

We know you care.

Choosing to go solar is a huge step toward being sustainable. Go green with Renogy without compromising on a comfortable lifestyle.

# GO SOLAR

 **RENOGY**<sup>®</sup>

**Solar 800W 3.84kWh Extension  
Solution**

**QUICK GUIDE**

VERSION A0



**Find Your Energy Freedom**



## Before Getting Started

The quick guide provides important installation instructions for Renogy Solar 800W 3.84kWh Extension Solution. For detailed operation and maintenance tips, refer to user manual of the specific product at [renogy.com/support/downloads](https://renogy.com/support/downloads).

Read the quick guide carefully before installation. Failure to observe the instructions or precautions in the quick guide can result in electrical shock, serious injury, or death, or can damage the included products, potentially rendering them inoperable.

- Renogy ensures the accuracy, sufficiency, and the applicability of information in the quick guide or user manual at the time of printing due to continual product improvements that may occur.
- Renogy assumes no responsibility or liability for personal and property losses, whether directly and indirectly, caused by the user's failure to install and use the product in compliance with the quick guide.
- Renogy is not responsible or liable for any failure, damage, or injury resulting from repair attempts by unqualified personnel, improper installation, or inappropriate operation.
- The illustrations in the quick guide are for demonstration purposes only. Details may appear slightly different depending on product revision and market region.
- Renogy reserves the right to change the information in the quick guide without notice. For the latest quick guide, visit [renogy.com/support/downloads](https://renogy.com/support/downloads).

## Disclaimer

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## Statutes and Regulations

The mechanical and electrical installation of solar panels should refer to the appropriate regulations, including electrical code, building code and electrical connection requirements. These regulations vary depending on the location of the installation, e.g., building rooftop installation, vehicle-mounted applications, etc. Requirements may also vary with the voltage of the installation system, the nature of the current (DC or AC). Please contact your local authority for specific terms.

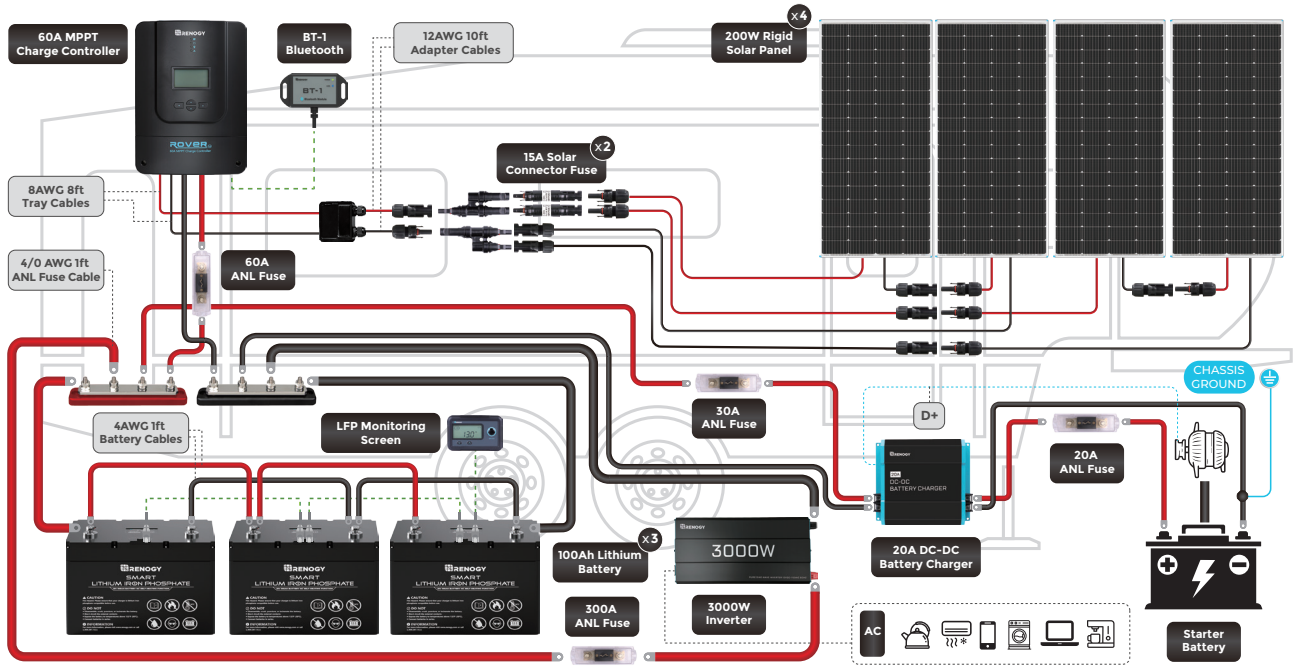
## DC Home App



DC Home App

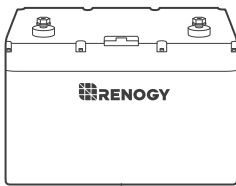


# 1. System Wiring



# 2. Get to Know Renogy Solar 800W 3.84kWh Extension Solution

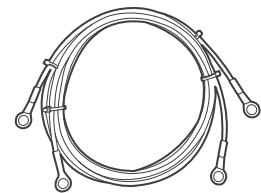
## Battery



100Ah Lithium Battery x 3

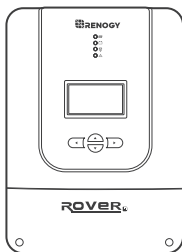


4AWG 1ft Battery Interconnect Cables x 4

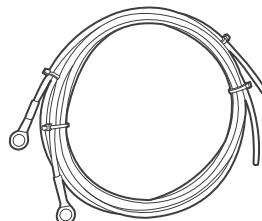


4/0AWG 5ft Battery Cables (Battery to Busbar) x 1

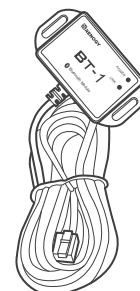
## Charge Controller



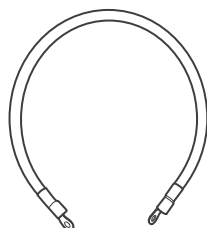
60A MPPT Charge Controller x 1



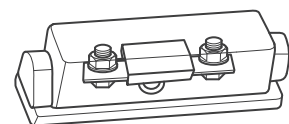
8AWG 8ft Tray Cables (Controller to Busbar) x 1



Renogy BT-1 Bluetooth Module (New Version) x 1



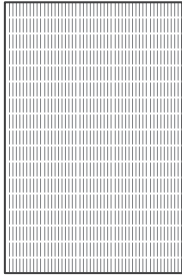
8AWG 2ft ANL Fuse Cable (60A Fuse to Busbar) x 1



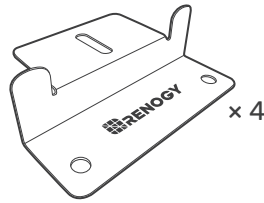
60A ANL Fuse x 1



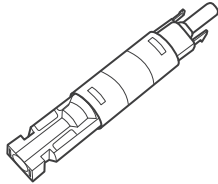
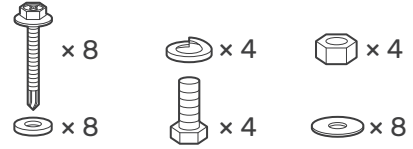
## ■ Solar Panels



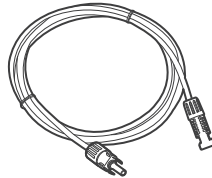
200W Rigid Solar Panel x 4



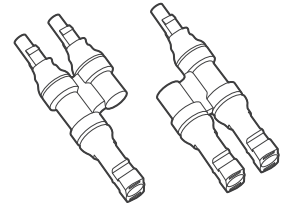
Solar Panel Mounting Z Bracket x 4



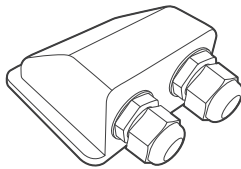
15A Solar Connector Fuse x 2



12AWG 10 ft Solar Panel Extension Cables x 2



Solar Branch Connector (MMF + FFM Pair) x 1

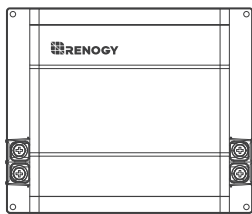


Solar Entry Gland x 1

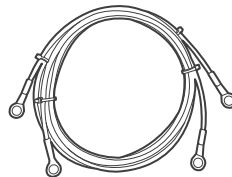


12AWG 10 ft Solar Panel to Charge Controller Adapter Kit x 1

## ■ DC-DC Battery Charger



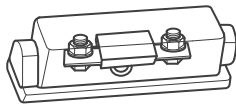
20A DC-DC Battery Charger x 1



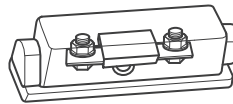
4AWG 8 ft Double Ring Tray Cables (DC-DC - Busbar) x 1



