



M-Battery Quick Installation Guide

Applicable models: MS-7K-U

Atmoce Battery Introduction

The ATMOCE MS-7K-U battery is a fully integrated system with a usable energy capacity of 7.0 kWh. It supports both single-phase and three-phase grid systems, offering self-consumption, TOU and grid ancillary services modes that enables homeowners to achieve energy independence by generating and utilizing their energy while participating in grid services.

Pre-installation Requirements

a. Grid requirements

ATMOCE battery should connect to a single-phase or a three-phase grid. Measure AC line voltages at the point of connection to confirm that they are within the ranges.

Phase setup	Voltage range	
Single-phase	L to N	184 to 276 Vac
Three-phase	L1, L2, L3 to N	184 to 276 Vac

b. Tools requirements

Tools: screwdriver, wire stripper, wire crimper, diagonal cutter, torque wrench, electrical drill, marker, hammer, etc.
Materials: tie wrap, wago connector, etc.

c. Cable requirements

To properly set up the system, it is necessary to select the appropriate cables. The table below shows the recommended cable requirements.

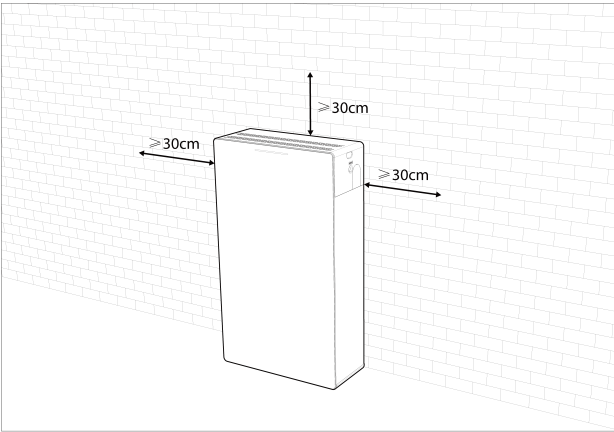
Function	Recommendation
Power cable	6 to 10 mm ² , 3-core @ single-phase 6 to 10 mm ² , 5-core @ three-phase
CAN COM cable	0.25 to 0.75 mm ² , 3-core + drain

NOTE:

- When connecting the cables to the M-Battery, you must cover the cable ends by using the proper cold-press terminal provided in the package.
- When stripping the cable, remove approximately 12 mm of the insulation layer from the power cable and 8 mm of insulation layer from the communication cable.

d. Recommended installation space

Before installation, confirm that the installation space meets the following conditions.

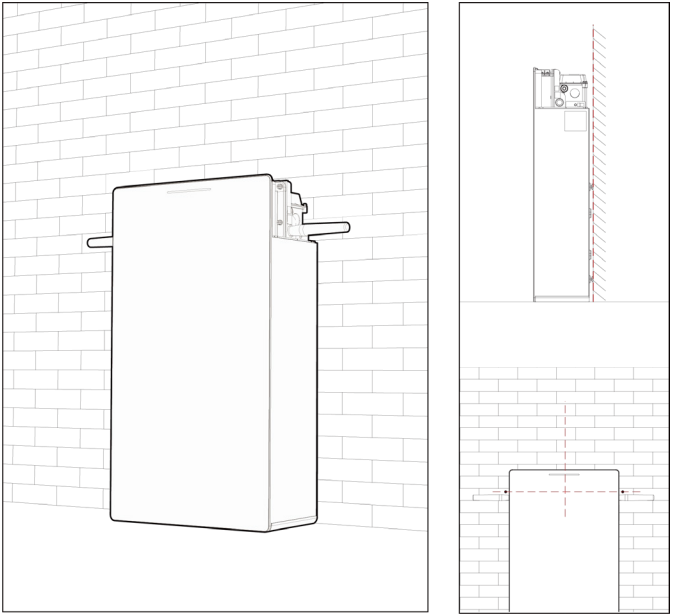


Download Center

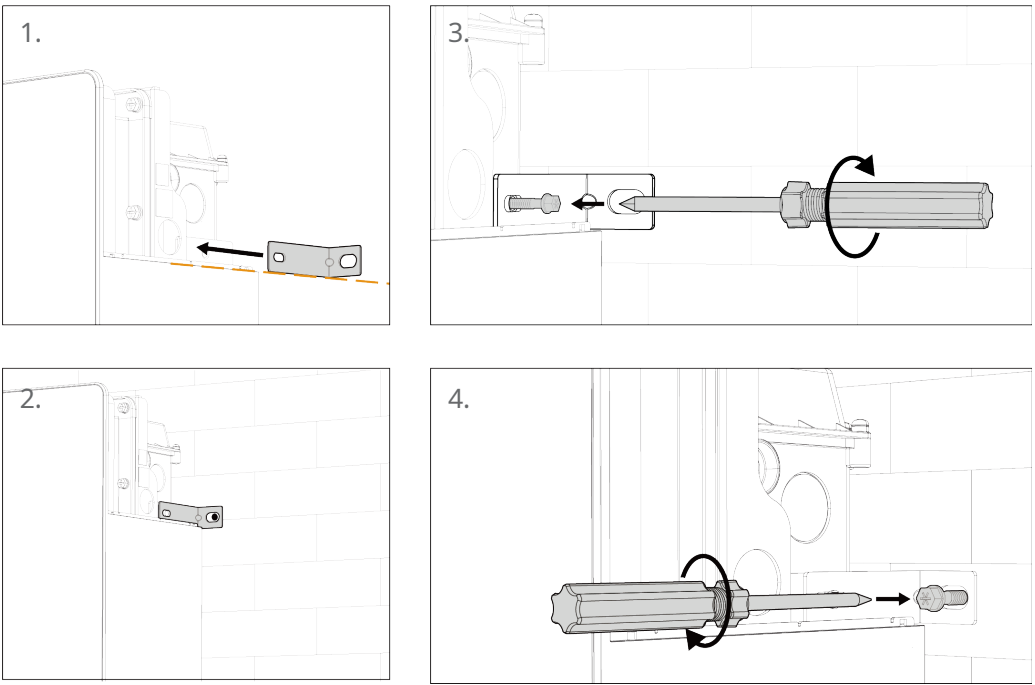


ATMOZEN APP

c. Place the battery close to the wall, ensuring it is parallel to the wall and perpendicular to the floor.



d. Remove the handlebars and take out the mounting lugs and align them with the holes on the both sides. Insert the M10 screws and tighten the screws with a torque of 9–14 N·m.



NOTE:

- Please do not tighten the screws completely until confirming that the mounting lugs can be fully installed.

