2 Wire Digital Apartment System Presentation

Easy Life Link The World

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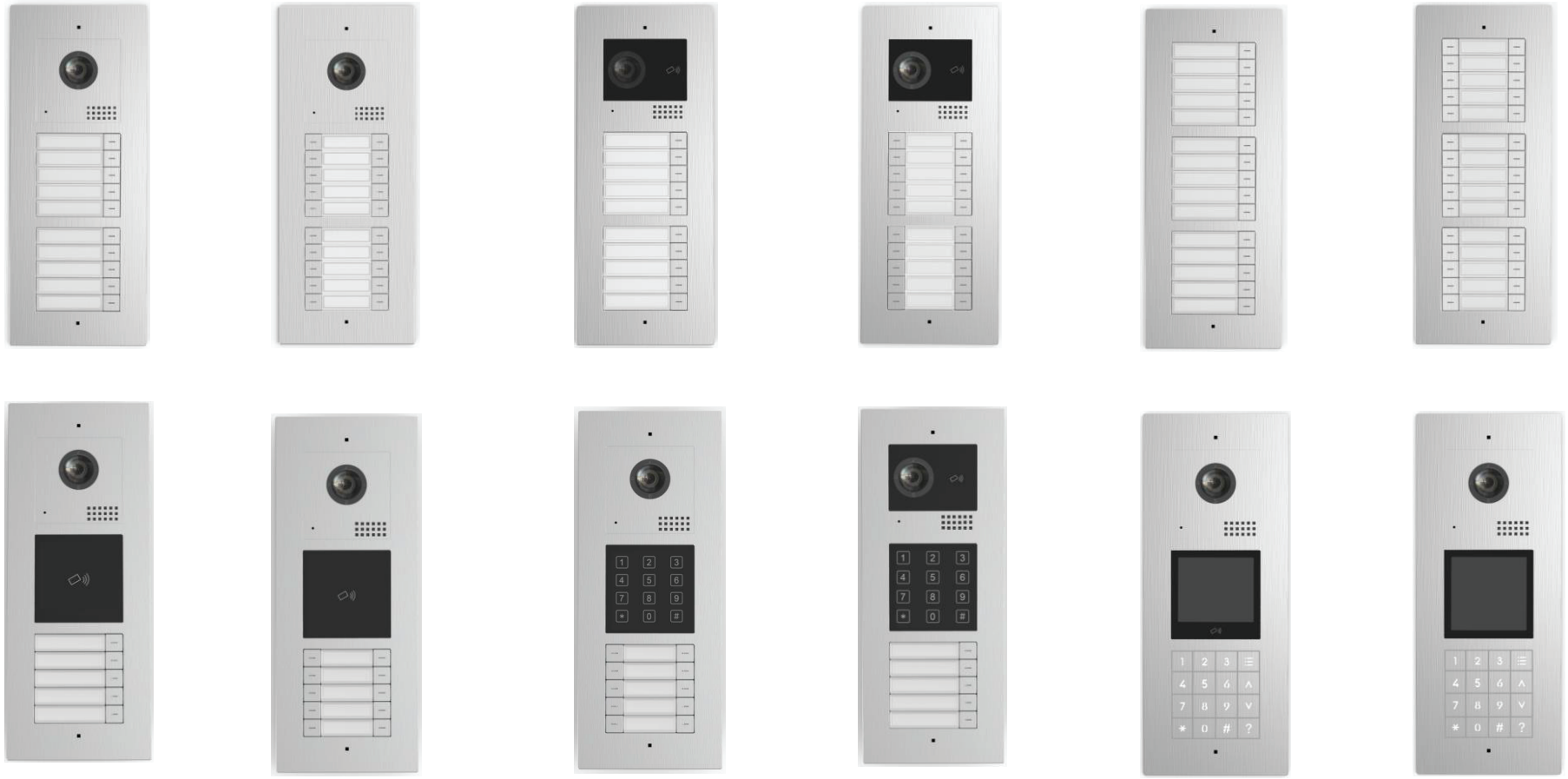
System Features

- Nonpolarized 2 wire
- Support various cables
- Modular design outdoor station
- High quality video with 1080P camera
- Support up to 72 monitors
- Support up to 10 outdoor stations
- Support guard unit in general entrance
- Support 1 slave monitor
- Support audio handset
- Support 2 video call at the same time

Outdoor Stations



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Modules for Outdoor Stations

Camera module

Camera module with RFID

5 buttons module

10 buttons module

RFID module

Keypad module

Blank module

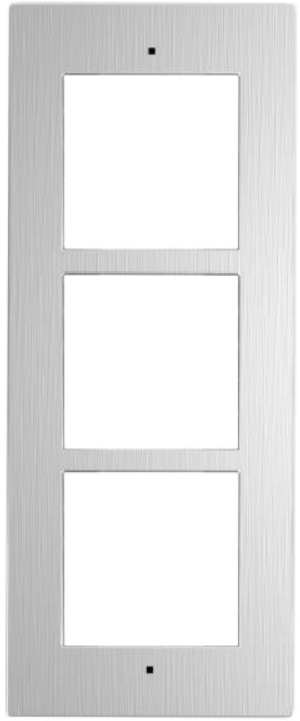
Display module

Display module with RFID

Accessories for Outdoor Stations

Accessories for surface mounted door station

Accessories for flush mounted door station

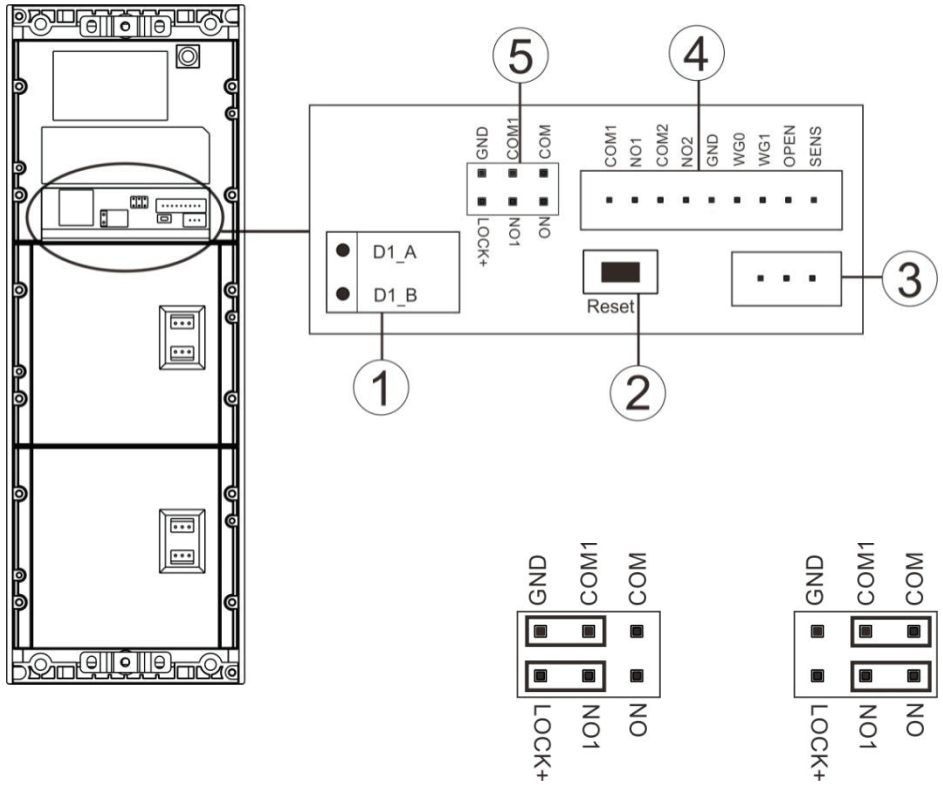


Accessories for extention buttons

Features

- Modular design, easy to customize
- Digital 2 wire technology
- Easy wiring with non-polarized 2 wire
- Support RFID with ID card module (optional)
- 1080P CMOS camera
- Night vision with automatic luminance compensation
- Support 2 locks
- Surface mounted and flush mounted are optional
- IP55 & IK07
- Support connecting an exit button
- Support door status checking
- Tamper alarm

Terminal Description



Picture 1

Picture 2

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

(2) Reset button: For resetting door station password or buttons sequence.

