# **Artemis**



#### Main Features

- Multiple electrical protection functions for user safety.
- Equipped with Bluetooth for easy commissioning.
- Connect any backend based on OCPP 1.6J protocol.



#### Specifications

	Gene	ral Information	
Input/Output Power&Current Rating	7kW/32A max.	11.5kW/48A max.	19.2kW / 80A max.
Input/Output Voltage Rating	208Vac±10% or 240Vac±10%, Three-Wire, 60Hz, L1+L2+PE		
Input interface	Wiring terminals or Plug	Wiring terminals	Wiring terminals
Charging Interface	1 x SAE J1772		
Metering	Onboard metering chip, Acc	uracy: Class 1	
Personal Protection	CCID 20		
Protection	Overcurrent, Overvoltage, Ur	ndervoltage, Residual current, Over ter	nperature, Ground fault, Integrated surge protection
	U	ser Interface	
Display	4.3-inch LCD display (option	al), digital display(optional)	
Status Indication	LED indicators		
Bluetooth	Bluetooth 5.0 (optional)		
User Authentication	RFID card, QR code, Credit c	ard (optional)	
RFID Reader	ISO/IEC 14443 A/B, ISO/IEC	18092, IEC/ISO 15693	
	Co	mmunication	
Network Interface	4G, Wi-Fi, Ethernet		
Protocol (EVSE&Backend)	OCPP1.6J		
Protocol (EVSE&EV)	Control pilot (default), ISO 15	118 (Optional)	
	Er	vironmental	
Operating Temperature	-22°F to 122°F		
Storage Temperature	-40°F to 185°F		
Humidity	5% to 95% no condensation		
Altitude	≤9842.52' above sea level		
		Mechanical	
NEMA Enclosure	Type 4		
K Rating	IK10		
Cooling	Natural cooling		
Charging Cable Length	16.4', 24.6'(optional)		
Dimensions (WxHxD)	0.92*0.92*0.49'		
Weight	Approx. 11 lb	Approx. 12.35 lb	Approx. 16.54 lb
Installation	Wall mounting, Pole mountir	ng (Pole is optional)	
	Certifica	tion and standards	
Standards and compliance	UL2231-1, UL 2231-2, UL25	94, FCC Part 15 Class B, Energy Star,	CTEP (Certification ongoing)
Certification	CSA, FCC, Energy Star		





# **User Manual**

# **Artemis AC Charger**



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# Artemis

# **Charging Infrastructure**



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#### Attention

Extensive safety information is available in the relevant sections of this document. The safety instructions are intended to ensure proper practical usage. If the user does not comply with these safety regulations and instructions, the user may expose herself/himself to the risk of electric shock, fire and/or severe injuries.



# 2 Safety and Usage Instructions

# 2.1 Safety Precautions

Warning: Electric shock hazard

- Before using the equipment, please carefully read the attached documents carefully and familiarize yourself with all safety instructions and regulations;
- This product is designed and tested in accordance with international standards;
- This product can only be limited to its design purpose;
- This product is AC charger that can charge electric powered vehicles (for example, an electric car) in indoor and outdoor areas.
- The installation, maintenance and repair of this product may only be performed by a trained electrician;
- Improper installation or maintenance may be dangerous to users of this product;
- Any installation and maintenance operations must be carried out under the condition of power failure;
- All parts of the product cannot be repaired by the user. Do not attempt to repair the charger yourself;
- Do not install this product in potentially explosive environments, areas with high electromagnetic radiation and areas susceptible to flooding;
- Ensure that this product is used only under proper operating conditions;
- Before storing or transporting this product, make sure that the main power supply has been disconnected;
- Do not use adapters or converting adapters;
- Do not use cable extension kits;
- Equipment for locations with non-restricted access.

The installer must always ensure that the installation of the charger complies with local regulations.

Star Charge is not responsible for any damage that occurs if this product is shipped in packaging that is different from when the product was originally supplied. Please store this product in a dry environment, the storage temperature must be between -40°C and +85°C.

#### 2.2 Disposing

- Please divide different materials into recyclable materials, general waste and special waste before handling;
- Please abide by local laws and regulations and relevant provisions when recycling or handling products, individual components and packages;



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- Please contact Star Charge to know the latest information and specifications before ordering.

Star Charge is committed to manufacturing high-quality products. This product has completely passed the

CSA certification . You can find more details r by consulting your dealer or service provider.



# 2.4 Summary of Safety Symbols on the Equipment

Symbols	Meaning
	<b>"Warning", which indicates a hazard</b> . Pay attention to personal injuries or death caused by operation steps, practice or incorrect implementation. The operation after the "warning" sign can only be performed when the conditions are fully understood and satisfied.
	<b>"Caution", which indicates a hazard.</b> Pay attention to the damaged or destroyed product caused by the operation steps, experiments or incorrect execution. Only after fully understanding and satisfying the indicated conditions, the operation after the "caution" mark can be performed
$\triangle$	<b>"Hint", which indicates skill or useful information.</b> Skills and useful information are marked as "Hint". It does not contain information that warns of dangerous or harmful features.
K	<b>"Garbage disposal", which indicates electrical and electronic waste.</b> This symbol is located on the product, in the instruction manual or on the packaging, indicating that the electrical and electronic equipment and its Materials can be reused based on their markings. By reusing old equipment materials and other forms of reuse, you can make a significant contribution to the environment
	<b>"Grounding", which indicates ground protection</b> The charger has the function of grounding protection. Once the ground fails or there is no grounding, the charger will report the fault and stop charging.



# **3 Product Parameters**

- It is suitable for all vehicles that meet SAE J1772 standards
- The output power is adjustable
- Charging by scanning the charging QR code or swiping the RFID card
- The charger supports the OCPP1.6J communication protocol, that is, the charger can be connected to the data service platform and management platform (cloud platform) of OCPP1.6J
- The charger can be normally used in indoor and outdoor environments with protection levels of Enclosure Type Rating NEMA Type 4
- The device has the following protection functions:
- Lightning protection
- Over-load protection
- Residual current protection
- Over-temperature protection (If the temperature is out of the maximum allowable value, the charger will automatically activate over-temperature protection (OTP) measures.)
- Grounding protection
- Over-voltage protection
- Under-voltage protection

# **3.1 Technical Specifications**

#### **3.1.1 Product Parameters**

Power rating	7.6kW	9.6 kW	11.5kW	12kW	19.2kW
Charger cable			5m ( 16.4 ft )		
Dimensions (H x L x W)	280 ×280 ×148	280 ×280 ×148 mm (11.0 ×11.0 ×5.8 inch)			
Weight	6.1 kg/13.45 lbs with 5m Charger Cable 7.5 kg/16.53 Charger Cable Charger Cable				
Installation	Wall-mounting Pole-mounting				
Standards and Compliance	UL 2231-1 UL 2231-2 UL 1998 UL 991 UL 2594 FCC Part 15 Subpart B:2020/ICES-003				



# 3.1.2 Working Environment

Operating ambient temperature	-30 to 50℃ (-22 to 122℉)
Relative humidity	5%-95% (No condensation)
Altitude	≤3000m (9800 ft)
Overvoltage Category	OVC III
Enclosure Type Rating	NEMA Туре 4
Personal Protection System	BI + CCID20 + GM/I

# 3.1.3 Input Parameters

Recommended cable for input terminal	90°C Copper wire cable 7.6kW with a wire size of 6AWG; 9.6kW with a wire size of 5AWG; 11.5kW&12kW with a wire size of 4AWG; 19.2kW with a wire size of 3AWG; It is recommended that adapter terminals are crimped on the power cable conductor	
Rated input voltage	208/240Vac	
Limitation of input power	7.6kW: maximum value of 32A 9.6kW: maximum value of 40A 11.5kW: maximum value of 48A 12kW: maximum value of 50A 19.2kW: maximum value of 80A	
Operating frequency	60Hz	
Parent device protection	The electrical protection devices and wire size used must comply with requirements of local codes and limitations of electrical installations. The parent circuit breaker must match the capacity of charging cable: circuit breaker: The circuit overcurrent protection must be sized at 125% of the rated current value per NEC Code, or local Authority Having Jurisdiction. For high outdoor lightning activity levels, it is recommended to equip each charger with a lightning arrester.	