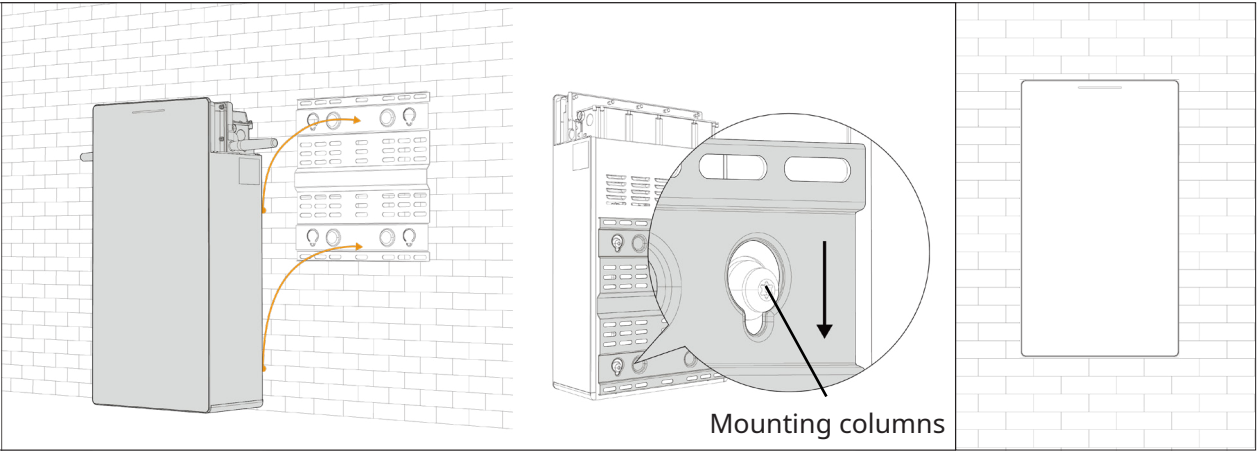
2.2 Mount on the wall

- Take out the marking plate and place it on the wall. Use the spirit level to check that the board is level, then make the marks.
- Drill at the four marks by using an electric drill with a bit (Φ12).

NOTE:

- The total weight for M-Battery, including the battery unit, and mounting plate, is 75 kg. The wall shall bear the battery weight.

e. Insert the four mounting columns on the back of the battery into the sliding rail and slide them to the end, and then remove the handlebars.

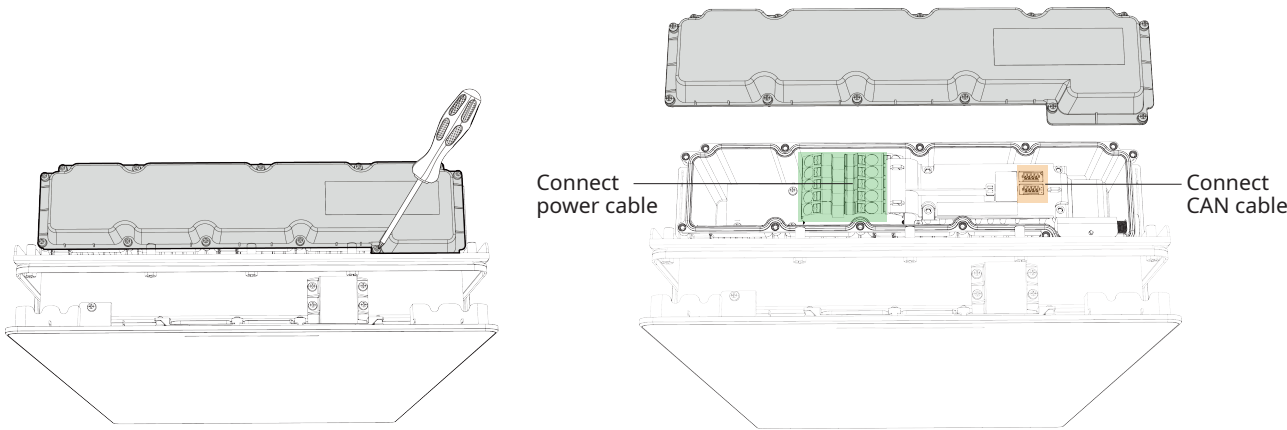


3. Remove the cover of the wiring cabinet

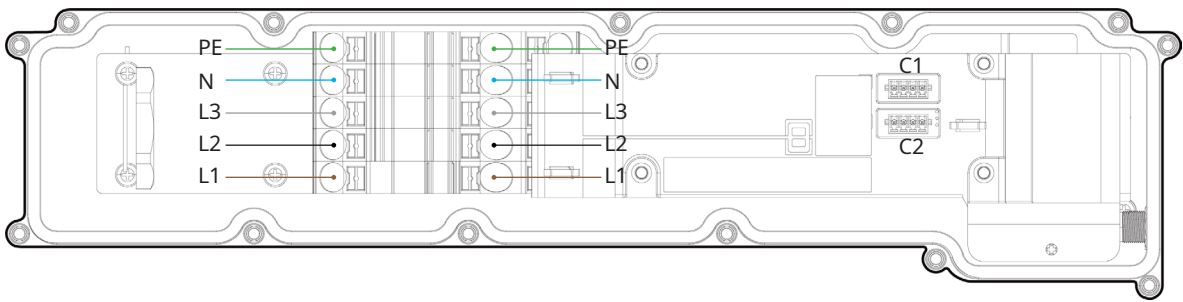
a. Loosen the 13 screws and remove the cover of the wiring cabinet.

NOTE:

- Do not use the impact drivers and drills to tighten or loosen the screws.
- These screws are captive screws, do not attempt to unscrew them completely.



b. The details of the terminal are shown as below.

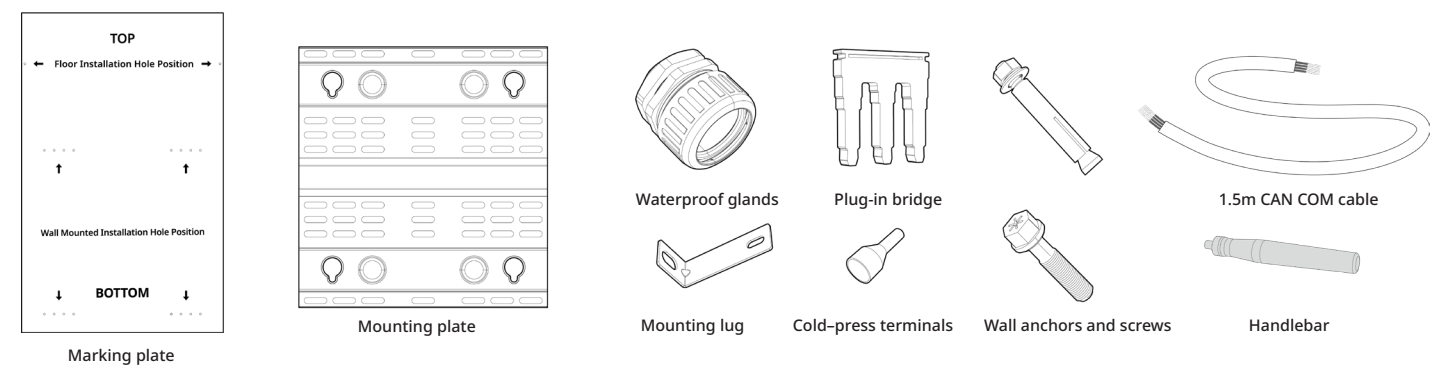


e. Download the ATMOZEN APP
You can download the app from Google Play or Apple App Store.

