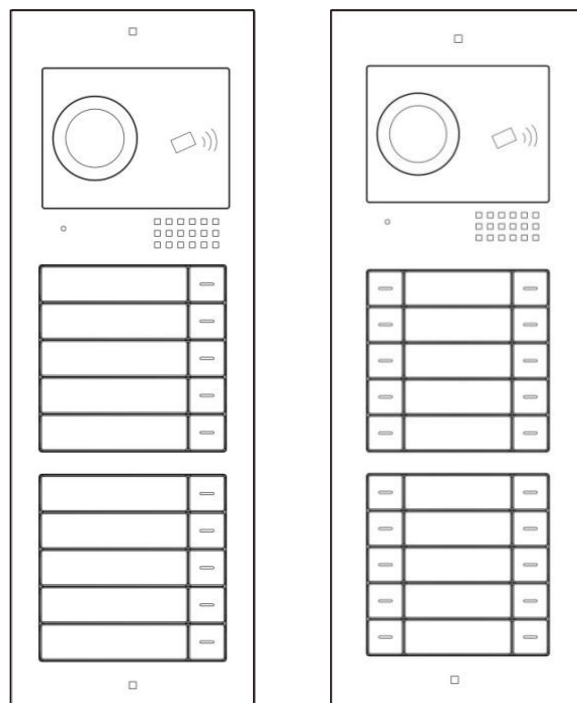


2D37& 2D38 Apartment Door Station with Multi Call Buttons

User Manual



Version:V1.1

Thank you for purchasing our products.

Please read this User Manual carefully before using this product.

Products are subject to change without prior notice .

Index

1. Product Features and Main Function	1
2. Name and the Function of Each Part	1
2.1 Names of Each Part	1
2.2 Terminal Description	3
3. Packing List	4
4. Wiring Diagram	4
4.1 Electrical Lock Wiring Diagram	4
4.11 Door Lock Powered by the Door Station	4
4.12 Door Lock Powered by an External Power	6
4.2 Wiring Diagram for BUS & Exit Button	6
4.3 Wiring Diagram for Wiegand Unlock & Door Status Checking	6
4.4 System Wiring Diagram.....	7
4.41 System Wiring Diagram with Distributor NV21 A (Maximum support 120 monitors).....	7
4.42 System Wiring Diagram with Distributor NV21 B.....	8
4.43 Connecting Multi door stations.....	9
4.5 Cable & Distance.....	10
5. Installation Guide	10
5.1 Cautions	10
5.2 Module Connection Instruction	11
5.3 Name Plate Change	11
5.4 Surface Mounted	11
5.5 Flush Mounted	12
6. Door Station Setting	12
6.1 Device Name(Door Station Name).....	13
6.2 Device NO.....	14
6.3 Button Address (Set Calling Target)	14
6.4 Private Device	14
6.5 Monitor.....	14
6.6 Set the Doorbell Unlock Parameters.....	14
6.7 RFID Access Control Management.....	15
6.8 Elevator Control State.....	17
6.9 Set Doorbell Security Parameters	17
7.0 Set the Doorbell Speaker Volume	17
7.1 Adjust the Viewing Angle	17
7.2 Set the Doorbell Configuration Password	17
7.3 Setup Mode.....	18
8. Specification	18

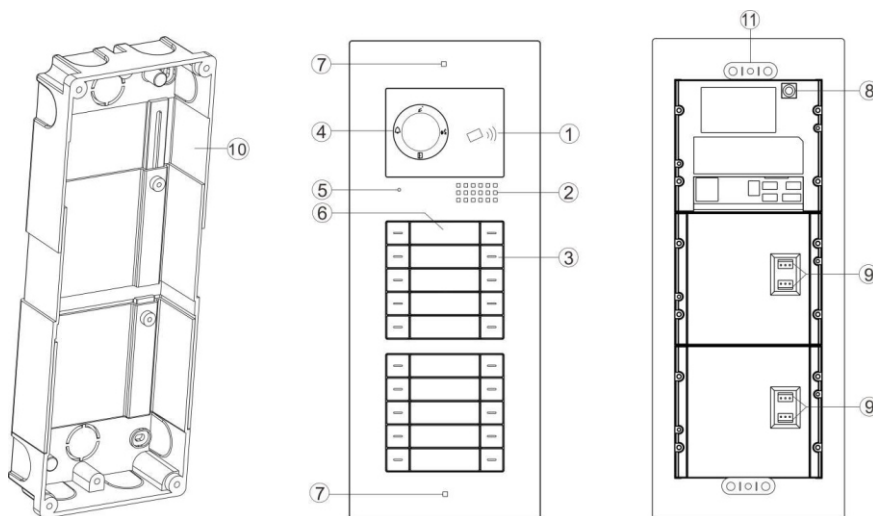
1. Product Features and Main Function

- Module design, easy to customize
- Digital 2 wire technology
- Easy wiring with non-polarized 2 wire
- Support RFID with ID card module (optional)
- 1080P COMS camera
- Night vision with automatic luminance compensation
- Support 2 locks
- Surface mounted and flush mounted are optional
- IP54 & IK07
- Support connecting an exit button
- Support door status checking
- Tamper alarm

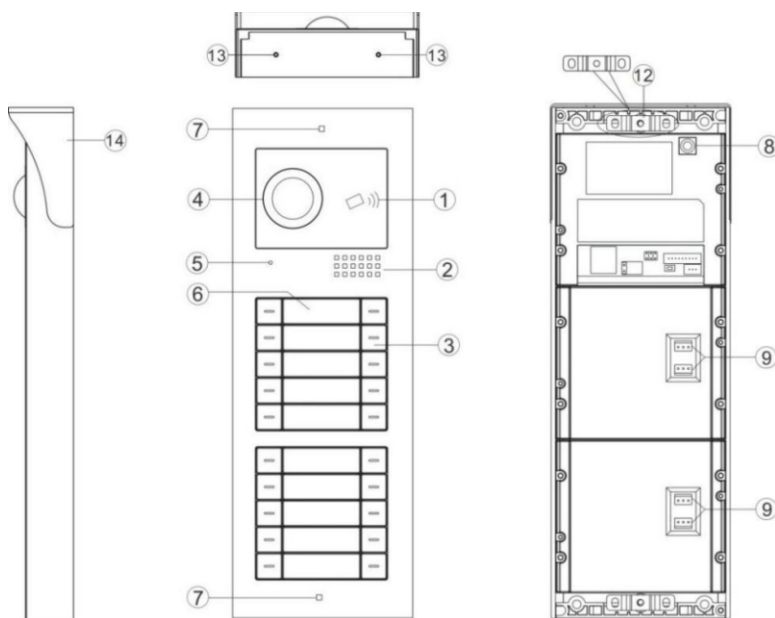
2. Name and the Function of Each Part

2.1 Names of Each Part

Flush mounted

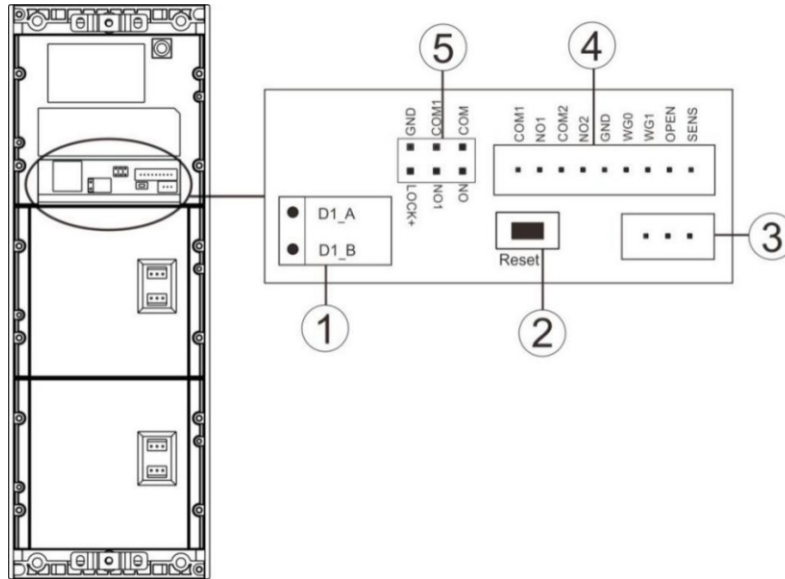


Surface mounted



No.	Name of Parts	No.	Name of Parts
(1)	Card reader(optional)	(2)	Speaker
(3)	Call button	(4)	Camera
(5)	Microphone	(6)	Name plate
(7)	Screw holes for installation	(8)	Tamper
(9)	Connection port for module	(10)	Mounting box
(11)	Screw holder	(12)	Screw holder
(13)	Screw holes for rain hood	(14)	Rain hood

