1. About This Guide

1.1 Purpose and Scope

1.2 Related Guide

1.3 Model Reference

2. Unboxing

2.1 Check Before Installation

2.2 What's in the Box

3. Product Overview

3.1 At a Glance

3.2 Button Controls

3.3 LED Guide

4. Pre-Installation

4.1 Site Selection

4.2 Installation Options

Option A: Integrated Installation

Option B: Separate Installation

4.3 Tools and Accessories

5. Installation

Precautions

Step 1. Remove Deadfront Cover

Step 2. Drill Conduit Entry Hole

Step 3. Remove Protective Film

Step 4. Mount Power Dock to Wall

Option A: Integrated Installation

Option B: Separate Installation

6. Electrical Connections

6.1 Precautions

6.2 Connect Combiner Box to ATS Box

Devices Rated Below 100A

Devices Rated Above 100A

6.3 Connect to Solar System

6.4 Connect to Generator
6.5 Connect to Grid and Loads
Whole Home Backup
Partial Home Backup
6.6 Connect to EPO Device
6.7 Install Breaker Hold-Down
6.8 Verify Connections
6.9 Complete Connections
7. Connect to Anker SOLIX E10
8. Device Setup
8.1 Power On / Off
8.2 Use the Anker App
9. Specifications
10. Safety Information
11. Appendices
Appendix 1. Wiring Diagram
Appendix 2. Circuit Breaker Compatibility
Appendix 3. CT Compatibility
Appendix 4. Communication Port

1. About This Guide

1.1 Purpose and Scope

This guide provides step-by-step instructions on the installation and wiring of Anker SOLIX Power Dock.

1.2 Related Guide

Refer to the following section of the E10 System and App Guide for the related application scenario.

Application Scenario	Section
Use with Anker SOLIX E10	Automatic Backup System (A17E1, AX170)

1.3 Model Reference

Model	Product Name	Shortened Form
AX170*	Anker SOLIX Power Dock	Power Dock
AX170-ATS	Automatic Transfer Switch Box	ATS Box
AX170-COMBINER	Combiner Box	Combiner Box
A17E1	Anker SOLIX E10 Power Module	Power Module
A17E1141-85	Anker SOLIX B6000 Battery Module	Battery Module
A17E1, A17E1141-85	Anker SOLIX E10	E10

*Anker SOLIX Power Dock consists of two main components: the Automatic Transfer Switch Box and the Combiner Box.

2. Unboxing

2.1 Check Before Installation

Inspect the Outer Packaging

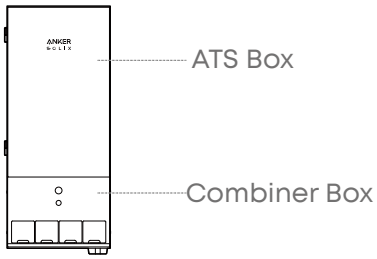
Before unpacking, inspect the outer packaging for holes, cracks, or other damage, and verify the equipment model number.

If any damage is found or the model does not match your order, do not unpack the equipment. Contact customer support immediately.

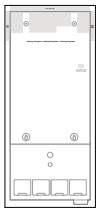
Verify Contents

After unpacking, check that all items are intact and complete, and free from any obvious damage. If any item is missing or damaged, please contact customer support.

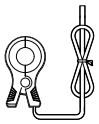
2.2 What's in the Box



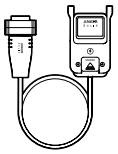
Anker SOLIX Power Dock



Marking Template



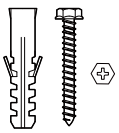
Current Transformer (200A) ×3



On-Grid Cable



Breaker Hold-Down



Expansion Screw (M6 50 mm) ×8



Screw (M4 12 mm) ×1



Screw (M3 8 mm) ×2



Cable Tie ×3



Documents

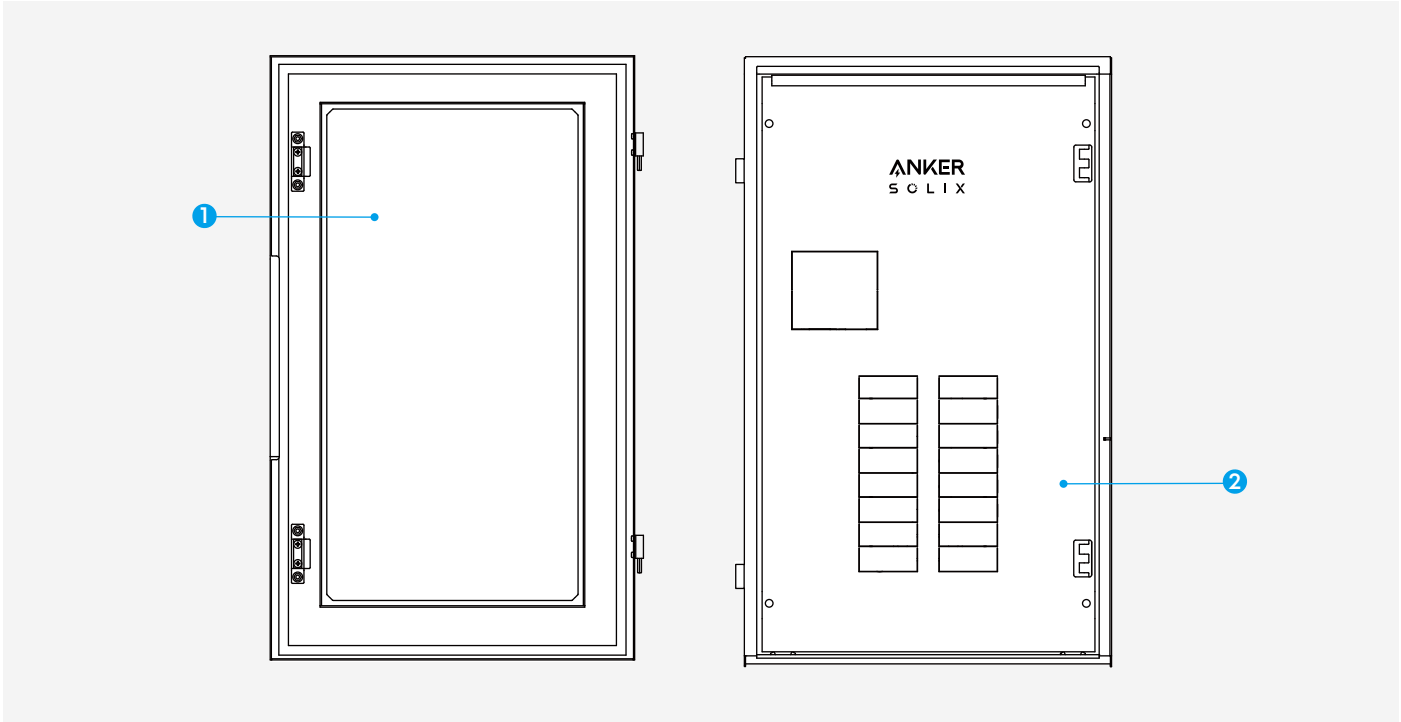


Stickers

3. Product Overview

3.1 At a Glance

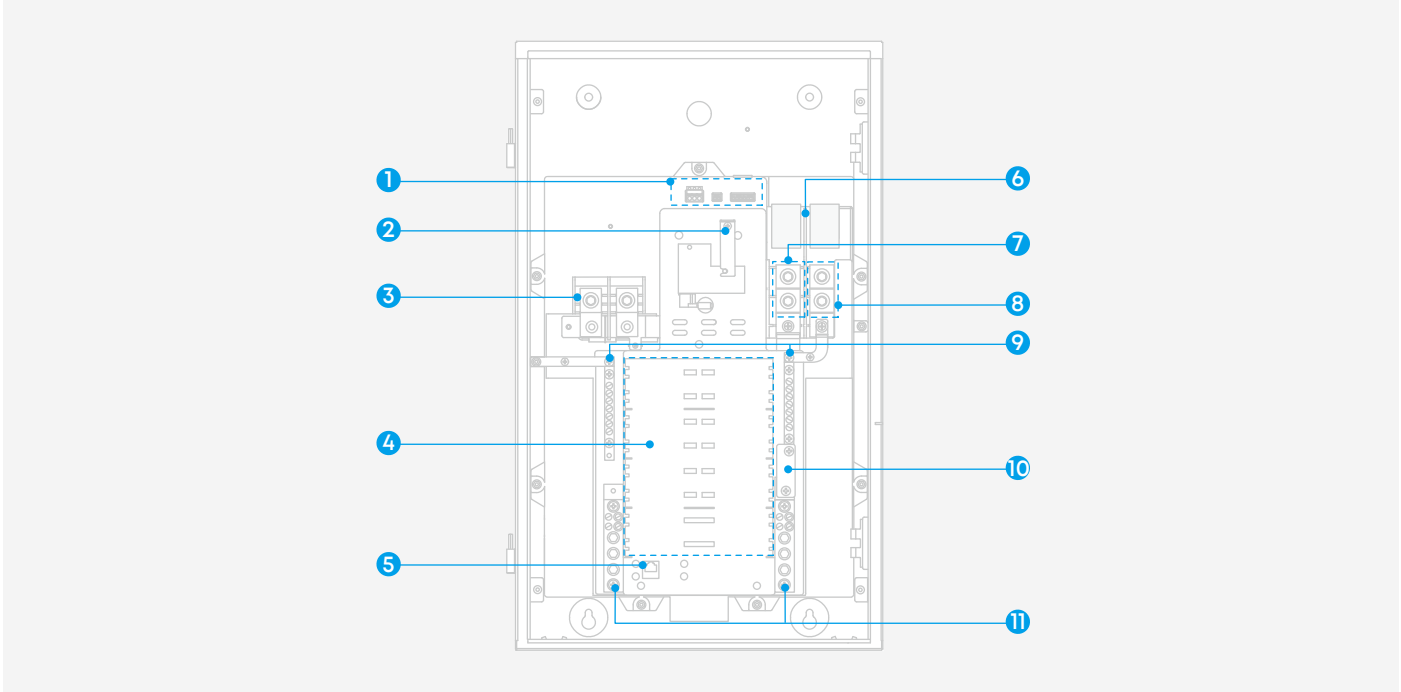
ATS Box (With Deadfront Cover Installed)



1 Door

2 Deadfront Cover

ATS Box (With Deadfront Cover Removed)



1 Communication Ports

❷ Main Relay

· Operate only by qualified personnel.

· Use this switch to manually connect to the grid only when automatic connection fails. Do not use the switch under any other circumstances.

❸ Main Lugs / Main Breaker Slot

❹ Branch Breaker Slots

❺ Communication Port (ATS Box to Combiner Box)

❻ Backup Load Lugs

❼ Neutral Lugs (Main / Backup Load)

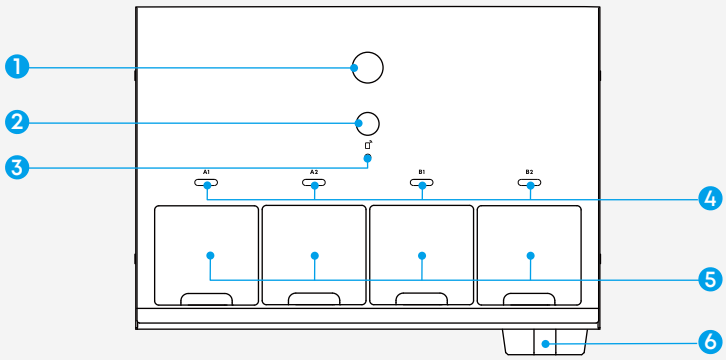
❽ Ground Lugs (Main / Backup Load)

❾ Ground Bars (Load)

❿ Neutral-Ground Bonding Strap

⓫ Neutral Bars (Load)

Combiner Box (With Cover Installed)



❶ ESS (Energy Storage System) Stop Button

❷ IoT Button

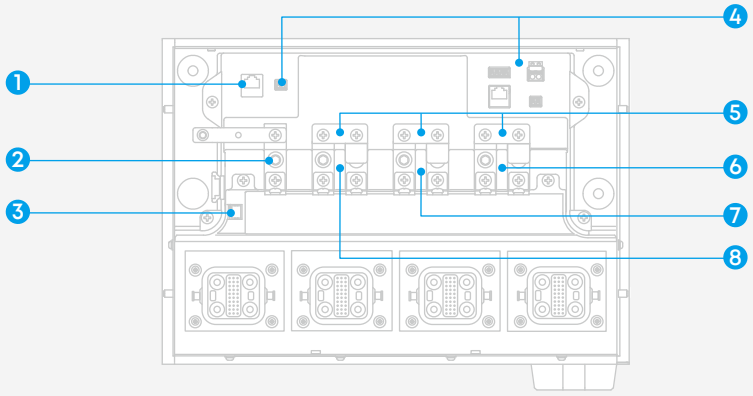
❸ IoT Indicator

❹ AC Port Indicators

❺ AC Ports

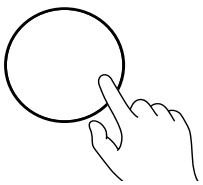
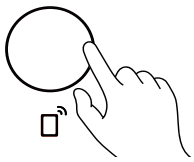
❻ Antenna

Combiner Box (With Cover Removed)



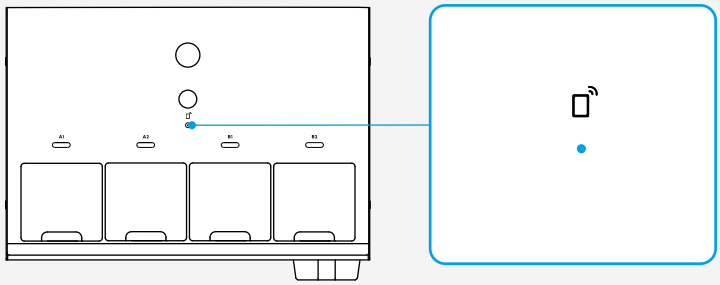
1. Communication Port (Combiner Box to ATS Box)
2. Ground Lug (Battery)
3. Auxiliary Power Port
4. Communication Ports
5. Jumper Bars
6. L1 Lugs (Battery)
7. L2 Lugs (Battery)
8. Neutral Lugs (Battery)

3.2 Button Controls

Button	Action	Function
ESS STOP 	Press once.	Immediately stop the power dock operation in an emergency. Press again to resume operation.
	Press once.	Check or confirm Bluetooth connection.
	Press for 7 seconds.	Reset Bluetooth and Wi-Fi.

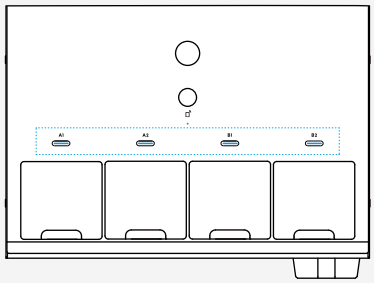
3.3 LED Guide

IoT Indicator

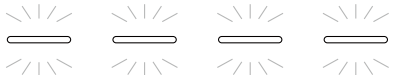


LED	Description	Status
	Flashing blue	Connecting to the network
	Solid blue	Connected to the network

AC Port Indicators



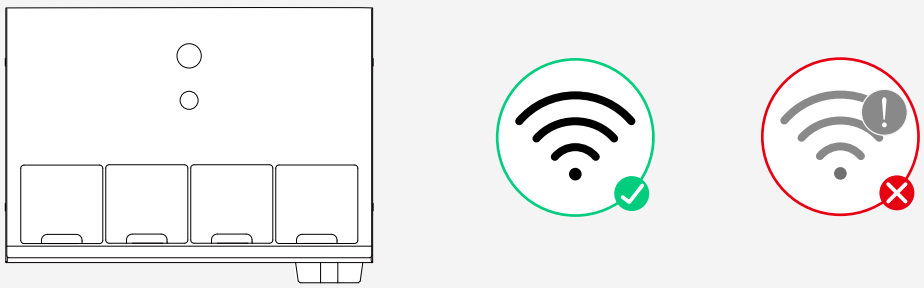
LED	Description	Status
	Solid white	Cable disconnected from AC port
	Solid blue	Cable connected to AC port and Anker SOLIX device
	Flashing yellow	Cable disconnected from Anker SOLIX Device, or Cable not securely connected

LEDs	Description	Status
	Lighting up blue in sequence	Firmware updating or self-testing
	Flashing white	Power dock operation stopped
	Flashing red	Power dock malfunctioning
	Flashing blue	Connected device malfunctioning

4. Pre-Installation

4.1 Site Selection

· Install the power dock away from flammable, explosive, or chemical materials.
· Confirm the wall can support the weight of the power dock (60 lbs / 27.2 kg).
· The power dock can be installed outdoors, either as a complete unit or as separate components.
· Ensure that the location of the combiner box has a good wireless signal.