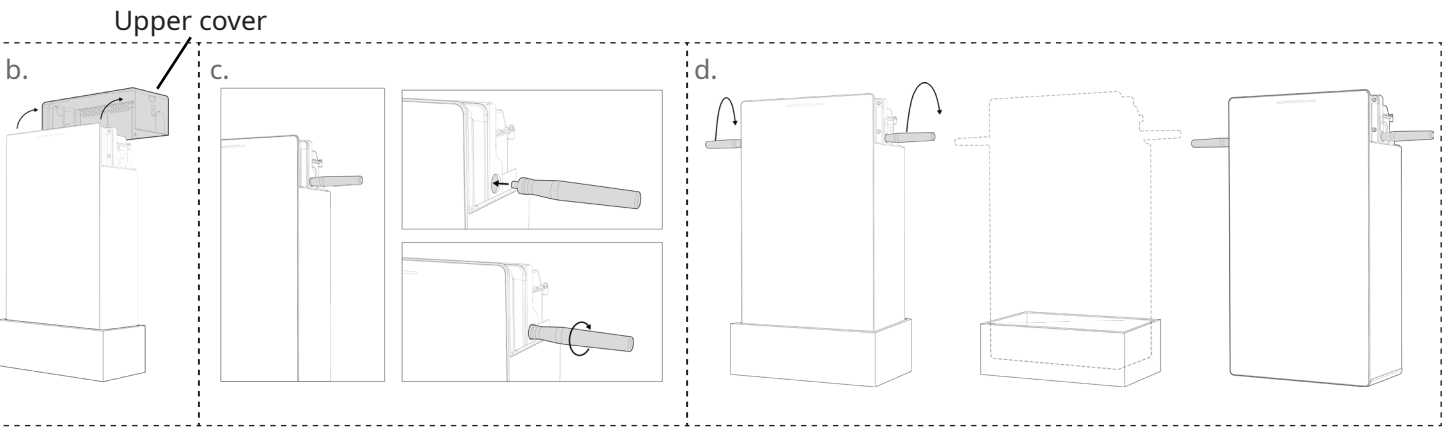
Installation

1. Take out the M-Battery

a. Check the accessories in the box, it contains the following items.



- b. After unboxing, remove the upper cover of the M-Battery.
- c. Take out the handlebars and insert them into the holes on the both sides of the battery.
- d. Remove the battery out of the box.

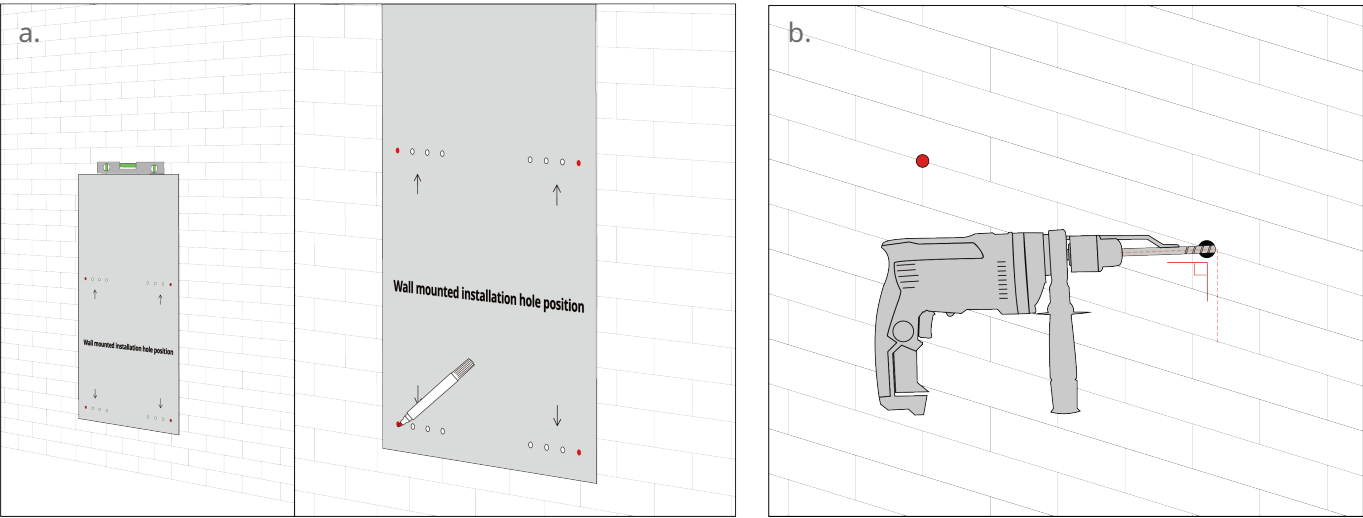
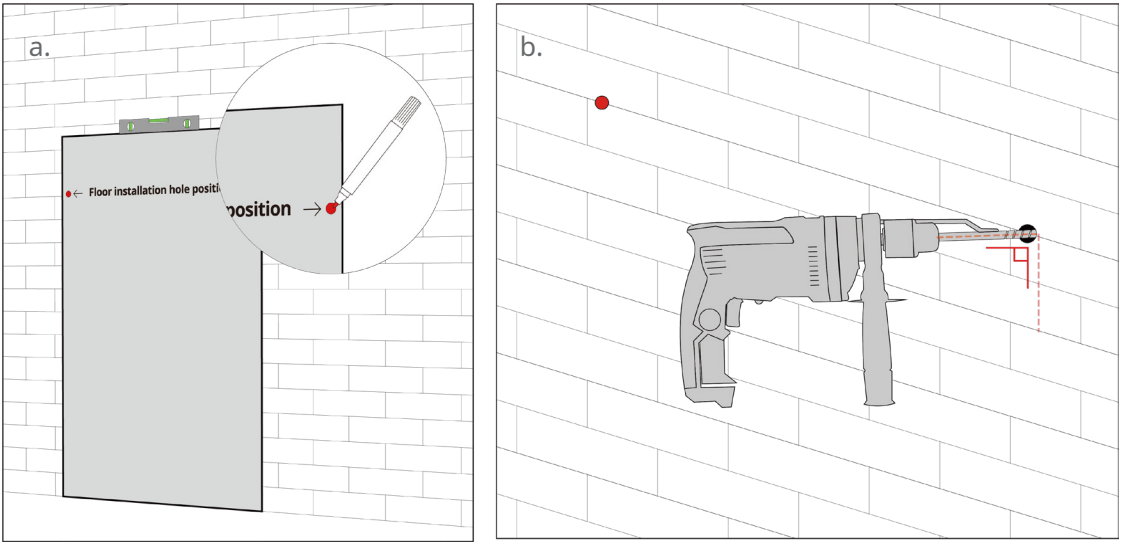


2. Mount the M-Battery

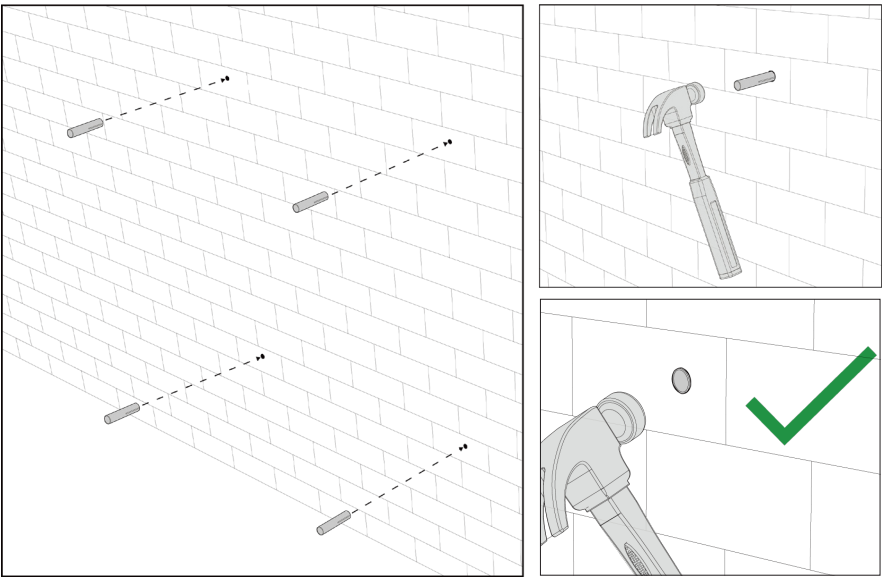
For floor installation, the floor must be level, otherwise wall mounting is recommended.

