User Manual

DNAKE E416

REMARK

Please follow the user manual for correct installation and testing. If there is any doubt please call our tech-supporting and customer center.

Our company applies ourselves to reformation and innovation of our products. No extra notice for any change. The illustration shown here is only for reference. If there is any difference, please take the actual product as the standard.

The product and batteries must be handled separately from household waste. When the product reaches the end of service life and needs to be discarded, please contact the local administrative department and put it in the designated collection points in order to avoid the damage to the environment and human health caused by any disposal. We encourage recycling and reusing the material resources.

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PRODUCT FEATURE

1. Android 10 System
2. Powered by PoE or power adapter (DC12V/2A)
3. Support SIP 2.0 protocol, easy integration with other SIP devices
4. Compatible with 3rd party application
5. Support monitoring 16 IP cameras

TECHNICAL PARAMETER

System: Android 10

RAM: 1 GB

ROM: 8 GB

Front Panel: Plastic

Power Supply: PoE (802.3af) or DC 12V/2A

Standby Power: 3 W

Rated Power: 10 W

Wi-Fi: IEEE802.11 b/g/n,@2.4GHz (Optional)

TF Card Slot: 1

Ethernet Port: 1 x RJ45, 10/100 Mbps adaptive

Resolution: 1024 x 600

Working Temperature: -10℃ to +55℃

Storage Temperature: -40℃ to +70℃

Working Humidity: 10% to 90% (non-condensing)

PACKAGE CONTENT

MODEL: E416

E416

Wiring Cover

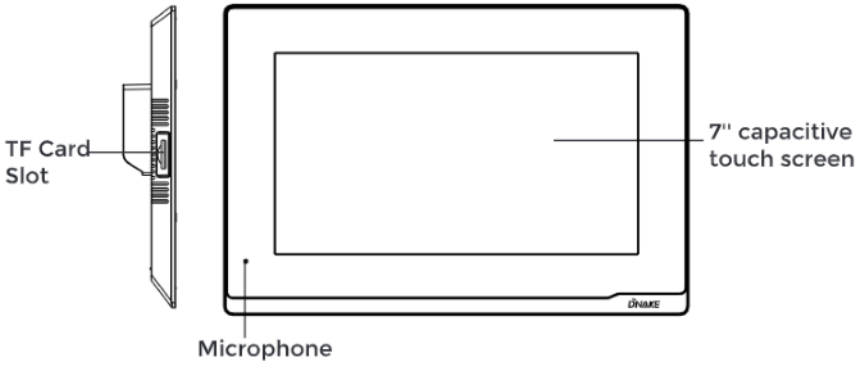
PM4×20 (2 pcs)

Diode (3 pcs)

Quick Start Guide

Desktop Stand
(Optional)

OVERVIEW

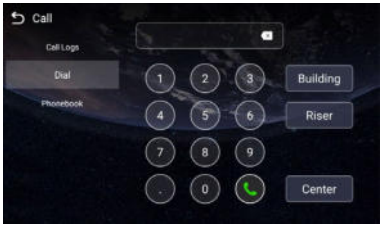


E416 Overview

BASIC OPERATION

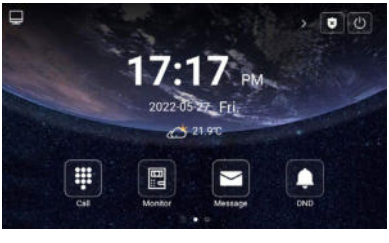
1. Call

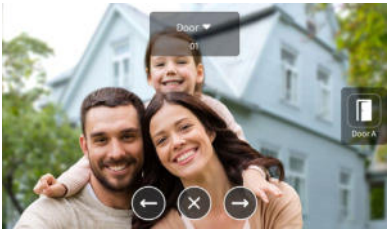
Go to Call > Dial and enter Building number + Building + Riser number + Riser + Room number + dial icon to call Indoor Monitor (such as 1 + Building + 1 + Riser + 1111 + Dial button).



2. Monitor

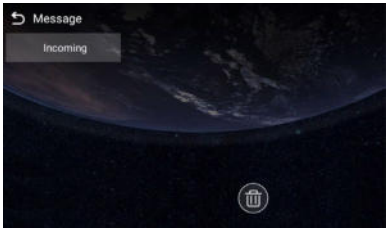
Click Monitor icon on Indoor Monitor's homepage to monitor Door Station. You can unlock by clicking door icon or switch to monitor other devices by clicking left and right arrows or the name above.





3. Message

Indoor Monitor can only receive the message sent by the CMS or Master Station. Up to 64 records can be received in SMS.

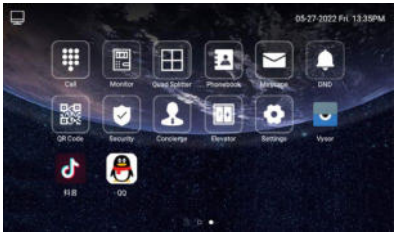


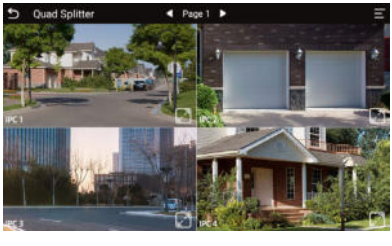
4. DND

Click DND icon to enable do not disturb function. No calls can call in.

