GRIZZL⚡E™

GRIZZL⚡E™ EV Charger

User Manual & Installation Guide

UNITED chargers

Grizzl-E Manual

Manual Revision: 3.1







Model Numbers:

Grizzl-E Classic:

GR1-6-18-R

GR1-6-24-R

GR1-6-24-P

GR1-14-18-R

GR1-14-24-R

GR1-14-24-P

GR1-14-24-PB

GR1-14-24-PB

Grizzl-E Avalanche Edition:

GR1-14-24-AB

GR1-6-24-AB

GR1-14-24-AW

Grizzl-E Special Edition:

GR1-14-24-PC

Grizzl-E Home EV Charging Station

The Grizzl-E is a simple, powerful, heavy-duty, and portable electric vehicle charging station made in Canada and built to withstand the harshest conditions. Grizzl-E comes in three different varieties Classic Black, Avalanche White, or Extreme Camo.

Grizzl-E comes with either an 18ft or 24ft Regular or Premium cable. Internal design and components of the charger have been selected to provide maximum operational life of the device and be able to withstand the elements.

Grizzl-E provides up to 10kW of power to your vehicle. Physical switches inside can be set to provide 16 Amps, 24 Amps, 32Amps or 40 Amps adjustable maximum current.

IMPORTANT SAFETY INSTRUCTIONS

This document contains instructions and warnings that must be followed when installing and using the Grizzl-E Electric Vehicle Supply Equipment (EVSE). Before installing or using the EVSE, read this document including any WARNING and CAUTION symbols.

The Symbols Used Have the Following Meanings


Warning: risk of personal injury


Warning: risk of fire


Warning: risk of electric shock


Caution: risk of damage to equipment

- 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 ensure compliance with local building codes and safety standards.
- Consult a licensed electrician to ensure that this product can be safely installed used.
- Ensure 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.

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

- Read all the instructions before using this product.
- Children should not use this device.
- Do not put fingers into the EV connector.
- Do not touch live electrical parts.
- Do not use this product if the flexible power cord or EV cable is ragged, 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.
- To avoid a risk of fire or electric shock, do not use this device with an extension cord or electrical adapter.
- Improper connection of the equipment grounding conductor can result in a risk of electric shock. Check with a licensed electrician if you are in doubt as to whether the product is properly connected and grounded.

Repair and Maintenance Clause

- All United Chargers 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. Contact United Chargers for any repairs.



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

GRIZZL-E™ Electric Vehicle Charging Station (EVSE)

- J1772 AC Level 2 (208-240 VAC), 40A Continuous Rated (9.6 kW)
- Adjustable Maximum Current Output (40A, 32A, 24A, 16A) to Support Multiple Circuit Ratings (50A, 40A, 30A, 20A).
- Extreme Duty, Rigid & Compact Design:
- Robust and heavy-duty aluminum cast case; airtight enclosure for indoor or outdoor use.
- No user interface required with EVSE, simply Plug-in to your EV to initiate charging.
- EasyEvPlug™ Holster or Tesla EasyEVPlug™ Holster with cable Management System.
- Plug-in Configuration for easy portability.
- Wall Mount with security features (including single stud mount), Pedestal, Bollard/Pole (Single & Dual Port) available from United Chargers.
- UL Listed.

Adjustable Maximum Current Output to Support Multiple Circuit Ratings

The GRIZZL-E™ Electric Vehicle Charging Station features the ability to adjust the maximum charging station current output to allow the use of a 50A, 40A, 30A, or 20A Dedicated Circuit as follows:

50A Circuit Rating:	To support 40A (9.6kW) Maximum Charging Station Output
40A Circuit Rating:	To support 32A (7.68kW) Maximum Charging Station Output
30A Circuit Rating:	To support 24A (5.76kW) Maximum Charging Station Output
20A Circuit Rating:	To support 16A (3.84kW) Maximum Charging Station Output

The Default Factory Setting is 40A (9.6kW). To change the maximum current output, refer to Chapter 3. Adjustable Maximum Current Output on page 11. If you are unsure of the circuit ratings in your home consult a licensed electrician.

