

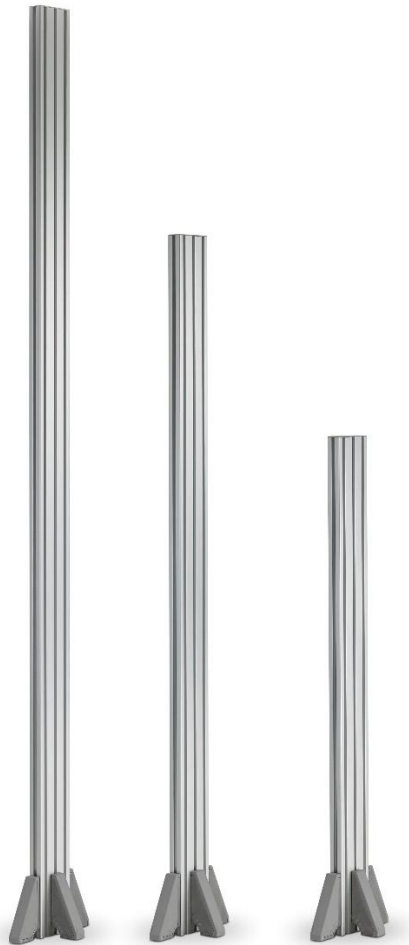
# EVOCHARGE™

## Single or Dual Port Pedestal Mount

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### Installation Guide & User Manual

Revision A



8 ft., 6 ft., and 4 ft. Pedestals for Charging Station and Cable Management Systems

# IMPORTANT SAFETY INSTRUCTIONS

This document contains instructions and warnings that must be followed when installing and using the Electric Vehicle Supply Equipment (EVSE). Before installing or using the EVSE, read this entire document as well as WARNING and CAUTION markings in this document.

## Safety Instructions

The symbols used have the following meaning:



DANGER – WILL RESULT IN DEATH OR SERIOUS INJURY




WARNING- COULD RESULTS IN SERIOUS INJURY OR DEATH



CAUTION- COULD RESULT IN MINOR OR MODERATE INJURY



NOTICE- IMPORTANT INFORMATION

- The charging station must be installed, adjusted, and repaired only by a licensed electrician.
- Make sure that the materials used and the installation procedures follow local building codes and safety standards.
- The information provided in this manual in no way exempts the user of responsibility to follow all applicable codes or safety standards.
- This document provides instructions for the charging station and should not be used for any other product. Before installation or use of this product, review this manual carefully and consult with a licensed contractor, licensed electrician, or trained installation expert to make sure of compliance with local building codes and safety standards.
-  **WARNING FAILURE TO FOLLOW ELECTRIC CODE CAN RESULT IN SERIOUS INJURY OR DEATH:** To reduce the risk of fire, connect only to a circuit provided with the minimum branch circuit overcurrent protection requirements in accordance with the National Electrical Code, ANSI/NFPA 70, and the Canadian Electrical Code, Part I, C22.1.

## Repair and Maintenance Clause

- All EVOCHARGE products do not require routine maintenance however, periodic inspections should be conducted to ensure that all parts remain in good working order and no damage exists. Do not attempt to open,

disassemble, repair, tamper with, or modify any components of the products – the products are not user serviceable. Contact EVOCHARGE for any repairs.

- Only licensed electricians can repair or maintain the charging station. It is forbidden for general users to repair or maintain it. Turn off input power before performing any repairs or maintenance to the charging station.

## FCC Declaration of Conformity

- This charging station complies with part 15 of the FCC Rules. Changes or modifications the charging station not expressly approved by the manufacturer could void FCC compliance.
- Operation is subject to the following two conditions: (1) This charging station may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

## OVERALL WARNINGS & CAUTIONS



WARNING- RISK OF ELECTRICAL SHOCK FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULTS IN DEATH OR SERIOUS INJURY.

Basic precautions should always be followed when using electrical products, including the following:

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



WARNING- RISK OF ELECTRICAL SHOCK FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULTS IN DEATH OR SERIOUS INJURY.

Improper connection of the equipment grounding conductor can result in a risk of electric shock. Check with a qualified electrician or serviceman if you are in doubt as to whether the product is properly grounded.



