

## 2 Specifications

### 2.1 Product specifications

Table 2-1 Product specifications

Item	BC80A	SC80A	IC80A
Application	Residential	Residential	Commercial
Voltage (Vac)	208/240VAC (-20% ~ + 15%), Single Phase		
Frequency (Hz)	60Hz		
Current (Rms)	Max. 80 A		
Charging Connector	SAE J1772 Type 1		
Indications	<ul style="list-style-type: none"> <li>• Green Steady: Ready</li> <li>• Green Flashing (Fast): Authorized, wait for EV Connect</li> <li>• Green Flashing (Slow): Suspend (Occupying)</li> <li>• Blue Flashing (Slow): Charging</li> <li>• Red Steady: Unrecoverable Fault</li> <li>• Red Flashing (Slow): Recoverable Fault</li> <li>• Yellow Flashing (Slow): Booting / Firmware Upgrading / Out of Service</li> </ul> <p><u>Remark</u></p> <ul style="list-style-type: none"> <li>• Fast Flash: On Time 300ms, Off Time 200ms, 2Hz</li> <li>• Slow Flash: On Time 1200ms, Off Time 800ms, 0.5Hz</li> </ul>		
Wi-Fi	N/A	802.11 b/g/n	
Ethernet	N/A	YES	
BLE	YES	N/A	
Cellular	N/A		M2M connection (LTE CAT.M1 / CAT.NBIoT)
RFID	N/A		ISO 14443 A/B, ISO 15693, ISO 18092 (NFC) NEMA interoperability protocol
Display	N/A	116(L)*8.5(W)*37(H)mm, 5.57mm CHARACTER HEIGHT, 5*8 DOT MATRIX, OLED 20x2	
Data Protocol	N/A		OCP 1.6
Operation Temp.	-35 ~ 55 °C (-31 to 131°F)		
Storage Temp.	-40 ~ 80 °C (-40 to 176°F)		
Mounting Type	Wall mount / Pole mount (optional)		
Wiring Type	Hard-wired		
Enclosure Level	NEMA 3R		
Impact Resistance	IK10		
Dimension (H x W x D)	14.1"x10.6"x5.5"		
Web Portal Management	N/A	Yes	

Item	BC80A	SC80A	IC80A
Console Management	Yes		
Certification	UL 1998/2231/2594 FCC Part 15B		
	FCC Part 15.247 (Bluetooth 2.4GHz)	FCC Part 15.225 (RFID 13.56MHz) FCC Part 15.247 (WLAN 2.4GHz) Energy Star	
	N/A		FCC Part 22/24/27

## 3.2 Tools & parts required for installation

Table 3-1 Tools &amp; parts required for installation

Tool	QTY	Model	Size	Supplier	Remark
Mounting Bracket	1	All	222x173x9 mm	All Product Model	Fasten charge point to the wall
Holster ASSY	1	All	58x58x70 mm	Model Accessories	Hold EV charging plug
Screw	4	All	Tapping: #12	Commercially Available	Fasten Mounting Bracket & Hook
			Mechanical: M6	Commercially Available	
	1	All	Mechanical: M6	Model Accessories	Fasten charge point & Mount bracket
Wire, Copper	3	All	2 AWG	Commercially Available	
Heat Shrink Tube	3	All	For 2 AWG wire Color: Red, Black, Green.	Model Accessories	Protect wires & terminals
Terminal	3	All	For 2 AWG wire	Model Accessories	Connect input wires to the terminal block
Conduit	1	All	1 inch	Commercially Available	Protect power cable
Philips Screwdriver	1	All	PH3	Commercially Available	
Torx Screwdriver	1	All	T20	Commercially Available	
Hexagon Socket	1	All	5/16	Commercially Available	Tighten #12 Tapping screws
Torque Wrench	1	All	40 kgf-cm min	Commercially Available	

## 3.3 Charge Point Installation

### 1. Disassemble top cover

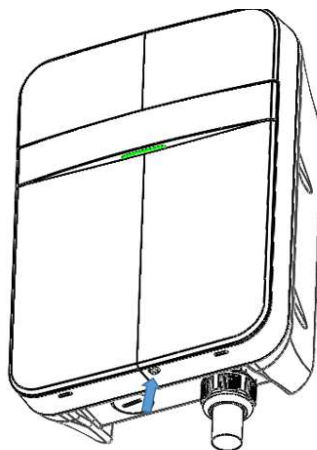


Figure 3-1 Loosen 1 pc M4 screw.

