TOA **INSTALLATION MANUAL**

DOOR STATION BOARD N-8050SB

1. GENERAL DESCRIPTION

The N-8050SB is a printed circuit board unit for the N-8050DS Door Station. You can make the door station suitable for applications using the N-8050SB in combination with the operation panel section to be prepared separately.

Use the N-8000 software* to perform settings. Set up the same items as performed to the N-8050DS since the N-8050SB is handled as the N-8050DS on the software.
The call button and status indicator operations are exactly the same as those of the N-8050DS.
For settings, functions, and operations, read the descriptions about the N-8050DS in the N-8000 Series instruction manual.

* Included in the CD supplied with the N-8000EX/8010EX Exchange.

2. SPECIFICATIONS

Power Source	48 V DC (supplied from the N-8000EX/8010EX IP Intercom Exchange)
Power Consumption	1.8 W (rated), 2.4 W (max.)
Wiring Method	Non-polar one pair stranded wire system
Transmission System	2-wire 160 kbps echo canceller transmission system
Signal Level	Under 0 dB*
Speech Method	Hands-free conversation
Audio Frequency Range	300 – 7,000 Hz
Transmission Range	Max. 1,500 m (ø 0.65 mm, Loop resistance 170 Ω or less)
Hands-Free	Speaker (accessory): 3.5 cm cone-type, 1 W, 8 Ω Microphone (accessory): Omni-directional electret condenser microphone
Contact Output	Open collector output, withstand voltage: Max. 30 V DC, control current: Max. 50 mA, one shot: can be set from 1 to 9 sec, screw terminal (polarized)
Line Connection Terminal	2 wire, screw terminal (non-polar)
Status Indicator LED Connecting Terminal	Solderless connector (5 pins, male), voltage: 5 V, maximum load current: 4.1 mA
Call Switch Connecting Terminal	Solderless connector (5 pins, male), open voltage: 3.3 V DC, short-circuit current: 1.5 mA
Operating Temperature	–10°C to +50°C
Operating Humidity	Under 90% RH (no condensation)
Dimensions	67 (w) x 128.3 (h) x 26 (d) mm
Weight	100 g (including accessories)

* 0 dB = 1 V

Note: The design and specifications are subject to change without notice for improvement.

• Accessories

Hands-free speaker (with connection cord) 1
Hands-free microphone (with connection cord) 1

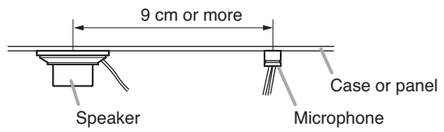
3. MOUNTING TO A METAL CASE OR PANEL

3.1. Installation Precautions

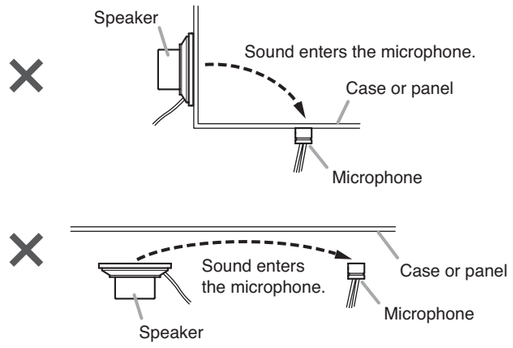
- To prevent a malfunction or breakdown due to static electricity, be sure to use a metal case or metal panel.
- Cover the whole board with a case when installing.

3.2. Speaker and Microphone Installation

- To prevent acoustic feedback, attach the speaker and microphone closely to the panel and position them at least 16 cm away from each other's center as shown below.



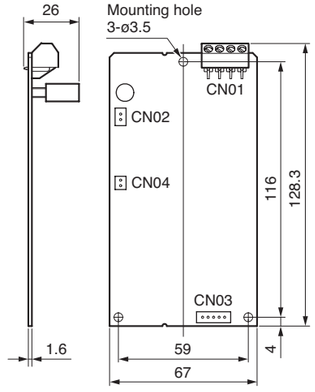
- Speaker opening ratio should be 15% (Example: ø4 mm x 9 holes) as a guide.
- Keep the board from coming in contact with the speaker to avoid short-circuit between them.
- Make a microphone opening with the microphone rubber's inside diameter (ø4.5 mm), and position the microphone in the way that its center comes to the opening center.
- Never install them as shown below. Doing so may cause the speaker sound to enter the microphone.