5. Quad Splitter

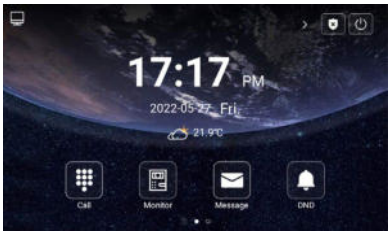
On the 2nd homepage, click Quad Splitter. Click any screen of IPC to make it full screen. Click left or right arrow to check other pages. Up to 16 IPC can be added.



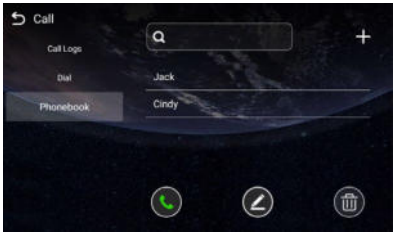


6. Phonebook

Slide from left to right near the left edge of the screen to wake up phonebook page.

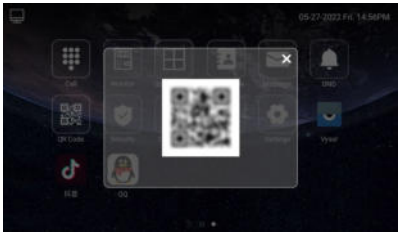


Or go to Call > Phonebook. Select the name on the phonebook and press dial button to call.



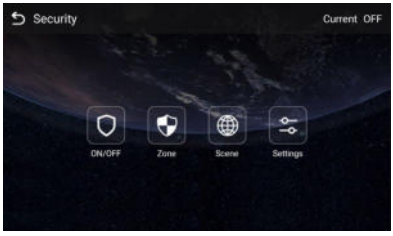
7. QR Code

Click QR Code and scan by Smart Life app to add this Indoor Monitor to your phone. Only when the license is filled in Internet-connected Indoor Monitor, QR code will be available.

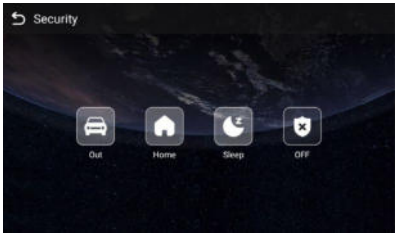


8. Security

Security is for sensors. The default password is 1234.

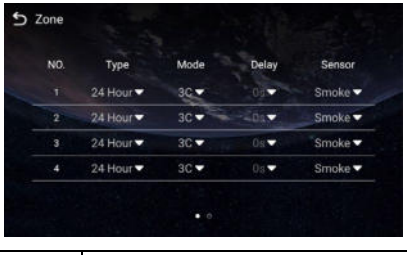


8.1. ON/OFF



ON:	Click Out, Home, or Sleep icon to activate the scene for alarm sensors, the icon on the main interface will light up with a beep sound;
OFF:	Click OFF to disable scene; Within Activation Time, click the OFF icon and enter password to terminate the alarm sending to Master Station (the default password is 1234);

8.2. Zone



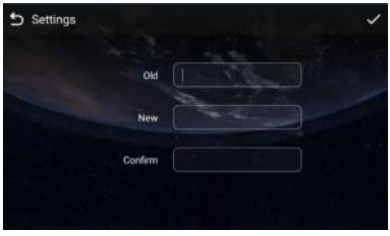
Type:	Normal: Only when the security is on and sensor is triggered, alarm will be sent to Indoor Monitor. After activation time, Master Station will also receive the alarm; (PIR, Door, Window)

	Emergency: once Panic button is triggered, only Master Station will receive alarms secretly; 24 hours standby even if the security is off; (Panic, Pull Cord) 24H: 24 hours standby even if the security is off (Smoke, Gas, Flood);
Mode:	3C: for the sensor with 2.2KΩ resistance; Regardless of the connection to NC or NO, the alarm can be triggered normally; NO: normally open; NC: normally closed; BELL: in BELL mode, Master Station will not receive any alarm. Indoor Monitor is regarded as a doorbell receiver;
Delay:	The delayed time for alarm sending to Indoor Monitor (0s, 5s, 15s, 20s, 25s, 40s, 60s);
Sensor:	Sensor types (Smoke, Gas, PIR, Door, Window, Panic, Flood, Pull Cord);

8.3. Scene

Activation Time:	NONE, 30s, 40s, 60s, 100s, and 300s;
Mode:	Tick to link sensors to Out, Home, or Sleep scene;

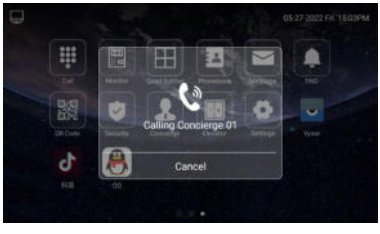
8.4. Settings



Old:	Current security password of the Device (Default 123456);
New:	New security password of the Device;
Confirm:	Confirm security password of the Device;

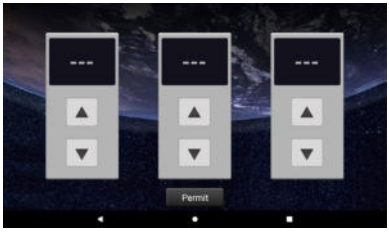
9. Concierge

Press the Concierge icon to call Master Station.