WARNING- RISK OF ELECTRICAL SHOCK FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULTS IN DEATH OR SERIOUS INJURY.

- Do not touch live electrical parts.
- Incorrect connections may cause electric shock.

WARNING: This equipment is intended only for charging vehicles that do not require ventilation during charging. Please refer to your vehicle's owner's manual to determine ventilation requirements.

# Product Features

- High-strength aluminum
- Suitable for single or dual mount of EVOCHARGE Charging Stations, EVOREEL'S or Retractor



**Single Mount Example**



**Dual Mount Example**

# Product Specifications

## EVOCHARGE® Pedestals

| Description                 | Specifications                            |
|-----------------------------|---|
| Pedestal – 4, 6 or 8 ft.    | High-strength aluminum                    |
| Color                       | Gray                                      |
| Maximum Height<br>(Nominal) | 4 ft. 4 in.<br>6 ft. 4 in.<br>8 ft. 4 in. |

# SAVE THESE INSTRUCTIONS

## Manual Contents

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# 1 Introduction & Unpacking

This user manual applies to the pedestals for mounting EVOCHARGE charging stations and cable management systems.

## 1.1 Unpacking

Unpackage all items and confirm the contents as noted below.

Figure 1-1 Box Contents

**40x160 Foundation Bracket**

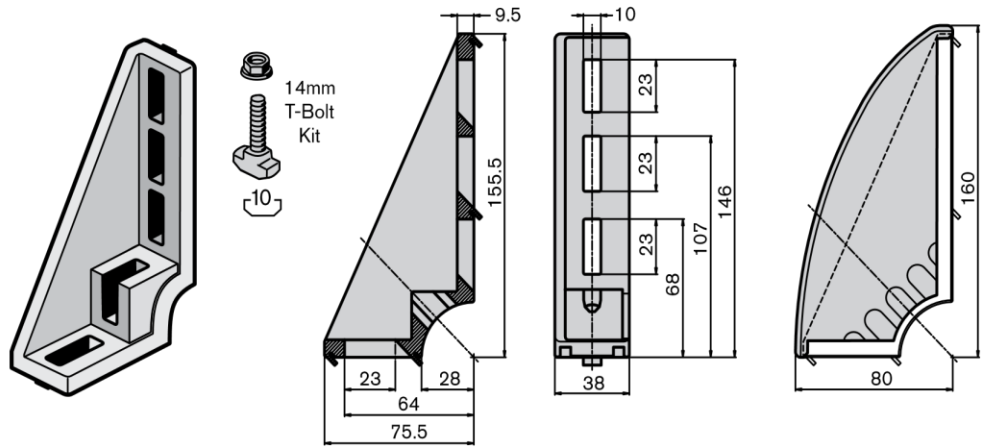


Table 1-1 Box Contents

| Pedestal Type   | Part Description   | Qty |
|-----------------|--|-----|
| 4 ft. Pedestal  | <b>4 ft. Aluminum Pedestal</b>   | 1   |
|                 | <b>Mounting Bracket Kit Includes:</b><br>-4 Mounting Brackets<br>-4 Mounting Brackets Cover<br>-4 Concrete Anchors | 2   |
|                 | <b>End Cap</b>   | 1   |
|                 | <b>6 ft. Aluminum Pedestal</b>   | 1   |
| 6' ft. Pedestal | <b>6 ft. Aluminum Pedestal</b>   | 1   |
|                 | <b>Mounting Bracket Kit Includes:</b><br>-6 Mounting Brackets<br>-6 Mounting Brackets Cover<br>-6 Concrete Anchors | 3   |
|                 | <b>End Cap</b>   | 1   |
|                 | <b>8 ft. Aluminum Pedestal</b>   | 1   |
| 8 ft. Pedestal  | <b>8 ft. Aluminum Pedestal</b>   | 1   |
|                 | <b>Mounting Bracket Kit Includes:</b><br>-6 Mounting Brackets<br>-6 Mounting Brackets Cover<br>-6 Concrete Anchors | 3   |
|                 | <b>End Cap</b>   | 1   |

# 2 Installation

## 2.1 Before Installation

### 2.1.1 Installation Planning & Service Wiring



FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN DEATH OR SERIOUS INJURY.

