J B - 3 0 5
Villa Video Door Entry System

User's Manual（V1.3）

Please read this manual carefully before the products are installed. Technical specifications and contents are subject to change accordingly without advance notification.

CONTENTS

Part 1. Product introduction

1.1 Use purpose
The system is applied to single family houses, offices, shops, warehouses, and other access control purpose.

1.2 System configuration

Configuration	Options	Remarks
Door station	Model No.15	① All panels are aluminum. ② Door stations don't require any direct power supply. ③ Card reader is available. ④ Model No.18 is with a keypad for PIN codes to release doors.
	Model No.18 (JB-305 color door station No.18A_IC JB-305MGCQ-S18AI)	
Indoor phone	Model N60 (JB-305 indoor phone N60 JB-305VCW-70LN60)	① 7" TFT color screen. ② Every indoor phone requires the 18VDC power.
Power supply	Adapter (18VDC, 1A)	① Both are free voltage input AC100V~240V. ② One transformer can support up to 4 indoor phones while one adapter can support only one indoor phone. But if there are 3 or more door stations, another transformer may be required.
	Transformer (18VDC, 2.2A)	

⚠️ We may provide more options and the current options may be replaced without prior notification.
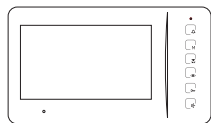
1.2.1 Door stations
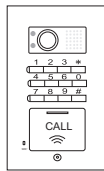
Model No.18
102 ×175 ×39(mm)

Model No.15A surface mount. 79 ×148 ×45(mm)

Model No.15B surface mount, card reader. 79 ×148 ×45(mm)

1.2.2 Indoor phone & Power supply

Indoor phone Model N60
239×139×20(mm)

Adapter

Transformer
(DIN Rail)

(Power supply)

1.3 Features and functions

>Call, answer, and release doors.
>DIY system with 4 wires; PLUG & PLAY connection.
>Various flexible connection diagrams are optional.
>Max. capacity: Up to 4 door stations and 4 indoor phones.
>Intercom and calling transfer between indoor phones.
>12 melody ring tones are optional.
>Two options to release doors, by SIGNAL or by POWER.
>Use two group passwords to release two doors and gates
 (Model No.18).
>Double unlock buttons to release two doors/gates/garages....
>Use cards to release the doors.
>Surface and flush mount are optional.
>Rainproof and anti-vandal.
>Night viewing; illuminated call button.
>Touch button indoor phones are optional.
>Privacy functions are available.

Part 2. Technical parameters & structure

2.1 Technical parameters
2.1.1 Door station

Camera:	1,300,000 Pixels, CMOS
Viewing angle:	92°
Lens:	F=3.7
Resolution:	H: 350TVL V: 320TVL
Min. illumination:	0.01 LUX
Video output:	1Vp-p/75Ω
Audio SNR:	≥25dB
Audio distortion:	≤7%
Standby current:	≤100mA
Working current:	≤230mA
Working voltage:	DC18V±10%
Environment temperature:	−40℃～+70℃

2.1.2 Indoor phone

Display:	7"TFT, 800×480 Pixels
Resolution:	H: 350TVL V: 320TVL
Video output:	1Vp-p/75Ω
Audio SNR:	≥25dB
Audio distortion:	≤7%
Standby current:	≤100mA
Working current:	≤300mA
Working voltage:	DC18V±10%
Environment temperature:	−25℃～+55℃

2.1.3 Power supply

	Adapter	**Transformer**
Voltage input	AC100V~240V	AC100V~240V
Voltage output	DC18V	DC18V
Current output	1A	2.2A
Power plug style	Optional	/

2.2 Structure
2.2.1 Door stations

A) Model No.18 (Flush mount)

LEDs
Speaker
Camera
Keypad
Cast aluminium panel
CALL
Call button
Card reader inside
Microphone
Screw

B) Model No.15 (Surface mount)

Rain shield(Surface mount bracket)
LEDs
Camera
Light sensor
Cast aluminium panel
Speaker
Name tag
Call button
Microphone
Screw

Card reader inside

2.2.2 Indoor phone(Model N60)

ABS decorative coat
7" TFT-LCD screen
LED indicator

Microphone
Intercom call button
Function button1
Function button2
Monitor button
Unlock button
Answer button
Power indicator
Speaker