(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.

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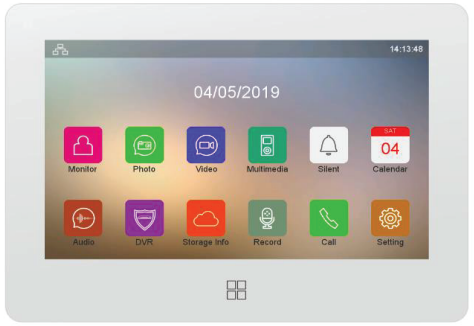
Indoor Monitors

7 inch Monitor with Touch Screen



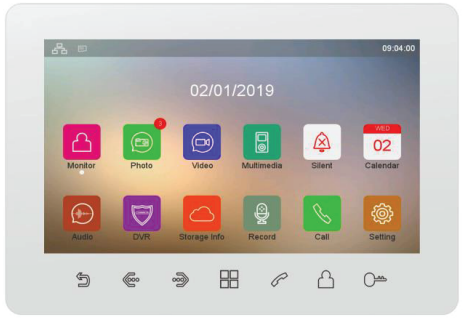
2M2307BKCO

2M2907BKCO

2M2307BKCW

2M2907BKCW

7 inch Monitor with Touch Buttons



2M2307BKTO

2M2907BKTO

4.3 inch Monitor with Touch Buttons

2M2604BKHO

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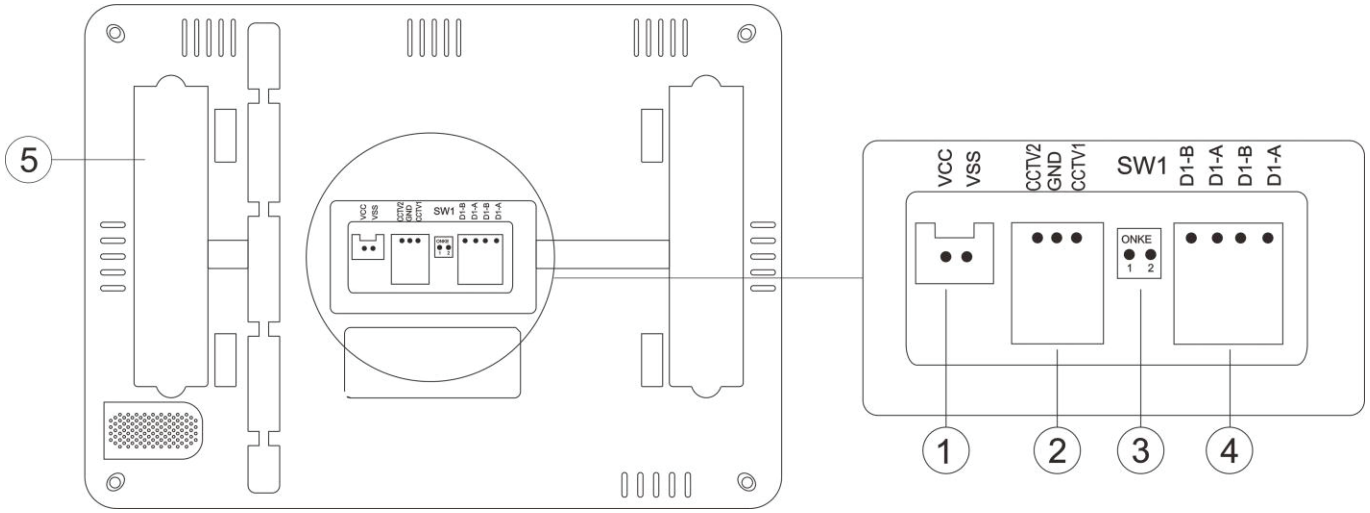
Features

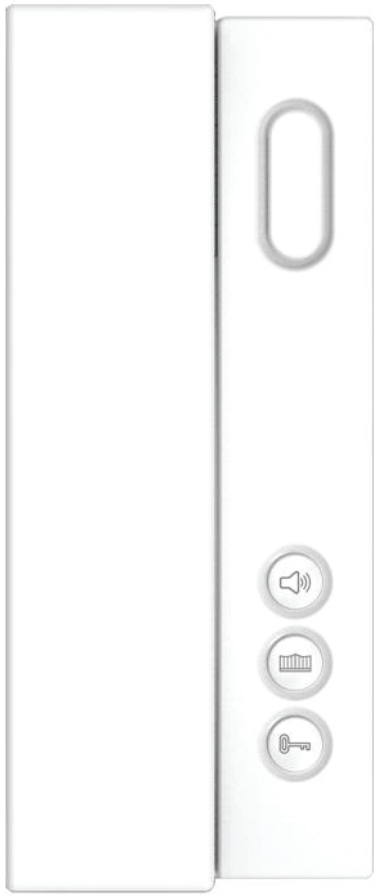
- Hands-free video intercom
- Digital signal transmission
- Intercom between the monitors
- User friendly interface with touch button or touch screen
- Easy installation as same as normal or traditional 2 wire analog system
- 256 photos and 36 videos taking with built-in memory
- H.264 coding and decoding provide high quality photo and video
- DVR with face detection, motion detection & dynamic frame rate recording
- EPTZ: Lossless video quality with Zoom in and Move
- Monitor and door station names can be edited by user
- Support connect 2 AHD module (Optional for 2M2907 monitors)
- Wi-Fi function with App Control （Optional)

Terminal Description



① Power Port (DC 15-24V 1A MAX)
② CCTV Connection Port (Optional)
③ SW1 DIP Switch: For 2 Wire BUS Terminal Match Setting
④ 2-Wire BUS Connection Port
⑤ Replaceable Plastic Cover

Audio Handset



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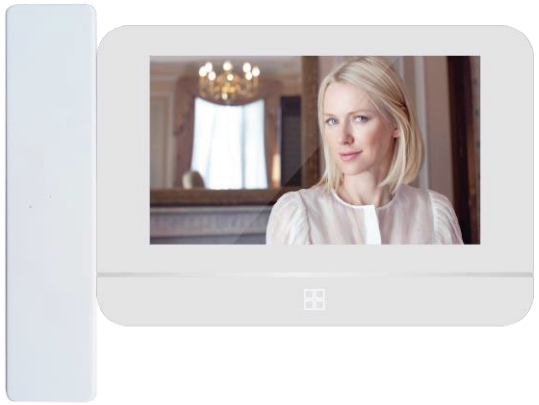
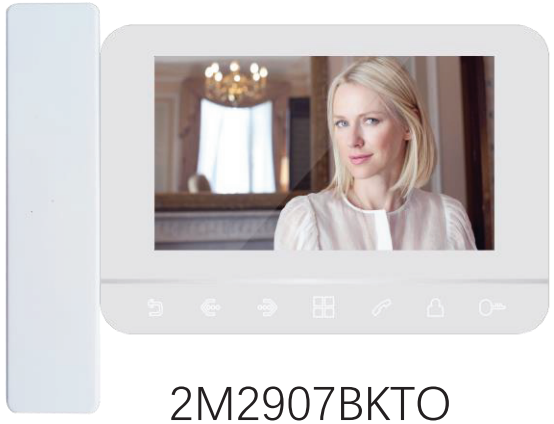
Guard Unit



