Installation Manual

IX-EA (Video Door Station)

AIPHONE

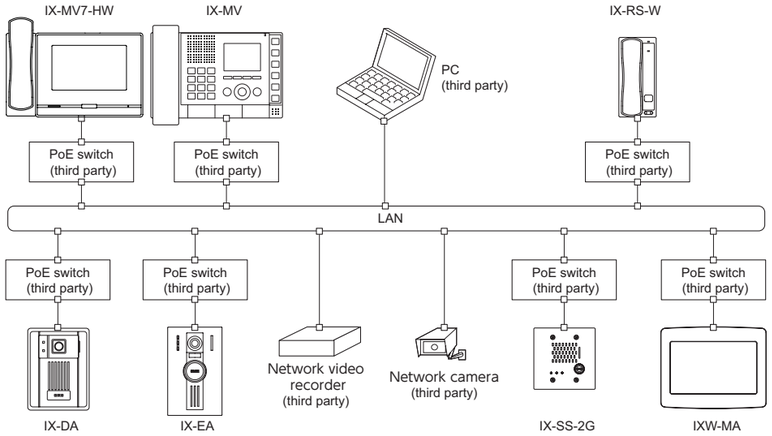
Issue Date: Aug.2020 Ⓑ P0820 TQ 63062

Introduction

- Read this manual before installation and connection. Please also read the “Setting Manual” and “Operation Manual”. Manuals can be downloaded from our homepage at "https://www.aiphone.net/support/software-document/" free of charge.
- After completing installation and connection, program the system according to the “Setting Manual”. The system cannot operate unless it is programmed.

Perform installation and connection only after gaining sufficient understanding of the system and this manual.
The illustrations used in this manual may differ from the actual stations.

Example of System Configuration



Status Indicator

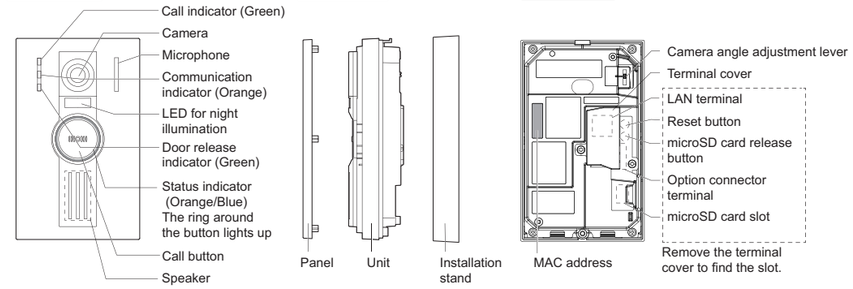
Refer to “Operation Manual” for indicators not listed below.

: Lit : Off

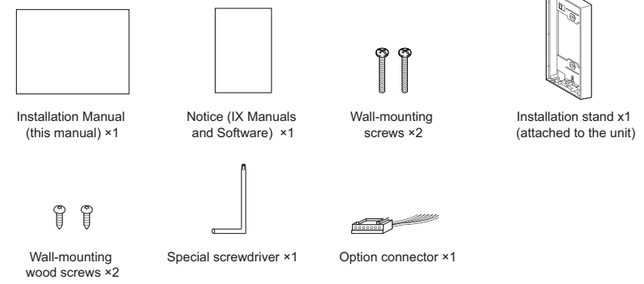
Status (pattern)		Meaning
Orange flashing	0.75 sec → 0.75 sec	Booting
	0.25 sec → 0.25 sec	Device error, Startup error
	0.5 sec → 4 sec	Communication failure
	1 sec → 0.25 sec → 0.25 sec → 0.25 sec → 0.25 sec → 0.25 sec	Firmware version updating
	2 sec → 0.25 sec → 0.25 sec → 0.25 sec	Mounting/ unmounting microSD card
	1 sec → 0.25 sec → 0.25 sec → 0.25 sec	Initializing
Blue light		Standby

Part Names and Accessories

IX-EA



Included accessories



Precautions

Warning — Negligence could result in death or serious injury.

