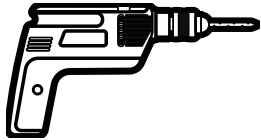


# INSTALLATION INSTRUCTIONS

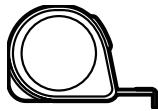
## UNPACKING

1. Scratch or remove the sealing tape and take out the unit.
2. Follow the **ATTACHMENT** to check all items and to see if there are any omissions.
3. Check the unit is correct and whether it matches with order model.
4. Check whether the unit has defects or is damaged due to defectiveness or transportation.
5. Make sure all packaging is disposed of responsibly and in accordance with the current regulations in your region.

## TOOLS/MATERIALS REQUIRED (NOT INCLUDE)



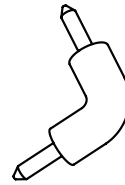
Electric drill



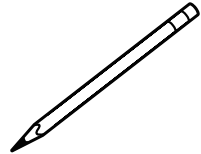
Measuring tape



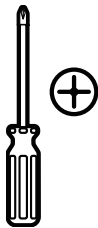
Safety gloves



Electric elbow tool



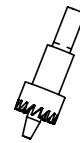
Pencil



Phillips screwdriver



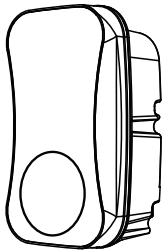
Slotted screwdriver



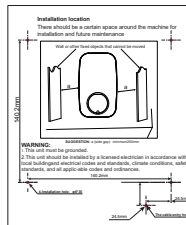
Hole Saws

Mode 1:  $\Phi 24$ mm Bottom hole (for single phase: Model 1 )  
 Mode 1:  $\Phi 28$ mm Bottom hole (for three-phase :Turbo 1 )  
 Mode 2:  $\Phi 18$ mm (Back hole for Sealing rubber)

## ATTACHMENT



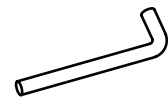
1 x EV Charger & 1 x Fixing bracket \*



Installation template



Manual



Elbow wrench



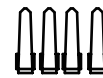
Wiring caps



Sealing rubber



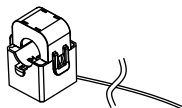
Cable Gland



4 x Wall Plugs  
 $\Phi 6 \times 30$



4 x Screw  
ST4.2x32



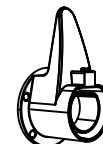
CT\*\*



CT wire terminal\*\*



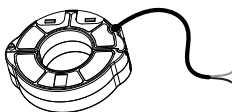
Sealing rubber\*\*\*



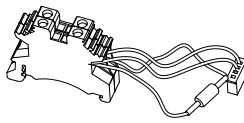
Cable holder



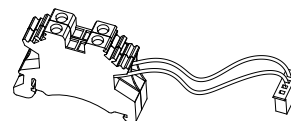
RFID card



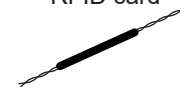
CT(400A)\*



Main/Tail subordinate  
charger connector\*



subordinate charger  
connector\*



Shielded twisted-pair\*

\***NOTE:** It is integrated from factory, and separated when installed.

\*\* Just for charger with power management

\*\*\* Both for charger with power management and OCPP

\*Use for EV charger group management model.

**NOTE:** These spare parts are not included in the unit, you must buy from distributors.

# INSTALLATION INSTRUCTIONS

## BEFORE INSTALLATION

1. Installer or end user must read and understand all the content covered in this manual before installing or using this unit.
2. Choose a suitable installation location according to the installation conditions stated in the warning.
3. Make sure that the installation location complies with current laws and regulations.
4. Confirm that there is a suitable input voltage power supply at the installation site (consistent with the nominal power supply of the product).
5. Make sure the supplied fixings are suitable for the mounting location. If not suitable, alternatives must be obtained locally before proceeding with the installation.

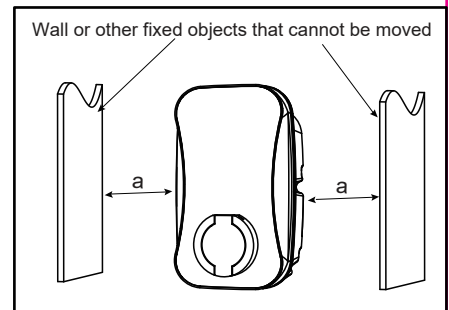
## INSTALLATION LOCATION

There should be a certain space around the unit for installation and future maintenance.

### **SUGGESTION:**

a (side gap): minimum 250mm.

\*A charging cable holder position needs to be reserved. (Just for connector charger and cable)



## WARNING

- ▲ Make sure that the power source is turned off before installing the unit.
- ▲ Manufacturers and distributors are not responsible for any loss or related responsibilities caused by any incorrect installation.
- ▲ The installer shall be responsible for the loss and damage of the product, system or property caused by improper installation.