10. Elevator

Press the Elevator icon to call control elevator (DNAKE Elevator Control Module is needed).



11. Add More Indoor Monitors

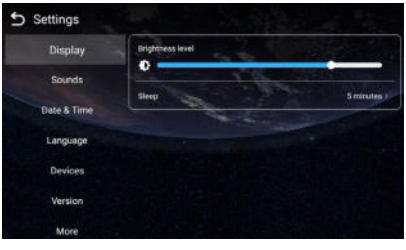
Keep Building, Riser, Apartment No., Sync the same as other Indoor Monitors, and Device number should be different. The Device number can be from 0 to 9. But you must have one Indoor Monitor's Device number is 0 and keep it online because 0 here stands for the main one.

DEVICE SETTING

Connect Indoor Monitor and other devices to a network switch in the same LAN.

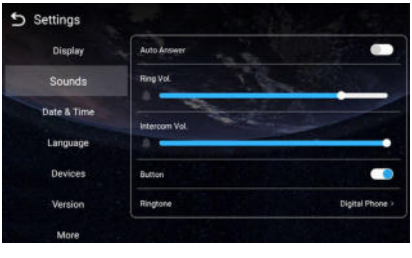
Go to Settings to configure the device.

1. Display



Brightness level:	Screen brightness adjustment;
Sleep:	Screen sleep time (15s, 30s, 1min, 2mins, 5mins, 20mins, 30mins);

2. Sounds



Auto Answer:	Pick up automatically when receiving a call;
Ring Vol:	Volume of System can be set from 1 to 6;

Intercom Vol:	Volume of Intercom can be set from 1 to 6;
Button:	The keytone;
Ringtone:	The ringing sound;

3. Date & Time

Automatic date time:	Enable to synchronize computer time;
Time Zone:	A region that observes a uniform standard time;
12H/24H:	The format of time;
NTP:	Network Time Protocol (NTP) is a protocol used to synchronize computer time;

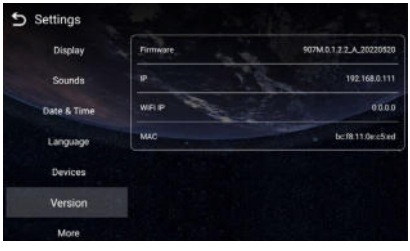
4. Language

Language:	16 languages supported (简体中文, English, 繁體中文, עִבְרִית, Deutsch, Español, Türk, Tiếng Việt, Nederlands, Português, Polski, Русский, عربي, Français, Italiano, slovenský);

5. Devices

You need to click search icon to add Door Stations to Indoor Monitor and click tick to save before monitoring. Click funnel icon to pin the selected device to the top. Click pen icon to edit devices.

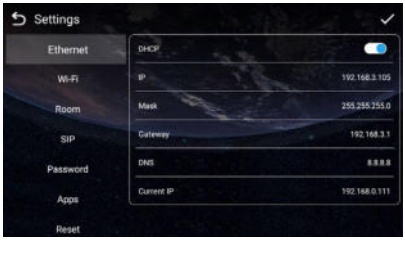
6. Version



Firmware:	Firmware version of the device;
IP:	Current IP address of the device;
Wi-Fi IP:	Current Wi-Fi IP address of the device;
MAC:	MAC address of the device;

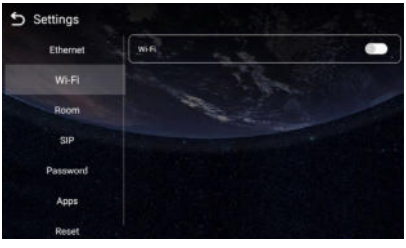
7. More > Ethernet

The device network can be set to either DHCP or a static IP address. CMS parameters should be configured here when you try to register this device to CMS.



