ELOCITY
A CONNECTED EV WORLD

ELOCITY HIEV INSTALLATION MANUAL

Welcome!

This guide will help you install and safely use your HIEV Level 2 EVSE.
It covers everything from setting it up to moving or storing it.
Please read all the instructions carefully to avoid injury or damage. This manual applies only to specific models—so make sure you have the right one before you begin!

Manual Revision: 1.1
December 2025

Table of Contents

1. IMPORTANT SAFETY INSTRUCTIONS

This manual contains critical safety information for the proper installation and operation of the Elocity HIEV Level 2 Electric Vehicle Supply Equipment (EVSE).

All instructions must be read and understood in full prior to beginning installation.

Safety Symbols

WARNING
Risk of serious injury or death.

WARNING
Indicates a fire hazard.

WARNING
Indicates a risk of electric shock.

CAUTION
Indicates a condition that may result in equipment damage.

- This manual is intended exclusively for the Elocity HIEV EVSE. It is not applicable to other products or models.
- All materials and methods used must conform to local building codes, electrical regulations, and safety standards.
- Installation must be performed by a licensed electrician, certified installer, or similarly qualified professional.
- Prior to installation, the user must thoroughly review this document and confirm compliance with all applicable codes.
- The manufacturer assumes no liability for installation practices that deviate from prescribed safety protocols or standards.

1.1 INSTRUCTIONS REGARDING RISK OF FIRE OR ELECTRIC SHOCK

To reduce the risk of fire, electric shock, or injury, adhere strictly to the following precautions:

- Read and follow all instructions prior to operation.
- This equipment is not intended for use by children.
- Don't insert fingers or objects into the EV connector.
- Avoid contact with live electrical components.
- Do not operate this equipment if the power cord or EV cable exhibits fraying, exposed wiring, or other signs of physical damaged.
- Don't use the charger if the enclosure or EV connector is damaged.
- Don't connect this unit to an extension cord or use with any form of plug adapter.

SAVE THESE INSTRUCTIONS

This document should be retained and provided to any personnel responsible for installation, maintenance, or servicing of this equipment.

1.2 USER MAINTENANCE INSTRUCTIONS

The Elocity HIEV Level 2 EV Charger is built to last and doesn't need regular maintenance. But for your safety and the best performance, it's a good idea to do a quick visual check before each use.

What to look for:

- Make sure the charging cable and plug are in good condition.
- Check that the enclosure is not cracked or damaged.

⚠️ Important: Never open or try to repair the charger yourself. If something seems wrong, contact Elocity's Technical Support for help.

Cleaning tips:

- Use a soft cloth with mild soap and water to clean the outside.
- Don't use harsh chemicals or solvents — they can damage the surface.
- Never put the unit in water or spray it with a hose.
- After charging, place the cable back in the holster to avoid damage.

1.3 MOVING, TRANSPORTING & STORAGE INSTRUCTIONS

When you need to move or store your charger, keep these simple tips in mind:

Moving:

- Always lift the charger by its main body.
- Don't pull or carry it by the cable — this could cause damage.

Storing:

- Keep it in a dry place, away from water or damp conditions.
- Safe temperature range for storage: −40°C (−40°F) to 60°C (140°F).

⚠️ **WARNING:** This equipment is designed only for charging electric vehicles that do not require ventilation during the charging process. Before use, please consult your vehicle's owner's manual to confirm whether ventilation is required while charging.

FCC DECLARATION OF CONFORMITY

This charger meets the requirements of FCC Part 15. That means:

1. It won't cause harmful interference.
2. It will work even if there's some interference from other devices.

⚠️ **Note:** Changes or modifying the charger without approval from the manufacturer may void your warranty and right to use it under FCC rules.

2. PRODUCT SPECIFICATIONS

Description	Specification
EVSE Level	AC Level 2
Connector Type	SAE J1772 or NACS
Cable Length	23 ft. (7 meters) or 16.4 ft (5 meters)

Output Ratings

Output Current (Ampere)	Power Output (kW)	Recommended Circuit Breaker
80 Maximum	19.2	100A
64	15.36	80A
48	11.52	60A
40	9.6	50A
32	7.68	40A
16	3.84	20A
8	1.92	16A

Input Power Requirements

Input Voltage	208V (Single Phase) / 240V (Split Phase), 50/60Hz
Breaker Type	Double Pole
Circuit Conductors	Line 1, Line 2, Earth/Ground
Installation	Hardwired or Plug In (Up to 40Amps)

Environmental Ratings

Enclosure Protection	UL Type 4 – Indoor/Outdoor Rated
Operating Temp. Range	-30°C to 50°C (-22°F to 122°F) ambient
Humidity Tolerance	Up to 95% RH, non-condensing

Dimensions & Weight

Enclosure Size	11.8 x 8.66 x 3.5 in (30 x 22 x 8.5 cm)
Weight	21 lbs (9.5 kg) Approx.

