4-13 Delete the Output Channel

#### What to do next

You can log in the keyboard and operate it now.

### 4.3.3 Play Video on Video Wall

You can play live video on video wall window.

#### Steps

- 1. Click **Keyboard**.
- 2. Click  $\equiv$ .
- 3. Click Video Wall.
- 4. Select a playing window.
- 5. Click to expand the channel panel.
- 6. Select the camera No. you want to play on the selected display window.
  - 1) Click Shortcut.
  - 2) Enter the camera/group No. in the numeric panel.
  - 3) Click or on the display window.

# **i**Note

- You can also select camera by clicking the camera or group from **List** or **Group** interface.
- You can see the camera No. on the display window. If you select a group, the display window will show **G**.
- 7. Optional: You can perform PTZ control by clicking [a], refer to **PTZ Control** for specifications.
- 8. Optional: You can achieve functions such as capture picture, record video, and refresh display interface by clicking .

# 4.3.4 Configure Display Window

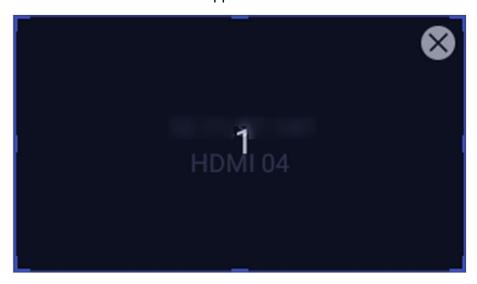
For the devices supporting window roaming (e.g., DS-96000NI-I/H, DS-B20), you can move the playing window within the video wall as desired, close the window and adjust the window to match it with the boarders.

#### **Before You Start**

Ensure the connected decoding device supports window roaming function.

#### **Steps**

- 1. Click **Keyboard**.
- 2. Click ≔.
- 3. Click Video Wall.
- 4. Select a window as you desired.
- 5. Hold the window until the window frame appears.



**Figure 4-14 Window Roaming** 

- 6. You can move the playing window within the video wall as desired and adjust its size.
- 7. The dotted borders will display during moving the window. You can double-click the window to adjust it to match the borders.
- 8. Optional: Click in toolbar to split the window.

# 4.3.5 Save Current Video Wall Settings as a Scene

You can save your current video wall settings as a scene.

- 1. Click **Keyboard**.
- 2. Click ≔.
- 3. Click Video Wall.
- 4. Select a display window on the configured video wall layout.

- 5. Click 😑 to expand the toolbar.
- 6. Click **Scene** to access the scene list.
- 7. Select the scene in the list.
- 8. Click **Save** to save the current video wall scene.

### 4.3.6 Enable Video Wall Playback Local Decoding

Click  $\bigcirc$  **System Setting**  $\rightarrow$  **Others**, and enable **Video Wall Playback Local Decoding**. When **Video Wall Playback Local Decoding** is enabled, videos can be shown on the playback.



Figure 4-15 Enable Video Wall Playback Local Decoding

# 4.3.7 Video Wall Playback

You can playback and view videos on video wall.

#### **Before You Start**

- Ensure you have added decoding device channel(s) to the video wall.
- Ensure you have enabled Video Wall Playback Local Decoding.

- 1. Click **Keyboard**.
- 2. Click ≔.
- 3. Click Video Wall.
- 4. Select a window on the video wall interface.
- 5. Click **.**

6. Select the date as you desired.

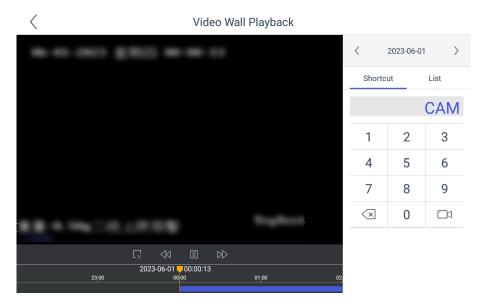


Figure 4-16 Video Wall Playback

7. Optional: You can switch channel by two ways.

In keyboard panel Enter the serial number in the numeric panel, and click  $\square$ .

In the list 1. Click List

2. Select a camera in the list.

Note

The channel of the selected window must be from a decoding device.

8. Drag the slider to set required playback time.

Note

Time and progress bar are refreshed automatically when playback.

9. Use the toolbar to perform playback operations, including stop playing video, start/pause playing video, slow forward speed, and fast forward speed.

Icon	Description
	Pause/Start
	Fast forward speed; you can also move the joystick right to fast forward the video.
<<	Slow forward speed; you can also move the joystick left to slow forward the video.

Stop

### 4.3.8 Smart Scaling on Video Wall

For the large-scale video wall layout, you can use the smart scaling function to select and zoom in the required windows area.

#### Steps

- 1. Click Keyboard.
- 2. Click ≔.
- 3. Click Video Wall.
- 4. Click to open the smart scale control panel.
- 5. You can adjust the frame size with fingers.

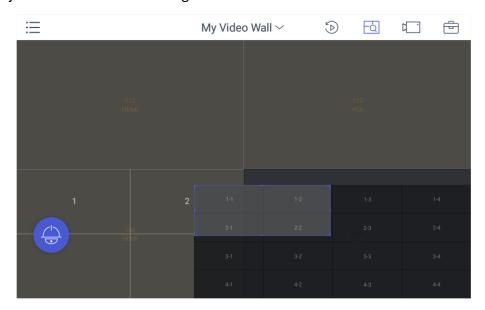


Figure 4-17 Smart Scaling

#### 4.3.9 Video Wall Preview

You can preview videos on the local keyboard interface to check the layout and other effects of the video wall.