# **3.1.4 Output Parameters of Chargers/Connection Method to Electric Vehicles**

Connection method to vehicles	Type 1 connector, which meets the standard SAE J1772
Output voltage	208/240 Vac
Maximum charging current (Rated 240V)	7.6kW: maximum value of 32A 9.6kW: maximum value of 40A 11.5kW: maximum value of 48A 12kW: maximum value of 50A 19.2kW: maximum value of 80A
Maximum output power	7.6/9.6/11.5/12/19.2kW
Stand-by power consumption	<3.6W

# 3.1.6 Charging and Access

Status indication	Indicated by LED lamp
Card reader	ISO/IEC 14443A&MIFARE Classic Optional: ISO/IEC 14443B, ISO/IEC 18003-3 ISO/IEC 18092, ISO/IEC 15693
Network communication	Cellular Network/ Ethernet/ Wi-Fi/Bluetooth5.0
Communication protocol	OCPP 1.6(JSON)
Interface	LCD Screen,Digital Screen optional

### **3.1.7 Network Communications**

#### 4G module

	GSM850	33dBm±TBD
	GSM 900	33dBm±TBD
	GSM 1800	30dBm±2dB
	GSM 1900	30dBm±2dB
	WCDMA FDD BdXIX	24dBm+1-3dB
	WCDMA FDD BdVI	24dBm+1-3dB
	WCDMA FDD BdV	24dBm+1-3dB
	WCDMA FDD BdVIII	24dBm+1-3dB
	WCDMA FDD BdIII	24dBm+1-3dB
	WCDMA FDD Bdll	24dBm+1-3dB
	WCDMA FDD BdIV	24dBm+1-3dB
	WCDMA FDD Bdl	24dBm+1-3dB
	LTE FDD Bd71	23dBm±2dB
	LTE FDD Bd12	23dBm±2dB
	LTE FDD Bd13	23dBm±2dB
	LTE FDD Bd14	23dBm±2dB
EIRP	LTE FDD Bd28	23dBm+2/-2.5dB
	LTE FDD Bd26	23dBm±2dB
	LTE FDD Bd18	23dBm±2dB
	LTE FDD Bd19	23dBm±2dB
	LTE FDD Bd20	23dBm±2dB
	LTE FDD Bd5	23dBm±2dB
	LTE FDD Bd8	23dBm±2dB
	LTE FDD Bd3	23dBm±2dB
	LTE FDD Bd2	23dBm±2dB
	LTE FDD Bd25	23dBm±2dB
	LTE FDD Bd1	23dBm±2dB
	LTE FDD Bd4	23dBm±2dB
	LTE FDD Bd66	23dBm±2dB
	LTE FDD Bd7	23dBm±2dB
	LTE FDD Bd40	23dBm±2dB
	LTE FDD Bd41	23dBm±2dB
	LTE FDD Bd38	23dBm±2dB

Version 1

#### Wi-Fi module



Standard	2.4G: IEEE802.11 b/g/n radio 5G: IEEE802.11 a/n/ac radio
Frequency	WLAN: 2.4G: 2412~2484MHz 5G: 5470~5725MHz,5725~5850 MHz,
Transmit power	18dBm (Maximum) 12dBm (Minimum)
Profiles	WIFI-AP (access point), WIFI-Station

Bluetooth module (Function reserved for development)

Standard	Bluetooth 5.0
Frequency range	2402~2480MHz
Output power	+10dBm

# Star Charge

#### 3.1.8 Model AC XXXX AN 030 X Y Z blank,0-99: Just slight difference in appearance 04: RFID+4G 00: Nothing 01: RFID 05: Buletooth+Wifi 02: RFID+Buletooth+Wifi 06: Buletooth+Wifi+4G 03: RFID+Buletooth+Wifi+4G 00: No display, 5m(16.4ft) cable 09: With plug, no display, 5m(16.4ft) cable 01: No display, 7.5m(24.6ft) cable 10: With plug, no display, 7.5m(24.6ft) cable 02: No display, 10m(32.8ft) cable 11: With plug, no display, 10m(32.8ft) cable 03: Digital screen, 5m(16.4ft) cable 12: With plug, Digital screen, 5m(16.4ft) cable 04: Digital screen, 7.5m(24.6ft) cable 13: With plug, Digital screen, 7.5m(24.6ft) cable 05: Digital screen, 10m(32.8ft) cable 14: With plug, Digital screen, 10m(32.8ft) cable 06: LCD screen, 5m(16.4ft) cable 15: With plug, LCD screen, 5m(16.4ft) cable 07: LCD screen, 7.5m(24.6ft) cable 16: With plug, LCD screen, 7.5m(24.6ft) cable 08: LCD screen, 10m(32.8ft) cable 17: With plug, LCD screen, 10m(32.8ft) cable Artemis UL series **UL** Standard 0076: 7.6kW 0115: 11.5kW 0192: 19.2kW 0096: 9.6kW 0120: 12kW AC charger

#### 3.1.9 Output Power Adjustment

Support output power adjustable (Maximum output current set by rotary switch).

Rotary switch Power rate	0	1	2	3	4	5	6	7	8	9
7.6kW	32A	12A	16A	20A	24A	28A	32A	32A	32A	32A
Rotary switch Power rate	A	В	с	D	E	F				
7.6kW	32A	32A	32A	32A	32A	32A				

Rotary switch Power rate	0	1	2	3	4	5	6	7	8	9
9.6kW	40A	12A	16A	20A	24A	28A	32A	36A	40A	40A
Rotary switch Power rate	А	В	С	D	Е	F				
9.6kW	40A	40A	40A	40A	40A	40A				

Rotary switch Power rate	0	1	2	3	4	5	6	7	8	9
11.5kW	48A	12A	16A	20A	24A	28A	32A	36A	40A	48A
Rotary switch Power rate	А	В	с	D	Е	F				
11.5kW	48A	48A	48A	48A	48A	48A				
Rotary	0	1	2	3	4	5	6	7	8	9



19.2kW

56A

64A

72A

80A

80A

80A

switch Power rate										
12kW	50A	12A	16A	20A	24A	28A	32A	36A	40A	48A
Rotary switch Power rate	А	В	С	D	E	F				
12kW	50A	50A	50A	50A	50A	50A				
Rotary switch Power rate	0	1	2	3	4	5	6	7	8	9
19.2kW	80A	12A	16A	20A	24A	28A	32A	36A	40A	48A
Rotary switch Power rate	А	В	с	D	E	F				



# **3.2 Introduction of Appearance**

#### 3.2.1 Wall-mounted



Figure 3-1 Artemis – wall-mounted

- [A]——Cable winding through area
- [B]——RFID card swiping area
- [C]—LED status indicator
- [D]——Position of charging connector
- [E]——Scan charging QR code

When charger is not used, the charging cable should be rolled up and put back into the cable winding through area in position [A] as indicated in figure 3-1, and the charging connector should be inserted into the designated position [D] for safe storage.



