

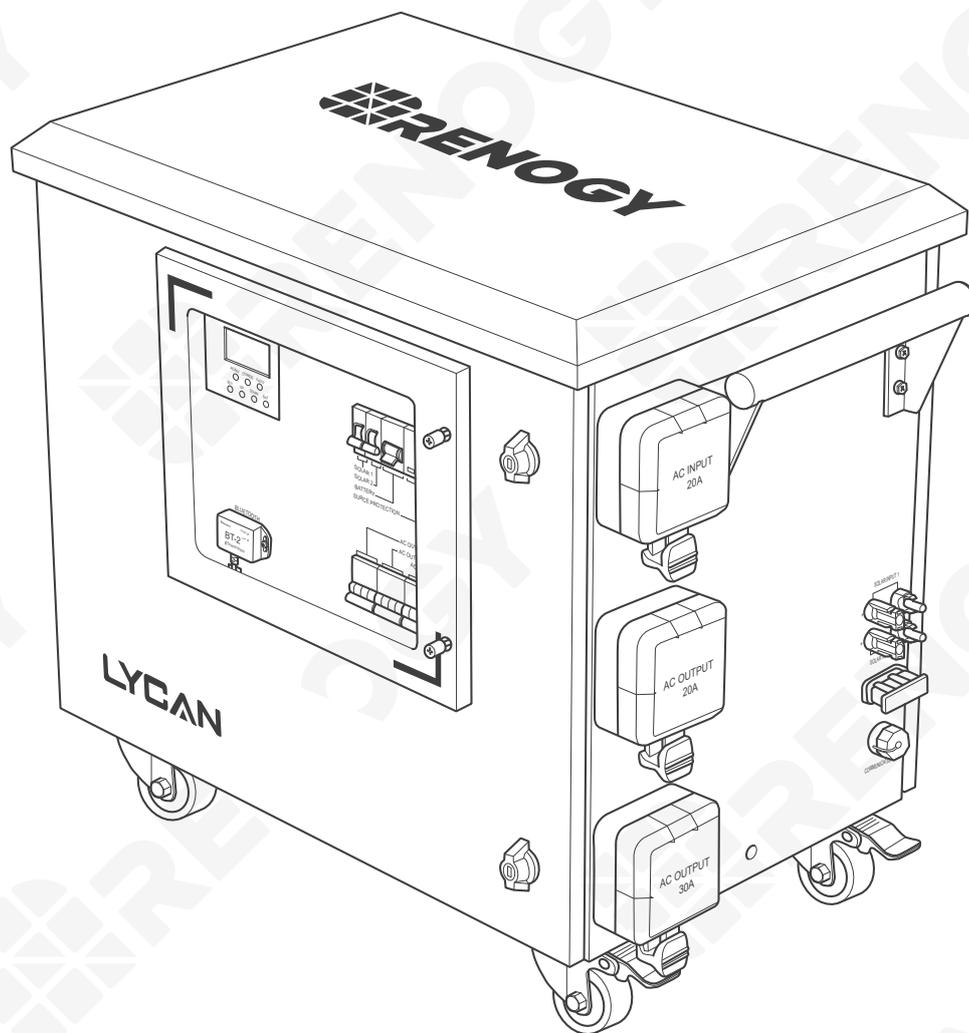
LYCAN 5000



Power Box

RPB48350A-48LFPA12S

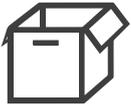
Version 1.0



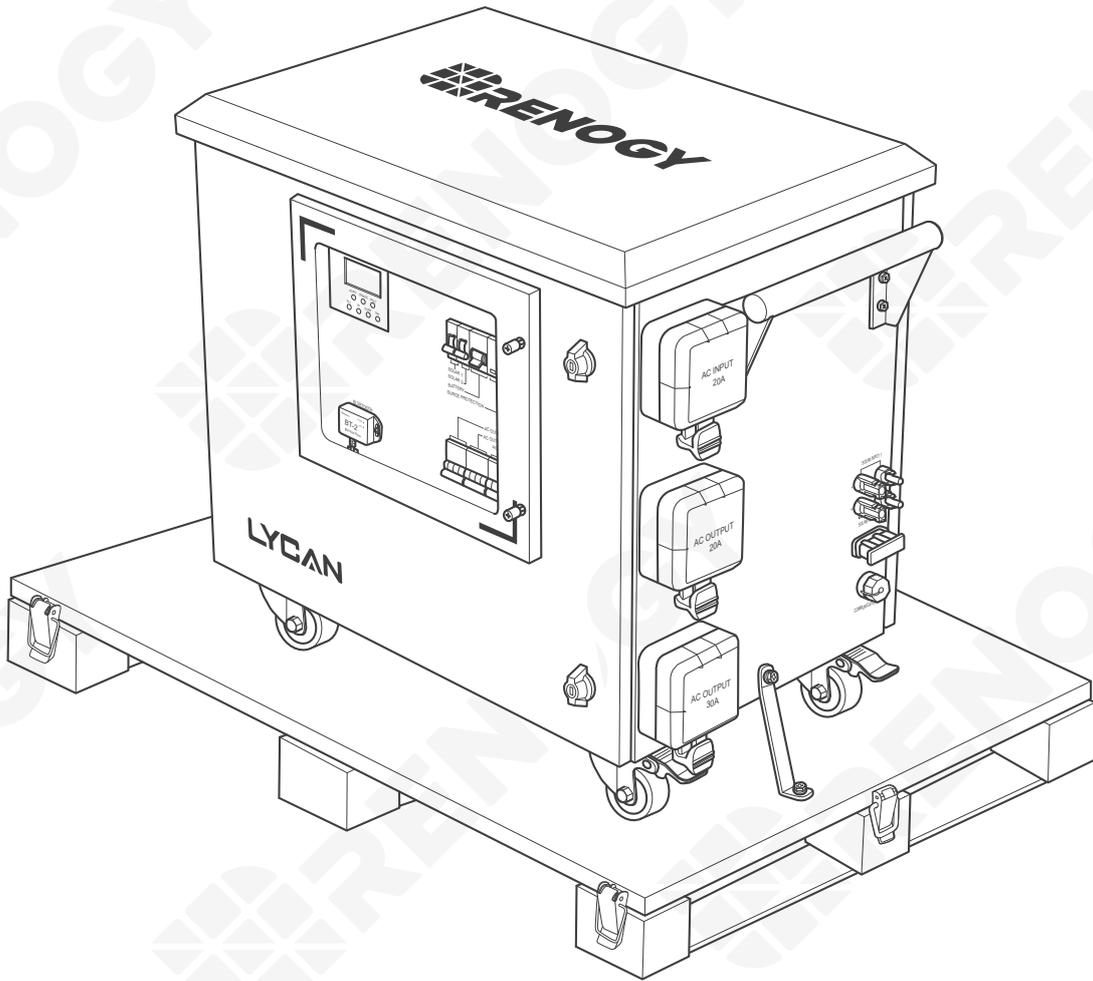
Quick Guide

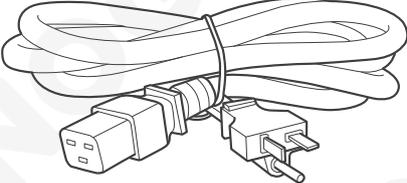
