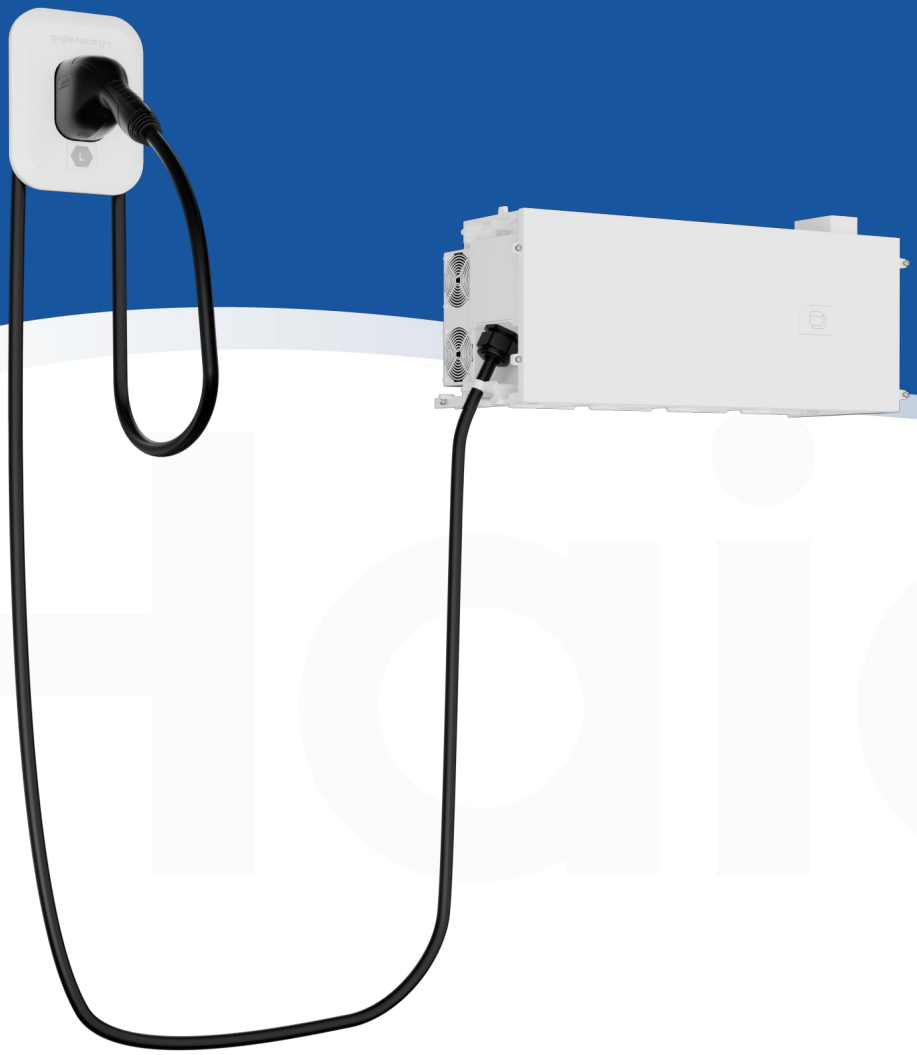
Haier

Installation Guide

EV DC Charger

HEVDC-(12,25)S2C5



- Please read it carefully before use

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Contents

Overview

Introduction

This document describes the precautions for installing, operating, and maintaining of the EV DC Charging Module.

- **Target readers**

This document is intended for:

- Trained and qualified installation personnel
- Technical support engineer

Sign Definition

- The following signs may be used in the document to indicate security precautions or key information. Before installation and operation, familiarize yourself with signs and their definitions.

Signs	Definition
Danger	Danger. Failure to comply may result in death or serious personal injury.
Warning	Warning. Failure to comply may result in minor injury or property damage.
Caution	Caution. Failure to comply will result in equipment damage and property loss.
Tips	Important or key information, and supplementary operation tips.

Chapter 1 General Requirements

Before installing, operating, and maintaining the equipment, familiarize yourself with this document.

The "Danger ", "Warning", and "Caution" items described in this manual are only supplementary to all precautions.

The Company shall not be liable for equipment damage or property loss caused by the following reasons:

- The installation environment does not meet international, national, or regional standards.
- Failure to comply with local laws, regulations, and regulations when transporting, installing, operating, or maintaining the equipment.
- The installation area does not meet the requirements of the equipment.
- Cables and tools used do not meet international, national, or regional standards.
- Damage caused by storage conditions that do not meet equipment requirements.
- Failure to handle the equipment with care or violent installation may result in equipment damage and liquid leakage and pose a risk of fire or explosion hazards.
- Failure to follow the instructions and precautions in this document.
- Failure to follow the warning labels on equipment or tools.
- Negligent, improper operation or intentional damage.
- Damage caused by the customer or the third party company changing the use of our company's equipment.
- The equipment is damaged by the failure of the customer or the third-party company to use the accessories supplied with the package and purchase and use the accessories of the same specifications for installation.
- Equipment damage caused by improper operations such as disassembling, replacing, or modifying the software code without authorization.
- Equipment damage caused by force majeure (such as war, earthquake, fire, storm, lightning, flood, debris flow, etc.).
- Damage caused by the failure of the natural environment or external power parameters to meet the standard requirements of the equipment during actual operation (for example, the actual operating temperature of the equipment is too high or too low).
- The equipment was stolen.
- The equipment is damaged after the warranty period.

Chapter 2 Personnel Requirements

The personnel responsible for installation and maintenance of the equipment must receive strict training and get relevant certificates, be familiar with local laws, regulations, and related standards, understand the structure and working principles of the system, understand various safety precautions, master the correct operation methods, and possess the operation qualifications required by the local country.

Chapter 3 Handling and Transportation Requirements

- Wear personal protective equipment, such as protective gloves and safety shoes, when moving equipment.
- Select a proper transport mode based on the weight of the equipment.
- When using a forklift, place the fork knife in the middle of the equipment, and bind the fork knife according to the actual situation. When moving, a special person should take care of it. No movement under the fork knife.
- Place the equipment according to the stacking requirements on the package. Stacking requires strapping and fastening.
- It is advisable to use protected means of transport. The equipment is prohibited from being subjected to rain, water immersion, etc.

Chapter 4 Storage Requirements

- The storage location must comply with local laws and regulations.
- Do not unpack the storage equipment.
- Do not expose the equipment to direct sunlight or to wet, dewy, dirty, rainy, flammable, explosive or corrosive environments.
- The storage location should be well protected against insects and rodents.
- When storing the equipment, place it according to the storage requirements on the package.
- During storage, periodically record the temperature and humidity of the storage environment.
  - Storage temperature: -40℃ to 70℃, and 20℃ to 30℃ is recommended.
  - Relative humidity: 5% to 95% RH.
- Please follow the "first-in, first-out" principle when shipping the equipment.

Chapter 5 Operating Requirements

5.1 Routine Requirements

Danger

High voltage, danger:

- Live operation of the equipment (including but not limited to installation, wiring, replacement, etc.) is prohibited.
- Do not extend sharp objects or fingers into the equipment.
- Do not operate the equipment in bad weather (including but not limited to thunder, rain, snow, typhoon, etc.).
- Do not clean or soak the equipment with water, alcohol, or oil to avoid power leakage.
- Do not hit, drag, or step on the equipment.
- Check the equipment for damage before operating it. Do not perform this operation if there is any abnormality (for example, deformed appearance or strange smell)
- When operating the equipment, wear protective equipment such as insulation gloves, shoes, and safety helmets. Conductive ornaments such as metal bracelets, rings and necklaces are prohibited.
- Use insulation tools when installing and connecting cables.
- Devices that need to be grounded are permanently connected to the protection ground. When connecting cables, connect the ground cable first. Before replacement of any equipment, remove the ground cable at last.
- Before touching the terminal, measure the voltage of the contact point to ensure that there is no danger of electric shock.
- Do not drop any foreign objects into the equipment when operating it.
- Please make sure that the equipment cable is properly connected before connecting the pre-MCB.
- Do not contact terminals on the equipment directly or by using other conductors after connecting the pre-MCB.

Caution

- Do not connect cables or adapters that are not required for installing this equipment.
- Do not use a private generator as the power source for the equipment.
- Do not forcedly bend or knock components on the equipment.t.

5.2 Equipment Installation

> ⚠ Warning
>
> - When handling the equipment, be prepared to support the load in order to avoid slips and injuries.

Drilling Safety

- Do not drill holes on the equipment.
- Wear safety goggles and protective gloves when drilling holes.
- Do not place the equipment near the drilling position to prevent debris from falling into the equipment.
- After drilling holes, clean them in time.

5.3 Equipment Maintenance and Replacement

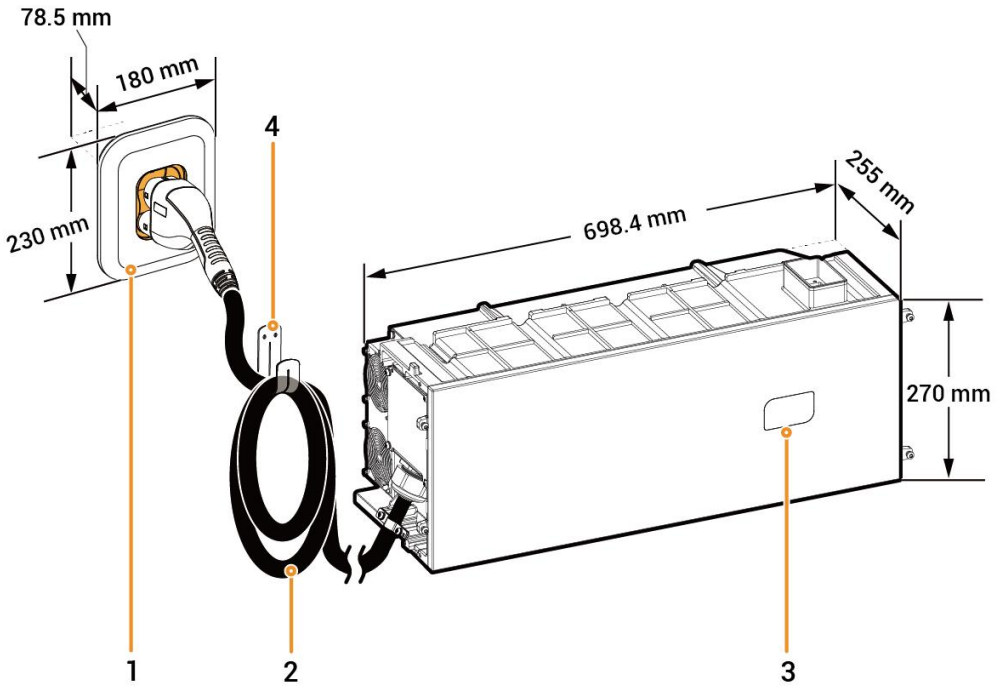
Cut off the power supply to the equipment before maintenance or replacement. Power up and put the equipment back into operation only after trouble is eliminated or replacement is complete.