#### 3.2.2 Pole-mounted



Figure 3-2 Artemis – pole-mounted

- [A]——Cable winding through area
- [B]——RFID card swiping area
- [C]—LED status indicator
- [D]——Position of charging connector
- [E]——Scan charging QR code
- [F]——Cable winding bracket

When charger is not used, the charging cable should be rolled up and put back into the cable winding through area in position [A] or place on the bracket [F] as indicated in figure 3-2, and the charging connector should be inserted into the designated position [F] for safe storage.

# **3.3 LED Status Indicators**

Artemis chargers are equipped with different LED colors to represent various working states.

LED	LED indicator color		Charging Status
_	Green	Slow flash	Connector not inserted,standby for charging
	Blue	Constant	Cable inserted
	Blue	Quick flash	Reading the RFID card
_	Blue	Breathing	Charging in session
Blue	Blue	Normal flash	Suspending
—	Red	Constant/Flash	Fault
	White	Constant	Powered on and wait for startup
	Yellow	Constant	Connector not inserted, waiting for OCPP startup
	Yellow	Flash	Connector inserted, waiting for OCPP startup





# **4 Installation Instructions**

# 4.1 Safety

#### 4.1.1 General Rules of Safety

- Please follow the instructions in this chapter, and familiarize yourself with all safety instructions and regulations.
- The installer must always ensure that the installation of the charger complies with local regulations.



# Attention

Install it in accordance with the standards and regulations of the region where the equipment is located. These tables are made based on the actual operation of the charging site, provided all prerequisites are met.

#### 4.1.2 Electrical Safety

- The installation, maintenance and repair of this product may only be performed by a trained electrician;
- Improper installation or maintenance may be dangerous to users of this product;
- Any installation and maintenance operations must be carried out under the condition of power failure;
- All parts of the product cannot be repaired by the user. Do not attempt to repair the charger yourself;
- Do not install this product in potentially explosive environments, areas with high electromagnetic radiation and areas susceptible to flooding;
- Before installing this product, make sure that the main power supply has been disconnected;
- Do not use adapters or converting adapters;
- Do not use cable extension kits;
- Make sure that the power cable connected to the charger is led out from the special circuit breaker in the distribution box. The circuit breaker must match the capacity of the charging cable used.
- Where underground cable is to be installed for reticulation of electricity supply from the main intake switchboard to individual chargers in public area, care shall be taken to prevent possible damage to existing underground cables or services.
- The electricity transmission licensee shall be consulted prior to the commencement of any earthworks (for the purpose of installing structure, cables, earthing system, etc.) to prevent damage to any underground electricity cables under the management of the electricity transmission licensee.
- This device should be supervised when used around children.
- Do not put fingers into the electric vehicle connector.

- DANGER: RISK OF SHOCK. Turn off the circuit breaker to the 240 V socket. Do not restore power to the socket until installation is complete. Failure to follow these instructions could result in shock or electrocution.
- WARNING: In areas with frequent thunderstorms, add surge protection at the service panel for all circuits.
   Ensure all power and ground connections, especially those at the breaker and bus bar, are clean and tight. Remove all oxide from all conductors and terminals before connecting wiring.
- WARNING: The circuit must be rated for 125% of the maximum load.



### Warning

Prevent incorrect operation steps, practices or execution that may cause personal injury or death.

#### 4.1.3 Requirements for Installation Personnel

Only authorized technicians may install and maintain the product, and also they should possess the following qualifications:

- Understand and follow the safety instructions and sections related to product installation in this Manual;
- Understand and abide by governing local, national and international laws and regulations;
- Be able to identify the possible hazards of the product and to take necessary measures to protect personal and property safety.

#### **4.1.4 Safety Protection Measures**

- Protective measures (PPE): Please wear personal protective equipment (PPE) when conducting installation work.
- Please wear insulating gloves when installing wires and electrical components to avoid damage arising from electrostatic discharge;
- Please wear the anti-static safety shoes of Level S3;
- Please wear goggles while drilling a hole to prevent dust or other particles from getting into eyes;
- Please wear safety earmuffs while drilling a hole to protect ears from noise.



# 4.2 Preparation for Installation

#### 4.2.1 Installation Tools

No.	Туре	Name	Purpose	Picture
1	Cable processing	Electrician knife	Stripping of insulating layers	
2	Cable processing	Wire stripping pliers	Stripping of insulating layers	
3	Cable processing	Crimping pliers	Crimping of pin terminals	
4	Cable processing	Crimping pliers	Crimping of ring terminals	
5	Network cable processing	RJ45 Network crimping pliers	Crimping the RJ45 connector	RJ45
6	Tool for installation	Percussion drill	Drilling	
7	Tool for installation	Combination wrench (full set)	Installing and removing nuts	<u>j=0</u>
8	Tool for installation	Screwdriver (PH2)	Installing and removing screws	
9	Tool for installation	Screwdriver (SL2)	Installing and removing screws	▣
10	Tool for installation	Torx screwdriver (full set)	Installing and removing screws	•
11	Tool for installation	Electric torque screwdriver (with full set of PH screw bit, Torx screw bit and SL screw bit)	Installing and removing screws	
12	Tool for installation	Hammer	Knocking	
13	Measuring instrument	Spirit level	Measurement of levelness	0 UD 0
14	Measuring instrument	Tape measure	Distance measurement	$\bigcirc$
15	Marking tools	Pencil	Marking	



Note: The above tools shall be selected based on the actual situations on site.

#### 4.2.2 Installation Environment

The environmental conditions listed in the following table should be met while selecting a installation site for

the product.

Environmental condition	Suggested range
Ambient temperature	-30 to 50°C ( -22 to 122°F)
Altitude	≤3000m (9800 ft)
Moisture	5% $\sim$ 95%RH, no condensation inside the product;
Degree of dust	≤1mg/m <sup>3</sup>
Corrosive substances	No pollutants, such as salt, acid, smoke, etc.
Vibration	≤1.5mm/s²
Insects, pests, vermins, termites	None
Mold	None
Damp	Do not perform installation operations outdoor on rainy days
Fire prevention	No flammable substances on the top and bottom of cabinet

#### 4.2.3 Power Supply Requirements

#### 4.2.3.1 Power Supply Requirements of Product

Rated input voltage: 208/240Vac (+/-10%);

- Operating frequency of the system: 60Hz;
- Install a plug-in or hardwired circuit:

•For a plug-in installation, wire the circuit with the appropriate 14-50 socket. When installing the socket, the grounding point of the socket should be in the upper position.



- Affix the label with the appropriate rating to the circuit in the panel.
- Turn off power to the circuit at the panel before proceeding.
- Determine the desired charging amperage with the homeowner. Choose based on the availability of space or electrical capacity in the panel, the desired speed of charging, and whether the homeowner prefers a hardwired or plug-in installation. Consult all applicable codes for breaker and wire sizing requirements.



Circuit Rating	Max load	Plug or hardwire
100A	80A	Hardwire
90A	72A	Hardwire
80A	64A	Hardwire
70A	50A	Hardwire
60A	48A	Hardwire
50A	40A	Both
40A	32A	Both
35A	28A	Both
30A	24A	Both
25A	20A	Both
20A	16A	Both
15A	12A	Both

- Determine the plug type purchased by the homeowner. It is either a NEMA 14-50 type plug.
- Determine if the desired circuit rating requires a hardwired circuit.
- Ensure the electrical panel supports a 240 V dedicated circuit with a new, dedicated, non-GFCI two-pole circuit breaker, in accordance with local codes and ordinances.

