EVCD2 Series (EU)- User Manual

Electric Vehicle AC Charger

ATTENTION: Installers, please read this manual thoroughly

CONTENTS

WARNING & CAUTION

1. Important Safety Instructions

1.1 Overall Warnings & Cautions

WARNING: To avoid fire, injury or death, carefully read and follow the instructions during installation, operation and maintenance.

- **DO NOT** put fingers into the electric vehicle connector.
- **DO NOT** use this product if the flexible power cord or EV cable is frayed, insulation-broken, or any other signs of damage.
- **DO NOT** use this product if the enclosure or the EV connector is broken, cracked, open, or shows any other indication of damage.
- **DO NOT** remove cover or attempt to open the enclosure because of risk of electric shock.

WARNING: This device should be supervised when used around children.

WARNING: This device must be grounded.

WARNING: To avoid a risk of fire or electric shock, do not use this device with an extension cord.

1.2 Installation Requirements

WARNING: Disconnect electrical power prior to installing the charging station.

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

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

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

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

CAUTION: Please keep the charger in a clean area with low humidity. Not recommended to be installed in coastal environments with high humidity or high dust.

1.3 Daily Maintenance

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

CAUTION: Please use the charger properly. Do not hit or press hard on the enclosure. If it is damaged, please contact a professional technician.

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

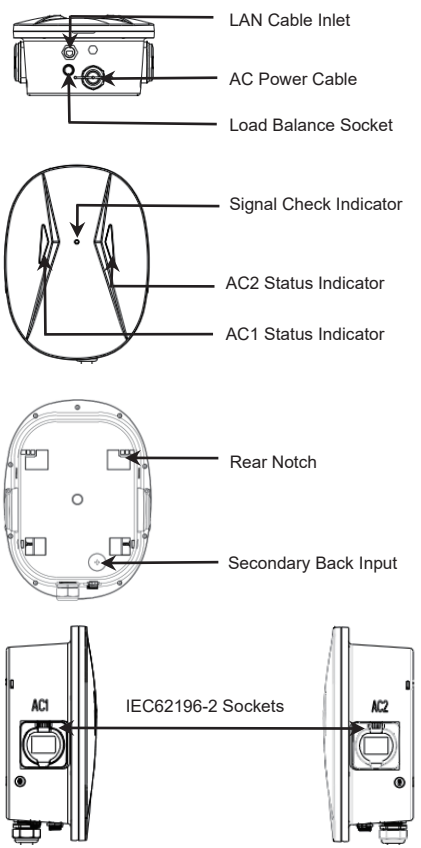
CAUTION: Do not put heavy objects on the charger to avoid danger.

Circuit Breaker Options Table			
	Single Phase	Three Phase	
Output Amperage (A)	32A	32A	64A
Circuit Breaker Options (A)	40A	40A	80A

2. Product Introductions

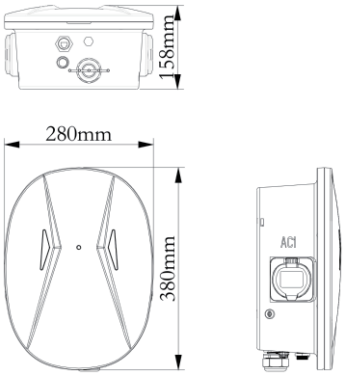
CAUTION: Avoid placing the charger near hot objects and at high temperature locations and away from dangerous substances such as flammable gases and corrosive materials.