- Do not touch live electrical parts.
- Incorrect connections may cause electric shock.
- Disconnect the power supply to the charging station and verify no power is present before installing, adjusting, or repairing the charging station. Failure to do so may result in physical injury or damage to the power supply system and the charging station.

The charging station must be installed only by a licensed electrician in accordance with the provisions of the local electrical industry construction and should comply with national electrical codes and standards.

Before installing the charging station, make sure you have read these instructions in this manual and fully understand its contents.

Appropriate protection is required when connecting to a main panel/switchboard. The tools and parts used as outlined in the section “Tools & parts required for installation”.

Prior to mounting, determine location of an acceptable mounting support.

Prior to mounting, locate an available electrical source that can support the following Input Requirements for the Charging Station Per National Electric Code (NEC) requirements:

- 32A Maximum Output Setting (Default Factory Setting): a DEDICATED CIRCUIT rated for 40A; 208-240 VAC, 50-60 Hz, Single Phase must be used. Circuits rated greater than 40A may also be used.
- Additionally, any Current Output less than 32A can be programmed using dipswitch, refer to Charging Station Installation Guide & User Manual.
- A Double Pole Circuit Breaker of the circuit rating must be used. The Charging Unit has a built in GFCI protection; do not provide any additional GFCI protection upstream of the charging unit.



**WARNING: INCORRECT WIRING CAN RESULT IN DEATH OR SERIOUS INJURY:** The service wiring in this section are specific to North America only. Before installing the Charging Station, identify the type of utility service connection available onsite. If you have unsure about the type of connection available at the service panel, contact your utility service provider.



## 2.1.2 Grounding Instructions

The charging station must be implemented equipment grounding through a permanent wiring system or an equipment grounding conductor. Use a wire with a dedicated grounding wire and a ring terminal and connected to the equipment ground terminal block for grounding.

## 2.2 Tools & Parts Required for Installation

**Table 2-1 Tools & Parts Required for Installation**

|                                   |
|-----------------------------------|
| Phillips #2 Screw driver or bit   |
| Torx T20 Screwdriver or bit       |
| 8 AWG Ring terminal crimping tool |
| 4mm Hex drive                     |
| 5mm Hex drive                     |
| 7/32" Hex drive                   |
| 9/16" Socket or Wrench            |

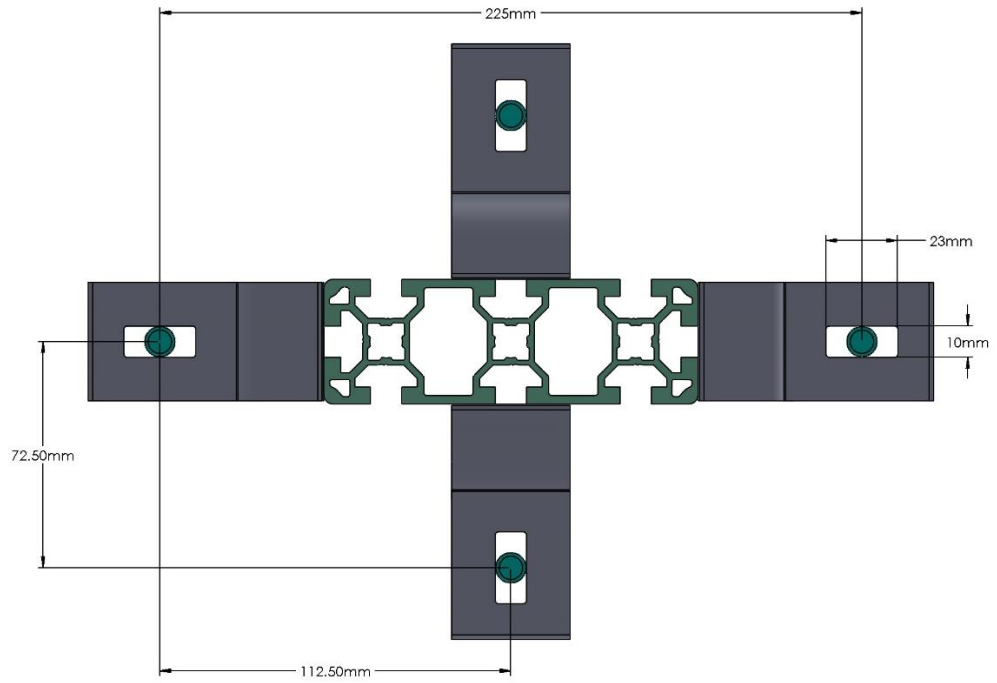
## 2.3 Install the Charging Station & Pedestal

