



EvoCharge Certified Installer Program

A background image showing a close-up of an electric vehicle (EV) charging station. A green charging cable is plugged into the station, which is mounted on the side of a car. The car's body is visible in the background, and the overall scene is illuminated with a green and blue light. The text "Introduction and Training Overview" is overlaid on the right side of the image.

Introduction and Training Overview

Training Overview

- In reviewing this document, you will learn about:
 - Who is EvoCharge and why chose to partner with us
 - Electric vehicle market overview
 - EvoCharge products and applications
 - EvoCharge cable management options
 - Installation basics
 - Support for you and your customers

Certification Test Requirements

At the end of reviewing this training requirement you should be able to answer the following:

1. What is the maximum amperage setting when the EvoReel is connected to an EvoCharge charging station?
2. Which product is best suited for homeowner who wants to manage and control settings with EvoCharge mobile app?
3. What is the maximum number of chargers that can be connected when set up for local load management?
4. How charging stations are connected for utility monitoring
5. The required branch circuit rating for a 32A EVSE

EV and Charging Market Overview

Trends by Vehicle Type

Electric vehicle sales are on the rise and are projected to reach 60% of passenger vehicle sales by 2040

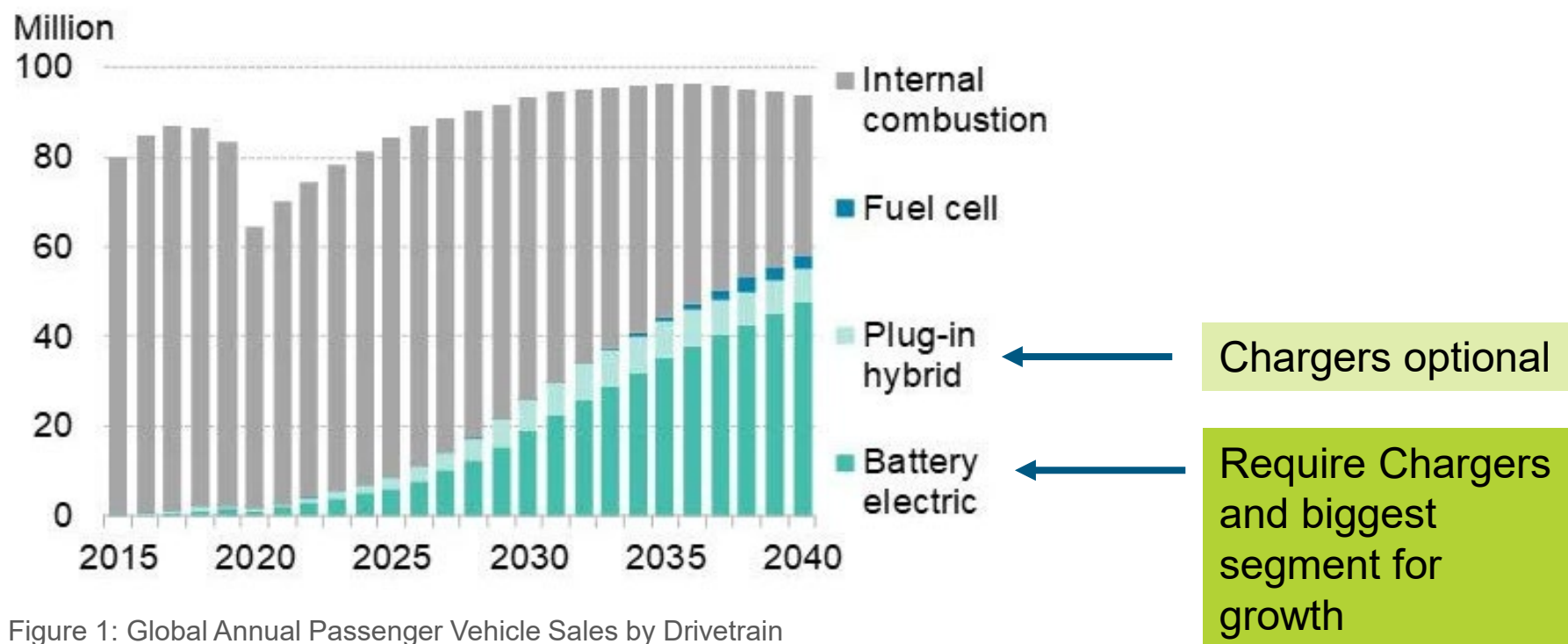
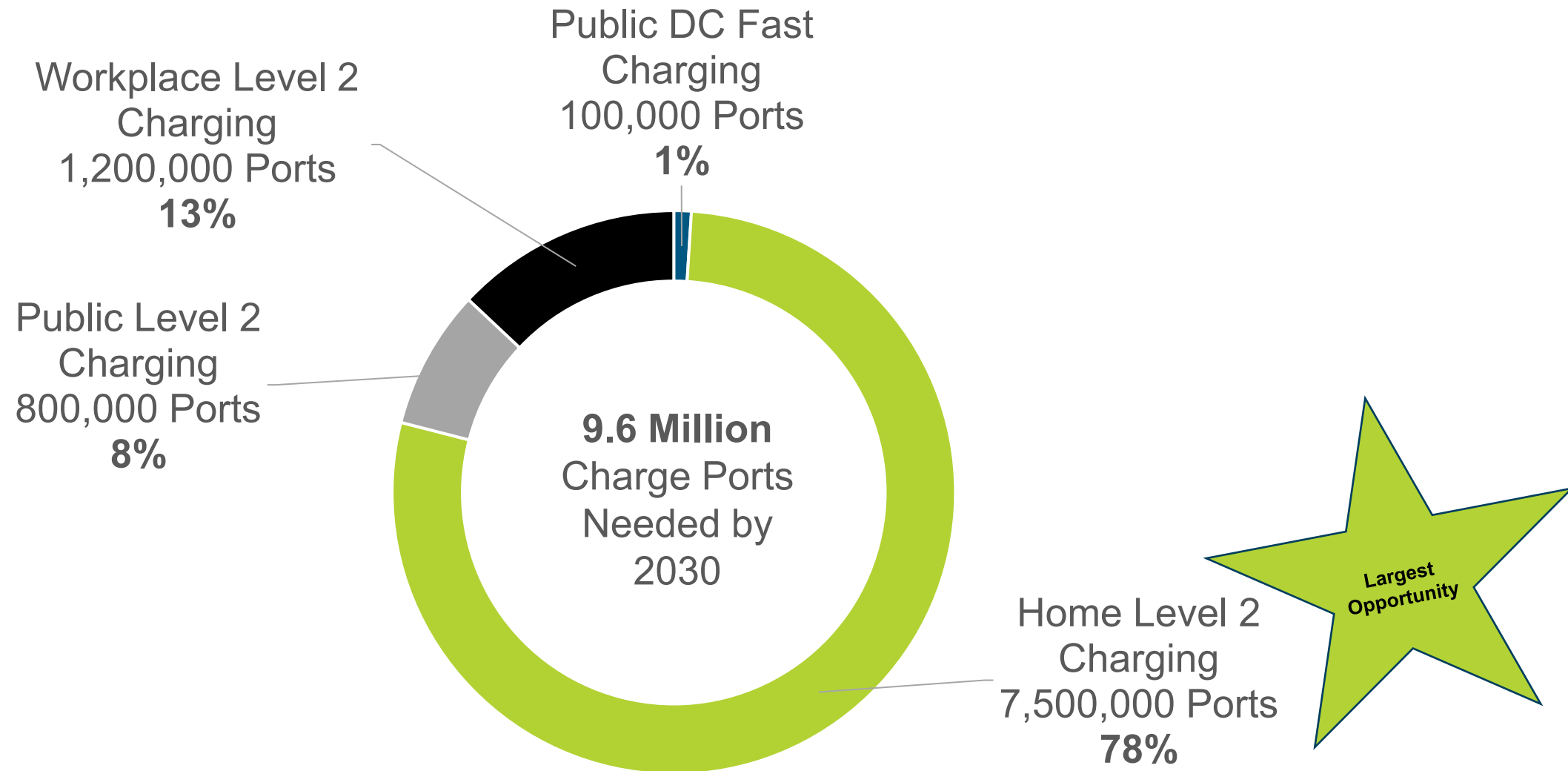





