

For Manual & APP Schedule, Must Configure
The Current & Schedule FIRST!
THEN, Plug into Your Car.

Note: Plugging it in first will activate
plug-and-play mode.

HOME EV CHARGER LEVEL 2 USER MANUAL

(U Version : 1.2)

Please do not hesitate to contact us if you have any questions

Important note:

Please include your order number and the product model number in your email.







Official Customer Service:

Email Address:cs@tera-innovation.com

Cell:+1(626)438-1404/+1(909)242-8669

Whatsapp: +1(626)438-1404

Follow us:

-  Facebook: Tera Energy
-  Instagram: Tera Innovation
-  Twitter: Tera Innovation
-  LinkedIn: Tera Innovation
-  YouTube: Tera Innovation
-  TikTok: Tera

Visit our official website via the following link or by scanning the provided QR code:



Content

1. Safety Tips	2
2. Important Information	3
2.1 Specified Use	3
2.2 About This Manual	3
3. Use of Products	4
3.1 Product Appearance Size	4
3.2 Product Appearance Introduction	4
3.3 Floor Mounted Appearance Size	5
3.4 Product Performance Description	6
3.5 LED Indicator Instruction	7
3.6 Equipment Parts List	7
4. Operation Guide	8
4.1 Operation Steps	8
4.2 Steps For Adding APP Device	10
5. Installation Method	12
5.1 Wallbox Installation Method	12
5.2 Floor Mounted Installation Method	14
5.3 Specification Of Switch Socket	15
5.4 Installation Environment Requirements	16
5.5 Power Supply Requirements	16
6. Troubleshooting	17
6.1 Troubleshooting Table	17
7. Maintenance	19
7.1 Maintenance	19
7.2 Important Matters	20

1. SAFETY TIPS



IMPORTANT SAFETY INSTRUCTIONS

WARNING: This manual contains important instructions for AC charger series that shall be followed during installation, operation and maintenance of the unit.

- a. Read all the instructions before using this product;
- b. This device should be supervised when used around children;
- c. Do not put fingers into the electric vehicle connector;
- d. Do not use the product when the charging cable has been damaged or frayed;
- e. Do not use this product if the enclosure or the EV connector is broken, cracked, open, or shows any other indication of damage;
- f. The whole installation should be operated by qualified professional electrician;
- g. Be careful! Any incorrect operation may cause life danger, injury or equipment damage. The manufacturer would refuse to accept any claim arising therefrom. Please make sure this instruction manual is fully understood and the specified conditions are met before any operations of the EV charger;
- h. Please do not operate under any circumstances that may cause electric leakage;
- i. Changes or modifications to this unit not expressly approved by the part responsible for compliance could void the user's authority to operate the equipment;
- j. This equipment complies with FCC radiation exposure limits set forth for an uncontrolled rolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator and your body.