Caution

- Only trained or qualified persons with electrical engineering knowledge can work directly on the equipment.
- Operators should be familiar with national and local laws, regulations, and standards, and the compositions and operating principles of relevant systems.
- Before performing operations, carefully read the document and the operation requirements and precautions in the Precautions section. If any damage is caused by failure to perform operations under requirements, the equipment is not covered by the warranty.

Chapter 6 Introduction

6.1 Appearance and Dimensions



No.	Description
1	Charging connector holder for placing the charging connector
2	Charging connector cable
3	RFID card reading area
4	Cable holder for storing the charging cable

6.2 Typical Installation Scenarios

EV DC Charging Module (hereinafter referred to as EV DC Charger) can be used with our Smart Cube inverters (Energy Controller) and battery pack (Battery) in the following different installation scenarios.

No.	Component Configuration	Installation Status of Components
1	Energy Controller + EV DC Charger + Battery Pack	Adding the EV DC Charger, with other components installed
2		Newly installing the EV DC Charger and other components
3	Energy Controller+ EV DC Charger	Newly installing the EV DC Charger and other components

Chapter 7 Inspections Before Installation

- Check whether the components are entirely supplied against the packing list and whether the appearance is in good condition. For any problem, contact your sales representative.
- Check and ensure the completeness of personal protective equipment and installation tools; replenish if necessary.
- Check and ensure the correctness of quantity and specifications of the installer-provided cables; re-prepare if necessary.

Protective equipment


Safety hat


Goggles

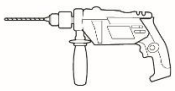

Dust mask


Protective gloves


Insulating gloves

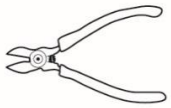

Insulating shoes

Installation tool

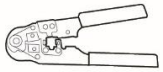


Power drill

Vacuum cleaner



Wire cutter

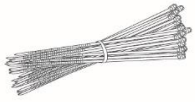


Crimp tool

Crimping pliers

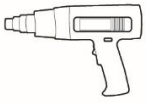
Wire stripper

Scissors

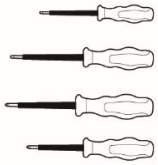


Cable ties

Heat shrinkable sleeve



Heat gun

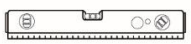


Insulated screwdriver set (bit length ≥ 200 mm)

Digital adjustable open-end torque socket wrench (Opening≥53 mm)

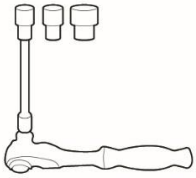
Marker

Rubber mallet



Level

Tape measure



Insulated torque socket wrench set
(extension bar ≥ 200 mm)

(Optional) Installer-provided Cables

For the configuration with an inverter + EV DC Charger + battery pack, where the EV DC Charger is an additional configuration, check if the owner has a cable of sufficient length in the existing equipment. If available, skip this step. If not, prepare a cable with the appropriate specifications.

Chapter 8 Site Requirements

Tips

The warranty applies when the equipment has been installed properly for its intended use and in accordance with the operating instructions.

Installation environment

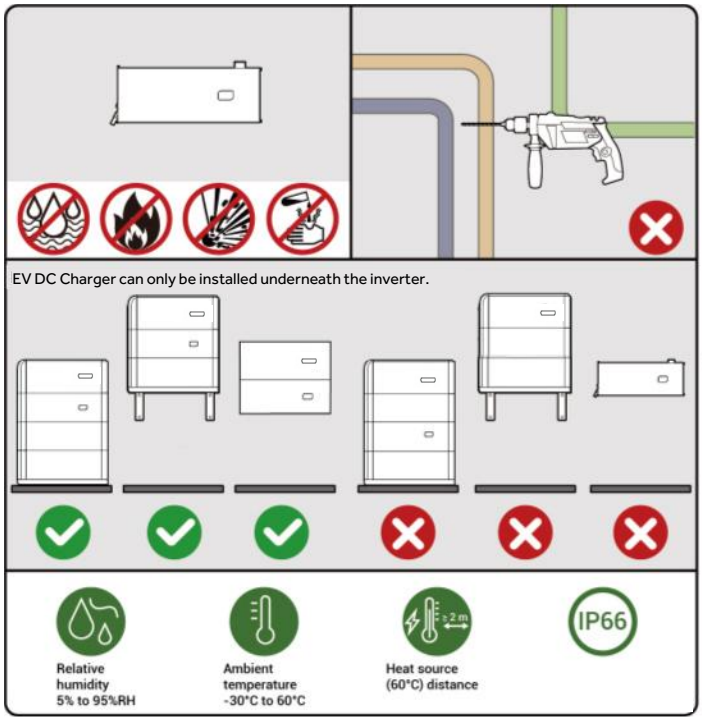
- Do not install the equipment in a smoky, flammable, or explosive environment.
- Avoid exposing the equipment to direct sunlight, rain, standing water, snow, or dust. Install the equipment in a sheltered place. Take preventive measures in operating areas prone to natural disasters such as floods, mudslides, earthquakes, and typhoons.
- Do not install the equipment in an environment with strong electromagnetic interference.
- The temperature and humidity of the installation environment should meet equipment requirements.
- The equipment should be installed in an area that is at least 500 m away from corrosion sources that may result in salt damage or acid damage (corrosion sources include but are not limited to seaside, thermal power plants, chemical plants, smelters, coal plants, rubber plants, and electroplating plants).

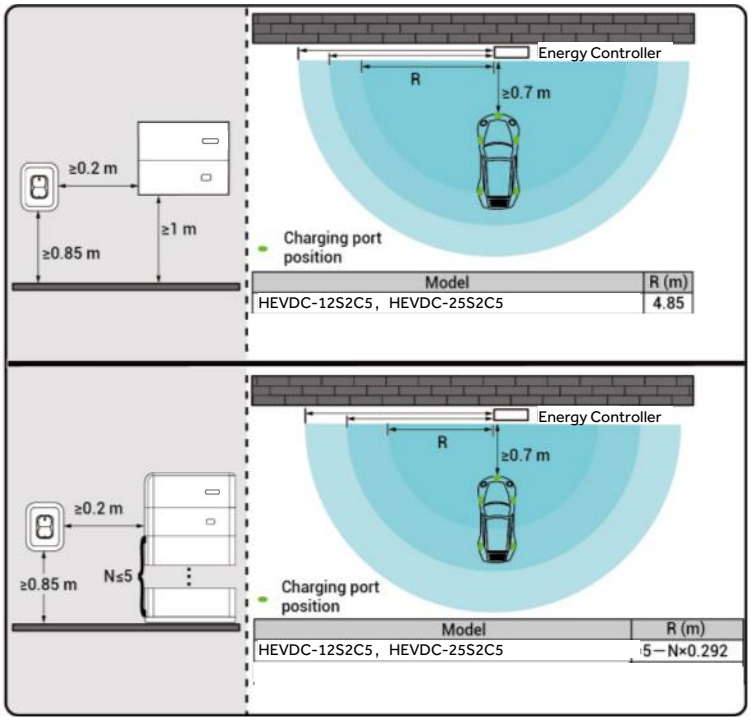
Installation Base

- Do not install the equipment on a flammable base.
- The installation base should meet the load-bearing requirement.
  Solid brick-concrete structures, concrete walls, and floors are recommended.
- The installation base should be flat, and the installation area should meet the installation space requirements.
- No plumbing or electrical alignments should be inside the installation base to avoid potential drilling hazards during equipment installation.

Installation Location

- Do not tilt the equipment or place it upside down. Ensure that the equipment is horizontally installed.
- Do not install the equipment in areas easily accessible to children.
- Do not install the equipment in areas with sources of ignition or excessive moisture, including but not limited to kitchens, pantries, restrooms, shower rooms, and laundries.
- Keep the equipment away from your daily work and living places, including but not limited to living rooms, bedrooms, studios, lounges, and study rooms.
- Do not install the equipment in areas with limited accessibility, including but not limited to attics and basements.
- Do not install the equipment in mobile scenarios such as recreational vehicles, cruise ships, and trains.
- You are advised to install the equipment in a location where you can easily operate and maintain it and view the indicator status.
- Keep the equipment clear of vehicle passage when installed in a garage to avoid collisions.
- Install the equipment near the parking space. Refer to the figure for the installation distance.





Tips

- There will be errors in the actual distance under different installation environments, and the figure is for reference only.

Chapter 9 Installation

9.1 Inverter + EV DC Charger + Battery Pack

9.1.1 Adding EV DC Charger

Danger

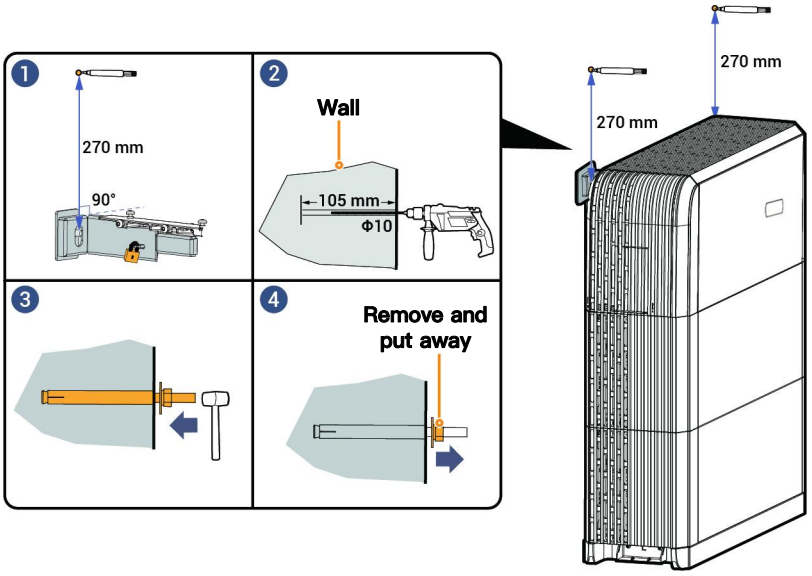
- **Do not perform operations on the equipment with power on. Always cut off the power supply before operation.**

1 (Optional) Determine the mounting hole positions of the inverter after installing the EV DC Charger. Drill holes and install expansion bolts accordingly.

