AIPHONE

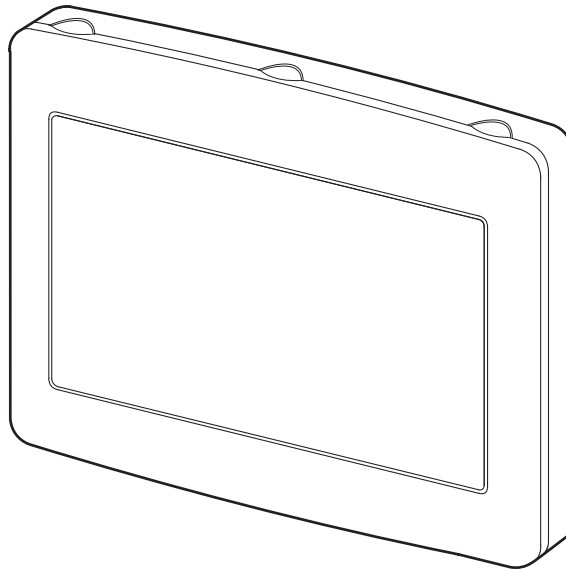# Installation Manual

**IXW-MA
(multi-purpose adaptor)**

Introduction
• Read this manual before installation and connection. Read the "Setting Manual" and "Operation Manual". The 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.
• After performing installation, review with the customer how to operate system. Leave documentation accompanying the Master Station with the customer.

	• 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.

Literature information

The important information concerning correct operation and what you should observe is marked with the following symbols.

⚠ Warning	This symbol means that operating the device incorrectly or ignoring these precautions may cause severe injury or death.
⚠ Caution	This symbol means that operating the device incorrectly or ignoring these precautions may cause severe injury or property damage.
🚫	This symbol is intended to alert the user to prohibited actions.
❗	This symbol is intended to alert the user to important instructions.

Precautions

⚠ **Warning**   **Negligence could result in death or serious injury.**

🚫 **Do not disassemble or modify the device.**
May cause fire or electrical shock.

🚫 **Do not, under any circumstances, open up the device.**
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.

❗ **Install the device in a position where it will not easily be brushed against by somebody's shoulder, etc.**
Failure to do so could result in injury.

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.

• Do not install the device in an attic or in a floor. Doing so would prevent maintenance inspections and repairs from being carried out. It may also cause malfunction.

Notice

- If the device 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.
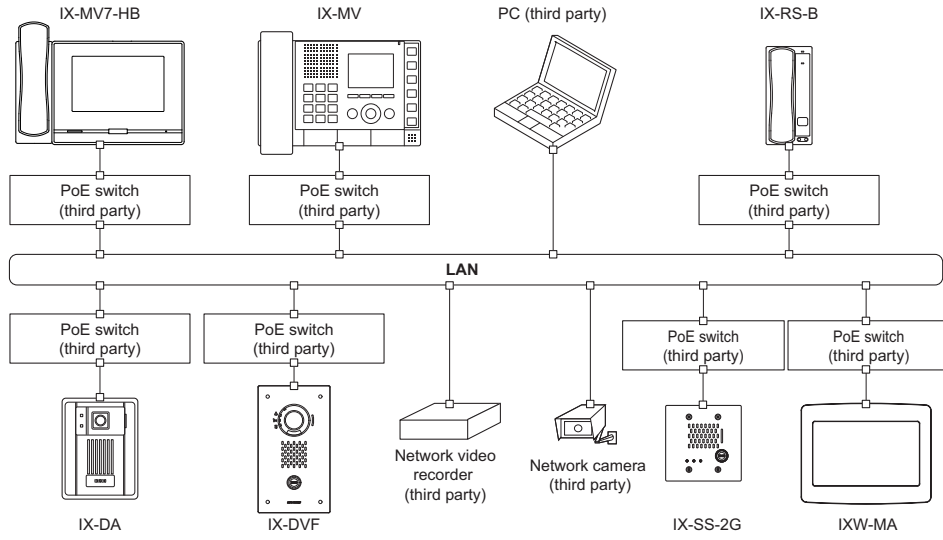
Precautions for mounting

- Installing the device in the following locations could cause malfunction:

  - **Locations exposed to direct sunlight**

  - **Locations that get hot**
    Close to a heater, boiler, etc.

