

Level 2 - Electric Vehicle Charging Station  
Cat. No. EVB16 - 16A  
Cat. No. EVB30 - 30A  
Cat. No. EVB40 - 40A  
User Guide



PK-93979-10-00-0C

WARNINGS AND CAUTIONS:

- Carefully read these instructions and the charging instructions in your **vehicle owner's manual** before charging your electric vehicle. **FAILURE TO DO SO MAY RESULT IN PROPERTY DAMAGE, INJURY OR DEATH.**
- To be installed by an electrician and be used in accordance with appropriate electrical codes and regulations.
- The Charging Station is used 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** use the Charging Station with a damaged AC receptacle.
- **DO NOT** use an extension cord to provide power to the Charging Station.

WARNINGS AND CAUTIONS:

- **DO NOT** operate the Charging Station with a visibly damaged AC Supply Cord/Plug or Charge Cord/Connector. Inspect equipment before each use. If any damage is detected, contact a Customer Service Representative (refer to Customer Support section).
- Ensure that the Charge Connector Cord is positioned so it will not be stepped on, tripped over, or otherwise subjected to damage or stress. Always stow Charge Cord and Connector by wrapping the Charge Cord around the Charging Station when not in use (as shown below).
- **DO NOT** attempt to repair or service the Charging Station yourself. Opening the inner electronics access panel will void the warranty. Refer to the Customer Support section for service information.
- Device meets the requirements of Outdoor/Indoor (NEMA 4, Watertight) installations.
- Retain this guide for future reference.

NOTE FROM THE EVSE MANUFACTURER

This user guide 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 this user guide) or visit [www.leviton.com/evrgreen](http://www.leviton.com/evrgreen).

ELECTRIC VEHICLE COMPATIBILITY

The Level 2 – Electric Vehicle Charging Station is listed by Underwriters Laboratories (UL) under Electric Vehicle Supply Equipment (EVSE). The compact physical design of your Charging Station takes up a minimum amount of wall space, providing the greatest flexibility for mounting locations. This device incorporates multiple levels of safety for the user, the vehicle and the charging equipment. It conforms to all industry standards and recommended practices.

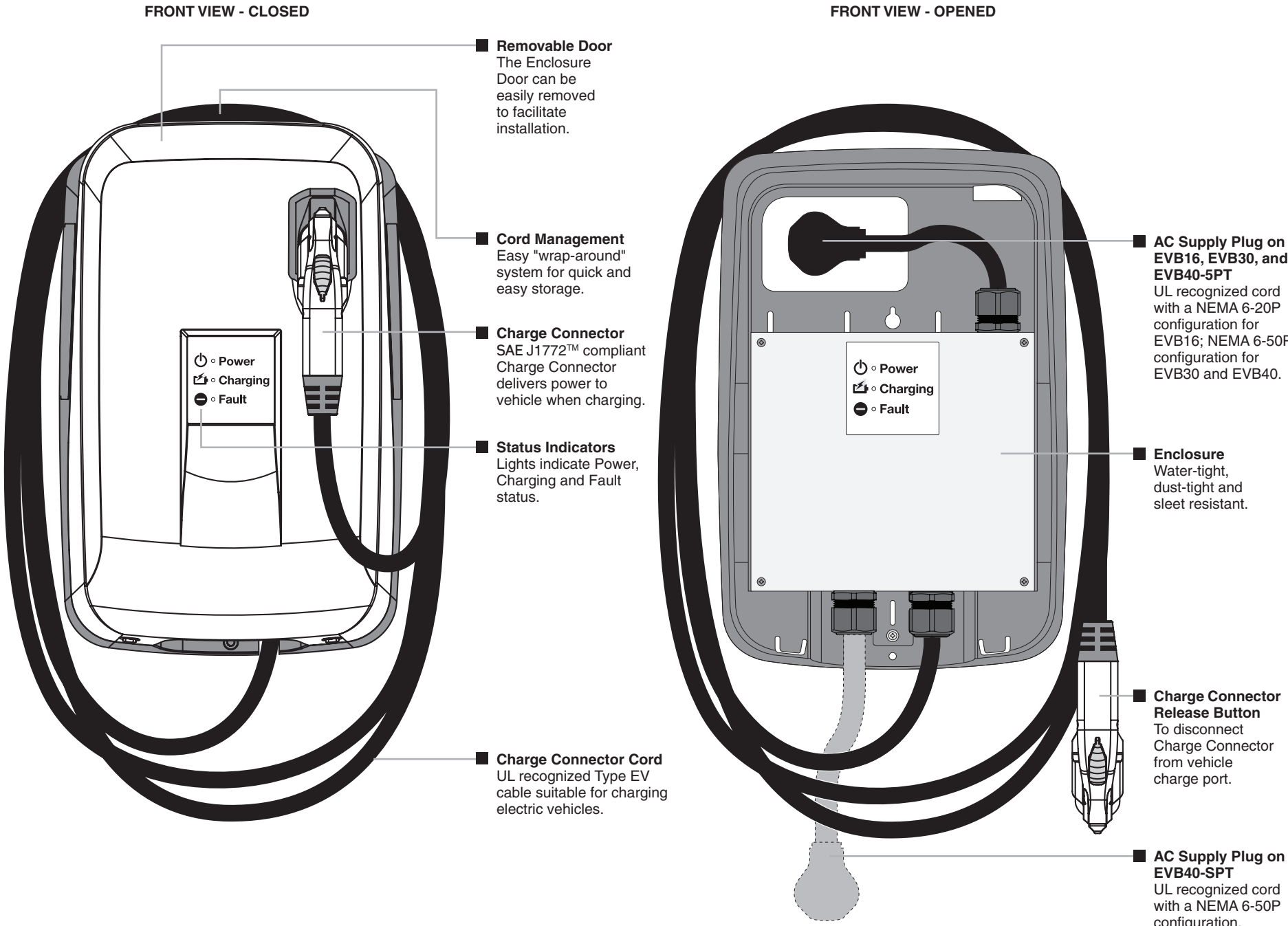
Important Notes to the Installer:

- The EVB40-5PT plug location is intended for flush mount applications where the electrical box can be recessed into the wall, and for hard-wired applications.
- The EVB40-SPT is intended for plug-in solid wall applications where the electrical box must be surface mounted on the wall.
- Ensure that the correct mounting template is used for installation, as several templates are available within the pre-wire kits.
- The EVB16 and EVB30 are only available with the top-mounted plug.

FEATURES

- **SAE J1772™ Compliant** - Ensures compatibility with all battery electric vehicles (BEV) or plug-in hybrid electric vehicles (PHEV) conforming to this standard.
- **Self-Testing Sequence** - Upon plugging the Charging Station into the wall outlet, a self-test will occur to ensure that the unit is working properly. This sequence will also occur each time the Charge Connector is plugged into the vehicle to ensure a proper connection, prior to initiating charging.
- **Auto-Restart** - Allows charging to reinitiate after fault condition, up to 3 times at 15 minute intervals. If fault condition clears, no user intervention is required.
- **Ground Monitoring Circuit** - Checks for presence of proper safety ground during self-testing sequence.
- **Contactors Monitoring Circuit** - Constantly checking the integrity of AC charging path.

OVERVIEW



FEATURES CONTINUED

- **Cold Load Pickup** - Time delayed and randomized (2-15 minutes) re-energizing of Charging Station following power outage. This feature protects electrical grid from overload from simultaneous re-energizing of chargers. Charging will automatically resume after the randomized delay.
- **Excessive Cord Strain Detection** - A safety feature that de-energizes the Charge Cord if excessive pull is placed upon it (**see Troubleshooting - contact Customer Support**).
- **NEMA Type 4 Enclosure** - The EVSE has a watertight (NEMA 4) rating. Use of UL listed watertight conduit compression fittings 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.
- **UL and cUL Listed.**

POWERING THE CHARGING STATION

Using the Level 2 – Electric Vehicle Charging Station to charge your electric vehicle is as simple as plugging in any appliance.

Reference Installation Instructions to ensure the Charging Station has been properly installed. **NOTE:** If the Charging Station Power LED is not illuminated, ensure the AC Supply Cord is plugged in or reset circuit breaker to start power up sequence.