2.1 Mount on the floor

- a. Take out the marking plate and place it on the wall. Use the spirit level to check that the board is level, then make the marks.
- b. Drill at the two marks by using an electric drill with a bit (Φ10).



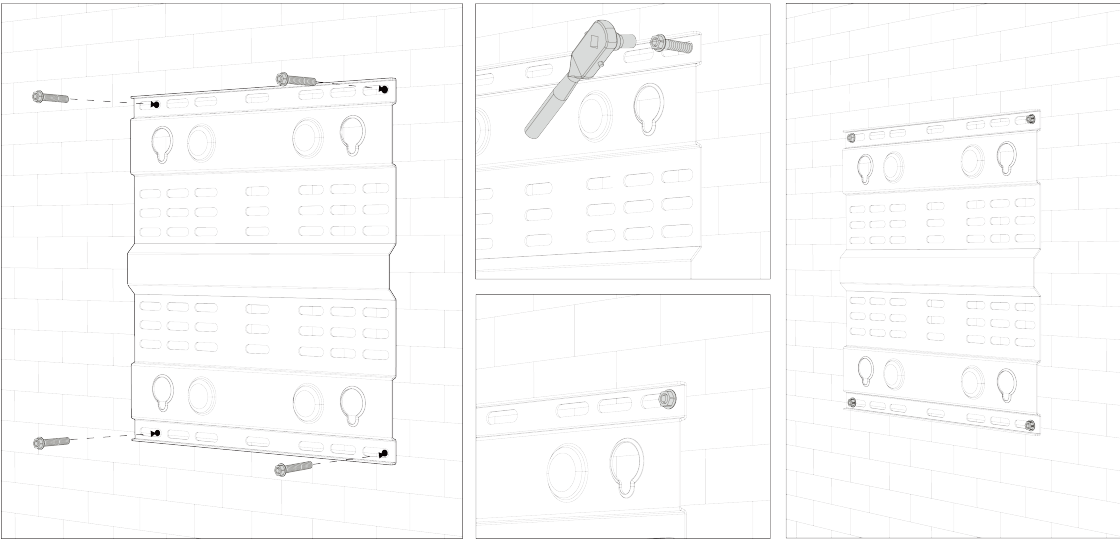
c. Align the wall anchors with the holes and knock them into the wall with a hammer.



NOTE:

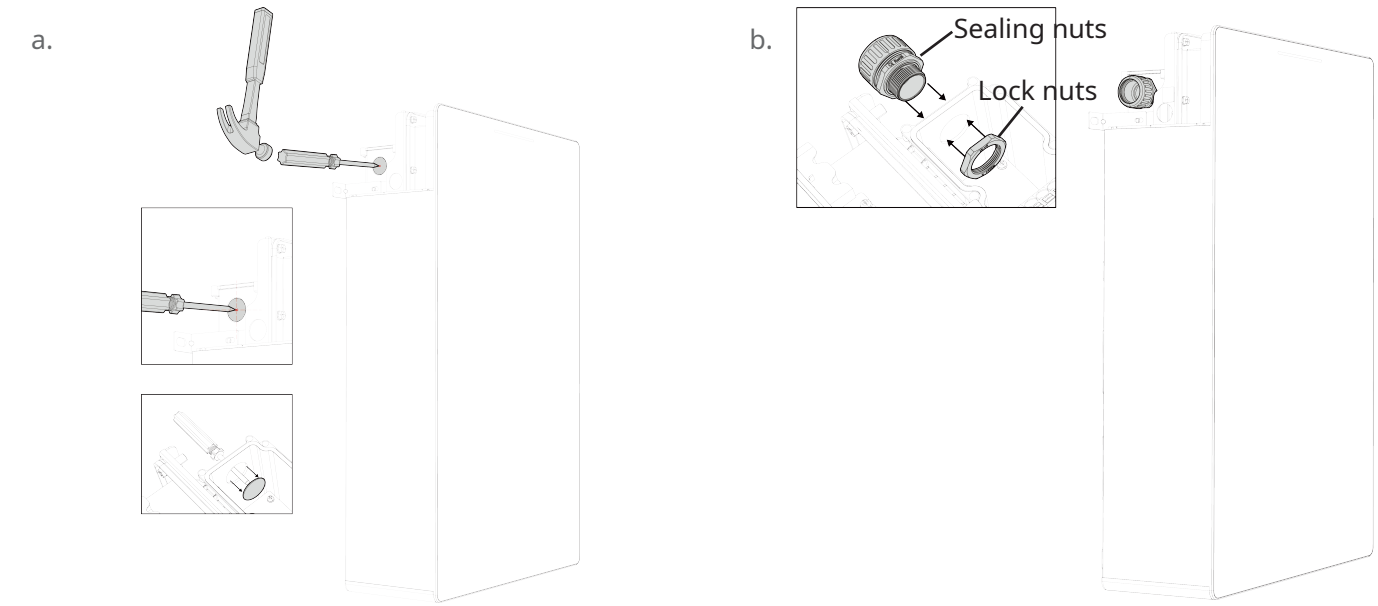
- The wall anchors must be fully driven into the wall.

d. Take out the mounting plate and align it with the holes. Insert and tighten the screws with a torque of 9–14 N·m.



4. Remove the knockout

- a. Use the hammer and the screwdriver to remove the knockout. In the case of multiple batteries, remove the knockout on both sides.
- b. Mount the waterproof fittings on the holes.
- c. Tighten the lock nuts of the glands with a torque of 4–5 N·m and the sealing nuts with a torque of 7–7.5 N·m.



NOTE:

- The screwdriver should be aligned with the center of the knockout.

5. Wire the cables

NOTE:

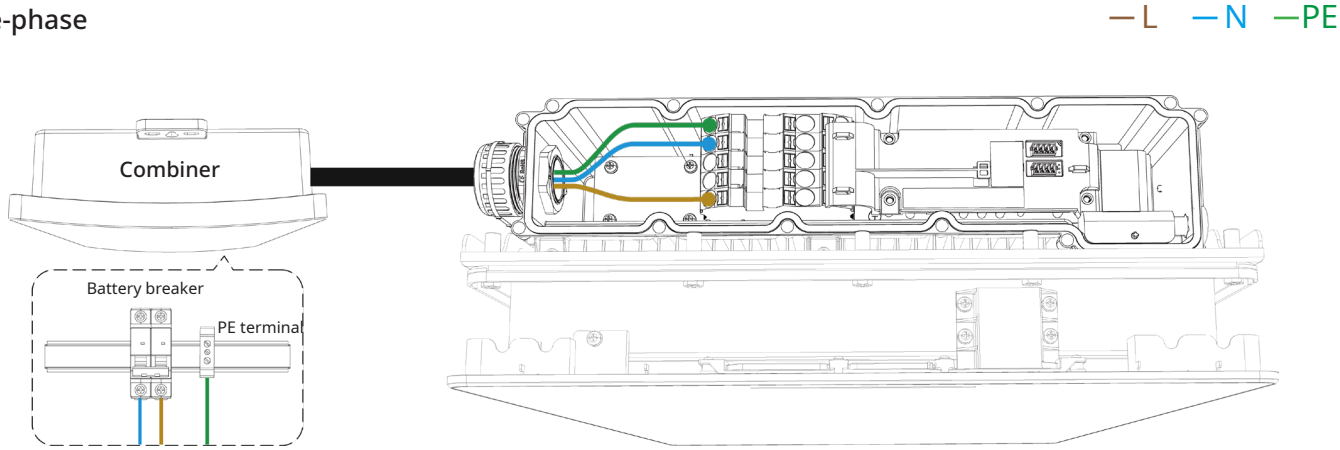
- The cables must connect to the battery breaker and terminals in the combiner. The wiring is different for each model of the combiner. Please check the label inside the combiner for more information.
- Improperly connected L and N will damage the equipment.

5.1 Single battery scenario

Section A. Wire the power cable

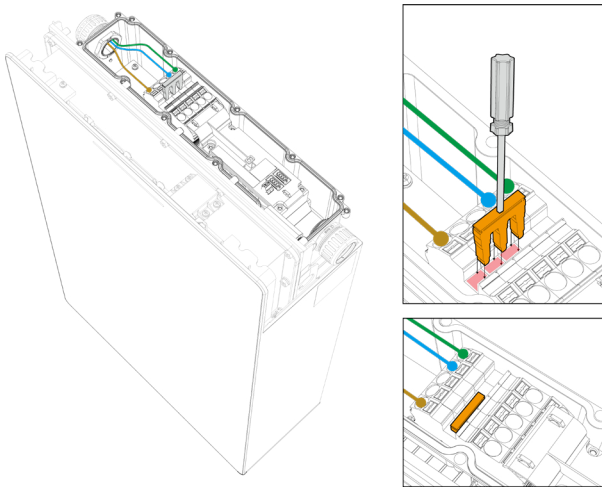
- Connect the cables to the battery breaker and PE terminal in the combiner.
- Bring in the power cables from the combiner through the hole of the battery.
- Connect the cables to the power and PE terminal block in the battery.

Single-phase

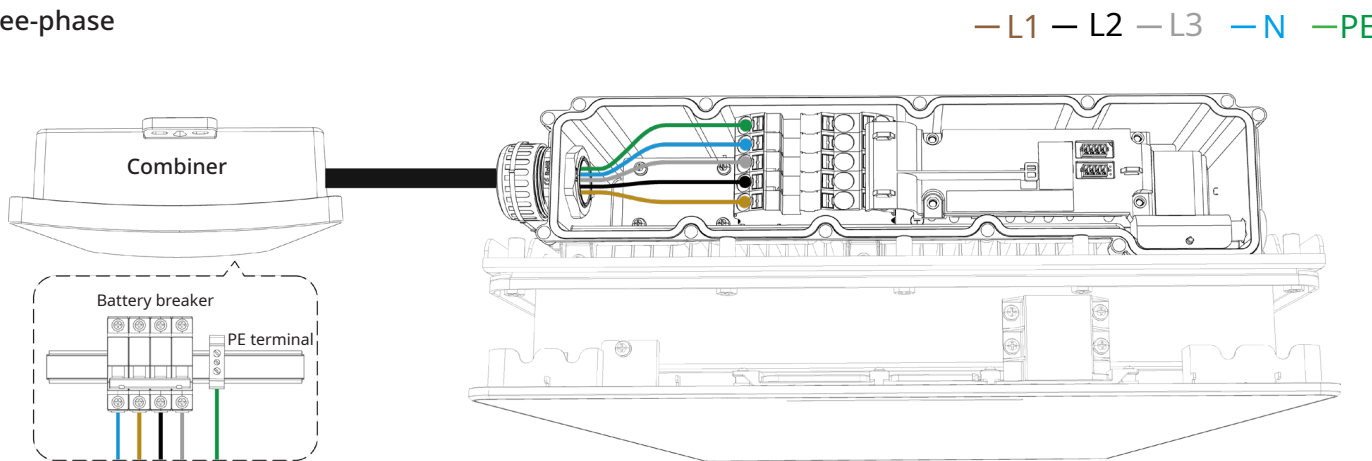


NOTE:

- For single-phase systems, the plug-in bridge must be fully inserted as shown.
- After the installation, confirm that the plug-in bridge is not loose.



Three-phase

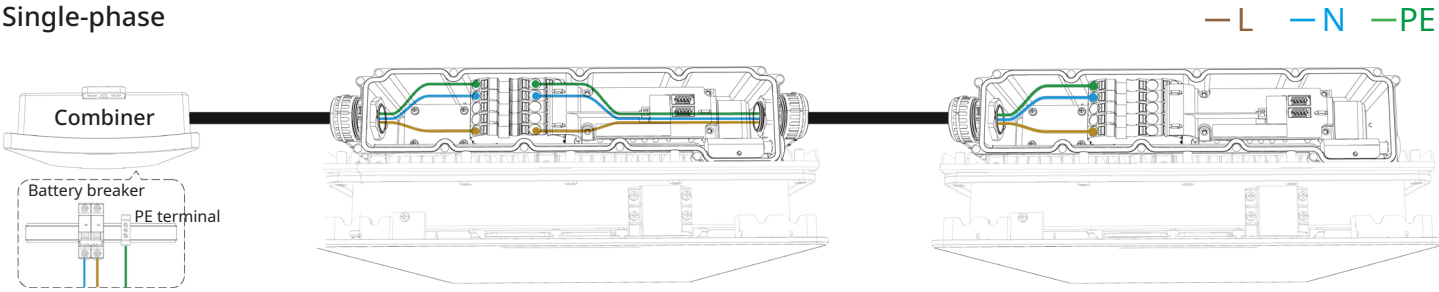


5.2 Multiple batteries scenario

Section A. Wire the power cable

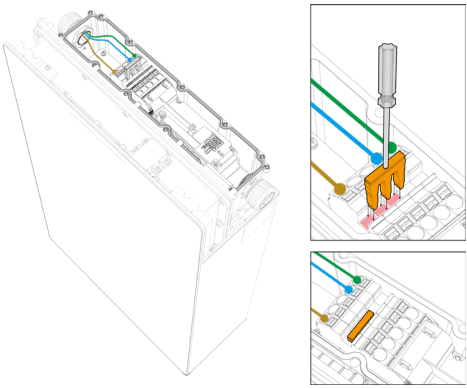
- Connect the cables to the battery breaker and PE terminal in the combiner.
- Bring in the power cables from the combiner through the hole of the battery.
- Connect the cables to the power and PE terminal block in the battery.