Security and Tamper Feature

In addition to the security pin that secures the GRIZZL-E charging station to the wall mount bracket, the GRIZZL-E Classic can also be used with a coupler lock and key with a length of 90mm and diameter of 7mm

Self-Monitoring and Recovery | Power Outage Recovery

When a charging session is interrupted due to a temporary error condition, the charging station will automatically restart charging when the cause of the temporary error condition returns to normal. Refer to Chapter 7.3 Self-Monitoring and Recovery (Auto Restart) on page 21 for more information.

Product Specifications

Description	Specifications
Model Numbers	**GR1-6-18-XX:** GRIZZL-E EVSE; NEMA 6-50 Plug; 18 ft. J1772 Cordset, **GR1-6-24-XX:** GRIZZL-E EVSE; NEMA 6-50 Plug; 24 ft. J1772 Cordset, **GR1-14-18-XX:** GRIZZL-E EVSE; NEMA 14-50 Plug; 18 ft. J1772 Cordset **GR1-14-24-XX:** GRIZZL-E EVSE; NEMA 14-50 Plug; 24 ft. J1772 Cordset
EVSE Level	SAE J1772; AC Level 2
Max Output Rating	40A; 9.6 kW Maximum Output – For use with 50A Circuit Rating
Alternate Adjustable Output Ratings	32A; 7.68 kW Maximum Output – For use with 40A Circuit Rating 24A; 5.76 kW Maximum Output – For use with 30A Circuit Rating 16A; 3.84 kW Maximum Output – For use with 20A Circuit Rating
Charge Cable Length	18 ft. (5.5m) for GR1-6-18-XX and GR1-14-18-XX 24 ft. (7.2m) for GR1-6-24-XX and GR1-14-24-XX
Electrical Circuit / Input Power Requirements	Dedicated 208VAC Single Phase or 240VAC Split Phase, 50/60 Hz.; Branch Breaker: Double pole; Circuit Conductors: Line 1, Line 2, Earth / Ground
Input Power Connection	Standard: Plug-in, NEMA 6-50 or NEMA 14-50 Plug. Plug is removable for Hardwire Connection.
Installation Rating	NEMA 4, Indoor/Outdoor Rated
Operational Ratings	Temperature: -22ºF to 122ºF (-30ºC to 50ºC); Humidity: 95% RH non-condensing
Overall Dimensions	EVSE: 10.25 x 6.25 x 3.75 inches (26.0 x 16.0 x 9.3 cm)
Display & Indicators	LED Charge Status Indicators (Power/Ready, Charging, Fault)
Cable Management	EasyEvPlug™ with cable management
Standards & Compliance	UL Certified. E510712. Energy Star Certified.

INSTRUCTIONS Manual

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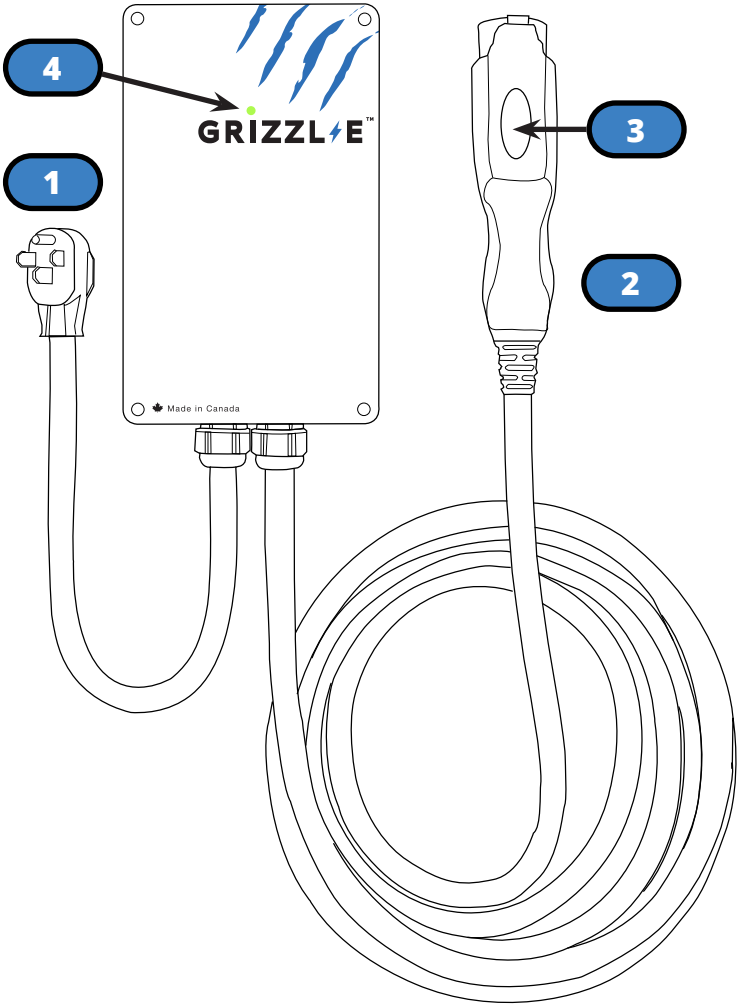
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1. Introduction & Unpacking

