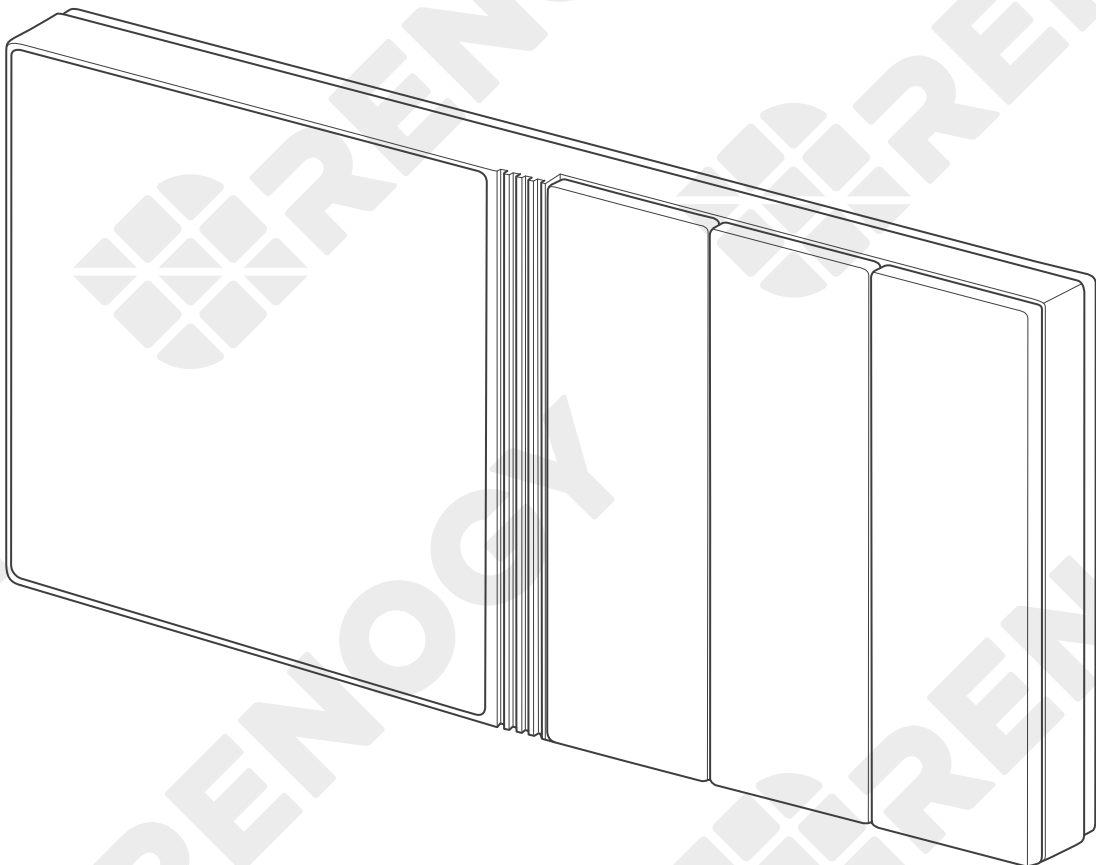


# Renogy ONE

## M1

VERSION A0



USER MANUAL

## Applicability

The user manual applies to the following product:

- Renogy ONE M1 (RMS-LP4-G2)

## Disclaimer

- Renogy makes no warranty as to the accuracy, sufficiency, or suitability of information in the user manual because continuous product improvements are going to be made.
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RENOGY	<b>RENOGY</b>
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## Date and Revision

March 2022, Revision A0

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# Important Safety Information





Symbols Used

General Safety Information

The user manual provides important installation, operation, and maintenance instructions for Renogy ONE M1. Read the user manual carefully before installation and 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 Renogy ONE M1, potentially rendering it inoperable.

## Symbols Used

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

	<b>WARNING</b>	Indicates a potentially dangerous condition which could result in injury or death.
	<b>CAUTION</b>	Indicates a critical procedure for safe and proper installation and operation.
	<b>NOTE</b>	Indicates an important step or tip for optimal performance.
	<b>INFO</b>	Indicates that more information is available in other documents relating to the subject.

## General Safety Information

### **WARNING**

- Inspect Renogy ONE for any visible damage including cracks, dents, deformation, and other visible abnormalities before installation.
- Do not puncture, drop, crush, penetrate, shake, strike, or step on Renogy ONE.
- Do not open, dismantle, repair, tamper with, or modify the components of Renogy ONE.
- Install Renogy ONE on a vertical surface indoors protected from direct sunlight, high temperature, and water. Make sure there is good ventilation.
- Keep Renogy ONE away from heating equipment.
- Do not insert foreign objects into Renogy ONE.
- Keep Renogy ONE out of the reach of children.
- In order to prevent electric shock and protect personal safety, the installation shall be carried out under the condition of power failure, and live operation is not allowed.
- Wear proper protective equipment and use insulated tools during the installation or disassembly of Renogy ONE.
- Do not touch the connector contacts while Renogy ONE is in operation.
- Disconnect all connectors from Renogy ONE before maintenance or cleaning.
- Do not dispose of Renogy ONE as household waste. Comply with local, state, and federal laws and regulations and use recycling channels as required.

# Important Safety Information

Symbols Used

General Safety Information

- In the event of fire, use fire extinguishers suitable for electrical equipment.
- If Renogy ONE is installed improperly on a boat, it may cause damage to the corrosive agents of the boat. Please have Renogy ONE installed by a qualified electrician.



## CAUTION

- Do not expose Renogy ONE to flammable or harsh chemicals or vapors.
- Ensure that there is no water source including downspouts, sprinklers, or faucets above or near Renogy ONE.
- Renogy ONE is only suitable for safe use in areas below 2,000 meters above sea level.

# Introduction

General Information

Key Features

## General Information

Renogy ONE M1 (hereinafter referred to as Renogy ONE) is your all-in-one energy monitoring and off-grid smart living center that revolutionizes comfort when you live in your off-grid home or RV.

It is the heart of your off-grid system with a sleek, flush-mount touchscreen that looks great anywhere. The 4" HD display lets you monitor every Renogy device in your home from one screen. When Renogy ONE works in association with the DC Home app, you will have the same system monitoring wherever you go on your smartphone.

Renogy ONE makes it possible to live off-grid without compromising comfort. It allows control of up to three devices at a time through the direct connection with panel relays. In addition, Renogy ONE delivers peace of mind with enhanced security feature for your off-grid home or RV. It is compatible with our Smart Relay, Smart Plug, Door & Window Sensor, and Motion Sensor to send instant alerts right to your DC Home app if there is a security breach.

## Key Features

- **All-in-one Smart Panel**

Renogy ONE gets rid of cumbersome cables and multiple monitors by connecting to Renogy devices and smart accessories via Bluetooth, Zigbee, RV-C, and RS485. Its 4-inch HD touchscreen lets you monitor and control all compatible Renogy devices in your home from one screen with intuitive visuals and real-time data.

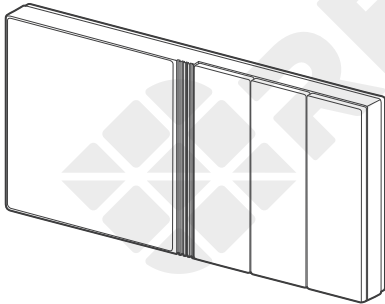
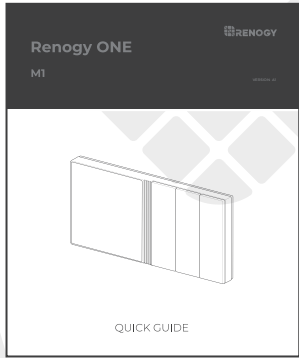
- **24/7 Energy Monitoring Anywhere**

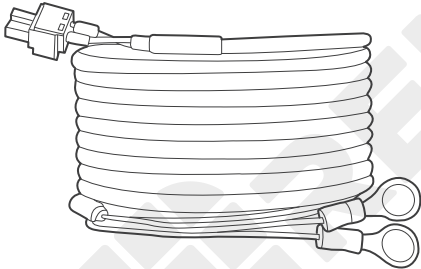
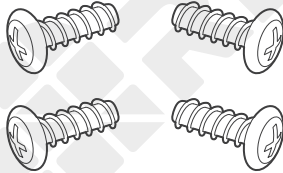
Renogy ONE delivers all the performance data from connected devices directly to your smart panel through Bluetooth or RS485 and RV-C communication cables. The Wi-Fi connectivity uploads energy data while you are off grid, so you can monitor your system in real time, wherever you are, with the DC Home app.

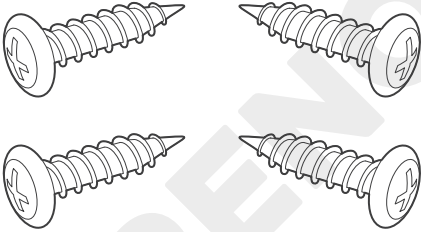
- **Connected Living**

Renogy ONE integrates with three panel switches that allow you to turn on or off up to three DC appliances. When pairing Renogy ONE with the DC Home app, you can set up smart scenes to control devices together depending on how you live. For instance, you can create an "Evening" scene that automatically turns on lights or a "Sleep" scene that turns off your home appliances.