SAVE THESE INSTRUCTIONS

2. IMPORTANT INFORMATION

2.1 Specified Use

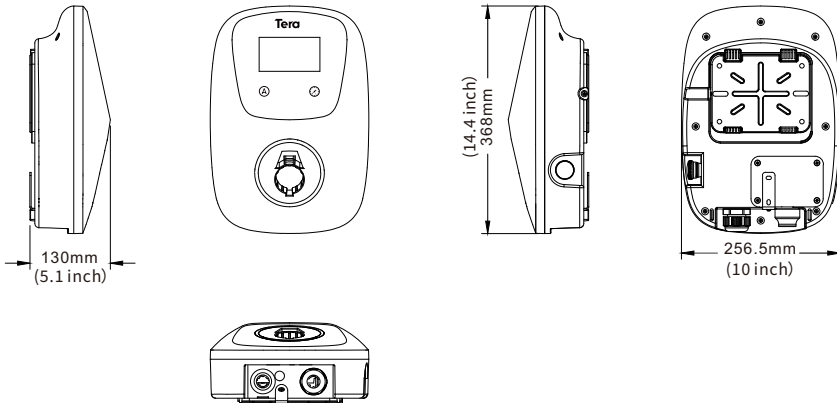
- This type of product is a charger that can charge electric vehicles in indoor and outdoor areas (such as electric vehicles).
- When installing and connecting the charger, the relevant regulations of the local country or government shall be observed;
- The specified use of the equipment includes complying with the environmental conditions under any circumstances;
 - ★ During the storage or use of the equipment, it is necessary to store the charger and its supporting components in a dry and ventilated indoor place with a temperature of 22°F ~ 122°F and a daily average temperature of $\leq 95^{\circ}\text{F}$ within 24 hours;
 - ★ Monthly average relative humidity $\leq 90\%$ (77°F), no condensation on the surface;
 - ★ After the installation, the shell of the charger shall be kept sealed to avoid soaking in rain;
 - ★ The place of use shall be free of explosive media, the surrounding media shall not contain harmful gases and conductive media that corrode metals and damage insulation, and shall not be filled with steam or serious mold;
 - ★ The place of use should avoid direct sunlight. When installing outdoors, it is recommended to install sunshade facilities for the charger;
 - ★ When the charger is not in use, the charging gun shall be placed 19.69 inches ~ 59.06 inches away from the ground;
- Equipment shall be developed, produced, inspected and filed according to relevant safety standards. Therefore, there will be no unnecessary property loss or personnel danger, if the instructions and safety standards are followed strictly;
- The instructions contained in this manual must be strictly followed, otherwise potential safety hazards may occur or the built-in protection devices may fail. Although this manual describes the relevant safety tips, it is still necessary to pay attention to the safety regulations and accident prevention regulations in accordance with the corresponding application;
- Due to technical or legal restrictions, it is impossible to supply all models/options to the region;
- For any special requirements, pls feel free to contact us.

2.2 About This Manual

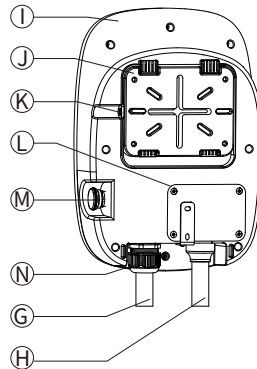
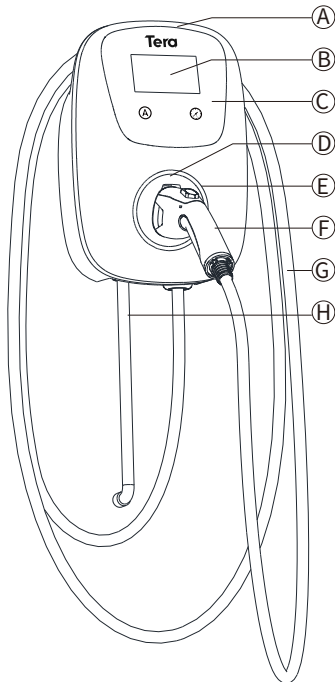
- This manual is applicable to the following groups:
 - ★ The end customer (charging user).
 - ★ The technical staff of debugging and service
- The final explanation of this manual belongs to the company.

3. USE OF PRODUCTS

3.1 Product Appearance Size



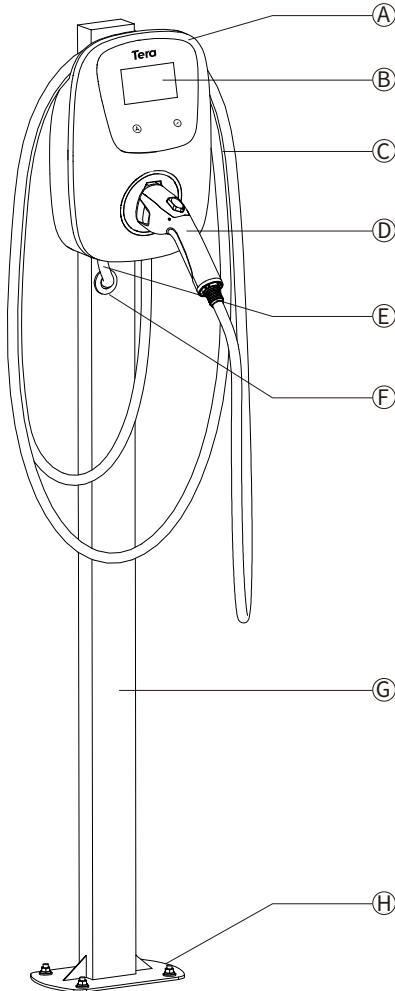
3.2 Product Appearance Introduction



- | | |
|---------------------------|------------------------|
| [A] Surface Cover | [B] Display Screen |
| [C] Panel | [D] Gun Holder |
| [E] Indicator | [F] Charging Gun |
| [G] Output Wire | [H] Input Wire |
| [I] Bottom Shell | [J] Fixing Plate |
| [K] The Anti-theft Screw | [L] Junction Box Cover |
| [M] Emergency Stop Switch | [N] Waterproof Joint |