Do not disassemble or modify the station.
This may result in fire or electrical shock.

Do not, under any circumstances, open the station.
Voltage within some internal components may cause electrical shock.

The device is not designed to explosion-proof specifications. Do not install or use in an oxygen room or other such locations filled with volatile gases.
May cause fire or explosion.

Caution — Negligence could result in injury to people or damage to property.

Do not install or connect the device with the power on.
May cause electrical shock or malfunction.

Do not turn on power without first checking to make sure the wiring is correct and there are no improperly terminated wires.
May cause fire or electrical shock.

Do not put your ear close to the speaker when using the station.
May cause harm to the ear if a sudden loud noise is emitted.

General Precautions

- Install low-voltage lines at least 30cm (11") away from high-voltage lines (AC100V, 200V), especially inverter air conditioner wiring. Failure to do so may result in interference or malfunction.
- When installing and using Video Door Station, it is the customer's responsibility to consider privacy and publicity rights.

Notice

- If warm air from inside the room enters the unit, the internal and external temperature difference may cause condensation on the camera. Plugging of cable holes and other gaps where warm air might enter is recommended for preventing condensation.
- The illustrations and images used in this manual may differ from the actual items.
- If the station is used in areas where there are business-use wireless devices such as a transceiver or mobile phones, it may cause malfunction.
- If the device is installed close to a light dimmer, an inverter electrical appliance or the remote control unit of a hot-water system or floor-heating system, it may create interference and cause a malfunction.
- If the device is installed in an area with an extremely strong electrical field, such as in the vicinity of a broadcasting station, it may create interference and cause a malfunction.

Precautions for mounting

- There could be an impact on the image depending on the image displayed on the LCD if the device is installed in the following types of locations.
  - Locations where light from a lamp directly enters during night
  - Where the sky fills much of the background
  - Where the background of the subject is white
  - Where sunlight or other strong light sources will shine directly into the camera
- Installing the device in the following locations could cause malfunction:
  - **Locations near heating equipment**
    Close to a heater, boiler, etc.
  - **Locations subject to liquid, iron filings, dust, oil, or chemicals**
  - **Locations subject to moisture and humidity extremes**
    Bathroom, basement, greenhouse, etc.
  - **Locations where the temperature is quite low**
    Inside a cold storage warehouse, the front of a cooler, etc.
  - **Locations subject to steam or oil smoke**
    Next to heating devices or a cooking space, etc.
  - **Sulphurous environments**
  - **Locations close to the sea or directly exposed to sea breeze**
- In 50Hz regions, if a strong fluorescent light shines directly into the camera, it may cause the image to flicker. Either shield the camera from the light or use an inverter fluorescent light.
- If existing wiring is used, the device may not operate properly. In that case, it will be necessary to replace the wiring.
- Do not, under any circumstances, use an impact driver to fasten screws. Doing so may cause damage to the device.
- Use parallel two-core wiring cable to connect Door Station.

How to Install

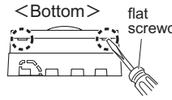
Installation of Audio Only Door Station

• There is no space behind the device to store wires. If a JIS single device switch box is not being used, create an opening for the wires or use surface wiring.

■ Back wiring

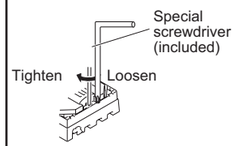
1 Remove the panel.

<Bottom> flat screwdriver



Remove with the flat screwdriver head to avoid damaging the panel.

