



# **User Manual**

**DNAKE S414** 

## **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. 4.3-inch IPS LCD capacitive touch screen
- 2. 2 output relays for door locks
- 3. 2MP HD dual camera with automatic lighting
- 4. Support WDR technology to lighten the dark areas and darken the overexposed parts of the image.
- 5. Support 20,000 users, 20,000 faces, and 60,000 cards
- 6. Unlock methods: Face recognition, IC/ID card, PIN code, QR Code, Bluetooth
- 7. Tamper alarm

# **TECHNICAL PARAMETER**

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

Standby Power: 8 W

Rated Power: 10 W

Resolution: 480x272

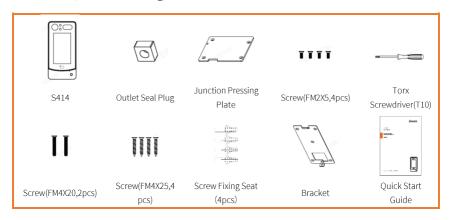
Working Temperature: -40°C to +55°C

Storage Temperature: -40°C to +70°C

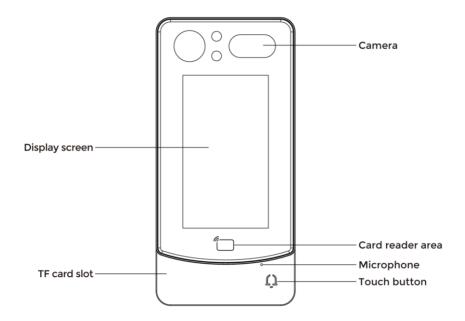
Working Humidity: 10% to 90% (non-condensing)

# **PACKAGE CONTENT**

MODEL: S414 (Surface Mounting)



# **OVERVIEW**



## **BASIC OPERATION**

#### 1. Contacts

Go to "CONTACTS" to enter contacts list. You can dial any residents in this list.

#### 2. Unlock

Go to PIN page, press PIN Code and lock icon to unlock.

#### 3. Facial Recognition

Go to the "FACE" page to wake up face scan. Facial recognition should be enabled beforehand.

#### 4. QR Code

Go to QR code pages, then scan the QR code from Smart Pro.

## **DEVICE SETTING**

Connect Door Station and PC to a network switch in the same LAN. You can enter the admin settings of Door Station by pressing PIN and entering default password (123456#). This is where you can configure the device.



#### 1. Device Settings

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 No. here is to distinguish different Door Stations when more than one Door Station in one building.









Reg to Cloud:	It is used to configure the device to register to
	the cloud server.
Auto Deploy:	It is used to configure whether the device is
	allowed to automatically connect to the cloud
	platform and obtain configuration.
Project ID:	It is used to configure the device to
	automatically connect to the specified site of
	the cloud platform.
Building No:	Number of the building (Building range: 1-999);
Unit No:	Number of the unit (Unit range: 1-99);
Apartment No:	Number of apartment (Range: 0-9899);
Device No.:	Number of the Index (Unit range: 1-9);
Password:	Administrator password of the Device (Default
	123456);
Mode:	Mode for apt., wall or villa (Unit and Gate)
Language:	16 languages supported (简体中文, English, 繁體
	中文, עברית, Deutsch, Español, Türk, Tiếng Việt,

	Nederlands, Português, Polski, Русский, عربي,
	Français, Italiano, slovenský);
Volume:	Volume of System can be set from 1 to 6;
Resolution:	4 resolutions supported (320 $\times$ 240, 640 $\times$ 480,
	1280 × 720, 1920 x 1080);
Scheduled sleep:	When Scheduled Sleep is enabled, the device
	automatically enters sleep mode at the set time.
	Advertising and related promotional functions
	are disabled.

#### 2. Network Settings

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





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;

#### 3. User

You can manage users on the User page.





New User:	You can create Users and relate it with face,
	card, PIN code here;
All Users:	All users will be shown here and you can edit or
	delete that;
Public PIN Codes,:	PIN code for the public;
Settings:	You can set Unlock Time, Unlock Delay, Face
	recognition, similarity and live detection.

