

<b>Title:</b>	RN DS-KH830x-xT v1.5.0 013019NA	<b>Version:</b>	v1.5.0	<b>Date:</b>	013019
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## ■ v1.5.0\_20181031 USA GUI Firmware

- Firmware customized in v1.5.0\_build 180613

**NOTE:** v1.5.0 firmware is not compatible with any previous version firmware, make sure all devices are running v1.5.0 firmware. After upgrading to new firmware, manually **restore the default settings** for a full upgrade.

- Reason for Upgrade
  - Added or modified functions, enhance products quality, and meet customers' requirements
  - Updated the statement of standard SIP

## ■ Supported Devices

- DS-KH8300-T
- DS-KH8301-WT

## ■ List of Compatible Hikvision Devices

Model	Firmware
Hik-Connect	v3.4.3
iVMS-4200	v2.7.2.7 build 181119
DS-KB8112-IM	v1.4.5_build 181101
DS-KV8x02-IM	v1.5.0_build 181029
DS-KD3002-VM	v1.5.0_build 181029

## ■ New Features

- Manually Set Time at DS-KH830x-xT Indoor Station** – Time format will be Date: YY-MM-DD, Time: HH-MM-SS. The time setting path is: **Settings > Configuration > Sync Time**. You can choose time sync or manual time at this path. This two functions are mutually exclusive.
- Time Zone Function** – Default time zone is GMT-8 (Los Angeles). This time zone function is independent of the NTP function.
- DST Function** – The path is: **Settings > Configuration > DST**. The default bias is 60 minutes and obeys the North American standards.

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- Start Date: March second week Sunday 2:00 am
- End Date: November first week Sunday 2:00 am
- **Live View and Hear Voice from Door Station.** When clicking the enable menu, the DS-KH indoor station can talk with a door station (KV, KD, KB). Clicking the enable menu again, and the DS-KH indoor station will no longer be able to talk with the door station (support only in private SIP mode, not supported by standard SIP mode).
- **Supports Broadcast Function.** Once the broadcast function is open in the indoor stations, broadcasting can occur between these stations. It supports the broadcast function between slave and master device or between slave and slave device.
- **Device Info on Main Indoor Station** – Show verification code, QR Code, and Serial Code at the **main** indoor station. Path: **Settings > Maintenance**.

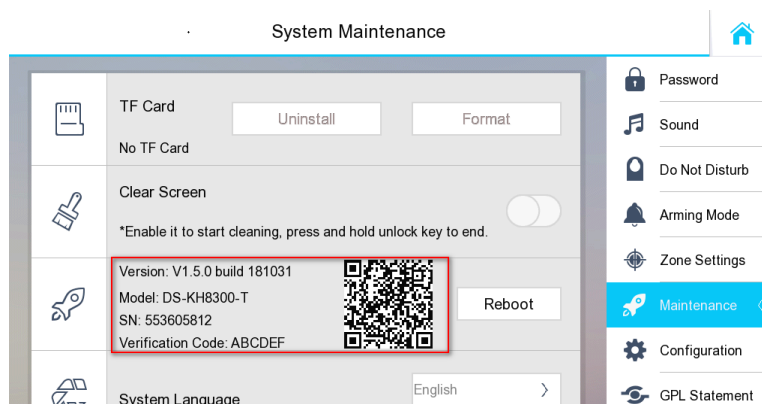


Figure 1, System Maintenance

- A KH indoor station cannot connect to Hik-Connect by default. You will need to enable Hik-Connect in the iVMS-4200 for it to work with the Hik-Connect app.
- Contact list between main indoor station and slave indoor station.

**EXAMPLE:** At slave indoor station (No. 1), tap the **Dial > Contact List** menu to add the main indoor station contact name Lindsay, room number 0-0. After inputting, click this contact name. It will call the main indoor station successfully.

**EXAMPLE:** At main indoor station (No. 0), tap the **Dial > Contact List** menu to add the sub indoor station contact name Li, room number as 0-1, and choose **white list** by default. After inputting, click the Li contact name. It will call the slave indoor station successfully.

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- The white list functions between main indoor stations. An indoor station will not call another indoor station successfully unless it has been added to the white list.

**EXAMPLE:** Room 101 wants to dial room 102 successfully. At the 102 indoor station, room number 101 must be added to the white list. Tap **Dial > Contact List > Add** room number 101 and choose white list. Then, room number 101 can dial room number 102 successfully.

