

Level 1 / Level 2 Combination

Network Charging Station For Public Applications

Installation Guide

Bollard Mount



Pole Mount



Wall Mount







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IMPORTANT SAFETY INSTRUCTIONS

SAVE THESE INSTRUCTIONS

This manual contains important instructions that must be followed during installation of a Evr-Green™ Public Use Networked Charging Station.

Grounding Instruction

Evr-Green™ Public Use Networked Charging Station. must be connected to a grounded, metal, permanent wiring system; or an equipment-grounding conductor is to be run with circuit conductors and connected to the equipment grounding terminal or lead on the Electric Vehicle Supply Equipment (EVSE). Connections to the EVSE shall comply with all local codes and ordinances.

FCC Compliance Statement

This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the manufacturer's instruction manual, may cause harmful interference with radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case, you will be required to correct the interference at your own expense.

Important: Changes or modifications to this product not authorized by Leviton Manufacturing could affect the EMC compliance and revoke your authority to operate this product.

Exposure to Radio Frequency Energy: The radiated power output of the Zigbee radio and cellular modem (optional) in this device is below the FCC radio frequency exposure limits for uncontrolled equipment. This device should be operated with a minimum distance of at least 20 cm between the Zigbee and Cellular antennas and a person's body and must not be co-located or operated with any other antenna or transmitter by the manufacturer, subject to the conditions of the FCC Grant.

Safety and compliance

This document provides instructions to install the Evr-Green™ Public Use Networked Charging Station and should not be used for any other product. Before installing the Evr-Green™ Public Use Networked Charging Station, you should review this manual carefully and consult with a licensed contractor, licensed electrician and trained installation expert to ensure compliance with local building practices, climate conditions, safety standards, and state and local codes. The Evr-Green™ Charging Station should be installed only by a licensed contractor and a licensed electrician and in accordance with all local and national codes and standards. The Evr-Green™ Charging Station should be inspected by a qualified installer prior to the initial use. Under no circumstances will compliance with the information in this manual relieve the user of his/her responsibility to comply with all applicable codes or safety standards. This document describes the most commonly-used installation and mounting scenarios. If situations arise in which it is not possible to perform an installation following the procedures provided in this document, contact Leviton Manufacturing. Leviton Manufacturing is not responsible for any damages that may occur resulting from custom installations that are not described in this document.

No accuracy guarantee

Reasonable effort was made to ensure that the specifications and other information in this manual are accurate and complete at the time of its publication. However, the specifications and other information in this manual are subject to change at any time without prior notice.

Warranty information and disclaimer

Your use of, or modification to, the Evr-Green™ Charging Station in a manner in which the Evr-Green™ Charging Station is not intended to be used or modified will void the limited warranty. Other than any such limited warranty, the Leviton products are provided "AS IS," and Leviton Manufacturing and its distributors expressly disclaim all implied warranties, including any warranty of design, merchantability, fitness for a particular purposesand non-infringement, to the maximum extent permitted by law.

Limitation of liability

IN NO EVENT SHALL LEVITON MANUFACTURING OR ITS AUTHORIZED DISTRIBUTORS BE LIABLE FOR ANY INDIRECT, INCIDENTAL, SPECIAL, PUNITIVE, OR CONSEQUENTIAL DAMAGES, INCLUDING WITHOUT LIMITATION, LOST PROFITS, LOST DATA, LOSS OF USE, COST OF COVER, OR LOSS OR DAMAGE TO THE CHARGEPOINT® CHARGING STATION, ARISING OUT OF OR RELATING TO THE USE OR INABILITY TO USE THIS MANUAL, EVEN IF LEVITON MANUFACTURING OR ITS AUTHORIZED DISTRIBUTORS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

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Introduction



Before Installing Stations

The charging station is divided in to 3 Sections:

- 1.) Mounting Assembly which installs first
- 2.) Cable Assembly which installs second
- 3.) Head Unit which installs third and last

Please see the Level 1/Level 2 Public Use Charging Station Product Bulletin for part number and dimensional details. To download the bulletin, go to www.leviton.com/evrgreen.

Bollard Mount stations require 3 part numbers, each in a separate box. Pole or Wall Mount stations require 4 part numbers, each in a separate box.

Detailed mounting instructions are provided for each mounting method:

See Chapter 2 for Bollard Mounting See Chapter 3 for Pole Mounting See Chapter 4 for Wall Mounting

Cable Assembly and Head Unit Installation is the same for all mounting methods.

See Chapter 5 for Cable Assembly Installation

See Chapter 6 for Head Unit Installation

Before installing stations

The instructions provided in this guide assume that the appropriate wiring, circuit protection, and metering is in place at the installation location. Before you install, you must also ensure that the type of modem in each station you are installing is compatible with the type of modem coverage available at the installation site (CDMA or GPRS for US installations. GPRS only for Canadian installations.)

To assist in the process of preparing the installation site, thoroughly review the following documents:

- Wiring diagrams (provided in Chapter 1: Introduction page 1-3 of this manual.)
- Evr-Green Level 1 / Level 2 Combination Public Use Charging Station Product Bulletin (available for download from www.leviton.com/evrgreen).
- Mounting Templates for Bollard Mount and Wall Mount stations. The Bollard Mount template is located in Chapter 2, page 2-5. The Wall Mount template is located in Chapter 4, page 4-3.

IMPORTANT: If you are printing the PDF version of the Mounting Template, be sure to print at full scale using 11" x 17" paper.

Note: If you are installing a Bollard Mount charging station, prepare the site according to the instructions provided in Chapter 2 Step 4 - Install J-Bolts and conduit" on page 2-5 of this document.

It is also recommended that before you begin installing charging stations, you thoroughly review the contents of this document to familiarize yourself with the required installation steps.



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Specifications

Insert above Electrical Input: Charging connection - Level 1: NEMA 5-20R receptacle Charging connection - Level 2: SAE J1772™ EV connector on 18' (5.48m) cable

Electrical input

Input power: 208/240V 30A (Line 1 and Line 2) and 120V 16A (Line, Neutral, and Earth) - 5 wire Recommended service panel breaker: 40A double pole breaker (non-GFCI type) and 20A single pole breaker (non-GFCI type) on dedicated circuits. Do not provide external GFCI as it may conflict with internal GFCI (CCID)

Standby power: 5 W typical

⚠ **WARNING:** You must connect BOTH the 120V AC and the 208/240V AC circuits. The EVR-Green Level 1/ Level 2 Combination Charging Station will not operate if only one of the circuits is connected.

Electrical output

Output Level 2 charging power: 7.2 kW 240V @ 30A

Output Level 2 charging connector: SAE J1772™ EV connector on 18' (5m) cable

Output Level 1 charging power: 1.9 kW 120V @ 16A

Output Level 1charging connection: NEMA 5-20R receptacle

NOTE: Both 120V AC and 208/240V AC outputs can operate simultaneously.

Functional interfaces

Card reader: ISO 15693, 14443

Power measurement: 2% @ 5 minute interval

Local Area Network: 2.4 GHz 802.15.4 dynamic mesh network

Wide Area Network: Commercial CDMA or GPRS cellular data network (GPRS only in Canada)

Ground Fault detection

Level 2: 20 mA CCID with auto retry (15 minute delay, 3 tries) Level 1: 5mA CCID with auto retry (15 minute delay, 3 tries)

Plug-Out detection

Level 2: Power terminated per SAE J1772™ specification Level 1: Programmable arm and trip current threshold

Safety and operational ratings

Safety compliance: UL listed for USA and cUL certified for Canada; UL-2231-1; UL-2331-2; UL 2594;

UL1998; UL991; NEC Article 625 compliant

Surge protection: 6 kV @ 3000 A. In geographic areas subject to frequent thunder storms,

supplemental surge protection at the service panel is recommended.