Typical scenario of 1 inverter + 1 battery pack

Skip this step if the inverter is not wall-mounted.

Typical scenario where the inverter has been wall-mounted



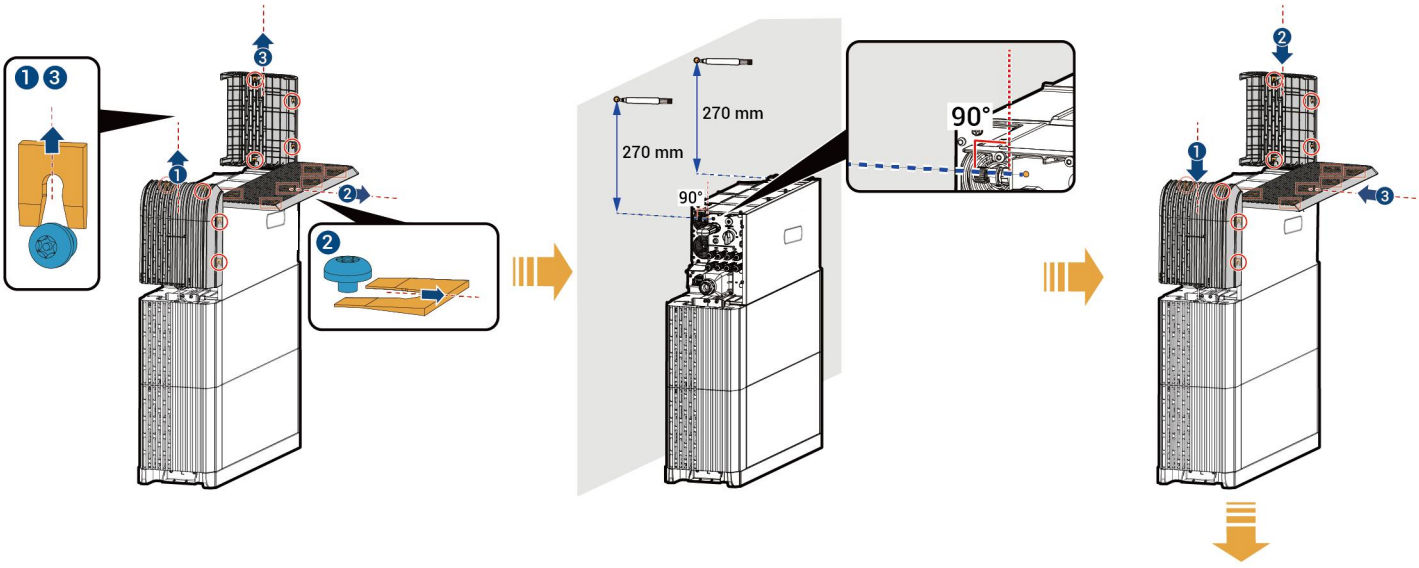
Tips

- **Expansion bolts required in this step are supplied by users. M8 × 120 SS sleeve expansion bolts with washers are recommended.**
- **Drilling will generate dust. Do not remove the decorative cover before drilling.**

Typical scenario of 1 inverter + 2 battery packs

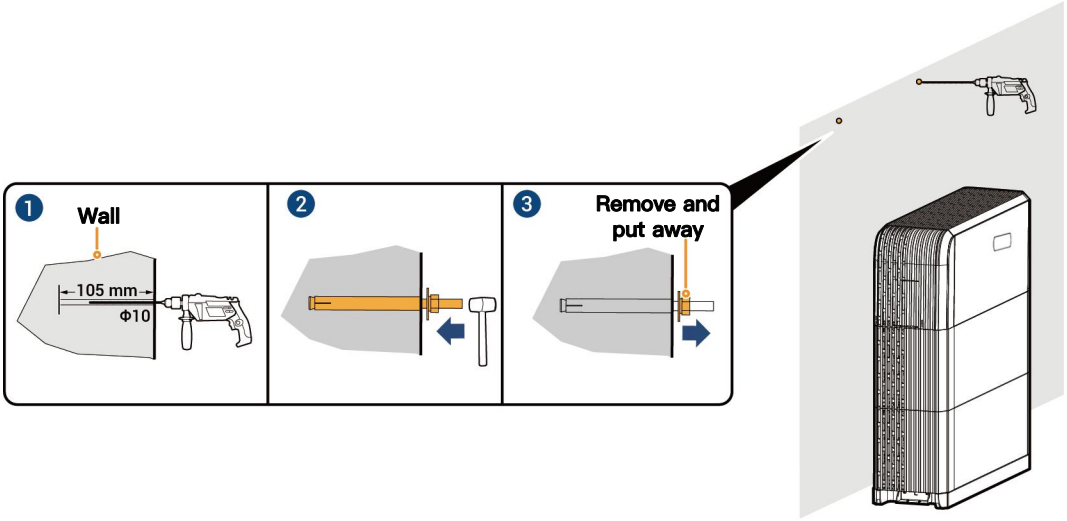
Tips

- **Expansion bolts required in this step are supplied by users. M8 × 120 SS sleeve expansion bolts with washers are recommended.**
- **Obtain the wall connectors required for this scenario from the historical "Installation package". If you can not find the wall connector, please contact your sales representative.**
- **Drilling will generate dust. Do not remove the decorative cover before drilling.**



Typical scenario of 1 inverter + 2 battery packs

1



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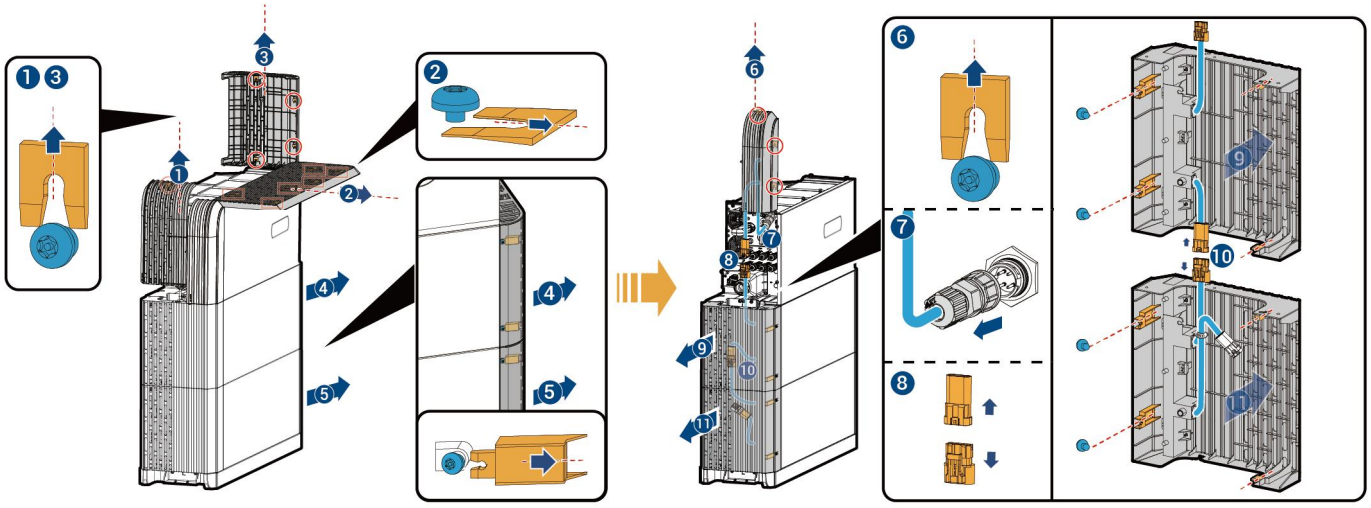
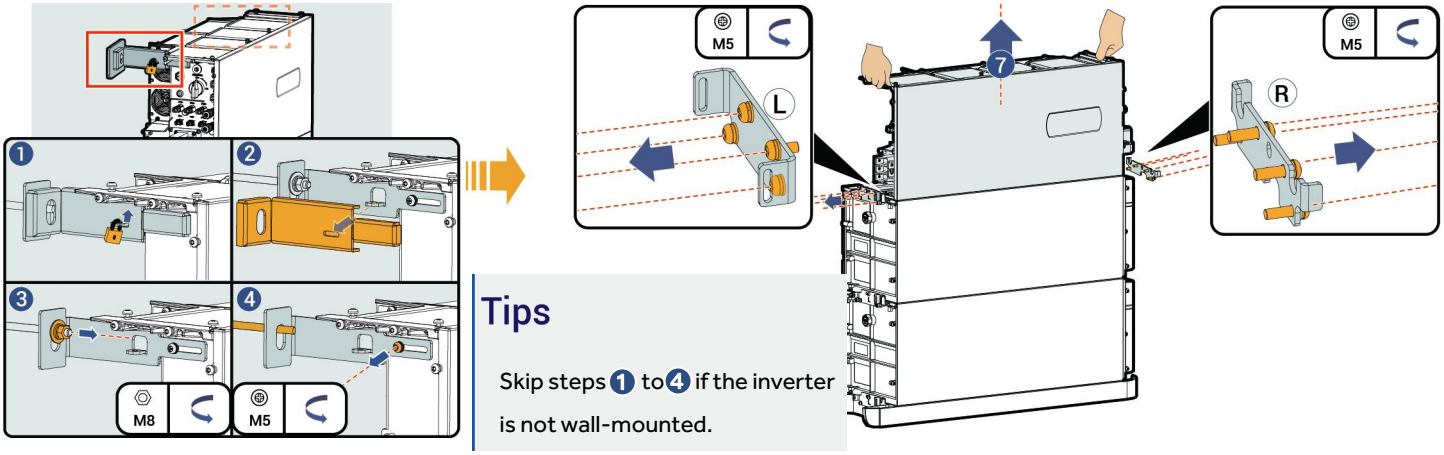


3 Remove the cable connected to the inverter and remove the inverter.



Tips

Skip steps 1 to 4 if the inverter is not wall-mounted.