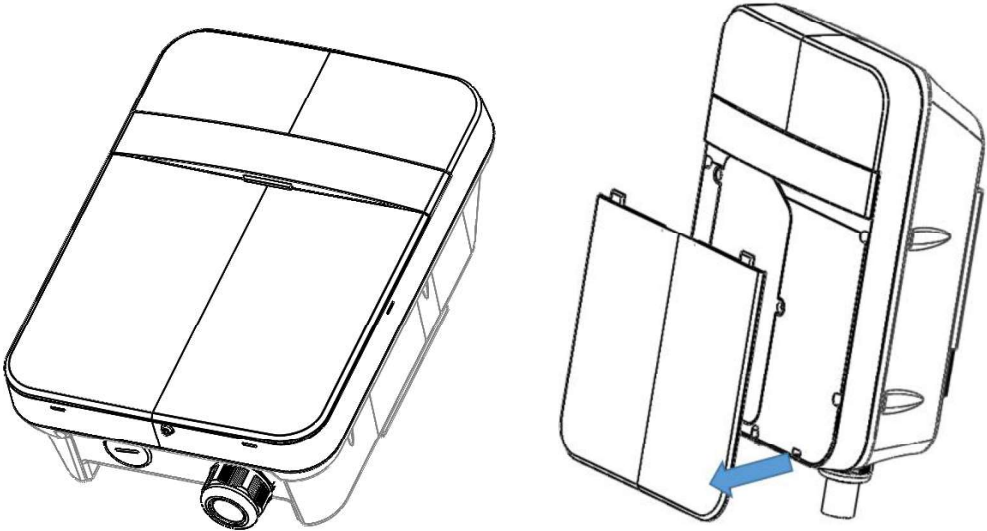


Figure 3-2 Use flat tip screw driver to push snap then open front cover.

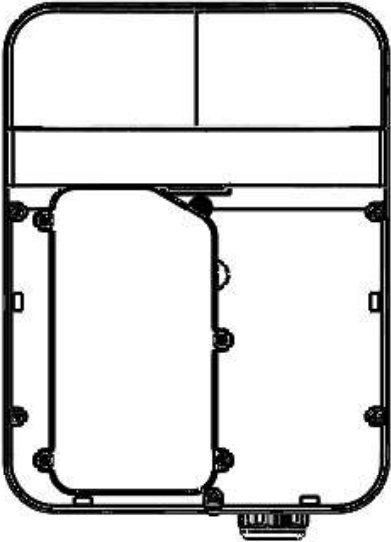


Figure 3-3 Loosen 5 pcs M4 screw then open Install cover.