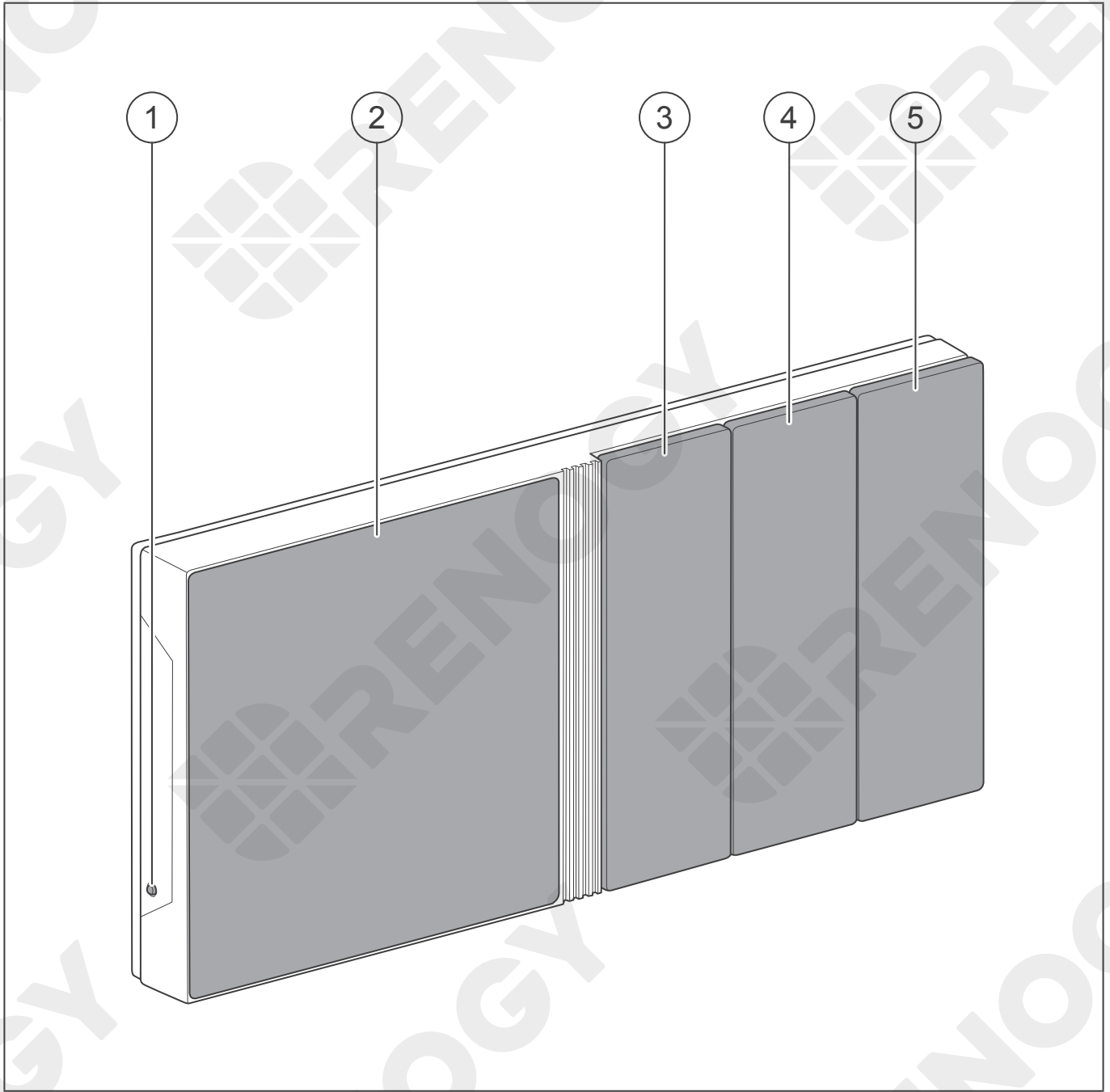
# Package Contents

<p>Renogy ONE M1 × 1</p>	<p>Quick Guide × 1</p>
	

<p>12V Power Cable (5m) × 1</p>	<p>M2 Screws × 4</p>
	<p>ST2 x 1.2 x 6.5 mm</p> 

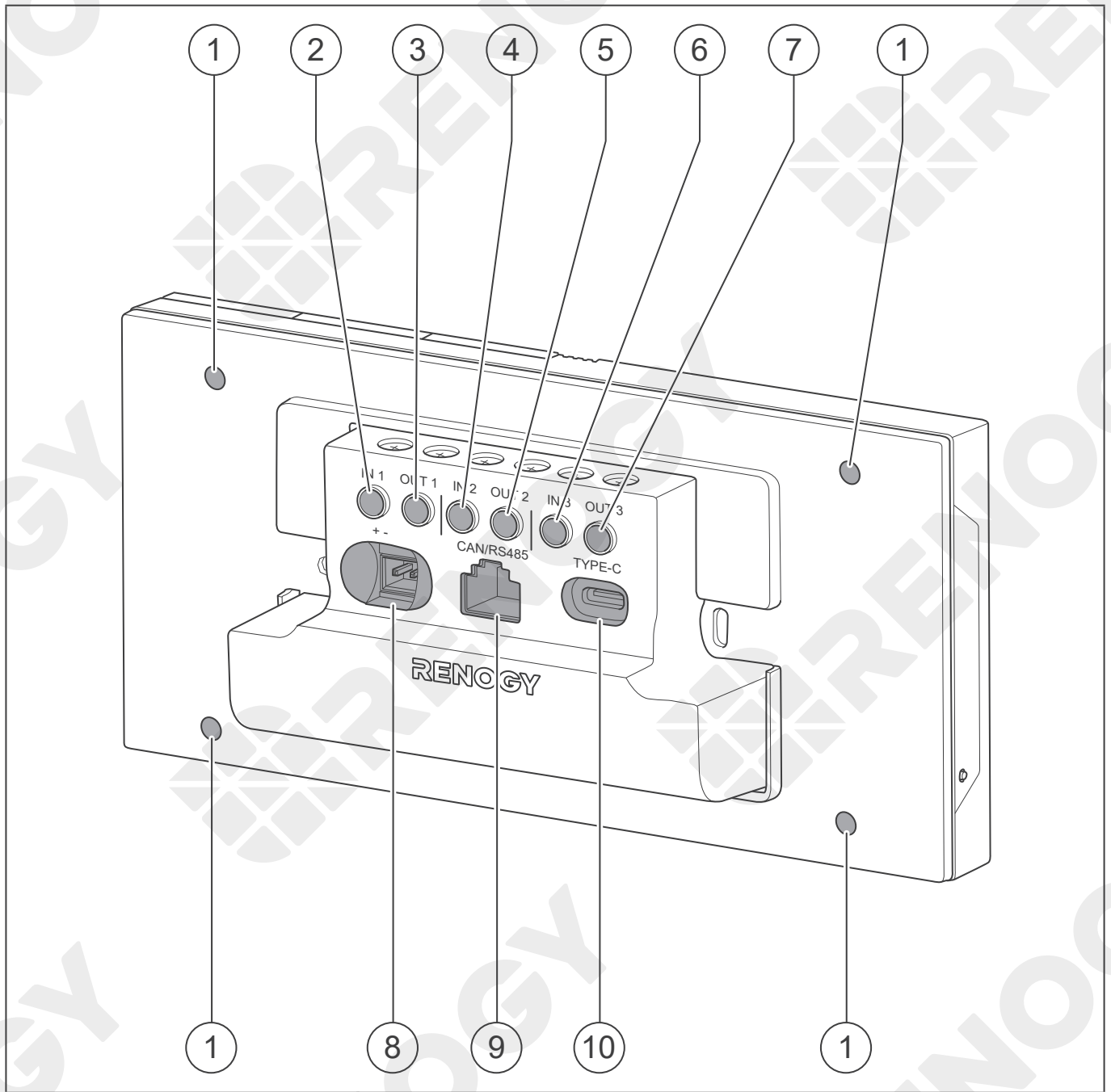
<p>M4 Mounting Screws × 4</p>
<p>ST4 x 2 x 13 mm</p> 

# Product Overview



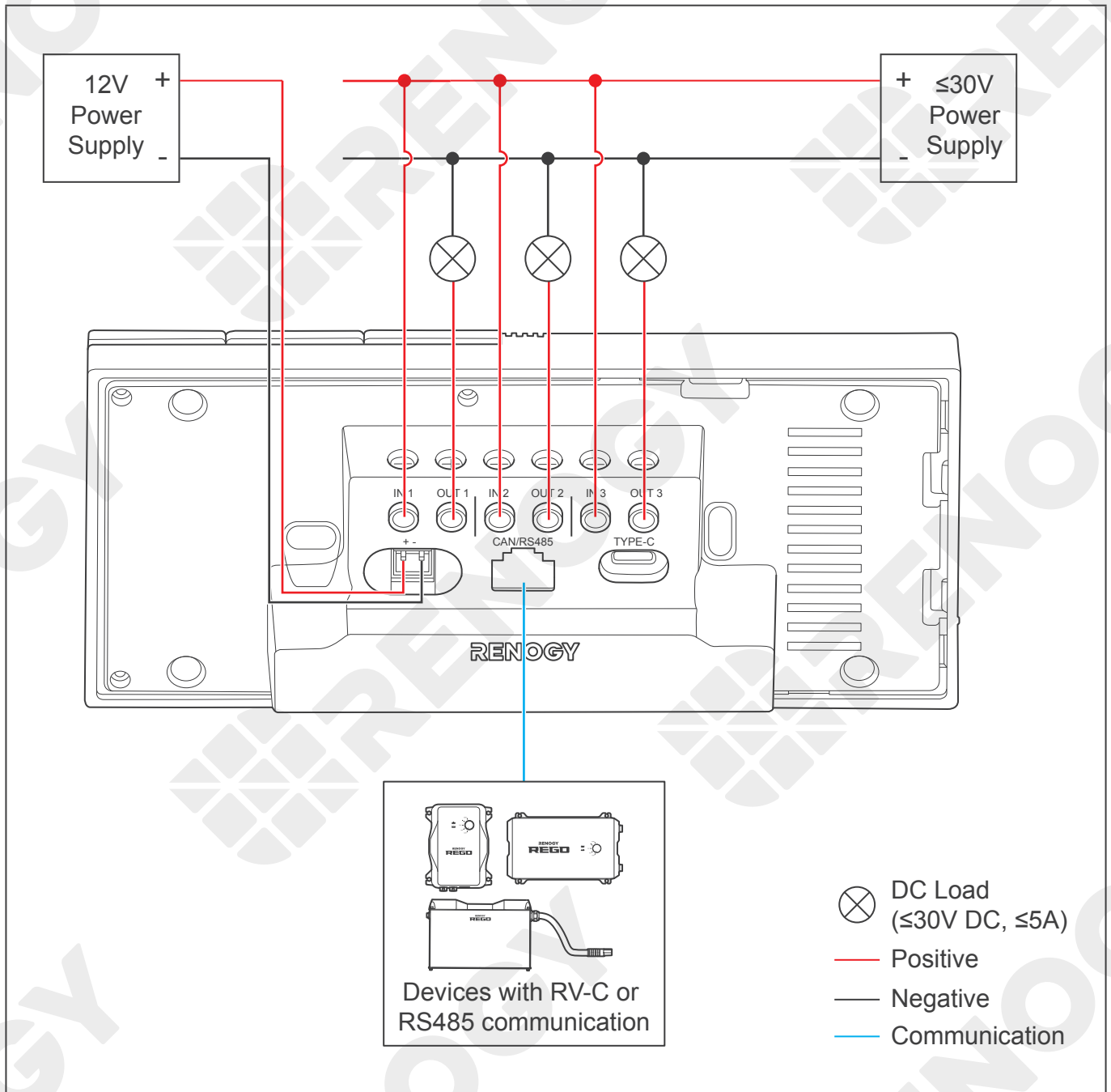
No.	Part	No.	Part
1	Power Button	4	Panel Switch 2
2	Touch Screen	5	Panel Switch 3
3	Panel Switch 1		

# Product Overview



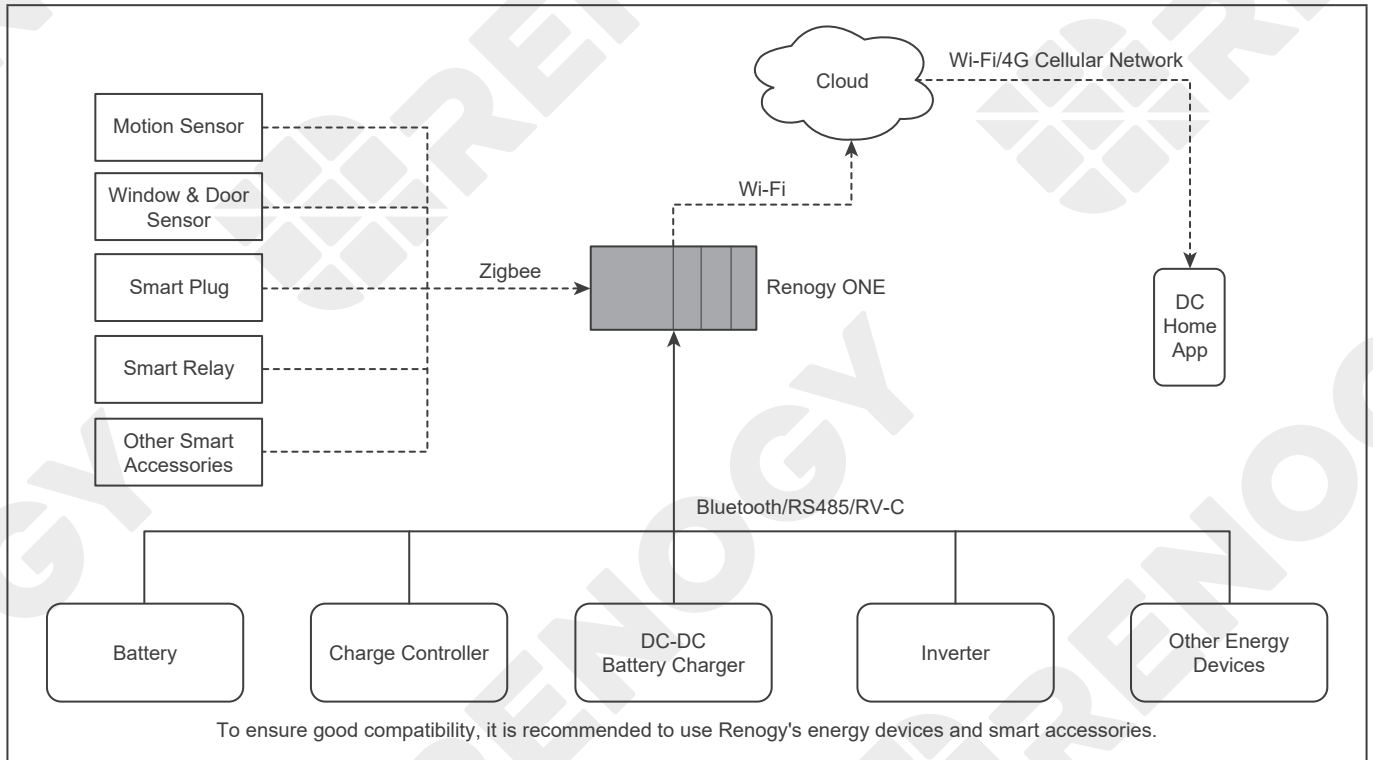
No.	Part	No.	Part
1	Mounting Holes	6	IN 3 (External Load Input Terminal)
2	IN 1 (External Load Input Terminal)	7	OUT 3 (External Load Output Terminal)
3	OUT 1 (External Load Output Terminal)	8	Power Port (12V, 3.5W)
4	IN 2 (External Load Input Terminal)	9	RJ45 Port
5	OUT 2 (External Load Output Terminal)	10	Alternate Power Input Port (Type-C, 5V, 3.5W)

# Wiring Diagram



# Communication Diagram

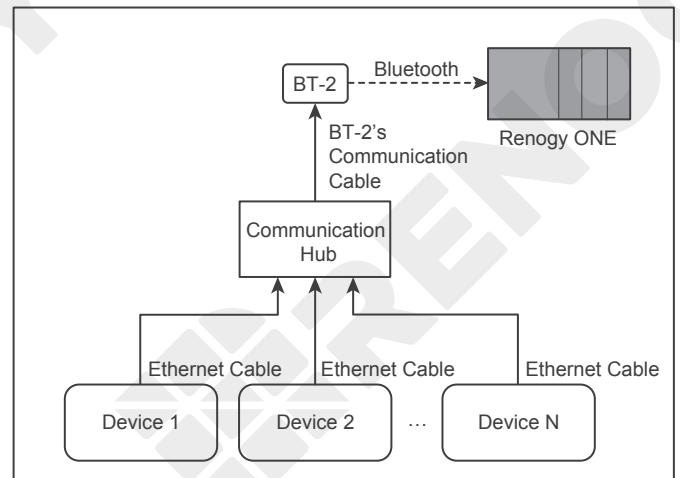
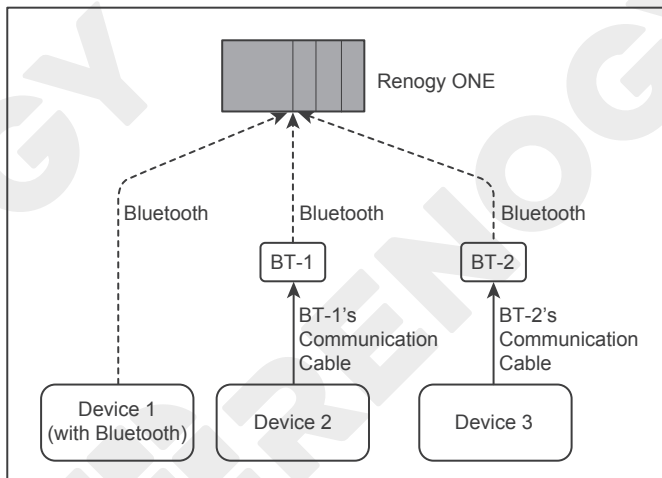
## Renogy ONE Communication Architecture



## Energy Device Communication Connections

### Bluetooth

1. For devices with a built-in Bluetooth module or an external Bluetooth module (Renogy BT-1 or BT-2):
2. For devices connected to Renogy Communication Hub and BT-2:

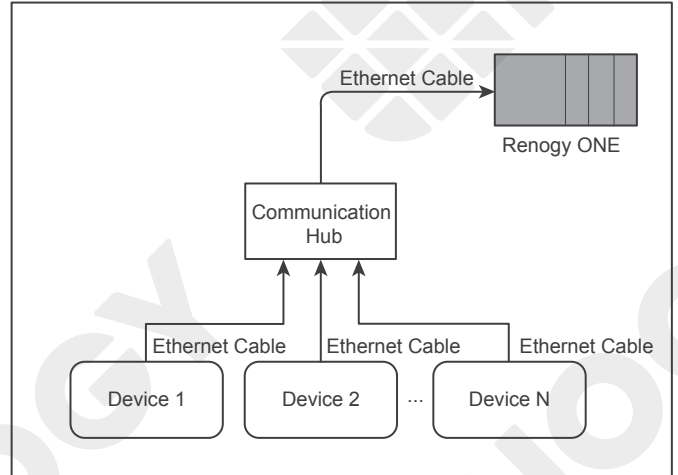
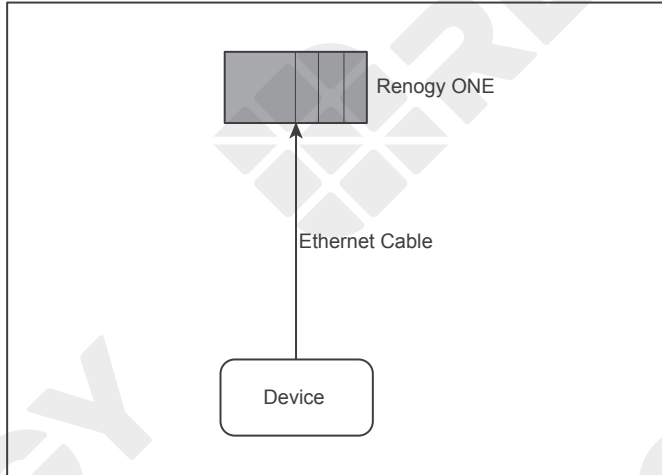