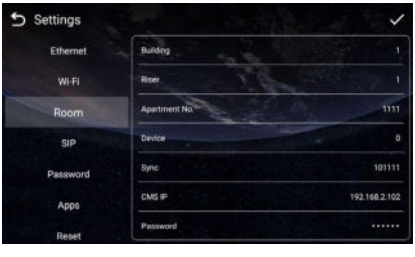
DHCP:	Enable DHCP (Dynamic Host Configuration Protocol) to dynamically distributing network configuration parameters;
IP:	Configure Static IP address to manually distributing network configuration parameters;
Mask:	Subnet mask;
Gateway:	A component that is part of two networks, which use different protocols;
DNS:	Domain Name Server of the device;
Current IP:	Current IP address of the device;

8. More > Wi-Fi



Wi-Fi:	Enable to connect to Wi-Fi;

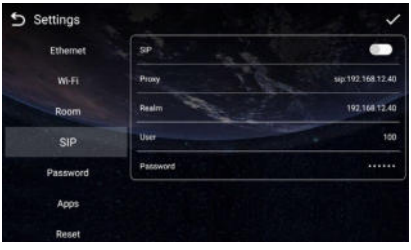
9. More > Room



Build:	Number of the building (Building range: 1-999);
Riser:	Number of the unit (Unit range: 1-99);
Apartment No.:	Number of the room;
Device:	Number of the device (Unit range: 1-9);
Sync:	A number used to synchronize to other Indoor Monitors;
CMS IP:	Server address of CMS;

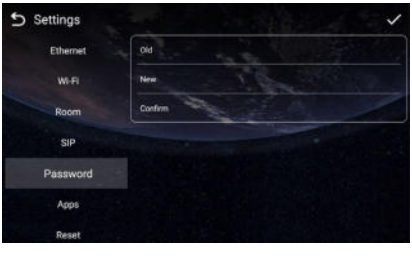
Password:	Password you set for this device's CMS registration;

10. More > SIP



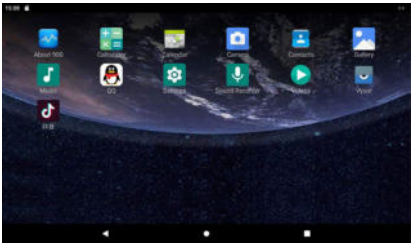
SIP enable:	Enable to use SIP;
Proxy:	SIP Server Host of SIP; the default port is 5060;
Realm:	Realm of SIP; the default port is 5060;
Username:	Username of SIP;
Password:	Password of SIP;

11. More > Password



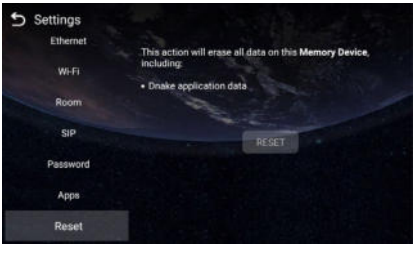
Old Password:	Current administrator password of the Device (Default 123456);
New Password:	New administrator password of the Device;
Confirm Password:	Confirm administrator password of the Device;

12. More > Apps



Apps:	3rd party apps can be managed here;

13. More > Reset



Reset:	Reset to factory settings;

WEB SETTING

Connect Indoor Monitor and PC to a network switch in the same LAN. You can enter the IP address of Indoor Monitor in the web browser search bar and log in with the default account (admin) and password (123456). This is where you can configure the device.

To get the IP address, you can search by DNAKE Remote Upgrade Tool installed in the same LAN with the devices.

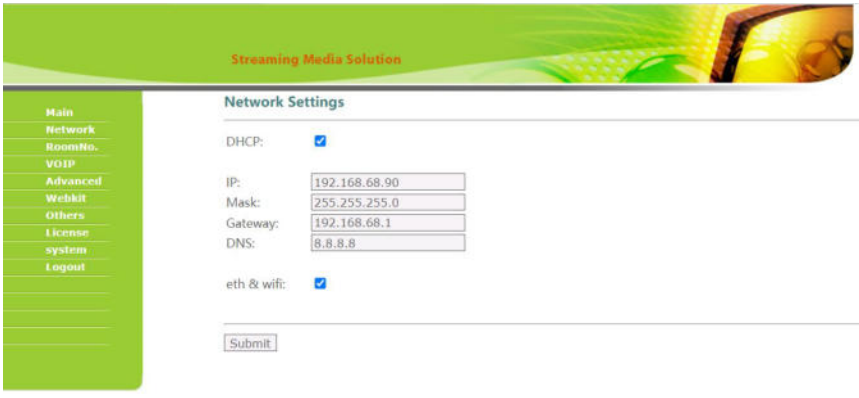
1. Main

When you first log in to the web interface, you can find basic information displayed in this dashboard.

Framework:	Framework of the device;
Voip:	Firmware version of the device;
SIP:	Status of SIP registration of the device;

2. Network

The device network can be set to either DHCP or a static IP address.



DHCP:	Enable DHCP (Dynamic Host Configuration Protocol) to dynamically distribute network configuration parameters;
IP:	Configure Static IP address to manually distribute network configuration parameters;
Mask:	Subnet mask;
Gateway:	A component that is part of two networks, which use different protocols;
DNS:	Domain Name Server of the device;
Eth & wifi:	Enable to activate the network port and Wi-Fi of the device to work simultaneously.

3. RoomNo.

Numbers here are basic settings for making a call to Indoor Monitor. For Door Station, the building and unit number should be the same as those in Indoor Monitor. For Villa Station with one button, the building, unit, and room number should be the same as those in Indoor Monitor.