#### 4. Other

You can reboot and reset device in Other page.



Reboot:	Reboot the device;
Reset:	Reset to factory settings;

#### 5. Version

You can find basic information displayed in Version page.



Firmware Version:	Firmware version of the device;
IP:	Current IP address of the device;
MAC:	MAC address of the device;
SIP:	Status of SIP registration of the device;

Account1:	SIP Account;
Account2:	SIP Account.

## **WEB SETTING**

Connect Door Station and PC to a network switch in the same LAN. You can enter the IP address of Door Station 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.

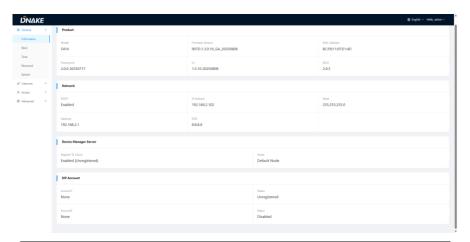
For getting the IP address, you can search by DNAKE Remote Upgrade Tool which is installed in the same LAN with the devices.



#### 1. General

#### 1.1. General > Information

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

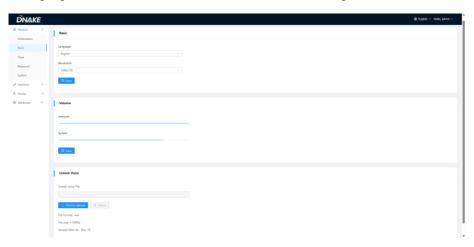


Model:	Model of the device;
Firmware Version:	Firmware version of the device;
MAC Address:	MAC address of the device;
Framework:	Framework of the device;
UI:	UI of the device;
MCU:	MCU of the device;
DHCP:	Status of DHCP;
IP Address:	Current IP address of the device;
Mask:	Subnet mask of the device;
Gateway:	Gateway of the device;
DNS:	Domain Name Server of the device;
Register to Cloud:	Displays the current registration status
	(Registered / Not Registered).
Node:	Refers to the cloud node the device is
	connected to. The system currently supports the
	following cloud nodes: Europe, US and India.
Account1:	SIP Account;

Account2:	SIP Account;
Status:	Status of SIP registration of the device;

#### 1.2. General > Basic

Language, resolution and volume of the device can be configured in this column.



Language:	16 languages supported (简体中文, English, 繁體
	中文, עברית, Deutsch, Español, Türk, Tiếng Việt,
	Nederlands, Português, Polski, Русский, عربي,
	Français, Italiano, slovenský);
Resolution:	4 resolutions supported (320 $ imes$ 240, 640 $ imes$ 480,
	$1280 \times 720, 1920 \times 1080);$
Intercom:	Volume of Intercom can be set from 1 to 6;
System:	Volume of System can be set from 1 to 6;
Unlock Voice:	It is used to configure the voice played when the
	device is unlocked successfully.

#### 1.3. General > Time

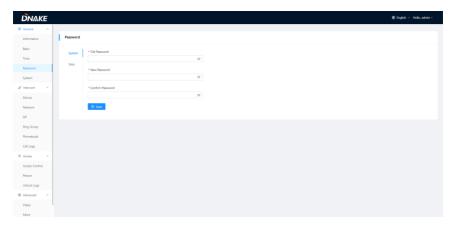
Time of the device can be configured. Daylight Saving Time is also supported.



