

Quick Reference Installation Guide

NEXEO | HDX™ IB7000 INTERFACE BOX

The IB7000 is an interface box used to connect the loop, microphone, and speaker to a NEXEO® Base Station.

TOOLS/EQUIPMENT REQUIRED

- Screwdriver/Wrench for opening speaker post.
- Wire Strippers, cutters, and other standard tools used for terminating cables/wires.
- Audio Cable (not included)

INSTALLATION AND SETUP

Fig. 3 shows how the IB7000 is typically connected. Adhesive strips on the housing allow the IB7000 to be affixed to a clean, dry surface inside the speaker post.

Note: The IB7000 must be mounted vertically, inside the speaker post, close to the speaker/microphone. This will help minimize audio hum and noise. The IB7000 power LED illuminates green when it is connected to a powered on base station. The max IB7000 cable length to guarantee operation at max volume should not exceed 500 ft (152 m).

- The two-pin Loop connector connects to the ground loop detector.
- The three-pin PLC/BASE connector connects to J4500 on the base station. This connection requires the shield/drain to be grounded; see Table 1.
- The seven-pin DM5 MIC | SPKR connector connects to the Microphone and Speaker; see Table 2.
- The five-pin RELAY | BCKP SPKR connector (optional) connects to an intercom system like the IC300 if a backup is needed in the event of a system failure.



Fig. 1

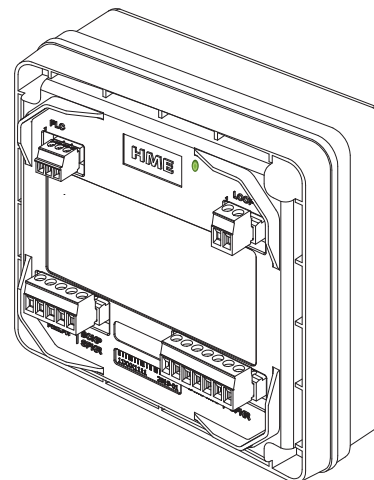


Fig. 2
Connector Side

NEXEO Base Station J4500/J4501 (Spkr/Mic Intrfc)		
Pin #	Label	to IB7000 PLC/BASE
1	Spkr/Mic PL +	IN1/PL+ (Red wire)
2	Spkr/Mic PL -	IN2/PC- (Black wire)
3	Shield	GND - (Shield/drain)
4	Spkr/Mic PL +	
5	Spkr/Mic PL -	
6	Shield	

Table 1

IB7000 DM5 MIC SPKR connector		
Pin #	Label	Description/wire color
1	Mic +	Ext. Microphone positive (Red)
2	Mic -	Ext. Microphone negative (Black)
3	GND	Mic Shield (must be terminated)
4	I.D.	1-WIRE I/F (Red) for SS7000 only
5	GND	Ground (Black) for SS7000 only
6	Spkr -	Speaker negative (White)
7	Spkr +	Speaker positive (Green)