The device number here is to distinguish different Indoor Monitors when more than one Indoor Monitor is in one building.

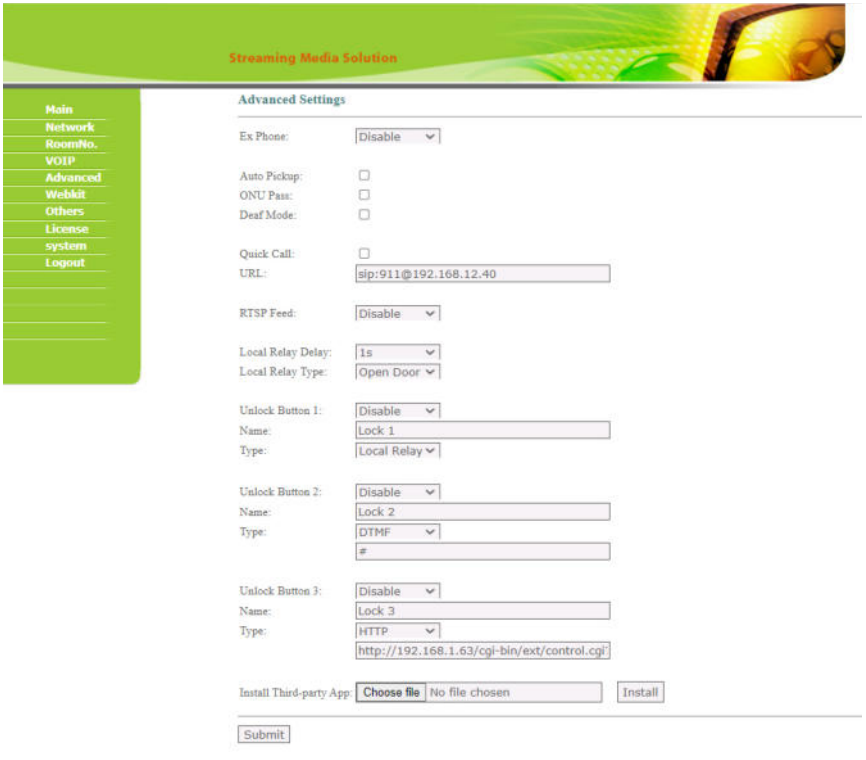
Build:	Number of the building (Building range: 1-999);
Unit:	Number of the unit (Unit range: 1-99);
Room:	Number of the room;
Device:	Number of the device (Unit range: 1-9);
Sync:	A number used to synchronize to other Indoor Monitors;
Server:	Server address of CMS;
Password:	Password you set for this device's CMS registration;

4. VOIP

The SIP column concerns SIP registration, Proxy, Realm, Outbound, User, Password, Timeout, Voice Multicast, etc.

SIP enable:	Enable to use SIP;
Proxy:	SIP Server Host of SIP; the default port is 5060;
Realm:	Realm of SIP; the default port is 5060;
Outbound:	Outbound Proxy of SIP; the default port is 5060;
Username:	Username of SIP;
Password:	Password of SIP;
Timeout:	The call will be ended automatically after a period of time (120s, 300s, 600s, 1200s, 1800s);
Voice Multicast:	Used to broadcast;

5. Advanced

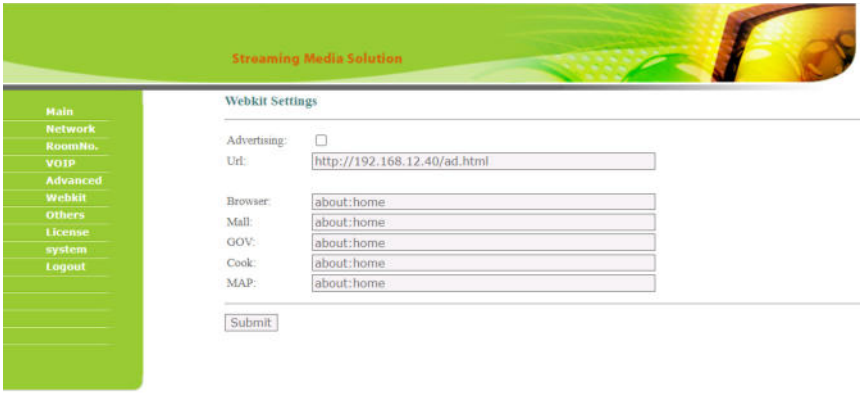


Ex Phone:	Add other brand's IP Phone as SIP extension (4 devices supported);
Auto Pickup:	Pick up automatically when receiving a call;
ONU Pass:	Enable to prevent ONU from banning multicast;

Quick Call & URL:	URL of the concierge button;
RSTP Feed:	The video source for Indoor Monitor when call another Indoor Monitor.
Local Relay Delay:	The length of unlock delay time (1-9s);
Local Relay Type:	Type of local relay (Open Door is for lock/Chime Bell is for doorbell);
Unlock Button 1-3:	Enable or disable relays for unlock buttons;
Name:	Customize name for unlock button;
Type:	Type 1-3: 3 types of unlock way are optional (Local Relay/DTMF/HTTP) HTTP——the format is http://192.168.1.63/cgi-bin/ext/control.cgi?op=unlock; IP here is an example of Door Station's IP; DTMF——Dual-tone multi-frequency signaling, Relay1: #, Relay2:0, relay3: *;
Install Third-party App:	Install 3rd-party apps on Indoor Monitor. Click Choose File to select apk file and install.

