

Level 2 - Electric Vehicle Charging Station
EVB16 (16A) - EVB30 (30A) - EVB40 (40A)
Installation Instructions

RATINGS	
Voltage	120/208V 60Hz 3-phase Y (L1-G/L2-G - 120V, L1-L2 - 208V) 120/240V 60Hz Split-phase (L1-G/L2-G - 120V, L1-L2 - 240V)
Current	16A (EVB16) - 30A (EVB30) - 40A (EVB40)
NOTE: Charging Station operates on 120/208V or 120/240V circuit only. Does not operate on 120V circuit.	

WARNINGS AND CAUTIONS:

- **TO AVOID FIRE, SHOCK, OR DEATH; TURN OFF POWER AT CIRCUIT BREAKER OR FUSE AND TEST THAT POWER IS OFF BEFORE WIRING!**
 - If the information in this instruction sheet is not followed exactly, **SHOCK OR FIRE MAY RESULT CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.**
 - For outdoor installations, hard-wire connection is required. The EVSE has a watertight (NEMA 4) enclosure which houses critical electronics. Use of UL-listed watertight conduit compression fitting is required to maintain the watertight (NEMA 4) rating. Use electrically-conductive, UL-listed thread sealant (KOPR-SHIELD®) to prevent water/moisture from entering or accumulating within the box, conduit body, or fitting. Per NEC Article 250, the conduit must have continuity from the hub to the service entrance.
 - Hard-wire installation and service must be performed by an electrician.
 - **IMPORTANT:** Save these instructions for local electrical inspector's use and future reference.
- NOTE:** Unit operates on 208V or 240V circuit, it will not operate on 120V.

INTRODUCTION

Thank you for purchasing the Level 2 Electric Vehicle Charging Station. This installation sheet includes the latest information at the time of printing. Leviton reserves the right to make changes to this product without further notice. Changes or modifications to this product by other than an authorized service provider could void the product warranty. If you have questions about the use of this product, contact your Customer Service Representative. Refer to the Customer Support section located in these instructions.

Important Notes to the Installer:

- The EVB40-5PT with top mounted plug is intended for flush mount applications where the electrical box can be recessed into the wall.
- The EVB40-SPT with bottom mounted plug is intended for plug-in solid wall applications where the electrical box must be surface mounted on the wall.
- The EVB16 and EVB30 are only available with the top-mounted plug.
- Plug-in Charging Stations must be installed with the use of a Leviton Pre-wire kit. For Installation of the EVB16, use Leviton Installation Kit EVK02; for Installation of the EVB30 and EVB40, use Installation Kit EVK05. Read all instructions before installing the Mounting Bracket and Charging Station.
- Ensure that the correct template is used for installation, as several templates are available within the pre-wire kits.
- The installer is responsible for verifying that the wall structure/surface will safely support a total load of 200 lbs.
- Observe all governing codes and ordinances.
- Be sure to leave these instructions with the consumer.

Important Notes to the Consumer:

- Ensure your Charging Station is installed by an electrician.
- Keep these instructions with your User Guide for future reference.

MOUNTING LOCATION

The Charging Station should be located in close proximity to the electric vehicle's parking location. The Charging Station must connect to the electric vehicle via a Charge Connector and Charge Connector Cord. **NOTE:** The path from the Charging Station to the electric vehicle should be free from obstacles, and be within the range of the Charge Connector Cord (19 foot standard length for EVB16, 25 foot standard length for EVB30, EVB40). The recommended mounting height of the Charging Station is not to exceed 48 inches, but not less than 42 inches from the floor to the top of the Charging Station. This provides convenient access and operation of the Charging Station, and meets ADA requirements for access. **NOTE:** The area surrounding the Charging Station enclosure should be free from obstruction. Recommended clearance around station: 5 inches above and 3-1/2 inches on either side.