- 2.3.1 To begin the product assembly, install the supplied (4) Mounting Brackets to the base of the Pedestal Mount. Install the mounting brackets in the center location of each side (4 total) of the pedestal as show in Figure 2-1:

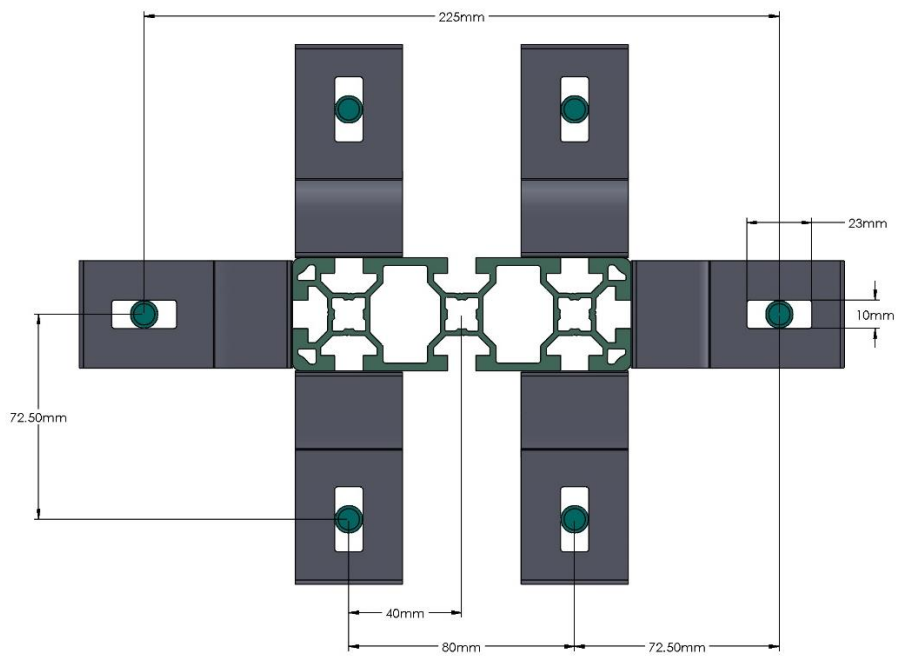


Figure 2-1 Mounting Bracket Screw Hole Locations

Ensure the (4) Mounting Brackets are positioned to be in flush contact with the ground mounting surface.



**4-Foot Pedestal Mount**



**6 & 8-Foot Pedestal Mount**

2.3.2 With the Pedestal Mounting Brackets installed, position the pedestal in the desired mounting location and use the mounting bracket Anchor Stud/Bolt holes as a template to install the appropriate Anchor Bolts/Studs for mounting the pedestal to the Ground. With the appropriate Anchor Bolts/Studs installed to the mounting surface, install and fasten the Pedestal Mount to the ground.



**WARNING: FAILURE TO PROPERLY MOUNT THE PEDESTAL CAN RESULT IN DEATH OR SERIOUS INJURY.** Prior to mounting, determine a location with acceptable ground structural support to mount the Pedestal. All charging station products and pedestal mounts must be anchored into a mounting structure that is approved by local codes and requirements using mounting hardware that is appropriate for the surface on which you are mounting. Please consult with a local building engineer and inspector to determine mounting structure requirements. It is the responsibility of the Installer and/or Charging Station Owner to ensure and confirm that the installation and anchoring of the Product are in full compliance with all Building Code Requirements required of the location of install.

The Anchors included with the product are intended for mounting into appropriate concrete base/pad.

Anchor Installation Instructions:

- 1) Drill a hole in the base material using a carbide drill bit the same diameter as the nominal diameter of the anchor to be installed (3/8"). Drill the hole to the specified minimum hole depth (1-7/8" minimum), and blow the hole clean using compressed air.
- 2) Assemble the anchor with nut and washer so the top of the nut is flush with the top of the anchor. Drive the anchor into the hole to at least the minimum hole depth.
- 3) Tighten the anchor nuts to the required installation torque (30 lbf-ft. for 3/8" bolt diameter).