Power Up Sequence

- Upon plugging in the unit, the Power, Charging and Fault LEDs will all illuminate momentarily, followed by just the Power LED illuminating. After 6 seconds a self-testing sequence will start where the Power LED will flash for approximately 3 seconds. Following the self-test, if no fault is detected, the Power LED will illuminate solid green, indicating that the Charging Station is now ready for use.

**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 (**see Features section**), and delay charging.

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J1772 is a trademark of SAE International

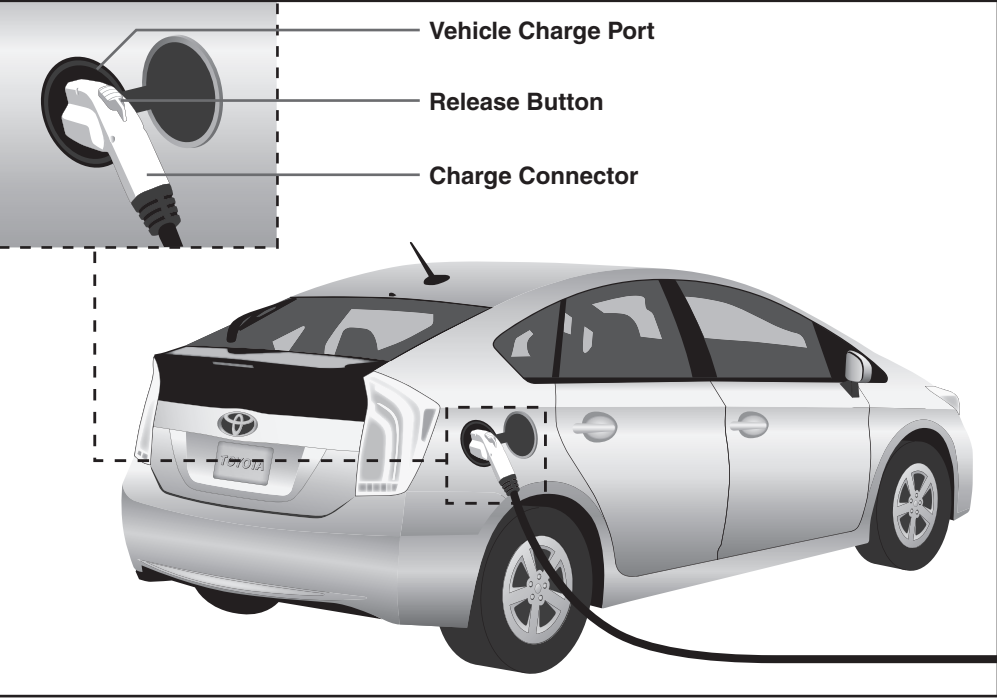
CHARGING YOUR VEHICLE

1. Connect the Charging Station to the Vehicle:

**NOTE:** The vehicle must be parked close enough to the Charging Station to allow the Charge Connector to connect to the vehicle charge port without putting any stress on the Charge Connector Cord. Position the Charge Connector Cord so that it will not be stepped on, tripped over or otherwise subjected to damage or stress.

Plug the Charge Connector of the Charging Station into the charge port on the vehicle (**see vehicle owner's manual for location of charge port**). Ensure that the Charge Connector is fully engaged, and cannot be removed from the vehicle without depressing the release button. Once the Charge Connector is engaged, a self-test will initiate, where the Power LED will flash for approximately 3 seconds. If no fault is detected and a proper connection is made between the vehicle and the Charging Station, the Power LED will illuminate solid and the Charging LED will start flashing, indicating charging has begun.

**NOTE:** The Charge Connector Release Button has to be fully released in order for the charging to start. The Charge Connector cannot be disengaged from the vehicle charge port without depressing the Charge Connector Release Button. Pressing the Charge Connector Release Button stops the charge to the vehicle.

