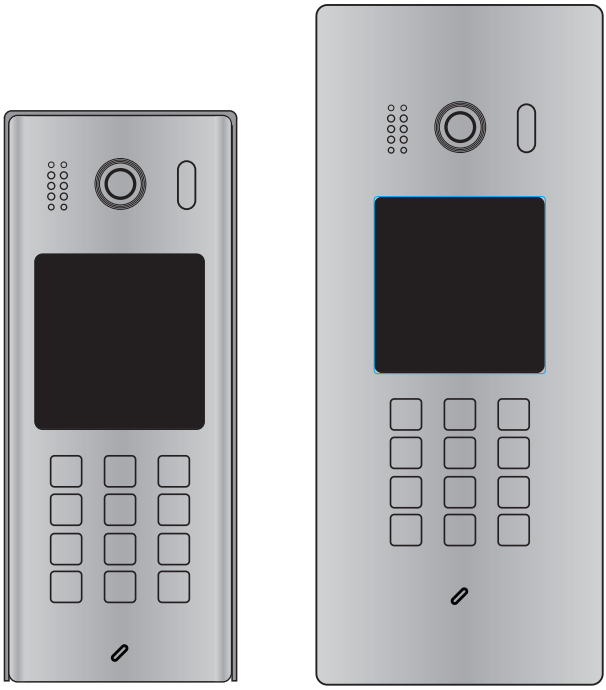
2 WIRE IP SYSTEM

DH851/DH851F

3.5-inch touch screen with keypad

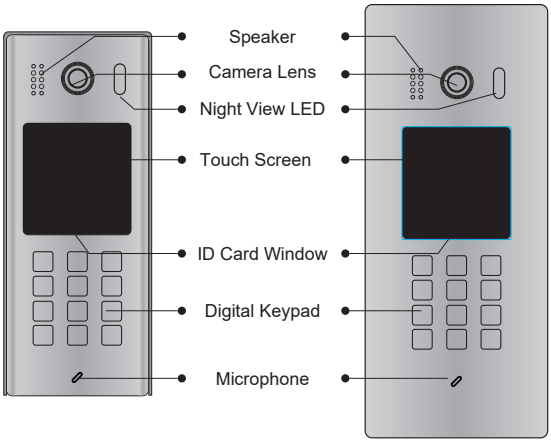
USER MANUAL



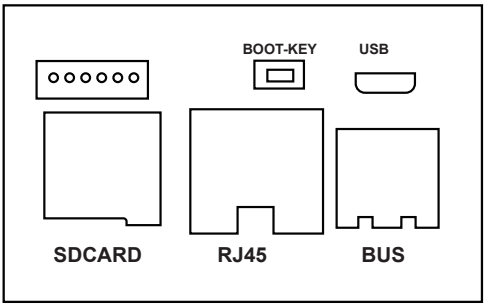
- Please read this manual carefully to ensure safe and correct operation.
- Keep this manual well for future reference.