1.1 Your Charger

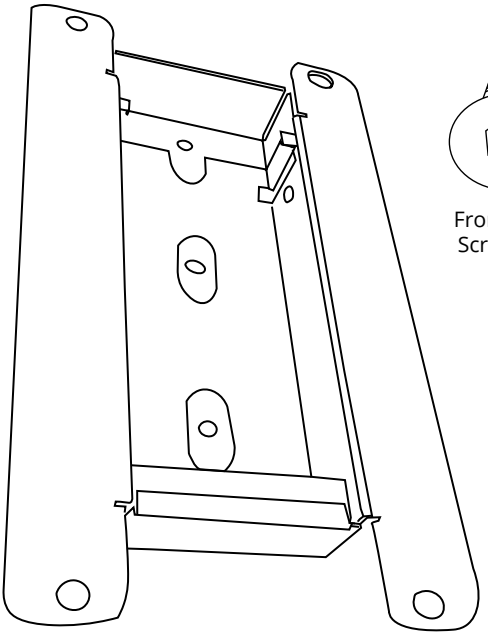


Charger Components

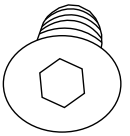
1. Input Cable NEMA 14-50P or NEMA 6-50
2. Output Cable J1772 Connector
3. Latch Release Button
4. Indicator Light

1.2 Package Contents

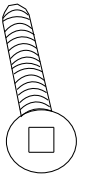
Mounting Kit



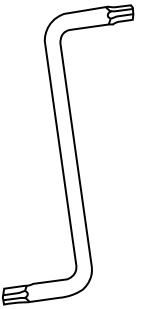
Mounting Bracket (x1)



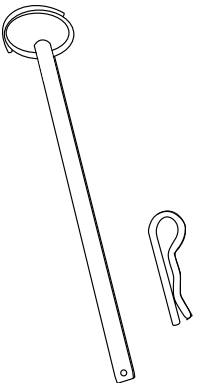
Front Plate Screw (x4)



Back Plate Screws (x2)

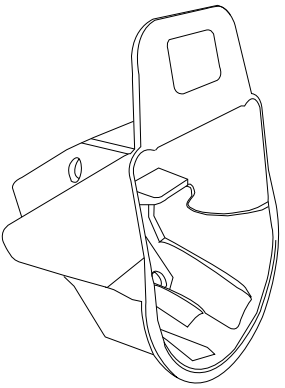


Hex Key Tool

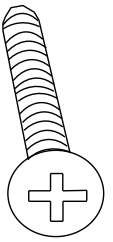


Security Pin (x1)

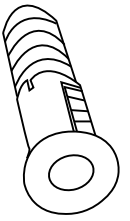
EasyEvPlug Holster



Holster (x1)



Holster Screws (x4)



Holster Anchor (x4)

2. Installation Planning and Service Wiring:



WARNING: Disconnect the power supply to the charging station before installing, adjusting, or repairing the charging. Failure to do so may result in physical injury or damage to the power supply system and the charging station.



CAUTION: 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 7- and the Canadian Electrical Safety Code, Part 1, C22.1. If you are unsure if your circuit meets these requirements consult a licensed electrician.