2.3.4 Next, prepare to install all components to the Pedestal Mount using the supplied fastener components. The insertion nuts install into the Pedestal Aluminum Extrusion channel and contain a spring-loaded ball feature to hold them in place during assembly. To install the insertion nuts into the Aluminum Extrusion channel, insert the insertion nuts into the extrusion channel at an angle as shown in Figure 2-2, below:

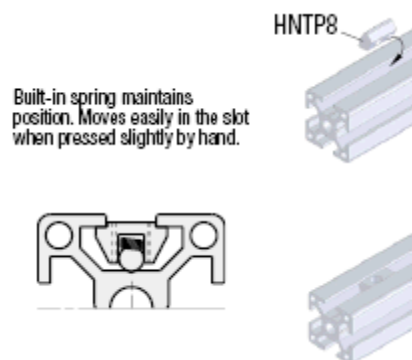


Figure 2-2 Installing the insertion nuts into the aluminum extrusion channel

2.3.5 To install each item, install the insertion nuts into the extrusion channel at the approximate positions each item will be installed.

- 2.3.6 Install the EVSE (charging station box) bracket to one side of the pedestal so that the middle of the bracket is approximately 48 inches from the ground. Only two screws will be used to attach the mounting bracket to the pedestal, the screws should pass (install) through the middle two vertical screw holes of the mounting bracket as shown in Figure 2-3.

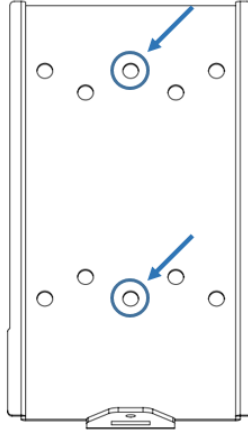


Figure 2-3 Mounting Bracket Screw Hole Locations

- 2.3.7 Next, install the Connector/Plug Holder below the charging station (EVSE) unit.

## 2.4 Input Wiring Connection (Hardwire Connection)

**WARNING: IMPROPER WIRING CAN RESULT IN DEATH OR SERIOUS INJURY. FOLLOW LOCAL ELECTRIC CODE WHEN MAKING ANY ELECTRICAL INSTALLATION.**

- 2.4.1 Choose the appropriate conduit and fitting in accordance with all applicable state, local and national electrical codes and standards. Please note the charging station knock-out size for the input wiring connection is 1" NPT.

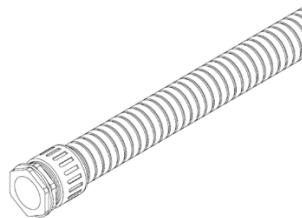


Figure 2-4 Conduit.

- 2.4.2 Using the appropriate tool, clamp the wire terminal to the copper wire. For non-insulated terminals, use heat shrink tube to cover the non-insulated portion of the terminal.



Figure 2-5 Copper terminal, heat shrink tube and copper wire.

2.4.3 Connecting the electrical wiring to the charging station.

2.4.4 Place the Charging Station on a flat surface, front cover down with protection under the cover to avoid scratching damage to the cover.

2.4.5 Remove the Charging Station front cover by loosening the (5) Torx screws at the rear of the charging station.

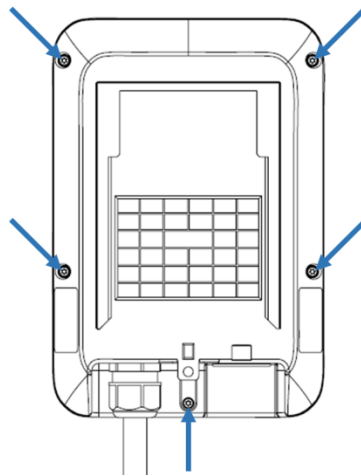


Figure 2-6 Five Torx screw locations to remove the Charging Station Cover

2.4.6 With the (5) Torx screws loosened, hold the front cover in place and flip the charging station over on the flat surface so that the front cover is on top. Once this is completed, lift the charging station front cover and place to the right side of the charging station unit.