EMI compliance: FCC Part 15 Class A

Operating temperature: -22°F to 122°F (-30°C to +50°C)

Operating humidity: Up to 95% non-condensing

Enclosure: NEMA 3R per NEMA 250-1997

Terminal block temperature rating: 212°F (100°C)

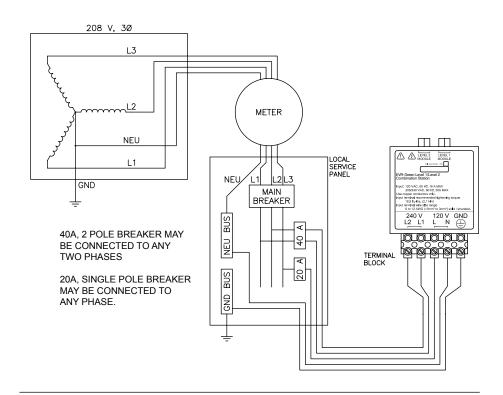
Maximum number of charging stations per radio group: 24, including gateway (each station must be within 150 feet, line-of-sight, of at least one other station)

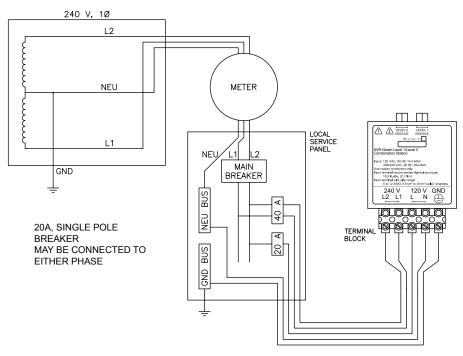


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Wiring information





2 Installing a Bollard Mount



Before you start

You will need:

- Evr-Green CTMBR Bollard Mounting Assembly
- 3 galvanized J-Bolts with matching nuts and washers: up to ½" (12.7 mm) thread diameter, length must comply with local codes but must be at least 11½" (29.2cm) long
- 1 ½" (38 mm) minimum diameter conduit and must comply with local codes
- #2 Phillips screwdriver
- #2 Slotted screwdriver
- Bollard Mounting Template
- Leviton Provisioning Worksheet and Instructions
 Call 1-877-338-7473 or email evrgreen@leviton.com.

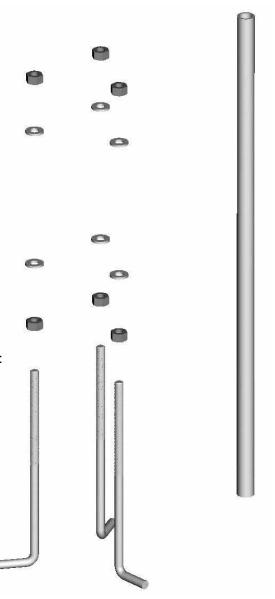
Overview of steps

Installing the Evr-Green CTMBR Bollard in a few simple steps:

- 1. Check box for correct contents (see page 2-2)
- 2. Remove front panel (see page 2-3)
- 3. Remove mounting pole and base plate from body (see page 2-4)
- 4. Install J-Bolts and conduit (see page 2-5)
- 5. Mount base plate/pole assembly (see page 2-6)
- 6. Install body (see page 2-7)
- 7. Connect wires to wiring terminals (see page 2-8)
- 8. Replace front panel (see page 2-9)

These steps are detailed in the remainder of this chapter. When you have completed these steps, you will be ready to install the holster and cable assembly as described in Chapter 5.

Installer-supplied components:





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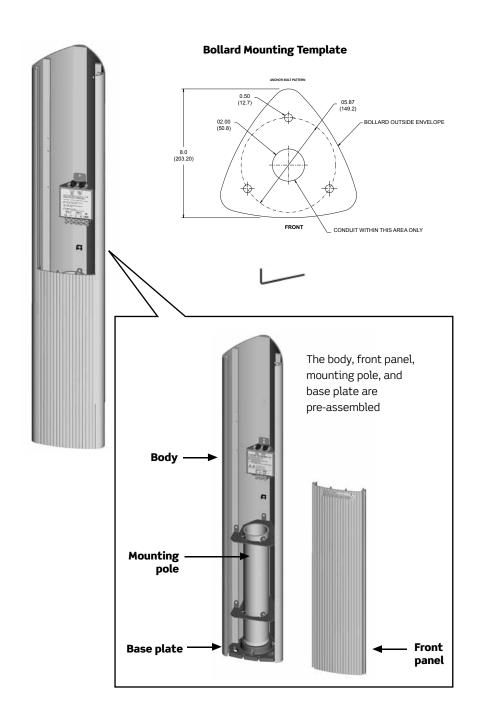
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Step 1 - Check box for correct contents

Bollard Mount Assembly

Evr-Green Level 1/Level 2 Combination Public Use Charging Station's Bollard Mounting Assembly (CTMBR) ships in a box containing:

- Main body assembly (including body, front panel, mounting pole, and base plate)
- 3/32" allen wrench





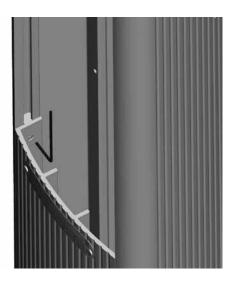
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Step 2 - Remove front panel

To remove the front panel:

- Use the supplied allen wrench to loosen the 2 screws that fasten the panel to the body.
- Remove the ground wire connector from its tab.
- Slide the front panel upward to remove.











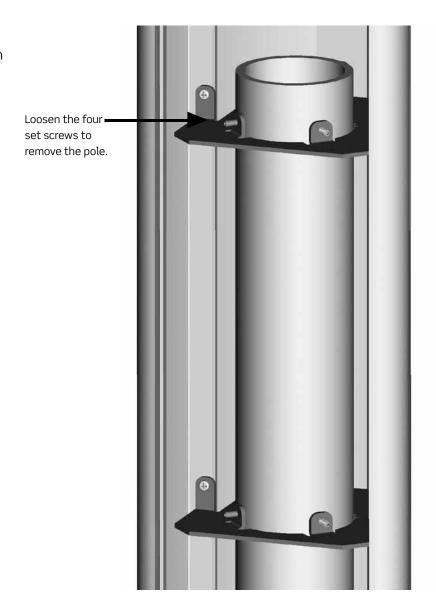
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Step 3 - Remove mounting pole and base plate from body

To remove the body:

- Use the supplied allen wrench to loosen the 4 set screws (2 on each bracket).
- Lift the body upward.