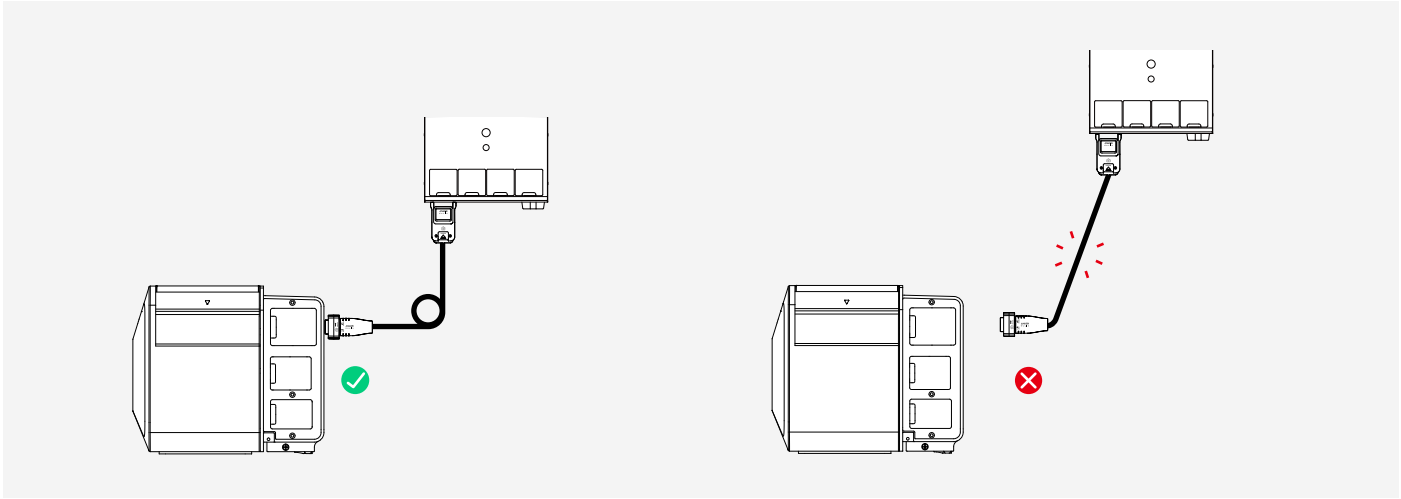
4.2 Installation Options

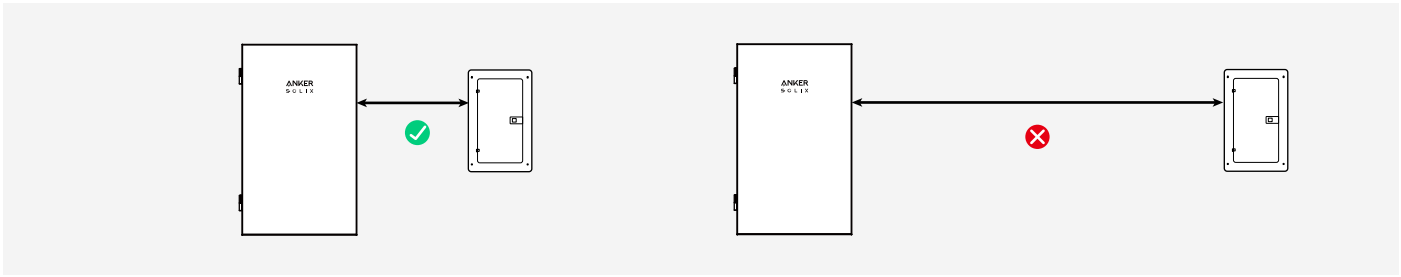
The power dock can be installed in two ways: as a complete unit (integrated installation) or with the ATS box and combiner box installed separately (separate Installation). Choose the option that best fits the distance between your home panel and E10.

Check the following requirements for both installation options. **Make sure to check all precautions before installation at this link.**

· Ensure the cable can reach both E10 and the combiner box.

· Install the ATS box near the home panel to shorten cable length and installation time.

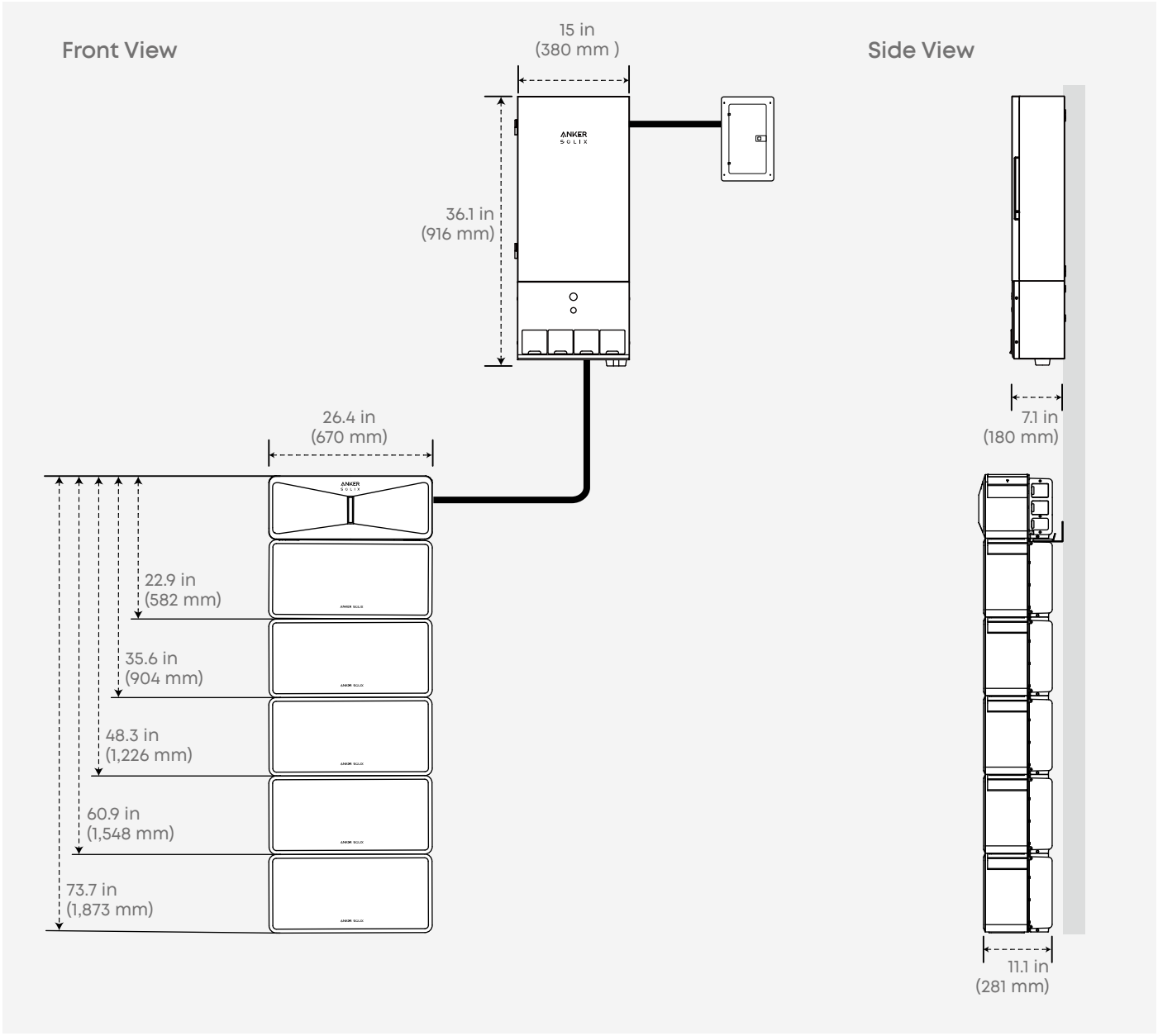




Option A: Integrated Installation

Install the power dock as a complete unit between your home panel and E10. Use this setup when your home panel and E10 are located close to each other.

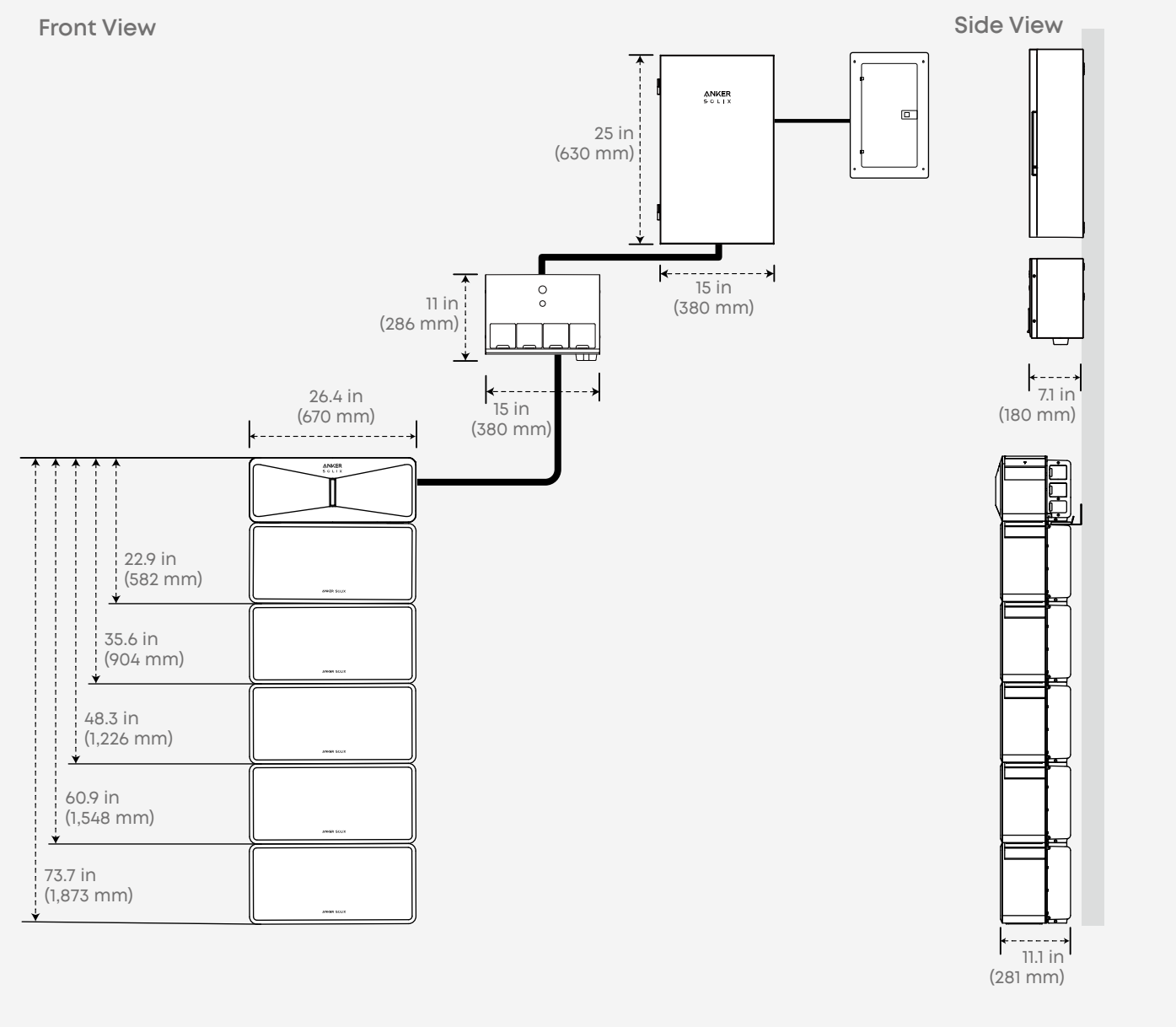
Refer to the diagram below for installation spacing.



Option B: Separate Installation

Install the ATS box and combiner box at different locations when your home panel and E10 are far apart.

Refer to the diagram below for installation spacing.

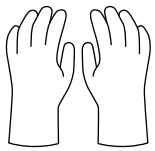


4.3 Tools and Accessories

Prepare the following tools and accessories before installation. They are not included in the package.

Required Items

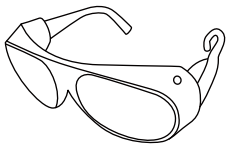
Wear appropriate personal protective equipment (PPE) and follow safe electrical work practices.



Gloves
(Cut-Resistant, Insulated)



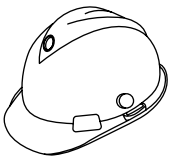
Dust Mask



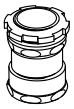
Safety Goggles



Protective Footwear



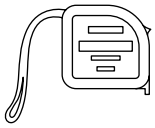
Safety Hat



Conduit Connector



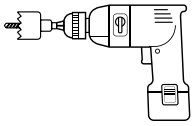
Level



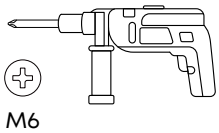
Tape Measure



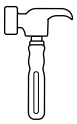
Marker



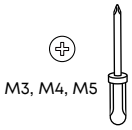
Hydraulic Hole Puncher



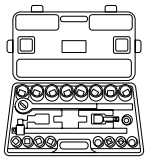
Power Drill



Hammer



Screwdriver



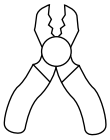
Torque Wrench



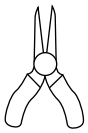
Cable Cutter



Crimper



Wire Strippers



Pliers

Optional Items

For more information on circuit breakers, see “Appendix 2. Circuit Breaker Compatibility”.

Connect between Combiner Box and ATS Box (for Circuit Modification)	
L1 Cable	4 AWG
L2 Cable	4 AWG
GND Cable	6 AWG
N Cable	4 AWG
Ethernet Cable	RJ45, 8-Conductor
Conduit Connector	2 in
Myers Hub	2 in
Branch Breaker	125A Max
Connect to Generator / Solar System / Smart Circuits	
L1 Cable	14 to 1/0 AWG
L2 Cable	14 to 1/0 AWG
GND Cable	14 to 4 AWG
N Cable	14 to 2/0 AWG
Branch Breaker	100A Max (Generator) 80A Max (Solar System) 60A Max (Smart Circuits)
Connect to Grid	
L1 Cable	6 AWG to 250 kcmil
L2 Cable	6 AWG to 250 kcmil
GND Cable	8 to 2 AWG
N Cable	6 AWG to 250 kcmil
Main Breaker (Whole Home Backup)	200A Max

Connect to Sub Panel	
L1 Cable	4 AWG to 250 kcmil
L2 Cable	4 AWG to 250 kcmil
GND Cable	8 to 2 AWG
N Cable	4 AWG to 250 kcmil
Connect to EPO Device	
EPO Device	With NC Terminal
Tube Terminal	E0508
Signal Cables	14 AWG Max

5. Installation

Precautions

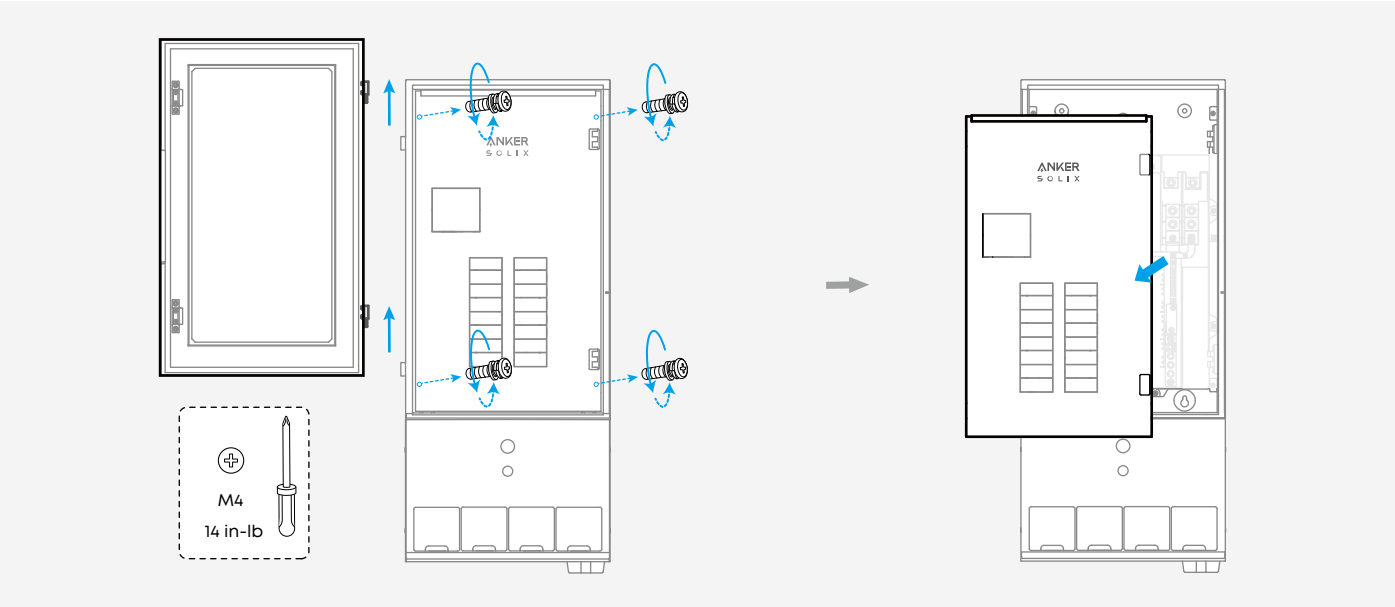
· Read all safety instructions in the Section “10. Safety Information”.

· Installation must be performed by qualified professionals.

· Follow local building codes for proper use of fasteners. Use self-tapping screws for wooden walls. Use expansion bolts for concrete or masonry walls.

Step 1. Remove Deadfront Cover

Remove the door and deadfront cover from the power dock.