PARTS AND FUNCTIONS

Part Names

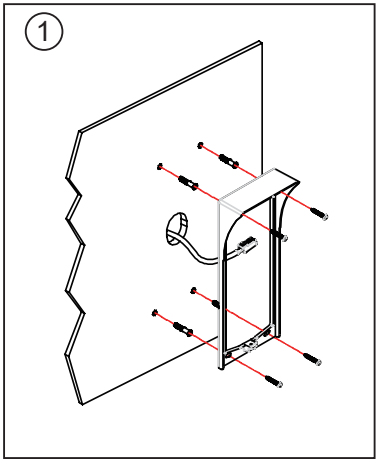


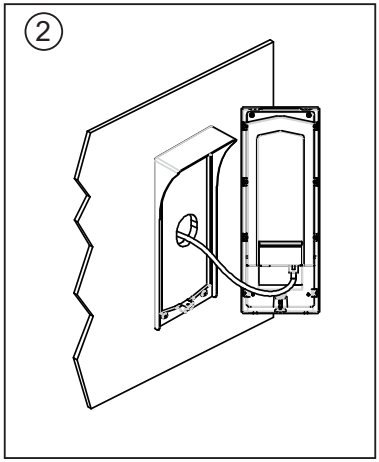
Terminal

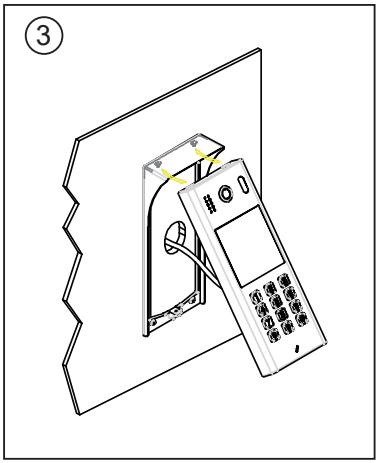


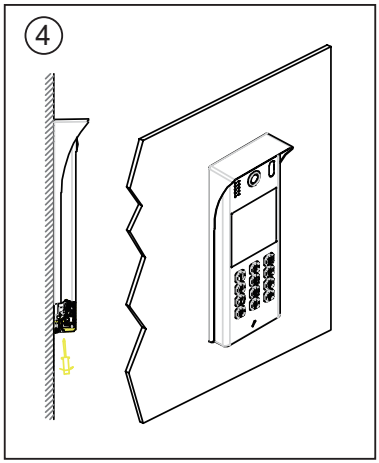
- **+12V:** 12VDC power output.
- **LK-(GND):** Power ground.
- **LK+(COM):** Common contact of the Relay .
- **NO.**:Normally open contact of the Relay(refer to DT technical guide for Lock connection detail informations).
- **EB+:** Exit button connection port.
- **EB-:** Exit buton connection port.
- **Bus(**L1,L2**):** non-polarity bus line.
- **RJ45:** Reserved
- **USB/Boot key:** Debug tool

Surface mount









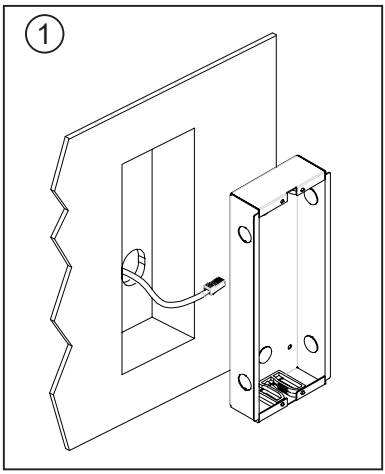
1. Drill holes in the wall to match the size of screw stoppers, then attach the rainy cover and main unit to the wall, and the distance between the top of main unit and rain cover should be not less than 3mm.

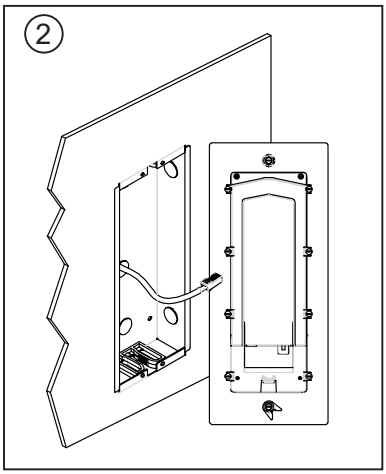
2. Connect the cable correctly.

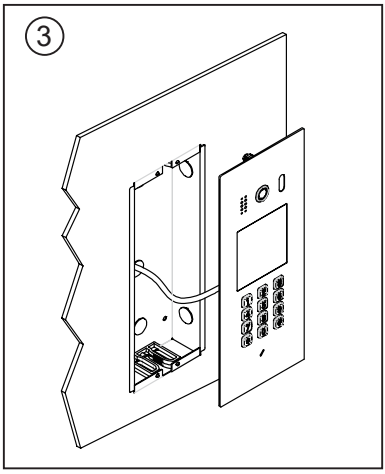
3. Install the door station, hook up from the top with the rain cover and then amount the door panel.