Ensure you have connected video wall controller or multi-function video center before previewing the video wall.

Select  $\implies$   $\implies$  to preview the video wall.

**i**Note

Only one video wall can be previewed each time.

# 4.4 Video Playback

The videos stored in the encoding device within 24 hours can be played back on the keyboard.

#### **Steps**

- 1. Click **Keyboard**.
- 2. Click ≔.
- 3. Click **Playback** on the menu to enter the play back interface.
- 4. Select the date as you desired.

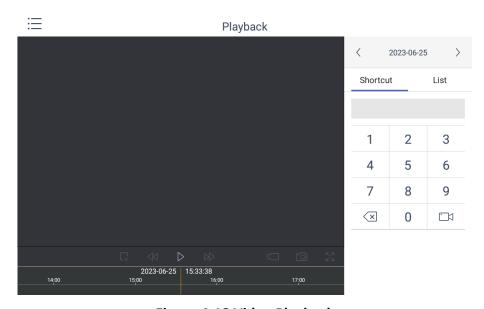


Figure 4-18 Video Playback

5. You can switch channel by two ways.

**In keyboard panel** Enter the serial number in the numeric panel, and click ...

In the list 1. Click List

- 2. Select a camera in the list.
- 6. Drag the time bar to set required playback time.
- 7. Use the toolbar to perform playback operations, including stop playing video, start/pause playing video, slow forward speed, and fast forward speed.



To control the play speed, you can also move joysticks left or right to slow or fast forward the video respectively.

### 4.5 Control DVR

The keyboard can operate the added DVR/NVR and achieve PTZ control operation.

#### **Steps**

- 1. Click **Keyboard**.
- 2. Click ≔.
- 3. Click Operate DVR.
- 4. Select the NVR/DVR from the right list as you desired.
- 5. Apply the buttons on the control panel to achieve DVR/NVR functions such as switching the camera, playing the video, recording, entering menu, main/spot output switching, Aux functions, etc.

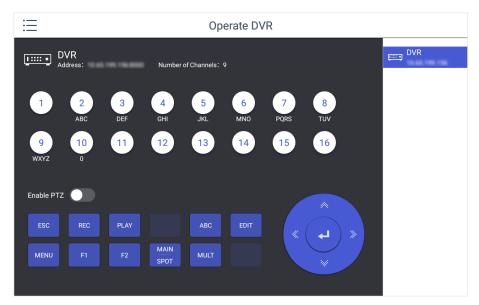


Figure 4-19 DVR/NVR Remote Panel

**i**Note

When the number of channels to be controlled is a multiple of 10, e.g. 20, press 2 and then press 10.

6. Optional: You can switch on **Enable PTZ** to achieve functions such as PTZ control, iris control, focus, wiper, light, etc.

**i** Note

Ensure the device that connects to DVR/NVR device supports PTZ control operation.



Figure 4-20 Enable PTZ

**Table 4-1 Panel Description** 

Name	Function Description
ESC	Returns to the previous menu.
ESC	Presses for arming/disarming the device in live view mode.
	Enters the Manual Record settings menu.
REC/SHOT	Presses this button followed by a numeric button to call a PTZ preset in PTZ control settings.
	Turns audio on/off in the playback mode.
DI AV/ALITO	Enters the playback mode.
PLAY/AUTO	Automatically scans in the PTZ control menu
ZOOM+	Zooms in the PTZ camera in the PTZ control setting.
	Adjusts focus in the PTZ Control menu.
ABC/FOCUS+	Switches between input methods (upper and lower case alphabet, symbols and numeric input).
	Edits text fields. When editing text fields, it also deletes the character in front of the cursor.
	Checks the checkbox in the checkbox fields.
EDIT/IRIS+	Adjusts the iris of the camera in PTZ control mode.
	Generates video clips for backup in playback mode.
	Enters/exits the folder of USB device and eSATA HDD.

Name	Function Description
MAIN/SPOT/ZOOM-	Switches between main and spot output.
	Zooms out the image in PTZ control mode.
	Selects all items on the list when used in a list field.
F1/ LIGHT	Turns on/off PTZ light (if applicable) in PTZ control mode.
	Switches between play and reverse play in playback mode.
F2/AUX	Cycles through tab pages.
	Switches between channels in synchronous playback mode.
MENU/WIPER	Returns to the Main menu (after successful login).
	Presses and holds the button for five seconds to turn off audible key beep.
	Starts wiper (if applicable) in PTZ control mode.
	Shows/hides the control interface in playback mode.
MULT/FOCUS-	Switches between single screen and multi-screen mode.
	Adjusts the focus in conjunction with the A/FOCUS+ button in PTZ control mode.
IRIS-	Adjusts the iris of the PTZ camera in PTZ control mode.

# 4.6 Manage User

### 4.6.1 Add New Users with Admin Account

Multiple user accounts can be added to operate the keyboard. The admin user is assigned with the highest permissions, including viewing/deleting user accounts, adding devices to the users, and changing password. For the operator, you can view your assigned devices and change your own password.

- 1. Click **Keyboard**.
- 2. Click ≔
- 3. Click User.
- 4. Click to add new user.
- 5. Enter the user name and password.