2.2 Terminal Description



(1) **2-Wire BUS Port:** Connect to the 2-wire BUS, non-polarized.

(2) Reset button

Reset door station password:

Reboot the door station, then press and hold on the reset button within 1 minute. The password resets successfully after two beeps.

Reset button number sequence:

Press and hold on the reset button, then reboot the door station to define the button sequence after 2 beeps.

Release the reset button, the backlit on all the call buttons will be off. Press the 1st call button, its backlit will be on, and the button number is set as 1. Press the 2nd call button, its backlit will be on, and the button number is set as 2. The same operation for all the rest call buttons. After that, press reset button again, the door station will do self-checking, and the backlit of each button will turn on one by one, then off, new button sequence will be saved.

(3) Module connection port: For connecting other modules.

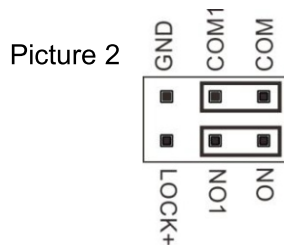
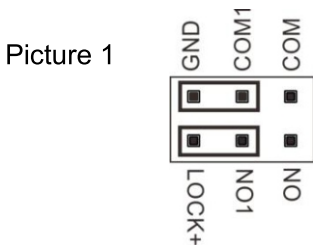
(4) Connection port

PIN	For connecting	PIN	For connecting
COM1	Door lock	OPEN	Exit button
NO1		GND	
COM2	Gate lock	SENS	Door status checking device
NO2		GND	
WG0	Wiegand unlocking		
WG1			
GND			

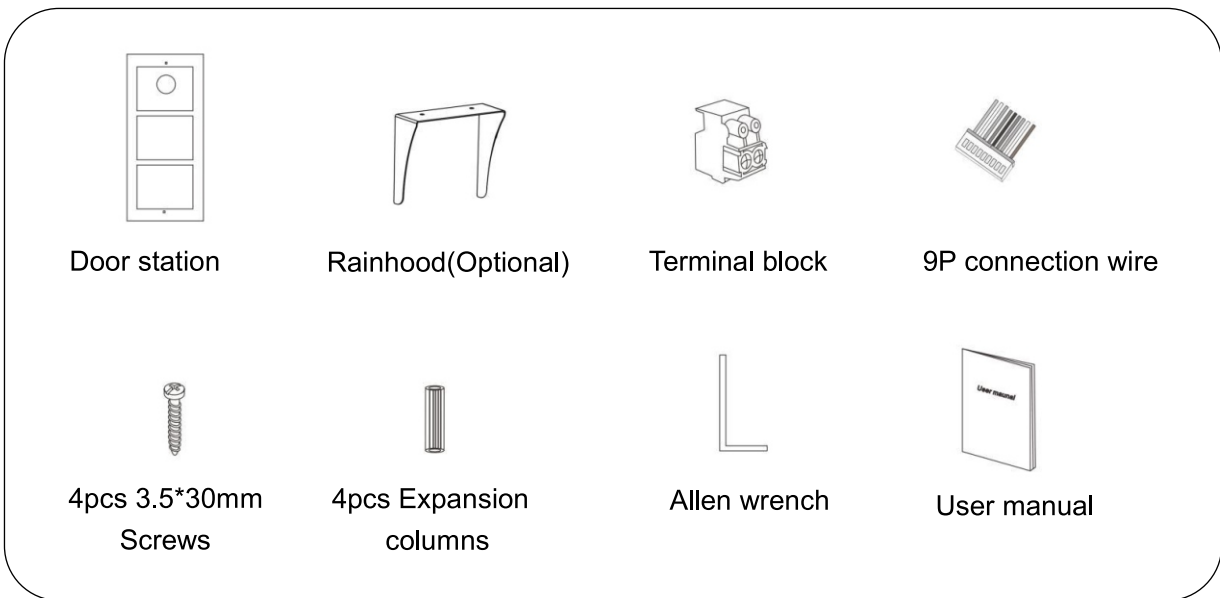
(5) Jumpers: For setting the power supply mode of door lock.

Picture 1: when door station supplies power for door lock.

Picture 2: Jumper setting when there's an external power supply for door lock.



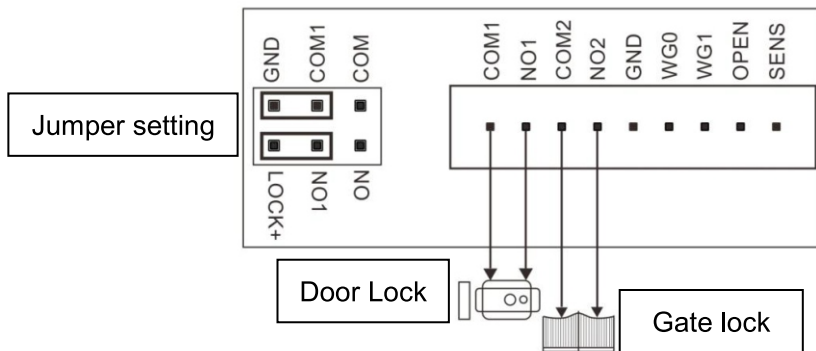
3. Packing List



4. Wiring Diagram

4.1 Electrical Lock Wiring Diagram

4.11 Door Lock Powered by the Door Station



(1) Support Door Lock Type:

A: NC (normal close) lock, power off to unlock. Support lock of DC12V 0.35A (Max).

B: NO (normal open) lock, power on to unlock. Support lock of DC12V ≤2A (instantaneous),

DC12V ≤0.35A (Continuous current).

(2) Support Gate Lock Type (It gives a relay signal for unlocking.):

A: AC Lock: Support lock of AC125V, current≤1A

B: DC Lock: Support lock ≤DC30V, current ≤4A

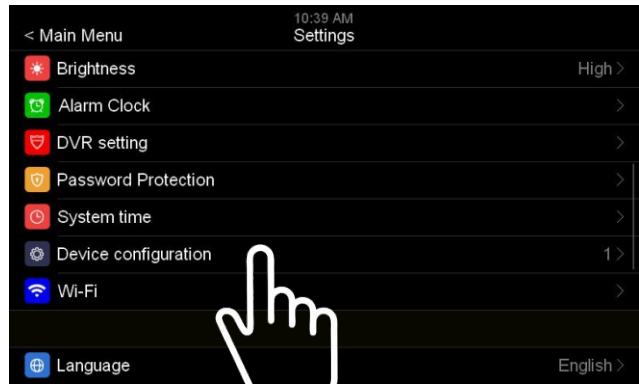
(3) Jumper Setting: As the above picture.