# Communication Diagram

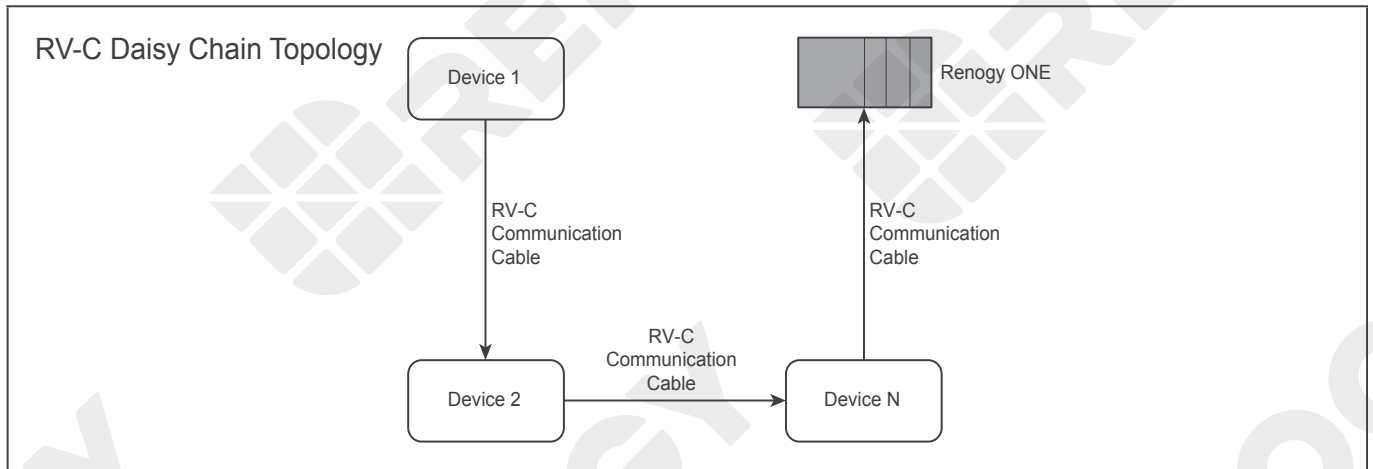
## RS485 Communication

1. For a single device with RJ45 port:
2. For devices connected to Renogy Communication Hub:

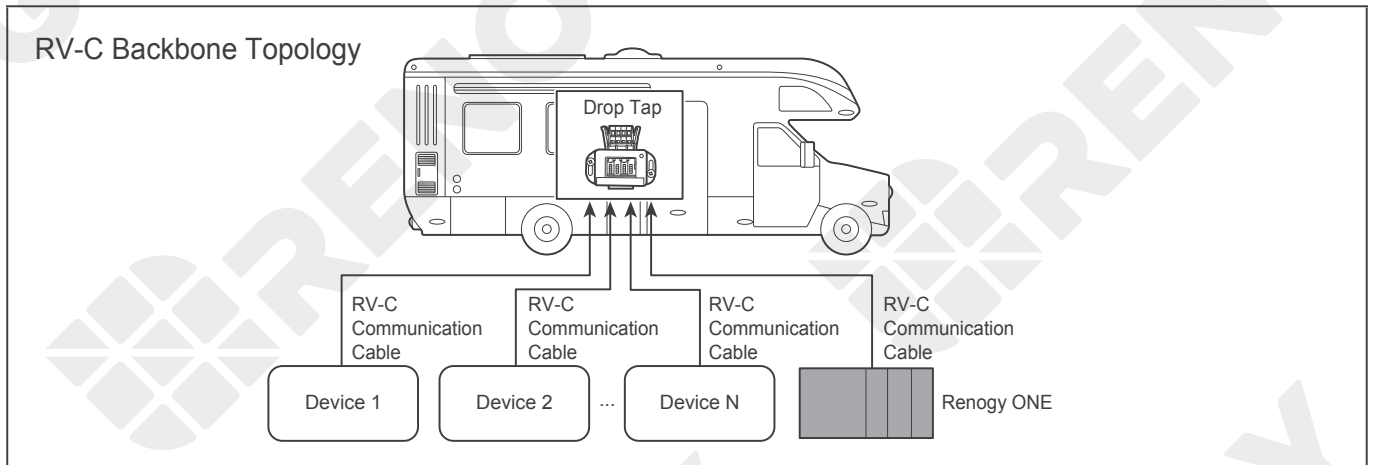


## RV-C Communication

1. For REGO devices connected in RV-C daisy chain topology:



2. For REGO devices connected in RV-C backbone topology:



For backbone topology, please contact our customer service through [renogy.com/contact-us/](https://renogy.com/contact-us/).



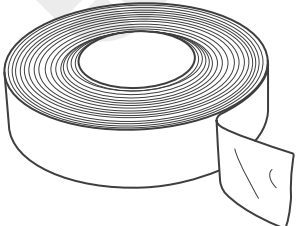
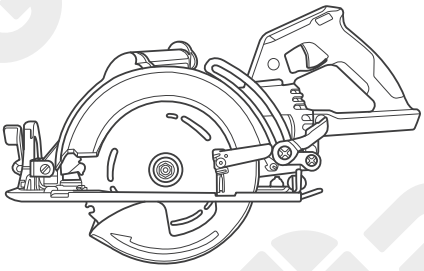
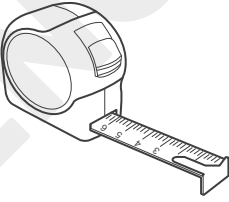
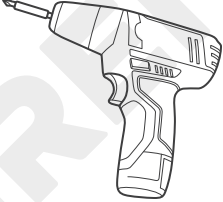
# Preparation

Required Tools

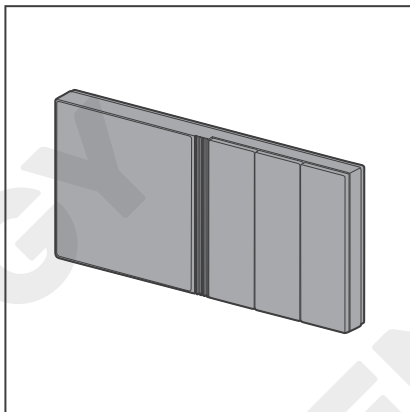
Inspection

Mounting Location

## Required Tools

<p>Phillips Screwdriver (#1) (for M2 Screws)</p>	<p>Phillips Screwdriver (#2) (for M4 Screws)</p>	<p>Insulation Tape</p>
		
<p>Skill Saw</p>	<p>Measuring Tape</p>	<p>Drill (1.5mm)</p>
		

## Inspection



Inspect Renogy ONE for any visible damage including cracks, dents, deformation, and other visible abnormalities before installation. All connector contacts shall be clean, dry, and free of dirt and corrosion.



### WARNING

- Do not use Renogy ONE if it appears to be damaged.

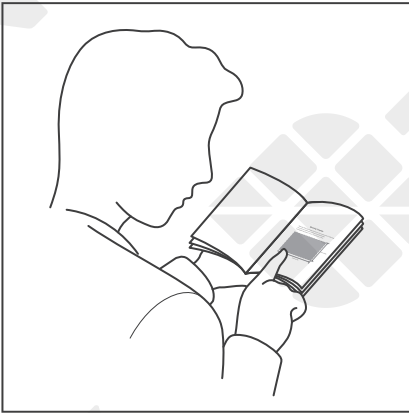
# Preparation

Required Tools

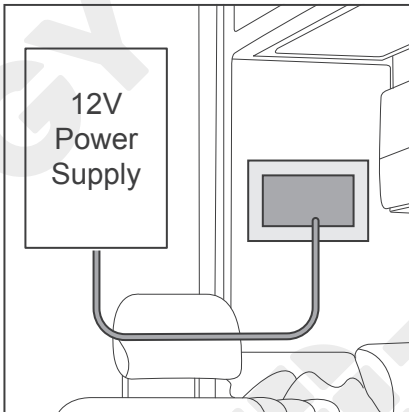
Inspection

Mounting Location

## Mounting Location



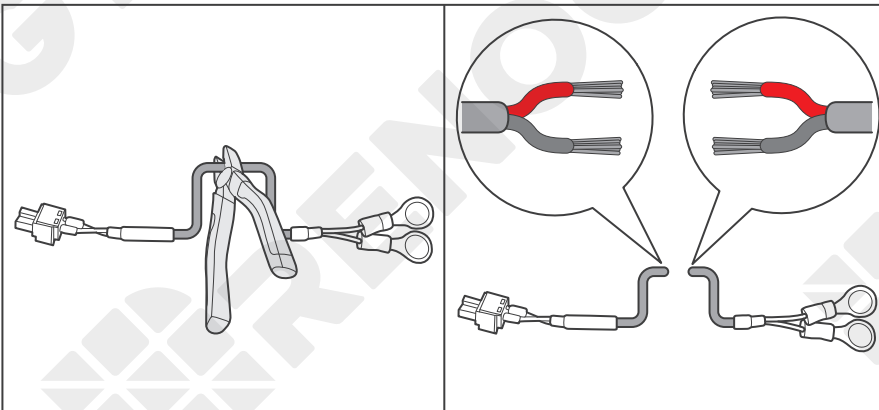
1. Tear off the mounting template in the quick guide of Renogy ONE. You can also customize a template according to the size provided in the guide.



2. Tape the mounting template to the selected mounting location, and measure whether the 12V power cable is long enough to connect Renogy ONE to your DC power supply. If the included 12V power cable is not long enough for connecting Renogy ONE to your DC power supply, re-select a mounting position or use an extension cable ( $\geq 22$  AWG). If you do not need to extend the 12V power cable, go to [Step 5](#).

### **i** NOTE

- Install Renogy ONE on a vertical surface.
- Mounting Renogy ONE requires installation holes. Make sure that you can drill holes on the mounting position.
- To ensure quality wireless communication for Renogy ONE, keep it away from metal objects at a minimum distance of 200 mm or 7.9 inch.



3. Cut the included 12V power cable, and strip off some of the insulation.

### **i** NOTE

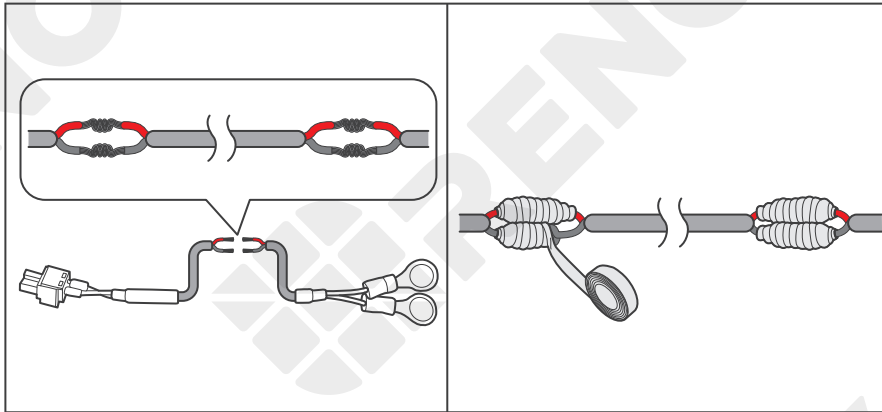
- Confirm the polarities of the included cable and the extension one before connecting them. A reverse polarity contact will result in abnormal operations. The extension cable should not exceed 10 meters (32.8 feet).

# Preparation

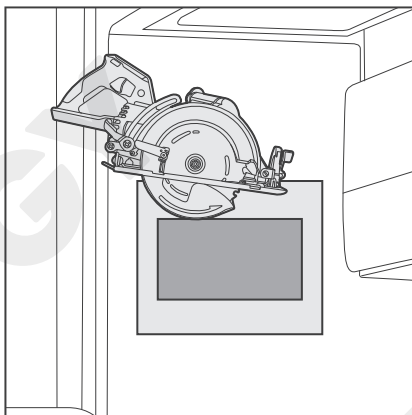
Required Tools

Inspection

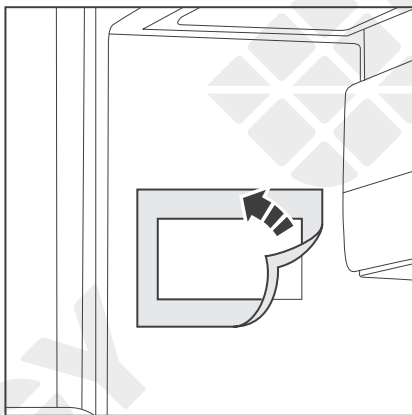
Mounting Location



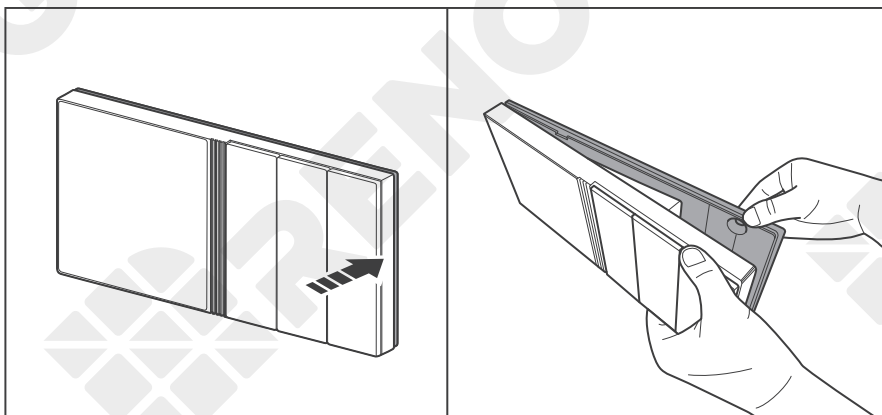
4. Strip some insulation off the extension cable, and connect the cable to the included 12V power supply cable. Tape over the cut-off areas.



5. Use the drill and skill saw to dig the installation hole according to the gray mark on the mounting template.



6. Tear off the mounting template.



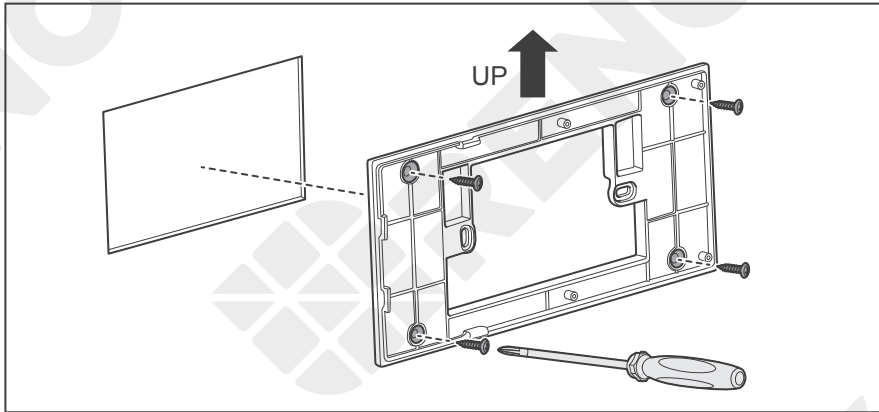
7. Remove the base cover of Renogy ONE with a Phillips screwdriver (#2).