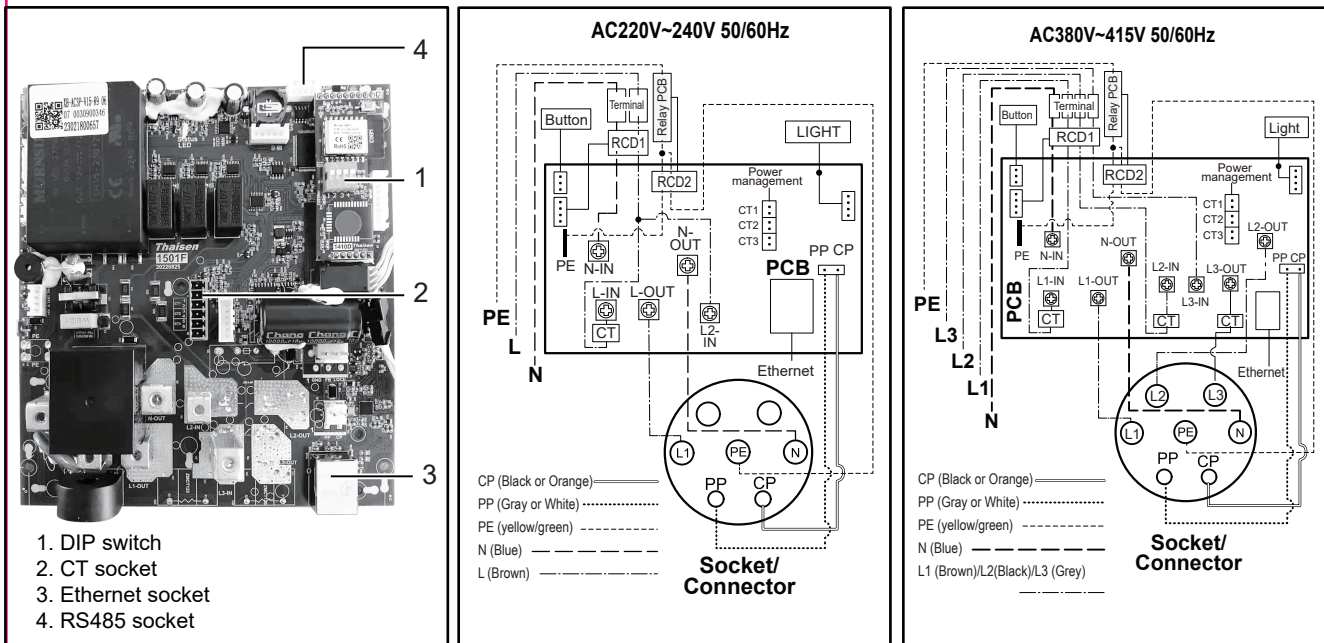
### **Important:**

Before installing the unit, it necessary to confirm the way of the product's power cable entry. Mode 3 power cable entry is strictly prohibited.

Mode 1	Mode 2	Mode 3
Bottom entry (Best choice)	Back entry	It is strictly forbidden to pass the bottom line through the back.

# INSTALLATION INSTRUCTIONS

## CONNECT ELECTRICAL WIRING



**Note :** The charger must be electrically protected by installing externally a Miniature Circuit Breaker (MCB) and a Residual Current Circuit Breaker(RCCB).

**MCB:** Maximum value according to the maximum output current of the load point.

Reference SET THE DIP SWITCH.

**RCCB:** According to local regulations, Type A or Type B.

## INSTALLATION

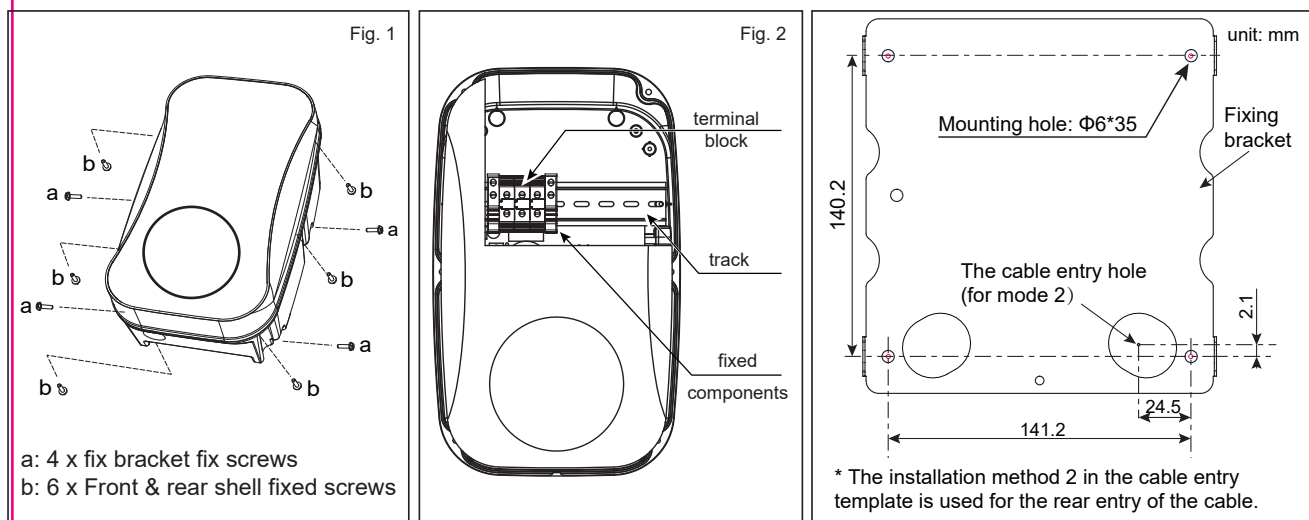
1. Take the unit and remove the 4 screws on its fixing bracket (The unit is integrated with the fixing bracket and needs to be disassembled first). Keep the screws and fixing bracket for subsequent use;

2. Remove the 6 fixing screws on the front shell and the rear shell, save the screws for subsequent use;

**Note:** Reference Fig.1 for steps 1 and 2.

3. Open the front shell carefully. The front shell is connected to the unit body through a cable. Be careful not to damage or break the cable.