2M2907BKCO

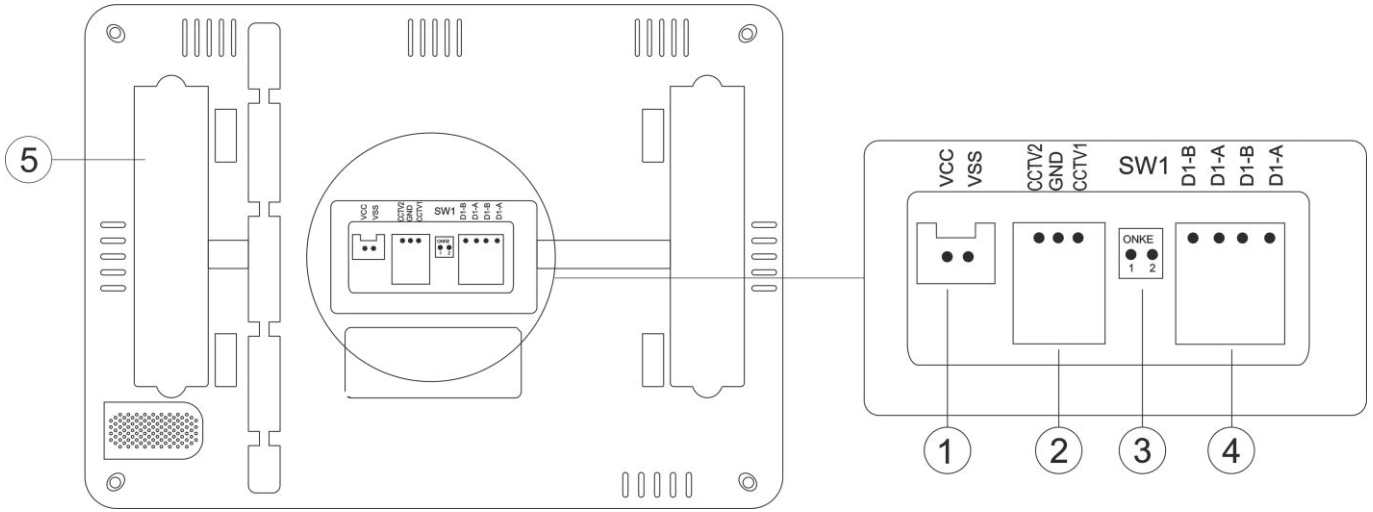


2M2907BKTO

Features

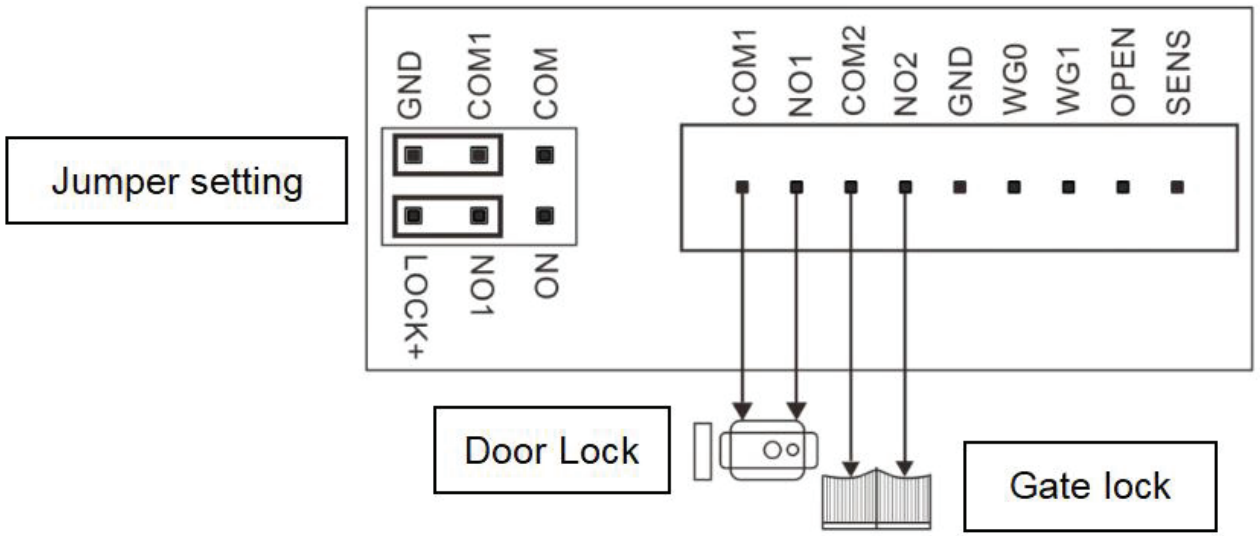
- Can input a resident list by a SD card
- Call to any flat on the resident list
- Auto taking picture/video
- Monitoring outdoor station
- 256 photos and 16 videos recording with built-in memory
- Zoom in function
- User friendly interface with touch button or touch screen

Terminal Description and Packaging



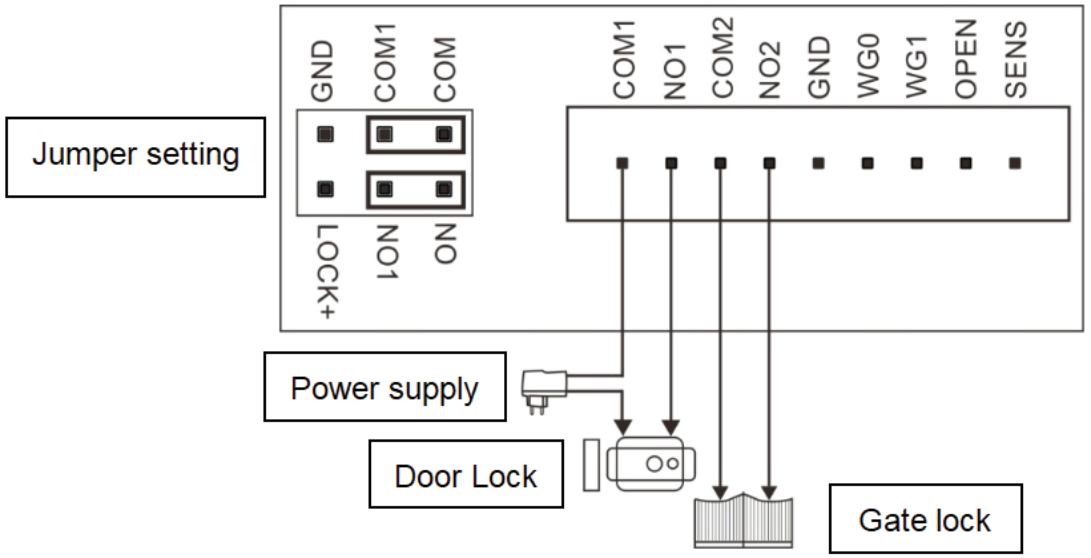
① Power Port (DC 15-24V 1A MAX)
② CCTV Connection Port (optional)
③ SW1 DIP Switch: For 2 wire BUS Terminal Match Setting
④ 2-Wire BUS Connection Port
⑤ Replaceable Plastic Cover

Electrical Lock Wiring Diagram - Internal Power to Lock



(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

Electrical Lock Wiring Diagram - External Power to Lock



(1) Support Door Lock type: NO (normal open) lock, power on to unlock
A: AC Lock: Support lock of AC125V current≤1A
B: DC Lock: Support lock ≤DC30V, current ≤4A
(2) Support Gate Lock Type (It gives a relay signal for unlocking)
A: AC Lock: Support lock of AC125V current≤0.5A
B: DC Lock: Support lock ≤DC30V, current ≤4A
(3) Jumper Setting: As the above picture