Smart Features

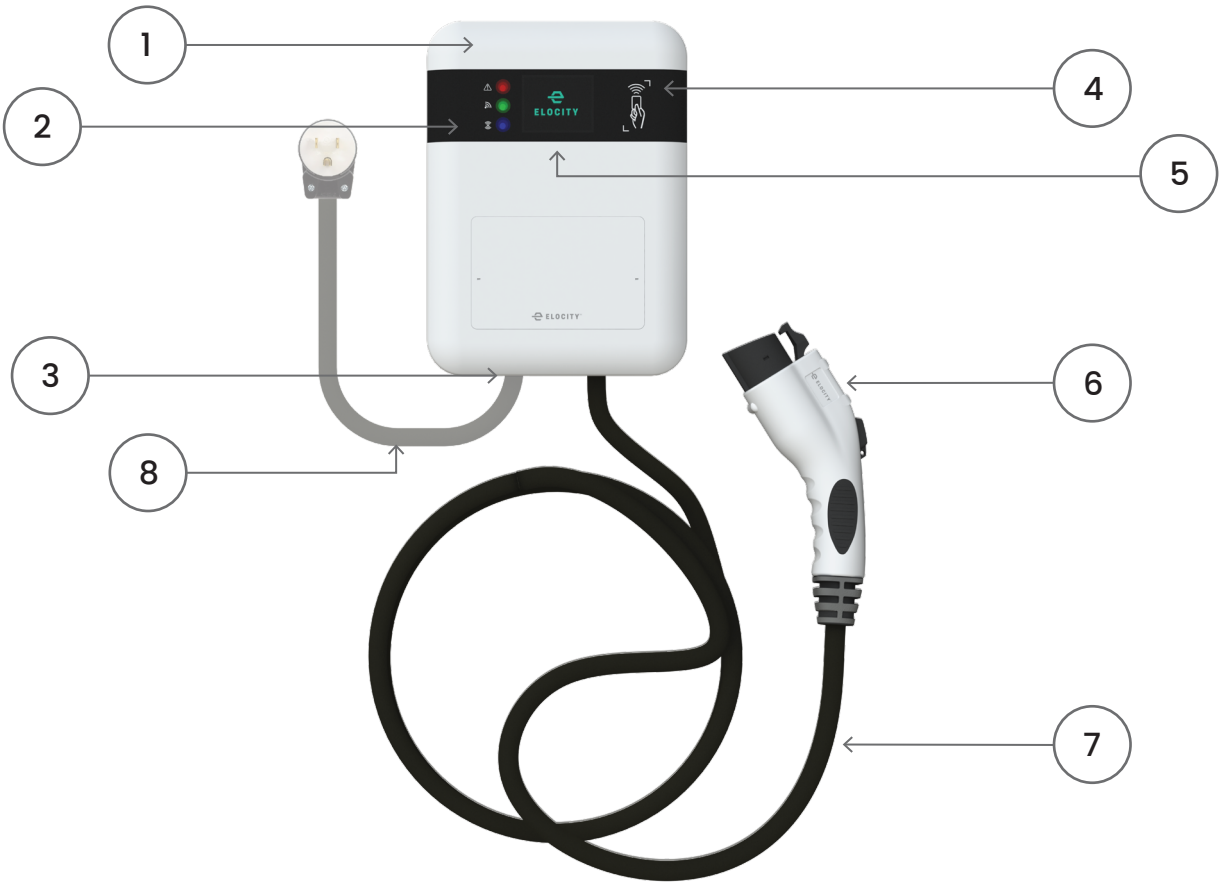
Connectivity	2.4 GHz Wi-Fi, 4G and Ethernet
Status Indicators	LED (Power/Ready, Charging, Fault), LCD 2.4 Inch

Certification

Standard	UL Certified (File No. XXXXXXX)

3. PRODUCT INTRODUCTION AND UNBOXING

3.1 Your Charger

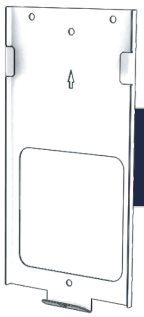


Charger Components

1. HIEV EVSE
2. LED Indicators (Red, Green, Blue)
3. Input Hardwired Connection
4. RFID Reader
5. LCD 2.4 Inch
6. Output Cable J1772 Connector Type 4 Rated or NACS
7. Output Cable 23 ft (7m) or 16.4 ft (5m)
8. Plug In NEMA 16-50 Amps 01 Meter Cable Up to 40 Ampere Only (Optional)

3.2 In Box Contents

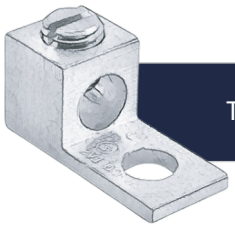
The Elocity HIEV EVSE Level 2 EV Charger is built to last and doesn't need regular maintenance. But for your safety and the best performance, it's a good idea to do a quick visual check before each use.



Back Clamp (x1)

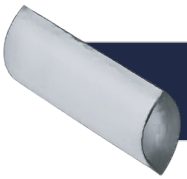
Charging Holster (x1)

Cable Hanger (x1)



Terminal Lugs (x3)

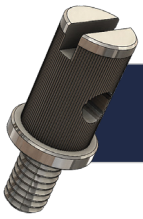
Terminal Screw (x3)



Shrink Tube (x3)

Charger Mounting Screws (x3)

Holster + Cable Hanger Mounting Screws (x4)



Secure Screw (x1)

Anchors (x7)

4. INSTALLATION PLANNING AND SERVICE WIRING

WARNING: Turn off the power supply before installing or modifying the charging station. Not doing so can cause serious injury or damage to the equipment and electrical system

4.1 Electrical Source Requirements

To ensure the safe and reliable operation of the Elocity HIEV EVSE Level 2 Charging Station, all electrical installations must comply with local and national electrical codes. Follow the steps below to determine the appropriate electrical source and connection method.

Step 1: Identify the Charging Output Setting

Begin by selecting the desired maximum output current for the charging station. This setting determines the required circuit rating and breaker size.

Step 2: Confirm Circuit Requirements

Use the table below to match the output setting with the corresponding electrical specifications:

Output Current (Ampere)	Circuit Rating (Ampere)	Voltage (V)	Phase Type	Frequency (Hz)
80 (Factory Default)	100	208V / 240V	Single or Split Phase	50–60 Hz
64	80	208V / 240V	Single or Split Phase	50–60 Hz
48	60	208V / 240V	Single or Split Phase	50–60 Hz
40	50	208V / 240V	Single or Split Phase	50–60 Hz
32	40	208V / 240V	Single or Split Phase	50–60 Hz
16	20	208V / 240V	Single or Split Phase	50–60 Hz
8	10	208V / 240V	Single or Split Phase	50–60 Hz

⚠ **Note:** Always verify that the supply voltage matches the specified range before beginning the installation.

Step 3:Install the Correct Circuit Breaker

A double pole circuit breaker must be used. The breaker should match the current rating shown in the table above and be dedicated to the charging station.

Step 4: Perform a Hardwired Connection

The charging station must be permanently hardwired to the electrical panel Beyond 48 Amps. Do not use an electrical plug, extension cord, or adapter. All wiring must be completed by a qualified electrician.

WARNING: To reduce the risk of fire, connect only to a circuit protected by a branch circuit overcurrent device rated between 20 to 100 amperes, in accordance with the National Electrical Code (NEC) ANSI/NFPA 70 and the Canadian Electrical Code, Part I (C22.1). If you are unsure whether your circuit meets these requirements, consult a licensed contractor, certified electrician, or qualified installation professional.