# Preparation

Required Tools

Inspection

Mounting Location

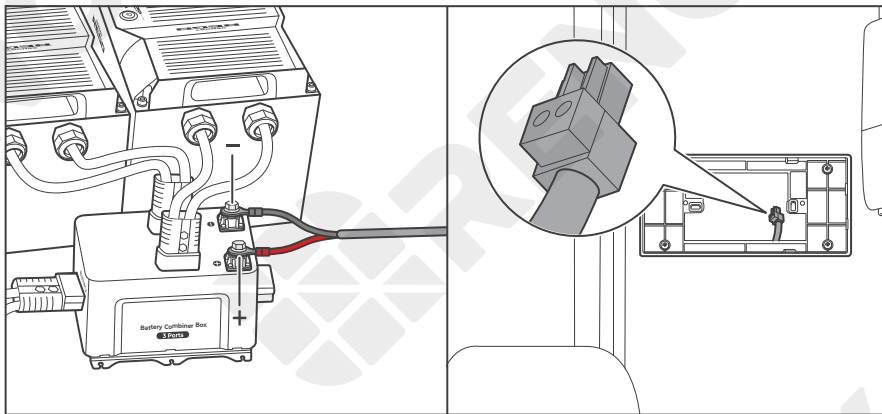


- Put the protruding part of the base cover into the installation hole (in a direction and position as shown in the left figure, and use a Phillips screwdriver (#2) to fasten the base cover with four M4 mounting screws through the mounting hole.

## **i** NOTE

- Drive the screws in straight into the mounting holes to ensure the base cover perfectly fits into Renogy ONE.
- Ensure that the base cover of Renogy ONE is firmly mounted to the wall to prevent it from falling off.

# Power Wiring



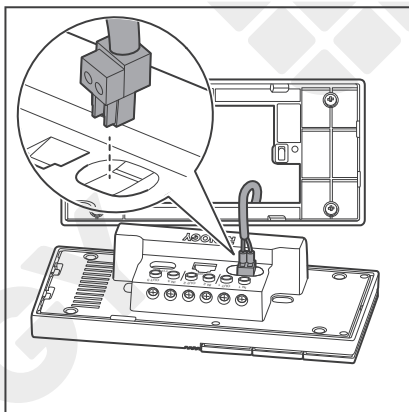
1. Connect the ring terminals of the 12V power cable to the positive and negative terminals of the DC power supply, and reserve the connector end of the power cable in the installation hole.

## CAUTION

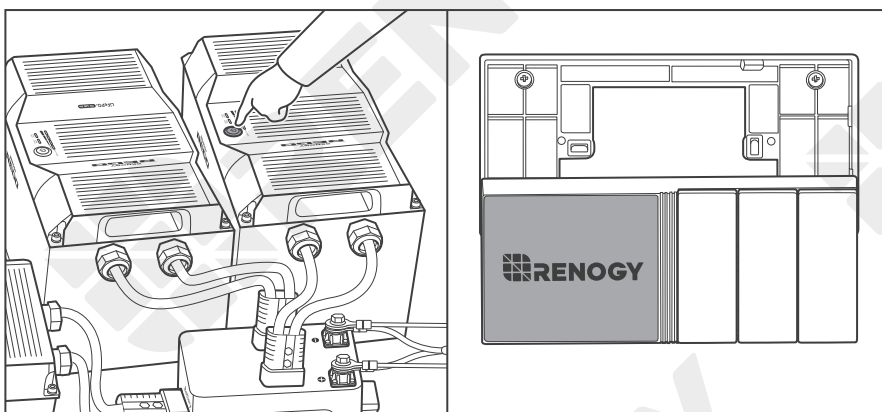
- Illustrations in this user manual are based on scenarios where REGO 12V 400Ah Lithium Iron Phosphate Battery and REGO 3 Ports 400A Battery Combiner Box are adopted as power supplies.

## WARNING

- Make sure the DC power supply is powered off before connection.
- Renogy ONE can be connected to a DC power supply of up to 16V; otherwise Renogy ONE may be damaged.
- Confirm the polarities of the DC power supply before connection. A reverse polarity contact will result in abnormal operations.



2. Insert the 12V power cable terminal block into Power Port of Renogy ONE.



3. Power on the DC power supply and check if Renogy ONE automatically turns on with the LCD lighting up.

# Power Wiring



## CAUTION

- After correct power cable connection and normal power-on of the DC power supply, Renogy ONE is automatically powered on. Failed automatic power-on indicates Renogy ONE needs troubleshooting. For details, refer to [Troubleshooting](#) in this user manual. For additional support, please contact our customer service through [renogy.com/contact-us/](https://renogy.com/contact-us/).



## WARNING

- Risk of electric shock! Power off the DC power supply after the test on power-on of Renogy ONE is completed.

# Communication Wiring (Optional)

RS485 Communication

RV-C Communication

Renogy ONE can communicate with Renogy energy devices in several ways:

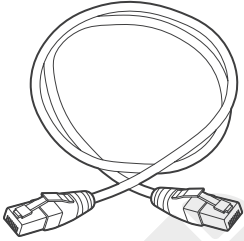
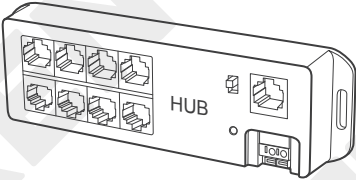

1. Bluetooth wireless communication;
2. Wired communication based on RS485 protocol;
3. Wired communication based on RV-C protocol.

You can choose an appropriate communication method according to the actual situation.

- For Bluetooth wireless communication, communication wiring is not required.
- For RS485 or RV-C communication, you need to wire Renogy ONE with energy devices.

## RS485 Communication

### Recommended Accessories

Communication Cable (RJ45 Ethernet Cable)	Renogy Communication Hub (For Multiple Devices)	Renogy BT-1/BT-2 Bluetooth Module (For Multiple Devices)
		

### NOTE

- Use CAT5 and higher category cables.
- Ensure that the device supports RS485 communication.
- Select the appropriate communication cable (sold separately) according to the distance between devices. The communication cable should be less than 6 meters (19.6 feet).

### INFO

- Prior to using a Renogy Communication Hub, read its user manual carefully.

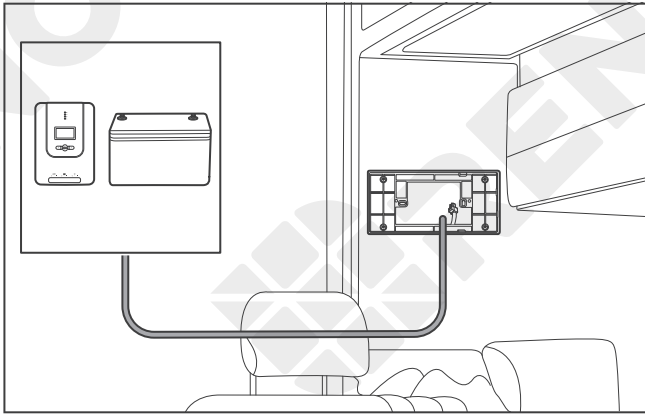
If you need to use a Renogy Communication Hub, connect every single device to the DC Home app individually through the hub first, and then reconnect all devices to the hub. Turn to the [user manual](#) of the hub for more details.



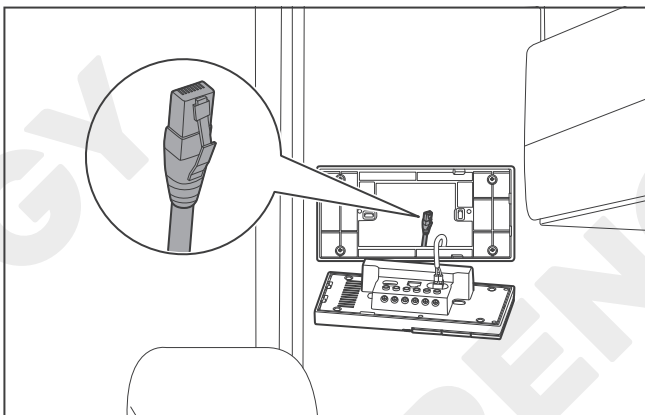
# Communication Wiring (Optional)

RS485 Communication

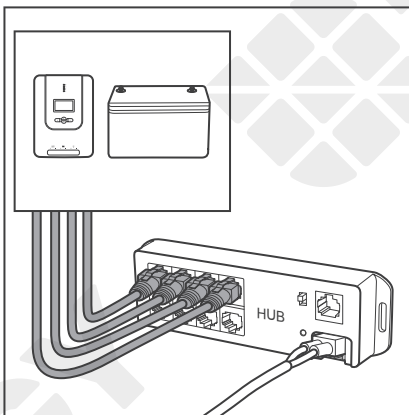
RV-C Communication



1. Ensure the selected communication cable is long enough to connect Renogy ONE to other devices.



2. Reserve one end of the communication cable into the installation hole.



3. If there are multiple devices, connect all the devices to the Renogy Communication Hub.

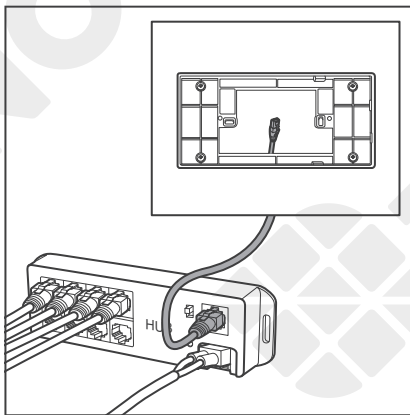
## NOTE

- Ensure that the Renogy Communication Hub is connected to the power supply.
- The communication cable connecting the device to Renogy Communication Hub should be less than 6 meters (19.6 feet).
- If the power cable of the Renogy Communication Hub is not long enough, use an extension cable. For details, see [Preparation](#). The extension cable should not exceed 10 meters (32.8 feet).

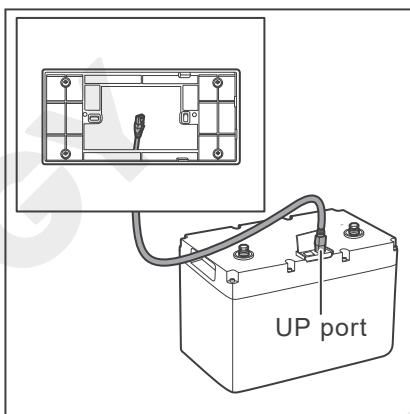
# Communication Wiring (Optional)

RS485 Communication

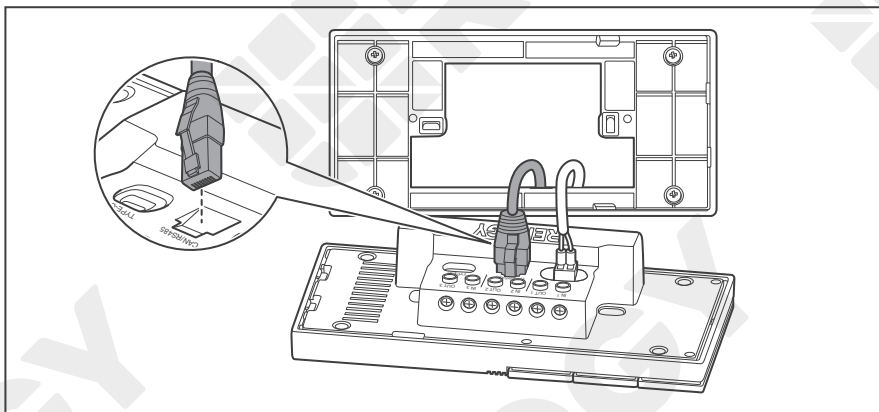
RV-C Communication



4. Connect the other end of the communication cable to the PRIMARY Port of Renogy Communication Hub.



5. If there is only one device, insert the other end of the communication cable to the communication port of the specific device in use.



6. Connect the reserved end to the RJ45 port of Renogy ONE.

# Communication Wiring (Optional)

## RV-C Communication

Renogy ONE can communicate with other REGO devices, enabling safe operation, smart control, remote monitoring, and programmable settings.

How to wire RV-C communication cables varies depending on the connection network topology. Both backbone and daisy chain topologies are supported.

### Backbone Topology

The backbone topology applies to RVs that are integrated with RV-C buses with built-in 120Ω resistors on both ends. Check the RV user manual for details or contact the RV manufacturer if necessary.

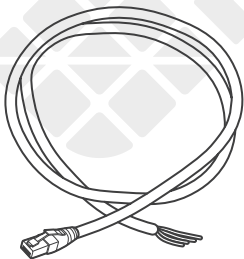
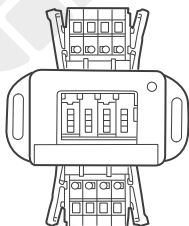
For technical support from Renogy, please contact us through [renogy.com/contact-us/](https://renogy.com/contact-us/).

### INFO

- Connect devices to Renogy ONE according to the wiring diagram provided by the RV manufacturer.

Choose proper communication cables according to your specific demands.

### Recommended Accessories

Communication Cable (RJ45 Plug to Bare Drop Cable)	Common Drop Tap
	

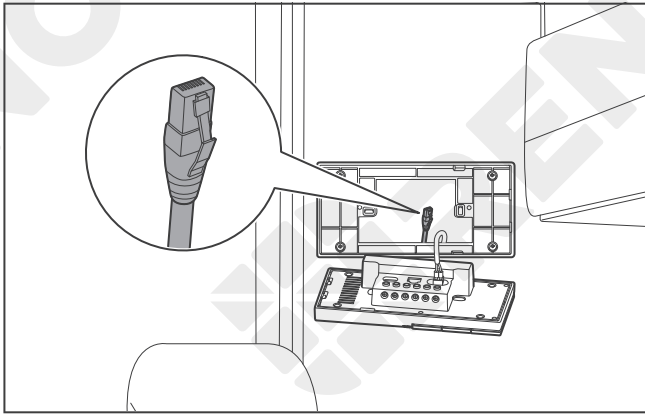
### NOTE

- The drop cable shall not exceed 6 meters (19.6 feet), and the RV-C bus shall not exceed 30 meters (98.4 feet).
- Different drop taps are used on the RV-C bus by different RV manufacturers. This user manual takes the pinout of the MCS MIDI Classic terminal block plug (4-Pin) as an example.