3. USE OF PRODUCTS

3.3 Floor Mounted Appearance Size



- [A]Surface Cover
- [B]Display Screen
- [C]Charging Cable
- [D]Charging Gun
- [E]Input Wire
- [F]Wire protector
- [G]Column
- [H]Expandable Rubber Stopper

● When not in use for charging, please ensure to neatly roll up the charging cable and store it back in the designated cable slot.

● Similarly, when the ev charger is not in use, kindly cover or insert the charging gun into the holder.

3.USE OF PRODUCTS

3.4 Product Performance Description

Product Specification	
Output Power	11kW
Operating Current	48A
Operating Voltage	L1 /L2 /PE; 240 Vac(± 15%)
Product Weight	7.3kg ± 10%/ 16lb ± 10%
Operating Frequency	60Hz±1Hz
Cable Length	7.5m / 25ft
AC Input Plug	NEMA 14-50P
Connector Type	Type 1(SAE J1772)
Indicator	3-color Indicator
User Interface	4.3inches LCD Display Screen
Installation Method	Wallbox/Floor Mounted
Charging Method	Plug and Charge / APP Charging
Communication Method	Wifi & Bluetooth
Protection Characteristics	
Over Voltage Protection	Input Voltage> 120 %, relay is off
Under Voltage Protection	Input Voltage< 80 %, relay is off
Over Load Protection	Output Current> 110%, relay disconnected, the power supply needed to be cut off and restored
Over Temperature Protection	When the temperature of the main board reached 185°F , the power was reduced to 50%, and it was turned off after 194°F
Emergency Stop Protection	If the charging pile fails but does not stop automatically, the operator can press the emergency stop button to stop the charging pile (the whole machine needs to be equipped with an emergency stop button)
Ground Protection	The ground wire is not detected or the ground wire is disconnected during charging. The relay is disconnected
Surge Protection	L-N3kV/LN-G3kV
Leakage Protection	CCID20, leakage, the relay was off
Operating Temperature	-30°C~+50°C(-22°F~+122°F)
Storage Temperature	-35°C~+80°C (-31°F~+176°F)
Operating Humidity	5%~95%RH
Operating Altitude	< 2000m
Protection Degree	TYPE 3R

3.USE OF PRODUCTS

Reliability	
MTBF	100,000H
Safety Standard	UL2594, UL2231-1/-2, UL1998,UL991,UL2251

3.5 LED Indicator Instruction

No.	Charging Status	Indicator Color	Indicator Status
1	Standby	Blue	Always on
2	Insert the Plug	Green	Always on
3	Charging	Green	Flashes once every 1S
4	C P Abnormal	Red	Always on
5	Over voltage/Under voltage	Red	Flashes once every 1S
6	Ground Fault	Red	Flashes once every 2S
7	Emergency Stop	Red	Flashes once every 4S
8	Over-current Protection	Red	Flash 3S, off 3S
9	Leakage Protection	Purple	Flashes once every 1S
10	Over-temperature Protection	Purple	Flashes once every 2S
11	Adhesion Protection	Purple	Flashes once every 4S

3.6 Equipment Parts List

No.	Equipment Parts	Quantity	Remark
1	AC Charger	1	
2	Retainer Plate	1	
3	Screw	8	
4	Wall Hole Formwork	1	
5	User Manual	1	

4. OPERATION GUIDE

4.1 Operation Steps

① Plug the charger into the socket

For power safety, add overcurrent protection device/circuit breaker at the product input.

GROUNDING INSTRUCTIONS

This product must be grounded. If it should malfunction or break down, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This product is equipped with a cord having an equipment grounding conductor and a grounding plug.

The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.