2-wire BUS and Exit Button Wiring Diagram

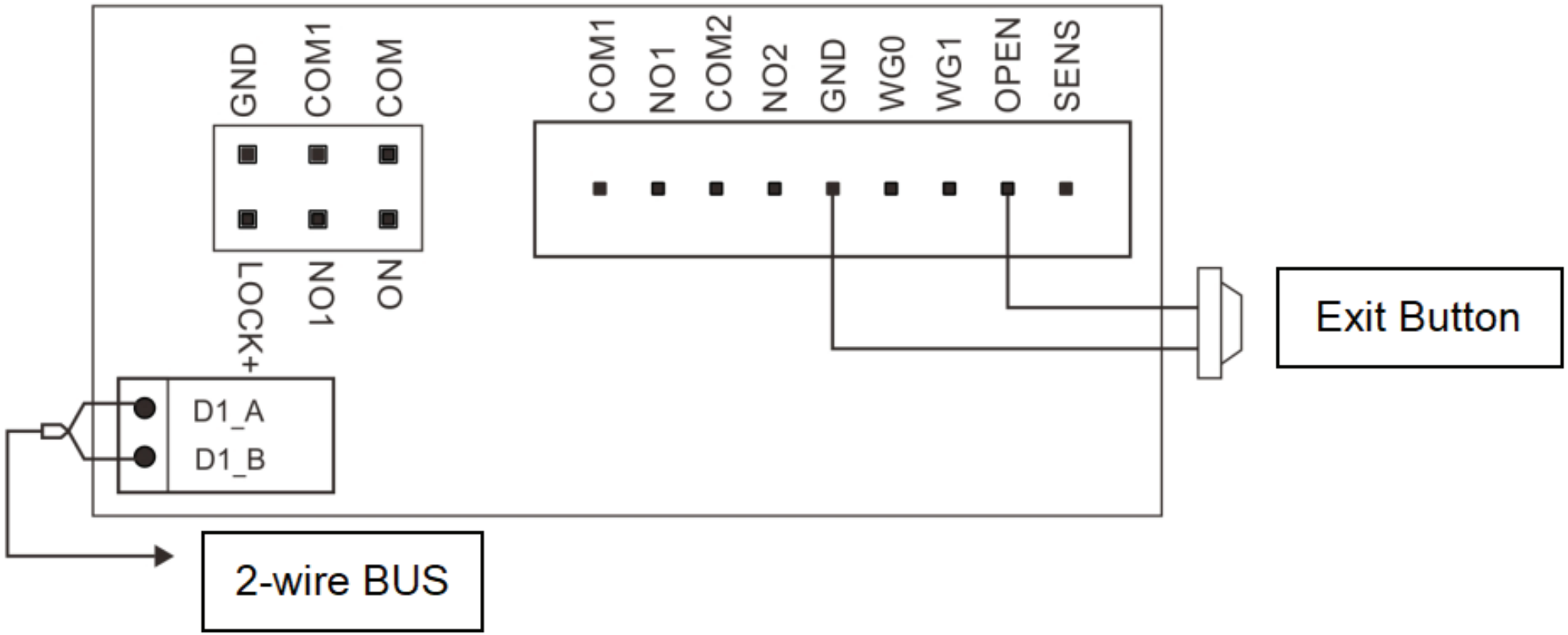
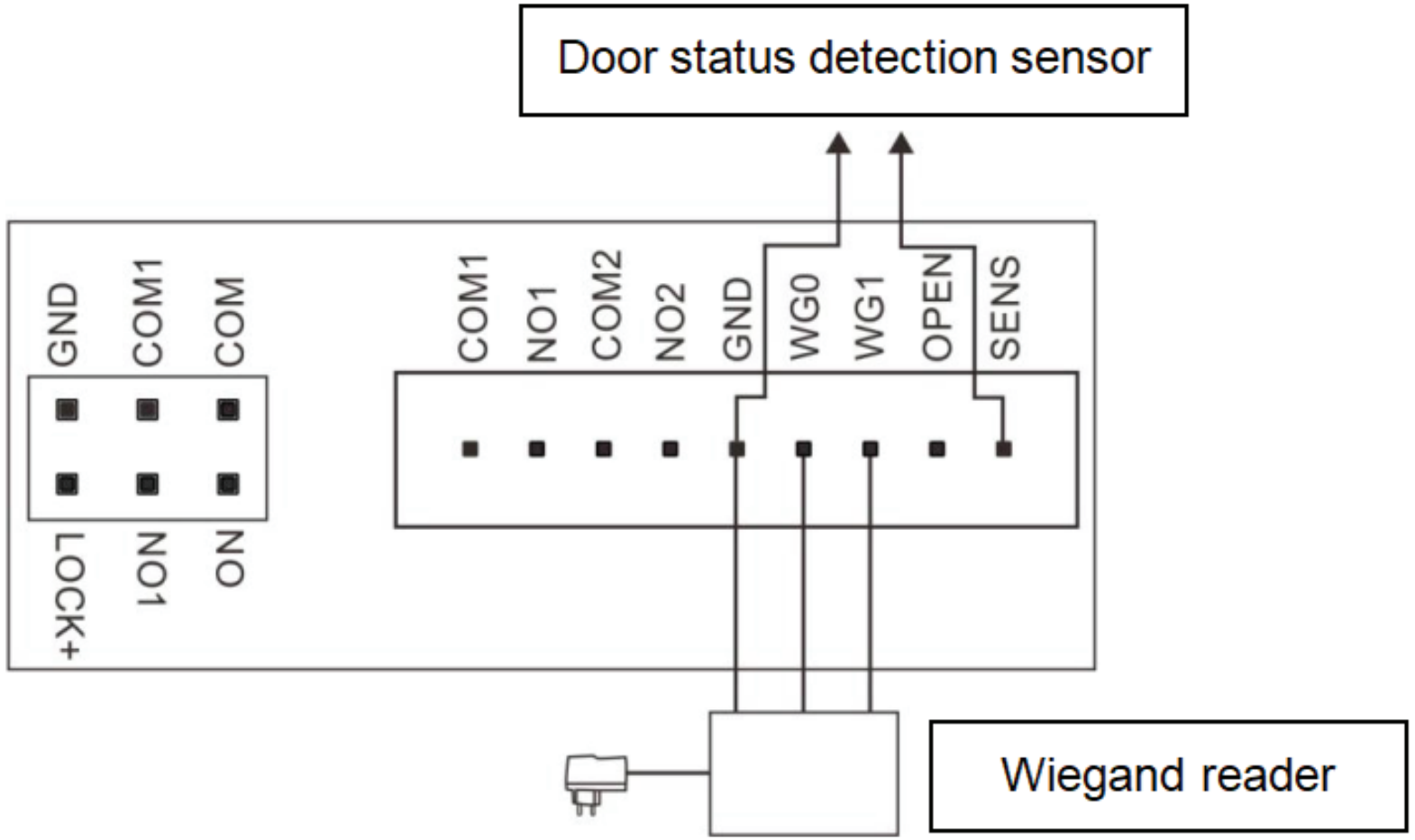


Diagram for Door Status Checking & Wiegand Unlock



Wiring Distance

Cable Type \ Device Quantity on the Master BUS		8 (2pcs PW03B + 6pcs NV20)	7 (2pcs PW03B + 5pcs NV20)	6 (2pcs PW03B + 4pcs NV20)	≤5
Parallel pair cable (BVVB)2*0.5mm² 	A	100	100	100	100
	C	50	50	50	50
	B/D/E/F	60	85	90	90
Parallel pair cable (BVVB)2*0.75mm² 	A	100	100	100	100
	C	50	50	50	50
	B/D/E/F	75	90	100	115
Double pair cable (Standard CAT-5) 	A	100	100	100	100
	C	50	50	50	50
	B/D/E/F	120	150	180	180
Twisted pair cable (ZC-RVS)2*0.5mm² 	A	100	100	100	100
	C	50	50	50	50
	B/D/E/F	55	100	110	110
Twisted pair cable (ZC-RVS)2*0.75mm² 	A	100	100	100	100
	C	50	50	50	50
	B/D/E/F	55	95	95	95
Parallel pair cable 2*0.3 mm² 	A	100	100	100	100
	C	50	50	50	50
	B/D/E/F	60	85	100	110