2.1 Basic Interface

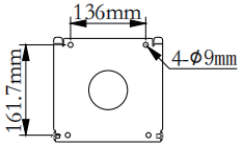


2.2 Basic Dimension

Enclosure



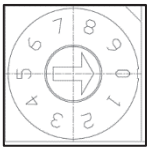
Wall-Mounted Bracket



2.3 Specifications

Model Number	EVCD2	
Rated Input Voltage	230VAC ± 10% / Single Phase	400VAC ± 10% / Three Phase
Rated Input Current	32A/64A	
AC Power Frequency	50/60 Hz	
Rated Output Power	7kW*2	11kW*2/22kW*2
Rated Output Current	32A*2	16A*2/32A*2
Input Protection	UVP, OVP, OTP, RCD, SPD, Ground Fault Protection	
Output Protection	OCP, Control Pilot Fault Protection	
Output Interface	IEC62196-2 Socket	
Storage Temperature	-40°C to +85°C	
Operation Temperature	-30°C to +50°C	
Relative Storage Humidity	⩽95%	
Relative Operation Humidity	⩽95%	
Connection Method	WIFI/LAN	
Network Transmission Rate	10M / 100M Base-T	
Wireless Transmission Protocol	802.11 b/g/n	
Protection Level	IK08 IP54	
Altitude	2000m	

2.4 Dial Switch Setup Instructions



The maximum output current can be adjusted by dial switch

0:16A*2

1:32A*2

3. Verify Contents

Check the box to ensure you have this installation guide and these parts: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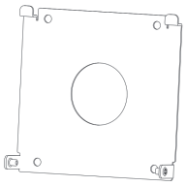
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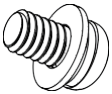
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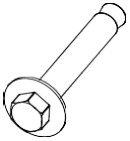
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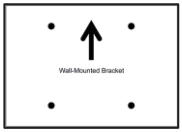

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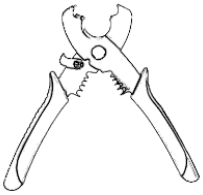
No.	Product Name	Quantity	Description
1	AC Charger	1	With attached input power cable
2	User Manual	1	Please read carefully before use
3	Wall-Mounted Bracket	1	For mounting the charger to the wall/structure
4	M5 Anti-Theft Round Head Screws	2	For securing the charger to the Mounting Bracket
5	M6 Hexagonal Expansion Screws	4	For installing the Mounting Bracket to the wall/structure
6	Allen Wrench	1	For tightening M5 Screws
7	Corrugated Mounting Template	1	For easy drilling of 4 screws holes for wall-mounted bracket.
8	15m Signal Wire (Optional)		Load balance signal line

Note: Please contact us if you are missing any of the parts in the list.

4. Gather Tools

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

1. Wire stripper
2. Adjustable Wrench
3. Voltmeter or digital multi-meter (for measuring AC voltage at the installation site)
4. Level
5. Pencil or marker
6. Drill



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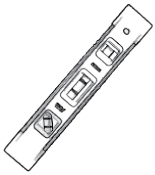

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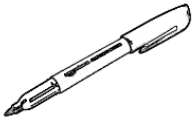

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Note: The above tools are very important, please gather them all.

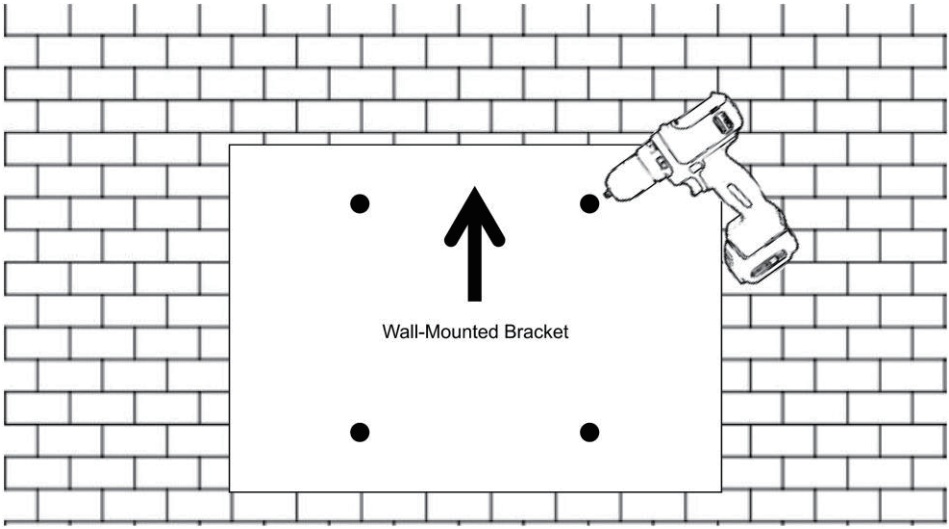
5. Mount The Charger

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.