2.2.3 Power supply

A) Adaptor

Output power plug to indoor phone
Input power plug

B) Transformer

Anode(L)
Cathode(N)
Ground(⏚)
Power output terminals
Power indicator
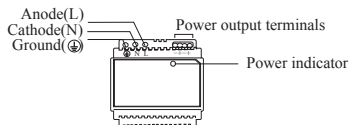
Part 3. Installation and connection

3.1 Installation
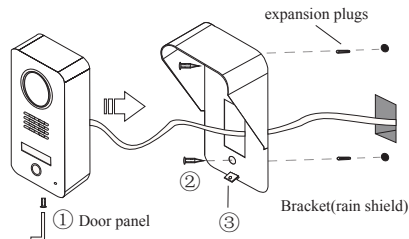### 3.1.1 Door stations
A) Model No.18 (Flush mount)

a. Produce a groove(86.4x154.4x55mm) on a proper position of the wall(①).
b. Take off the door panel from the box with the enclosed screw driver(②③).
c. Fix the box in the groove with screws and expansion plugs or cement(①).
d. Fix the door panel in the box with the screws(④).

② ④ Door panel   ③ Box   ① Wall
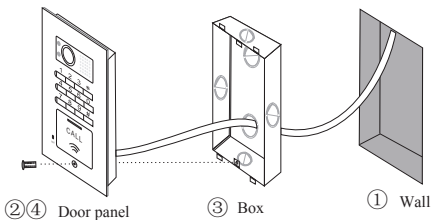
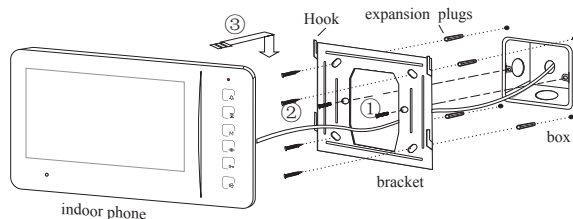#### B) Model No.15 (Surface mount)

a. Take off the door panel from the bracket with the enclosed screw driver(①).
b. Fix the bracket on the wall with two screws and expansion plugs(②).
c. Put the door panel on the bracket and fix it after connect the cable(③).

expansion plugs

① Door panel   ②   ③   Bracket(rain shield)

⚠️

① *Mind the actual camera viewing angle and put the door station on a proper position. [the manufacturer suggests 1.4~1.8m of height.]*
② *Do not put the devices at the places where there are high voltage, high temperature, strong magnet, corrosive, humidification, ets.*
③ *Do not drag the cable.*
④ *Keep the devices clean.*

3.1.2 Indoor phone

a. Fix the bracket on the box or on the wall with the screws(① or ②).
b. Move the indoor phone and put it on the bracket after connect the cable(③).

③   Hook   expansion plugs

box

indoor phone   bracket

3.1.3 Name tag (Model No.15)

cover
David Hunter — name tag
spacer
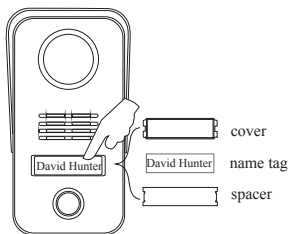
a. Press the name tag at a side and then take it off.
b. Change the name tag.
c. Insert the set of name tag into the groove and then press it to be locked.
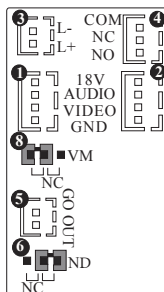
3.2 Connection
3.2.1 Wires and distance

| Wire diameter	Best distance	Remarks
$\geqslant 0.75mm^2$	$\leqslant 50m$	Between the last door station and the last indoor phone
$\geqslant 1.5mm^2$	$\leqslant 100m$	
RVV2x1.0 mm^2 (U.S.: AWG18)	$\leqslant 100m$	For DIN rail power supply (transformer)