4.2 GROUNDING INSTRUCTIONS

This product must be connected to a proper ground. Grounding gives electric current a safe path to follow if the product malfunctions, helping to prevent electric shock. The product comes with a cord that has a built-in grounding wire.

The grounding wire will be green, or green with one or more yellow stripes, and must be included in the branch circuit that powers the device.
Connect the grounding wire to earth ground at the main service equipment, or, if the power comes from a separately derived system, connect it to the supply transformer.

WARNING: If the equipment grounding conductor is not connected correctly, it can cause electric shock. If you are not sure the product is grounded properly, have a qualified electrician check the installation according to the National Electrical Code (ANSI/NFPA 70) and the Canadian Electrical Code, Part I (CSA C22.1).

4.3 GFCI

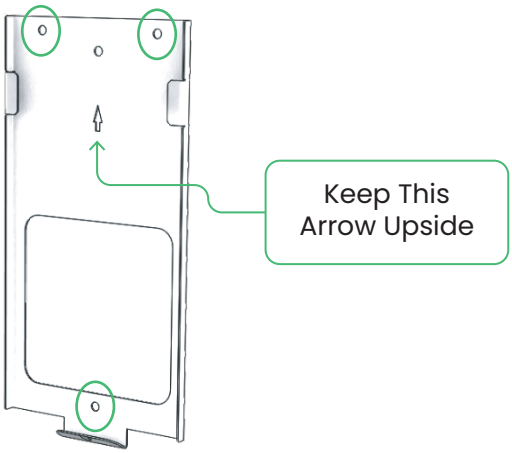
This charger includes an integrated Ground Fault Circuit Interrupter (GFCI). No additional downstream GFCI protection is required.

5. INSTALLATION

5.1 INSTALL THE CHARGING STATION

Select a secure and appropriate mounting location before installation. Ensure the charging station is anchored to a stable surface, such as a RCC wall stud or solid concrete wall. Do not install the unit directly onto stucco or drywall.

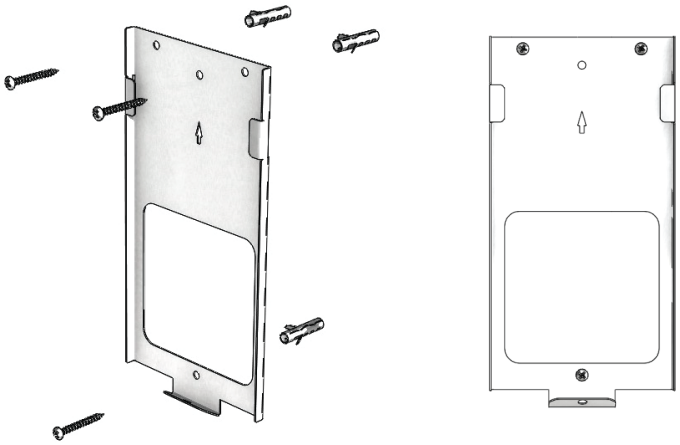
1. Using the back clamp as a guide, mark three points on the wall with a marker.
2. Drill three holes into the concrete wall, each to a depth of 1½ inches (38 mm), using a 5/16-inch (8 mm) drill bit.
3. Insert the plastic or nylon anchors into the drilled holes securely.



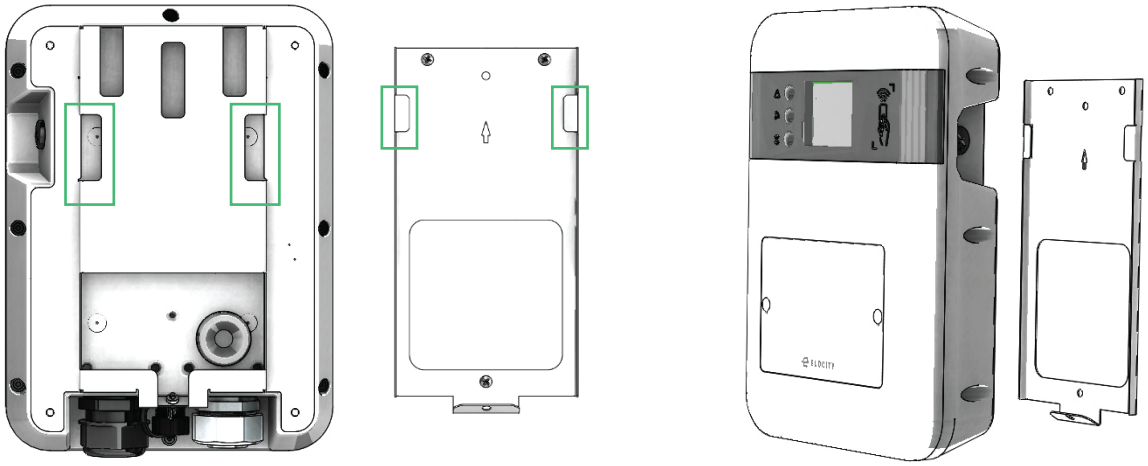
4 Position the clamp and insert the screw through it.

a. The back clamp has 3 holes to support attachment to various surfaces.

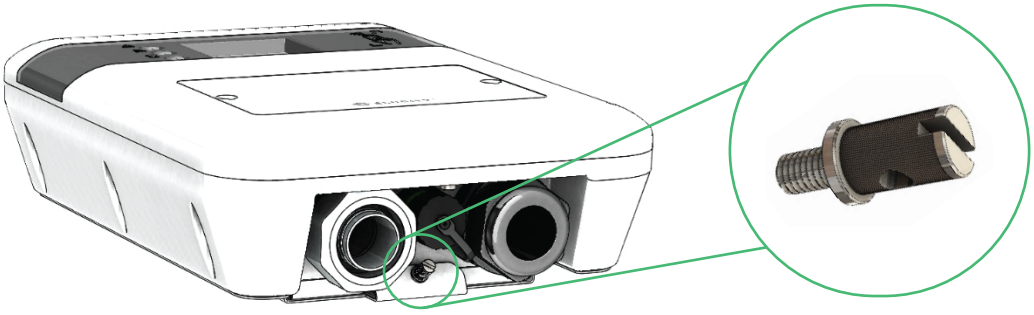
b. Mount the device in accordance with ADA requirements so that the coupling device holder is positioned between 0.45 m (18 in.) and 1.2 m (48 in.) above ground level.