CAUTION: Not recommended to be installed in coastal environments with high humidity or high dust.

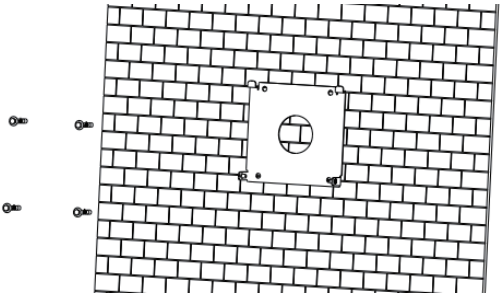
STEP 1

Drill 4 Screw Holes with a diameter of 8.5mm and a depth of 55mm~60mm by using our mounting template. Please drill screw holes in the direction of the template arrow.



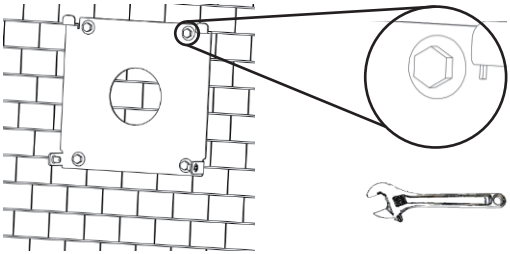
STEP 2

Use 4 sets Hexagonal Expansion Screws to secure the wall-mounted bracket on the wall.



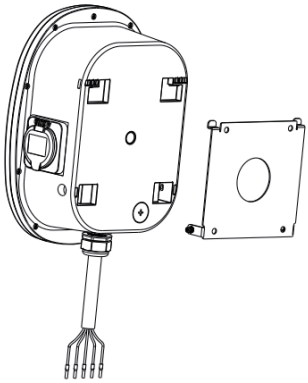
STEP 3

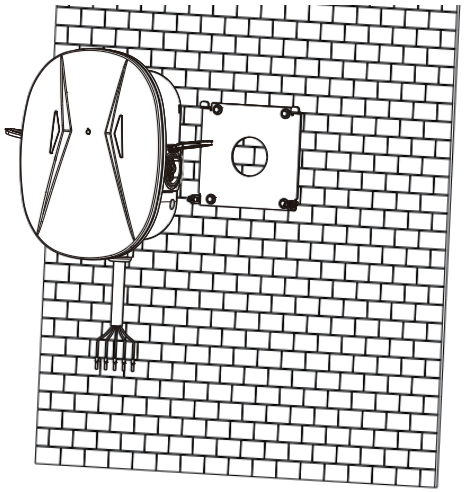
After levelling the brackets, use an adjustable wrench to tighten the outer hexagon screws on the expansion screws.



STEP 4

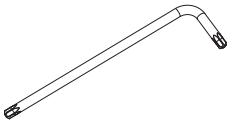
Align the rear notch of charger with the wall-mounted bracket and fit the screw holes of the right and left side.

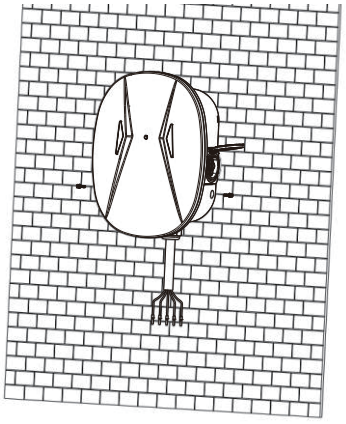




STEP 5

Tighten two M5 anti-theft screws with Allen Wrench to complete the installation.





6. Wire The Circuit

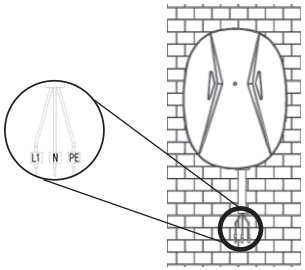
WARNING: This device must be grounded. Disconnect electrical power prior to installing the charging station.