WARNING

Improper connection of the equipment grounding conductor is able to result in a risk of electric shock. Check with a qualified electrician or serviceman if you are in doubt as to whether the product is properly grounded. Do not modify the plug provided with the product if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

② Adjust charging parameter

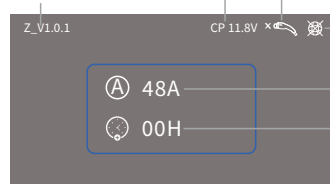
Long press the ⏻ or ⌚ button for 2s to enter the setting interface

The ⏻ button can set the 24A-32A-40A-48A power output

The ⌚ button can be set to delay charging between 1-12H

After setting, press and hold the ⏻ or ⌚ button for 2s to confirm the setting and exit.

Software version



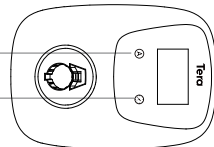
CP voltage

Gun holder insertion status

WiFi online status

Current Selection

Delay Charging
Clock Selection



- Tips: 1.All operations must be completed before inserting the gun;
2.All buttons will lock after inserting the gun;
3.No action in 5S, automatic confirmation to exit the current interface.

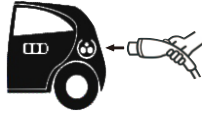
4. OPERATION GUIDE

4.1 Operation Steps

- 3** Please open the charging seat and ensure that there are no foreign objects present.



- 4** Hold the charging gun and connect the electric vehicle



- 5** If the green light flashes, the charging gun is correctly connected



6 Charging Procedure

⚡ Plug and Charge



The charging gun is directly inserted into the vehicle charging base, and the charging starts.

🕒 Scheduled Charge

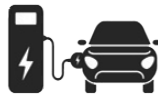


Long press the 🕒 for 2s to enter the interface, short press ⏸ or ⏹ to adjust the current or timer. When time up, start to charge.

📱 Scan code to download APP



Use mobile phone to scan charging QR code for charging.

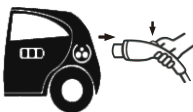


Press the car remote control to unlock and stop charging

Press the car remote control to unlock and stop charging

Using the mobile for stop

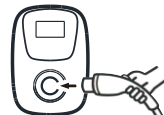
- 7** After charging, unlock and remove the charging gun from the vehicle charging stand



- 8** Collect the charging cable and place it in the cable storage



- 9** Plug the gun into the gun holder



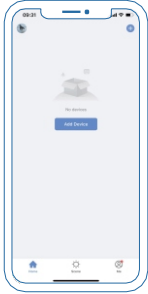
4. OPERATION GUIDE

4.2 Steps for Adding APP Device

Download Method

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.



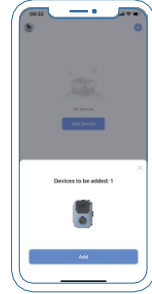
Step 1:
Add Device
Click "Add Device".



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.



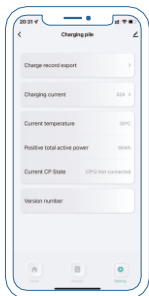
Step 4:
Loading Completed
After loading,click
"Add to enter the
charging interface".

Tips:

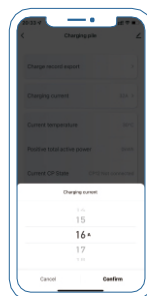
Only when the device is added for the first time, the device and mobile phone need to be connected under the same WIFI. After the device is loaded, you only need to turn on Bluetooth to connect the device again.

Both Bluetooth and Wi-Fi need to be turned on for the first connection.

4.2.1 APP Current Switch Step



Step 1:
Setting
Click on the
"Setting" TAB.



Step 2:
Charging Current
Charging current can
be switch from 24A,
32A, 40A and 48A.

4. OPERATION GUIDE

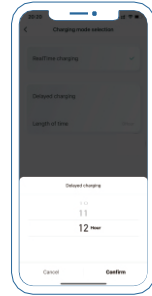
4.2.2 Steps for APP Appointment Time



Step 1:
Click charging mode.

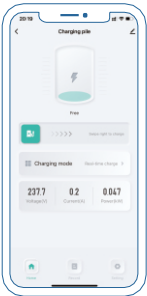


Step 2:
Click delay charging.

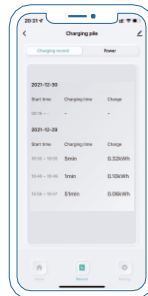


Step 3:
Select delay charging time 1-12h and confirm.