Meanwhile, room 102 wants to dial room 101 successfully. At the 101 indoor station, you need to add room number 102 to the white list

- Alarm Output Function
  - When a door station calls an indoor station (need to set which alarm output terminal should send the signal, it will have four choices), then it will send the alarm output signal
  - The alarm output signals will be disrupted when picking up the call, the call has been cancelled, or the call times out

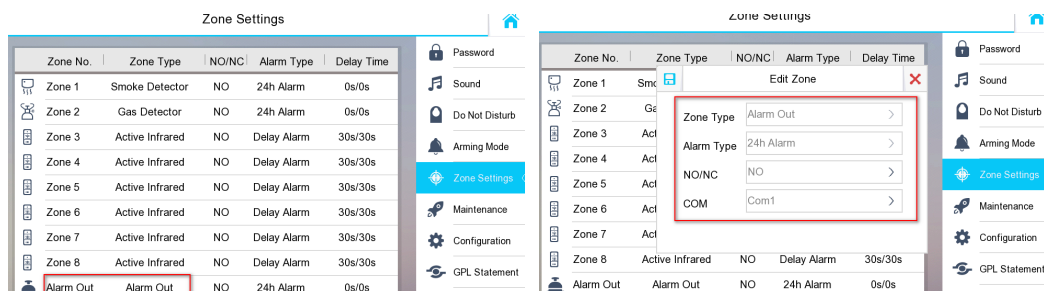


Figure 2, Alarm Output Functions

- One button push to turn off the indoor station screen.
- Supports domain NTP server address for time adjusting.
- The alarm-in port on an indoor station can work as a ring doorbell port. If this is a “on-off” button connect to the port, and you push the button, then there will be a ringtone by the indoor station.
- Indoor station can be armed by multiple channels (maximum 8). Alarm information will upload to every arming channel. For example, iVMS-4200 and NVR, and the iVMS-4200 can show a list of arming channels in **Remote Config > Intercom > Arm Information**.
- Main indoor station and indoor extensions can call between each other:

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- Dialing format: 0-No. Main indoor No. is 0, other extension is 1 to 5.
- Supports three network connecting modes for the Hik-Connect application
  - Indoor stations use only UTP that can connect to the Internet. It can connect to the cloud and support the Hik-Connect application.
  - The -W indoor station uses only Wi-Fi that connects to the Internet. It can connect to the cloud and support the Hik-Connect application.
  - The -W indoor station uses both Wi-Fi and UTP. When the Wi-Fi can connect to the Internet, it can connect to the cloud and support the Hik-Connect application.
- Supports five (English, French, Portuguese, Russian, Spanish) system languages and voice prompt tones. Language can be selected in iVMS-4200 remote configuration or in device local interface and will change after reboot.

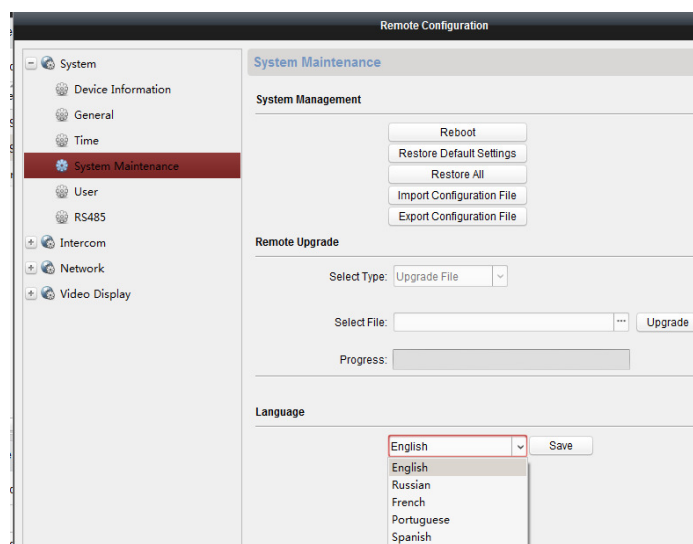


Figure 3, Languages

- Indoor station and KD Series door stations support standard SIP protocol, which can be selected in iVMS-4200 remote configuration or in device local interface (indoor station only) and will change after reboot.

