# **ICS-200B INSTALLATION GUIDE**

#### Before You Begin

Read these instructions completely, including the Safety Instructions.

#### Note to Installer

Be sure to leave these instructions with the user.

#### Note to User

Keep these instructions for further reference.

#### SAFETY INSTRUCTIONS

The ICS-200B Charge Station is designed with the safety concerns of the consumer as an utmost priority; however, the following safety precautions must be read and followed:

- The EVSE (Electric Vehicle Service Equipment) should be installed by a qualified electrician in accordance with local electrical codes and ordinances.
- Grounding Instructions The charge station should be connected to a grounded, metal, permanent wiring system; or an equipment-grounding conductor should be run with circuit conductors and connected to a grounding terminal or lead on the charger. Connections to the charge station should comply with all local codes and ordinances.
- Call your local service provider anytime a procedural question arises; DO NOT attempt to perform a procedure you are unsure of.
- Read all installation instructions carefully before performing the installation



**Warning** *This symbol means danger.* You are in a situation that could cause bodily injury. Before you work on any electrical equipment, be aware of the hazards involved with electrical circuitry and standard practices for preventing accidents.

# **INSTALLATION REQUIREMENTS**

#### Inventory

- Either Wall or Pedestal Mount ICS-200B Charge Station
- ICS-200 User's Guide
- ICS-200B Installation Guide

#### Special Tools and Requirements

- A manufacturer-approved pedestal for pedestal-mount charge station.
- SAE wrench set or equivalent, Phillips head screwdriver, T-15 pin-in-head & T-27 Torx wrenches.
- Each charge station requires a dedicated 208 or 240 VAC, 50/60 HZ, single-phase, 40 amp circuit (60 amp optional).
- Wire the EVSE to the breaker panel using wire sized according to local electrical codes.
- The electrical junction box for a wall mounted charging station should be installed approximately 42 inches above ground level.
- The pedestal mounted charging station should have the pedestal mounted in place according to the siting instructions.
- The charging station should be located to allow the 20 foot (6.1 meter) charging cable to reach the vehicle's charging port.



#### SITE AND WIRING REQUIREMENTS

#### Concrete Pad Requirements

- Use four 5/8" or 1/2"anchor bolts in a 10" square pattern or four 3/8" anchor bolts in a 10" x 6" pattern (same as Delco).
- Anchor bolts should protrude not more than 3" above pad.
- Concrete pad should be at least 18" x 18" x 12" deep.

#### Wall Mounting Requirements

• Refer to the illustration for wall mounting dimensions.

#### Pedestal Wiring Harness, Single Unit

- One 40 amp branch circuit (60 amp optional).
- 2 #8 Hot leads (1 RED\*, 1 BLK\*)
- 1 #8 Neutral (NEUT)
- 1 #8 Ground (GND)

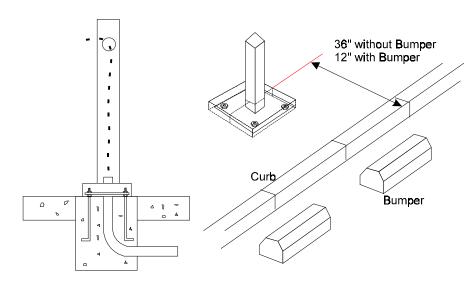
#### Pedestal Wiring Harness, Double Unit

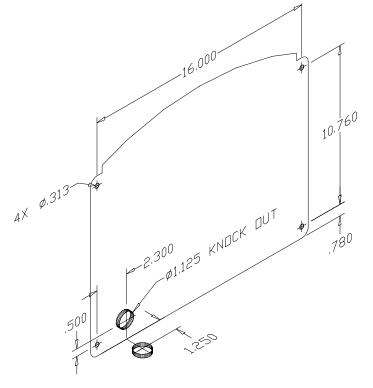
- Two 40 amp branch circuit (60 amp optional).
- 4 #8 Hots (2 RED\*, 2 BLK\*)
- 2 #8 Neutral (NEUT)
- 1 #8 Ground (GND)

(\* Each circuit is 120 volts to GND.)

#### General Wiring Requirements

- 1" or larger conduit required for single charge stations.
- 1 1/4" or larger conduit required for dual charge stations.
- Wire terminates in ICS-200B enclosure.
- Refer to the illustration for location of knock-outs in the junction box.
- Electrician will connect to contactor and terminal block connections inside ICS-200B enclosure.
- Comply with local and NEC codes.



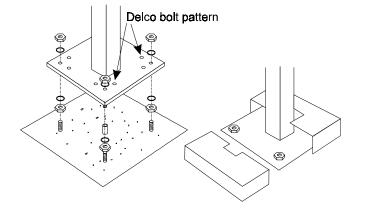


#### INSTALLING THE PEDESTAL BASE

- 1. Install four nuts and washers on the base lugs and adjust to level the pedestal.
- 2. Mount pedestal and secure with four nuts and washers.
- 3. Run the power conductors up the pedestal and out the access hole.