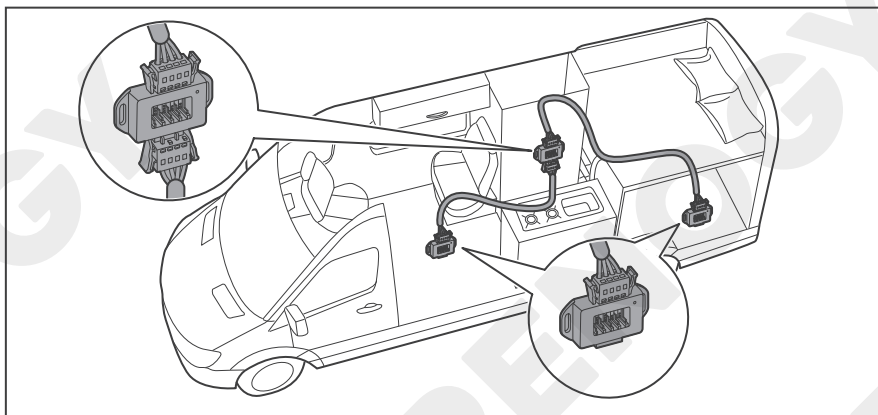
# Communication Wiring (Optional)

RS485 Communication

RV-C Communication



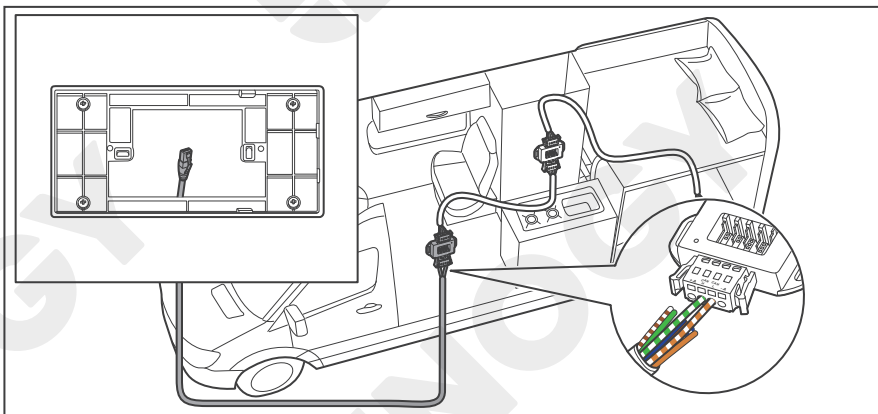
1. Reserve the RJ45 connector of the communication cable into the installation hole.



2. Locate the drop tap (not included) on the RV-C bus that is the closest to the Renogy ONE installation location. The drop taps are usually located above the entry door, in the bathroom, or under the bed in the RV.

## **i** NOTE

- If the drop taps cannot be located, please contact the RV manufacturer for help.



3. Replace the terminated drop tap at either end of the RV-C bus with the Common Drop Tap (not included). Secure the bare wires of the Drop Cable (not included) onto the terminal block plug of the Common Drop Tap following the terminal block plug pinout.

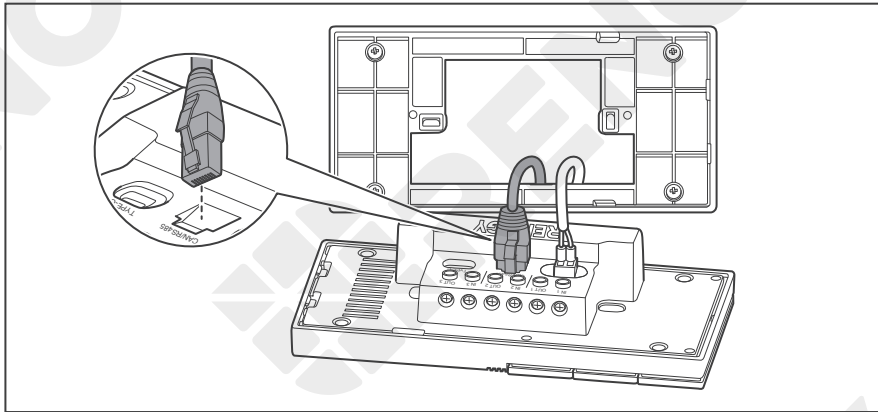
## **i** NOTE

- Different terminal block plugs are used on different Common Drop Taps and follow different pinouts. If you are unsure about the pinout of the terminal block plug, contact the RV manufacturer.

# Communication Wiring (Optional)

RS485 Communication

RV-C Communication



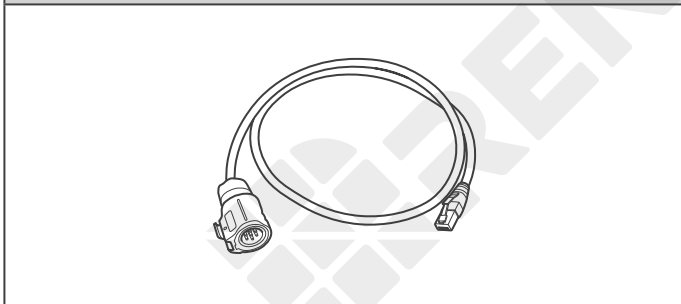
4. Connect the pre-embedded RJ45 connector to the RJ45 port of Renogy ONE.

## Daisy Chain Topology

The daisy chain topology applies to RVs that are not integrated with RV-C buses.

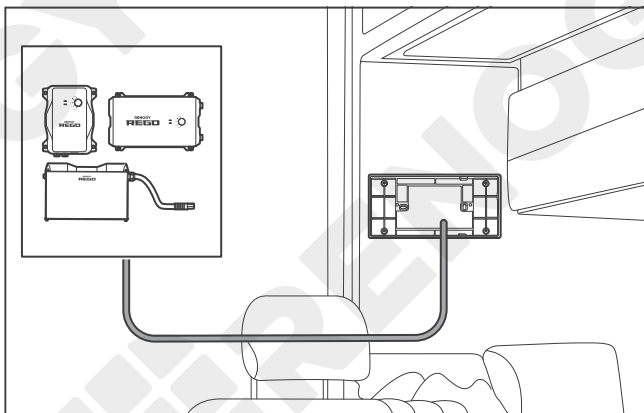
### Recommended Accessories

Communication Cable (LP16 Plug (7-Pin) to RJ45 Communication Adapter Cable)



### **i** NOTE

- Select the appropriate communication cable (sold separately) according to the distance between devices. The communication cable should be less than 6 meters (19.6 feet).

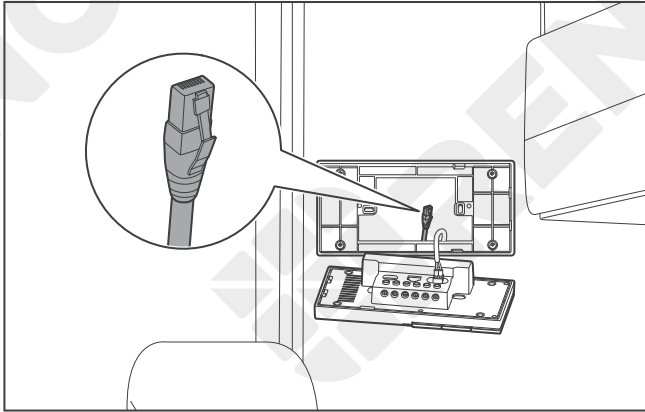


1. Ensure the communication cable is long enough to be connected to Renogy ONE and other devices.

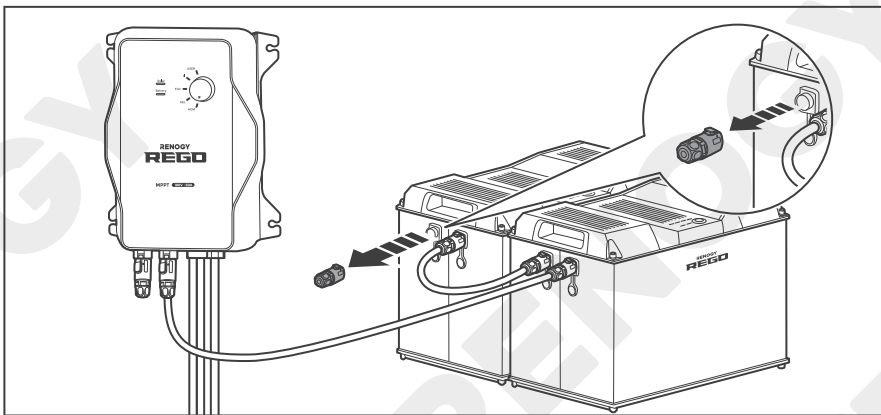
# Communication Wiring (Optional)

RS485 Communication

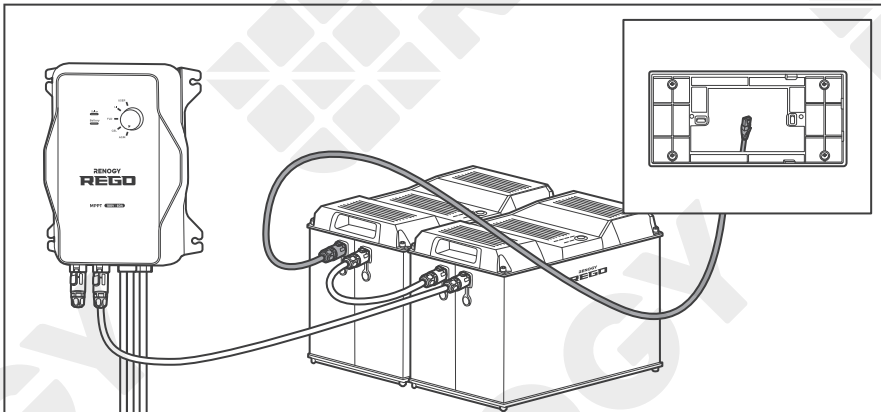
RV-C Communication



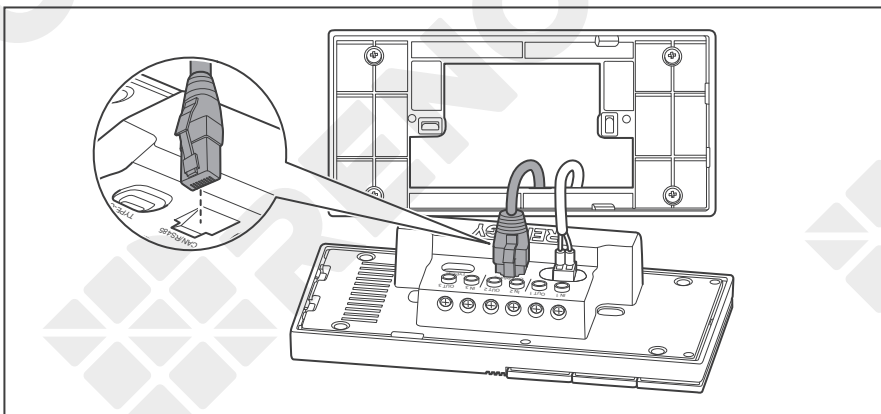
2. Reserve the RJ45 connector of the communication cable into the installation hole.



3. Unplug the LP16 Terminator Plug (7-Pin) from the first or last REGO device in the communication network.



4. Insert the LP16 Plug (7-Pin) to RJ45 Communication Adapter Cables into the communication ports of other REGO devices.

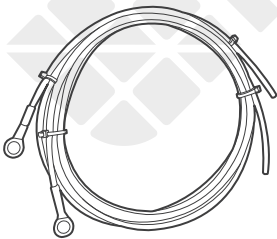
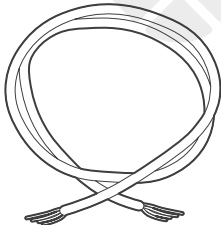


5. Connect the pre-embedded RJ45 connector to the RJ45 port of Renogy ONE.

# Load Wiring (Optional)

Renogy ONE comes with 3 relays which can be connected to 3 DC loads (appliances) ( $\leq 30V$  DC,  $\leq 5A$ ). You can power on/off the loads via Panel Switches on Renogy ONE.

## Recommended Accessories

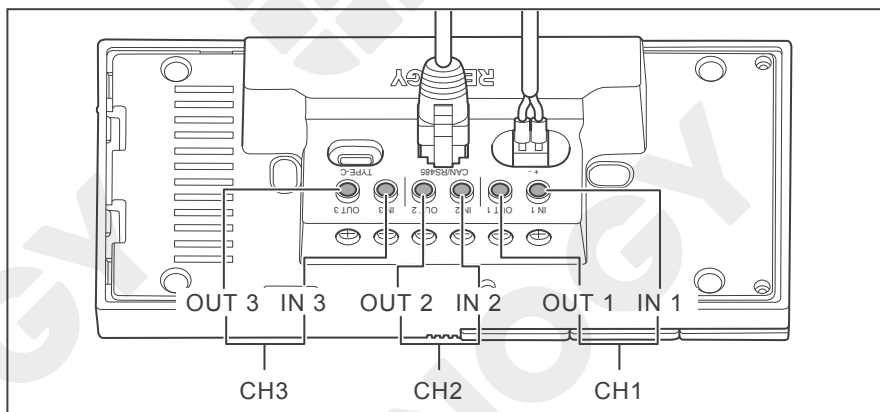
Ring Terminal to Bare Wire Tray Cable	Bare Wire
	

## Cable Specifications

Cable Length (ft) / (m)	Recommended Cable Size
0 ft to 10 ft (0 m to 3 m)	8 AWG
11 ft to 20 ft (3 m to 6 m)	6 AWG
21 ft to 30 ft (9 m to 6 m)	6 AWG

### WARNING

- For your safety, select cables that meet the specifications according to the actual use.



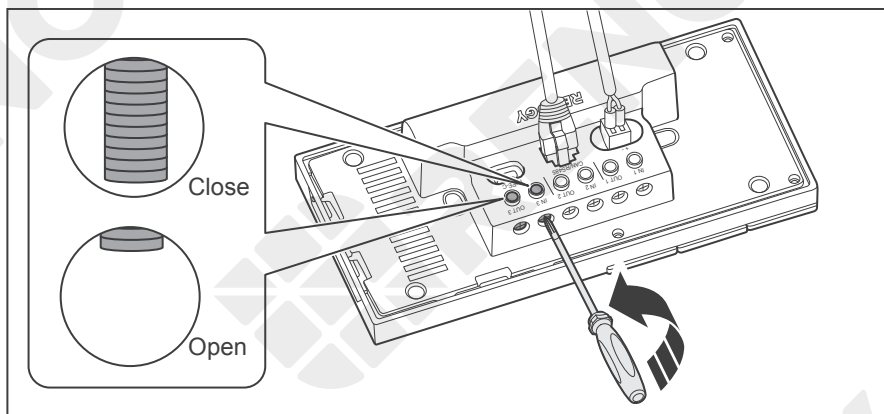
- Ensure that the DC power supply cable and the cable that is connected to the positive pole of the load (appliance) are connected to the same group of terminals. For example, "IN 1" and "OUT 1" are in a group.

