

AC Charger Manual



Attention: Please read this manual thoroughly before installation.
In addition, keep the manual well so that you can read it at anytime
when necessary.

Symbols

Symbols	Meaning
	“ Warning ”, which indicates a hazard This sign is intended to alert the user that severe personal injury or substantial property damage can result if the device is not operated as request.
	“ Caution ”, which indicates a hazard This sign is intended to alert the user that minor personal injury or device damage can result if the device is not operated as request.
	“ Hint ”, which indicates useful skills or information This sign is intended to inform useful skills or information.
	“ Garbage disposal ”, which indicates indicates electrical and electronic waste This sign is intended to inform that electrical and electronic equipment and their accessories should be disposed of separately from ordinary household waste for reuse. By reusing old equipment, you can make a significant contribution to the environment.

Contents

- 0. Symbols 2
- 1. Key Information 4
 - 1.1 Safety Instruction 4
 - 1.2 Specified Use 5
 - 1.3 FCC Warning 5
- 2. Product Overview 6
 - 2.1 Product Specifications 6
 - 2.2 Product Functions 6
 - 2.3 Technical Characteristics 6
- 3. Operation Instruction 7
 - 3.1 Appearance Introduction 7
 - 3.2 Charging Instruction 8
 - 3.3 APP Instruction 9
- 4. Status Description 13
- 5. Routine Maintenance 15
 - 5.1 Appearance Maintenance 15
 - 5.2 Equipment Maintenance 15
 - 5.3 Other 15
- 6. Customer Service 16
- A. Installation Instruction 17
 - A.1 Installation Requirements 17
 - A.2 Power Supply Requirements 18
 - A.3 Power Supply Requirements 18
 - A.4 Product Installation 22
- B. Warranty Card 23
 - B.1 Warranty Terms and Conditions 23
 - B.2 Information Registration 23
- C. Product Accessories 24

1 Key Information

1.1 Safety Instruction

Symbol	Content
	Failure to follow safety instructions can result in death, injury, and equipment damage. Refuse to bear any claims caused by this. ● Electrical hazard Installation, maintains, and replaced must be carried out by personnel with professional qualification. When installing and commissioning charger for the first time, existing standards and installation regulations should be followed. See chapter “A Installation Instructions ”for details. ● Electrical hazard / Fire hazard ▷ Check the charger regularly, including cables, vehicle connector and other accessories, for damage or broken, otherwise there is a risk of electric shock or fire. ▷ Check the charger regularly to make sure there is no foreign objects inside, especially the vehicle connector, otherwise there is a risk of fire. Only the manufacturer can perform the operation (replace the charger). ▷ Installed the charger away from combustible materials, otherwise there is a risk of fire. Installing the charger in the place without violent vibration and impact is also recommended. ● Extension cable is forbidden when connect the charger to the electric vehicle. ● The charger can only be connected to the electric vehicle, other loads are forbidden. ● Please pull the charging gun by holding the vehicle connector, not by pulling the cable, otherwise there is a risk of cable damage or broken. ● Do not bend, squeeze or tilt the charging connector so that it is mechanically damaged. ● Do not touch the heat source, dirt, and water on the accessible surface of the charger. ● An external ventilation system shall be recommended, since some vehicles may generate toxic or explosive gases during charging. ● Please read the instructions carefully before charging your electric car.
	CAUTION ● Damage hazard. ● Never clean the electrical connection points with high pressure water, especially vehicle connector, cable connection position, etc.

1.2 Specified Use

- According to SAE J1772, the product (the maximum output current is 48A) was designed for AC charging.

- Please obey local laws and regulations when installing and using this charger.

- The intended use of the product includes the environmental conditions established for the product in all cases.

- Storage condition of the product:

Before installation: the product should be stored in dry, ventilated, and indoor place.

The indoor temperature should be between -40°C and +80°C, the monthly average relative humidity is not exceeded 95%. During the storage, please avoid rain, exposure, condensation and frost.

After installation: the shell of the charger should be kept sealed from raining and soaking.

- The design, production, inspection and filing of this product are carried out in accordance with relevant standards, therefore, if the manual is observed as intended, the product will not cause personal injury or property damage under normal circumstances.

- The manual must be observed, otherwise there is a risk of safety hazard or device fault. Although the manual has described the safety instructions as detailed as possible, safety and accident prevention regulations are still needed to be focused.

- Due to technical and legal restrictions, it is not possible to supply all models to all countries and regions.

