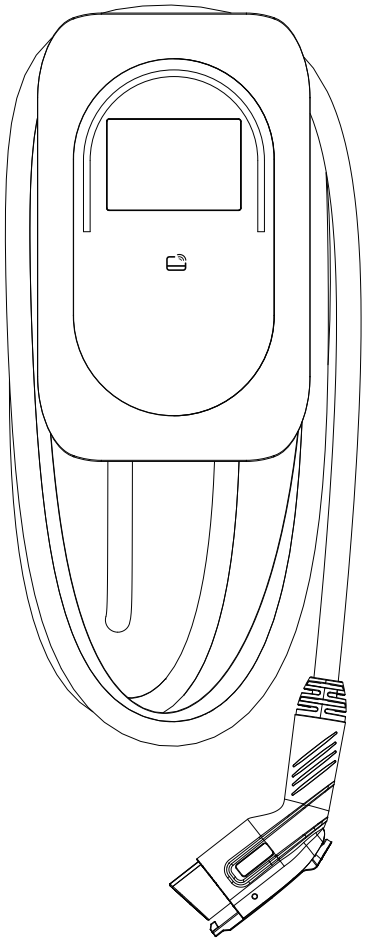
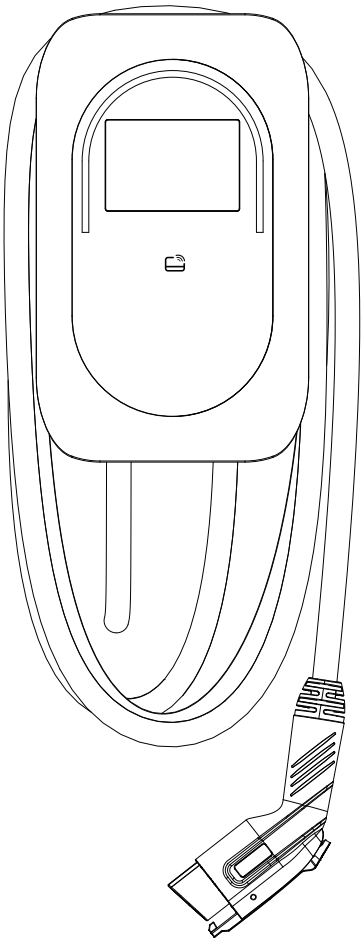
Electric Vehicle AC Charging Station

Installation Manual

Cat. Nos. EV48G-2, EV48S-2, EV80G-2, and EV80S-2



48A / 80A EVSE No LCD Screen
(EV48G-2 and EV80G-2)



48A / 80A EVSE with LCD Screen
(EV48S-2 and EV80S-2)

PK-A3487-10-00-6A

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1 WARNINGS AND CAUTIONS

WARNINGS:

- **TO AVOID FIRE, SHOCK, OR DEATH; TURN OFF POWER AT CIRCUIT BREAKER OR FUSE AND TEST THAT POWER IS OFF BEFORE WIRING, REPLACING OR SERVICING THE PRODUCT!**
- **HAZARD OF ELECTROCUTION, SHOCK, EXPLOSION, OR ARC FLASH.** This device has arcing or sparking parts that should not be exposed to flammable vapors**.**
- **TO AVOID FIRE, SHOCK, DEATH, OR DAMAGE TO THE CHARGER**, carefully read the charging instructions in your vehicle's manual before you use the charger.
- **RISK OF ELECTRIC SHOCK.** Do not remove cover or attempt to open the enclosure of the device.
- This device should be installed, adjusted, and serviced by an electrician or qualified personnel familiar with the construction and operation of this type of charger and the dangers involved.
- Do not forcefully pull the charging cable, damage it with sharp objects, put fingers, or insert foreign objects into any part of the charging connector.
- Do not use the charger when you are in the vehicle, or the charger is exposed to severe rain, snow, or other severe weather.
- Connect only to a circuit providing branch circuit overcurrent protection in accordance with the National Electrical Code, ANSI/NFPA 70 (United States), the Canadian Electrical Code, Part I, C22.1. Canada), or NOM-001-SEDE (Mexico).