10AWG 2 ft ANL Fuse Cable x 1



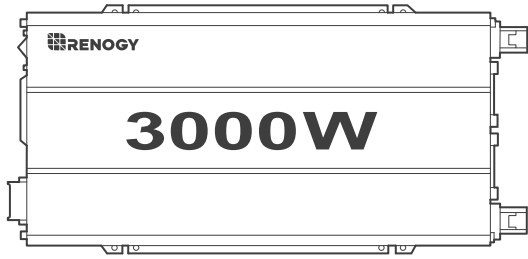
30A ANL Fuse Set w/Fuse (input) x 1



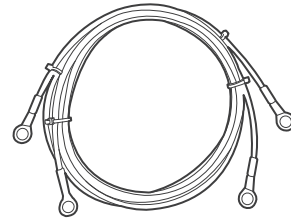
20A ANL Fuse Set w/Fuse (output) x 1



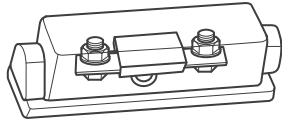
## ■ Inverter



3000W Inverter × 1



4/0AWG 5 ft Battery Inverter Cables  
(Inverter to Busbar) × 1

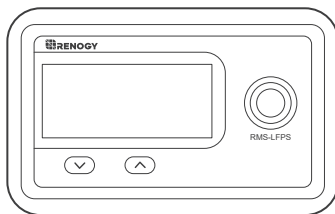


300A ANL Fuse × 1

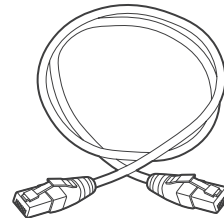


4/0AWG 1 ft ANL Fuse Cable × 1

## ■ Battery Monitor

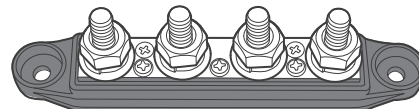
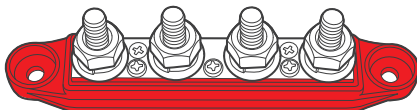


Monitoring Screen for Smart  
Lithium Battery × 1



RJ45 to RJ45 Lithium Battery  
Communication Cables × 2

## ■ 4P Busbar Pair

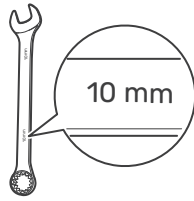


4P Busbar Pair (Red and Black) × 1

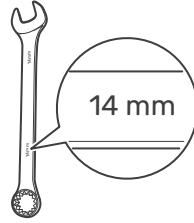
### 3. Required Tools & Accessories



Phillips  
Screwdriver (#2)



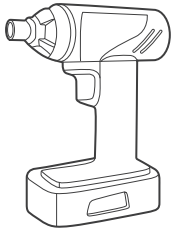
Wrench  
(7/16 inches)



Wrench  
(9/16 inches)



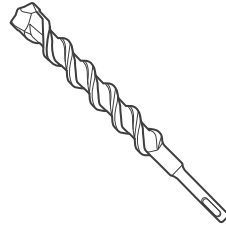
Ground Fault  
Circuit Interrupter ( $\geq 25A$ )



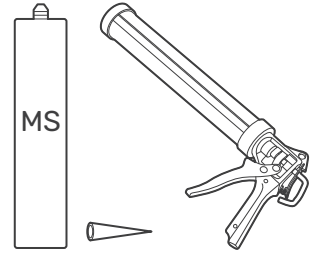
Impact Drill



Phillips Driver Bit (#2)

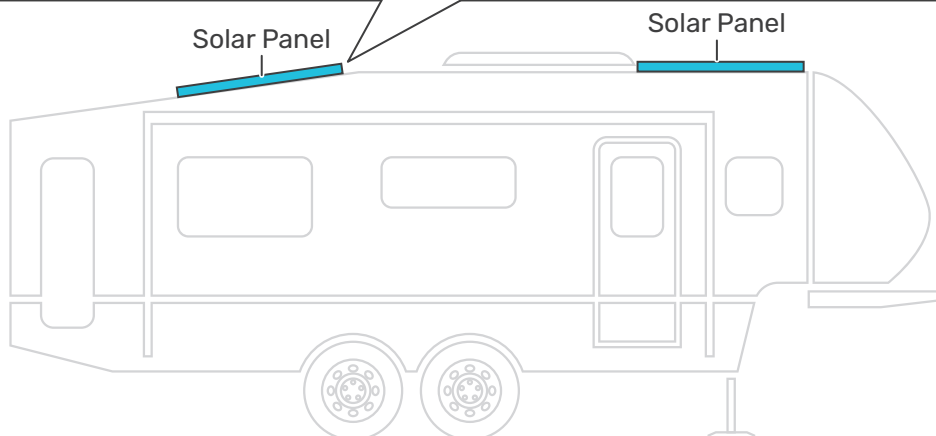
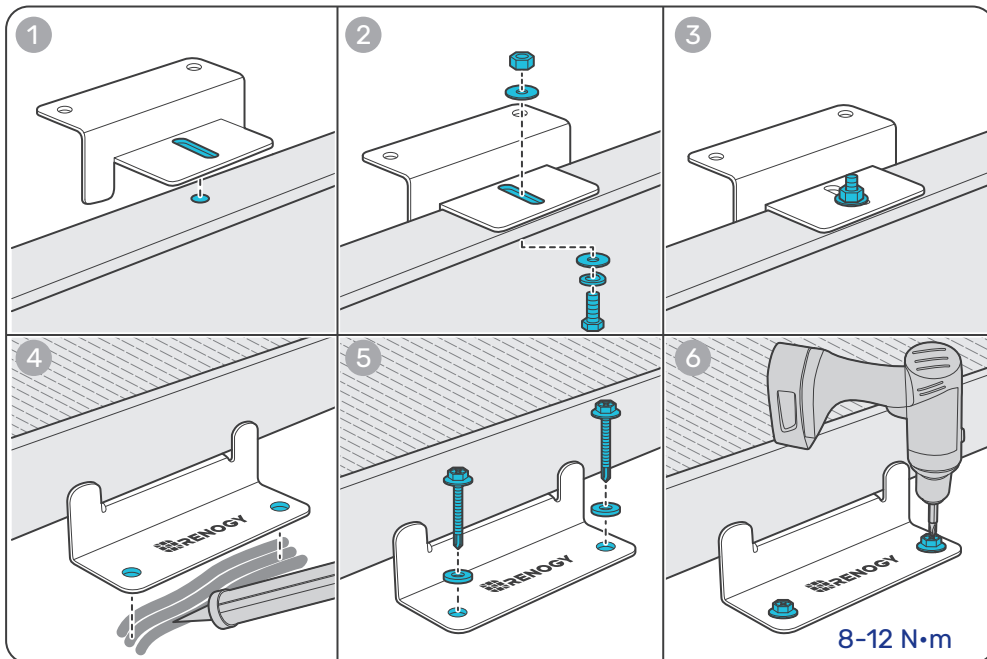


Masonry Drill Bit  
(21/64 inches)