1.3 FCC Warning

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

2 Product Overview

2.1 Product Specifications

Detailed description of product performance	
Model	LHRS-AC40-M3T1/LHRS-AC50-M3T1/LHCT-AC40-M3T1/LHCT-AC50-M3T1
Rated Power	9.6kW/11.5kw
Dimension	300×160×120 (mm)
Weight	Approximately 6.2 kg
Installation	Wall-mounted
Technical Parameters	Input Voltage: 208/240VAC
	Input Mode: L1+L2+PE
	Output Current: 40A max/48A max
	Frequency: 60Hz
	Output Voltage: 208/240VAC
	Enclosure Rating:NEMA 3R
	Charging Mode: Model 3, Case C
Agency Approvals	FCC

2.2 Product Functions

- (1) Control pilot function: During the charging process, the charger can identify the connection state between the charger and the vehicle, and according to this state, the charger can be guided to perform safe charging.
- (2) Display function: The charger has the function to provide the state parameter(voltage value, fault code, etc.) by showing them on the screen.
- (3) Protection function: The charger has multiple protection functions, such as: leakage protection, over/under voltage protection, and so on.
- (4) Dust-proof and water-proof class: The charger can keep normal working status outdoor with prevention class NEMA 3R.

2.3 Technical Characteristics

- (1) Start charging modes: RFID / APP
- (2) Communication mode:Wi-Fi (only 2.4GHz)
- (3) Display mode: 2.4 inch screen
- (4) Perfect protection functions

3 Operation Instruction

3.1 Appearance Introduction

● Case C Charger

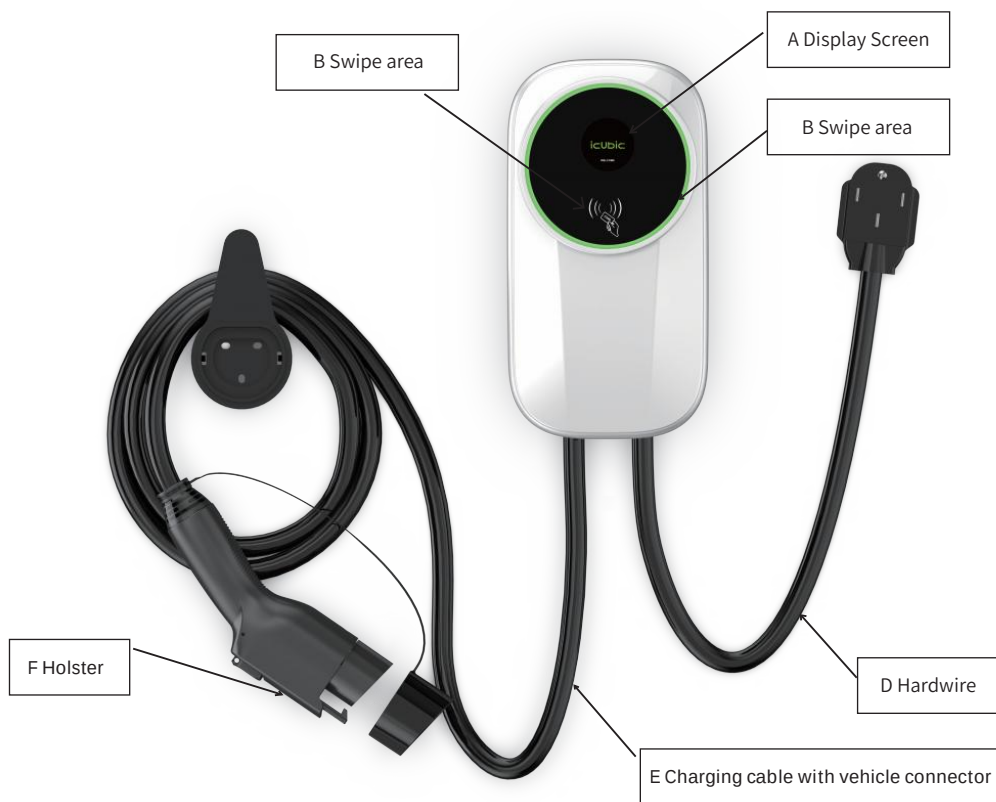


Figure 3.1 Wall-mounted Appearance

- The appearance is subject to the actual product.
- When the charger is not occupied, it is always recommended that: roll the charging cable up and place it on the top of holster, and insert the connector into the holster.

