Installation Quick Start Guide for iN3/iPHCU3W

AWG 18 wire is recommended for this installation and should meet all applicable regulatory requirements. Removing power from the pedestrian signal head during installation is recommended for protection from electric shock.

Note: An iN2 PBS can operate as an iN3 PBS (standalone Ped-Head Based System). It comes with a 3-position terminal block capable of connecting a 3-Wire Cable to a Ped-Head Control Unit. If changing an installed/existing iN2 PBS to operate as an iN3, you must disconnect the ped wires in the cabinet from the Polara Interconnect Board and land to standard ped input terminals.

Equipment needed for complete iN3:

- iN3 Push Button Station
- iPHCU3W (Ped Head Control Unit)
- 3-Wire Cable (Polara supplied or equiv.)

1. iN3
   1.1 The iN3 PBS has two mounting holes vertically spaced at 6.0 inches. The mounting is compatible with standard pushbutton frames with 6 inch mounting holes and a wiring hole about 3.5 inches below the lower mounting hole. The suggested mounting height is 42 inches from ground level to the center of the arrow button. The iN3 PBS must be mounted only in the normal upright orientation, with the connection terminals at the bottom. Any other mounted orientation will void the warranty as moisture could collect inside the unit.

   1.2 Before mounting the PBSs on their poles, go to the traffic signal controller cabinet and set the PED phases to recall. Remove existing buttons/frames from poles. Check holes for mounting fit and drill and tap ¼-20 as needed. Route the iN3-Cable (General Cable C2831A or equiv.) between the pedestrian signal head and the pole.

   1.3 If the PBS has a label with street names, the first name (before @) indicates the street being crossed. Locate the unit in accordance with the label.

   1.4 Remove 3 screws from the lower cover surrounding the pushbutton using a Torx T15 driver bit. Lift off the lower cover. Remove all screws securing the sign and sign plate if present. Verify the arrow on the button is oriented toward the associated crosswalk. If necessary, the button / diaphragm assembly may be pulled off and rotated as needed.

   1.5 With the sign and lower cover removed, position the PBS against the pole and route the wires forward through the opening at the bottom end of the module. Position the wire such that 3 or 4 inches of wire is available at the bottom of the PBS.

   1.6 Attach the PBS to the pole using the provided ¼-20 bolts with washers.

   Note: The use of a speed wrench or short socket is recommended. Insert the bottom bolt with washers on bolt before holding the iN3 PBS to the pole to prevent the washers from falling into the unit.

   1.7 Connect the two wires from the traffic signal cabinet (if available) to the terminals of the larger black terminal block labeled BUTTON/PLC. Wire polarity is not important. Connect the 3-wire cable to the terminal block on the right. Make sure the wiring matches at both ends according to the Data, GND, and PWR labels at the terminals. With the power on, check that the PBS is operational. Recheck tightness of all connections.

   1.8 Re-install the lower cover and the sign. Additional environmental protection for the sign can be gained by adding rubber washers or grommets on the sign screws, or with the use of a silicone sealant.

   1.9 The iN3 PBS is now ready to use. For programming and configuration of the iN3 PBS, please refer to the “Polara iOS Field Service App User Guide” or the “Polara PC App User Guide”.

2. iP HCU3W

Note: Removing power from the pedestrian signal head during installation is recommended for protection from electric shock.

2.1 The iP HCU3W normally installs inside the Pedestrian Signal Head (PED Head). It is supplied with a hardware kit which includes a mounting plate and associated screws and nuts. The photo (next page) shows an example of a typical installation. Typically, tapped ¼-20 holes are present. If they are not, a hole (or holes) to match the mounting plate need to be drilled and tapped. While a single screw is sufficient to secure the iP HCU3W bracket to the PED Head, a second screw may be used for additional stability. Distance between holes should be 9.3”.

2.1.1 Attach the iP HCU3W to the mounting plate with the supplied 6-32 hardware. Insert the 6-32 screws from the back of the assembly and secure with the 6-32 nuts. The nuts should be on the top of the assembly.

2.1.2 Fasten the assembly to the ped head with the 1/4-20 screws.

2.2 Install jumper wires to connect the light power terminal block to the iP HCU3W input power terminal block. Install jumper wires for AC Neutral, Walk, and Don’t Walk.

2.3 Connect the wires from previously installed 3-wire cable to the output terminal block of the iP HCU3W.

3. Technical Support Contact

Polara @ 714-521-0900 or 888-340-4872

The latest version of the complete manual is available in PDF format at www.polara.com.