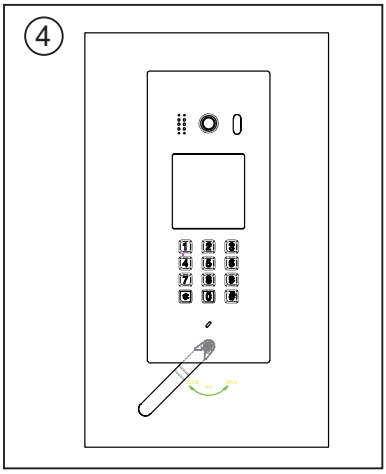
PARTS AND FUNCTIONS

Flush mount









1. Drill a hole in the wall to match the size of the mounting box and attach to the wall.
2. Connect the cable correctly and make sure ratchet bolt on the bottom is in “Open” position.
3. Make sure the install is firmly, and use the wrench tool to locking the ratchet to “Close” position.

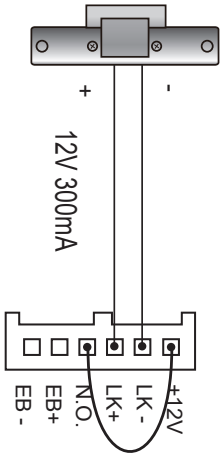
PARTS AND FUNCTIONS

Lock connection

Door Lock Controlled with Internal Power

Note:

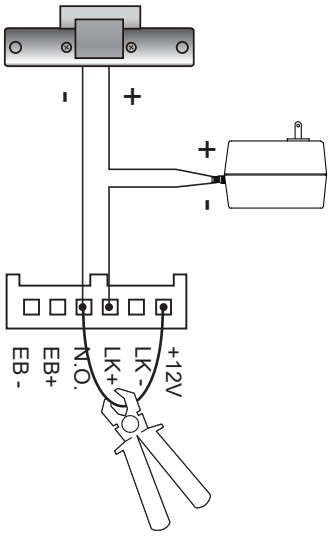
1. Electronic lock of Power-on-to-unlock type should be used.
2. The door lock is limited to 12V, and holding current must be less than 250mA.



Door Lock Controlled with Dry Contact

Note:

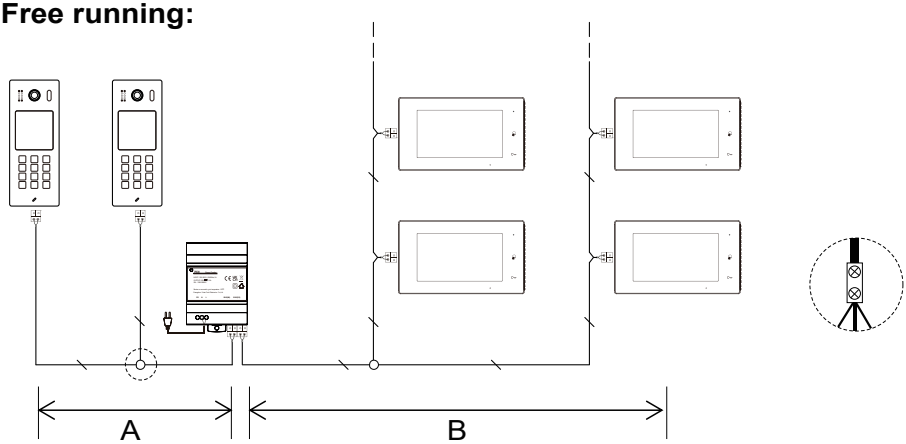
1. The external power supply must be used according to the lock.
2. The inside relay contact is restricted to 230Vac or 30Vdc 1A.