WARNING: Improper connection of the equipment-grounding conductor would result in a risk of electric shock. Check with a qualified electrician or serviceman if you are not sure whether the product is properly grounded. Do not modify the plug provided with the product – if it doesn't fit the outlet, have a proper outlet installed by a qualified electrician.

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

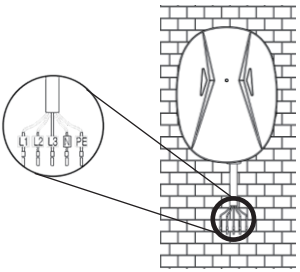
6.1 Incoming cable connection

For safe use of electricity, please set circuit breaker protection in the input part of EV Charger The wiring is not complicated, just need to follow the instructions below:



For Single Phase

Connect the L1 lead to the grid L1, connect the N lead to the grid N, connect the PE lead to the grid PE.

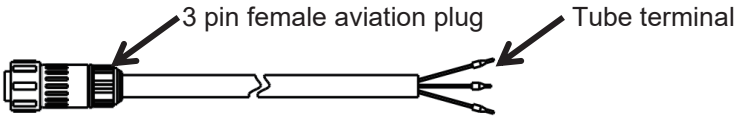


For Three Phase

Connect the L1 lead to the grid L1, connect the L2 lead to the grid L2, connect the L3 to the grid L3, connect the N lead to the grid N, connect the PE lead to the grid PE.

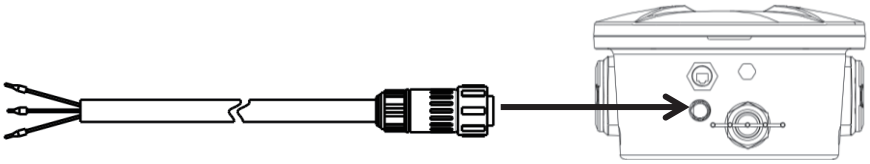
6.2 Load balancing connection (CT-BOX Optional)

Signal wire introduction



Signal wire connection

Connect the female aviation plug of the signal wire to the charger's load balancing socket and tighten them.



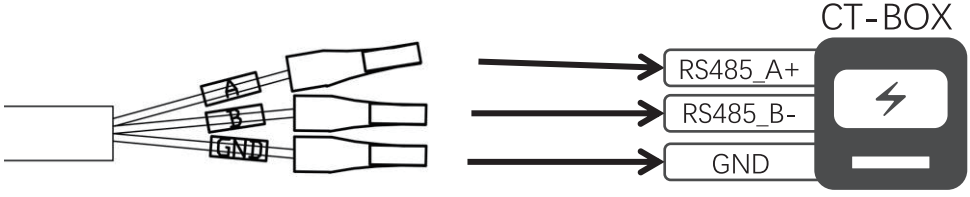
CT-BOX signal connection

Connect three E0308 tube terminals of the signal wire to the CT BOX according to the number of the terminals.