2.1 Electrical Source Requirements

- Prior to mounting, locate an available electrical source that can support the following Input Requirements for the Charging Station Per local Electrical Safety Code requirements:
  - 40A Maximum Output Setting (Default Factory Setting): DEDICATED CIRCUIT rated for 50A; 208VAC Single Phase or 240VAC Split Phase, 50-60 Hz,
  - 32A Maximum Output Setting: DEDICATED CIRCUIT rated for 40A; 208VAC Single Phase or 240VAC Split Phase, 50-60 Hz,
  - 24A Maximum Output Setting: DEDICATED CIRCUIT rated for 30A; 208VAC Single Phase or 240VAC Split Phase, 50-60 Hz,
  - 16A Maximum Output Setting: DEDICATED CIRCUIT rated for 20A; 208VAC Single Phase or 240VAC Split Phase, 50-60 Hz,
- A Double Pole Circuit Breaker of the circuit rating must be used.
- The Charging Stations can connect a Standard NEMA 6-50 or 14-50 Receptacle, or the unit can be hardwired. Do not use this device with an extension cord or electrical adapter.
- It is recommended to use Grizzl-E Chargers with a Circuit Breaker. It is not recommended to use a Fuse Box as this can lead to unexpected blown fuses.

2.2 Grounding Instructions

The charging station must be grounded through a permanent wiring system or an equipment grounding conductor. Use a cable with a dedicated grounding conductor connected to the equipment ground terminal block.

2.3 GFCI

- The Charging Unit has a built in GFCI protection; Additional downstream GFCI is not required.
- In locations where GFCI at the outlet is mandated by code, install a 20mA GFCI Breaker. A 5mA GFCI Breaker may cause disruptions to the charger function.

3. Adjustable Maximum Current Output

The GRIZZL-E ™ charging station features the ability to adjust the maximum Charging Station current output to support 50A, 40A, 30A, or 20A Dedicated Circuit ratings as follows:

Circuit Rating	Maximum Charging Station Output
50A	40A (9.6 kW)
40A	32A (7.68 kW)
30A	24A (5.76 kW)
20A	16A (3.84 kW)

- The Charging Station Default Factory Maximum Current Output Setting is 40A (9.6 kW) for use with a 50A Circuit Rating.
- The Circuit must be a DEDICATED CIRCUIT 208VAC Single Phase or 240VAC Split Phase.
- Requirements govern that only 80% of the circuit rated load may be utilized, hence the higher Circuit Ratings Requirement relative to maximum Charging Station output.

3.1 Adjust Maximum Current Output

To adjust the Maximum Current Output Setting:

1. Remove the front cover by removing the 4 screws at each corner of the charging station. Use the Hex Key Tool to remove the front cover. Do not use power tools.