Figure 1: Global Annual Passenger Vehicle Sales by Drivetrain

Level 2 Charging Station Port Needs



EV Charging Levels

EV Charging Levels Overview

Levels	Type
<p>Level 1 – Personal</p> <p> 11 to 20 hours</p>	<ul style="list-style-type: none">■ Base AC level charging – non networked■ Provided by EV manufacturer■ No special electrical connection needed■ Spare tire charging approach
<p>Level 2 – Personal, Commercial and Public</p> <p> 3 to 8 hours</p>	<ul style="list-style-type: none">■ Faster AC level charging – non networked and networked■ Multiple offerings available from manufacturers and third-party suppliers■ Requires dedicated 208 – 240VAC electrical circuit
<p>Level 3 – Public</p> <p> 30 to 60 minutes</p>	<ul style="list-style-type: none">■ Fastest charging (DC) – networked■ Public/corridor stations■ Typically, fee-based use

Level 2 Charging Specification



Connector: SAE J1772



Wall Plug: NEMA 6-50, NEMA 14-50, hardwire,
208 – 240V circuit



Charge time to full: 3 – 8 hours depending on
battery size, typically 30 – 50 miles of driving
range/hour of charge depending on EVSE output



The EvoCharge Difference

Why EvoCharge?

- We are dedicated to providing the most reliable, safe, and cost-effective charging stations and industry leading cable management system for single family, multi-family, workplace, and other commercial spaces.
- EvoCharge products are fully compatible with all EV and Plug-in Hybrid Electric Vehicles (PHEV) sold throughout the United States and Canada.
- Our charging products come with multiple safety ratings: UL/cUL listed, ETL, OSHA and ADA compliant, NEMA 4 rated
- EvoCharge is a brand of Phillips and Temro Industries, a trusted partner to major global OEM's and aftermarket provider of engineered systems for automotive, trucking and off-road vehicles for over 100 years.



Certifications

Important Certifications:

- UL/cUL (Charging Stations)
- ETL (EvoReel)
- Energy Star (iEVSE Plus)
- NEMA 4 rated
 - Certified for outdoor or indoor installations for hardwire stations
 - -22°F (-30°C) to 122°F (50°C) temperature operating range
- ADA and OSHA compliant charging stations
- CTEP coming soon!



