

# **EVOCHARGE**

# EvoCharge<sup>®</sup> With EvoReel<sup>®</sup> Charging Stations (EVSE, iEVSE, iEVSE Plus)

## Installation Guide & User Manual

**Revision 1.5** 



# **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:



WARNING: RISK OF PERSONAL INJURY

WARNING: RISK OF ELECTRIC SHOCK



WARNING: RISK OF FIRE

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CAUTION: RISK OF DAMAGE TO THE EQUIPMENT

- 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.
- 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 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 ELECTRIC SHOCK

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 ELECTRIC SHOCK

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 ELECTRIC SHOCK

- 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**

### EvoCharge® With EvoReel® Electric Vehicle Charging Stations

- J1772 AC Level 2 (208-240 VAC), 24A (5.8 kW) Continuous Output Rated (Per Port) with adjustable Maximum Current Output capability to Support Multiple Circuit Ratings
- EvoReel<sup>®</sup> with EvoCharge Charging Stations:
  - EvoCharge EVSE: Standard charging station, non-networked
  - EvoCharge iEVSE: True Open Protocol: OCPP 1.6 capable of operating on any OCPP network
  - EvoCharge iEVSE<sup>®</sup> Plus: Access Control via RFID Card (Including without Network Connection) & Mobile App; Payment Capability; Remote Monitoring/Control; Demand Response & Local Load Management
- EvoReel<sup>®</sup> with EvoCharge EVSE:

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- Simple Operation: No user interface required with EVSE, simply Plug-in to your EV to initiate charging
- Modern, Elegant & Compact Design: EVSE form factor smaller than a standard sheet of letter-size paper
- Robust Construction, Certified for Outdoor Use: Robust, durable design; tamper-resistant features including provision to install a padlock to secure charging station to mount; NEMA 4 certified for outdoor and indoor use
- Cable & Connector Management: EvoReel Cable Management with Connector Holster
- Charging Station: UL & cUL Listed, File Number: E469990

### Security and Tamper Feature

In addition to the lock screw that secures the EvoCharge iEVSE Plug charging station to the wall mount bracket (Refer to Section 2.3, Note 3., Installing the Charging Station), if desired, a feature is included as part of the charging station and wall mount bracket to install a small padlock for added security and tamper benefits. This feature is located at the bottom of the charging station near the charging station – wall bracket lock screw.

### 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. The status indicator lights remain flashing RED until the error condition is resolved.

- Temporary error conditions include: Over Current, Over Voltage, Under Voltage, and Over Temperature.
- For Over Current (OC) conditions: The charging session will be stop while OC occurs. After recovery from OC for 30 seconds, the charging station will automatically restart charging for three times.
- When charging session stopped due to CCID trip, the charging station will try to restart after 15 minutes for 3 times.

When power resumes after an outage, the charging station restarts automatically with a delay ranging from 120 to 720 seconds. The delay is designed to avoid impacting the utility grid when multiple charging stations are in the same area attempting to resume charging simultaneously.

# **Product Specifications**

## EvoCharge® With EvoReel® Electric Vehicle Charging Stations

Description	Specifications
	SAE J1772; AC Level 2
EVSE Type	EvoCharge EVSE: Standard, Non-network EV Charging Station EvoCharge iEVSE: Intelligent, Open Network, OCPP-enabled charging station EvoCharge iEVSE Plus: OCPP 1.6 via LTE Cellular Modem, or Wi-Fi
Max Output Rating	24A, 5.8 kW Maximum Output
Max Output Rating	For use with a 40A (or greater) Dedicated Circuit
Alternate Adjustable Output Ratings	16A or 24A for use with 20A or 30A Dedicated Circuit
Charge Cable Lengths	Standard: 22 ft. (6.7m); Optional: 30 ft. (9.1m)
Electrical Circuit / Input	208-240VAC, 50/60 Hz.
Electrical Circuit / Input	Circuit Requirement: 40A (or greater) Dedicated Circuit Per Port;
Power Requirements	Branch Breaker: Double pole; Circuit Conductors: Line 1, Line 2, Earth Ground
Input Power Connection	32 mm Hole Opening at bottom of EVSE
Input Power Connection	NEMA 6-50P Plug-in (can be removed for Hardwire)
Charging Station Color	Standard: White
Installation Rating	NEMA 4, Indoor/Outdoor Rated
Operational Ratings	Temperature: -22°F to 122°F (-30°C to 50°C); Humidity: 95% RH non-condensing
Mounting	Wall or Ceiling Mount Installation
Overall Dimensions	EVSE: 11.0 x 7.5 x 3.2 inches (28.0 x 19.0 x 8.1 cm)
(HxWxD)	EvoReel: 13.8 x 12.0 x 9.2 inches (35.1 x 30.5 x 23.3 cm)
Display & Indicators	LED Charge Status Indicators (Power/Ready, Charging, Fault) & LED Display
Cable Management	EvoReel Cable Management with Connector Holster
Standards & Compliance	EVSE: UL & cUL Listed, File Number: E469990; SAE J1772, UL 2594

