

# AC EV CHARGER

## USER MANUAL



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## Symbol Meaning

| Symbol  | Meaning   |
|---|---|
|  | The EU Directive 2012/19/EU regulates the collection and recycling of waste electrical and electronic equipment within the European Union. All products covered by this directive are marked with the symbol of the crossed-out wheeled bin and must not be disposed of with general household waste. |
|  | Warning sign: indicates danger.<br>Pay attention to the personal injury that may be caused by operation procedure or incorrect operation and take actions carefully.  |
|  | "CE" mark: on the product, instruction manual or package, indicating that the product has passed the test for safety certification.   |

The company is committed to the continuous improvement and update of the product.  
Product hardware and software will continue to upgrade. The information provided may change without prior notice.

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## Product Overview



## Basic Parameters

| Model               | ARR-W03C-S   | ARR-W07C-S   |
|---------------------|--|--|
| Parameters          |  |  |
| Working voltage     | AC230V 1P  | AC230V 1P  |
| Rated power         | 3.5 kW   | 7 kW   |
| Frequency           | 50/60Hz  | 50/60Hz  |
| IP Code             | IP65   | IP65   |
| Use environment     |  |  |
| Working temperature | -30°C ~ +50°C  | -30°C ~ +50°C  |
| Working humidity    | 5%~95%HR   | 5%~95%HR   |
| The cooling way     | Natural air cooling  | Natural air cooling  |
| Display function    |  |  |
| Display parameters  | Charge voltage, charge current, charge power,soc.fault code. | Charge voltage, charge current, charge power,soc.fault code. |
| Physical size       |  |  |
| Wallbox size        | 320*210*120mm  | 320*210*120mm  |
| Installation mode   | Wall-mounted or Floor standing                               | Wall-mounted or Floor standing                               |

| Model               | ARR-W11C-S   | ARR-W22C-S   |
|---------------------|--|--|
| Parameters          |  |  |
| Working voltage     | AC400V 3P  | AC400V 3P  |
| Rated power         | 11kW   | 22 kW  |
| Frequency           | 50/60Hz  | 50/60Hz  |
| IP Code             | IP65   | IP65   |
| Use environment     |  |  |
| Working temperature | -30°C ~ +50°C  | -30°C ~ +50°C  |
| Working humidity    | 5%~95%HR   | 5%~95%HR   |
| The cooling way     | Natural air cooling  | Natural air cooling  |
| Display function    |  |  |
| Display parameters  | Charge voltage, charge current, charge power,soc.fault code. | Charge voltage, charge current, charge power,soc.fault code. |
| Physical size       |  |  |
| Wallbox size        | 320*210*120mm  | 320*210*120mm  |
| Installation mode   | Wall-mounted or Floor standing                               | Wall-mounted or Floor standing                               |



## Operation and Safty Notes

| Electrical hazard   |
|---|
| Only trained, qualified and authorized electricians are responsible for installation. The first commissioning and maintenance of the charger should comply with existing standards and installation regulations.  |
| Electrical Hazard/Fire Hazard   |
| <ul style="list-style-type: none"> <li>·The charging gun (including the charging cable) must be regularly inspected for damage, and the casing must be inspected for damage</li> <li>·If the charger is damaged, it must be switched off immediately</li> <li>·Do not open the casing and repair charger without authorization, only by the manufacturer.</li> <li>·Do not modify the charger without authorization.</li> <li>·Do not remove safety symbols, warning tips, nameplates, signs or pipeline marks.</li> <li>·When installing, disconnect the power supply before connecting the external power cord to the charger input.</li> <li>·No extension cable shall be used when connecting the electric vehicle to the charger</li> <li>· Make sure that there is no dirt or water on contacts of vehicle plug</li> <li>·Some vehicles may generate toxic or explosive gases in indoor areas during charging and must be equipped with an external ventilation system.</li> <li>·When using the charger to charge the electric vehicle, please carefully read the relevant tips and instructions.</li> <li>·Avoid falling of the charger from a high place or impact from strong mechanical force otherwise, electrical safety of the device can not be assured, resulting in potential safety hazards.</li> <li>·It is strictly prohibited to use in the environment with combustible material or explosive gas, otherwise there is the risk of explosion.</li> <li>·Do not let conductive objects such as metal parts fall into the charger, otherwise accidents may occur.</li> <li>·The PE end of the charger must be grounded reliably, otherwise, electric shock or fire may occur.</li> </ul> |