(4) Lock Type and Unlock Time Setting:

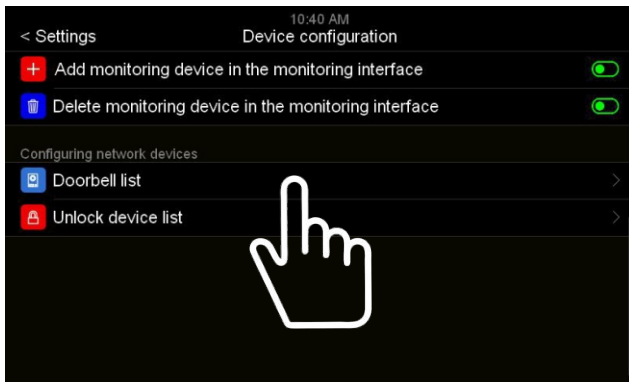
It can be set in any indoor monitor which is installed in the system.



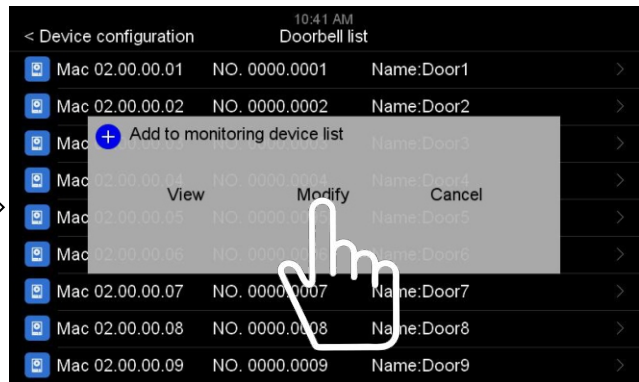
Touch SETTING icon  on the Main Menu.



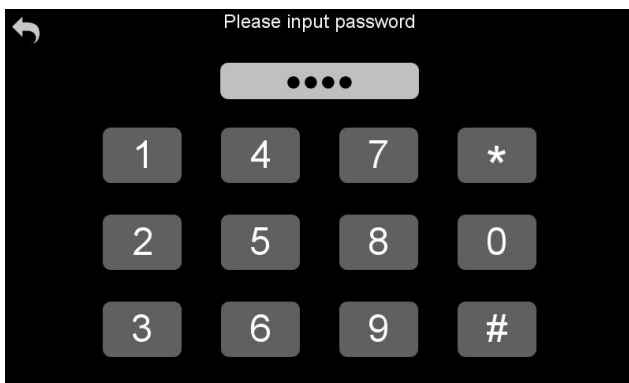
Touch DEVICE CONFIGURATION.



Touch DOORBELL LIST.



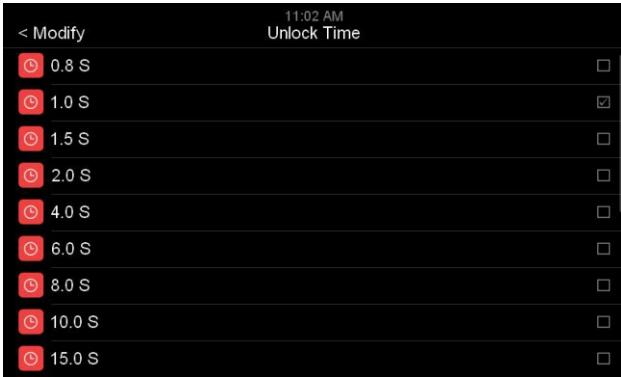
Touch the door station which you want to set, touch MODIFY..



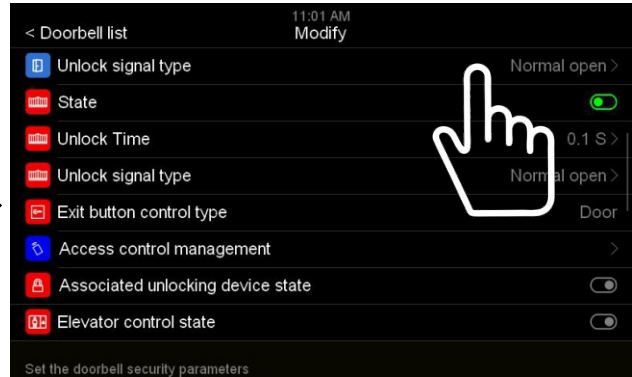
Input password, then touch # . The default password is 0000.



Enable DOOR LOCK STATE.



Touch UNLOCK TIME to set it according to the real needs. Touch MODIFY to exit UNLOCK TIME setting



Touch UNLOCK SIGNAL TYPE to NORMAL OPEN or NORMAL CLOSE according to door lock type.

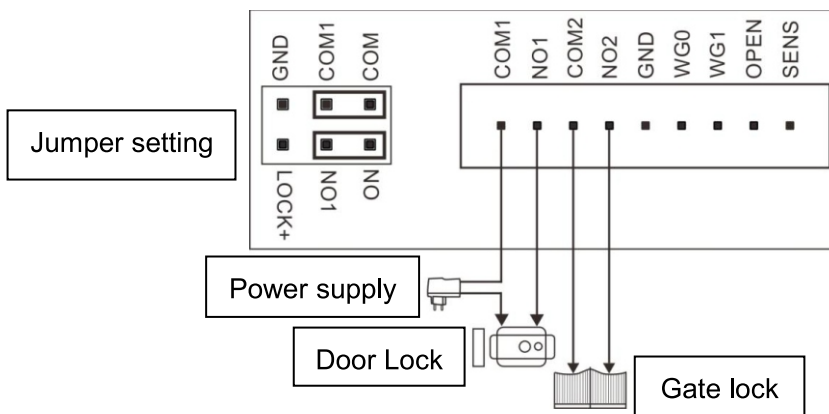


Touch DOORBELL LIST to exit setting.



Touch CONFIRM to save the setting.

4.12 Door Lock Powered by an External Power



(1) **Support Door Lock type:** NO (normal open) lock, power on to unlock.

A: AC Lock: Support lock of AC125V current \leq 1A

B: DC Lock: Support lock \leq DC30V, current \leq 4A

(2) **Support Gate Lock Type** (It gives a reply signal for unlocking.):

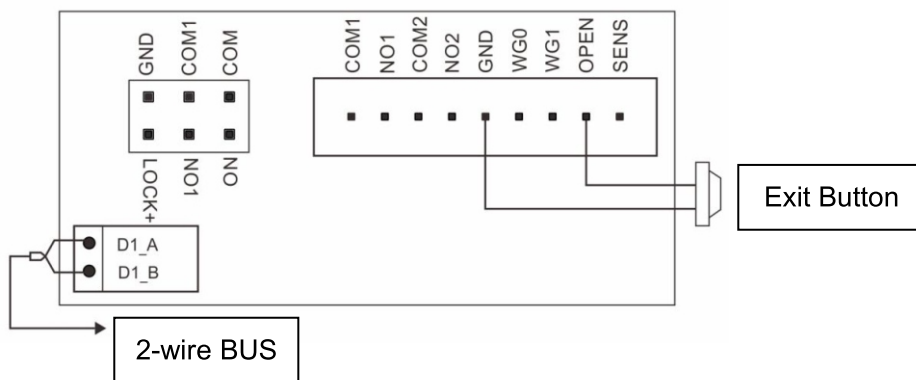
A: AC Lock: Support lock of AC125V current \leq 0.5A

B: DC Lock: Support lock \leq DC30V, current \leq 4A

(3) **Jumper Setting:** As the above picture.

(4) **Lock Type and Unlock Time Setting:** Same operation as DOOR LOCK setting in 4.11.