Auto (Time):	Enable to synchronize computer time;
Date&Time:	Date and time can be set manually;
NTP URL:	Network Time Protocol (NTP) is a protocol used
	to synchronize computer time;
Time Zone:	A region that observes a uniform standard time;
12H/24H:	Switch the time displays between 12H and 24H;
Time Format:	It is used to configure the display format of the
	device time;
Daylight-saving Time:	Enable to set DST;
Start Time:	The beginning of DST;
End Time:	The ending of DST;
Offset Time:	The default value is 60 minutes;

#### 1.4. General > Password

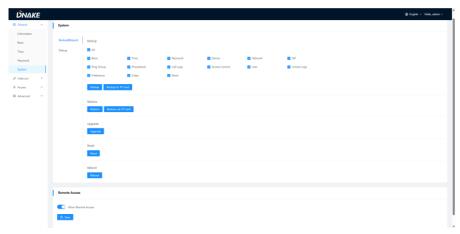
The System password is for the administrator to log in settings on the device while the Web password is for the administrator to log in settings on the web. The default password for both of them is 123456.

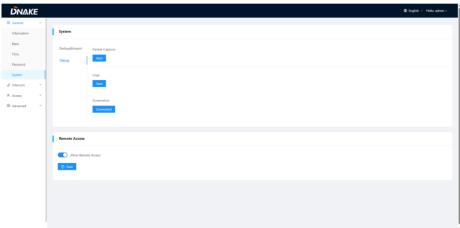


System Old Password:	Current administrator password of the Device
	(Default 123456);
System New Password:	New administrator password of the Device;
System Confirm	Confirm administrator password of the Device;
Password:	
Web Old Password:	Current administrator password of the web
	(Default 123456);
Web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

#### 1.5. General > System

The system column is designed for data backup and restore, firmware upgrade, factory default, device reboot, packet capture, logs capture, and obtaining UI screenshots.





Backup:	Backup settings;
Backup to TF Card:	Back all datas to TF card;
Restore:	Restore settings;
Restore to TF Card:	Restore all datas to TF card
Upgrade:	Upgrade equipment;
Reset:	Reset to factory settings;
Reboot:	Reboot the device;
Packet Capture:	Capturing packets can help developers
	reproduce positioning problems;
Logs:	Device logs;
Screenshot:	Screenshot device interface;
Remote Access:	Remote access the device web via cloud.

#### 2. Intercom

#### 2.1. Intercom > Device

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.

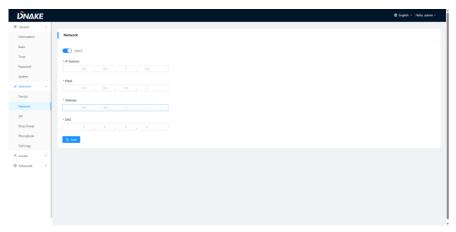
The Device No. here is to distinguish different Door Stations when more than one Door Station is in one building.



Register to Cloud:	It is used to configure the device to register to
	the cloud server;
Project ID:	It is used to configure the device to
	automatically connect to the specified site of
	the cloud platform;
Device Name:	The name of device;
Mode:	Gate station, Door station and Villa station;
Building No:	Number of the building (Range: 1-999);
Unit No:	Number of the unit (Range: 0-99);
Apartment No:	Number of the apartment(Range:0-9899);
Device No.:	Number of the device (Range: 1-9);

#### 2.2. Intercom > Network

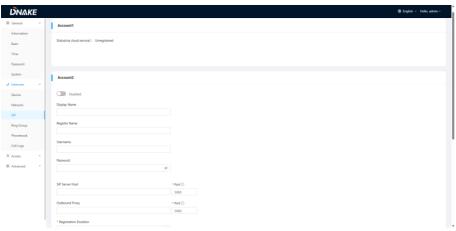
The device network can be set to either DHCP or a static IP address.

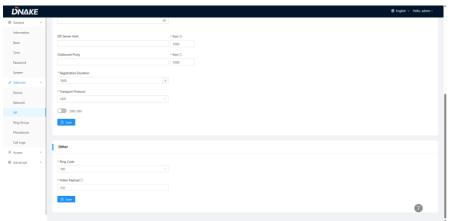


DHCP:	Enable DHCP (Dynamic Host Configuration
	Protocol) to dynamically distribute network
	configuration parameters;
IP Address:	Configure Static IP address to manually
	distribute network configuration parameters;
Mask:	Subnet mask;
Gateway:	A component that is part of two networks, which
	use different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

#### 2.3. Intercom > SIP

The SIP column concerns SIP registration, Display Name, Register Name,
Username, Password, SIP Server Host, Outbound Proxy, Transfer Protocol, Video
Payload, etc.