3.2.2 Terminals

❶❷Terminals to door station or/and indoor phone. Both have no difference.
❸ Terminal for electronic POWER lock
❹ Terminal for electronic SIGNAL lock
❺ Terminal for exit button
❻ Privacy jumper
❼ SET button
❽ Video jumper
❾ Audio jumper
❿ Terminal to power supply
⓫ Terminals for gates/garages/lights ...
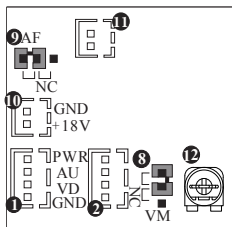⓬ Potentiometer for speech volume
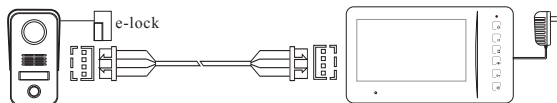
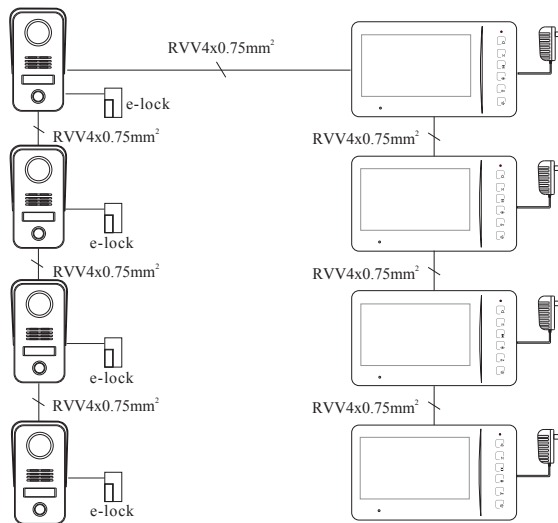### A) Door stations

Model No.15
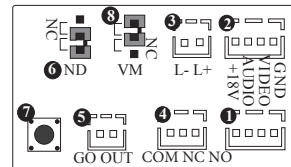
Model No.18

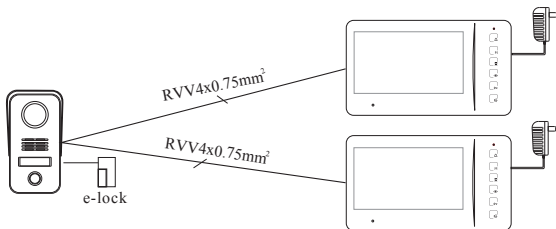**B) Indoor phone**

Model N60

3.2.3 Component diagram
A. Basic connection

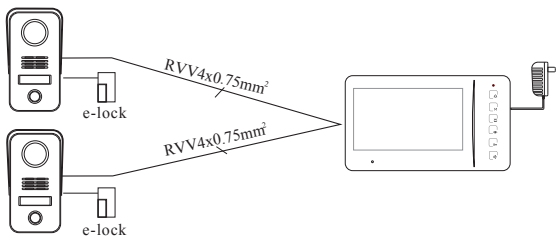**B. Best connection for up to 4 door stations and 4 indoor phones**

C. Other workable connection
C1. Example 1:

RVV4x0.75mm²

RVV4x0.75mm²

e-lock

C2. Example 2:

RVV4x0.75mm²

RVV4x0.75mm²

e-lock

e-lock

⚠ ① *The basic components are 1 door station, 1 indoor phone, and 1 power supply. The max. capacity the manufacturer suggests is 4 door stations and 4 indoor phones. More components may cause malfunctions.*

② *One adapter can support only one indoor phone while one transformer can only one indoor phone while one transformer can support up to 4 indoor phones. But if there are 3 or 4 door stations, one more adapter or transformer is required, because the turning monitor function may be not workable.*

③ *All door stations do not require power supply.*

④ *For easy connection the diagrams of C1 and C2 can be applicable to projects accordingly.*

⑤ *Video jumpers may be helpful in case there is any problem with image display especially while 2 or more indoor phones are used. Please go to 4.2 for the jumpers' usage.*

⑥ *When there are 2 or more door stations, door stations have to be addressed so that every door stations have their exclusive address codes. If there are, please go to 4.3 for door station address.*

⑦ *In case more indoor phones or door stations are required in diagram A, C1 and C2, please connect them from the terminal wires and try. If the image quality is not good enough and the image adjustors cannot help, please read 4.2 and try accordingly.*