5 Align the charger-mounted clamp with the wall-mounted clamp, then slide the charger downward until it locks into place.



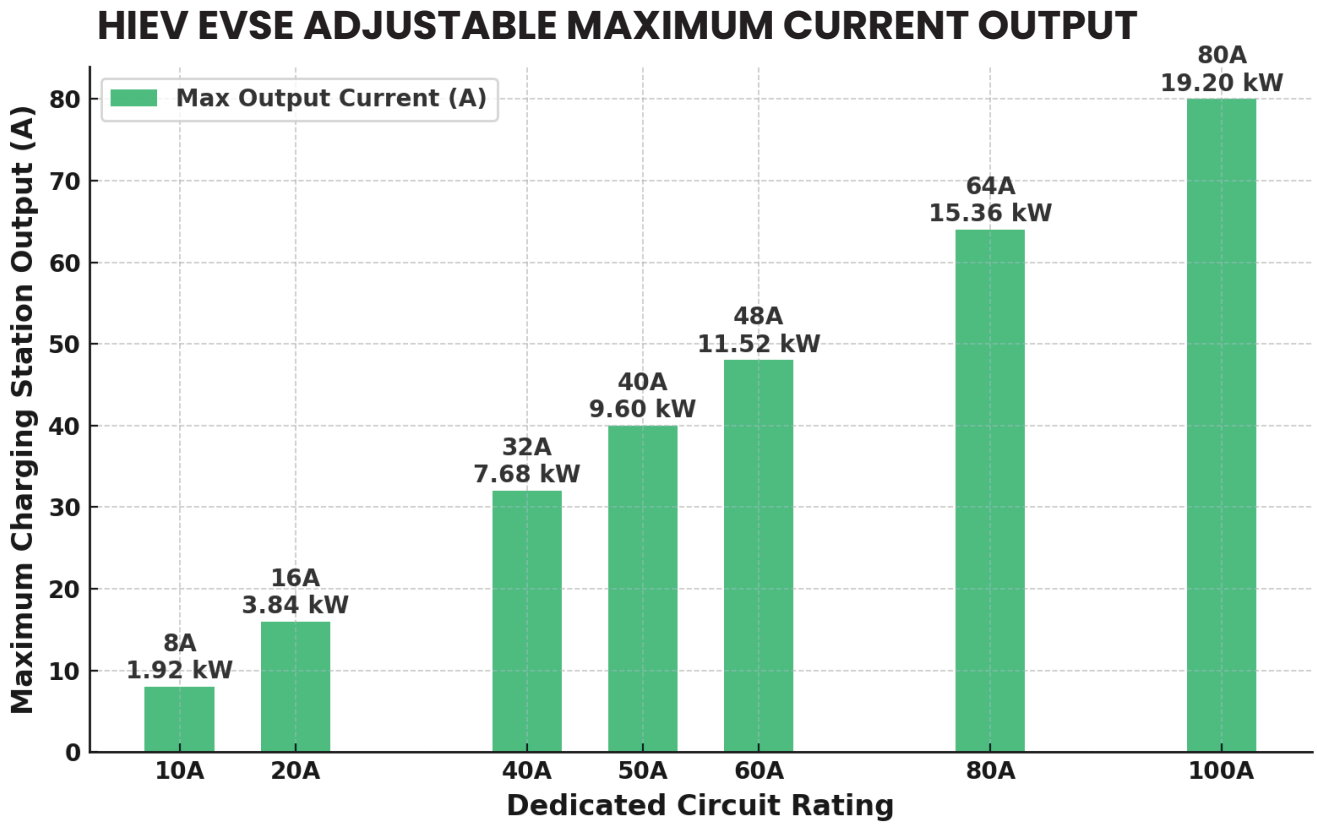
6 Engage the secure screw to firmly fasten the charger onto the back clamp.



7 Install the EVSE with the power supply cord properly secured to ensure that it does not contact the floor after installation is complete.

6. ADJUSTABLE MAXIMUM CURRENT OUTPUT

The Elocity HIEV EVSE allows adjustment of the maximum charging current to match the available dedicated circuit rating. Per electrical code requirements, only 80% of the circuit rating may be used for continuous loads.



Note: These values are based on the 80% continuous load rule as defined by electrical safety codes.

Maximum Output Current (Amps)	Required Circuit Rating (Amps)	Maximum Power Output (kW)
8A	16	1.92kW
16A	20A	3.84 kW
32A	40A	7.68 kW
40A	50A	9.60 kW
48A	60A	11.52 kW
64A	80A	15.36 kW
80A	100A	19.20 kW

Safety Tips – HIEV EVSE (Power Off)

1 **Verify Zero Voltage**
Confirm with a multimeter that no live voltage is present before working inside the unit.

2 **Avoid Static Discharge**
Use an anti-static wrist strap or touch a grounded surface before handling internal components.

3 **Set Correct Current Output**
Match the DIP switch or configuration setting to the correct value for your circuit rating.

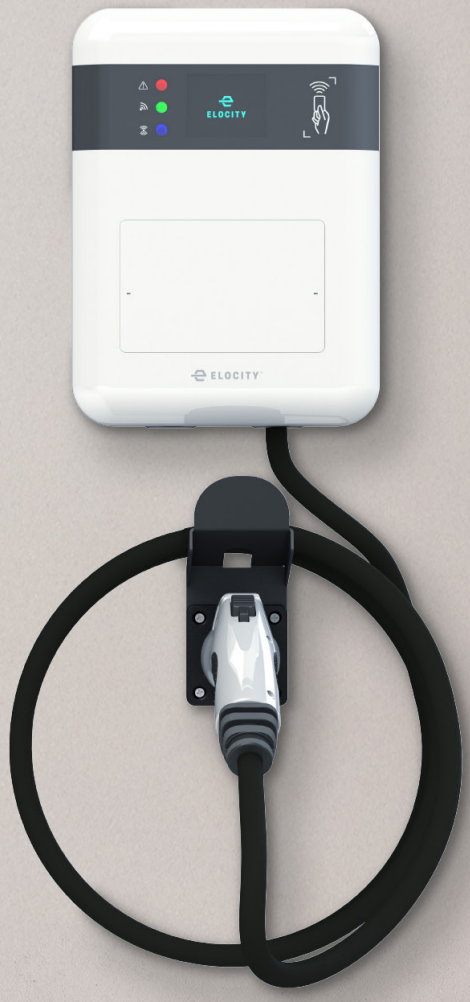
4 **Check Conductor Size**
Ensure wires meet the correct AWG size for the new current setting.