## Troubleshooting

| Fault  | Possible causes                            |
|--|--|
| AC overvoltage   | AC input voltage too high                  |
| Rule out advice  |  |
| <ol style="list-style-type: none"> <li>1. If the voltage exceeds 265Vac for a short time, wait for the power grid to restore itself to the normal voltage range.</li> <li>2. Check the background monitoring data and analyze. If the voltage in this area is overvoltage for a long time, adjust the input overvoltage protection point to 265Vac by configuring software.</li> </ol> |  |
| Fault  | Possible causes                            |
| AC undervoltage  | AC input voltage too low                   |
| Rule out advice  |  |
| Check the background monitoring data and analyze. If the voltage in this area is chronically undervoltage (175Vac), the protection point of input undervoltage can be adjusted to 90 Vac at least by configuring software.   |  |
| Fault  | Possible causes                            |
| AC overcurrent   | Excessive AC input current                 |
| Rule out advice  |  |
| <ol style="list-style-type: none"> <li>1. Immediately turn off the leakage/overcurrent protection circuit breaker of the power distribution box.</li> <li>2. Check whether there is low impedance or short circuit between the output line of AC pile.</li> <li>3. After the fault is rectified, power on the device again. If the fault persists, please contact us.</li> </ol>       |  |
| Fault  | Possible causes                            |
| Overtemperature  | The temperature in the AC pile is too high |
| Rule out advice  |  |
| <ol style="list-style-type: none"> <li>1. Check the AC pile installation environment.</li> <li>2. Check whether there are other heating devices nearby.</li> <li>3. Ensure that the ambient temperature is below 50 °C.</li> </ol>   |  |

| Fault  | Possible causes   |
|--|---|
| Leakage current exceeds standard   | High leakage current to the ground  |
| Rule out advice  |   |
| <ol style="list-style-type: none"> <li>1. Immediately turn off the leakage/overcurrent protection switches in the power distribution box.</li> <li>2. Check whether the output line of AC pile is damaged or has low impedance to the ground</li> <li>3. After the fault is rectified, power on the device again. If the fault persists, please contact us.</li> </ol>   |   |
| Fault  | Possible causes   |
| Ground fault   | The input/output is improperly grounded or the input L/N is inversely connected |
| Rule out advice  |   |
| <ol style="list-style-type: none"> <li>1. Immediately turn off the leakage/overcurrent protection switches in the power distribution box</li> <li>2. Check whether the input and output cables of ac piles are grounded properly and whether the input L/N cables are connected in normal sequence.</li> <li>3. After the fault is rectified, power on the device again. If the fault persists, contact us.</li> </ol> |   |
| Fault  | Possible causes   |
| Abnormal communication(Internet mode)  | Poor background communication of AC pile  |
| Rule out advice  |   |
| <ol style="list-style-type: none"> <li>1. Check whether the network cable is properly connected.</li> <li>2. Check whether charging piles are correctly configured in the background.</li> </ol>   |   |
| Fault  | Possible causes   |
| Abnormal connection of charging gun  | Charging gun CC/CP Connection exception   |
| Rule out advice  |   |
| <ol style="list-style-type: none"> <li>1. Check whether the charging gun is connected correctly and reliably.</li> <li>2. If the fault persists, please contact us.</li> </ol>   |   |