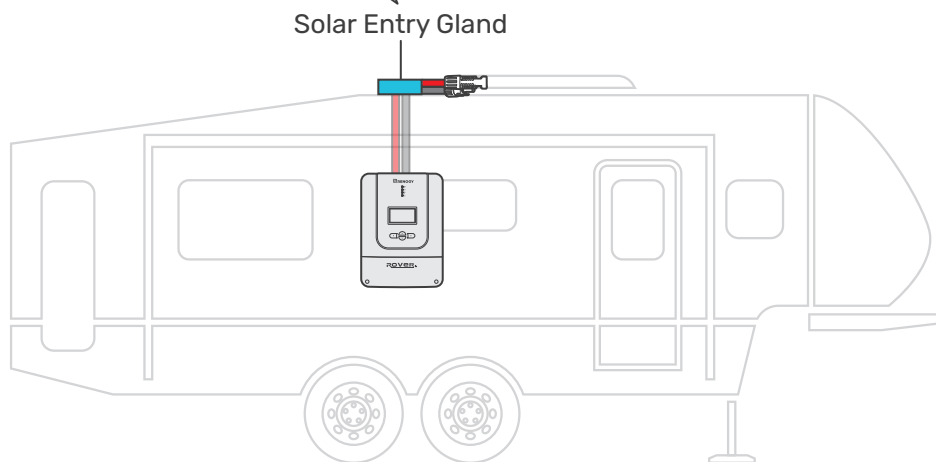
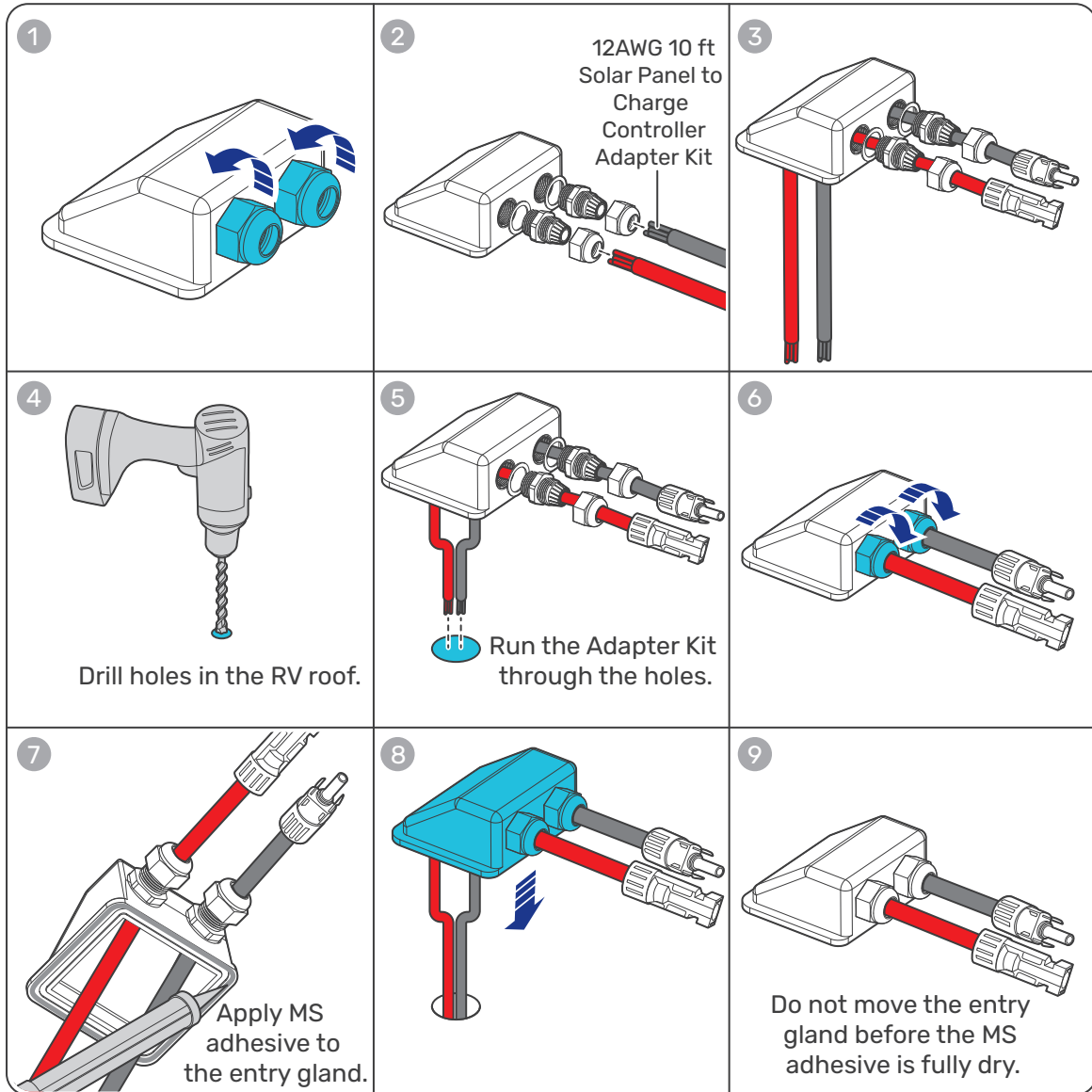


MS Adhesive and  
MS Applicator Gun

### 4. How to Install the Solar Panel Mounting Z Bracket



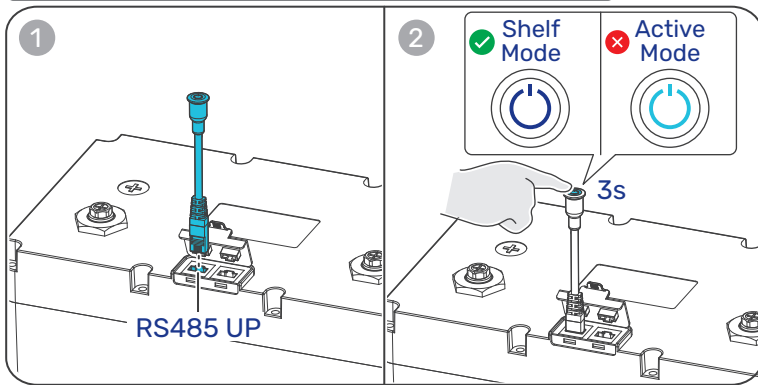
## 5. How to Install the Solar Entry Gland





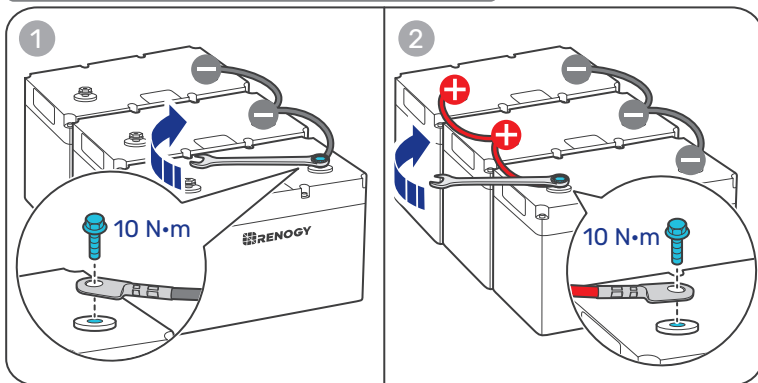
# Step 1. Connect the Batteries in Parallel

Step-1 Ensure that all batteries are in shelf mode.

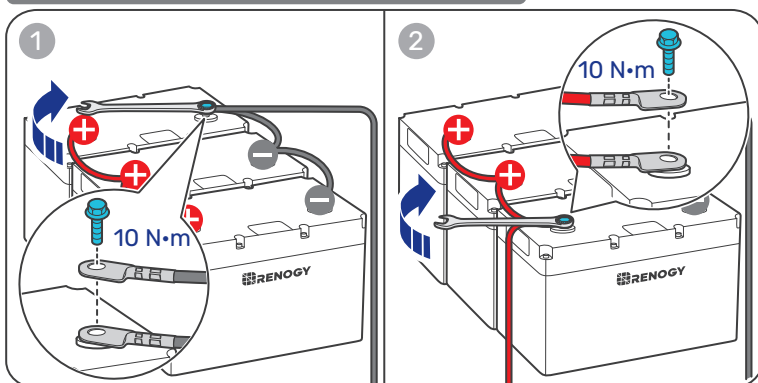


4AWG 1 ft Battery Interconnect Cables

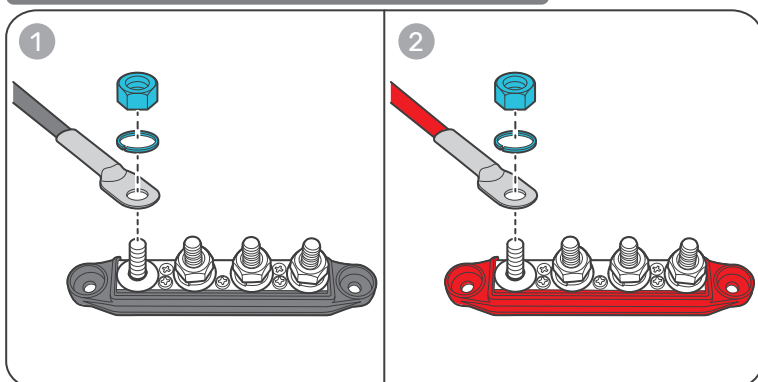
Step-2 Connect the batteries in parallel.