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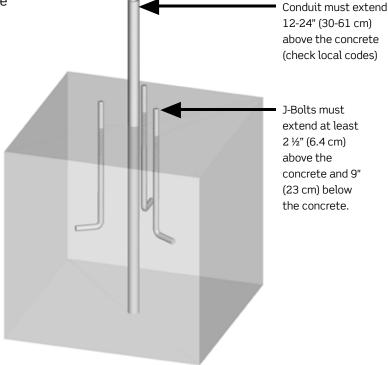
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Step 4 - Install J-Bolts and conduit

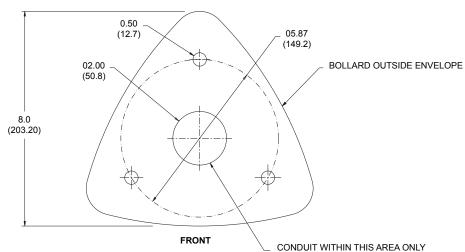
Install J-Bolts and conduit into concrete as illustrated. Use the supplied base plate template to ensure correct alignment.

! IMPORTANT:

- The concrete block must measure at least 18" (46 cm) on all sides. Check local codes to ensure compliance.
- The J-Bolts must extend at least 2 1/2" (6.4 cm) above the concrete and 9" (23 cm) below the concrete.
- The conduit must extend 12" to 24" (30 to 61 cm) above the concrete, or according to local codes.



ANCHOR BOLT PATTERN





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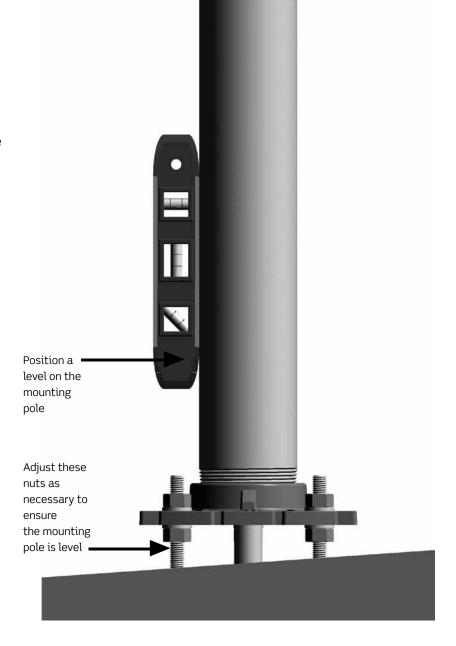
Step 5 - Mount base plate/pole assembly

Pull all five wires up through the conduit and the mounting pole.

Place the base plate/mounting pole assembly over the wiring conduit and attach the base plate to the J-Bolts using the installer-supplied nuts and washers as shown.

Adjust the nuts as necessary to ensure the mounting pole is level. When level, tighten the nuts.

/!\ IMPORTANT: Ensure the base plate/pole assembly is level by adjusting the nuts underneath the base plate.





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Step 6 - Install body

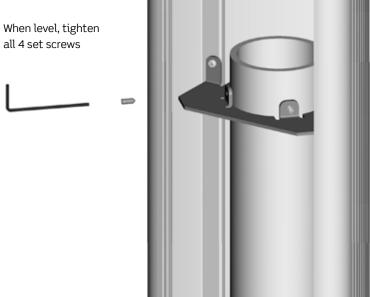
Slide the body over the mounting pole and base plate.

Ensure the body is level.

Secure the body to the mounting pole by tightening the four set screws using the supplied allen wrench.

! IMPORTANT: Ensure the body is firmly aligned to the bottom surface and that no movement (rocking) can take place, even when significant pressure is applied.







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Step 7 - Connect wires to wiring terminals

Pull the 240V L2 (blue) and L1 (red) and the 120V Line (black), Neutral (white), and Ground (green) wires into body assembly and connect to wiring terminals.

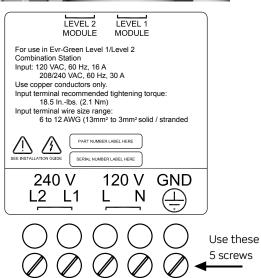
Strip wires 0.3 inches (7.6mm), insert in terminal block, and tighten screws to 18 ½ inch-lbs (2.1 Nm).



- Requires dedicated 20A breaker for 120V and 40A breaker for 208/240V.
- Use copper conductors only.
- Do NOT provide GFCI protection at panel. The Evr-Green Level 1/Level 2 Combination Public Use Charging Station has built-in GFCI protection.
- In areas with frequent thunder storms, add surge protection at the service panel for all circuits.

TIP: To make it easier to connect the wires, you can remove and replace the terminal block. To do so, simply loosen the two mounting screws holding the terminal block to the body a few turns. Then slide the terminal block up and off the screws. Insert the wires and tighten the wiring screws as described above. Then, slide the terminal block back over its two mounting screws, and tighten the mounting screws.







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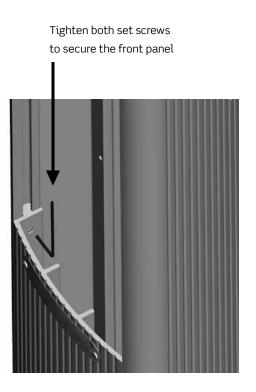
Step 8 - Replace front panel

Slide the front panel into place. Use the supplied allen wrench to tighten the two set screws.

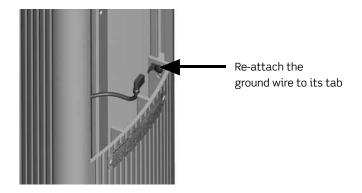
Re-attach the ground wire by pushing it onto its tab.







You have now finished installing the bollard body assembly for the Evr-Green Level 1/Level 2 Combination Public Use Charging Station. You are ready to install the holster and cable assembly. See Chapter 5.



3 Installing a Pole Mount



Before you start

You will need:

- Evr-Green CTMPR Pole Mount Bracket and Evr-Green CTMER External Shell
- ¾" (20 mm) 0.030" (.76 mm) stainless steel banding
- Banding tool(s)
- #2 Phillips screwdriver
- #2 Slotted screwdriver
- Leviton Provisioning Worksheet and Instructions
 To obtain, call 1-877-338-7473 or email evrgreen@leviton.com.

Overview of steps

Installing the Evr-Green Pole Mounted Level 1/Level 2 Combination Station's body assembly involves a few simple steps:

- 1. Check box for correct contents (see page 3-2)
- 2. Drill hole in pole (see page 3-3)
- 3. Mount bracket to pole (see page 3-4)
- 4. Prepare body assembly for mounting (see page 3-5)
- 5. Mount body to bracket (see page 3-6)
- 6. Connect wires to wiring terminals (see page 3-7)

These steps are detailed in the remainder of this chapter. When you have completed these steps, you will be ready to install the holster and cable assembly as described in Chapter 5.



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Step 1 - Check box for correct contents

Evr-Green Level 1/Level 2 Combination Charging
Station Pole Mounting Assembly ships in
2 boxes (CTMER and CTMPR) containing:

• Main Body / External Shell

• Pole bracket

• Screws (4) and washers (4)

• Pole conduit with gasket

• Pole conduit nuts (2)

• 3/32" allen wrench

CTMPR Pole Bracket

CTMER External Shell



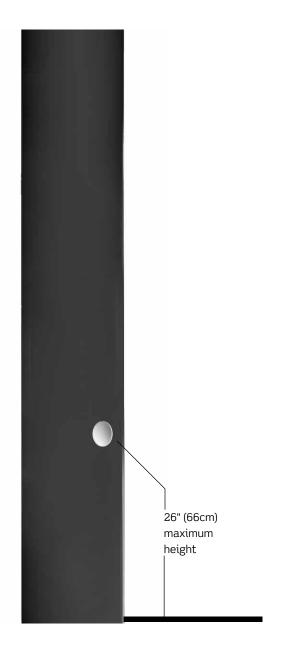
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Step 2 - Drill hole in pole

Drill a 1 $\frac{1}{2}$ " (38 mm) hole in the pole to accommodate the 1 $\frac{1}{4}$ " (32 mm) OD coupling.