Remark:

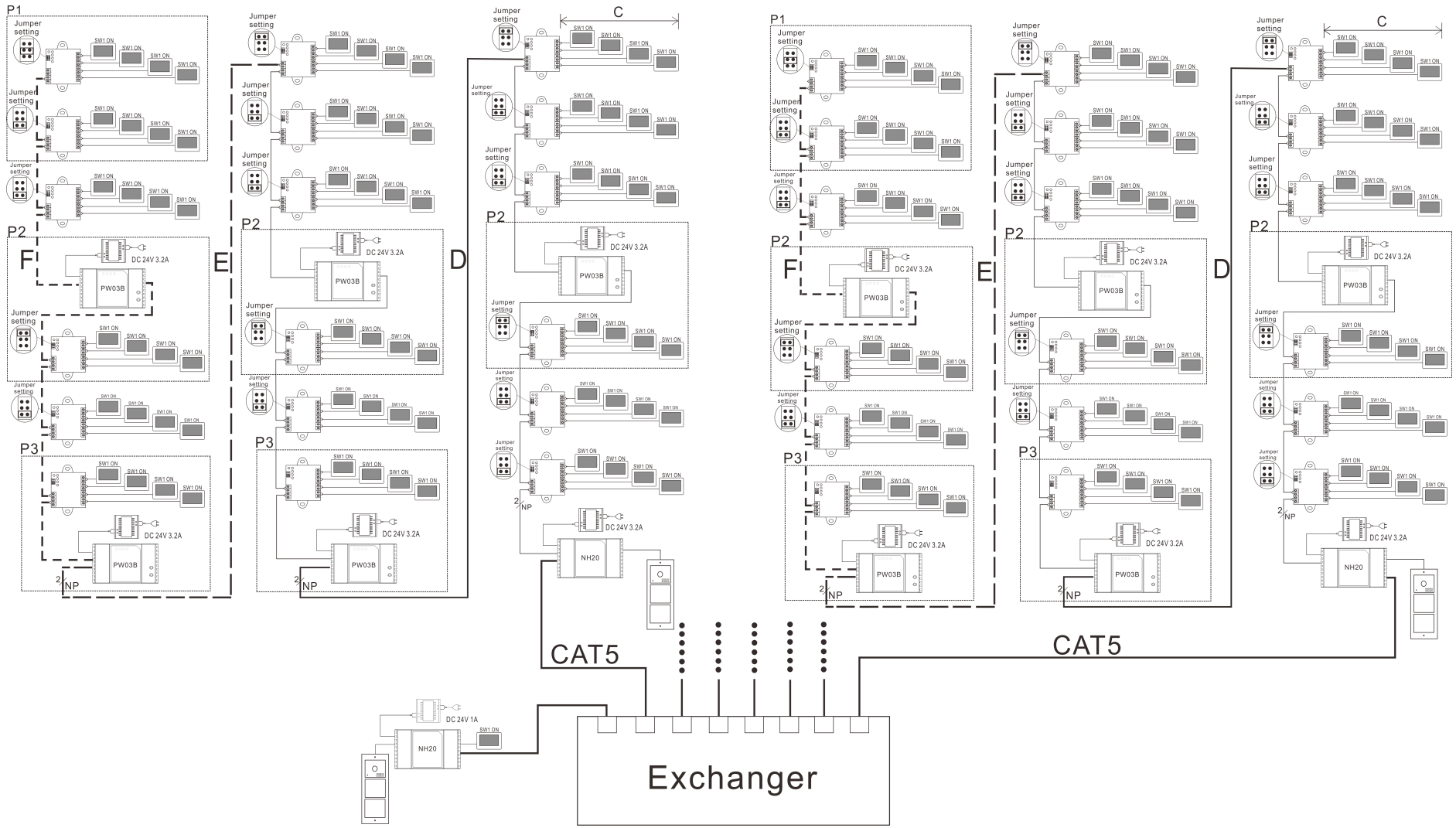
(1) All cables must be unshielded

(2) The distance A will decrease to half if the PW03B connect 2 door stations

(3) If the distance A is too long to open a high-power electric lock, please add an external power to the electric lock.

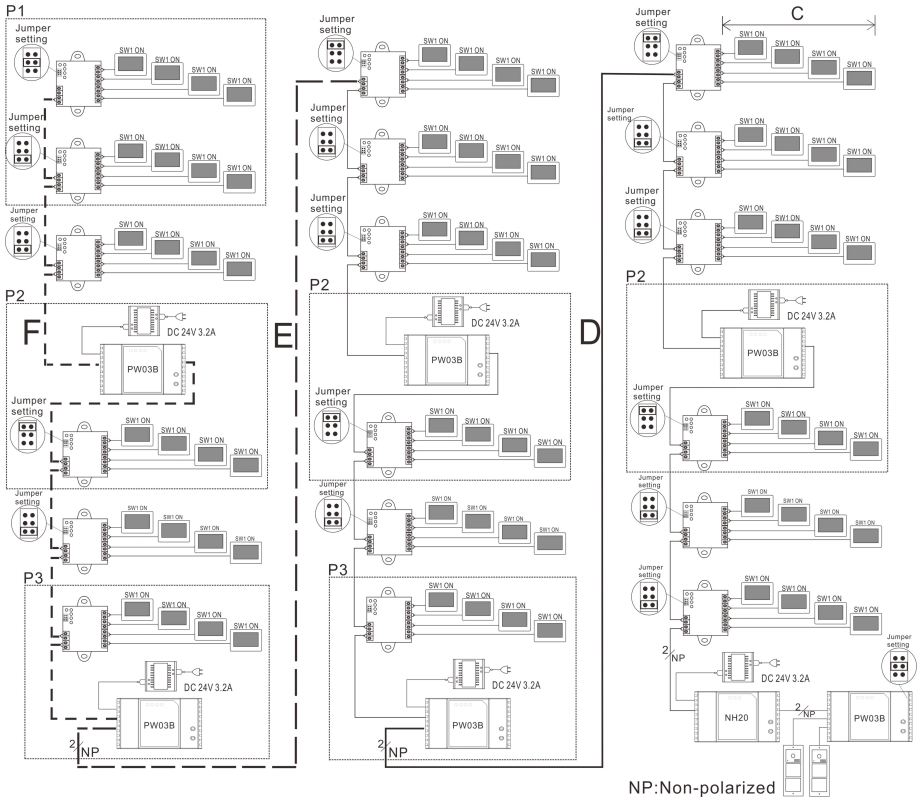
(4) For the first diagram in 4.41, the total distance (A+B) shall be as same as B in the left form

Maximum System



Wiring Diagram

72 Units



Remarks:

(1) The two two-wire bus interfaces are independent and have been matched internally.

(2) One network interface is connected to the exchanger, and multiple units or buildings can be connected through the Exchanger.

(3) Wiring distance: 2-wire bus (between terminals) ≤ 100M, network cable ≤ 100M.