|   |
|---|
| Fault display: Over-temperature fault   |
| Possible causes   |
| <ol style="list-style-type: none"> <li>1. The ambient temperature exceeds the working temperature specification</li> <li>2. The input voltage of AC power supply is too high</li> <li>3. Internal charger failure</li> </ol>  |
| Terms of settlement   |
| <ol style="list-style-type: none"> <li>1. Install the charging pile in an environment with low ambient temperature.</li> <li>2. If the problem cannot be solved, please do not use the charging pile. Please contact your local company representative or a qualified electrical contractor.</li> </ol> |
| Fault display: Device overvoltage   |
| Possible causes   |
| <ol style="list-style-type: none"> <li>1. The input voltage of AC power supply is too high</li> <li>2. Internal charger failure</li> </ol>  |
| Terms of settlement   |
| <ol style="list-style-type: none"> <li>1. Check the input voltage.</li> <li>2. If the problem cannot be solved, please do not use the charging pile. Please contact local company representative or qualified electrical contractor.</li> </ol>   |
| Fault display: Device undervoltage  |
| Possible causes   |
| <ol style="list-style-type: none"> <li>1. The input voltage of the AC power supply is too low</li> <li>2. Internal charger failure</li> </ol>   |
| Terms of settlement   |
| <ol style="list-style-type: none"> <li>1. Check the input voltage.</li> <li>2. If the problem cannot be solved, please do not use the charging pile. Please contact local company representative or qualified electrical contractor.</li> </ol>   |

## Fault Indicator Prompt

|  |
|--|
| Fault display: Emergency fault   |
| Possible causes  |
| 1. The emergency stop button is pressed  |
| 2. The emergency stop button is damaged  |
| Terms of settlement  |
| 1. Press the emergency stop button again   |
| 2. Replace the emergency stop button   |
| Fault display: RFID unconnected  |
| Possible causes  |
| 1. Card reader failure   |
| Terms of settlement  |
| 1. Whether the power supply is restored after restart  |
| 2. Replace the card reader   |
| Fault display: Grounding fault   |
| Possible causes  |
| 1. Ground fault  |
| Terms of settlement  |
| 1. Check whether the ground wire is reliably connected   |
| Fault display: OverCurrent fault   |
| Possible causes  |
| 1. Overload protection   |
| Terms of settlement  |
| 1. Please contact the manufacturer's local representative or a qualified electrical contractor |

| Working status               | Red                | Green    | Blue     |
|------------------------------|--------------------|----------|----------|
| Free                         | /                  | Stays On | /        |
| Insert a gun                 | /                  | /        | Flashing |
| Recharge                     | /                  | /        | Stays On |
| Metering communication error | Flash for 1 times  | /        | /        |
| Under-voltage alarm          | Flash for 2 times  | /        | /        |
| Overvoltage alarm            | Flash for 3 times  | /        | /        |
| Ground fault                 | Flash for 4 times  | /        | /        |
| Over current alarm           | Flash for 5 times  | /        | /        |
| Permanent overcurrent alarm  | Flash for 6 times  | /        | /        |
| Leakage alarm                | Flash for 7 times  | /        | /        |
| Over temperature alarm       | Flash for 8 times  | /        | /        |
| Emergency stop button        | Flash for 9 times  | /        | /        |
| RFID failure                 | Flash for 10 times | /        | /        |
| Relay failure                | Flash for 11 times | /        | /        |
| Relay failure                | Flash for 12 times | /        | /        |
| Memory failure               | Flash for 13 times | /        | /        |
| Clock exception              | Flash for 14 times | /        | /        |

## Maintenance

### The power distribution system

The AC input of the charger is led out from the distribution box of the power grid, and the power shall be cut off before connection. The power on and power off steps are as follows:

1. Check whether the power supply voltage is normal.
2. Firstly turn off the main switch of the distribution box, and then turn of the branch circuit switch in turn.
3. Pull each branch circuit switch first, and then pull the main switch off the distribution box. Pull the main brake in case of emergency.

### Wiring system

Regularly check the input and output cables of the charger:

1. Weekly inspection: check the cable for heating and damage.
2. Monthly inspection: check whether the cable is heated or damaged, whether the cable is stressed by external tension, and whether the cable is fixed firmly.
3. Annual inspection: check whether the connection between the cable and the switch is tight, whether the grounding is reliable, whether the cable is heated and damaged, whether the insulation resistance of the cable meets the requirements, whether the cable seal is intact, and whether the holes are sealed tightly.