3.2.4 Electronic locks

There are various electronic locks. People from different countries may have different practice of using electronic locks. Generally speaking there are two methods to release doors via door entry systems. One is SIGNAL. Another is POWER. This system supports both. Users may adopt either accordingly.
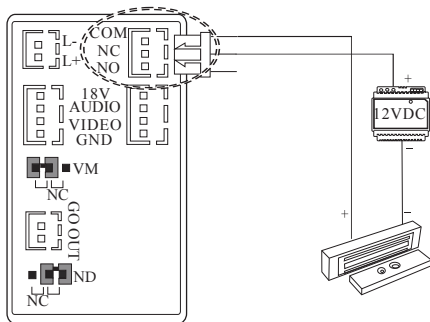
A) Diagrams for POWER electronic locks
(example: Door station Mode l No. 15)
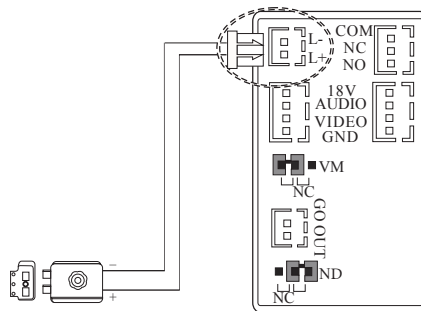
B) Diagrams for SIGNAL electronic locks
(example: Door station Model No. 15)

⚠ ①*Please choose one of the above mentioned diagrams according to the electronic locks.*
②*Instant output (Diagram A): 12VDC, 500mA.*
③ *In diagram B, COM terminal has to be connected. NC means close circuit. NO means open circuit. Please choose a right terminal according to the electronic locks.*
④*The electronic locks can keep releasing in 5 seconds.*
⑤*SIGNAL locks and POWER locks can be connected to different door stations. There is no interference.*
⑥*A SIGNAL lock and a POWER lock can be connected to the same door station.*
⑦*Please mind if the wires of electronic locks are nonpolarity.*

3.2.5 Terminals for gates/garages/lights ...

There are the terminals ⓫ with relays on the back of the indoor phones. They can be applicable for gates garages, lights, etc. The relays can keep releasing in 1.5 seconds.
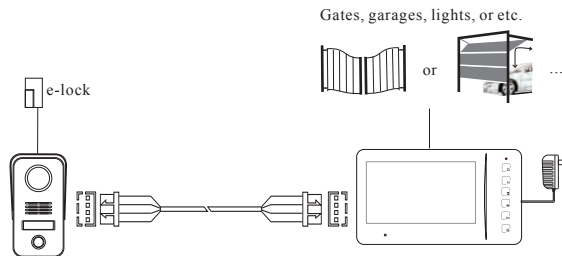

⚠ Caution!

Max. contact load(terminals ⓫ in 3.2.2): 2A/30VDC and 0.5A/125VAC.
DO NOT exceed the parameters. Otherwise it may cause damages.

Part 4. System programming

4.1 Audio jumper

The audio jumper has to be put on AF position in the indoor phone if there is only one indoor phone. In case there are more indoor phones, only the first indoor phone is required to do that. Meanwhile the other indoor phones' jumpers have to be put on NC position. Please do the same if there are two or more routes such as the diagrams of C1 and C2 in 3.2.3.

indoor phone(Model N60)
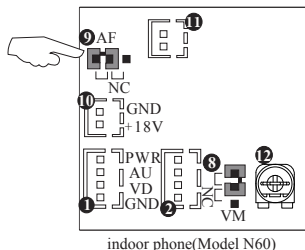
4.2 Video jumper

In case the image display is rolling or with any other abnormality problem and the image adjustors can not help, the video jumpers have to be put on video matching position in the last indoor phone and the last door station in diagram A and B, the two indoor phones in diagram C1 and the two door stations in diagram C2. Meanwhile the other devices' jumpers have to be put on NC position.

Door station (Model No.18)

indoor phone (Model N60)
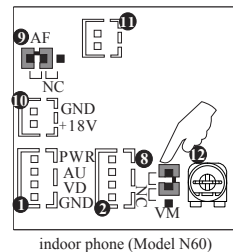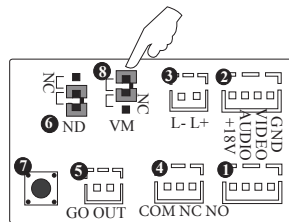
4.3 Door station address

If there are two or more door stations, door stations have to be addressed. Maximum capacity is 4 door stations. There is a SET button on the back of the door stations. Keep pushing the SET button until it sounds double beeps. Then the door station is ready for setting. Continue to push the SET button again and again. The door station will sound continuous double beeps, triple beeps, and quadruple beeps by turns. The door stations are all No.1 by default. Double beeps is for No.2. Triple beeps is for No.3. Quadruple beeps is for No.4. Please choose the options and keep pushing the SET button to set the address number accordingly.

