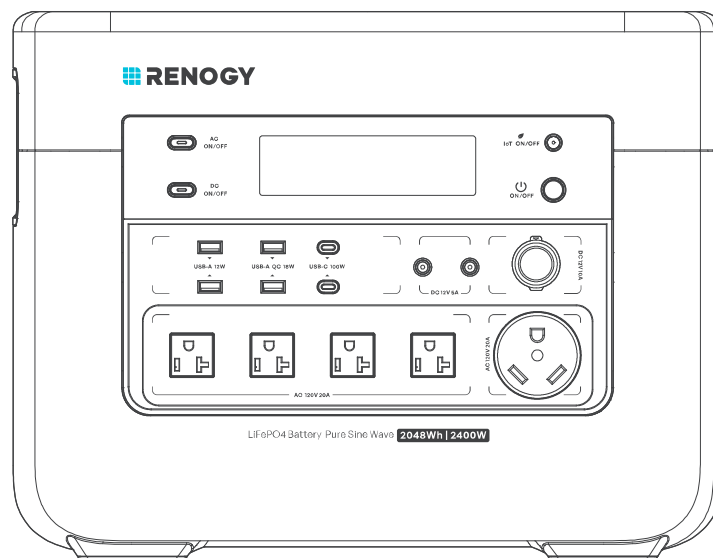


Renogy Power Station 2000

RPS2024AA-PCS

VERSION A1
May 18, 2026



USER MANUAL

Before Getting Started

The user manual provides important operation and maintenance instructions for Renogy Power Station 2000 (hereinafter referred to as power station).

Read the user manual carefully before operation and save it for future reference. Failure to observe the instructions or precautions in the user manual can result in electrical shock, serious injury, or death, or can damage the power station, potentially rendering it inoperable.

- Renogy ensures the accuracy, sufficiency, and the applicability of information in the 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 user manual.
- Renogy is not responsible or liable for failures, damages, or injuries resulting from repair attempted by unqualified personnel, improper installation and operation.
- The illustrations in the user manual 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 user manual without notice. For the latest user manual, visit renogy.com.

Disclaimer

Renogy Power Station 2000 User Manual © 2026 Renogy. All rights reserved.

RENOGY and **RENOGY** are registered trademarks of Renogy.

- All information in the user manual is subject to copyright and other intellectual property rights of Renogy and its licensors. The user manual 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 user manual are the property of Renogy. The unauthorized use of the trademarks is strictly prohibited.

Online User Manual

Visit your local Renogy website to view the complete user manual.



Table of Contents

Before Getting Started	01
Disclaimer	01
Online User Manual.....	01
Table of Contents.....	02
1. General Information	04
1.1. Symbols Used	04
1.2. Symbols on Product	04
2. Get to Know Power Station	04
2.1. What's In the Box?	04
2.2. Environmental Conditions.....	05
2.3. Product Overview.....	05
3. Turning On/Off & Monitor	06
3.1. Turning On/Off.....	06
3.2. Monitor	06
4. Charging	06
4.1. How to Charge by Solar Panels	06
4.2. How to Charge by AC Power.....	07
4.3. How to Charge by Car	07
5. How to Power Your Devices	07
5.1. USB Devices.....	07
5.2. DC Devices.....	08
5.3. AC Devices.....	08
5.4. Standby Power Supply (EPS)	10
6. Parallel Connection	10
7. Operation	11
7.1. LCD Display	11
7.2. Protection	11
8. Specifications.....	12
9. Maintenance & Storage.....	13
9.1. Inspection.....	13
9.2. Cleaning	13
9.3. Storage.....	13

10. Important Safety Instructions..... 14

10.1. General Safety Information 14

10.2. Power Station Safety..... 14

10.3. Charging Safety 14

10.4. Discharging Safety 14

10.5. Solar Charging Safety 15

Renogy Support..... 15

Warranty Statement..... 16

1. General Information

1.1. Symbols Used

The following symbols are used throughout the user manual to highlight important information.

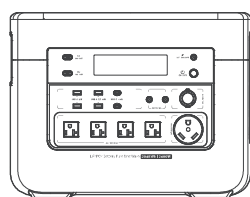
-  **WARNING:** Indicates a potentially dangerous condition which could result in injury or death.
-  **CAUTION:** Indicates a critical procedure for safe and proper installation and operation.
-  **NOTE:** Indicates an important step or tip for optimal performance.