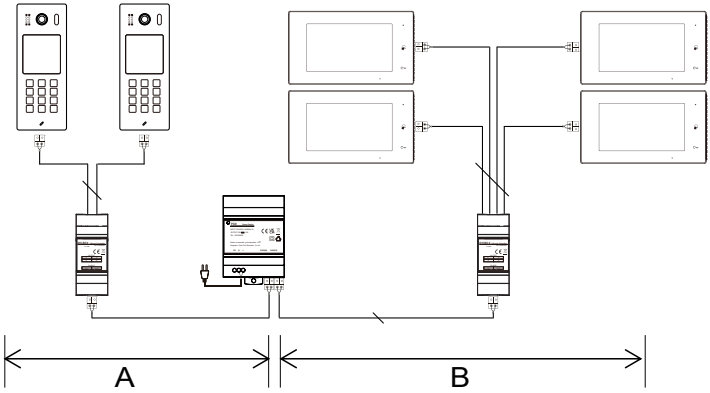
BASIC FUNCTIONS

Wiring

Free running:



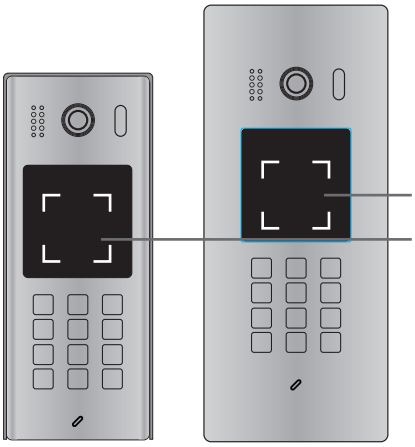
Structured cabling :



cable	A	B
0.5	40M	60M
0.75	60M	90M
CAT5	35M	55M

BASIC FUNCTIONS

Operation



Call to monitor

Tap user interface to call directly, directory or input room number depends on menu setup.

Tap card to unlock

Tap registered user card on the middle of the screen to release door lock.

Unlock by password

Tap unlock button on menu and input room number + corresponding private unlock code to release door lock. (or input 4 digits unlock code)

Use of keypad

Unlock: In standby press # first into password input and then input password confirm with # key

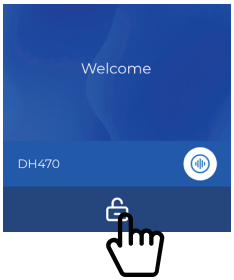
Call: In standby press room number first on keypad and confirm with “#” to dial via numbers

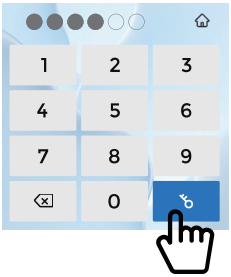
BASIC CONFIGURATION

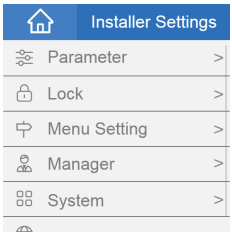
With more steps to finish the basic configuration

Installer menu

All settings are in the installer menu, tap “unlock” and then input “2288” and tap unlock input installer menu.



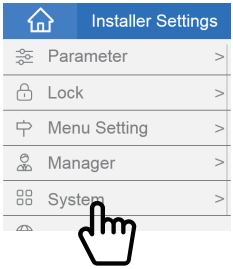


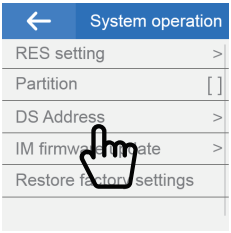


Door station name and address setup

!! The system must and can only have one door station in address1, and address 1 is a default setting, without correct settings of the address the system will not work !!

After setup door station address need to wait 30s to rebuild the communication.