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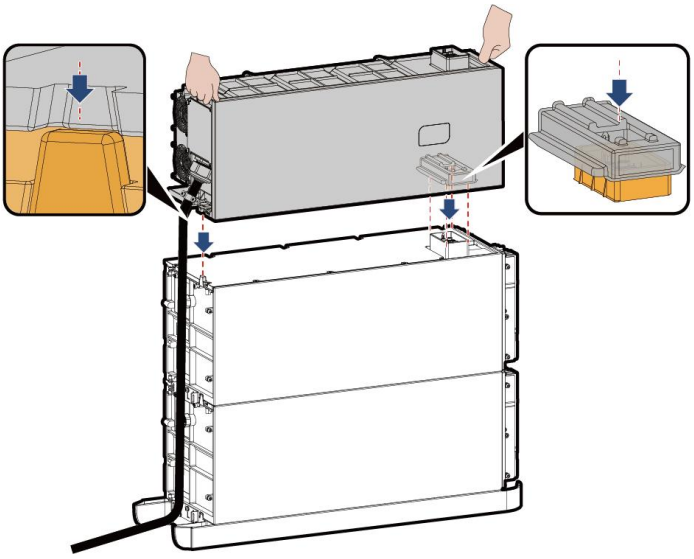

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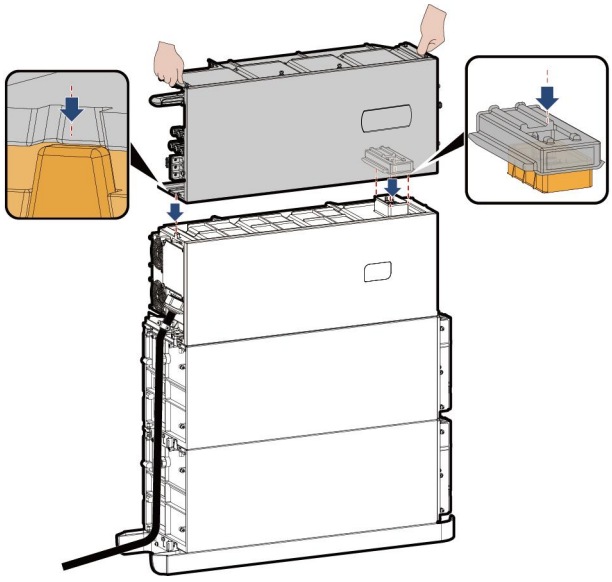

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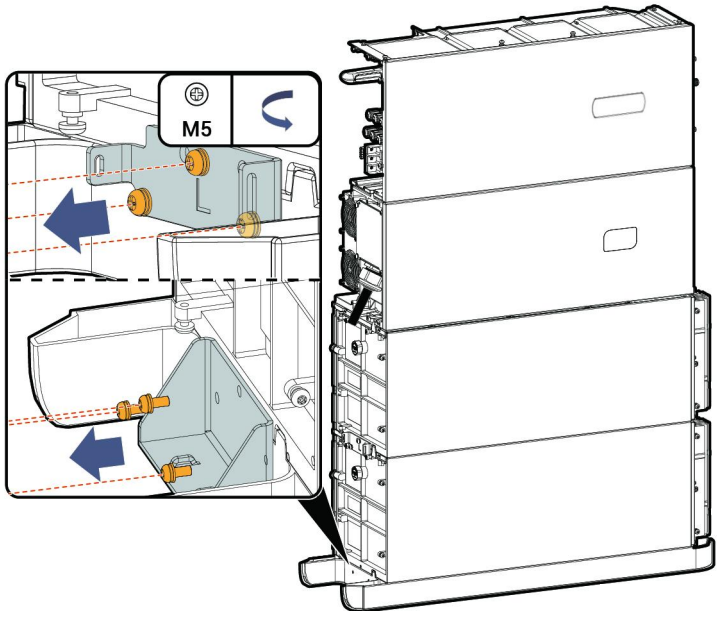

Tips

A cascade piece has two available appearance specifications. The actual application shall prevail.

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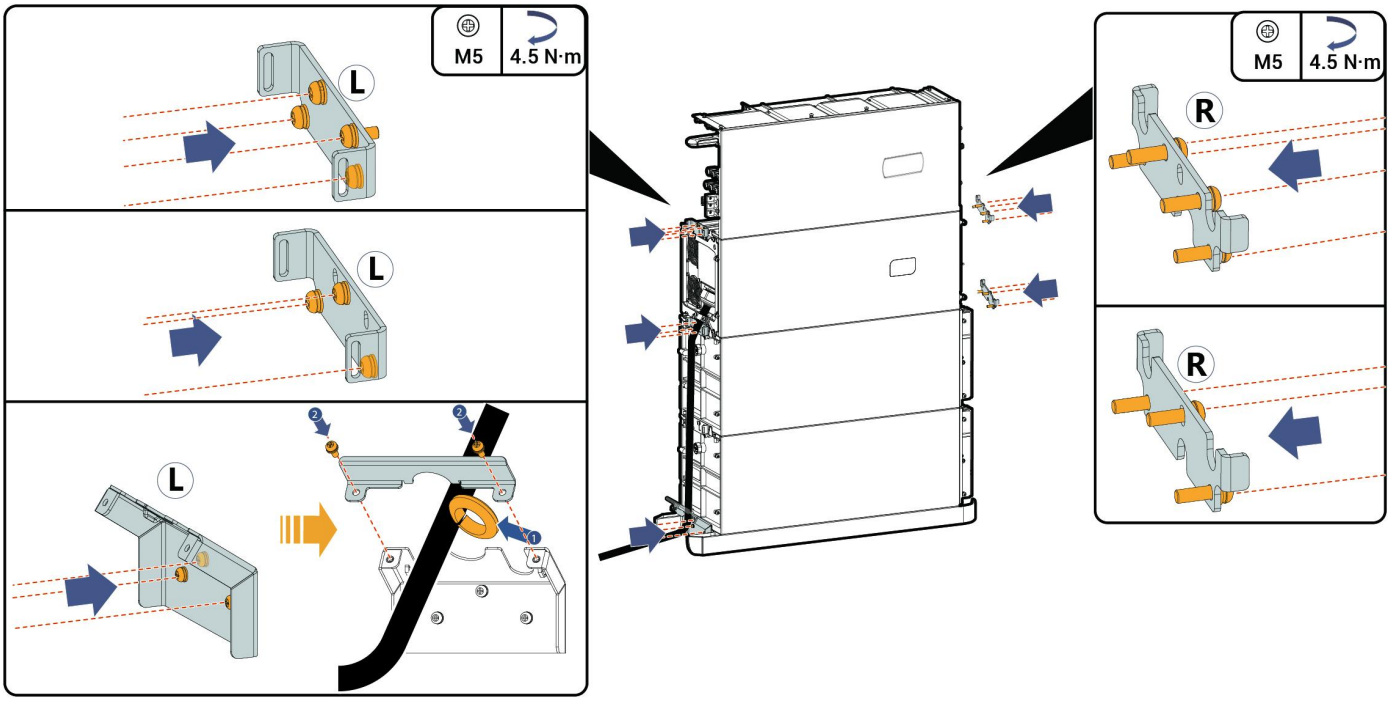

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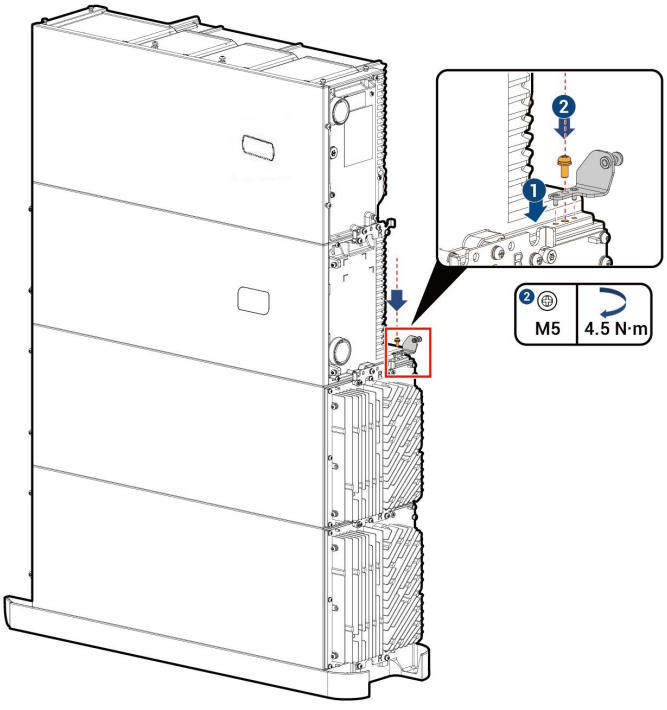
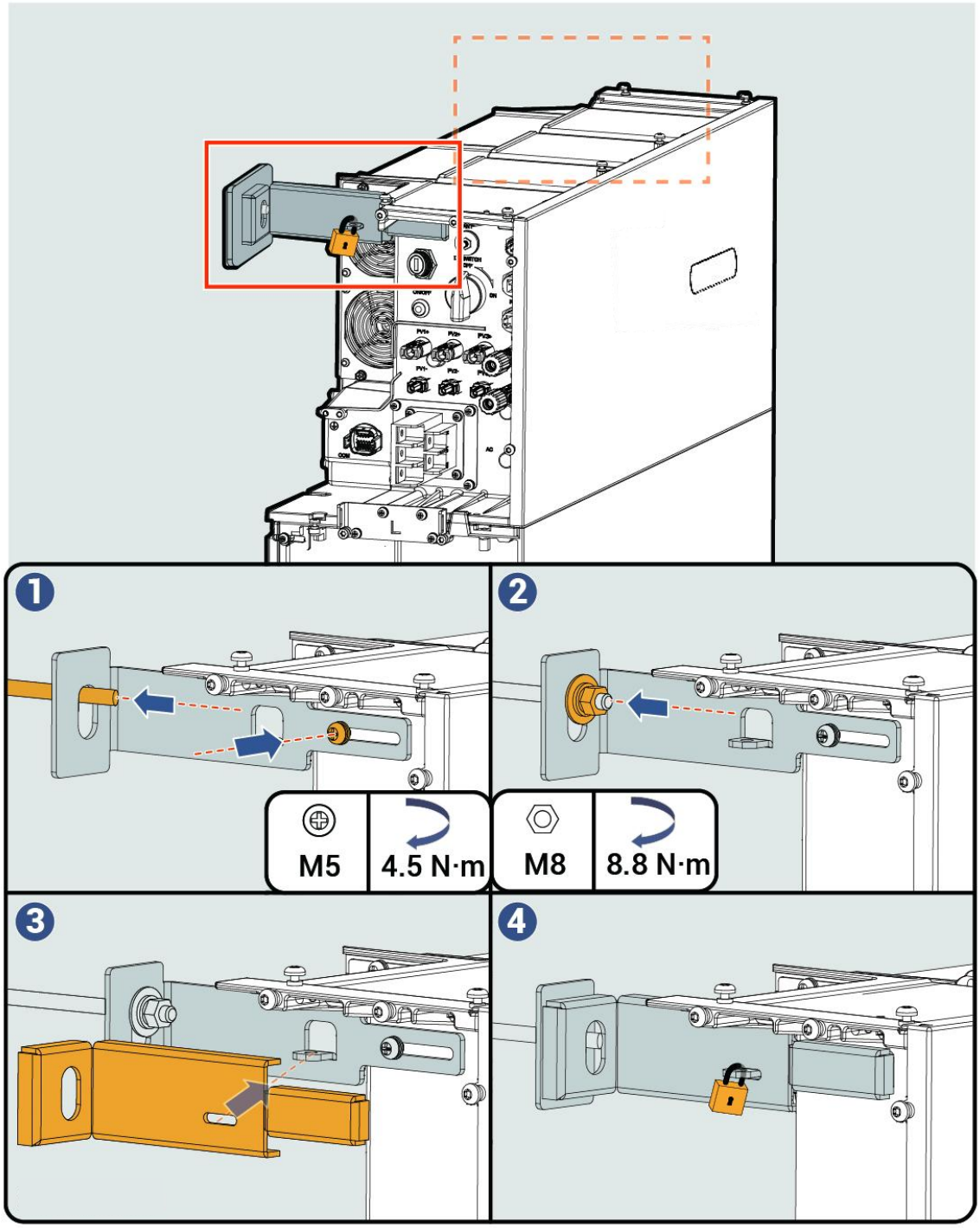