EV Charging Networks

EVOCHARGE™

An EV charging network allows the charging station owner to:

- Manage and optimize charging stations
- Control access
- Set pricing
- View charging data
- Take advantage of incentives and rebates

evconnect

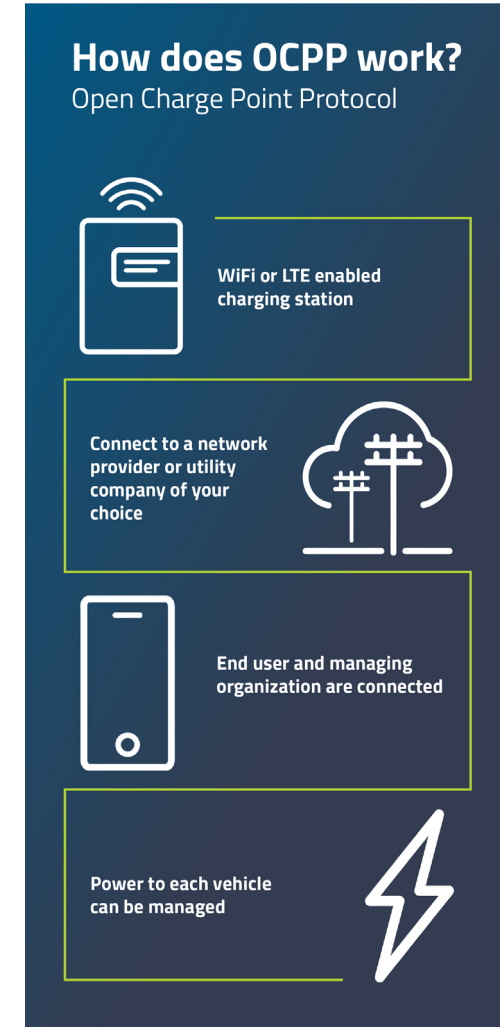
Charge



greenlots
A Member of the Shell Group

True OCPP (Open ChargePoint Protocol) vs. Proprietary Network

- An Open Charge Point Protocol (OCPP) charging station means that you can connect the charging station to your choice of non-proprietary networks.
 - A proprietary network requires hardware and software subscriptions from the same supplier. You are also locked into their subscription and maintenance plans as well. If network goes out of business so does your service.
- EvoCharge iEVSE Charging Stations are true OCPP and if you choose one of our preferred network providers - EV Connect, Chargeie, or Greenlots they will come preconfigured, and we assist in setting up the subscription plan.



Charging Stations Selector Guide



Features	EVSE	iEVSE Home	iEVSE®	iEVSE Plus
Non-networked	✓			
WiFi		✓	✓	✓
Mobile App Capability*		✓†	✓	✓
Remote Monitoring*		✓†	✓	✓
Access Control*			✓	✓
Local Load Management				✓
RFID Technology				✓
LTE Cellular Connectivity				✓

* With network service provider subscription

† With EvoCharge mobile app

Product Specifications

Description	Specifications
Connector / EVSE Level	SAE J1772; AC Level 2
Max Output Rating	32A; 7.68 kW Maximum Output – For use with 40A (or greater) Circuit Rating
Alternate Adjustable Output Ratings	24A; 5.76 kW Maximum Output – For use with 30A Circuit Rating 16A; 3.84 kW Maximum Output – For use with 20A Circuit Rating
Electrical Circuit / Input Power Requirements	208-240VAC, 50/60 Hz.; Circuit Requirement: Dedicated; Branch Breaker: Double pole; Circuit Conductors: Line 1, Line 2, Earth Ground
Input Power Connection	Standard: Plug-in, NEMA 6-50 Plug (Removable for Hardwire Connection); iEVSE Standard: 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 Pedestal Installation (Optional EVOREEL supports Overhead Mounting)
Overall Dimensions	EVSE: 11.0 x 7.5 x 3.2 inches (28.0 x 19.0 x 8.1 cm)
Display & Indicators	LED Charge Status Indicators (Power/Ready, Charging, Fault)
Cable Management	Standard: Connector/Cable Holder Optional: EVOREEL & Retractor Cable Management
Standards & Compliance	UL & cUL Listed, File Number: E469990; SAE J1772, UL 2594, UL 355, CSA

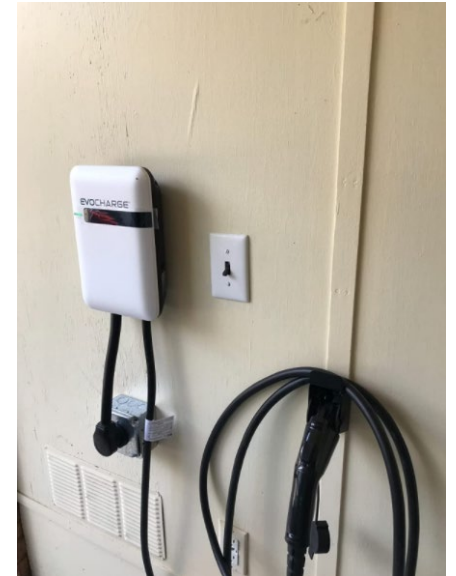
Electrical Connections



Hardwired

OR

Plug-in NEMA 6-50



- Adjustable maximum current output: 32A, 30A, 24A, 16A to support multiple circuit ratings: 40A, 30A, 20A
- **Requires 208 – 240VAC single phase 40A supply circuit** (common household dryer connection)



Homeowner Solutions

EVSE

- NEMA 6-50 plug
- Back plate installed (makes station portable too if another plate is ordered – available on Amazon)
- Plug and charge
- Upsell ideas: cable management

iEVSE Home

- NEMA 6-50 plug
- Back plate installed (makes station portable too if another plate is ordered – available on Amazon)
- Connect to WiFi (use homeowner mobile phone) - needs 2.4Ghz network
- Mobile app Quick Start Guide is included – can manage multiple charging stations, schedule sessions, add utility rates
- [Video: How to use the EvoCharge app](#)
- Upsell ideas: cable management, additional charging station