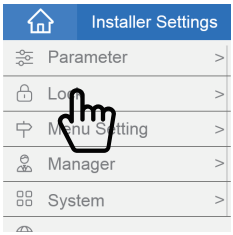


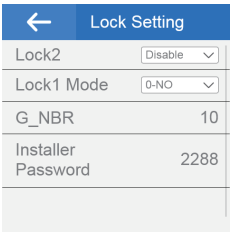
Tap address to select the address needed to setup
Tap Name and input new name for the door station, the name will display in monitor menu.

After setup door station address need to wait 30s to rebuild the communication.

BASIC CONFIGURATION

Unlock setup





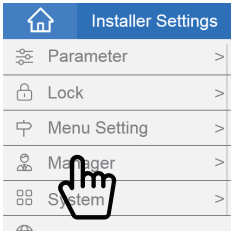
Lock 1 Mode , the lock 1 settings which connects on the door station, NO, means normally open, and NC means normally close.

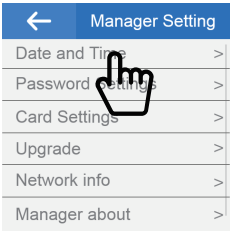
Unlock1 Time , the time for the unlock, by seconds

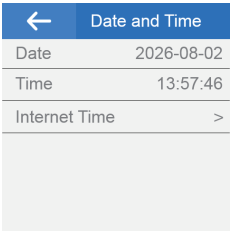
Lock2 , whether to display the lock2 button on monitor when calling to monitor, the lock 2 needs connects via DH-RLC.

Date and time setup

Date and time setup is necessary for the video records. It is mandatory to setup







Date and Time:

Date: input date by format YYYYMMDD please notice there is no dash line request when input

Time: input time by format HHMMSS please notice there is no dash line request when input

Internet time: this option only valid connect internet with DH-LAN accessary

Time Server: the time server needs to sync, default 131.188.3.220

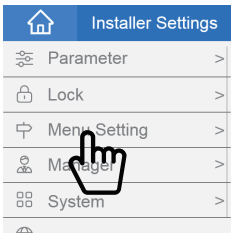
Time Zone: time zone

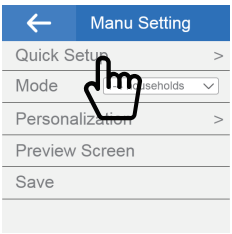
Time Auto Update: whether enable auto sync time

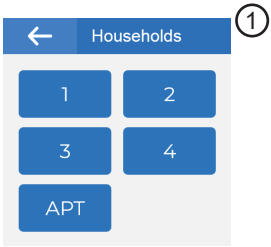
Sync Time: sync time manual once.

Quick Main menu setup

The main menu needs to be configured according to the door station's usage scenario (number of households).



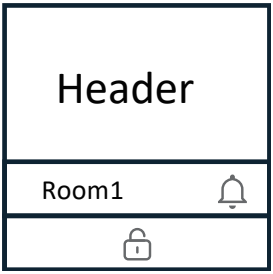




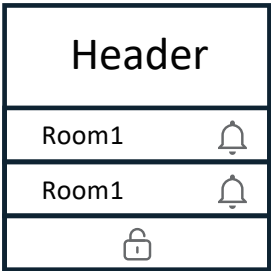
①

BASIC CONFIGURATION

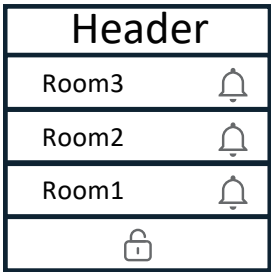
The main menu layout will be as follow with the options



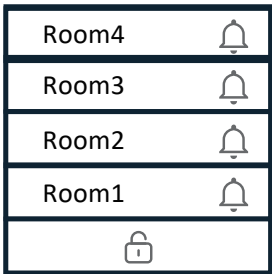
1. 1 button with a header information area



2. 2 buttons with a header information area



3. 3 buttons with a header information area

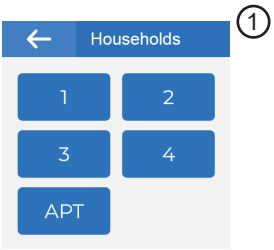


4. 4 buttons with a header information area

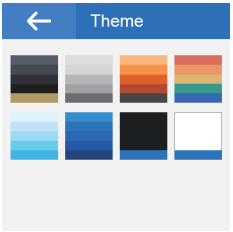


APT. More than 4 families

After setup households for the usage, select the color theme for the menu.