3.2 Charging Instruction

3.2.1 Preparation

Before start charging, please ensure the followings:

- (1) The vehicle has been parked where the vehicle connector can be easy inserted into the vehicle charging socket, which also means the charging cable(See Figure 3.1) is not taut.
- (2) When the display shows the "Connecting EV" interface, it means the charger is waiting for connection.

3.2.2 Start Charging

The charger provides RFID mode and APP mode to start charging.

I RFID Mode:

In this mode, please follow the steps below to start charging:

Step 1 Open the vehicle charging dock, insert the vehicle connector into the socket, and then The display shows "Swipe card" to indicate that the charger is connected to the vehicle and is waiting to be charged.

Step 2 Swipe the RFID Card on the swipe area, and then the display showing detailed charging parameters means the charger is charging.

Step 3 If the display shows the "Finished" interface, it means the charging process has completed. Also, the charging process can be manually completed by swiping the RFID Card.

II APP Mode:

In this mode, please follow the steps below to start charging:

Step 1 Open the vehicle charging dock, insert the vehicle connector into the socket, and then The display shows "Swipe card" to indicate that the charger is connected to the vehicle and is waiting to be charged.

Step 2 See Chapter 3.3

Step 3 If the display shows the "Finished" interface, it means the charging process has completed. Also, the charging process can be manually completed by operating the APP.



After plugging in the connector, you need to quickly start charging, so as not to wait for a long time and the vehicle enters the dormant state.

3.2.3 End Charging

Step 1 Pull out the vehicle connector, close the vehicle charging dock.

Step 2 Roll the charging cable up and place it on the top of holster, and insert the connector into the holster.



Do not pull the vehicle connector out of the socket with brute force.

3.3 APP Instruction

Note : The APP version will be upgraded. The sample pictures in the APP manual may be different from the APP. Please refer to the APP.

I Wi-Fi Configuration

3.3.1 To configure the Wi-Fi, please download the application and install the app to your phone.

- For IOS user, download the application from the APP Store by searching “Landbook” or by scanning QR Code bellow (See figure 3.3.1).



Figure 3.3.1 QR Code for IOS user

- For Android user, download the application from the Google play by searching “Landbook” or by scanning QR Code bellow (See figure 3.3.2).



Figure 3.3.2 QR Code for Android user

3.3.2 Register an account with your email address and login .

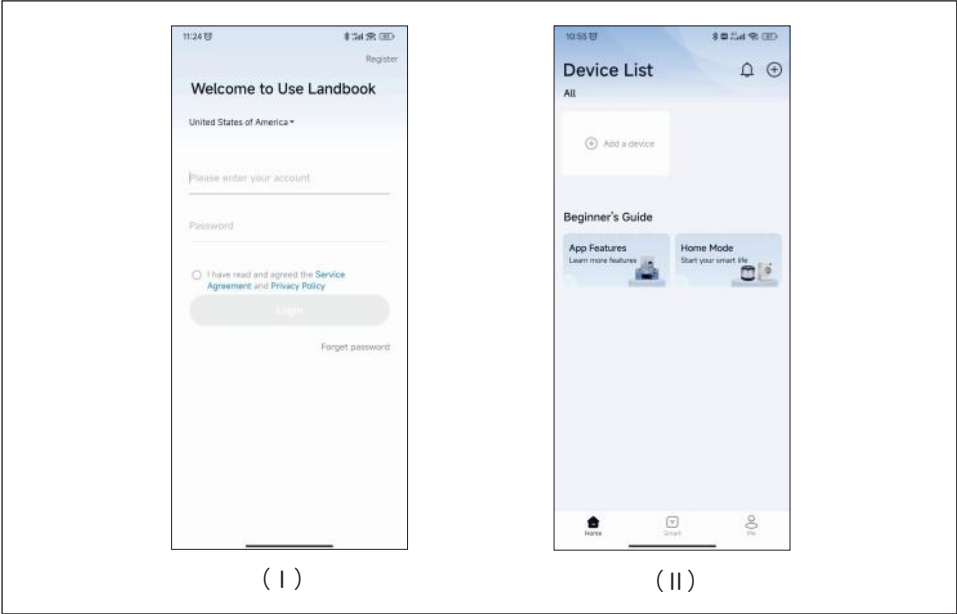


Figure 3.3.3 Register and login

3.3.3 To add your charging pile, please tap the button “Add a device” in figure 3.3.3 (II) , and then tap the button “Detect Nearby Devices” in figure 3.3.4.