  - **Locations where there is risk of exposure to liquid, dust, oil, or chemicals**

  - **Locations with high humidity**
    Bathroom, basement, greenhouse, etc.

  - **Locations with low temperature**
    Inside a cold storage warehouse, the front of a cooler, etc.

  - **Locations directly exposed to steam or oil smoke**
    Next to heating devices or a cooking space, etc.

  - **Sulphurous environments such as a hot spring area**

  - **Locations close to the sea or directly exposed to sea breeze**

- 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.

- This unit is designed for indoor use only. Do not install at outdoor location.

Table of contents

Example of System Configuration

IX-MV7-HB

IX-MV

PC (third party)

IX-RS-B

PoE switch (third party)

PoE switch (third party)

PoE switch (third party)

LAN

PoE switch (third party)

PoE switch (third party)

PoE switch (third party)

PoE switch (third party)

IX-DA

IX-DVF

Network video recorder (third party)

Network camera (third party)

IX-SS-2G

IXW-MA

Multi-purpose adaptor

IXW-MA

| Front View | | Back View |

MAC address (Accessible when cover is removed.)

Option connectors

Panel

Reset button
(Accessible when cover is removed.)

LAN port

Status indicator light
(Orange / Blue)

Included accessories

Installation Manual x3
(English,French,Japanese)

Product warranty
(Japanese) x1

Notice
(IX Manuals and Software) ×1

Chinese RoHS declaration ×1

Mounting bracket ×1
(attached to the unit)

Mounting screws
×4

Wood mounting screws
×4

Option connectors
(2pin × 3 (Not used), 3pin × 3 (Not used),
6pin × 2, 7pin(6 cores) × 2, 8pin × 1)

■ Status Indicator

Refer to "IXW-MA Operation Manual" for additional indicators not listed.

☀:Lit   ☐ :Off

| Status (Pattern)		Meaning
Orange flashing	**Normal flashing** ☀ 0.75 sec → ☐ 0.75 sec	Booting
	Rapid flashing ☀ 0.25 sec → ☐ 0.25 sec	Device error, Startup error
	Long interval flashing ☀ 0.5 sec → ☐ 4 sec	Communication failure
	Long irregular flashing ☀ 1 sec → ☐ 0.25 sec → ☀ 0.25 sec → ☐ 0.25 sec → ☀ 0.25 sec → ☐ 0.25 sec	Firmware version updating
	Short irregular flashing ☀ 1 sec → ☐ 0.25 sec → ☀ 0.25 sec → ☐ 0.25 sec	Initializing
Blue light	☀	Standby

How to Install

■ Multi-purpose adaptor IXW-MA installation method

● Perform before installation

1

Remove the panel.

