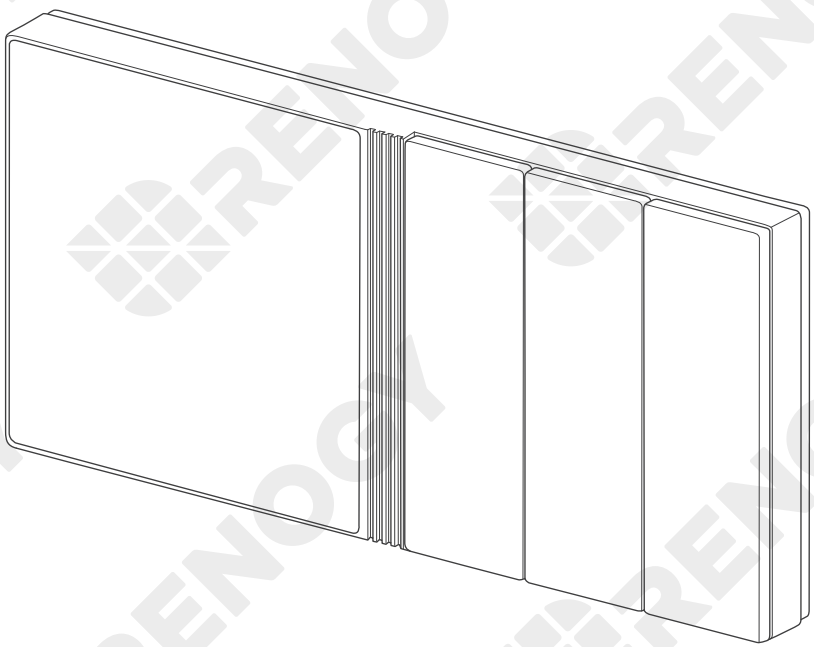
Renogy ONE

M1

VERSION A0



QUICK GUIDE

This Quick Guide contains important installation, operation, and maintenance instructions for Renogy ONE M1, hereinafter referred to as “Renogy ONE”. Please read the Quick Guide carefully before using the device.

For additional support, contact our customer service through renogy.com/contact-us/.

Scan the QR code to install DC Home app.

For detailed instructions,
scan the QR code for the User Manual.

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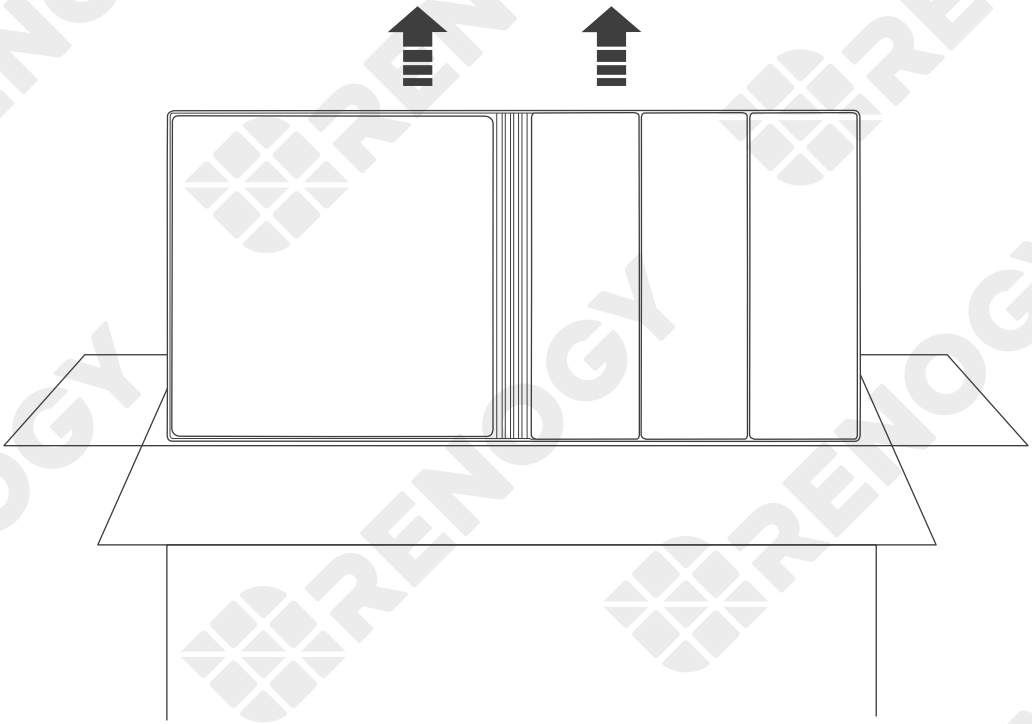
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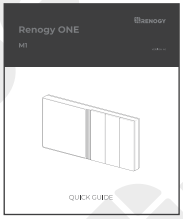
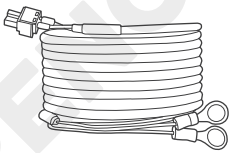
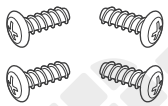
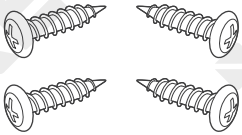
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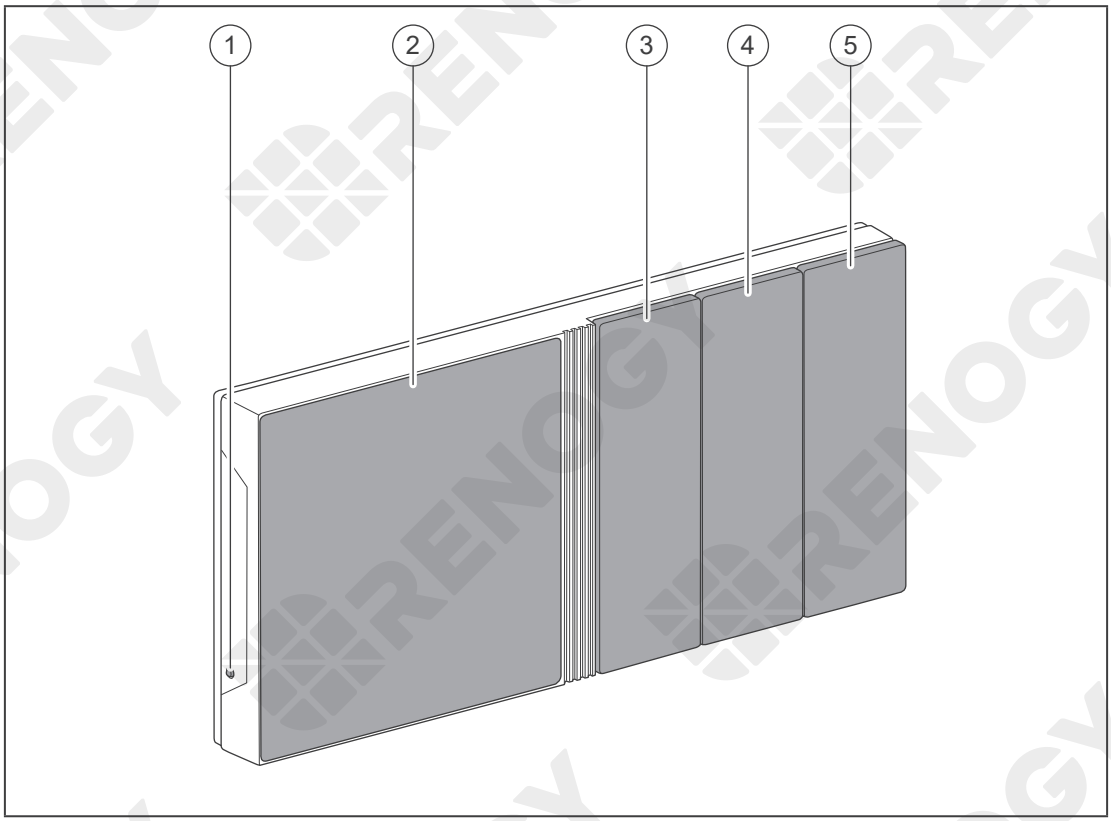
Maintenance 25

