

FORTESSA

CONTROLLED ACCESS BY DESIGN

MULTIWAY 2-12 WAY

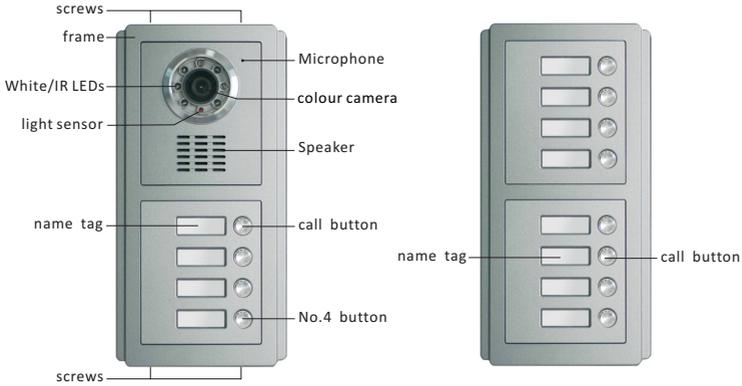
DOOR ENTRY SYSTEM

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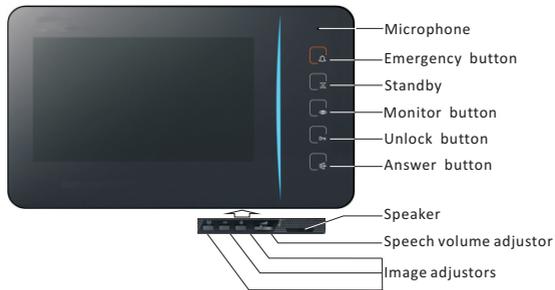
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Part 1 Product Introduction

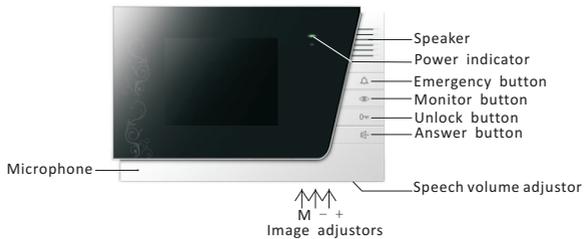
1.1 Panel(s) layout



Model FTDEVM7



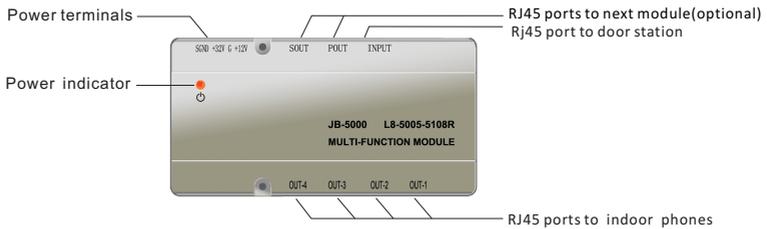
Model FTDEVM4



Model FTDEAH



Isolation module FTDEIM



Power supply (12V&32V) FTDEPSU12 & FTDEPSU32



1.2 Specification

1.2.1 Door station

Camera:	1/3" CCD
Viewing angle:	92°
Lens:	F=3.6
Resolution:	420TV Lines
Min. Illumination:	0.01 Lux
Video Output:	1V _{p-p} /75Ω
Audio SNR:	≥25dB
Audio Distortion:	≤7%
Assistant door panel:	1 pc (8 buttons)
System Capacity:	12 apartments
Standby Current:	≤116mA
Working Current:	≤450mA
Power supply:	DC12V ±10%
Environment Temperature:	-40°C ~ +70°C

1.2.2 Indoor phones

Display:	4.3" & 7" TFT-LCD (colour)
Resolution:	TFT-LCD: 660x234 pixel (4.3"); 1440x234 pixel (7");
Video input:	1V _{p-p} /75Ω
Audio SNR:	≥25dB
Audio distortion:	≤7%
Standby current:	≤60mA
Working current:	≤260mA
Power supply:	DC32V±10% & DC12V±10%
Environment temperature:	-25°C~+55°C