# SAVE THESE INSTRUCTIONS

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# **1 Introduction & Unpacking**

This user manual applies to the EVOREEL<sup>®</sup> Charging Stations for use with all Electric Vehicles (EVs) and Plug-in Hybrid Electric Vehicles (PHEVs) sold in North America.

## **1.1 Unpacking**

Unpackage all items and confirm the contents as noted below.



Figure 1-1 Box Contents

Item	Description	Qty.	Notes
1	EvoReel Cable Management System	1	
2	Charging Station with Mounting Bracket	1	Bracket is Attached to each Charging Station
3	Connector Holster	1	Holster is packaged within cardboard compartment of charging station packaging
4	Mounting Fasteners & Related Hardware	1 set	Hardware for mounting is contained in the cardboard compartments and packaging the main items are shipped in

#### Table 1-1 Box Contents

# **2** Installation

2.1 Before Installation 2.1.1 Installation Planning & Service Wiring



WARNING: RISK OF ELECTRIC SHOCK

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

- For Maximum Output Setting (30A Default Factory Setting), a DEDICATED CIRCUIT FOR EACH PORT rated for minimum 40A; 208-240 VAC, 50-60 Hz, Single Phase must be used. Circuits greater than 40A may also be used.
- A Double Pole Circuit Breaker of the circuit rating must be used. The Charging Unit has a built in CCID protection; do not provide any additional CCID protection upstream of the charging unit.



**CAUTION**: The service wiring in this section is 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.

Prior to mounting, determine location of an acceptable mounting support. All charging station products must be anchored into a mounting support such as a 2" x 4" stud or a solid concrete wall, using mounting hardware that is appropriate for the surface on which you are mounting. DO NOT mount this unit directly to a stucco/drywall/wall board. If installing to a wood stud, use the lag screws provided and ensure the mounting plate is positioned on the centerline of the stud. If mounting onto a concrete, block, or brick wall, use an appropriate anchor for the type of wall on which you are installing the unit.

### 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

Tool	Size	Source of Supply	Remark
Phillips Screwdriver	#2 or similar	Commercially Available	For EvoReel Cable Stop Adjustment & Plug Holder
Torx Driver	T20	Commercially Available	For power terminal connection for input and output terminal block hardware & Plug Holster
Torque Wrench	~ 30 lbf-in	Commercially Available	For tightening all charging station fasteners/screws
Wire, Copper	8 AWG	Commercially Available	UL1015 (recommended) for Input Wiring Hardwire Connection
Heat Shrink Tube x3	For 8 AWG wire	Commercially Available	For Input Wiring Hardwire Connection
Terminal x3	For 8 AWG wire	Commercially Available	For Input Wiring Hardwire Connection
Conduit & Fitting	1" NPT	Commercially Available	For Input Wiring Hardwire Connection

Table 2-1 Tools 8	& parts required	for installation
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## 2.3 Input Wiring Connection

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 2-7 Conduit

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 2-8 Copper terminal, heat shrink tube and copper wire.