5 **Tighten Connections**
Torque all terminals to the manufacturer's specifications to prevent overheating.

6 **Inspect for Damage**
Look for loose wires, corrosion, or insulation damage before closing the panel.

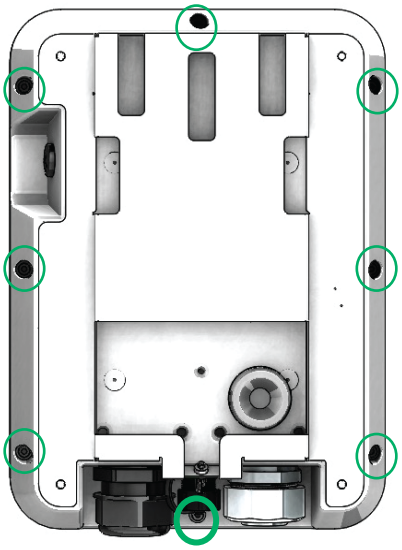
7 **Seal the Unit**
Ensure the enclosure is properly closed with all screws tightened for weather protection.

8 **Power On & Test**
After adjustments, restore power and confirm correct operation using the EVSE status indicators.



6.1 ADJUST MAXIMUM CURRENT OUTPUT

Front Cover Removal Procedure



1 Ensure the charger is disconnected from all power sources before beginning.

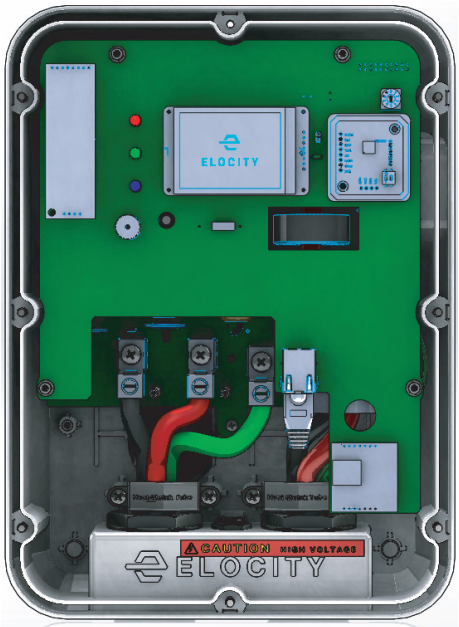
2 Using a Phillips head screw driver, remove the eight (8) screws from the rear panel of the charger.

3 Carefully lift the front cover and turn it like book from lower body of charger.

4 Do not Disconnect any Connector from PCB

5 Use 2mm Minus head Screwdriver to rotate the Ampere setting switch.

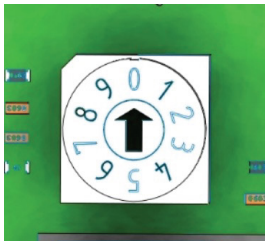
CAUTION: Do not use power tools. Hand tools are required to prevent over tightening or damage to fasteners and the enclosure.



HIEV EVSE – Adjustable Current Settings

Maximum Output Current (Amps)	Switch Arrow Position
8	0
16	1
32	2
40	3
48	4
64	5
80	6

6 Once the rotary switch setting has been adjusted, reassemble the charging station. Reinstall the top cover and tighten the (8)screws with torque of 1Nm (4.4 lbf-in)



7. HARDWIRE CONNECTION

WARNING: All wiring connections must be performed only by a licensed contractor, licensed electrician, or qualified installation expert. All work must comply with applicable electrical codes and safety standards. Use only approved parts and tools that meet regulatory requirements. Incorrect wiring may result in electric shock, serious personal injury, or fire.

7.1 PREPARE WIRING

1 **Turn Off Power**
Switch off the main power supply to the installation circuit at the breaker panel before beginning any wiring work.

2 **Verify Circuit Capacity**
Confirm that the dedicated circuit meets the required amperage rating for the selected maximum output current of the charging station.

3 **Select Appropriate Cable**.

- Use copper conductors of the correct gauge according to local electrical codes and the charging station's rated load.
- Refer to the Conductor Sizing Table in this manual for guidance.

4 **Strip and Prepare Conductors**

- Carefully remove the outer insulation without damaging the inner conductor insulation
- Strip approximately 19 mm (¾ in.) of insulation from each conductor end.

5 **Identify and Mark Conductor**

- L1 (Line 1) – **Black**
- L2 (Line 2) – **Red**
- Ground (Earth) – **Green** or Green/Yellow

6 **Position Wiring for Installation**

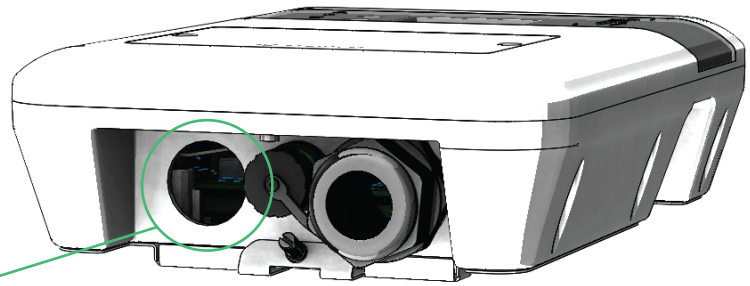
- Route conductors into the mounting location through conduit or cable entry points.
- Ensure no sharp bends, excessive strain, or tension on the wiring.

7 **Inspect Work**

- Verify that all conductors are clean, undamaged, and ready for secure connection.