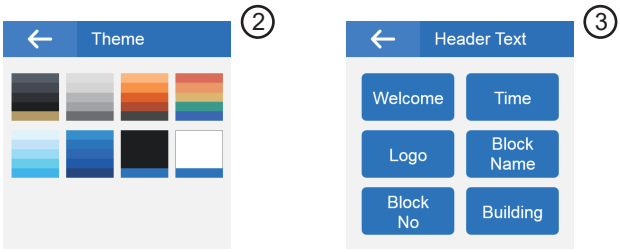
①



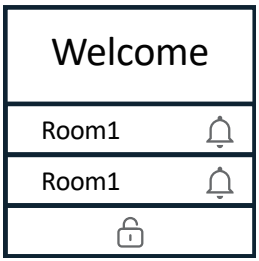
②

BASIC CONFIGURATION

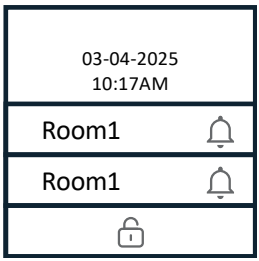
If the household you choice (1/2/3/APT) has a header information area, you will need to setup the header information.



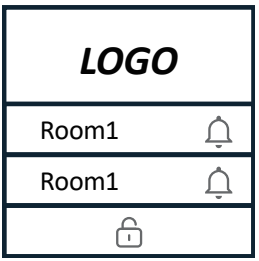
For example for 2 households:



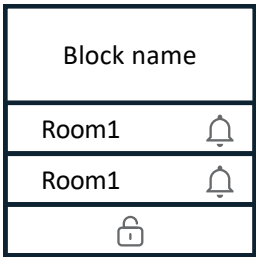
Welcome: define a text to display in the menu as header



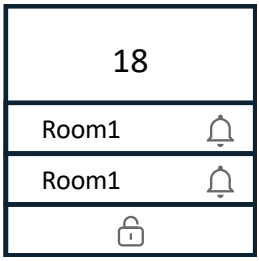
Time: display date/time as the header



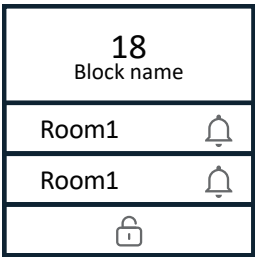
Logo: display logo(png picture) as the header



Block name: define a text to display in the menu as header



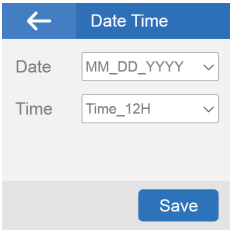
Block no: define a text to display in the menu as header

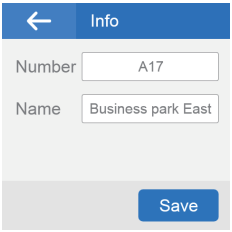


Building: define 2 texts to display in the menu as header

BASIC CONFIGURATION

After setup the header information, needs to input/configure necessary info.





SETTINGS

Installer menu settings.

Parameters

Language, menu language
Voice language, the voice promote language
Voice volume, the voice promote volume
Key tone, whether enable the touch key feedback tone.