Table 2

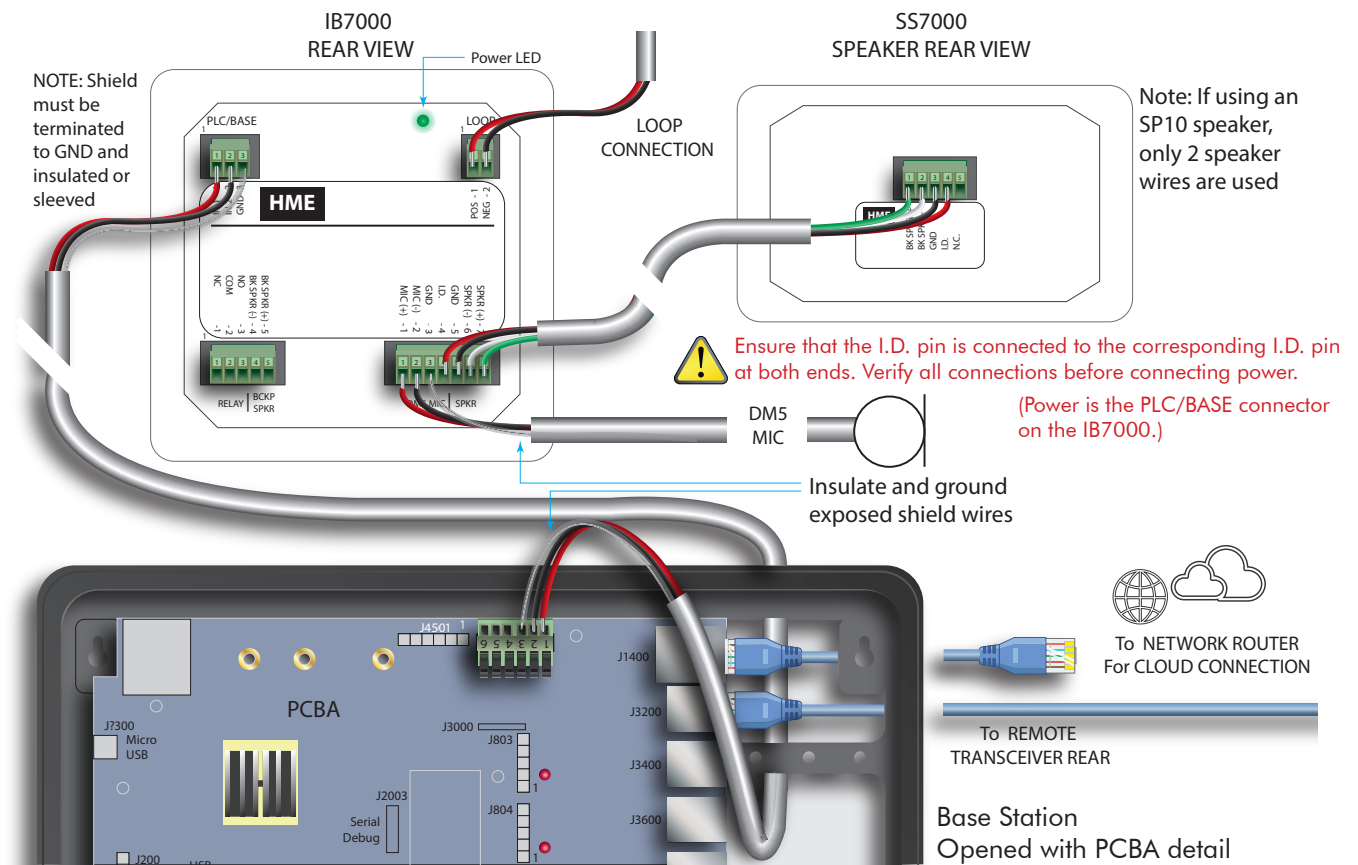


Fig. 3

INSTALLING THE WEATHER COVER

The IB7000 Weather Cover **must** be installed onto the IB7000 to protect the electrical connections from corrosion due to water/moisture ingress. (Even when installed in a speaker post or menu board, these locations do not guarantee a sheltered environment for the IB7000.)

When installed, the top of the weather cover completely seals the IB7000 on top to prevent water or moisture ingress. The bottom has an opening to allow all the IB7000 cables to exit beneath the IB7000 once the cover is in place.

Note: The cover must be oriented and installed the correct way to be effective (see Fig. 4).

1. Orient the weather cover correctly before in-

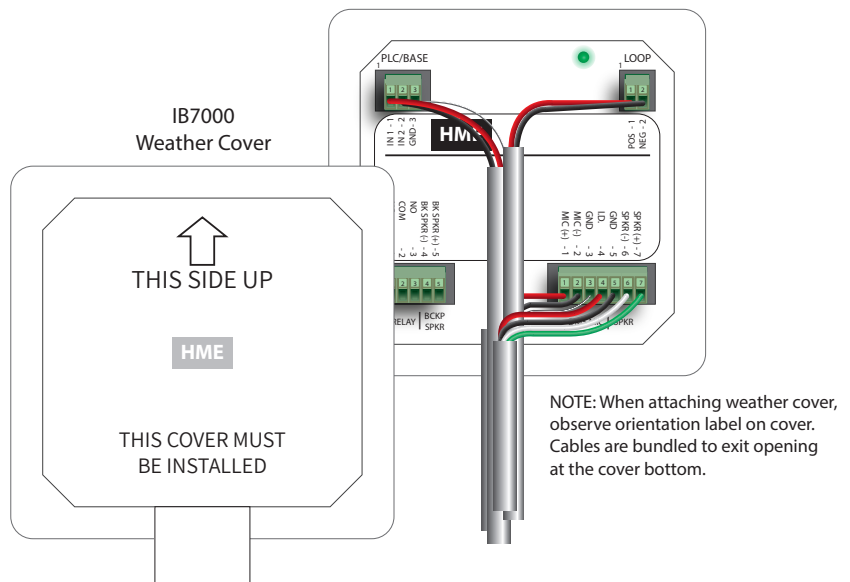


Fig. 4

! Any wiring work should be performed with the unit powered off. Disconnect the power connector (PLC/BASE) before making any adjustments. Ensure that the I.D. pin is terminated correctly, as incorrect wiring can cause catastrophic failure. Verify all connections before reconnecting the power connector.

stalling (see the up arrow on the cover rear, Fig. 4 & 5).