Connect A terminal to RS485_A+

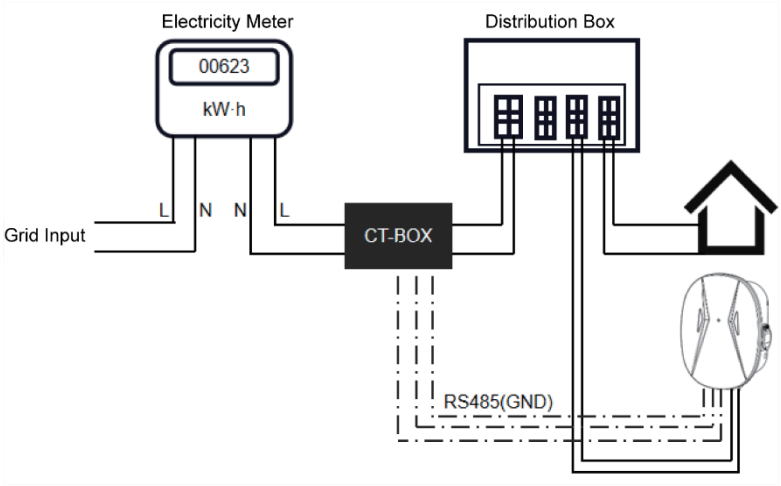
Connect B terminal to RS485_B-

Connect GND terminal to GND

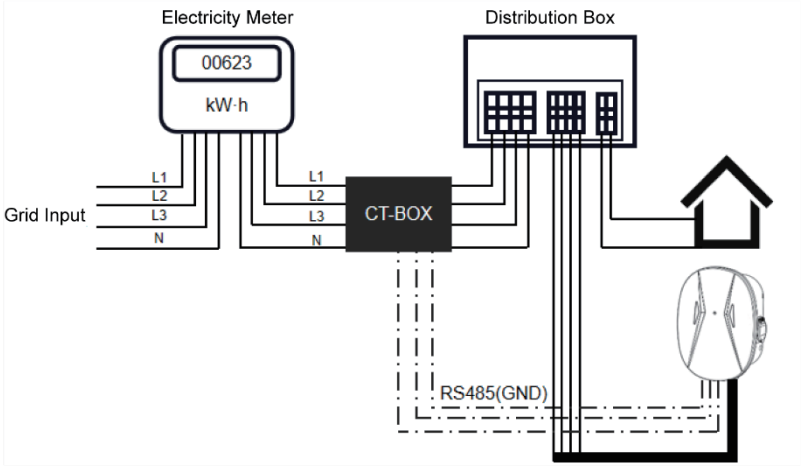


CT-BOX circuit coonection

Single Phase

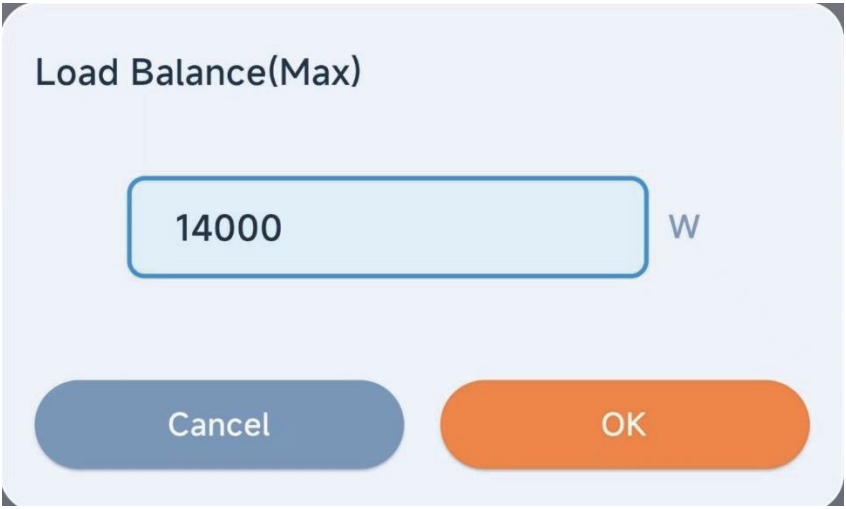


Three Phase



APP settings

After completing the circuit connection, please click gear icon which means advanced settings in the upper right of the app and set the max power. In order to avoid frequent tripping of the main circuit breaker during normal operation, it's recommended to set this value slightly lower than the maximum power supply of the main circuit breaker. For example, if the maximum power supply is 15000W, the maximum power of load balancing can be set to 13000W or 14000W



7. Operate Your Device

WARNING: This device should be supervised when used around children.

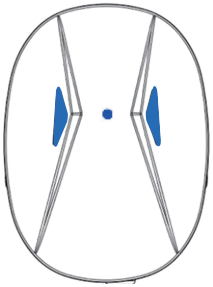
CAUTION: Please use the charger properly. Do not hit or press hard on the enclosure. If the case is damaged, please contact a professional technician.

CAUTION: Do not put heavy objects on the charger to avoid danger.