6. Webkit

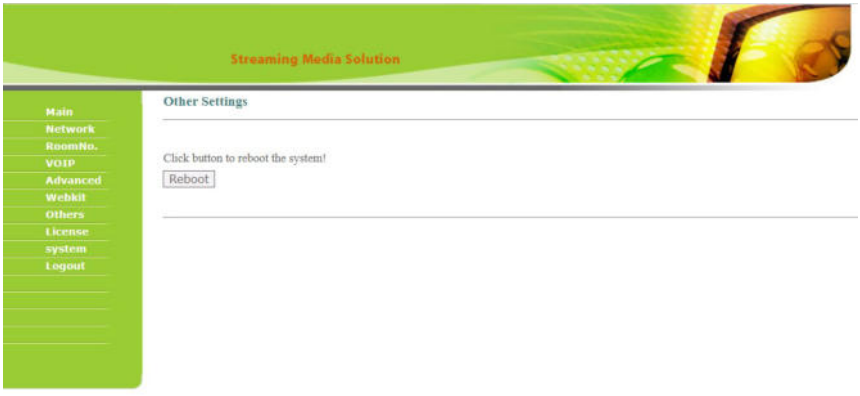
The webkit column is designed for advertising.



Advertising:	Enable to display advertisements when Indoor Monitor is in the screensaver;
Url:	The URL of advertisement;

7. Others

The others column is designed for rebooting the device.



Reboot:	Reboot the device;

8. License

The license column will be hidden in the near future.

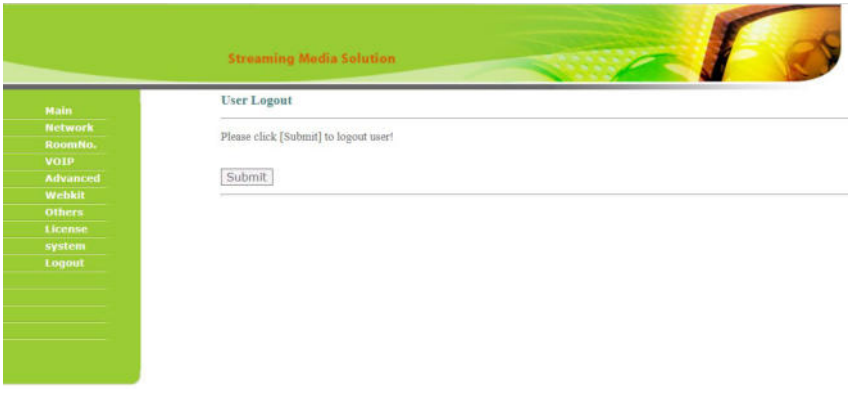
9. System

The system column is designed for packet capture and logs capture.

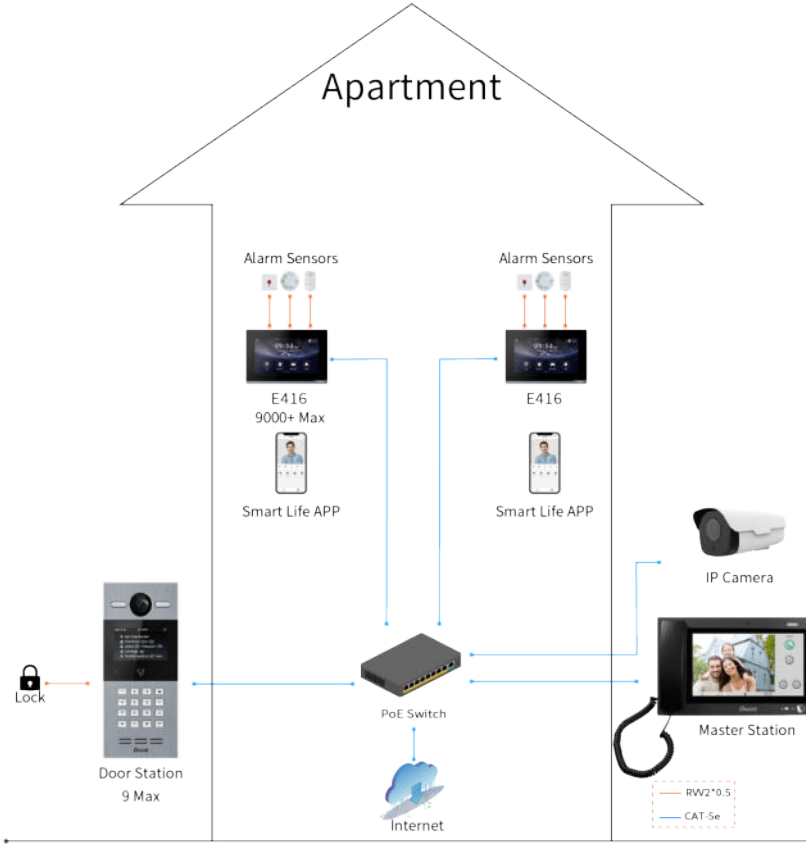
Tcpdump:	Capturing packets can help developers reproduce positioning problems;
Logcat:	Device logs;

