USER MANUAL

2-Wire Video Intercom System

VX-AP8 | VX-AP12



8-Button Apartment Intercom Panel and 12-Button Extension Panel

Installation, configuration, wiring, and operation reference

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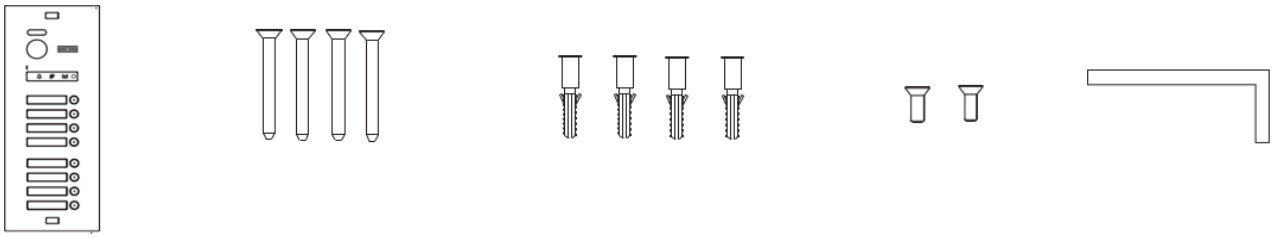
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1. Packing Contents

Verify that all components listed below are included before installation.

Item	Description
Main body	Outdoor intercom panel assembly
KA M4 x 35 mm mounting screws	Used to secure the mounting box
M4 x 35 mm plastic expansion anchors	Used for suitable wall installations
KM M4 x 25 mm fixing screws	Used to secure the main body
Wrench	Installation tool



Main body KA M4 M4 KM M4 Wrench

2. Features and Functions

- High-quality aluminum housing
- 2 MP HD camera with 1080p video resolution
- 150° horizontal wide-angle field of view
- Backlit nameplates and illuminated push buttons
- White LED illumination for enhanced color visibility in low-light conditions
- LED indicators for calling, talking, and door-unlock status
- Supports one electric lock, one automatic door operator, one request-to-exit input, and one alarm input
- SIP-based audio and video communication with compatible SIP devices
- RTSP video streaming for compatible video players and recording systems
- IP54-rated ingress protection
- IK07-rated impact resistance
- Powered through the non-polarized 2-wire bus
- Optional push-button extension panels for expanded resident capacity

3. Specifications

Specification	VX-AP8	VX-AP12
Operating System	Embedded Linux OS	
Network Protocols	TCP/IP, SIP 2.0, RTSP	
Video Compression	H.264	

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Specification	VX-AP8	VX-AP12
Image Sensor	2 MP CMOS	
Viewing Angle	150° horizontal	
Night Vision	White LED illumination	
BUS Input/Output	1	
Electric Lock Output	1 x 18 VDC / 400 mA	
Automatic Door Output	1 x 30 VDC / 6 A or 250 VAC / 6 A	
Alarm Input	1	
Exit Button Input	1	
Call Buttons	8 buttons	12 buttons
Ingress Protection	IP54	IP54
Impact Resistance	IK07	IK07
Backlit Nameplates	Yes	Yes
Housing Material	Aluminum alloy	Aluminum alloy
Color	Silver / black	Silver / black
Installation	Flush mount	Flush mount
Wiring	2-wire, non-polarized	2-wire, non-polarized
Maximum Power Consumption	5.1 W	3.6 W
Power Supply	30 ± 2 VDC, supplied from BUS	30 ± 2 VDC, supplied from BUS
Operating Temperature	-20°C to +60°C (-4°F to +140°F)	-20°C to +60°C (-4°F to +140°F)
Weight	1.45 kg (3.20 lb)	1.20 kg (2.65 lb)
Dimensions (W x H x D)	134 x 353 x 45 mm	134 x 353 x 45 mm