3. Connecting the EvoReel electrical wiring to the charging station.



- 3-1. Layout the EvoReel and EvoCharge on a clean and level working surface
- 3-2. Loosen the 5 torx (t-20) on the back of the EvoCharge unit to remove the cover.
- 3-3. With a #2 Phillips screw remove the cable clamp and the 3 power screws from the board.
- 3-4. Remove the small orange wire with white connector and black filter from the board. This wire assembly will be re-used.
- 3-5. Strip approximately .25 inches (6mm) of the wire jacket off the orange wire assembly.
- 3-6. On the wire lead coming out of the EvoReel, locate the pre-installed butt splice on the blue wire.
- 3-7. Using an appropriate crimping tool, crimp the orange wire assembly to the blue wire butt splice.
- 3-8. Ensure a solid wire conductor crimp is made. NOTICE: The black filter must be on the orange wire for proper function of the charger.
- 3-9. From the bottom of the charger, remove the outermost cable gland collar by twisting it

counterclockwise.

- 3-10. Place this gland collar over the cable coming from the EvoReel with the threads facing the electrical leads.
- 3-11. Pull the cable through the cable gland on the bottom of the charger ensuring enough outer jacket is pulled upto fit inside the cable clamping surface area.
- 3-12. Using the 3 supplied screws install the L1, L2 and ground cables into their corresponding spots (torque to 15 inlbs.). Install the white two position connector into the PP/CP connector.
  - a. L2 = White
  - b. G= Green
  - c. L1 = Black
- 3-13. Tighten the cable gland collar using a non-marking tool. The gap between the collar and the base must be under 1.8mm.
- 3-14. Place the cover back onto the charger and tighten the 5 torx screws (13lb. in) securing the cover onto the charger.
- 3-15. Proceed to the installation instructions for the EvoReel and EvoCharge units.



**CAUTION**: For model: EVSE EVC4AA0C2B1A1 Non-networked charging station, the LED board is attached to the charging station front cover and the charging station circuit board. Use care to hold the front cover in place and not place force or strain on the wiring harness when the cover screws are removed. Failure to doso may result in damage to the charging station circuit board and/or LED harness, which is not covered under warranty.



**WARNING**: 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.

Model	Current Setting	Circuit Rating Requirement
EVC3XXXXXXX	30A	40A or greater
EVC4XXXXXXX	24A	30A

4. Once the input wiring and conduit are connected, reassemble the charging station.
4-1. Reinstall the charging station font cover using the following torque force to secure the (5) Torx screws:

## 2.4 Installation Steps

- 1. First, secure the charging station mounting bracket to the wall or other suitable structure with appropriate mounting screws. If installing to a wall, ensure the screws are anchored into a suitable wall stud.
- 2. Follow applicable accessibility requirements for the mounting position. The unit shall be mounted at a sufficient height from ground such that the height of the storage means for the coupling device is located between 24 inches (0.6 m) and 48 inches (1.2 m) from ground per NEC Article 625.
- 3. The mounting bracket has ten screw holes to support attachment to multiple mounting surfaces. For most installation, including attached the charging station to a single wall stud, only two screws will be used to attach the mounting bracket. In this case, the screws should pass (install) through the middle two vertical screw holes of the mounting bracket as shown in Figures 2-3 & 2-4.

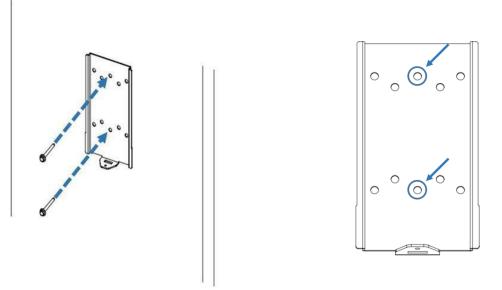
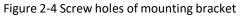


Figure 2-3 Installing the mounting bracket



Mounting Screw Recommendations:

- a. For finished walls supported by wood or metal studs, use the #12 screws. (Supplied)
- b. For masonry walls use an anchor screw rated for masonry applications, the minimum size is M6. (Commercially Available)
- c. Use following torque force:

Screw	Torque		
#12	30.6 kgf.cm	26.6 lb-in	

4. 4-1 Install the EVOREEL to a suitable mounting structure/surface. The charging station (EVOREEL and EVSE box) must be anchored into a mounting support such as a 2" x 4" stud or a solid concrete wall.

4-2 Use mounting hardware that is appropriate for the surface on which you are mounting. DO NOT mount this unit directly to a stucco/drywall/wall board.