**Note** Power conductors must reach at least 48 inches above ground-level to reach the ICS-200B.

4. Install the pedestal base cover.



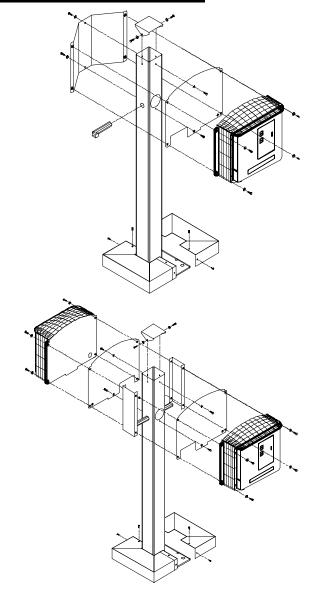
## PEDESTAL MOUNTING

#### Single ICS-200B Pedestal Mounting

- 1. Connect the flexible power conduit to the side of the pedestal and run the power leads out through the conduit.
- 2. Attach the ICS-200B mounting plate and back cover plate to the pedestal using 1/4-20 flat-head screws.
- 3. Install the pedestal cap using flat-head Phillips screws.
- 4. Mount the ICS-200B to the mounting plate and back cover using four (4) 1/4-20 Torx screws with nuts and washers.
- 5. Remove two screws from the front door of the ICS-200B enclosure and open the door.
- 6. Push the power leads through the hole in the back of the charge station then connect the flexible power conduit to the hole.

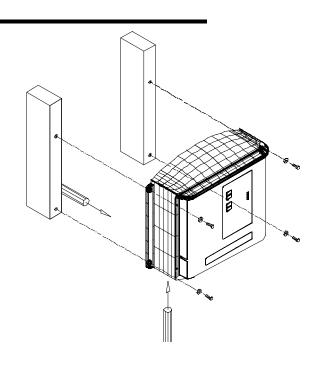
## Double ICS-200B Pedestal Mounting

- 1. Connect a flexible power conduit to both sides of the pedestal and run the power leads out through the conduits.
- 2. Attach two ICS-200B mounting plates to the pedestal using 1/4-20 flat-head screws.
- 3. Install the pedestal cap using flat-head Phillips screws.
- Temporarily mount both the side covers to one of the mounting plates. Use one screw for each mounting plate to hold it in place.
- 5. Mount the first ICS-200B to the other mounting plate using four (4) 1/4-20 Torx screws with nuts and washers.
- 6. Remove the two temporary screws used to hold the side covers in place then mount the second ICS-200 using four (4) 1/4-20 Torx screws with nuts and washers.
- 7. Remove two screws from the front doors of the two ICS-200B enclosures and open the doors.
- 8. Push the power leads through the hole in the back of the charge stations then connect the flexible power conduit to each hole.



## WALL MOUNTING

- 1. Locate the wall mounting position of the EVSE:
  - Position the bottom of the charge station 38 inches above the ground.
  - The mounting holes are spaced 16" apart to accommodate wall studs.
  - If you do not have solid structural framing on those centers, you must provide an adequate alternative mounting surface for the EVSE.
- 2. Attach the charge station to the wall studs using four (4)  $1/4 \times 2 \cdot 1/2$  inch lag screws.
- 3. Use a multi-set or equivalent for mounting on concrete walls.
- 4. Connect the power conduit to either the opening in the bottom of the enclosure or the opening in the back of the enclosure.
- 5. Run the power leads into the enclosure.

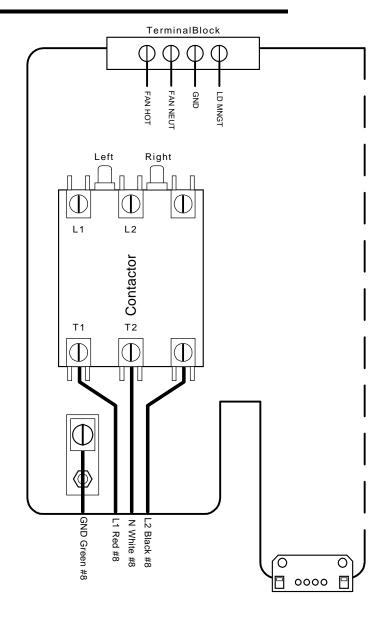


# **WIRING**



**Warning** Turn OFF the EVSE circuit breaker at the service or distribution panel before attempting to perform the following steps.

- 1. Connect one hot lead to L1.
- 2. Connect one hot lead to L3.
- 3. Tie N to L2.
- 4. Connect GND lead to GND terminal block.
- 5. Test LI and L3 input voltage:
  - Turn ON power at the service or dist. panel.
  - Hot leads must measure no more than 132 volts to GND.
  - Turn OFF power at the service or dist. panel.
- 6. If required, connect power for an exhaust fan to the terminal block located above the power lead connections. The following fan connections are provided:
  - Fan Hot Lead
  - Fan Neutral
  - Ground
  - Load Management Input



## FINISHING THE INSTALLATION

- 1. With the wiring finished, close and fasten the ICS-200B front cover using two screws with washers.
- 2. The EVSE can now be powered up by turning the main circuit breaker ON.
- 3. Refer to ICS-200 User's Guide for further information.