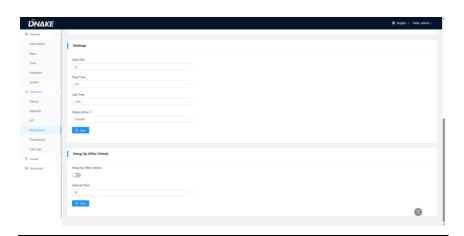
Account 1:	SIP Account;
Account 2:	SIP Account;
SIP:	Enable to use SIP;
Display Name:	Display name of SIP;
Register Name:	Register Name of SIP;
Username:	Username of SIP;
Password:	Password of SIP;

SIP Server Host:	Directly fill in SIP server's address e.g.,
	192.168.68.90;
	The default port is 5060;
Outbound Proxy:	Outbound Proxy of SIP; the default port is 5060;
Registration Duration:	Defines how long the device remains registered
	with the SIP server before it needs to re-register
	to stay connected;
Transfer Protocol:	Transfer Protocol (UDP, TCP, TLS);
DNS SRV:	Allows the device to locate SIP servers by service
	name rather than a specific IP address. It helps
	with load balancing and failover by providing
	multiple server addresses and priorities;
Ring Code:	180&183;
Video Payload:	Video payload range is 96-127;

#### 2.4. Intercom > Ring Group

Ring group is for setting up SIP calls or call mode. Supports call to concierge and setting several call mode.



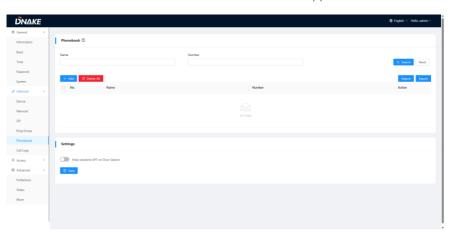


Ring Group:	A Ring Group is used to define a call forwarding
	rule by assigning a target SIP or IP address to a
	group. Each group includes a name and a
	number. The number represents the call
	destination, which can be an indoor monitor,
	SIP phone, or other SIP-compatible device.
Concierge:	Fill in the call destination for concierge button
	or the single button on the device;
	• IP call:
	Fill in sip: IP address,
	e.g., sip:192.168.68.90;
	• SIP call:
	Fill in sip: sip account @SIP server address: port,
	e.g., sip: 101@192.168.68.90:5060;
Concierge code:	Call to concierge via concierge code;
Auto Dial:	Automatically places a call after the number is
	entered and no further dial is made.

Ring Time:	The ring will be ended automatically after a
	period of time (10s, 20s, 35s, 45s, 60s, 90s, 120s)
Call Time:	The call will be ended automatically after a
	period of time;
Video Active:	It configures the video call feature for the
	device,If you disable, it will be make a audio
	call;
Hang Up After Unlock:	It will unlock the door automatically after
	hanging up the call;
Interval Time:	0-10s.

#### 2.5. Intercom > Phonebook

All contacts on Door Station can be edited here. It can support 400 items at most.

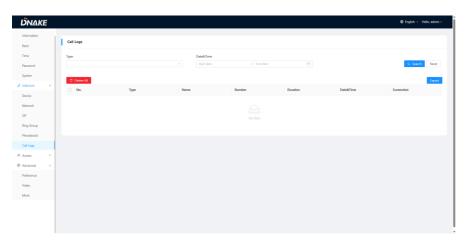


Search:	Fill in text inputs to search;
Reset:	Click reset to clear words in text inputs;
Delete All:	Delete all data on the chart;
Import:	Import all data to the chart;

Export:	Export all data on the chart;
Hide residents'APT on	It will hide the resident apartment number of
Door Station:	contact list on door station.

### 2.6. Intercom > Call Logs

It can support 500 call logs at most; If the logs are more than 500, the previous logs will be covered.