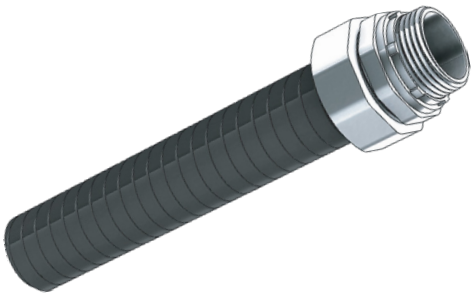
Maximum Current Output (As set by Rotary Switch)	Wire Gauge L1 L2	Wire Guage Ground
80A	3-4 AWG	3-6 AWG
64A	3-4 AWG	3-6 AWG
48A	4-6 AWG	4-8 AWG
40A	6-8 AWG	6-8 AWG
32A	6-8 AWG	8 AWG
16A	8 AWG	8 AWG
08A	8 AWG	8 AWG

Choose a conduit that meets all applicable electrical safety codes and standards. Ensure the conduit size is compatible with the enclosure opening diameter of 1.26 in. (32 mm).

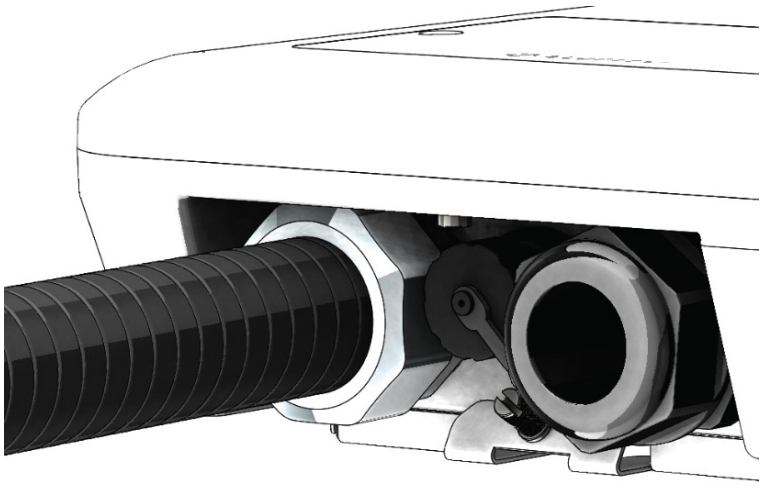


Opening Hole Size 1.26In. (32 mm)

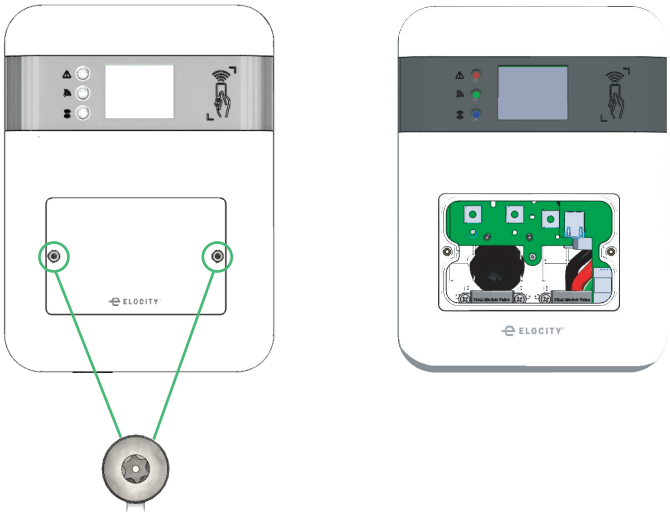
McMaster-Carr
8069K14
Liquid-Tight Flexible Metal Conduit Ultra-Flexible Zinc-Plated Steel, 1 Trade Size

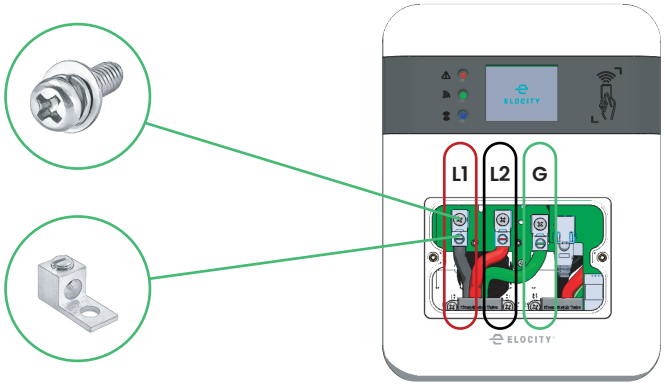


McMaster-Carr
7119K74
Liquid-Tight Flexible Metal Conduit Adapter with Locknut, Zinc Straight, 1 Trade Size Female x NPT Male

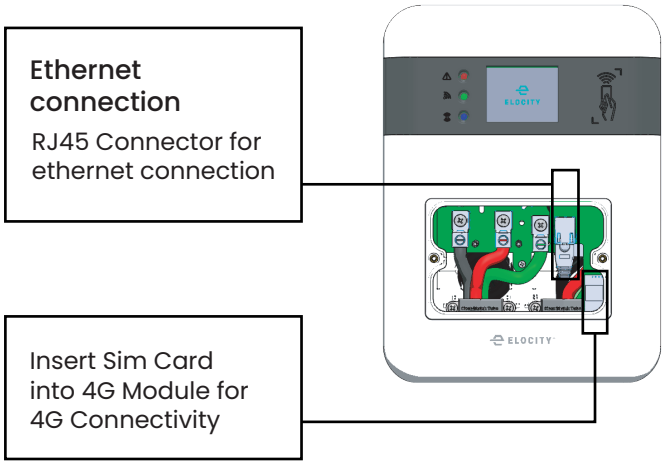


7.2 HARDWIRE CHARGER





McMaster-Carr
6920K22
Tin-Plated Aluminium Set Screw Lug 1 Hole for 1 Wire, 14-2 Wire Gauge



1. Remove the front cover window by loosening the two screws using a Torx Head (T6) screwdriver. The screws are located beneath the screw cap covers

2. Attach the conduit to the bottom entry of the enclosure, ensuring a secure and code-compliant fit.

3. Using a Phillips Head (PH3) screwdriver, fasten the Terminal Lugs to the Terminal Connectors on L1, L2, and Ground (G) using the terminal screws provided.