# **!**Caution

- Passwords are divided into 4 types: digits, lowercase letters, uppercase letters, and special symbols. Passwords are classified into 4 levels:
  - Level 0 (risky password): password length < 8 or only one type of character.</li>
  - Level 1 (weak password): password length ≥ 8 and two types of characters. The character combination includes digits + lowercase letters and digits+ upper case letters.
  - Level 2 (medium password): password length ≥ 8 and two types of characters. The character combination cannot be digits + lowercase letters or digits+ upper case letters.
  - Level 3 (strong password): password length ≥ 8 and three types of characters.
- Do not use the risky passwords. To better protect your product, reset your password regularly.
- The password cannot contain the user name (in the forward order and backward order), 123, admin (case insensitive), 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.).
- The password cannot be 1qaz2wsx, 1qaz@WSX, !@#\$QWER, p@ssword, passw0rd, or p@ssw0rd.
- 6. Click Add.
- 7. Select camera(s) from the device list to assign user device permission.
- 8. Click **Save** to save the settings.



You can have only 1 admin user account and up to 31 operator accounts.

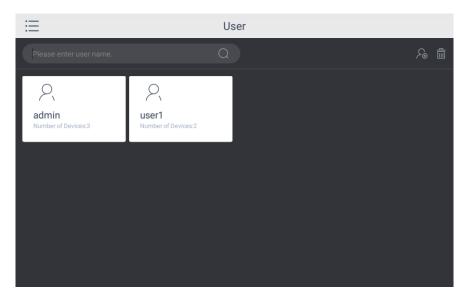


Figure 4-21 User Management

## 4.6.2 Edit User Accounts by Administrator

The administrator has the highest operation permissions that can change the settings of all other operators, including assigning device permission to the operator, and changing the password of other operator accounts.

#### **Before You Start**

Make sure you log in with the admin account.

### **Steps**

- 1. Click Keyboard.
- 2. Click ≔
- 3. Click User.
- 4. Select a user account as you desired.
- 5. You can change password or assign device permission to the user account.

## Edit password 1. Click Edit.

- 2. Enter new password twice.
- 3. Click Save to confirm.

## **Edit device** 1. Click **Device**.

**permission** 2. Select device permission for the account.

3. Click Save.

# **Chapter 5 Control Platform**

You can connect the keyboard to platforms to play live video on video wall or watch live video on the local keyboard interface.

## **5.1 Control iSecure**

You can connect the keyboard to iSecure platform to play live video on video wall, watch live video or watch video playback on the local keyboard interface.

## 5.1.1 Login

### **Steps**

- 1. Tap **iSecure** on the main page.
- 2. Tap IP Configuration.
- 3. Select HTTP or HTTPS mode, enter the server's IP Address, and tap Confirm.

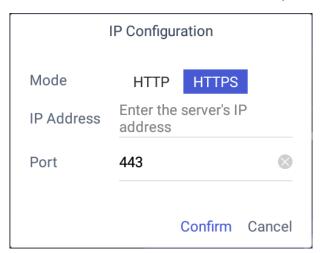


Figure 5-1 IP Configuration

4. Enter the server's user name and password.

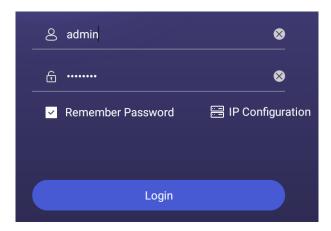


Figure 5-2 Login

- 5. Optional: Check **Remember Password** to log in with no need to enter password next time.
- 6. Tap Login.

## 5.1.2 Display a Camera on Video Wall

### Steps

- 1. Tap  $\equiv$  on the iSecure main page, and select **Video Wall**.
- 2. Tap ••• in the upper-right corner and select **Video Wall**, and select the video wall that you want to configure.

All video wall resources from the platform will be listed in Video Wall.

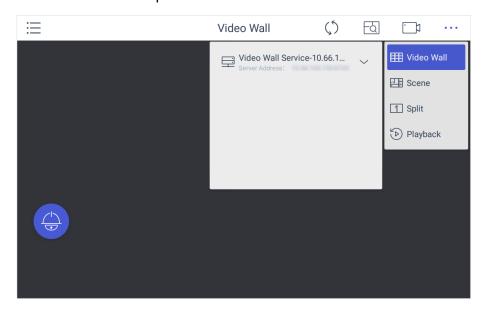


Figure 5-3 Video Wall

- 3. Optional: Tap ••• to select desired scene from **Scene** list.
- 4. Optional: Tap ••• and select **Split** to split the output window.
- 5. Tap to play the live video of corresponding camera on the window. You can choose one of the following ways:

Tap **Shortcut**, and enter the serial number in the numeric panel, and tap . Tap **List**, and select a camera to display.

You can also perform the following operations:

- Enter 0+ to stop playing the live video of corresponding camera on the window.
- Tap | to preview the live video of the previous input camera channel on the selected output monitor.
- Tap | to preview the live video of the next input camera channel on the selected output monitor.
- 6. Other operations:
  - Tap 🔄 and use the smart scaling function to select and zoom in the desired wall area. For details about the operation, see Smart Scaling on Video Wall.
  - Tap 🧧 to perform PTZ control. For details, see *PTZ Control* for specifications.

### 5.1.3 Local Live View

### Steps

1. Tap  $\equiv$  and select **Live View** to go to the local live view.

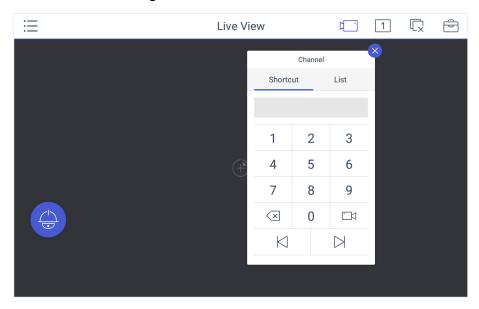


Figure 5-4 Live View

2. Optional: Tap 1 to select the window division mode.

Note

You can also preview the window first and then split the window. In this situation, the previewed window in on the upper-left by default.