**Caution:** After opening the front shell, visually inspect the inside. If the wiring terminal block or the fixed component falls off the track, it can be installed back to the track by itself (reference Fig. 2)



# INSTALLATION INSTRUCTIONS

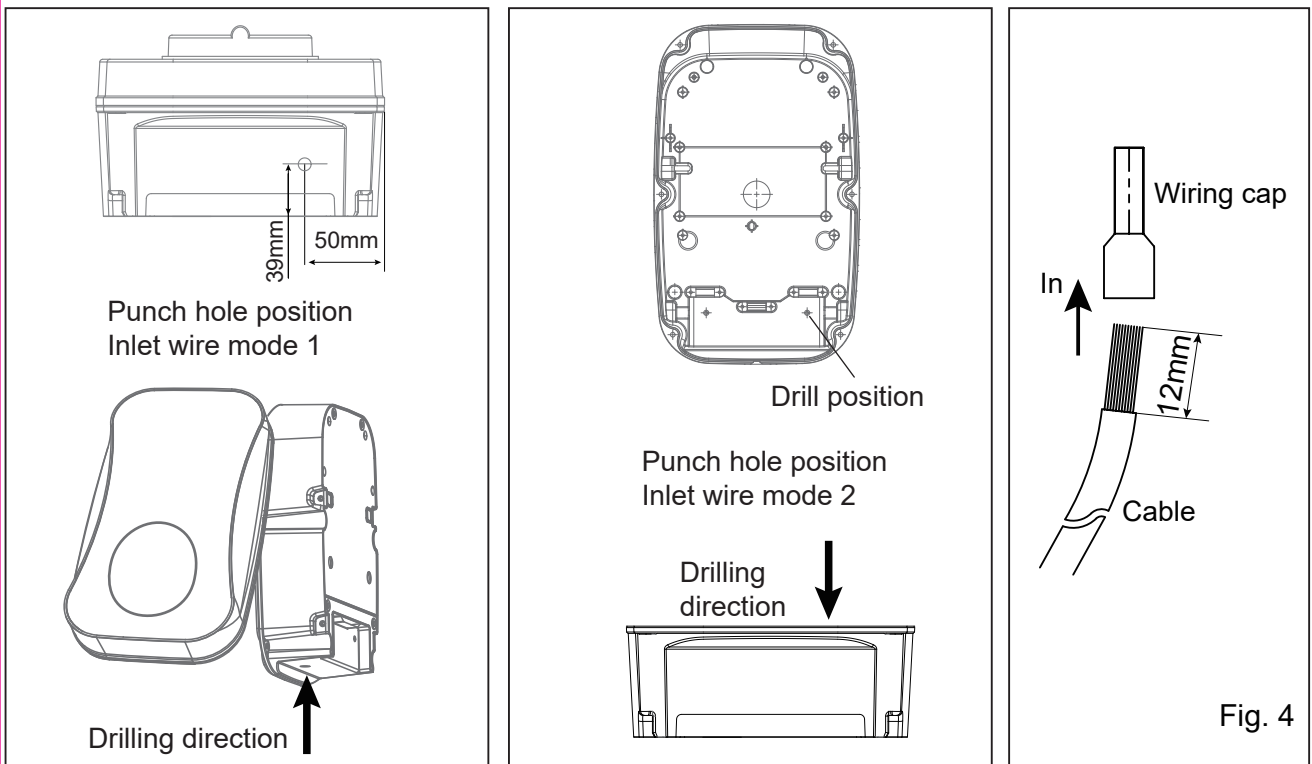


Fig. 4

4. **Inlet wire mode 1:** use the installation template to mark the fixed bracket installation hole position.

**Inlet wire mode 2:** use the installation template to mark the position of the fixing bracket installation hole and the cable entry hole.

**Note 1:** Inlet wire mode 2 which need to pay attention to the correct direction of the installation template.

**Note 2:** Make sure that the installation template itself is level when the position is marked.

**Note 3:** Refer to Installation template.

5. Punch holes according to the punching information prompted by the installation template, and ensure that the punch positions are accurate.

(1). Fixed bracket mounting hole has a diameter of 6mm and a depth of about 35mm.

(2). Inlet wire mode 2, diameter of the cable entry hole needs to be defined according to the actual cable selection, However, it is recommended that the maximum opening diameter should not be bigger than 24mm.

**Caution:** The edge of the wall opening needs to be repaired, and it must not be a sharp edge to prevent the incoming wire from being cut.

6. Fixing bracket installation hole inner - insert wall plugs, and use screws(ST4.2\*32) fixing fixed bracket to the mounting surface and ensure the screws are fastened well.

**Note:** If the screws are not fastened well, the fixing bracket may become loose and may interfere with the installation of the housing.

7. According to the size and position below, open the power cable hole on the shell.

**NOTE 1:** Inlet wire mode1, open hole size must be accurate, and the hole diameter is  $\Phi 24\text{mm}$  (For single phase series: Model 1 ) and  $\Phi 28\text{mm}$  (For Three- phase series:Turbo 1) .

**NOTE 2:** Inlet wire mode 2, open hole size must be accurate, and the hole diameter is  $\Phi 18\text{mm}$ .

**WARNING:** Remove burrs around the hole to prevent affecting the seal level.

**WARNING:** Do not damage internal components, especially internal wiring, when drilling the hole.

8. Clean and remove all the debris that has fallen into the shell due to the punching.

9. Inlet wire.

# INSTALLATION INSTRUCTIONS

**NOTE 1:** Product installation details with OCPP1.6J service agreement. Refer to “**Network Connection guide**”.

**NOTE 2:** Configure URL / ID / APN by PC. Refer to “**Configure URL/ID/APN using Ethernet**”.

**NOTE 3:** Product installation details with power management. Refer to “**Power management function installation guide**”.

**NOTE 4:** Product installation details with charger group management .Refer to“EV charger group management model guide.”