STEP-3 Install the cables on the batteries.



STEP-4 Install the cables on the busbar pair.



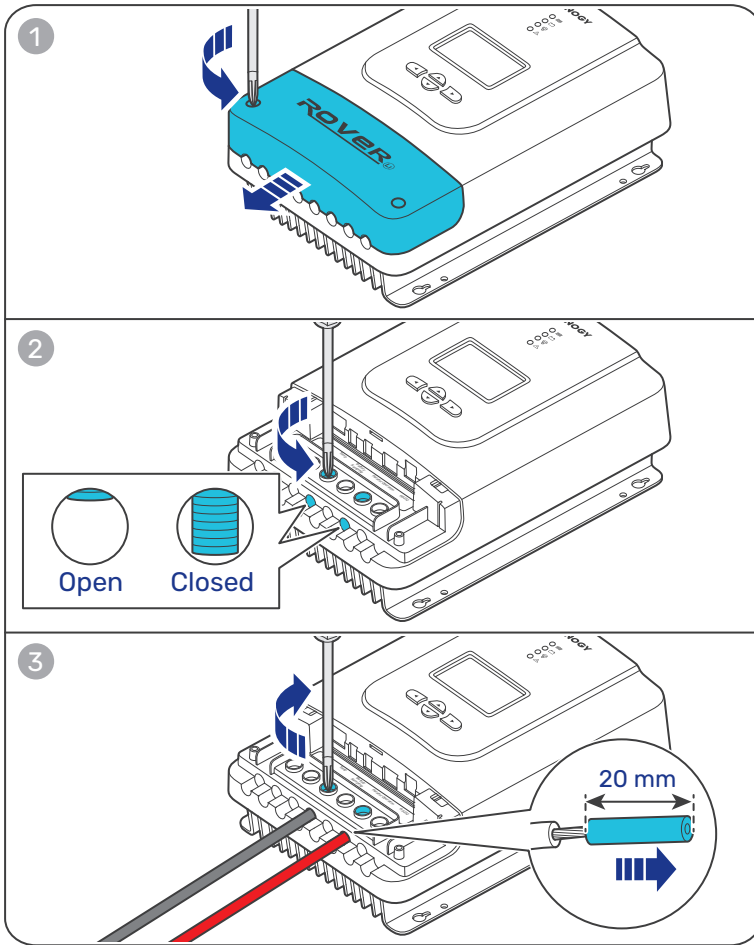
100Ah Lithium Batteries

4/0AWG 5 ft Battery Cables

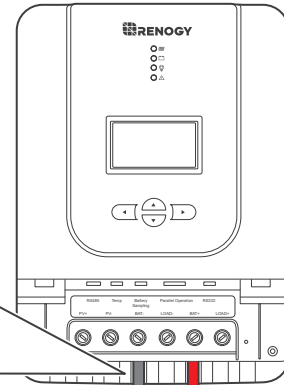
Busbar Pair

## Step 2. Connect the Charge Controller to the Batteries

### STEP-1 Install the cables on the charge controller.



60A MPPT Charge Controller



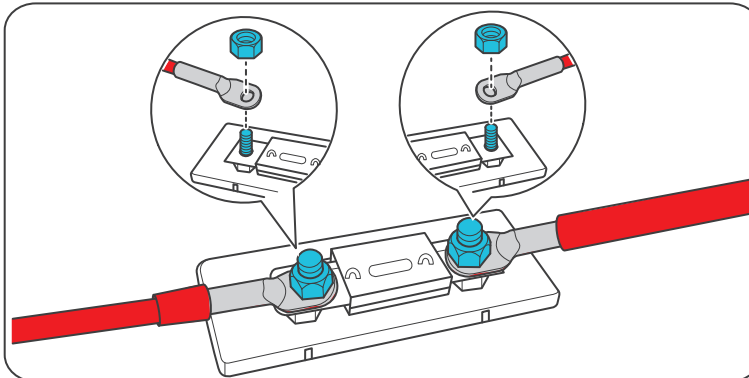
8AWG 8 ft  
Tray Cables

60A  
ANL  
Fuse

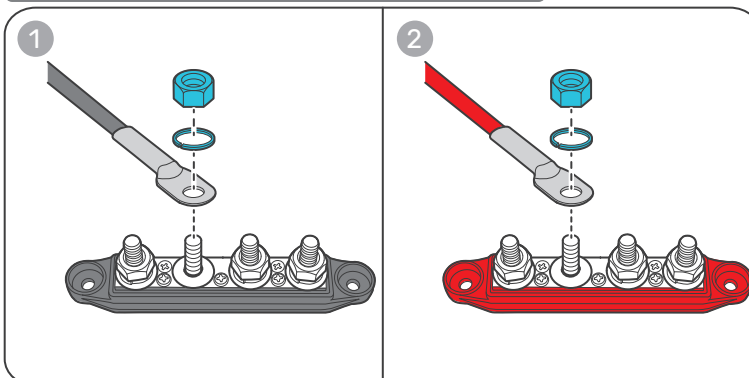
8AWG 2 ft  
ANL Fuse  
Cable

Busbar Pair

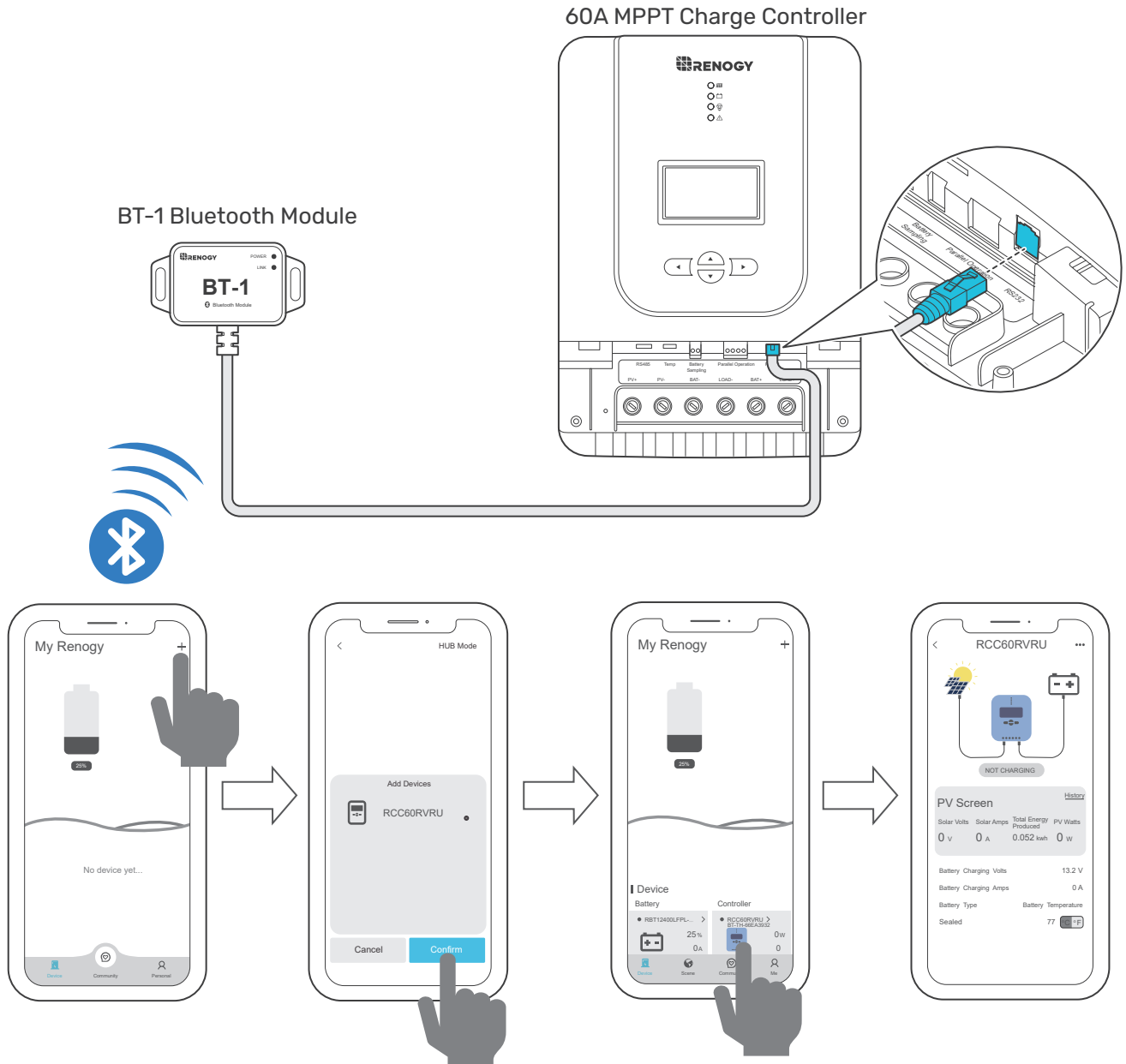