PLUG-IN INSTALLATION

NOTE: The Plug-In Charging Station **must** be installed with a Leviton Pre-Wire Kit (**sold separately**). Failure to do so means the station no longer complies with its UL listing. The listing requires the station be removable without tools. Refer to Pre-Wire Kit instructions first if a mounting location has not been established. Ensure that the correct template within the pre-wire kit is used, as several templates are available within the box. For EVB40 installation, ensure that the EVB40-5PT is used for flush mount installation, and the EVB40-SPT is used for surface mounted installation.

1. Install Pre-Wire Kit. For EVB16, use Installation Kit EVK02; for EVB30 and EVB40 use Installation Kit EVK05.
2. Depress release tabs on the bottom of the Charging Station, and remove Charging Station Door by lifting upwards (**see Figure 2**).
3. Locate the four Mounting Buttons on the back of the Charging Station. Locate the Guide Pin Slot above the Panel Fastener Screw (**see Figure 1**).
4. Align the Guide Pin Slot with the Guide Pin on the Mounting Bracket, and the four Mounting Buttons with the four keyholes on the Mounting Bracket.
5. Once aligned, gently press the Charging Station onto the Mounting Bracket.
6. Allow the Charging Station to slowly slide down into place. Ensure all four Mounting Buttons are secured in each keyhole on the Mounting Bracket before releasing the Charging Station.
7. Tighten the Panel Fastener Screw to secure the Charging Station to the Mounting Bracket (**see Figure 2**).

Proceed to **POWER CHARGING STATION** section.

HARD-WIRE INSTALLATION

Gather the required tools and parts before starting installation. Be sure to follow manufacturer's instructions for use of any tools or parts used for this installation.

Tools:

- Drill with 3/16" bit
- Stud finder
- Level
- Scratch awl
- Measuring tape
- Wire cutters/strippers
- Keyhole saw
- Utility knife
- Pin-in Torx type 25 driver
- Pliers
- #3 Phillips screwdriver (for mounting bracket)

Additional Parts (not included):

- Copper electrical cable (see below for gauge)
- #14 wood mounting screws (2) - stud mount
- Circuit Breaker - 20A (EVB16) - 40A (EVB30) or 50A (EVB40)
- Conduit
- Strain relief (if applicable)
- H100-TB Hub (or engineering equivalent)

For Metal Stud Applications:

- Wall anchors capable of supporting a maximum allowable load of 200 lbs.

For Solid Wall Applications:

- Wall anchors capable of supporting a maximum allowable load of 200 lbs.
- Appropriate conduit and applicable mounting hardware.

NOTE: Hard-Wire Access opening is located at the bottom of the Access Panel. Remove plug and gasket and place both on top where Plug Assembly and Pre-installed Hub were removed (**Figure 7**).

WARNING: TO AVOID FIRE, SHOCK, OR DEATH; TURN OFF POWER AT CIRCUIT BREAKER OR FUSE AND TEST THAT POWER IS OFF BEFORE WIRING!

CAUTION: USE THIS DEVICE WITH COPPER OR COPPER CLAD WIRE ONLY.

CAUTION: 20A CIRCUIT BREAKER WITH MINIMUM 12AWG WIRE TO BE USED FOR EVB16 - 40A CIRCUIT BREAKER WITH MINIMUM 10AWG WIRE TO BE USED FOR EVB30 - 50A CIRCUIT BREAKER WITH MINIMUM 8AWG WIRE TO BE USED FOR EVB40.

NOTE: Choosing to hard-wire the Charging Station requires the use of the alternate hang holes and appropriate mounting hardware. See **Figure 3** for alternate hang hole locations. If mounting to a Leviton pedestal, please proceed using the mounting instructions provided within the Pedestal Head Assembly.

1. Depress release tabs on bottom of Enclosure and remove Enclosure Door by carefully lifting up and away from the Enclosure (**see Figure 2**). Use a pin-in-Torx Type 25 screwdriver to remove the Metal Hard-Wire Access Panel (with 4 screws).