### Circuit components

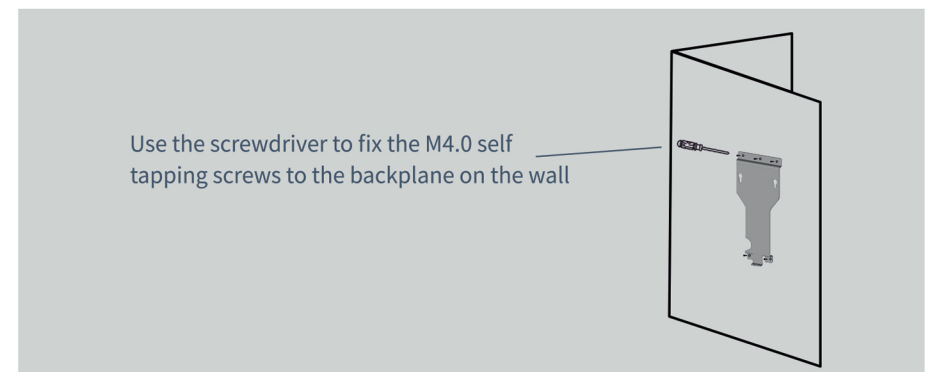
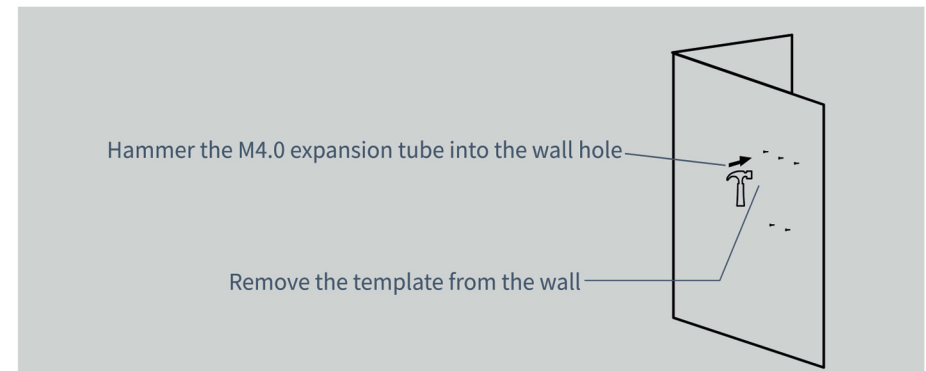
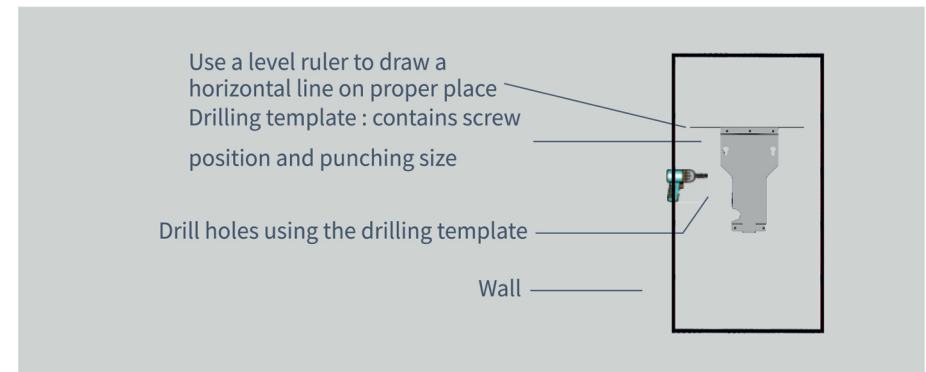
The following inspections shall be carried out by professional maintenance personnel:

1. Weekly routine inspection: whether the mechanical lock buckle of the charging gun is damaged and whether the connection is abnormal.
2. Quarterly routine inspection: whether there is ignition burning at the connection of charging gun wire core. If there is any abnormality, replace the parts in time.
3. Annual routine check: use brushes and vacuum cleaners to remove dust from the box. When cleaning, be careful to inhale dust into the components by mistake, resulting in short circuit. Check all components of the box and replace abnormal parts in time.