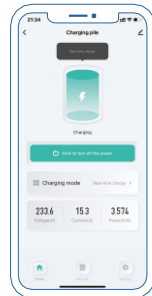
4.2.3 Charging Instructions on APP



Instructions 1:
Swipe Right To Charge
Insert the charging plug into the charging port,



Instructions 2:
Charging Record
Users' charging history can be viewed in the APP.

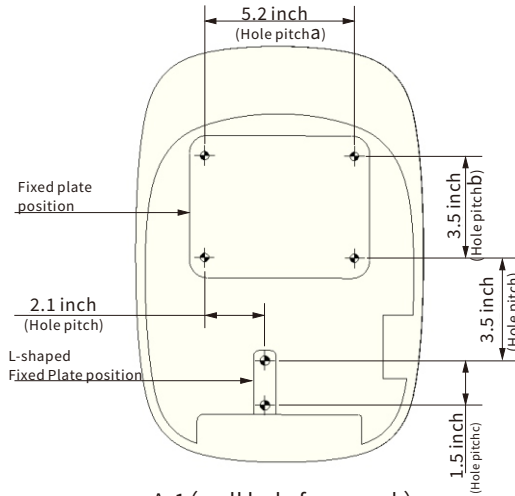


Instructions 3:
Charging Completed
After charging, click to turn off the power.

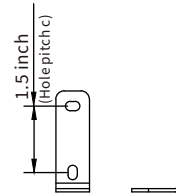
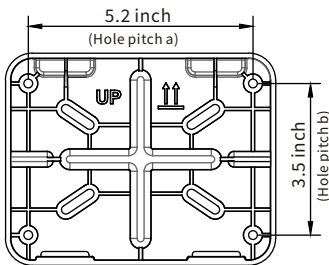
5.INSTALLATION METHOD

5.1 Wallbox Installation Method

5.1.1 The distance between the center of the wall drilling is shown in the figure, and the wall hole template is placed at a suitable height (the top surface of the wall hole template is at least 4.2 ft above the ground). The wall hole template shall be close to the wall, and $\phi 7$ holes shall be drilled on the wall according to the $\phi 6$ positions marked on the wall hole template with an impact drill. As shown in Figure A - 1 (wall hole formwork)



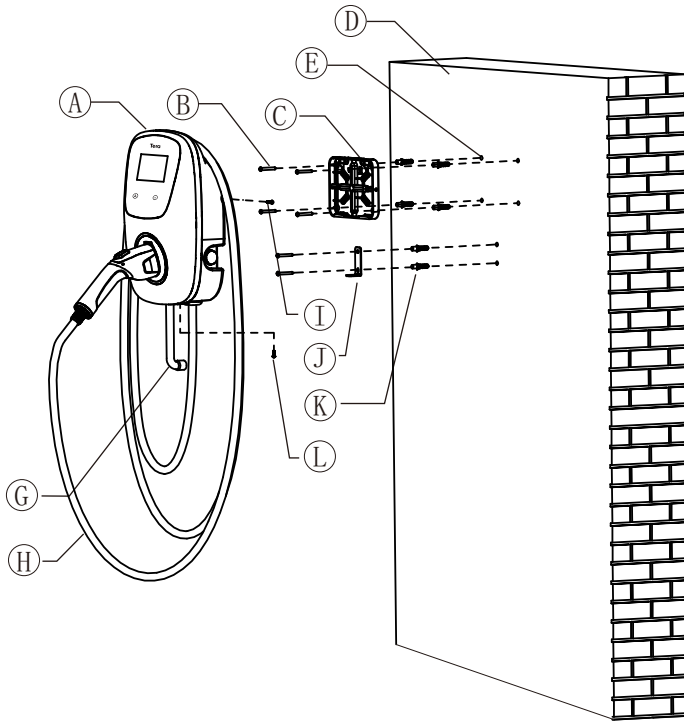
5.1.2 After the wall hole corresponding to the wall is drilled, remove the wall hole formwork, and insert the corresponding holes of the fixing plate (Figure A-2) and L-shaped fixing strip (Figure A-3) into the expansion rubber plug and lock them with screws for fastening. Note that the concave surface of the fixed plate faces the installer, and the "UP" double arrow symbol in the concave surface of the fixed plate should be placed upward (as shown in Figure A-2)