Package Contents



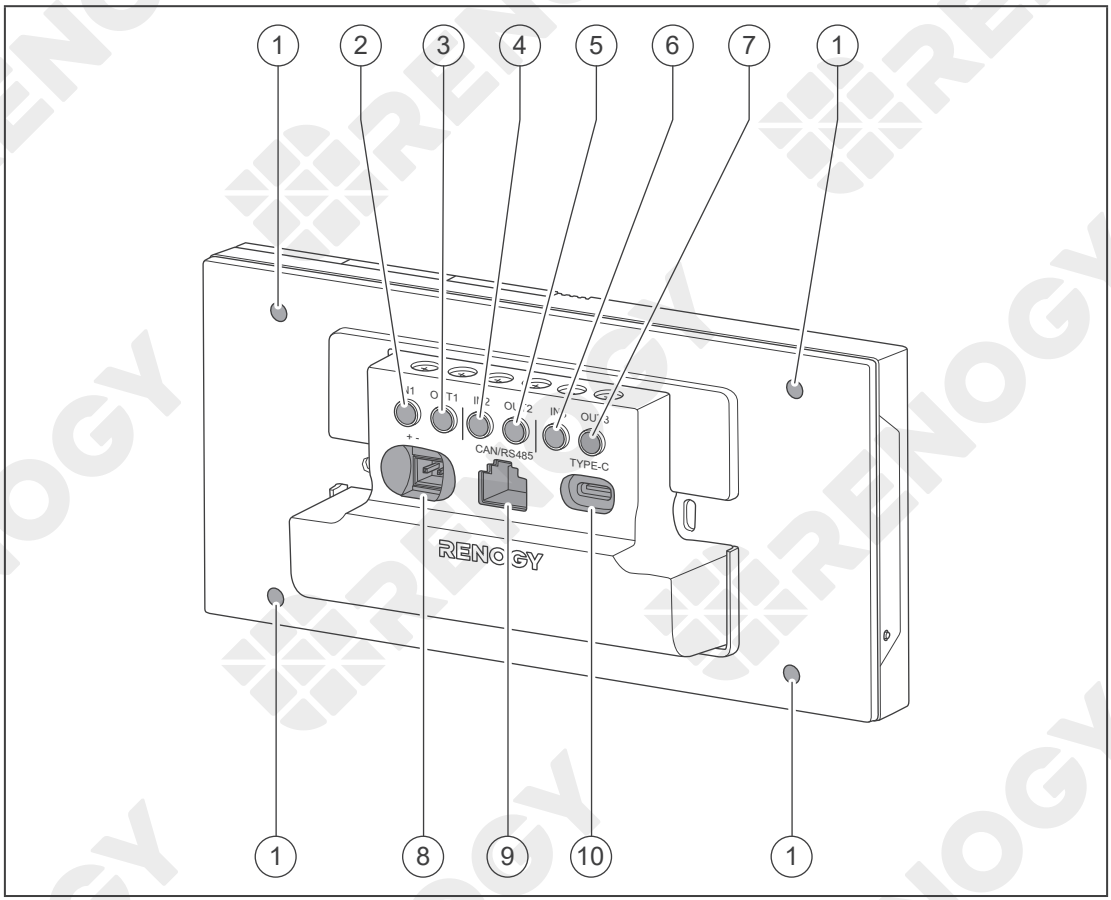
Quick Guide × 1	12V Power Cable (5m) × 1	M2 Screws × 4	M4 Mounting Screws × 4
		ST2 x 1.2 x 6.5 mm 	ST4 x 2 x 13 mm 