Place your finger in depression at the top and pull the panel toward you.
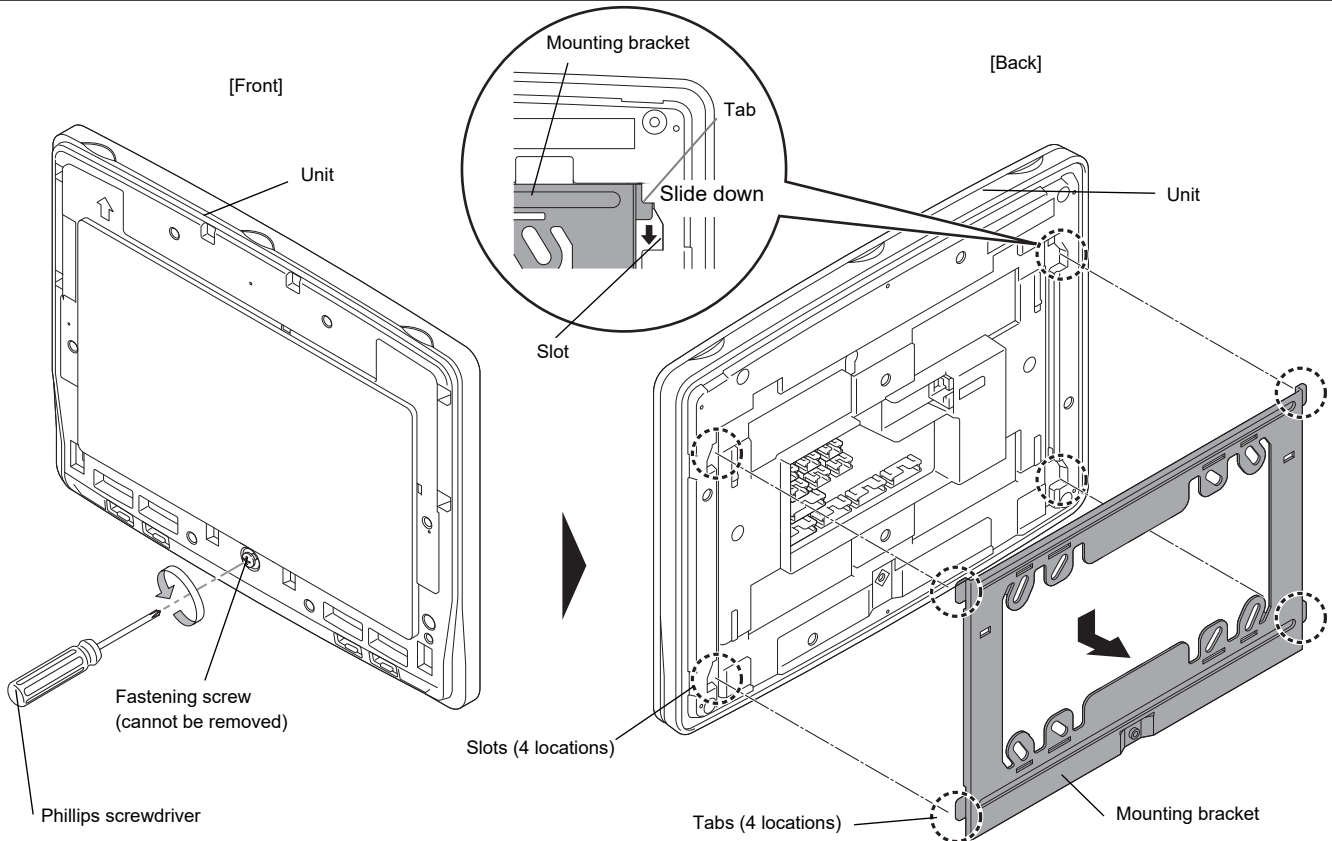
Depression
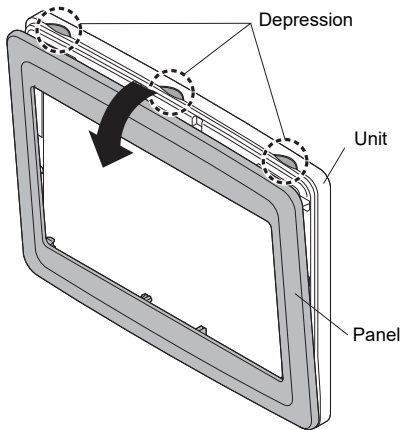
Unit

Panel

Reattaching the panel

(1) Fit the four clips at the bottom of the panel into the slots on the unit and then press the top into place.

(2) Press all around the edges of the panel to fit it firmly in place and prevent any gaps forming

[Back of panel]   [Front of unit]