A-3 (L-shaped fixing strip)

5. INSTALLATION METHOD

5.1.3 After locking the fixed plate and L-shaped fixing strip with self tapping screws, hang the charger connected with the line onto the fixed plate and L-shaped fixing strip, lock the charger and the fixing strip from the side of the charger with flat head anti-theft screw $\phi 4$, and finally lock the charger and L-shaped fixing strip from the bottom of the charger with pan head anti-theft screw $\phi 4$. As shown in Figure A-4 (wall mounted general assembly drawing)



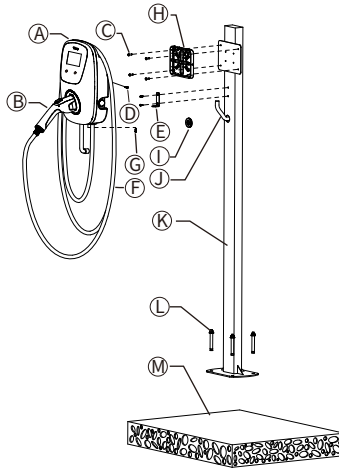
A-4 (wall mounted general assembly drawing)

[A]Charger	[B]Self-tapping screw $\phi 5$	[C]Fixing Cover
[D]Wall	[E]Wall Hole	[F]Charging Gun
[G]Input Wire	[H]Output Wire	[I]Flat head anti-theft screw $\phi 4$
[J]L-shaped fixing strip		[K]Expandable Rubber Stopper $\phi 8$
[L]Pan head anti-theft screw $\phi 4$		

5. INSTALLATION METHOD

5.2 Floor Mounted Installation Method

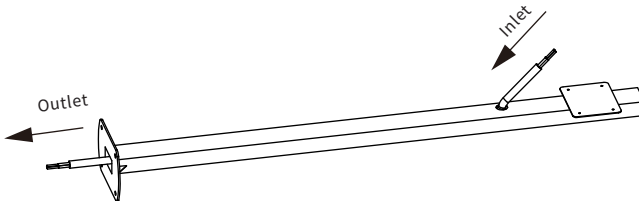
5.2.1. Floor Mounted general assembly drawing



A-5 (Floor Mounted General Assembly Drawing)

[A]Charger	[B]Charging Gun
[C]Cross pan head screwM5*07"	[D]Flat head anti-theft screw ϕ 4
[E]L-shaped fixing strip	[F]Output Wire
[G]Pan head anti-theft screw ϕ 4	[H]Fixing plate
[I] Wire protector	[J]Input Wire
[K]Column	[L]Expansion boltM8*100mm
[M]Cement foundation	

5.2.2 Lay the column flat on the ground, pass the cable through the guard coil of the column such as the inlet, and then lead out from the outlet of the column, as shown in Figure A-6:



A-6 (Floor Mounted Inlet Assembly Drawing)

5. INSTALLATION METHOD

5.2.3. The power supply in the cement foundation has been embedded in the cable at one end of the outlet, and the column is erected at a suitable position on the cement foundation . Mark the cement foundation through the four bolt holes in the column flange plate, drill holes with a diameter of 0.47'' with a hole depth of 0.5'' with an impact drill, and then drive four M8 expansion bolts into the holes with a diameter of 12 mm respectively to erect the column and the foundation. The M8 expansion bolts pass through the column flange plate holes, Screw in M8 nuts to fasten the column;

5.2.4 Lock the fixed plate into the column tray with four cross pan head screws M5;

5.2.5 Hang the charger directly onto the fixed plate, and lock the charger and the fixed plate from the side of the charger with the flat head screw $\Phi 4$.

5.3 Specification Of Switch Socket

For the sake of power safety, it's recommended to add an overcurrent protection device or a circuit breaker at the product's input.

Power	Current	Switch/Socket
11kW	48A(Max)	63A(2P Circuit breaker)/63A Socket(min)

GROUNDING INSTRUCTIONS

This product must be grounded. If it should malfunction or break down, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This product is equipped with a cord having an equipment grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

WARNING

Improper connection of the equipment grounding conductor is able to result in a risk of electric shock. Check with a qualified electrician or serviceman if you are in doubt as to whether the product is properly grounded. Do not modify the plug provided with the product if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

5. INSTALLATION METHOD

5.4 Installation Environment Requirements

5.4.1 The installation position of the charger shall not be close to dangerous locations or areas such as water, oil and gas pipelines.