10. Logout

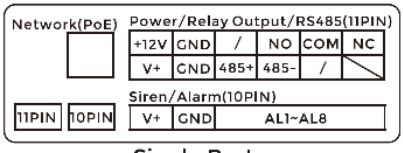
The logout column is designed for logout.



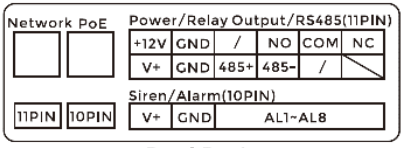
SYSTEM DIAGRAM



DEVICE WIRING



Single Port

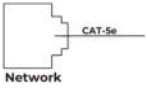


Dual Port

1. Network (PoE)

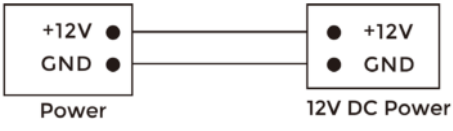
Standard RJ45 interface used to connect to the Master Station, Indoor Monitor and/or other network equipment via a network switch.

PSE shall comply with IEEE 802.3at (PoE+) and its output power not less than 30W and its output voltage not be less than 50V.

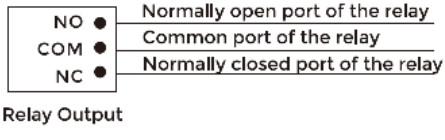


2. Power

The power interface of Indoor Monitor connects to 12V DC power.

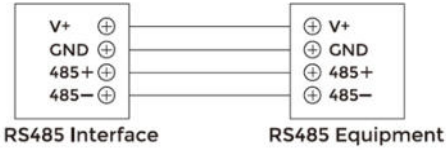


3. Relay Output



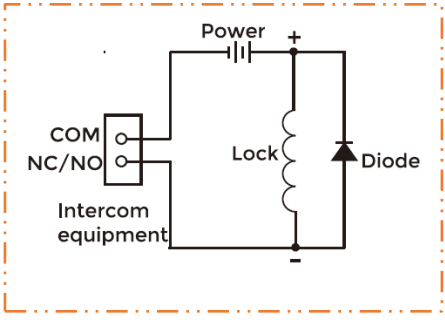
4. RS485

Enable to connect equipment with RS485 interface. RS485 interface can output 12V/100mA power supply. If RS485 equipment to be connected doesn't require the power supply, there is no need to connect to +12V.



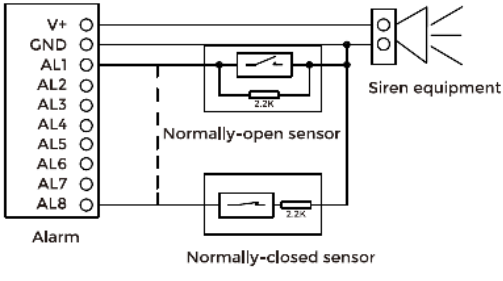
⚠ Warning!

1. When connecting to an inductive load device such as a relay or electromagnetic lock, you are recommended to use a diode 1A/400V (included in the accessories) in anti-parallel with the load device to absorb inductive load voltage peaks. The intercom will be better protected in this way.
2. The load current of the relay cannot be greater than 2A. See attached picture for more details.



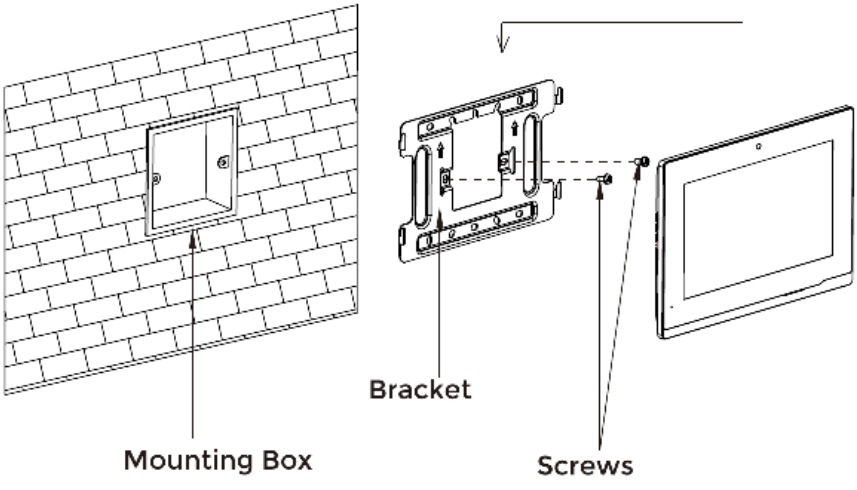
5. Siren/Alarm

Interface of alarm zones connects with normally-open or normally-closed switch. When the alarm zone is triggered, it will output 12V/100mA power.