Clips (4 locations)
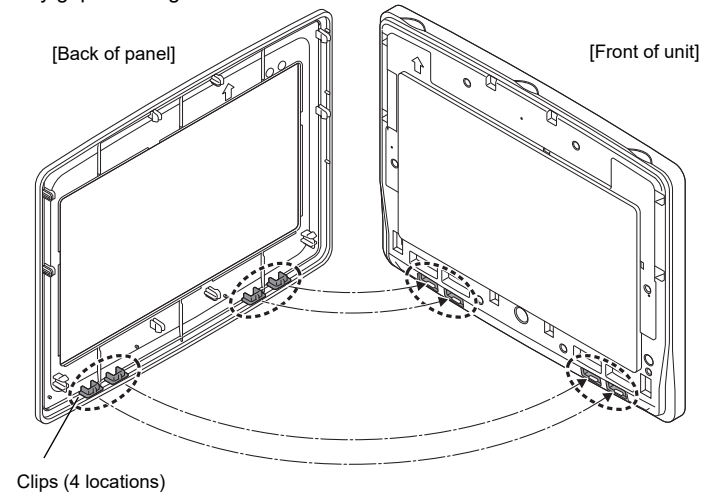
2

Remove the mounting bracket.
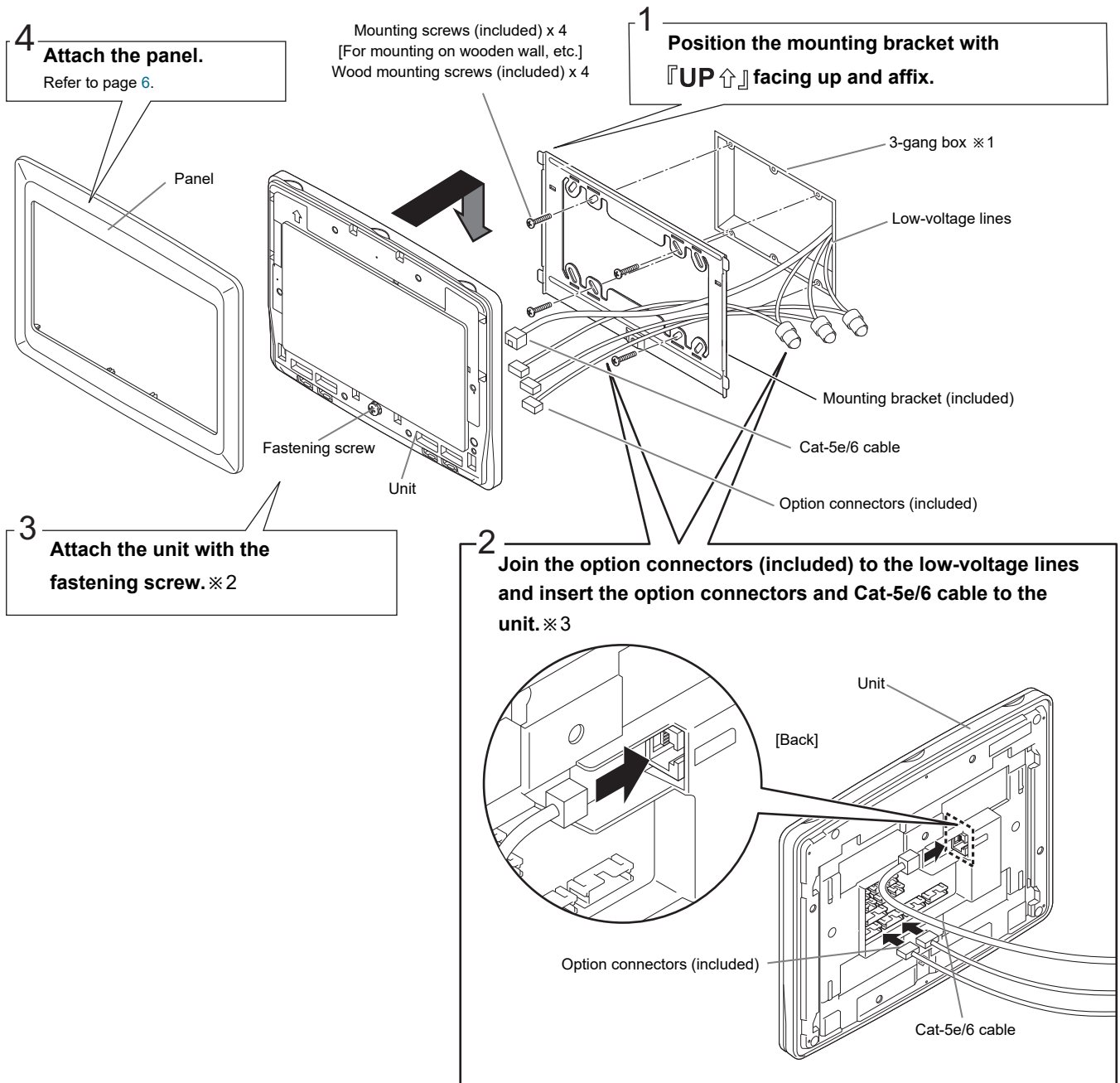
(1) Loosen the fastening screw on the front of the unit at the bottom.