1.2.3 Isolation module

Working voltage:	DC12V & DC32V
Working current:	≤200mA
Video input:	0.7V _{p-p} ~1.2V _{p-p} /75Ω
Video output:	1V _{p-p} /75Ω, 4 routes
Audio output:	4 routes
Environment temperature:	-40°C~+70°C

1.2.4 Power supplies

Power:	40W(FTDEPSU12; FTDEPSU32)
Voltage input:	AC100V~240V/50-60Hz 0.5Amax.
Voltage output:	DC 12V±10%; DC 32V±10%
Current output:	1.25A; 3A
Working voltage:	-40°C~+70°C

Part 2 Connection

2.1 Cable requirements:

A, Cable from door station to modules/ indoor phones



B, Cable to door stations/modules



☺ Please follow TIA/EIA-568B Standard for CAT-5(E) cables to avoid interference.

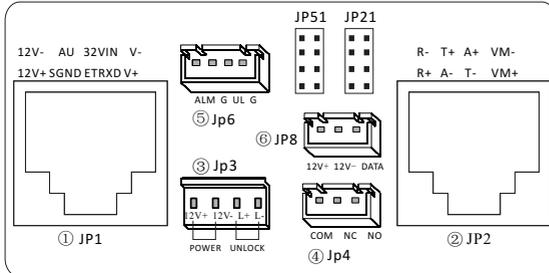
2.2 Cables and distance

Wires	Type(size)	Distance	Wire resistance
Door station to module	FTP-5E(1.5)	<30m	≤10 Ω
Modules to indoor phones	UTP-5(0.75)	≤50m	≤10 Ω
Module to next module	FTP-5E(1.5)	<40m (Please see details in 3.3.)	≤10 Ω
Power supply to modules	RVV(2X1.0)	<30m	

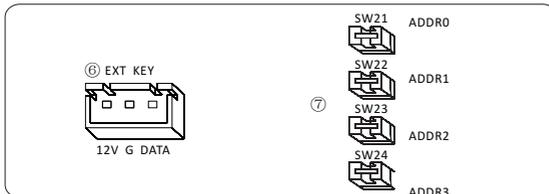
Min. gap: ≥50cm, between low voltage and high voltage.

2.3 Terminals

A, Door station Model FTDEPC4



B, Assistant door panel Model FTDEP4, FTDEP8

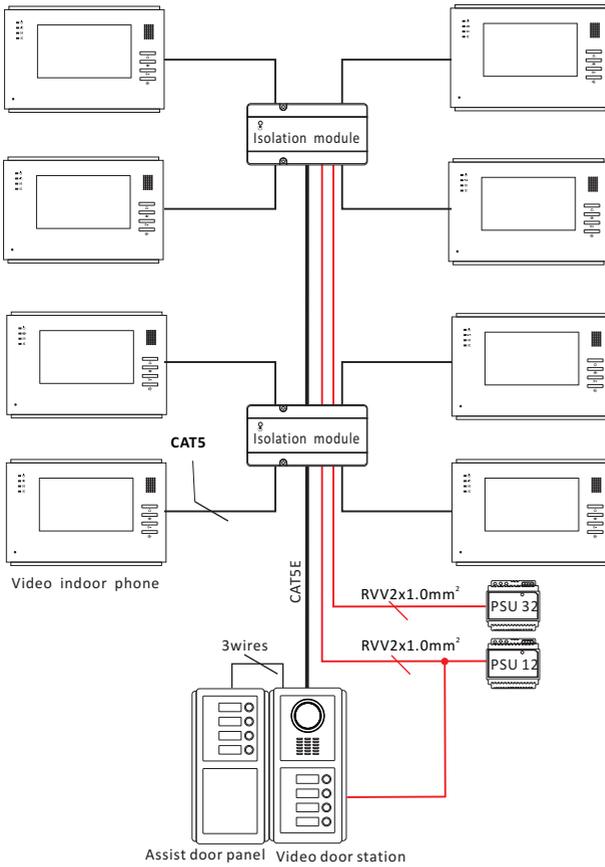


- ① RJ45 port to isolation module.
- ② Standby.
- ③ Terminals to power supply & e-lock(power type).
- ④ Terminals to e-lock (signal type).
- ⑤ Terminals to EXIT push button.
- ⑥ Terminals between door station FTDEPC4 and assistant door panels.
- ⑦ Jumper couplers for coding assistant door panels.