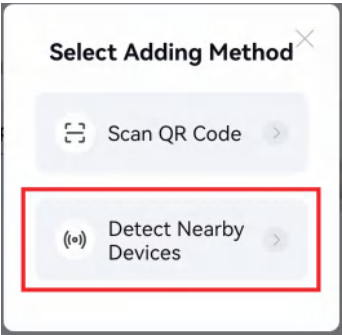


Figure 3 .3.4 Select adding method

In this step, the APP will remind you something or request for something:

- The APP will remind you that the Bluetooth of the phone should be keeping on.
- The APP will request that the location access for this APP is set to “Allow only while in use” or “Allow all the time”.
- The APP will request that the nearby devices access for this APP is set to “Allow”.

3.3.4 Please choose the device you want to add , type the Wi-Fi name and Wi-Fi password , and then you will see figure 3.3.5 (III) which means the device has been added successfully. Only 2.4GHz wireless network is suitable.

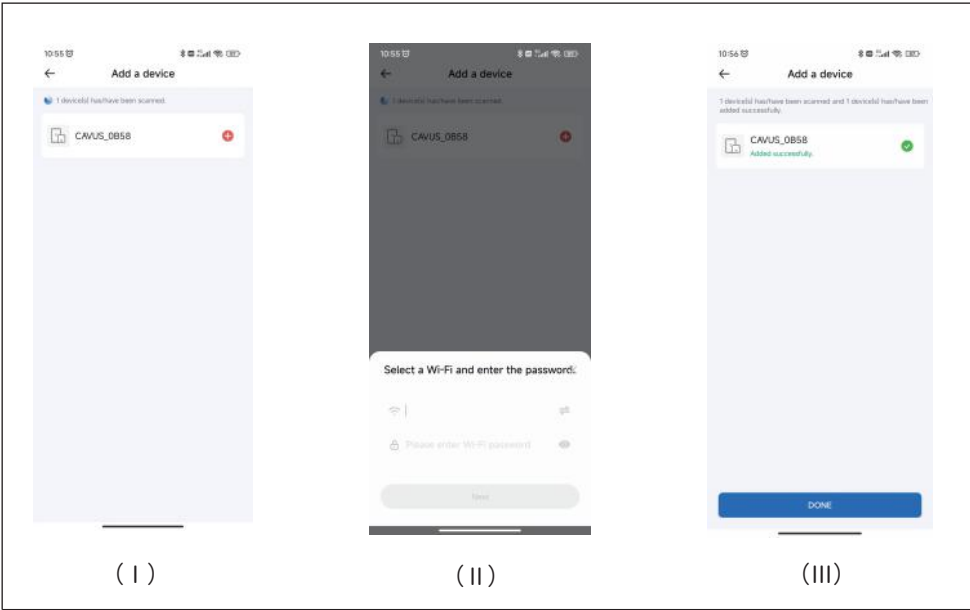


Figure 3.3.5 Add the device

3.3.5 Now, you can start charging through the APP by tap the device which has been added successfully (See figure 3.3.6).