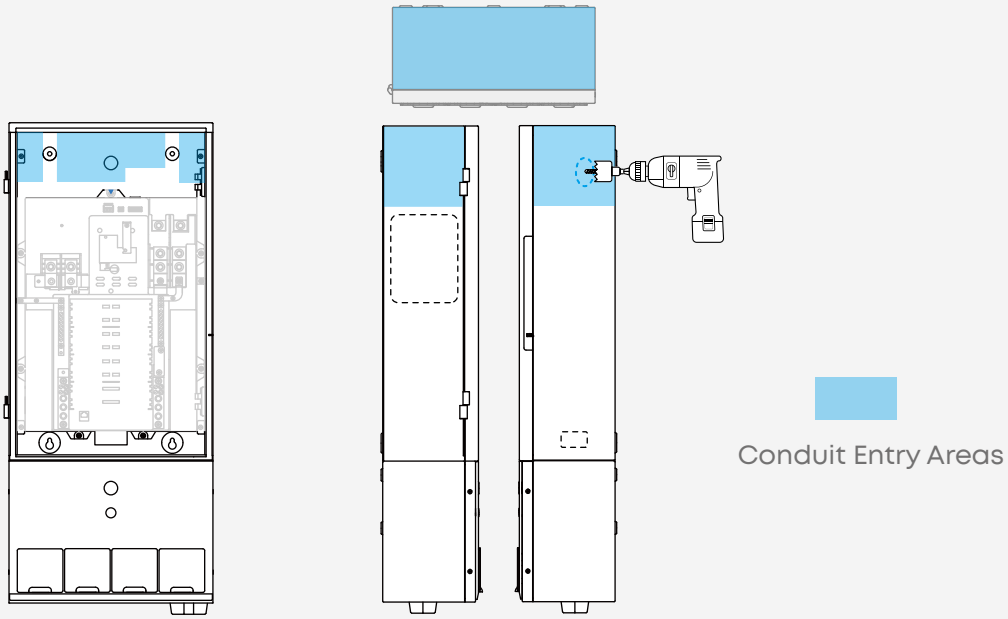


Step 2. Drill Conduit Entry Hole

· Keep the protective film in place to prevent debris from falling inside.

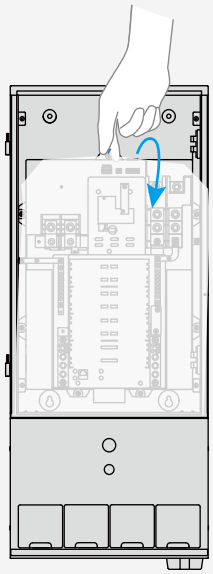
· Use the provided marking template to locate conduit positions if needed.

· Drill the conduit entry hole at the allowable locations using a hydraulic hole puncher.



Step 3. Remove Protective Film

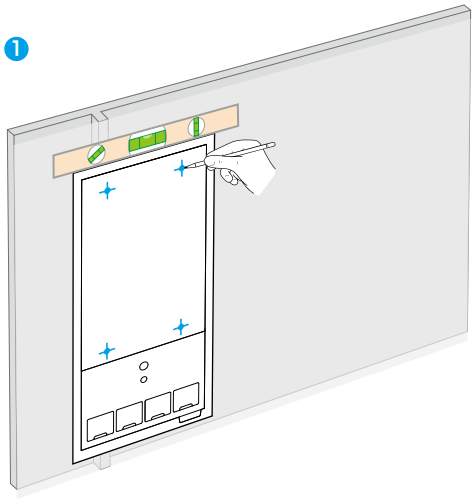
Clear debris from the box interior and remove the protective film. This prevents debris from affecting terminal connections and causing short circuits.

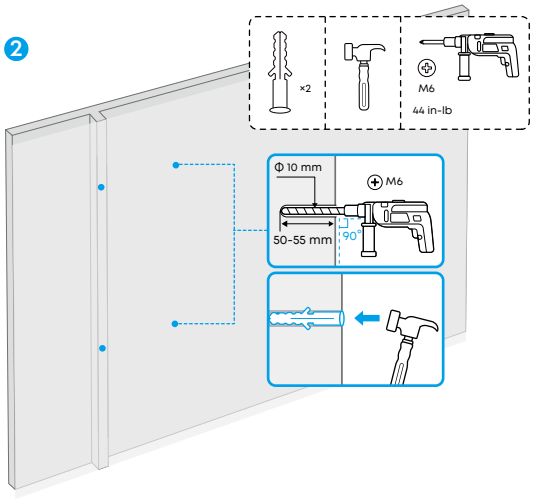


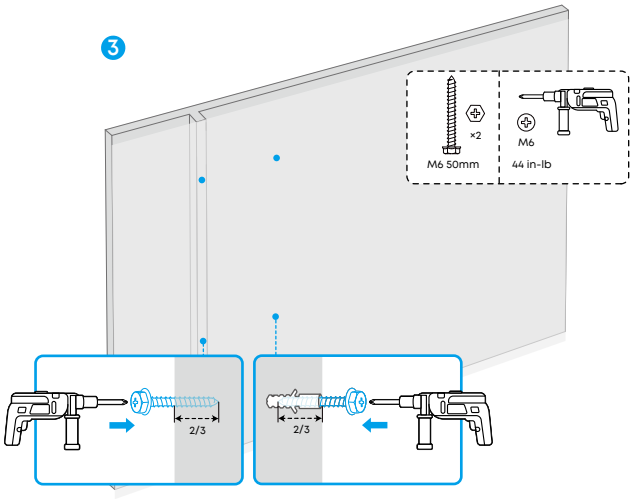
Step 4. Mount Power Dock to Wall

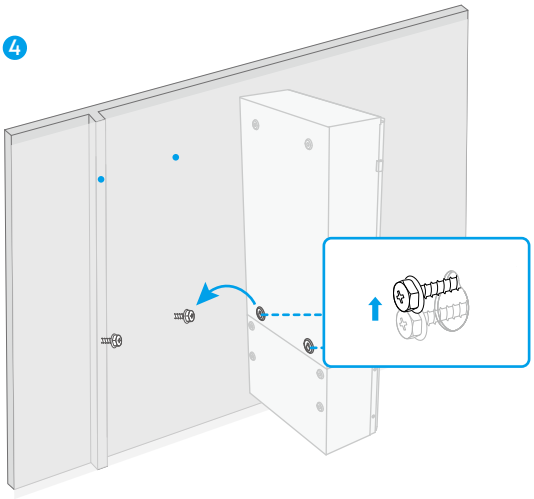
Option A: Integrated Installation

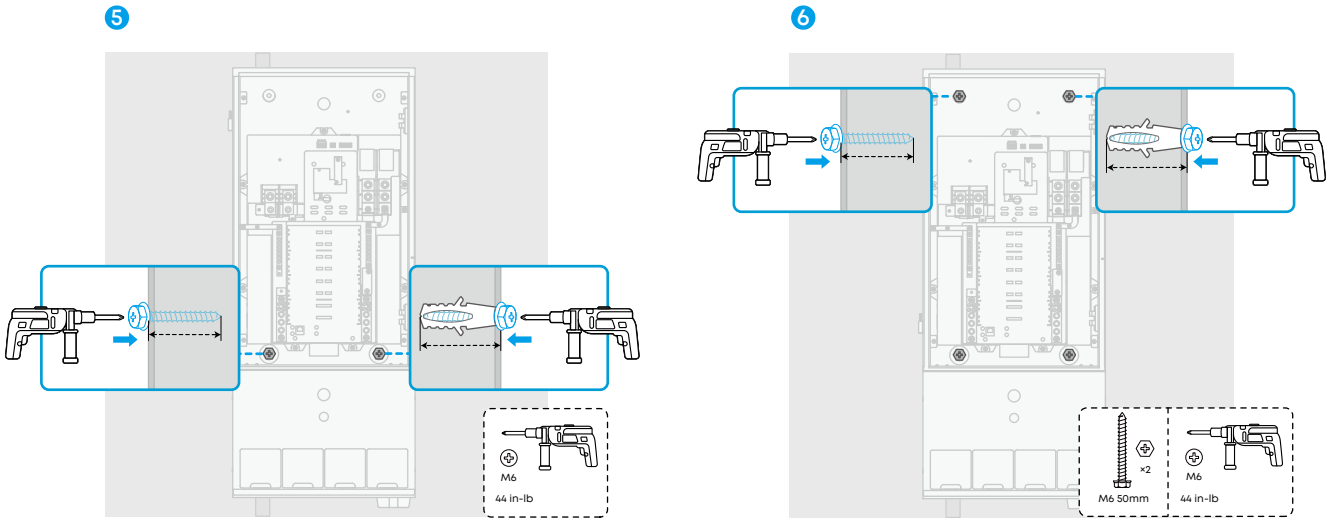
1. Mark four pilot holes on the wall and align one column with a wood stud for support.
2. Drill anchor holes and insert wall anchors.
3. Partially tighten two bottom screws (about two-thirds in).
4. Hang the power dock onto the bottom screws.
5. Tighten the bottom screws.
6. Tighten the upper screws.





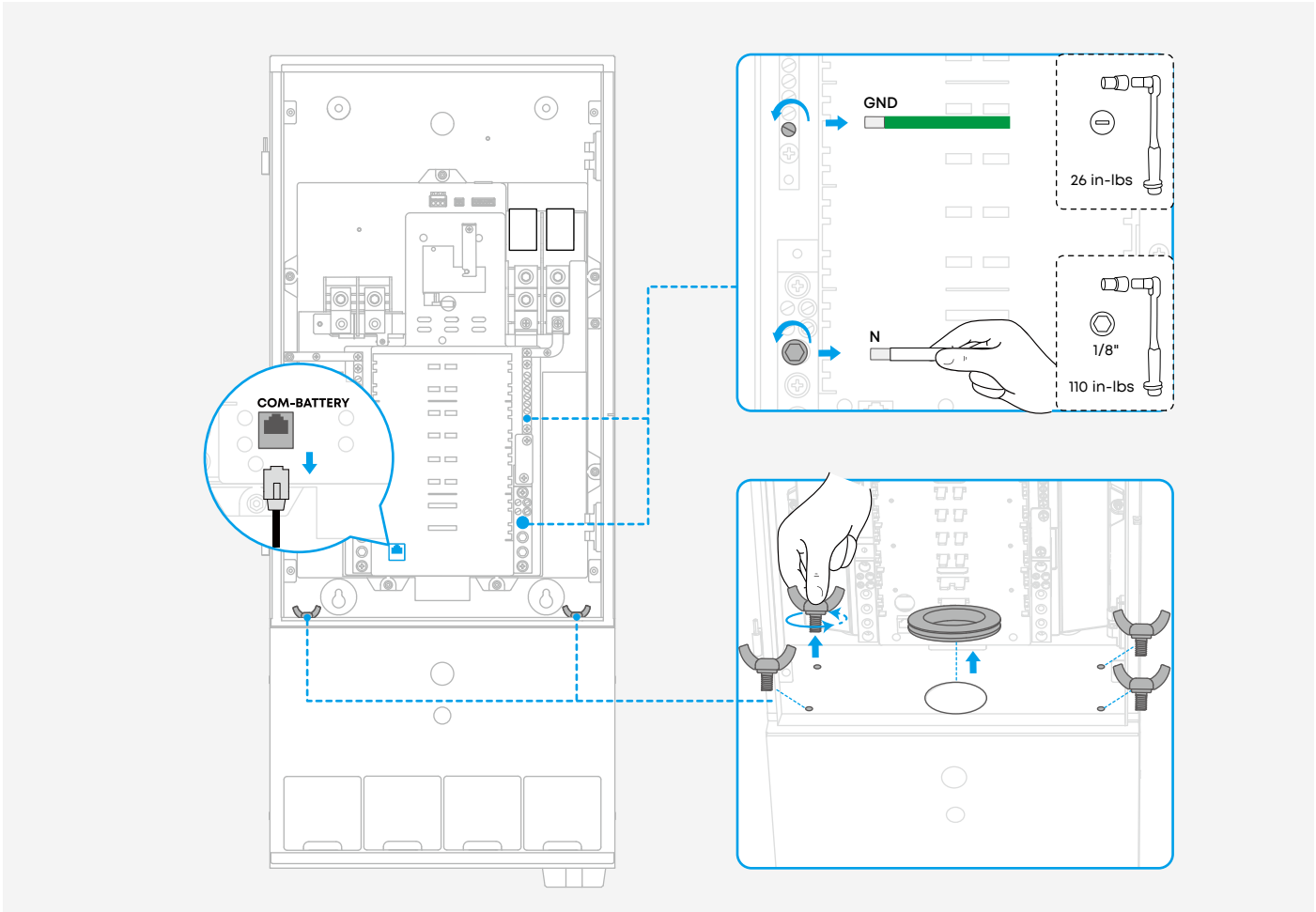




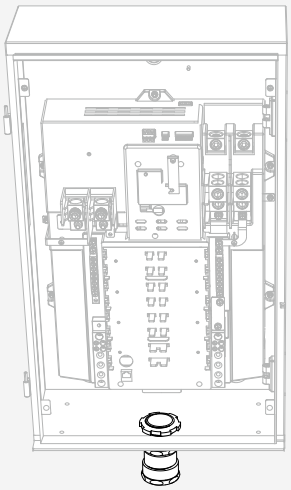


Option B: Separate Installation

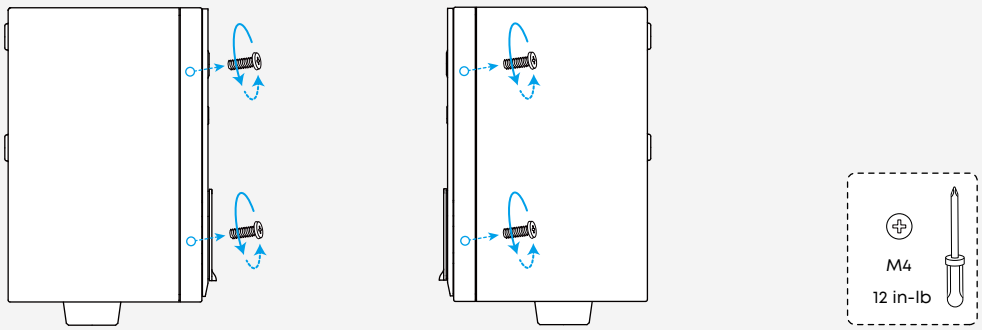
1. Disconnect the pre-installed GND, neutral, and communication cables from the ATS box. Loosen the wing screws and remove the rubber plug.



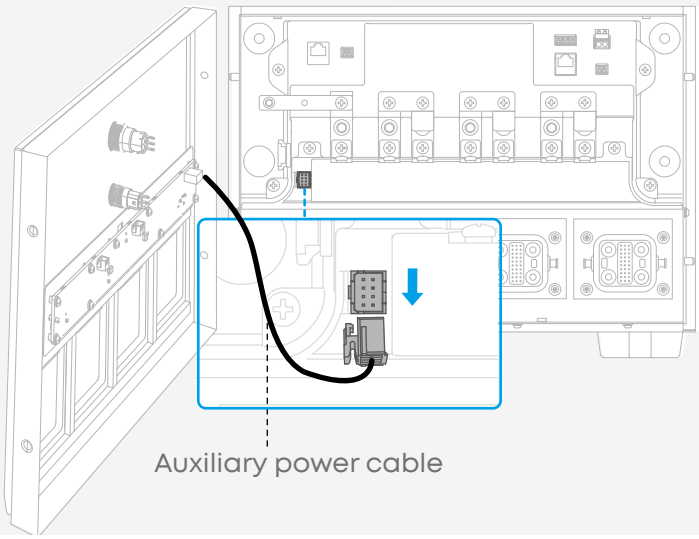
2. Install the ATS box using the same steps in “Option A: Integrated Installation”. Attach a 2-inch conduit connector for wiring.



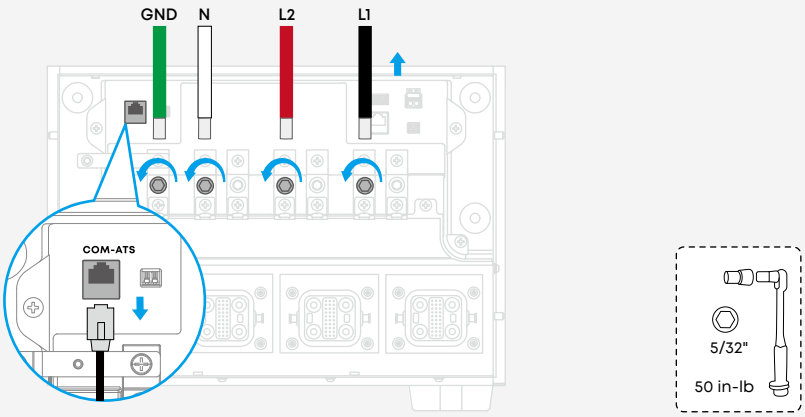
3. Remove the front cover from the combiner box.



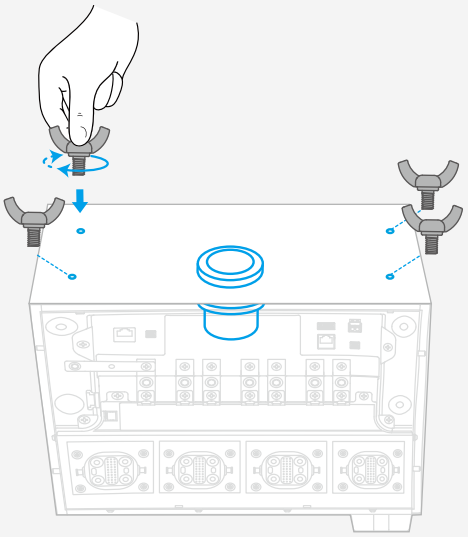
4. Disconnect the auxiliary power cable.