7.1 Operating Steps with Plug and Charge

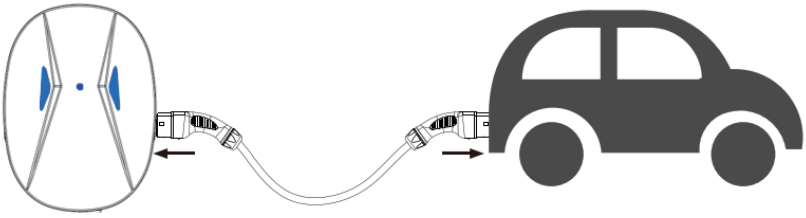
STEP 1

Standby Mode: After being powered on, the lights will be all on, blue light (READY), green light (CHARGE) and red light (FAULT). Then the blue light (READY) is constantly on in standby mode.



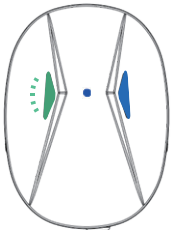
STEP 2

Plug the Charging Connector: Open the socket's cover and plug the charging connector into the socket(IEC 62196-2), then plug the other charging connector into the electric vehicle.



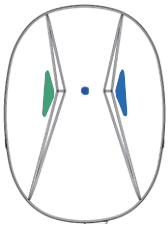
STEP 3

Charging: The green light (CHARGE) turns to flash automatically, charging is in process. (e.g. AC1）



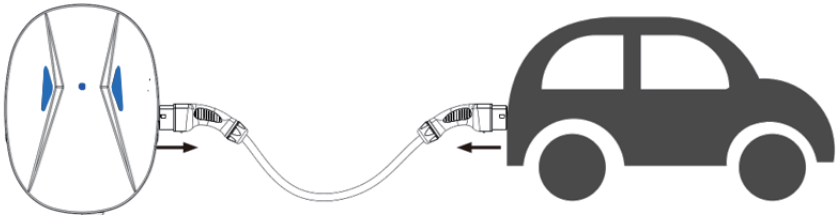
STEP 4

Charging finished: When the charging is finished, the green light (CHARGE) is constantly on. (e.g. AC1)



STEP 5

Put out the car connector first, then put out the charger connector.

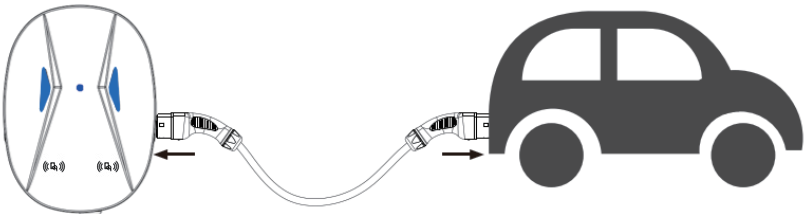


7.2 Operating Steps with RFID (Optional)

CAUTION: Please keep your RFID card properly to avoid unnecessary loss.

STEP 1

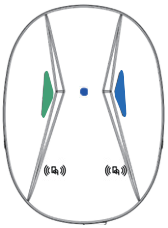
Standby Mode: After power-on, blue light (READY), green light (CHARGE) and red light (FAULT) all on. The blue light (READY) is constantly on when in standby mode.



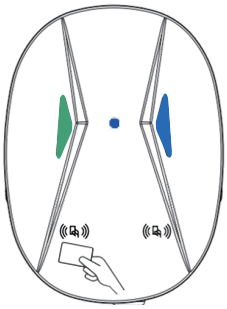
STEP 2

Ready to charge:

Please plug the charging connector into the vehicle charging inlet. When the green light (CHARGE) is constantly on, the user can swipe the RFID Card



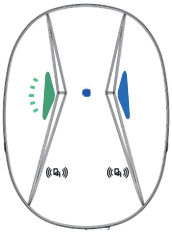
STEP 3



Swipe the RFID Card:

Swipe the RFID card first and plug in the charging connector within 120 seconds, otherwise you need to swipe the RFID card again.