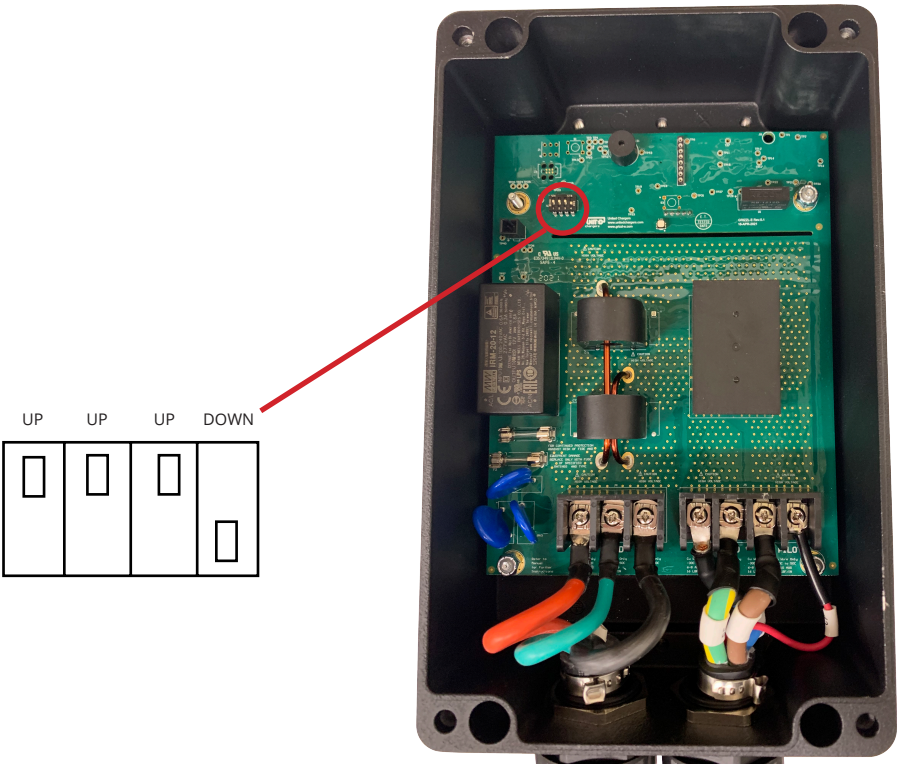


Caution: Do not use power tools to remove screws, as this may strip the screws. Use the provided Hex Key Tool.

Caution: The LED pipe is attached to the front cover. Place the cover facing down on a flat surface to avoid damage to the LED pipe.

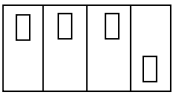
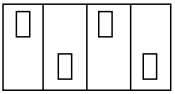
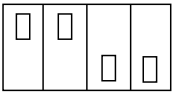
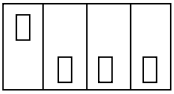
3. Locate the DIP switch on the charging station circuit board. The DIP switch is a 4-position switch on the main circuit board, located near the LED.

Note: Some older units may have a 3-position switch. If your unit has a 3-position switch contact Technical support.



WARNING: Do not touch live electrical parts. Disconnect the power supply to the charging station before adjusting the DIP Switches. Failure to do so may result in physical injury or damage to the power supply system and the charging station.

4. Adjust the Maximum Current Output to either 40A, 32A, 24A or 16A, using the following combination of DIP switch settings:

Maximum Current Output	Switch 1	Switch 2	Switch 3	Switch 4	DIP Switch Setting
40A Maximum Current Output (Factory Default Setting)	UP	UP	UP	DOWN	
32A Maximum Current Output	UP	DOWN	UP	DOWN	
24A Maximum Current Output	UP	UP	DOWN	DOWN	
16A Maximum Current Output	UP	DOWN	DOWN	DOWN	

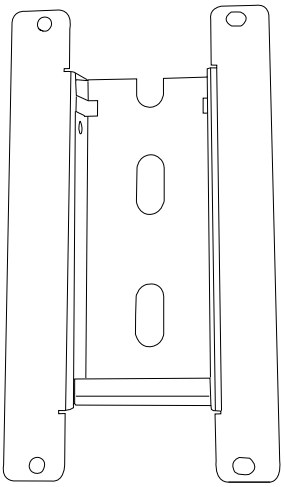
5. Once the DIP Switch Setting is adjusted, reassemble the charging station. Reinstall the top cover to the charging station using the following torque force to secure the (4) socket cap screw:

Screw	Torque	
M6	16 kgf-cm	13.88 lb-in

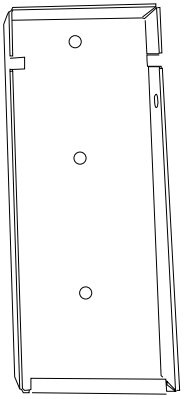
4. Installation

4.1 Install the Charging Station

1. Separate the front and back piece of the mounting bracket by pushing down on the notch.



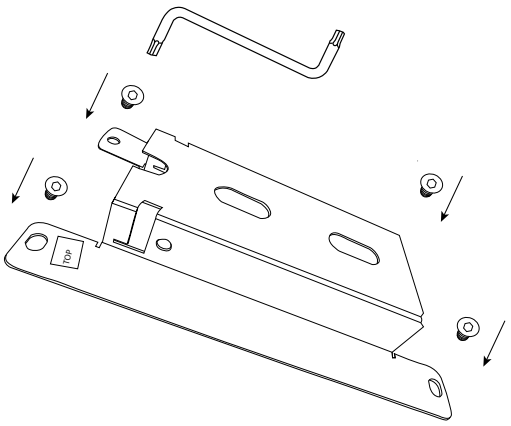
Front Piece



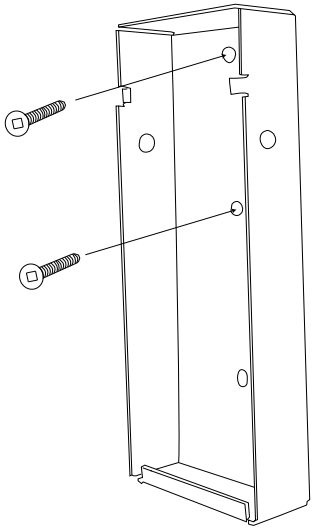
Back Piece

2. Attach the front piece of the mounting bracket to the back of the charging station using the Front Plate screws and hex key tool. Ensure the top of the mounting bracket is matched with the top of the charging station.