- 3. Select a channel, and tap .
- 4. Watch the live view.

Tap **Shortcut**, and enter the serial number in the numeric panel, and tap . Tap **List**, and select a channel to preview.

5. Optional: Switch the channel.

Enter  $0+\Box$  to stop previewing. Tap  $\Box$  to preview the live video of the previous input camera channel on the selected output monitor. Tap  $\Box$  to preview the live video of the next input camera channel on the selected output monitor.

6. Optional: Tap  $\Box$  to close all the live view windows. You can tap  $\Box$  to perform the following operations.

Icon	Description
Full	<ul> <li>Tap Full to have a full-screen preview of the live video of corresponding camera on the window.</li> <li>Double-tap the window to have a full-screen preview.</li> </ul>
Capture	Select a window and tap <b>Capture</b> to save pictures to a USB flash drive or FTP server.
	Note You can also press the button on the joystick to capture pictures.
Record	Select a window and tap <b>Record</b> to save records to a USB flash drive or FTP server.
View	Tap <b>View</b> to view parameters of the camera on live view.

Note

If you perform operations of capturing pictures or recording videos, make sure to connect the keyboard with a USB flash drive, or provide a valid and correct network connection between PC (running FTP server) and the keyboard, and set the FTP parameters of keyboard correctly. Refer to Set Storage for FTP configuration.

## 5.1.4 Video Wall Playback

#### **Before You Start**

Ensure you have enabled Video Wall Playback Local Decoding.

- 1. Tap  $\equiv$  on the iSecure main page, and select **Video Wall**.
- 2. Select a display window, tap ••• in the upper-right corner, and select **Playback**.

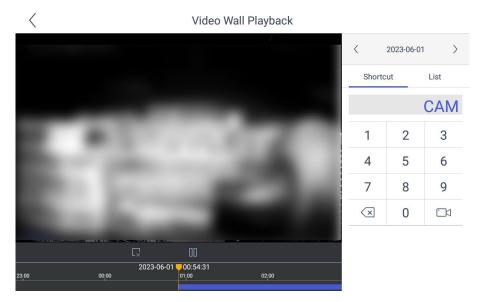


Figure 5-5 Video Wall Playback

- 3. Select the date.
- 4. Select the channel. You can choose one of the following ways.
  - Tap **Shortcut**, and enter the serial number in the numeric panel, and tap  $\square$ .
  - Tap List, and select the desired channel.
- 5. Drag the slider to set required playback time and play from the start time by default.
- 6. Use the toolbar to perform playback operations.

Icon	Description
	Pause/Start
$\Box$	Stop

## 5.2 Control HikCentral

You can connect the keyboard to **HikCentral** platform to play live videos on the video wall, watch video playback or watch live video locally.

## 5.2.1 Login

- 1. Tap **HikCentral** on the main page.
- 2. Tap IP Configuration.
- 3. Select HTTP or HTTPS mode, enter the server's IP Address, and tap Confirm.

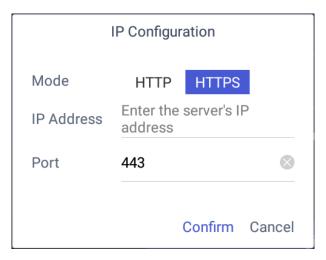


Figure 5-6 IP Configuration

4. Enter the server's user name and password.

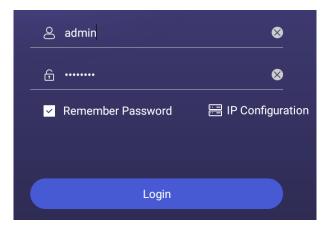


Figure 5-7 Login

- 5. Optional: Check **Remember Password** to log in with no need to enter password next time.
- 6. Tap Login.

## 5.2.2 Display a Camera on Video Wall

### Steps

- 1. Tap HikCentral ≡ on the iSecure main page, and select **Video Wall**.
- 2. Tap in the upper-right corner and select **Wall**, and select the video wall that you want to configure.

All video wall resources from the platform will be listed in Wall.

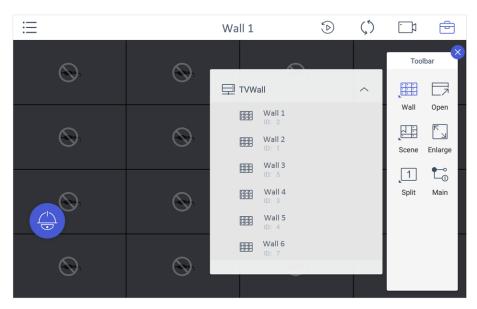


Figure 5-8 Video Wall

- 3. Optional: Tap 😑 to select desired scene from **Scene** list.
- 4. Optional: Tap 😑 and select **Split** to split the output window.
- 5. Tap to play the live video of corresponding camera on the window. You can choose one of the following ways:
  - Tap **Shortcut**, and enter the serial number in the numeric panel, and tap  $\square$ .
  - Tap **List**, and select a camera to display.