Lock

Lock2, whether to display the lock2 button on monitor when calling to monitor, the lock 2 needs connects via DH-RLC.
Lock 1 Mode, the lock 1 settings which connects on the door station, NO, means normally open, and NC means normally close.
Unlock1 Time, the time for the unlock, by seconds
Installer password, setup installer password(default 2288)

Menu Settings

To setup the main screen menu of the door station
Quick Setup, according usage to setup main menu with few steps, see previous manual. (Quick setup is pre-configure of below settings, you could manually change some after quick setup.)

Below are manual setup the menu, instead of quick setup.

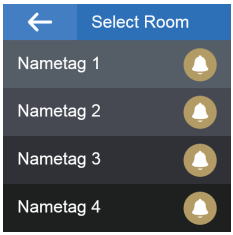
Mode, 1-4 households/APT corresponding to household of the usage, means for 1/2/3/4 households, or more than 4, APT.
Personalization, to further setup the main menu according to request
Preview screen, preview current preconfigure menu
Save, apply the preconfigure menu

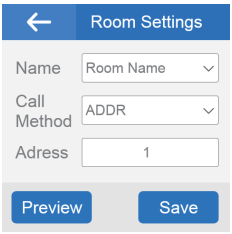
Personalization:
According to the mode you select, the personalization settings will be different:

SETTINGS

Mode: 1-4 households
Main theme, select the buttons color theme.
Background, select the background pictures
Header text, select what need to display in the header text see in “Basical configuration” please notice only for 1-3 households the header will apply. Not enough display area for 4.
Users, the number of the household (how many call buttons) 1-4
Edit name, to configure each call buttons display information or calling address.

Depends on users setup, there will be 1-4 name tag.
By default, the nametag is calling to 1-4 and sync name from monitor.





For each button(name tag) settings:
Name, whether the name is sync from monitor setup or a fixed text
Custom name, if the name option is “fixed text”, need to further input the text
Call Method, which device the button calling to
ADDR, by address, and input the Address
L_Nbr, by L_number, and input the L_Number
G_Nbr,by G_number, and input the G_Number

Import logo, when header option is “logo” could import the logo from SD card, copy the PNG format picture to root of SD, and rename to “logo.png”, and insert the SD card so you could import logo.
To prevent oversize picture, please design the picture with below:
3 households: no more than 96*480
2 households: no more than 192*480
1 households: no more than 288*480

SETTINGS

Welcome, when header is welcome, input the welcome text
Welcome size, the font size of the welcome text
Unit No, when the header is block no or building, input the unit no text
Block No size, the font size the No.(the text in Unit No.)
Area name, when the header is block name or building, input the text.
Text color, all text's color,
Preview screen, preview current preconfigure menu
Save, apply the preconfigure menu

Manager settings

This menu could also access form the unlock password, input manager password (by default 1527)

Date and Time:
Date: input date by format YYYYMMDD please notice there is no dash line request when input
Time: input time by format HHMMSS please notice there is no dash line request when input
Internet time: this option only valid connect internet with DH-LAN accessary

Time Server: the time server needs to sync, default 131.188.3.220
Time Zone: time zone
Time Auto Update: whether enable auto sync time
Sync Time: sync time manual once.

Password:
Auto-Unlock Digits:
When use private password (unlock by room number + private password) this settings shall set to "4"
When use public password the value means the maximum input digits for the unlock password.
Lock1 password-1: The lock 1 password 1, is a public password
Lock2 password-2: The lock 1 password 2, is a public password
Unlock Pwd Type
The door station unlock password type

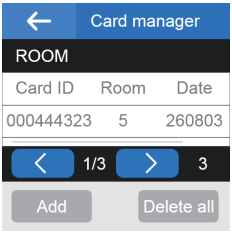
Disable: not allowed to unlock by password
Public pwd only: only allowed to unlock by public password
Private pwd only: only allowed to unlock by private password
Both enabled: allowed all password

Call number Len
This option is for private password unlock, private password unlock requires input "room number + private password" this is to define the digits input for the "room number"

SETTINGS

Card manager:
User card could manager via touch screen monitor also via this menu.