Easiest
install on the
market



Wall bracket

Upsell solutions:
Market leader -
EvoReel



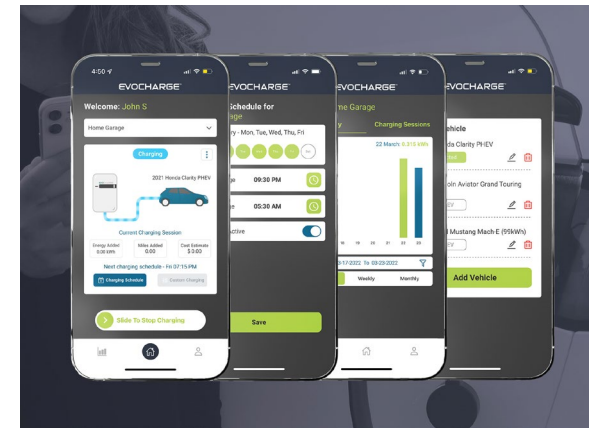
Cable Retractor



EvoReel

iEVSE Home + App

- The iEVSE Home is EvoCharge's smart EV charging station, perfect for homeowners
- The EvoCharge mobile app only works with the iEVSE Home charging station
- Features: schedule charging, start/stop charging, view charging history, add utility rates, and more



Commercial Property Solutions

iEVSE

- NEMA 6-50 plug or hardwired
- Wall mount or pedestal options
- WiFi connection
- Local load management
- Customizable solutions: cable management, networked stations

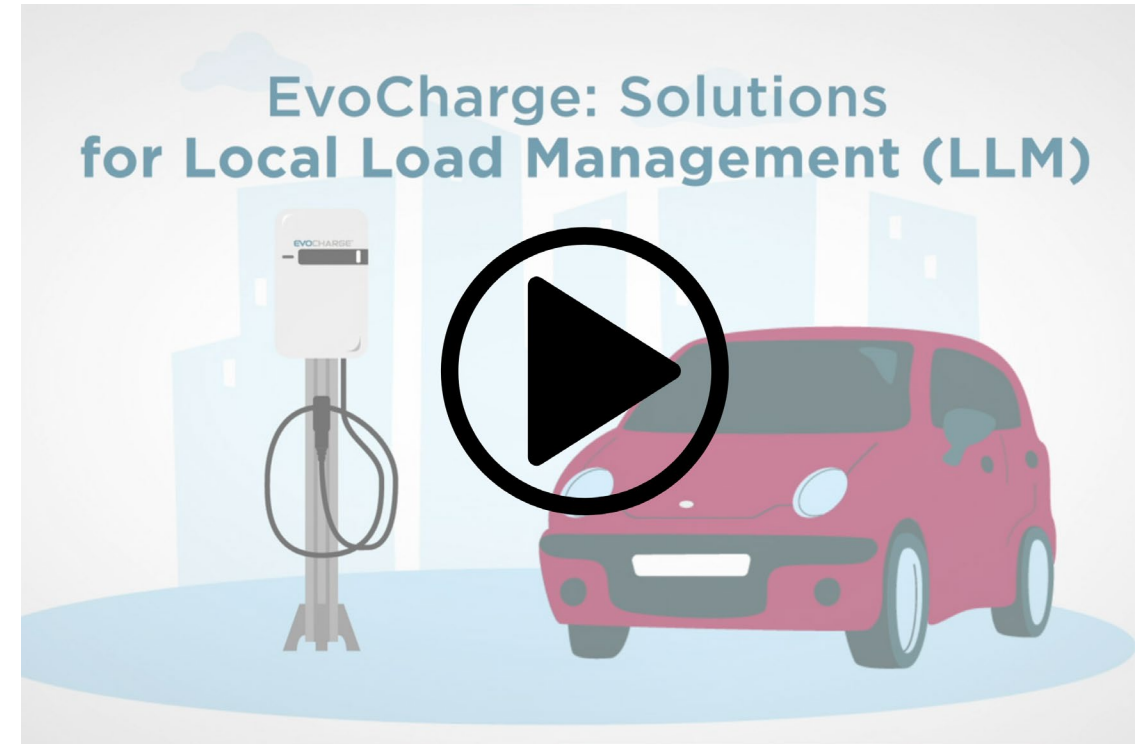
iEVSE Plus

- Hardwired
- Wall mount or pedestal options
- WiFi or 4G LTE connection options
- RFID technology
- Local load management
- Customizable solutions: cable management, networked stations



Local Load Management (LLM)

- Local load management allows you to use the building's existing electrical panel power capacity to charge multiple electric vehicles via charging stations by allowing the charging stations to talk to each other, doling out a steady electrical current to each.



