

EVOCHARGE[®]

EVOCHARGE[®] 40A EVSE CHARGING STATION (iEVSE[®], iEVSE[®] Home)

User Manual & Installation Guide



EvoCharge Installation

Before Installation

Safety Check

Check for transport damages.

Before connecting the product to the power supply, check that the power supply voltage and current rating corresponds with the power supply details shown on the product rating label.

The charge point 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 charge point, make sure you have read all of these instructions in this manual and fully understand its contents. Appropriate protection is required when connecting to a main switchboard. The tools and parts used as outlined in the section “Tools & parts required for installation”.

⚠ CAUTION : Disconnect the power supply before installing or repairing the charge point. Failure to do so may result in physical injury or damage to the power supply system and the charge point.

⚠ CAUTION : Avoid touching or pressing the OLED screen all times, as this may result in damage to the OLED screen.

⚠ DANGER : RISK OF SUFFOCATION

Keep any packing materials away from children – these materials are a potential source of danger, e.g. suffocation.

Grounding instructions

The charge point 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.

Tools & parts required for installation

Tool	QTY	Model	Size	Supplier	Remark
Mounting Bracket	1	All	194x109x9 mm	Model Accessories	Fasten charge point to the wall
Holster ASSY	1	All	58x58x70 mm	Model Accessories	Hold EV charging plug
Screw	4	All	Tapping: #12	Model Accessories	Fasten Mounting Bracket & Hook
			Mechanical: M6	Commercially Available	
Wire, Copper	3	IC3	8 AWG	Commercially Available	UL1015 (recommended)
Heat Shrink Tube	3	IC3	For 8 AWG wire	Commercially Available	Protect wires & terminals
Terminal	3	IC3	For 8 AWG wire	Commercially Available	Connect input wires to the terminal block
Conduit	1	IC3	1 inch	Commercially Available	Protect power cable
Torx Screwdriver	1	All	T20	Commercially Available	
Philips Screwdriver	1	All	PH3	Commercially Available	
Hexagon Socket	1	All	5/16	Commercially Available	Tighten #12 Tapping screws
Torque Wrench	1	All	35 kgf-cm min	Commercially Available	

Install the charge point

⚠ DANGER : Disconnect power at the circuit breaker before installation.

⚠ CAUTION : Before mounting determine the suitable mounting location. The unit must be fixed to a wooden or masonry/concrete wall using hardware that is appropriate for the surface. Do not install on drywalls, wall boards or thin plywood. The fixing point must be capable of supporting the weight of the unit.

Secure the main body mounting bracket to the wall with appropriate screw.

Follow applicable accessibility requirements for the mounting position. The unit shall be stored or located at a sufficient height. Follow local electric code and applicable standards.

For indoor use: The unit shall be mounted at a sufficient height from the floor between 18 inches (450 mm) and 4 feet (1.2m). Follow local electric code and applicable standards.

For outdoor use: The unit shall be mounted at a sufficient height from the floor between 24 inches (600 mm) and 4 feet (1.2m). Follow local electric code and applicable standards.

The mounting bracket has ten screw holes. If only two screws be used to fasten the mounting bracket, the screws should pass through the middle two screw holes of the mounting bracket. The other screw holes are reserved for the user.

Screw suggestion:

- a. For masonry walls, use M6 mechanical screws. (Commercially available)
- b. For finished walls supported by wood studs, use 1/4" or M6 tapping screws. (Commercially available)
- c. Please use following torque force.

Screw	Torque	
	kgf.cm min	lb-in min
M6	25 kgf.cm min	21.7 lb-in min
#12	25 kgf.cm min	21.7 lb-in min

2. Mount charge point onto mounting bracket and lock the screw.

2-1. Put the charge point on the mounting bracket.

2-2. Fix charge point on mounting bracket by M4 screw and screw washer.

2-3. Please refer to the following torque.