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4. Part Names and Functions

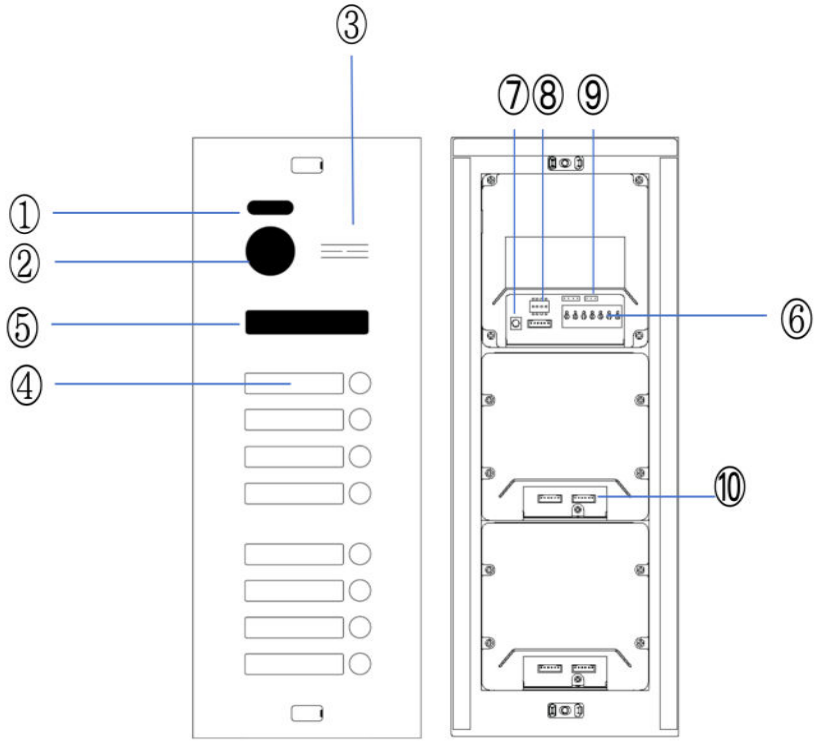


Figure 2. Front and rear component locations

No.	Part Name / Function
1	Night-vision IR LED
2	Camera
3	Speaker
4	Call button
5	Status indicator
6	Connection port
7	Reset button
8	DIP switches: Switch 1 - PLC setting; Switches 2 and 3 - address setting; Switch 4 - exit-button unlock mode (OFF: electronic lock; ON: relay lock)
9	Lock-mode jumper
10	Extension-panel connection

5. DIP-Switch Settings for the Panel

- Down = OFF (0); Up = ON (1).

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- DIP switch 1 configures the PLC setting.
- Only one outdoor panel in the system should have PLC enabled. Enabling PLC on Door 1 is recommended.
- DIP switches 2 and 3 set the outdoor-panel address.
- A maximum of four outdoor panels can be configured.
- DIP switch 4 selects the lock-output mode.

DIP Switch 2	DIP Switch 3	Outdoor Panel Address	DIP Switch 4	Lock Output Mode
0	0	Door 1	0	Electronic lock
1	0	Door 2	1	Relay output
0	1	Door 3		
1	1	Door 4		

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6. Installation

Install the panel in a suitable flush-mounted back box. Route all required cables through the wall opening, secure the mounting box, connect the wiring, and fasten the panel using the supplied hardware.

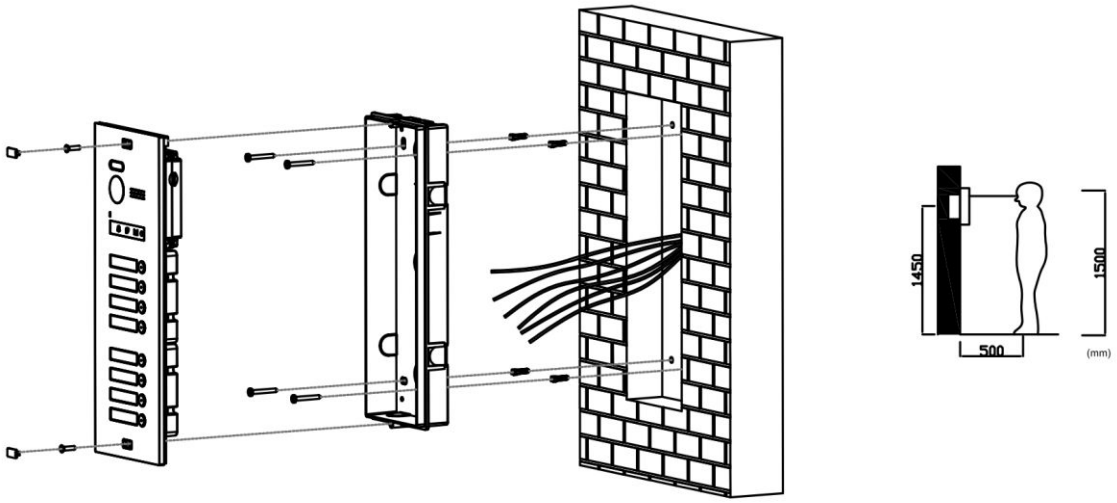


Figure 3. Flush-mount installation and recommended mounting position

7. Extension-Panel Connection

The rightmost unit shown below is the 8-button outdoor panel. The two units on the left are 12-button extension panels. Connect the extension-panel ribbon cables as shown.

