1. SAFETY PRECAUTIONS

- Before installation or use, be sure to carefully read all the instructions in this section for correct and safe operation.
- Be sure to follow all the precautionary instructions in this section, which contain important warnings and/or cautions regarding safety.
- After reading, keep this manual handy for future reference.

![CAUTION](image)

Indicates a potentially hazardous situation which, if mishandled, could result in moderate or minor personal injury, and/or property damage.

- Use the dedicated AC adapter or its equivalent for the unit. Note that the use of other adapter may cause a fire.

2. GENERAL DESCRIPTION

Designed to connect to the IP network, the N-8540DS is an indoor use door station featuring high quality hands-free conversation. It has a contact output (momentarily closed) to remotely control an electronic door lock. Using with an electrical box or surface mounting box, the station can be mounted to a wall. The operating temperature range is –10°C to +50°C.

3. WALL MOUNTING

3.1. Mounting to a 3-gang Switch Box (with cover)

Mount the N-8540DS to the electrical box mounted in the wall.

![Diagram](image)

**Note**

The wall should be over 12 mm thick, and the opening in the wall for an electrical box should be under 115 mm (wide) by 162 mm (high).

**Accessory screws**

The N-8540DS comes with 2 types of screws: oval head combination screw M4 x 25 and oval head slotted screw UNC No.6 x 18.

For the electrical box provided with unified threads, use the oval head slotted screws UNC No.6 x 18.

3.2. Mounting to the YS-13A Wall Mount Box

Install the YS-13A on a wall and mount the station in the same way as 3.1.

4. INSTALLATION PRECAUTIONS

- When installing the N-8540DS outdoors or at locations where it gets wet with water, tightly seal the panel edges. Besides, provide a weep hole at the underside of the mounting box to permit water to drain off.
- When installing the N-8540DS under difficult environmental conditions such as in coastal areas or at humid locations, cover the inside of the N-8540DS with coating. For the coating method, consult your TOA dealer.

5. WIRING

**[Power supply connection]**

The following 2 methods are available for supplying power to the station.

- From a DC 12 V AC adapter
- From an IEEE802.3af compliant PoE switching hub

(For connection, refer to the instruction manual supplied with the switching hub.)

![Diagram](image)

**[Connection to an external relay]**

- **Diode**
- **Relay**
- **External power supply**
  - +24 V DC
  - GND
- **Cable**
  - Bared end: 7 mm
  - Conductor diameter: Ø 0.4 – 1.3 mm (AWG16 – 20)
  - Solid wire/Stranded wire
- **N-8540DS**
- **Frame ground (FG)**
- **Contact output terminal**
  - Open collector output: 30 V DC, 50 mA
- **Ground from the FG when the switch box is not grounded.**

**[Network connection]**

Can be connected to a network of 10BASE-T/100BASE-TX in auto-sensing. Use a UTP category 5 straight-through cable with an RJ-45 connector for this connection.

![Diagram](image)

**[AC adapter connection]**

- **AC adapter terminal**
- **Connect the AC adapter**
  - Use the AD-1210P (optional) or equivalent.
  - As for the usable adapter, consult your TOA dealer.

**Note**

Install the supplied ferrite clamp on the cable.

**Ferrite clamp (accessory)**

**Cable**

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