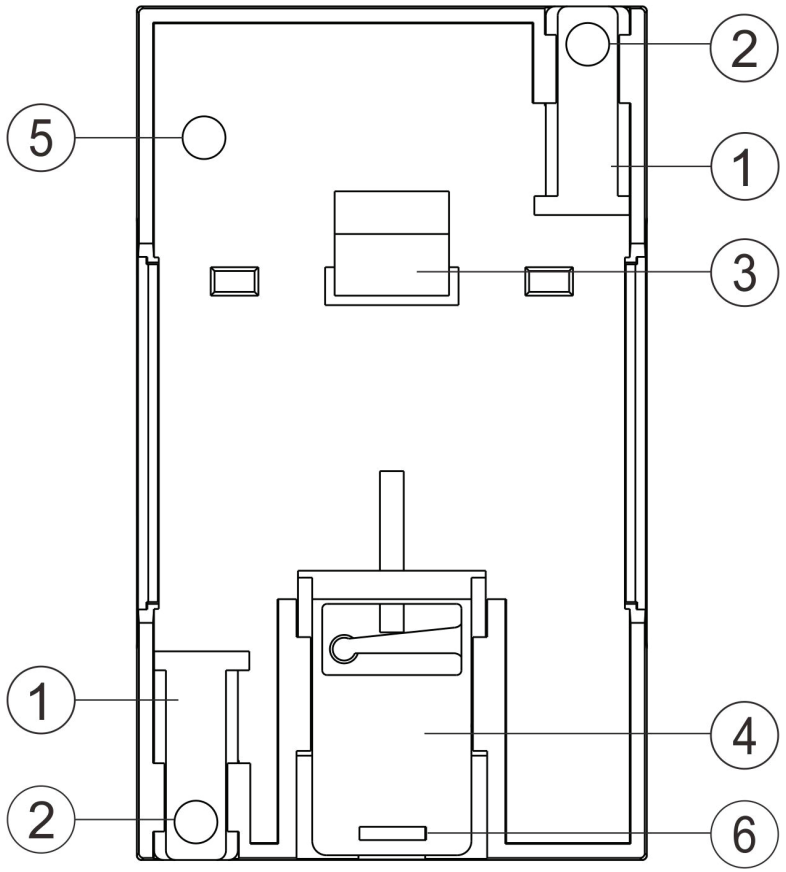
(4) The power specifications can be determined according to the number of loads (calculated as 4W per terminal device).

(5) It is recommended to use 0.5 mm² wire for the bus. When the load current is greater, it is recommended to use 0.75 mm² or higher wire.

(6) When DC power is supplied, there is polarity. Multiple power supplies on the bus will cause a power failure. A jumper should be set on the isolation device for isolation.

(7) Other operation references NV21 and PW03B instructions.

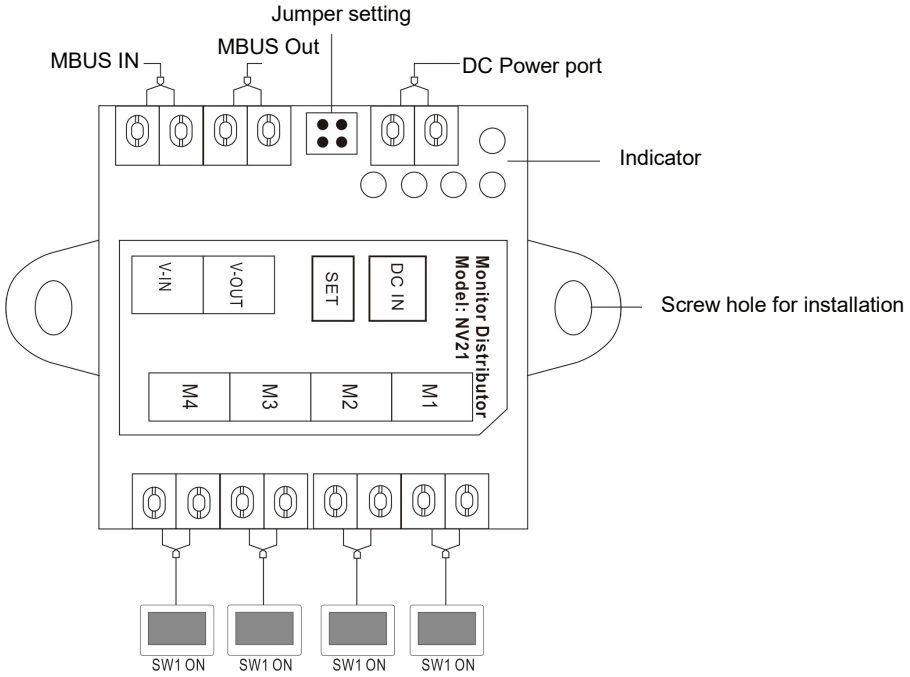
Bottom View Diagram



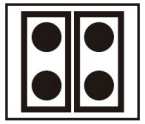
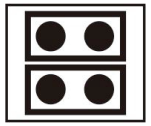
No.	Name	No.	Name
① ②	Bus 1 interface (3.5A MAX) Bus 2 interface (0.5A MAX), the device connected to this port must be powered by NH20	③	DC power input (non-polar)
④	Network interface	Device	Outdoor Panel or indoor unit/Distributors

No.	Name	No.	Name
①	Surface installation screw hole	④	Rail installation bottom bracket
②	Surface installation screw hole	⑤	Reset button (restore default)
③	Rail installation top bracket	⑥	Rail installation removal

Terminal description



(1) M1-M4：Port for connecting indoor monitor
(2) V-IN: Input port for 2 wire BUS
(3) V-OUT：Output port for 2 wire BUS
(4) Jumper setting**(Based on the NV21 direction as the above picture)**:

Setting	Description
	There's no power isolation in the NV21, only one power supply to the NV21.
	There's power isolation in the NV21. It means there are more than 1 power supply(more than 1 arrow in the diagram) to the NV21.

Wiring Diagram

Diagram 1

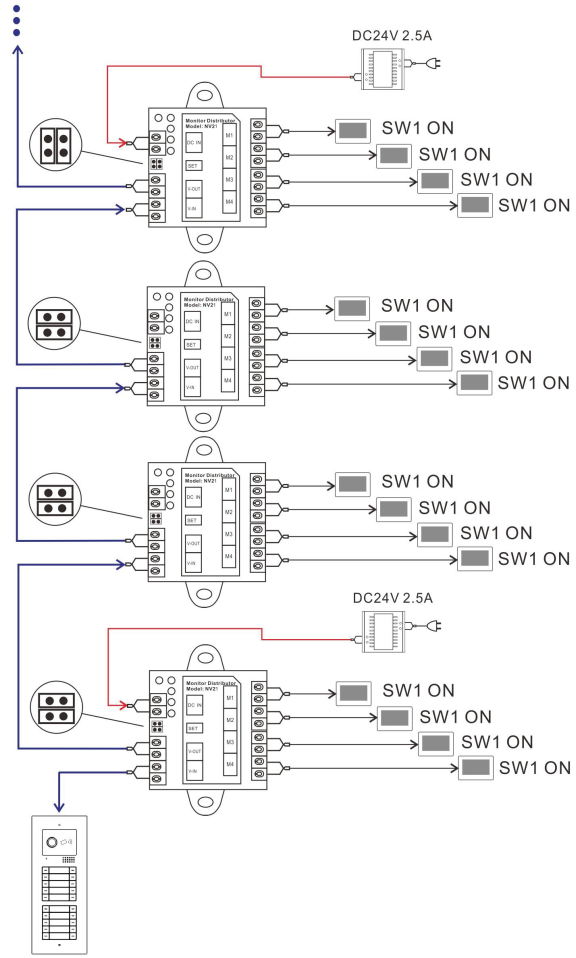
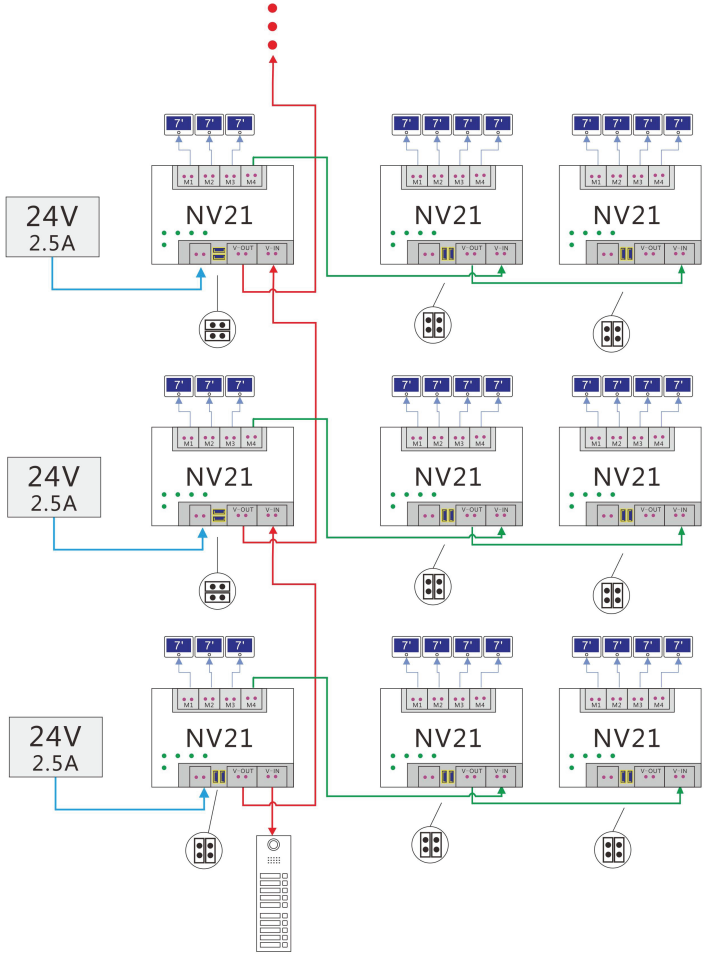