IMPORTANT NOTE: Carefully remove the ribbon switch connector from printed circuit board assembly and the ground wire from the Hard-Wire Access Panel before setting it aside (**Figure 5**).

2. The Hard-wire Access opening is located at the bottom of the Access Panel shown in **Figure 7**. Loosen wire connectors and retain for Step 4. Remove pre-installed hub and disconnect Plug Assembly (**see Figure 6**).

NOTE: If the Plug Assembly is removed from the top location, block this opening using the Plug and Gasket from the bottom hole to maintain watertightness (NEMA 4) of the Charging Station.

3. Install the H100-TB Hub (**Figure 7**). Torque hub to 65 in-lbs.

4. Run dedicated circuits per the National Electric Code and local building codes. The circuit must have an additional 15 inches of loose wires to terminate the connections on the inside of the Charging Station. Secure conduit to H100-TB Hub using proper UL-listed conduit fitting. The use of a reducer may be required based on conduit fitting selected. Strip wire ends 3/4 inch and secure to corresponding wires from toroid assembly and ground wire from terminal block with wire connectors as shown in **Figure 7**.

NOTE: Use electrically-conductive thread sealant KOPR-SHIELD® CP8-TB or CP16 by Thomas&Betts® to prevent water/moisture penetration through the threading on fitting, reducer nipple or threaded conduit. Instruction for thread sealant application:

- a) Coat 100% of the male threads with the KOPR-SHIELD® compound. Work the compound down between the threads.
- b) Screw threaded fitting/hub/reducer/conduit together and ensure that an overflow of thread sealant is present.
- c) There is no cure time for this product (the product works from the point of application).

NOTE: Use of duct seal to block conduit opening is necessary if conduit leads to a non-NEMA 4 junction box (use of a junction box with at least a NEMA 3R rating is required). Use Gardner Bender DS-110 duct seal (The Home Depot®). Instruction for duct seal application (if necessary):

- a) Duct seal application needs to be done after all wiring connections have been completed.
- b) Clean hub surface area so that it is free of any debris or chemical contamination.
- c) Open the 1-pound duct seal package and break off a 1 1/2" x 1 1/2" duct seal compound piece.
- d) Pack the duct seal compound downward into the hub opening until the hub is completely sealed; ensure that the compound encapsulates the three wires completely (see **Figure 4**).
- e) Once the material is tight and secure, level the surface flush with the bottom of the hub.

5. Reconnect ribbon switch connector into mating connector on printed circuit board assembly and reconnect ground wire. Reinstall the Hard-Wire Access Panel (**Figure 8**) and close enclosure door.

6. Restore power at circuit breaker. **Installation is complete. Refer to Level 2 - Electric Vehicle Charging Station User Guide for operation.**