- If installing to a wood stud, use the lag screws (Figure 2-5 & Figure 2-6) provided and ensure the mounting plate is positioned on the centerline of the stud.
- If mounting onto a concrete, block, or brick wall, use an appropriate anchor for the type of wall on which you are installing the unit.





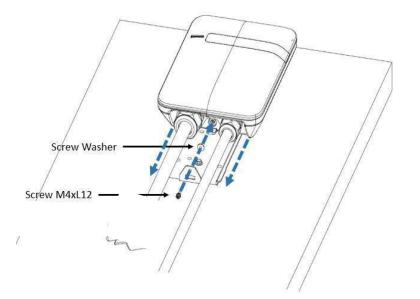
Figure 2-6

5. Once the EvoReel unit is installed, install the EVSE box onto its mounting bracket and secure the lock screw as shown in Figure 2-5.

5-1. Tighten the installed M4 screw and screw washer to fix charging station on mounting bracket.

5-2. Use following torque force:

Screw	Torque		
M4	16 kgf.cm	13.88 lbf-in	



#### Figure 2-7 Screw locking position

6. Once installed, if desired adjust the cable guide bracket assembly to allow the cable guide and EV Charging Cable/Plug assembly to point/position in the downward direction as shown in Figure 2-6. The roller guide arm can be adjusted by removing the 5/16 hex head bolt and lock washer and rotating the bracket to the downward position. Once repositioned, reinstall the 5/16" hex head bolt and lock washer. (Note: If required for local building codes, an optional Safety Chain Mounting Hole is on the EvoReel main bracket as shown in Figure 2-6).

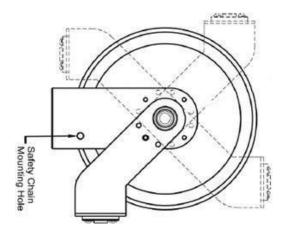


Figure 2-8 EvoReel Cable Guide Bracket Adjustment

- 7. After the EvoReel cable guide brackets are adjusted, adjust the Cable Stop to extend the Charging Plug/Connector to the desire height (Note: For public installations, to meet ADA reach requirements, the Charging Plug/Connector height should not exceed 48 inches from the Ground when the cable is fully retracted).
- 8. Do not adjust the cable stop on the J1772 charging cable. This cable stop is positioned to ensure the safe operation of the EvoReel and EvoCharge Product. Caution: Failure to follow the guideline to not move the cable stop from its factory installed position can result in serious injury or death.

#### **EvoReel Safety Alert**

Based on our internal testing of this product we have learned that under the extreme conditions shown below the wire insulation wound in the interior portion of the charging cable can prematurely degrade while on the cable reel:

	Maximum Power Output (30A @ 240VAC, or 7.2kW)
and	While significant cable remains on the reel during operation (while the EV is being charged)
and	in High Ambient temperatures (due to air and direct sun exposure)

Following the procedures shown below will ensure the safe use of your EvoReel product. Failure to

follow these procedures could result in degradation of the wire insulation on the charging cable, which may lead to a short circuit or cable overheating.

#### Actions to take:

#### 1. Inspect your EvoReel charging cable.

During the summer months, remove the cable from the reel up to the "stop point" which is defined as the point that the red band on the cable leaves the cable guide. Inspect the cable from end-to-end, paying particular attention to the cable that is part of the interior windings when the cable is retracted. If any insulation degradation is observed, please discontinue use and contact EvoCharge customer service at 1-(888)-653-0160.

#### 2. If no degradation is observed, the following is recommended.

<u>Preferred Solution</u>: Reduce the maximum current output of the EvoCharge charger to 24 Amps. You can do this by adjusting the dip switches on the charger as described in the instructions in <u>Safety Appendix</u> <u>A</u>. Then, move the cable stop to the location shown in <u>Safety Appendix B</u>.

<u>Alternate Solution</u>: If during your inspection you do not see any degradation of charging cable insulation, you can continue to operate your charger as you always have, after placing the cable stop in the location recommended in the table in <u>Safety Appendix B</u>. This will ensure that there is sufficient cable removed from the reel during operation to prevent excess heat buildup when operating the charger at the maximum ambient temperature operating limits of the reel. We also recommend that you inspect the charging cable as discussed in Action 1 above every year, or quarterly if you are using the reel where high temperatures, and direct sun exposure is common.