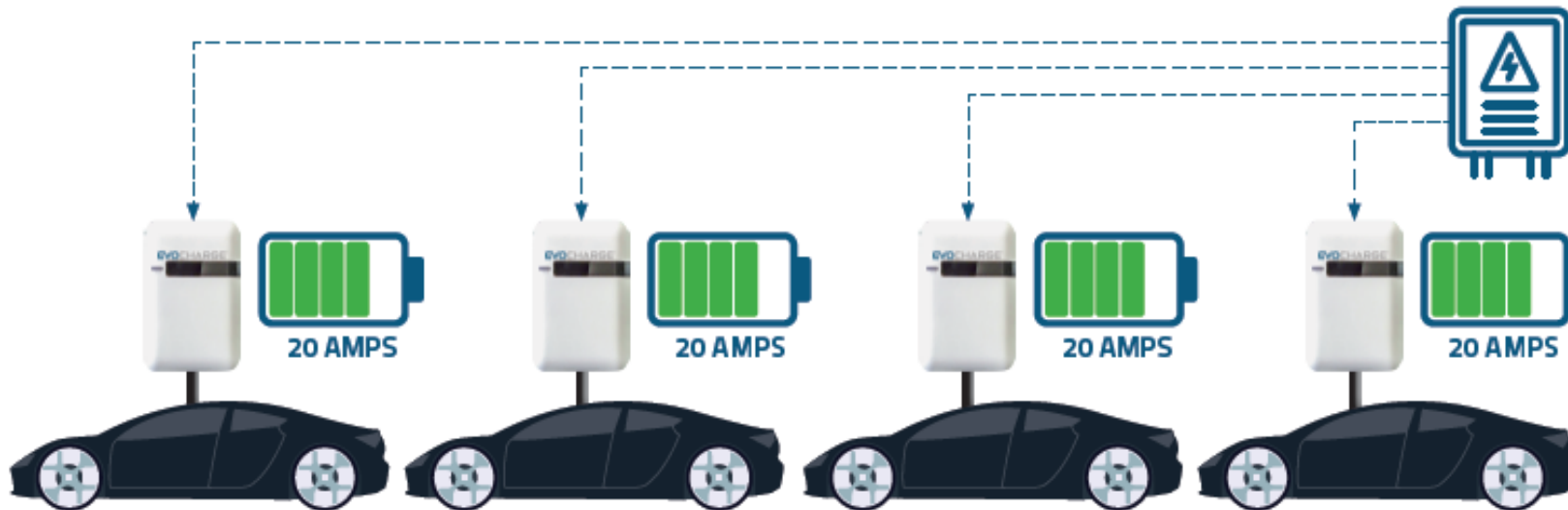
Local Load Management (LLM)

Example: 100 Amp Main Panel (80 Amp Load Limit per NEC)

- Main electrical panel/electrical circuit load balancing of up to 20 charging-station units in a group.
- Opportunity to avoid costly electrical infrastructure upgrades.
- Multi-unit, workplace, commercial and fleet applications.

CONFIGURATION OPTION 1: UNIFORM DISTRIBUTION (UD)

The output current of each iEVSE in use is reduced proportionally to not exceed the main panel/circuit allowance.



LLM capability supported via unit-to-unit Wi-Fi communication.

Supported by iEVSE* and iEVSE Plus models only. LLM can be easily setup via the EvoCharge web portal following installation.

**iEVSE models require at least one iEVSE Plus model within the LLM group to act as a gateway unit.*

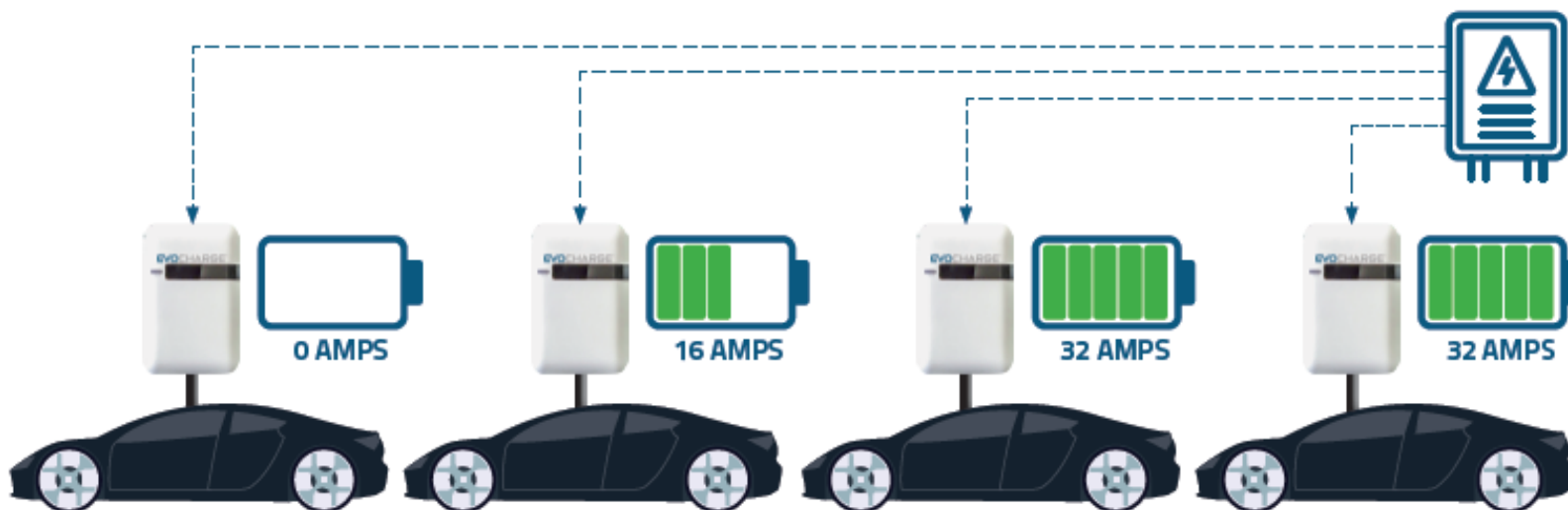
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CONFIGURATION OPTION 2: FIRST IN FIRST SERVE (FIFS)

The maximum allowable amount of output current is supplied based on order of connection to the EV.