### Equipment appearance

1. Check the appearance of the charger monthly to see if there are stains, and clean the charger shell.

## Installation Steps



### Remove covers for wiring

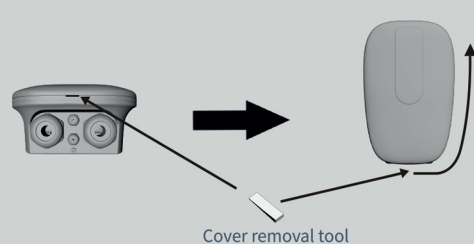
#### Step 1

Unscrew the anti-theft screw



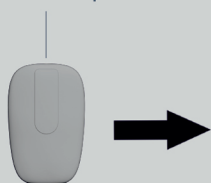
#### Step 2

Use the tool to open the top cover



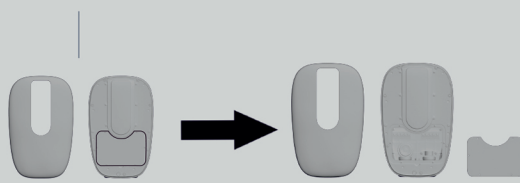
#### Step 3

Remove the top cover



#### Step 4

Remove the inner cover



### Hang the wallbox

#### Step 1

Align the holes and hang the wallbox on the back panel



#### Step 2

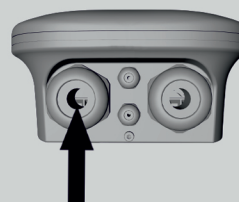
Move down and make it fixed



### Wiring for 11kW and 22kW wallbox

#### Step 1

Open the wire entry hole and insert the input cable



#### Step 2

Connect the input cable to the mainboard



Input cable





## Wiring for 3kW and 7kW wallbox

### Step 1

Open the wire entry hole and insert the input cable



Wire entry hole

### Step 2

Connect the input cable to the mainboard



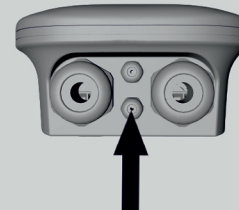
Input cable



## Connect 4G and Ethernet

### Step 1

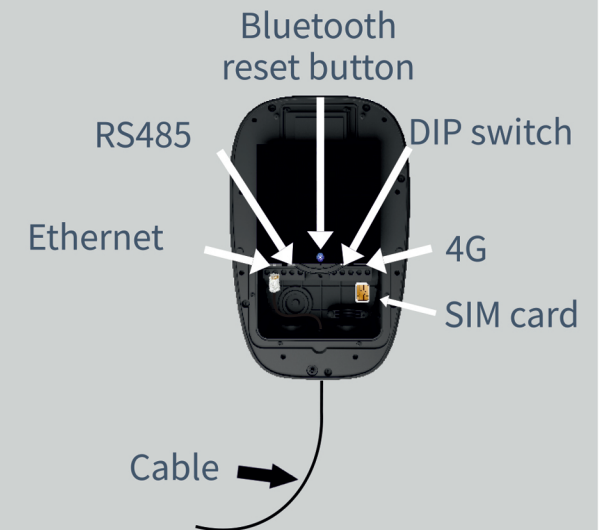
Open the wire entry hole and put into the cable



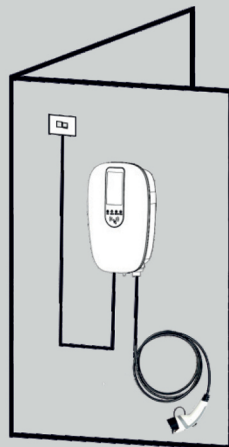
Wire entry hole

### Step 2

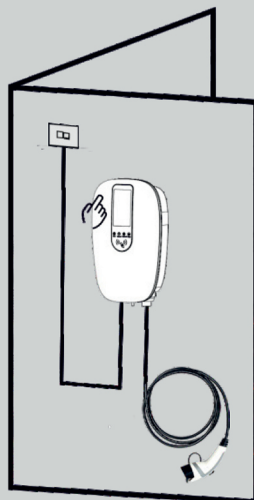
Connect Ethernet cable to the LAN port  
Insert the SIM card to the 4G port



Tighten the anti-theft screw on the bottom of the wallbox and place the plug holder in an appropriate place