#### Safety Appendix A

WARNING: The charging station must be installed, adjusted, and repaired only by a licensed electrician.

#### How to Adjust the Dip Switches to Change Maximum Current Output



#### WARNING: RISK OF ELECTRIC SHOCK

Do not touch live electrical parts.

Incorrect connections may cause electric shock.

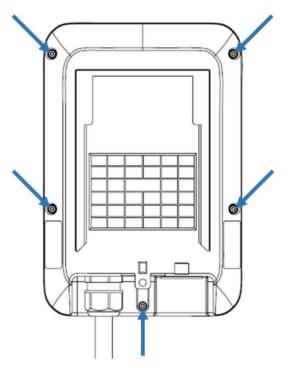
- Disconnect the power supply to the charging station and verify no power is present before installing, adjusting, or repairing the charging station. Failure to do so may result in physical injury or damage to the power supply system and the charging station.
- Electrical Power MUST remain OFF and DISCONNECTED before setting or changing the DIP switch. A non-conductive object MUST be used to adjust the DIP switch settings, failure to do so may result in risk of electrical shock and damage to the equipment

The EvoCharge EVSE charging station product features the ability to adjust the maximum Charging Station current output to allow the use of a 40A (or greater), 30A, or 20A Dedicated Circuit as follows:

- 40A (or greater) Circuit Rating: To support 32A (7.68 kW) maximum Charging Station output
- 30A Circuit Rating: To support 24A (5.76 kW) maximum Charging Station output
- 20A Circuit Rating: To support 16A (3.84 kW) maximum Charging Station output

The Charging Station Default Factory Maximum Current Output Setting is 32A (7.68 kW) for use with a 40A (or greater) Circuit Rating. To adjust the Maximum Current Output Setting when using a 30A or 20A Circuit Rating:

- 1. Place the Charging Station on a flat surface, front cover down with protection under the cover to avoid scratching damage to the cover.
- 2. Remove the Charing Station front cover by loosening the (5) Torx screws at the rear of the charging station.

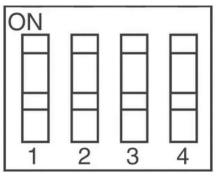


Five Torx screw locations to remove the Charging Station Cover



**CAUTION:** The LED board is attached to the charging station front cover and the charging station circuit board. Use care to not place force or strain on the wiring harness when the cover screws are removed. Failure to do so may result in damage to the charging station, which is not covered under warranty.

- 3. With the (5) Torx screws loosened, hold the front cover in place to avoid strain being placed on the LED board wiring harness and flip the charging station over on the flat surface so that the front cover is on top. Once this is completed, gently lift the charging station front cover and place to the right side of the charging station unit. Again, use care to not place force or strain on the wiring harness when the front cover screws are removed. Failure to do so may result in damage to the charging station.
- With the front cover placed to the side, locate the DIP switch on the charging station circuit board. The DIP switch is a 4-position switch on the main circuit board, located directly to the left of the LED board wiring harness connector.



**4-Position DIP Switch** 



- WARNING: RISK OF ELECTRIC SHOCK
- 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.
- Electrical Power MUST remain OFF and DISCONNECTED before setting or changing the DIP switch. A non-conductive object MUST be used to adjust the DIP switch settings, failure to do so may result in risk of electrical shock and damage to the equipment
- 5. To Adjust the Maximum Current Output to either 24A or 16A, use a non-conductive object to adjust the DIP switch settings as follows:

E	VSE: Dip	Switch	Setting		
Maximum Current Output	DIP 1	DIP 2	DIP 3	DIP 4	DIP Switch Setting (Picture)
32A Maximum Current Output (Factory Default Setting)	ON	OFF	ON	OFF	
24A Maximum Current Output	ON	OFF	OFF	ON	
16A Maximum Current Output	ON	OFF	OFF	OFF	
iEVSE an	d iEVSE F	Plus: Dip	Switch S	etting	
Maximum Current Output	DIP 1	DIP 2	DIP 3	DIP 4	DIP Switch Settin (Picture)
32A Maximum Current Output (Factory Default Setting)	ON	ON	ON	OFF	
24A Maximum Current Output	ON	ON	OFF	ON	