4.2 Wiring Diagram for BUS & Exit Button



(1) Press the **Exit Button** to unlock the door or gate. For choosing the door or gate lock, please go to “Exit button control type” in the “Doorbell list” of 2-wire indoor monitor system setting.

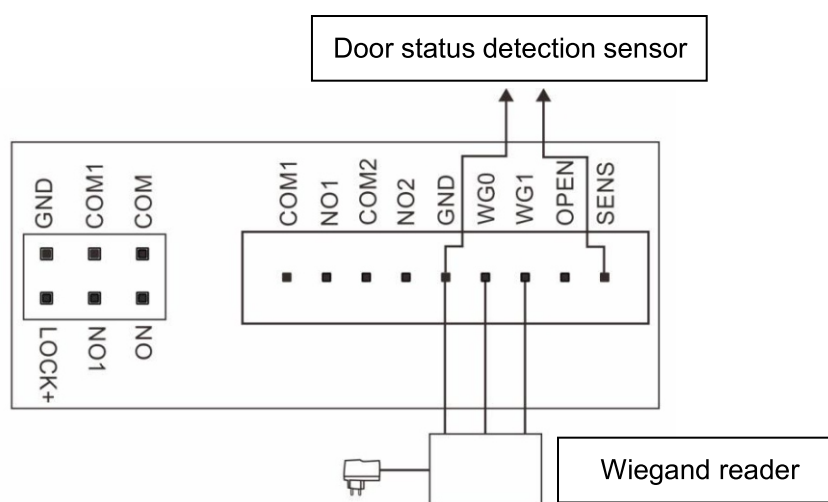


Touch EXIT BUTTON CONTROL TYPE to choose DOOR or GATE.

Touch DOORBELL LIST to exit setting, touch CONFIRM to save the setting.

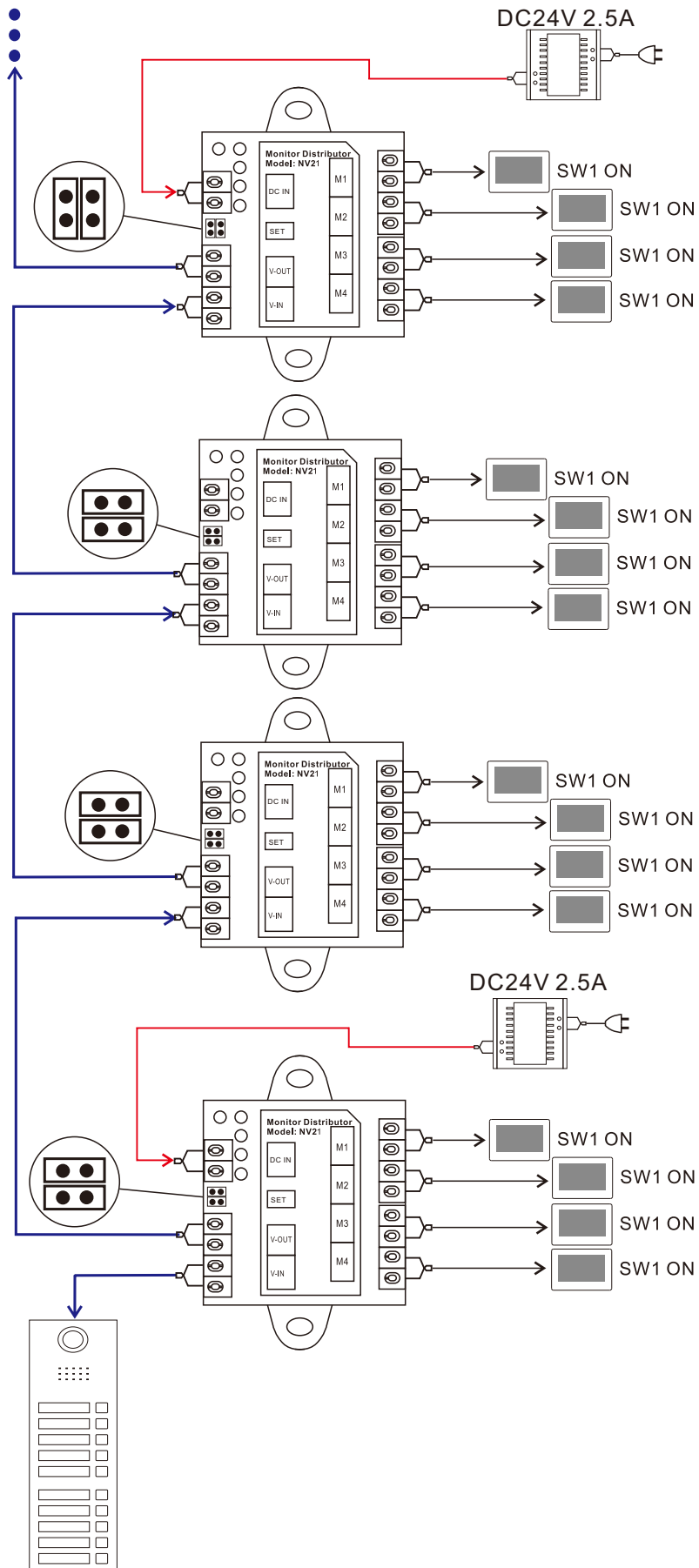
(2) The 2-wire BUS has **no polarity**.