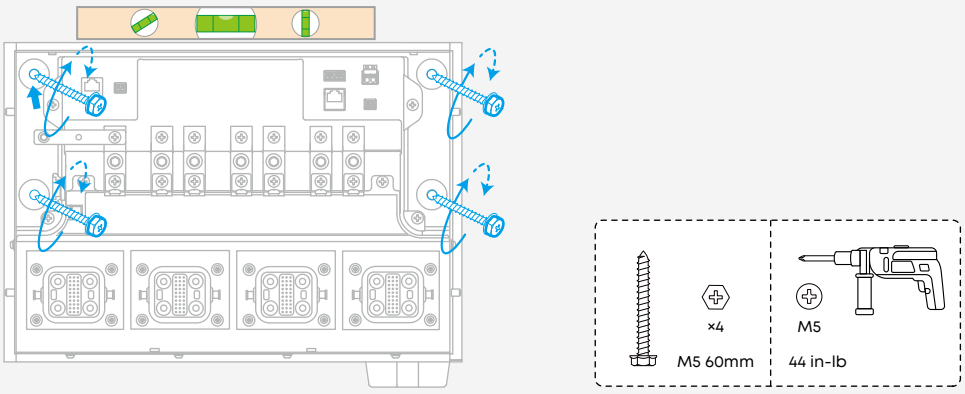
5. Disconnect the communication and power cables.



6. Install a 2-inch Myers hub and fasten the wing screws to ensure a waterproof seal.



7. Secure the combiner box to the wall.



6. Electrical Connections

6.1 Precautions

· All electrical connections must be performed by qualified professionals.

· Ensure that all circuit breakers are switched off before wiring.

· Install conduit connectors before running power cables.

6.2 Connect Combiner Box to ATS Box

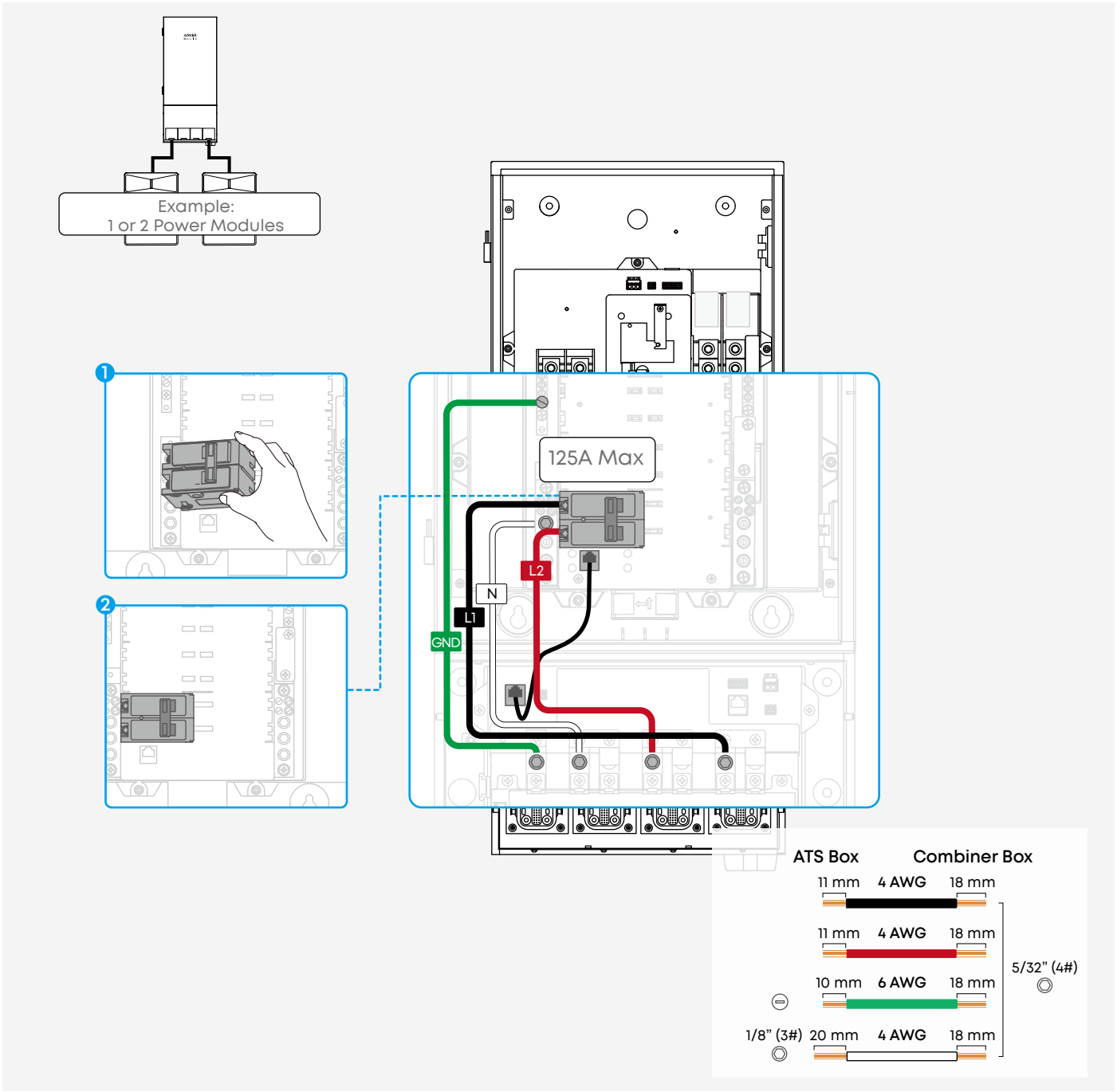
The following example shows how to connect the combiner box to the ATS box for integrated installation. The same connection layout applies to separate installation.

If the power dock is installed as a complete unit and the connected devices are rated below 100A, connect cables directly. For other scenarios:

1. Remove the combiner box cover and auxiliary power cable before wiring.
2. Reinstall the cable and the cover after wiring.

Devices Rated Below 100A

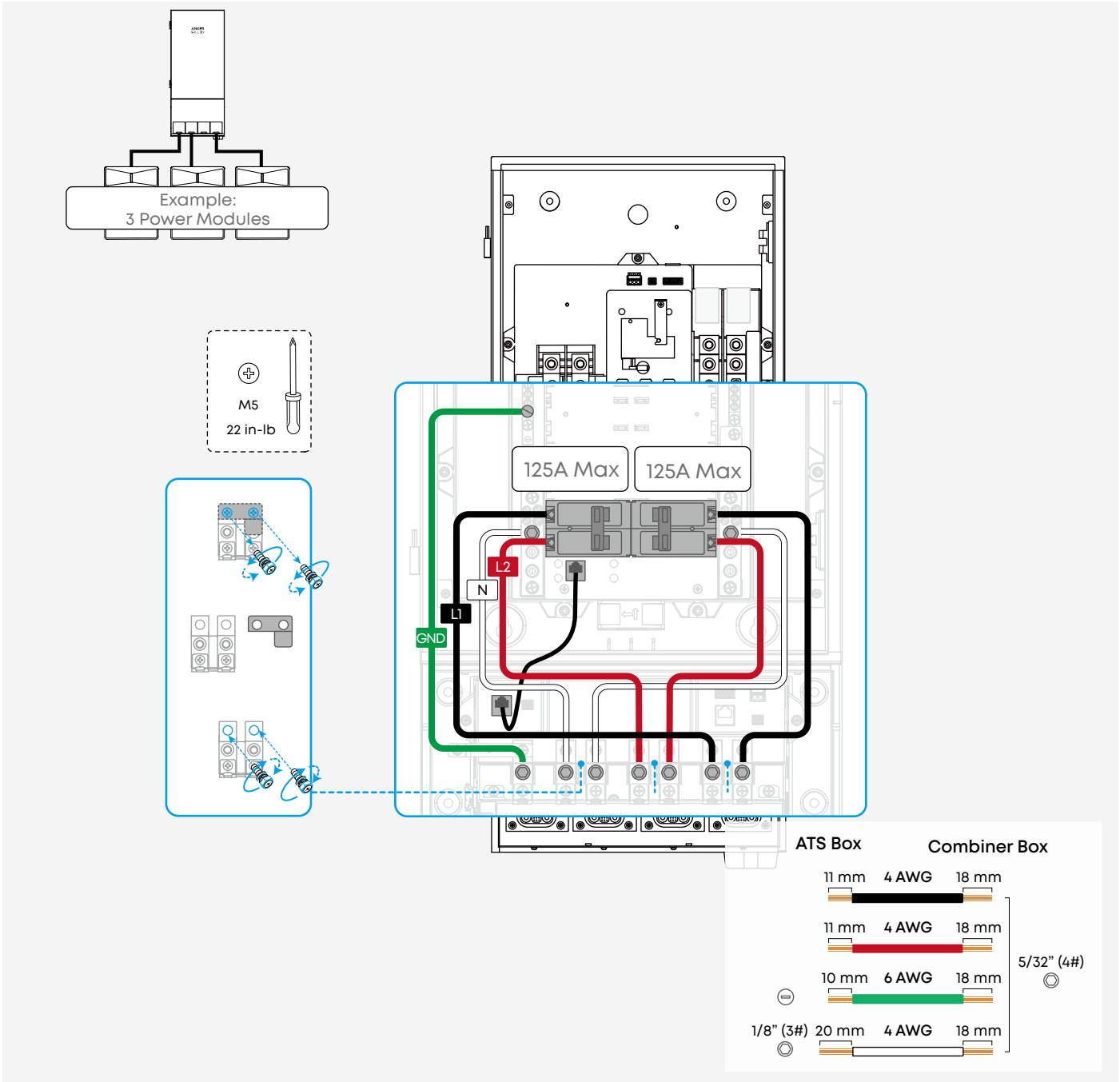
If the connected Anker SOLIX devices are rated below 100A, follow the diagram below for cable connections.



Devices Rated Above 100A

If the connected Anker SOLIX devices are rated above 100A, follow the diagram below for cable connections.

Because the PCS function is integrated into the ATS box, the total continuous current of the two 125A breakers is limited to 160A.



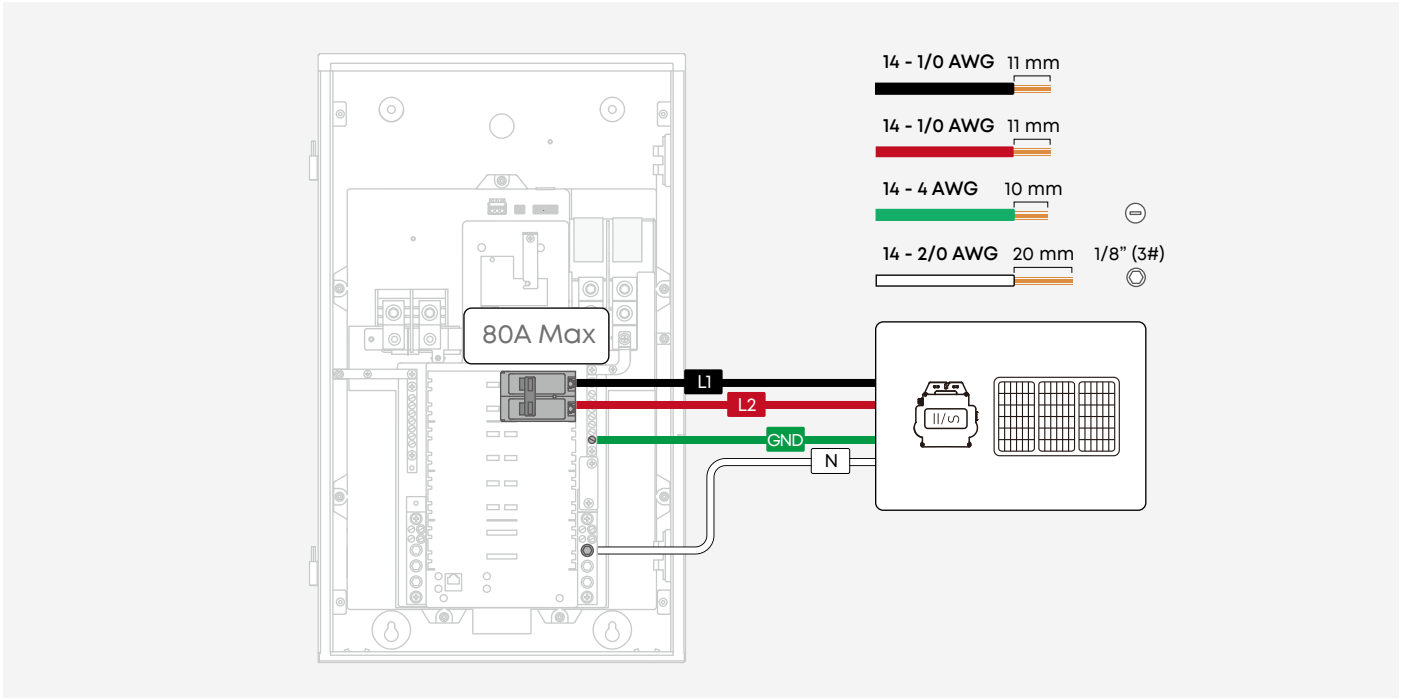
6.3 Connect to Solar System

The power dock can be connected to a solar system in three typical scenarios, depending on how your solar system is installed.

- The power dock supports connection only to a 240V AC solar system. If using a DC solar system, connect it to E10.
- **Install the solar system on branch circuits 7 and 8.** Incorrect installation on circuits 1 and 2 will prevent app and disable generator connection for safety reasons. Rewiring is required in this case.

Scenario 1: Solar System Wired to Power Dock

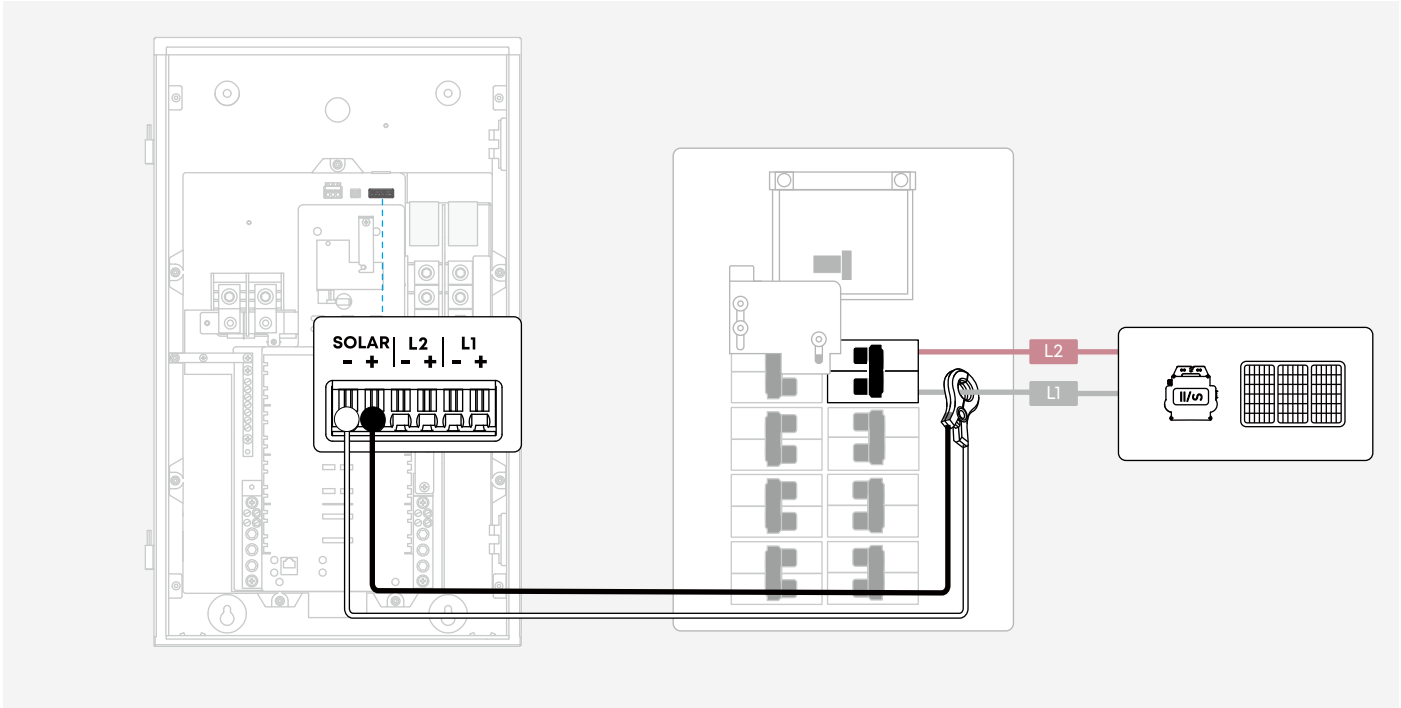
Connect power cables from the solar system directly to the power dock. The solar-side CT is not required in this setup.



Scenario 2: Solar System Wired to Electrical Panel

When the solar system is wired to the electrical panel, install the solar-side CT as illustrated.