2 Remove the main device from the installation stand. (Loosen the screws holding the two together.)

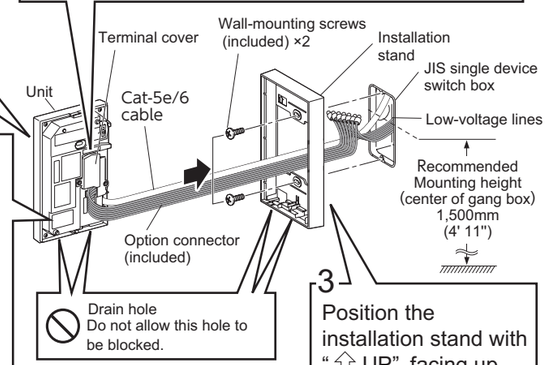


4 Remove the terminal cover, crimp the optional connector (included accessory) and low-voltage cable, then connect the optional connector and Cat-5e/6 cable to the main device.

Insert a microSD card into the microSD card slot if needed.

① Loosen the screws (2 points) on the terminal cover.
② Remove the terminal cover from the main device.
③ Connect the Cat-5e/6 cable and low-voltage cable and return the terminal cover to its original position.

Do not forget to return the terminal cover to its original position. Inability to do so may result in condensation or moisture entering the device, which may cause accidents.

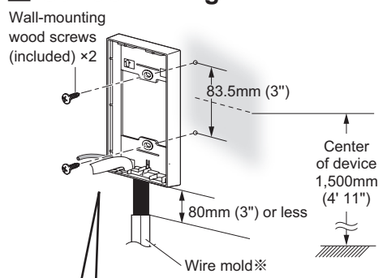


Drain hole
Do not allow this hole to be blocked.

3 Position the installation stand with "⇧ UP" facing up and affix.

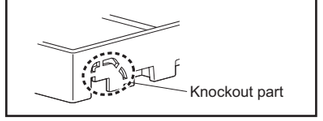
5 Install the unit to the installation stand and attach the panel.

■ Surface wiring



Use a covering duct for Cat-5e/6 cable and low-voltage lines, and leave a space (exposed portion) of no more than 80mm between the unit and the covering duct.

Cable hole
Pass the cables through the bottom part of this hole.
※Use a knockout if needed.

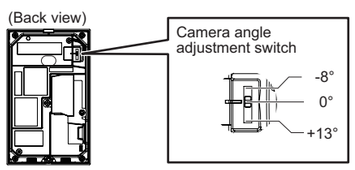


※Wire mold (Please prepare separately)
Please decide the size of the wire mold according to the wiring cables to accommodate.

Camera view range and mounting position

■ Camera view adjustment

The camera can be tilted up or down (-8°, 0°, +13°) using the camera angle adjustment switch. Please adjust the camera to the optimal position.

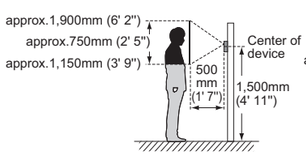


■ Camera view range

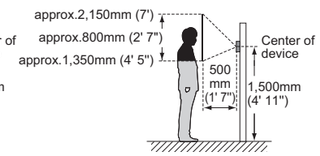
The camera range as illustrated is only an approximate indication and may vary according to the environment.

Vertical

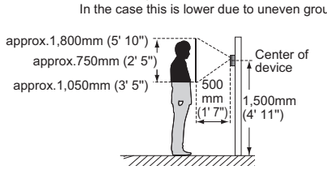
Camera angle 0°



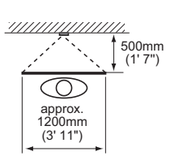
Camera angle 13°



Camera angle -8:
In the case this is lower due to uneven ground



Horizontal



When light enters the camera, the monitor screen may flicker brightly or the subject may become dark. Try to prevent strong lighting from entering the camera directly.

How to Connect

Connection Precautions

■ Cat-5e/6 cable

- For connection between devices, use a straight-through cable.
- If necessary, when bending the cable, please observe the manufacturer's recommendations. Failure to do so could cause a communication failure.
- Do not strip away the cable insulation any more than is necessary.
- Perform termination in accordance with TIA/EIA-568A or 568B.
- Before connecting the cable, be sure to verify conduction using a LAN checker or similar tool.
- A RJ45 covered connector cannot be connected to the LAN ports of the master stations or the door stations. Use cables without covers on the connectors.
- Be careful not to pull on the cable or subject it to excessive stress.