## Network Connection guide

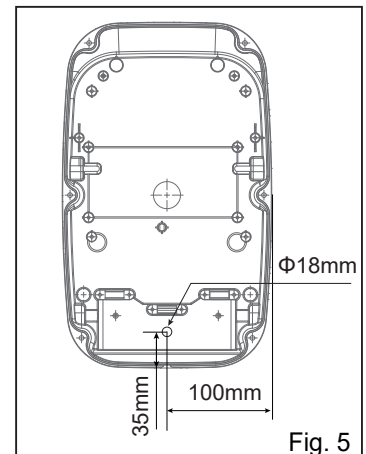
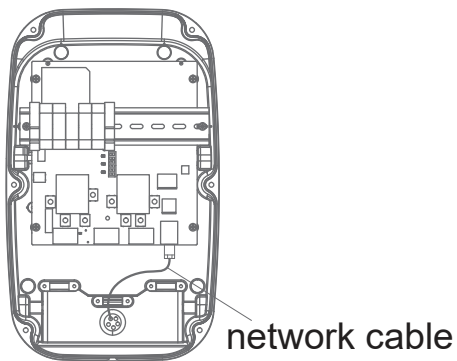
1. Drill holes according to Fig. 5.
2. Use the accessory sealing rubber to fix the network cable.
3. One hole of the sealing rubber be cut open with knife, insert the network cable into the sealing rubber, then insert them into the housing, as Fig.8; Reserve enough length of the network cable to ensure that it can be well connected with the Ethernet socket;

**NOTE:** During installation, if the network cable line and the plug is separate, you don't have to cut the sealing rubber.

Warning: Seal the opening on the back to achieve the unit's IP rating.

Sealing is very important. This involves the safety of the product and must be paid attention.

4. Network cable plug is docked to Ethernet socket.



# INSTALLATION INSTRUCTIONS

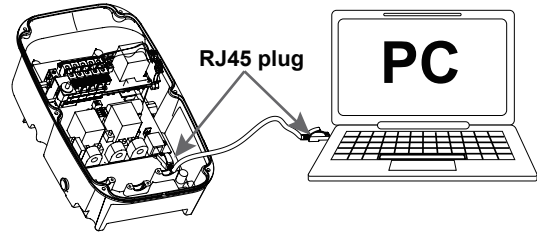
## Configure URL/ID/APN using Ethernet

**WARNING: This operation must be completed by qualified electrical installers.**

1. Power on the product, on the standby state (the blue light is glowing), press and hold the function button for 10s, when hearing beep twice (It is normal for the red light to be flashing during this period), power off the product.

2. After power off the product, connect the product (Ethernet socket on PCB) with the PC by Ethernet cable with double-headed RJ45 plug;

**Note:** Please refer to the wiring diagram for the location of Ethernet socket on PCB.



3. Re-power on the product, waiting for the cyan light to turn yellow, then the product has entered the configuration state;

4. Use PC to adjust network properties.

Configure internet Protocol version 4 (TCP/IPv4) parameters.

IP address: **192.168.1.26**

Subnet mask: **255.255.255.0**

IPv4 gateway/Router: **192.168.1.1**

**Important:**

1. Must be filled in strictly according to the above parameters.
2. DNS does not need to be filled in.

5. Open the Web (Google) Enter **192.168.1.30** to enter the configuration interface.

**Important:** The website must be **192.168.1.30**.

Configure IPv4	Using DHCP
IP address	192.168.1.26
Subnet mask	255.255.255.0
Router	192.168.1.1
DHCP lease	Renew DHCP Lease
DHCP client ID (if required)	DHCP client ID
Configure IPv6	Automatically
Router	Router
Forget This Network...	Cancel OK



6. After entering the configuration page, you can set **ChargeID (Maxlen 32)**, **Server URL (Maxlen 100)** and **4G APN**:

**Note:** The URL (Such as : wss://\*\*\*\*\*.\*\*\*/. Please don't ignore the last character " / ", as it is very important).

**Note:** APN is only valid for 4G products.

<b>OCPP</b>		
ChargeID (Maxlen 32):	<input type="text"/>	Firmware Version: <input type="text"/>
Server URL (Maxlen 100):	<input type="text"/>	Password: <input type="text"/>
<b>4G</b>		
4G APN:	<input type="text"/>	4G Password: <input type="text"/>
4G Account:	<input type="text"/>	

7. After completing the filling, click submit to save, and the configuration completed.

8. Power off again, disconnect the Ethernet cable between the product and PC, and the product needs to replace the network cable with signal. power on, it will automatically connect to the server to enable backstage control.