2.4.7 With the front cover placed to the side, insert the wire end passing through the conduit and insert them into the input wiring hole. (Use Red wire for L1, Black wire for L2, Green-yellow wire for G). Attach the copper wire on the corresponding terminal block. Use the following wire and torque force when connecting to input terminal block, using conductor type other than RHH, RHW and RHW-2 with outer covering.

| Terminal  | Conductor | Screw | Rating           | Torque    |             |
|-----------|-----------|-------|------------------|-----------|-------------|
| L1, L2, G | 8 AWG     | M4    | 90C, copper wire | 16 kgf.cm | 13.88 lb-in |

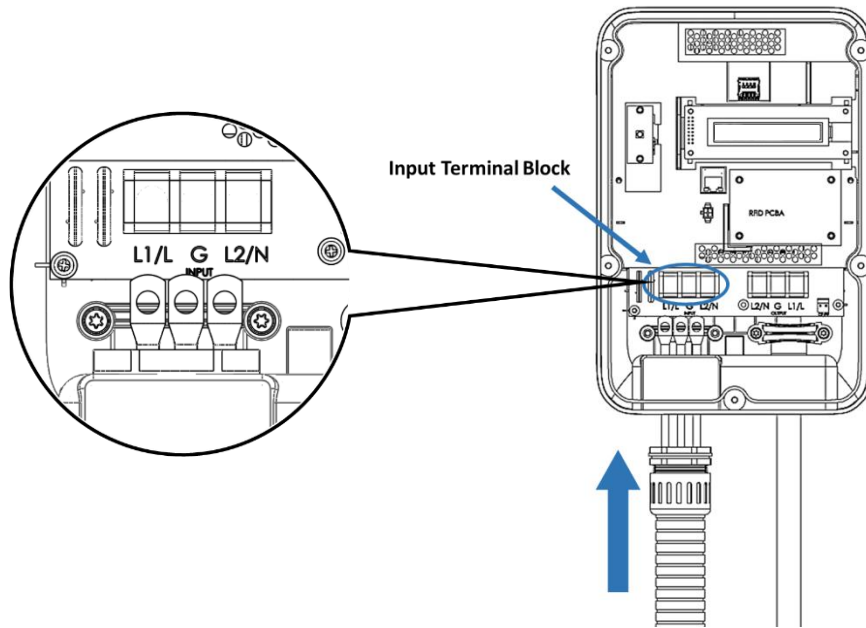


Figure 2-7 Input wiring



**WARNING INCORRECT CIRCUIT AMPERAGE RATING CAN RESULT IN DEATH OR SERIOUS INJURY:** To reduce the risk of fire, connect only to a circuit provided with the appropriate amperes minimum branch circuit overcurrent protection in accordance with the National Electrical Code, ANSI/NFPA 70, and the Canadian Electrical Code, Part I, C22.1.

| Current Setting | Circuit Rating Requirement |
|-----------------|----------------------------|
| 32A             | 40A or greater             |

2.4.8 Once the input wiring and conduit are connected, reassemble the charging station.

2.4.9 4-1. Reinstall the charging station front cover using the following torque force to secure the (5) Torx screws:

| Screw | Torque    |             |
|-------|-----------|-------------|
| M4    | 16 kgf.cm | 13.88 lb-in |

## 2.5 Install Charging Station to Wall Bracket

2.5.1 As shown in Figures 2-8 & 2-9, mount the charging station onto the mounting bracket and secure the lock screw.

2.5.2 Tighten the installed M4 screw and screw washer to fix charging station on mounting bracket.

2.5.3 Use following torque force:

| Screw | Torque    |             |
|-------|-----------|-------------|
| M4    | 16 kgf.cm | 13.88 lb-in |