**Note**: If local codes require a GFCI breaker for plug-in installation, StarCharge recommends a hardwire installation. We do not recommend using a GFCI breaker as the Artemis has charging circuit interrupting device (CCID) protection. Using a GFCI breaker in the panel can cause nuisance tripping.

• Follow all applicable codes and ordinances, and pull a permit for completing the electrical work as required.

#### 4.2.3.2 Grounding System

- TN system
- TT system
- IT system

#### 4.2.3.3 Electrical System Diagram

Diagram of electrical system of product:



Fig. 4-1 Electrical system

#### 4.2.3.4 List of Cables



List of cables for wall mount:

Cable Name	Model	Remarks
Inlet power cable	7.6kW: 3*6AWG or 2*6AWG+8AWG(PE) copper core cable 9.6kW: 2*5AWG+8AWG(PE) copper core cable 11.5kW&12kW: 2*4AWG+8AWG(PE) copper core cable 19.2kW: 2*3AWG+8AWG(PE) copper core cable	It is recommended to use a flexible cables, Flexible cables require crimping terminals; Hard wires do not require
Network cable	CAT5	Use only when Ethernet communication is required

#### **4.3 Installation Steps**

#### 4.3.1 Unpacking and Unpacking Inspection

#### 4.3.1.1 Product Packing List

No.	Equipment	Quantity	Content
	Charger	1	Positioning cardboard*1 Key*1
	Accessory bag	1	M6*50 self-tapping screw*5 (1 for standby) $\Phi$ 8*40 plastic expansion solenoid*5 (1 for standby)
1	RFID card (Only for RFID version)	2	/
	Accompanying documents	1	Factory report*1 Certificate*1 User manual*1
2	Pole (optional)	1	Pole*1 M6*16 Cross screw*7(1 for standby) M4*14 Torx screw*3 (1 for standby) M3*10 Torx screw*3 (1 for standby) M10*120 Expansion screw*4 Mounting accessory 1*1 Cable cover*1 Trim cover*2

#### 4.3.1.2 Unpacking Inspection

- (1) Check the packing list number and equipment quantity.
- (2) Check the information on the nameplate of equipment.
- (3) Check whether the accompanying documents are complete.
- (4) Check whether accessories are complete.
- (5) Check whether the equipment has good appearance and whether it is deformed, bumped or stained.

#### 4.3.2 Installation

#### 4.3.2.1 Wall mounting

The general assembly drawing is shown in Fig. 4-2.



Fig. 4-2 General assembly drawing of wall-mounted charger

- Installation
- 1. Please confirm and mark the installation position of the charger. The central position of the charger should be at a suitable position from the ground, as shown in Fig. 4-3.



Fig. 4-3 Wall mounting height

2. Use a Φ8 drill bit to make 4 holes with 40mm deep on the wall, and insert 4 Φ 8\*60 expansion tubes, then put two self-tapping screws into the upper two expansion tubes (note: the top two self-tapping screws flange end distance is reserved about 6mm distance from the wall, which can be meassured or calibrated by the auxiliary key for cover opening). as shown in Fig. 4-4 and Fig. 4-5.



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Fig. 4-4 Mark mounting holes

Fig. 4-5 Installing expansion screws

3. Use the key to open the decorative cover of the charger, hang the charger on the top two extended screws, and insert the two self-tapping screws at the bottom through the front screw mounting hole of the charger to fix the charger, as shown in Fig. 4-6 and Fig. 4-7.





Fig. 4-7 Installing the charger

4. Remove the 9 screws connecting the front cover and the rear cover, than open the front cover and prepare for wiring, as shown in Fig. 4-8. Remove the inlet hole plug before wiring, as shown in Fig. 4-9. (Please read the installation tips on the protective cover sticker carefully)



Fig. 4-8 Remove the front cover

Fig. 4-9 Remove the inlet hole plug



5. Power supply must be installed per NEC or local AHJ requirements, by a certified electrician.Please read the user manual carefully before wiring.

The inlet hole can be installed with one inch wave tube joints, which need to be prepared before installation. After the wiring is completed, select a suitable wire clamp to fix inlet cables. as shown in Fig. 4-10 and 4-11.



Refer to the user manual to select the appropriate power cables based on different powers.

#### Fig. 4-10 Wire



Before attaching the charger, pull each wire to double check that they are connected properly.

4

It is recommended to follow the existing color codes used in the installation. Depending on national standards, the colors of the cables can vary from the illustrations. The illustrations in this manual follow the UL-2594 standard.



Before turning on the power, make sure the wires are properly connected and tightened. Test this by pulling on each wire.

**Notice:** when the incoming cable is affected by the surge or wrong wiring sequence, the device power down for protection. Searching the support from the professional for the wiring sequence checking or other abnormal interference. Power on after above checking finished. Seek professional help if experiencing electrical troubles.

Insert the network cable into the Ethernet cable port and install the SIM card, as shown in Fig. 4-12 and Fig. 4-13.





Note: You can adjust the power of the charger by the rotary switch (refer to table 3.1.9).

Check that the sealing rubber strip of the wiring bin is properly installed, reinstall the charging connector holder, tighten the screws, install the decorative cover, and insert the charging connector into the connector holder, as shown in Fig. 4-14.



Fig. 4-14 Finishing the installation



#### 4.3.2.2 Installation Guide for Pole

The general assembly drawing is shown in Fig. 4-15.



Fig. 4-15 Fole-mounted assembly

#### Step 1: Install the Power cable

Before install the pole, remove the trim cover and cable cover, and place the pole flat on the ground, put the power cable through the cable inlet hole and the cable outlet hole, as shown in Fig. 4-16.



Fig. 4-16 Pole threading

This pole supports bottom and side incoming cables. When entering from the side, it is necessary to remove the cable fixing plate and rotate it 90 degrees counterclockwise then installing it on the column bottom plate. The cable fixing plate support the installation of wave tube joints, as shown in Fig. 4-17.



Fig. 4-17



#### Step2: Install the pole

Fix the pole to the ground using M10\*120 expansion screws, and tighten the grounding nut M6, as shown in Fig. 4-18.



Fig. 4-18 Install the pole

#### Step3: Install the charger

Remove the decorative cover of the charger with the key, hang the charger on the screws above the pole, and then drive two screws from the front to fix the charger, as shown in Fig. 4-19.



Fig. 4-19 Install the charger

Remove the 9 screws connecting the front cover and rear housing, then open the front cover and prepare for wiring, as shown in Fig. 4-20. Remove the inlet hole plug before wiring, as shown in Fig. 4-21. (Please read the installation tips on the protective cover sticker carefully)



Fig. 4-20 Remove the front cover

Fig. 4-21 Remove the inlet hole plug

#### Step4: Wire

Power supply must be installed per NEC or local AHJ requirements, by a certified electrician.Please read the user 's manual carefully before wiring.

The inlet hole can be installed with one inch wave tube joints, which need to be prepared before installation. After the wiring is completed, select a suitable wire clamp to fix inlet cables. as shown in Fig. 4-22 and 4-23.



Refer to the user manual to select the appropriate power cables based on different powers.

Fig. 4-22 Wire





#### Step5: Complete the installation

After wiring, replace the front cover, and tighten the screws connecting the front cover and rear housings, then replace the decorative cover. Finally, replace the cable cover and trim cover, check after installation, as shown in Fig. 4-24.



Fig. 4-24 Complete the installation

#### 4.4 Inspection after Installation

#### 4.4.1 Sitting Clearance after Mounting

- (1) Handle all shipping and packaging materials in accordance with local laws and regulations;
- (2) Remove the rubbish and debris around the charger. Do not leave tools on site or in the charger;
- (3) Clean the charger with an anti-static cloth and remove the dust on the surface.