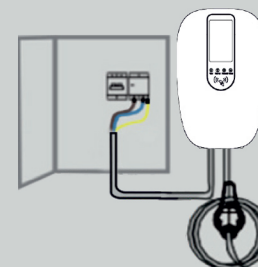
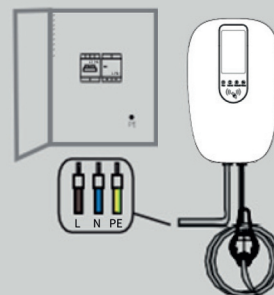


After completing the above steps, the surface protective film of the wallbox can be torn off

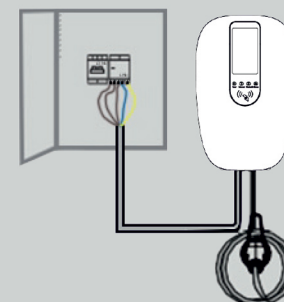
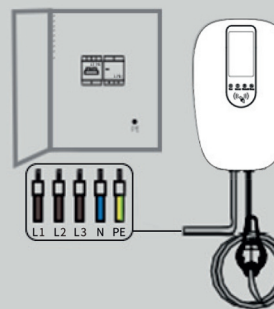


## Wiring Instructions

If the power distribution box is connected, connect the L, N, and PE ends of the input line with the L, N, and PE ends of the circuit breaker respectively

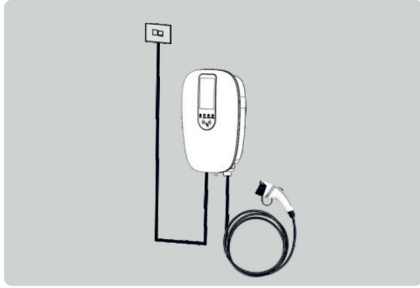


If the power distribution box is connected, connect the L, N, and PE ends of the input line with the L, N, and PE ends of the circuit breaker respectively

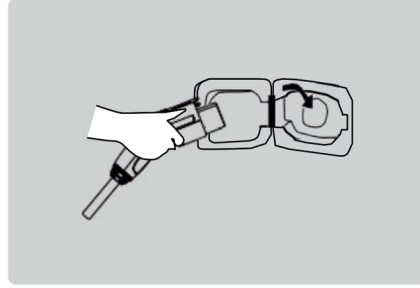




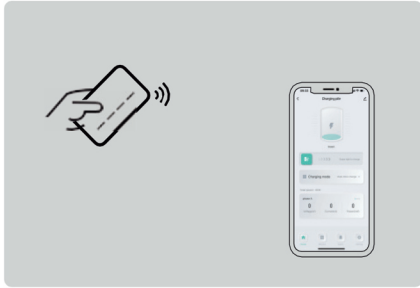
## Usage Steps



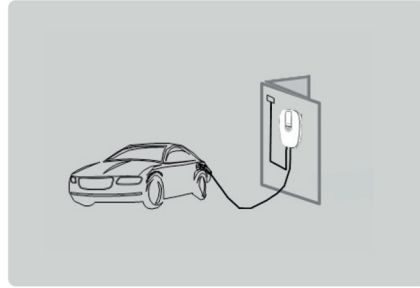
1. Insert the input cable to the power supply



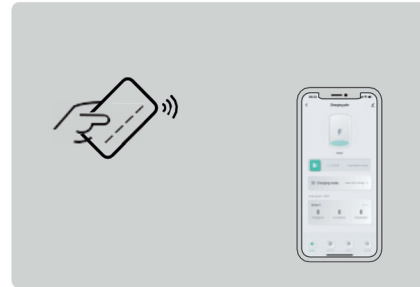
2. Insert the charging plug to the charging port



3. Start by swiping card/APP



4. E-cars are in normal charging status



5. Finish by swiping card/APP

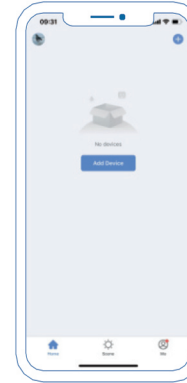


6. Remove the charging cable and put it back in place

## Steps for Adding Device on APP

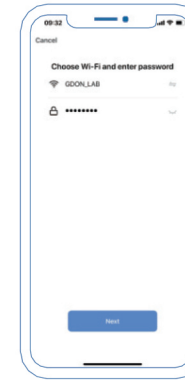
### Download APP

For IOS: Search Smart Life in the Apple Store to download and install it.  
For Android: Search Smart Life in the Google Store to download and install it.