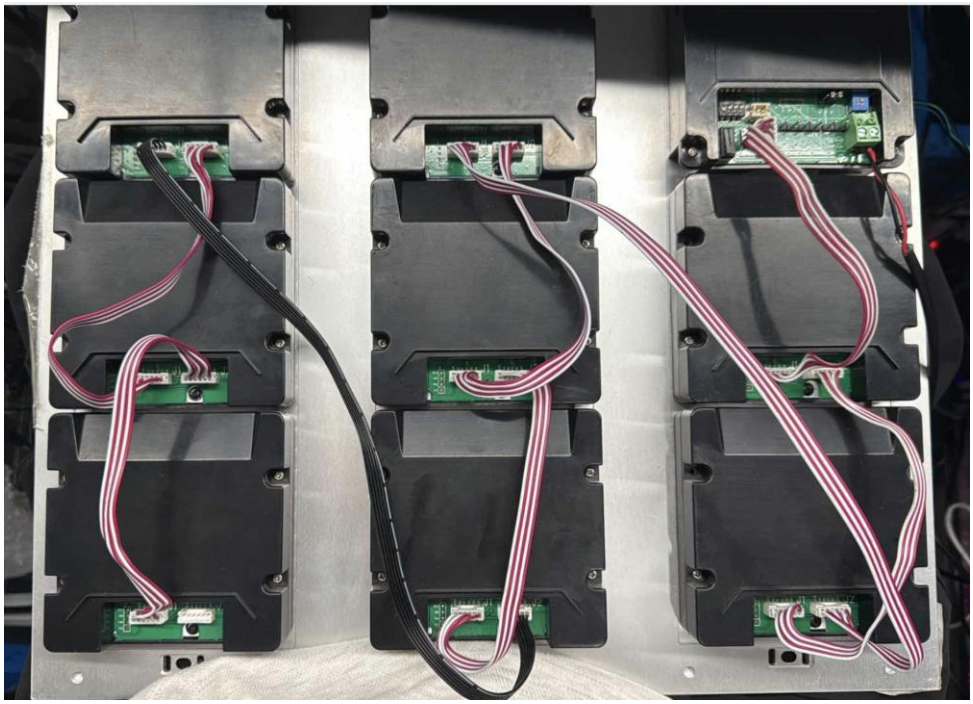


Figure 4. Extension-panel wiring arrangement

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8. Electric Lock Connection

8.1 Internally Powered Electronic Lock

The door lock is powered from the panel lock output. The lock voltage is limited to 18 VDC, and the holding current must be less than 400 mA.

8.2 Dry-Contact Lock or Automatic Door Operator

- Use an external power supply that matches the lock voltage and current requirements.
- Verify that the lock circuit does not exceed the relay contact rating of 250 VAC / 6 A or 30 VDC / 6 A.
- Power to unlock: use NO and COM.
- Power off to unlock: use NC and COM.
- Set the lock-mode jumper to the position shown in the applicable wiring diagram.

8.3 Exit Button Connection

The exit button can control either the electronic lock or the automatic door output, depending on the selected unlock mode.

