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

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.

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.

Disclaimer

Renogy Solar 800W 3.84kWh Extension Solution Quick Guide © 2023 Renogy. All rights reserved.

RENOGY and RENOGY are registered trademarks of Renogy.

- All information in the quick guide is subject to copyright and other intellectual property rights of Renogy and its licensors. The quick guide may not be modified, reproduced, or copied, in whole or in part, without the prior written permissions of Renogy and its licensors.
- The registered trademarks in the quick guide are the property of Renogy. The unauthorized use of the trademarks is strictly prohibited.

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

Download on the Google Play
Download on the App Store
1. **System Wiring**

![System Wiring Diagram]

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

**Battery**
- 100Ah Lithium Battery × 3
- 4AWG 1 ft Battery Interconnect Cables × 4
- 4/0AWG 5 ft Battery Cables (Battery to Busbar) × 1

**Charge Controller**
- 60A MPPT Charge Controller × 1
- 8AWG 8 ft Tray Cables (Controller to Busbar) × 1
- Renogy BT-1 Bluetooth Module (New Version) × 1
- 8AWG 2 ft ANL Fuse Cable (60A Fuse to Busbar) × 1
- 60A ANL Fuse × 1
### Solar Panels

- **200W Rigid Solar Panel** × 4
- **Solar Panel Mounting Z Bracket** × 4
- **15A Solar Connector Fuse** × 2
- **12AWG 10 ft Solar Panel Extension Cables** × 2
- **Solar Entry Gland** × 1
- **12AWG 10 ft Solar Panel to Charge Controller Adapter Kit** × 1
- **Solar Branch Connector (MMF + FFM Pair)** × 1

### DC-DC Battery Charger

- **20A DC-DC Battery Charger** × 1
- **4AWG 8 ft Double Ring Tray Cables (DC-DC - Busbar)** × 1
- **10AWG 2 ft ANL Fuse Cable** × 1
- **30A ANL Fuse Set w/Fuse (input)** × 1
- **20A ANL Fuse Set w/Fuse (output)** × 1
**Inverter**

3000W Inverter × 1

300A ANL Fuse × 1

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

1. Mount the Z Bracket
2. Install the screws
3. Tighten the screws
4. Attach the Solar Panel

8-12 N·m
5. How to Install the Solar Entry Gland

1. Drill holes in the RV roof.
2. 12AWG 10 ft Solar Panel to Charge Controller Adapter Kit
3. Run the Adapter Kit through the holes.
4. Apply MS adhesive to the entry gland.
5. Do not move the entry gland before the MS adhesive is fully dry.

Solar Entry Gland
Step 1. **Connect the Batteries in Parallel**

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

1. RS485 UP
2. 100Ah Lithium Batteries
3. 4AWG 1 ft Battery Interconnect Cables

**Step-2 Connect the batteries in parallel.**

1. 10 N·m
2. 10 N·m

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

1. 10 N·m
2. 10 N·m

**STEP-4 Install the cables on the busbar pair.**

1. Busbar Pair
2. 4/0AWG 5 ft Battery Cables
Step 2. Connect the Charge Controller to the Batteries

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

1. Connect the Charge Controller to the Batteries
   - RS485 Temp Battery Sampling
   - Parallel Operation RS232
   - LOAD+ LOAD- BAT+ BAT-PV-PV+
   - 60A ANL Fuse
   - 8AWG 2 ft ANL Fuse Cable

2. Open Closed
   - 20 mm

3. STEP-2 Install a 60A ANL fuse

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

1. Install the cables on the charge controller.
2. Install a 60A ANL fuse
3. Install the cables on the busbar pair.

60A MPPT Charge Controller

8AWG 8 ft Tray Cables

60A ANL Fuse

8AWG 2 ft ANL Fuse Cable

Busbar Pair
Step 3. Connect the Bluetooth Module to the Charge Controller

60A MPPT Charge Controller

BT-1 Bluetooth Module

My Renogy

Add Devices

PV Screen

NOT CHARGING

NOT CHARGING
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.**

1. ![Busbar Pair](image1)
2. ![Busbar Pair](image2)

**STEP-2 Install a 20A ANL fuse**

1. ![ANL Fuse cable](image3)
2. ![ANL Fuse tray cables](image4)

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

1. ![Battery charger output terminals](image5)
2. ![Battery charger output terminals](image6)
3. ![Battery charger output terminals](image7)
4. ![Battery charger output terminals](image8)
**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.
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.
Renogy Support

To discuss inaccuracies or omissions in this quick guide or user manual, visit or contact us at:

 renogy.com/support/downloads  contentservice@renogy.com

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

 renogy.com/learning-center

For technical questions about your product in the U.S., contact the Renogy technical support team through:

 renogy.com/contact-us  1(909)2877111

For technical support outside the U.S., visit the local website below:

 Canada  ca.renogy.com  China  www.renogy.cn
 Australia  au.renogy.com  Japan  renogy.jp
 South Korea  kr.renogy.com  Germany  de.renogy.com
 United Kingdom  uk.renogy.com  Other Europe  eu.renogy.com
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$_2$ 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 band 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 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.

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 CO₂ from being released into the atmosphere
- Save 105 gallons of water from being consumed

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.

Renogy reserves the right to change the contents of this quick guide without notice.