### Step 1 Add Device

Click "Add Device"



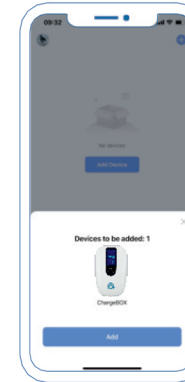
### Step 2 Connect the WIFI

When adding a device for the first time, connect the device and mobile phone under the same WIFI.



### Step 3 Loading

Wait until the device is loaded.



### Step 4 Loading completed

After loading, click Add to enter the charging interface.

### Tips:

Only when the device is added for the first time, the device and mobile phone need to be connected under the same WIFI. After the device is loaded, you only need to turn on Bluetooth to connect the device again.

# Charging Instructions on APP



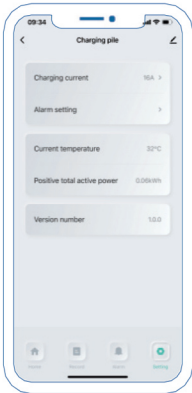
## Instruction 1: Swipe right to charge

Insert the charging plug into the charging port, Right Swipe "Swip right to charge "



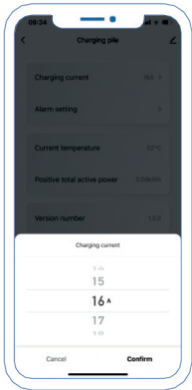
## Instruction 2: Charging record

Users' charging history can be viewed in the APP



## Step1: Setting

Click on the Settings TAB



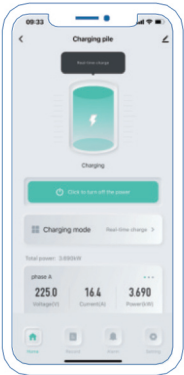
## Step2: Charging current

Click on Charging current to adjust current from 0~32A



## Instruction 3: Alarm

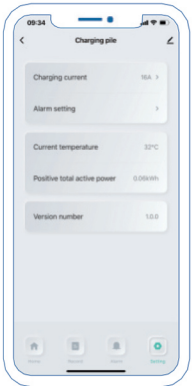
When the device fails, a warning is issued and a record is left



## Instruction 4: Charging completed

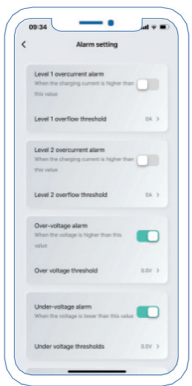
After charging, click to turn off the power

# Alarm Parameter Settings



## Step1: Setting

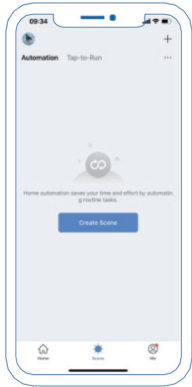
Click on the Settings TAB



## Step2: Alarm setting

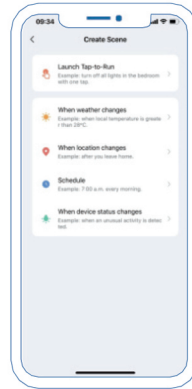
Set the overcurrent, over- voltage & undervoltage thresholds

# Steps for Charging Appointment on APP



## Step1: Create Scene

Click the scene TAB,  
and then click Create  
Smart Scene



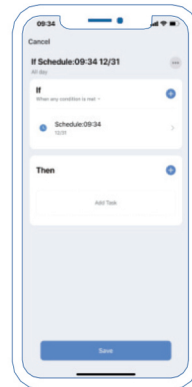
## Step2: Schedule

Click Schedule to select  
an appointment time



## Step3: Execution Time

Slide up and down to  
set the length of time,  
and click Next  
when finished



## Step4: Save

Click Save to start  
charging appointment