### STEP-2 Install a 60A ANL fuse



### STEP-3 Install the cables on the busbar pair.



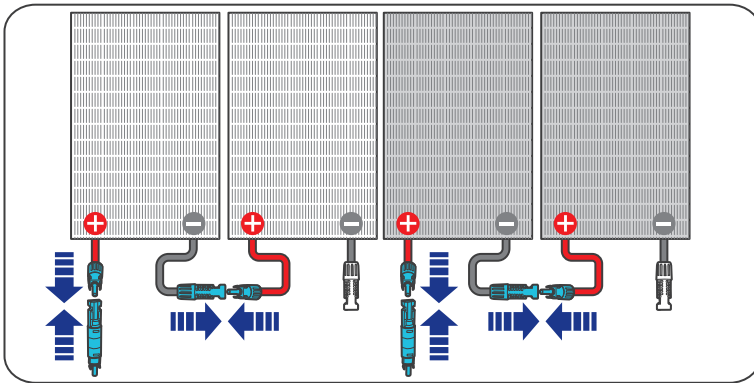
### Step 3. Connect the Bluetooth Module to the Charge Controller



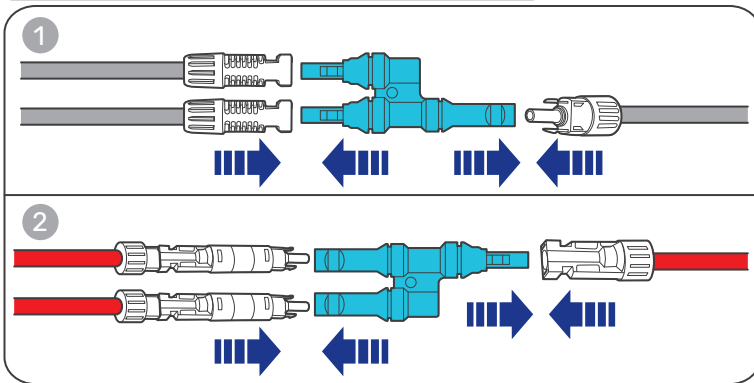


# Step 4. Connect the Solar Panels to the Charge Controller

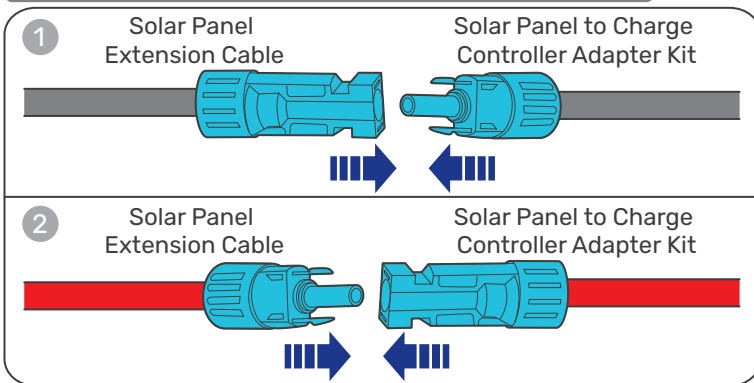
**STEP-1 Connect solar panels in series and install a fuse.**



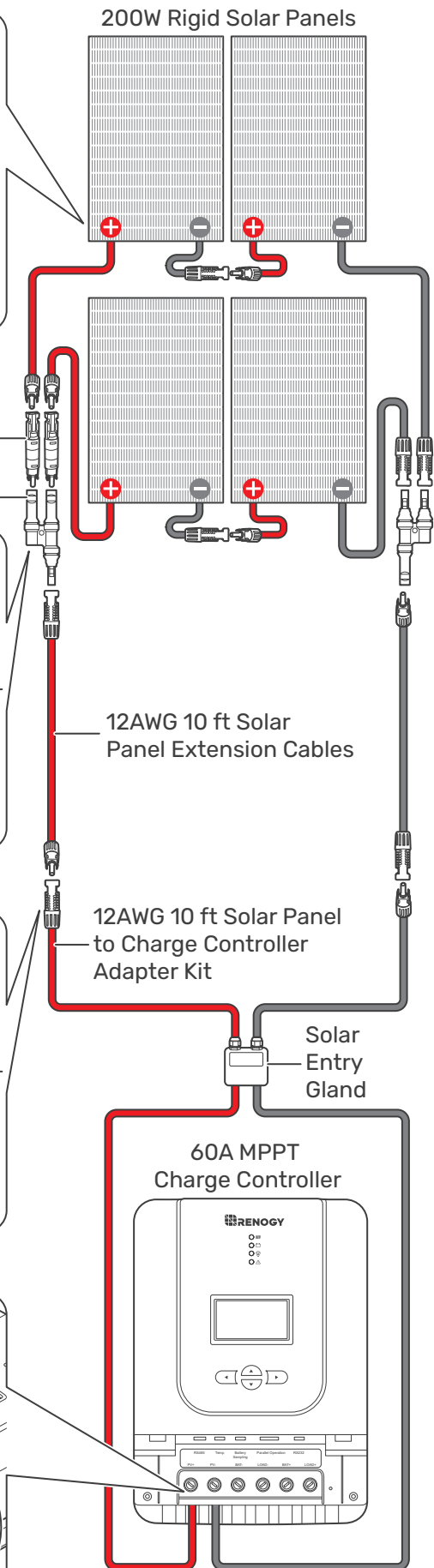
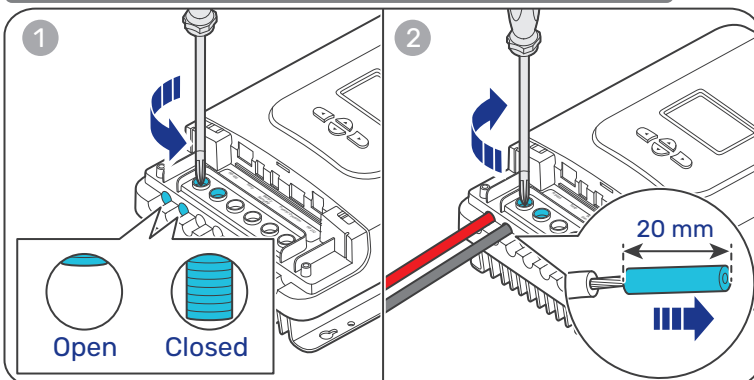
**STEP-2 Connect the solar panels in parallel.**



**STEP-3 Install connection cables and the adapter kit.**



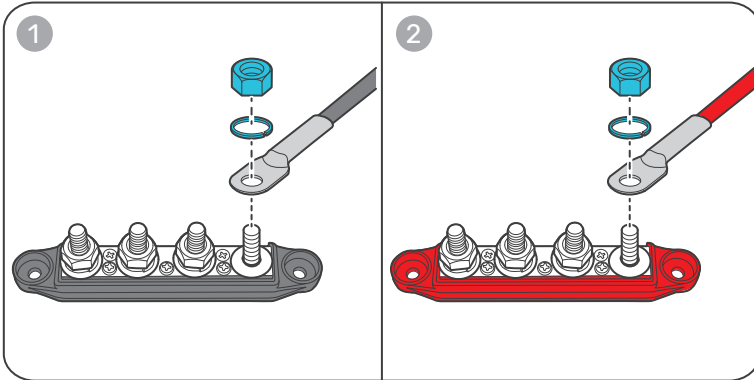
**STEP-4 Install the adapter kit on the charge controller.**



