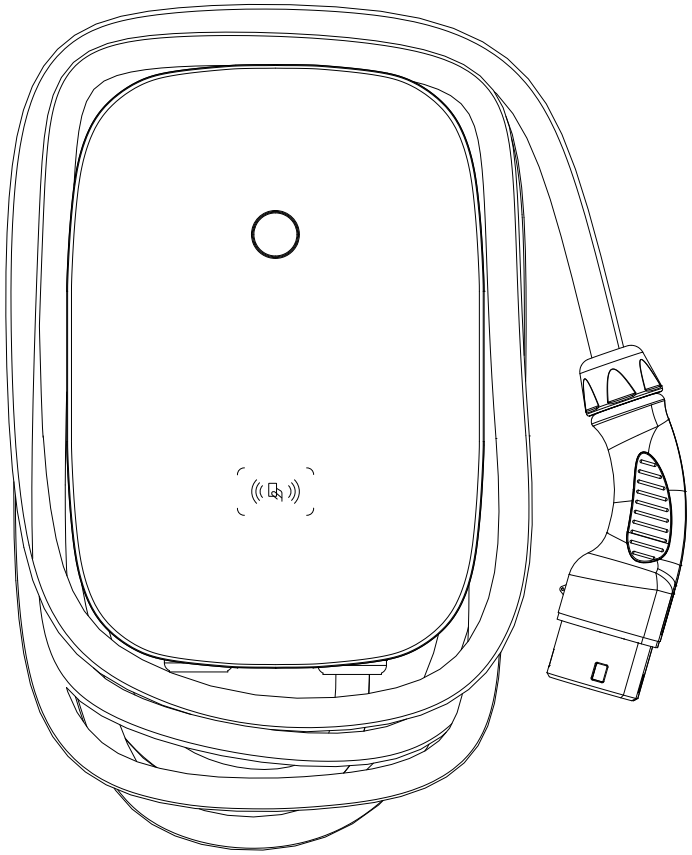
Electric Vehicle AC Charger

EVC11 Series (EU) - User Manual



⚠ WARNING

1. Important Safety Instructions

This charger complies with IEC61851 and CE-LVD.

When using electric products, basic precautions should always be followed.
This manual contains important instructions, including the following, that must be followed during installation, operation and maintenance.

• Do not install or use the charger near flammable, explosive, corrosive, or combustible materials, chemicals, or vapors.
• Turn off the input power of the charger before maintaining the charger.
• The device is designed only for vehicles that are compatible with the Model 3 charging standard.
• Do not use the charger if it is defective, appears cracked, frayed, broken or damaged.
• Do not attempt to open, disassemble, repair, tamper with, or modify the charger. Contact our Customer Service for any requirement of repair.
• Do not use the charger when you are in the vehicle, or the charger is exposed to severe rain, snow, or other severe weather.
• When transporting the charger, handle with care and do not drag or step on the device.
• Do not touch the charging connector terminal with sharp metallic objects for preventing damage.
• Do not forcefully pull the charging cable, damage it with sharp objects, put fingers, or insert foreign objects into any part of the charging connector.
• Risk of explosion. This device has arcing or sparking parts that should not be exposed to flammable vapors.