Single-phase

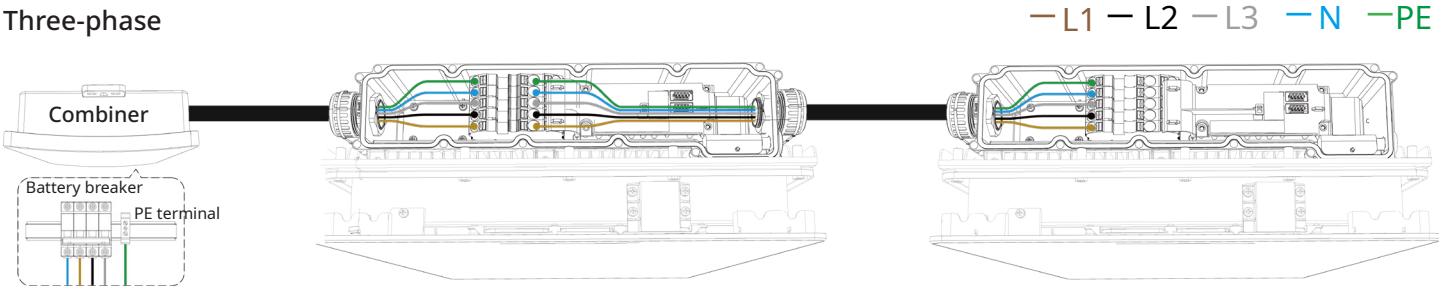


NOTE:

- For single-phase systems, the plug-in bridge must be fully inserted as shown.
- After the installation, confirm that the plug-in bridge is not loose.

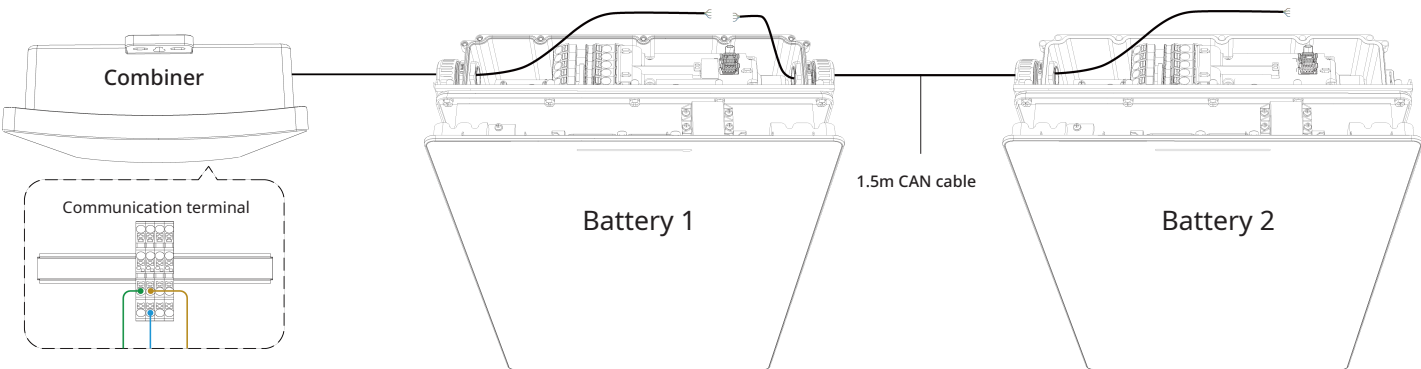


Three-phase



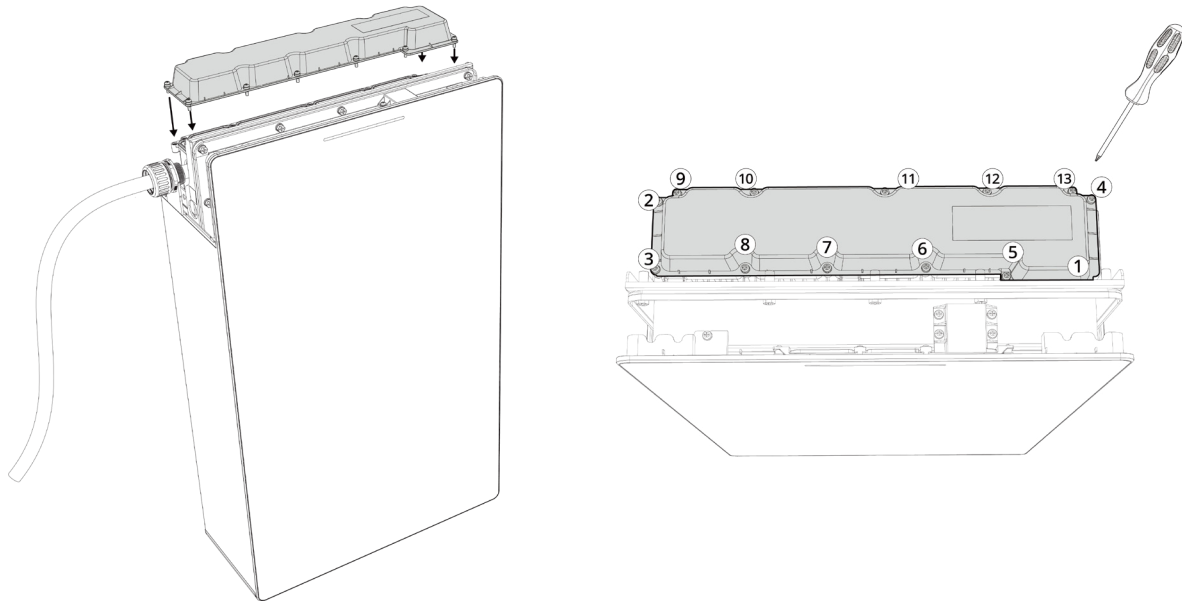
Section B. Wire the CAN communication cable

- Connect the CAN cable to the communication terminal in the combiner.
- Bring in the CAN communication cables from the combiner and 1.5 m CAN cable through the hole of the battery.



6. Close the cover of the wiring cabinet

- Re-install the cover. Follow the sequence (from 1 to 13) as shown in the figure to tighten the 13 screws.

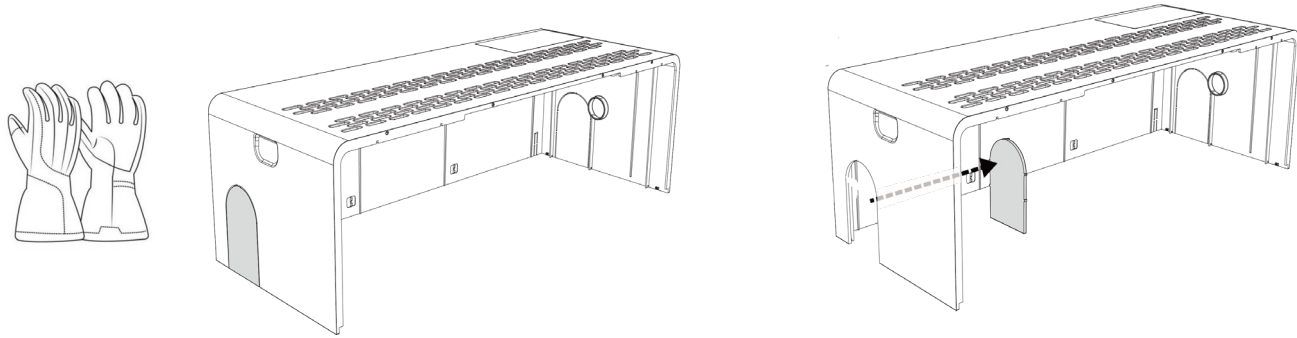


NOTE:

- Do not use the impact drivers and drills to tighten or loosen the screws.