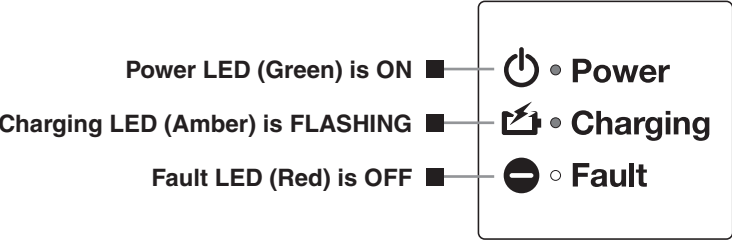


2. Charge Vehicle:

Charging will continue until the battery is fully charged. Verify that the Power LED is illuminated, the Charging LED is flashing and the Fault LED is off.

**NOTE:** Disengaging the Charge Connector from the vehicle charge port while charging will automatically stop the charging process. Reinserting the Charge Connector into the vehicle charge port will automatically restart charging after a self-test.

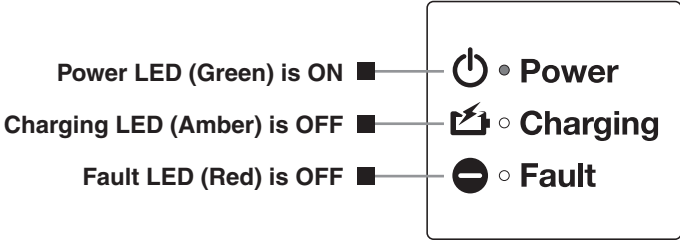
In the event of a power outage, all LEDs will turn off. When power resumes, the Charging Station will enter a Cold Load Pickup mode. This is a random (2-15 min) delay for the self-test start after which charging will resume. The Power LED will then flash momentarily while performing a self-test. Charging will resume when the self-test is complete.



3. End Charge:

Once the vehicle has been fully charged, the charging process will automatically stop. Verify that the Power LED is illuminated, and that the Charging and Fault LEDs are off. The total charge time will vary based on vehicle, initial charge state of battery, and other variables. Consult your vehicle owner's manual for specific charge rates. If the vehicle is charging longer than the amount of time specified in the vehicle owner's manual, disconnect the Charging Station from the vehicle and contact the vehicle manufacturer.

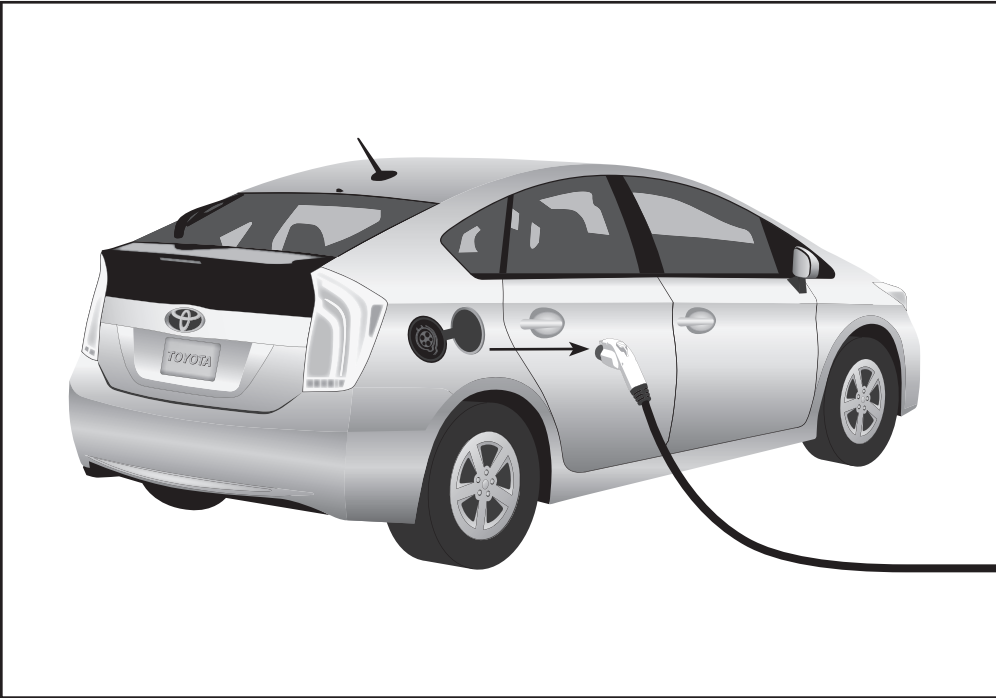
While in the charging state it may be necessary to stop the charging process. To stop the charging process, disconnect the Charge Connector from the vehicle charge port. The Charging LED will turn off to alert the user that the charging process has ceased.