NOTE: To identify the model of the EVSE (EVSE, iEVSE or iEVSE Plus), please reference the product label

6. Once the DIP Switch Setting is adjusted, reassemble the charging station.

Screw	Tor	que
M4	16 kgf.cm	13.88 lb-in

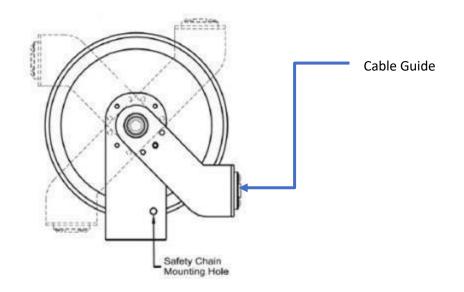
#### Safety Appendix B

#### Safe Operating Zones for the EvoReel Based on Charger Current Output (240VAC input)

To ensure safe use of the EvoReel during charging, we recommend that you adjust the ball stop to the position on the cable as shown in the table below.

Input Current with 240VAC supply power	Cable Length* in feet(ft)	Minimum Cable Off of Reel During Operation in feet(ft)
24 Amps or less	22 ft.	8 ft.
24 Amps or less	30 ft.	16 ft.
30 Amps	22 ft.	13 ft.
30 Amps	30 ft.	21 ft.

\*Note: Cable length refers to Usable Cable Length which is measured from the base of the charging connector to the red band located on the cable.



## 2.5 Install the Plug and Cable Holster

1. Separate the holster from hook.

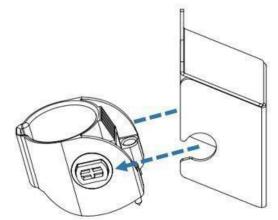


Figure 2-9 Separate the holster

2. The Plug Holster can be installed at any location near the charging unit. Once the holster installation location is determined, install the holster bracket with the provided screws (x2).

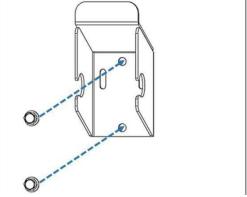


Figure 2-10 Secure the hook

3. Position the plastic holster insert face up and install into the holster bracket.

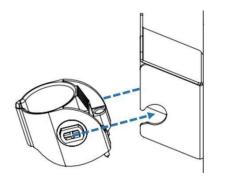


Figure 2-11 Secure the holster

4. Next, rotate the holster insert down.

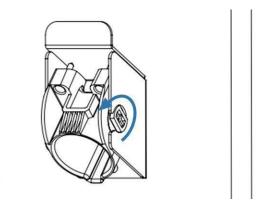


Figure 2-12 Rotate the holster

5. With the holster insert in the down position, tighten the (2) lock/set Phillips screws located at the top of the plastic holster component until snug (do not overtighten). The screws ensure that the plastic holster component remains secured to the holster bracket. The holster can now be used to store the EV plug.

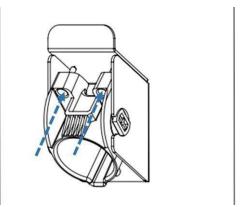


Figure 2-13 Lock screws

## 2.6 Charging Status Indicators

Table 2-2 Charging status indicators

LED Indicator	Description	ng status indicators Definition
	Not illuminated	Power Off
	Green Steady	Ready
	Green Flashing	Flashing green (Fast): Authorized, waiting for EV to initiate charge event. Flashing green (Slow): Suspend (Occupying)
-	Blue Flashing	Flashing blue (Slow): Charging
	Red Steady	Unrecoverable Fault
	Red Flashing	Recoverable Fault
	Yellow Steady	Out of Service
	Yellow Flashing	Booting / Firmware Upgrade in process

\*Note: In the instance the "Red Steady" or "Red Flashing" Fault light remains, it is recommended that you:

- Unplug the charging Connector from your EV
- Turn off the power to the Charging Station by switching the upstream circuit breaker to the "OFF" position
- With the circuit breaker in the "OFF" position, wait 1-2 minutes and then switch the upstream circuit breaker back to the "ON" position
- Confirm the Fault light is no longer present. If the Fault light remains, please contact EvoCharge.