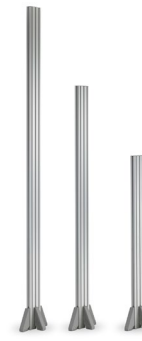
**iEVSE models require at least one iEVSE Plus model within the LLM group to act as a gateway unit.*

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Accessories: Cable Management and Pedestals

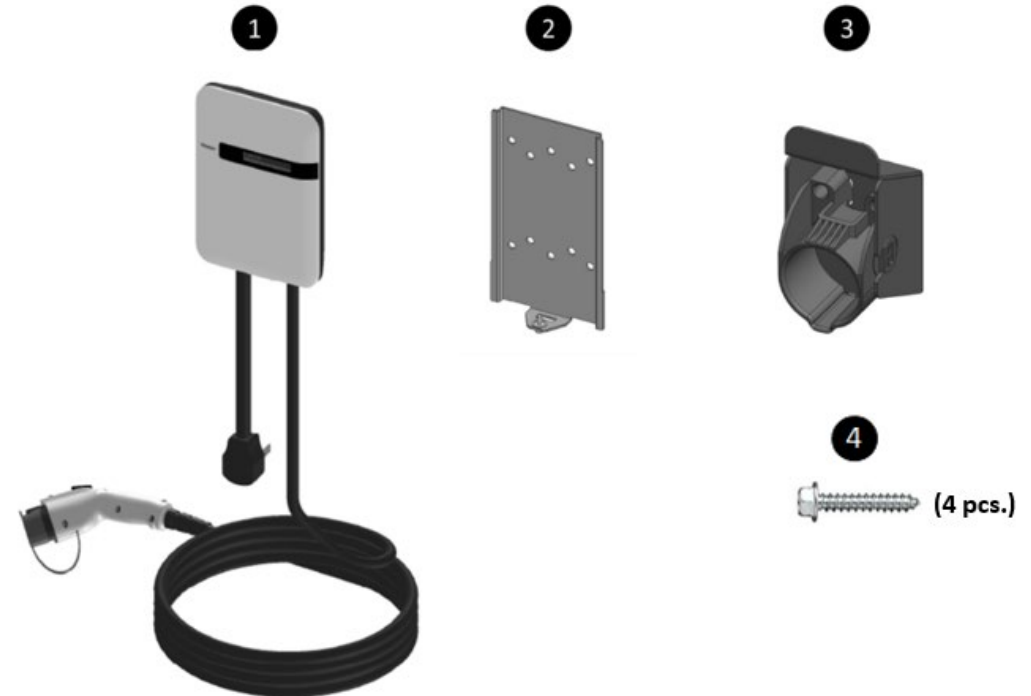
EvoReel	Retractor	Channel Pedestal	Concealed Pedestal
Limited to 24A	Spring-loaded tether	4, 6, and 8ft heights	4ft height
Adjustable stop point	Reduces cable wear	Design to allow for cable management	Mount up to four stations
22ft EvoReel: 8ft min. length off reel	Eliminates tangled cables	Secured into concrete	Wiring is enclosed within the pedestal
30ft EvoReel: 16ft min length off reel		Flexible charging station mounting height	Ground mounted with four anchor bolts
NEMA 4 rated for indoor and outdoor use		Single or dual station mounting	ADA compliant mounting height
Mounts to wall, ceiling, or channel pedestal			



Installation

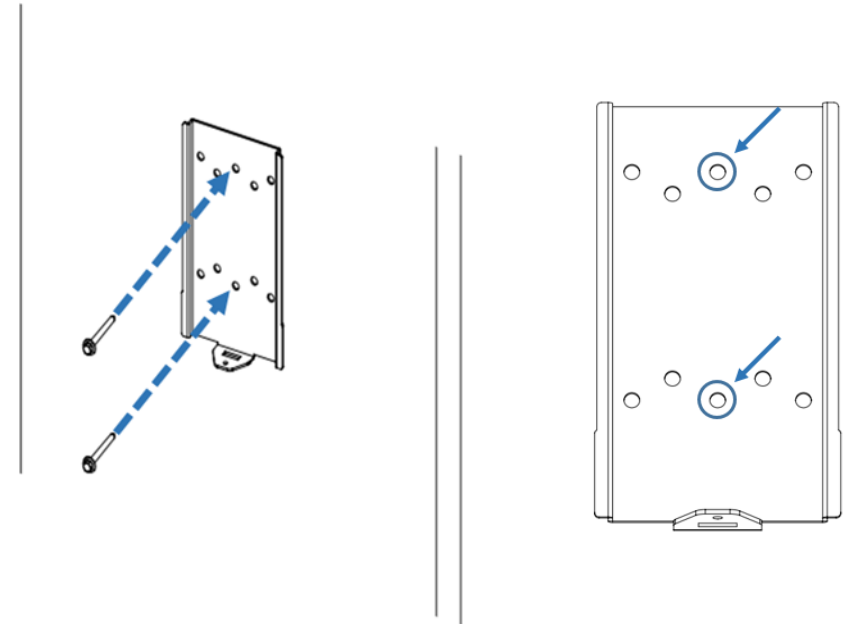
Typical Charging Station Box Contents

Item	Description	Qty.	
1	Charging Station	1	
2	Charging Station Mounting Bracket	1	Bracket is Attached to Charging Station
3	Connector & Cable Holder	1	Holder is packaged within cardboard compartment of charging station packaging
4	Mounting Fasteners	4	2 Fasteners for Charging Station Mounting Bracket 2 Fasteners for Connector & Cable Holder