Model	Circuit Breaker/Fuse Rating
EV48G-2, EV48S-2	60A
EV80G-2, EV80S-2	100A

CAUTIONS:

- No user serviceable parts inside.
- The device is designed only for vehicles that are compatible with the SAE J1772 Level 2 charging standard.
- Do not use the charger if it is defective, appears cracked, frayed, broken, or damaged.
- When transporting the charger, handle with care and do not drag or step on the device.
- Do not touch the charging connector terminal with sharp metallic objects to prevent damage.
- Incorrect installation and testing of the charger could potentially damage either the vehicle's battery or the device. Any resulting damage is excluded from the warranty for the device.
- Ensure that the charging cable is positioned properly during charging so it does not get stepped on, tripped over, or subjected to damage or stress.
- Use appropriate protection when connecting to the main power distribution cable.
- Type B, C or D breaker with the rating current for table must be installed in the upstream AC distribution box.
- Disconnect switch for each unground conductor of AC input (not included) in accordance with the National Electrical Code ANSI/NFPA 70.

Design Safety Standards
UL2594: Electric Vehicle Supply Equipment
UL 2231-1: Personnel Protection Systems for Electric Vehicle (EV) Supply Circuits: General Requirements
UL 2231-2: Personnel Protection Systems for Electric Vehicle (EV) Supply Circuits: Particular Requirements for Protection Devices for Use in Charging Systems
UL 2251: Plugs, Receptacles and Couplers for Electric Vehicles
UL 62: Flexible Cords and Cables
UL 991: Tests for Safety-Related Controls Employing Solid-State Devices
UL 1998: Software in Programmable Components
NFPA 70 Article 625: National Electrical Code, Electric Vehicle Charging System
UL840 (Clearance and Creepage)

Specifications	
Model Name	EV48G-2, EV48S-2, EV80G-2, EV80S-2
Rated Input Voltage	200-240V AC / Single-Phase
Rated Output Current	48A / 80A
AC Power Frequency	50/60 Hz
Input Protection	UVP, OVP, RCD, SPD,Ground Fault Protection
Output Protection	OCP, OTP, Control Pilot Fault Protection
Output Interface	SAE J1772 AC Charging Connector
Storage Temperature	-40°F (-40°C) to +158°F (70°C)
Operation Temperature	-22°F (-30°C) to +122°F (50°C)
Relative Operation Humidity	95% RH Maximum
Relative Storage Humidity	95% RH Maximum
Module	4G Cellular
Cable Length	18 ft
Protection Level	IK08 and IP54
Installation Type	Wall mount or pedestal mount
Altitude	≤ 2,000 m
Weight	EV48G and EV48S: 6.5 ± 0.5 kg EV80G and EV80S: 7.5 ± 0.5 kg
Dimensions	EV48G and EV80G: 14.2 in. x 9.8 in. x 3.4 in. (360.50 mm x 249.94 mm x 86.94 mm) EV48S and EV80S: 14.2 in. x 9.8 in. x 3.9 in. (360.50 mm x 249.94 mm x 100 mm)
Status Indication	RED, GREEN, BLUE LED

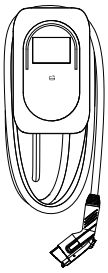
3 TOOLS NEEDED

#	Product Name	Quantity
1	AC Charger (With Charging Cable)	1
2	User Manual	1
3	Wall Mounted Bracket	1
4	M5 teeth screws	2
5	M6 Hexagonal Expansion Screws	4

Tools Required before You Install the Wall-Mounted Charger:

- Wire stripper
- Phillips screwdriver
- Adjustable Wrench
- Voltmeter or digital multimeter (for measuring AC voltage at the installation site)
- Level
- Pencil or marker
- Drill

1



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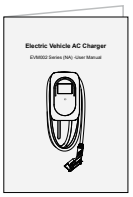

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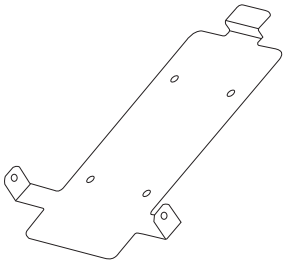

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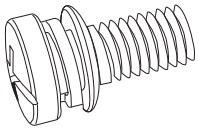