5.4.2 The installation position shall be convenient for charging, the wiring length shall be shortened to reduce the energy consumption of cable resistance when laying lines.

5.4.3 The wall hanging parts and fixed walls shall be fixed with screws. The installation wall shall be able to bear the gravity of the charger and its accessories, and shall not tilt after installation. The wall should not be too close to the internal line.

5.4.4 The protection degree for indoor installation shall be at least TYPE 3R, and that for outdoor installation shall be at least TYPE 3R. It is recommended that the charger be installed in an environment with sunshade or umbrella; The lighting and passage at the installation site of the charger must be safe and smooth.

5.4.5 A certain operating space shall be reserved for the installation of charger to facilitate the overhaul and maintenance of engineering personnel.

5.4.6 It is recommended that the customer install a circuit breaker at the front end of the charger. The mini circuit breaker should meet local regulations.

5.5 Power Supply Requirements

The power supply mode of the AC charger is AC single-phase power supply, and the input electrical requirements are:

5.5.1 AC Operating Voltage: Refer to page 6.

5.5.2 AC Operating Frequency: Refer to page 6.

5.5.3 The capacity of the power supply system shall be greater than the maximum operating power of the product.

5.5.4 Power cord must not touch the ground, wiring such as A-7 as shown.



A-7 (Wiring diagram)

6. TROUBLESHOOTING

6.1 Troubleshooting Table

Failure	Causes and Solutions
Unable to turn on	<ul style="list-style-type: none">● Check the power supply and cables to make sure they are not damaged in any way and properly connected and that the power supply is working properly.● If you cannot resolve the problem, please contact a service partner.
Unable to start charging	<ul style="list-style-type: none">● Check the vehicle connector to make sure there is no foreign matter inside the gun, the cable is not damaged, and the vehicle connector and socket are in good contact.● Check the unlock button to make sure it is locked and that the vehicle is set up properly.
Incomplete charge or overtime charge	<ul style="list-style-type: none">● High temperatures can cause current derating or interrupt charging.● Overvoltage or undervoltage may cause interruption of charging.● Poor grounding leads to incomplete product protection charging.
The screen displays "CP Fault"	<ul style="list-style-type: none">● Please restart the device to charge.● If you cannot solve the problem, please contact the service partner.
The phone cannot find the device	<ul style="list-style-type: none">● The frequency band of the phone and the device do not match (must be connected via the same 2.4 GHz WIFI).● If the device is already tied to another phone. New phones cannot be added. If necessary. Restore factory settings: Repeat the emergency stop button off/on 3 times within 12 seconds.
The screen displays "Overvoltage fault"	<ul style="list-style-type: none">● Indicates that the charger input voltage is higher than the limit value 288Vac(max).● Contact an electrician to confirm whether the supply voltage is normal.● If you cannot solve the problem, please contact the service partner.

6. TROUBLESHOOTING

Failure	Causes and Solutions
The screen displays "Low voltage fault"	<ul style="list-style-type: none">● Indicates that the charger input voltage is below the limit 192Vac(min).● Contact an electrician to confirm that the supply voltage is normal.● Please check whether the power supply load capacity is sufficient.● If you cannot solve the problem, please contact the service partner.
The screen displays "Ground fault"	<ul style="list-style-type: none">● Check whether the ground status of the power supply socket is valid.
The screen displays "Overcurrent fault"	<ul style="list-style-type: none">● Please make sure that the vehicle charging current is within the rated range.● If you cannot solve the problem, please contact the service partner.
The screen displays "Over Temperature fault"	<ul style="list-style-type: none">● Stop charging and leave it for 30 minutes before starting charging again.● If you cannot solve the problem, please contact the service partner.
Show "not plugged in" not charging?	<ul style="list-style-type: none">● Avoid fast and frequent plugging and unplugging.● Maybe it's the vehicle's problem, please contact the official after-sales.