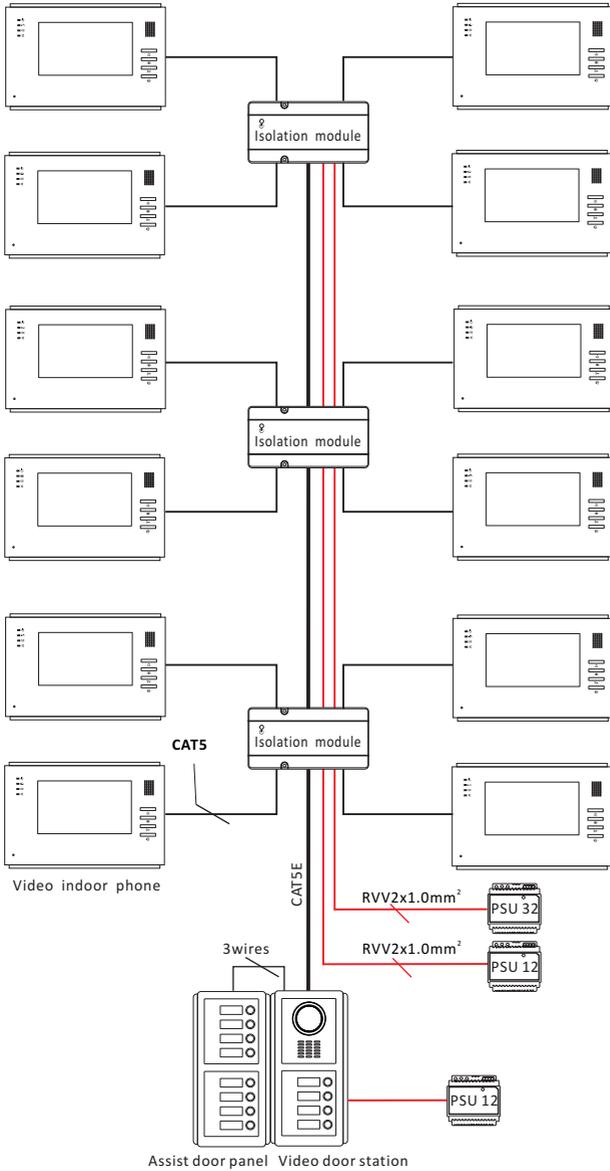
2.4 System Diagrams

2.4.1 Basic component diagram

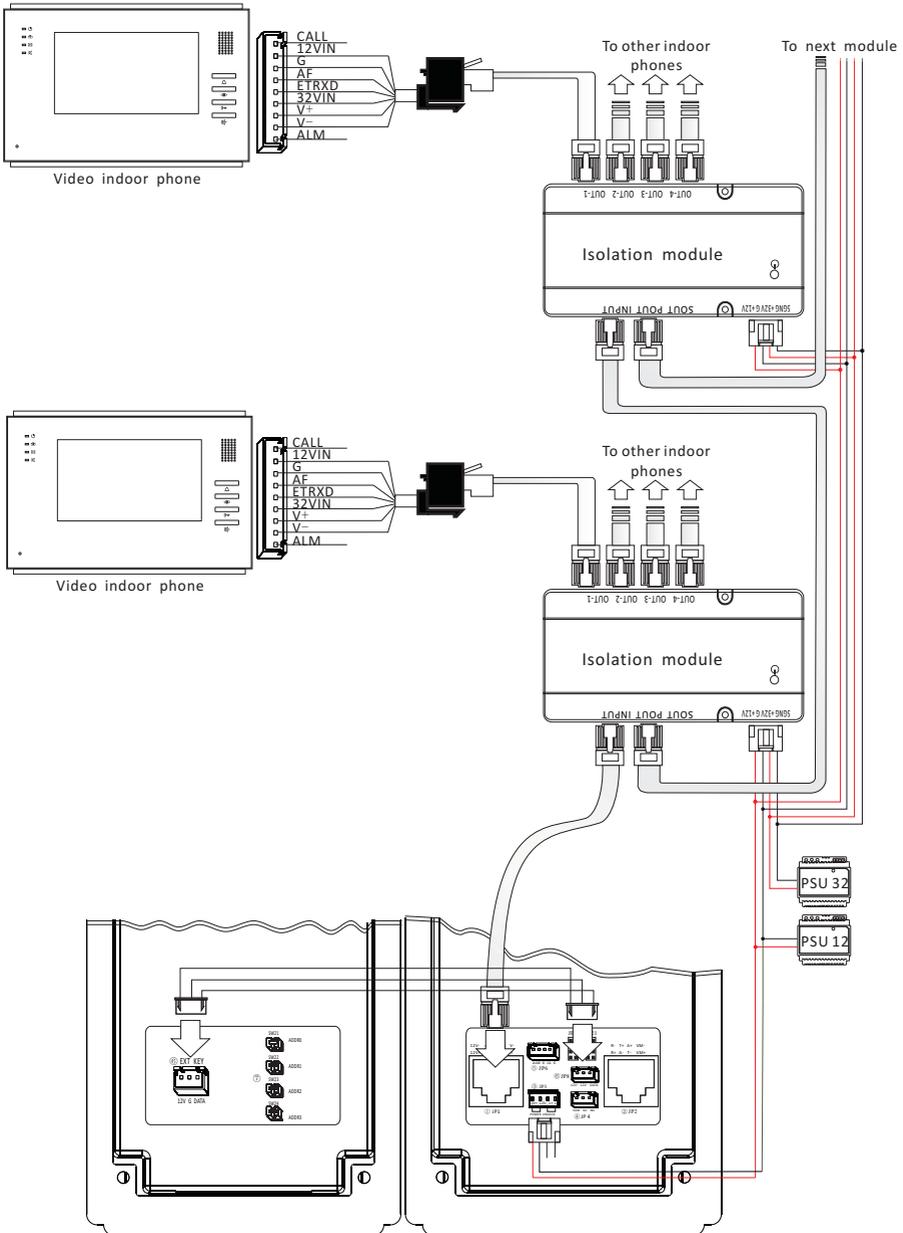
A, For FTDEV1-4 and FTDEV5-8 kit



B, For FTDEV9-12 kit



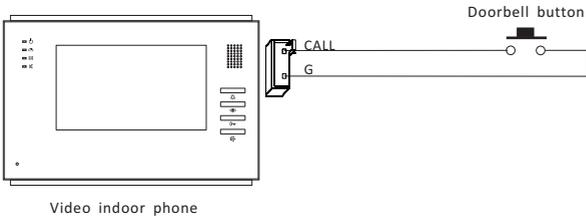
2.4.2 Basic wiring diagram