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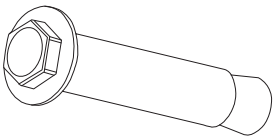
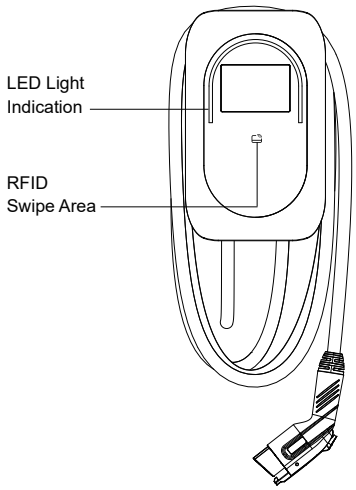
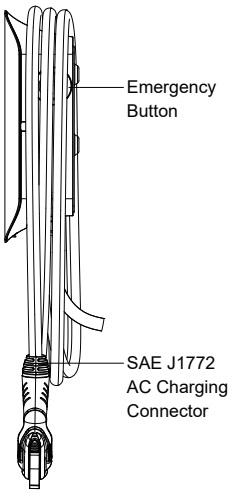
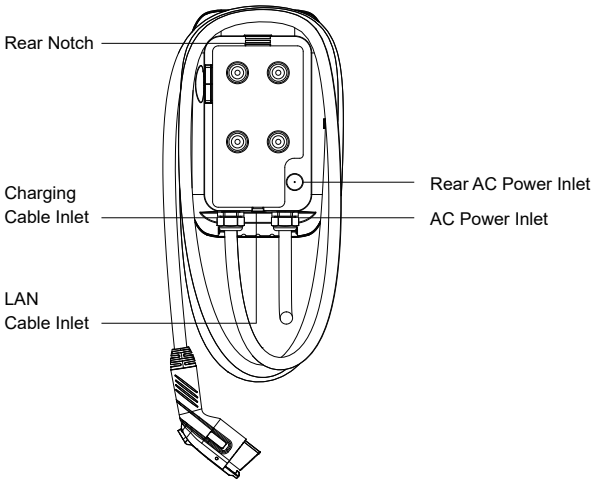


4 BASIC INTERFACE

EV48S-2
EV80S-2

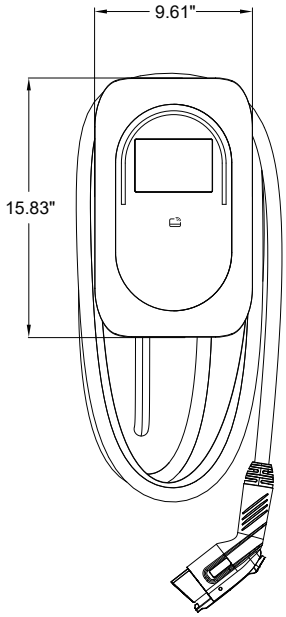


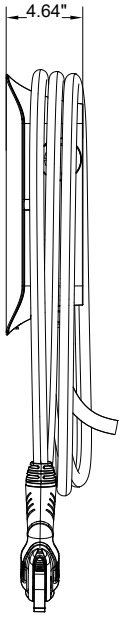


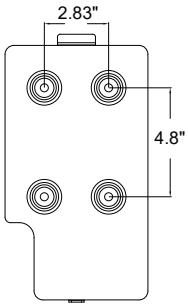


5 DIMENSIONS

EV48S-2 and EV80S-2 Charger Dimensions







6 INDICATION LIGHT STATUSES

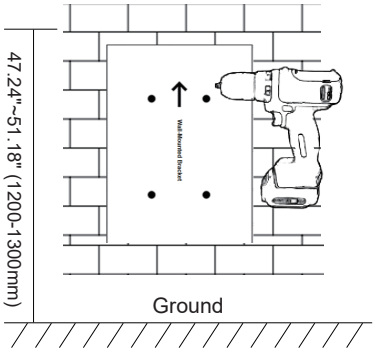
Charger Indication Light Status	
BLUE Light	Standby - BLUE light The Ready light stays steady in standby mode.
GREEN Light	Waiting for Charge - GREEN light After the vehicle connector is connected to the vehicle inlet, the Charge light remains lit.
GREEN Light Flashing	Charging - GREEN light flashes The Charge light flashes while charging.
RED Light	Fault - RED light If the RED light is ON, an error occurred. Refer to section 9, “Error and Warning Messages” for detailed information.