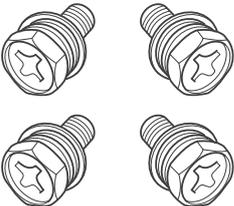
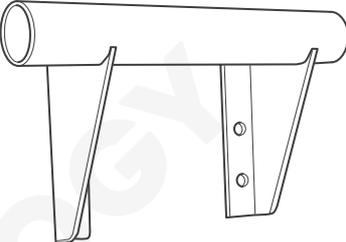
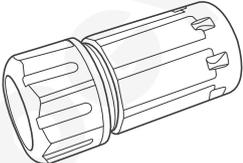
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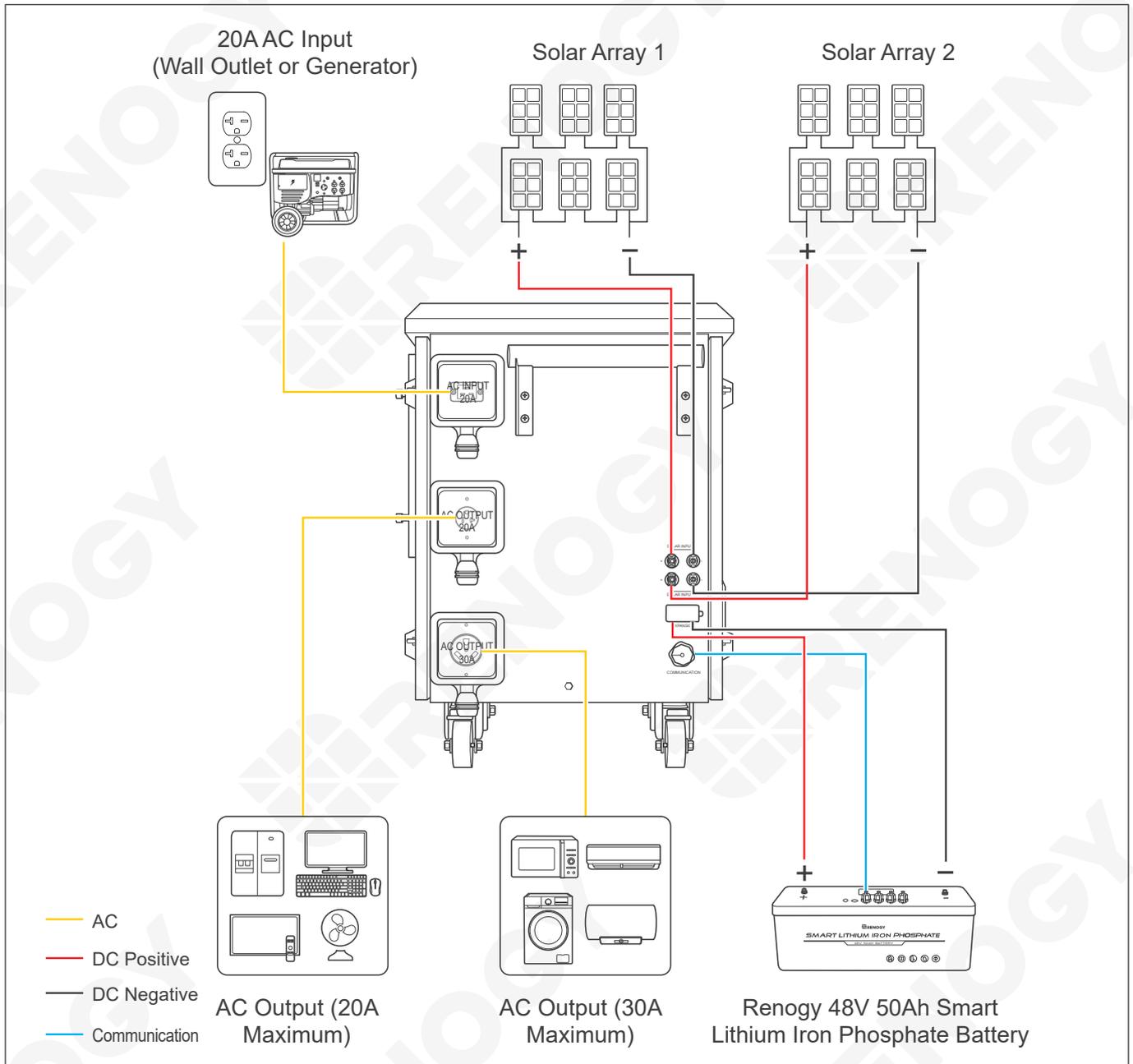
Accessory List



Quick Guide × 1	IEC C19 to NEMA 5-20P Power Cable × 1	Keys × 2
		
Handle Bar Screws × 4	Handle Bar × 1	RJ45 Plug Waterproof Housing × 1
<p data-bbox="244 1821 432 1850">M8x1.25x20mm</p> 		