You can also perform the following operations:

- Enter 0+ to stop playing the live video of corresponding camera on the window.
- Tap 🖟 to preview the live video of the previous input camera channel on the selected output monitor.
- Tap | to preview the live video of the next input camera channel on the selected output monitor.
- 6. Other operations:
  - Select a non-BNC window, tap and select **Open** to open a new window above non-roaming windows.
  - Tap State to perform PTZ control. For details, see **PTZ Control** for specifications.
  - Select a window and tap **Enlarge** to enlarge the window.
  - Select a window and tap **Main** to switch the stream type.

### 5.2.3 Local Live View

### **Steps**

1. Tap  $\equiv$  and select **Live View** to go to the local live view.

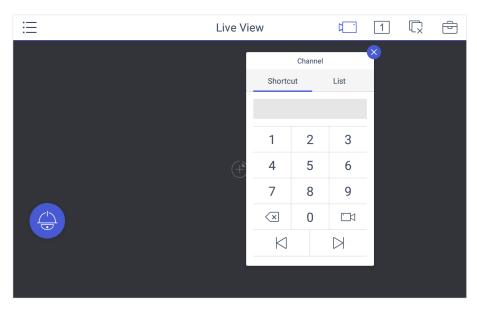


Figure 5-9 Live View

2. Optional: Tap 1 to select the window division mode.



You can also preview the window first and then split the window. In this situation, the previewed window in on the upper-left by default.

- 3. Select a channel, and tap .
- 4. Watch the live view.
  - Tap **Shortcut**, and enter the serial number in the numeric panel, and tap  $\square$ .
  - Tap **List**, and select the desired channel.
- 5. Optional: Switch the channel.

Enter  $0+\square$  to stop previewing. Tap  $\bowtie$  to preview the live video of the previous input camera channel on the selected output monitor. Tap  $\bowtie$  to preview the live video of the next input camera channel on the selected output monitor.

6. Optional: Tap  $\Box$  to close all the live view windows. You can tap  $\Box$  to perform the following operations.

Icon	Description
Full	<ul> <li>Tap Full to have a full-screen preview of the live video of corresponding camera on the window.</li> <li>Double-tap the window to have a full-screen preview.</li> </ul>
Capture	Select a window and tap <b>Capture</b> to save pictures to a USB flash drive or FTP server.
	Note You can also press the button on the joystick to capture pictures.

**Record** Select a window and tap **Record** to save records to a USB flash drive

or FTP server.

**View** Tap **View** to view parameters of the camera on live view.

iNote

If you perform operations of capturing pictures or recording videos, make sure to connect the keyboard with a USB flash drive, or provide a valid and correct network connection between PC (running FTP server) and the keyboard, and set the FTP parameters of keyboard correctly. Refer to Set Storage for FTP configuration.

## 5.2.4 Video Wall Playback

#### **Before You Start**

Ensure you have enabled Video Wall Playback Local Decoding.

### Steps

1. Tap in the upper-right corner to watch video wall playback.

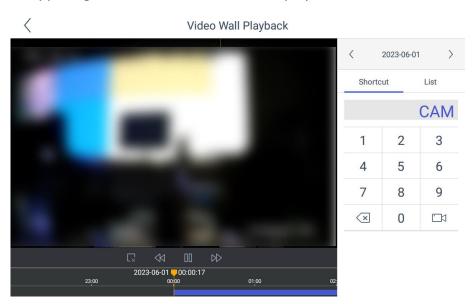


Figure 5-10 Video Wall Playback

- 2. Select the date.
- 3. Select the channel. You can choose one of the following ways.
  - Tap **Shortcut**, and enter the serial number in the numeric panel, and tap  $\square$ .
  - Tap **List**, and select the desired channel.
- 4. Drag the slider to set required playback time and play from the start time by default.
- 5. Use the toolbar to perform playback operations.

Icon	Description
	Pause/Start
$\triangleright$	Fast forward speed; you can also move the joystick right to fast forward the video.
$\triangleleft$	Slow forward speed; you can also move the joystick left to slow forward the video.
	Stop

### 5.3 Control KPS

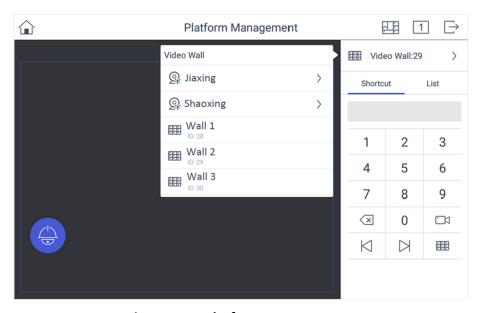
You can connect the keyboard to KPS platform to play live videos on the video wall.

### **Steps**

- 1. Click KPS on the home page.
- 2. Enter Server IP, Port, User Name, and Password to log in the platform.
- 3. Click **Login** to enter the platform interface.



You can check Remember Password to remember the login password in next time.



**Figure 5-11 Platform Management** 

4. Click in the upper-right corner and select **Video Wall**, and select the video wall that you want to configure.

Note All video wall resources from the platform will be listed in Video Wall.	
<ul> <li>5. Click Shortcut, enter the serial number of window and click ■ to select the window.</li> <li>6. Select a camera to play on video wall.</li> <li>1) Select an output window on the video wall to play the camera.</li> <li>2) Click □, enter the serial number in the numeric panel, and click □ to play the live vide corresponding camera on the window.</li> </ul>	eo of
Note You can also select from <b>List</b> .	
<ul> <li>7. Optional: Click or to preview the live video of the previous or next input camera channel on the selected output monitor.</li> <li>8. Optional: Click to select desired scene from Scene list.</li> <li>9. Optional: Click to split the output window.</li> <li>10. Optional: Click to perform PTZ control. For details, see PTZ Control for specifications.</li> </ul>	

# **Chapter 6 Configure Web**

You can add devices, manage channels or configure basic parameters through the web interface of the network keyboard. It is convenient to remotely configure and maintain the network keyboard.