USER MANUAL

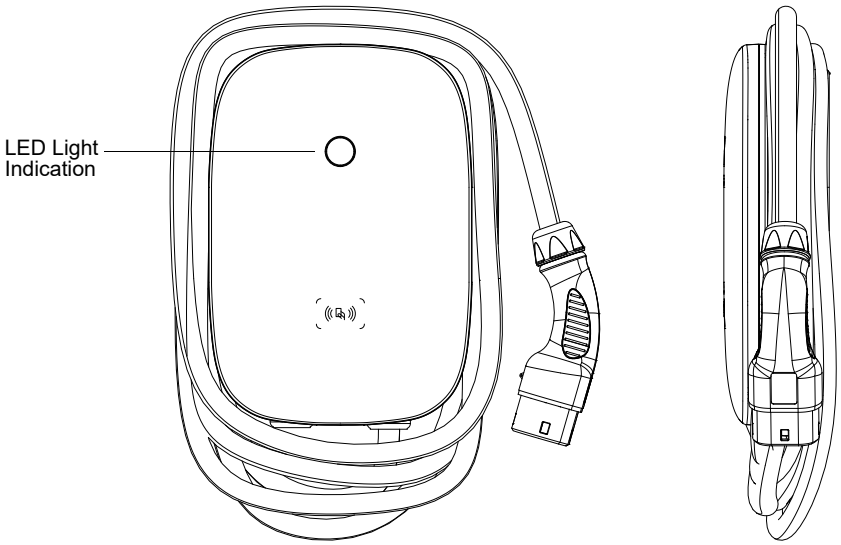
⚠ WARNING

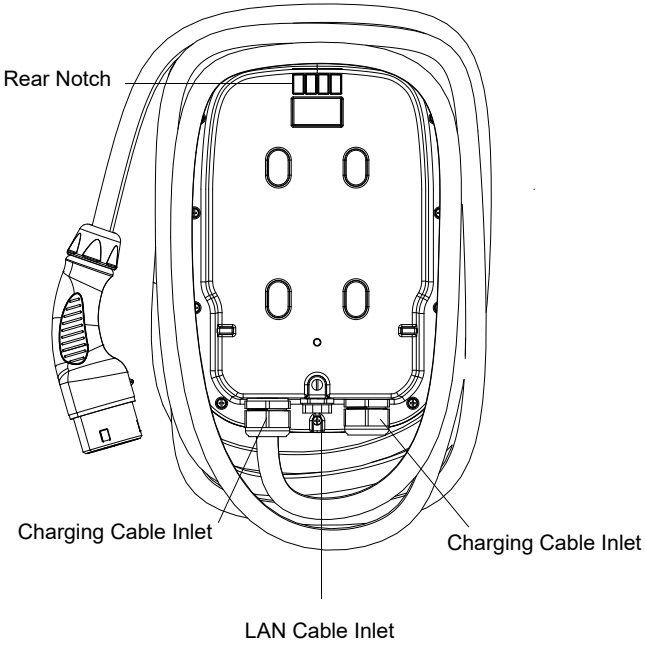
• Risk of electric shock. Do not remove cover or attempt to open the enclosure of the device. No user serviceable parts inside. Refer servicing to qualified service personnel.
• To reduce the risk of serious injury or death and damage to the charge, this device should be installed, adjusted, and serviced by qualified electrical personnel familiar with the construction and operation of this type of charger and the danger involved. Failure to observe this precaution could result in death or severe injury.
• Incorrect installation and testing of the charger could potentially damage either the vehicle's battery and/or the device itself. Any resulting damage is excluded from the warranty for the device.
• Ensure that the charging cable is well positioned during charging so it will not be stepped on, tripped over, or subjected to damage or stress.
• Do not use this charger with a frayed charging cable that has damaged insulation or any other sign of damage.
• According to the local electrical requirements, confirm the wire diameter and wire type corresponding to the current rating and the temperature rating must meet the requirements.
• Before starting the installation, turn off all power.
For safe use of electricity, please add circuit breaker protection in the input part of charging pile, install certified type A RCD and circuit breaker (Schneider) upstream close to AC charger.