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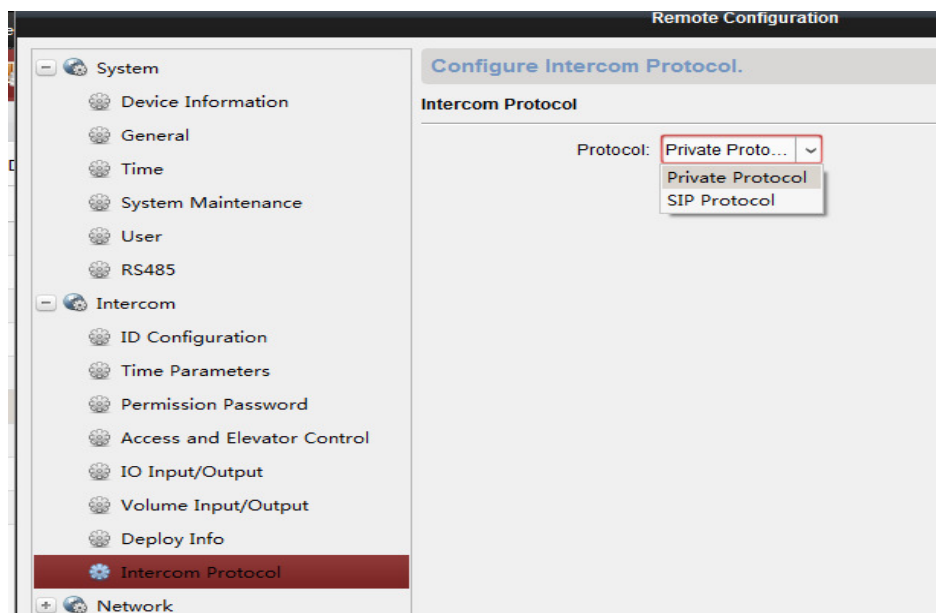


Figure 4, Intercom Protocol

- Standard SIP Protocol Version: SIP 2.0
- Video Format: H.264
- Audio Format: G.711U
- SIP Server tested: Brekeke
- SIP Server not compatible : 3CX
- SIP Phone tested:
  - YEALink (T46G): only audio intercom
  - Grandstream (GXV3275): audio and video intercom
- Function support or not supported with standard SIP protocol mode:
  - Master station, indoor station, and door station video intercom
  - Master station, indoor station, monitoring door station
  - Master station, indoor station, and SIP phone unlocking door station

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- KV Series villa door stations do not support standard SIP
- Indoor extension mode not supported
- Sub door station mode not supported
- App connection not supported
- Door phone mode not supported
- Works only in local network

## ■ Modified Features

- When a KV door station connects to a card reader with keypad, the KH indoor station needs to set the door station type as V Series, since choosing door station type as D Series can configure the unlock password
- Indoor station has room number and floor number. Room number range is 1-9999, and floor number range is 1-999.
- Floor number is used only for elevator controller. If there is no elevator controller in the system, then there is no need to set a floor number.

The screenshot shows a configuration window for an indoor station. It includes a dropdown menu for 'Device Type' set to 'Indoor Station'. Below it are input fields for 'Room No.' (containing '101') and 'Floor No.' (containing '1'). A tooltip is visible next to the 'Floor No.' field, stating 'room num range is 1-9999'. A 'Save' button is located at the bottom of the form.

Figure 5, Room and Floor Number

- Activation password supports 16 bits maximum.
- Improved video stream stability in Hik-Connect, supports P2P streaming.

## ■ Configuration

- How To Set the Time Manually
  1. Enable the NTP function

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- You can set the time manually at the indoor station. The time format will be Date: YY-MM-DD, Time: HH-MM-SS. The time setting path is: **Settings > Configuration > Sync Time**, open the manual time sync function, then click to choose the time parameter, and return to the main menu it will show the time that have configured.