Product Overview



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

Product Overview

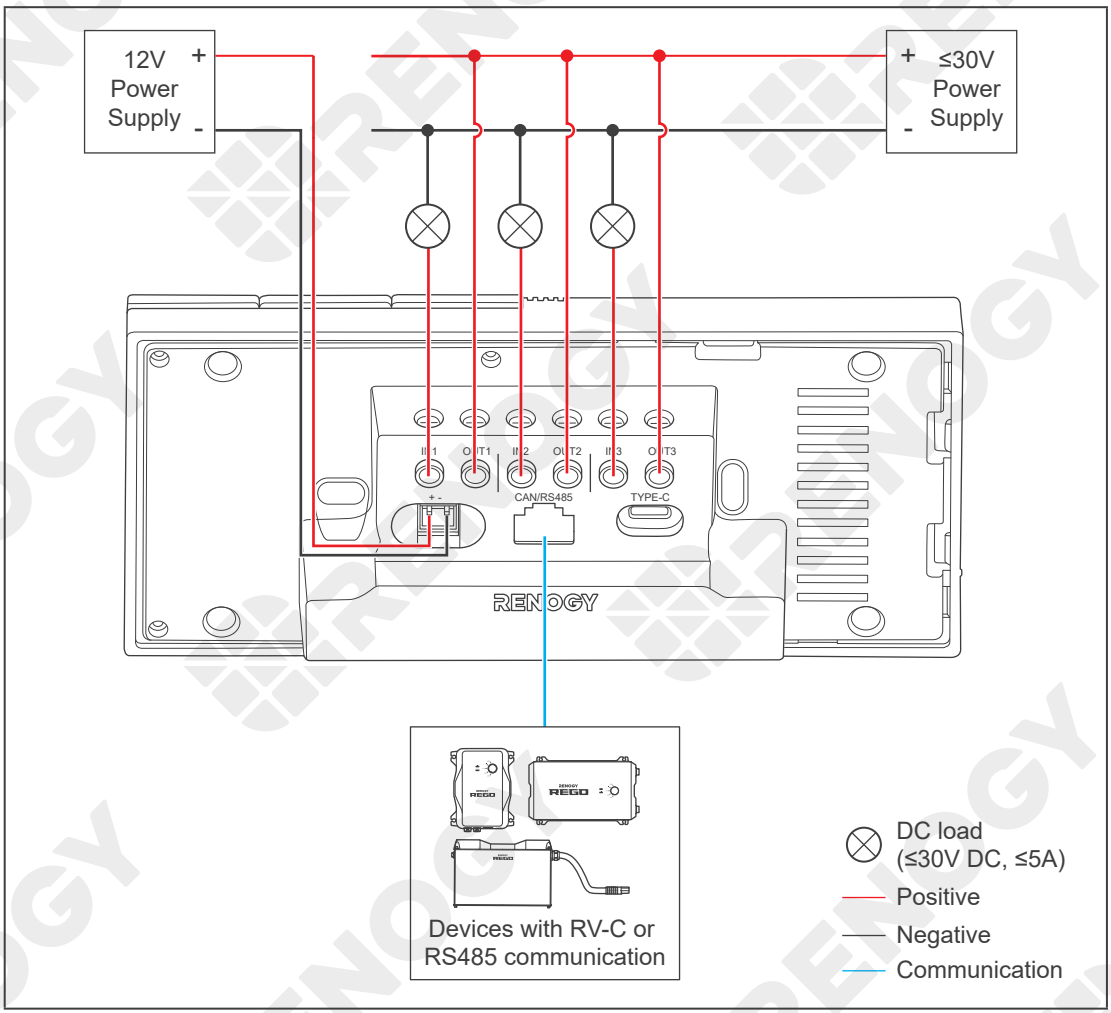


No.	Part	No.	Part
1	Mounting Holes	6	IN 3 (External Load Input Terminal)
2	IN 1 (External Load Input Terminal)	7	OUT 3 (External Load Output Terminal)
3	OUT 1 (External Load Output Terminal)	8	Power Port
4	IN 2 (External Load Input Terminal)	9	RJ45 Port
5	OUT 2 (External Load Output Terminal)	10	Alternate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

⚠

- Please inspect Renogy ONE for any visible damage including cracks, dents, deformation, and other visible abnormalities before installation.

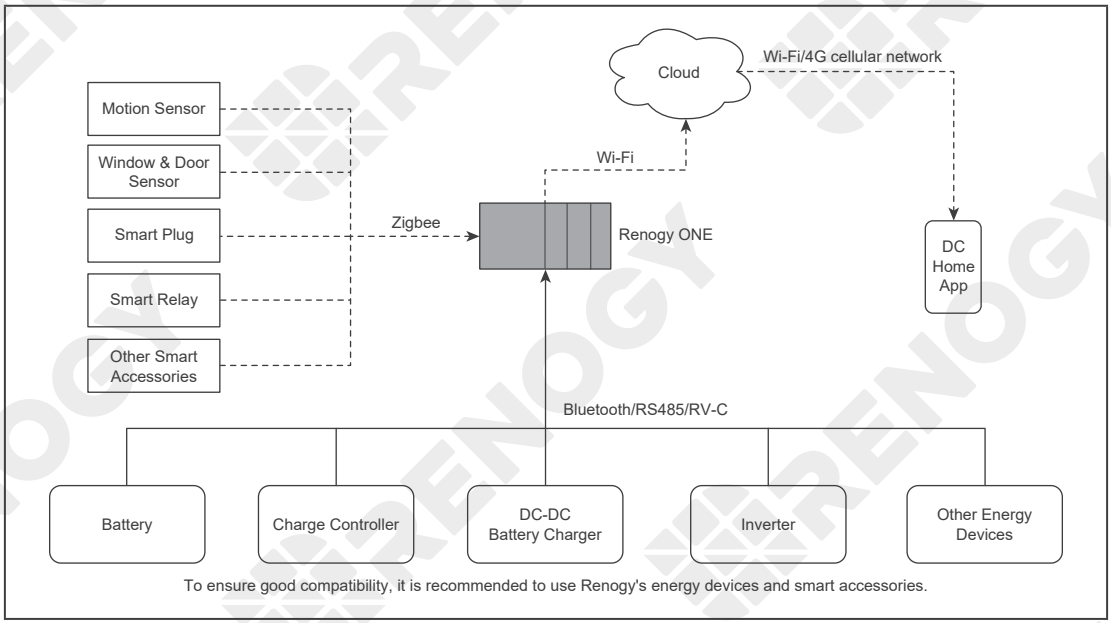
Wiring Diagram



- Illustrations in the Quick Guide are for reference only.
- Renogy ONE is only suitable for safe use in areas below 2,000 meters above sea level.
- There are no user serviceable parts inside Renogy ONE. Do not disassemble or attempt to repair it.

Communication Diagram

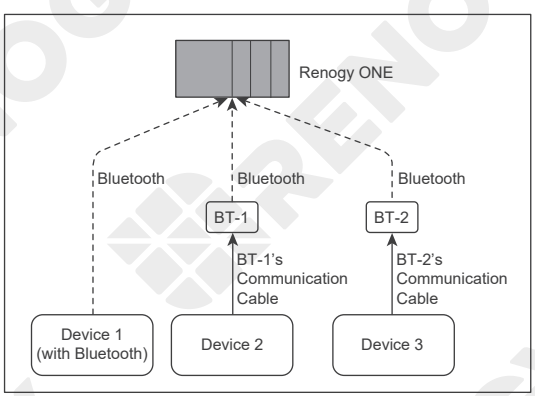
Renogy ONE Communication Architecture



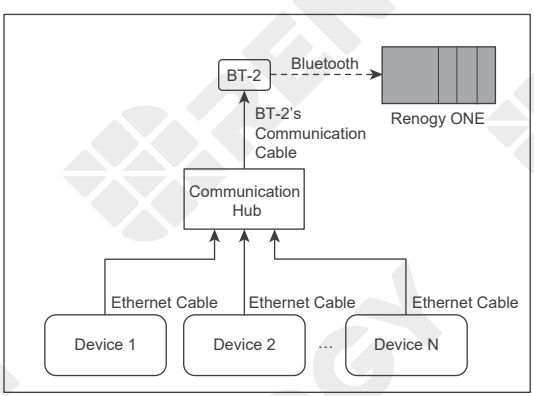
Energy Device Communication Connections

Bluetooth

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



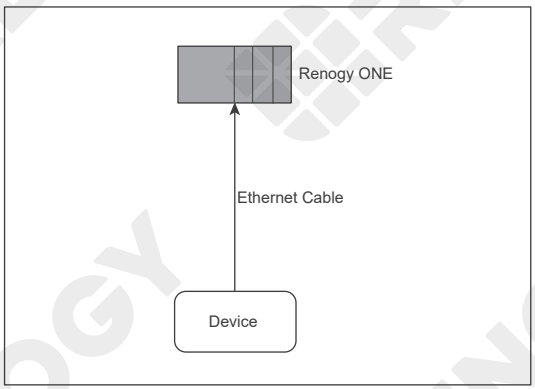
2. For devices connected to Renogy Communication Hub and BT-2:



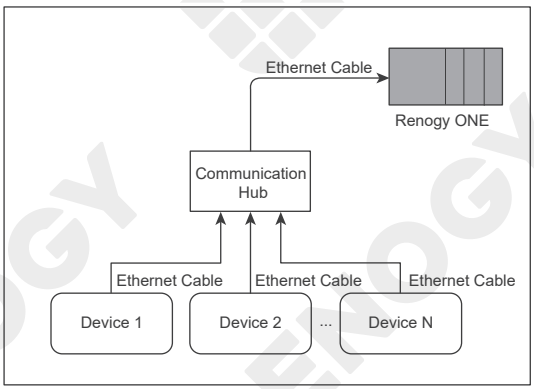
Communication Diagram

RS485 Communication

1. For a single device with RJ45 port:

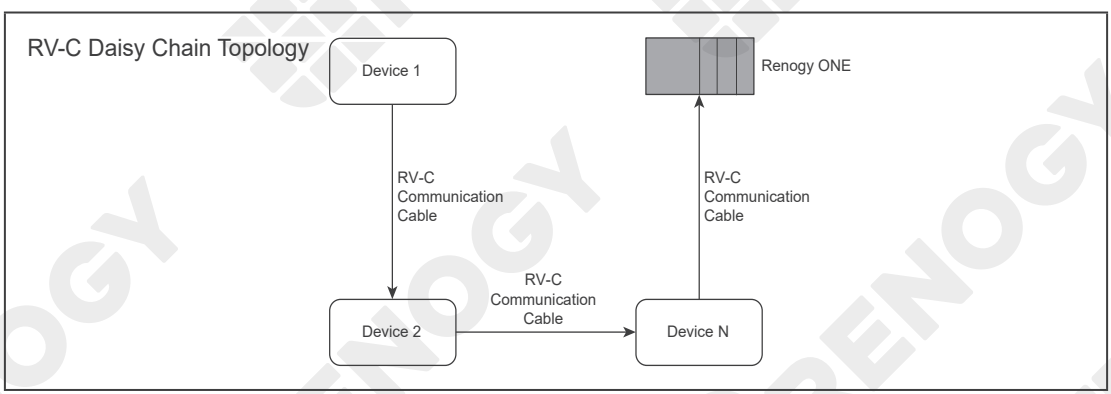


2. For devices connected to Renogy Communication Hub:



RV-C Communication

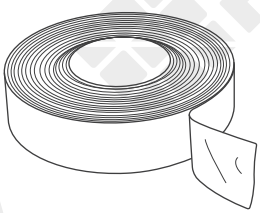
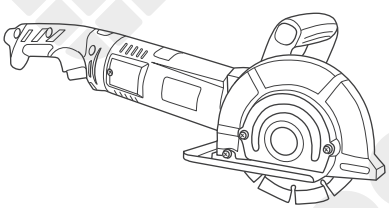
For REGO series products connected with RV-C daisy chain topology:



For backbone topology, please contact our customer service through renogy.com/contact-us/.

Preparation

Required Tools

Phillips Screwdriver (#1)	Phillips Screwdriver (#2)
	
Insulation Tape	**Skill Saw**
	

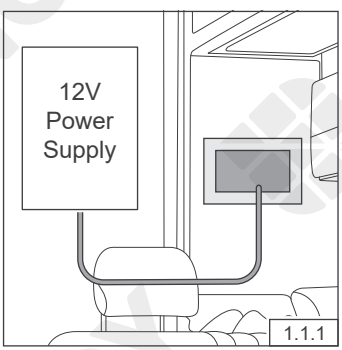
Mounting Template

Please tear off this piece of paper and paste it to the mounting location for drilling holes.
You can also use another piece of paper as the mounting template.
The installation hole comes in 110 mm × 65 mm (4.33 in x 2.56 in).

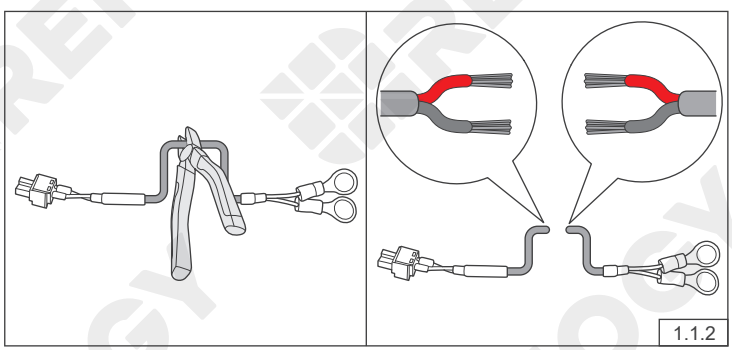


Mounting Location

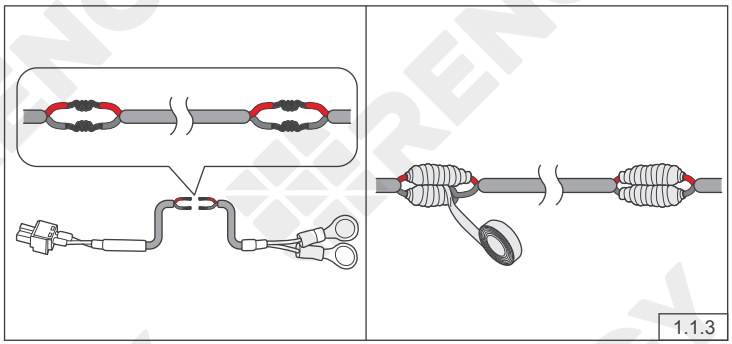
- Install Renogy ONE on a vertical surface indoors protected from direct sunlight, high temperature, and water. Make sure there is good ventilation.
- Mounting Renogy ONE requires installation holes, so please make sure that you can drill holes on the mounting position.
- To ensure quality wireless communication for Renogy ONE, keep it away from metal objects at a minimum distance of 200 mm or 7.88 inches.
- If the auxiliary 12V power cable is not long enough for connecting Renogy ONE to your power supply, you can re-select a mounting position or use an extension cable (≥ 22 AWG).
- When extending the 12V power cable, confirm the polarity of the cable before connecting it to the auxiliary one. A reverse polarity contact will result in abnormal operations. The length of the extension cable should not exceed 10 meters.
- Ensure that the base cover of Renogy ONE is firmly mounted to the wall to prevent it from falling off.



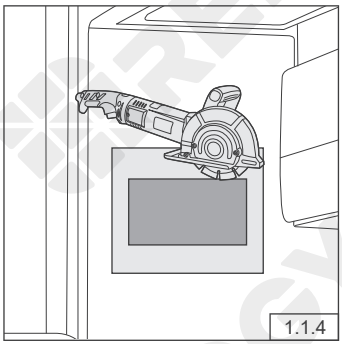
Tape the mounting template to the selected mounting location, and measure whether the 12V power cable is long enough to connect Renogy ONE to your power supply.



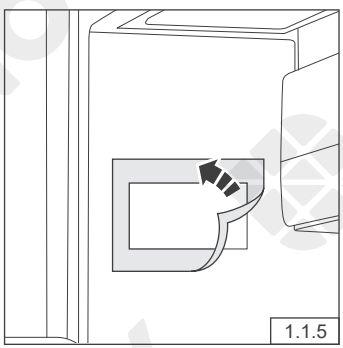
If you do not need to extend the 12V power cable, please go to Figure 1.1.4. If you need to extend the auxiliary 12V power cable, cut it at any part of the auxiliary 12V power cable and strip off some of the insulation.