⚠ *Please be sure every door station has exclusive address numbers if they work together.*

4.4 Card reader

A. Register master cards

The system provides up to 8 master cards. Users may use the card to register or cancel other cards easily.

a. Push the SET button on the back of the door station (①).

b. Push the CALL button and do not release it for 2 seconds(②). The door station will sound double beeps. At this moment the system gets ready to register master cards.

c. Put a card proximate to the reader(③). When the door station sounds a beep, the card is registered as a master card successfully. If more master cards are needed, please continuously put more cards proximate to the reader one by one.

d. Exit by pushing the SET button again(①). (It also can exit automatically after 15 seconds.)
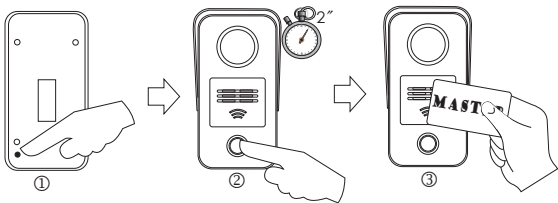
B. Register user cards

a. Put a master card proximate to the reader(①). The reader will get ready to register user cards as soon as the door station sounds a long beep.

b. Put a card proximate to the reader(②). The door station will sound a beep if it is registered as a user card successfully.
If more user cards are needed, please continuously put more cards proximate to the reader one by one. (Max. capacity: 120pcs)

c. Exit by putting the master card proximate to the reader again (①). (It also can exit automatically after 15 seconds.)
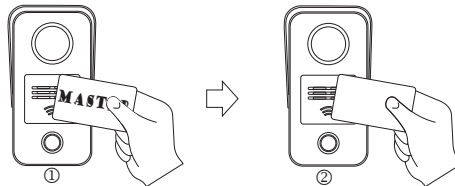
C. Cancel cards

a. Put a master card proximate to the reader(①). The door station will sound a long beep.

b. Push the CALL button and do not release it for 2 seconds(②). All registered user and master cards will be canceled as soon as the door station sounds a long beep again.
Meanwhile the reader gets ready for registering master cards.
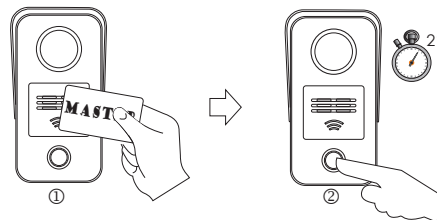
4.5 Password settings (for Model No.18 only)

Residents are allowed to use passwords to release the doors on the door station Model No.18. There are three group passwords. They are

> System password (default:1234). It is the key to change all passwords.

> Entry password 1 (default:1235). It is the key to open the doors that connect to the terminals of the door stations.

> Entry password 2 (default:1236). It is the key to open the gates that connect to the terminals of the indoor phones.
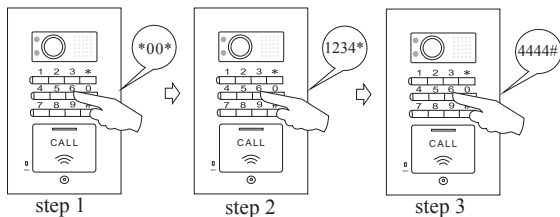
4.5.1 Change passwords

A) Change the system password

Step 1> Push *00*. If it sounds a long beep, then

Step 2> Push the old password and end by * button. If it sounds a long beep, then

Step 3> Push the new password and end by # button. If it sounds a long beep, the new password is valid. For example, if the default password needs to be changed to 4444, then do as the following figures.
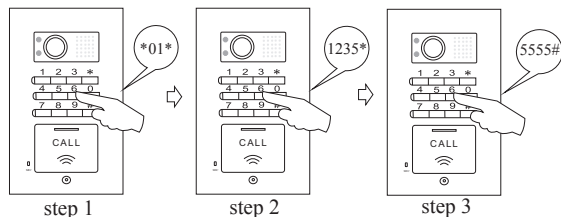

step 1   step 2   step 3

B) Change entry password1

Step 1> Push *01*. If it sounds a long beep, then

Step 2> Push the old password and end by * button. If it sounds a long beep, then