Diagram 2



Remark：

(1) NV21cannot use with PW03B, only support to connecting with NH20, monitors and outdoor panel.

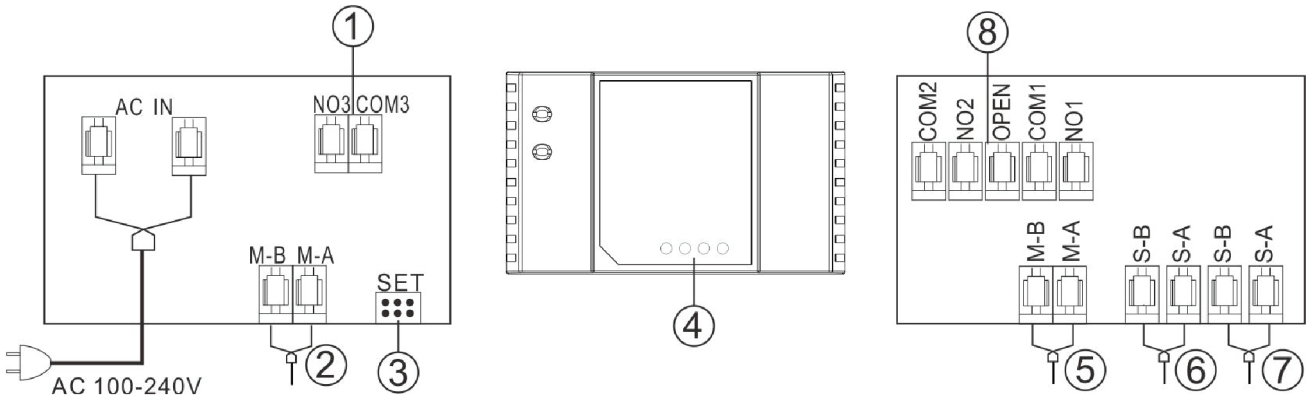
(2) The arrow in the above diagrams means the direction of power supply. If there are 2 arrows to the NV21, the jumper on the NV21 must set to be power isolation mode.

(3) For the above Diagram 2, Port M4 can maximum afford 2pcs NV21, if you want to connect more, please add more power supplies.

(4) All terminal block screws must be tightened and in good contact

The Function and Name of Each Part

Front & Side View



No	Functions	No	Description
①	Preserved port no function	⑤	Main Bus
②	Main Bus	⑥	Sub Bus
③	Jumper	⑦	Sub Bus
④	LED Indicator	⑧	Lock Port

Remarks :

When you use electronic Lock, the distance from PW03D to lock should be like below:

0.5 mm² Cable: Maximum Distance 20 Meters

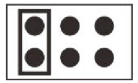
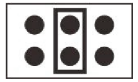
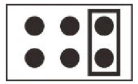
1.0 mm² Cable: Maximum Distance 50 Meters

Terminal Description Lock Port

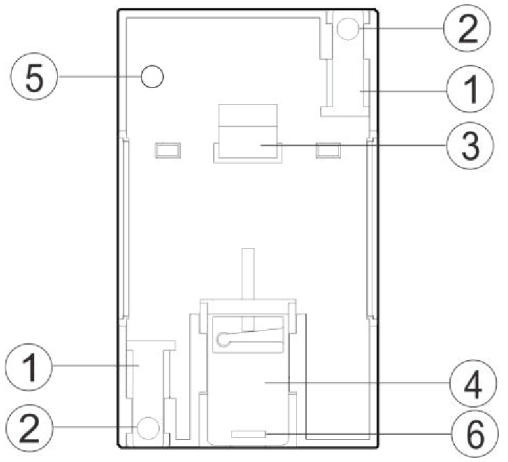
Terminal Description Lock Port ⑧

COM1 OPEN	Exit Button
COM1 NO1	Port for electronic door lock When Connect with electronic lock, the polarity of COM1 and NO1 will be defined as below: COM1 is Positive, NO1 is Negative
COM2 NO2	Port for Gate Opener

SET Jumper Instruction

SET	Function
	There will be power supply for Port ②
	Terminal match setting.
	No match setting and no supply power to Port ②