4.3 Wiring Diagram for Wiegand Unlock & Door Status Checking

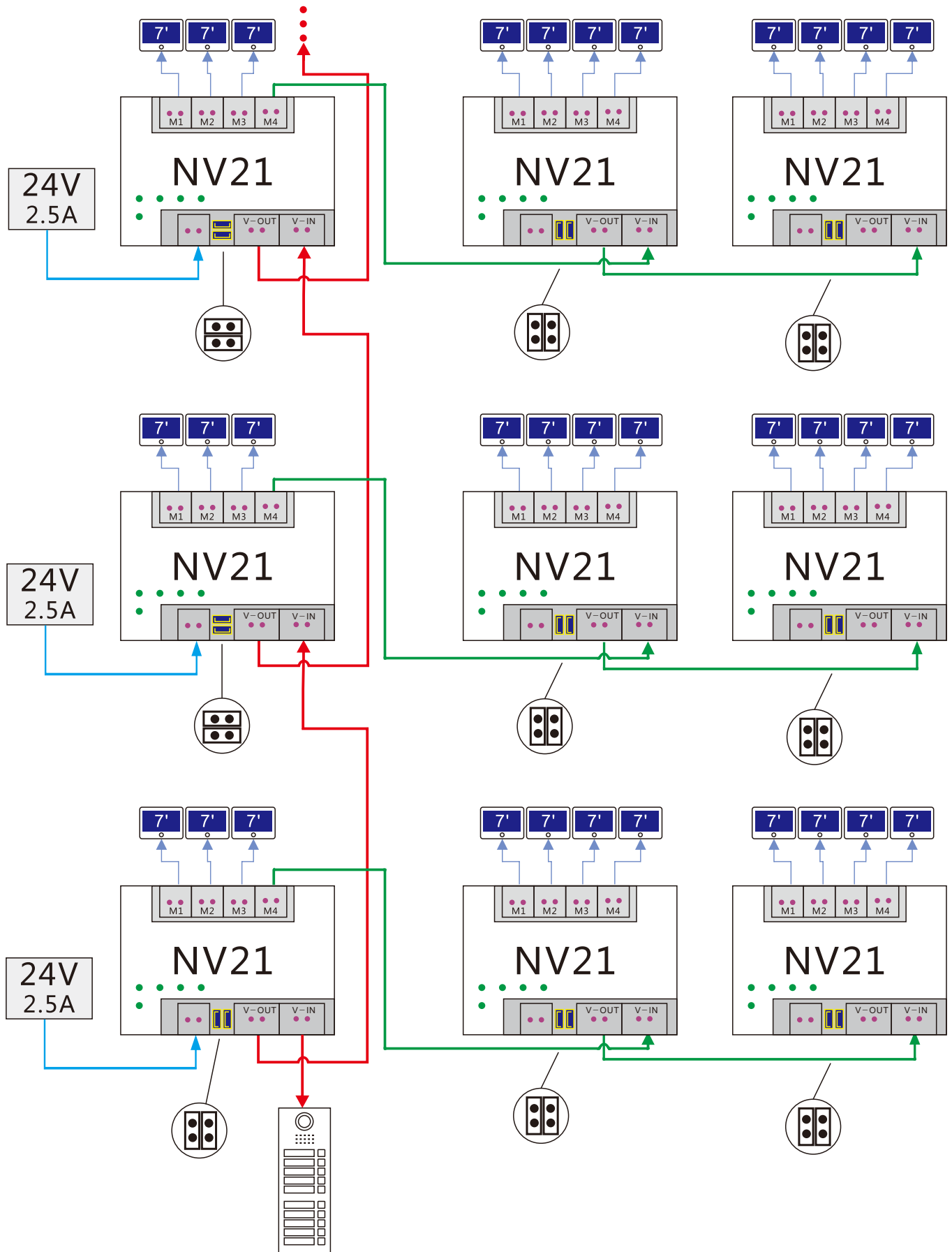


4.4 System Wiring Diagram

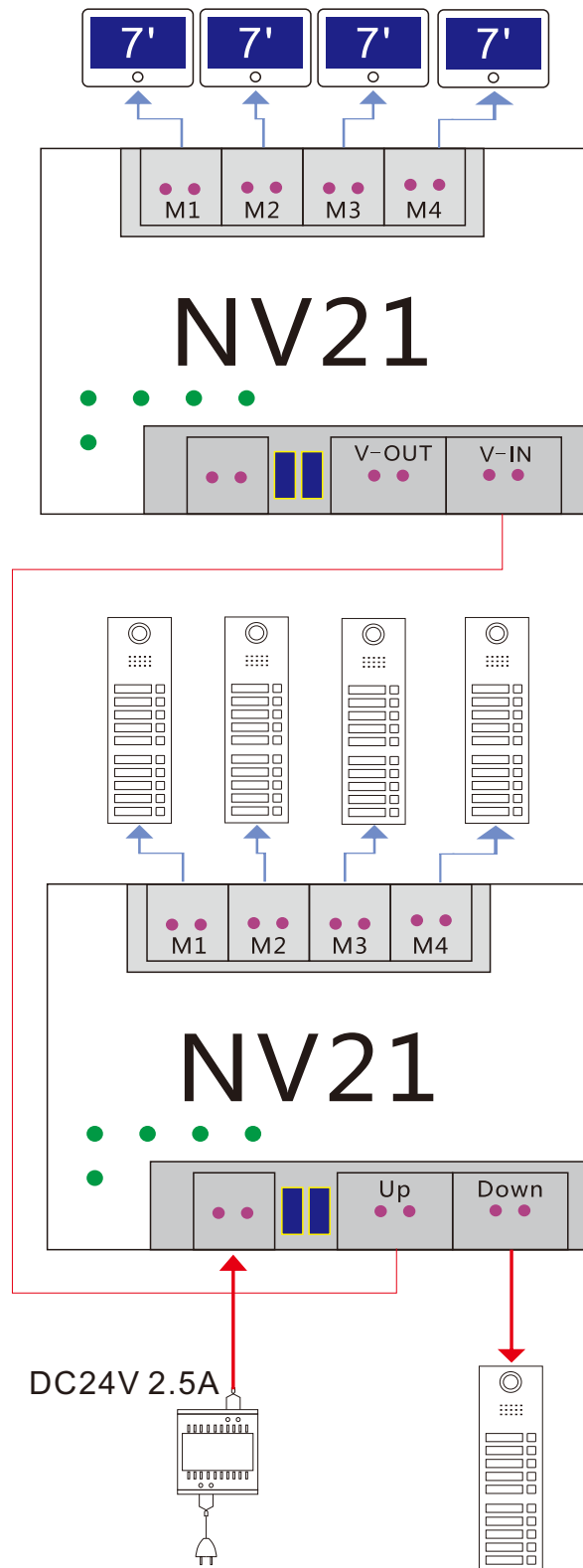
4.41 System Wiring Diagram with Distributor NV21 A (Maximum support 120 monitors)



4.42 System Wiring Diagram with Distributor NV21 B







4.43 Connecting Multi door stations



Remark:

- (1) All cables must be unshielded.
- (2) All the last device on each BUS should make right terminal match setting as the diagram.
- (3) Each monitor distributor NV21 can support maximum 4 devices.

4.5 Cable & Distance

Length (Max.) Cable Type	Door station to NV21	NV21 to NV21	NV21 to monitor
Parallel pair cable (BVVB)2*0.5mm ² /2*0.75mm ² 	80	80	80
Double pair cable (Standard CAT-5) 	100	100	100
Twisted pair cable (ZC-RVS)2*0.5mm ² /2*0.75mm ² 	80	80	80
Parallel pair cable 2*0.3 mm ² 	80	80	80

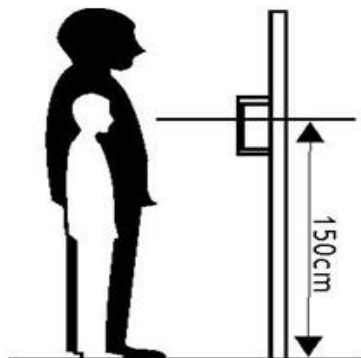
5. Installation Guide

5.1 Cautions

(5.11) Choosing a suitable position for installation to avoid direct sunlight and rain.

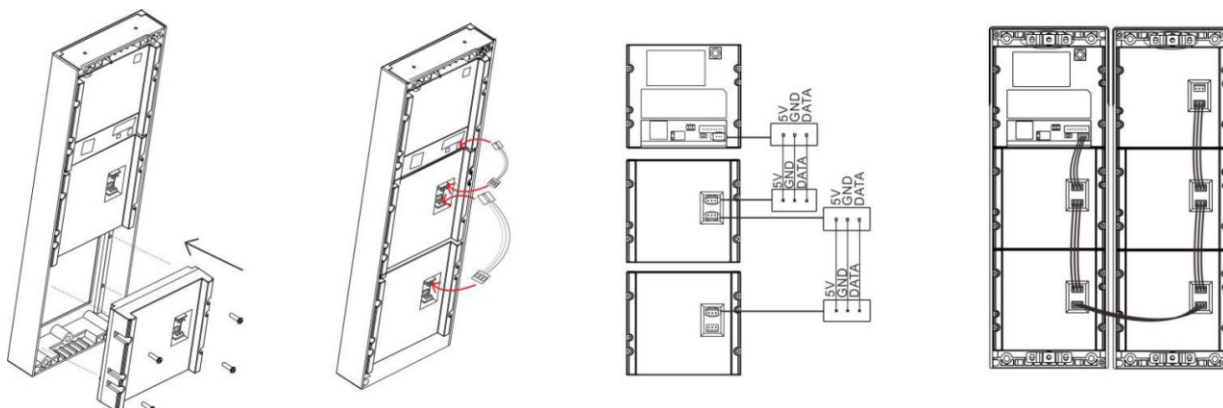
(5.12) Suggest installation height: 1.5~1.6Meters.

(5.13) Ensure no power supply before installation finished.



