

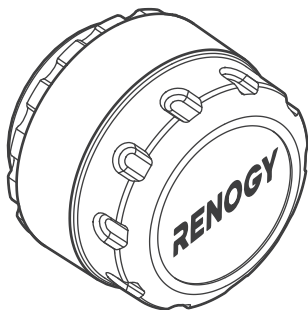


RENOGY

Tyre Pressure Monitoring Sensor (TPMS)

RSHTPMS2-BT-G1 / RSHTPMS4-BT-G1

VERSION A2
November 7, 2025



USER MANUAL

Before Getting Started

The user manual provides important operation and maintenance instructions for Renogy Tyre Pressure Monitoring Sensor (hereinafter referred to as TPMS or sensor).

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 battery, potentially rendering it inoperable.

- Renogy ensures the accuracy, sufficiency, and the applicability of information in the user manual at the time of printing or release 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 any failure, damage, or injury resulting from repair attempts by unqualified personnel, improper installation, or inappropriate 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](https://www.renogy.com).

Disclaimer

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Online Manual



User Manual



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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.

Introduction

Renogy Tyre Pressure Monitoring Sensor (TPMS) monitors tyre pressure and temperature for automobile tyres. Featuring a replaceable button cell battery, the sensor can be directly installed on the tyre valve. Once the sensor collects tyre pressure and temperature data, it transmits the information via the built-in Bluetooth module to a monitoring device. You can then view tyre temperature, pressure, and other details through the Renogy app (free of charge), Renogy ONE Core (sold separately), and/or Renogy ONE Vision (sold separately). The sensor also supports customizable alert thresholds for abnormal pressure/temperature and provides low-battery warnings.



WARNING- LITHIUM COIN/BUTTON CELL BATTERY

- **INGESTION HAZARD:** This product contains a lithium coin/battery cell.
- **DEATH** or serious injury can occur if swallowed.
- A swallowed button cell or coin battery can cause **INTERNAL CHEMICAL BURNS** in as little as **2 hours**.
- **KEEP** new and used batteries **OUT OF REACH of CHILDREN**.
- **Seek immediate medical attention** if a battery is suspected to be swallowed or inserted into any part of the body.



Key Features

- **Durable and Versatile Design**

Designed for passenger cars, motorcycles, and electric vehicles, the sensor offers high stability, strong anti-interference capabilities, and IP67-rated protection for reliable performance in various conditions.

- **Real-Time Monitoring and Alerts**

Simultaneously measures and monitors tyre pressure and temperature, with self-inspection and tyre leakage detection capabilities to ensure safety.

- **Compact and Replaceable Power Source**

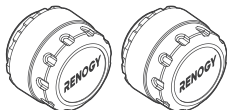
Lightweight and compact with a replaceable battery, ensuring convenience and extended usability.

SKU

Renogy Tyre Pressure Monitoring Sensor (2*TPMS)	RSHTPMS2-BT-G1
Renogy Tyre Pressure Monitoring Sensor (4*TPMS)	RSHTPMS4-BT-G1

What's In the Box?

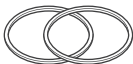
RSHTPMS2-BT-G1



Renogy Tyre Pressure
Monitoring Sensor × 2



User Manual × 1



O-Ring Seal × 2



Anti-theft Nut × 2



Sealing Gasket × 2

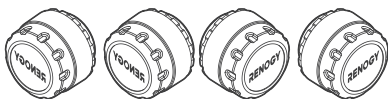


Metal Wrench × 1



Plastic Wrench × 1

RSHTPMS4-BT-G1



Renogy Tyre Pressure
Monitoring Sensor × 4



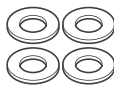
User Manual × 1



O-Ring Seal × 4



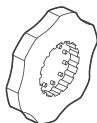
Anti-theft
Nut × 4



Sealing Gasket × 4



Metal Wrench × 1



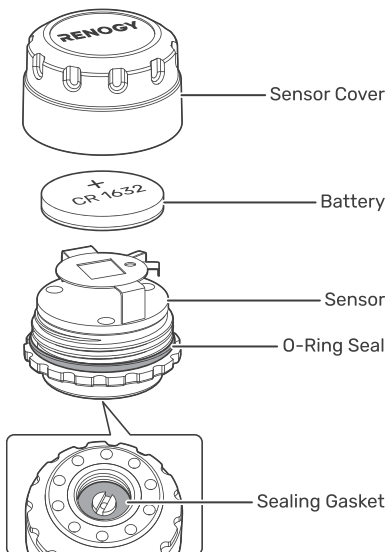
Plastic Wrench × 1

Accessory	Function
O-Ring Seals	For replacement in case of damage.
Sealing Gaskets	For replacement due to wear or aging.
Anti-theft Nuts	To secure the sensor modules and prevent theft.
Plastic Wrench	For sensor battery replacement.
Metal Wrench	For securing and removing the anti-theft nuts.