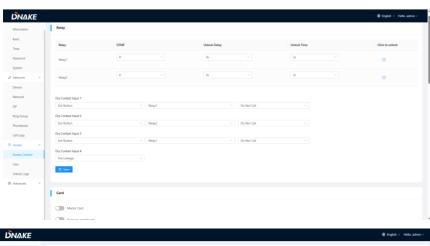


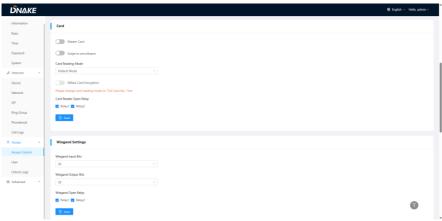
Call Logs:	The Call Logs can be enabled or disabled;
Type:	The type of Call Logs, including incoming and
	outgoing;
Date&Time:	The Call Logs will be filtered by the Date&Time
	you set;
Search:	Fill in text inputs to search;
Reset:	Click reset to clear words in text inputs;
Delete All:	Delete all data on the chart;
Export:	Export all data on the chart;

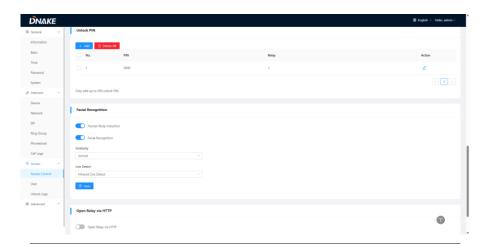
#### 3. Access

#### 3.1. Access > Access Control

Relays, access cards, PIN code can be configured here.





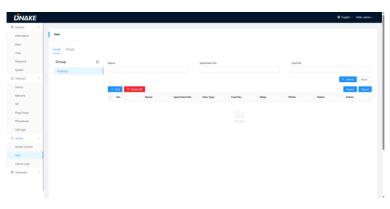


Relay 1-3:	3 relays supported;
DTMF:	Dual-tone multi-frequency signaling (Relay1: #,
	Relay2:0, relay3: *);
Unlock Delay:	The length of unlock delay time (1-9s);
Unlock Time:	The length of unlock time (1-9s);
Dry Contact Input 1-4:	3 modes of dry contact inputs are supported
	(Exit Button, Door Sensor, Fire Linkage);
Master Card:	Click read to add Master card to manage cards;
Swipe to arm/disarm:	Swipe the card to arm or disarm;
Card Reading Mode:	Compatible mode: read a specific card number
	in the card
	Full Card No. mode: read all card numbers in the
	card;
Mifare Card Encryption:	Enables encryption for MIFARE cards to enhance
	data security and prevent unauthorized
	duplication;
Card Reader Open Relay:	Enable the card reader open relay;

Wiegand Input Bits:	Specifies the bit length of Wiegand data
	received from an external card reader;
Wiegand Output Bits:	Specifies the bit length of Wiegand data sent to
	an external controller;
Wiegand Open Relay:	Enable the Wiegand Open Relay;
Unlock PIN:	The pin code for unlocking the door;
Human Body Induction:	Once you approach to Door Station, face scan
	will be enabled automatically;
Facial Recognition:	Enable to use face recognition;
Similarity:	Sensitivity of facial similarity analyzer (Low,
	normal, high);
Live Detect:	Sensitivity of live detect to prevent picture fraud
	or video fraud (Close and infrared live detect);
Relay via HTTP:	It is used to configure whether third-party
	devices can use http to unlock. If enabled, third
	parties can use http commands to unlock.

#### 3.2. Access > User

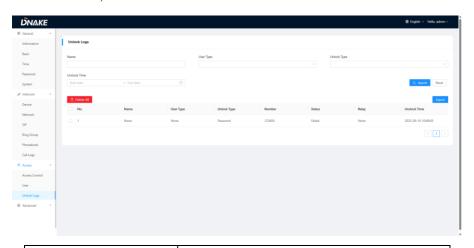
Person column is for access authorization. It can support 20,000 users at most.