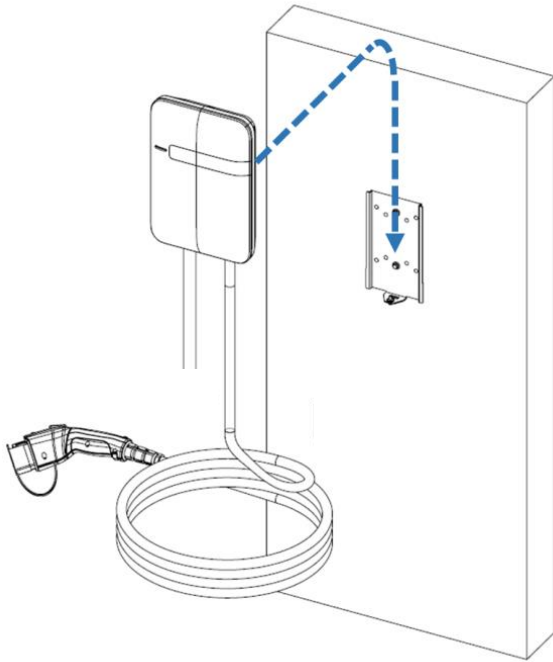


Figure 2-8 Charging station and mounting bracket

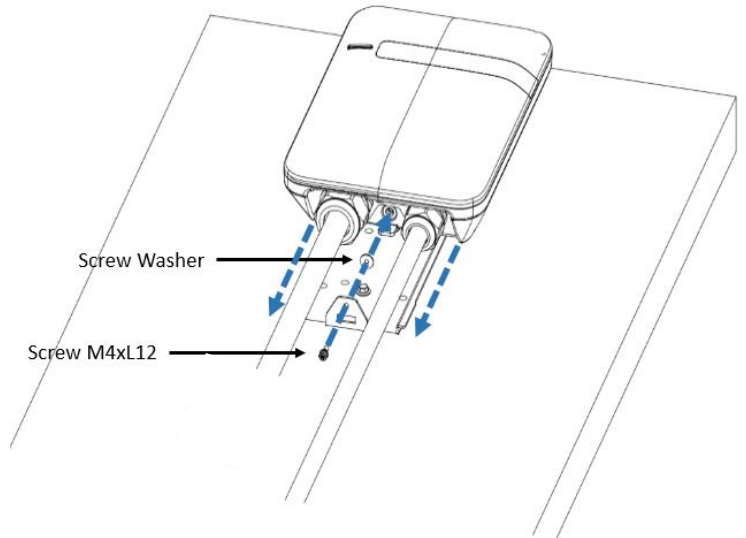


Figure 2-9 Screw locking position

## 2.6 Install the Plug and Cable Holder

### 2.6.1 Separate the holder from hook.

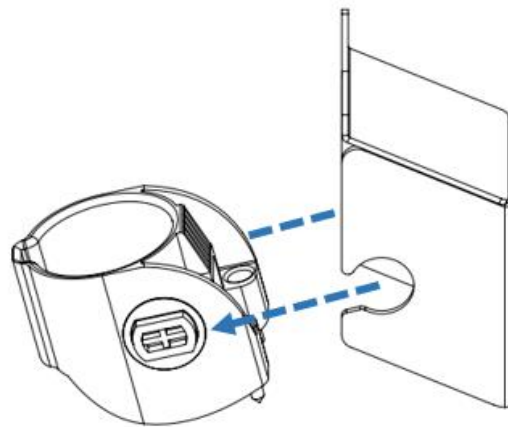


Figure 2-10 Separate the holder

### 2.6.2 Install the Holder bracket (hook) below the charging station using the supplied fasteners

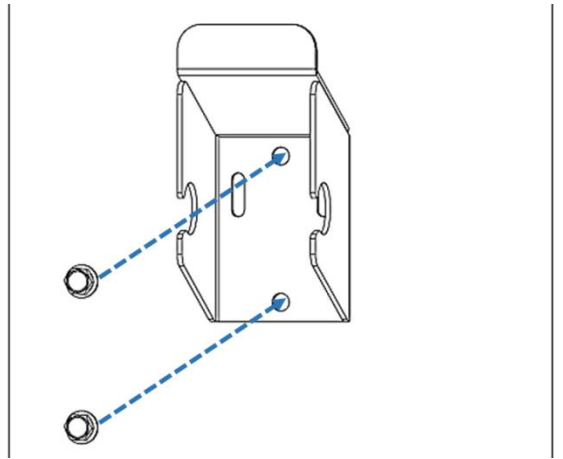


Figure 2-11 Secure the hook

2.6.3 Position the plastic holder insert face up and install into the holder bracket.

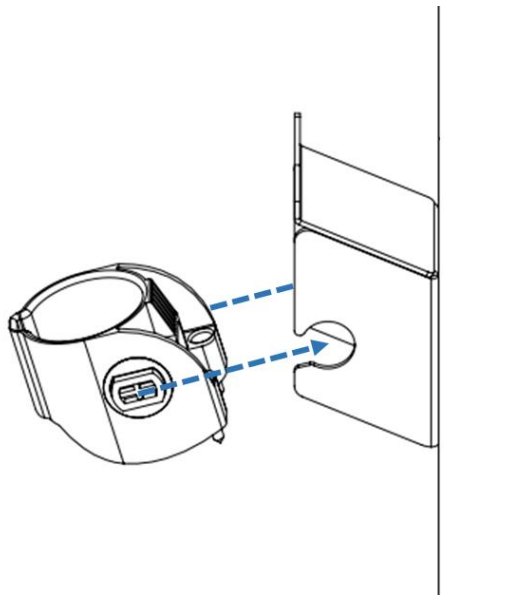


Figure 2-12 Secure the holder

