

**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

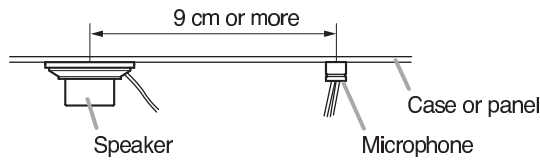
**3. MOUNTING TO A METAL CASE OR PANEL**

**3.1. Installation Precautions**

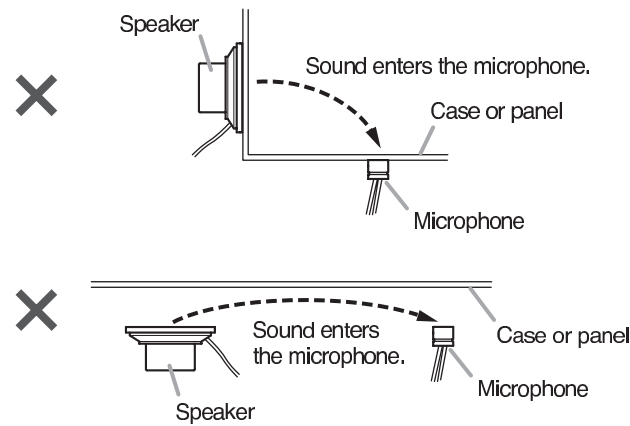
- To prevent a malfunction or breakdown due to static electricity, be sure to use a metal case or metal panel.
- Cover the whole board with a case when installing.

**3.2. Speaker and Microphone Installation**

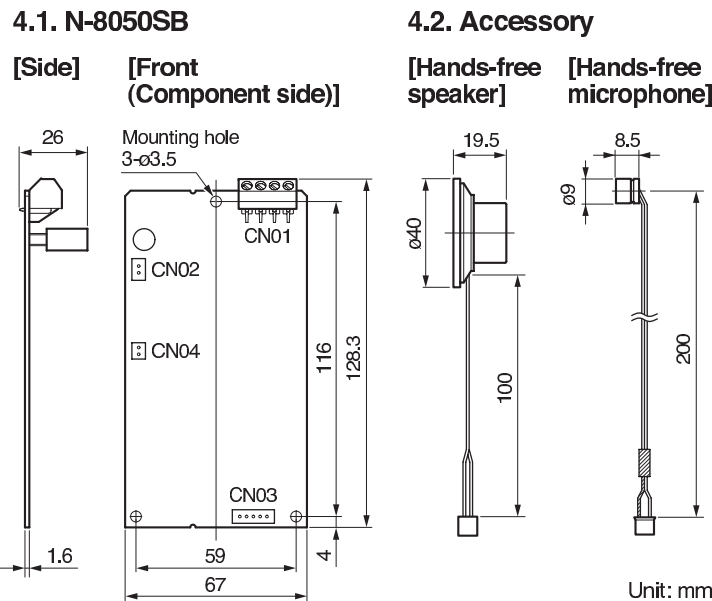
- To prevent acoustic feedback, attach the speaker and microphone closely to the panel and position them at least 9 cm away from each other's center as shown below.



- 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.