**Note:** Network cable with signal such as a router network cable.

# INSTALLATION INSTRUCTIONS

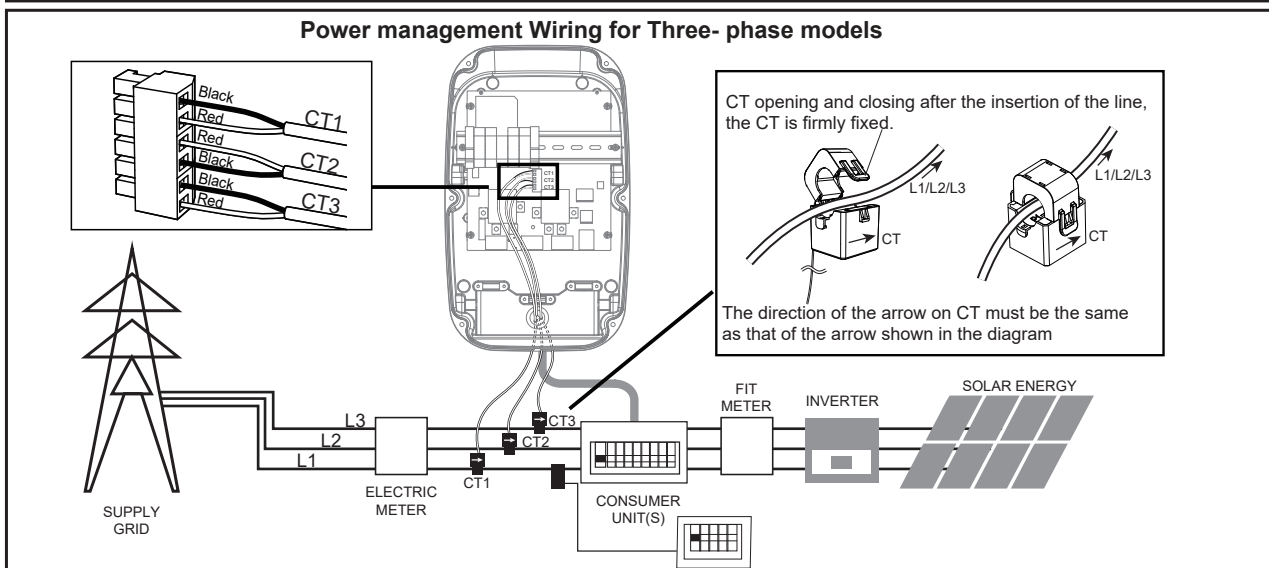
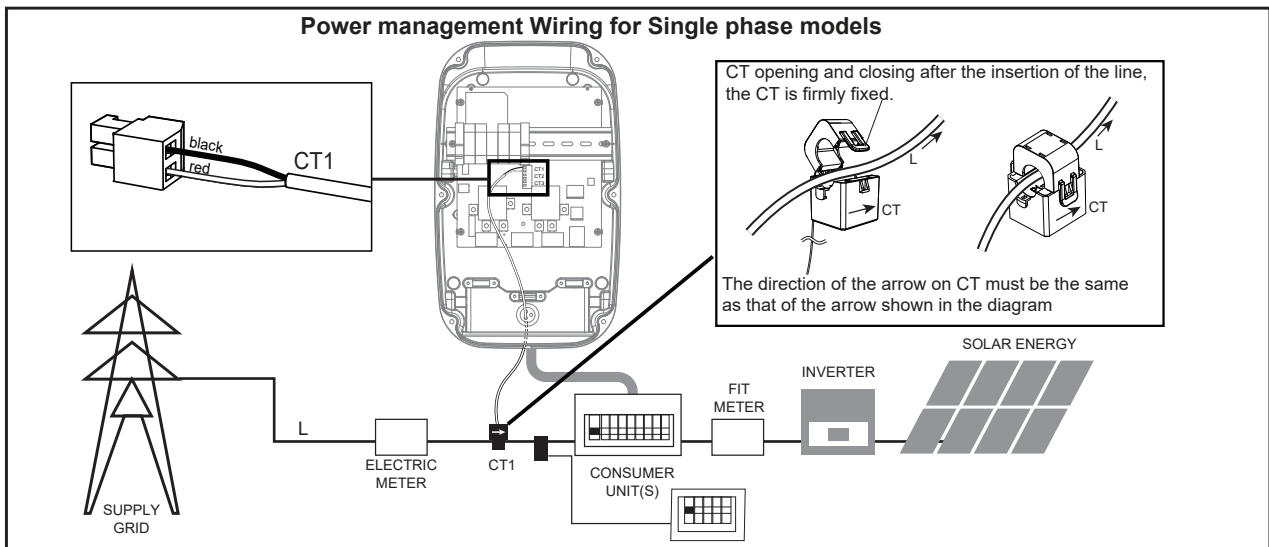
## Power management function installation guide

1. Drill holes according to fig.5.
2. Use the accessory sealing rubber to fix the CT wire.
3. Insert the sealing part into the housing body(fig.8), thread the CT wire into the sealing part, one hole corresponds to one CT wire , after the CT cable is inserted, reserve enough length to connect to the CT interface.
4. Crimp the CT wire to the CT wire terminal and then insert it into the CT interface.
5. Open the CT and fixed it to the main incoming line (one CT is only allowed to pass through one line.)

**NOTE:** If there is a need to extend the CT cable, To maintain signal integrity, twisted-pair cable like CAT5(8×24AWG wires inside) must be used.DO NOT use mains cable, bell wire or speaker cable.When using CAT5(8×24AWG wires inside) Ethernet cables for extension:

The number of 24AWG wires	Double wires for one	Triple wires for one	Four wires for one
Max. transmission distance	100m	500m	750m

- Remember to a separated twisted pair for each CT.
- When joining CT wires make sure that the ends of the wires are twisted tightly together and joined using crimps, screw terminals or solder.
- Avoid using lever clamp type terminals as these do not provide a reliable connection at very low currents.



According to the diagram, put the CT of the supply grid balance on the L line (L1,L2,L3)of the family main line. The direction of the arrow on CT must be the same as that of the arrow shown in the diagram. Press it to the matching terminal CT1/CT2/CT3.

# INSTALLATION INSTRUCTIONS

## EV charger group management model guide

### IMPORTANT:

1. Before using the charger group management model, you need to know the **Main charger** and the **subordinate charger**.