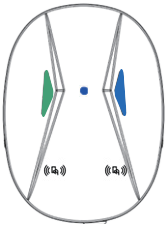
STEP 4



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

- If the red light (FAULT) is on, plug in the charging connector again.
- If red light is still on, please refer to "Error and Warning Messages".

STEP 5



Charging finished:

When the charging is finished or swipe your RFID card, the green light (CHARGE) is constantly on. Please press the button on connector and pull out the charging connector

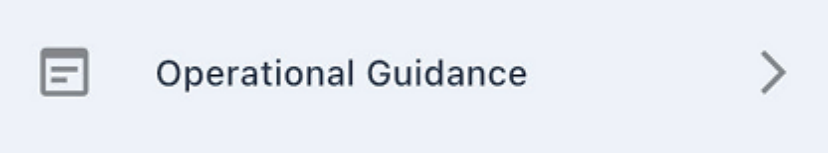
7.3 Smart APP Guide (Optional)

1. Download ‘S-Charge’

Download on the App Store

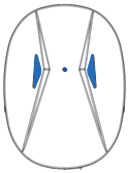
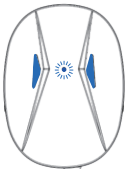
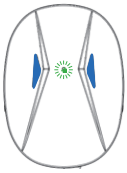
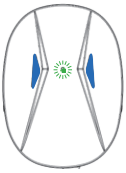
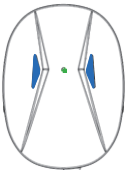
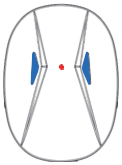
GET IT ON Google Play

2. Follow the ‘Operational Guidance’ in ‘More’ to use.



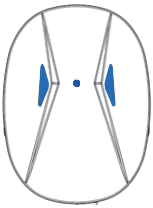
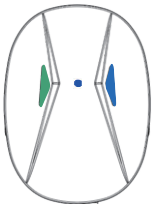
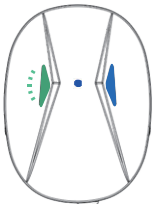
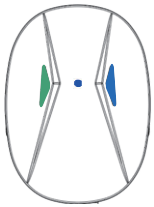
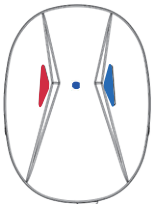
8. Light Codes

8.1 Signal Indicator

Not connected	Internet Connecting	Internet Connected	Connecting to S-charge	Connected with S-charge	Connection failed
					
Solid blue	Blue blinking	Slow Blink In Green	Quick Blink In Green	Solid Green	Solid red

8.2 Status Indicator

Charging process status indicator（e.g. AC1）

Standby	Waiting to charge	Charging in progress	Charging finished	Fault
				
Solid blue	Solid green	Green blinking	Solid green	Solid red

8.3 Fault and Warning Message

Fault Status	Red	Remark
Electronic lock fault	Solid Red	Reboot Recover
Voltmeter fault	1 flash followed by 3 sec pauses	Auto Recover
Control pilot fault	2 flashes followed by 3 sec pauses	Auto Recover (Pull out the charging connector)
Input UVP	3 flashes followed by 3 sec pauses	Auto Recover
Input OVP	4 flashes followed by 3 sec pauses	Auto Recover
OTP	5 flashes followed by 3 sec pauses	Auto Recover
OCP	6 flashes followed by 3 sec pauses	Auto Recover (Pull out the charging connector)
Ground fault	7 flashes followed by 3 sec pauses	Auto Recover (Pull out the charging connector)
Relay fault	8 flashes followed by 3 sec pauses	Auto Recover (Pull out the charging connector)
RCD abnormal	9 flashes followed by 3 sec pauses	Auto Recover (Pull out the charging connector)
RCD self-test fault	10 flashes followed by 3 sec pauses	Reboot Recover

9. Warranty and Maintenance

• The warranty period for this charger is two years.

• During the warranty period for any malfunction under normal use according to the User Manual and Service Instructions (to be determined by certified maintenance technicians of sellers), 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 external 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 reason- ableness 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.