1.2. Symbols on Product

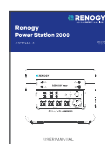
Symbol	Description	Symbol	Description
	Read and understand the instruction manual before use.		For indoor use only
	Materials used are recyclable.		Do not dispose of battery together with household waste.
	Product complies with FCC requirements.		Passed safety standard tests.
	Battery complies with UN 38.3 transport test.		

2. Get to Know Power Station

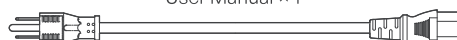
2.1. What's In the Box?



Power Station × 1



User Manual × 1



AC Power Cable × 1



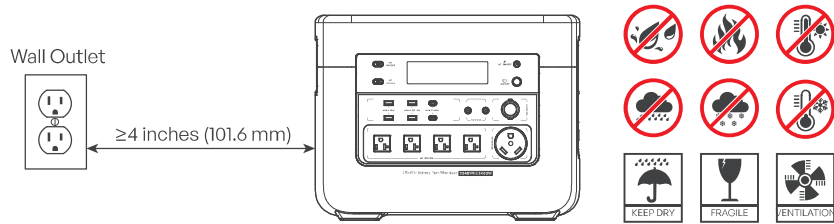
Car Charge Cable × 1

-  Make sure that all accessories are complete and free of any signs of damage.