7 INSTALLATION

7.1 Wiring

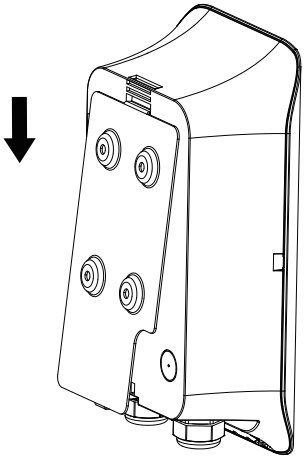
STEP 1

Make sure the installation wall is vertical, and use the Mounting template to drill four screw holes with a diameter of 0.33" (8.5mm) and a depth of 2.17"~2.36" (55mm~60mm) at a height of 47.24"~51.18"(1200-1300mm) from the ground according to the hole positions.



STEP 2

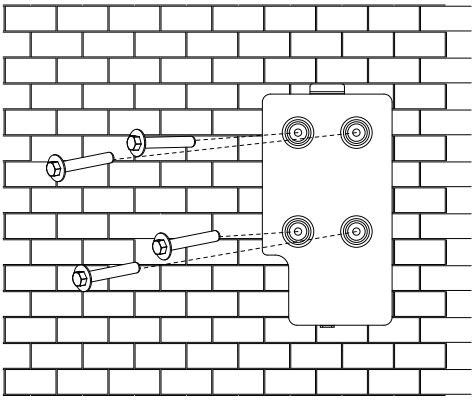
Push the bracket down to remove the wall hanger.



7 INSTALLATION

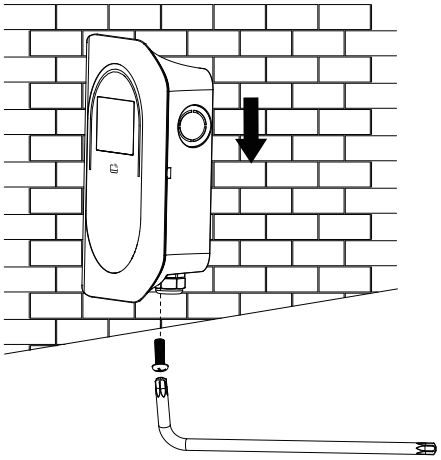
STEP 3

Use 4 Hexagonal Expansion Screws to secure the wall-mounted bracket on the wall, Use an wrench to tighten the screw nuts on the expansion screws.



STEP 4

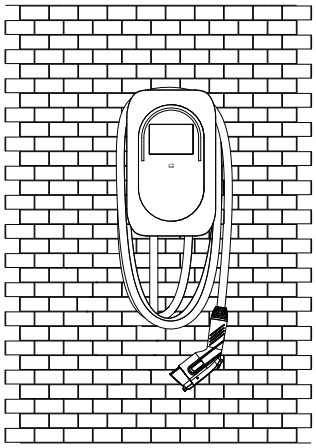
Align the rear notch of charger with the wall-mounted bracket and alignment the screw holes at the bottom, and secure it using M4 Anti-Theft Round Head Screws.



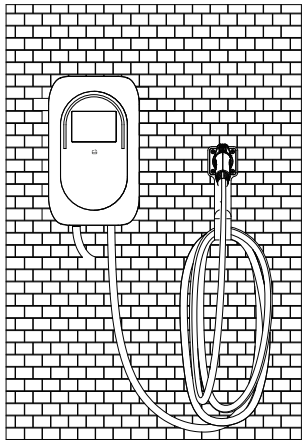
STEP 5

Overall outlook picture after installation:

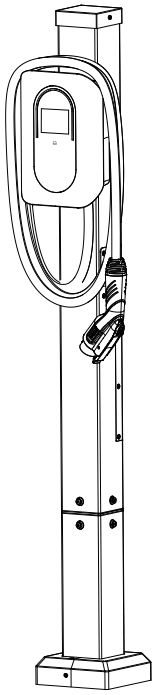
Wall-mounted cable winding



Plug holder (optional)



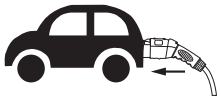
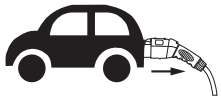
Pedestal (optional)



8 OPERATING PROCEDURES

Overview

- User authorization, if required.
- Connect to vehicle charging inlet.
- Charging messages.
- Charging complete.