Search:	Fill in text inputs to search;
Reset:	Click reset to clear words in text inputs;
Add:	Add users to Door Station;
Delete All:	Delete all data on the chart;
Export:	Export all data on the chart.

#### 3.3. Access > Unlock Logs

It can support 500 unlock logs at most. If the logs are more than 500, the previous logs will be covered;



Name:	The name of the person you add;
User Type:	The Person Type you set on person column.
	Including None, Household and Visitors;
Unlock Type:	The type of Unlock Logs, including Card,
	Password, Intercom, Exit button, Face, APP and
	HTTP;

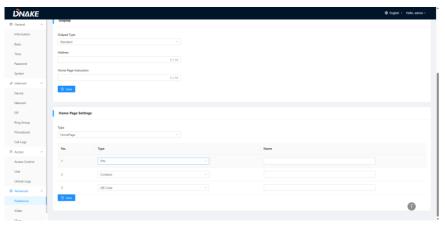
Date&Time:	The Unlock Logs will be filtered by the Date&
	Time you set;
Search:	Fill in text inputs to search;
Reset:	Click reset to clear words in text inputs;
Delete All:	Delete all data on the chart;
Export:	Export all data on the chart;

#### 4. Advanced

#### 4.1. Advanced > Preference

Allows customization of the device interface, including: Setting the wallpaper, adjusting the display order of icons, etc.

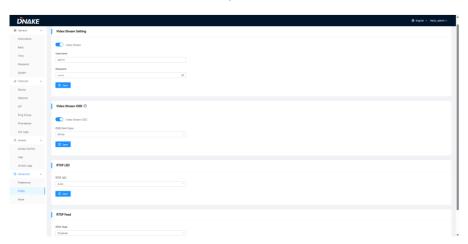




Wallpaper:	Upload a picture to apply it to the device UI. Ple ase make sure the picture's resolution is the same as the device's and the size of the picture should be lower than 512KB. The format of Picture should be JPG or PNG;
Display Type:	Supports call to residents via apartment
	number or apartment with A/B/C/D letter;
Address:	Filling in your location on the homepage;
Home Page Instruction:	Enables a customized introduction on the
	home page.
Home Pages Settings:	Configure the home page by arranging the icon
	order and choosing which icons to display or
	hide.;

#### 4.2. Video

Real-time video from IP cameras can be obtained by filling in its URL (RTSP). On the talking interface of Indoor Monitor, you can click the little keyboard icon to switch to IP cameras' video. (No.1 on the keyboard stands for Door Station while No.2 to No.5 stands for IP camera)



Video Stream:	Enables RTSP streaming, allowing the door stati
	on's video to be accessed by NVRs or other RTSP
	-compatible devices.
Username:	Username of RTSP stream;
Password:	Password of RTSP stream;
Video Stream OSD:	When enabled,real-time timestamps will be disp
	layed on the surveillance screen.
OSD Font Color:	The color of font;
RTSP LED:	It is used to configure the LED settings when the
	device is used as a video surveillance device;

RTSP Feed:	4 IP cameras supported to switch while talking
	on Indoor Monitor;
URL:	I camera's URL.

#### 4.3. Advanced > More

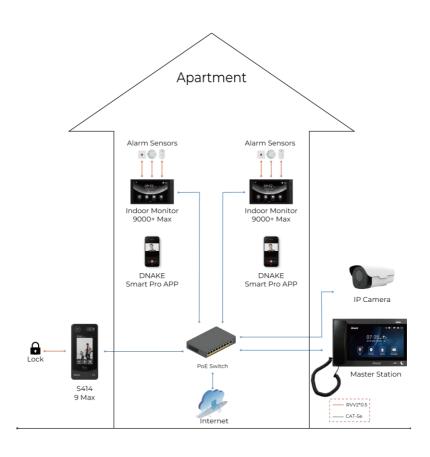
More column is for Advertise, Tamper Alarm, Scheduled Sleep and ONU Penetration.





