

# HUBBELL ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE)

## Installation Instructions

### **IMPORTANT SAFETY INSTRUCTIONS – SAVE THESE INSTRUCTIONS**

**NOTICE:** This Charging Station (EVSE) shall be installed only by a licensed electrician and/or a licensed contractor and in accordance with all applicable state, local and national electrical codes, standards and these instructions.

**WARNING:** When using electrical products, basic precautions should always be followed, including the following. This manual contains important instructions for the HUBBELL models HBLEV30B and HBLEV30BHW AC Level 2, Electric Vehicle Supply Equipment (EVSE) that shall be followed during installation, operation and maintenance of the unit.

Before installing the EVSE, review this manual carefully and consult with a licensed electrician, licensed contractor and/or trained installation expert to ensure compliance with local building practices, climate conditions, safety standards, and state and local codes.

### **GENERAL WARNINGS AND CAUTIONARY STATEMENTS**

**WARNING: RISK OF EXPLOSION, ELECTRIC SHOCK OR FIRE.** This device contains arcing or sparking parts that should not be exposed to flammable vapors. Indoor EV Charging receptacles/coupler must be located minimum 18 inches above the floor and outdoor EV Charging receptacles/coupler must be located minimum 24 inches above grade in accordance with NEC® Article 625.50 (NEC® 2017).

**Note:** If applicable in local jurisdiction, in addition to the above height requirements, NEC® 2011 Article 625.29 requires that the receptacle/coupler to be installed no higher than the 48-inch mark from the floor indoors or from the grade outdoors.

**DANGER: HAZARDOUS VOLTAGE. WILL CAUSE DEATH OR SERIOUS INJURY.** Disconnect all power sources before installing or servicing this equipment.

**WARNING: RISK OF EXPLOSION, ELECTRIC SHOCK OR FIRE. DO NOT** use an extension cord to supply power to the EVSE.

**CAUTION: Risk of Electric Shock.** After installation, do not remove enclosure cover or attempt to open enclosure. No user serviceable parts inside; refer to qualified service personnel. Connect only to properly grounded outlets. Suitable for wet locations only when installed in accordance with installation instructions.

- **DO NOT** supply power to the EVSE from a damaged AC Outlet.
- **DO NOT** operate the EVSE with a visibly damaged AC Supply Plug or Charge Cord/Connector. Inspect equipment before each use. If any damage is detected, contact Customer Support.
- Ensure that the Charge Cord is positioned so it will not be stepped on, tripped over, run over or otherwise subjected to damage or stress.
- Use this EVSE to charge electric vehicles equipped with an SAE J1772™ compliant charge port ONLY. Refer to the vehicle owner's manual to determine if the vehicle is equipped with an SAE J1772™ compliant charge port.
- **DO NOT** attempt to repair or service the EVSE yourself. Refer to the Troubleshooting section, or Customer Support section for service information.
- Retain this guide for future reference.

**DANGER: RISK OF ELECTRICAL SHOCK OR INJURY.** Turn off power at the panelboard or load center before working inside the equipment or removing any component. Do not remove circuit protective devices or any other component until the power is disconnected and locked out for servicing.

### **MOVING INSTRUCTIONS**

**CAUTION: RISK OF ELECTRIC SHOCK** The device shall not to be lifted or carried by either the flexible cord or the EV cable. Doing so will damage the device and can cause serious injury.

**This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.**

### **LEGEND FOR MARKINGS USED ON THE PRODUCT LABELS**



Risk of Explosion



Risk of Electrical Shock

**NOTE:** This document provides instructions for the HUBBELL models HBLEV30B and HBLEV30BHW AC Level 2, Electric Vehicle Supply Equipment (EVSE) Charging Stations and should not be used for any other product.

### **BEFORE INSTALLATION: INSTRUCTIONS PERTAINING TO THE RISK OF ELECTRIC SHOCK**

- Read all the instructions before using this product.
- This device should be supervised when used around children.
- **DO NOT** put fingers into the electric vehicle connector
- **DO NOT** use this product if flexible power cord or EV cable is frayed, has broken insulation, or any other signs of damage.
- **DO NOT** use this product if the enclosure or the EV connector is broken, cracked open, or show any other indication of damage.

**CAUTION:** This EVSE equipment must be connected to a branch circuit protected by a 40A 2-pole non-GFCI circuit breaker.

**GROUNDING INSTRUCTIONS:** This product must be grounded. If it should malfunction or break down, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This product is equipped with a cord having an equipment grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

**WARNING –** Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or serviceman if you are in doubt as to whether the product is properly grounded. Do not modify the plug provided with the product – if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

The EVSE must be connected to a grounded permanent wiring method that would qualify as an “Equipment Grounding Conductor” as outlined in NEC® 250.118, or an equipment grounding conductor must be run with the circuit conductors and connected to the green equipment grounding wire lead on the product.

### **PRE-INSTALLATION REQUIREMENTS**

**HBLEV30B:** This product requires a NEMA 6-50 50A 240V receptacle (HUBBELL HBL9367 or similar) to be installed within proximity of the unit.

**Note:** The HBLEV30B comes equipped with a 12-inch-long power supply cord; locate accordingly, so it can reach the intended receptacle. Hubbell recommends receptacles to be mounted with the ground contact facing up. (Refer to installation instructions provided with the receptacle for further guidance)

**HBLEV30BHW:** This product will come with conductors for hardwired installation already secured to the charger. A junction box that includes properly sized conductors in close proximity to the EV Charger shall be installed by a licensed electrician.

**WARNING:** This unit has an Enclosure Type 3R rating. If this unit is intended for outdoor installation, the following additional requirements apply. **Not meeting these requirements will violate the listing and void the warranty.**

**For Cord and Plug Unit,** a weatherproof outdoor cover plate rated for Wet Locations while in use is required to be installed on the receptacle.