2.6.4 Next, rotate the holder insert down.



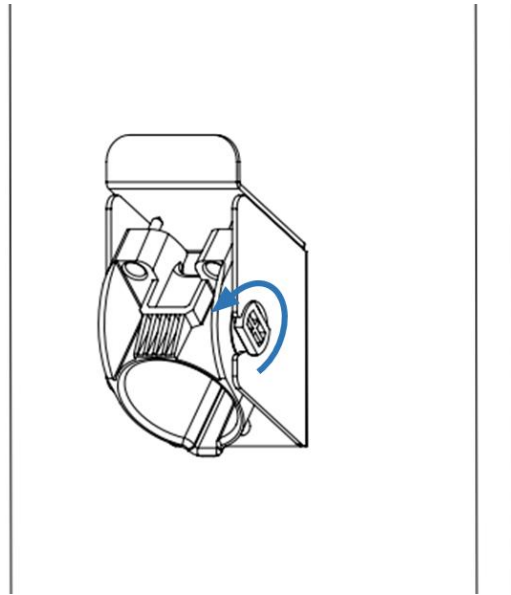


Figure 2-13 Rotate the holder

2.6.5 With the holder insert in the down position, tighten the (2) lock/set Philips screws located at the top of the plastic holder component until snug (do not overtighten). The screws ensure that the plastic holder component remains secured to the holder bracket.

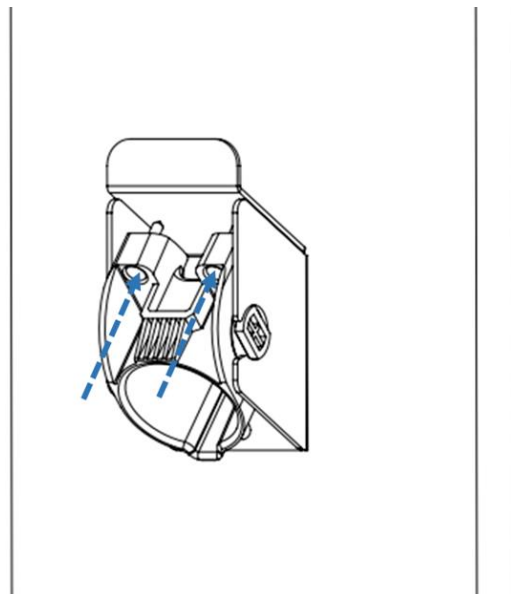


Figure 2-24 Lock screws

2.6.6 Insert EV charging connector into the holder.

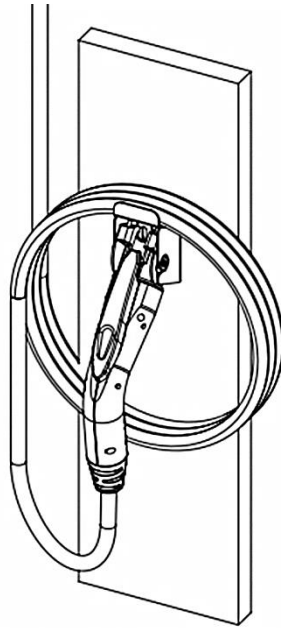


Figure 2-15 Insert EV Charging Connector into Holder

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