### WARNING

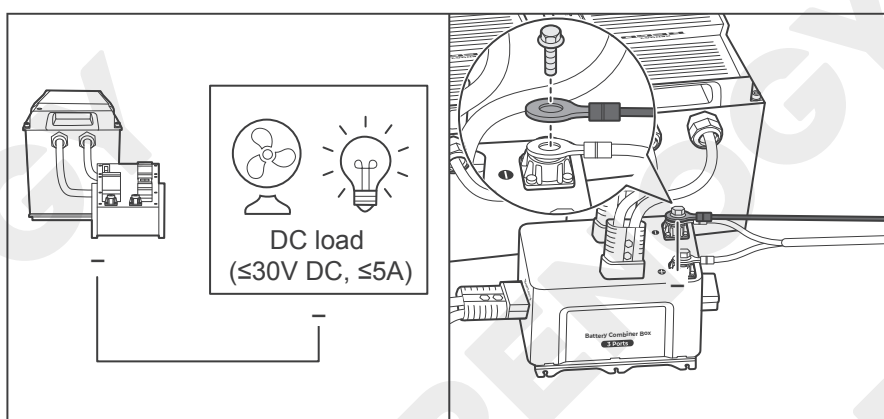
- Make sure the DC power supply is powered off before wiring.



# Load Wiring (Optional)



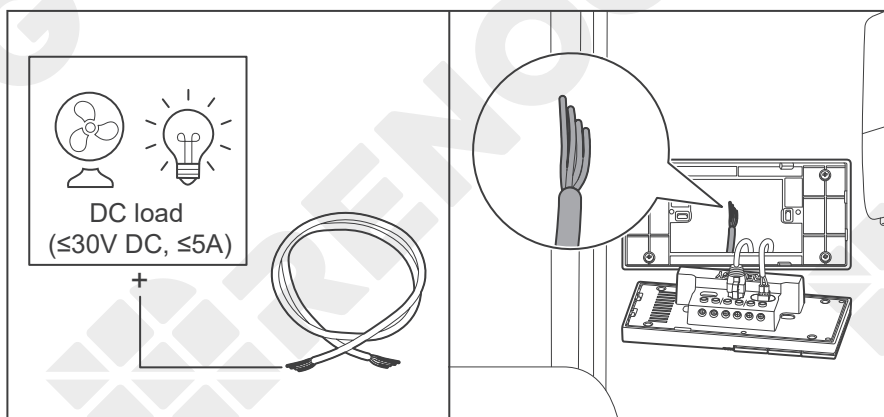
2. Use a Phillips screwdriver to turn the wire hatch screw counterclockwise. Make sure that the terminal hatch is completely open.



3. Connect one of the ring terminals of the tray cable to the negative terminal of the DC power supply, and connect the other end to the negative pole of the load.

## WARNING

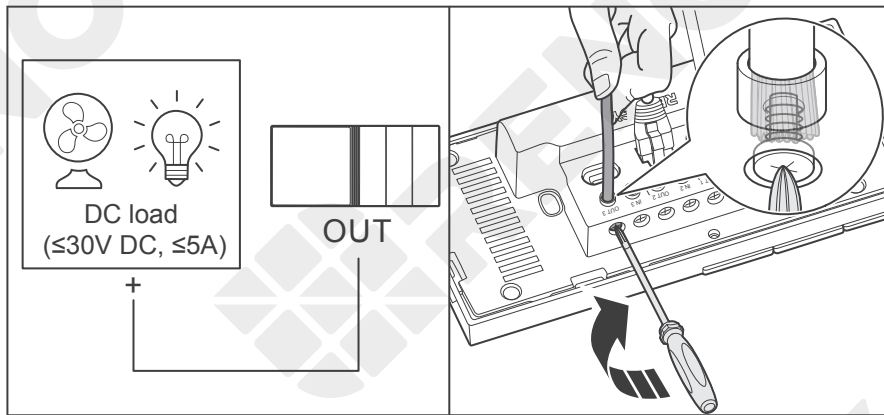
- Ensure that the working current of an external DC load is less than or equal to 5A; otherwise Renogy ONE may be damaged.
- Ensure that the output voltage of the DC power supply for an external DC load is less than or equal to 30V; otherwise Renogy ONE may be damaged.
- Make sure the DC power supply is powered off before connection.
- Confirm the polarities of the DC power supply and the load before connection. A reverse polarity contact will result in abnormalities.



4. Connect the bare wire to the positive pole of the load, and reserve the other end in the installation hole.



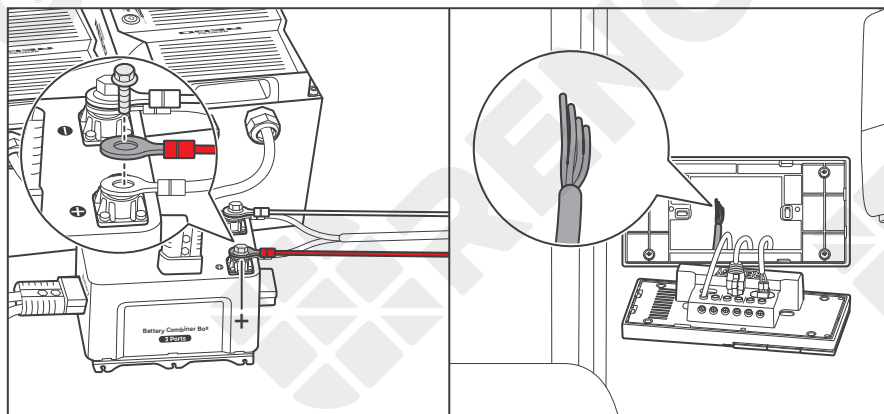
# Load Wiring (Optional)



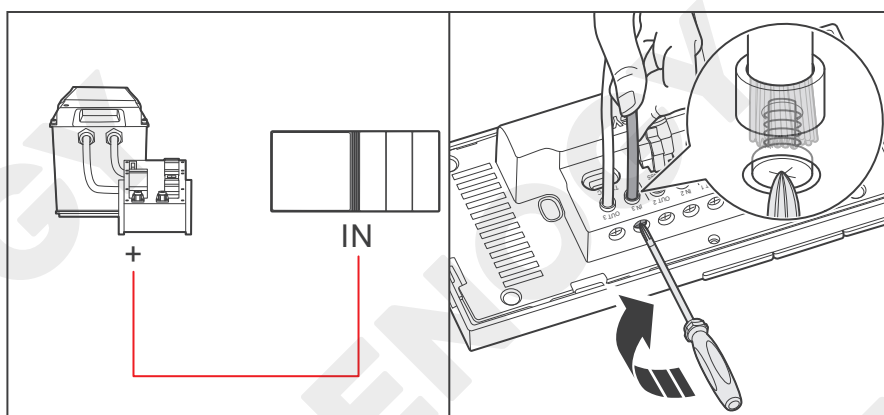
5. Insert the reserved tray cable connecting to the positive terminal of the load (appliance) into the Renogy ONE output terminal (OUT), and use a Phillips screwdriver to turn the wire hatch screw clockwise.

## **i** NOTE

- Strip some insulation off the bare wire end according to the depth of the installation hole.
- The maximum screw torque of wire hatch is 0.4 N·m. Do not overtighten the screws to avoid damage to the hatch.

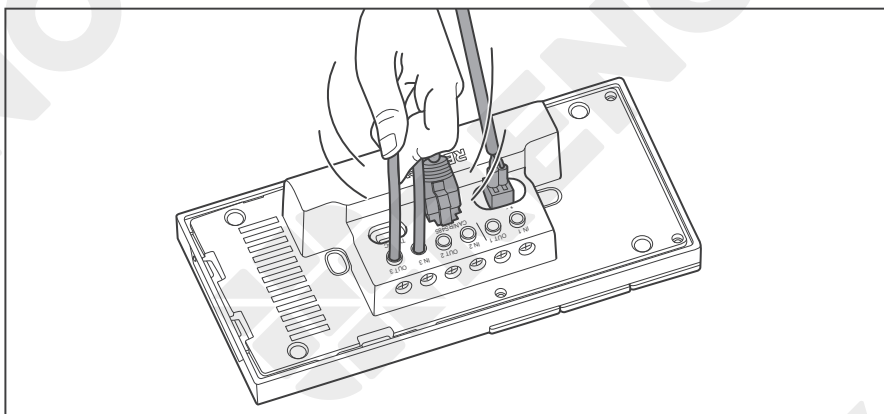


6. Connect the other ring terminal of the tray cable to the positive terminal of the DC power supply, and reserve the other end in the installation hole.



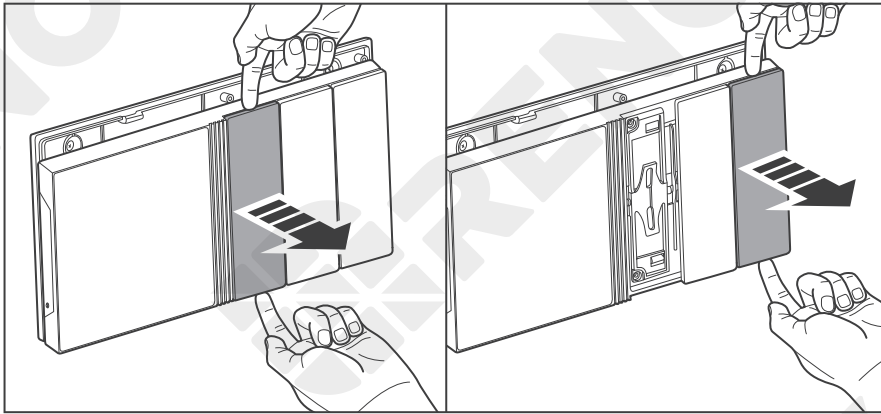
7. Insert the reserved end of the tray cable into the Renogy ONE input terminal (IN), and use a screwdriver to turn the wire hatch screw clockwise.

## Load Wiring (Optional)

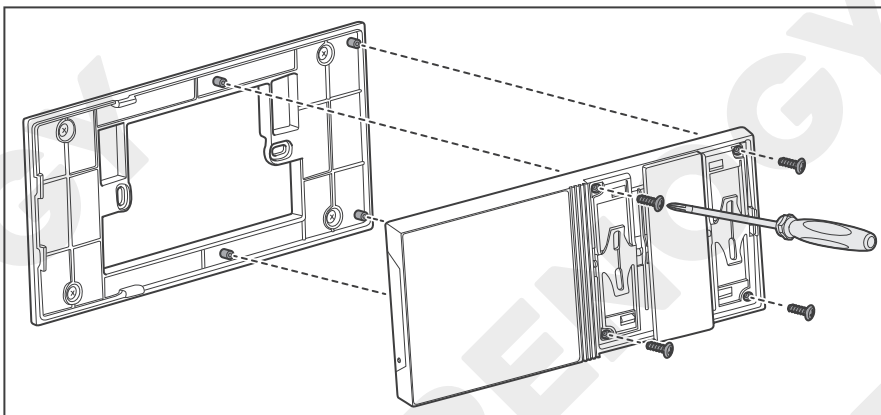


8. Make sure all connections are tight and secure.

# Mounting



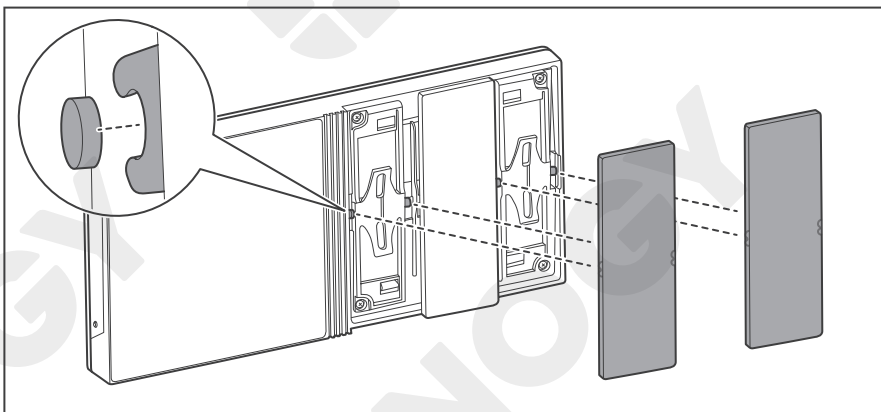
1. Disassemble Panel Switch 1 and Panel Switch 3 from Renogy ONE.



2. Put Renogy ONE on the base, and drive in the four M2 screws with the Phillips screwdriver #1 through the mounting holes to fix the Renogy ONE on its base.

## **i** NOTE

- Make sure that Renogy ONE is installed securely to prevent it from falling off.



3. Align the snaps on the back of the panel switches, and press the switches until they "click".

# Activation

For initial use, Renogy ONE guides you through WLAN connection, app pairing, and device adding via the activation wizard.



## CAUTION

- You can tap **Skip** in the upper-right corner of the main interface on Renogy ONE to skip some of the wizard steps. You can re-complete the activation operations through **Settings**.
- To monitor and operate connected devices remotely, you need to pair Renogy ONE with your DC Home app under stable Internet access.

# Operation

WLAN

Pairing with App

Add Devices/Smart Accesories

## WLAN

On the home page of Renogy ONE, go to **Settings** > **System** > **Network** > **WLAN**.




### NOTE

- Renogy ONE supports 2.4 GHz Wi-Fi only. You can also connect Renogy ONE to the Internet through a mobile hotspot.
- The steps listed in this chapter are based on Renogy ONE V1.1.15.0\_V7\_13 and DC Home V1.8.8 for iOS. The actual steps of the Renogy ONE and DC Home in use prevail.

## Pairing with App

If you did not follow the system wizard to pair Renogy ONE with your DC Home app, follow the steps below.

Method 1: Go to **Settings** > **System** > **Pairing with App**. Open the DC Home app, tap **+** > **Add Renogy ONE**. Scan the QR code to complete pairing.

Method 2: Tap  on the main interface. Open the DC Home app, tap **+** > **Add Renogy ONE**. Enter the SN of Renogy ONE to complete pairing.

After successful pairing, you can control smart accessories and create smart scenes through the DC Home app.



### CAUTION

- Ensure both Renogy ONE and your phone where the DC Home app runs are connected to the Internet during pairing.
- The DC Home app should be in the up-to-date version.

## Add Devices/Smart Accesories

How to add devices to Renogy ONE varies depending on the communication connection type.

- For wired communication (RV-C/RS485), the device is automatically recognized by and added to Renogy ONE.
- For wireless communication (Bluetooth/Zigbee), tap **Settings** and choose **Add Devices** on Renogy ONE. If you have paired Renogy ONE with the DC Home app, you can add devices and smart accessories through the DC Home app.

Renogy ONE is compatible with all Renogy energy devices and smart accessories with communication functions (RV-C, RS485, Bluetooth, and Zigbee).



### CAUTION

- For adding Renogy energy devices via Bluetooth to Renogy ONE, make sure the device Bluetooth is turned on.