■ Precautions regarding low-voltage line

- Use PE (polyethylene)-insulated PVC jacketed cable. Parallel or jacketed conductors, mid-capacitance, non-shielded cable is recommended.
- Never use twisted-pair cable or coaxial cable.
- 2Pr quad V twisted pair cables cannot be used.

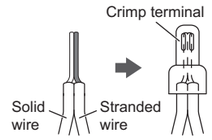
Parallel cable

Coaxial cable

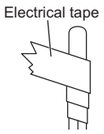
■ When connecting low-voltage lines, perform the connection using either the crimp sleeve method or soldering, then insulate the connection with electrical tape.

● Crimp sleeve method

1. Line up the solid wire and stranded wire and crimp them together.

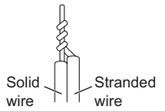


2. Overlap the tape by at least a half width and wrap the connection at least twice.

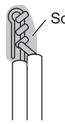


● Soldering method

1. Twist the stranded wire around the solid wire at least 3 times.



2. After bending down the point, perform soldering, with care that no wires protrude from the soldering.



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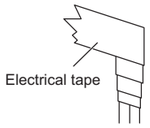
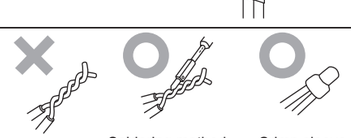


- If the connector-attached lead wire is too short, extend the lead with an intermediate connection.
- As the connector has polarity, perform the connection correctly. If the polarity is incorrect, the device will not operate.
- When using the crimp sleeve method, if the end of the connector-attached lead wire has been soldered, first cut off the soldered part and then perform crimp.
- **After completing connection of wires, check that there are no breaks or inadequate connections. When connecting low-voltage lines in particular, perform the connection using either soldering or the crimp sleeve method and then insulate the connection with electrical tape. For optimal performance, keep the number of wiring connections to a minimum.**

Simply twisting low-voltage lines together will create poor contact or will lead to oxidization of the surface of the low-voltage lines over long-term use, causing poor contact and resulting in the device malfunctioning or failure.

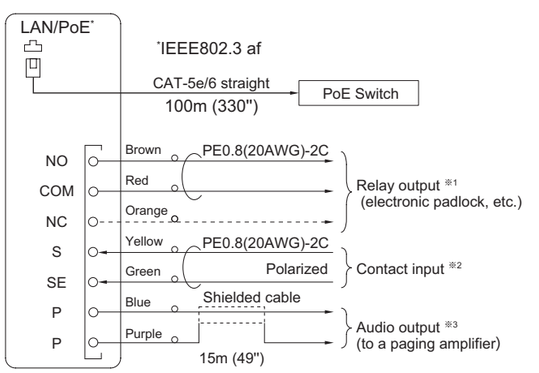


Wiring Connection

• Insulate and secure unused low-voltage lines and the connector-attached lead wire.

Audio Door Station

IX-EA



※1 Relay Output Specifications

Output method	Form C dry contact (N/O or N/C)
Contact rating	24 VAC, 1 A (resistive load) 24 VDC, 1 A (resistive load) Minimum overload (AC/DC): 100 mV, 0.1 mA

※2 Option Input Specifications

Input method	Programmable dry contact (N/O or N/C) Level detection method
Detection time	100 msec or more
Contact resistance	Make: 700 Ω or less Break: 3 kΩ or more
Terminal short-circuit current	10 mA or less
Voltage between terminals	5.5 VDC or less (between open terminals) If the device sending out alarms to contact points has polarity, connect with the polarity of S (+) and SE (-).

※3 Audio output specifications

Output impedance	600 Ω
Audio output volume	300 mVrms (at 600 Ω termination)