Circuit Breaker Options Table			
	1-phase	3-phase	
AC Charger Output Amperage (A)	32A	16A	32A
Circuit Breaker Options (A)	40A	20A	40A
Circuit Breaker Model	A9F18240	A9F18420	A9F18440

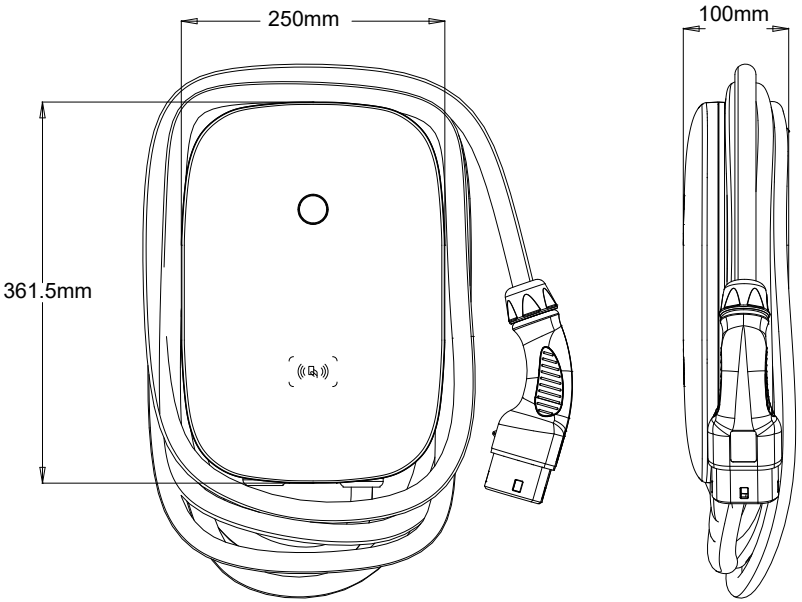
USER MANUAL

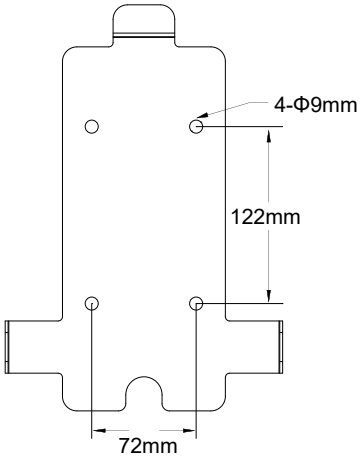
2. Basic Interface





3. Dimensions





USER MANUAL

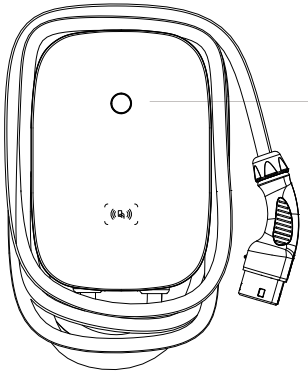
4. Specification

Model Name	EVC11 Version	
Rated Input Voltage	230VAC±10% / Single Phase	400VAC+10% / Three Phase
Rated Output Current	32A	16/32A
AC Power Frequency	50/60 Hz	
Input Protection	UVP, OVP, RCD, SPD, Ground Fault Protection	
Output Protection	OCP, OTP, Control Pilot Fault Protection	
Output Interface	IEC 62196-2 AC Charging Connector	
Storage Temperature	-40°C to +70°C	
Operation Temperature	-30°C to +50°C	
Relative Operation Humidity	95% RH Maximum	
Relative Storage Humidity	95% RH Maximum	
Version	LAN Version / Wi-Fi Version	
RJ45 Cable Inlet*1	10M/100M Base-T	
Wi-Fi Function*2	802.11 b/g/n	
Cable Length	5m	
Protection Level	IP65	
Installation Type	Wall-Mounted	
Altitude	≤ 2000 m	
Status Indication	Red, Green, Blue LED	

*1 LAN Version or Wi-Fi Version

*2 Wi-Fi Version

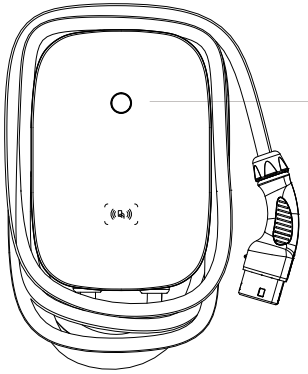
5. Status Description of the Charger Indication Light



READY

Standby - Blue Light

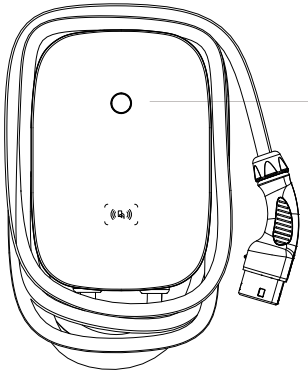
The READY light stays steady in standby mode.