# Operation

WLAN

Pairing with App

Add Devices/Smart Accessories



## NOTE

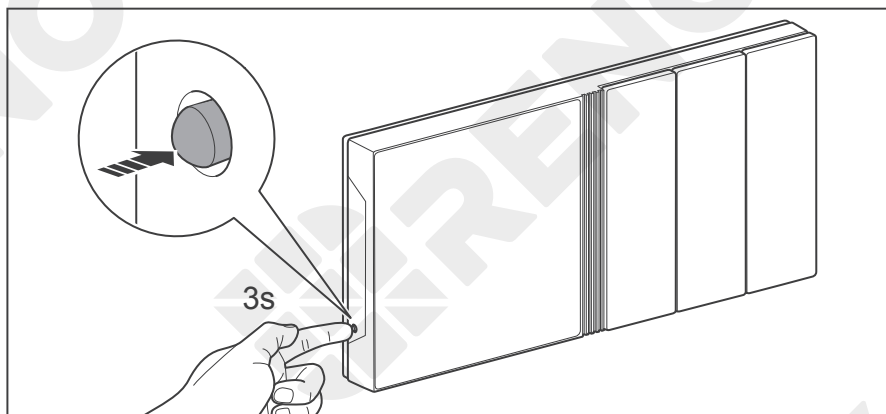
- To ensure good compatibility, it is recommended to use Renogy energy devices and smart accessories.



## INFO

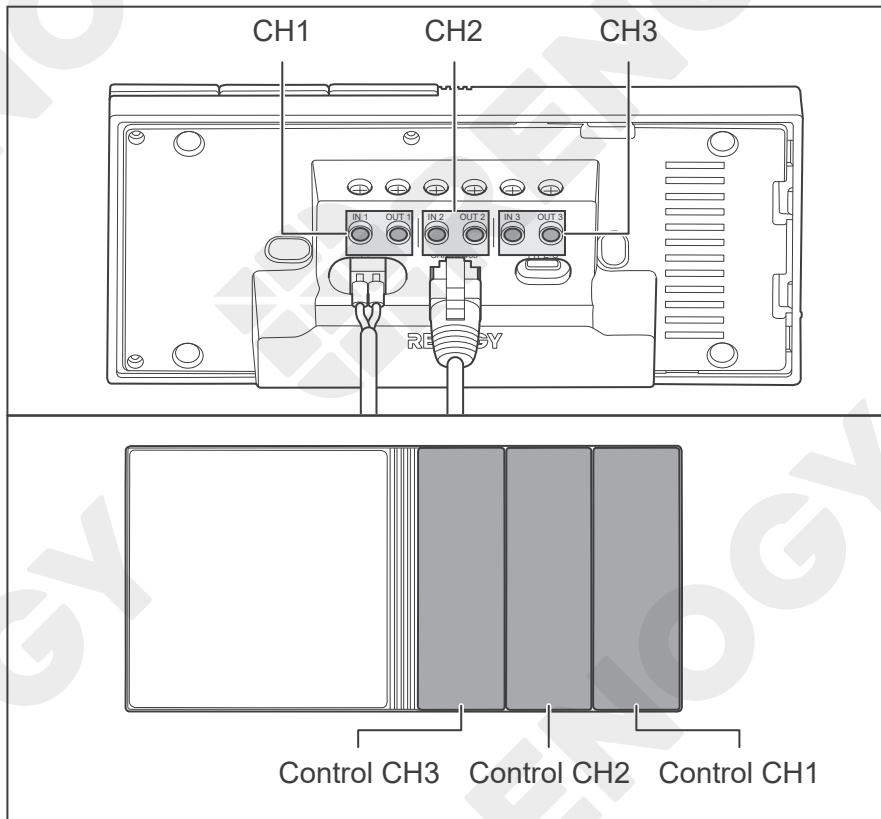
- For adding smart accessories to Renogy ONE via Zigbee, resetting accessories is required. For details, refer to the instructions in the user manuals of specific smart accessories.

# Power On/Off

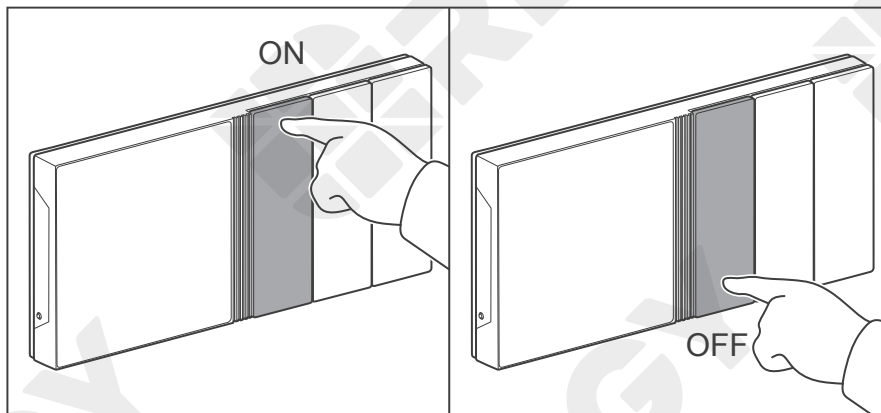


Press and hold the Power Button on Renogy ONE for 3 seconds to power it on or off.

# Control External Loads



1. The 3 panel switches of Renogy ONE correspond to 3 panel relays respectively.



2. Press the panel switches to power on/off external loads.

You can modify the above default settings or set more functions for the panel switch through the DC Home app.

On the main interface of the DC home app, go to **Scenes** and tap **+**. Set the conditions and actions in **When** and **Do** respectively, and then tap **Save**.



# Technical Specifications

Items	Parameters
Product Name	Renogy ONE M1
Model	RMS-LP4-G2
Power Supply	Rated Power 3.5W <ul style="list-style-type: none"> <li>Power Port: 8V to 16V DC</li> <li>Type-C Port: 5V DC</li> </ul>
Power Consumption	< 2.5W (standby)
Ports	<ul style="list-style-type: none"> <li>USB Type-C (5V DC)</li> <li>RJ45 (CAN &amp; RS485)</li> <li>2-pin 3.81 mm pluggable terminal block (12V DC)</li> </ul>
Wireless Communication	<ul style="list-style-type: none"> <li>Wi-Fi (IEEE 802.11b/g/n 2.4GHz)</li> <li>Bluetooth 2.1/4.2 and Bluetooth LE</li> <li>Zigbee (IEEE 802.15.4)</li> </ul>
Protocols	RV-C / Modbus / Zigbee 3.0
Touch Screen	4 inches (480 x 480p) White backlight with adjustable brightness
Load	≤30V DC, 5A Max / Channel
Operating Temperature	-4°F to 122°F (-20°C to 50°C)
Operating Humidity	0% to 95% RH
Operating Altitude	< 2000m above sea level
Installation	Flush mounting
Dimensions	7.16 x 3.42 x 1.66 in (181.8 x 86.8 x 42.2 mm)

# Troubleshooting

Issue	Possible Cause	Solution
Power on failure	Abnormal power supply	Check whether the voltage of the power supply is within the normal range (8V to 16V DC).
	Reverse polarity contact	Check whether the positive and negative polarities of the power terminals are normally connected.
	Renogy ONE damaged	Contact our customer service through <a href="https://renogy.com/contact-us/">renogy.com/contact-us/</a> .
Failure to add devices or smart accessories	The device is too far away from Renogy ONE.	Move the device closer to Renogy ONE. <ul style="list-style-type: none"> <li>● Bluetooth: within 10 m in an open environment.</li> <li>● Zigbee: within 50 m in an open environment.</li> </ul>
	The smart accessories have been connected to other devices.	Reset the smart accessories, and redo adding. For details, see the user manuals of specific accessories.
	The device or smart accessory is incompatible with Renogy ONE.	Use Renogy devices and smart accessories.
Wi-Fi connection failure	Unsupported Wi-Fi frequency band	Ensure the Wi-Fi router is working on the 2.4GHz band.
	WPA3 encryption	Disable WPA3 encryption on the Wi-Fi router.
	Wrong password	Enter the correct Wi-Fi SSID and password.
	Signal shielding	Ensure that there is no metal object around Renogy ONE and the Wi-Fi router because it may undermine the wireless communication.
BT-2 communication failure	Unstable communication quality	Unplug the BT-2 Bluetooth module from the devices, and then plug it to the devices again. Redo device scanning on Renogy ONE if necessary.

# Troubleshooting

Issue	Possible Cause	Solution
Laggy and unresponsive operations on the LCD	Improper power supply	Check the voltage of the power supply. Make sure the voltage is 8V to 16V DC for the Power Port or 5V DC for the Type-C port, and the voltage should be stable.
Failure to scan Bluetooth devices	<ol style="list-style-type: none"><li data-bbox="451 551 903 629">1. The Bluetooth device is powered off.</li><li data-bbox="451 629 903 752">2. The Bluetooth device has been paired with DC Home app.</li><li data-bbox="451 752 903 853">3. Bluetooth on the device is turned off.</li></ol>	<ol style="list-style-type: none"><li data-bbox="919 551 1468 629">1. Power on the Bluetooth device.</li><li data-bbox="919 629 1468 752">2. Unpair the device from the app first and then redo scanning on Renogy ONE.</li><li data-bbox="919 752 1468 853">3. Turn on Bluetooth on the device.</li></ol>

# FAQ

Q1: Does Renogy ONE M1 come with a shunt?

A: No, it does not come with a shunt. Please stay tuned for further updates on this in the near future.

Q2: Are there any requirements for the installation of Renogy ONE?

A: Renogy ONE is only suitable for indoor uses and in vehicles. Please do not use it at high temperatures, high humidity, or high altitudes. Please keep Renogy ONE clear of metals for optimal wireless connection with energy devices and smart accessories.

The optimal conditions for Renogy ONE are as follows:

- (1) Temperature: -4°F to 122°F
- (2) Humidity: 0% to 95% RH
- (3) Altitude: below 6,561 feet (2,000 meters)

Q3: How do I connect Renogy ONE with different types of batteries?

A: Renogy ONE can connect with Renogy batteries only if they support Bluetooth (built in or with BT-1/BT-2 plugged in), RS485, or RV-C.

Q4: Is Renogy ONE compatible with third-party Zigbee 3.0 devices?

A: We cannot guarantee the compatibility between Renogy ONE and third-party Zigbee 3.0 devices. Therefore, it is recommended to use smart accessories that have been authorized by Renogy with your Renogy ONE, such as Smart Plug, Motion Sensor, Door & Window Sensor, and Smart Relay.

Q5: Do the configured smart scenes still work even when Renogy ONE is offline?

A: Yes. Renogy ONE is wirelessly connected with smart accessories through the Zigbee 3.0 protocol. When you set up a smart scene, the configuration will be saved in the system of Renogy ONE.

Even if the Wi-Fi network is unavailable, Renogy ONE can still interact with smart accessories via Zigbee 3.0.

Q6: How many devices can Renogy ONE connect via Bluetooth/RS485/CAN and Zigbee 3.0 at most?

A: You can connect a maximum of seven Bluetooth devices, 64 devices with RS485/CAN port, and 200 Zigbee 3.0 devices to Renogy ONE.

Please note that Renogy ONE may experience delayed responses if too many devices are connected with it.

Q7: What is the maximum range between Renogy ONE and Bluetooth devices as well as Zigbee 3.0 devices?

# FAQ

A: In an open area, the maximum range between Bluetooth devices and Renogy ONE is 32.8 ft (10 m). For Zigbee 3.0 devices, the maximum range will be 164 ft (50 m).

Q8: What kind of power systems can Renogy ONE work with?

A: Please power up Renogy ONE with a 12V or 5V DC power supply. Its rated power is 3.5W. If you wish to wire home appliances with Renogy ONE for one-touch control, please make sure the load is below or equal to 30V DC, 5A.

As for energy monitoring, Renogy ONE allows you to monitor power devices that are connected to it.

Q9: How can Renogy ONE communicate with other devices?

A: Renogy ONE can communicate with other devices wirelessly through Bluetooth and Zigbee 3.0 or wired RS485 and RV-C cables, as long as they are authorized by Renogy.

Q10: Do I have to pair Renogy ONE with the DC Home app for operation?

A: No, you can add energy devices and simply check energy data without linking to the DC Home app.

However, we advise you to pair it with the DC Home app to access important features including remote monitoring, setting up smart scenes, and more.

Q11: Can Renogy ONE connect to the Internet via a hotspot from a smart mobile phone?

A: Yes.

Q12: Does Renogy ONE support WPA3 encrypted Wi-Fi networks?

A: No, it does not support WPA3.

Q13: Does Renogy ONE support 5 GHz Wi-Fi networks?

A: No, it does not.

# Maintenance

Inspection

Cleaning

Storage

## Inspection

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

- Check the appearance of the Renogy ONE to make sure it is clean and dry.
- Ensure the Renogy ONE is installed in a clean, dry and ventilated area.
- Ensure there is no damage or wear on the cables.
- Ensure the firmness of the connectors and check if there are any loose, damaged or burnt connections.
- Ensure that the Battery indicator and Fault indicator are in normal state.
- Ensure there is no any corrosion, insulation damage, or discoloration marks of overheating or burning.



### NOTE

- In some applications, corrosion may exist around the contacts inside the connector. Corrosion can loosen springs and increase resistance, leading to premature connection failure. Please apply dielectric grease to each connector contact periodically. Dielectric grease repels moisture and protects the connector contacts from corrosion.



### WARNING

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

## Cleaning

Follow the steps below to clean the Renogy ONE regularly.

- Shut down Renogy ONE. If you clean the inside of the device, you need to disconnect the power supply.
- Wipe the charger housing and connector contacts with a damp cloth or non-metallic brush. If it is not clean after wiping, use a household cleaner.
- Dry the Renogy ONE with a clean cloth and keep the area around the Renogy ONE clean and dry.
- Make sure the Renogy ONE is completely dry before reconnecting the connector to the Renogy ONE.

## Storage

Follow the tips below to ensure that the Renogy ONE is stored well.

- Disconnect all connectors that are connected to the Renogy ONE.
- By applying dielectric grease to each connector contact, the dielectric grease repels moisture and protects the connector contacts from corrosion.

# Emergency Responses

Fire

Flooding

Smell

Noise

In the event of any threat to health or safety, always begin with the steps below before addressing other suggestions.

- Immediately contact the fire department or other relevant emergency response team.
- Notify all people who might be affected and ensure that they can evacuate the area.



## WARNING

- ONLY perform the suggested actions below if it is safe to do so.

### Fire

1. Disconnect all cables connected to the Renogy ONE.
2. Put out the fire with a fire extinguisher. Acceptable fire extinguishers include water, CO2, and ABC.



## WARNING

- Do not use type D (flammable metal) fire extinguishers.

### Flooding

1. If the Renogy ONE is submerged in water, stay away from the water.
2. Disconnect all cables connected to the Renogy ONE.