**2. Find SIM card socket. (only for Intelligent Charger)**

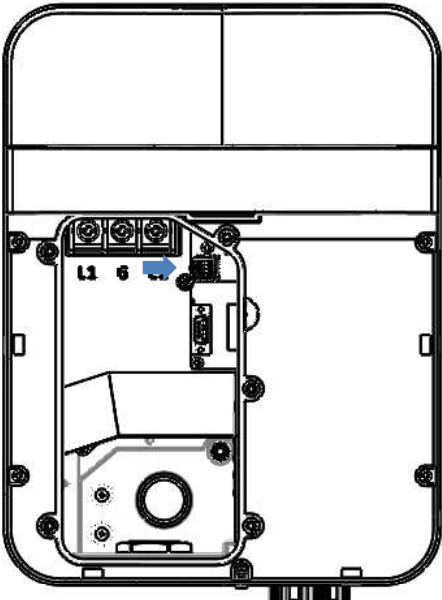


Figure 3-4 Position of SIM card socket

**3. Insert SIM card.**

3-1 Unlock the SIM Card socket

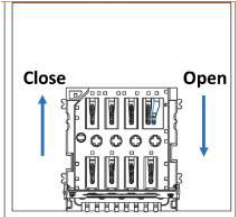


Figure 3-5 SIM card socket and cover Open/Close direction

### 3-2 Open the socket then install Sim card

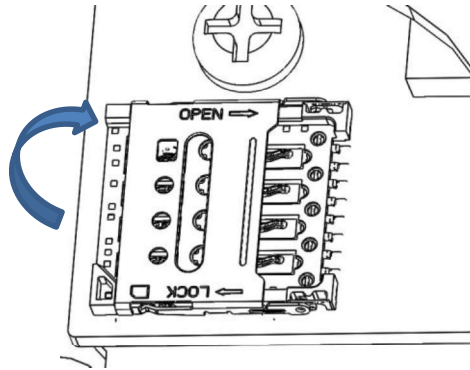


Figure 3-6 open the socket cover

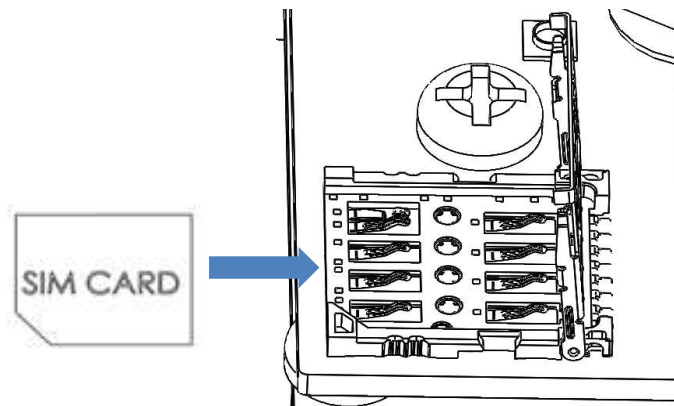


Figure 3-7 input the SIM Card

#### **4. 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. For indoor site, it is not lower than 18" (450 mm) and not higher than 4" (1.2m). For outdoor site, it is not lower than 24" (600 mm) and not higher than 4" (1.2m). Refer to Article 625, NEC.

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.

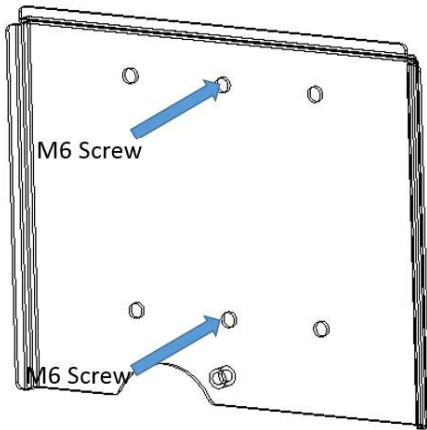


Figure 3-8 Fasten mounting bracket

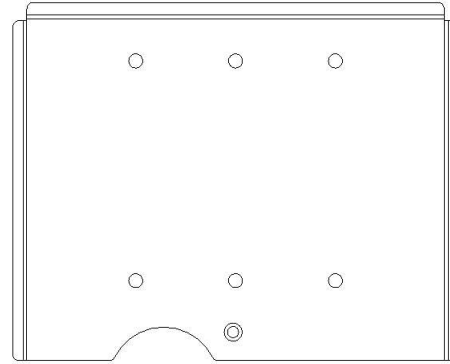


Figure 3-9 Screw holes of mounting bracket

Screw sizing suggestion:

- A. For masonry walls, use M6 mechanical screws. (Commercially Available)
- B. For finished walls supported by wood studs, use #12 tapping screws. (Model Accessories)
- C. Please refer to the following torque. The actual torque is according to the wall material.