#### 4.4.2 Inspection

- (1) Check whether the base is secure and sealed.
- (2) Check whether the parts inside the device are fixed reliably.
- (3) Use a multimeter to check whether the electrical connection and wiring are correct, complete and secure.
- (4) Check whether the protection level of device meets the requirements, especially the cable inlet at the

bottom of charger.

(5) Check the appearance, marking, completeness and cleanliness.

# **5** Commissioning Instructions

# 5.1 Checks before Switching on

- Commissioning tools: Insulated gloves, multimeter, network cable, laptop.
- Measure the insulation resistance (IR), this needs to be  $>1M\Omega$ .
- Check if all screws and connections are securely fastened.
- Check if all phase wires are properly connected, and have no shorts to ground, or phase-to-phase.
- Check if the data cables are properly wired.
- Measure if the voltage on the applied circuit breaker is within 10% of rated voltage between the phase(s) and neutral, before turning on the protection device of the charger.

# 5.2 Switching on the Charger

• Switching on the power to the circuit on which the charger is installed, the charger starts up and the LED will light green (flash with cycle time 4s).

# **5.3 Network Connection Method**

There are three network connection methods for charger (Data traffic, Wi-Fi and Ethernet), and you can choose any one.

**Note:** If Ethernet communication is required, it is necessary to connect the network cable. If the network cable is not connected during installation, it is recommended to configure the charger by APP configuration method.

# **5.4 Configuration of Charger**

# 5.4.1 Web Configuration of Connecting Network Cable

### 5.4.1.1 Login into Web Configuration

#### Via Ethernet cable (A laptop with a network port and an Ethernet cable needed)

#### This can be configured using all web browsers.

- a) First, please refer to the product instructions to correctly connect the power supply.
- b) Once you've connected the cable, click the Network icon in the bottom right corner of your Windows desktop, and then click "Network".
- c) Then click "Network".
- d) Click "edit".
- e) Change the IP Settings to manual.
- f) Set the IP address to 192.168.88.6, Subnet Prefix Length to 24, gateway to 192.168.88.206 as following screenshot shows. The default subnet mask is 255.255.255.0 not need to set it, then save.
- g) Using Chrome browser and visit <u>http://192.168.88.206</u>.
- h) After launching, put in user name "xxcd" and password "28912891".
- i) If you cannot access the web page, it must be the IP address in the previous step is not set correctly or the network cable is not plugged in properly. Please check it.



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命 网络

#### Network profile Edit IP settings Public Your PC is hidden from other devices on the network and can't be used for printer and file sharing. Manual Δ O Private IPv4 For a network you trust, such as at home or work. Your PC is discoverable and can be used for printer and file sharing if you set it up. On On Configure firewall and security settings IP address 192.168.88.6 Metered connection Subnet prefix length If you have a limited data plan and want more control over data usage, make this connection a metered network. Some apps might work differently to reduce data usage when you're connected to this network. 24 5 Gateway Set as metered connection 192.168.88.206 Off If you set a data limit, Windows will set the metered connection setting for you to help you stay under your limit. Preferred DNS Set a data limit to help control data usage on this network Alternate DNS IP settings IP assignment: Manual IPv4 address: 192.168.88.6 IPv4 subnet prefix length 24 192.168.88.206 IPv6 IPv4 gateway Cancel Edit 3

5.4.1.1(1)



5.4.1.1(2)

#### Use WiFi AP (need a cell phone or laptop. Take cell phones for example)

- a) The Artemis AC wallbox support WiFi. The default work mode of the Artemis AC wallbox is AP. After the wallbox is powered on for 1 minute, connect the hot spot with your mobile phone. The hotspot SSID is Artemis and the password is Wb123456789.
- b) Visit http://192.168.1.136 via your phone's browser.
- c) Then fill in user name "xxcd" and password "28912891" and click "Sign me in".
- d) Now we have successfully entered the configuration page.

Note: It should be noted that some mobile phones will give priority to using mobile data to connect to the Internet when WiFi is unable to connect to the Internet, so that they can't access the web page, so they can access it normally by turning off mobile data.





6.7KB/s 🖉 🏵 📶 😤 💷 🕯



Star Charge

5.4.1.1(5)

16:24 📵

Star Charge	
Quick Setup	
Home / Quick Setup	
ChargePoint Id 122233 Submit Refresh	
OCPP Setting IP or Domain Name 36.153.57.202 SSL Enable disable Port 3400 Path /steve/websocket/CentralSN	v stem§
C₁ StarCharge 5.4.1.1(6)	0 =



#### 5.4.1.2 Change Language

You can switch between English and Chinese in the upper right corner of the web page.

	Language 👻
English	
简体中文	

5.4.1.2(1)

#### 5.4.1.3 Connect to the Network

- As shown in the screenshot below, you can change the priority of the networking mode, and the system will connect according to this priority. Do not check this setting if the device uses only one of these methods for networking.
- b) Before you set the networking mode, you need to know which networking mode you want to use first, and then follow the method in the screenshot to set your preferred networking priority. If you want to give priority to WiFi, and you have a SIM card plugged in, if the SIM card has a higher priority, you can't give priority to WiFi.
- c) It should be noted that every time the network connection mode is changed or the network configuration is changed, the charging point system will be restarted and the network connection will be disconnected.

uick Setup	Home / Setting / Software Setting						
lardware Setting	New version of	notwork	Cattings				
oftware Setting			settings				
Charging Status	Network priority se	election					
Upload and download	Enable workmode     Priority No.1	2	Priority No.2		Priority No.3		
	Wlan	~	Eth0	~	4G	~	
						3 Submit	Refresh
		Į	5.4.1.3(1)			5	

#### Use SIM card

- a) Insert the SIM card before powering on the device. After entering the web page and setting your networking priorities, check the 4G signal and connection status according to "Status Check".
- b) In some countries or regions, when the 4G card is used for network connection, APN must be set. The APN can be obtained from the local network carrier. The following figure shows how to set APN.
  - i. Click "Software Setting".
  - ii. Choose "Enable modification" in "4G configuration".
  - iii. Fill in corresponding ANP data.
  - iv. Click "Submit".
- c) If no signal is displayed on the 4G card, check whether the 4G card is properly inserted or available. Then restart the device and repeat the preceding procedure.


User	Manual	- Artemis
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Dad Enable modifi	ation		
2			Submit Refresh
			Submit Reliesh
			Submit Refresh
			Submit Refresh
4G configu	ration		Submit Refresh
4G configu	ration		Submit Refresh
			Submit Refresh
		Рем	Submit Refresh Pin
Doad C Enable modi	cation	PEW	
oad 🕑 Enable modi	cation	Psw	



#### Use WiFi STA

- a) WiFi connection has two connection modes, one is the above factory default AP mode and the other is STA mode. In AP mode, charging points are configured with WiFi hotspots connected by other devices, but the charging points cannot be connected to the Internet in this way. In STA mode, charging points are connected to networked hotspots such as routers, which can access the Internet and communicate with OCPP back-end platforms.
- b) Once you've set your networking priorities correctly, make sure the AP band of WiFi you want to connect to is 2.4G band, if not change to it. Then choose one of open, wpa, wpa2 or wep encryption methods.
- c) Click on "Software Setting".
- d) Check "WiFi enable".
- e) Set "Mode selecting" to STA.
- f) Fill in the correct SSID, key and the same encryption method as your WiFi connection.
- g) Click "Submit".
- h) Then refresh the web page to see "Charging status" according to "Status Check".