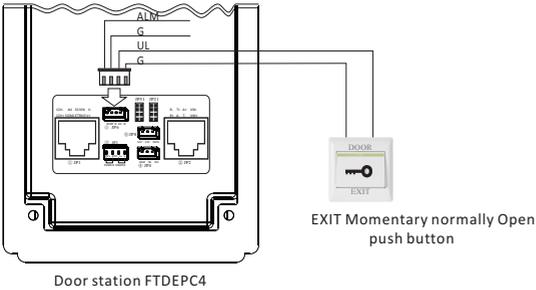
⚠ All terminals of N, L and Ⓢ have to be connected to the AC power.

2.5 Connection diagram for other devices

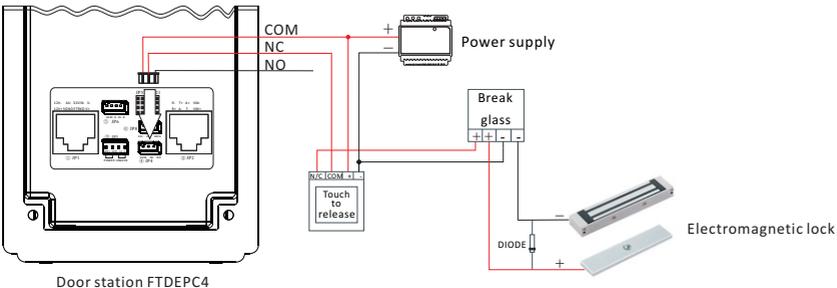
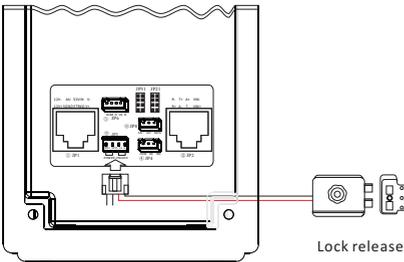
2.5.1 Wiring diagram of doorbell push button