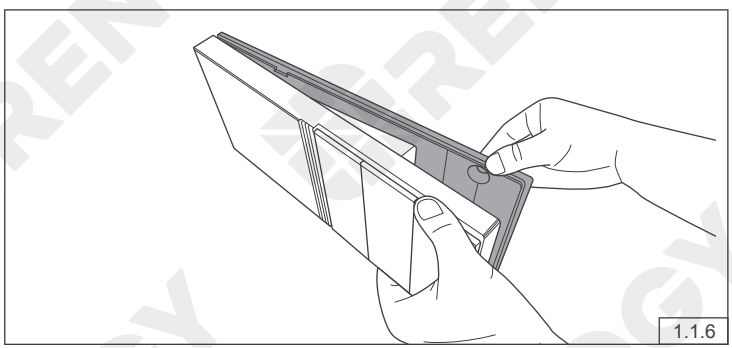
Strip part of the insulation off the extension cable and connect it to the cut-off point of the auxiliary 12V power supply cable and wrap the cut-of areas with insulating tape.



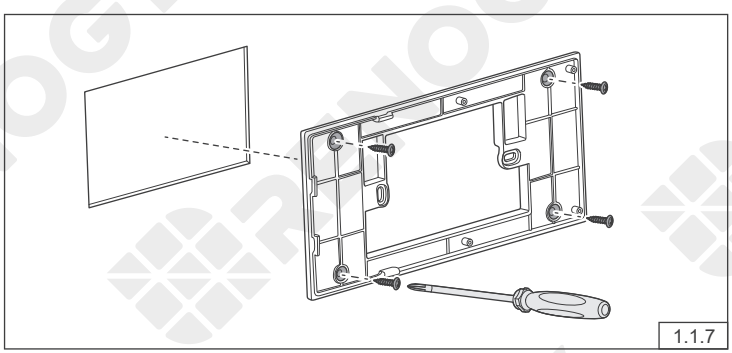
Use the skill saw to cut the installation hole according to the gray mark on the mounting template.



Tear off the mounting template.



Remove the base cover of Renogy ONE.



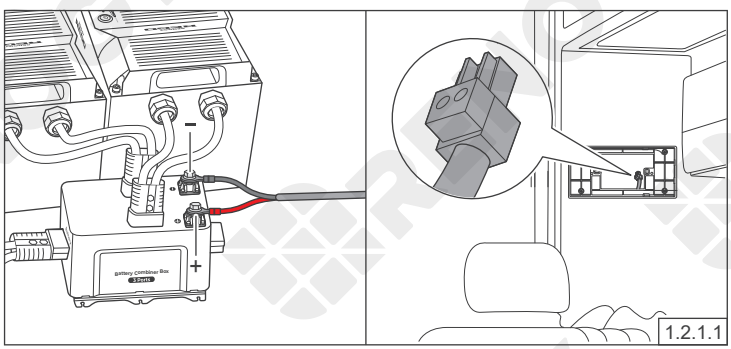
Put the backside of the base cover into the installation hole, and use a Phillips screwdriver to fasten the base cover with four M4 mounting screws through the mounting hole.

Embedding

12V Power Cable

⚠

- Renogy ONE can be connected to a power supply of up to 16V; otherwise Renogy ONE may be damaged.
- Illustrations in this Quick Guide 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.
- Make sure the power supply is cut off before connection.
- Please confirm the polarity of the power supply device before connection. A reverse polarity contact will result in abnormal operations.



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

Communication Cables

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.

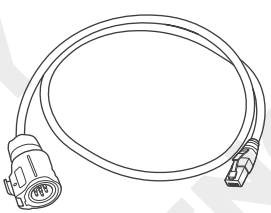
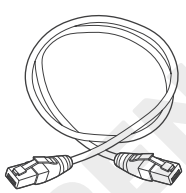
You can choose an appropriate communication method according to the actual situation. For RS485 or RV-C communication, you need to pre-embed the communication cable in the installation hole.

The RV-C communication wiring varies depending on the connection network topology. Both backbone and daisy chain topologies are supported.

If an RV-C bus is pre-installed in the RV, check the network wiring diagram provided by the RV manufacturer and follow the backbone topology for the RV-C communication connections. For additional support, please contact our customer service through renogy.com/contact-us/.

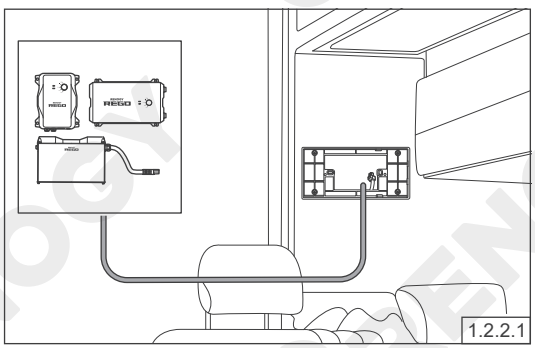
If an RV-C bus is not pre-installed in the RV, please follow the steps below.

Recommended Accessories

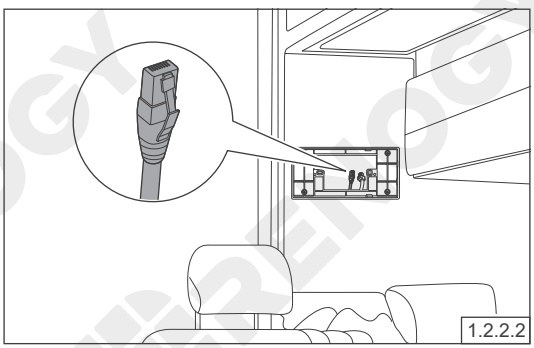
Communication Cables	
LP16 Plug (7-Pin) to RJ45 Communication Adapter Cable (for RV-C daisy chain topology connection)	RJ45 Ethernet Cable (for RS485 connection)
	

Installation

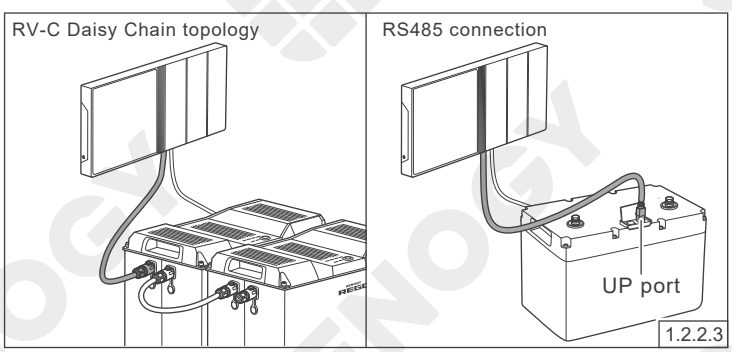
- Please select the appropriate communication cable (sold separately) according to the distance between devices.
- For RV-C daisy chain topology, please make sure that the CAN communication socket of the first device is installed with a 120Ω LP16 terminal plug (7-pin).
- For detailed instructions, please refer to the User Manual at renogy.com or by scanning the QR code in the beginning part of the guide.



Measure whether the communication cable can be connected to Renogy ONE and other devices.



Pre-embed the RJ45 connector of the communication cable into the installation hole.