## 6.1 Login

#### **Before You Start**

Ensure that the network keyboard is connected to the network and the IP address of the network keyboard is obtained.

### **Steps**

1. Open the browser, enter the IP address of the network keyboard (HTTPS://IP address) in the address bar, and enter the login interface.

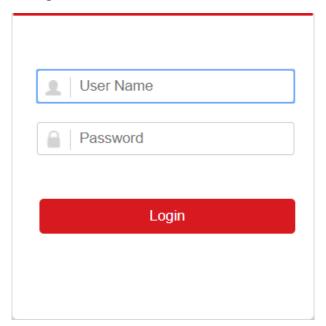


Figure 6-1 Login

2. Enter user name and password.



- Passwords are divided into 4 types: digits, lowercase letters, uppercase letters, and special symbols. Passwords are classified into 4 levels:
  - Level 0 (risky password): password length < 8 or only one type of character.
  - Level 1 (weak password): password length ≥ 8 and two types of characters. The character combination includes digits + lowercase letters and digits+ upper case letters.

- Level 2 (medium password): password length ≥ 8 and two types of characters. The character combination cannot be digits + lowercase letters or digits+ upper case letters.
- Level 3 (strong password): password length ≥ 8 and three types of characters.
- Do not use the risky passwords. To better protect your product, reset your password regularly.
- The password cannot contain the user name (in the forward order and backward order), 123, admin (case insensitive), 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.).
- The password cannot be 1qaz2wsx, 1qaz@WSX, !@#\$QWER, p@ssword, passw0rd, or p@ssw0rd.
- 3. Click Login.

## 6.2 Add Devices

## 6.2.1 Manually Add

You can add devices to the network keyboard on Web.

- 1. In **Device Management** interface, click **Add**.
- 2. Enter IP Address, Port, User Name and Password, and select protocol type.

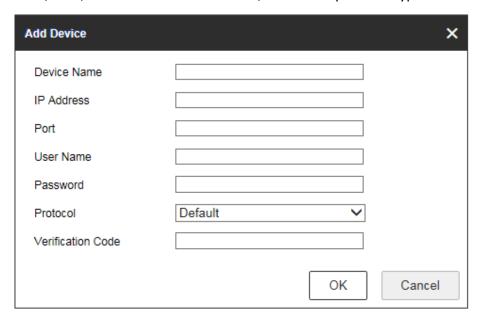


Figure 6-2 Add Device by IP Address

- 3. If you enable stream encryption for the device, you need to enter the verification code when adding the device by IP address.
- 4. Optional: In **Device Management** interface, click **Add SADP**, enter user name and password, check the device to be added, and click **OK** to add online devices on the same network segment.

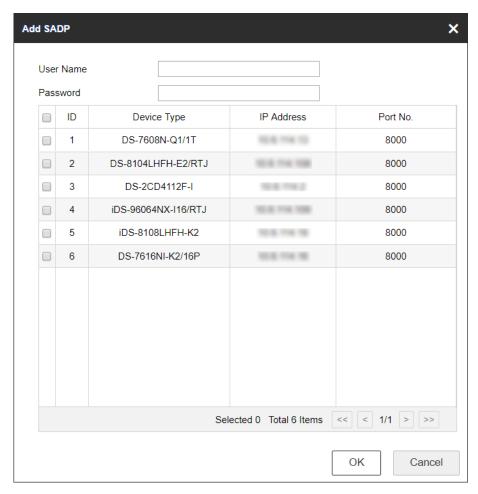


Figure 6-3 Add SADP

# iNote

- SADP search can only add devices in the same network segment.
- After adding devices in batches by SADP, you need to refresh manually to get the added devices.

## 6.2.2 Import Input Channels in Batches

### **Before You Start**

- 1. Add several devices manually. Go to **Channel Management** → **Input Channel**, click **Export**, enter password, and then export channel information.
- 2. Edit the device channel information based on the exported template, and save the exported

channel information into the local PC.

### Steps

- 1. Go to Channel Management  $\rightarrow$  Input Channel.
- 2. Click Import.

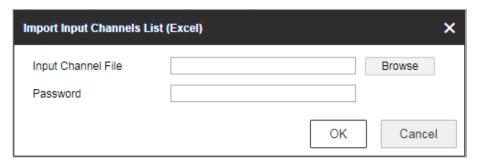


Figure 6-4 Import Input Channel in Batches

- 3. Click **Browse** and select the imported template.
- 4. Enter password and click **OK**.

  The channels in the template will be added into network keyboards.

## **6.3 Channel Management**

### 6.3.1 Edit Channel

### Steps

1. Go to Channel Management  $\rightarrow$  Input Channel.



Input and output channels can be edited. This section takes input channels as an example.

2. Select the input channel to be edited and click Edit.

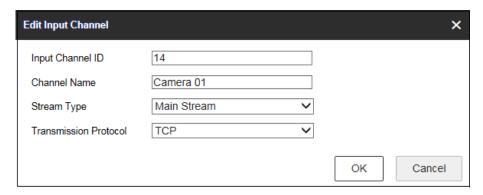


Figure 6-5 Edit Input Channel

3. Edit channel parameters.

### **Input Channel ID**

Each input channel corresponds to a unique number, which is valid for video wall and local live view.

### **Stream Type**

Code stream for local live view and video wall preview.