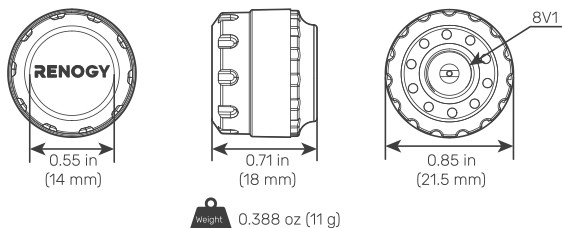
i Make sure that all accessories are complete and free of any signs of damage.

i The accessories and product manual listed are crucial for the installation, excluding warranty information and any additional items. Please note that the package contents may vary depending on the specific product model.

Get to Know Tyre Pressure Monitoring Sensor

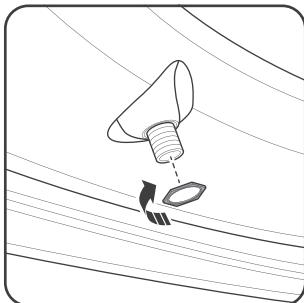


Dimensions

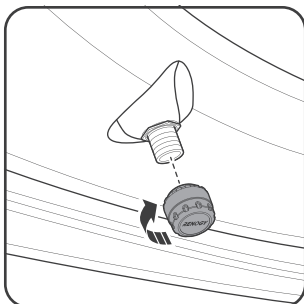


i Dimension tolerance: ± 0.2 in (0.5 mm)

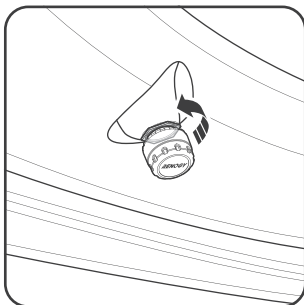
Installation



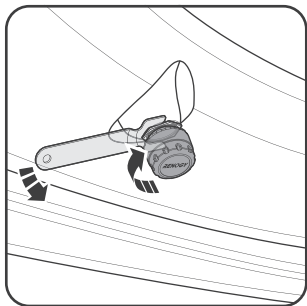
Step 1: Screw in an anti-theft nut and screw it to the bottom of your tyre valve. This step is optional, and you can choose to install the nut on demand.



Step 2: Screw the sensor onto the air nozzle and tighten it.



Step 3: Tighten the nut counterclockwise against the sensor.



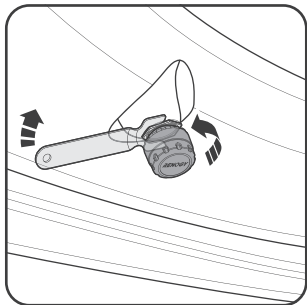
Step 4: After screwing the sensor, tighten the anti-theft nut counterclockwise with the included Metal Wrench.

Step 5: After the sensor is installed, be sure to check whether the tyre leaks. If necessary, smear the air nozzle with soapy water for inspection and confirmation.

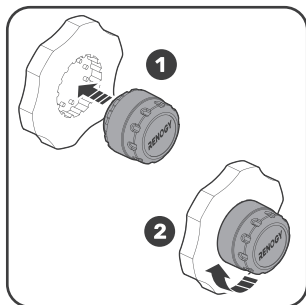
How to Replace the Sensor Battery?

You can receive low battery level alarms for the sensor in the Renogy app, Renogy ONE Core, or Renogy ONE Vision. In such case, replace the sensor battery with a new one.