Card Editor:



Add: add a card

Card ID: input the card 10 digits ID or tap the card

Room number: input the room of the card

Name: input the name of the card

Delete all: delete all cards

If need to delete one, tap the card in the list and tap delete to delete.

Card Num: current total cards

Last modified: last time add/delete cards

Card swipes NBR: total swipes of cards

Successful Swipes Num: total cards swipes with door release

Cross-DS card validate: whether to check the card data from other door station? For example cards add on door station 2 instead of the door station, fill this “[2]” so the cards will work on this door station.

Back up to SD: back cards data to SD card

Restore from SD: restore from SD card

System

DS address: door station address and names setup

Address: select the address

Name: the name of the door station

G_Nbr/L_Nbr and relate settings is reserved.

RES setting: room list table setup.

In the main menu of APT mode (more than 4 monitors) the room list (directory) could be automatically collect or pre-configure.

For automatically collect don’t need to take extra setups, but if need a manual list,(for example monitors not installed yet need to show in the room list), need to setup in the RES settings.

SETTINGS

APT MAT settings: setup monitor room list for APT mode

MAT description: current using MAT text mark, empty if not using.

MAT records: current room list total monitors

MAT Select: select a pre-configure MAT from door station or SD card

MAT editor: to edit current list(change names or address)

MAT Create new: create a new room list by input

IM start: the first number of the monitor address

IM End: the last number of the monitor address

Name prefix: each monitor name prefix, for example room 1, the prefix is “room”

Descrip: the text mark

Create: for example, IM start 1, end 8 name prefix Room will create Room1- Room8

After setup the MAT it is allowed change the “name” via monitor by input the name for itself.

APT SAT settings: setup door station list in order to sync the MAT to other door station.

This setting is not necessary with one door station only, the only propose is to sync the MAT list.

SAT description/select/editor/create new same as MAT but device is door station.

prog by SAT: sync MAT to other door station.

Refresh: display all SAT door station

Prog self: flash MAT for this door station

Prog all: sync current MAT to all door stations in SAT

View others: view door stations online but not in the SAT

Back up to SD: Backup the MAT/SAT to SD card

Restore form SD: Restore from SD card

Partition: setup to limit calling and monitoring from different partition.

the value must include symbol “[]”,when is empty means accept all. Needs to reboot system to take effect.

Fox example monitor 1 partition is 1 and monitor 2 partition is 2, door station partition is “[1]”, the door station could only call to monitor 1

IM firmware update: send command to ALL monitor to update online

Server: the update server

Code: the update code.

Restore to factory setting: restore everything.

SETTINGS

Network Settings

Only connect the system via DH-LAN to an exist network and the network request a specifical IP address for each devices (without DHCP)
For any case else, **DO NOT** setup the network settings unless you know what these means.

LAN settings. The door station internal network settings.

LAN config
LAN Setting: select the IP addressing method
Auto: automatically inner IP address or DHCP (if has)'
Static: static IP address
Auto IP last IP: the IP address addressing by AutoIP (when option is Auto)
Static Options: edit the static IP address (when option is static)
Confirm: to apply these settings
IP address: current IP address
IP mask: current IP mask
Default Gateway: current IP gateway

SETUP INSTRUCTIONS

Specification

Power supply:	DC 20~28V
Power consumption:	Standby 3.5W; Working 5.4W
Camera:	2MP 1080P
View angle:	150° horizontal, 80° vertical
Screen size:	3.5-inch touch
Resolution:	480*480 pixels
Dimension:	263(H)×114(W)×42.5(D)mm(Surface)
	316(H)×133(W)×46(D)mm(Flush)
Operating temperature:	-10°C to +50

System will stand in variable external temperature from 5-45% Celsius

System will stand in voltage power variable for 10% +/-

Anti-vandal