5.4.1.3(3)



User Manual - Arter	nis
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Quick Setup	Wifi configuration			
Hardware Setting	Wifi enable 2			
Software Setting	Mode selection			
Charging Status	sta <u>3</u> ·	Psw	Channel	Encryption
Upload and download	xxj	12348765	0	v wpa2 v
	Dhcpc enable	4		
			5 Subm	it Refresh
Quick Setup	Charging Status			
Hardware Setting	3			
Software Setting	Home / Diagnosis / Charging Status			
Charging Status				
Upload and download	Network state		· · · · · · · · · · · · · · · · · · ·	
	Link status Online	Strength of 4G(CSQ)	2 Network card	Wireless
	State of OCPP			
	Background connection Online			



#### Use Ethernet cable

- a) After you have successfully set the priority of networking mode, connect the router and charging point with a network cable and check the network connection status according to the "status check".
- b) If the network connection fails, refresh the web page or check the network cable connection and restart the charging point.

#### Change the default WiFi AP mode Settings

- a) If you want to change the default WiFi Settings (which are generally not recommended), you can do this.
- b) Click "Software Setting".
- c) Select "wifi enable".
- d) Select AP mode and fill in the information you want to change, such as hotspot name, password, encryption level, etc. Note that the channel cannot be 0.
- e) Disable DHCPC, fill in the information shown, and click "Submit" next to "gateway".
- f) Enable DHCPD, fill in the DHCPD configuration information as shown in the figure, and click "Submit" next to "DNS2" to complete the AP configuration.
- g) It is once again reminded that after the WiFi AP configuration is modified, the hotspot information of charging point will be changed. If the Settings are incorrect or the configuration is forgotten, WiFi will not be connected to the configuration page. If you can access the configuration page only through WiFi, exercise caution.

			Submit	Refresh
ing	с. с:			
ng <b>1</b>	fi configuration			
JS 🖉	Wifi enable 2			
	ode selection			
	AP	. 3		
SS	ID	Psw D	Channel	Encryption
	Aurora	Wb123456789	1 ~	wpa2 🗸
0	Dhcpc enable			
ip		netmask /	gateway	
	192.168.1.136	255.255.255.0	192.168.1.136	
			Submit	Refresh
	1000 C		5	
DH	ICPD configuration		5	
	6		5	
		Terminate address		Category
Ca Sta	Dhcpd enable	Terminate address	Netmask	Gateway
Sta 1	Dhcpd enable art address 192.168.1.200	192.168.1.250	Netmask 255.255.255.0	Gateway 192,168.1.136
Ste	Dhcpd enable art address 192.168.1.200 NS1	192.168.1.250 DNS2	Netmask	
Ste	Dhcpd enable art address 192.168.1.200	192.168.1.250	Netmask 255.255.255.0	
Ste	Dhcpd enable art address 192.168.1.200 NS1	192.168.1.250 DNS2	Netmask 255.255.0 7	192.168.1.136
Ste	Dhcpd enable art address 192.168.1.200 NS1	192.168.1.250 DNS2	Netmask 255.255.255.0	192.168.1.136

#### 5.4.1.4 OCPP Connection Setting

- a) OCPP is a communication protocol between charge points and back-end platforms. Charge points and platforms of different manufacturers that conform to this protocol can communicate with each other.
- b) The platform can connect multiple charging points to manage charging points, including information viewing, remote upgrade, user authentication, remote control and so on.
- c) If you want to connect to the OCPP platform, your charge point must be able to connect to the network, please refer to title 2, and then refer to the following method to set up the OCPP.

#### Use http/ws

- a) Click "Software Setting".
- b) Fill corresponding OCPP address in "Setting". If website of OCPP back-end platform is no write port, the default HTTP/WS port is 80, and the default HTTPS/WSS port is 43. For example:

http://www.osb-prefytuyu.com:80/miugigyu-ws/ocpp16

URL: osb-prefytuyu.com

Path: /miugigyu-ws/ocpp16

Port: 80

http://36.153.57.202:3400/steve/manager/signin

URL: 36.153.57.202

Path: /steve/manager/signin

Port: 3400

- c) "SSL\_ON" set to 0.
- d) Click "Submit", then check the connection status of OCPP back-end platform by referring to "Status Check". If online is displayed, the connection is successful.

Quick Setup	OCPP Part			
Hardware Setting	Setting			
Software Setting	URL	Path		
Charging Status				
Upload and download	Port	SSL_ON	3	
	Authorization key	2	Submit	Refrest

5.4.1.4(1)

#### Use https/wss

- a) Click "Software Setting".
- b) Click button "Brows" below "Certificate Import", then choose the CA certificate file.
- c) Click "Submit" next to "Certificate Import".
- d) Fill corresponding OCPP address in "Setting", For example:

https://blog.csdn.net/luo\_boke/article/details/114220450

URL: blog.csdn.net

Path: /luo\_boke/article/details/114220450

Port: 43

e) "SSL\_ON" set to "1".

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f) Click "Submit".

Quick Setup	OCPP Part			
Hardware Setting	Setting			
Software Setting	URL	Path		_
Charging Status				
Upload and download	Port	SSL_ON	5	
	Authorization key	4	Subm	nit Refresh
	Certificate Import 2		3 Subm	iit

5.4.1.4(2)

#### Charge point authentication

- a) For "HTTP Basic authentication, the username is equal to the charge point identity.
- b) Fill in password in "Authentication Key".
- c) Click "Submit".

Quick Setup	OCPP Part				
Hardware Setting	Setting				
Software Setting	URL	Path			
Charging Status					
Upload and download	Port	SSL_ON			
	Authorization key			Submit	Refresh
	Certificate Import				
	Brows			Submit	

5.4.1.4(3)

#### 5.4.1.5 Charge Point ID Setting

- a) Click "Hardware Setting".
- b) Fill in "Charge Point Id".
- c) Click "Submit".

Quick Setup	Home / Setting / Hardware Setting			
Hardware Setting				
Software Setting	Identification			
Charging Status	ChargePoint Id	Group Number		
Upload and download	122233 2	0		
	Evse Id(Please submit any changes immediately	ì	2	
	1			
			Submit	Refresh
			·	

5.4.1.5(1)

#### 5.4.1.6 Status Check

- a) Choose "Charging Status"
- b) arrows 1 refers to whether the network connection is normal.
- c) arrows 2 refers to the current 4G signal status (0-31).
- d) arrows 3 refers to what kind of network is currently used (4G, WiFi, Ethernet).
- e) arrows 4 refers to whether connect to OCPP backend currently.



Quick Setup	Charging Status			
Hardware Setting				
Software Setting	Home / Diagnosis / Charging Status			
Charging Status 1				
Upload and download	Network state			
	Link status Opline	Strength of 4G(CSQ) 21	Network card	4G network
	2	3		4
	State of OCPP			
	Background connection Online 5			

5.4.1.6(1)

#### 5.4.1.7 Firmware Upload

- Click "Upload and download" a)
- b) Click button "Brows" below "UBI firmware upload", then choose the corresponding firmware named "firmware.zip"
- Click "Submit". The "success" pop up after several seconds, which means the firmware successfully c) uploaded and the firmware is upgrading now.
- d) It will last about 5-10 minutes for upgrading. During the update process, the charging point will restart and the network connection will be disconnected. You can try to refresh the page of the web configuration and check the version information using the following method after you enter the web page. If the version number changes, the firmware upgrade is complete.

oad and download 1	UBI firmware upload	
	Brows	3
	2	Submit



## Attention

If need conduct upgrading or downgrading on the firmware of charger, please contat with Star Charge engineer for official corresponding versionn before proceeding.