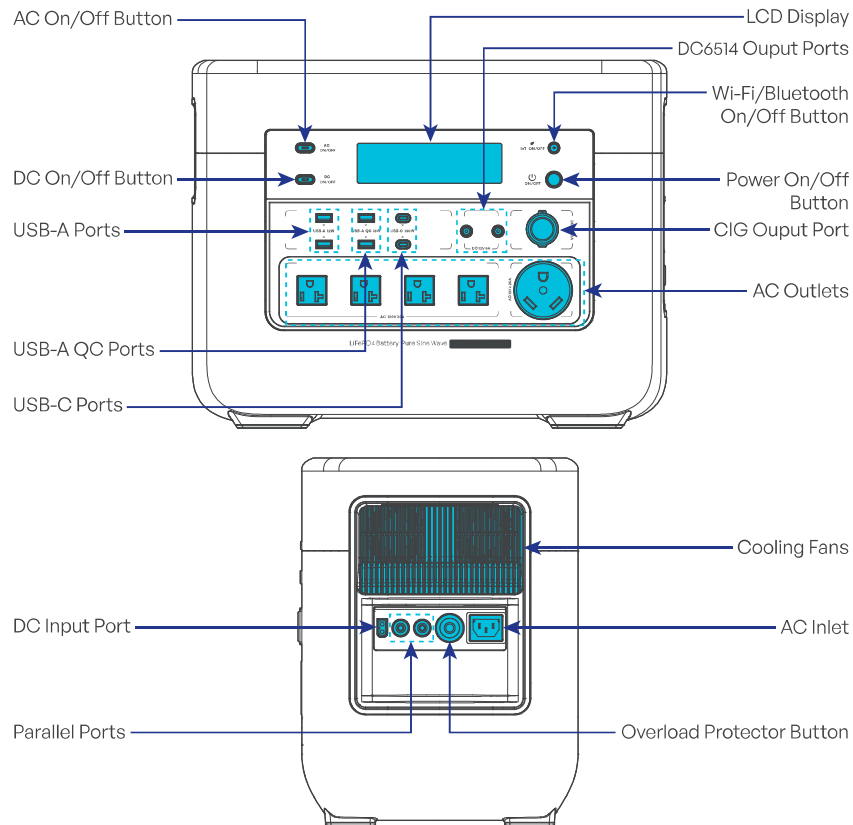
2.2. Environmental Conditions

Charging Ambient temperature: 32°F to 104°F / 0°C to 40°C

Discharging Ambient temperature: 14°F~104°F / -10 to 40°C



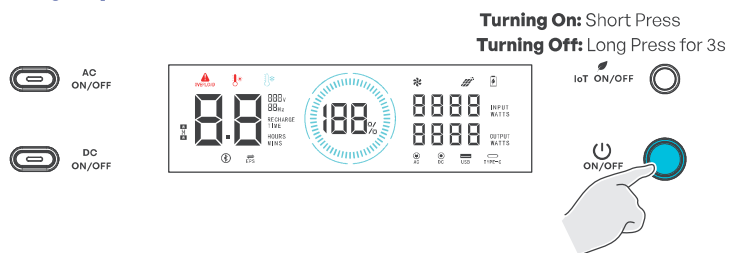
2.3. Product Overview



i When the internal temperature of the power station is below 71.6°F/22°C, the fan will not operate. It will only start working when the temperature exceeds this threshold, and the fan speed will automatically adjust according to the temperature changes.

3. Turning On/Off & Monitor

3.1. Turning On/Off

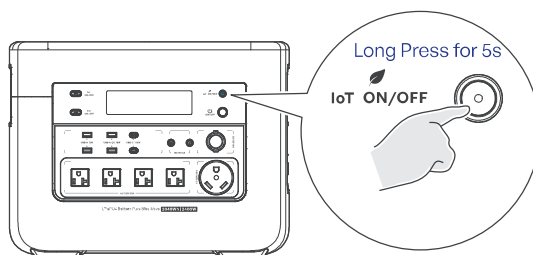


3.2. Monitor

Scan the QR code to download the app. Turn on your phone's Bluetooth and follow the in-app instructions to add the power station. Before adding, press and hold the Wi-Fi/Bluetooth On/Off button for 5 seconds.

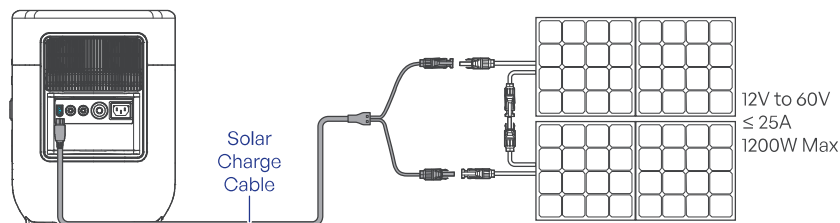
You can also connect the power station to Wi-Fi from within the app. Before connection, press and hold the Wi-Fi/Bluetooth On/Off button for 5 seconds.

The power station only connects to the 2.4GHz Wi-Fi network.



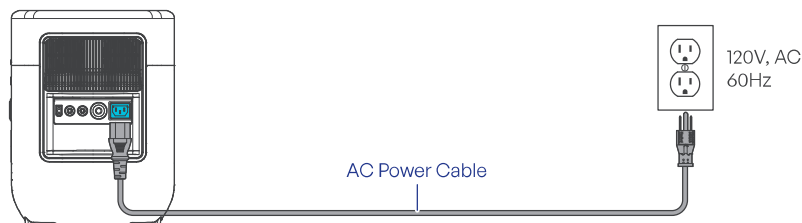
4. Charging

4.1. How to Charge by Solar Panels



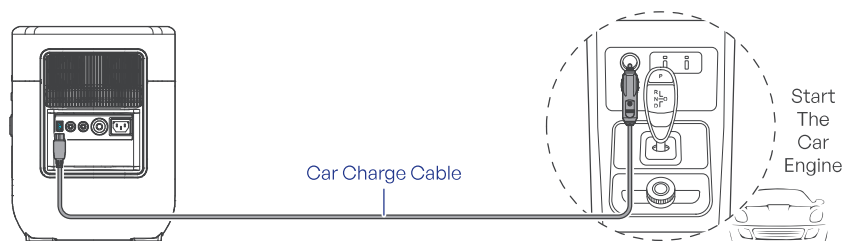
The solar charge cable is not included and must be provided by the user.

4.2. How to Charge by AC Power



i The maximum charging current is 14.5A ($\pm 0.5A$). It takes approximately 90 minutes to fully charge from 0% to 100%.

4.3. How to Charge by Car



i The maximum charging current is 8.5A. It takes approximately 20.5 hours to fully charge from 0% to 100%.