**For Hardwired Unit,** a user supplied outdoor junction box rated for Wet Locations (or rated Enclosure Type 3R) and UL listed conduit for outdoor use shall be utilized for installation.

The wall intended for mounting of the HBLEV30B series EV Charger shall be able to bear its weight of 15+ lbs.

Selected mounting location should have enough clearance for the protrusion of the device (minimum of 15 inches from the mounting surface).

# Installation Instructions

## INSTALLATION

### Step 1:

The mounting bracket (Fig.1) is to be installed before the unit can be mounted. The bracket is intended for use with ¼ inch user-supplied screws. Fastener selection is to be determined based upon the specific surface the bracket is to be installed on. Drill holes in the wall for the mounting bracket and secure the mounting bracket to the wall. The size of the hole should be determined based on hardware that is intended to be used to mount the product:

- For masonry walls use ¼ in. expansion anchors.
- For finished walls supported by wood studs use #8 wood screws, 2 in. or longer length



Figure 1

### Step 2:

(OPTIONAL) This model has a current-limiting feature that allows the user to limit the charging current capability to 30A, 20A or 15A. User adjustment is required **prior to mounting** the device if the current limitation feature is to be adjusted. This setting **CANNOT** be adjusted after mounting the unit. The factory default setting is 30A.

**DANGER: HAZARDOUS VOLTAGE. WILL CAUSE DEATH OR SERIOUS INJURY.**

Ensure all power sources are disconnected before installation.

- Separate the front cover from the unit by removing five screws located along the perimeter at the back of the enclosure.
- Jumper (Fig. 2) is factory set to 30A. Remove the jumper and replace it on the desired position, 15A or 20A. (Fig.3)
- Replace the front cover and torque all five screws to 20 lbs.in.



Figure 2

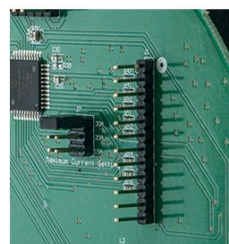


Figure 3

### Step 3:

Align the flange of the mounting bracket with the Charging Station. Install and secure the Charging Station on the mounting bracket with the #10-32 screw supplied. Torque to 10 lbs.in. (Fig.4)



Figure 4

### Step 4:

Note: If your unit is hardwired skip to Step 5.

#### For Cord-and-Plug-Connected Unit:

- Ensure that the Charge Cord is positioned so it will not be stepped on, tripped over, run over or otherwise subjected to damage or stress. Always return the EVSE connector safely in to its cradle after each use. (Fig. 5a)
- Plug the cord in to the receptacle. When device is powered, the HUBBELL logo on the front panel will light up.

**This completes the installation for cord and plug units.**



Figure 5a

### Step 5:

#### FOR Hardwired Unit (HBLEV30BHW)

- Run the conductors from the Charging Station through user-supplied conduit (Trade Size: 3/4 inch) into the pre-installed junction box.
- Splice the conductors present in the junction box in accordance with national and local electrical codes.
- Ensure that the Charge Cord is positioned so it will not be stepped on, tripped over, or otherwise subjected to damage or stress. Always replace the EVSE connector safely in the cradle after each use. (Fig. 5b)
- Switch the circuit breaker back into the ON position. When device is powered, the HUBBELL logo in the front panel will light up.



Figure 5b

**This completes the installation for hardwired units.**

# Installation Instructions

## OPERATING INSTRUCTIONS

### B. TYPICAL OPERATION

- a. Ensure power is available to the charger by looking at the front panel display. HUBBELL logo and one of the blue maximum current LEDs will be lit if the device is ready to use. (Fig. 6)



Figure 6

- b. Remove the SAE J1772™ connector from the cradle by pressing the release button on the connector and plugging it into the Electric Vehicle charging port. The charger automatically communicates with the Electric Vehicle and starts the charging process after connection is secured. An audible click will sound if the mechanical connection is properly secured. (Fig 7. – A figure showing connection between the EV Charging station and the Electric Vehicle)

- c. The green status LED on the front panel will be lit if the charging has begun. (Fig. 8)

- d. Your vehicle will indicate when the charging is complete. Remove the connector by pressing the release button and replacing the connector back into the cradle.



Figure 7



Figure 8

### A. TIME-DELAY FUNCTION

HUBBELL EV Charging stations offer the user the ability to delay the charging start by 2, 4, 6 or 8 hour intervals. The user can select the desired time delay by pressing the time delay button before plugging the connector in to the electric vehicle. Each press of the button will illuminate the amber status LED associated with the specific time delay (Fig. 9). To clear the time-delay the user needs to press the button once again after the maximum delay is selected. This will clear the time delay function, and turn off all amber LEDs



Figure 9

### C. FAULT MANAGEMENT

This device has a built in GFCI module. If the GFCI is tripped or another fault occurs, the EV charger will interrupt the current output to the vehicle. At the same time, a red LED light in the front panel will start to flash (Fig. 10). The rate of the flash will be different for various faults, see **DIAGNOSTIC LED CODES** section below for explanations of the fault codes. The user will need to press the time delay/reset button to reset the device. If successful, the unit will reset and the red LED light will turn off. If the red fault LED will not turn off, the installation needs to be examined by a licensed electrician.



Figure 10

#### DIAGNOSTIC LED CODES

HUBBELL EV chargers are equipped with diagnostic measures to allow the service personnel to identify the cause of a fault. The red LED in the front panel will flash at listed intervals for different faults.

CAUSE OF THE FAULT	INDICATOR LED BEHAVIOR
Ground Fault Detected	4 flashes per second
Open Ground	1 flash per second
Shorted Relay Contacts	Constant ON