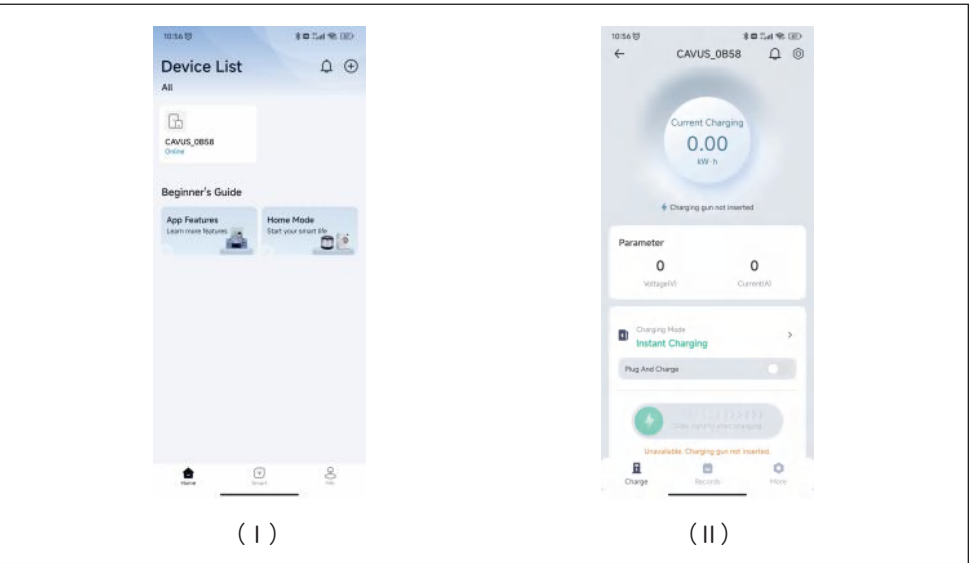


Figure 3.3.6 Start charging through the APP

3.3.6 The APP provides four charging modes (See figure 3.3.7) by tap the button “Charging Mode” (See figure 3.3.6 (II)).

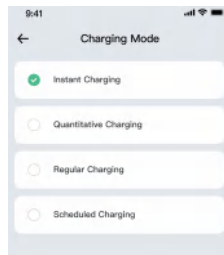


Figure 3.3.7 Charging mode select

3.3.7 Mode description:

- **Instant Charging:** In this mode, start charging immediately.
- **Quantitative Charging:** In this mode, you can set the current charge quantity.
- **Regular Charging:** In this mode, you can set the start time and end time of the current charging.
- **Scheduled Charging:** In this mode, you can make an appointment to charge.

II Share Device

If you want to share this device with your family member or friend, please tap the upper right corner button (See figure 3.3.8 (I)), and then tap the button “Device Sharing Management” (See figure 3.3.8 (II)).



Figure 3.3.8 Share Device

Your family member or friend can use the APP function (See figure 3.3.8 (IV)) to scan the QR Code in figure 3.3.8 (III) to share the device.

III Reset Wi-Fi

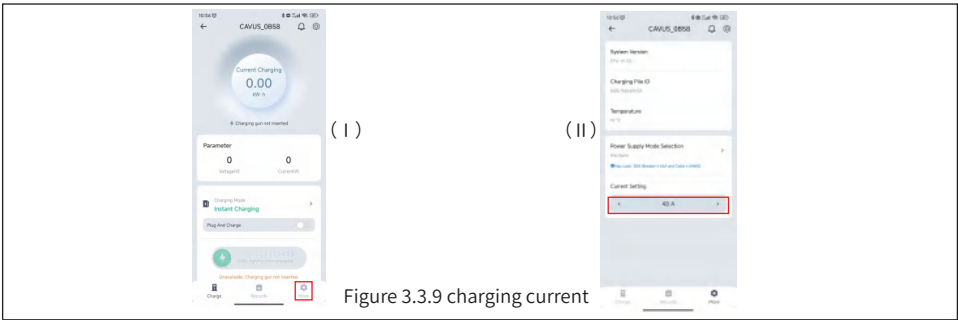
If the device is tied by someone else, the Wi-Fi can be reset by swiping the RFID card for a long time (about 10 seconds). If the Wi-Fi has been reset, please configure the Wi-Fi as the description of Part I.

3.3.8 How to adjust the charging current?

Click the “More” button on the operation page and then select the "Current Settings" option.(See Figure 3.3.9)

Note:Your circuit rating should match the current you've set.

Note:Here, you're setting the maximum current that the charging station can provide. The actual charging current depends on how much your electric vehicle can draw.



4 Status Description

If the charger display does not display after powering on,please check:

- Whether the power supply and distribution are normal;
- Whether the breaker is tripped, and close the breaker after troubleshooting;
- Whether the connection is correct or the cable comes off, and the cable should be properly connected and tightened.

The charger is automatically protected in the event of the fault. The status description and fault handling methods are as follows.

LED indicator	Display Screen	Status description	Handling Method
Steady green		Waiting for connecting EV	N/A
Steady green		Vehicle connector inserted	N/A
Steady green		Waiting for swiping card or APP operation	
Steady green		Vehicle connector inserted, waiting for charging	N/A

Breathing green		Charging	N/A
Steady green		Charging completed	N/A
Steady green		Output shortage	• Check whether the vehicle connector and its cables are damaged or wet. • Turn the circuit breaker off, wait 5 seconds, and turn it back on.
Steady green		CP voltage anomaly	• Check the connection of vehicle connector and socket. • Disconnect and reconnect the vehicle connector. • Turn the circuit breaker off, wait 5 seconds, and turn it back on.
Steady green		Over voltage input / Under voltage input	• Check whether input cable is reliably connected • Check whether the input voltage is abnormal. • Turn the circuit breaker off, wait 5 seconds, and turn it back on.
Steady green		Output over current	• Check whether the vehicle connector is correctly connected. • Check whether the OBC is normal. • Turn the circuit breaker off, wait 5 seconds, and turn it back on.
Steady green		Leakage protection	• Turn the circuit breaker off, wait 5 seconds, and turn it back on.
Steady green		Over-temperature protection	• Check whether the charger is covered or installed in a high temperature environment. • Turn the circuit breaker off, wait 5 seconds, and turn it back on.