IMPORTANT: To ensure the station's height complies with the Americans with Disabilities Act (ADA), the center of the hole must be located at a maximum height of 26" (66cm).





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Step 3 - Mount bracket to pole

Align the bracket to the pole, ensuring the coupler opening in the bracket is centered over the hole in the pole.

Strap the bracket to the pole using three ¾" (20 mm) by 0.030" (.76 mm) stainless steel bands capable of supporting at least 300 pounds.

Note: These instructions apply only when mounting to a round metal pole. To mount to other types of poles, the bracket must be mounted directly to the pole using three 3/8" (10 mm) fasteners appropriate for the pole's material.

!\ CAUTION: Never use hose clamps in place of bands. IMPORTANT: You must use a high tension banding tool to install bands.

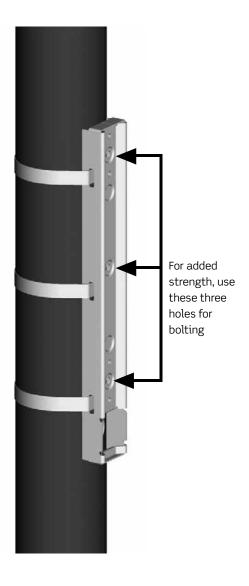
IMPORTANT: You must use a high tension banding tool to install bands.

TIP: For added strength and security, secure the bracket with both bolts and straps. Using the mounting bracket as a template, drill and tap 3/8"- 16 tpi (10 mm x 1.5) holes into the pole.



Center the opening in the bracket over the hole in the pole

NOTE: Bracket may be temporarily held in place during strapping using tape, cable tie, or other means.





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Step 4 - Prepare body assembly for mounting

Attach the pole conduit coupler to the body assembly as shown.



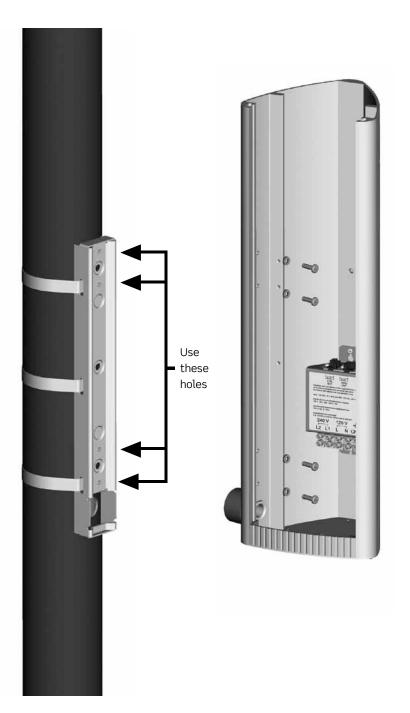


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Step 5 - Mount body to bracket

Insert the coupler into the hole and hold the body assembly to the pole bracket using the four supplied screws and washers.





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Step 6 - Connect wires to wiring terminals

Pull the 240V L2 (blue) and L1 (red) and the 120V Line (black), Neutral (white), and Ground (green) wires into body assembly and connect to wiring terminals.

Strip wires 0.3" (7.6mm), insert in terminal block, and tighten screws to 18.5 inch-lbs (2.1 Nm).



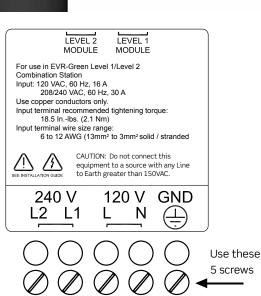
- Requires a dedicated 20A breaker for 120V and 40A breaker for 208/240V.
- Use copper conductors only.
- Do NOT provide GFCI protection at panel.
 The Evr-Green Level 1/Level 2 Combination
 Public Use Station has built-in GFCI protection.
- In areas with frequent thunder storms, add surge protection at the service panel for all circuits.

TIP:

• To make it easier to connect the wires, you can remove and replace the terminal block. To do so, simply loosen the two mounting screws holding the terminal block to the body a few turns Then slide the terminal block up and off the screws. Insert the wires and tighten the wiring screws as described above. Then, slide the terminal block back over its two mounting screws, and tighten the mounting screws.

You have now finished installing the Pole Mounting assembly for the Evr-Green Level 1/Level 2 Combination Public Use Station. You are ready to install the holster and cable assembly. See Chapter 5.





Installing a Wall Mount



Before you start

You will need:

- Evr-Green CTMWR Wall Mount Bracket and Evr-Green CTMER External Shell
- 34" (20 mm) coupling
- Conduit
- Water-tight sealing washer
- \bullet ¼" x 1 ½" (6 mm x 39 mm) lag screws (6)
- Lag screw anchors (6)
- Torx Driver T15 Tamper-Resistant
- #2 Phillips screwdriver
- #2 Slotted screwdriver
- Drill and drill bits: one to drill ¼" (6 mm) hole into aluminum and another to drill into masonry
- Wall Mounting Template
- Leviton Provisioning Worksheet and Provisioning Portal Instructions

Overview of steps

Installing the Evr-Green Level 1 / Level 2 Combination Public Use Charging Station Wall Mounting Assembly involves a few simple steps:

- 1. Check box for correct contents (see page 4-2)
- 2. Attach bracket to wall (see page 4-3)
- 3. Remove terminal block from main body (see page 4-5)
- 4. Drill holes in body assembly (see page 4-6)
- 5. Attach body assembly to wall bracket (see page 4-7)
- 6. Attach coupler and connect conduit (see page 4-8)
- 7. Re-attach terminal block to main body (see page 4-9)
- 8. Connect wires to wiring terminals (see page 4-10)

These steps are detailed in the remainder of this chapter. When you have completed these steps, you will be ready to install the holster and cable assembly as described in Chapter 5.



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Step 1 - Check box for correct contents

Evr-Green Level 1/Level 2 Combination Public Use Charging Station Wall Mounting assembly ships in 2 boxes (CTMWR and CTMER) containing:

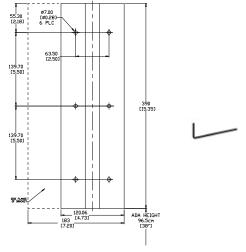
- Main Body / External Shell
- Wall mount bracket
- Screws and washers (6)
- Template for drilling wall holes
- 3/32" allen wrench



CTMER External Shell



CTMWR Wall Mount Bracket



Wall Mounting Template



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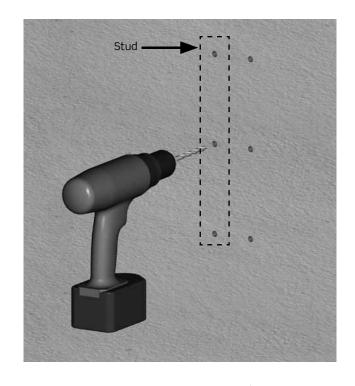
Step 2 - Attach bracket to wall

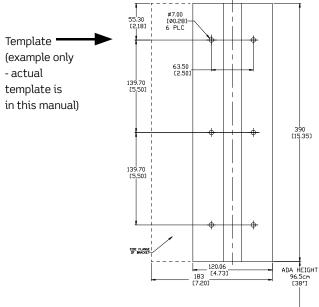
Drill 6 holes in the wall, as illustrated. Use the supplied template to ensure correct alignment.