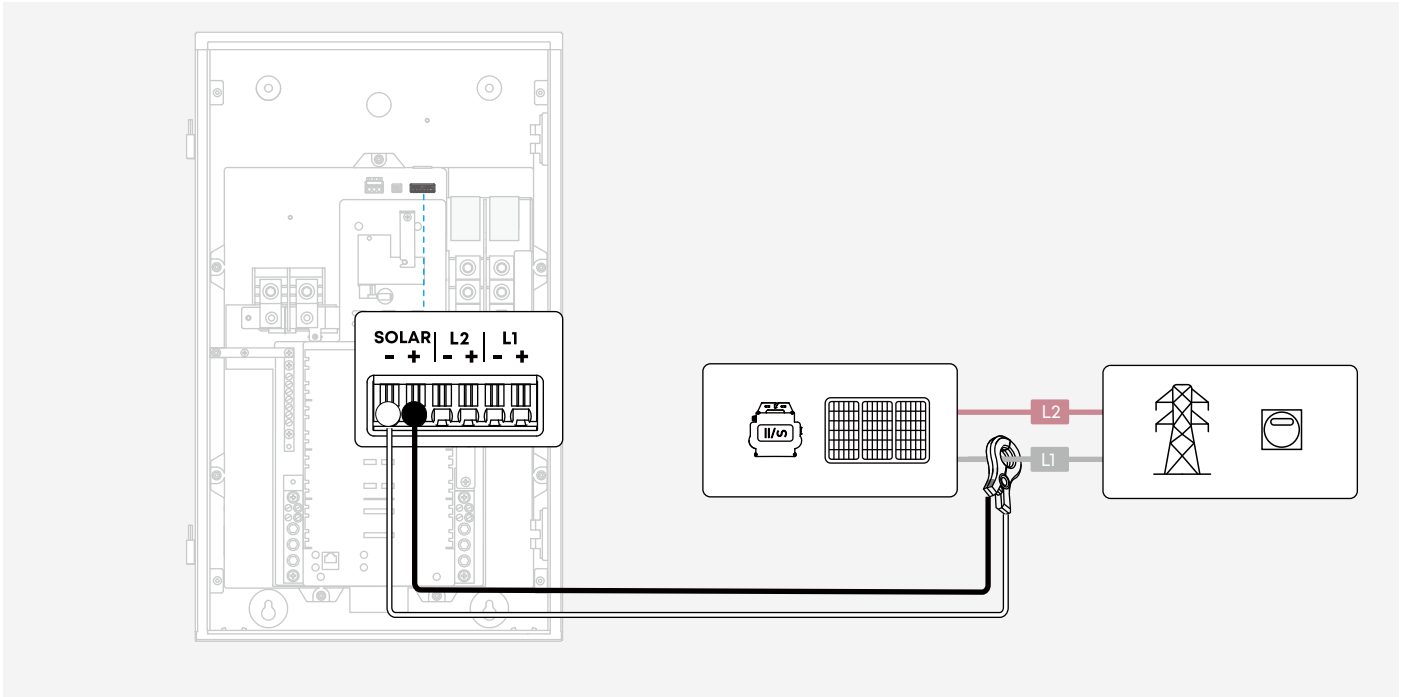
Manual alignment of the CT arrow is not required because the system automatically detects current flow direction.



Scenario 3: Solar System Wired to Main Meter

When the solar system is wired to the main meter, install the solar-side CT as illustrated.

Manual alignment of the CT arrow is not required because the system automatically detects current flow direction.

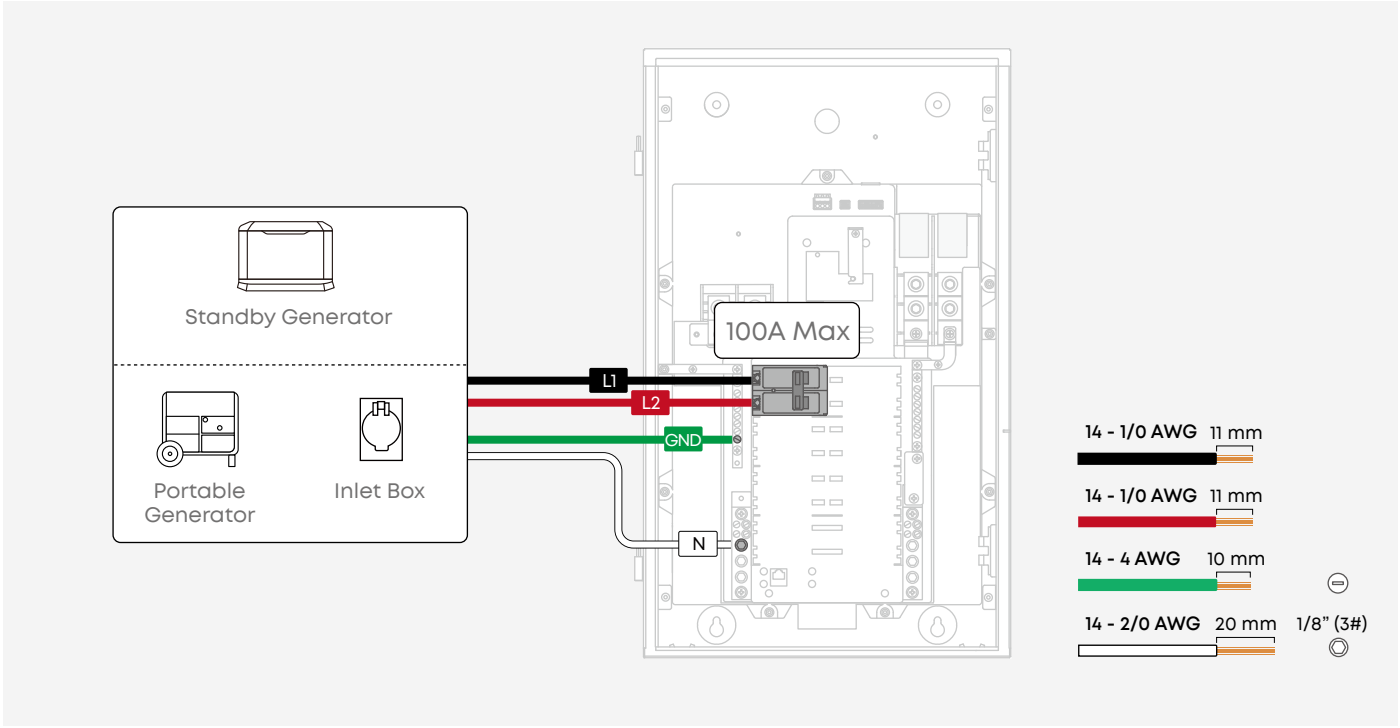


6.4 Connect to Generator

The power dock can connect to a generator to supply backup power during grid outages.

- Supported generators: **240V AC standby generator** and **240V AC portable generator connected to an inlet box**.
- **Install the generator on branch circuits 1 and 2**. Incorrect installation on other branch circuits will prevent app setup. Rewiring is required in this case.
- When the power dock is used with E10, only one AC generator can be connected. Do not connect different AC generators to the power dock and E10 simultaneously.

Connect power cables to the power dock.

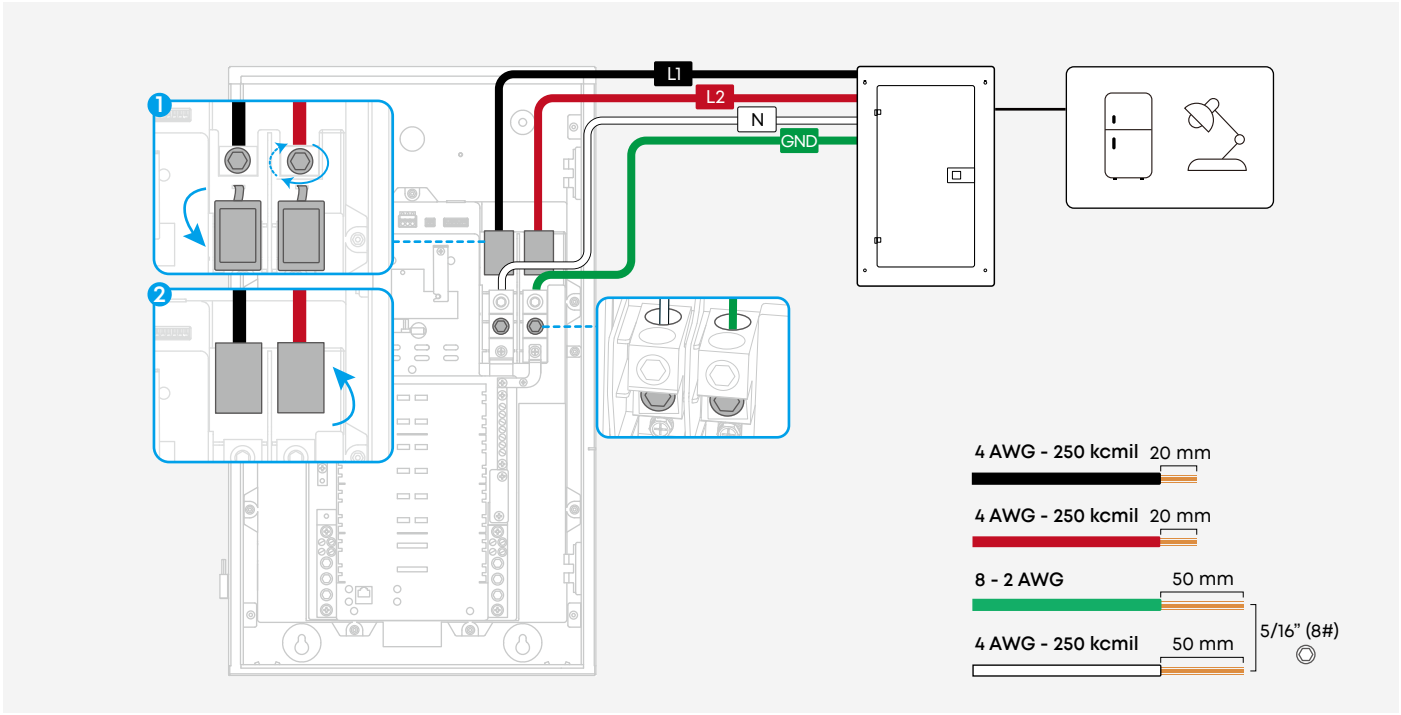


6.5 Connect to Grid and Loads

Whole Home Backup

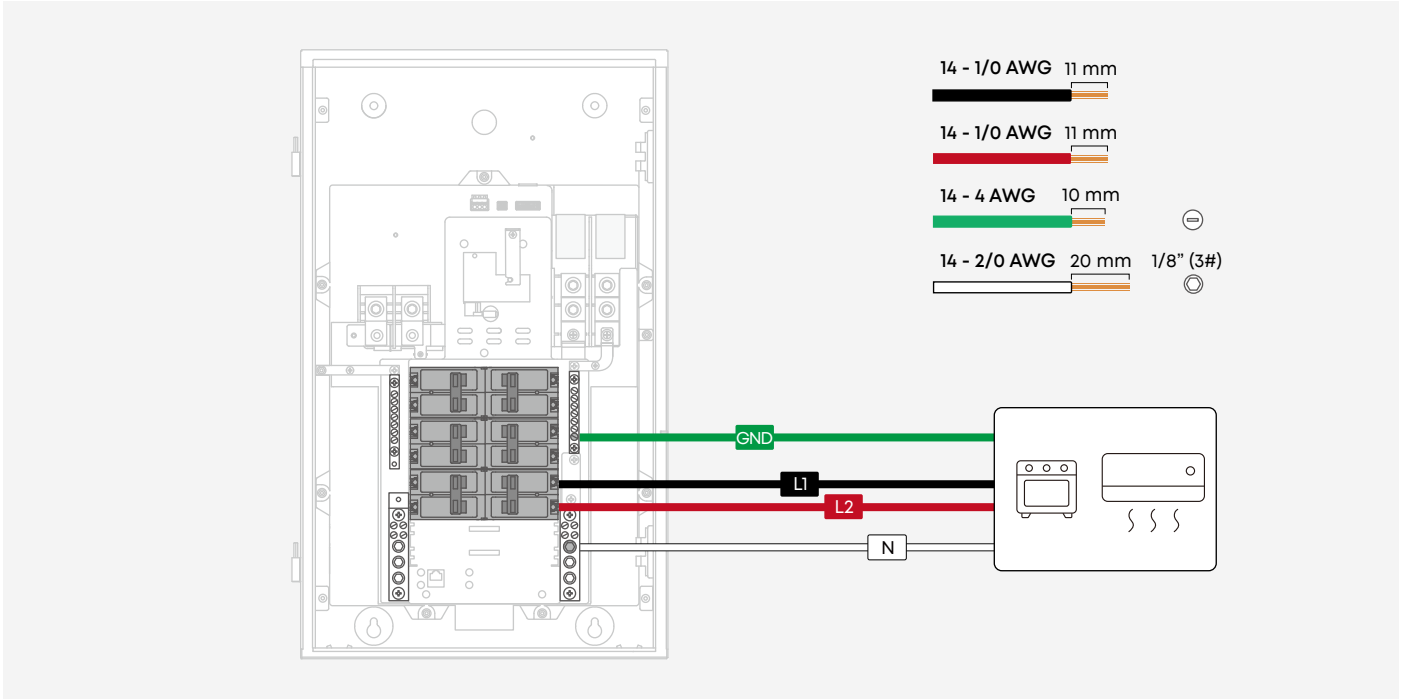
In the whole home backup system, the power dock serves as the main service equipment.

1. Connect the power dock to the sub panel.

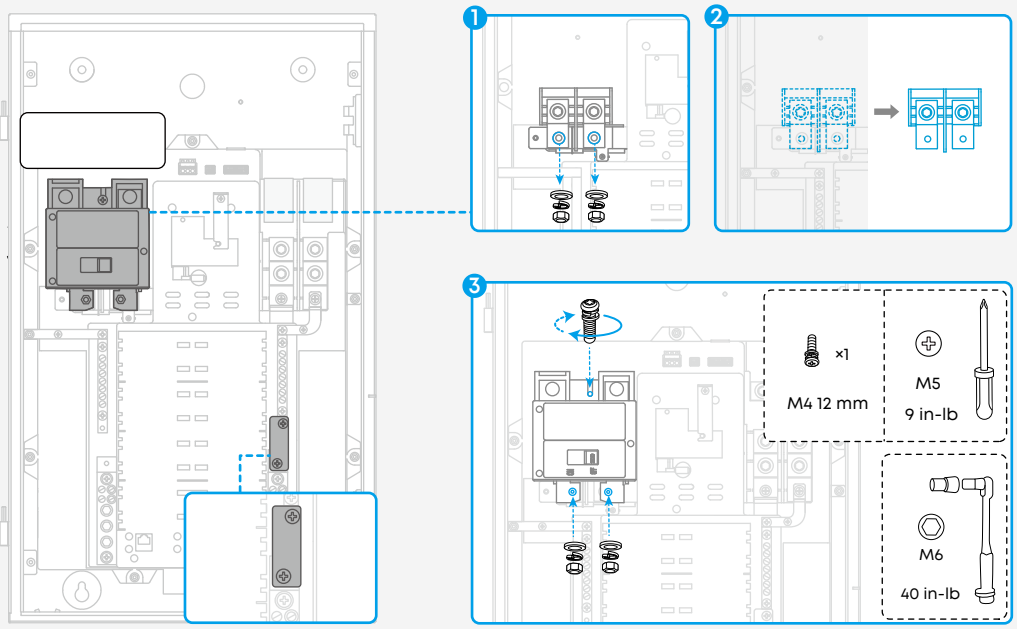


2. Connect home loads to smart circuits.

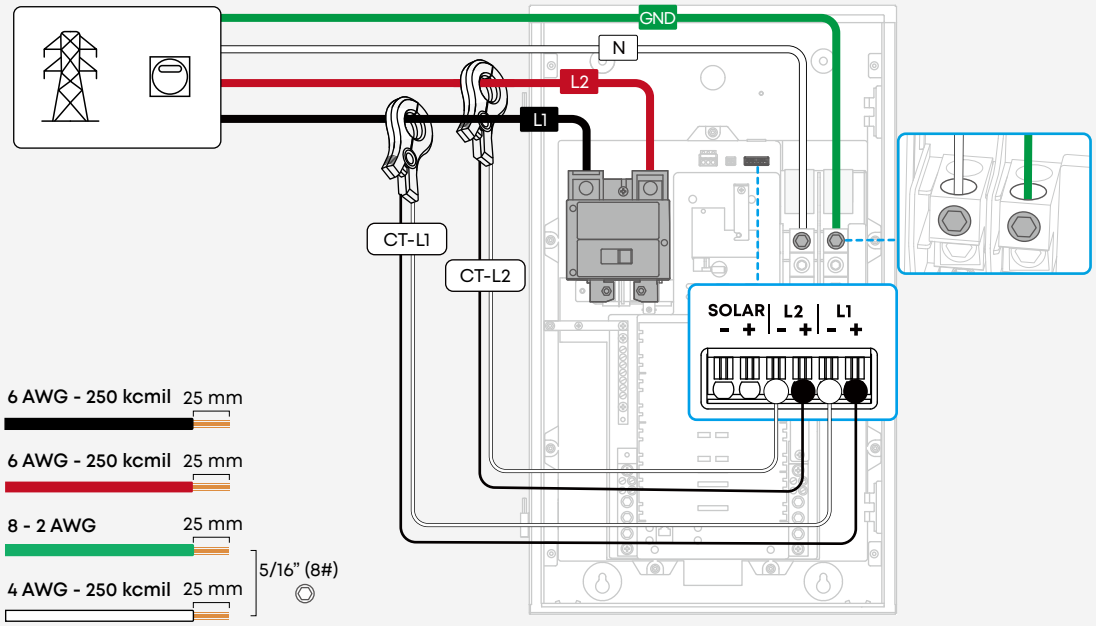
All loads designated for load shedding must be connected to smart circuits.