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

**5. Fasten charge point onto mounting bracket.**

- 5-1. Put the charge point on the mounting bracket.
- 5-2. Fasten charge point on mounting bracket by tightening M6 screw.
- 5-3. Please refer to the following torque.

Screw	Torque	
	M6	30 kgf.cm

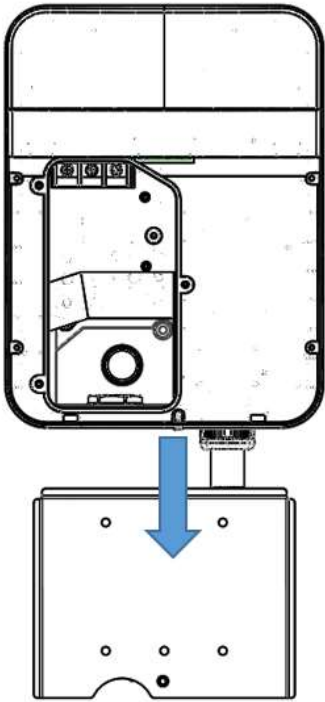


Figure 3-10 Charge point and mounting bracket

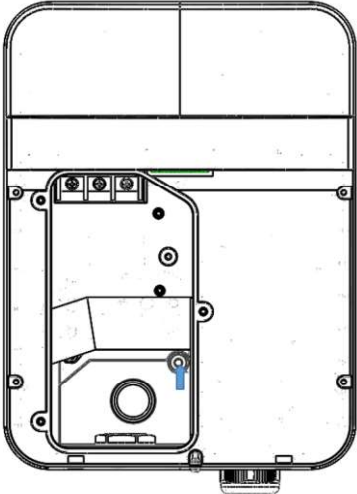


Figure 3-11 Tighten M6 screw



### 3.4 Input Power Cord Installation

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

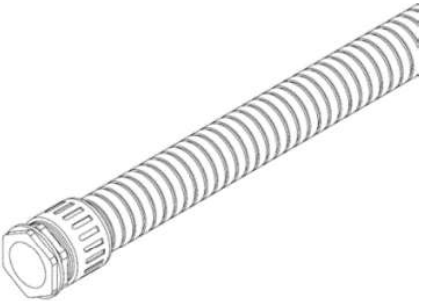


Figure 3-12 Conduit.

2. Clamp copper terminal to connect copper wire. The clamp point is covered by heat shrink tube for protecting.

2-1 Refer to the following wire specification. Use conductor type other than RHH, RHW and RHW-2 with outer covering.

Model	Terminal	Conductor	Rating
Basic Charger-80A	L1, L2,G	2 AWG	90C copper wire

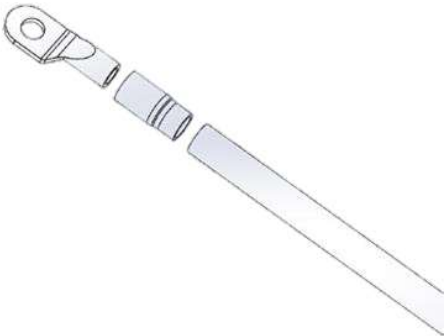


Figure 3-13 Copper terminal, heat shrink tube and copper wire.

