



MicroComm INSTALLATION INSTRUCTIONS



IEB-400 Intercom Board

1. Intent & Scope

This document describes the installation procedure for the IEB-400 intercom board. The intercom board is used to interface with 8 ohm intercom stations to obtain full MicroComm DXL quality and performance. The board can also be used to transform 8 ohm ceiling loudspeakers and an external call switch into an intercom station.

2. Description

The IEB-400 intercom boards are connected to a DXI system via a SAB-400 or SAB-401 station audio board, or to a DXL system via a SCC-400 or SCC-401 station control card. Each IEB-400 intercom station is connected to the system via a 4-pin header and a single shielded twisted pair cable that carries all the microphone, loudspeaker, switch, and LED indicator signals.

An 8-pin header is used to connect the IEB-400 intercom board to an 8 ohm loudspeaker, up to two switches and an LED.

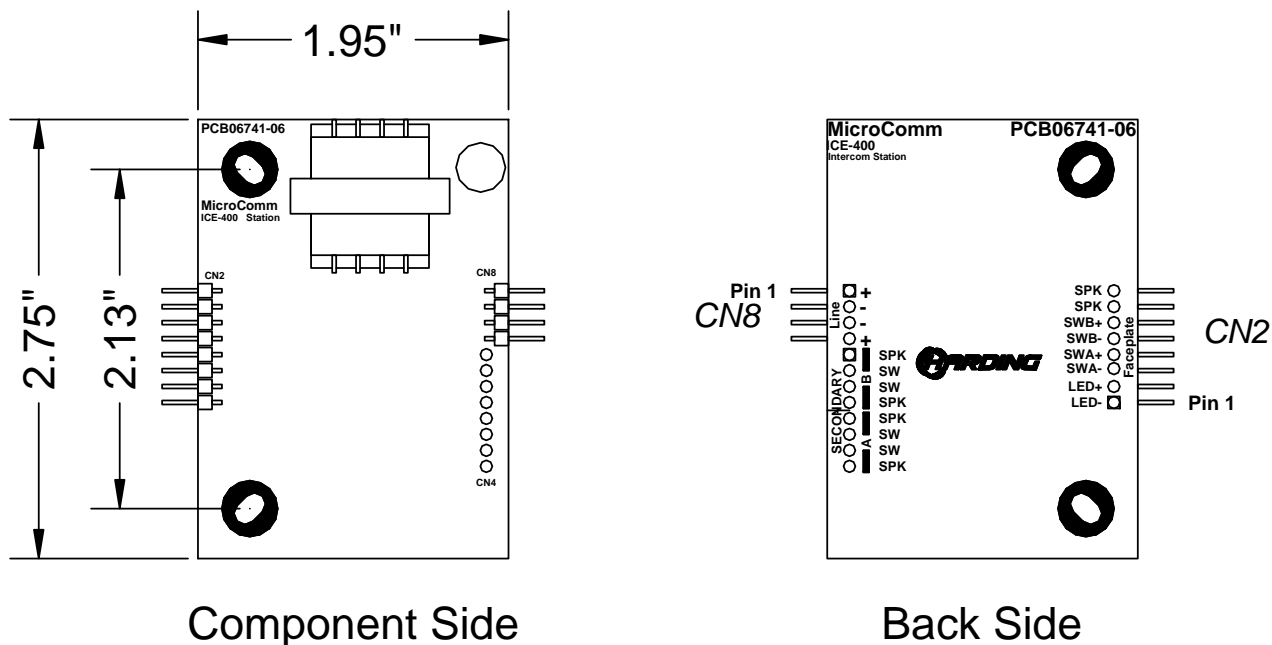


Figure 1 IEB-400 showing Dimensions and Header Positions

3. Installation

A simplified diagram of an IEB-400 is shown in Figure 1. The 4-pin header CN8 connect the audio lines to the DXL or DXI and the 8-pin header connects the loudspeaker, switch(es) and LED to the IEB-400 itself.

3.1 Standard Station Audio Connections

Each IEB-400 intercom station is connected to the exchange with a single shielded twisted pair. The pair is connected to terminals on the field interface terminal block. In turn these terminals are connected via a CBL-190 or CBL-196 cable to the SCC-400 or SCC-401 in a DXL system. The shields are terminated at the field interface terminal block and are grounded through the cable that connects the terminal block to the DXI or DXL exchange.

The audio line shielded twisted pair connects to pins 1 and 2 of a MTA-100-04 connector that plugs into CN8 header labeled Line. The shield is left open at the intercom station end of the cable. The pin assignments of CN8 header and the corresponding MTA-100-04 connections are shown in the following table: The connector pin outs are assigned so that the orientation of the mating connectors is reversible.

Connector Pin	Signal	MTA Pins
1	Line +	Line +
2	Line -	Line -
3	Line -	NC
4	Line +	NC

Table 1 CN8 header pin signals

The maximum recommended distance to run 22-gauge twisted-pair shielded cable from a 400 series station to SAB-400, SAB-401, SCC-400 or SCC-401 is 2500 feet (750 meters).

3.2 Connections to an MTA Connector

The connections to the intercom station are made with an AMP MTA-100 series connector. The intercom pair should connect to pins 1 and 2 on a female 4-pin AMP MTA-100 series connector that plugs onto the header CN8 labeled Line on the intercom station printed circuit board. To make these connections you should use an AMP Handle Assy 58074-1 tool with a 58246-1 head. The cable should be cut to length and the shield and outer jacket should be trimmed back about 1/2 inch. Ensure that the shield is not exposed or it may short out exposed contacts on the intercom PCB when it is installed.

To insert the signal wires into the connector you remove the white cover from the connector, insert the connector into the tool from the left side (it will travel through the tool in the direction indicated by the arrow), pull the trigger once to load the connector. Then insert the signal wire for pin 1 (do not strip the wire) into the hole on the top of the tool and pull the trigger to insert the wire into the connector. Then repeat to install the other signal wire. Finally, remove the connector from the tool, replace the cover, and then slide the connector onto the pins on the intercom station.

3.3 Connections to Loudspeaker, Switches and LED

The IEB-400 use one 8-pin MTA-100 header CN2 to connect the loudspeaker, switches and LED to the printed circuit board. The pin assignments for the header are as follows.

MTA Pin	Signal
1	LED-
2	LED+
3	SWA-
4	SWA+
5	SWB--
6	SWB +
7	SKR-
8	SPK+

Table 2 CN2 header pin signals

4. Mounting IEB-400

The IEB-400 has two holes separated by a distance of 2.13" (shown in Figure 1) that are used to mount the printed circuit board. Standoffs of 0.875" or greater should be used if the component side of the printed circuit board is facing the mounting surface.

If the insulated version of the IEB-400 is ordered Velcro strips are used to hold the device in place.