4. DIMENSIONAL DIAGRAM

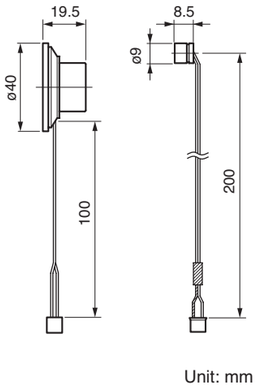
4.1. N-8050SB

[Side] **[Front (Component side)]**



4.2. Accessory

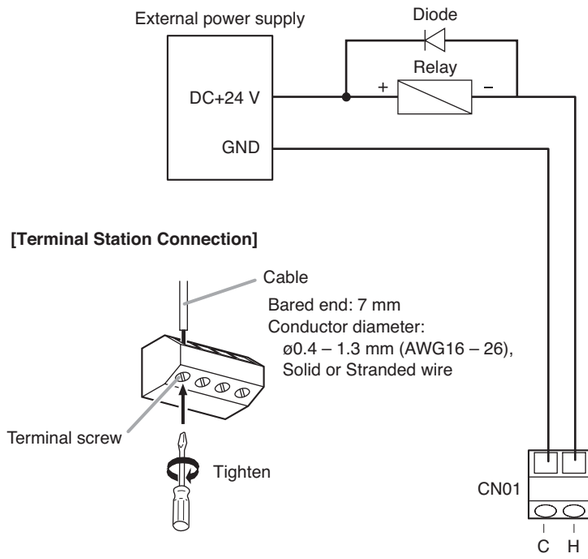
[Hands-free speaker] **[Hands-free microphone]**



Unit: mm

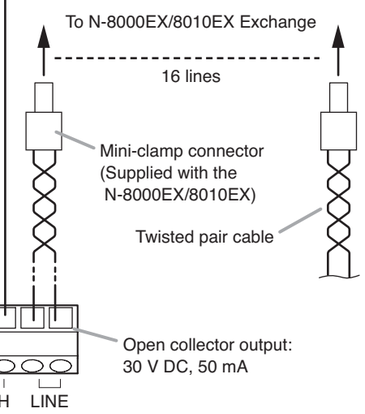
5. CONNECTIONS

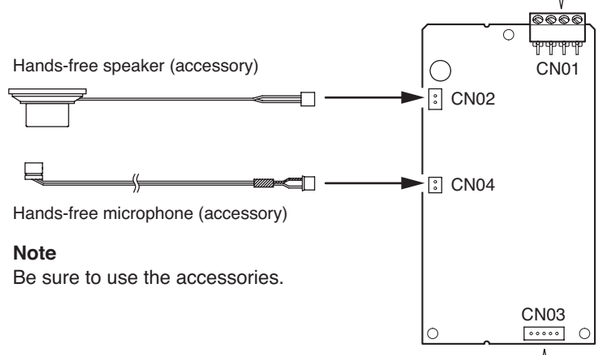
5.1. Connection to an External Relay



5.2. Connection to the Exchange

Connect the CN01 LINE terminal to the Exchange's network connection terminal via the E-7000TB Terminal Board.
For details, read the installation manual supplied with the Exchange.

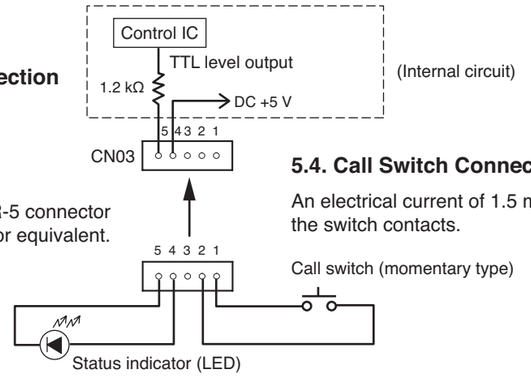




Note
Be sure to use the accessories.

5.3. Status Indicator (LED) Connection

Use an LED with high brightness.



Note
For the CN03 connection, use the PHR-5 connector manufactured by J.S.T. Mfg. Co., Ltd. or equivalent.

5.4. Call Switch Connection

An electrical current of 1.5 mA flows through the switch contacts.