(2) Slide the mounting bracket down and remove it.

Mounting bracket

[Front]   [Back]

Tab

Unit   Slide down   Unit

Slot

Fastening screw
(cannot be removed)

Slots (4 locations)

Phillips screwdriver

Tabs (4 locations)   Mounting bracket

● Mounting in a gang box

4 Attach the panel.
Refer to page 6.

Panel

Mounting screws (included) x 4
[For mounting on wooden wall, etc.]
Wood mounting screws (included) x 4

1 Position the mounting bracket with 『UP⇧』 facing up and affix.

3-gang box ※1

Low-voltage lines

Fastening screw

Unit

Mounting bracket (included)

Cat-5e/6 cable

Option connectors (included)

3 Attach the unit with the fastening screw.※2

2 Join the option connectors (included) to the low-voltage lines and insert the option connectors and Cat-5e/6 cable to the unit.※3

Unit

[Back]

Option connectors (included)

Cat-5e/6 cable

※1: Install in a place where the unit can be accessible.
※2: When mounting the unit, be careful that no cables become caught between the unit and the mounting bracket.
※3: A wire diameter of PE 0.65 mm (22AWG) and a CE1 type crimp terminal are recommended. If any other types are used, those types of cable may not fit in the switch box.

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, nonshielded 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.

Crimp terminal   Electrical tape

Solid wire   Stranded wire
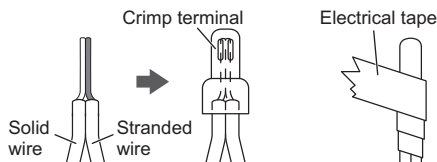
● Soldering method
1. Twist the stranded wire around the solid wire at least 3 times.
2. After bending down the point, perform soldering, with care that no wires protrude from the soldering.
3. Overlap the tape by at least a half width and wrap the connection at least twice.