9 (Optional) Follow these steps to mount the inverter to the wall securely.



10 **Reinstall the inverter cable.**

Tips

If the cable length is insufficient during reinstallation, please refer to the corresponding model's Energy Controller Home Installation Guide for specific installation instructions.

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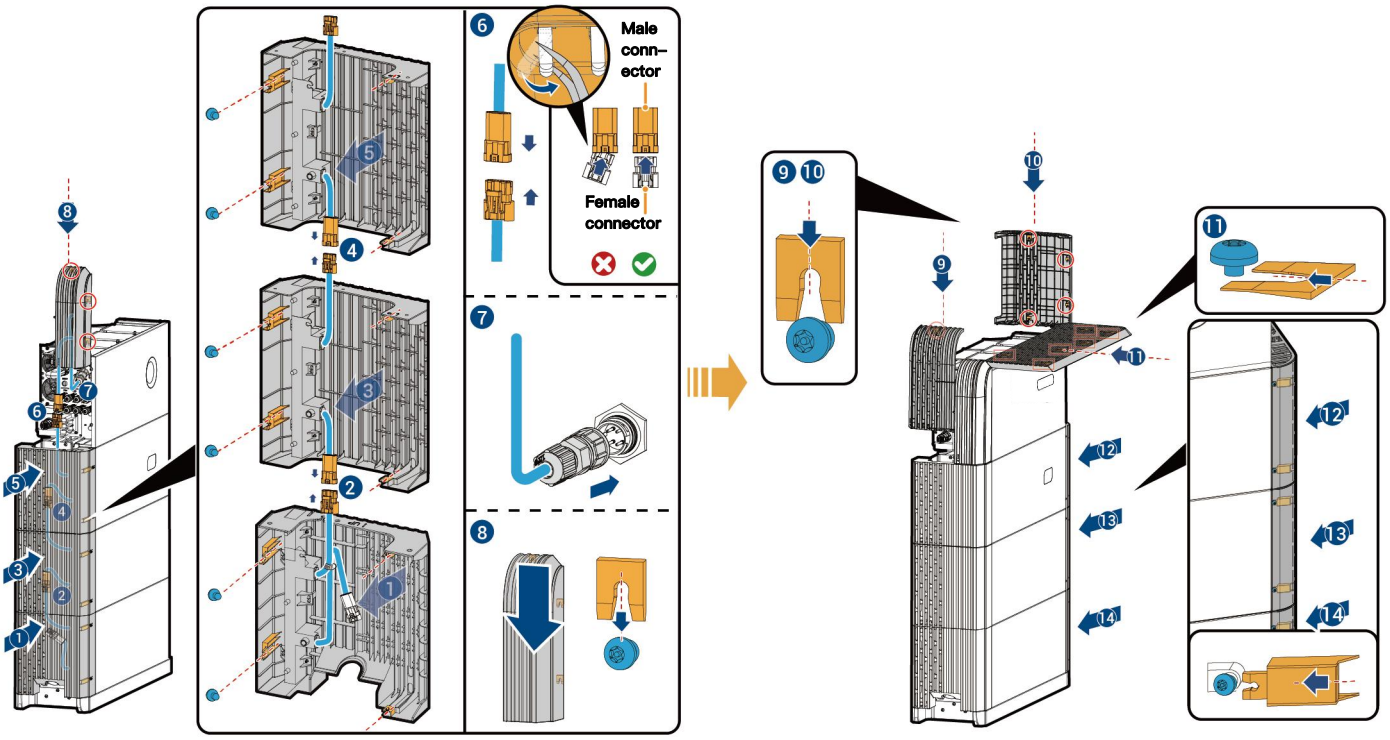


Caution

- The decorative cover used in step 1 is supplied with the EV DC Charger.
- If the strip light shows abnormal status when the equipment is powered on, check if the pins in the male connector is tilted. If tilted, straighten them out and then reconnect the corresponding male and female connectors, or reconnect the terminal in step 6 to resume normal operation.

9.1.2 Newly Installing All Components

Tips

- Install the battery pack, EV DC Charger, and inverter in sequence.
- This section introduces the installation procedure of EV DC Charger only. For detailed instructions on installing the inverter and battery pack, please refer to the Energy Controller Home Installation Guide for the specific model.

1 Determine the mounting hole positions of the inverter after installing the EV DC Charger. Drill holes and install expansion bolts accordingly.

Wall Mounting

Tips

INV1 is the mounting hole on the left side of the inverter for wall installation, while INV2 is the mounting hole on the right side for wall installation.

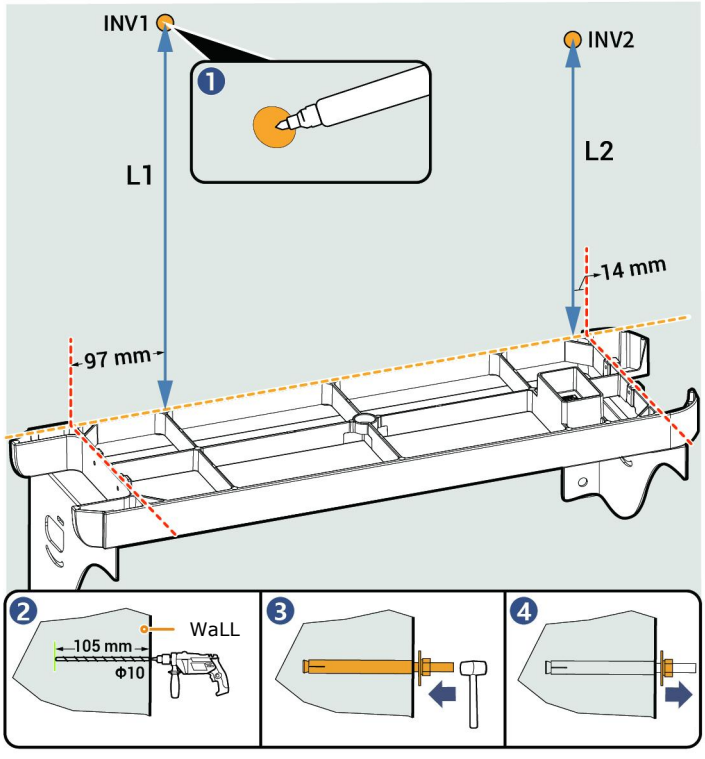
Calculation formula for punch height:

L1 and L2 should be measured from the upper surface of the base:

L1 = ***N*** × 270 mm + 270 mm + 261 mm ± 3 mm

L2 = ***N*** × 270 mm + 270 mm + 254 mm ± 3 mm

Note: N is the number of batteries and N is 1.



Floor Mounting

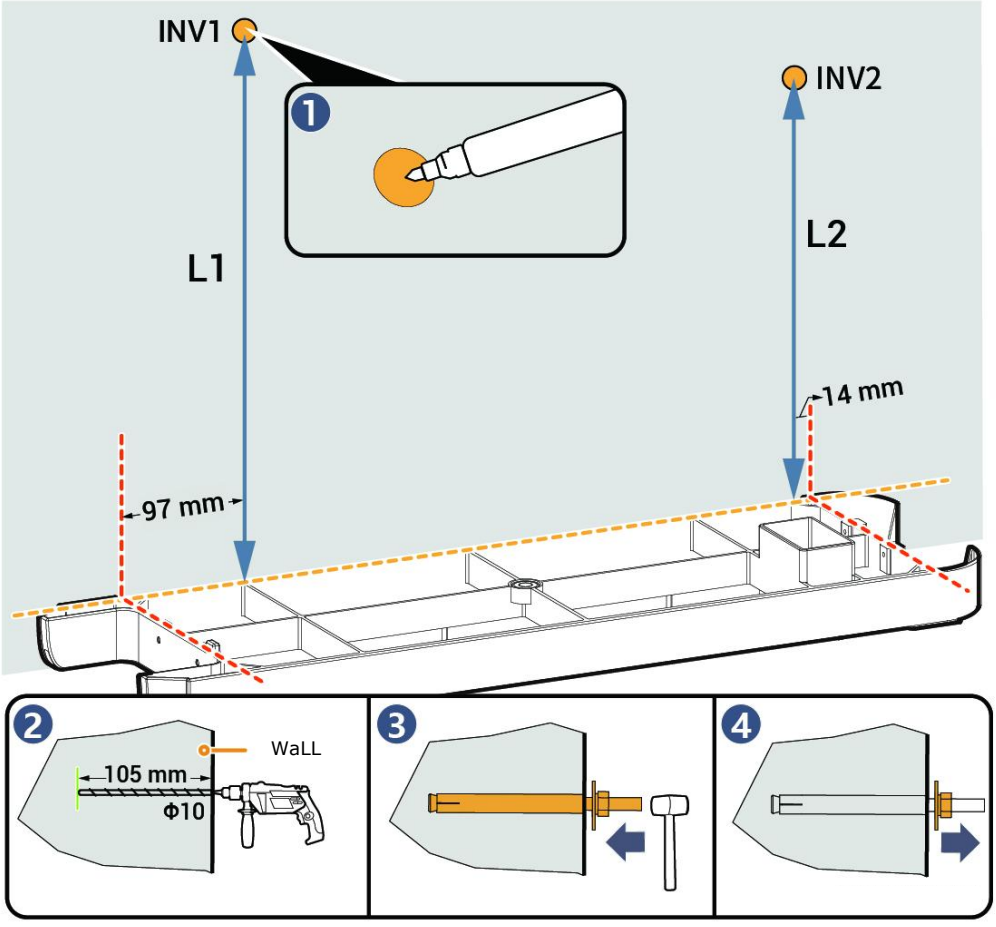
Tips

- You do not have to mount the inverter to the wall when there are one Battery.
- INV1 is the mounting hole on the left side of the inverter for wall installation, while INV2 is the mounting hole on the right side for wall installation.