### **Transmission Protocol**

Available for video wall preview.

4. Click OK.

## 6.3.2 Camera Group

Camera group enables you to preview a group of cameras (input channels) in sequence.

- 1. Go to Channel Management  $\rightarrow$  Camera Group.
- 2. Click Add.

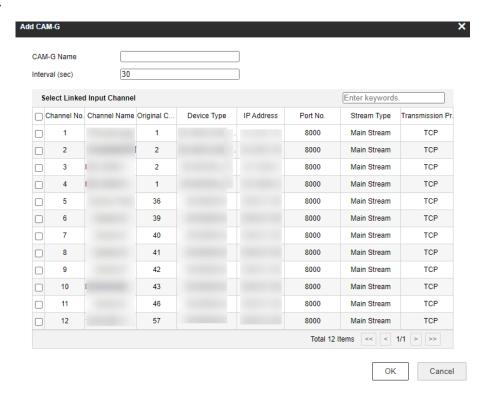


Figure 6-6 Add Camera Group

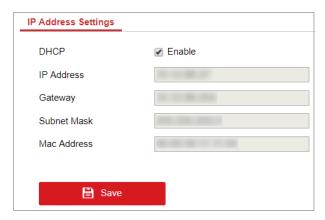
- 3. Enter Name and Interval(s).
- 4. Check input channels to be linked and click **OK**.

## Note

- Up to 16 camera groups can be added.
- Each camera group can link up to 64 input channels.
- Interval range: 10 to 10000 seconds.
- The camera groups set by different users are independent. Namely, users can only view and edit their own camera groups.
- 5. Click **Edit** in **Camera Group** interface, uncheck input channels to be unlinked and click **OK** to unlink the input channel.

### 6.4 Network

- 1. Select **Network Management** at the main interface.
- 2. Configure network parameters.
  - Check **DHCP** to obtain IP address and related network parameters automatically.
  - Uncheck **DHCP** and enter IP address, gateway, subnet mask.
- 3. Click Save.



**Figure 6-7 Network Parameters** 

# **6.5 System Settings**

## 6.5.1 Version

Go to  $\textbf{System Management} \rightarrow \textbf{Version}$  to view system version information.

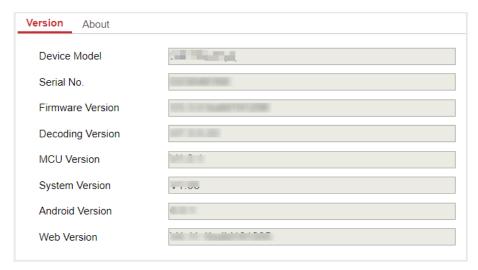


Figure 6-8 Version

## 6.5.2 User Management

Administrator can add operator and allocate devices to the operator. Operators can operate the allocated devices, but cannot add, edit, or delete devices.

- 1. Go to System Management  $\rightarrow$  User Management.
- 2. Click Add.

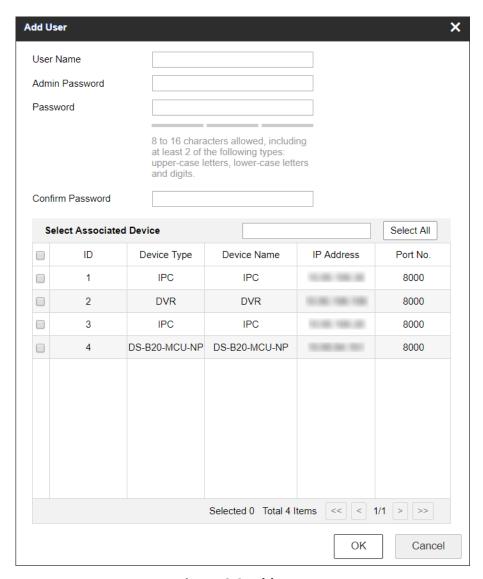


Figure 6-9 Add User

3. Enter user name and password for an operator, and click OK.



- Passwords are divided into 4 types: digits, lowercase letters, uppercase letters, and special symbols. Passwords are classified into 4 levels:
  - Level 0 (risky password): password length < 8 or only one type of character.</li>
  - Level 1 (weak password): password length ≥ 8 and two types of characters. The character combination includes digits + lowercase letters and digits+ upper case letters.
  - Level 2 (medium password): password length ≥ 8 and two types of characters. The character combination cannot be digits + lowercase letters or digits+ upper case letters.
  - Level 3 (strong password): password length ≥ 8 and three types of characters.

- Do not use the risky passwords. To better protect your product, reset your password regularly.
- The password cannot contain the user name (in the forward order and backward order), 123, admin (case insensitive), 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.).
- The password cannot be 1qaz2wsx, 1qaz@WSX, !@#\$QWER, p@ssword, passw0rd, or p@ssw0rd.
- 4. Check devices to be linked as desired and click **OK**.

Note

- Keyboard supports up to 32 users: 1 administrator and 31 operators.
- The operator can only operate on the devices allocated.
- 5. Optional: Click **Edit**, uncheck the devices to be unlinked and click **OK** to unlink the devices.

## 6.5.3 System Maintenance

Go to **System Management**  $\rightarrow$  **System Maintenance** to restart the device, restore defaults, export/import configuration file, etc.

Note

Restoring default settings, importing/exporting configuration files, and remote upgrades require the administrator password to be verified.

#### Restart

You can restart the network keyboard.

#### **Restore Defaults**

- Simply Restore: Keep the activation state (administrator password) and the network parameters of the network keyboard, and the remaining parameters will be restored to the default settings.
- Completely Restore: Completely restore the parameters to default settings.