CHARGE

Waiting for Charging - Green Light

After the vehicle connector is connected to the vehicle inlet, the CHARGE light is constantly lit

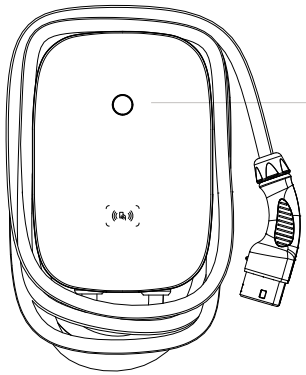


CHARGE

Charging - Green Light Flashing

The CHARGE light flashes while charging.

USER MANUAL



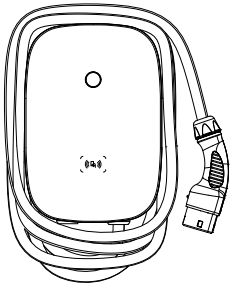
● FAULT

Fault - Red Light

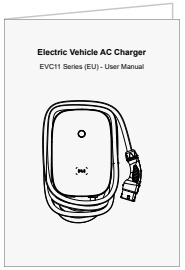
The red light is lit while fault. Please refer to "8.3 Error and Warning Messages" for detailed information.

No.	Product Name	Quantity	Note
1	AC Charger (With Charging Cable)	1	
2	User Manual	1	
3	Wall-Mounted Bracket	1	
4	M5 teeth screws	2	
5	M6 Hexagonal Expansion Screws	4	
6	RFID Card (RFID Version Only)	2	

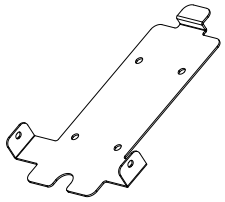
6. Packing List



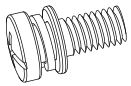
❶



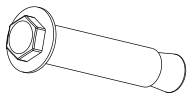
❷



❸



❹



❺

❻

7 Installation Instructions

7.1 Safety Requirements

• Be sure to preview the user manual and ensure local building and electrical codes are reviewed before installing the AC charger.

• The AC charger should be installed by a qualified technician according to the user manual and local safety regulations.

• Use appropriate protection when connecting to the main power distribution cable.

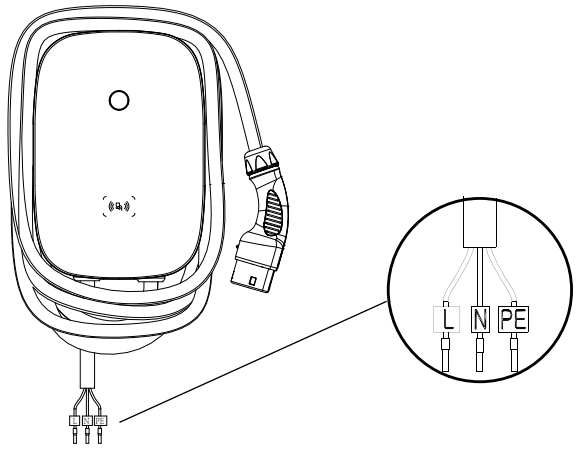
• Type B, C or D breaker with the rating current for table should be installed in the upstream AC distribution box.

• Disconnect switch for each ungrounded conductor of AC input shall be provided by others.