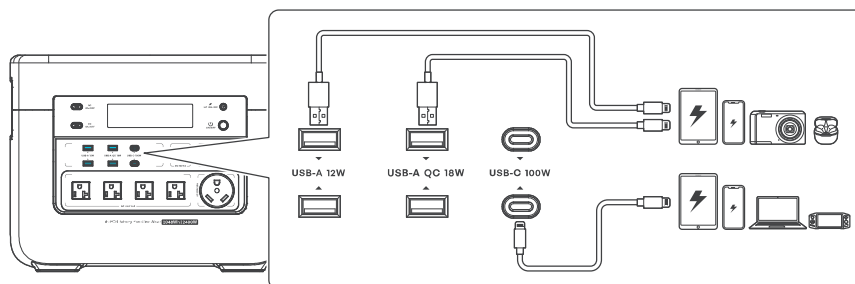
5. How to Power Your Devices

The power station can provide up to 2400W of AC output power and 380W of DC output power.

5.1. USB Devices

To get up to 18W output power from the USB-A QC Ports, the USB device must support the Quick Charge (QC) standard. Otherwise, you can only get a maximum output power of 12W, the same as the USB-A ports.

To get up to 100W output power from the USB-C Port, the USB device must support the Power Delivery (PD) standard.



- ⓘ Ensure the USB load power does not exceed the maximum output power of the USB port. When exceeded, overload protection will be automatically triggered and power supply will stop. Remove the load and power will resume.

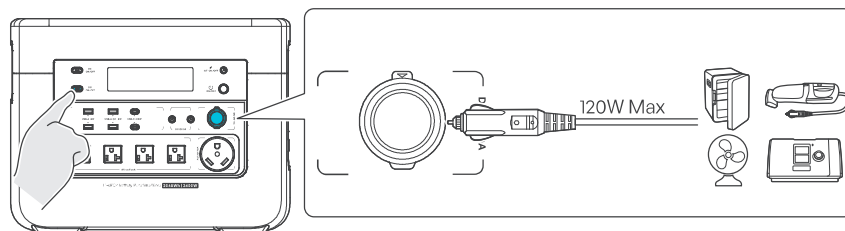
5.2. DC Devices

When using the CIG output port or DC6514 output ports individually, each port supports a maximum output power of 120W. When the CIG port and the DC6514 output ports are used simultaneously, they will share a maximum output power of 120W.

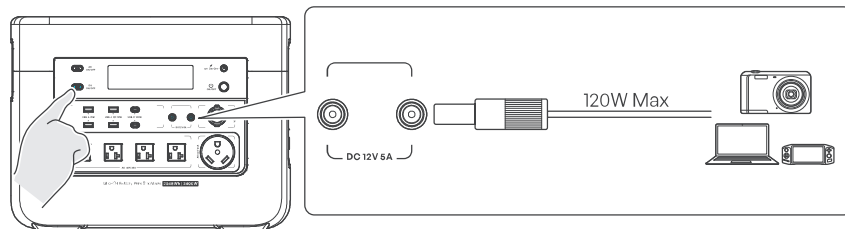
- ⓘ Ensure the total DC load power does not exceed 120W. When exceeded, overload protection will be automatically triggered and power supply will stop. Remove the load and press the Overload Protector Button to restore power.

Press the DC On/Off Button to turn on/off the DC output power.

■ Car-Powered Devices



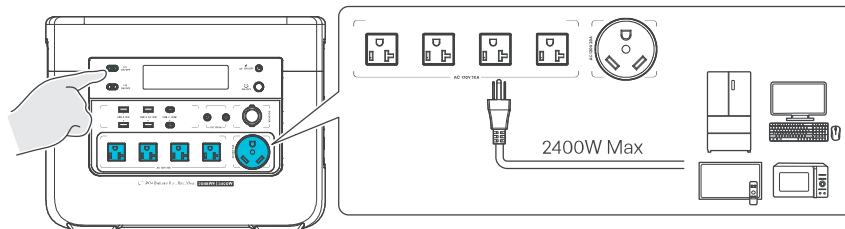
■ DC6514 Devices



5.3. AC Devices

Each AC outlet can deliver up to 2400W of output power, while all AC outlets share a total maximum output power of 2400W.