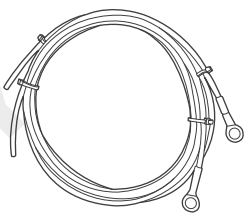
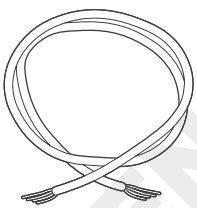
Connect the other end of the communication cable to the communication port of the specific device in use.

When connecting multiple devices via RS485 communication to Renogy ONE, follow the instructions in the User Manual.

External Load

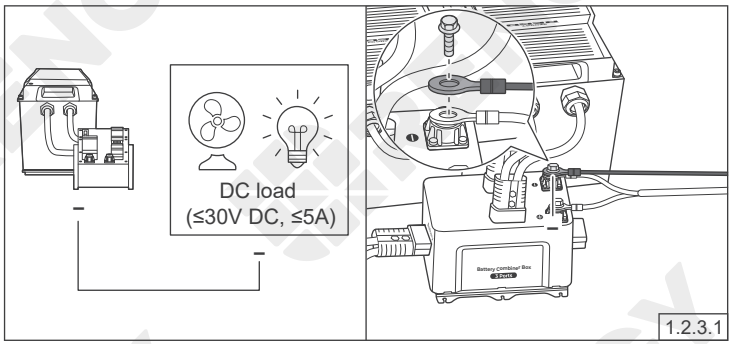
Renogy ONE comes with 3 relays which can be connected to 3 DC loads (≤30V DC, ≤5A). You can power on/off the loads via Panel Switches on Renogy ONE. For users who do not need external loads, no adapter cable pre-embedding is required.

Recommended Accessories

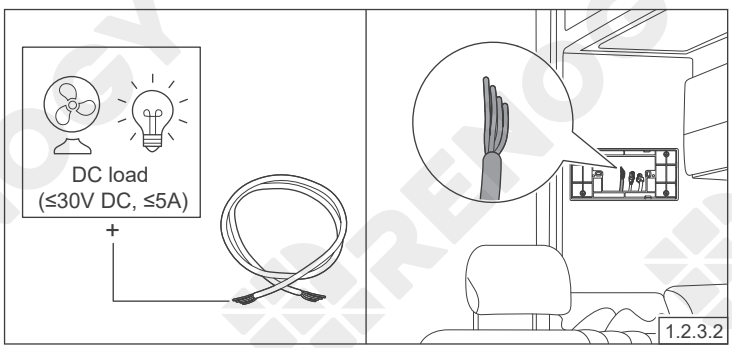
Ring Terminal to Bare Wire Adapter Cable	Bare Wire Cable
	

- For your safety, please refer to the user manual of Renogy ONE at renogy.com for the recommended wire gauge and length.
- Please ensure that the working current of an external DC load is less than or equal to 5A; otherwise Renogy ONE will be damaged.
- Please ensure that the output current of the power supply for an external DC load is less than or equal to 30V; otherwise Renogy ONE will be damaged.
- You can connect an external DC load (output current ≤ 30 V) to the power supply on demand.
- Make sure the power supply is powered off before connection.
- Please confirm the polarity of the power supply device before connection. A reverse polarity contact will result in abnormal operations.
- Please confirm the polarity of the load before connection. A reverse polarity contact may cause abnormal situation.

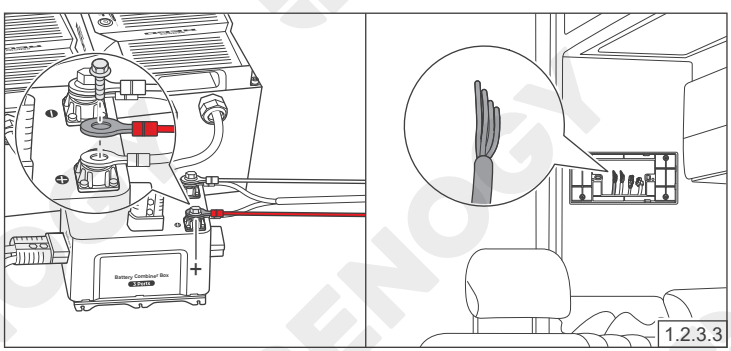
Installation



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



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



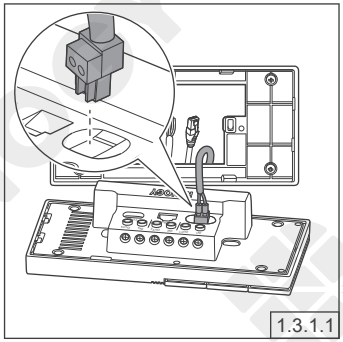
Connect the other ring terminal of the adapter cable to the positive terminal of the power supply device, and reserve the other end in the installation hole.

Wiring

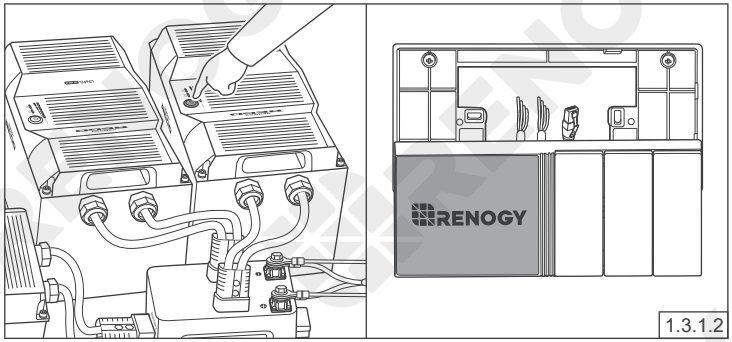
12V Power Cable

⚠

- After correct power cable connection and normal power-on of the power supply, Renogy ONE is automatically powered on. Failed automatic power-on indicates a fault on Renogy ONE. For troubleshooting, refer to the user manual of Renogy ONE. For additional support, please contact our customer service through renogy.com/contact-us/.
- Risk of electric shock! Please power off the power supply after the test on power-on of Renogy ONE is completed.

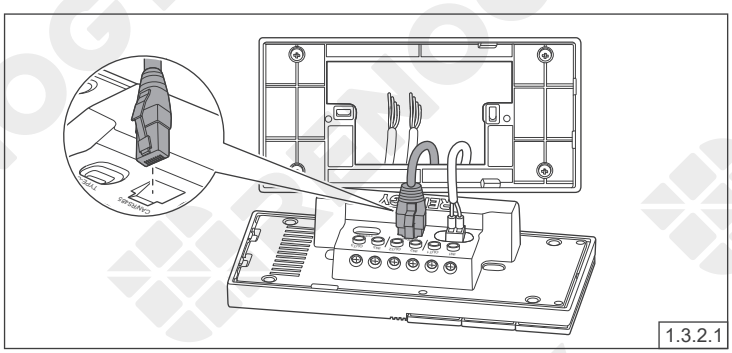


Insert the 12V power cable terminal block into Renogy ONE power port.



Power on the power supply and check if Renogy ONE automatically turns on with the LCD lighting up. After the test is complete, please power off the power supply.