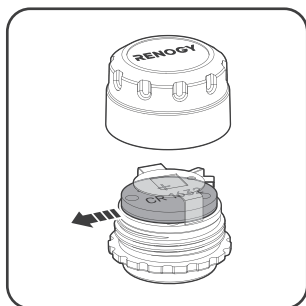
To replace the sensor battery, follow the steps below:



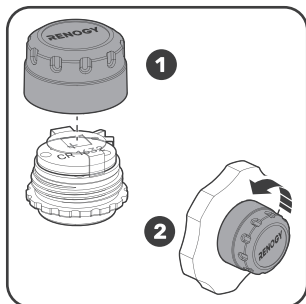
Step 1: Remove the sensor from the tyre valve by unscrewing the anti-theft nut (if applicable) via the included Metal Wrench.



Step 2: Open the sensor housing with the included Plastic Wrench.



Step 3: Replace the legacy battery with a new one, ensuring the side marked with "+" is facing upward.



Step 4: Install the sensor housing back on the sensor with the included Plastic Wrench.

Monitoring

Depending on the specific application, the TPMS can establish communication connections with any or all of the following monitoring devices:

- Renogy app (free of charge)
- Renogy ONE Core (sold separately)
- Renogy ONE Vision (sold separately)

These monitoring devices facilitate real-time monitoring of the sensor, offering comprehensive control and enhanced flexibility.

Pairing Instructions

The TPMS can be connected to monitoring devices either pre- or post-installation. The pairing steps varies as below:

- For Pre-Installation:

Step 1: Tap **Add Device** in the Renogy app or Renogy ONE Core.

Step 2: Complete physical installation on a tire within 2 minutes.

- For Post-Installation:

Step 1: Mount the TPMS on a tyre.

Step 2: Immediately (within 5 seconds) search for the TPMS in the Renogy app or Renogy ONE Core.

Short-Range Monitoring

If only short-range monitoring is required, connect the sensor to the Renogy app directly through Bluetooth on your phone.

Step 1: Download and log in to the latest Renogy app.



🔍 Renogy App



GET IT ON

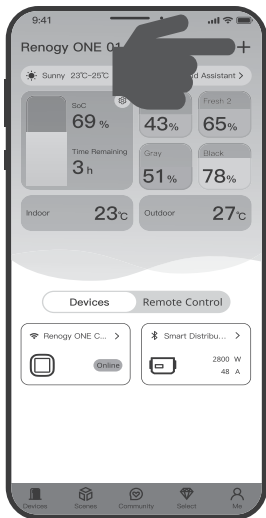
Google Play



Download on the

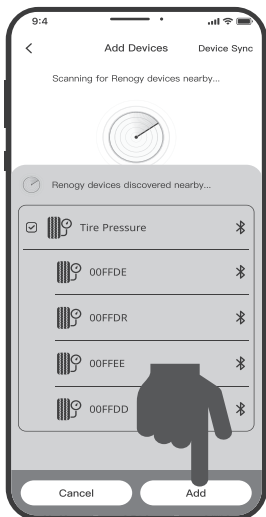
App Store

-  Make sure the Bluetooth of your phone is turned on.
-  The version of the Renogy app might have been updated. Illustrations in the user manual are for reference only. Follow the instructions based on the current app version.
-  To ensure optimal system performance, keep the phone within 10 feet (3 m) of the sensor.

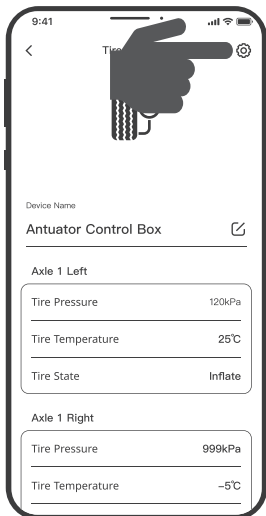


Step 2: Open the Renogy app. Tap + > **Add Devices** in the upper-right corner to search for new devices.

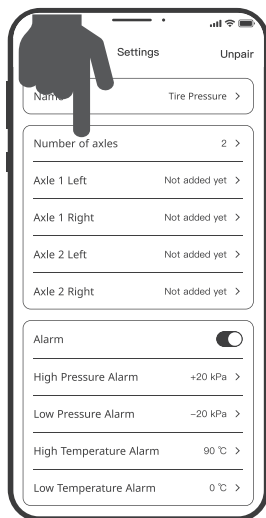
For pairing details, see "Pairing Instructions" in this manual.