5.2 Module Connection Instruction

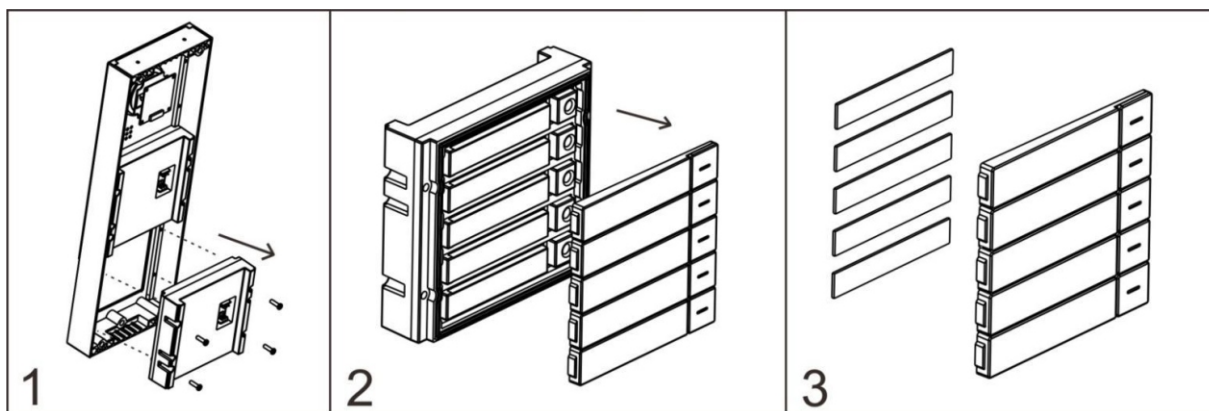
- (1) Fix the module into the door station front housing, and lock it with screws.
- (2) Connect all modules one by one with connection wires(J1 or J2 Port).



Remark:

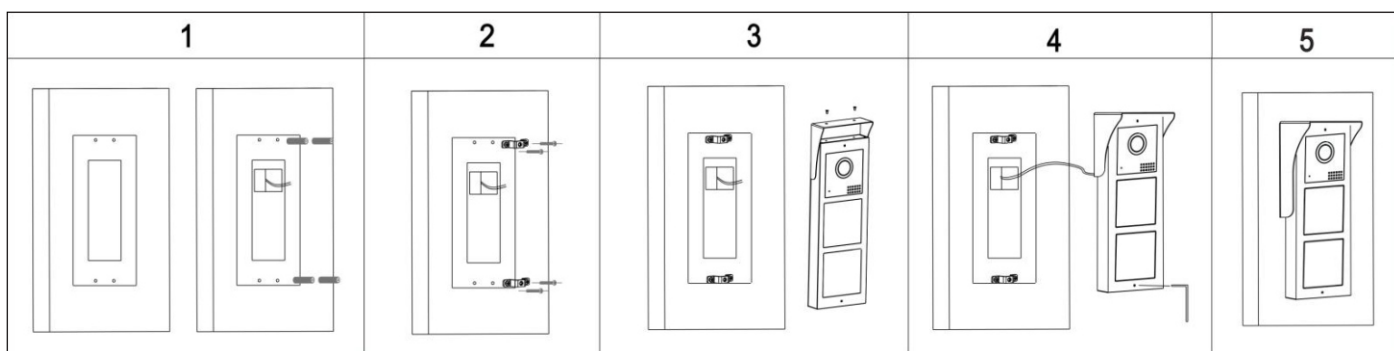
The default button number sequence is from up to down. You need to redefine the button number after changing any button module. For detail operation method, please check Part (2) of 2.2 on Page 2.

5.3 Name Plate Change



- (1) Unscrew the button module fixing screws and remove the button module.
- (2) Remove the nameplate cover with a sharp tool.
- (3) After filling in the household information on the name paper, put the name plate cover back onto the button module.
- (4) Fix the button module on the door station and lock it with screws.

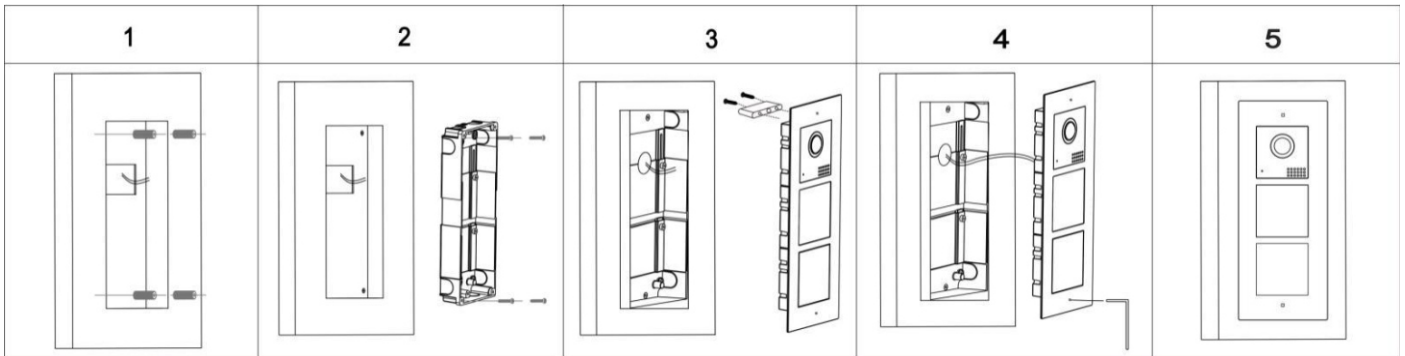
5.4 Surface Mounted



- (1) Paste the mounting paper on the wall, and drill 4 holes according to the screw holes on the mounting paper.

- (2) Fix the 2 screw holders on the wall.
- (3) Fix the rain hood onto the door station with 2 screws (Ignore this step if no rain hood).
- (4) Connect the cable according to the system wiring diagram.
- (5) Fix the door station onto the screw holders with a Allen wrench (Remark: the 2 fixing screws are preinstalled in the 2 screw holes, see No. (7) on Page 1.).

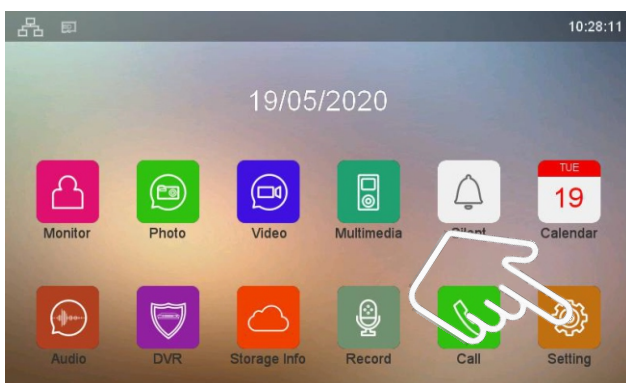
5.5 Flush Mounted



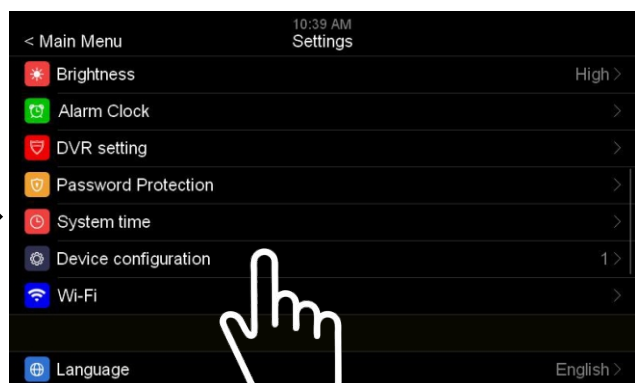
- (1) Drill a hole in the wall according to the dimension of the mounting box. Then drill 4 small holes in the mounting box hole according to the screw holes position on the mounting box, and insert 4 expansion columns into the holes.
- (2) Fix the mounting box into the wall with 4 screws.
- (3) Connect the cable according to the system wiring diagram.
- (4) Fix the door station onto the mounting box with a Allen wrench(Remark: the 2 fixing screws are preinstalled in the 2 screw holes, see No. (7) on Page 2.).