## **Import/Export Configuration File**

You can export the configuration file to the computer or import the configuration file from the computer to the keyboard. In case of keyboard failure, you need to back up the data by exporting the configuration file first, and then repair the failure. To copy the data of this keyboard to another keyboard, you can also import/export the configuration file.

Note

• Please set the key for the configuration file when exporting it.

- The configuration file encrypted and exported is named as configurationData.bin.
- If the configuration file is encrypted, you need to enter the key of the configuration file when importing it.

### **Remote Upgrade**

Click **Browse** to select the upgrade file in the computer, and click **Upgrade** to upgrade the network keyboard remotely.

**i**Note

The upgrade file must be named as DS-1600K.apk.

## 6.5.4 Log Management

Go to **System Management**  $\rightarrow$  **System Maintenance**  $\rightarrow$  **Log**, select the major and minor types and start and end time of the log, and then search and export the log.

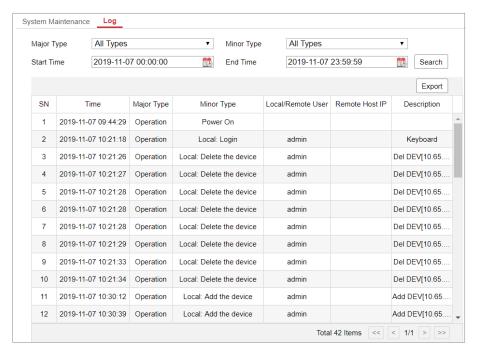


Figure 6-10 View Logs

## **6.5.5 Security Settings**

Go to **System Management** → **Security Settings**, and enable SADP. When you enable SADP, the

keyboard can be searched. When you disable SADP, the keyboard cannot be searched.

# **6.5.6 View Open Source Software Licenses**

Go to **System Management**  $\rightarrow$  **About**, and click **View Licenses** to view open source software licenses.

# **Chapter 7 Configure System**

For Ethernet and WLAN configuration, refer to **Set Wired Network**and **Set Wireless Network**.

## 7.1 Set Language

You can choose the device language.

### **Steps**

- 1. Click System Settings → Language.
- 2. Select the system language as you desired.

### 7.2 Set Date and Time

You can set date and time and select time zone by configuring the parameters.

### **Steps**

- 1. Click System Settings → Date & Time.
- 2. You can set the system date and time in two ways.

Automatic mode Enable Auto-obtain.

Manual mode 1. Disable Auto-obtain.

2. Click > at **Date & Time**.

3. Set time as you desired.

4. Click Confirm.

- 3. You can select time zone for your keyboard system.
  - 1) Click > at **Time Zone**.
  - 2) Select time zone as you desired.

## 7.3 Set Storage

The keyboard has no hard disk for storage, you can configure the FTP server parameters in **Storage** interface or you can connect a USB flash drive for storage.

#### **Before You Start**

Ensure the network connection of the PC (running FTP server) and the device is valid and correct. Run the FTP server on the PC.

### **Steps**

1. Click System Settings → Storage.

2. Switch on <b>FTP server</b> .	
3. Enter Address, Folder, User Name, and Password of the FTP server.	
Note	
A new folder will be created in the directory.	

4. Click Save.

### 7.4 Maintenance

For the admin user account, you can import and export the configuration files, and restore the defaults of local configurations. The import and export operation allows you to duplicate system settings from one device to another, which is a convenient way to configure your device.

### Steps

- 1. Click System Settings → Maintenance.
- 2. Perform the following operations as demand.

### **Configure File (Import)**

Enter the admin password, and the USB flash drive will pop up. Import the configuration file (configurationData.db) from the USB flash drive.

### **Configure File (Export)**

Enter the admin password, and the USB flash drive will pop up. Set the key and export the configuration file (configurationData.db) to the USB flash drive.

### **Restore Default (Simple)**

Restore the defaults of local configurations expect the network, admin password.



It is recommended to export the configuration file first before restoring default.

### **Restore Default (Complete)**

You can restore the defaults of all the local configurations except the network parameters and the device will become inactive status.



- It is recommended to export the configuration file first before restoring default.
- The default IP address is 192.0.0.64 after restoring default completely.

### Log File (Export)

Export the log file to the USB flash drive.

## 7.5 Set Others

You can adjust screen brightness, set the sleep mode, enable/disable alarm sound, choose the resolution of external monitor and other parameters.

### **Steps**

- 1. Click **System Settings** → **Others**.
- 2. Perform the following operations as demand.

### **Brightness**

You can drag brightness slider to set it as you desired.

### Sleep

Select the sleep mode.

#### **Alarm Sound**

You can enable/disable alarm sound.

#### **External Monitor Resolution**

Select the resolution for the external monitor.

### **Display Video Only on Secondary Screen**

When enabling this function, live view and playback video will be shown on the secondary screen. And the operation will be shown on the keyboard.

#### **Video Wall Playback Local Decoding**

When enabling this function, video wall playback can be enabled.

### **Joystick Sensitivity**

Select the joystick sensitivity.

### **System Open Source Compliance Statement**

Click > to view the system open source compliance statement.



The alarm sound will be triggered when network is disconnected.

## 7.6 Upgrade Firmware

You can view keyboard version, access help document, and upgrade firmware by USB flash drive.

- 1. Click **System Settings** → **About**.
- 2. Click **Upgrade** and the system will automatically get upgrade firmware from USB flash drive.
- 3. You can click **Help** to access help document.