   > Torque all Terminal Lugs to 2.2 Nm (20 lbf-in).

4. Route the input wires (L1, L2, and Ground) through the conduit and into the charger housing.

5. Slide the heat shrink tubing over the terminal lugs, ensuring it fully covers the exposed metal.

6. Fasten the wires to the terminal lugs with the terminal screws. Apply a tightening torque of 2.2 Nm (20 lbf-in) to each screw.

7. Using a heat gun, shrink the tubing until it fits snugly around the wire and terminal lug.

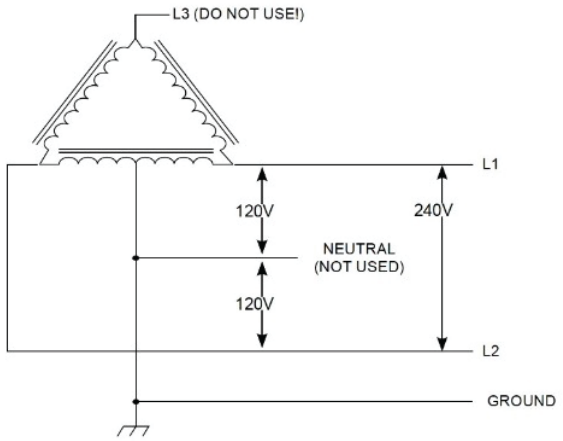
8. After connecting the input wiring and conduit, reassemble the charging station. Reinstall the cover and tighten the cover screws to 0.5 Nm (4.4 lbf-in).

WIRE SPECIFICATION

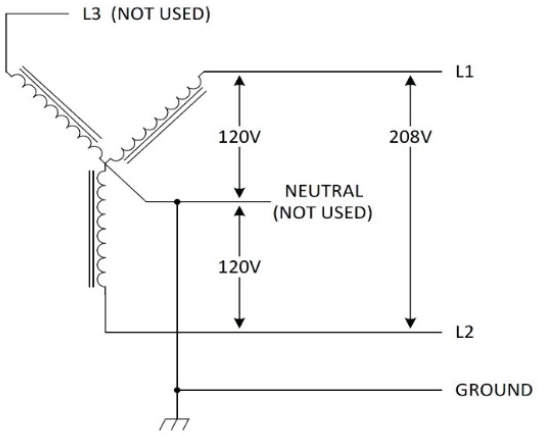
- Terminals: L1, L2, G
- Conductor Size: 3–8 AWG
- Conductor Type: Copper, rated for 75 °C minimum

7.3 Wiring / Connection diagram

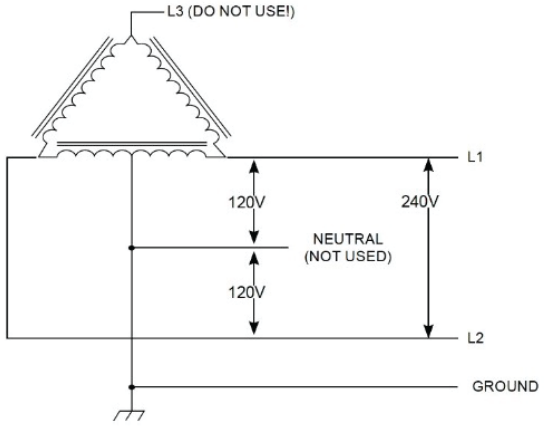
240V 3-Phase, Delta-Connected, with Center-Tap on One Leg