Steady green		Self-inspection failure	• Turn the circuit breaker off, wait 5 seconds, and turn it back on.
Steady green		Ground fault	• Charger is not grounded; input power cables need to be checked.

- If the charger is still in a fault status after you have performed as the “Handling Method” described, please contact the manufacturer.

5 Routine Maintenance

The following routine maintenance items are for reference only. For operations, please refer to standards and operation instructions.

5.1 Appearance Maintenance

- Regularly check the appearance of the equipment for stains, especially corrosive stains.

If yes, please erase it in time.

- Regularly check whether the cable is damaged or broken. If yes, please contact the relative for repair.

- Regularly check whether the vehicle connector is damaged or broken or can't be used.

If yes, please contact the relative for repair.

- Regularly check whether the charger is firmly installed. If not, please contact the relative for repair.

5.2 Equipment Maintenance

- Regularly check whether the LED indicator and Display Screen are OK. If any one is not OK, please contact the relative for repair.

- Regularly check whether the emergency stop switch(if available) is OK. If not, please contact the relative for repair.

5.3 Other

If you need to operate your power distribution system,observe the following specifications.

- Turn off: Turn off the switch of the distribution cabinet step by step from top to bottom, main switch, secondary switch, third switch...
- Turn on: Turn on the switch of the distribution cabinet step by step from bottom to top, third switch, secondary switch, main switch...

6 Customer Service

Please contact the manufacturer, if you have any question.

Before contacting the manufacturer because of a product function failure, you can try to recover the charger by yourself as described in chapter 4.

When contacting the manufacturer, please describe your product model and the problem in details as possible.

Manufacturer Contact Information:	
Address:	
Website:	
Service E-mail:	
Service Hotline:	

A Installation Instruction

A.1 Installation Requirements

- The charger should not be installed close to dangerous locations such as water pipes, gas pipes, and steam pipes.
- The charger should be installed to a location where there is Wi-Fi signal available if the client needs to use the APP to operate charging.
- The installation location should be convenient for charging, and make the wiring length short to help reduce cable energy loss.
- The vertical mounting location should not be set in a place where the terrain is low and easy to water or drip. The installation should be vertical, and the center of product is not too high to prevent tipping or tilting. After installation, the center should be about 60 cm from the horizontal plane.
- The wall-mounted charger must be connected to the wall at least two points, and can't be removed without professional tools, and should not be tilted after installation. The wall should withstand the weight of the charger and its all accessories.
- It 's recommended to install the charger in a place without severe vibration and high temperature.
- Reserve a certain space for inspection and maintenance.

A.2 Power Supply Requirements

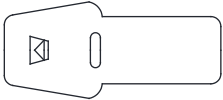
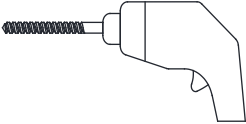
- AC Working Voltage: 240VAC
- AC Working Frequency: 50/60 Hz
- Voltage asymmetry: no more than 5%
- Voltage distortion rate: non-sinusoidal content does not exceed 10% of 240VAC

A.3 Power Supply Requirements

- Working environmental temperature: -20°C~ + 50°C
- Relative humidity: 5% to 95%
- Installation vertical tendency: ≤5°
- Altitude: ≤ 2000 meters
- No strong vibration, shock, electromagnetic interference

A.4 Product Installation

A.4.1 Tool list

Pencil 	Torque Screwdriver (PH2) 	Stud Finder 
Power Drill 	Drill Bit, 6/25 in (6 mm) 	Level 