NOTE:

- If mounting to a hollow wall, mount the holes on the left to a stud using ¼" (6 mm) x 3 ½" (90 mm) lag bolts, and use wall anchors for the holes on the right.
- If mounting to a masonry wall, use six ¼" (6 mm) expanding masonry fasteners.
- If mounting to a wood wall, use six $\frac{1}{4}$ " (6 mm) x 1 $\frac{1}{4}$ " (32 mm) lag bolts.

IMPORTANT: The bottom of the bracket must be mounted at a maximum height of 27" (69cm) above the surface to comply with the Americans with Disabilities Act (ADA), 308.2 and 308.3.





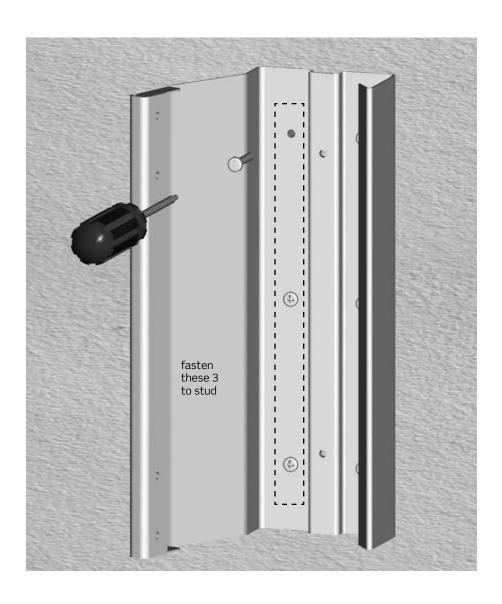


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Step 2 cont'd

Using the fasteners appropriate for the type of wall material (see previous page), fasten the wall bracket to the wall.





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Step 3 - Remove terminal block from main body

Loosen the two fastening screws enough to slide the terminal block upward and remove.





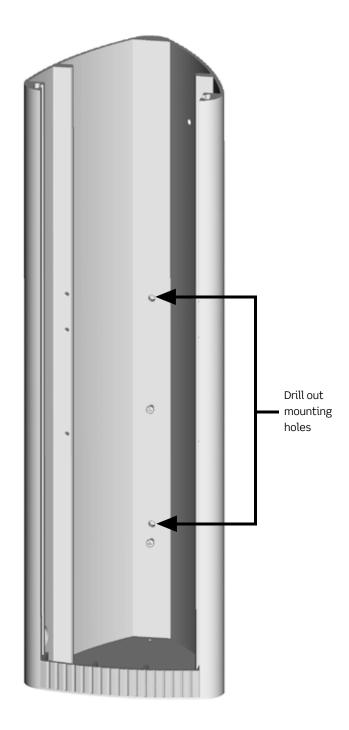


Level 1 / Level 2 Combination

Network Charging Station For Public Applications

Step 4 - Drill holes in body assembly

Use a ¼" (6 mm) drill to drill out the 2 mounting holes in the back of the body assembly. These holes are partially pre-drilled.





Level 1 / Level 2 Combination

Network Charging Station For Public Applications

Step 5 - Attach body assembly to wall bracket

Attach the body assembly to the wall bracket using the 6 supplied screws and washers.





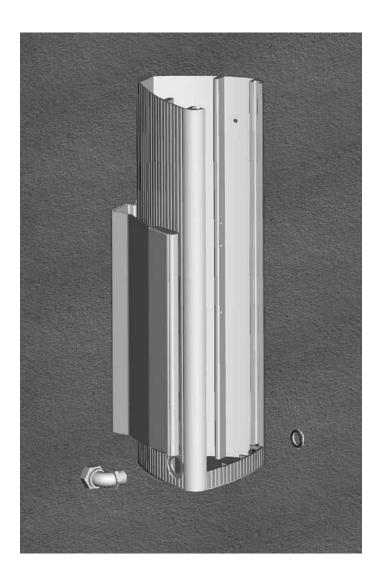


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Step 6 - Attach coupler and connect conduit

Attach ¾"(20 mm) installer-supplied coupler and watertight sealing washer to the body assembly, as shown, and connect the conduit.





Level 1 / Level 2 Combination

Network Charging Station For Public Applications

Step 7 - Re-attach terminal block to main body

Slide the terminal block onto the two fastening screws then tighten the screws.

TIP: You may find it easier to connect the wiring to the terminal block (as described in Step 8, pg 4-10) before re-attaching the terminal block to the main body. See the following page for details.





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Network Charging Station For Public Applications

Step 8 - Connect wires to wiring terminals

Pull the 240V L2 (blue) and L1 (red) and the 120V Line (black), Neutral (white), and Ground (green) wires into body assembly and connect to wiring terminals.

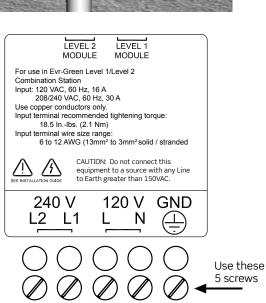
Strip wires 0.3 inches (7.6mm), insert in terminal block, and tighten screws to $18 \frac{1}{2}$ inch-lbs (2.1 Nm).



- Requires a dedicated 20A breaker for 120V and 40A breaker for 208/240V.
- Use copper conductors only.
- Do NOT provide GFCI protection at panel. The EVR-Green Level 1/Level 2 Combination Public Use Charging Station has built-in GFCI protection.
- In areas with frequent thunder storms, add surge protection at the service panel for all circuits.

You have now finished installing the wall mount assembly for the Evr-Green Level 1/Level 2 Combination Public Use Charging Station. You are ready to install the holster and cable assembly. See Chapter 5.





Installing the Holster & Cable Assembly



Before you start

You will need:

- Holster (with 3 bolts and washer)
- Cable assembly
- 5/32" allen wrench (provided)

In addition, the installation of the body assembly must be completed following the procedure described in a previous chapter.

Overview of steps

Installing the Evr-Green Networked Charging Station's holster and cable assembly involves a few simple steaps:

- 1. Install mounting assembly first as described in Sections 2, 3, & 4.
- 2. Check box for correct contents (see page 5-2)
- 3. Attach holster to body assembly (see page 5-3)
- 4. Install the cable assembly (see page 5-4)

These steps are detailed in the remainder of this chapter. When you have completed these steps, you will be ready to install the head assembly, as described in Chapter 6.



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Network Charging Station For Public Applications

Step 1 - Check box for correct contents

Holster and cable assembly

The Evr-Green Networked Charging Station's holster and cable assembly ships in a box (Evr-Green Part Number CTCLX-30 or CTCNX-30) containing:

- Locked Holster(CTCLX-30) or Unlocked Holster(CTCNX-30)
- Bolts and washers (3)
- Cable assembly with SAE J1772 Connector
- 5/32" allen wrench

WARNING: for CTCLX-30 with Locking Holster. DO NOT place J1772 connector in holster until head has been assembled and the unit has been powered and provisioned.