7. Remove the knockout of the upper cover

- Wear the protective gloves and remove the knockout of the upper cover.

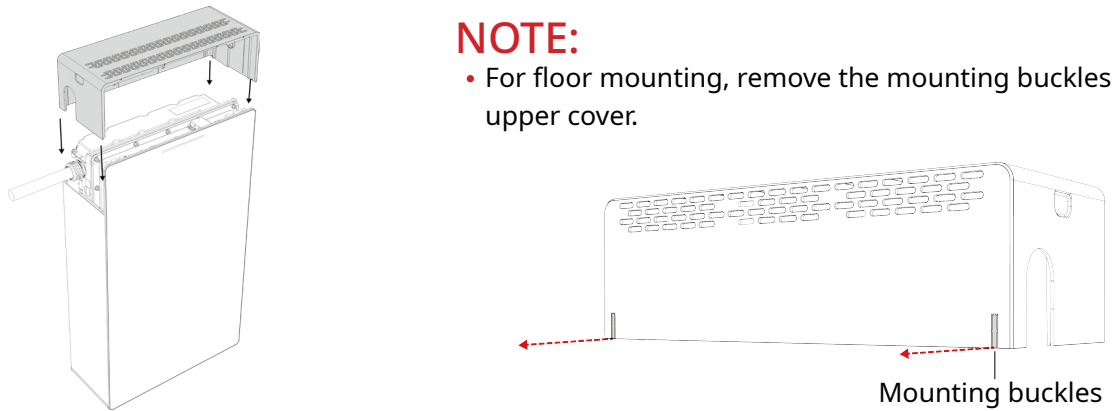


NOTE:

- Please remove the knockout according to the wiring conditions.

8. Close the upper cover

- Close the upper cover.

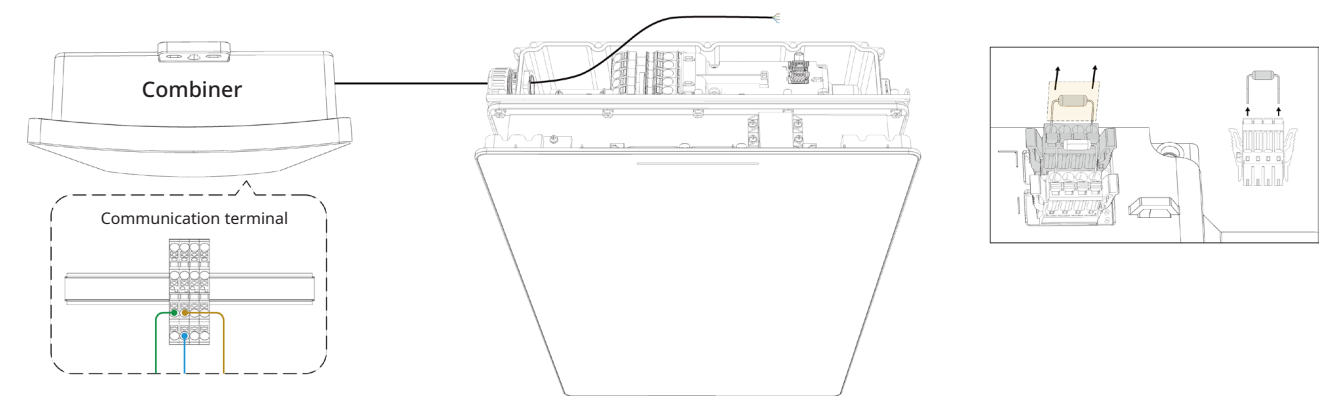


NOTE:

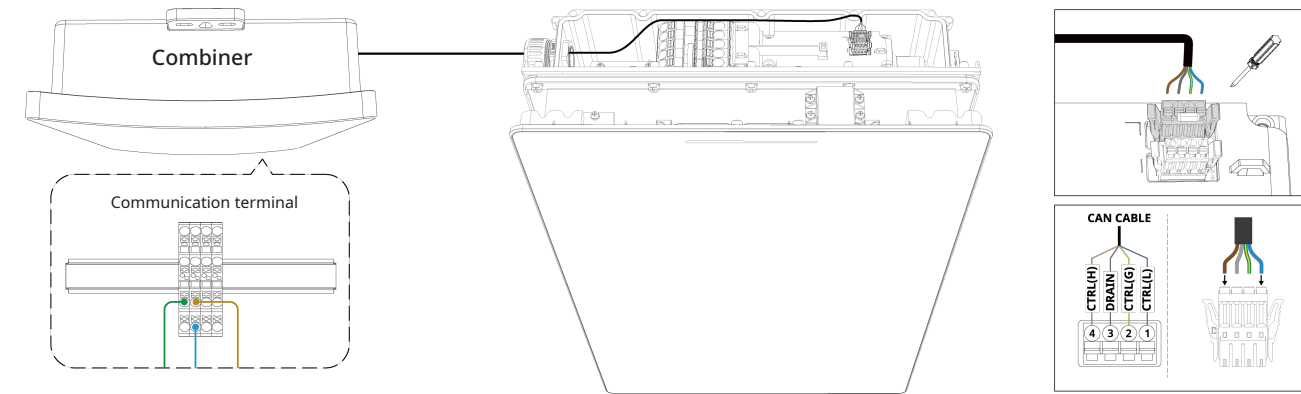
- For floor mounting, remove the mounting buckles of the upper cover.

Section B. Wire the CAN communication cable

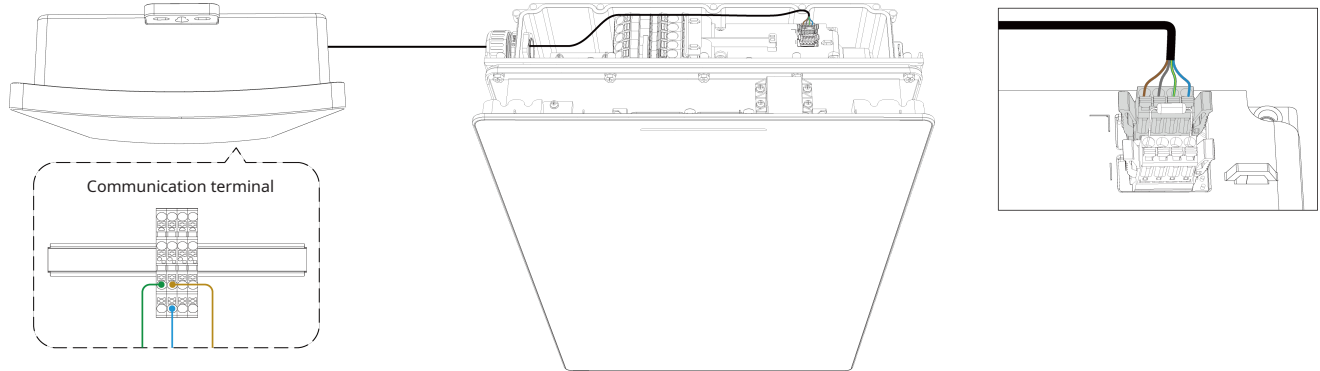
- a. Connect the CAN cable to the communication terminal in the combiner as the label in the combiner.
- b. Bring in the CAN communication cables from the combiner through the hole of the battery.
- c. Remove the resistor on the C1 terminal. Please do not perform any operations on the C2 terminal and resistor.