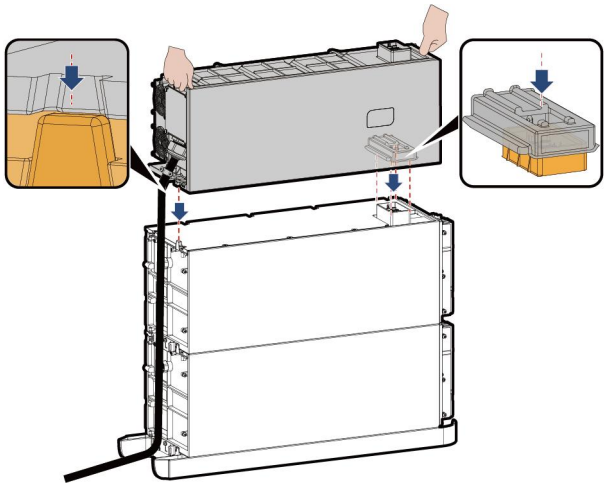
Calculation formula for punch height

L1 and L2 should be measured from the upper surface of the base:
L1 = N × 270 mm + 270 mm + 261 mm ± 3 mm
L2 = N × 270 mm + 270 mm + 254 mm ± 3 mm

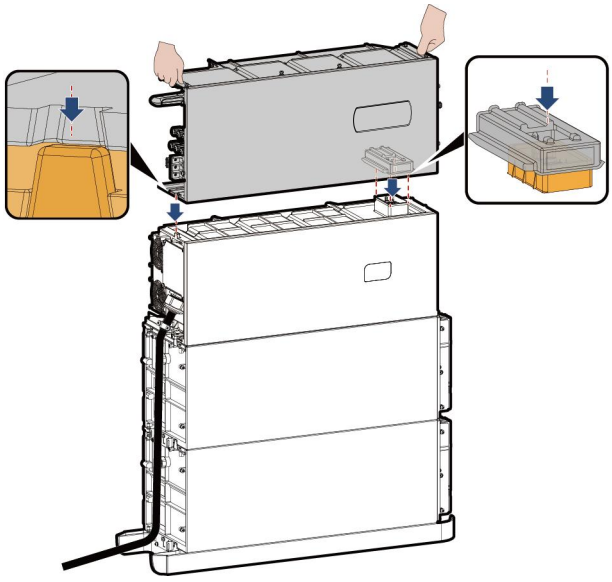
Note: ***N*** is the number of batteries and ***N*** ranges from 2 to 5.



2 Install the EV DC Charger.



3 Install the inverter.



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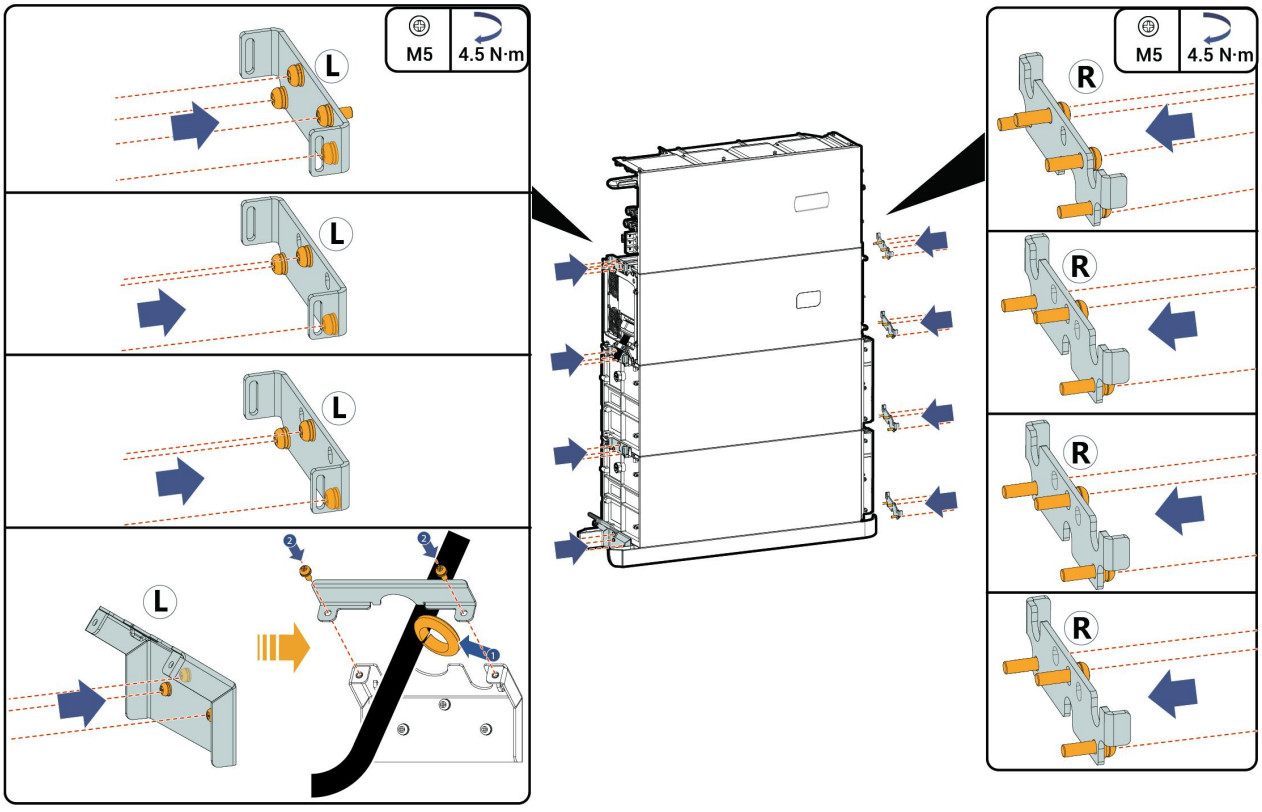

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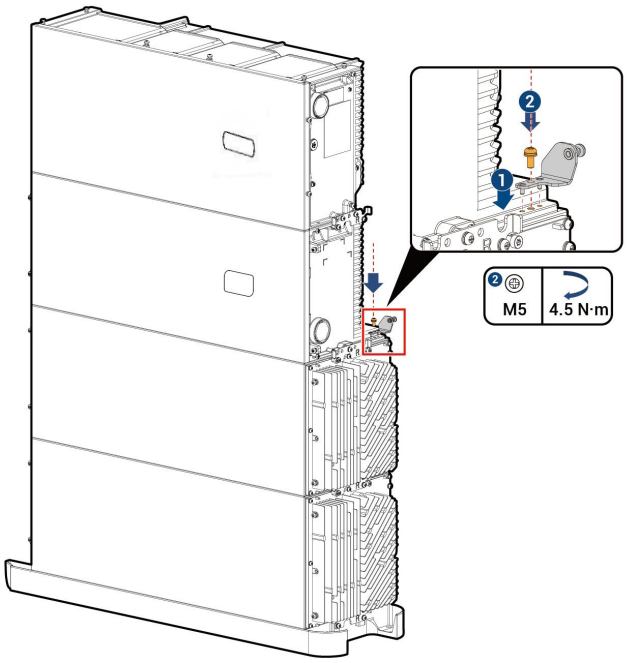
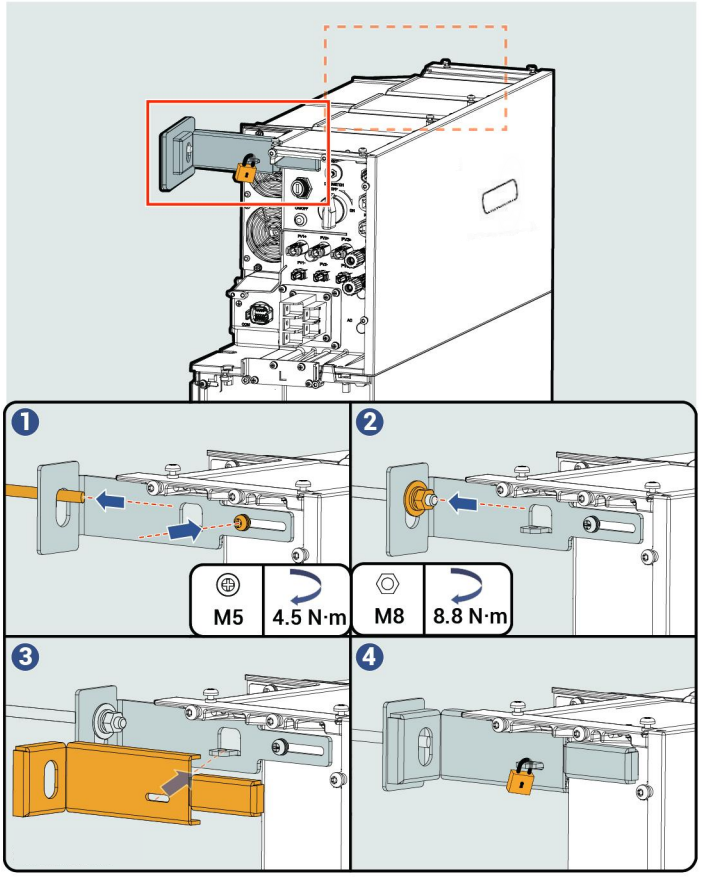


6 (Optional) Follow these steps to mount the inverter to the wall securely.