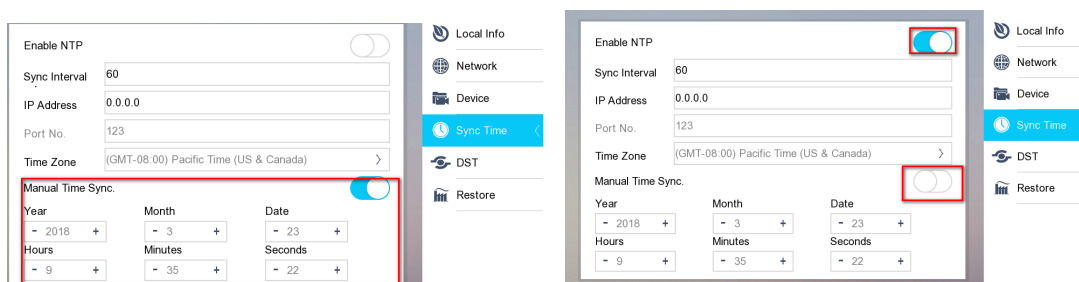
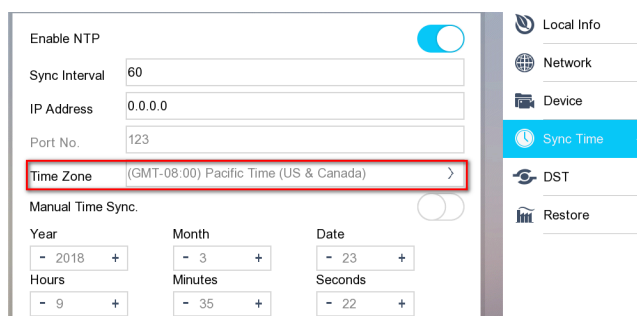


Figure 6, NTP

- Close manual time sync function, open NTP (Network Time Protocol) function, we can input the server IP Address, then the KH indoor station time will changed **automatically**
- Can enable only one of these two functions. For example, to enable the NTP function, you need to close manual time sync
- Add time zone function and **default** time zone will be GMT-8 (Los Angeles). This time zone function is independent of the NTP function



- Add DST function, the path is: **Settings > Configuration > DST**. Open the DST function by default, the default bias will be 60 minutes and obey the North American transfer time by default
  - Start date: March second week Sunday 2:00 am
  - End date: November first week Sunday 2:00 am
- Enter the KH indoor station path: **Settings > Configuration > DST**, the picture will follow. The DST start time

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and end time will abide by North American DST settings.

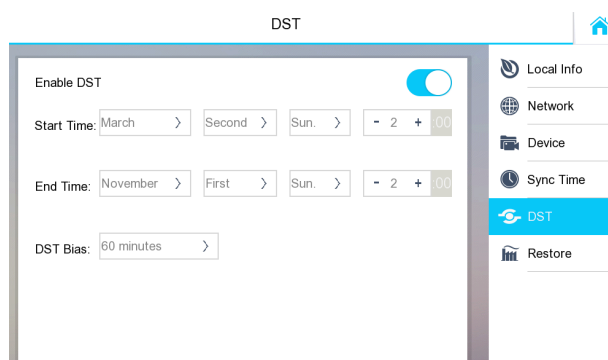
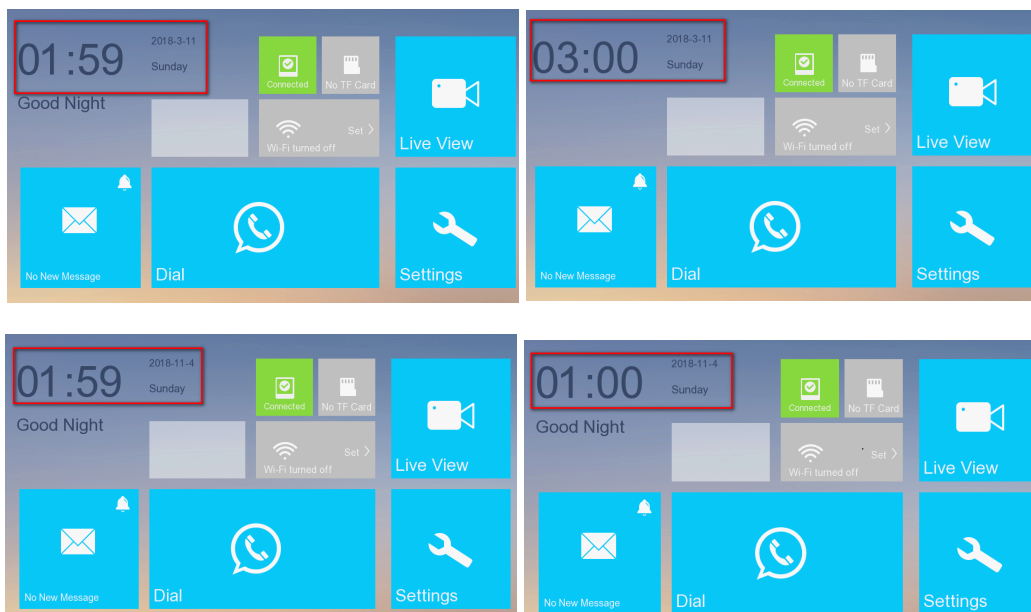


Figure 7, DST

**EXAMPLE:** When the time reaches the DST start time, it will change to 3:00 am. When the time reaches the DST end time, it will change to 1:00 am.