Press the AC On/Off Button to turn on/off the AC output power.



- i** If the power station is not connected to grid power (AC), when the battery level drops to 5%, it will automatically turn off the AC output.
- i** For inductive loads with a starting power exceeding 4800W, the power station cannot provide sufficient starting current.

The power station features overload protection. Note: To ensure the power station can start inductive loads with high starting power, a constant power mode is implemented internally. In this mode, the output voltage is reduced to increase the current.

- **When using a single power station:**

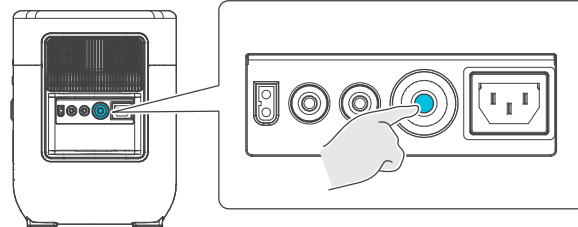
If the output power exceeds the rated power by less than 1.5 times, the unit will enter constant power mode. If the output power exceeds the rated power by 1.5 times or more, short circuit protection is triggered and all AC outputs are shut down. In that case, remove the excess load and restart the power station. If power is not restored, manually press the Overload Protector Button to reset.

- i** When the power station is connected to grid power (AC), the constant power function is not available.
- !** Do not keep the power station in constant power mode for extended periods, as this will generate excessive heat, which not only shortens the lifespan of the power station but also poses significant safety risks.

- **When paralleling multiple power stations:**

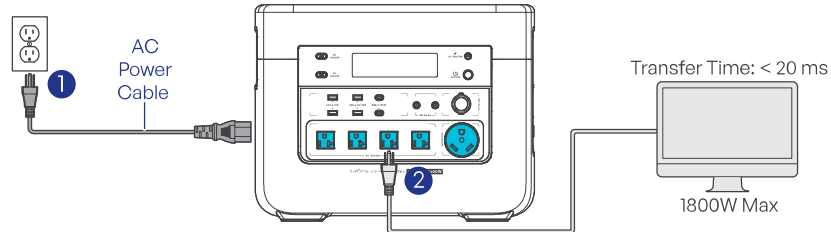
If the output power exceeds the rated power by 1.1 times or more, short circuit protection is triggered and all AC outputs are shut down. In that case, remove the excess load and restart the power stations. If power is not restored, manually press the Overload Protector Button to reset.

- i** The constant power function is not available when power stations are paralleled.



5.4. Standby Power Supply (EPS)

The power station can work as a EPS to deliver emergency AC power to devices during a power outage.



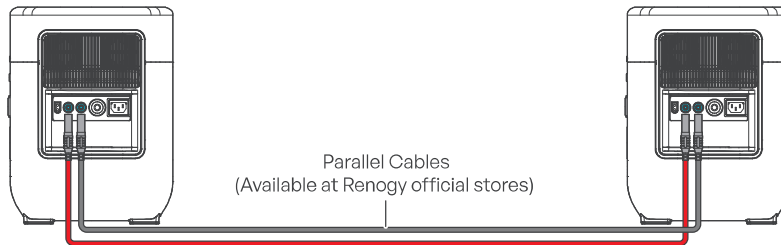
⚠ Do not connect AC devices that require a transfer time less than 20ms (such as data servers and workstations) to the power station for uninterrupted AC power. Please check the holdup time of the power supply units (PSU) in the AC devices to confirm the compatibility.

6. Parallel Connection

Allows parallel connection of two power stations, providing 4096Wh capacity and 2400W AC output.