Connector will not remove from holster until station is functioning and a user can be authorized.





Level 1 / Level 2 Combination

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Step 2 - Attach holster to body assembly

Attach the holster to the body assembly using the four supplied bolts and washers. Use the supplied allen wrench to tighten.

TIP: Retain the supplied 5/32" allen wrench in case you need to replace the holster in the future.







Level 1 / Level 2 Combination

Network Charging Station For Public Applications

Step 3 - Install the cable assembly

Slide the cable assembly into the body all the way until it is flush with the top of the front panel.

Note: The Evr-Green CTMBR Bollard Mounting assembly is used for illustration purposes. The procedure is identical for the Evr-Green Level 1/Level 2 Combination Pole and Wall Mounted Stations.





Level 1 / Level 2 Combination

Network Charging Station For Public Applications

Step 3 - Install the cable assembly cont'd

Plug the cable assembly's rectangular connector into the body assembly's terminal block.

WARNING: for CTCLX-30 with Locking Holste DO NOT place J1772 connector in holster until head has been assembled and the unit has been provisioned and powered. Connector will not remove from holster until station is functioning and a user can be authorized.

You have now finished installing the Evr-Green Level 1/Level 2 Combination Public Use Charging Station's holster and cable assembly and are ready to install the head assembly. See Chapter 6.



6 Installing the Head Assembly



Before you start

You will need:

- Head unit assembly (Evr-Green part numbers CTHCR, CTHGR, CTHDR, CTHCR-S, CTHGR-S, or CTHDR-S for US. Evr-Green part number CTHGR-CAN or CTHGR-SC for Canada.)
- Torx Driver T15 Tamper-Resistant
- Leviton Provisioning Instructions and Worksheet.
 To obtain, call 1-877-338-7473 or email evrgreen@leviton.com
- Demo/Test ChargePass Card included with head.
- Provisioning Appointment scheduled with Leviton's Evr-Green Installation Coordinator. Call 1-877-338-7473 or email: evrgreen@leviton.com.
- Provisioning label taped to the head

In addition, the installation of the body assembly must be completed following the procedure described in a previous chapter.

Overview of steps

Installing the Evr-Green Networked Charging Station's head assembly involves a few simple steps:

- 1. Check box for correct contents (see page 6-2)
- 2. Slide head assembly into body (see page 6-3)
- 3. Verify that the station operates correctly(see page 6-4)
- 4. Secure head assembly (see page 6-5)
- 5. Provisioning and testing head (see page 6-6)



Level 1 / Level 2 Combination

Network Charging Station For Public Applications

Step 1 - Check box for correct contents

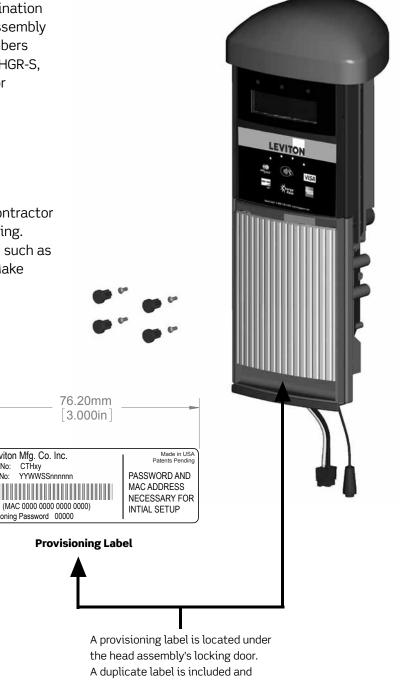
Head assembly

The Evr-Green Level 1/Level 2 Combination Public Use Charging Station head assembly ships in one box(Evr-Green Part Numbers CTHCR, CTHGR, CTHDR, CTHCR-S, CTHGR-S, or CTHDR-S for US and CTHGR-CAN or CTHGR-SC for Canada.)

- Head assembly
- Security screws (4)
- Rubber plugs (4)
- IMPORTANT! Provisioning Label: Contractor must retain this label for provisioning. Critical information will be needed such as MAC Address and Serial Number. Make sure label is attached to Leviton's Provisioning Worksheet.

25.40mm

1.000in



taped to the head..

Leviton Mfg. Co. Inc.

Provisioning Password 00000

YYWWSSnnnnnn



Level 1 / Level 2 Combination

Network Charging Station For Public Applications

Step 2 - Slide head assembly into body

Slide the head assembly into body far enough to connect the wiring, then:

 Connect the rectangular connector to the terminal block, ensuring it is fully seated.

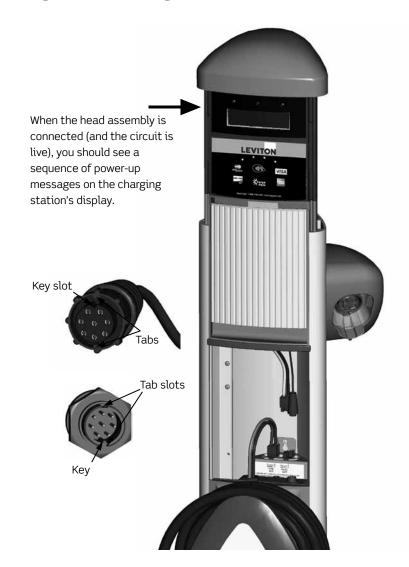
When the circuit is live, the head assembly will power-up.

- Connect the ground wire on the circular connector to the vacant ground tab on the cable assembly.
- Connect the circular connector to the cable assembly module and turn its outer ring clockwise until snug.

NOTE: The circular connector is keyed and must be properly aligned. When properly aligned, press firmly to ensure it is fully seated. If the connector is not fully seated, the outer ring will not tighten.

- Align semi-circular key with key slot.
- Align tabs with tab slot.
- Insert connector until fully seated.
- Rotate connector's outer ring clockwise until snug.
- Firmly slide head module all the way into body.
- Open door and check alignment of security screw holes.
- If necessary, press down on head assembly to seat gaskets.

TIP: The door remains unlocked for 30-60 seconds after you plug in the rectangular connector. By holding it open, you can proceed with the next step without having to open it with a ChargePass card.





Level 1 / Level 2 Combination

Network Charging Station For Public Applications

Step 3 - Verify that the station operates correctly

Before securing the head assembly, follow these instructions to ensure that the charging station is fully operational:

- Turn on the main power to ensure that the head assembly powers-up. When the circuit is live and the head assembly's wiring is connected, a sequence of power-up messages will be displayed. If this is not the case, check that the head assembly's rectangular connector is properly seated onto the terminal block.
- If equipped with a locking holster, scan a valid and authorized ChargePass card to confirm that the holster unlocks. If the holster doesn't unlock the connector, contact ChargePoint Customer Support at 1-888-758-4389.
- Ensure that none of the LEDs above the station's display are illuminated or blinking RED. This indicates that the station has detected an error and you'll need to read the station's display to troubleshoot the error. Refer to "Chapter 7, Troubleshooting" for a detailed description of error messages.
- Observe the display as it sequentially displays the station's name and the current state of the charging port. The port should be "AVAILABLE". If this is not the case, an error message will be displayed instead. Refer to "Chapter 7, Troubleshooting" for a detailed description of error messages.



Level 1 / Level 2 Combination

Network Charging Station For Public Applications

Step 4 - Secure head assembly

If necessary, open the door using a ChargePass card.