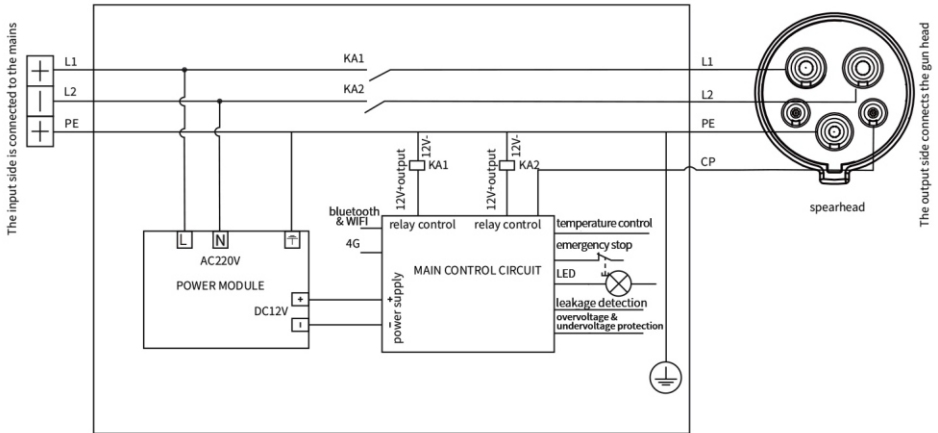
(*) Possible fault causes (fault status LED lights up):

In principle, the fault must be cleared by pulling out the charging gun. The following reasons may lead to failure: Ground fault, electric leakage, charger pile ID not set.

7. MAINTENANCE

7.1 Maintenance

- The following routine maintenance items are only for reference, please refer to relevant standards and operation instructions for operation;
- Sunshade and rainproof measures shall be taken for the charging pile, and it is recommended to install a canopy outdoors;
- Regularly check whether the bolts of the charging pile are fastened, whether the connecting wire is loose, and whether the connection is not firm, and check whether there is short circuit;
- Pay attention to lightning protection and ensure effective shielding and reliable grounding of the charging pile;
- When using, try to control the output voltage and current of the charging pile within the nominal range, so as to ensure that the charging pile can work with the maximum efficiency;
- When the charging pile is out of service, the charging output shall be stopped first, then the power plug shall be pulled out and the power shall be cut off, then the cable shall be wound, and the charging pile shall be put back to its original position after the temperature of the charging pile drops to normal temperature;
- The electrical schematic diagram of the charging pile is shown in the figure below.



7. MAINTENANCE

7.2 Important Matters



Notice

- a. The charger must be grounded through the grounding conductor of the permanent wiring system or equipment;
- b. Please avoid installing in the direct sunlight or exposure environment, and try to use the charger in a cool and ventilated place;
- c. Do not install and use the charger near flammable, explosive, combustible and chemical substances or steam;
- d. Before installing or cleaning the Charger, the power supply must be cut off to ensure that there is no power input. Do not touch the heat source, dirt or water source on the contact surface;
- e. Please use the charger within the specified working parameters;
- f. Only connect electric vehicles. Do not connect other loads (electric tools, etc.). Do not use the charger for other purposes than charging or other vehicles that do not support the AC charger standard of the country where the product is located;
- g. The charger must be checked regularly. If it is found to be defective, cracked, worn, damaged or otherwise damaged and inoperable, the charger shall be stopped immediately and the after-sales service telephone shall be called;
- h. Do not attempt to open, disassemble, modify or transform the charger without a professional electrician. The charger is not a device that can be maintained by users. Do not remove safety symbols, warning prompts, nameplates, signs or pipeline marks;
- l. If you or your car are exposed to rainstorm, lightning, heavy snow or other severe weather conditions, do not use the charger to prevent any parts from being damaged;
- j. Please handle with care when transporting the charger. Do not subject it to strong external force impact, and do not drag, twist or step on the charging pile and cable to prevent damage to any parts. At any time, please avoid and prevent the charger from being damaged by moisture, liquid and other foreign matters. If there is water, damage or corrosion, please do not use it. Do not touch or charge the cable and charging gun head with wires, tools or other sharp hard objects;
- k. If your EV is covered with a car cover or a car coat, please remove it before charging the car;
- l. Users may affect or impair the function of the charger during usage if he/she wears any medical or implantable electronic device, such as cardiac defibrillators, pacemakers, etc;
- m. During transportation, there should be no severe vibration, impact, exposure to sunlight, rain, or dumping of the charging pile.

FCC Statements

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.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