2.5.2 Wiring diagram of EXIT push button

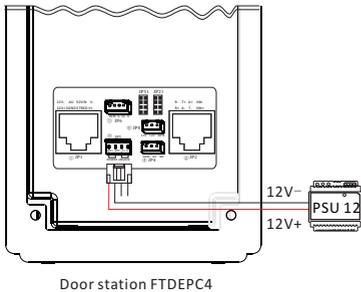


2.5.3 Wiring diagrams of lock releases and electromagnetic locks



☺ This device comes with a varistor. A varistor (or diode) must be connected across the lock terminal as the varistor controls the overload produced by the strike coil or maglock. If not used then this may cause inerasable damage. If a maglock is to be used then an extra PSU, break glass, push button to exit may be required. Please arrange according to your need.

2.5.4 Wiring diagram of power supply



2.6 Power supply arrangement

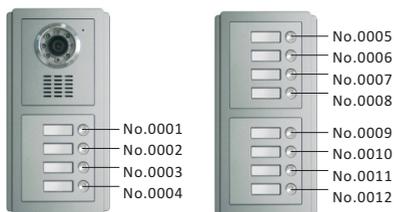
The power supply's capacities are as the following table. Please arrange the power supply for projects accordingly.

Power supply	Audio indoor phone	Video indoor phone	Isolation module
FTDEPSU12	20pcs	16pcs	4pcs
FTDEPSU32	-	16pcs	4pcs

Part 3 System programming

3.1 Call button numbers and address

A, The door station and assistant door panels' call button numbers are ranked as the following figures.



B, Assistant door panels' address (for 5-12 way only)

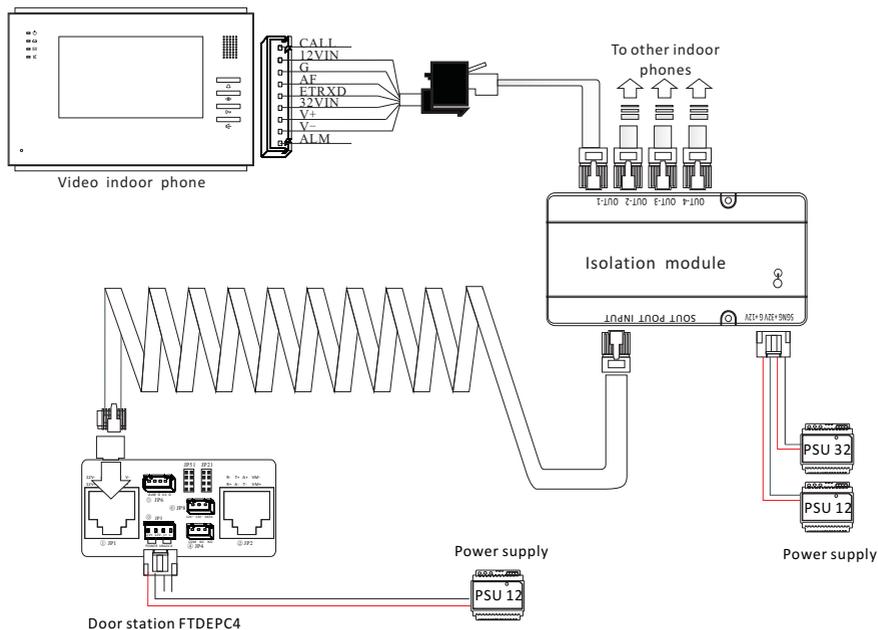
On the back of the assistant door panel there are 4 jumper couplers. Please ensure jumper setting is set as below. If there is no assistant door panel, please ignore this part and go to next part directly.