5.4.1.8 RFID

- a) Click "Software Setting".
- b) Select the "card type". There are three options: Billing card, Stat Stop card and Local PnC("Plug and Charge" which means charging when connected with EVSE).
- Select whether to go through the OCPP background during local startup. c)
- Click Submit. d)

	3400	0	
uick Setup	Authorization key		Submit Refresh
ardware Setting			
oftware Setting 1	Certificate Import		
harging Status	Brows		Submit
pload and download			
	Functions Enable		
	Card Type	Local startup whether to go ocpp background	4
	Billing card 2	• No <b>2</b> •	4
	Whether to open the qr code process	Whether to transfer private data	Submit Refresh
	No	v No v	Submit Refresh

5.4.1.8(1)

#### 5.4.1.9 Get Version

- a) Click "Software Setting".
- b) Click "Refresh" in "Get version".
- c) The version shows in Display Frame.

Software Setting	Certificate Import		
Charging Status	Brows		Submit
Upload and download			
	Functions Enable		
	Card Type	Local startup whether to go ocpp background	
	Billing card 🗸	No Y	
	Whether to open the qr code process	Whether to transfer private data	Submit Refresh
	No	No	
	Time Zone And DST Setting		
	UTC Time Setting		
	Similar to 2019-07-01 12:45:45		
	2021-10-25 08:50:55		Submit Refresh
	Get version		2
	Version		
	1.0.0.5b106		Refresh

5.4.1.9(1)

## 5.4.1.10 Time Zone, UTC Time, DST Setting

Quick Setup								
Hardware Setting	Functions Enable							
Software Setting	Card Type		Local startup whet	ther to go ocpp background	d			
Charging Status	Billing card Whether to open the gr code process	~	No Whether to transfe	er private data	~			
Upload and download	No	~	No	•	~		Submit	Refresh
	Enable modification     Time Zone     UTC     Beginning month			Beginning day	~	Beginning hour		
	×		~	Sunday	~	×		
	Ending month	Ending week	~	Ending day Sunday	~	Ending hour	Submit	Refresh
	UTC Time Setting Similar to 2019-07-01 12:45:45 2021-10-25 09:12:25						Submit	Refresh

5.4.1.10(1)

#### Time Zone setting

- a) Click "Software Setting"
- b) Select the corresponding time zone in drop-down box named "Time Zone"
- c) If no need for Summer time setting, just need to set "DST Enable" as Disable
- d) Click "submit".

#### Summer time setting

- a) After setting the time zone, set "DST enable" to enable
- b) Set the start time and end time of daylight saving time.
- c) Click "submit".
- d) 10.3 UTC time setting
- e) This setting is used for backend timing when OCPP backend is not connected. At this time, when using manual calibration, enter the time in the format prompted.
- f) Click "submit"





#### 5.4.1.11 Download Log File

- a) Choose "Upload and download"
- b) Set the date of the log which you need to download in "Log Download"
- c) Click "Download"

Quick Setup	Log Downl	oad					
Hardware Setting	Select Date						
Software Setting	Year	~	Month	*	Day	~	2
Charging Status							
Upload and download							
<u> </u>	www.starcharge.com						



#### 5.4.1.12 User Set

Click "User Set" in the upper right corner of the web page to enter the user information setting interface or log out.

After the user Settings page is displayed, you can change the user name and password (not recommend to change the user name and password). After entering the information, click Submit to complete the modification.

	□ 阅读清里
Language	
t⊕Logout	
5.4.1	12(1)
User Set	
Home / Setting / User Set	
Change username	Change password
Please input new username New Name 3	Please input new password New Password
Submit Refresh	Please input new password again 5
4 www.starcharge.com	Submit Refresh
5.4.1	

Star Charge



## **6 Instructions for Charging**

## 6.1 Activation

#### **RFID card**

• Please find the RFID card in the package of charger.

#### **Special charging App**

- Please download the special charging App from the location provided by your dealer or service provider.
- Please register (detail on chapter 4) and log into your account in the special charging App. For detailed information, please contact your dealer or service provider.

## 6.2 Charging

#### Preconditions

- The charging connector is not plugged into the vehicle
- The charger is ready (the LED indicator turns green and is flashing with cycle time 4s)

#### 6.2.1 Authentication by Swiping the RFID Card

#### Start charging

- Connect the charging connector to the vehicle terminal correctly and confirm the connection. If the blue LED lamp is on, it indicates that the charger has been connected and everything is ready;
- Place the RFID card on the RFID reader until the blue LED lamp flashes continuously at flashing frequency of 4 times per second. If card swiping fails due to network connection, please swipe the card again;
- When the blue LED lamp is breathing (gradually on and off), it indicates that the charging process has started.

#### **End charging**

- N.B. Do not pull a mechanically locked connector out of the socket plugged into the vehicle with any force.
- Place the RFID card on the RFID reader until the LED lamp flashes continuously at flashing frequency of 4 times per second (if the electric vehicle has been fully charged, the charger will automatically stop, no need to swipe the card);
- Press the Unlock button and unplug the charging connector;
- Put away the charging cable, wrap it in the cable winding slot, and place the connector head properly (insert into the charging connector socket).

#### The operation flow is shown below:

#### Start charging



End charging





## 6.2.2 Authentication by Scanning QR Code

#### Start charging

- Connect the charging connector to the vehicle terminal correctly and confirm the connection. If the blue LED lamp is normally on, it indicates that the charger has been connected and everything is ready;
- Open the special charging App, scan the charging QR code and tap Start Charging;
- When the blue LED lamp is breathing (gradually on and off), it indicates that the charging process has started.

#### **End charging**

#### N.B. Do not pull a mechanically locked connector out of the socket plugged into the vehicle with any force.

- Open the special charging App and tap Stop Charging (if the electric vehicle has been fully charged, the charger will stop automatically, with no need to open the App);
- Press the Unlock button and unplug the charging connector;
- Put away the charging cable, wrap it in the cable winding slot, and place the connector head properly (insert into the charging connector socket).

#### The operation flow is shown below:

#### Start charging



#### 6.2.3 Free Charge

#### Start charging

- Connect the charging connector to the vehicle terminal. If the blue LED lamp is normally on, it indicates that the charger has been connected and everything is ready;
- When the blue LED lamp is breathing (gradually on and off), it indicates that the charging process has started.

#### **End charging**

- Unplug the charging connector;
- Put away the charging cable and place the connector head properly (insert into the charging connector socket).

#### The operation flow is shown below:







## 7 Troubleshooting

The failures that may happen to the charger and the methods to solve the problems are listed in the table below. If the problems still exist and cannot be solved, please contact our service department.