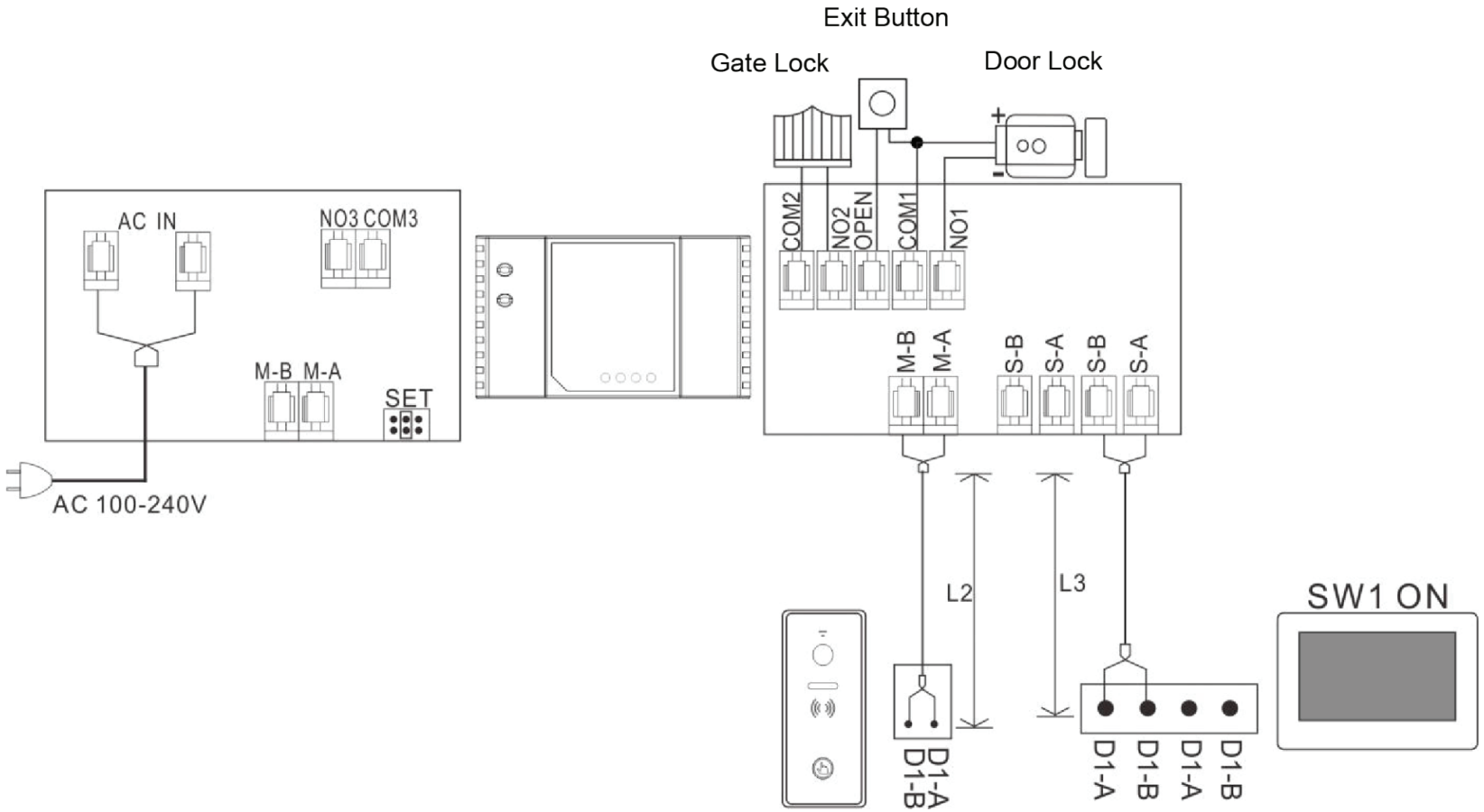
Bottom View



No	Description	No	Description
①	Plastic sliding support	④	Plastic bottom hook for DIN Rail installation
②	Screw hole	⑤	Password reset button
③	Plastic upper hook for DIN Rail installation	⑥	Plastic bottom hook for DIN Rail installation

Wiring Diagram

One monitor with one outdoor panel



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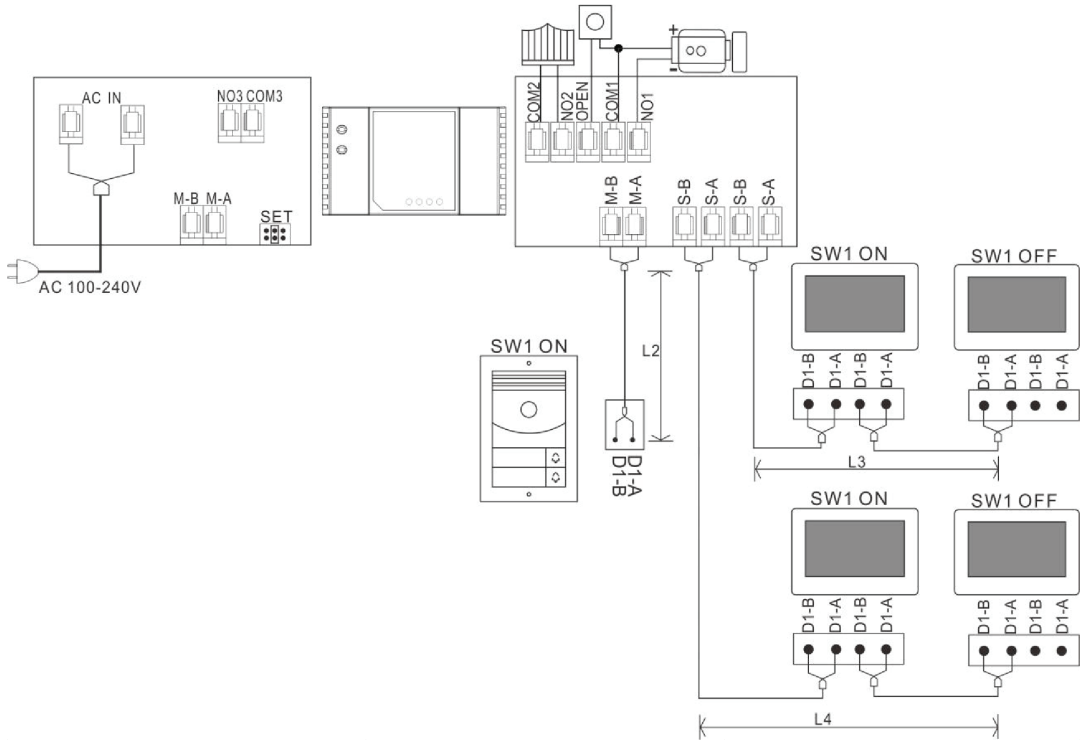
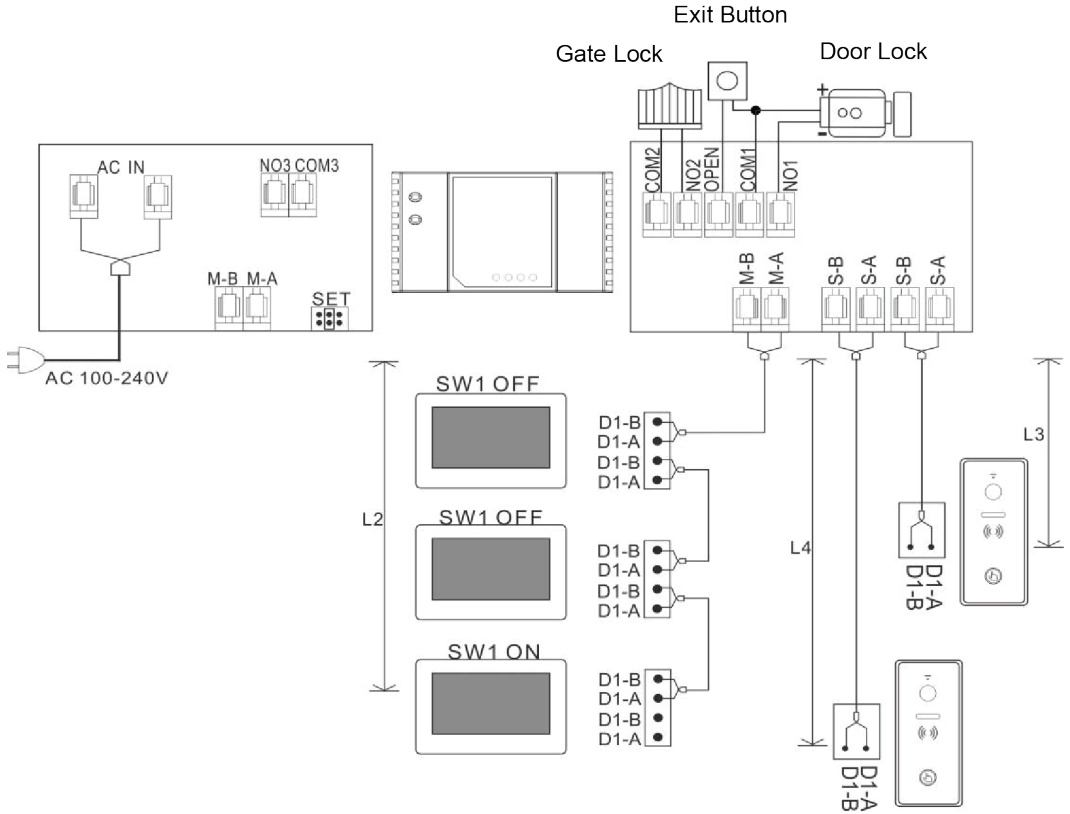
Wiring Distance

Four monitors with one outdoor panel



Three monitors with two outdoor panels



Remarks ：

1) Please keep same jumper setting with above wiring diagram.
2) The Sub BUS of ⑦ and ⑧ will be automatically matched with main BUS.
3) Wiring Distance：L2≤100M，L3+L4≤100M。
4) One PW03D could support 6 devices including indoor monitor and outdoor panel with AC Input.
5) 0.5 mm² or above Cable is recommended

Thank You.

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