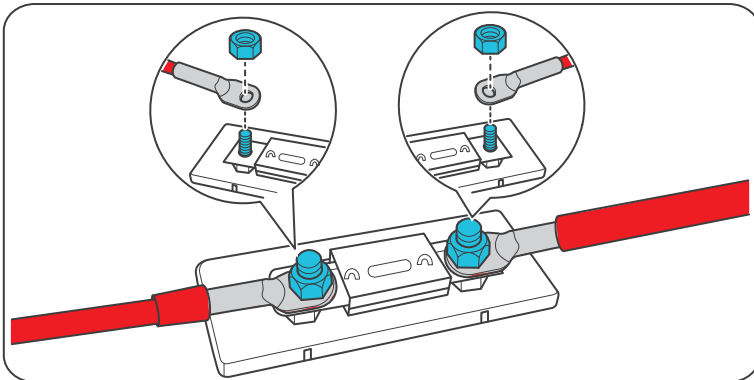
# Step 5. Install the DC-DC Battery Charger

## Output Wiring

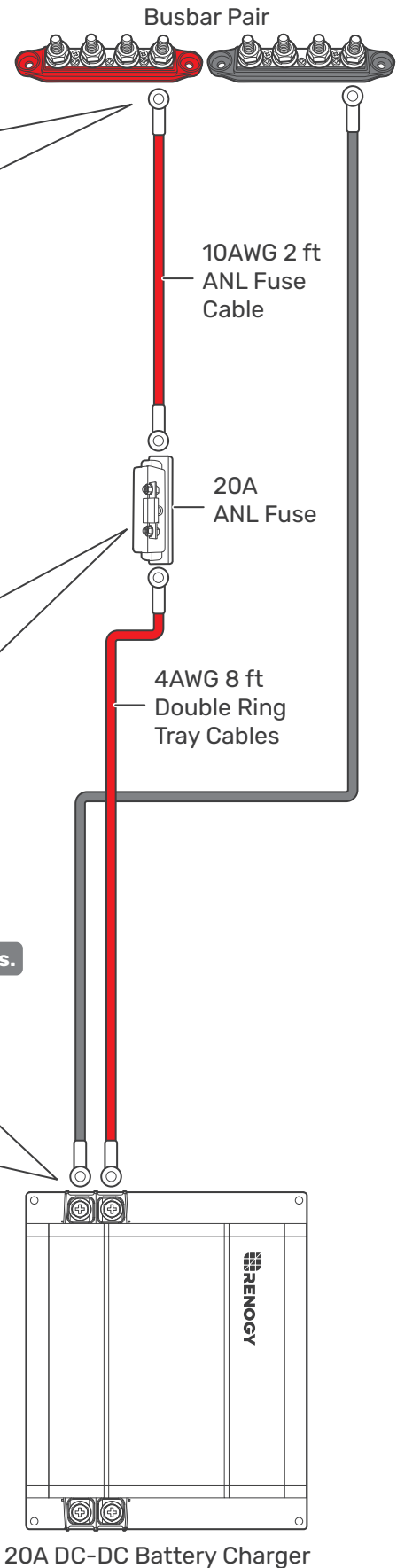
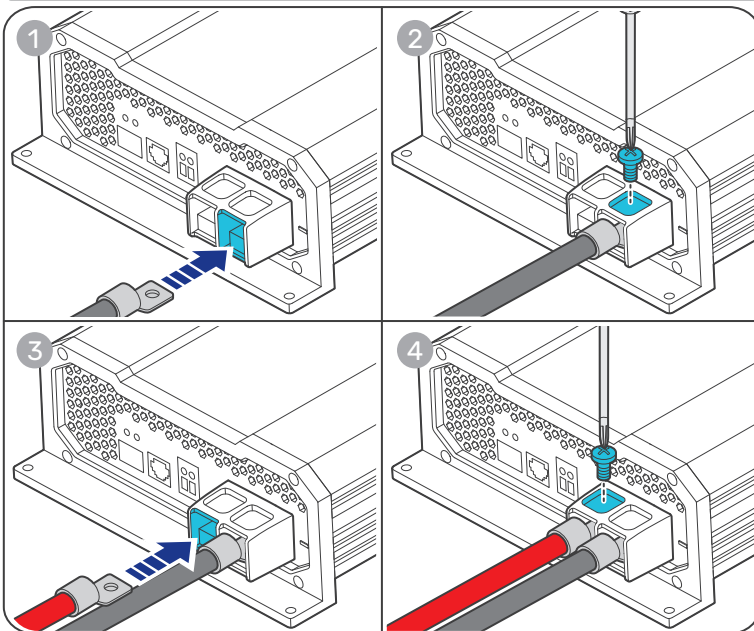
STEP-1 Install the cables on the busbar pair.



STEP-2 Install a 20A ANL fuse

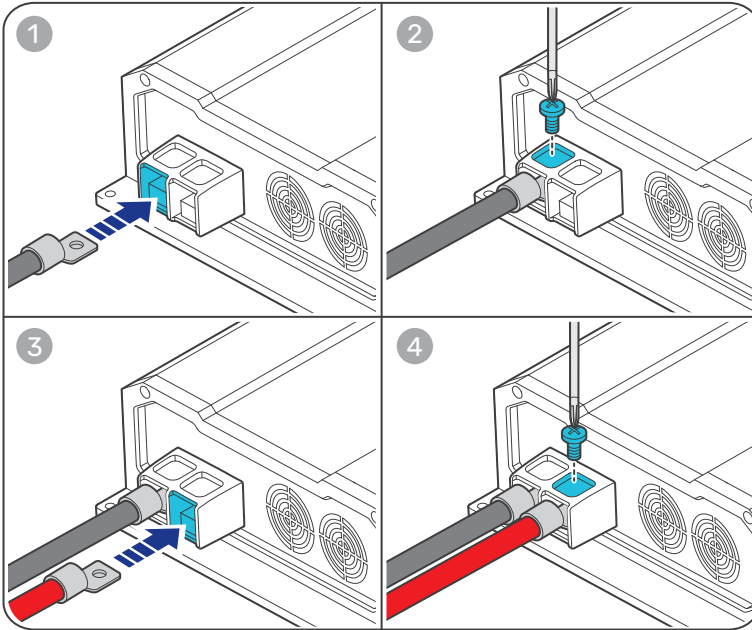


STEP-3 Install the cables on the battery charger DC output terminals.

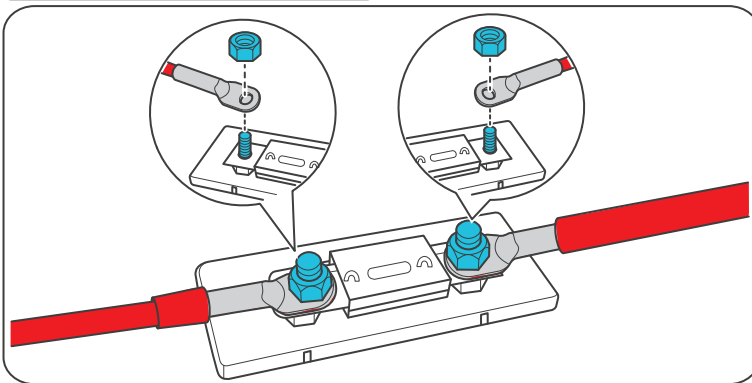


## Input Wiring

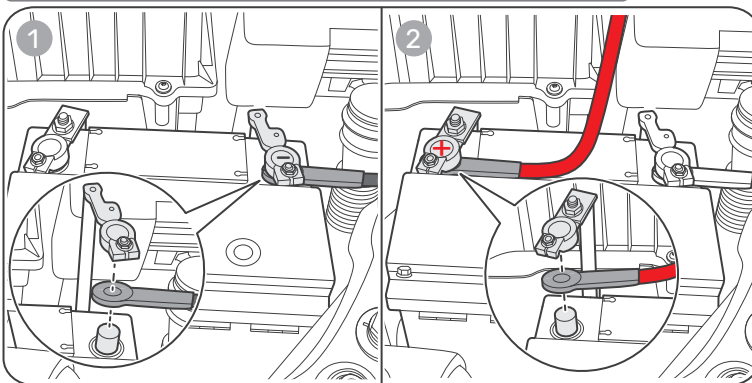
**STEP-1 Install the cables on the battery charger DC input terminals.**