USER MANUAL

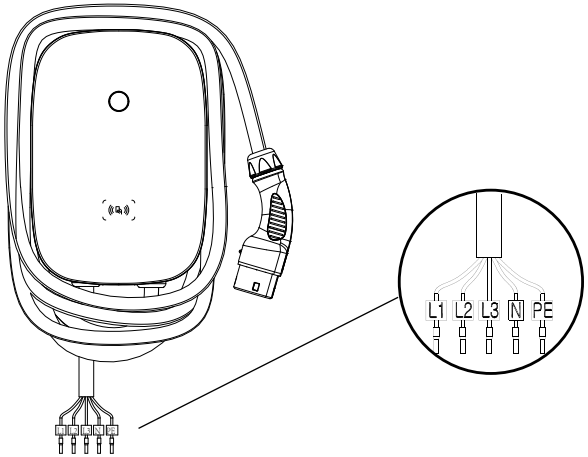
7.2 Wiring

For safe use of electricity, please add circuit breaker protection in the input part of charging pile. Connect the L lead to the grid L, connect the N lead to the grid N, connect the PE lead to the grid PE (for Single Phase).



Circuit Breaker Options table	
Output Amperage (A)	32A
Circuit Breaker Options (A)	40A

For safe use of electricity, please add circuit breaker protection in the input part of charging pile. Connect the L1 lead to the grid L1, connect the L2 lead to the grid L2, connect the L3 lead to the grid L3, connect the N lead to the grid N, connect the PE lead to the grid PE (for Three Phase)



Circuit Breaker Options table		
Output Amperage (A)	16A	32A
Circuit Breaker Options (A)	20A	40A

7.3 Tools and Materials Required

Tools required before installing the Wall-Mounted charger, gather the following tools:

- Wire stripper
- Crimpers for European terminals
- Phillips screwdriver for M5
- Slotted screwdriver for 4~5.5MM
- Adjustable Wrench M6
- Head gasket screw 10-10.5mm
- Voltmeter or digital multi-meter (for measuring AC voltage at the installation site)
- The inserting cable should meet the best waterproof performance. It is recommended to use 3 core/6mm cable for Single Phase / 5 core/6mm cable for three phase (XLPE or equivalent cable) to pull the cable from the distribution box.
- Level ruler
- Pencil or marker
- Machine drill

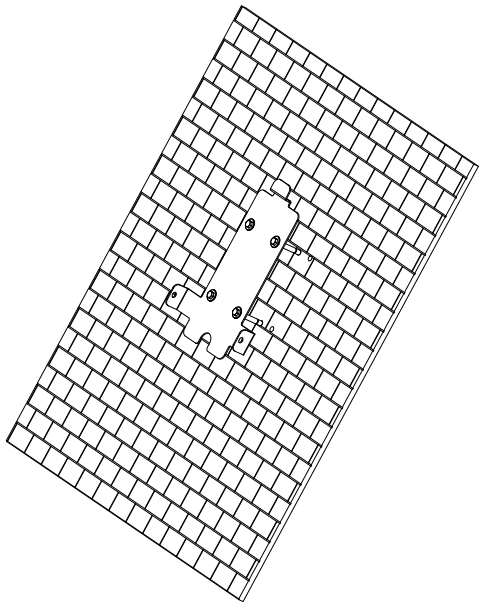
Installation Instructions

“This device shall be mounted at a sufficient height from grade such that the height of the storage means for the coupling device is located between 600mm (24 inches) and 1.2m (4 feet) from grade.”

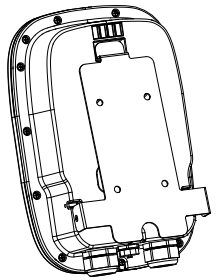
7.4 Wall-Mounted Bracket Installation

Step 1:

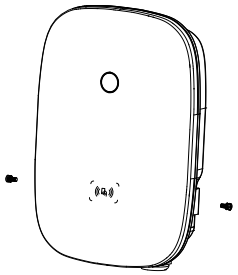
- Set the positions of the 4 screw holes and drill them, with a diameter of 8mm and a depth of 52mm.
- Use 4 sets expansion screw and M6 screw to fix the wall-mounted bracket on the wall.