8. The KH indoor station can live view and hear the voices from the door station (KV, KD, and KB Series). Clicking the enable/disable menu will toggle the indoor station's ability to audibly communicate with the door station.

- A. Enter the KH indoor station path: **Live View > Specified Door Station**, and you will be able to hear voices from the door station.



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- B. Enter the KH indoor station path to talk with the door station: **Live View > Specified Door Station**, then click the enable menu to talk with the door station.
- C. Click the enable menu again, the menu will become disabled, and the KH indoor station will no longer be able to talk with the door station.

- Supports Broadcast Function

Open the broadcast function at the KH indoor station to broadcast between KH indoor stations. The system supports the broadcast function between slave and master device or between slave and slave device.

1. Enter the KH indoor station path to open the broadcast function, **Settings > Configuration > Sound > Broadcast** menu, to enable the broadcast function. For example, enable the broadcast function with master indoor station and one slave indoor station.

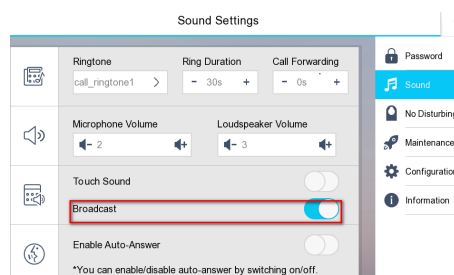


Figure 8, Master Indoor Station Broadcast Menu

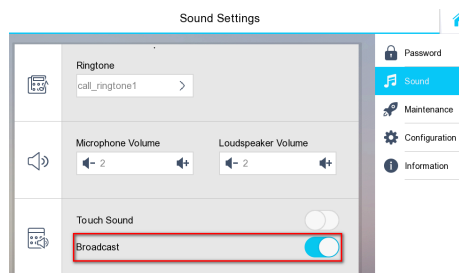


Figure 9, Slave Indoor Station Broadcast Menu

2. Enter the KH indoor station path to begin broadcasting: **Live View > Broadcast**
3. Click the Broadcast menu (blue background) and begin to broadcast. The other KH indoor station that has enabled the broadcast function can hear the voice from that speaker. Click the Broadcast menu again, and the speaker cannot broadcast to the other indoor stations.

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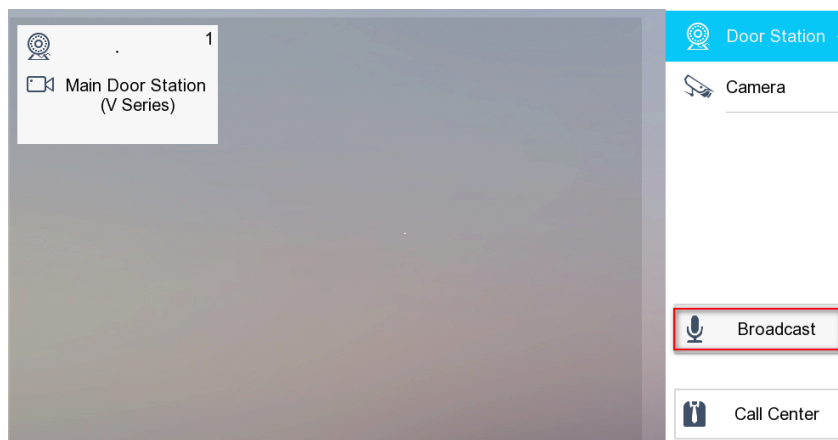


Figure 10, Broadcast

4. A KH indoor station will not connect to Hik-Connect by default. You must open **Remote Configuration > Network > Hik-Connect** in iVMS-4200 for the indoor station to work with the Hik-Connect app.