### Smell

1. Disconnect all cables connected to the Renogy ONE.
2. Make sure nothing is in contact with the Renogy ONE.
3. Ventilate the room.

### Noise

1. Disconnect all cables connected to the Renogy ONE.
2. Make sure no foreign objects are stuck in the Renogy ONE connector.

# Technical Support

For additional support, contact the Renogy technical support team through [renogy.com/contact-us](https://www.renogy.com/contact-us). Have the following information available when contacting Renogy.

- Owner name
- Contact information
- Order number
- Purchase channel
- Serial number
- Brief description of the issue

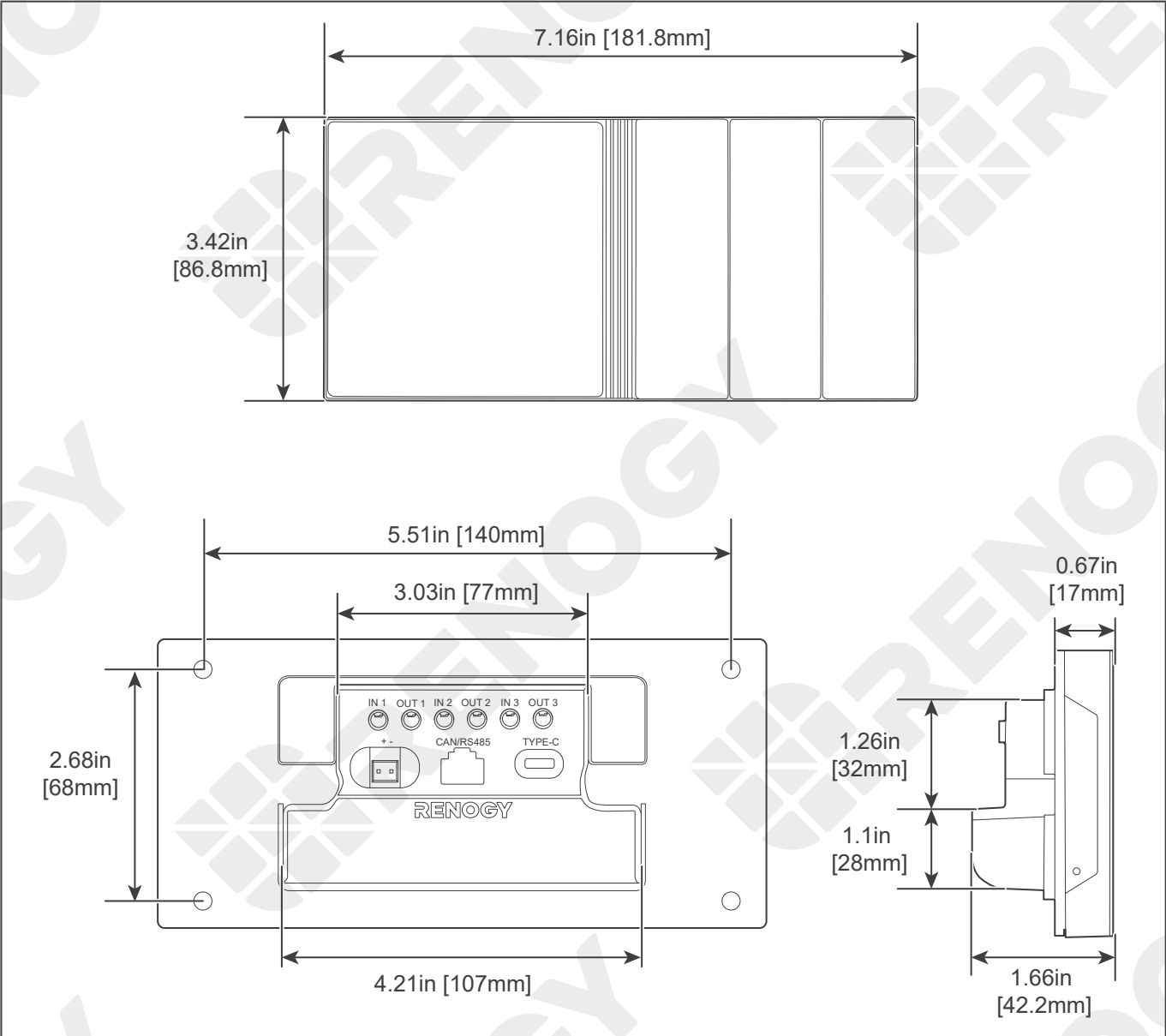


**Renogy offers premium services worldwide:**

<b>North America</b>	US	<a href="https://www.renogy.com">www.renogy.com</a>	CA	<a href="https://ca.renogy.com">ca.renogy.com</a>
	AU	<a href="https://au.renogy.com">au.renogy.com</a>	CN	<a href="https://www.renogy.cn">www.renogy.cn</a>
<b>Asia/Pacific</b>	JP	<a href="https://renogy.jp">renogy.jp</a>	KR	<a href="https://kr.renogy.com">kr.renogy.com</a>
	UK	<a href="https://uk.renogy.com">uk.renogy.com</a>	DE	<a href="https://de.renogy.com">de.renogy.com</a>
<b>Europe</b>	FR	<a href="https://fr.renogy.com">fr.renogy.com</a>	ES	<a href="https://es.renogy.com">es.renogy.com</a>



# Dimensions



**CAUTION**

- Dimension tolerance:  $\pm 0.5$  mm (0.2 in)

## FCC Statement

This device complies with Part 15 of the FCC Rules. FCC ID: 2ANPBRMLP4-G2. 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.

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) Orient 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.

## Privacy Policy

RENOGY (“us”, “we”, or “our”) operates on RENOGY ONE device (hereinafter referred to as the “Service”).

This page informs you of our policies regarding the collection, use and disclosure of personal data when you use our Service and the choices you have associated with that data.

We use your data to provide and improve the Service. By using the Service, you agree to the collection and use of information in accordance with this policy. Unless otherwise defined in this Privacy Policy, the terms used in this Privacy Policy have the same meanings as in our Terms and Conditions, accessible from [www.renogy.com](http://www.renogy.com).

### **Definitions**

- **Service**

Service includes but not limited to, serving as a central control panel for your RENOGY ONE system, enabling you to control your entire system from one single touchscreen, connecting energy devices and smart accessories, and synchronizing this data to your RENOGY server and mobile App.

- **Personal Data**

Personal Data means data about a living individual who can be identified from those data (or from those and other information either in our possession or likely to come into our possession).

- **Usage Data**

Usage Data is data collected automatically, either generated by the use of the Service or from the Service infrastructure itself (for example, your IP address and user log).

- **Data Controller**

Data Controller means the natural or legal person who (either alone or jointly or in common with other persons) determines the purposes for which and the manner in which any personal information are, or are to be, processed.

For the purpose of this Privacy Policy, we are a Data Controller of your Personal Data.

- **Data Processors (or Service Providers)**

Data Processor (or Service Provider) means any natural or legal person who processes the data on behalf of the Data Controller.

We may use the services of various Service Providers in order to process your data more effectively.

- **Data Subject (or User)**

Data Subject is any living individual who is using our Service and whose Personal Data is collected by us.

- **Information Collection and Use**

We collect several different types of information for various purposes to provide and improve our Service to you.

## Types of Data Collected

### ■ Personal Data

While using our Service, we may ask you to provide us with certain personally identifiable information that can be used to contact or identify you (“Personal Data”). Personally identifiable information may include, but is not limited to:

- Email address
- First name and last name
- Address, State, Province, ZIP/Postal code, City

We may use your Personal Data to contact you with newsletters, marketing or promotional materials and other information that may be of interest to you. You may opt out of receiving any, or all, of these communications from us by following the unsubscribe link or the instructions provided in any email we send.

### ■ Usage Data

We may also collect information on how the Service is accessed and used (“Usage Data”). This Usage Data may include information such as your Renogy One Internet Protocol address (e.g. IP address), 4G/5G and Wi-Fi access information, power usage, sensor history, user log, unique device identifiers and other diagnostic data.

### ■ Location Data

We may use and store information about your location if you give us permission to do so (“Location Data”). We use this data to provide features of our Service, to improve and customise our Service.

You can enable or disable location services when you use our Service at any time by way of your device settings.

### ■ Use of Data

RENOGY uses the collected data for various purposes:

- To provide and maintain our Service
- To notify you about changes to our Service
- To allow you to participate in interactive features of our Service when you choose to do so
- To provide customer support
- To gather analysis or valuable information so that we can improve our Service
- To monitor the usage of our Service
- To detect, prevent and address technical issues
- To provide you with news, special offers and general information about other goods, services and events which we offer that are similar to those that you have already purchased or enquired about unless you have opted not to receive such information

### ■ Legal Basis for Processing Personal Data under the General Data Protection Regulation (GDPR)

If you are from the European Economic Area (EEA), UK or Switzerland, RENOGY’s legal basis for collecting and using the personal information described in this Privacy Policy depends on the

Personal Data we collect and the specific context in which we collect it.

RENOGY may process your Personal Data because:

- We need to perform a contract with you
- You have given us permission to do so
- The processing is in our legitimate interests and it is not overridden by your rights
- To comply with the law

#### ■ Retention of Data

RENOGY will retain your Personal Data only for as long as is necessary for the purposes set out in this Privacy Policy. We will retain and use your Personal Data to the extent necessary to comply with our legal obligations (for example, if we are required to retain your data to comply with applicable laws), resolve disputes and enforce our legal agreements and policies.

RENOGY will also retain Usage Data for internal analysis purposes. Usage Data is generally retained for a shorter period of time, except when this data is used to strengthen the security or to improve the functionality of our Service, or we are legally obligated to retain this data for longer periods.

#### ■ Transfer of Data

Your information, including Personal Data, may be transferred to - and maintained on - computers located outside of your state, province, country or other governmental jurisdiction where the data protection laws may differ from those of your jurisdiction.

If you are located outside the United States and choose to provide information to us, please note that we transfer the data, including Personal Data, to the United States and process it there.

RENOGY will take all the steps reasonably necessary to ensure that your data is treated securely and in accordance with this Privacy Policy and no transfer of your Personal Data will take place to an organization or a country unless there are adequate controls in place including the security of your data and other personal information.

#### Disclosure of Data

##### ■ Disclosure for Law Enforcement

Under certain circumstances, RENOGY may be required to disclose your Personal Data if required to do so by law or in response to valid requests by public authorities (e.g. a court or a government agency).

##### ■ Legal Requirements

RENOGY may disclose your Personal Data in the good faith belief that such action is necessary to:

- To comply with a legal obligation
- To protect and defend the rights or property of RENOGY
- To prevent or investigate possible wrongdoing in connection with the Service
- To protect the personal safety of users of the Service or the public
- To protect against legal liability

## ■ Security of Data

The security of your data is important to us but remember that no method of transmission over the Internet or method of electronic storage is 100% secure. While we strive to use commercially acceptable means to protect your Personal Data, we cannot guarantee its absolute security.

## ■ Your Data Protection Rights under the General Data Protection Regulation (GDPR)

If you are a resident of the European Economic Area (EEA), the UK or Switzerland, you have certain data protection rights. RENOGY aims to take reasonable steps to allow you to correct, amend, delete or limit the use of your Personal Data.

If you wish to be informed about what Personal Data we hold about you and if you want it to be removed from our systems, please contact us.

In certain circumstances, you have the following data protection rights:

- **The right to access, update or delete the information we have on you.** Whenever made possible, you can access, update or request deletion of your Personal Data directly within your account settings section. If you are unable to perform these actions yourself, please contact us to assist you.
- **The right of rectification.** You have the right to have your information rectified if that information is inaccurate or incomplete.
- **The right to object.** You have the right to object to our processing of your Personal Data, in certain circumstances including where we are processing your Personal Data on the basis of our legitimate interests.
- **The right of restriction.** You have the right to request that we restrict the processing of your personal information.
- **The right to data portability.** You have the right to be provided with a copy of the information we have on you in a structured, machine-readable and commonly used format.
- **The right to erasure.** You have the right to request that your Personal Data be deleted in its entirety from our systems. We will comply with your request unless we are required to retain your Personal Data due to legal or regulatory requirements, as stated in this policy.
- **The right to withdraw consent.** You also have the right to withdraw your consent at any time where RENOGY relied on your consent to process your personal information.

Please note that we may ask you to verify your identity before responding to such requests.

You have the right to complain to a Data Protection Authority about our collection and use of your Personal Data. For more information, please contact your local data protection authority in the European Economic Area (EEA), the ICO in the UK or the Federal Data Protection and Information Commissioner in Switzerland.

## ■ Your Privacy Rights under the California Consumer Privacy Act (CCPA)

If you are a California resident, you have certain privacy rights as specified under California law, including the CCPA. These include:

- **The right to know what personal information we collect**
- **The right to know who we share your data with.** We do not sell your data, but we do share your information with others for legitimate business purposes, as described above.



- **The right to request deletion of your data**, unless an exception applies. Examples of exceptions include when we need to keep data to meet legal obligations or fix security issues. Upon your verified request, we will delete your personal information unless an exception applies, and will direct our service providers to do the same.
- **Get a timely response**. You have the right to make two free requests in any 12 month period. We will respond to your request within 45 days, and in more difficult cases we may extend our response time by another 45 days.
- **Non-discrimination**. We will not hold it against you when you exercise any of your rights, and we encourage you to review your privacy settings closely and reach out to us with your questions.

Under the CCPA, we are required to inform you of the data we may collected in the last 12 months:

- Identifiers, such as your name, email address and IP address
- Internet or other electronic network activity information

We may share your personal information with a third party for business purposes or at your direction. We enter into agreements with our service providers in which they can only use your information for specific purposes and are required to ensure its confidentiality. In the past 12 months, we have disclosed the above categories of personal information for a business purpose or at your direction with our affiliates, services providers and third parties. For more details on third parties we share data with, please see the Service Providers section below.

Please contact us at [support@renogy.com](mailto:support@renogy.com) if you have any questions about data protection or if you wish to exercise any of your rights described above.

### **Service Providers**

We may employ third party companies and individuals to facilitate our Service (“Service Providers”), provide the Service on our behalf, perform Service-related services or assist us in analyzing how our Service is used.

These third parties have access to your Personal Data only to perform these tasks on our behalf and are obligated not to disclose or use it for any other purpose.

### **Analytics**

We may use third-party Service Providers to monitor and analyze the use of our Service.

### **Changes to This Privacy Policy**

We may update our Privacy Policy from time to time. We will notify you of any changes by posting the new Privacy Policy on this page.

We will let you know via email and/or a prominent notice on our Service, prior to the change becoming effective and update the “effective date” at the top of this Privacy Policy.

You are advised to review this Privacy Policy periodically for any changes. Changes to this Privacy Policy are effective when they are posted on this page.

### **Contact Us**

If you have any questions about this Privacy Policy, please contact us via [renogy.com/contact-us](https://renogy.com/contact-us).

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