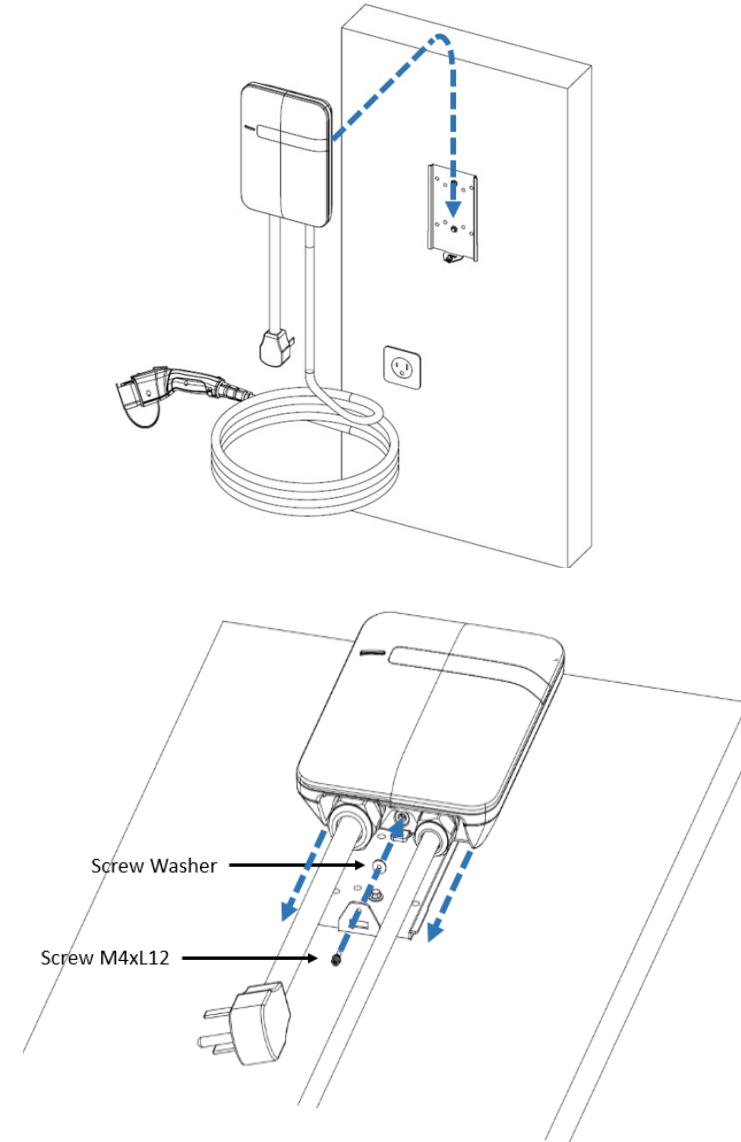
Wall Mount Installation

- 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.



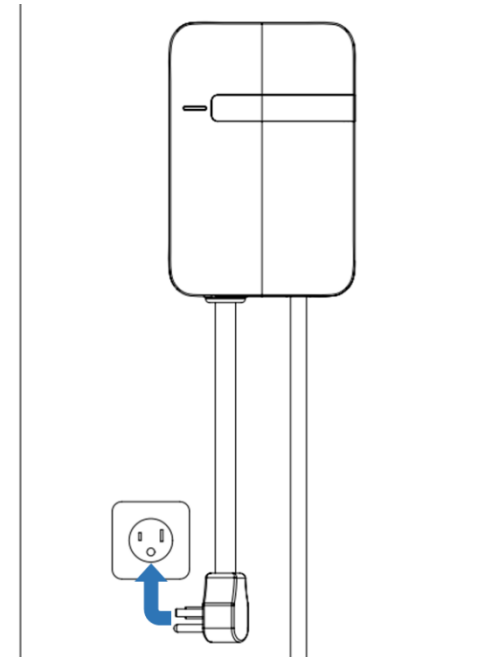
Wall Mount Installation

- Mount the charging station onto the mounting bracket and secure the lock screw.
- Tighten the installed M4 screw and screw washer to fix charging station on mounting bracket.



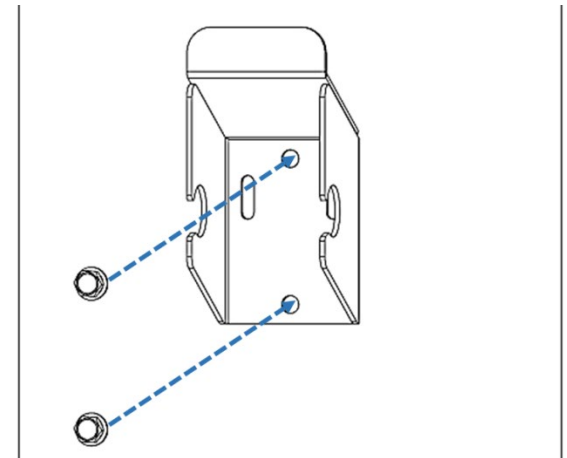
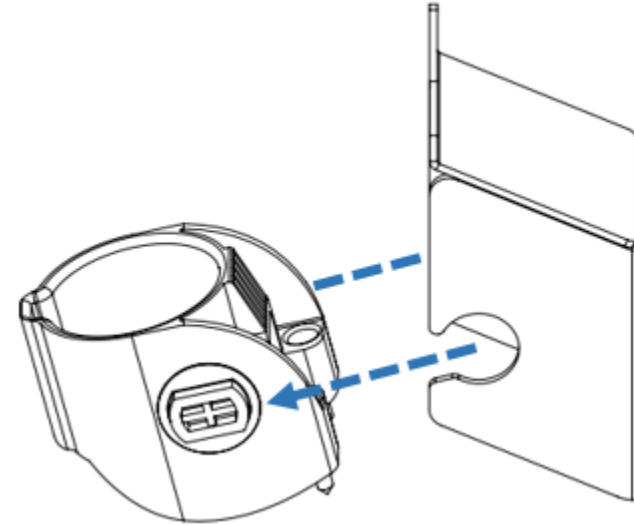
Wall Mount Installation

- For Plug-in (NEMA 6-50) models, Plug in the power cord to the NEMA 6-50 Wall Outlet/Receptacle. The NEMA outlet should be located no less than 20-26” from the ground or as defined by applicable state, local and national electrical codes and standards.