2. Attach the cover by first placing the top latch over the ridge and housing seam of the IB7000 (Fig. 6).
3. Then, hinge the bottom part of the cover onto the bottom part of the IB7000. If there is resistance, the bottom latches are flexible and can be pried onto the IB7000 (Fig. 6).
4. Verify all the IB7000 cables exit through the opening at the cover bottom before pressing in on the cover to close. The cover will snap securely into place (Fig. 7).

Note: To remove the cover, do so in reverse order to the above steps. First, use your fingers to pry the flexible latches on the cover bottom as you detach it from the IB7000 ridge and housing seam it is gripping. Hinge outward away from the IB7000 until the top freely detaches.

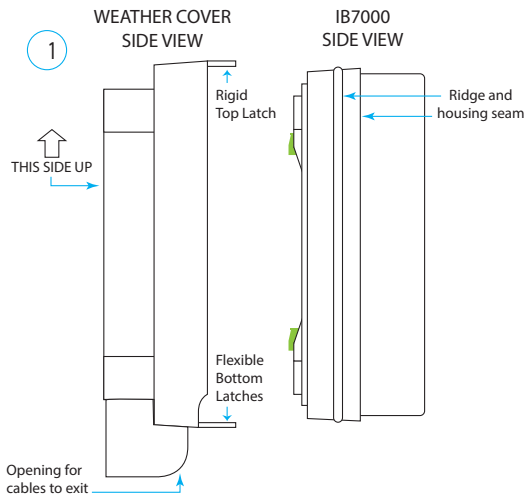


Fig. 5

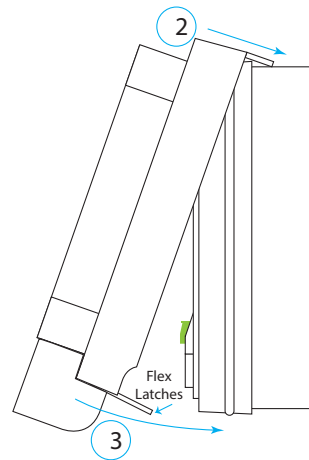


Fig. 6

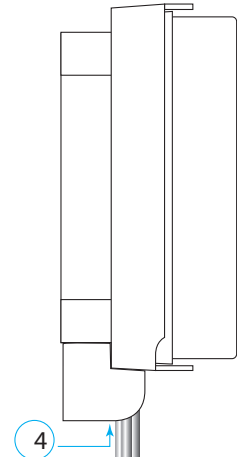


Fig. 7

TECHNICAL SPECIFICATIONS

IB7000	
Dimensions (IB only)	5.68" H x 5.68" W x 2.05" D (144.3 x 144.3 x 52.1 mm)
Dimensions (Cover only)	6.79" H x 5.85" W x 2.22" D (172.3 x 148.6 x 56.4 mm)
Dimensions: IB with Cover	6.79" H x 5.85" W x 2.83" D (172.3 x 148.6 x 71.6 mm)
Weight: IB with Cover	19.2 oz (543 g). IB = 14.4 oz (408.2 g), cover = 4.8 oz (135 g)
Power Supply	Voltage: 48 VDC (powered from BS7000) Current: 0.331 A (max start up)
Frequency Range	Audio: 100 Hz to 7.4 kHz Powerline network over 48 VDC: 2 MHz – 67.5 MHz
Power	Nominal power with no audio: 5.2 W Maximum power at maximum volume: 22 W
Front Panel	Two adhesive strips for mounting to a vertical surface
Rear Panel	Phoenix connector type headers (includes speaker output and analog DM5 microphone input)
Wireless	N/A
Temperature	Operating Temperature range: -25°C (-13°F) to +60°C (+140°F)
Compliance	See NEXEO HDX - Regulatory, Compliance, and Safety Guide online

A copy of this guide and additional information can be found under NEXEO | HDX by scanning this QR code or going to:
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