INSTALLATION

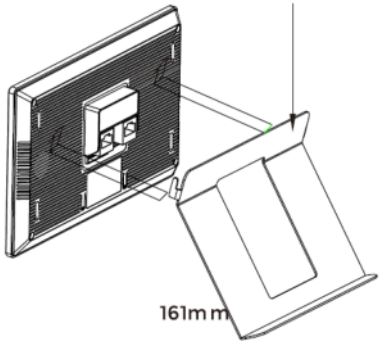
Surface Mounting-86 Mounting Box

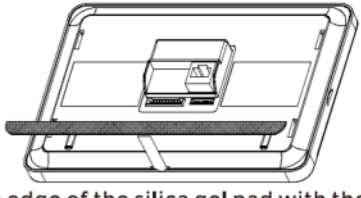


Product size: 195 × 130 × 14.5 mm

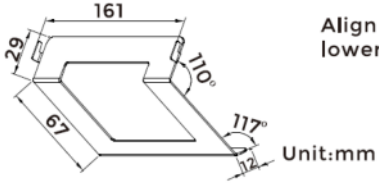
Desktop Mounting

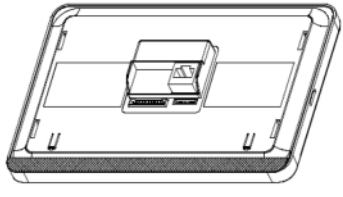
Assemble the hooks on two sides of the bracket into the groove on the rear cover.





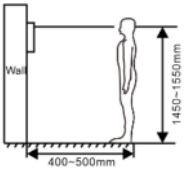
Align the edge of the silica gel pad with the lower edge of the casing, and paste the pad.





Product size: 195 × 130 × 14.5 mm

Tips:



The camera should be 1450~1550mm above the ground.

The camera at this height can capture human face perfectly.

TROUBLESHOOTING

The Indoor Monitor cannot start up or power off automatically.

- Check whether it has power-failure, and power it on again

The Indoor Monitor display screen is too dim.

- Check whether the brightness and contrast settings of screen are correct.

No sound during the communication.

- Check whether the Indoor Monitor is set as mute mode, or the volume is set to the lowest.

The Indoor Monitor cannot monitor the Door Station.

- Other user is using the system, so you can use it once he/she finished the operation.

Multimedia files cannot be played normally.

- Check whether the system supports the file format. Please refer to the multimedia setting for details.

No response when clicking Indoor Monitor display screen.

- Press "Unlock" button for 5s, or slowly slide horizontally or vertically on the LCD to make touchscreen calibration. It needs to be calibrated.

Touchscreen responses slowly or cannot make calibration.

- Take down any protective paster, since it may affect identification
- and input for device;
- Ensure the finger is dry and clean when clicking touchscreen;
- Restart the device to clear any temporary software error.

The temperature of device is too high.

- Long-term use leads to high temperature. It’s normal and will not affect the device’s use life and performance.

SAFETY INSTRUCTION

In order to protect you and others from harm or your device from damage, please read the following information before using the device.

- Do not install the device in the following places:
- Do not install the device in high-temperature and moist environment or the area close to magnetic field, such as the electric generator, transformer or magnet.
- Do not place the device near the heating products such as electric heater or the fluid container.
- Do not place the device in the sun or near the heat source, which might cause discoloration or deformation of the device.
- Do not install the device in an unstable position to avoid the property losses or personal injury caused by the falling of device.

Guard against electric shock, fire and explosion:

- Do not use damaged power cord, plug or loose outlet.
- Do not touch the power cord with wet hand or unplug the power cord by pulling.
- Do not bend or damage the power cord.
- Do not touch the device with wet hand.
- Do not make the power supply slip or cause the impact.
- Do not use the power supply without the manufacturer's approval.
- Do not have the liquids such as water go into the device.

Clean Device Surface

- Clean the device surfaces with soft cloth dipped in some water, and then rub the surface with dry cloth.

Other Tips

- In order to prevent damage to the paint layer or the case, please do not expose the device to chemical products, such as the diluent, gasoline, alcohol, insect-resist agents, opacifying agent and insecticide.
- Do not knock on the device with hard objects.
- Do not press the screen surface. Overexertion might cause flopover or damage to the device.
- Please be careful when standing up from the area under the device.
- Do not disassemble, repair or modify the device at your own discretion.
- The arbitrary modification is not covered under warranty. When any repair required, please contact the customer service center.
- If there is abnormal sound, smell or fume in the device, please unplug the power cord immediately and contact the customer service center.
- When the device isn’t used for a long time, the adaptor and memory card can be removed and placed in dry environment.
- When moving, please hand over the manual to new tenant for proper usage of the device.

V1.3

EASY & SMART INTERCOM SOLUTIONS

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