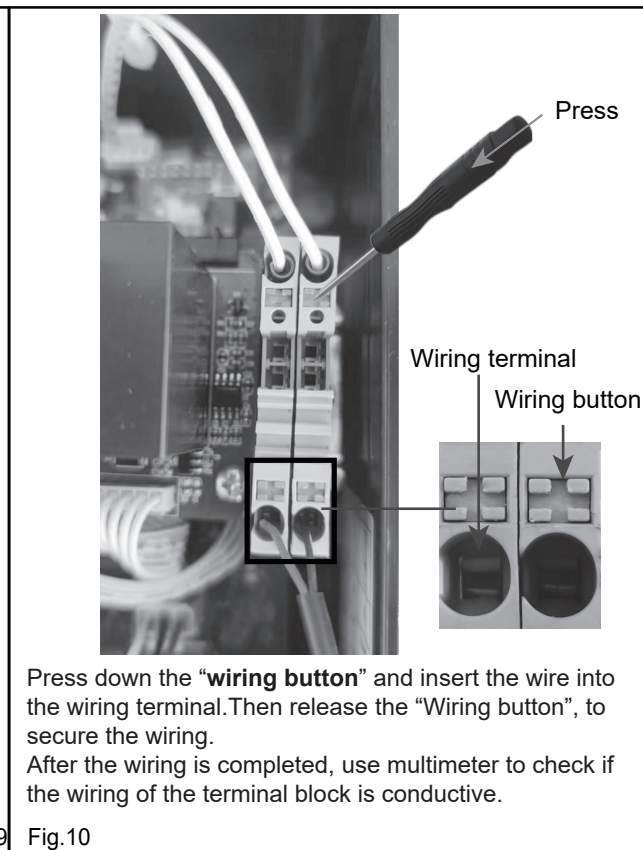
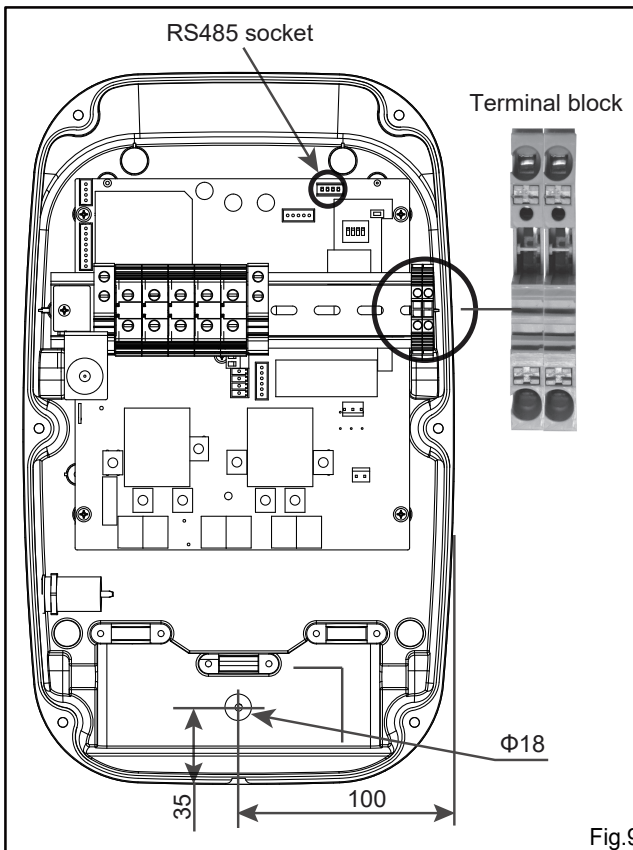
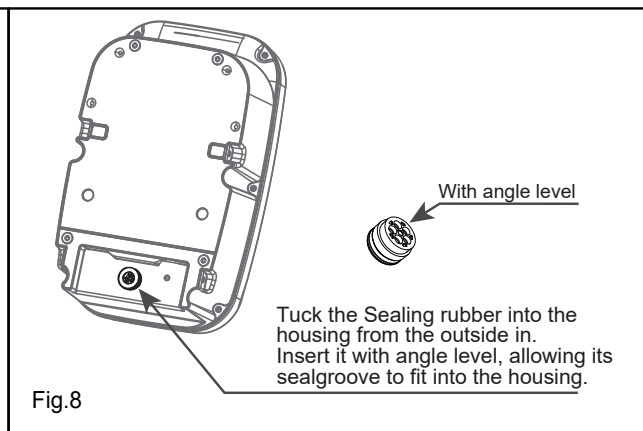
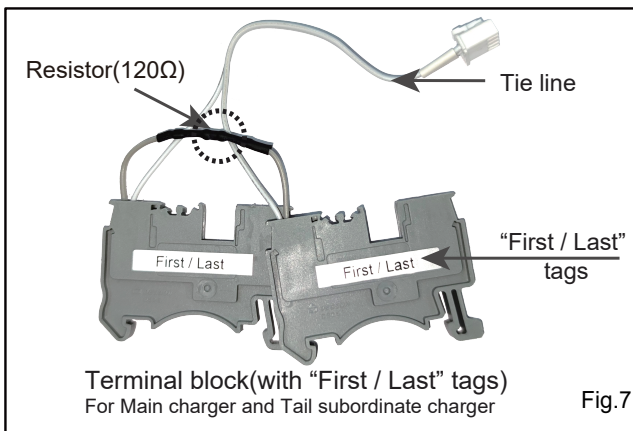
**Main charger:** The only charger in the charger group management connected with CT clamp and set as 1300 charger number in APP.

**subordinate charger:** other chargers in the charger group management (maximum number of chargers that can be group managed is 9 and this is to be set in the App as 1301 – 1309 under enter charging pile code. So for the main charger the code will be 1300 and the second charger as 1301 and the third as 1302 and so on depending on the number of chargers.) and set as 1301-1309 charger number in APP.