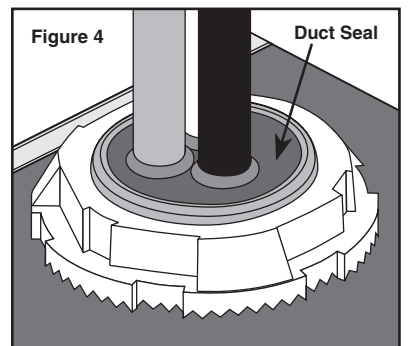
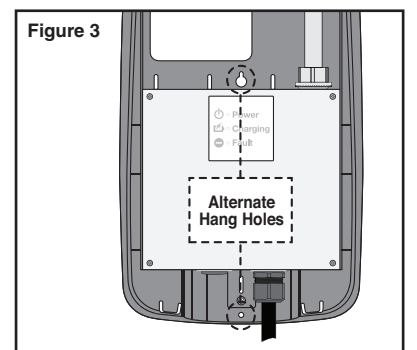
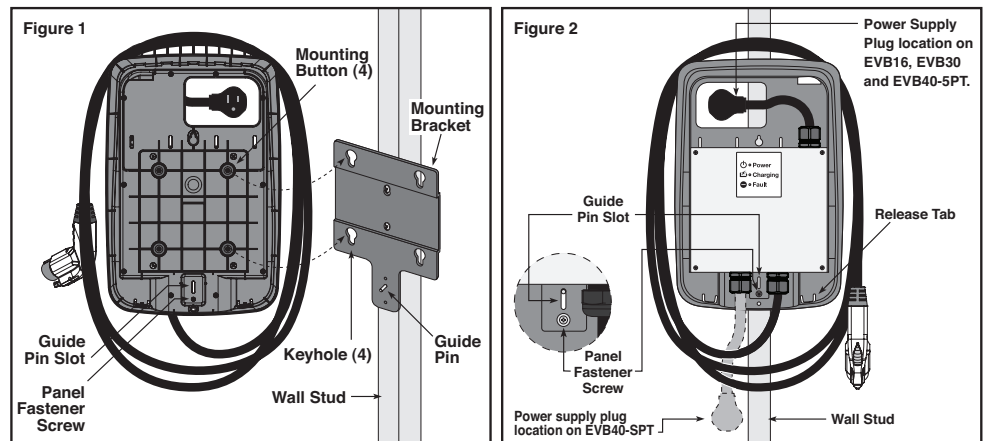
POWER CHARGING STATION

Plug the Charging Station into the installed outlet (20A for EVB16, 50A for EVB30 and EVB40) and replace the Enclosure Door. Upon plugging in the unit, a self-testing sequence will initiate. Please refer to the Level 2 User Guide for a more detailed description. **NOTE:** DO NOT plug the Charge Connector into the vehicle prior to the self-test; this may cause the Charging Station to go into Cold Load Pick-up, and delay charging. **Refer to Level 2 - Electric Vehicle Charging Station User Guide for operation.**

FOR CANADA ONLY

For warranty information and/or product returns, residents of Canada should contact Leviton in writing at **Leviton Manufacturing of Canada Ltd to the attention of the Quality Assurance Department, 165 Hymus Blvd, Pointe-Claire (Quebec), Canada H9R 1E9** or by telephone at **1 800 405-5320**.

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CUSTOMER SUPPORT

Call our Customer Support Hotline at 1-877-338-7473. PLEASE HAVE THE MODEL NUMBER AND SERIAL NUMBER AVAILABLE WHEN YOU CALL. These can be found on the label on the inside cover of the Charging Station.

If your call is made after business hours or on weekends, please leave your name, telephone number, the Charging Station's serial number, and a brief description of the problem. A Customer Service Representative will call back at the earliest opportunity.