Step 2: Align the rear notch of charger into the wall-mounted bracket and fit the screw holes of the right and left side.

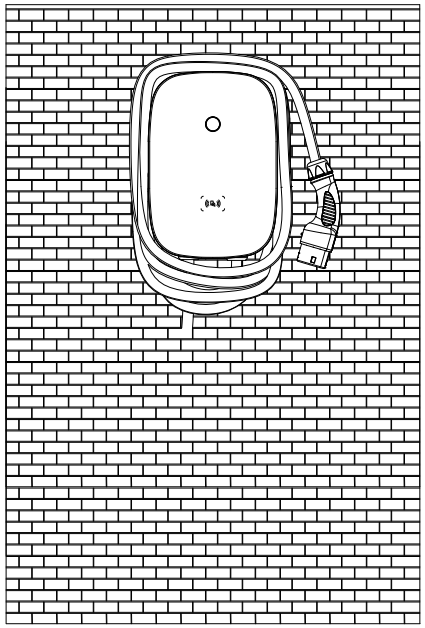


Step 3: Fix two M5 screws to complete the installation.

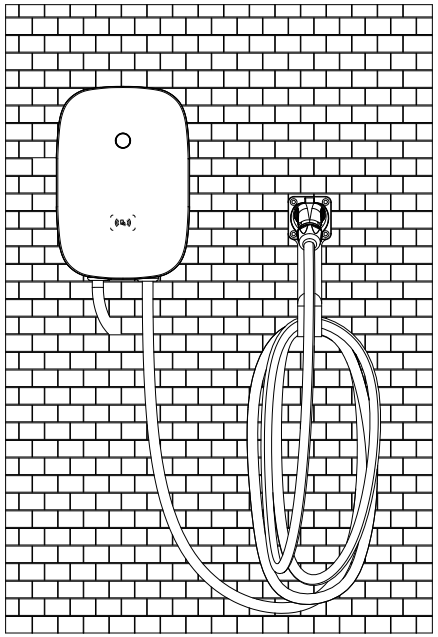


Overall outlook picture after installation:

Wall-mounted cable winding



Optional cable hanging (optional accessory)



8. Operating Instructions

8.1 Operating Procedures

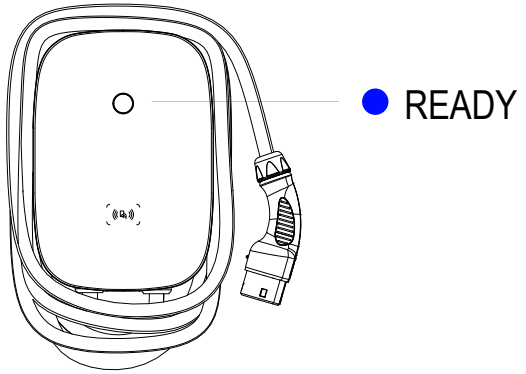
- User authorization
- Connect to Vehicle Charging Inlet
- Charging Message
- Charging completed

8.2 Operating Steps

8.2.1 Operating Steps with RFID

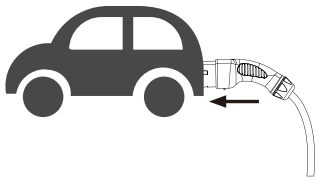
Step 1 / Standby Mode

After power-on, blue light (READY), green light (CHARGE) and red light (FAULT) all lit. Enter standby mode and the blue light (READY) is steady on.