Step 3> Push the new password and end by # button. If it sounds a long beep, the new password is valid. For example, the default password needs to be changed to 5555, then do as the following figures.


step 1   step 2   step 3

C) Change entry password 2

Step 1> Push *02*. If it sounds a long beep, then
Step 2> Push the old password and end by * button. If it sounds a long beep, then

Step 3> Push the new password and end by # button. If it sounds a long beep, the new password is valid. For example, if the default password needs to be changed to 6666, then do as the following figures.

step 1   step 2   step 3
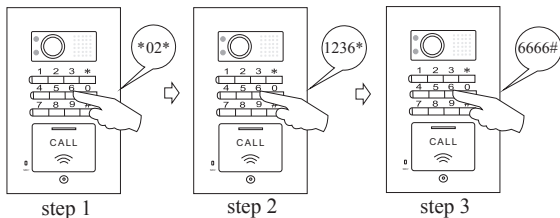
😊 *The three group passwords should be exclusive to each other.*

Group	Start	Current password		New password	End	Remarks
A	*00*	1234	*	4444	#	Standby status
B	*01*	1235	*	5555	#	Standby status
C	*02*	1236	*	6666	#	Standby status

4.5.2 Get into the program status

Method 1>> Use the system password on the door station.
         For example, push 1234 as the following figure.
Method 2>>Push the SET button on the back of the door station as the following figure.

The door station will sound a beep to indicate the successful operation. Otherwise it will sound double beeps instead. It is same to 4.5.3.

OR
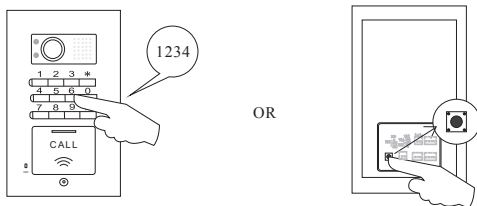
4.5.3 Reset password

In case residents forget the passwords, please follow the steps to reset the passwords.
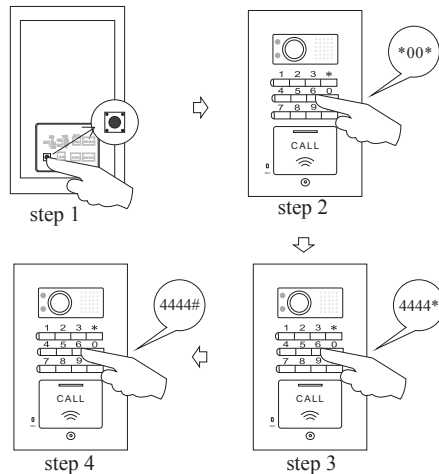
A)Reset the system password

Step 1>Push the SET button on the back of the door station to get into the program status.

Step 2>Push *00*. If it sounds a long beep, then

Step 3>Push the new password and end by * button. If it sounds a long beep, then

Step 4>Repeat the new password and end by # button. If it sounds a long beep, the new password is valid. For example, if the forgotten password needs to be reset to 4444, then do as the following figures.
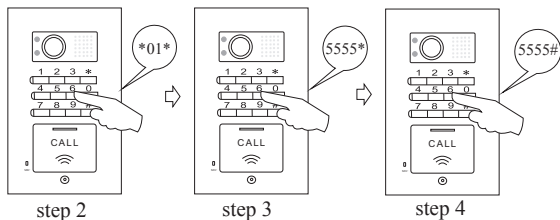

step 1   step 2

step 4   step 3

B) Reset entry password 1

Step 1> Push the SET button on the back of the door station to get into the program status.

Step 2> Push *01*. If it sounds a long beep, then

Step 3> Push the new password and end by * button. If it sounds a long beep, then

Step 4>Repeat the new password and end by # button. If it sounds a long beep, the new password is valid. For example, if the forgotten password needs to be reset to 5555, then do as the following figures.


| step 2 | step 3 | step 4 |

C) Reset entry password 2

Step 1> Push the SET button on the back of the door station to get into the program status.