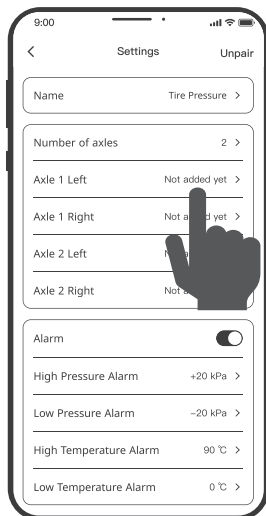
Step 3: All sensors will appear under a general name of “TPMS”. Check the “TPMS” check box, and tap **Confirm** to add all sensors to the device list.



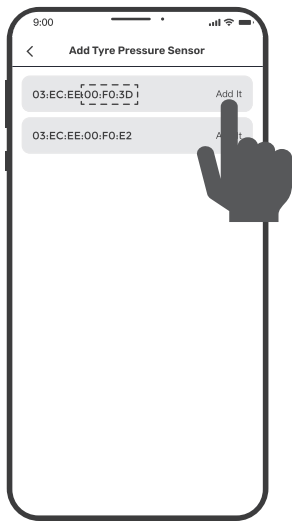
Step 4: On the home screen of the app, tap the sensor icon to enter the details interface, and tap  to enter the settings interface.



Step 5: The value “1” means there is only one axle on your vehicle involving two sensors. The value “2” means there are two axles involving four sensors.



Step 6: Tap **Not added yet** to define the number of axles in the app.

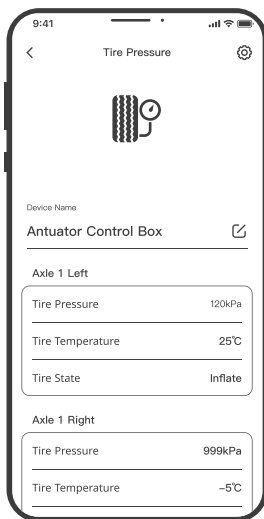


Step 7: Tap **Add It** to identify the sensor installation positions on the left and right axles. This step ensures you know the exact placement of each sensor. Each sensor broadcasts a unique name, with the last six characters matching those printed on the sensor's silkscreen for easy identification. The following illustration takes a sensor (00F03D) installed on Axle 1 Left as an example.



After successful pairing, you can monitor the following parameters of the TPMS via the app:

- Tyre pressure
- Tyre temperature
- Tyre state (normal/inflate/deflate)



Wireless Long-Range Monitoring

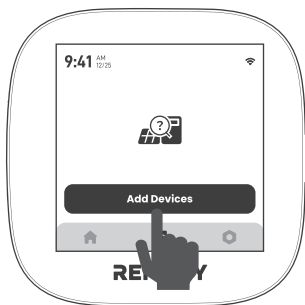
If long-range communication and programming are required, connect the TPMS to Renogy ONE Core (sold separately) through Bluetooth, and then pair Renogy ONE Core with the Renogy app.

Required Components and Installation Instructions



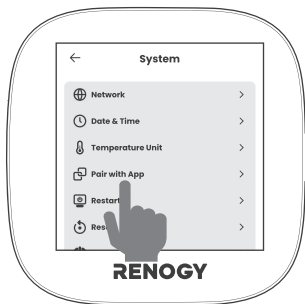
*RENOGY ONE Core

- i** Components marked with “*” are available on renogy.com.
- i** Make sure that the Renogy ONE Core is powered on before the connection.
- i** For pairing instructions for Renogy ONE Core, see [Renogy ONE Core User Manual](#).
- i** Make sure the battery charger does not communicate with any other device.



Step 1: Connect the sensor to Renogy ONE Core through the Bluetooth of your phone.

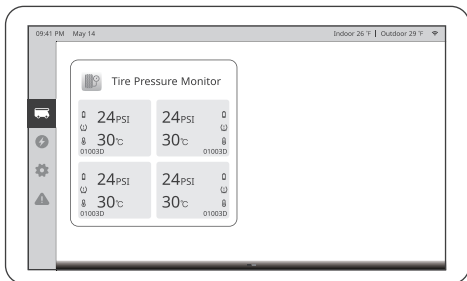
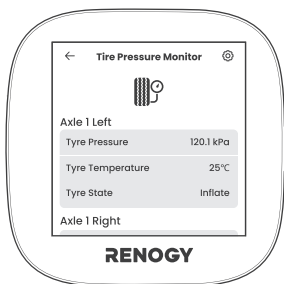
For pairing details, see [“Pairing Instructions”](#) in this manual.