Solid wire   Stranded wire

Soldering

Electrical tape
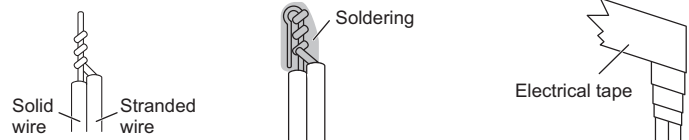
> • If the connector-attached lead wire is too short, extend the lead with an intermediate connection.
>
> • As the connector has polarity, perform the connection correctly. If the polarity is incorrect, the device will not operate.
>
> • When using the crimp sleeve method, if the end of the connector-attached 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.
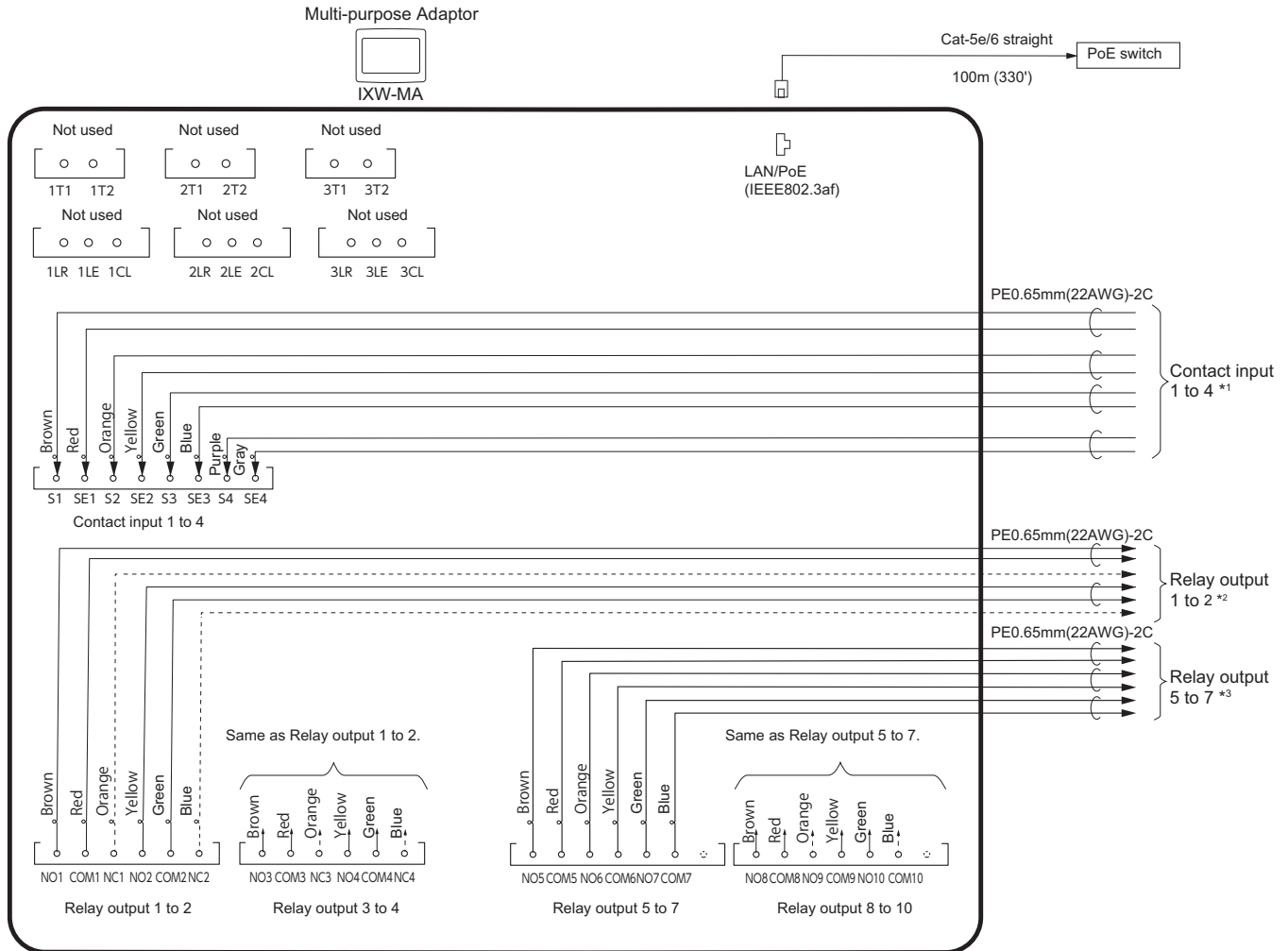>
> Soldering method   Crimp sleeve method
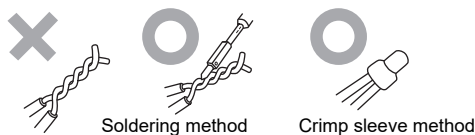
Wiring Connection

■ Multi-purpose adaptor IXW-MA connection example

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

*1 Contact 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 VDC or less (between open terminals)

*2 Relay Output 1 to 4 Specifications

Output method	Form C dry contact closure (N/O or N/C)
Contact rating	24 VAC, 0.5 A (resistive load) 24 VDC, 0.5 A (resistive load) Minimum overload (AC/DC): 100 mV, 0.1 mA

*3 Relay Output 5 to 10 Specifications

Output method	Form A dry contact closure (N/O)
Contact rating	24 VAC, 0.5 A (resistive load) 24 VDC, 0.5 A (resistive load) Minimum overload (AC/DC): 100 mV, 0.1 mA