Step 2> Push *02*. If it sounds a long beep, then

Step 3> Push the new password and end by * button. If it sounds a long beep, then

Step 4>Repeat the new password and end by # button. If it sounds a long beep, the new password is valid. For example, if the forgotten password needs to be reset to 6666, then do as the following figures.

| step 2 | step 3 | step 4 |
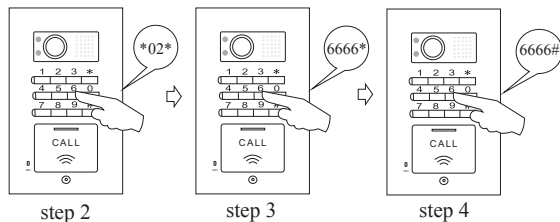
① Before the door station exits the program status, the change can be tried again by repeating step 2 - 4 once the previous operation fails. ②The three group passwords should be exclusive to each other. ③The three group passwords can be set one by one at one time by starting from step 2, while the door station is on the program status.

Group	Start	New password		New password	End	Remarks
A	*00*	4444	*	4444	#	Setting status
B	*01*	5555	*	5555	#	Setting status
C	*02*	6666	*	6666	#	Setting status

4.5.4 Exit the program status

Method 1> Push # button.
Method 2> Push the SET button.
Method 3> Don't operate in 15 seconds.

Part 5. Operation

5.1 Operation on door stations
5.1.1 Call residents
Push the CALL button on the door station. The door will sound a feedback ring if the calling is successful and the red LED indicators on indoor phones will turn on. The calling can be ended immediately once the call button is pushed again.
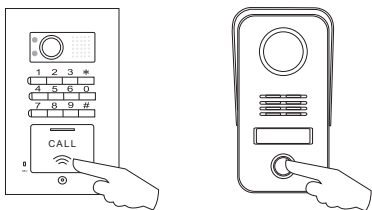
5.1.2 Push the exit button to release doors
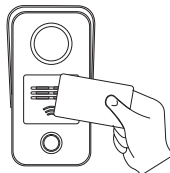There is the terminal for exit button on the back of the door station. Push the exit button, the door station will sound a beep and release the door.
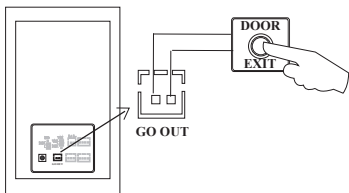
5.1.3 Use passwords to release doors
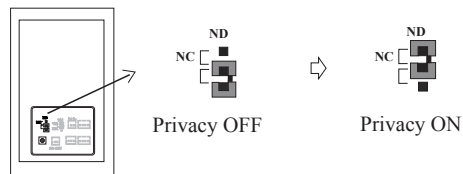Push 4 digits password (e.g. 5555).

5.1.4 Use cards to release doors
Put a registered card proximate to the reader. The door station will sound a beep.
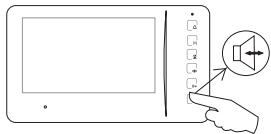

5.1.5 Privacy setting on door stations
Put the privacy jumper on "NC" position. The door station will enter the privacy status, then it will not sound a feedback ring when it calls the indoor phones.

Privacy OFF   Privacy ON

5.2 Operation on indoor phone
5.2.1 Answer
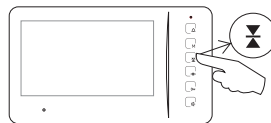Push 🔊 button and speak.

5.2.2 Release door
Push 🔑 button while the indoor phone is at intercom status or surveillance.


5.2.3 Release gates/garages ...
Push ⌛ button if the indoor phones are with the function.


5.2.4 Video surveillance
Push 👁 button and then the image in front of the camera will be displayed on the screen.

☺ *If there are two or more cameras, surveillance for different entrances is also available by a 2nd, 3rd, or 4th push. During surveillance it is available to speak with somebody outside by pushing 🔊 button and release the door by pushing 🔑 button.*

5.2.5 Call other indoor phones
Push 🔔 button to ring the other indoor phones while at the standby status, the green LED indicators will turn on.
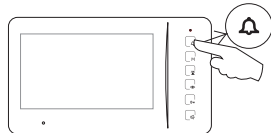

5.2.6 Call transfer
Push 🔔 button to ring the other indoor phones while at intercom status. If somebody answers, the line will be transferred.