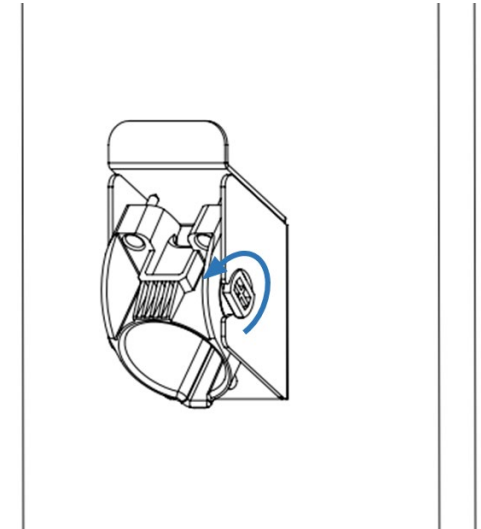
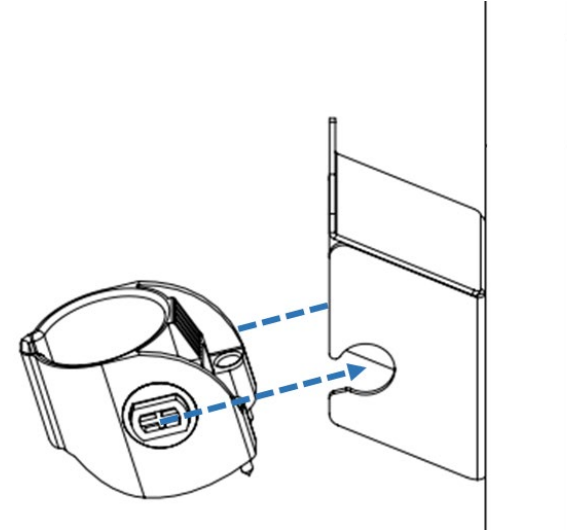
Installation – Plug and Cable Holder

- Separate the holder from hook.
- The Holder can be installed at any location near the charging station. Once the holder installation location is determined, secure the holder bracket to the wall with appropriate screws x2 (1/4" or M6).



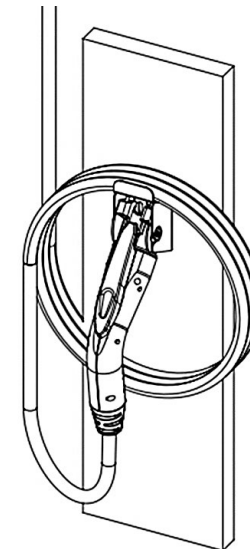
Installation – Plug and Cable Holder

- Position the plastic holder insert face up and install into the holder bracket.
- Next, rotate the holder insert down.



Installation – Plug and Cable Holder

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



Pedestal and Cable Management Installation

- Visit evocharge.com/resources/product-documents/ to download the installation manuals for our pedestal and cable management products.



WiFi Connection

- Use the EvoCharge mobile app to connect an iEVSE Home charging station to WiFi
 - Quick start guide available
- Use our WiFi Connection Guide to connect to the iEVSE or iEVSE Plus.
 - Connect via laptop or ethernet cable
- Find these connection guides at evocharge.com/resources/product-documents



Warranty

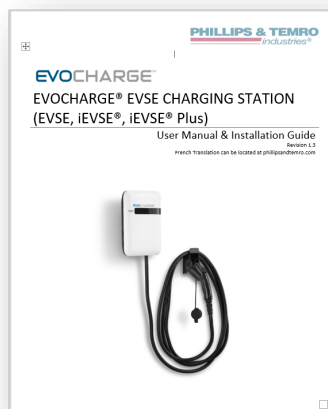
- 3 years on EvoCharge charging station
- 2 years on EvoReel and accessories



[Link](#)

Resources

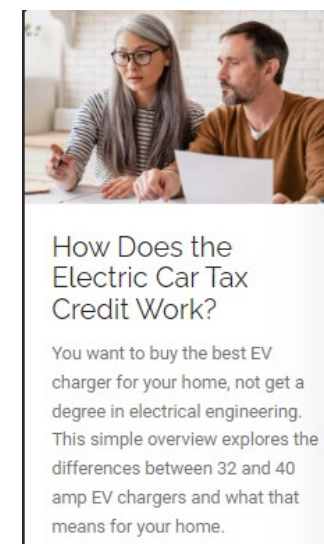
Installation Instructions



Videos

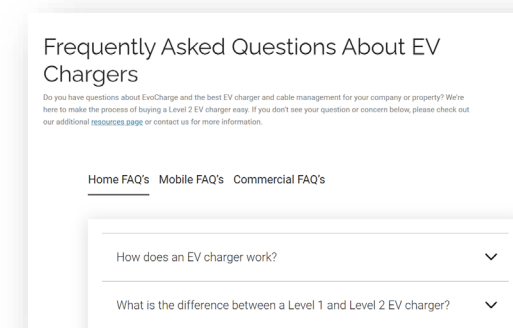


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FAQs



[Technical service online form](#)

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evochargesupport@philippsandtemro.com

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- Want to pick up product locally? Purchase from one of our distributors. Contact us <https://evocharge.com/contact-us/>
- Homeowners can buy direct from EvoCharge [here](#) or from one of our [retail partners](#).



Thank you for being part of our Certified Installer Program

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