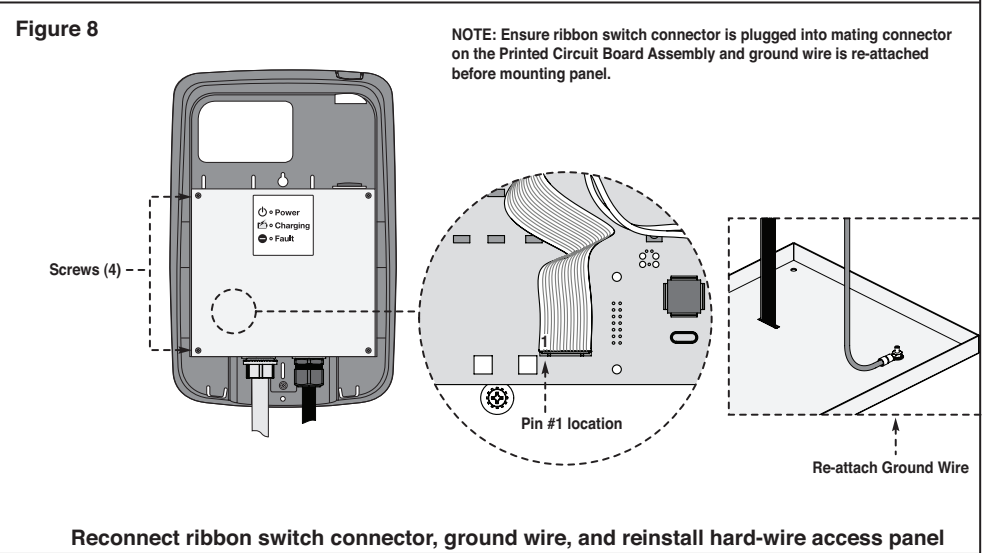
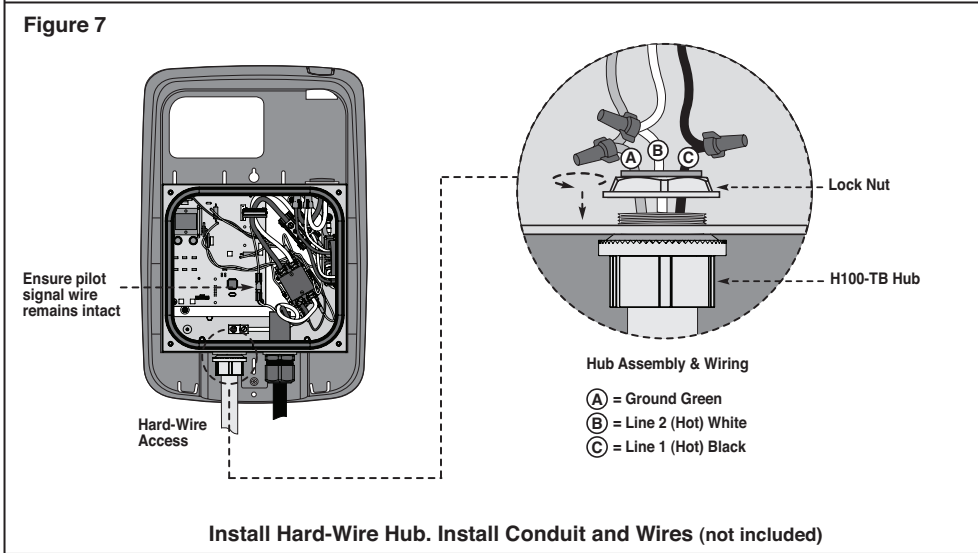
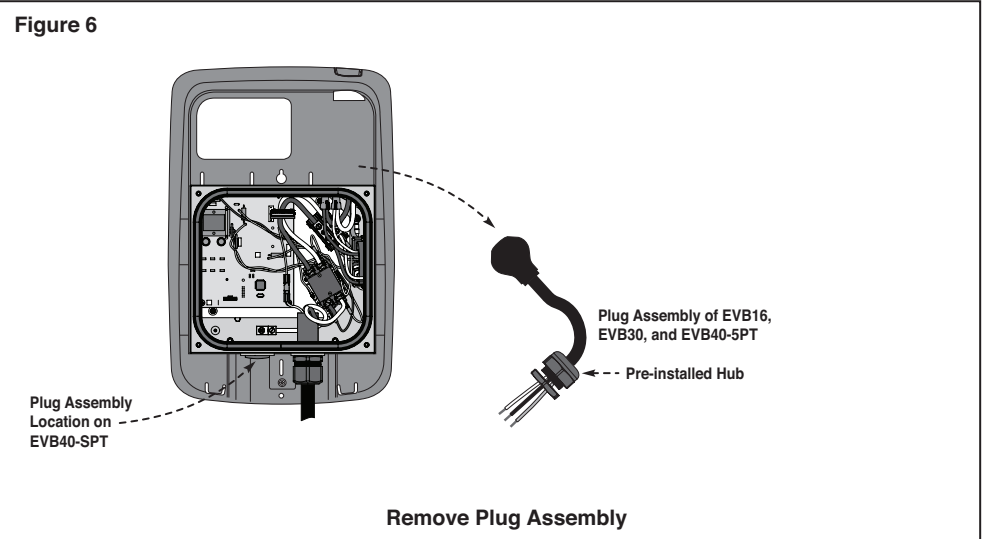
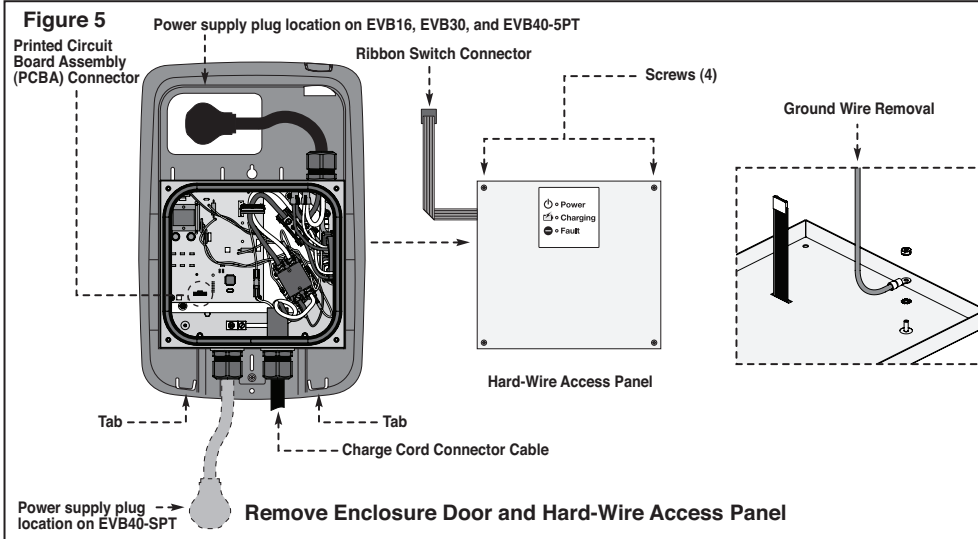
For additional products and information, and for complete step by step guidelines on how to install our Electric Vehicle Chargers and Pre-Wire Kits, please visit our website for our "How To Install" videos - www.leviton.com/evrgreen.