Step 2 / Tap the RFID Card

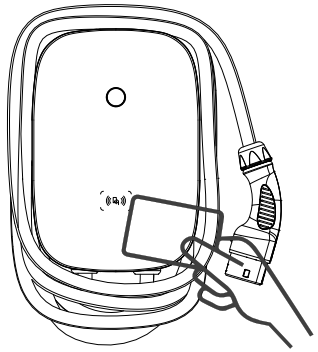
Please plug the charging connector into the vehicle charging inlet. When you tap the RFID card first, it needs to complete the insertion of the charging connector within 120 seconds, otherwise you need to tap the RFID card again.



USER MANUAL

Step 3 / Tap the RFID Card

Tap the RFID card to start the charging.

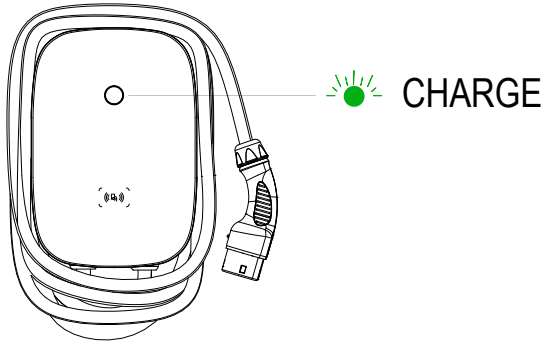


Step 4 / Charging

The green light (CHARGE) turns to flash automatically, charging is in process.

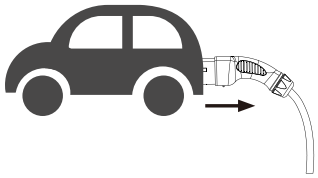
• If the red light (FAULT) is lit, plug the vehicle connector again.

• If red light is still lit, please refer to "Error and Warning Messages".



Step 5 / Charging Finished

When the charging is finished, the green light (CHARGE) is constantly lit, please remove the plug.

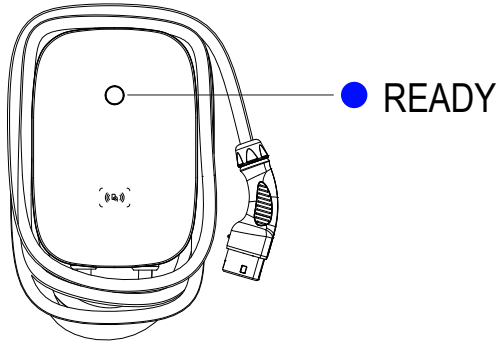


8.2.2 Operating Steps with Plug and Charge

Step 1 / Standby Mode

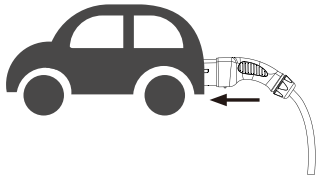
After power-on, blue light (READY), green light (CHARGE) and red light (FAULT) all lit.

Enter standby mode and the blue light (READY) is steady on.



Step 2 / Plug the Charging Connector

Please plug the charging connector into the vehicle charging inlet.



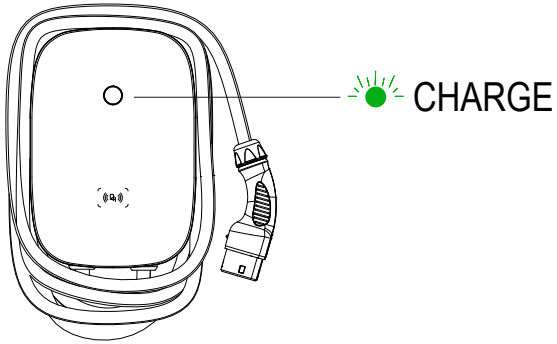
USER MANUAL

Step 3 / Charging

The green light (CHARGE) turns to flash automatically, charging is in process.

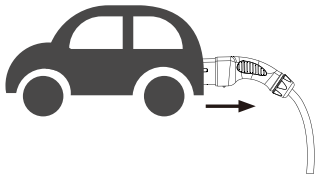
• If the red light (FAULT) is lit, plug the vehicle connector again.