6. Door Station Setting

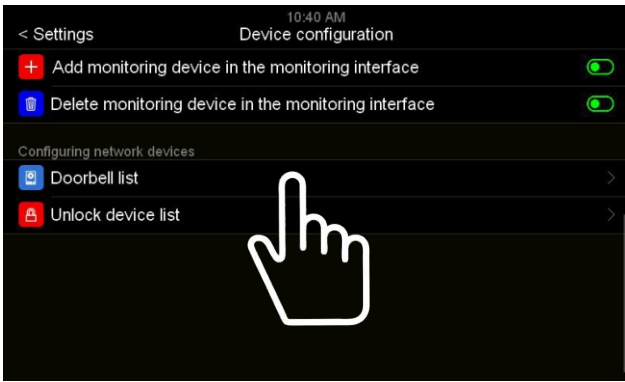
All the setting can be done in any monitor in the same system.



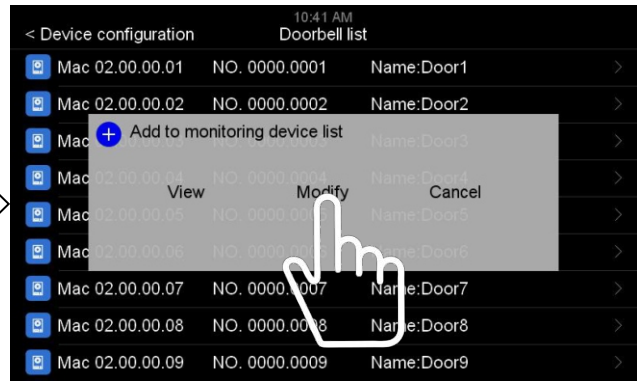
Touch SETTING icon  on the Main Menu.



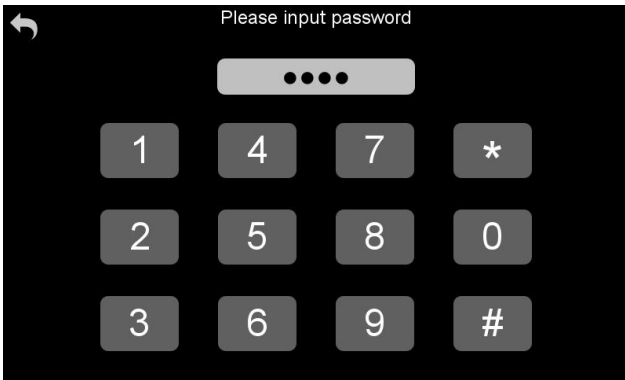
Touch DEVICE CONFIGUARATION.



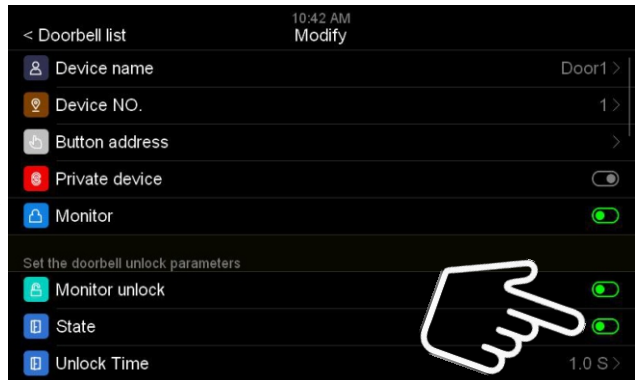
Touch DOORBELL LIST.



Touch the door station which you want to set, then touch MODIFY..



Input password, then touch # . The default password is 0000.

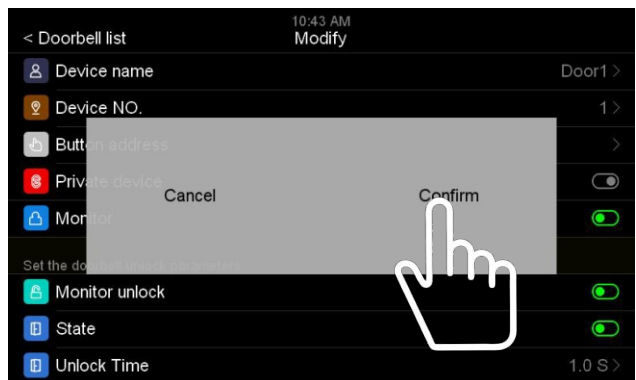


Enable DOOR LOCK STATE.

All the below settings can be done by an installer/user. After making all the necessary settings, please save the settings as below operation.



Touch DOORBELL LIST to exit setting.



Touch CONFIRM to save the setting.

6.1 Device Name(Door Station Name)

You can set a name for the door station.



6.2 Device NO.

The full DEVICE NO. for door station is 8 digits, you can set as you want. But if there are more than 1 door station in the system, it's not allowed to set 2 door station with same device no.

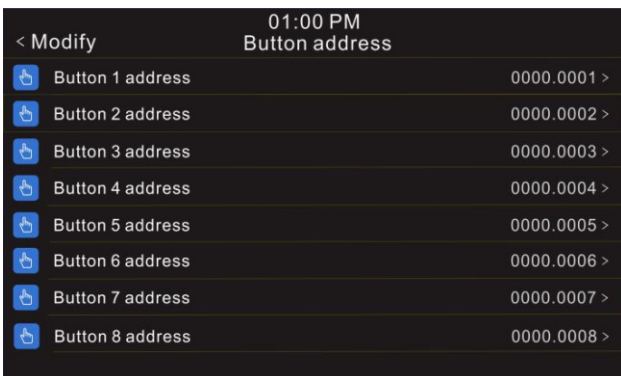
6.3 Button Address(Set Calling Target)

You need to set BUTTON ADDRESS for each button. The button address should be as same as the ROOM ADDRESS of the indoor monitor which you want to call. If you want to install more than one monitors in the same flat, the ROOM ADDRESS of all the indoor monitors should set same.

The default button number sequence is from up to down, if you want to change button number sequence, please refer to 2.2.

Remark:

If the BUTTON ADDRESS does not set as same as the ROOM ADDRESS of the target monitor, the monitor can monitor the door station, but the door station can not call to the monitor.



6.4 Private Device

For apartment door station, please disable this function. If enable this function, this door station can be set as a private device for one family. The private door station can only be monitored by this family, and it can only call to this family.

6.5 Monitor

If enable this function, the door station can be monitored by indoor monitors. If disable this function, the door station can not be monitored by indoor monitors.

6.6 Set the Doorbell Unlock Parameters

6.61 Monitor Unlock

If enable this function, you can unlock the door or gate at monitoring state by touching UNLOCK icon. If disable this function, you can only unlock the door or gate at talking state by touching UNLOCK icon.

6.62 Door Lock State

If you connect a door lock to the system, you need to enable this function, and set **UNLOCK TIME** for it. Also you need to set UNLOCK SIGNAL TYPE(NORMAL OPEN or NORMAL CLOSE) according to door lock type.

6.63 Gate Lock State

If you connect a gate lock to the system, you need to enable this function, and set **UNLOCK TIME** for it, also you need to set UNLOCK SIGNAL TYPE(NORMAL OPEN or NORMAL CLOSE) according to gate lock type.

6.64 Exit Button Control Type

Set exit button control target, it can be gate or door according to the actual installation. Press the exit button can open the door/gate.

6.65 Associated Unlocking Device

The associated unlocking device information will only display after the unlock devices are connected into the system.