### 3. Electrical wiring to the charge point.

3-1. Fold the wire end to pass through the conduit and insert them into the input hole (choose input direction 1 or 2 and open cap)

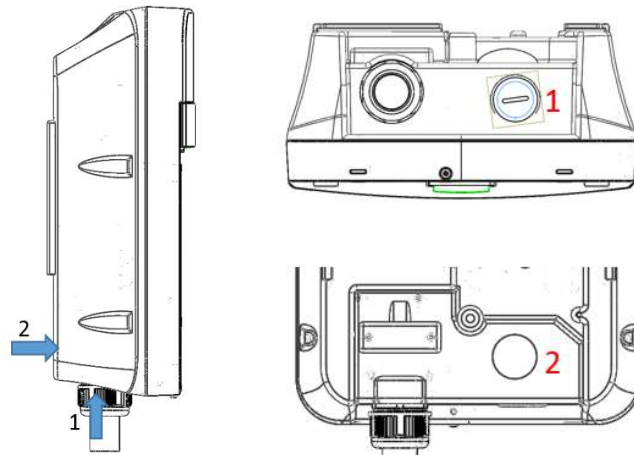


Figure 3-14 Cable input position

3-2. Fasten the copper wire on the corresponding terminal block. The wiring instruction is printed in front of the terminal block (L1/L2/G).

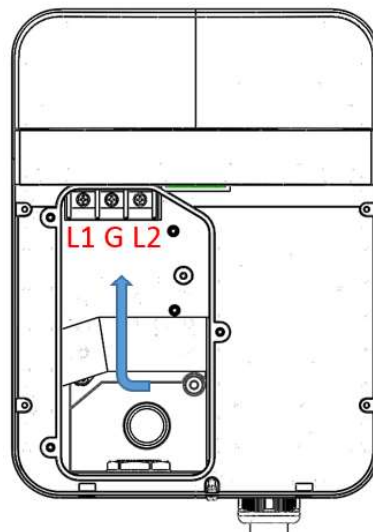


Figure 3-15 Input wiring position.

3-3. Use the following torque to connect the wire terminal to the terminal block.

Screw	Torque	
M6	30 kgf.cm	25.6 lb-in



CAUTION: To reduce the risk of fire, connect only to a circuit provided with 100 amperes maximum branch circuit overcurrent protection in accordance with the National Electrical Code, ANSI/NFPA 70, and the Canadian Electrical Code, Part I, C22.2.



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.

3-4. Lock the conduit on the enclosure. Please refer to the following torque.

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

3-5. Reassemble Instant cover and Front cover then Fasten M4 screw.

Screw	Torque	
M4	15 kgf.cm	12 lb-in

## 3.5 Holster Installation

1. **Separate the holster from the hook.**

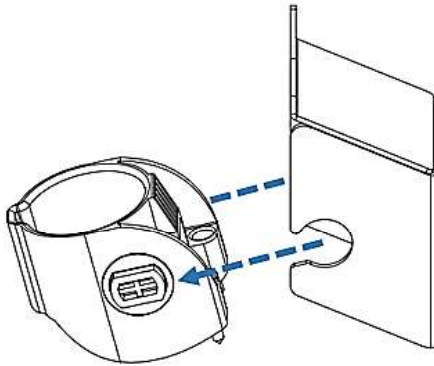


Figure 3-16 Separate the holster

2. **Fasten the hook on the wall with appropriate screws.**

2-1. For finished walls supported by wood studs, use 2PCS screws (#12 tapping or M6) .

2-2. The recommend torque is 25 kgf.cm (21.7 lb-in).