• If red light is still lit, please refer to "Error and Warning Messages".



Step 4 / Charging Finished

When the charging is finished, the green light (CHARGE) is constantly lit, please remove the plug.



8.3 Error and Warning Message

Status	Red	Remark
Input OVP	1 flashes followed by 3 sec pause	Auto Recover
Input UVP	2 flashes followed by 3 sec pause	Auto Recover
Output OCP	3 flashes followed by 3 sec pause	Auto Recover
OTP	4 flashes followed by 3 sec pause	Auto Recover
RCD Abnormal	5 flashes followed by 3 sec pause	Auto Recover
Ground Fault	6 flashes followed by 3 sec pause	Auto Recover
Control Pilot Fault	Flicker	Auto Recover
MCU Self-Test Fail	Constantly Bright	Contact Customer Service
RCD Self-Test Fail	Constantly Bright	Contact Customer Service
Relay Self-Test Fail	Constantly Bright	Contact Customer Service
RCD Abnormal Stop Charging	Constantly Bright	Contact Customer Service
Output OCP Stop Charging	Constantly Bright	Contact Customer Service
OTP Stop Charging	Constantly Bright	Contact Customer Service

USER MANUAL

9. Maintenance and Repair

9.1 Daily Maintenance

Please keep the charger clean and keep the charge in a clean area with low humidity. Do not install it in an environment near the sea, with high oil, high humidity or high dust.

• Avoid moisture or water in the charger. If there is water or moisture ingress into the charger, it is necessary to immediately power off to avoid immediate danger, and notify the professional personnel to carry out maintenance before next use.

• If there is any damage or dirt on the vehicle connector, charging cable, or vehicle connector holder, please contact the maintenance personnel immediately.

• Please use the charger properly. Do not hit or press hard on the case. If the case is damaged, please contact a professional technician.

• Avoid placing the charger near hot objects and at high temperature locations and away from dangerous substances such as flammable gases and corrosive materials.

• Do not place external objects or heavy objects on the charger to avoid danger.

9.2 Maintenance Spares

• This charger is equipped with maintenance spares for maintenance use during and over the warranty period. All warranty services and repairs shall be and performed by certified service technicians authorized by Joint Technology. For details, please contact your local Joint Technology service partner or direct to our Customer Service.

9.3 Warranty and Maintenance

• The warranty period for this charger is two years.

• After the event of any repair or maintenance under the warranty period, if there is no purchase to extend the warranty service, Joint Technology shall provide a three-month warranty period for any subsequent paid repair work.

• During the warranty period for any malfunction caused by normal use according to the User Manual and Service Instruction (to be determined by certified maintenance technicians of Joint Technology), the product shall be repaired free of charge. Except for the following situations, the charger shall be subject to the above warranty terms:

1. The warranty certificate cannot be provided or the contents of the warranty certificate are modified or inconsistent with the label indication of the repaired product.
2. Those who are unable to provide valid proof of purchase.
3. Those who exceed the manufacturer's specified warranty period.
4. Those who damage the product due to not following the product service instruction for use, maintenance and storage.
5. Damage or malfunction caused by foreign object entering.
6. Unauthorized repair, disassembly or modification.
7. Damage caused by force majeure (such as lightning, excessive voltage, earthquake, fire, flood, etc.).
8. Malfunction and damage caused by other unavoidable external factors. Malfunction and damage caused by improper use of equipment, such as water or other solutions entering into the equipment.
9. Malfunction and damage caused by the grid power supply and voltage which is not specified for use with the charger equipment.

• The above guarantees shall be made solely, and no other express or implied warranties shall be made (including the implied warranties of merchant ability, particular and applicable reasonableness and adaptability, etc.) whether in the contract, civil negligence, or other aspects, the Company shall not be responsible for any special, incidental or consequential damages.