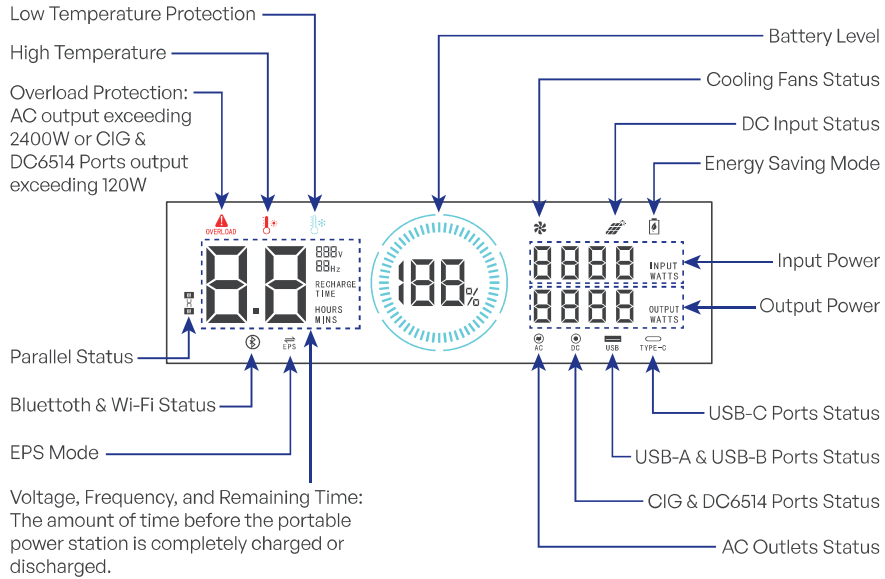
Please follow the steps below to connect in parallel:

1. Turn off the AC output of both power stations using the AC On/Off Button.
2. Insert the parallel connection cable (purchased separately) into the negative terminal of the Parallel Ports on both power stations. Connect the positive terminal in the same manner.
3. Press the AC On/Off Button to turn on the AC output of both power stations.
4. Press and hold the AC On/Off Button on both power stations simultaneously until the parallel connection icon appears on the LCD Display, indicating that parallel connection is complete.



7. Operation

7.1. LCD Display



7.2. Protection

Operating Status		Condition (For Reference Only)	
Cell Overvoltage	Protection	Trigger	Cell Voltage $\geq 3.65V$ (2s)
		Recover	Cell Voltage $\leq 3.6V$ (2s)
Cell Undervoltage	Protection	Trigger	Cell Voltage $\leq 2.5V$ ($> 68^{\circ}F/20^{\circ}C$, 2s) Cell Voltage $\leq 2.0V$ ($\leq 32^{\circ}F/0^{\circ}C$, 2s)
		Recover	Cell Voltage $\geq 2.6V$ ($> 68^{\circ}F/20^{\circ}C$, 2s) Cell Voltage $\geq 2.2V$ ($\leq 32^{\circ}F/0^{\circ}C$, 2s)
Cell Undervoltage Permanent Failure	Protection	Trigger	Cell Voltage $\leq 1.0V$
Cell voltage differential protection	Protection	Trigger	Cell Voltage $\geq 800mV$ (2s)
		Recover	Cell Voltage $\leq 500mV$ (2s)
Charge Overcurrent	Protection	Trigger	Charge Current $\geq 45A$ (2s)
		Recover	Charge Current $\leq 40A$ (2s) or Stop charging

Operating Status		Condition (For Reference Only)	
Discharge Overcurrent	Primary Protection	Trigger	Discharge Current $\geq 104\text{A}$ (2s)
		Recover	Remove loads after 2s
	Secondary Protection	Trigger	Discharge Current $\geq 120\text{A}$ (2s)
		Recover	Remove the loads and restart
Short Circuit	Protection	Trigger	Discharge Current $\geq 320\text{A}$ (320us)
		Recover	Remove the loads and restart
Charge Low Temperature	Protection	Trigger	Cell Temperature $\leq 33.8^{\circ}\text{F}/1^{\circ}\text{C}$
		Recover	Cell Temperature $\geq 33.8^{\circ}\text{F}/1^{\circ}\text{C}$
Charge High Temperature	Protection	Trigger	Cell Temperature $\geq 129.2^{\circ}\text{F}/54^{\circ}\text{C}$
		Recover	Cell Temperature $\leq 122^{\circ}\text{F}/50^{\circ}\text{C}$
Discharge Low Temperature	Protection	Trigger	Cell Temperature $\leq 5^{\circ}\text{F}/-15^{\circ}\text{C}$
		Recover	Cell Temperature $\geq 14^{\circ}\text{F}/-10^{\circ}\text{C}$
Discharge High Temperature	Protection	Trigger	Cell Temperature $\geq 138.2^{\circ}\text{F}/59^{\circ}\text{C}$
		Recover	Cell Temperature $\leq 129.2^{\circ}\text{F}/54^{\circ}\text{C}$
MOS/PCB high temperature protection	Protection	Trigger	Cell Temperature $\geq 221^{\circ}\text{F}/105^{\circ}\text{C}$ Automatically turn off output
		Recover	Cell Temperature $\leq 203^{\circ}\text{F}/95^{\circ}\text{C}$