4. Disconnect Charge Connector:

**CAUTION:** Once the vehicle is fully charged, the Charge Connector must be disconnected from the vehicle charge port before the vehicle can be moved. Simply depress the Charge Connector Release Button on the Charge Connector and unplug it from the vehicle charge port.

Carefully loop the Charge Connector Cord around the Charging Station.



CLEANING

The Charging Station does not require any maintenance other than occasional cleaning.

**NOTE:** For Plug-In Units - Unplug Charging Station from wall outlet before cleaning.

For Hard-Wire Installation - Turn off the Charging Station at the circuit breaker before cleaning.

Use a soft, lightly moistened cloth with a mild detergent solution. **DO NOT** use any type of abrasive pad, scouring powder, or flammable solvents such as alcohol. **DO NOT** power up Charging Station until completely dry.

TROUBLESHOOTING

TROUBLESHOOTING	
PROBLEM	ACTION
No power; no LED indicators lit	Check that Charging Station is plugged into receptacle. Check that circuit breaker(s) is turned on. If LEDs still not lit, Call Customer Support Hotline.
Charging LED not flashing	Check that Charge Connector is fully engaged. The Release Button should be fully released. Check that vehicle is not fully charged. Self diagnostic test failed. Unplug Charge Connector and reconnect. If LED still not lit, Call Customer Support Hotline.
Fault LED flashing	Wait to ensure self-test is complete. If a fault is detected, the Fault LED will continue to flash, and the vehicle will not charge. The Charging Station will go into an Auto-Restart every 15 minutes. If no fault is detected after the Auto-Restart, the Fault LED will turn off, the Charging LED will illuminate, and charging will commence. If the fault is still detected after 3 attempts, the Fault LED will illuminate solid Red. Call Customer Support Hotline.
Fault LED illuminated solid Red	The Charging Station has been unable to detect a safety ground, or has failed 3 consecutive self-tests. Disconnect the Portable Charger from the power source, and begin again from step 1. If the fault continues, call Customer Support Hotline.

TECHNICAL SPECIFICATIONS

Electrical Input	EVB16	EVB30	EVB40	Performance Specifications	
Amperage	16A	30A	40A	Surge Protection	6kV@ 3000A
Voltage	120/208VAC or 120/240VAC			Ground Fault Protection	17mA ± 2.5mA CCID
Configuration (NEMA Plug)	6-20P	6-50P		Electromagnetic Compatibility	FCC Part 15 Class B
Electrical Output				Standards & Certifications	
Power	3.8kW (16A @ 240VAC)	7.2kW (30A @ 240VAC)	9.6kW (40A @ 240VAC)	UL 62	Standard for Flexible Cords and Cables
Charging Connector	SAE J1772™			UL 991	Standard for Tests for Safety-Related Controls Employing Solid-State Devices
				UL 1998	Standard for Software in Programmable Components
Material Specifications				UL 2231	Standard for Personnel Protection Systems for Electric Vehicle (EV) Supply Circuits
Enclosure	Valox™ 357U PBT			UL 2251	Standard for Plugs, Receptacles and Couplers for Electric Vehicles
Charge Connector Cord	UL Type EVT	UL Type EVE		UL 2594	Outline of Investigation for Electric Vehicle Supply Equipment
Environmental Specifications				SAE J1772™	Electric Vehicle Conductive Charge Coupler Standard
Operating Temperature	-35°C to 50°C			NEC Article 625	Electric Vehicle Charging System Equipment
Storage Temperature	-50°C to 80°C			J1772 is a trademark of SAE International	
Operating Humidity	95% non-condensing				
Electronics Enclosure	NEMA Type 4				

FCC INFORMATION

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received including interference that may cause undesired operation.

**CAUTION:** Any changes or modifications not expressly approved by Leviton will void the user's authority to operate this equipment.

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](http://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>.

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**.

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.