3. Install the main breaker and ensure the neutral-ground bonding strap is installed.



4. Connect the power dock to the grid.

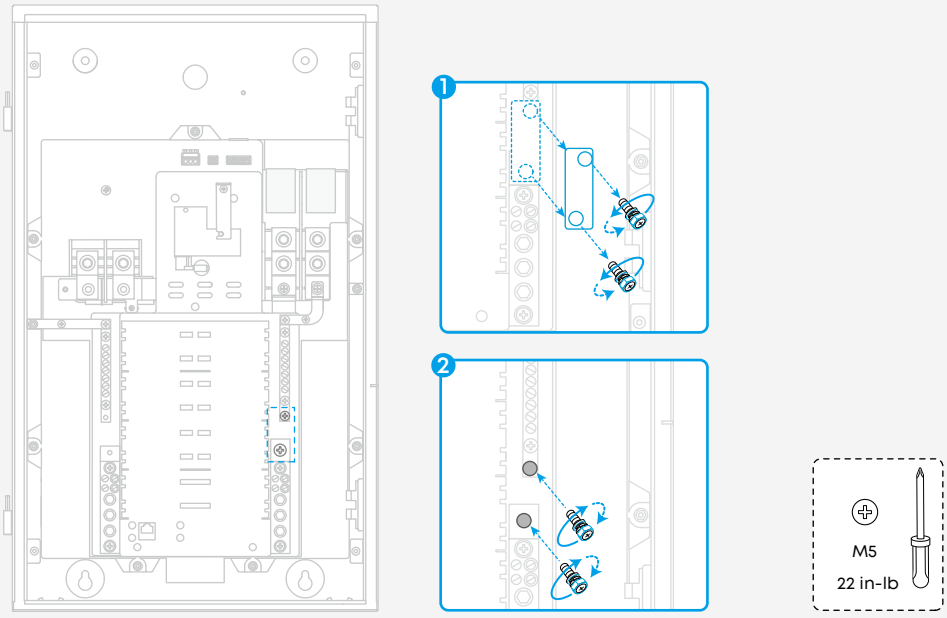


- Connect the CT-L1 to the L1 cable and the CT-L2 to the L2 cable. Manual alignment of the CT arrows is not required because the system automatically detects current flow direction.
- If using the Eaton breaker, install the Eaton terminal insulator kit (Model: TICSR300C) on the breaker lugs.

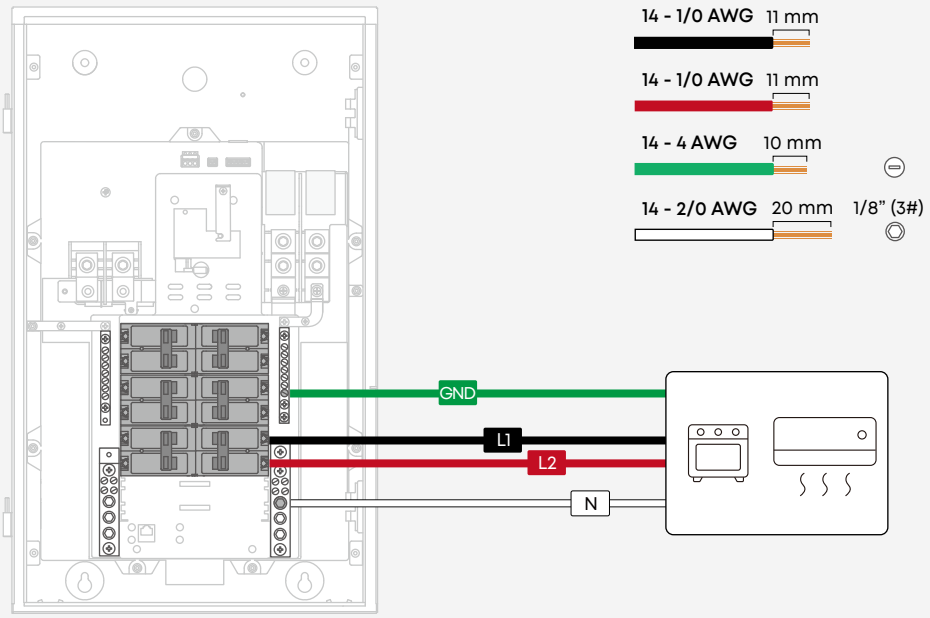
Partial Home Backup

In the partial home backup system, the power dock serves as the sub panel.

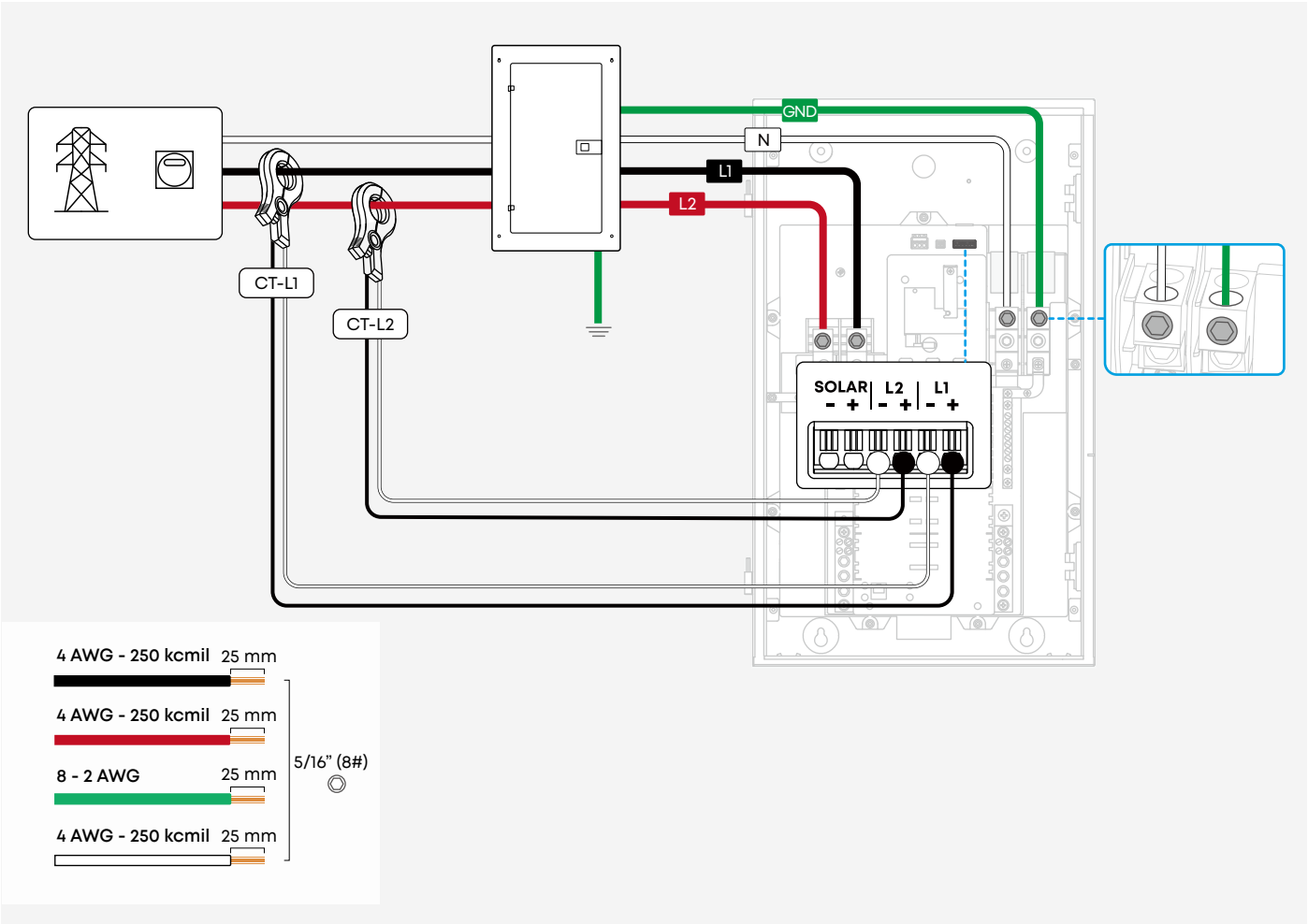
1. Remove the neutral-ground bonding strap.



2. Connect backup loads to smart circuits.



3. Connect the power dock to the grid and the main panel.



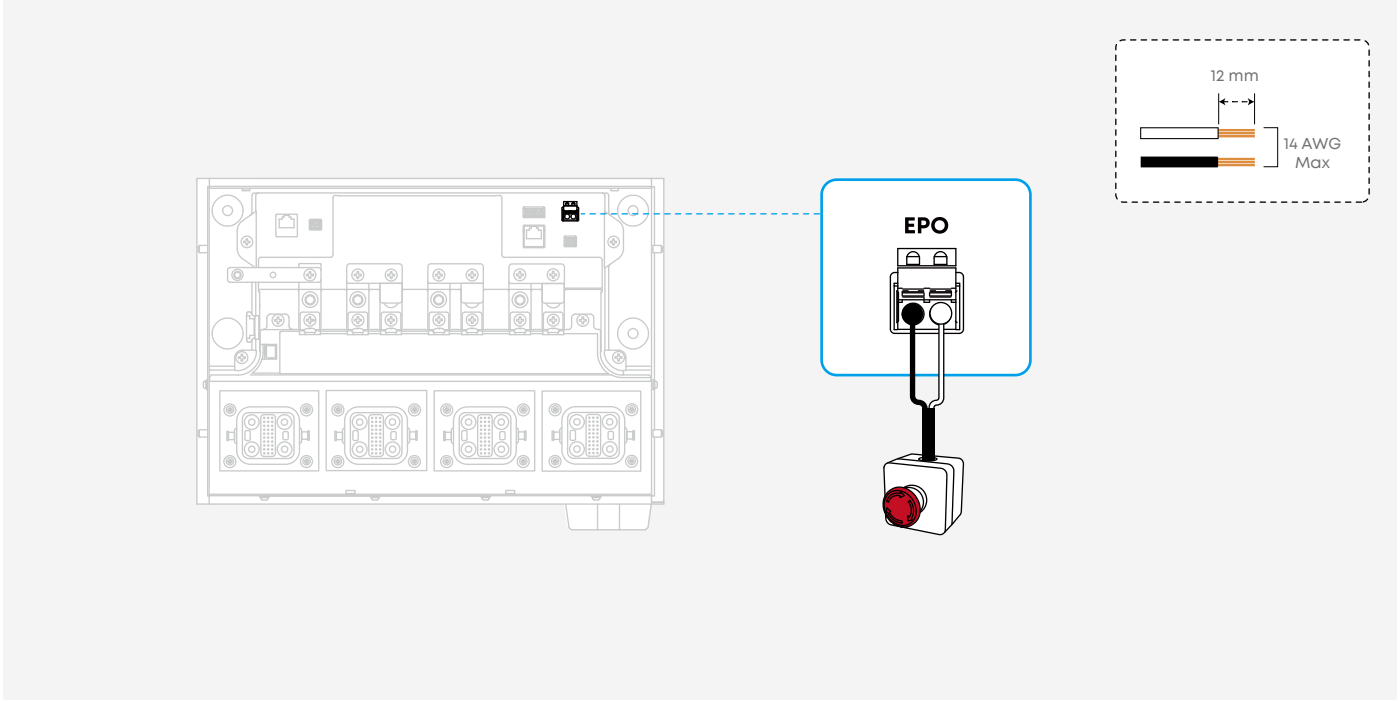
Connect the CT-L1 to the L1 cable and the CT-L2 to the L2 cable. Manual alignment of the CT arrows is not required because the system automatically detects current flow direction.

6.6 Connect to EPO Device

In accordance with local electrical codes, connect the combiner box to an Emergency Power Off (EPO) device to manually trigger a rapid system shutdown.

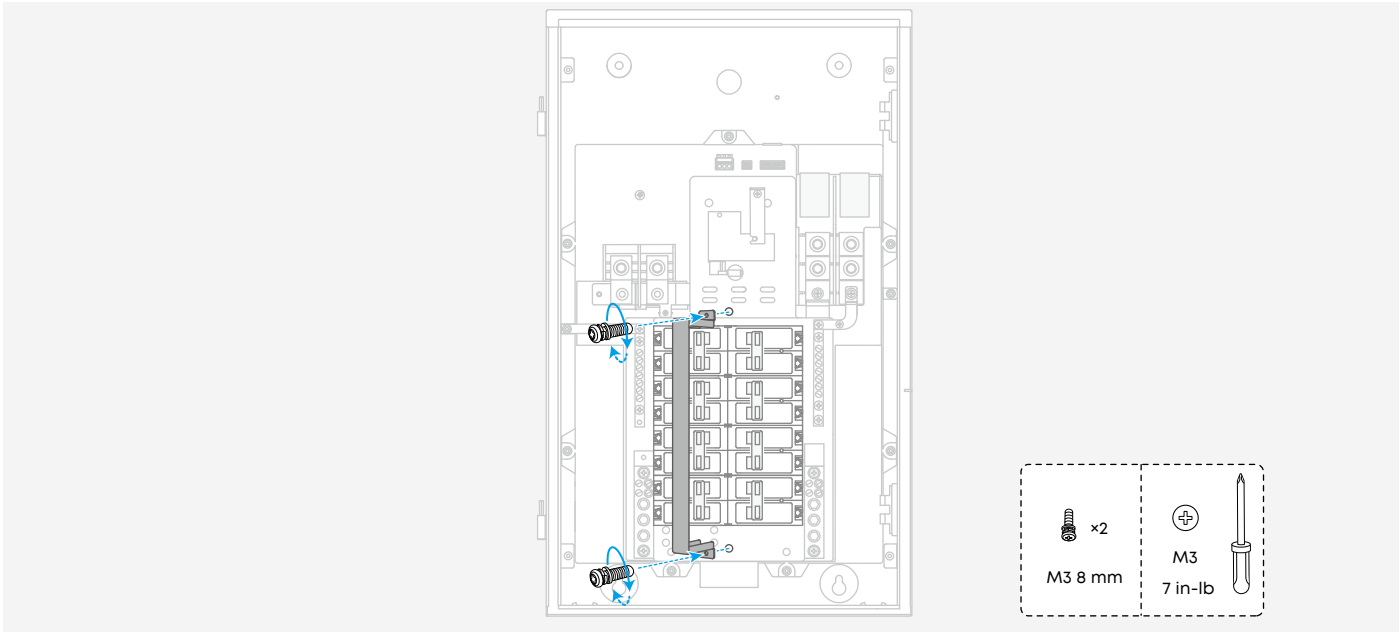
- Install the EPO device in a readily accessible external location. If the combiner box is installed in a garage, place the EPO device outside.
- The EPO device should meet the following specifications:
  - NC contact ×1
  - ≥ 30 VDC / 1A

Connect the signal cables from the EPO device to the combiner box.



6.7 Install Breaker Hold-Down

Attach the breaker hold-down to secure all breakers firmly in place.

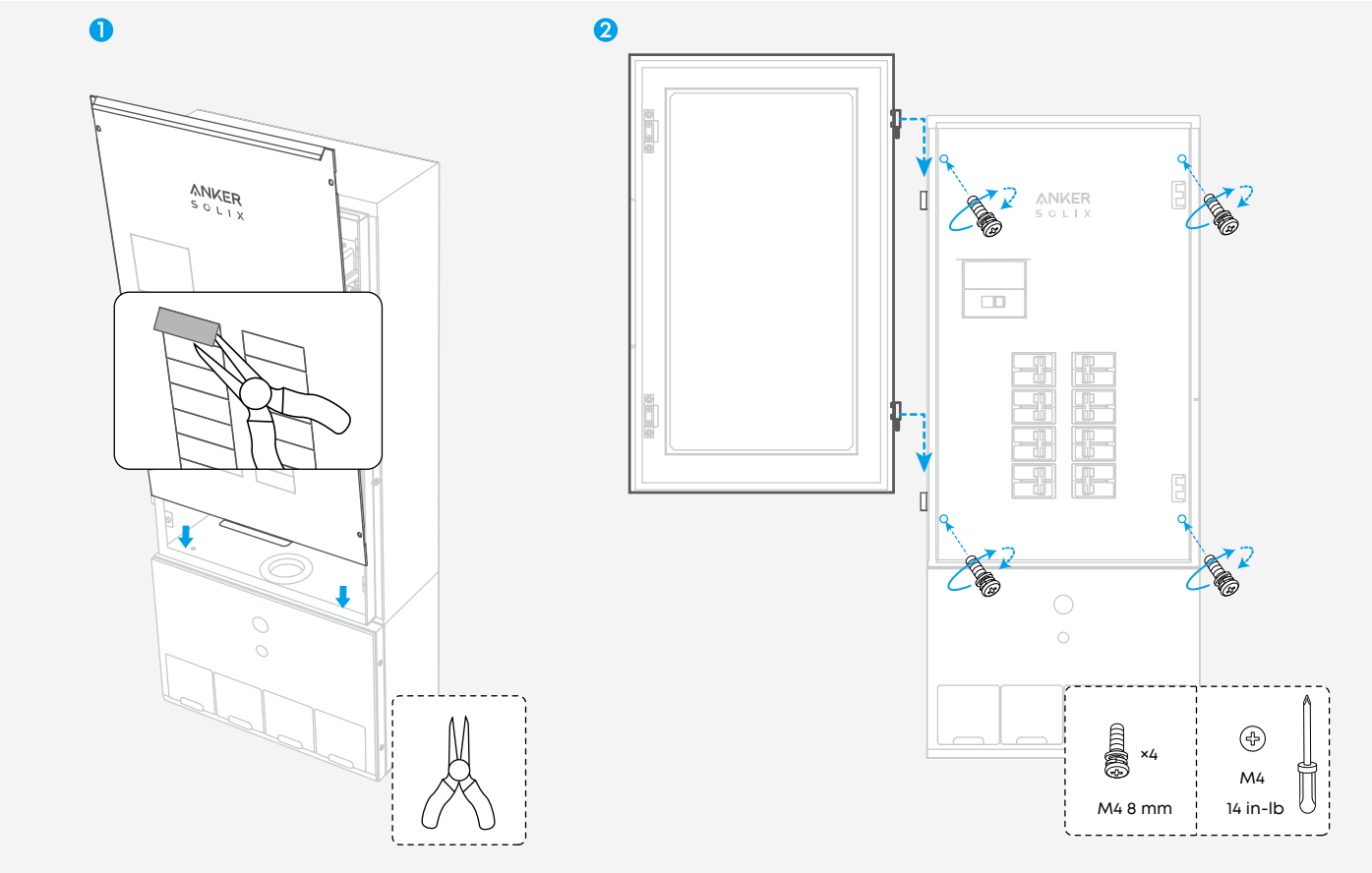


6.8 Verify Connections

Item	Acceptance Criteria
Power	All power sources are turned OFF and properly locked out.
Connections	All connections are correct, secure, and properly grounded.
Circuit Isolation	Use a multimeter in continuity mode to perform continuity tests. · Hot to Neutral – should be open circuit (no continuity). · Hot to Ground – should be open circuit (no continuity).