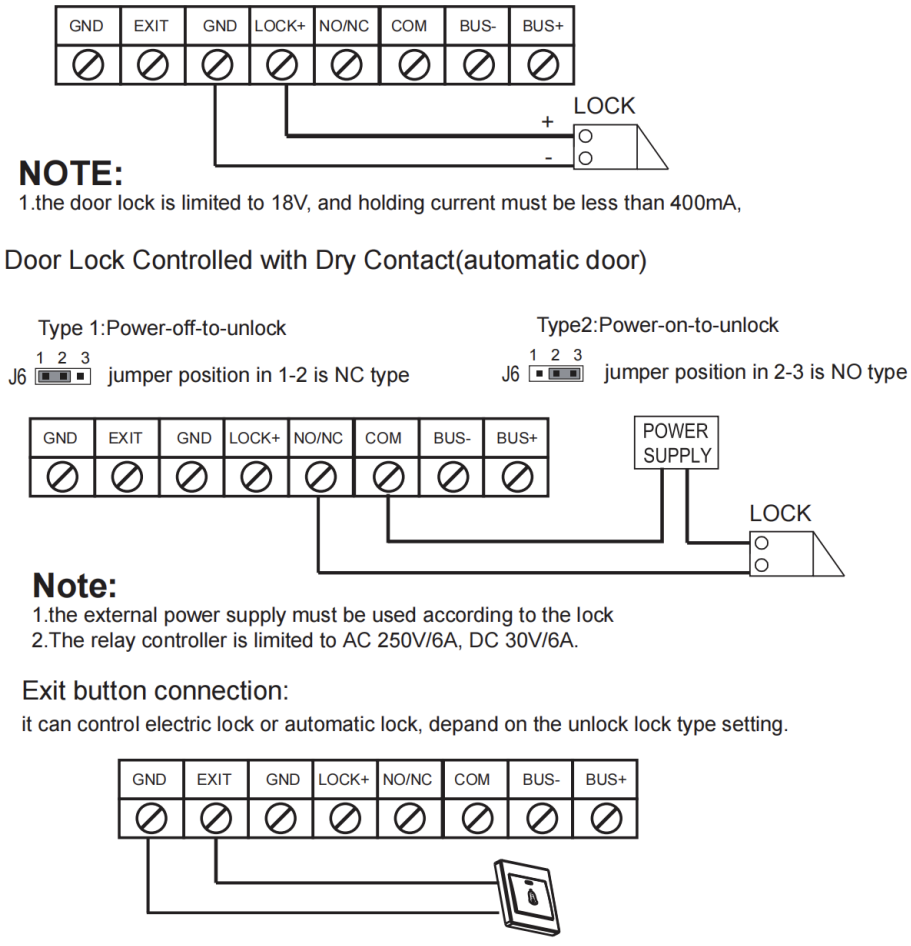


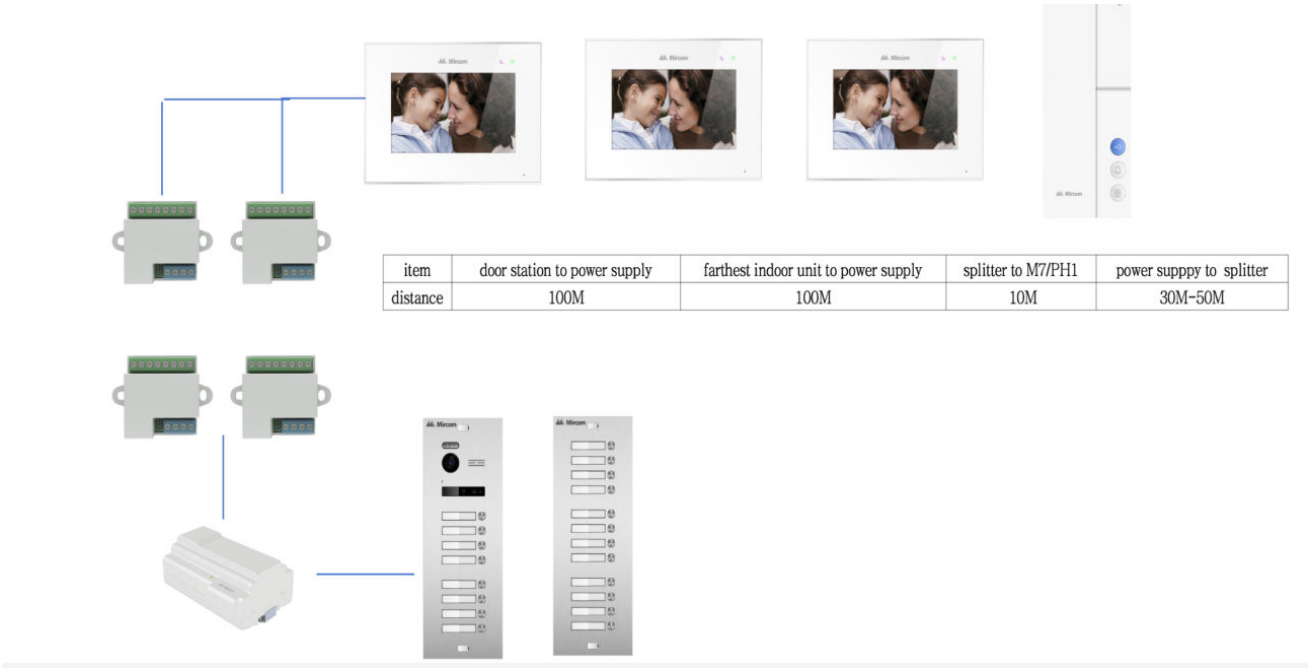
Figure 5. Electric lock, dry-contact lock, and exit-button connections

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9. System Wiring Diagram

One power supply supports up to four splitters. Each 8-port splitter can connect up to four devices. The system supports a maximum of 16 indoor units. When 16 indoor units are installed, the outdoor panel must provide 16 call buttons.

The QV test wiring used 18 AWG (0.75 mm^2) and 17 AWG (1.0 mm^2) cable. Refer to the distance limits shown in the system wiring diagram.



item	door station to power supply	farthest indoor unit to power supply	splitter to M7/PH1	power supppy to splitter
distance	100M	100M	10M	30M-50M

Figure 6. Typical 2-wire system connection and distance limits

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