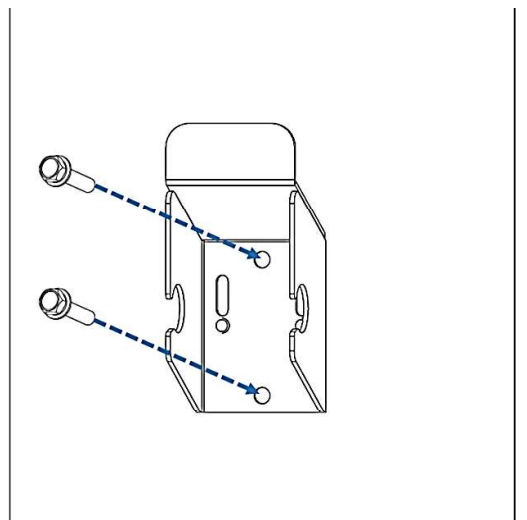


Figure 3-17 Secure the hook

**3. Make the holster face up and combine with the hook.**

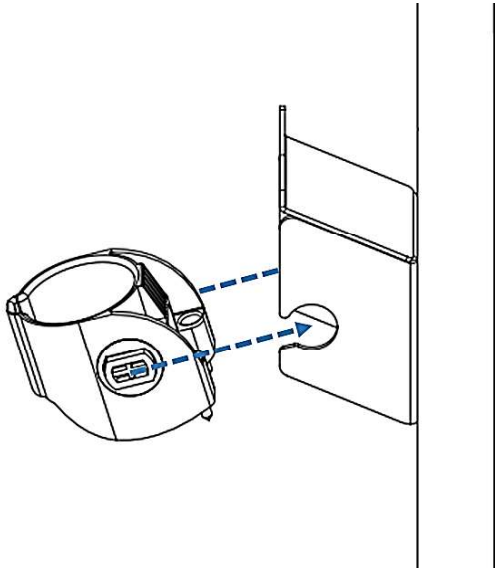


Figure 3-18 Secure the holster

**4. Rotate the holster down totally.**

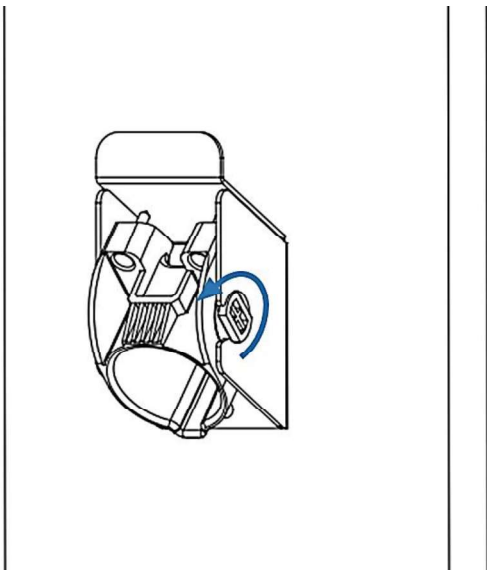


Figure 3-19 Rotate the holster

**5. Keep the holster in this state and tighten screws completely.**

5-1. The recommend torque is 6 kgf.cm (5.2 lb-in). The screws make the combination firm.

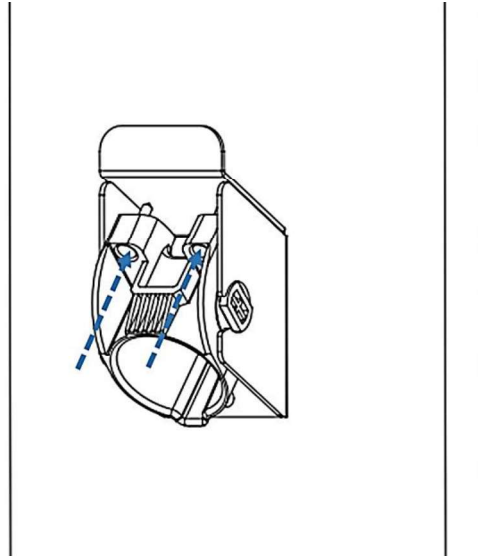


Figure 3-20 Tighten screws

**6. Place EV charging plug on the holster.**

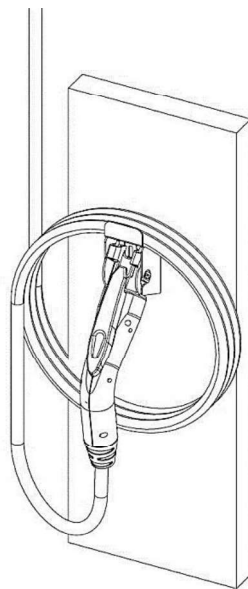


Figure 3-21 Place EV charging plug