3. Secure the back piece of the mounting bracket to the wall or other suitable structure using the Back Plate screws.



The back piece of the mounting bracket has 3 holes to support attachment to various surfaces. Use the top two holes to attach the mounting bracket to a wall stud.

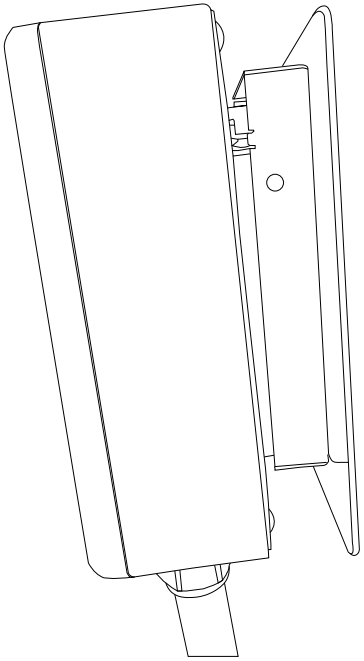
Mounting Screw Recommendations:

- For finished walls supported by wood studs, use #14 or M6 tapping screws. (Included).
- For masonry walls, use M6 mechanical screws. (Commercially available)
- Use following torque force:

Screw	Torque	
M6	50 kgf-cm	43.4 lb-in
1/4"	50 kgf-cm	43.4 lb-in

Mount the unit at least 18in (460mm) above floor level. The charging station should be less than 24in (610mm) from the NEMA outlet. The NEMA outlet should be located in compliance with all applicable local electrical safety codes and standards.

4. Mount the charger on the wall by securing the front piece of the mounting bracket to the back piece of the mounting bracket.

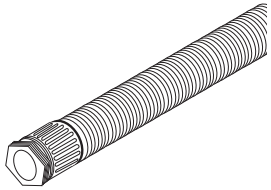


5. Secure the charger in place by inserting either the security pin or the outdoor security lock into the mounting bracket.
6. Plug the power cord into the wall outlet.

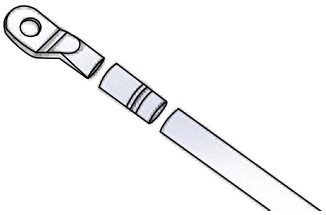
5. Wiring Connection

5.1 Optional Hardwire Connection

1. Choose the appropriate conduit in accordance with all applicable, local, and electrical safety codes and standards. The connection into the enclosure is 1.3 inches in diameter.



2. Using the appropriate tool, clamp the ring wire terminal to the copper wire. For non-insulated terminals, use heat shrink tube to cover the non-insulated portion of the terminal. Choose a terminal ring with the following characteristics:
   - » Recommended Wire Strip length: 8mm (0.32in)
   - » Width of the terminal block opening: 10.2mm (0.41in)
   - » Mouth Size: 6.5mm (0.26in)



3. Remove the front cover by removing the 4 screws at each corner of the charging station. Use the Hex Key Tool to remove the front cover. Do not use power tools.
4. Loosen the plastic cable gland beneath the charger.
5. Loosen strain relief clamp on inside of charger. Use a screwdriver or other tool to break and remove metal clamp.
6. Use Philips Head 3 screwdriver to release the terminal screws of the NEMA 6-50 or NEMA 14-50 input cable. Remove the input cable and cable gland.
7. 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 wire for G). Attach the terminal to the corresponding terminal block. Use the following wire and torque force when connecting to input terminal block:

Terminal	Conductor	Screw	Rating	Torque
L1, L2, G	6-8 AWG (10AWG for ground)	M4	75°C copper wire	max 1.8Nm | 16 LBF.IN



CAUTION: 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.