Failure	Possible causes and troubleshooting
The power LED is not on	<ul> <li>No power supply</li> <li>Check if the parent circuit breaker have been turned off</li> <li>Make sure that the input power cable is intact and has been properly and securely connected to the charger</li> <li>Check whether the power voltage on the grid side is within the operating range (208/240±10%Vac) of charger with a voltage tester</li> <li>Turn off the charger by shutting off the parent circuit breaker and restart the charger in about 20s.</li> <li>When the incoming cable is affected by the surge or wrong wiring sequence, the device will out of power for protection. Searching the support from the professional for the wiring sequence checking or other abnormal interference. Power on after above checking finished.</li> <li>If the problem still exists, please contact your dealer or service provider</li> </ul>
Failure to start charging process	<ul> <li>The connector is not inserted correctly</li> <li>Plug and unplug the charging connector again and confirm that the connector connection has succeeded</li> <li>Failure to execute charging process correctly</li> <li>Please follow the instructions in "6.2 Charging"</li> <li>The connector may be stained or damaged in the locking area</li> <li>Clean or replace the connector</li> </ul>
Failure to start charging flow by scanning QR code	<ul> <li>The charger is still in starting process</li> <li>Wait for about 2-5 minutes until the charger starts</li> <li>There is a problem or bug in the special charging APP</li> <li>Restart the special charging App. Force the App to stop running and ensure that the App is not running in the background</li> <li>If the problem still exists, delete the special charging App from the mobile device and reinstall the App</li> <li>If the problem still exists, restart the device using the special charging App</li> <li>4G or Wi-Fi connection failure</li> <li>Re-connect the 4G or Wi-Fi on in place with a better signal</li> <li>If the problem still exists, please contact your dealer or service provider</li> </ul>
Failure to start charging flow by swiping the RFID card	<ul> <li>The charger is still in starting process</li> <li>Wait for about 2-5 minutes until the charger starts</li> <li>The RFID card account is not activated</li> <li>Please contact your dealer or service provider to activate the RFID card account</li> </ul>
The vehicle is not fully charged or the charging time increases	<ul> <li>The current decreases due to high temperature of vehicle or charger</li> <li>Visually check whether the connectors are stained, worn or damaged</li> <li>When necessary, please contact your dealer or service provider</li> <li>Power is limited due to external control devices (power supply device, PV device)</li> </ul>



The failure status LED becomes red	<ul> <li>Failure         <ul> <li>Turn off the charger by shutting off the parent circuit breaker and restart the charger in about 20s. It takes about 2-5 minutes to restart the charger</li> <li>If the problem still exists, find possible causes                 <ul></ul></li></ul></li></ul>
	Please contact your dealer or service provider



## 8 Routine Maintenance

## 8.1 Cleaning and Washing

It is recommended that the housing of charger is regularly cleaned with a wet cloth. In addition, there should be no plants growing on or around the charger.

- Do not clean the product with a high-pressure water pipe;
- Do not clean the product with corrosive cleansers;
- Do not clean the inside of the product.

## 8.2 Regular Maintenance

The recommended maintenance cycle is shown in the table below.

If it is necessary to change the maintenance cycle according to the standards and regulations of the country where the charging device is installed and used, please comply with the local relevant laws and regulations.

Maintenance items	Maintenance cycle	Handling method
Cable	Yearly	Check whether the cable is tightly connected with the switch, whether the cable is hot or damaged, whether the insulation resistance of cable meets the provisions, whether the sealing measures of cable for entering the cabinet are intact, and whether holes are blocked tightly.
Indicator lamp	Yearly	Check whether the indicator lamp works normally and whether it is faulty

## Star Charge

## 9 Warranty Card

## 9.1 Warranty Terms and Conditions

#### **Basic information**

(1) Welcome to buy products Star Charge Americas Corp.

(2) If there are any requirements for the products purchased or used that exceed the standard warranty, please sign in www.starcharge.com to learn about various warranty upgrades and extended warranty services. **Product warranty policy** 

(1) The standard warranty period for purchased products is 2 years, with the warranty starting from the date of equipment installation.

(2) If the user has a performance failure within 7 days of the purchase, they can choose to exchange the goods or apply for free maintenance. If the user applies for replacement, they need to provide the purchase invoice, warranty card, original packaging box and any other accessories.

(3) When the user applies for free maintenance service during the warranty period, they need to provide a valid purchase invoice and warranty card. The start date of the warranty period is the purchase date indicated in the invoice. The warranty period of the product is subjected to the date of delivery date of the product recorded if the user cannot provide a valid purchase invoice or the warranty card, or if the information listed in the above warranty certificate does not conform to the product, or it is altered or unidentifiable. If a valid product release date is not available, a free warranty will not be possible.

(4) The machine repaired by the company will continue to enjoy the warranty service during the original warranty period.

(5) The faulty parts or faulty machines that have been replaced after the repair are owned by Star Charge.

(6) The user must properly keep the warranty card; the company does not reissue a new one.

#### Product warranty does not include the following conditions

(1) Any damage caused by man-made or transport damage.

(2) Products that have been disassembled and repaired by users and non-authorized service organizations.

(3) Products that have been damaged due to unpacking and improper use.

(4) Failure or damage caused by use in a work environment not allowed by the product, including exceeding the product's workload.

(5) Failure and damage caused by improper storage by the user.



## 9.2 Information Registration

Product name	
Product model	
Warranty period	
User name	
Contact Phone	
Contact address	
Dealer stamp	



## **Appendix 1 Customer Training Record Sheet**

## **Customer Training Record Sheet**

Customer:

Product	Trainer
Training method	Training Date
Training Department	
Training Content	
Training Purpose	
Outline of Training handout	<ul> <li>1.Basic charging operation procedure </li> <li>2.Using scenario of emergency stop </li> <li>3.Common sense of safety and emergency </li> <li>4.Troubleshooting process </li> </ul>
Trainee Signature	
Customer feedback	
Customer:	Project manager:



**Appendix 2 Commissioning Report** 

# **Commissioning Report**

Date:

Commissioning Engineer:

Charging Station:

Address:



#### 1 Details of EVSE

ID	Specification	Installation	Charging cable length	Firmware version	Backend



2 Appearance Inspection

Object	Content	Conclusion	Remark
Insulation Resistance	The insulation resistance of power cable meets the requirements	□Pass □Fail	
Surface	The surface is clean. The charging cable is not broken. The door could be closed and open. The EVSE is not tilted.	□Pass □Fail	
Sign	No missing safety warning mark and the nameplate is clear.	□Pass □Fail	
Requirements	The EVSE meets the requirements. The accessories are complete.	□Pass □Fail	
Others	The fire-proof material is blocked in place.	□Pass □Fail	

3 Check the Internal Circuit (When using a multimeter to test the following items, ensure that the device is powered off.)

Object	Content	Conclusion	Remark
Input L1 and L2	Open Circuit	□Pass □Fail	
Input L1 and PE	Open Circuit	□Pass □Fail	
InputL2 and PE	Open Circuit	□Pass □Fail	
Input and output	Close Circuit	□Pass □Fail	

4 Working Environment

Object	Content	Conclusion	Remark
Temperature	-30 to 50℃ (-22℉~122℉)	□Pass □Fail	
Humidity	5%~95%	□Pass □Fail	
Elevation	≤3000m	□Pass □Fail	

5 Voltage check Before Power on

Туре	Object	Content	Conclusion	Remark
	Input voltage of the main breaker	208/240Vac, ±10%	□Pass □Fail	

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6 Voltage check After Power on

Туре	Object	Content	Conclusion	Remark
	Input voltage of the main breaker	208/240Vac, ±10%	□Pass □Fail	

#### 7 Charging Testing

Object	Co4ntent	Concl4usion	Remark
Charging via APP	Start and stop charging via APP	□Pass □Fail	
Charging via swiping the RFID card	Start and stop charging via swiping the RFID card	□Pass □Fail	

#### 8 Hardware Function

Object	Content	Conclusion	Remark
Charging cable	The surface of charging cable is normal. Plug in and out smoothly	□Pass □Fail	



Conclusion		Remark
□Pass	□Fail	

Commissioning Engineer: Customer:

## **Customer service**

Preparation:

If you have any questions or problems, please contact the companyresponsible for performing the electrical installation.

Before contacting Customer Service: Check the troubleshooting measures in the Troubleshooting section of this manual.

#### Contact

Company: Star Charge Americas Corp. Address: 46571 Fremont Blvd., Fremont, CA, 94538 Customer service: (833) 782-7487 E-mail: service.global@starcharge.com Website: www.starcharge.com