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

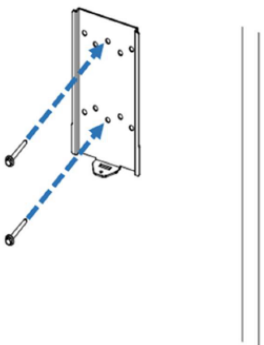


Figure 3-9 Fixing mounting bracket

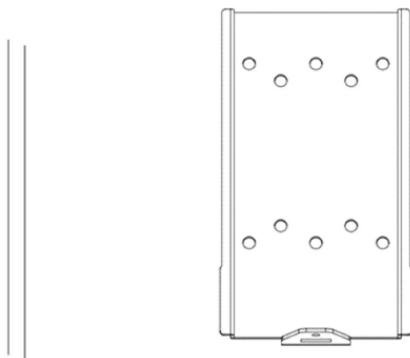


Figure 3-10 Screw holes of mounting bracket

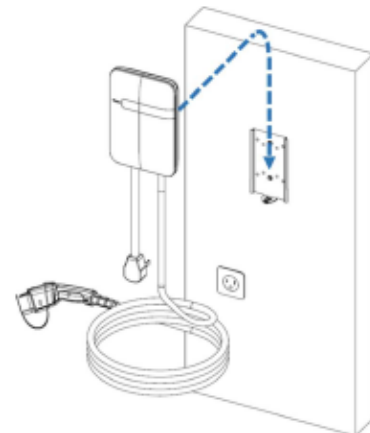


Figure 3-11 Charge point and mounting bracket

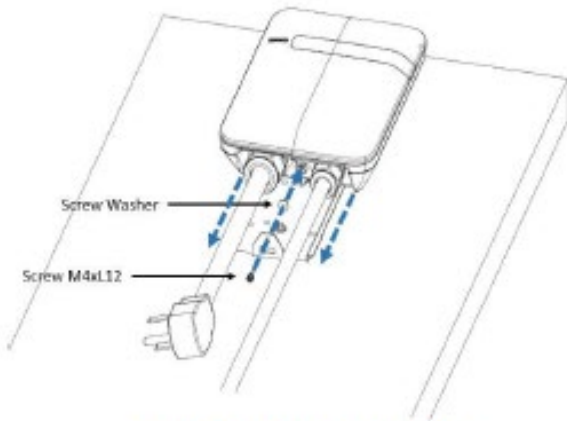


Figure 3-12 Screw locking position

3. Plug in the power cord. (BC3/SC3 ONLY)

The outlet should be located at 20-26 inch from the ground. Refer to the installation template to decide where to install the charge point.

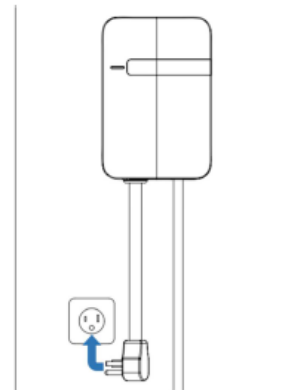


Figure 3-13 Plug in the power cord

1. Choose the appropriate conduit in accordance with all applicable state, local and national electrical codes and standards.



Figure 3-14 Conduit.

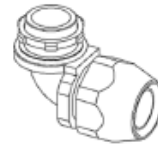
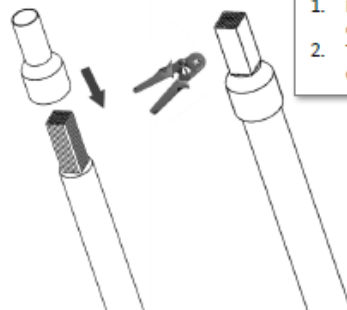


Figure 3-15 Right angle conduit

2. Clamp copper sleeve terminal to connect copper wire

2-1 Refer to the following wire specification. Use hand tool to cut the outer layer of wire and left around 12mm length for connecting copper sleeve terminal.

Model	Terminal	Conductor	Rating
Intelligent Charger-40A	L1, L2	6 AWG	90C copper wire
	G	10 AWG	90C copper wire



<Note>

1. Please make sure there is no copper wire out of ferrule.
2. The dimension of ferrule terminal after cramping is 4.8mm square MAX.

Figure 3-16 Connect copper sleeve terminal to wire

3. Electrical wiring to the charge point.

- 3-1. Disassemble top cover.
- 3-2. Use Philips screwdriver to release terminal screws.
- 3-3. Fold the wire end to pass through the conduit and insert them into the input hole.
- 3-4. Fix the copper wire on the corresponding terminal block. The wiring instruction is printed in front of the terminal block (L1/L2/G).
- 3-5. Use the following torque to connect the wire terminal to the terminal block.

Screw	Torque	
		1.2 N-m

3-6. The recommended terminal specifications are as following.