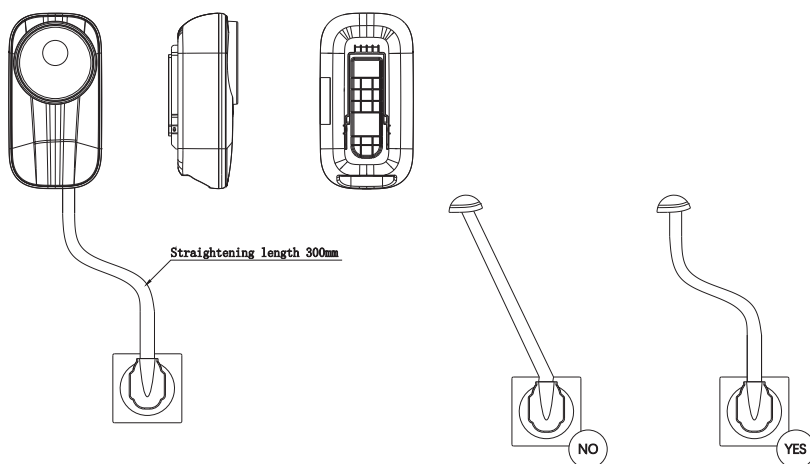
A.4.2 Charger Installation



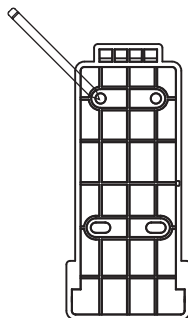
WARNING:

1. Keep the power off until the installation is completed, otherwise there is a risk of electric shock.
2. 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.

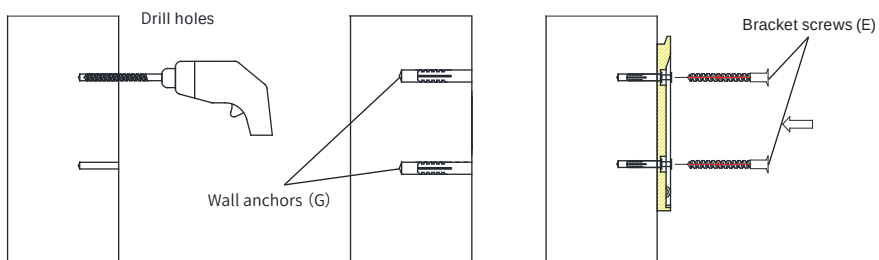
1. Choose the appropriate installation location to ensure that: the input cable can be vertically connected to the circuit breaker interface without tension, and the charger can be installed vertically and horizontally.



2. Place the mounting bracket(Accessory B) on the planned position, keep it vertical and horizontal, and mark the mounting holes.

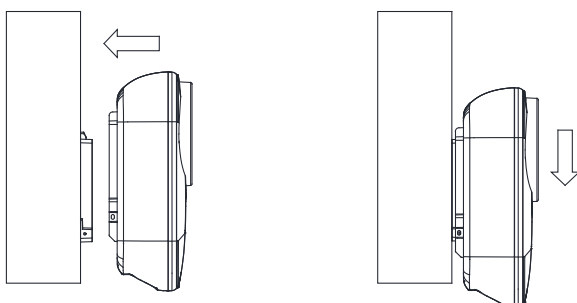


3. Drill the four mounting holes (M8 * 40mm), insert four wall anchors(Accessory F) (M8 * 40mm) into the mounting holes.

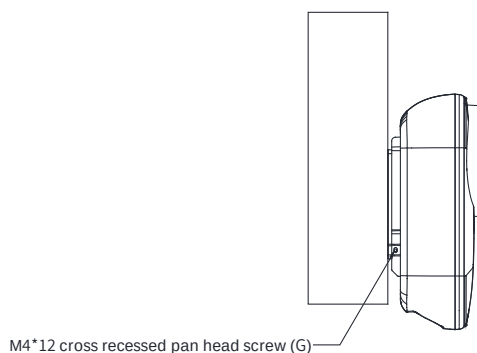


4. Attach the Bracket to the mounting location by screwing four screws(Accessory E) into the mounting holes.

5. Hang the charger (Accessory A) onto the mounting bracket, place mounting tab into corresponding slot in mounting bracket.



6. Fix the charger by tightening two screws (Accessory G) on both bottom sides.



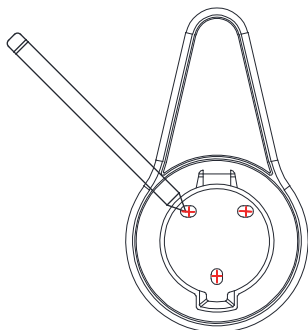
A.4.3 Holster Installation



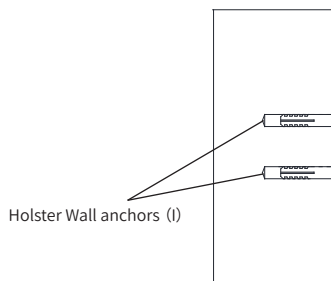
WARNING:

Place the holster on a location where no tension is applied to the charging cable.