Step 2: Pair the Renogy ONE Core with the Renogy app through Wi-Fi or by scanning the QR code in the Renogy ONE Core. On Renogy ONE Core, go to **Settings** > **System** > **Pair with App** to get the QR code.

For Renogy ONE Vision users, you can network your Renogy ONE Core with the ONE Vision to monitor the sensor and the complete solar system on your vehicle. For details, refer to *Renogy ONE Vision User Manual*.

After successful pairing, you can monitor relative parameters of the sensor via Renogy ONE Core or ONE Vision.



Configuration

Modify Your Sensor Name

You can customize your sensor's display in the Renogy app or Renogy ONE Core. If the app is paired with Renogy ONE Core, any changes made to the sensor name in the app will automatically synchronize with Renogy ONE Core.

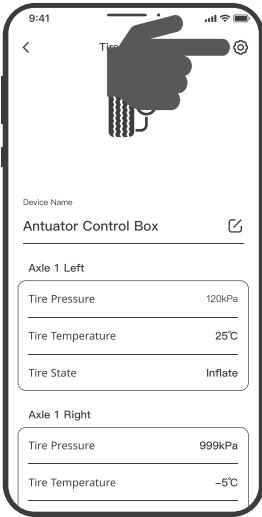
Modification instructions:

- Renogy app: Open the sensor details interface, and tap  besides the "Device Name".
- Renogy ONE Core: Open the sensor details interface, and tap ... > **Device Name**.
- Renogy ONE Vision: On the home screen, go to **Settings** > **Devices** > **Smart Accessories**. Tap the sensor name displayed under "Tyre Pressure Monitor", and modify the display name on demand.

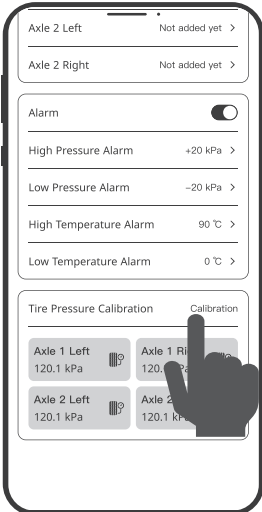
Set Sensor Alarms

Renogy Tyre Pressure Monitoring Sensor provides pressure and temperature alarms in case of abnormalities. You can enable or disable the alarm function in the Renogy app, Renogy ONE Core, and/or Renogy ONE Vision.

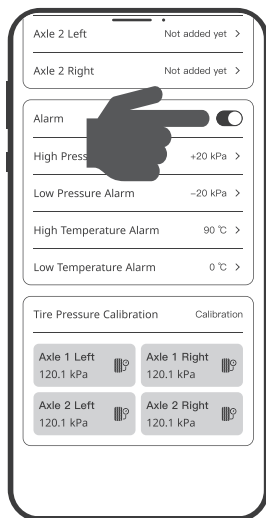
This section takes instructions in the Renogy app as an example. Similar rules apply to Renogy ONE Core and Renogy ONE Vision. Prior to setting an alarm, pressure calibration is required.



Step 1: On the home screen of the app, tap the sensor icon to enter the details interface, and tap  to enter the settings interface.



Step 2: Tap **Calibration** in the bottom of the settings interface, and wait for a confirmation dialog indicating successful calibration. This step ensures an accurate triggering of a tyre pressure or temperature alarm based on the current values.



Step 3: Tap an alarm, and set the alarm threshold by following the in-app tips.



The version of the Renogy app might have been updated. Follow the instructions based on the current app version.

Troubleshooting

Fault #1: For initial use, the displayed tyre pressure on the Renogy app, Renogy ONE Core, or Renogy ONE Vision differs from the measured value.

Possible Cause: By default, the displayed tyre pressure is the factory-test value for initial use of the sensor.

Solution: The displayed tyre pressure will be automatically updated after you drive your vehicle for a certain distance. This allows the system to recalibrate and provide more accurate readings based on real-time conditions.

Fault #2: No data is displayed on monitoring devices such as the Renogy app, Renogy ONE Core, or Renogy ONE Vision.