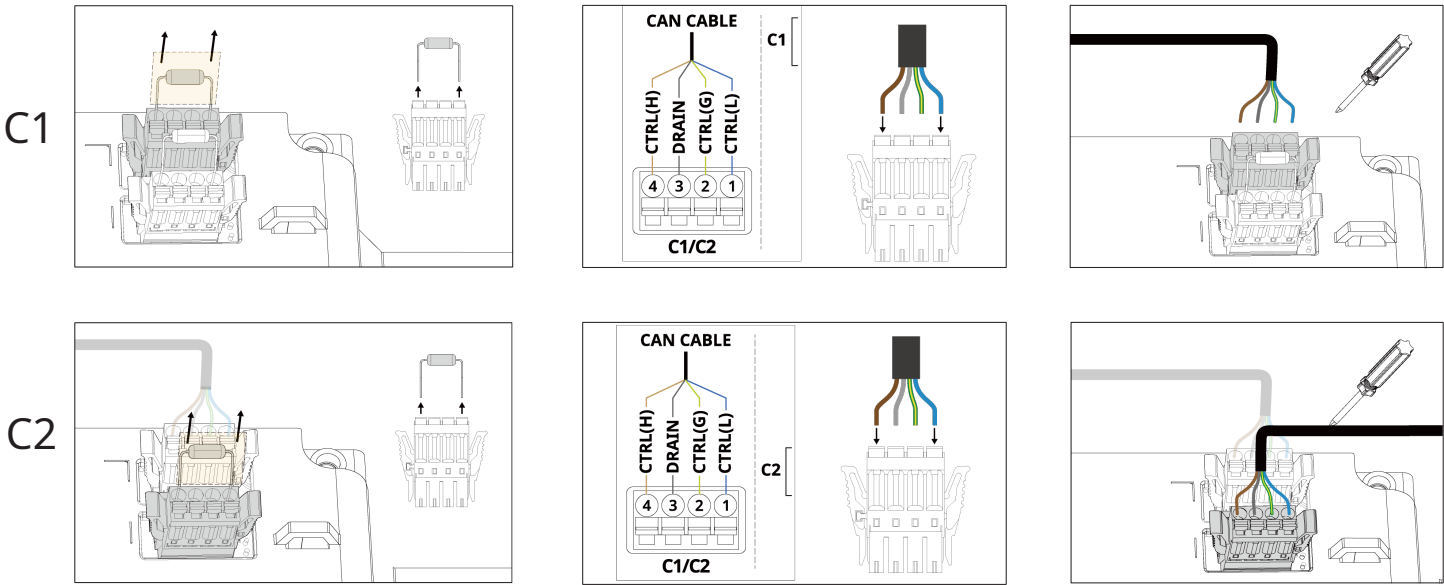
- d. Connect the cable to the C1 terminal as below.



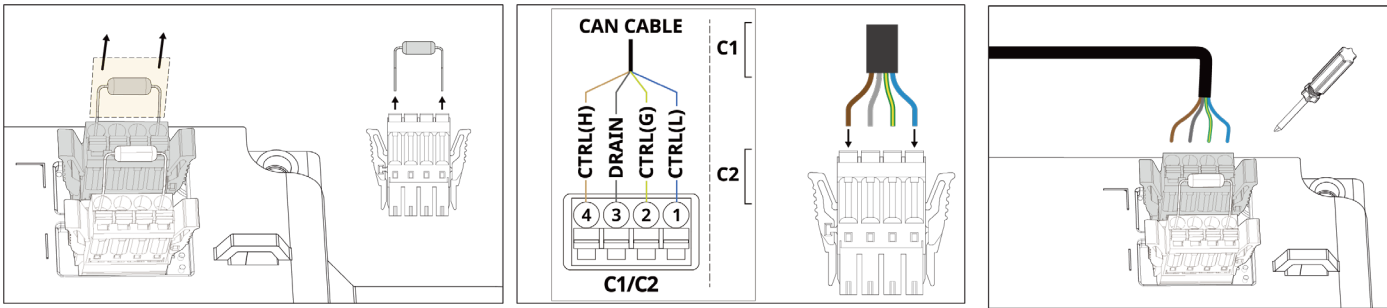
- e. Arrange the cables and check the wiring is correct.



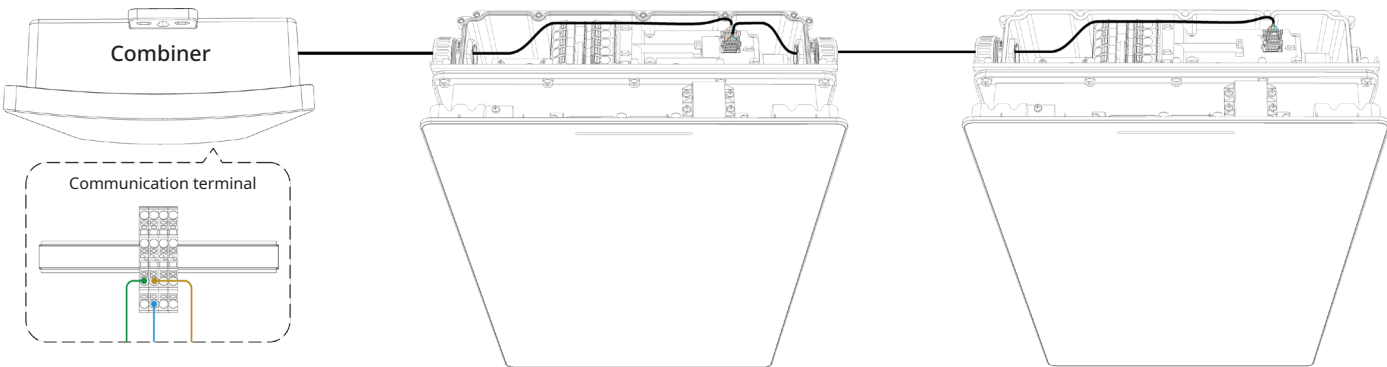
- c. For the battery 1, remove the resistor on the C1 and C2 terminal, and then connect the cable to the C1 and C2 terminal as below.



- d. For the battery 2, remove the resistor on the C1 terminal, and then connect the cable to the C1 terminal as below. Please do not perform any operations on the C2 terminal and resistor.



- e. Arrange the cables and check the wiring is correct.



9. Power on the system

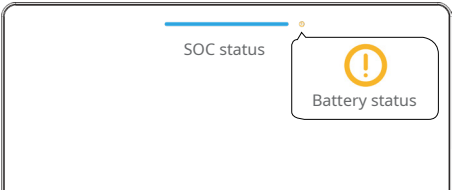
- a. Use the multimeter to measure the voltage between the N pole and L1 pole (or L2 pole, L3 pole). The voltage value should be approximately the nominal phase voltage, e.g. 220 V, 230 V and 240 V.
- b. Switch on the battery breaker in the combiner and power on the system.

10. Activate the system

- a. Log in to the ATMOZEN APP on your mobile phone and follow the deployment guide in the app to activate the system.
- b. After the system is activated, the SOC status LED will be solid blue.

LED Indicator Description

The M-battery has two types of LEDs and the following table describes their status.



Function	Colour	Description
SOC status	Solid blue	Remaining battery energy percentage
Battery status	Quick flash	Abnormal working condition
	Solid red	The battery has an internal fault
	Dim	Normal operation