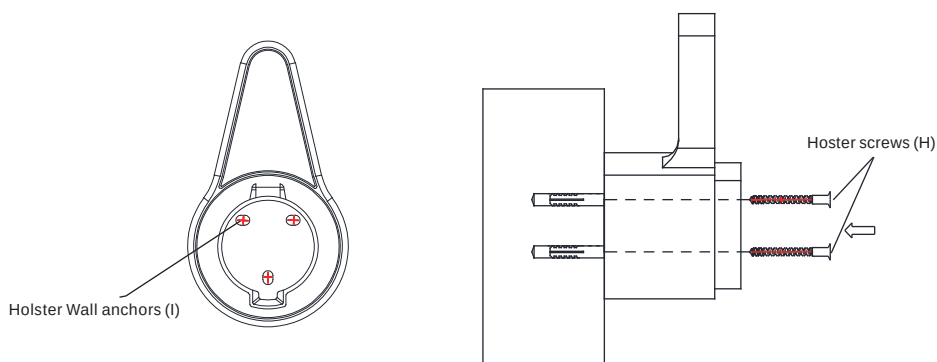
1. Place the Holster bracket (Accessory C) horizontally on the wall stud (using a wall stud finder).
2. Mark the three mounting holes with a pencil and drill three holes (M 6*30mm) .



3. Insert three wall anchors (Accessory I) (M 6*30mm) into the holes.



4. Attach the Holster to the mounting location by screwing three screws (Accessory H) into the holes.



A.4.4 Check after installation

A.4.4.1 Clean up

- Dispose of all transportation and package materials in accordance with local regulations.
- Clean up the debris, such as small cables, straps, screws/mothers, etc. Do not leave the installation tools (record the type and quantity of tools to prevent omission).
- Wipe the insulation with an anti-static cloth. Do not use any corrosive solvents.

A.4.4.2 Inspection

- Check that whether the base is secure and sealed.
- Check that whether the internal components of the charger are securely fastened.
- Check that whether the electrical wiring are correct and completed, whether the electrical connections are secure, and whether the grounding is reliable.
- Check that whether the appearance and marking is intact and clear.

B Warranty Card

B.1 Warranty Terms and Conditions

● Product warranty policy

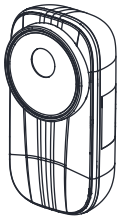
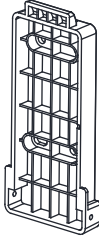
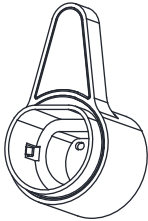
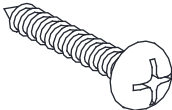
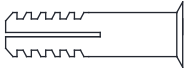
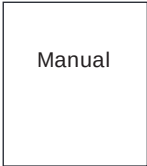
1. The manufacturer provides a product warranty period: 1 year, which starts to calculate from the date of purchase on the invoice.
2. If there is a functional failure within 7 days from the date of purchase, the purchaser can apply for free replacement or maintenance.
3. Valid purchase invoice and warranty card are required to be provided when free maintenance service is applied. If valid invoice and warranty card are unavailable, the warranty period of the product is subjected to the date of product delivery.
4. The faulty parts or machines replaced after the maintenance belong to the manufacturer.
5. Please keep the invoice and warranty card well.

B.2 Information Registration

Product name	AC charger
Product model	LHRS-AC40-M3T1/LHRS-AC50-M3T1/ LHCT-AC40-M3T1/LHCT-AC50-M3T1
Warranty period	1 Year
Purchaser name	
Purchaser Contact Phone	
Purchaser Contact Email	
Purchaser Address	
Warranty Start date	
Warranty End date	

C Product Accessories

All the product accessories are contained in the table below.

A Charging Station (with attached plug and vehicle connector) 	B Mounting Bracket 	C Holster 
D Box Key 	E Charger Bracket Screws*4(M5*40mm) 	F Charger Bracket Anchor*4 (M8x40mm, yellow) 
G Charge & Holster Securing Screw*2 (M4*12mm) 	H Holster Screws*3 (M4*30mm) 	I Holster Anchor*3 (M6x30mm, grey) 
J Manual 	K RFID Card*2 	

Notice: If any accessory missed, please contact the manufacturer.