Terminal	#6AWG Dimension(mm)	#10AWG Dimension(mm)
F	12	12
L	24	20
W	8.8	6.3
B	10	8.5
D	6.2	3.9
C	5.8	3.5

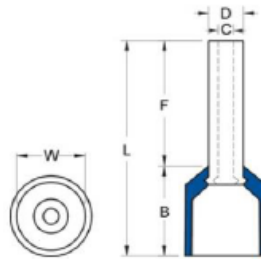


Figure 3-17 Dimension of terminal

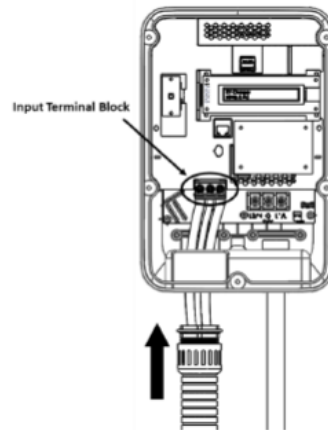


Figure 3-18 Input wiring

CAUTION



CAUTION: To reduce the risk of fire, connect only to a circuit provided with 40 amperes maximum branch circuit overcurrent protection in accordance with the National Electrical Code, ANSI/NFPA 70, and the Canadian Electrical Code, Part I, C22.1.

CAUTION



CAUTION: If this unit is installed outdoors, the outlet must be rated for outdoor installation. The outlet must be installed properly to maintain the proper NEMA rating of the enclosure.

Model	Current Rating
Intelligent Charger-40A	40 A

3-7. Lock the conduit on the enclosure. Please refer to the following torque.

Conduit	Torque	
1"	35 kgf.cm	30.36 lb-in

3-8. Reassemble top cover. Please refer to the following torque.

Screw	Torque	
M4	16 kgf.cm	13.88 lb-in

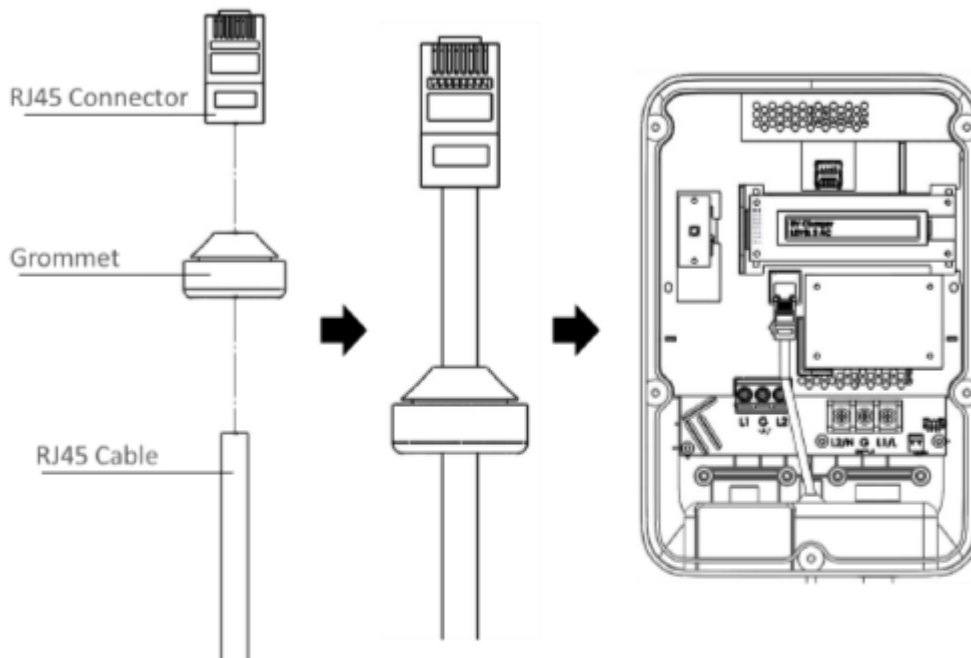


Figure 3-8 Ethernet connection procedure

Steps of install the Ethernet cable:

1. Insert RJ45 cable through grommet that is fixed on the bottom cover.
2. Use tools to combine the RJ45 connector with RJ45 cable.
3. Put the RJ45 connector in the ethernet RJ45 socket.

First, connect a computer to the charge point using an Ethernet cable.

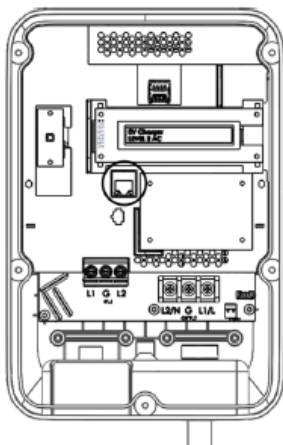


Figure 3-25 Location of Ethernet RJ-45 port

Secondly, set up a static IP Address 192.168.200.xxx on your computer. For instance, for Windows users, select "Use the following IP address:" in Internet Protocol Version 4 (TCP/IPv4) Properties dialog like the following settings.