Using a Torx driver, secure the head assembly with the 4 supplied tamper-resistant security screws.

IMPORTANT: Do NOT overtighten. Snug fit only.

Insert the 4 supplied rubber plugs and push firmly into place using the Allen wrench until they are flush with the surrounding surface.

IMPORTANT: It is critical that all 4 plugs are flush with the surface. If they protrude even slightly, the door will not close properly.

You have now finished installing the Evr-Green Level 1/Level 2 Public Use Networked Charging Station.







Level 1 / Level 2 Combination

Network Charging Station For Public Applications

Step 5 - Provisioning & Testing the Head

You will need:

- Leviton Provisioning Instructions and Worksheet
 To obtain, call 1-877-338-7473 or email evrgreen@leviton.com
- Demo/Test ChargePass Card
- Provisioning Label for each Head This label is taped to the head.
- Provisioning appointment scheduled with Leviton's Evr-Green EVSE installation coordinator.

Provisioning is the act of connecting the charging station to the ChargePoint Network.

You will need to complete the Leviton Provisioning worksheet. For this worksheet, you will need information from the station owner and from the physical station. Information you will need from the physical station is provided on the Provisioning Label. This label is taped to the head and easily visible when you open the head box. Please place this label in a secure location.

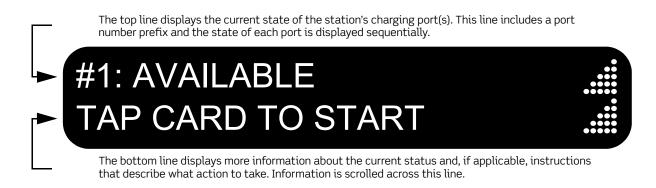
Information you will need from the Provisioning Label: Model Number Serial Number MAC Address Provisioning Password

Contact Leviton's Evr-Green Installation Coordinator at 1-877-338-7473 to complete the provisioning process.

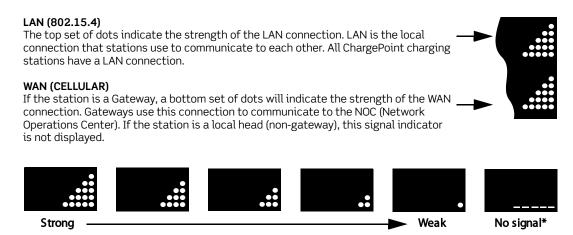


Understanding the station's display

To troubleshoot an EVR-Green Level 1/Level 2 Combination Public Use Charging Station, you'll need to pay attention to the messages that are displayed on the 2-line display. The display sequentially shows the name of the charging station and the current state of each of its ports. The following example shows how a EVR-Green Level 1/Level 2 Combination Public Use Charging Station displays the state of its Level 1 charging port under normal conditions:



To determine the current strength of the communications signals, observe the small indicators on the rightmost side of the display:



NO SIGNAL:

- If a LAN signal is not available, the station may not be situated within 150' line of sight
 of at least one other station, or there may an obstruction.
- If a WAN signal is not available, it may be necessary to install cellular repeaters at the installation site to boost the signal.



Level 1 / Level 2 Combination

Network Charging Station For Public Applications

Understanding error messages

The following pages describe the error messages that can occur on an EVR-Green Level 1/Level 2 Combination Public Use Charging Station charging station. If one of the LEDs above the charging station's display illuminates RED, read the display for information about the type of error that has occurred.

NOTE: The Level 1/Level 2 Combination Charging Station has two charging ports (Level 1 and Level 2). Therefore, all messages on this type of station will be port-specific and the first line of the display will be prefixed by the port's number. In the messages shown on the following pages, the port number prefix is included only if the error applies only to a specific charging port.

Power up errors

The follow messages can occur when the station powers up.

#2:FAULT

L2 CORE OFFLINE / CHECK CONNECTOR / FOR ASSISTANCE CALL ...

Cause/Other Symptoms: Upon power up, the station detected that the Level 2 charging port is not connected. In most cases, this indicates that the circular connector that attaches the head assembly to the cable assembly is not correctly installed. Level 2 charging will not be available until the head assembly is correctly attached to the cable assembly.

Solution/Action: Lift the head assembly and re-attach the circular connector. For details, refer to Chapter 6, pg 6-3 of the installation instructions.

FAULT

GFCI TRIP / SELF-TEST FAILED

Cause/Other Symptoms: Upon power-up, the station detected a ground fault.

Solution/Action: Disconnect and Reconnect Power (The following actions should only be taken by a licensed electrician.)

- **A.** Turn off power to the charging station. Then turn on the power to the charging station. **OR**
- **B.** Turn off power to the station. Then unplug head assembly from terminal block. Then plug head assembly in to terminal block.

If this error message continues, you may need to replace the head assembly. Contact the EVR-Green EVSE Coordinator for additional technical resources and return procedures at 1-877-338-7473 or evrgreen@leviton.com.



Level 1 / Level 2 Combination

Network Charging Station For Public Applications

Ground fault errors

The following ground fault errors can occur during charging, or when attempting to begin a charging session:

SUSPENDED

GROUND FAULT / AUTO RE-TRY IN 00:mm:ss

Cause/Other Symptoms: The station detected a ground fault during a charging session. The left or right LED will blink RED and the vehicle will not charge.

Solution/Action: The charging station will wait 15 minutes before re-attempting to restore power. If after three attempts, the ground fault continues to be detected, the station displays the message below (HALTED). Instead of waiting, you can try ending and restarting the charging session as described below.

HALTED

GFCI HARD FAULT / RETURN PLUG TO HOLSTER <or HOLD KEY NEAR LOCK>

Cause/Other Symptoms: During charging, the station detected a ground fault (see message above) and made three unsuccessful attempts to continue charging. Or, the station detected a ground fault when attempting to begin a charging session. The left or right LED will illuminate solid RED and the vehicle will not charge.

Solution/Action: End and restart the charging session. To do so, tap the card on the station's front panel, unplug the cord and close (lock) the Level 1 charging door (or return the Level 2 charge connector to its holster), then hold your ChargePass card or contactless credit card over the station's front panel to begin a new session. If the message continues to be displayed, the charging station may need service, call ChargePoint Customer Support at 1-888-758-4389.



Level 1 / Level 2 Combination

Network Charging Station For Public Applications

User errors

The following errors occur as a result of an inappropriate action that was performed by a person using the charging station.

#1:ENDED

PLUG-OUT DETECTED

Cause/Other Symptoms: The Level 1 charging port does not detect that a vehicle is plugged-in. This can occur if the vehicle did not start charging (i.e. the vehicle is not communicating with the charging station), or a cord was not connected to the vehicle within two minutes of opening the charging door.

Solution/Action: End and restart the charging session. To do so, tap the ChargePass card or contactless credit card over the station's front panel, unplug the cord and close (lock) the Level 1 charging door, then hold your ChargePass card over the station's front panel to begin a new session.

#2:DISABLED BREAKAWAY

Cause/Other Symptoms: The vehicle was driven away during a Level 2 charging session. The Level 2 charging port is out of service until the cable assembly is replaced.