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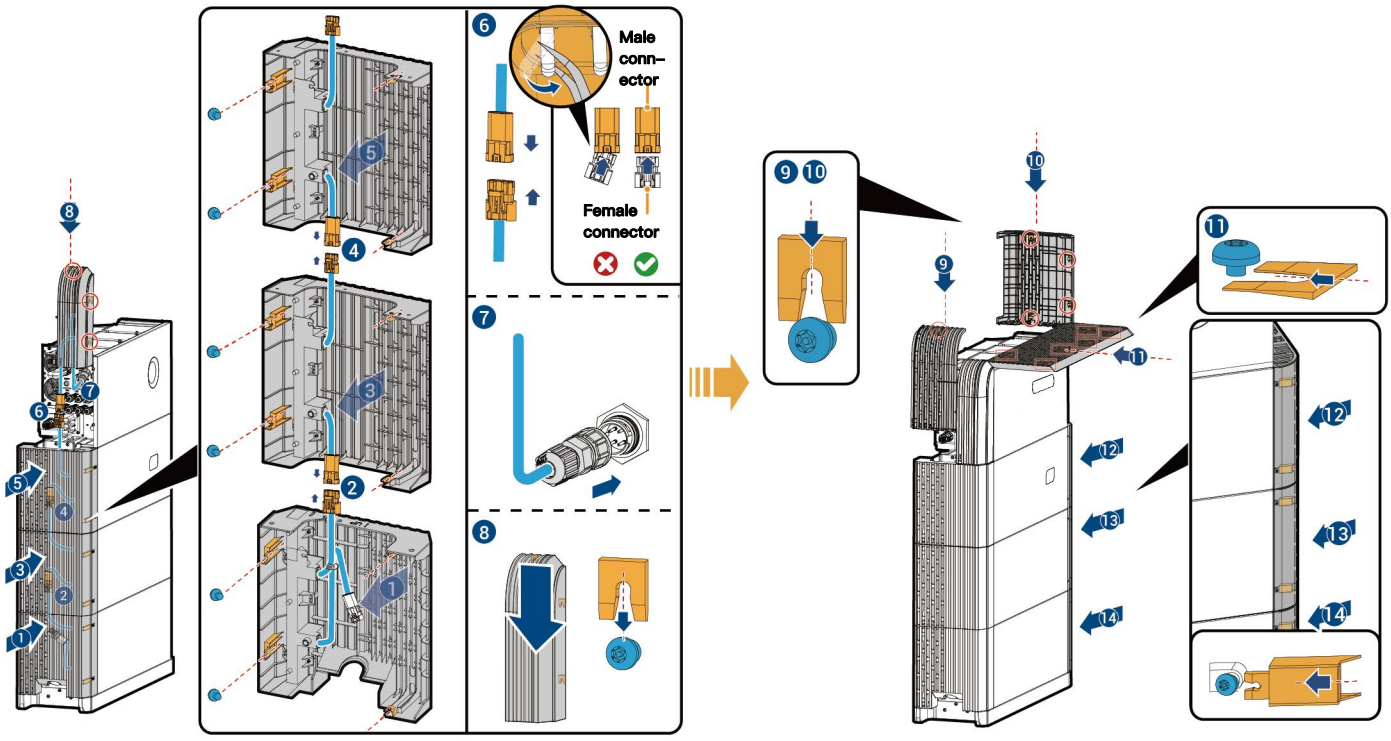
Tips

Before installing the decorative components, please ensure the inverter cable is securely and properly connected. Please refer to the corresponding model's Energy Controller Home Installation Guide for specific wiring operation procedures of the inverter.

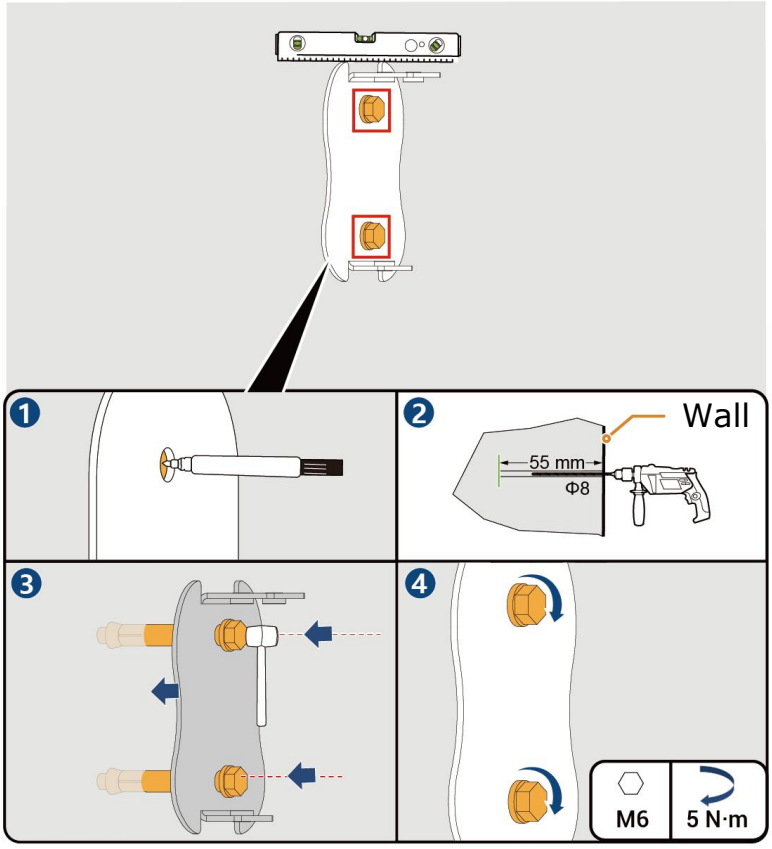
Caution

- The decorative cover used in step 1 is supplied with the EV DC Charger.
- If the strip light shows abnormal status when the equipment is powered on, check if the pins in the male connector is tilted. If tilted, straighten them out and then reconnect the corresponding male and female connectors, or reconnect the terminal in step 6 to resume normal operation.