6.9 Complete Connections

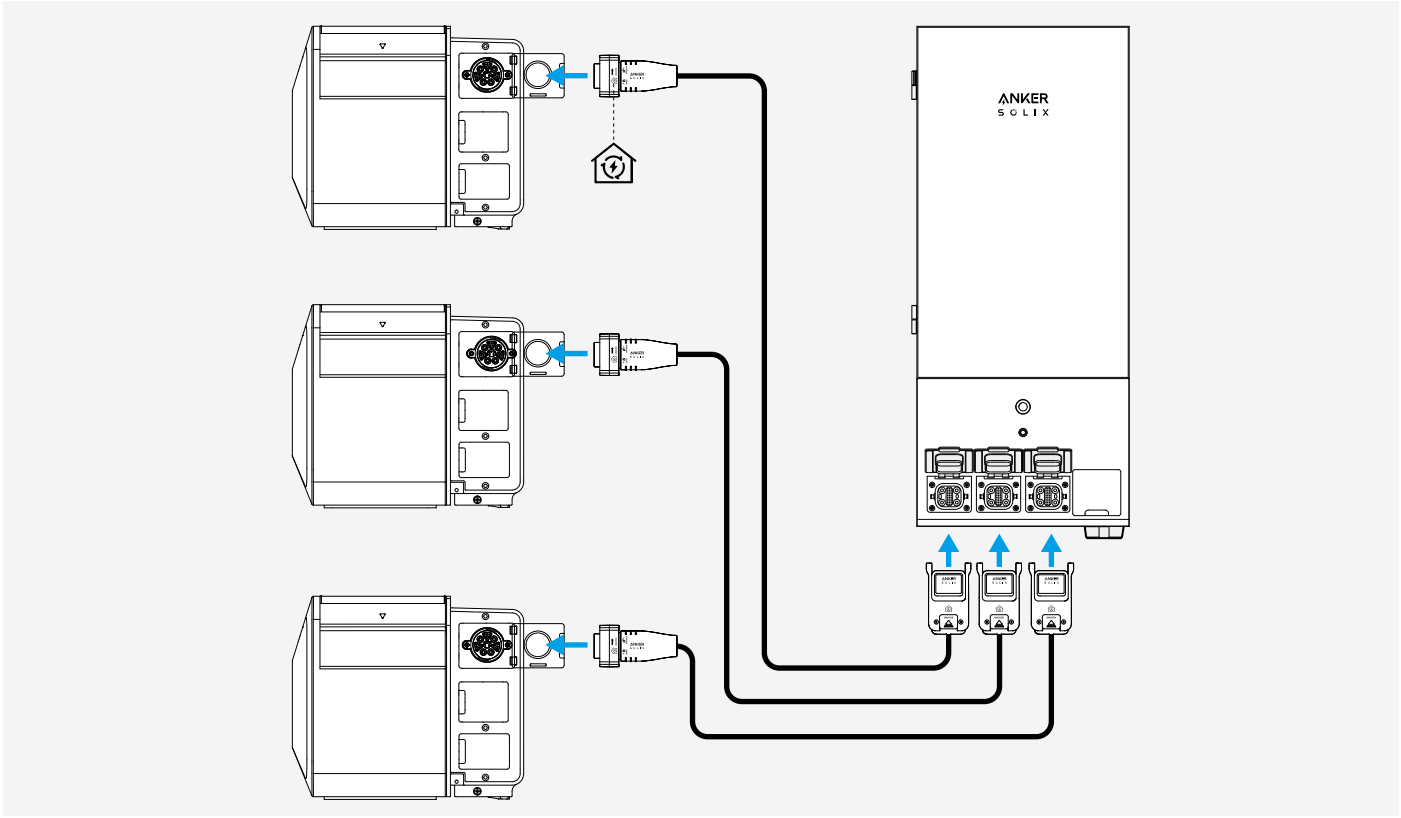
1. Remove the breaker plates if required.
2. Install the deadfront cover and door.



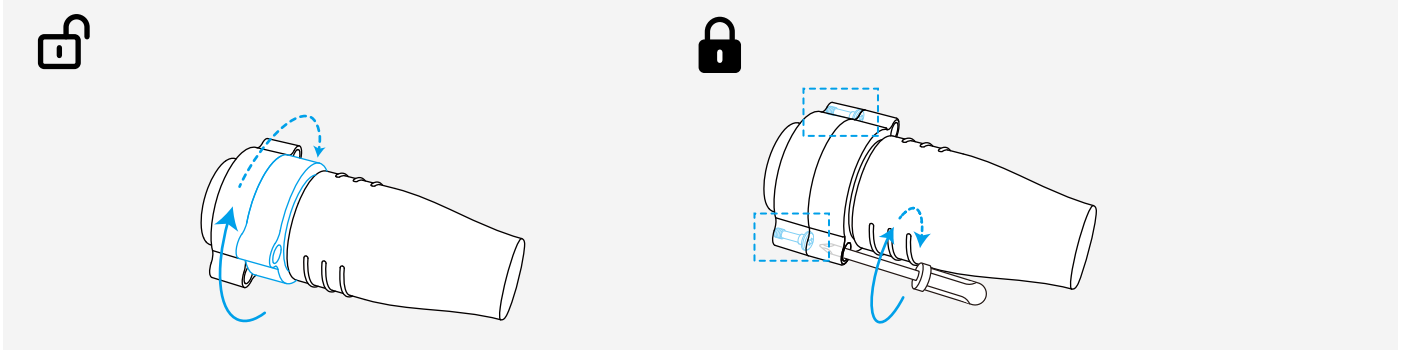
7. Connect to Anker SOLIX E10

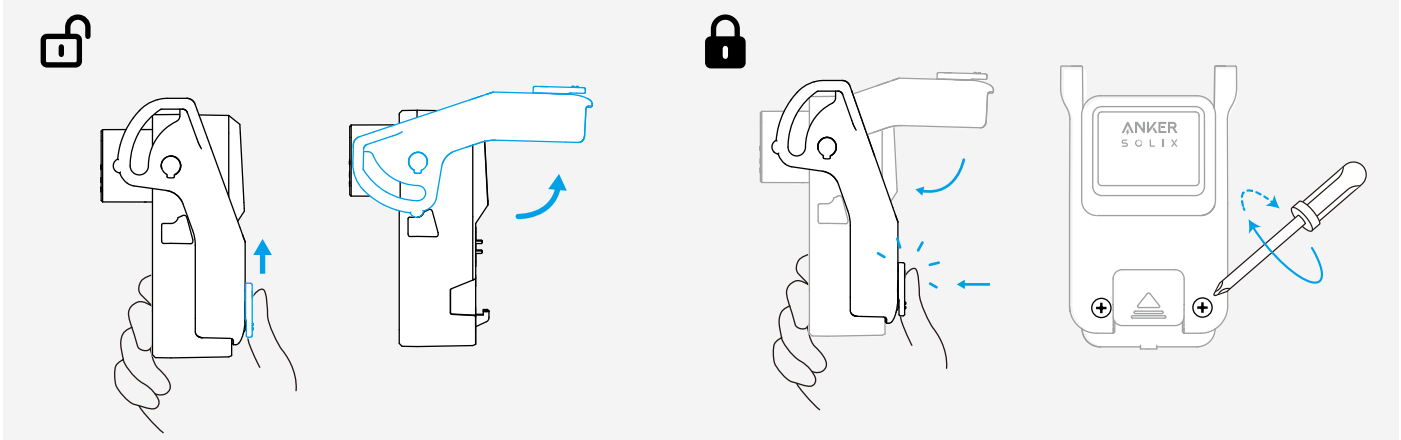
The power dock can connect to up to three Anker SOLIX E10 Power Modules using the on-grid cables.

For more information, see the section Automatic Backup Solution (A17E1, AX170) of the E10 System and App Guide.



Lock the plugs before connection. Unlock the plugs after connection.





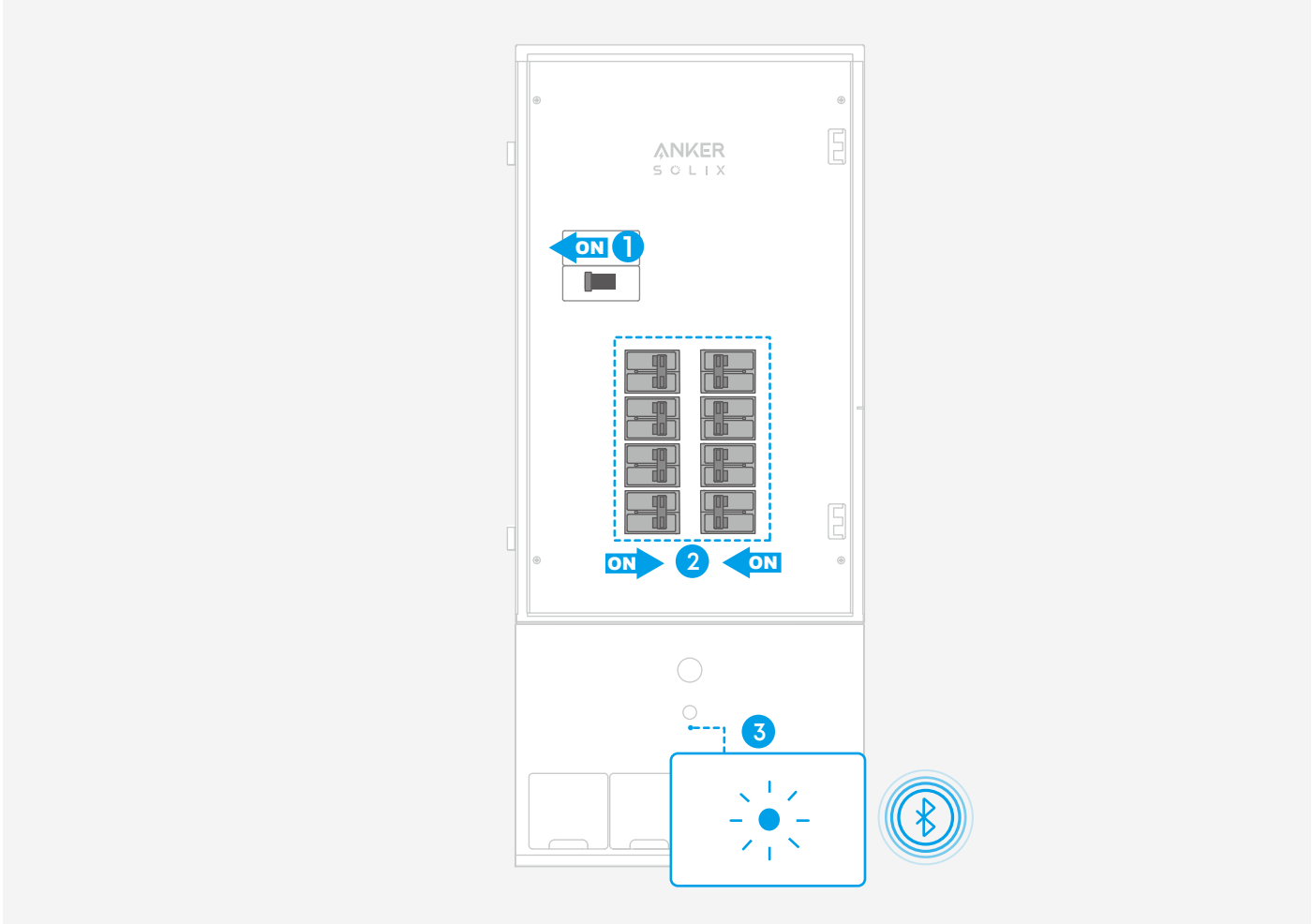
8. Device Setup

Before powering on the system, ensure that all the circuit breakers on the ATS box are in the OFF position.

8.1 Power On / Off

To power on the system:

1. Turn on the main breaker (if available).
2. Turn on each branch breaker.
3. When powered on, the power dock will automatically enter networking mode.



To power off the system:

1. Turn off each branch breaker.
2. Turn off the main breaker (if available).

8.2 Use the Anker App

· Ensure the power dock is in networking mode.

· Please note that the user interface images displayed are for illustration purposes and may differ from your actual view based on the software version.

1. Download the Anker app from the App Store (iOS devices), from Google Play (Android devices), or by scanning the QR code.

Anker

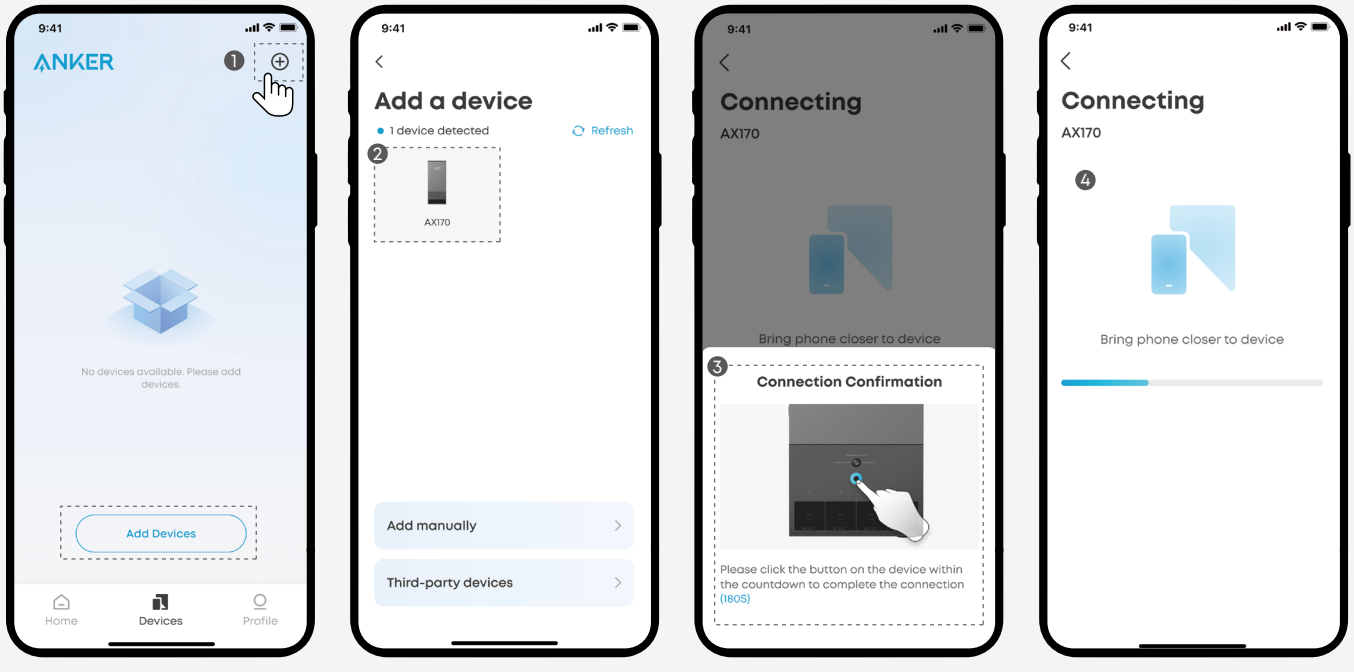
GET IT ON Google Play

Google Play and the Google Play logo are trademarks of Google Inc.

Download on the App Store

Apple and the Apple logo are trademarks of Apple Inc.

2. Add the power dock to the app, and follow the in-app instructions to complete setup.



9. Specifications

Specifications are subject to change without notice.