Operating Procedures	
READY	**1.** Standby - BLUE light - If you are using the EV48S or EV80S model, you may need to enter user credentials.
	**2.** Plug the charging connector into the vehicle's charging inlet. **NOTE:** If you have activated RFID on your charging station, you must tap the RFID card on the indicated spot, and then plug in within 2 minutes.
 CHARGE	**3.** Charging The GREEN light flashes automatically, which indicates the device is charging. **NOTES:** • If the RED light (an error occurred) is lit, plug-in the vehicle connector again. • If RED light is still lit, refer to the "Error and Warning Messages," section.
	**4.** Charging complete. Unplug the connector. **NOTE:** The GREEN light stops flashing.

Software Setup

For instructions on registering and verifying your charger, refer to the ampUp Installer Quick Start Guide.

9 ERRORS AND WARNING MESSAGES

Status	Red	Remark
Emergency Fault	Constantly Bright	Power Cycle
Input OVP	1 flash followed by 3 second pause	Auto Recover
Input UVP	2 flashes followed by 3 second pause	Auto Recover
Output OCP	3 flashes followed by 3 second pause	Auto Recover (Pull out the charging connector)
OTP	4 flashes followed by 3 second pause	Auto Recover
RCD Abnormal	5 flashes followed by 3 second pause	Auto Recover (Pull out the charging connector)
Ground Fault	6 flashes followed by 3 second pause	Auto Recover
Control Pilot Fault	7 flashes followed by 3 second pause	Auto Recover (Pull out the charging connector)
Relay Fault	8 flashes followed by 3 second pause	Contact Customer Service
RCD Self-Test Fault	9 flashes followed by 3 second pause	Contact Customer Service
Relay Self-Test Fault	10 flashes followed by 3 second pause	Contact Customer Service
Meter Fault	Keeps Blinking	Contact Customer Service

10 DAILY MAINTENANCE

WARNING:

Avoid infiltration of water or other liquid in the charger. If there is water or moisture, immediately power OFF the charger, and have an electrician or other qualified personnel inspect the product before its next use.

CAUTIONS:

- Keep the charger clean and in an area with low humidity. Do not install it in an environment that is near the sea, or with high-oil, high-humidity, or high-dust.
- If there is any damage or dirt on the vehicle connector, charging cable, or vehicle connector holder, please contact the maintenance personnel immediately.
- Please use the charger properly. Do not hit or press hard on the case or place heavy objects on the charger. If the case is damaged, please contact a professional technician.
- Avoid placing the charger near hot objects, in high-temperature locations, and away from dangerous substances, such as flammable gases and corrosive materials.

11 STANDARD STATEMENTS AND WARRANY

FCC STATEMENT:

This device complies with Part 15 of the FCC Rules and ISED License-exempt RSS standard(s). 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. Changes or modifications not expressly approved by Leviton could void the user's authority to operate the equipment.
These limits are designed to provide reasonable protection against harmful interference in a commercial installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This Class B digital apparatus complies with Canadian CAN ICES-3(A)/NMB-3(A).

To maintain compliance with FCC's RF Exposure guidelines, This equipment should be installed and operated with minimum distance of 20cm from your body.

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Specifications and price subject to change at any time without notice.

FOR CANADA ONLY

For warranty information and/or product returns, residents of Canada should contact Leviton in writing at **Leviton Manufacturing of Canada ULC** 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.**

FOR MODELS 48G AND 80G LIMITED 2 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 two years from the purchase date. Leviton's only obligation is to correct such defects by repair or replacement, at its option. **For details visit www.leviton.com or call 1-800-824-3005.** 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 two 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.

FOR MODELS 48S AND 80S 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. **For details visit www.leviton.com or call 1-800-824-3005.** 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.

For Technical Assistance Call: 1-800-824-3005 (USA Only) or 1-800-405-5320 (Canada Only) www.leviton.com

For Software and Setup Technical Assistance Call: 1-833-692-6787