**NOTE:** The setting of charger number refers to "Enter charging pile code" in APP settings.

**NOTE:** If group management is used then the solar function cannot be used.

### INSTALLATION



# INSTALLATION INSTRUCTIONS

## EV charger group management model guide

### Main charger and Tail subordinate charger

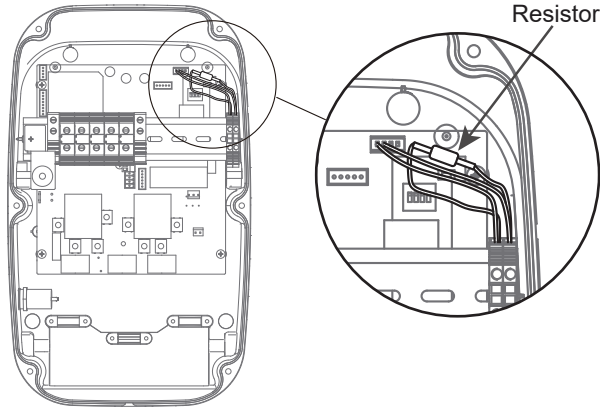


Fig.11

### Middle subordinate charger:

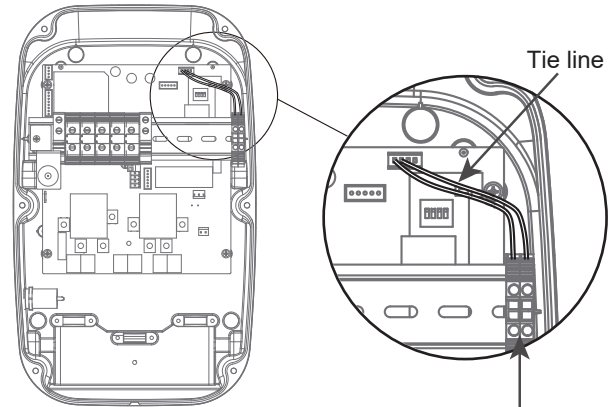
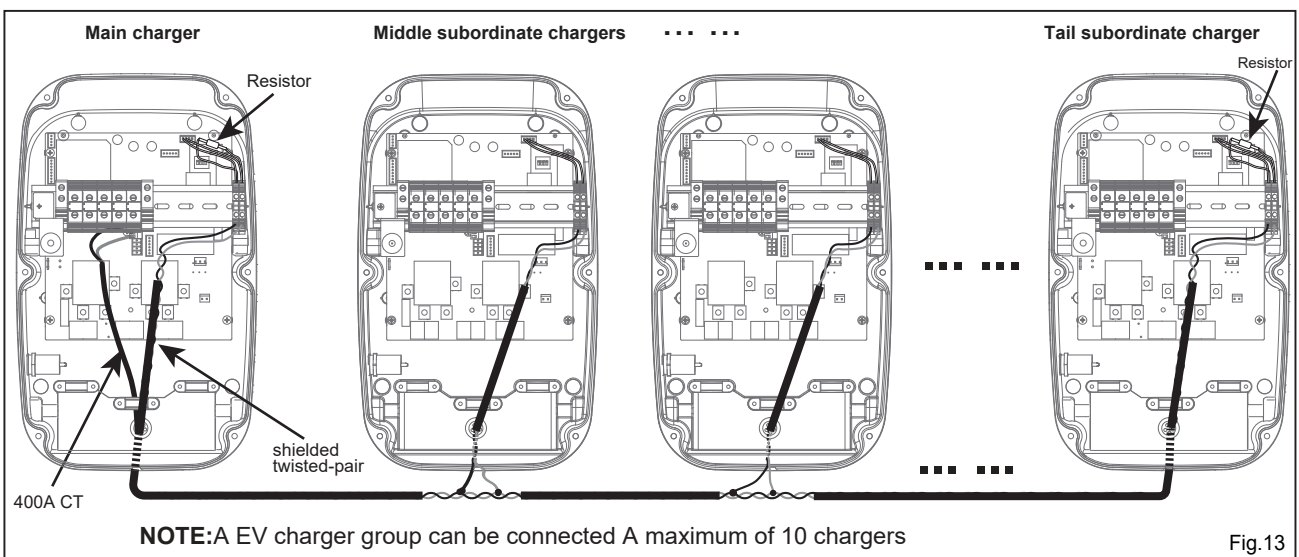


Fig.12

terminal block

1. Install the terminal block to the track and insert the tie line into RS485 socket.
2. **Main charger and Tail subordinate charger:** Crimp both ends of the resistor (120Ω) and the tie line wire to the terminal block (with First/Last tags-Fig.7), refer to Fig.11.  
**Middle subordinate charger:** Just crimp both ends of the tie line wire to the terminal block. refer to Fig.12.  
**NOTE:** Prohibited connect the resistors to the Middle subordinate chargers.
3. Drill holes according to Fig.9.
4. **Main charger:** Use the accessory sealing rubber to fix the CT (400A) wire and shielded twisted-pair.  
**Subordinate charger:** Just fix shielded twisted-pair.
5. Insert the sealing part into the housing body, refer to Fig.8.  
**Main charger:** thread the CT cable and shielded twisted-pair into the sealing part, each group of wires passes through a hole respectively. Then reserve enough length to connect to the CT socket and terminal block.  
**NOTE:** Don't destroy the holes of unused sealing parts.  
**Subordinate charger:** Just thread the twisted-pairs, refer to Fig.13.
6. Crimp the CT wire to the CT wire terminal and then insert it into the CT socket, refer to Fig.13.
7. Crimp the shielded twisted-pair wire to terminal block.
8. Press the red button on the CT clamp to open it and fixed it to the main incoming line (one CT is only allowed to pass through one line.)
9. Connect all shielded twisted-pair from the subordinate charger in parallel to the main charger. refer to Fig.13.



# INSTALLATION INSTRUCTIONS

## MODE 1

a1. Check the cable gland parts as shown in Fig. 14.

a2. Pass the gasket and the main body through the opening hole of the shell and lock it with a nut, as shown in Fig. 15

a3. Insert the pressing head into the cable, and then thread the cable into the main body that cannot be pulled off, as shown in Fig. 16.

a4. Trim and cut the cable to the proper length, lock the pressing head to secure the cable.

a5. Refer to this article connect electrical wiring to connect the cable to the terminal block.

**NOTE:** connecting wiring reference Fig. 4

**WARNING:** To ensure the rated IP protection level of the product, must use the cable gland in the accessories.

a6. Confirm and remove the debris inside the housing caused by punching and wiring.

a7. Ensure that all cables are connected correctly and securely, and are not lose or damaged.

a8. Screws lock the front and rear shells tightly.