8. Specifications

Battery Type	Lithium Iron Phosphate (LiFePO ₄)
Capacity	51.2V, 40Ah, 2048Wh (16S2P)
Cycle Life	3000 Cycles (0.5C, 80% DOD)
AC Input	100-120V ~ 15A Max
DC Input	12-60V DC, 25A Max, 1200W Max
AC Output (x5)	120V AC~60Hz, 20A Max, 2400W Max (Peak 4800W)
USB-A Output (x2)	5V=2.4A, 12W Max, total: 24W
USB-A QC Output (x2)	5V=3A/9V=2A/12V=1.5A, 18W Max, total: 36W
USB-C Output (x2)	5V/9V/12V/15V=3A, 20V=5A, 100W Max, total: 200W
CIG Output (x1)	12V=10A, 120W Max (CIG Output (x1) and DC6514 Output (x2) have a total maximum output power of 120W)

DC6514 Output (x2)	12V $\overline{=}$ 5A, 120W Max (CIG Output (x1) and DC6514 Output (x2) have a total maximum output power of 120W)
Dimension	17.72 x 10.46 x 13.74 in / 450 x 265.8 x 349 mm
Weight	51.81 lbs / 23.5 kg
Charging Ambient Temperature	32°F to 104°F / 0°C to 40°C
Discharge Ambient Temperature	14°F to 104°F / -10°C to 40°C
Storage Temperature	-4°F to 140°F / -20°C to 60°C Optimal: -4°F to 86°F / -20°C to 30°C
Operating Humidity	5% to 95%, RH
Operating Altitude	Less than 6562 ft / 2000 m

9. Maintenance & Storage

9.1. Inspection

For optimum performance, it is recommended to perform these tasks regularly.

- Ensure the cooling fan is not blocked and is functioning properly (noise level below 54dB at full load).
- Check the appearance of the power station to make sure it is clean and dry.
- Ensure the power station is used or stored in a clean, dry, and ventilated area.
- Make sure that the LCD Display is in normal state.
- Ensure there is no corrosion, insulation damage, or discoloration marks of overheating or burning.

 Risk of electric shock! Make sure that all power is turned off before touching the terminals on the power station.

 The power station may release toxic gases when burning. Be sure to wear a gas mask when approaching. Put out the fire with a FM-200 or CO₂ fire extinguisher. If pungent gases are inhaled, leave the contaminated area immediately and seek medical attention.

9.2. Cleaning

Follow the steps below to clean the power station regularly.

- Remove all the connections from the power station and turn off the power station.
- Clean the casing of the power station with a soft dry cloth.
- Turn the power station back on and reconnect the devices to the power station.

9.3. Storage

- Charge the power station to 60%.
- Remove all the connections from the power station and turn off the power station.
- Store the power station in a well ventilated, dry, clean area with temperatures between -4°F (-20°C) and 140°F (60°C) and humidity between 5% and 95%.
- For long term storage, discharge the power station to 0% and charge it to 60% every 3 months.
- Fully charge the power station before using it again.



Handle the power station carefully to avoid sharp impacts or extreme pressure on the casing of the power station.

10. Important Safety Instructions

10.1. General Safety Information

- Keep the power station out of the reach of children.
- Do not dispose of the power station as household waste. Comply with local, state, and federal laws and regulations and use recycling channels as required.
- In the event of fire, use fire extinguishers suitable for electrical equipment. Acceptable fire extinguishers include an FM-200 or CO₂ fire extinguisher.
- Do not expose the power station to flammable or harsh chemicals or vapors.