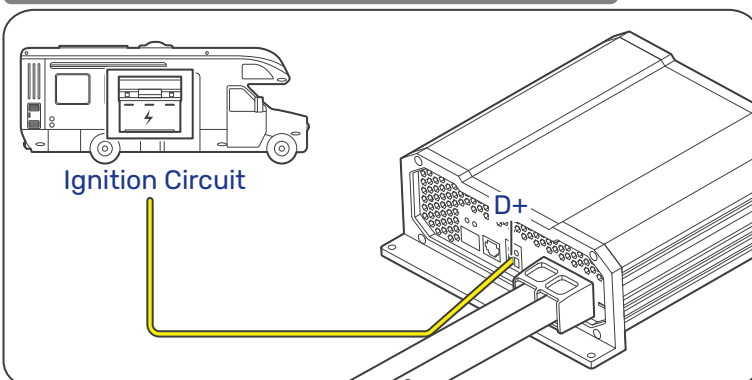
**STEP-2 Install a 30A ANL fuse**



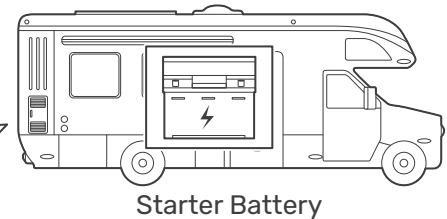
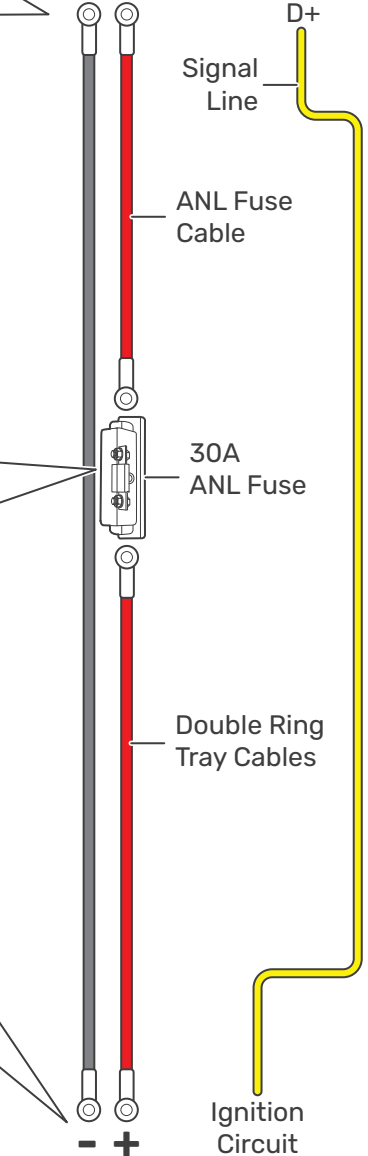
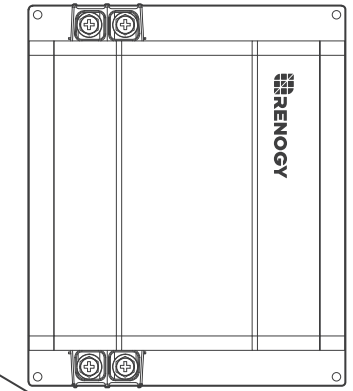
**STEP-3 Install the cables on the RV starter battery.**



**STEP-4 Install the signal line to RV ignition circuit.**



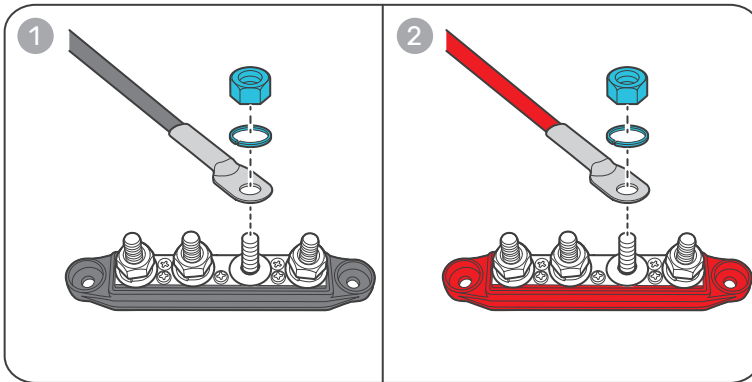
20A DC-DC Battery Charger



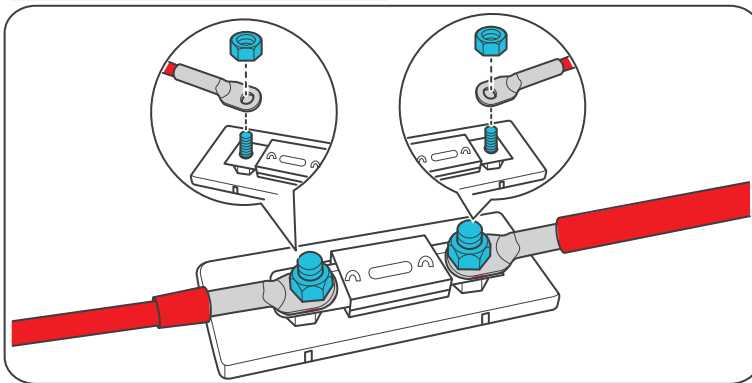


# Step 6. Install the Inverter and Loads

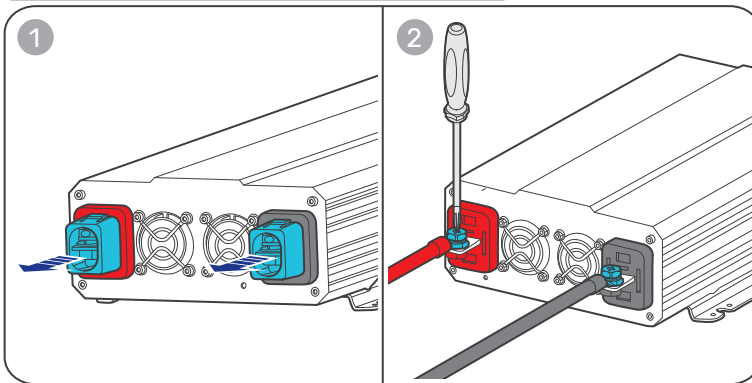
**STEP-1 Install the cables on the busbar pair.**