Model	AX170
Performance	
Rated Voltage	120 / 240 VAC (Split Phase)
Rated Frequency	60 Hz
Switchover Time (On-Grid to Off-Grid)	≤ 20 ms
Switchover Time (Off-Grid to On-Grid)	0 ms
Grid Connection	
Input / Output Current Rating	200A Max, 160A Continuous
Subpanel Connection	
Current Rating	200A Max, 160A Continuous
Plug-and-Play Ports	
AC Port	×4
Continuous Current Rating (Per Port)	100A
Continuous Current Rating (Total 4 Ports)	100A (Connected to One Breaker) 160A (Connected to Two Breakers)
Current Rating (Per Circuit)	
Circuits 1-2 (Loads or Generator)	100A Max, 80A Continuous
Circuits 7-8 (Loads or Solar System)	80A Max, 64A Continuous
Circuits 3-6, 9-12 (Loads)	60A Max, 48A Continuous
Circuits (Battery)	125A Max, 100A Continuous
Others	
Connectivity	Wi-Fi, Bluetooth
Mounting Option	Wall Mount
Dimensions (W × H × D)	15 × 36.1 × 7.1 in (380 × 916 × 180 mm)
Weight	60 lbs (27.2 kg)
Enclosure Type	NEMA Type 3R
Operating Temperature	-4 to 131 °F (-20 to 55 °C)
Warranty	10 Years Limited

Certification and Compliance	
ATS Box	UL 67, UL 1741, UL 1741 CRD, UL 3141, UL 869A, CSA C22.2 No. 107.1-16, CSA C22.2 No. 29-15, 47 CFR Part 15, ICES-003, CP65, TSCA, PFAS
Combiner Box	UL 1741, CSA C22.2 No. 107.1:16, ANSI / CAN / UL 9540, 47 CFR Part 15, Subpart B, 47 CFR Part 15, Subpart C 15.247, ICES-003, RSS247, CP65, TSCA, PFAS

10. Safety Information

Disclaimer

Before using this product, please read this document thoroughly to ensure you fully understand its contents. Retain this document for future reference.

In this document and any associated documents, specific terms may be abbreviated or referred to by acronyms for ease of reference. Improper operation of the product could result in serious injury to the user or others, as well as damage to the product or other property.

By utilizing this product, you acknowledge and agree that you have read, understood, and accepted all terms and conditions outlined in this document. Users are solely responsible for their actions and the consequences thereof. Anker SOLIX expressly disclaims any liability for losses or damages that may arise from the user's failure to operate the product in accordance with the instructions provided in the user guide.

In accordance with applicable laws and regulations, Anker SOLIX reserves the right to the final interpretation of this document and all related documents pertaining to the product. The contents of this document are subject to change (including updates, revisions, or discontinuation) without prior notice. For the most recent product information, please visit the official website of Anker SOLIX.

Save These Instructions: This document contains important instructions that must be followed during installation, use, and maintenance.

Read all instructions before installing, using, and maintaining this equipment. Do not make any changes or create settings that are not described in this document. If physical injury, loss of data, or damage is caused by failure to follow instructions, the warranty does not apply.

Personal Safety

1. Only qualified professionals or trained personnel are allowed to install and maintain the equipment.
2. Use appropriate personal protective equipment (PPE) and follow safe electrical work practices.
3. Ensure that power is off during installation. Do not install or remove a cable with the power on.

4. Non-standard and improper operations on the energized equipment may cause fire, electric shocks, or explosion, resulting in property damage, personal injury, or even death.
5. Before operations, remove conductive objects such as watches, bracelets, bangles, rings, and necklaces to prevent electric shocks.
6. During operations, use dedicated insulated tools to prevent electric shocks or short circuits.
7. Do not make contact with other conductors, or indirect contact with power supply equipment through damp objects.
8. Do not power on the equipment until it has been installed or confirmed by a professional.
9. If there is a probability of personal injury or equipment damage during operations on the equipment, immediately stop the operations, report the case to the supervisor, and take feasible protective measures.
10. Do not touch the energized equipment, as the enclosure may be hot.

Electrical Safety

1. Before installation, ensure that the equipment is intact. Otherwise, electric shocks or fires may occur.
2. Non-standard and improper operations may result in fire or electric shocks.
3. Prevent foreign matter from entering the equipment during operations.
4. For the equipment that needs to be grounded, install the ground cables first when installing the equipment and remove the ground cables last when removing the equipment.
5. Before installing or removing power cables, the equipment and its switches must be disconnected.
6. Do not damage the grounding conductors.
7. The equipment terminals are used for electrical connections only.
8. Ensure that all electrical connections comply with local electrical standards.
9. Obtain approval from the local electric utility company before using the equipment in grid-tied mode.
10. Ensure that the cables you prepared meet local regulations.
11. The maximum operating temperature for the included cables is 221 / 105°C.
12. Use dedicated insulated tools when performing high-voltage operations.
13. Before making electrical connections, switch off the disconnector on the upstream device to cut off the power supply and prevent contact with energized components.
14. Before connecting a power cable, check that the label on the power cable is correct.
15. If the equipment has multiple inputs, disconnect all the inputs before operating the equipment.

Environmental Requirements

1. Do not expose the equipment to flammable or explosive gas or smoke. Do not perform any operation on the equipment in such environments.
2. Do not store any flammable or explosive materials near the equipment.
3. Install the equipment in an area far away from liquids and in a well-ventilated environment.

Mechanical Safety

1. Wear goggles and protective gloves when drilling holes.
2. Clean up any debris that may have accumulated within or around the equipment after drilling.
3. When moving the equipment by hand, wear protective gloves to prevent injuries.
4. Be cautious to avoid injury when moving heavy objects.

Commissioning

When the equipment is powered on for the first time, ensure that professional personnel set parameters correctly. Incorrect settings may result in inconsistency with local certification and affect the normal operation of the equipment.

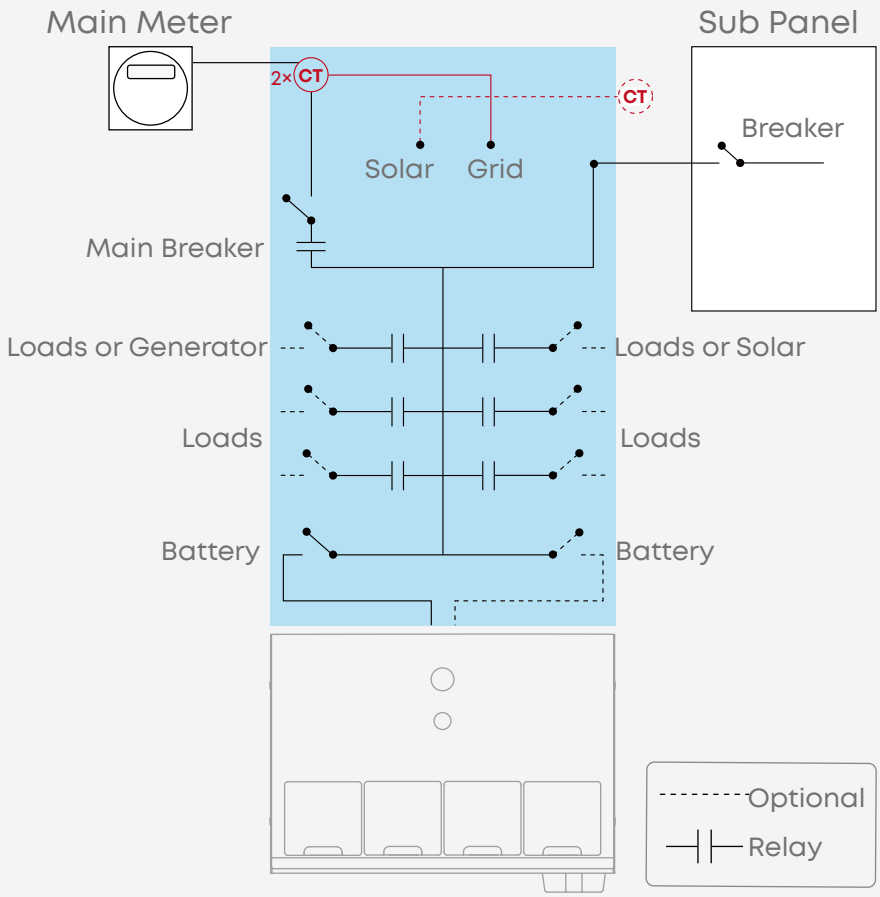
Maintenance and Replacement

1. High voltage generated by the equipment during operation may cause an electric shock, which could result in death, serious injury, or serious property damage.
2. Prior to maintenance, power off the equipment and strictly comply with the safety precautions in this document and relevant documents.
3. Maintain the equipment with proper tools, testing equipment, and sufficient knowledge of this document.
4. Turn off the equipment switches when maintaining the electric devices or power distribution devices connected to the equipment.
5. Place temporary warning signs or erect fences to prevent unauthorized access to the maintenance site.
6. If the equipment is faulty, contact Anker SOLIX customer service.
7. The equipment can be powered on only after all faults are rectified. Failing to do so may escalate faults or damage the equipment.

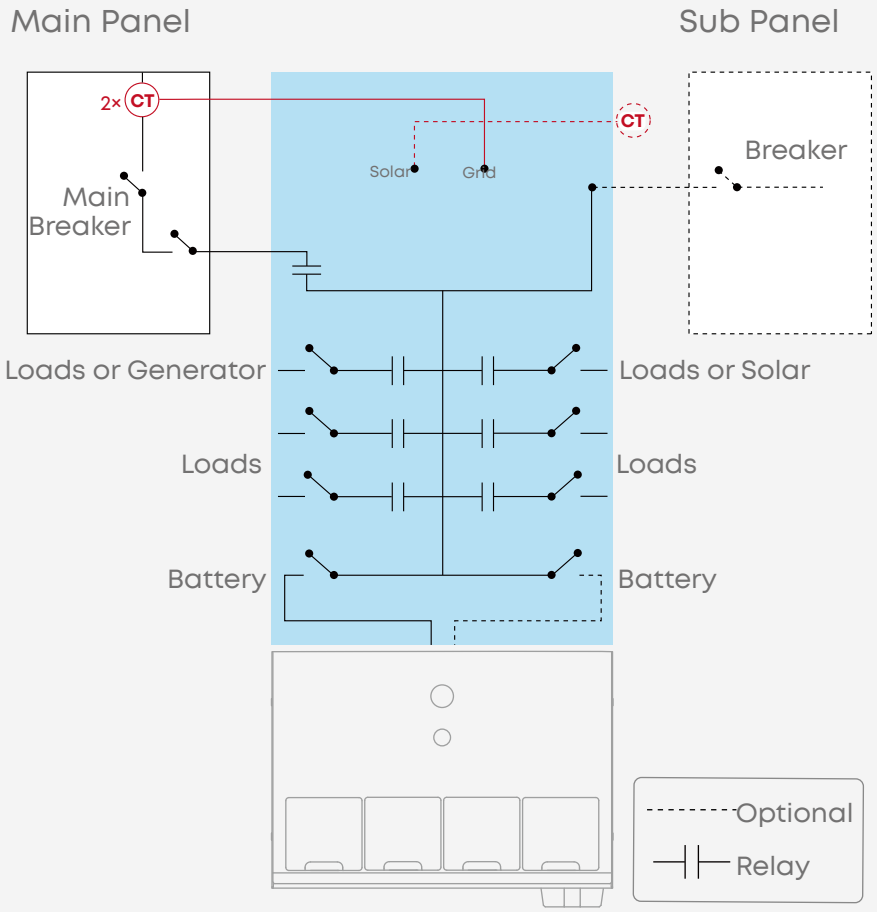
11. Appendices

Appendix 1. Wiring Diagram

Whole Home Backup



Partial Home Backup



Appendix 2. Circuit Breaker Compatibility

The power dock has been evaluated for compatibility with the circuit breaker types listed below.

Main Breaker

Brand	Type	Amp	Catalog Number	Pole
Eaton	CSR	100 to 200A	CSR2200N	2

Branch Breaker

Brand	Type	Amp	Catalog Number	Pole
Eaton	BR	10 to 125A	BR or BRH followed by 110 to 2125	1, 2
Square D	HOM	10 to 125A	HOM followed by 110 to 2125	1, 2
Siemens	QP	10 to 125A	Q followed by 110 to 2125; may be followed by H	1, 2
GE	THQL and THHQL	10 to 125A	THQL or THHQL followed by 1115 to 21125	1, 2

Appendix 3. CT Compatibility

Verify that the included CTs are compatible with your home panel.

CTs are compatible with common split-phase panels, including

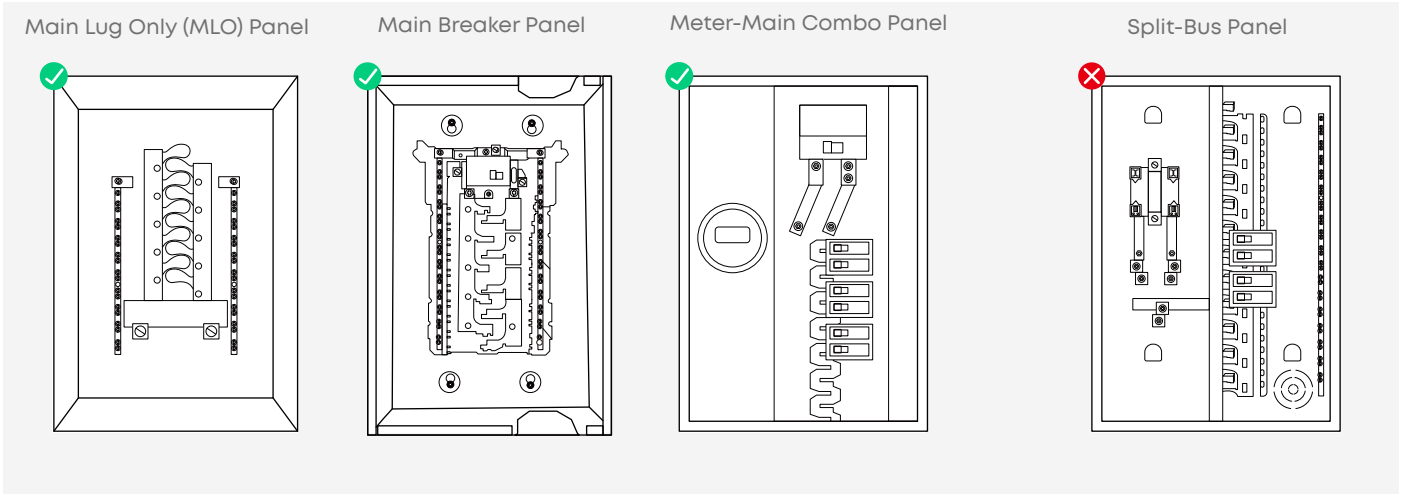
· Main Lug Only (MLO) panel
· Main breaker panel
· Meter-main combo panel*

*Utility personnel may need to remove the seal so that a licensed electrician can access the service cables.

CTs are not supported on:

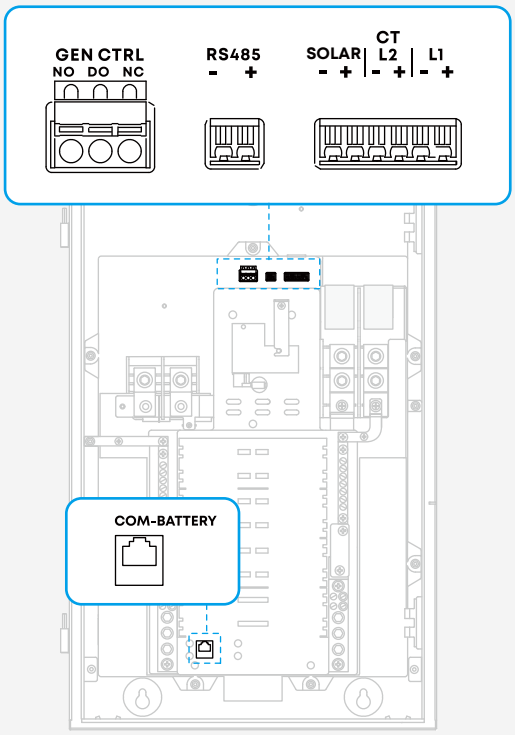
· Split-Bus panel
· Panel with four parallel feeders*

*Two CTs cannot measure the total load current.



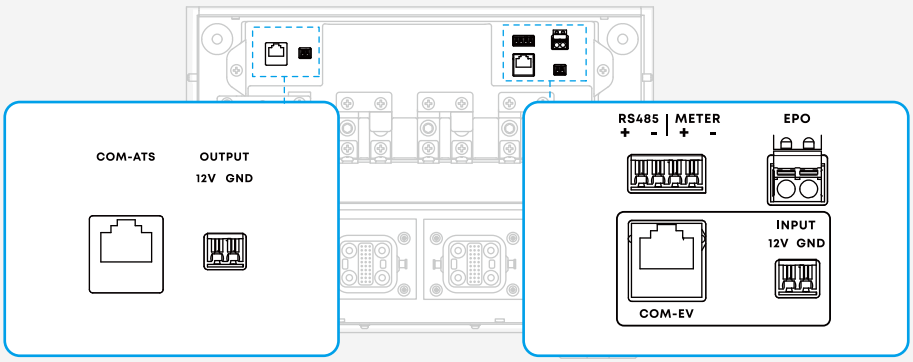
Appendix 4. Communication Port

On the ATS Box



Communication Port	Description
GEN CTRL	Controls generator start and stop signals.
RS485	Reserved for future use.
CT-SOLAR	Connects to PV CT.
CT-L2	Connects to Grid L2 CT.
CT-L1	Connects to Grid L1 CT.
COM-BATTERY	Connects to the combiner box.

On the Combiner Box



Communication Port	Description
COM-ATS	Connects to the ATS box.
EPO	Connects to the Emergency Power-Off (EPO) device.
OUTPUT	Reserved for future use.
RS485	Reserved for future use.
METER	Reserved for future use.
COM-EV	Reserved for future use.
INPUT	Reserved for future use.