Many questions and answers can be found in our knowledge base community. Just go to [leviton.com](http://communities.leviton.com/community/knowledgebaseforums/evr-green) and click on the Knowledgebase link, or go directly to <http://communities.leviton.com/community/knowledgebaseforums/evr-green>.

LIMITED 3 YEAR WARRANTY AND EXCLUSIONS

Leviton warrants to the original consumer purchaser and not for the benefit of anyone else that this product at the time of its sale by Leviton is free of defects in materials and workmanship under normal and proper use for three years from the purchase date. Leviton's only obligation is to correct such defects by repair or replacement, at its option, if within such three year period the product is returned prepaid, with proof of purchase date, and a description of the problem to **Leviton Mfg. Co., Inc. 201 North Service Road, Melville, N.Y. 11747**. This warranty excludes and there is disclaimed liability for labor for removal of this product or reinstallation. This warranty is void if this product is installed improperly or in an improper environment, overloaded, misused, opened, abused, or altered in any manner, or is not used under normal operating conditions or not in accordance with any labels or instructions. **There are no other or implied warranties of any kind, including merchantability and fitness for a particular purpose**, but if any implied warranty is required by the applicable jurisdiction, the duration of any such implied warranty, including merchantability and fitness for a particular purpose, is limited to three years. **Leviton is not liable for incidental, indirect, special, or consequential damages, including without limitation, damage to, or loss of use of, any equipment, lost sales or profits or delay or failure to perform this warranty obligation.** The remedies provided herein are the exclusive remedies under this warranty, whether based on contract, tort or otherwise.

FIGURES 5-8



WIRING DIAGRAMS