☺ *Functions of 5.2.5 and 5.2.6 are available only if there are two or more indoor phones.*
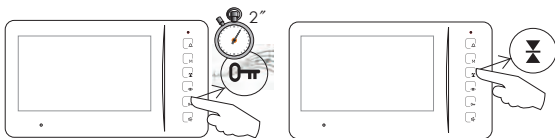
5.2.7 Change the ring tone

Push ⦿ button and do not release it for 2 seconds. The indoor phone will ring. At this moment users may push ⦿ button again and again to choose the favorite ring. The choice will be accepted once the indoor phone shuts automatically or the users push ◁ button.
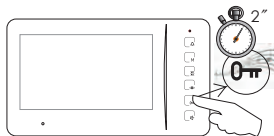

5.2.8 Adjust the ring volume

Push ⦿ button and do not release it for 2 seconds, then the indoor phone rings. While adjusting users may push ⤈ button again and again to increase/decrease the ring volume. There are 8 levels. The levels will turn to next one by one. The setting will quit itself if no operation in 10 seconds. Users also may push ◁ button to confirm the setting and exit immediately.

### 5.2.9 Adjust the speech volume

Adjust the potentiometer on the back of the indoor phone with a tool such as a proper screw driver.
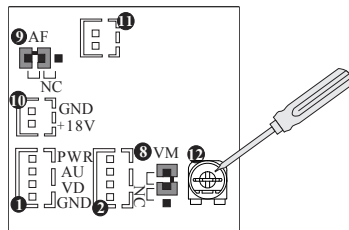
Model N60

5.2.10 Change the ring duration

The default ring duration is 15 seconds. There are 10 seconds, 15 seconds, 30 seconds and 45 seconds for options. At the standby status push ⌂ button and do not release it for 2 seconds. The indoor phone will sound a beep. At this moment users may push ⌂ button once to switch to the first option (10 seconds), then push the button again and again to switch to the next option in turn. It will sound double beeps when it switches to the last option (45 seconds). The setting will be accepted and synchronized to the other indoor phones by pushing ⌂ button for 2 seconds or quit automatically if no operation in 10 seconds.
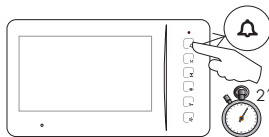
5.2.11 Operation on OSD menu

Push ◉ button to activate the screen. Then push **M** button to activate the OSD menu. There are the items of brightness, contrast and color. Users may push 0⊓ button (+) and ⏳ button (-) to adjust the parameters, and push **M** button to confirm or skip them.
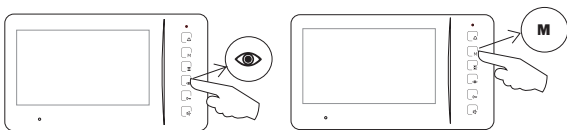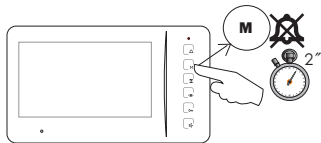
5.2.12 Privacy setting

At the standby status push **M** button and do not release it for 2 seconds. The indoor phone will enter or exit privacy status with a beep. During privacy, the red LED indicator keeps flashing.

Part 6. Troubleshooting

6.1 Test

After all components are installed and connected as the user's manual, please switch the power on and then try to operate all features on all door stations and indoor phones as Part 5.

6.2 Troubleshooting

Common malfunctions	Possible reasons	Obviation
No feedback ring after pushing the call button. Meanwhile the door station's LED indicator doesn't turn on.	Disconnection on the power supply or socket.	Replace the power supply or the socket.
	Disconnection on the (red or black) signal wires.	Check and connect the wires.
No image displayed. The others are all ok.	Disconnection on the (black) signal wire of the indoor phone.	Check and connect the wires.
Poor image quality or ghost image	No video jumper connected on the indoor phone or door station.	Check and connect the video jumper.
	Video jumper is not on the right device.	Use the video jumper on the correct device.
Receive a call but cannot answer.	Audio jumper is not on the right position (usually AF).	Use the audio jumper on the right position accordingly.
Unavailable to activate a 2nd camera.	The power is too weak to support the whole system.	If use only one transformer, please add another transformer/adapter.

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.

INFORMATION TO THE USER

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.

CAUTION

changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.