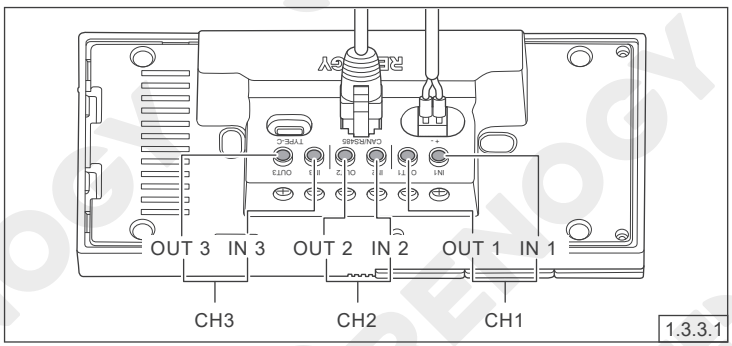
Communication Cable



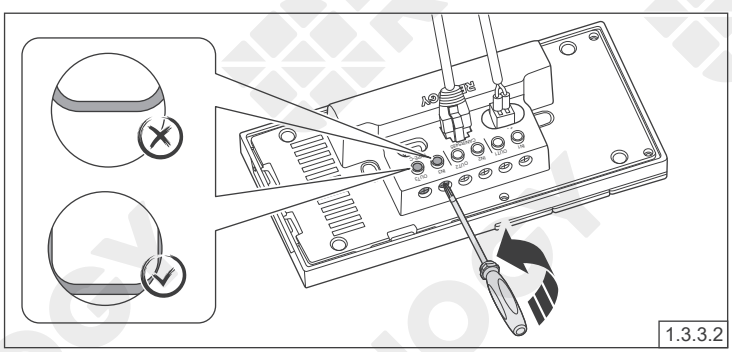
Connect the pre-embedded RJ45 connector to the RJ45 port of Renogy ONE.

External Load

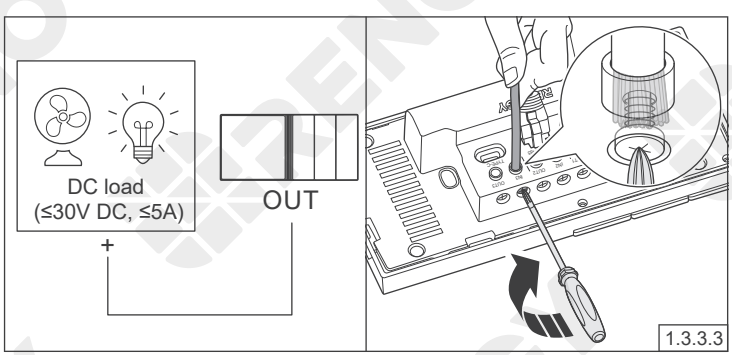
- Make sure the power supply is powered off before wiring.
- Strip some insulation off the bare wire end according to the depth of the installation hole.
- The maximum screw torque of wire hatch is 0.4 N•m. Do not overtighten the screws to avoid damage to the hatch.



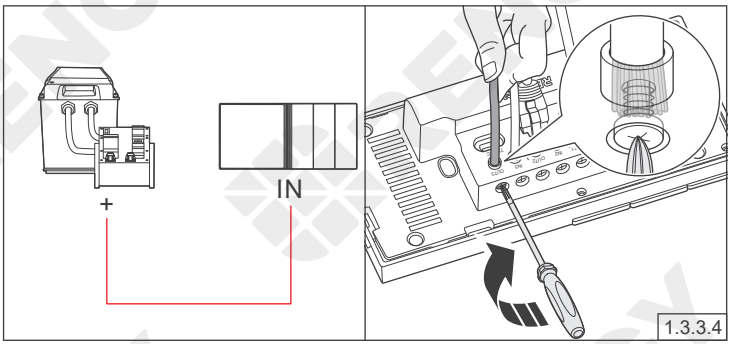
Ensure that the power supply cable and the cable that is connected to the positive pole of the load are connected to the same group of terminals. For example, “IN 1” and “OUT 1” are in a group.



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

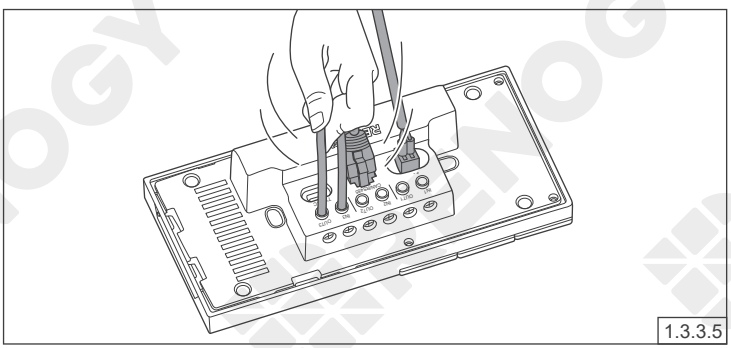


Insert the reserved adapter cable connecting to the positive terminal of the load into the Renogy ONE output terminal (OUT), and use a Phillips screwdriver to turn the wire hatch screw clockwise.



1.3.3.4

Insert the adapter cable connecting to the positive end of the power supply into the Renogy ONE input terminal (IN), and use a screwdriver to turn the wire hatch screw clockwise.



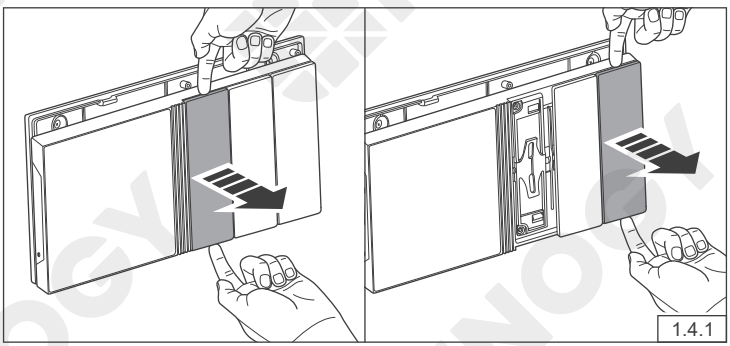
1.3.3.5

Make sure all connections are tight and secure.

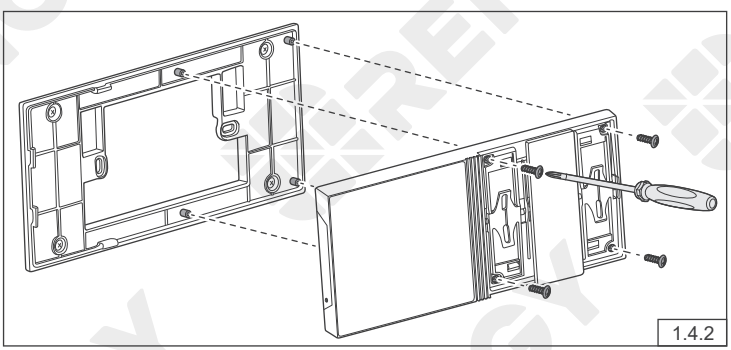
Mounting

⚠

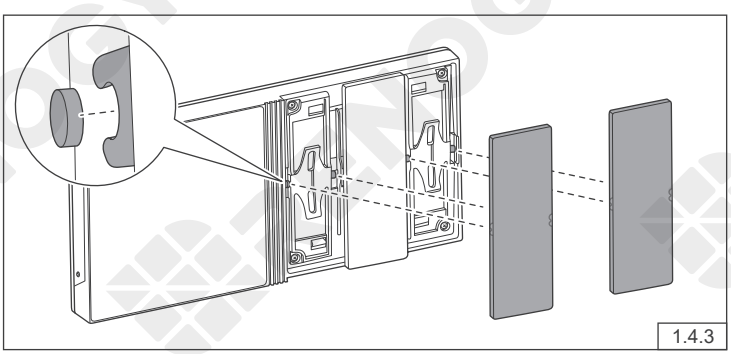
- Make sure that Renogy ONE is installed securely to prevent it from falling off.