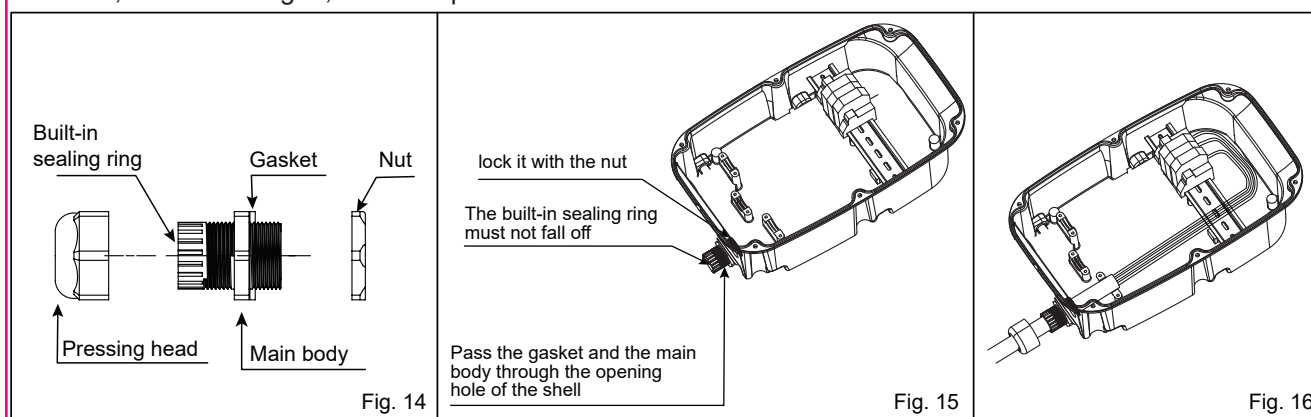
**Caution:** Need to use the screws removed from the original position.

Before installing the front shell, it must be ensured that the sealing strip in the front shell groove has not fallen off and is in the right position. Ensure that all seals performed on the unit can reach the IP rating.

a9. Screw the unit to the fixed bracket.

**Caution:** Use the screws removed from the original position.

**Note:** a8, a9 refer to Fig. 1, reverse operation.



## MODE 2

b1. Insert the sealing rubber into the housing, as shown in Fig 8, insert the bare wire into the sealing rubber, one hole corresponds to one bare wire, after all the wires are inserted, leave enough length of the cable to connect to the terminal block.

**NOTE1:** To ensure the rated IP protection level of the product, must use the sealing rubber in the accessories.

**NOTE2:** Poke the middle position of the sealing rubber before installing this item.

b2. Screw fastening the entire rear shell to the fixing bracket.

**Caution:** Use the screws removed from the original position.

b3. Refer to this article connect electrical wiring to connect the cables to the terminal block.

**NOTE:** connecting wiring refer to Fig. 4

b4. Seal the opening on the back to achieve the unit's IP rating.

**Warning:** sealing is very important. This involves the safety of the product and must be paid attention.

b5. Screws lock the front and rear shells tightly.

**Caution:** Use the screws removed from the original position.

Before installing the front shell, it must be ensured that the sealing strip in the front shell groove has not fallen off and is in the right position.

Make sure that all seals performed on the unit can reach the IP rating.

**Note:** if there is no suitable electric tool, the elbow wrench provided in the accessories can be used to tighten the screws of the front and rear shells.

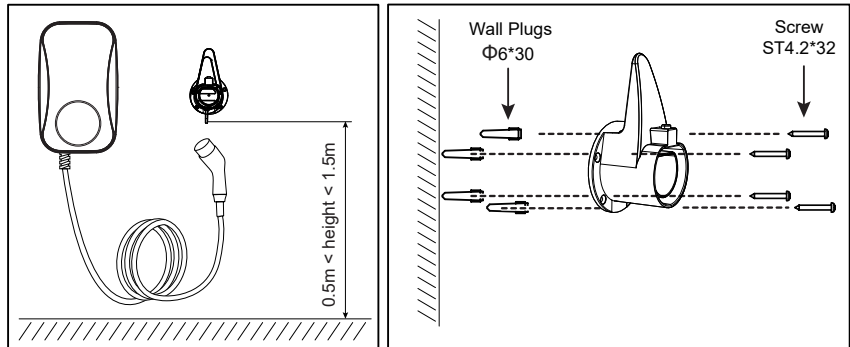
# INSTALLATION INSTRUCTIONS

**IMPORTANT NOTE:** It is the responsibility of the installing engineer to satisfy themselves, that all cable terminations throughout this product are secure and tight and have not become loose, strained, or disconnected during transit and/or installation.

**After the front and rear shells are installed, check whether there is a loose gap between the front and rear shells. Make sure that there is no loose gap.**

## INSTALLATION OF THE CABLE HOLDER

1. Take out the charger holder.
2. Find a suitable location near the EV charger box, which must be more than 0.5m above the bottom surface and not higher than 1.5m.
3. Align the charger holder in position and mark the four mounting holes.
4. Drill the 4 holes as the marks at dia 6mm, 35mm deep.
5. Insert the wall expansion plug.
6. Screw the charger holder to the wall.
7. Installation is complete.



## THE INSTRUCTION OF THE CABLE HOLDER

1. There is a clicking sound when the tip is inserted.
2. When pulling out the charger, you must first press the lock button and pull out the charger at the same time.

## SET THE CHARGER POWER

You need to set the corresponding position of the current DIP switch according to the min. wire size shown in the chart and the rated current of the Circuit breaker. Refer to the steps below.

**Caution 1:** The following operations must be powered off.

**Caution 2:** Incorrect setting DIP may cause hazards such as overheating or fire of the incoming wire.

1. Locate the position of the two-position DIP switch on the power supply board, like picture.
2. Setting the switch to the desired position:

**WARNING:** Electrical Power Switches must only be set by a qualified electrical installer. Incorrect setting may lead to equipment damage and / or personal injury. The current rating must not exceed the supply rating.

	DIP switch position		
	Current(A)	32	16
	Min. wire size (copper)	6mm <sup>2</sup> or 10AWG	2.5mm <sup>2</sup> or 13AWG
	Circuit breaker (Amps)	40	20
	DIP switch position		
	Earth check	Yes	No

## INSPECTION

1. Check that this unit must be grounded (Earthed).
  2. Make sure you are satisfied that the installation is complete and is in a safe condition.
  3. Switch ON the power, which it will cycle the red, blue and green lights to self-check and then enter the corresponding light indication. The unit and test in accordance with the current Electrical Wiring Regulations.
- NOTE:** Make sure this product has been installed in compliance with the current Electrical Wiring Regulations.