Address code No.	Jumper couplers' arrangement	Call button No.
0	SW1 SW2 SW3 SW4	0005~0012

3.2 Indoor phone address setting

3.2.1 Wiring

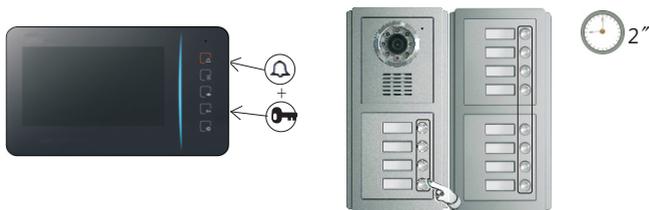
Prepare the cables and wire the necessary devices with the enclosed terminal connectors as the following diagram. (If there is any assistant door panel, please connect it also.)



3.2.2 To program the out door station's call buttons the relevant indoor phones

Step 1> Match indoor phone with call buttons

Push both  and  buttons and do not release them, then push a specific call button for 2 seconds as the following figures. If the program is successful, both door station and indoor phone will sound double short beeps. Mark the call button number on a proper position of the indoor phone.



Step 2> Remove the programmed indoor phone, and connect the next indoor phone.

Step 3> Repeat step1 and 2 for the other indoor phones.

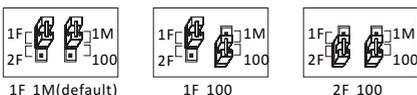
- ① In case any programmed indoor phone has to match with another call button, please just do as Step 1 but choose the correct call button.
- ② If any apartments need more indoor phones, please just program these indoor phones to match with the same call button.

3.3 Isolation Module (FTDEIM)

The isolation modules have the functions of audio & video signal distribution, amplification and malfunction isolation. Each module supports up to 4 indoor phones. Indoor phones are workable in 50 meters from their modules.

3.3.1 Jumper couplers

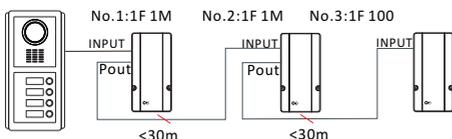
There are jumper couplers in the back of the modules (as the following figures). Please arrange them according to different applications.



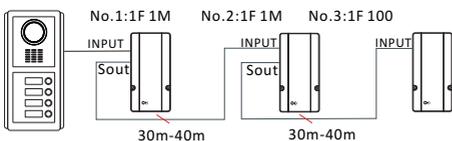
- ① For FTDEV1-4 kit, jumper couplers of the only module is at the place "1F 100";
- ② For FTDEV5-8 kit, jumper couplers of the 1st module is at the place "1F 1M", the 2nd module is at the place "1F 100";
- ③ For FTDEV9-12 kit, jumper couplers of the 1st and 2nd modules is at the place "1F 1M", the 3rd module is at the place "1F 100".

3.3.2 Wiring

Application 1: Distance is in 30 meters between two modules.



Application 2: Distance ≥ 30 meters between two modules, please make sure it doesn't exceed 40 meters.



Part 4 Operation

4.1 Operation on door station

Push a call button on door station to call indoor phones.

☺ In case push a wrong call button, the visitors may push the same button again. Then the calling can be cancelled immediately.



4.2 Operation on indoor phone

4.2.1 Answer

Push the  button as the following figures.



☺ ①The communication is allowed in 75 seconds. ②If you need to end the communication, please push  button.

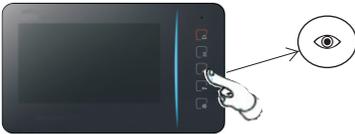
4.2.2 Release doors

While at intercom status please push  button to release the door as the following figures.



4.2.3 Video surveillance

Please push  button when need to surveil the door station.



☺ During surveillance status, you could push  button and talk to door station. During the communication status, you could push  button to release the lock.

4.2.4 Family intercom

If there are 2 or more indoor phones in your family, you could use an indoor phone to call another by pushing  button and then  button.



4.2.5 Change ring tone

Push  button for more than 2 seconds when the indoor phone is idle, and then push the button again and again until you get a favourite ring tone. There are more than 10 melody ring tones.



4.2.6 Adjust image quality

Push  button to show the image, then push "MENU", "+" and "-" buttons to get a good quality image.



 For longer time to adjust image quality, you may push  button, then push  button to be in communication status.