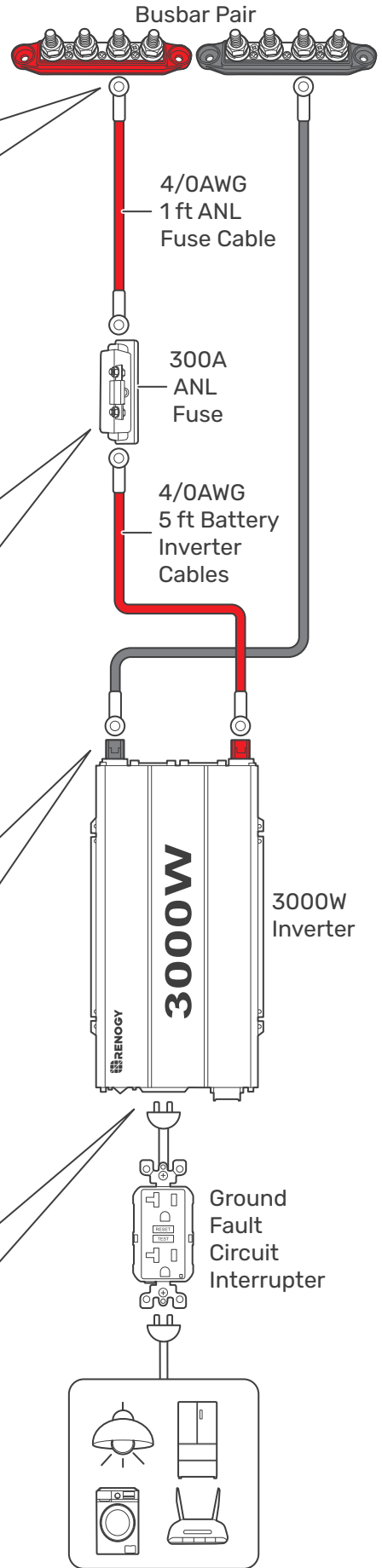
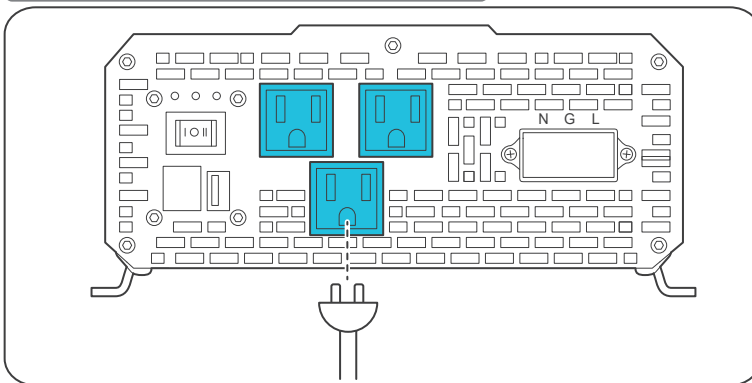
**STEP-2 Install a 300A ANL fuse**



**STEP-3 Install the cables on the inverter.**

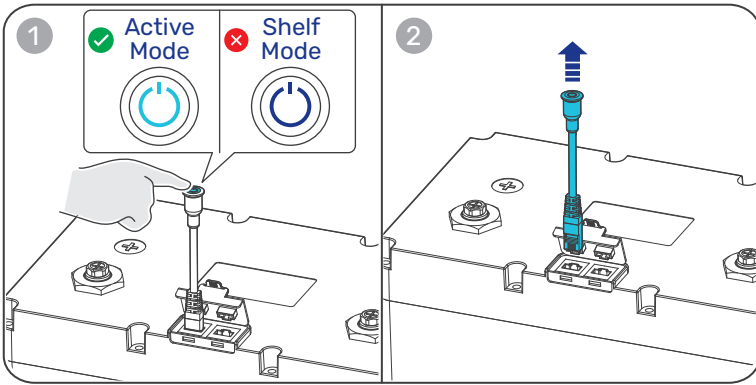


**STEP-4 Install the GFCI on the inverter.**

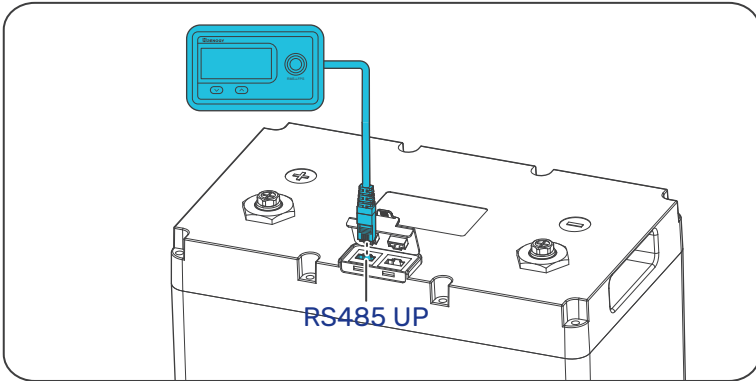


# Step 7. Communication and Monitoring Wiring

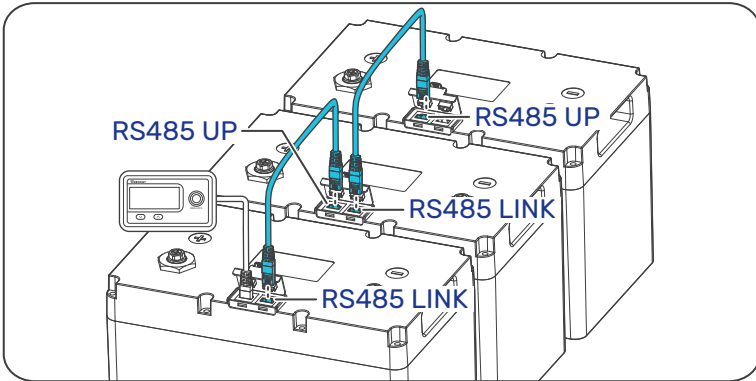
Step-1 Ensure that all batteries are in active mode.



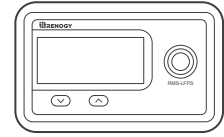
Step-2 Install the monitoring screen on the first battery.



Step-3 Install the cables on the batteries.



Monitoring Screen for Smart Lithium Battery



RJ45 to RJ45  
Lithium Battery  
Communication  
Cable

RJ45 to RJ45  
Lithium Battery  
Communication  
Cable

# Renogy Support

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To explore more possibilities of solar systems, visit Renogy Learning Center at:

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**China** |  | [www.renogy.cn](https://www.renogy.cn)

**Australia** |  | [au.renogy.com](https://au.renogy.com)

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# Safety Information

## General

- Wear proper protective equipment and use insulated tools during installation and operation. Do not wear jewelry or other metal objects when working on or around the devices.
- Keep the devices out of the reach of children.
- Do not dispose of the devices as household waste. Comply with local, state, and federal laws and regulations and use recycling channels as required.
- In case of fire, put out the fire with a FM-200 or CO<sub>2</sub> fire extinguisher.
- If the devices are installed improperly on a boat, it may cause damage to components of the boat. Have the devices by a qualified electrician.
- Do not expose the devices to flammable or harsh chemicals or vapors.
- Clean the devices regularly.
- Do not puncture, drop, crush, penetrate, shake, strike, or step on the devices.
- Do not open, disassemble, repair, tamper with, or modify the devices.

## Battery Safety

- Do not use batteries if there is any damage.
- Do not touch the exposed electrolyte or powder if the battery is damaged.
- Risk of explosion! Never install the charge controller, battery charger, and inverter in a sealed enclosure with flooded batteries! Do not install the charge controller, battery charger, and inverter in a confined area where battery gases can accumulate.
- Prior to installing the devices, ensure all battery groups are installed properly.

## Charge Controller, Battery Charger, and Inverter Safety

- Install the devices indoors on a vertical surface - protected from direct sunlight, high temperatures, water. Make sure there is good ventilation.
- Keep the devices away from heating equipment.
- Do not insert foreign objects into the devices.
- Confirm the polarities of the devices before connection. A reverse polarity contact can result in damage to the devices, thus voiding the warranty.
- Do not touch the connector contacts while the devices are in operation.
- Disconnect all connectors from the devices before maintenance or cleaning.
- Ensure the inverter is firmly grounded to a building, vehicle, or earth grounded. Keep the inverter away from EMI receptors such as TVs, radios, and other audio/visual electronics to prevent damage / interference to the equipment.

## Solar Panel Safety

- Do not install the solar panel on a surface constructed from combustible material.
- Do not expose the solar panel to direct flame or heat sources.
- Keep the solar panel away from explosives and corrosive substances.
- Do not step, walk, stand or jump on the solar panel. Localized heavy loads may cause damage to the solar cells, which will ultimately compromise the performance of the solar panel.
- Do not bend the solar panel. Bending the solar panel will cause damage to the cells and affect panel performance.
- Do not immerse the solar panel in water.



## Renogy Empowered

Renogy aims to empower people around the world through education and distribution of DIY-friendly renewable energy solutions.

We intend to be a driving force for sustainable living and energy independence.

In support of this effort, our range of solar products makes it possible for you to minimize your carbon footprint by reducing the need for grid power.



## Live Sustainably with Renogy

Did you know? In a given month, a 1kW solar energy system will...



Save 170 pounds of coal from being burned



Save 300 pounds of CO<sub>2</sub> from being released into the atmosphere



Save 105 gallons of water from being consumed



## Renogy Power PLUS

Renogy Power Plus allows you to stay in the loop with upcoming solar energy innovations, share your experiences with your solar energy journey, and connect with like-minded people who are changing the world in the Renogy Power Plus community.



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