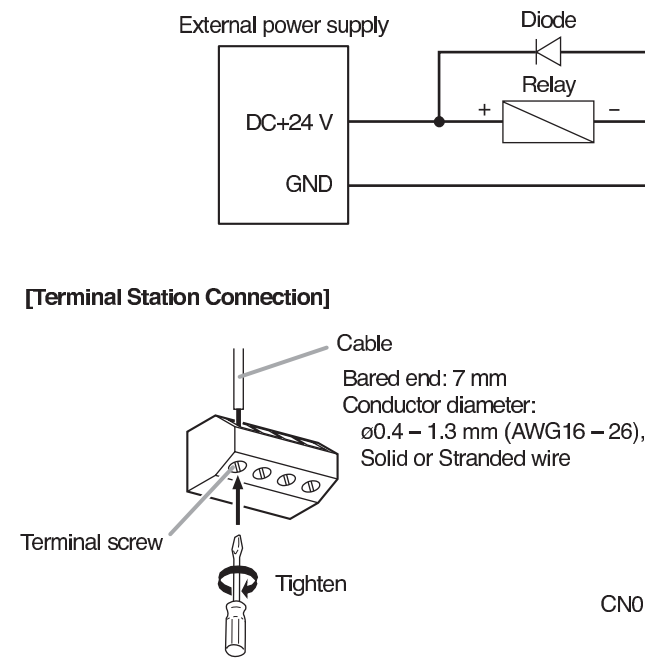


**4. DIMENSIONAL DIAGRAM**



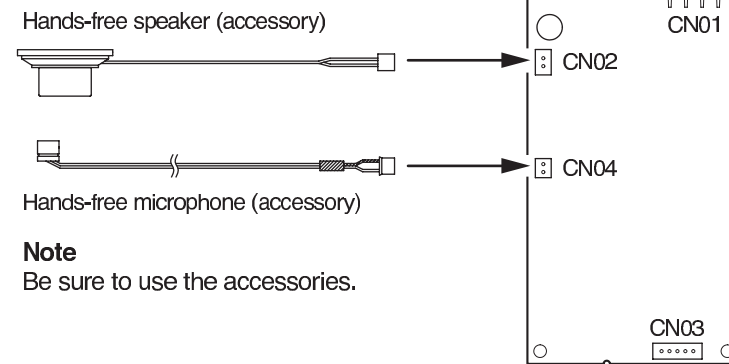
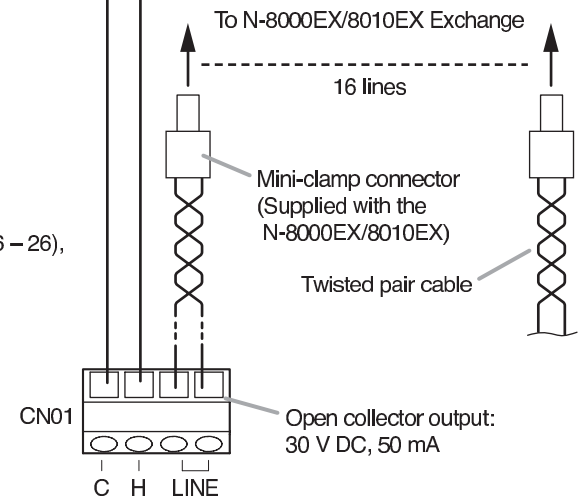
**5. CONNECTIONS**

**5.1. Connection to an External Relay**



**5.2. Connection to the Exchange**

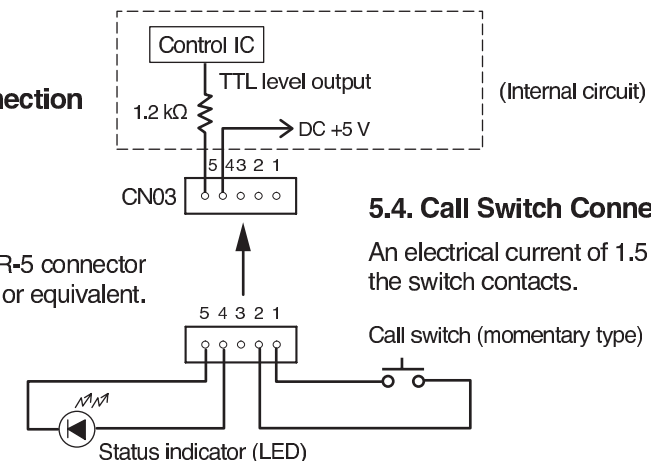
Connect the CN01 LINE terminal to the Exchange's network connection terminal via the E-7000TB Terminal Board. For details, read the installation manual supplied with the Exchange.



**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.