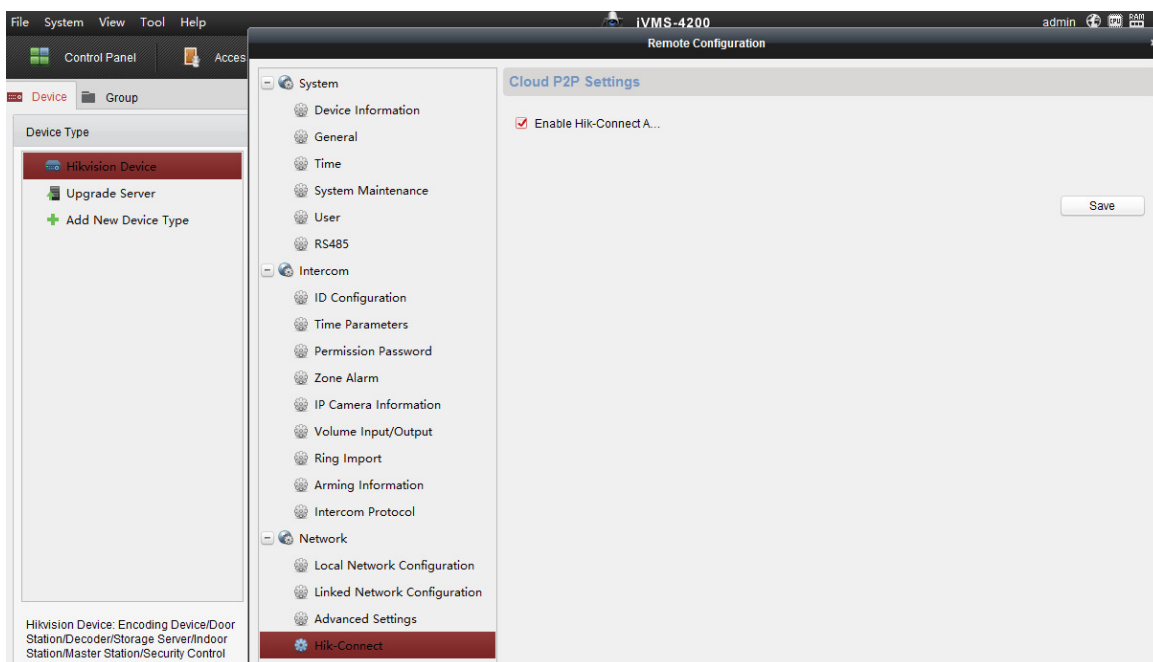


Figure 11, Enable Hik-Connect in iVMS-4200

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## ■ Modified Features

**Bug:** When a KV door station connects to a card reader with a keypad, the KH indoor station chooses door station type as V Series, the password settings show only the following:

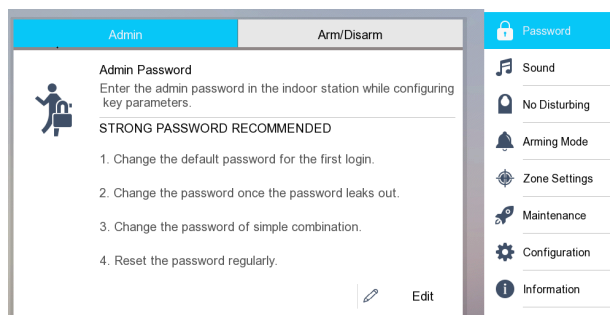


Figure 12, Pre-Fixed Password Settings

**Fix:** After fixing the bug that when a KV door station connects to a card reader with a keypad, the KH indoor station chooses door station type as V Series, the password settings will show the following:

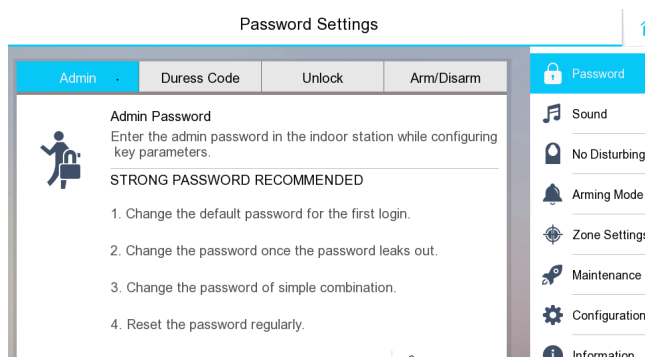


Figure 13, Fixed Password Settings