Advertise:	Enable to advertise on the screen saver of the
	device;
URL:	Advertise URL;
Time (minutes):	The time length of advertise display (10mins,
	20mins, 30mins);
Tamper Alarm:	Enable to use Tamper alarm;
Scheduled Sleep:	User can set the schedule to make the device
	screen keep off;
ONU Penetration:	Enable to prevent ONU from banning multicast.

# **SYSTEM DIAGRAM**



# **DEVICE WIRING**



WD1
WD0
5V_OUT
GND
NC1
COM1
NO1
NC2
COM2
NO2

#### 1. Network (PoE)

Standard RJ45 interface is for the connection with PoE switch or other network switch.

PSE of power supply equipment shall comply with IEEE 802.3af, with output power not less than 30W and output voltage not less than SOV.



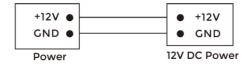
#### 2. TF card

Supports importing and exporting device backup files, as well as storing snapshots captured during calls.



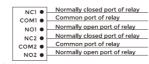
#### 3. Power

The power interface of Door Station connects to 12V DC power.



## 4. Switching Value Output

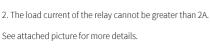
Connect to the lock module (an independent power supply is necessary for the lock).

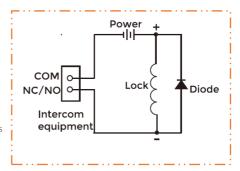


Switching Value Output

# ▲ Warning!

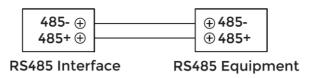
1. When connecting to an inductive load device such as a relay or electromagnetic lock, you are recommended to use a diode 1A/400V (included in the accessories) in antiparallel with the load device to absorb inductive load voltage peaks. The intercom will be better protected in this way.



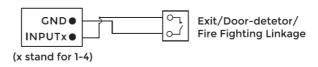


#### 5.RS485

Enable to connect equipment with RS485 interface.

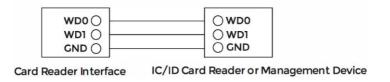


# 6. Exit / Door-detector / Fire Fighting Linkage



#### 7. Card Reader Interface

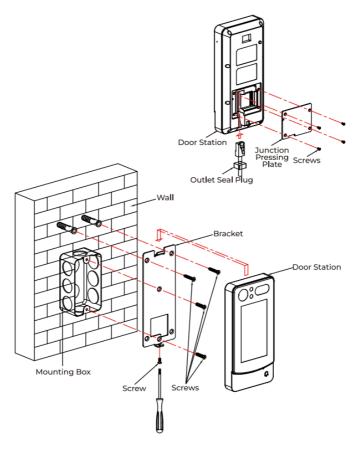
The interface can be connected to one IC/ID card reader or be used for reading the information of built-in card reader.



Note: Door station can only be connected to one card reader or management device at a time.

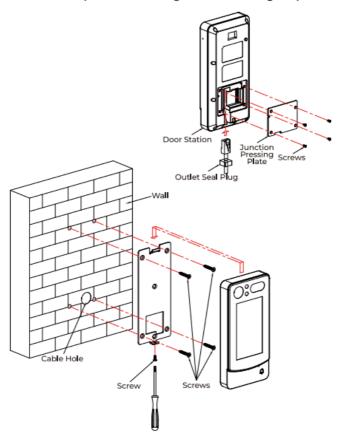
# **INSTALLATION**

# Surface Mounting-86 Mounting Box

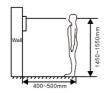


Product size: 85 ×169 × 29.5mm Maxmium product size: 85 × 169 × 31 mm

MODEL: S414 (Surface Mounting-Round Mounting Box)



# 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.

# **FCC Warning**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE 1: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- -Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- -Consult the dealer or an experienced radio/TV technician for help.

NOTE 2: Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

# RF exposure statement

This equipment complies with the FCC radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

# EASY & SMART INTERCOM SOLUTIONS