10.2. Power Station Safety

- Do not puncture, drop, crush, penetrate, shake, strike, or step on the power station.
- Do not open, dismantle, repair, tamper with, or modify the power station.
- Do not insert foreign objects into the power station.
- Do not immerse the power station in water or leave it out in the rain.
- Do not expose the power station to direct flame.
- Keep the power station away from flammable or combustible materials.
- Keep the power station away from heating equipment.
- Ensure that there is no water source including downspouts, sprinklers, or faucets above or near the power station.
- Ensure that snow does not accumulate around the power station.
- Risk of explosion! When being charged, the power station may give off noxious or explosive gas. Make sure there is good ventilation.
- Do not expose the power station to strong electrostatic fields, strong magnetic fields, or radiation.
- Do not lean on, stack anything on top of, or hang anything from the power station or from cables leading to the power station.
- Do not touch the exposed electrolyte or powder if the power station is damaged.
- Please inspect the power station before each use. Stop using the power station if any visible damages including cracks, dents, and deformation or abnormalities including unusual smells and heating are observed.

10.3. Charging Safety

- The device parameters used to charge the power station must comply with the requirements specified in this manual; otherwise, damage to the power station may occur.
- Do not use damaged accessories to charge the power station as it might cause electric shock.
- Do not charge the power station immediately after a long heavy run.
- The power station turns on automatically once it detects the charging source(s).
- To prevent car battery overdischarge, charge the power station while the car engine is started.
- Do not charge the power station at high temperatures or low temperatures. The recommended charge temperature range is between 32°F to 104°F / 0°C to 40°C.

10.4. Discharging Safety

- Please charge the power station immediately when the battery level drops below 5% to prevent overdischarge.

- Do not discharge the power station at high temperatures or low temperatures. The recommended discharge temperature range is between 14°F to 104°F / -10°C to 40°C.
- To extend the cycle life, please fully charge the power station before each use.
- Do not use the power station with life support equipment or other medical equipment.

10.5. Solar Charging Safety

- Do not use damaged solar panels.
- Place a solar panel (sold separately) under direct sunlight. Steer clear of objects that can shade the solar panel and slow down the charging process.
- For optimal charging performance, it is recommended to charge the power station with the solar panel array on bright sunny days free of clouds.

Renogy Support

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

 contentservice@renogy.com



Questionnaire Investigation



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:

 support@renogy.com

 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 |  | jp.renogy.com

Spain |  | es.renogy.com

France |  | fr.renogy.com

Germany |  | de.renogy.com

Italy |  | it.renogy.com

Netherlands |  | nl.renogy.com

United Kingdom |  | uk.renogy.com

Other Europe |  | eu.renogy.com

Join Our Facebook Community Today. Scan the QR code to connect with like-minded people and Renogy engineers. You will get:

- Priority access to our latest launches & special events
- Insider Q&A sessions with our engineers
- Endless solar project ideas & sources



Warranty Statement

For full warranty terms and conditions, visit the Warranty page of the RENOGY website at https://cdn.shopify.com/s/files/1/0631/0137/0483/files/RNG-4-243_Limited_warranty_A7_ALL_3910a2ea-f700-40f0-bfcd-daef5aaed0d7.pdf?v=1760930030.

Australia

RNG AU PTY LTD
3/11 David St, Dandenong VIC 3175, Australia
Tel: 1800 560 588

North America

RNG International Inc.
5050 S Archibald Ave, Ontario, CA 91762, USA
Tel: +1 (909) 287 7111

FCC Compliance Statement

This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

FCC ID : 2ANPB-RPS2024AAPCS

Contain FCC ID:2ANDL-CBU

—Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

—This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

—Reorient or relocate the receiving antenna.

MPE caution (if a FCC certified RF module is inserted in & the separation distance is indicated in the FCC grant of RF module)

—To satisfy FCC / IC RF exposure requirements, a separation distance of 20 cm or more should be maintained between the antenna of this device and persons during device operation.

—To ensure compliance, operations at closer than this distance is not recommended.

Modification Warning

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.



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 1 kW 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

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 Solar



@renogyofficial



@Renogy

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



RENOGY.COM

 **RENOGY**

53 mm

158.94 mm

138.53 mm

90 (DJG-158)

DUCAR
POWER WITH VISION

45.39 mm

53.05 mm

G1 **ENERGY STATION 3600W**
max

20.75 mm

167.44 mm