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



Put the Renogy ONE on the base, and use the Phillips screwdriver to tighten the 4 M2 screws through the mounting holes, so that the Renogy ONE is fixed on the base.



Align the snap on the back of the panel switch with the snap on the installation position and press firmly to complete the assembly of Panel Switch 1 and Panel Switch 3 on Renogy ONE.

Activation

Renogy ONE is easy to use. For initial use, Renogy ONE guides you through Wi-Fi connection, DC Home binding, and device adding via the activation wizard.

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- 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 bind Renogy ONE with DC Home app under stable Internet access.

Wi-Fi

On the home page of Renogy ONE, tap **Settings** > **System** > **Network** > **Wi-Fi**.

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- Renogy ONE supports 2.4 GHz Wi-Fi only.

Binding

If you did not follow the system wizard to bind Renogy ONE to DC Home app, please follow the steps below.

Go to **Settings** > **System** > **Connections**, and then scan the QR code to bind Renogy ONE to DC Home app.

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- Ensure both Renogy ONE and your phone where DC Home app runs are connected to the Internet.

Add Devices

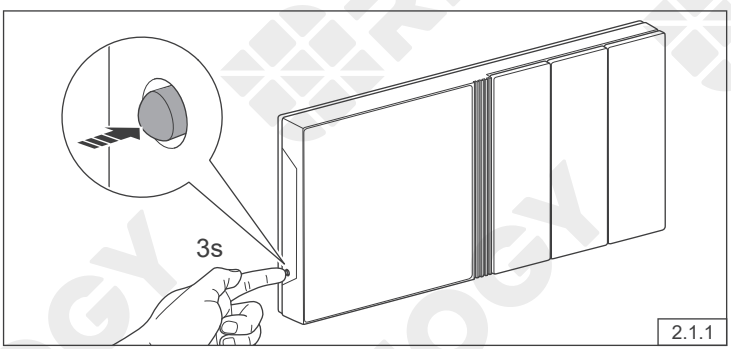
How to add devices to Renogy ONE varies depending on the communication connection type.

- For wired communication (RV-C/RS485), the device is automatically recognized by and added to Renogy ONE.
- For wireless communication (Bluetooth/Zigbee), tap “Settings” on Renogy ONE. Alternatively, you can add the device to Renogy ONE through DC Home app.

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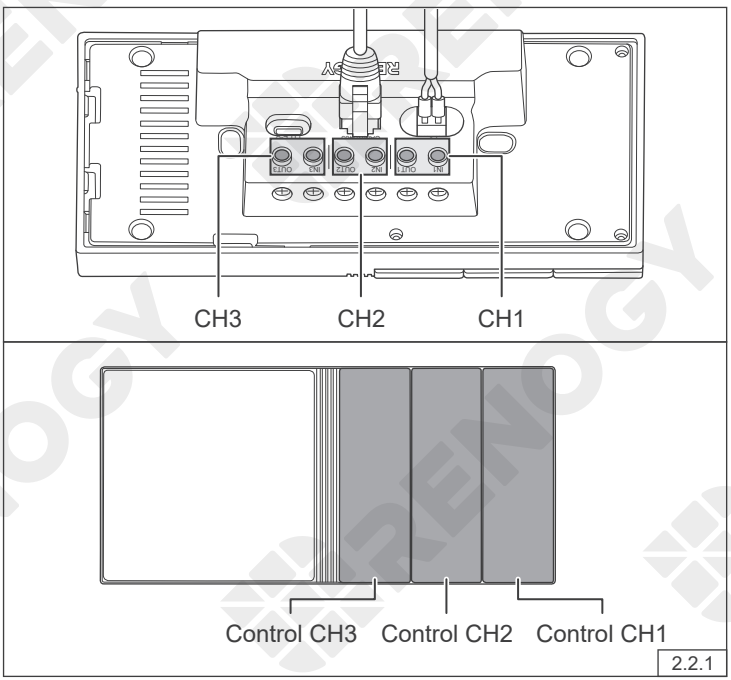
- For adding Renogy energy devices via Bluetooth, make sure the device Bluetooth is turned on.
- For adding smart accessories to Renogy ONE via Zigbee, resetting accessories is required. For details, refer to the instructions in the user manual of specific smart accessories.
- To ensure good compatibility, it is recommended to use Renogy energy devices and smart accessories.
- For adding Bluetooth devices to Renogy ONE through DC Home app, refer to the user manual of Renogy ONE at renogy.com.

Power On/Off

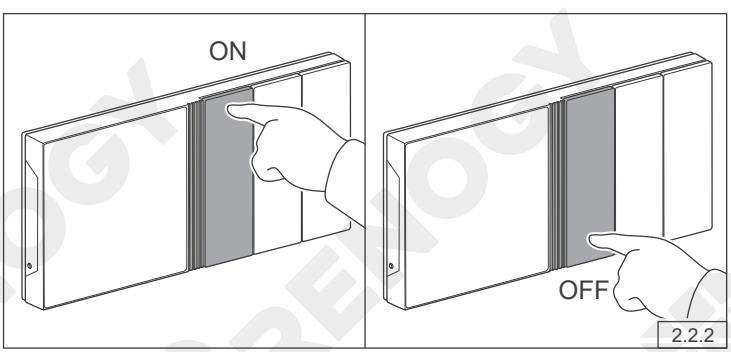


Press and hold the Power Button on Renogy ONE for 3 seconds to power on/off Renogy ONE.

Control External Loads



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



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 DC Home app. Please refer to the user manual at renogy.com for details.

Maintenance

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

- Ensure Renogy ONE is mounted in a clean, dry, and ventilated area.
- Ensure there is no damage or wear on the cables.
- Make sure the communication cable connectors and power connectors are secure.
- Check for any loose, damaged, or burnt connections.
- Make sure that Renogy ONE is in normal state.
- Ensure there is no corrosion, insulation damage, or discoloration marks of overheating or burning.

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.

(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.

Renogy Empowered

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

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

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

Live Sustainably with Renogy

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



Save 170 pounds of coal from being burned



Save 300 pounds of CO_2 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.

Also, follow us on Social Media @RenogySolar.

Visit renogy.com to find relevant documentation or get more support via "Contact Us".
Renogy reserves the right to change the contents of this manual without notice.

Join the Renogy Power Plus Community
by downloading the DC Home App.
Find your e-warranty here, and more.