8. Once the input wiring and conduit are connected, reassemble the charging station. Reinstall the charging station font cover using the hex key tool. Tighten screws to the following torque force:

Screw	Torque
M6	16 kgf-cm | 13.88 lb-in

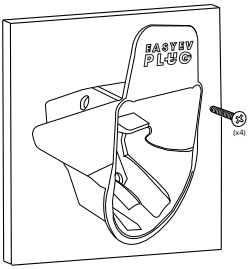
6. EasyEvPlug Holster and Cable Management System

The EasyEVPlug™ Holster or Tesla EasyEVPlug™ Holster is the new innovative method to protect your plug and manage your cord. It has the following features:

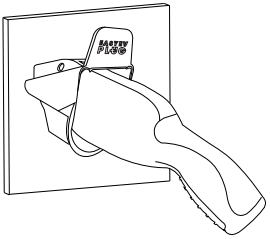
- No need to aim – flawless plug even in the dark.
- Your EV holster will always be in a convenient location.
- Saves space – special angle for less wall clearance.
- Integrated cable management – holds up to 25 feet of cable.

The EasyEvPlug holster can be installed at any location near the charging station.

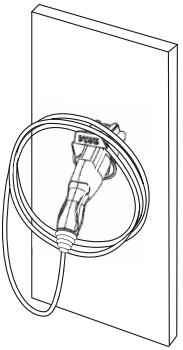
1. Hold back of holster against the mounting surface. Fasten Phillips head screws through back holes. Use anchors if attaching directly to drywall.



2. Insert charging connector into holster.



3. Wrap cable on top of EasyEvPlug.



Note: Remove rubber cap from charging gun before inserting into holster. Failure to do so may result in damage to the cap or holster.

7. Charging Status Indicators and Buzzers

7.1 Indicator Lights

Grizzl-E uses the following indicator lights for the charger status:

LED Indicator	Buzzer	Description	Definition
	No buzzer	Not illuminated	Power Off
	No buzzer	Blue Steady	Ready
	No buzzer	Blue Flashing	Vehicle detected
	No buzzer	Green Flashing	Charging in progress
	No buzzer	Green Steady	Charging complete or no current consumed by the car
	Buzzer beeps	Red Flashing *	Fault

7.2 LED Fault Indicator

The number of red flashes indicates the type of fault:

LED Indicator	# of Flashes	Error Description
Red Flashing	1	Lost ground - AC Line1
Red Flashing	2	GFCI High Leakage
Red Flashing	3	Relay is stuck
Red Flashing	4	GFCI Low Leakage
Red Flashing	5	High temperature of the module
Red Flashing	6	High temperature of the relay-
Red Flashing	7	Pilot state is Status E
Red Flashing	8	Pilot state is Status F
Red Flashing	9	Diode error
Red Flashing	10	Over Current
Red Flashing	12	Application Error

7.3 Self-Monitoring and Recovery (Auto Restart)

When a charging session is interrupted due to a temporary error condition, it will automatically restart charging when the cause of the temporary error condition returns to normal. The status indicator lights remain flashing RED, with the number of flashes indicating the error condition, until the error condition is resolved.

- All error conditions are able to Self-Recover if the error condition is cleared.
- The charging session will be stopped when the error condition occurs. The charger will self-monitor the error condition. If the error condition is cleared the charger will automatically reset in 60 seconds. If the error condition is not cleared the charger will continue to display a RED error light.
- If the error condition occurs within 5 seconds of the start of a charging session a permanent fault will trigger.

7.4 Reset Charger

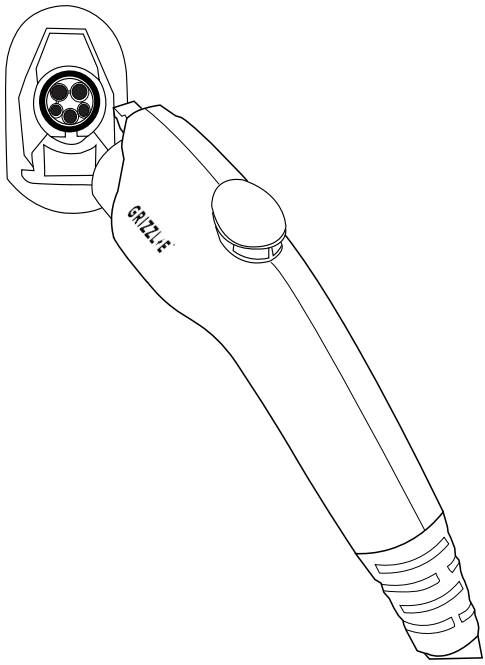
In the instance of a permanent fault, or if the charger is not able to auto-recover, it is recommended to perform a reset:

1. Count the number of flashes to identify the error type.
2. Unplug the charging Connector from your EV.
3. Turn off the power to the Charging Station by switching the upstream circuit breaker to the “OFF” position.
4. With the circuit breaker in the “OFF” position, wait 1-2 minutes and then switch the upstream circuit breaker back to the “ON” position
5. Confirm the Fault light is no longer present.
6. If the Fault light remains, please contact United Chargers. Fill out the Technical Support Form. Indicate the number of red flashes.

8. Operation

8.1 Connect and Charge

Insert the charging Connector into the EV and ensure the connector is fully seated/locked in place. Once complete, the charging session will begin.



8.2 Stop Charging

1. Press down on the latch release button. Ensure latch release button is fully compressed.
2. Remove the Charger Connector from the EV
3. Return the connector to the holster.

9. General Product Care and Use Information

The exterior of the charging station is designed to be waterproof and dust proof (NEMA 4 Outdoor Rated). However, periodic cleaning may be required, depending on local conditions. To ensure proper maintenance of the charging station, follow these guidelines:

- To avoid damaging the finish of the products, only use an automotive grade soft cleaning cloth with soap and water to remove accumulated dirt and dust. Do not use cleaning solvents to clean any of the product components.
- Despite the water resistance of the enclosure, submerging the unit in water is not recommended.
- The waterproof rating of the enclosure cannot be guaranteed if the charger is mounted upside down.
- Ensure the charging connector is put back in the holster after charging to avoid damage.
- Ensure the power cable is stored on the charging station after use to avoid damage.
- Do not hang the charging gun upside down with the cap on outdoors, as water may accumulate in the cap. This may cause oxidation which leads to a blue residue on the connectors.
- If the power cable or the charging connector is damaged, turn off the charging station supply circuit breaker, do not use the charging station, and Contact United Chargers Customer Support for replacement parts.
- When moving or lifting the unit, always grasp and carry by the charging station body. Never attempt to lift, move, or carry the unit by any of the electrical cables. Improper handling may cause damage to the unit.

10. Warranty and Return Policy

GRIZZL-E ™ EV Residential Charging Stations 3-Year or 5-Year Replacement Warranty.

This warranty is extended by United Chargers to original purchasers of GRIZZL-E ™ EV Charging Stations. United Chargers warrants that this product is free from defects in materials years and free from defects in workmanship for the period specified in the warranty from the date of purchase. If during the Warranty Period, under normal operating conditions, your charging station becomes defective, United Chargers will, upon written notice of the defect, replace the charging station until the defect is resolved.

This warranty will not apply if the product has been misused, abused, or altered. The warranty does not cover cosmetic damage such as scratches, dents, or normal aging. The warranty does not cover damage as a result of an extreme power surge, extreme electromagnetic field, or any acts of nature. This warranty will not apply if the product is used with any third-party extension cords or electrical adapters. The warranty for the cable does not include normal tear and wear. Plugs that have been exposed to snow or water for a prolonged period of time are not covered by this warranty. The waterproof rating of the enclosure cannot be guaranteed if the charger is mounted upside down. The warranty will apply only if the product is defective.

United Chargers assumes no liability for any dismantling, removal, installation, re-installation, or labour costs or any consequential damages associated with this warranty. United Chargers is not responsible or liable for any costs associated with faulty installations. United Chargers shall make the final decision, in fairness to all concerned, as to the legitimacy of any such claim on this warranty.

Upon discovery of any defective GRIZZL-E™, please visit our Technical Support page for further instructions as to how to repair or replace the defective unit or to submit a support ticket.

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Website: www.grizzl-e.com

Visit our Technical Support page:
https://autochargers.zendesk.com/hc/en-ca

View the full terms and conditions:
https://unitedchargers.com/returns

The most up to date User Manual is available online at:
https://unitedchargers.com/user-manuals