208V 3-Phase, Wye-Connected

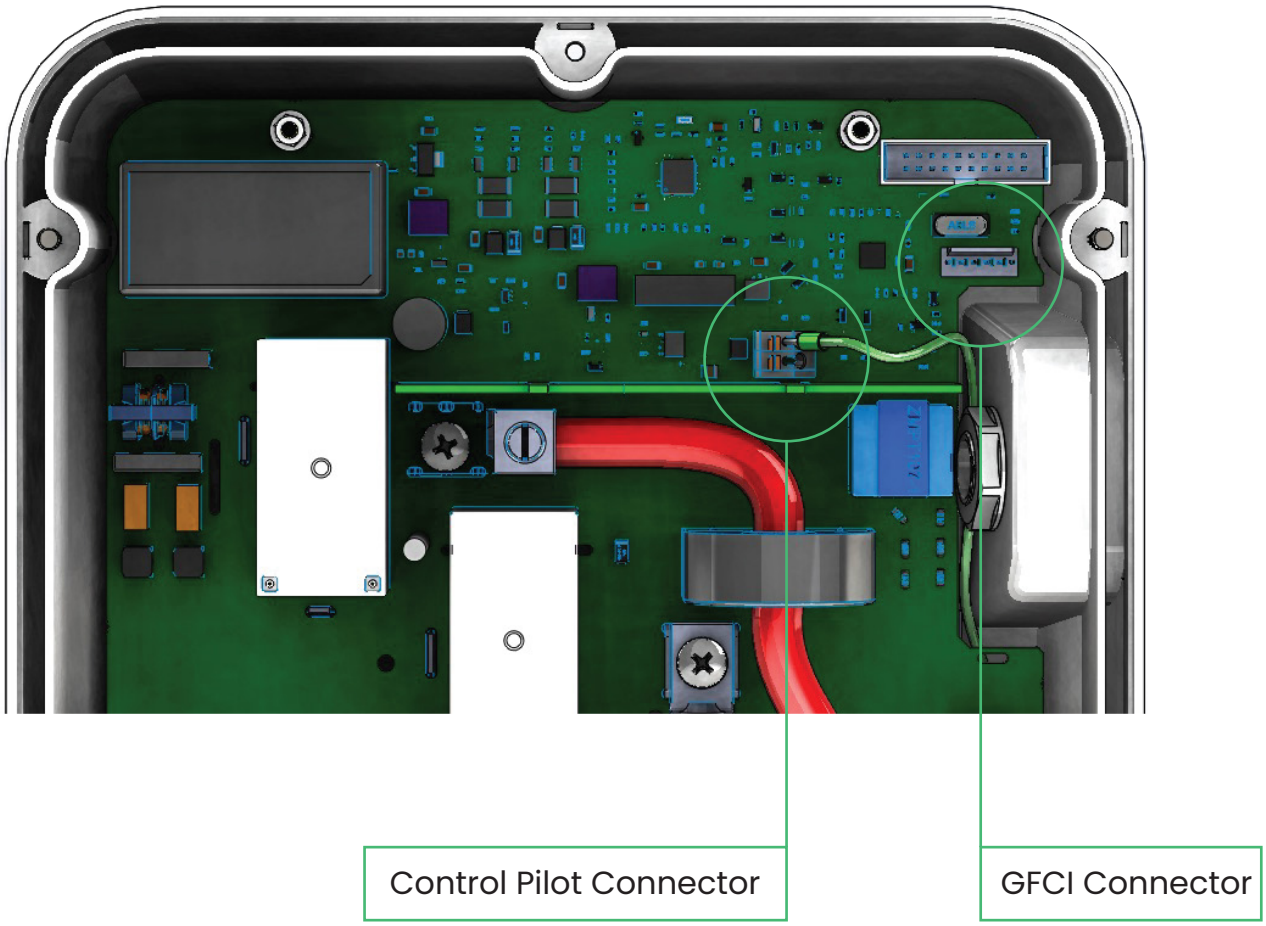


240V 3-Phase, Delta-Connected, with Center-Tap on One Leg



7.4 INSTALLATION WARNINGS

Do not separate the top PCB from the bottom PCB.
These boards are calibrated together and must remain assembled.



Do not touch or remove the white connectors for the GFCI CT and Pilot wire.
These boards are calibrated together and must remain assembled.

Do not touch or disconnect the grey wire connected to the Wi-Fi module.
Interference with this wire may affect device communication.

8. EV Plug Holster and Cable Hanger Installation

The EV Plug Holster protects the charging connector from damage and exposure, and keeps the cable neatly secured when the EVSE is not in use.

The Plug Holster can be mounted at any convenient location near the charging station for easy access to the connector and cable.

Tools Required:

- Drill with 8 mm drill bit
- Phillips head screwdriver PH2
- Pencil or marker

Installation Steps:

1. **Choose the Location**
   Select a location near the charging station that allows the charging cable to reach the holster without strain.

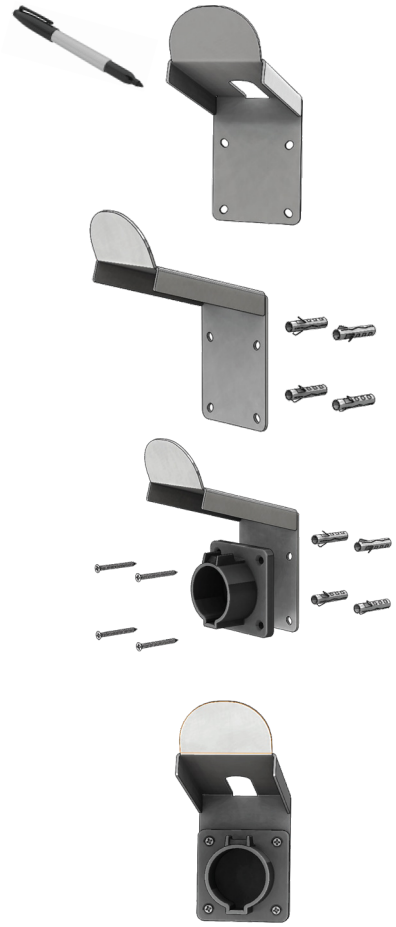
2. **Mark the Mounting Holes**
   Hold the holster against the wall at the desired height. Use a level to ensure it is straight, then mark the hole positions with a pencil or marker.

3. **Drill the Holes**
   Using the correct drill bit for your wall type (e.g., masonry, wood, or drywall), drill holes at the marked positions.

4. **Insert Anchors**
   For drywall or masonry, insert the provided wall anchors into the drilled holes.

5. **Place the Cable Hanger and Holster**
   Align the holster and cable hanger with the drilled holes and secure it in place using the provided screws. Tighten the screws until the holster is firmly fixed.

6. **Check Stability**
   Gently pull on the holster to ensure it is securely mounted and can support the weight of the charging connector.



Note: Remove the rubber cap from the charging gun before inserting it into the holster. Inserting the gun with the cap on may cause damage to either the cap or the holster.

9. Warranty Exclusions

WARRANTY

The Elocity's HIEV Level 2 EVSE is backed by a 3-year or 5-year manufacturer's warranty, provided by Elocity Technologies Inc. to the original purchaser. This warranty covers the product against defects in materials and workmanship for the applicable warranty period, starting from the date of purchase.

If a defect occurs under normal operating conditions during the warranty period, Elocity Technologies Inc. will, upon receiving written notice, provide technical support and guidance until the issue is resolved.

This warranty does not apply if:

- ✕ The product has been misused, abused, modified, or improperly handled.
- ✕ Damage results from extreme power surges, electromagnetic fields, or acts of nature.
- ✕ Cable damage results from normal wear and tear, being run over, pulled, or otherwise damaged by a vehicle.
- ✕ Damage is cosmetic (scratches, dents, or normal wear and aging).
- ✕ The product is used with third-party extension cords or electrical adapters.
- ✕ Plugs are exposed to snow or water for extended periods.

Installation Requirements

1. Installation and hardwiring must be performed by a licensed contractor, licensed electrician, or trained installation expert.

2. Failure to meet this requirement will void the warranty.

3. Proof of qualified installation (such as an electrician's invoice, work order, or bill) is required.

4. The installer is responsible for proper reassembly of the front cover and ensuring there is no damage or water ingress into the enclosure.

Claim Process

To make a warranty claim, the purchaser must provide: Original proof of purchase showing the date of purchase.

Elocity Technologies Inc. will not cover:

1. Costs related to dismantling, removal, installation, or reinstallation.
2. Labor charges or consequential damages.
3. The maximum liability for any warranty claim will not exceed the original purchase price of the product.

Elocity Technologies Inc. reserves the right to make the final determination on the validity of any warranty claim, ensuring fairness to all parties.

10. Our Locations

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