Solution/Action: Replace the station's cable assembly. For replacement information, contact the EVR-Green EVSE Coordinator at 1-877-338-7473 or evrgreen@leviton.com

SUSPENDED

OVERCURRENT / AUTO RETRY IN 00:mm:ss / HOLD CARD TO END (or RETURN PLUG TO HOLSTER)

Cause/Other Symptoms: During charging, this message is displayed if the vehicle is attempting to draw too much power. For Level 1 stations, the vehicle can not draw more than 16A and for Level 2 stations, 30A. The vehicle will not charge.

Solution/Action: The charging station will wait 15 minutes before re-attempting to charge. If after three attempts, the overcurrent fault continues to be detected, the station ends the charging session and displays the message below (ENDED). Instead of waiting, try ending and restarting the charging session. To do so, tap the card over the station's front panel, unplug the cord and close (lock) the charging door (or return the charge connector to its holster), then hold your ChargePass card or contactless credit card over the station's front panel to begin a new session.



ENDED

OVERCURRENT / HOLD CARD TO END (or RETURN PLUG TO HOLSTER)

Cause/Other Symptoms: An overcurrent fault occurred (see message above) and, after three unsuccessful attempts to charge, the station continues to detect too much current being requested by the vehicle.

Solution/Action: End and restart the charging session. To do so, tap the ChargePass card or contactless credit card over the station's front panel, unplug the cord and close (lock) the charging door (or return the charge connector to its holster), then hold your ChargePass card or contactless credit card over the station's front panel to begin a new session. If the message continues to be displayed, it may be possible to set and/or reduce the amount of current that your vehicle draws when charging. Refer to your vehicle's owner documentation for more information.



Level 1 / Level 2 Combination

Network Charging Station For Public Applications

Other errors

The following errors occur as a result of a potential equipment failure or utility failure.

FAULT

RELAY STUCK OPEN / FOR ASSISTANCE CALL ...

Cause/Other Symptoms: When attempting to charge a vehicle, this message will be displayed if the relay is stuck open. When the relay is stuck open, the charging station can not provide power and therefore you can not charge a vehicle. On a Level 2 charging port, you may also notice that the holster will remain locked and you can not release the charge connector. It is likely that the charging station's Level 2 connection has not been made.

Solution/Action: End and restart the charging session. To do so, hold the card over the station's front panel, unplug the cord and close (lock) the charging door (or return the charge connector to its holster), then hold your ChargePass card or contactless credit card over the station's front panel to begin a new session. If the message continues to be displayed, contact a licensed electrician or the contractor who installed the station to perform the next steps. **The following steps should be performed by a licensed electrician:**

Remove the head assembly and ensure that all wiring is properly connected as described in the installation instructions. Measure the L1 and L2 mains connections going into the terminal block and ensure that they each measure 120VAC relative to Earth. Also ensure that L1 to L2 measures 208/240VAC between the two conductors. If the wiring is connected properly and the voltages measure properly, replace the head assembly.

FAULT

RELAY STUCK CLOSED / FOR ASSISTANCE CALL ...

Cause/Other Symptoms: When attempting to end a charging session, this message will be displayed if the relay is stuck closed. When the relay is stuck closed, the charging station can not end the charging session, although the user can close the charging door and return the connector to its holster. However, a new charging session can not be initiated until this error is resolved.

Solution/Action: End and restart the charging session. To do so, hold the card over the station's front panel, unplug the cord and close (lock) the charging door (or return the charge connector to its holster), then hold your ChargePass card or contactless credit card over the station's front panel to begin a new session. If the message continues to be displayed, replace the head assembly.

FNDFD

PWR RESTORED / RE-ENERGIZING AFTER RANDOM DELAY

Cause/Other Symptoms: A power outage occurred and power is being restored to the charging stations. For load balancing reasons, not all charging stations power up at the same time.

Solution/Action: No action required—charging will resume automatically after a brief delay (up to 5 minutes).



Level 1 / Level 2 Combination

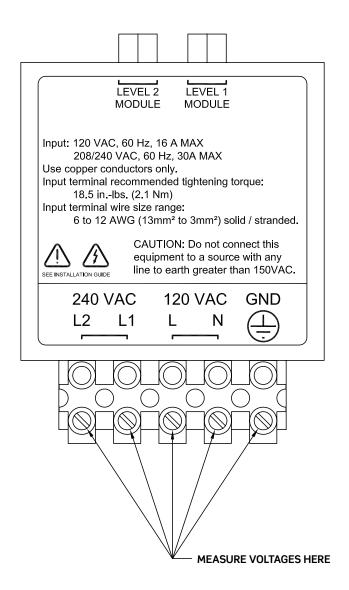
Network Charging Station For Public Applications

Checking voltages

A solenoid type voltage tester (sometimes referred to as a "Wiggy") should be used to check the charging station's voltages at the terminal block. This type of tester will draw sufficient current to expose a poor connection.

NOTE:

- It is imperative that Neutral and Ground be bonded at some point in the AC supply. This is usually done at the transformer, the main panel, or at a sub-panel.
- The voltage between Neutral and Ground must measure less than 4 volts.
- The voltages between each line and Ground must measure within 8 volts of each other



Measure Between	Volts
L1 and L2	208/240
GND and L1	120
GND and L2	120

Measure Between	Volts
NEU and L	120
GND and L	120
GND and NEU	0



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Network Charging Station For Public Applications

Charging Your Electric Vehicle

Level 2 Charging

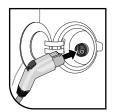
Use this method to charge at 240 V by plugging the station's SAE J1772™ connector into your electric vehicle.



To start a charging session:

1. Tap your ChargePass Card, Contactless Credit Card* or call 1-888-758-4389.

When authorized, the station displays a message indicating you can remove the connector from the holster and plug it into your electric vehicle.



2. Remove the charging station's connector by pressing down on the button at the top of the handle while pulling the connector from its holster. Plug the connector into your electric vehicle.

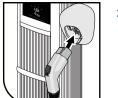
The station displays a message indicating the vehicle is charging.



To stop a charging session:

 Tap your ChargePass Card, Contactless Credit Card* or call 1-888-758-4389.

The station displays a message indicating that charging has finished and to return the connector to its holster.



Return the station's connector to its holster by pressing down on the button at the top of the handle while pulling the connector from your electric vehicle.

The station displays the charging duration and cost, if any, of your charging session.

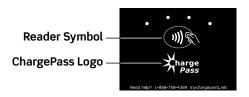
* To prevent theft of power, you must use the same card to start & stop a charging session.

Charge P * Int®

Look for the ChargePass Logo

Access The CA Technologies New ChargePoint Networked Leviton Charging Station FREE with any of the following options:

- ChargePass RFID-based Smart Cards
- Contactless Credit Cards, such as MasterCard PayPass™, Visa payWave®, etc.
- Phone Call to 1-888-758-4389



IMPORTANT! You must use the same ChargePass card to start and stop a charging session.

A ChargePass Card is easy to get — just set-up an account. Once you receive your ChargePass Card in the mail, log in to activate it and start charging your vehicle at any ChargePoint Location.

Benefits of Obtaining a ChargePass Card

From your ChargePass account you can set SMS and email alerts for:

- Vehicle Fully Charged
- Plug-Out Detection
- Ground Fault Detection (GFCI Trip)
- Over-Current Detection

Your ChargePass account will collect all usage history for your public charging with:

- Start and End times
- Energy (kWh) Used
- Occupied Time
- Location
- Greenhouse Gases Saved

Drive Smart. Drive Green.



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