Possible Cause	Solution
The sensor fails to be paired with the monitoring device.	Re-pair the sensor with the monitoring device.
The sensor is broken or runs out of battery.	Replace with a new battery; replace the legacy sensor with a new one.
There is significant electromagnetic interference around the sensor and the monitoring device, resulting in inaccurate readings.	Drive your vehicle away from the current location, restart your monitoring device, and redo pairing.

Fault #3: There is a significant temperature difference between the tyres on one vehicle.

Possible Cause: The air temperature around the sensor is abnormal.

Solution: Check for any abnormalities that may lead to excessive heat around the wheel hub. If yes, cool down the tyre.

Fault #4: Why do I fail to find the TPMS in the Renogy app or Renogy ONE Core?

Solution: The TPMS features an energy-eco mode which limits Bluetooth broadcasting, requiring strict timing for pairing. For pairing details, see "Pairing Instructions" in this manual.



For further assistance, contact Renogy technical support service at <https://www.renogy.com/contact-us>.

Specifications

Operating Voltage	3V
Standby Current	$\leq 2.5 \mu\text{A}$
Operating Current	$\leq 5 \text{ mA}$
Pressure Measurement Range	0–8 bar (0–116 PSI)
Pressure Measurement Accuracy	$\pm 10 \text{ kPa}$
Temperature Measurement Range	-40°F to 257°F (-40°C to 125°C)
Temperature Reading Accuracy	$\pm 37.4^\circ\text{F}$ ($\pm 3^\circ\text{C}$)
Operating Temperature	-4°F to 185°F (-20°C to 85°C)
Operating Humidity	10% to 90%, no condensation
Operating Altitude	$\leq 16,404 \text{ ft}$ ($\leq 5,000\text{m}$)
Communication	2.4 GHz Bluetooth
Maximum Bluetooth Transmit Power	2.5 dBm
Battery Type	CR1632 (3V)
Battery Life	Up to 1 year depending on usage
IP Rating	IP67
Weight	0.388 oz (11 g)
Dimensions	$\varnothing 0.85 \times 0.71 \text{ in}$ ($\varnothing 21.5 \times 18 \text{ mm}$)
Certifications	UN38.3, RCM, FCC CE, and RoHS
Warranty	2 years (Battery not included)

Important Safety Instructions

Renogy accepts no liability for any damage caused by:

- Force majeure including fire, typhoon, flood, earthquake, war, and terrorism.
- Intentional or accidental misuse, abuse, neglect or improper maintenance, and use under abnormal conditions.
- Improper installation, improper operation, and malfunction of a peripheral device.
- Contamination with hazardous substances or radiation.
- Alterations to the product without express written consent from the manufacturer.

Operation

- Keep the sensor out of the reach of children.
- In case of fire, put out the fire with a FM-200 or CO₂ fire extinguisher.
- DO NOT expose the sensor to strong electrostatic fields, strong magnetic fields, or radiation.
- Keep the sensor away from water, heat sources, sparks, and hazardous chemicals.
- DO NOT rely solely on the sensor for accurate pressure readings or alerts. It is the driver's responsibility to regularly check and maintain proper tyre pressures. Improperly inflated tyres can cause loss of control or tyre damage, potentially leading to serious injury.

Maintenance & Storage

- Clean the sensor regularly.
- DO NOT puncture, drop, crush, burn, penetrate, shake, strike, or step on the sensor.
- DO NOT dismantle, repair, tamper with, or modify the sensor.
- DO NOT expose the sensor to flammable or harsh chemicals or vapours.
- DO NOT dispose of the sensor and the legacy battery as household waste. Comply with local, state, and federal laws and regulations and use recycling channels as required.
- The sensor is not a replacement for regular tyre maintenance, including manual pressure checks and routine inspections. Drivers are responsible for maintaining correct tyre pressures.

Renogy Support

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

 | au.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 Australia., contact the Renogy technical support team through:

 | au.renogy.com/contact-us 

For technical support outside Australia, visit the local website below:

Canada |  | ca.renogy.com

U.S. |  | www.renogy.com

Other Europe |  | eu.renogy.com

United Kingdom |  | uk.renogy.com

Germany |  | de.renogy.com

Japan |  | jp.renogy.com

China |  | www.renogy.cn

FCC 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, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

Any 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:

- (1) Reorient or relocate the receiving antenna.
- (2) Increase the separation between the equipment and receiver.
- (3) Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- (4) Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.



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.



@RenogySolar



@renogyofficial



@Renogy

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

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