4.2.7 Adjust speech volume

Turn the wheel as the following figure.

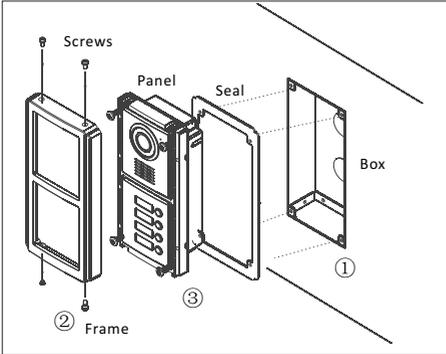


Part 5 Installation

Before install the devices please read these notices:

- ① Suggested panel height 1.4m-1.8m;
- ② Do not install the devices with high voltage, high temperature, a strong magnetic field, corrosive, or humid atmospheres.
- ③ Make sure the lens and microphone are protected from dust.
- ④ To reduce silhouetting of camera image, avoid installing panel in areas that receive direct sunlight.

5.1 Installation of door station

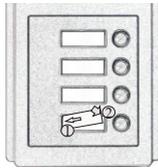


- a. Cut out a rectangular hole as the installation size (104x214x50mm) on a suitable position and then fix the box in it with cement or screws(①).
- b. Take off the screws and then the frame(②).
- c. Put the rubber seal on the back of door panel(③).
- d. Put the door panel into the box and fix it with the screws(③) after connection.
- e. Put the frame on the door panel and fix it with the screws(②).

5.1.1 Dismantle/install name tags



Dismantle:
Press the right or left
edge hard.

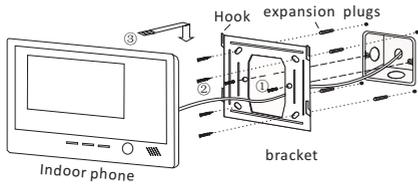


Install:
① Insert the name tag.
② Press the edge.

5.2 Installation of Indoor phone/handset

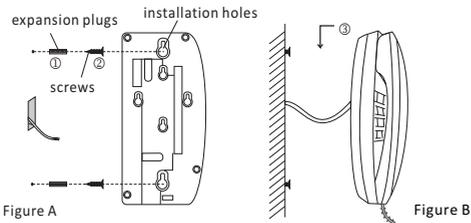
5.2.1 Install video indoor phone

All video indoor phones are mounted with brackets on the wall, in the same way as the following steps. There are different size brackets. Please use the matched ones for your indoor phones.



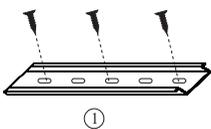
- a. Fix the bracket on the wall with the screws (① or ②).
- b. Move the indoor phone and put it on the bracket after connect the cable(③).

5.2.2 Install audio handset

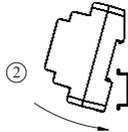


- a. Measure the gap between two installation holes.
- b. Install the expansion plugs and screws in the wall as Figure A (① ②) . Please leave the screws raised a proper length from the wall.
- c. Move the audio handset close to the raised screws. Use the raised screws and installation holes to hang up the audio handset on the wall after connection as Figure B(③).

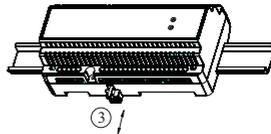
5.3 Installation of isolation module



Fix the rail.



Hang the box on the rail.



Pull out the latch, push the box on the rail and then release the latch.

5.4 Installation of power supply

The same as 5.3.

- ⚠ ① Fused spur should be used for mains supply to PSU's.
- ② Products may be damaged if the power is over the range.
- ③ Connect the terminal (⊥) of the power supply to the Groud terminal of the products.
- ④ Do not open the casing.
- ⑤ Do not install the power supply externally or in dusty environment.
- ⑥ Ensure power supplies are well ventilated.
- ⑦ Installation position should be not less than 1.5mm.

Notes:

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Due to our policy of continuous improvement we reserve the right to change specification without prior notice.

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Distributed by:

CHALLENGER SECURITY PRODUCTS

10 Sandersons Way, Blackpool, FY4 4NB

Technical helpline: 01253 792898

Email enquiries.challenger@adivision.co.uk

Website: www.challenger.co.uk