## 2.7 Charging your Electric Vehicle (EV)

The EvoCharge iEVSE Plus supports both "Authorized" (Access Control) operation as well as "Plug and Charge" operation.

When the EvoCharge iEVSE Plus is configured to require Authorization, the EVSE must first authorize the operation (via RFID card, mobile app, etc.). The EVSE will only supply energy after authorization.

### 2.7.1 Plug and Charge

This setting must be activated using the web portal – this can be used in instances where access control or payment are not required by the charging station owner.

- 1. Insert the charging plug into the EV
- 2. Charging session will automatically commence

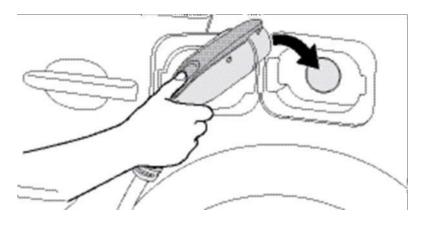
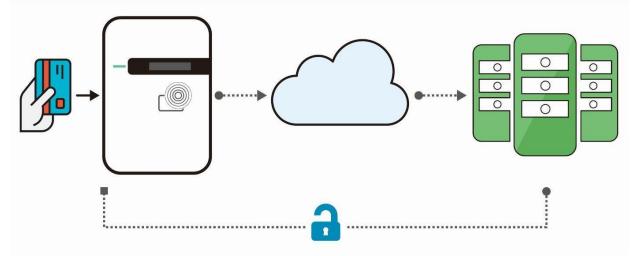


Figure 2-14 Connect the charging plug to the EV

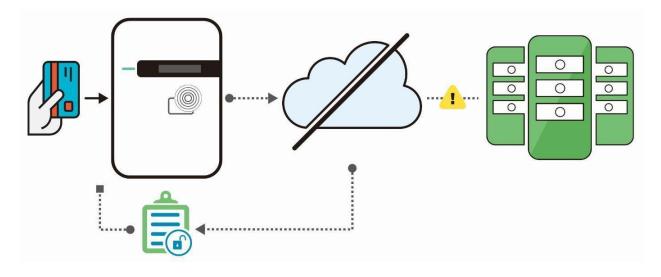
• Authorization via RFID Card and/or mobile app.



## 2.7.3 RFID Card Authorization Local and Offline Authorization

Description:

- Synchronized with the Central System when EVSE is <u>Online</u>
- To improve the experience for users, the EvoCharge iEVSE Plus can be programmed to allow local authorization when EVSE is *offline or not connected to a network*. This also supports faster authorization response time in the instance the communication between EvoCharge iEVSE Plus and Central System (Network) is slow to respond.
  - 1. Insert the charging plug into the EV
  - 2. Swipe RFID card
  - 3. Wait for authorization
  - 4. Charging session will automatically commence once authorized



## 2.8 Stop Charging

- 1. Simply unplug the charging station connector from the EV at any time (once the connector button is depressed, the charging session terminates immediately).
- 2. Return the connector to the holster.

### 2.8.1 Power Outage Recovery

When power resumes after an outage, the charging station restarts automatically with a delay ranging from 120 to 720 seconds. The delay is designed to avoid impacting the utility grid when multiple charging stations are in the same area attempting to resume charging simultaneously.

Please refer to STOP CHARGING section for more information.

## 2.9 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 and if required a mild soap and water mixture to remove accumulation of dirt and dust. Do not use cleaning solvents to clean any of the product components. Despite the water resistance of the enclosure, when cleaning it is preferred to not direct streams of water at the unit – clean with a water damp, automotive grade soft cleaning cloth.
- Make sure 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.
- 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 please contact EvoCharge Customer Support for replacement parts.
- When moving or lifting the unit, always grasp and carry by the charging station plastic body. Never attempt to lift, move, or carry the unit by any of the electrical cables. Improper handling may cause damage to the unit.

For Additional Products and Field Support visit <u>www.phillipsandtemro.com</u> or contact us at 1-800-328-6108.