6.7 RFID Access Control Management

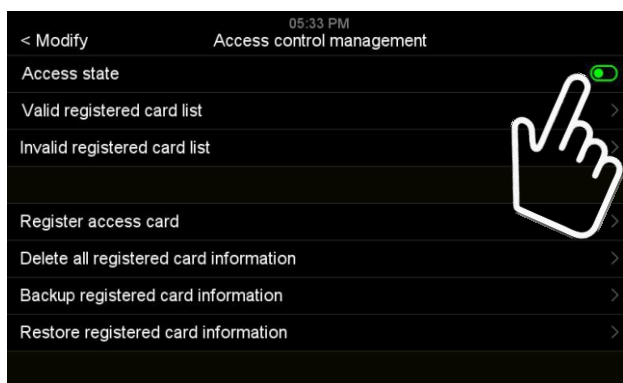
It only support this function when a RFID module is assembled in the door station.

At standby state, read a registered card at the door station, the door will be open after a beep.

If read an unregistered card at the door station, there will be 2 beeps to remind you that it's an invalid card.



Touch ACCESS CONTROL MANAGEMENT.



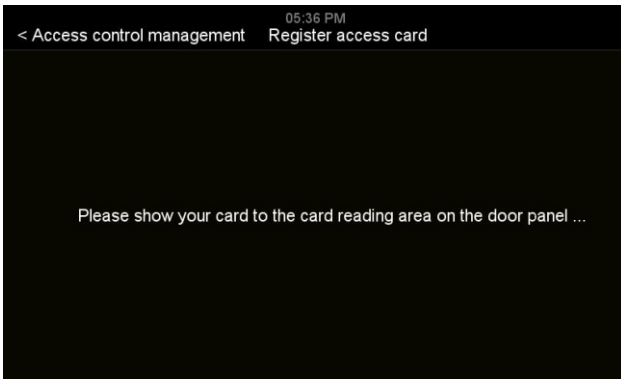
Enable ACCESS STATE.

6.71 Access State

It's on by default.

6.72 Register Access Card (125KHz ID card)

Touch REGISTER ACCESS CARD, the screen will display below message: PLEASE SHOW YOUR CARD TO THE CARD READING AREA ON THE DOOR PANEL...



At such state, the user can register new cards at the door station. When the user shows a new ID card to the card reading area on the door panel, the card will be registered after a beep. Same operation to add more access cards. After registered all the cards, please exit REGISTER ACCESS CARD interface by touching ACCESS CONTROL MANAGEMENT.

Remark:

The registered card information is saved in the door station, so you can manage it at any indoor monitor which connects to the door station.

All the registered access card information could be found in VALID REGISTERED CARD LIST, and they are listed from up to down according to the registered sequence. So please remark on each card when you registered the cards if you need to manage the card information.

6.73 Check/Manage Registered Card Information

Go to VALID REGISTERED CARD LIST in ACCESS CONTROL MANAGEMENT. Touch any registered card to enter a sub menu, then you can edit the card information.

< Access control management		05:37 PM Valid registered card list	
00100099	000902-xxx	xxth	>
00100098	000903-xxx	xxth	>
00100097	000904-xxx	xxth	>
00100096	000905-xxx	xxth	>
00100095	000906-xxx	xxth	>
00100094	000907-xxx	xxth	>
00100093	000908-xxx	xxth	>
00100092	000909-xxx	xxth	>
00100091	000910-xxx	xxth	>

< Valid registered card list		05:39 PM 00100099	
Main index		000902	>
Sub index		000	>
Floor position		00th	>
Move to invalid registered card list			>
Delete access information			>

Touch VALID REGISTERED CARD LIST.

Touch any registered card.

MAIN INDEX can be a room number or any easily remember number for one family.

SUB INDEX can be a series number for the registered card of one family.

If you want to pause one access card, touch MOVE TO INVILID REGISTERED CARD LIST.

If you want to delete one access card, touch DELETE ACCESS CARD.

If you want to delete all registered card information, touch DELETE ALL REGISTERED CARD INFORMATION.

6.74 Backup Registered Card Information

Insert a micro SD card into the indoor monitor. Then go to ACCESS CONTROL MANAGEMENT, touch BACKUP REGISTERED CARD INFORMATION, a sub menu will appear, touch CONFIRM to start backup. When backup

finished, it will go back to ACCESS CONTROL MANAGEMENT interface.

Remark:

This setting item only appears when a SD card is inserted in the monitor.

6.75 Restore Registered Card Information

Insert the micro SD card, which has registered card backup information, into the indoor monitor. Then go to ACCESS CONTROL MANAGEMENT, touch RESTORE REGISTERED CARD INFORMATION. Choose

ACCESS DATE folder, a sub menu will appear, touch  to restore registered card information.

Remark:

This setting item only appears when a SD card is inserted in the monitor.

6.8 Elevator control state

It can disable/enable elevator control function.

Remark:

This function only works when a lift control module is installed in the system.

6.9 Set Doorbell Security Parameters

6.91 Tamper State

The tamper in the door station will be active after enable this function, and it will alarm when someone tries to disassemble the door station. Also you need to set TARGET ROOM NUMBER FOR HANDLING ALARMS.

6.92 Check Door State


If enable this function, the system will check the door state after longest door open time. Set MAGNETIC CONTACT NODE TYPE to NORMAL OPEN or NORMAL CLOSE according to actual needs. Set LONGEST DOOR OPEN TIME. Once the door is open, the door station will detect the door state after it reaches longest door open time. If the door is not closed after the longest door open time, the door station will alarm with beeps sound.

7.0 Set the Doorbell Speaker Volume

You can set 10% to 100% volume according to actual needs.

7.1 Adjust the Viewing Angle

You can adjust the viewing angle for the door station. Touch ADJUST THE VIEWING ANGLE to start monitoring.

Touch the place you want to focus on the screen. Then touch hang up icon  to exit the monitoring. Finally, touch the return icon on the top left corner or slide left on the screen, touch CONFIRM to finish the setting. After that, the screen will be only showing the focused place when be called by the door station.

7.2 Set the Doorbell Configuration Password

The default password for door station is 0. The password can be set from 1 to 8 digits. You only need to input from the first digit which is not 0. If you input a wrong password, you can only enter VIEW model, and can not make any change to the door station settings.

7.3 Setup Mode

It's on by default. At this state, the ROOM ADDRESS and FLOOR POSITION of the monitors in the network can be set freely. If disable it for all the door stations in the network, the addresses of the monitors in the network can not be changed.

So if you do not want users to change the monitors address by mistake, please disable this function for all door stations after installation.

8. Specification

No	Item	Content
1	Communication	Digital 2 wire
2	Subscribers quantity	Multi subscribers
3	Audio	Digital audio (bidirectional)
4	Video	1 channel digital video (output)
5	Camera	1080P HD color CMOS camera
6	Night vision	Infrared light(with automatic luminance compensation)
7	Effective distance (0 Lux)	0.5 meter
8	Viewing angle	Horizontal 90 degree, Vertical 45 degree
9	Buttons	Mechanical Buttons
10	Working voltage	DC18-30V
11	Support electrical lock	Please refer to 4.11 and 4.12 for detail information.
12	Support gate lock	One unlock signal (dry contact), please refer to 4.11 and 4.12 for detail information.
13	Unlock control	Signal instruction
14	Power consumption	10W MAX
15	Support card type	ID card(125KHz)
16	Card reading distance	≤18mm
17	Support card number	1000pcs
18	Working temperature	-25°C - +60°C
19	Storage temperature	-30°C - +60°C
20	IP Grade	IP54
21	IK Grade	IK07
22	Dimension	Surface mount with rain hood: 302*105*38MM Flush mount: 325*130*60MM