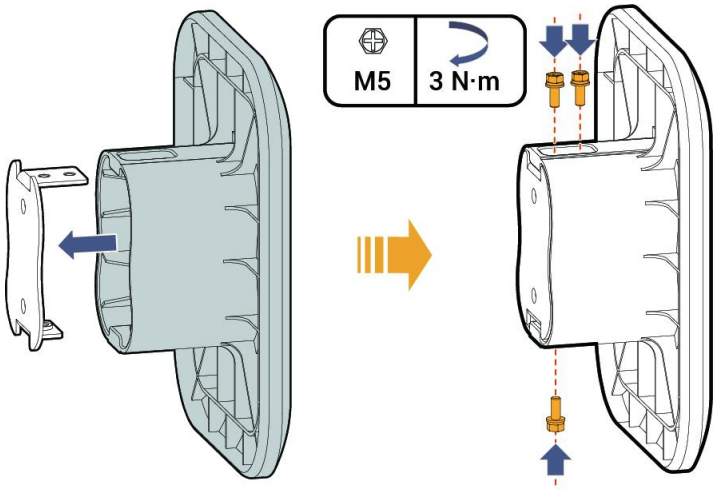


Chapter 10 Installation of Charging Socket and Placement of Charging Connector

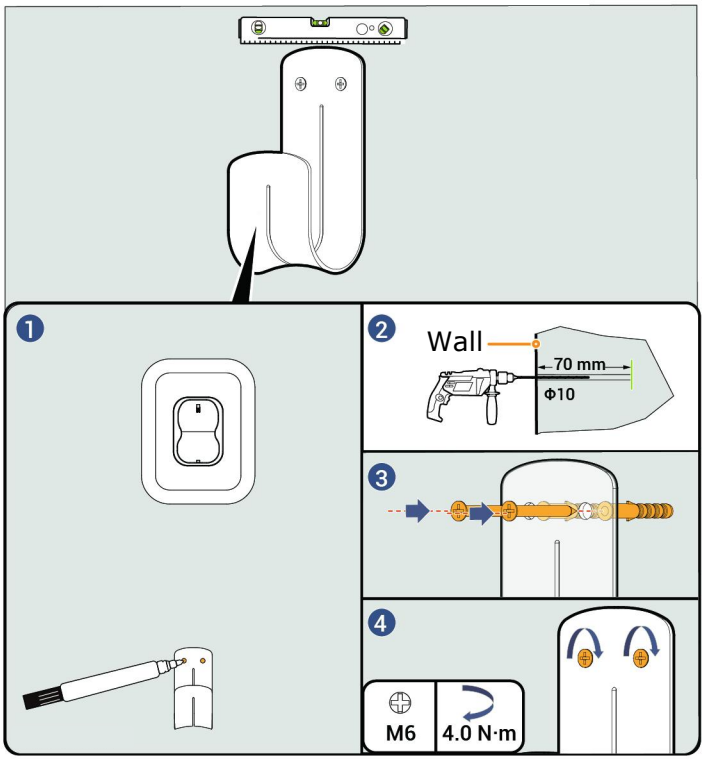
1



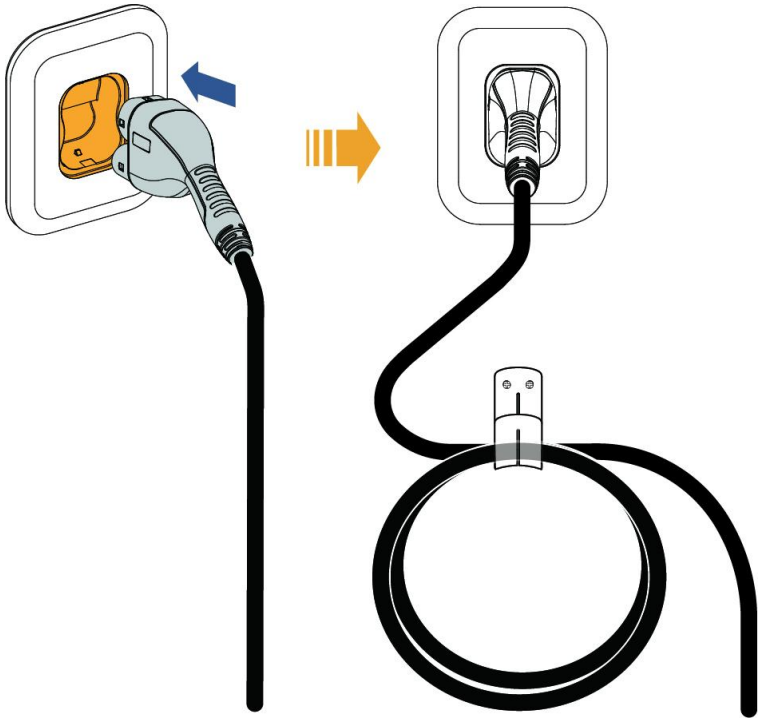
2



3

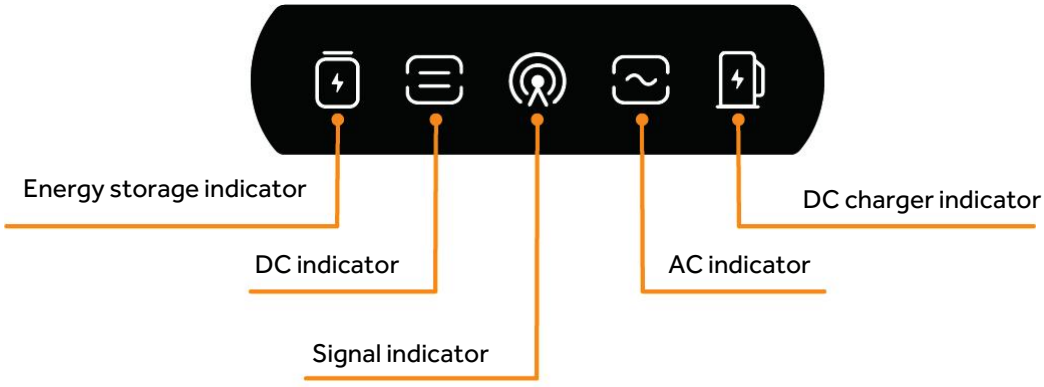


4



Chapter 11 Power on

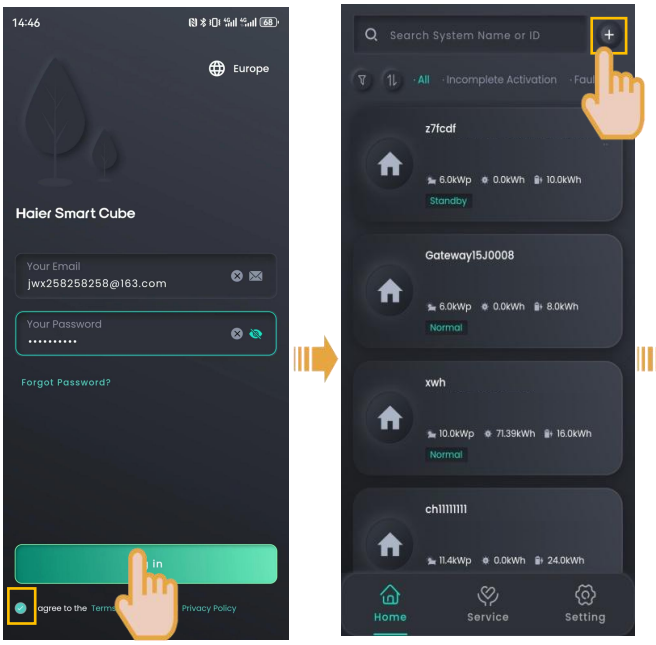
1. Turn the "DC SWITCH" of the inverter to the "ON" position.
2. Turn on the preceding switch.
3. View indicator status on the front panel of the Energy Controller to check the operation status of the equipment.



Indicator	Color	Status	Status of EV DC Charger
		Off	Not powered on.
		Steady on	Powered on but the charging connector not connected to the vehicle.
		Steady on	• The charging connector connected to the vehicle. • Charging completed.
		Blink	Charging.
		Steady on	Alarming.
		Steady on	Equipment failure.

Chapter 12 Creating a New System

1 Download the “Haier Smart Cube” app to initiate the creation of a new system for your equipment.

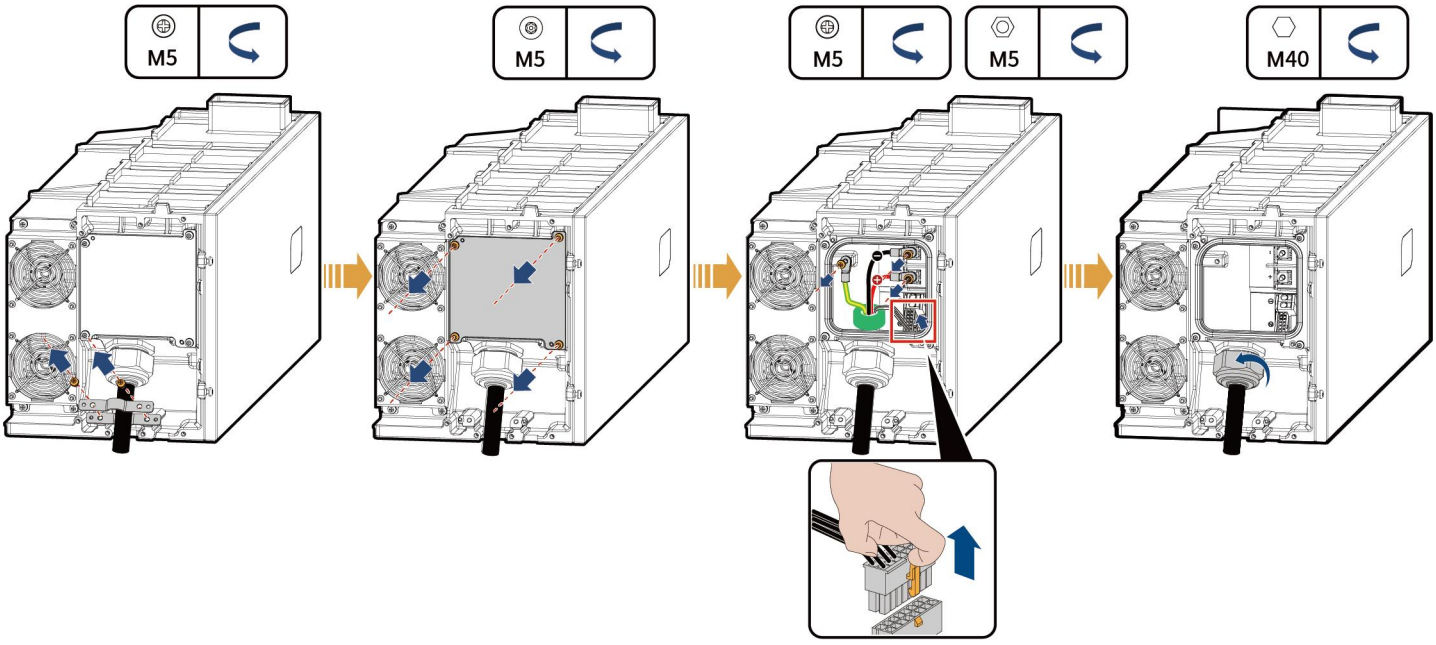


- Create a new system as instructed on the screen.
- Please refer to the corresponding model's Energy Controller Home Installation Guide or corresponding inverter's Installation Guide for operation procedures.

FAQ

How to remove and install the charging connector cable of the EV DC Charger?

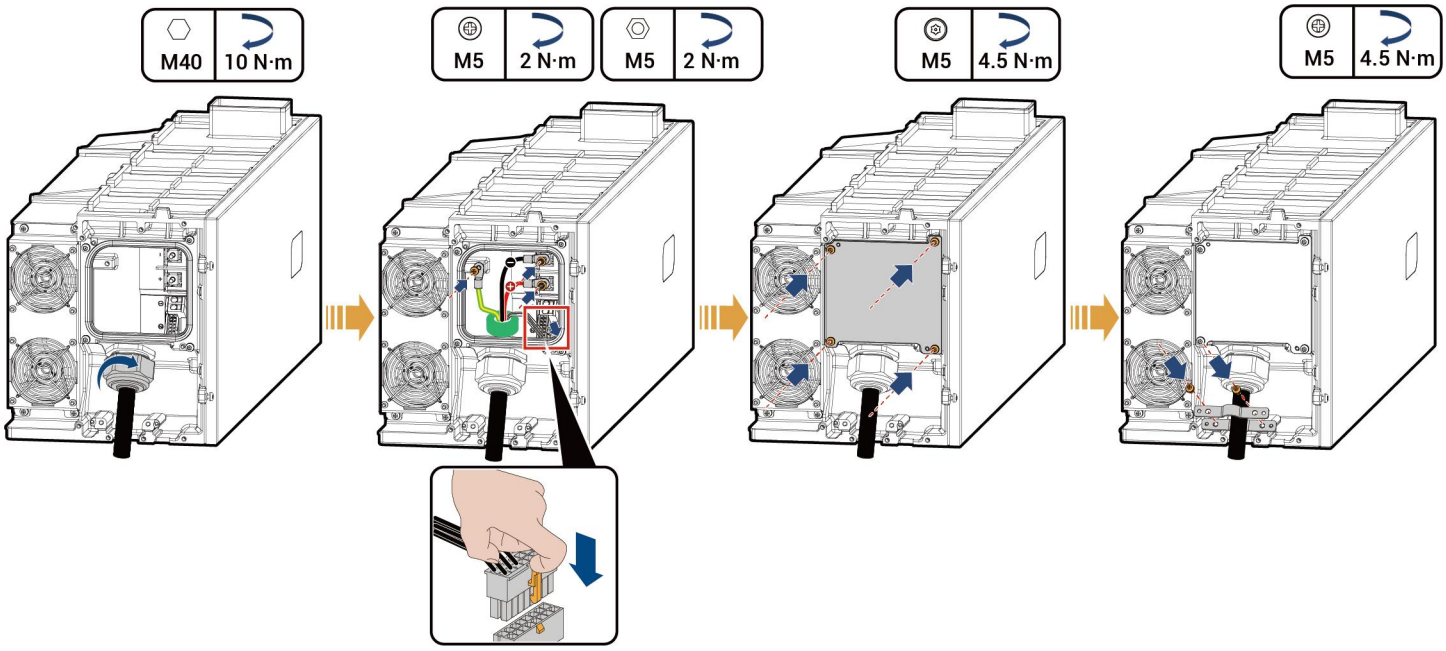
Remove the charging connector cable



Tips

After removing the charging connector cable, do not damage the cable label.

Install the charging connector cable



Haier

Official website of NAHUI

Haier Smart Cube

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