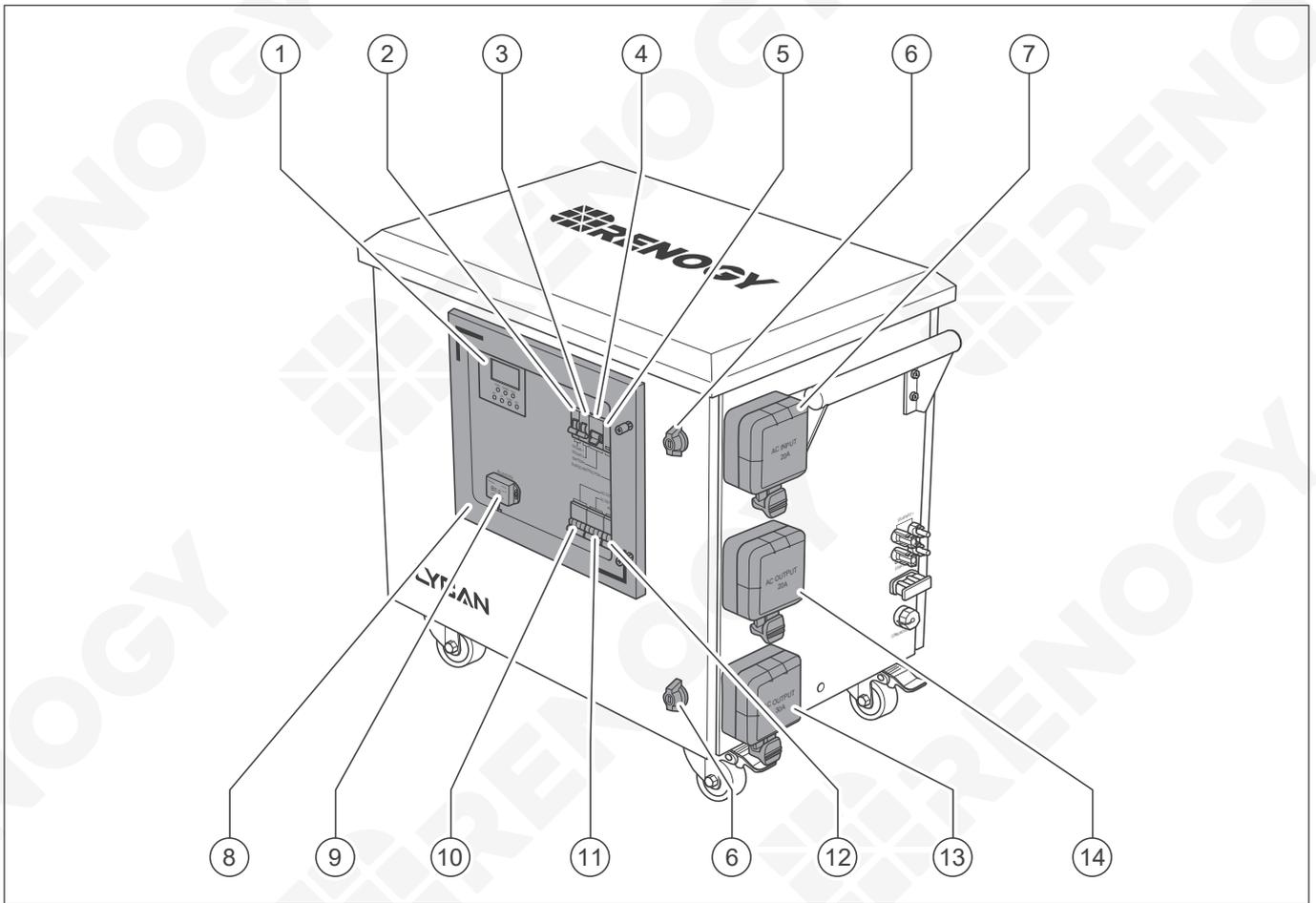
Wiring Diagram



- This Quick Guide contains important installation, operation, and maintenance instructions for Lycan 5000 Power Box. Please read the guide carefully before using.
- Please refer to the full user manual of LYCAN on renogy.com for more detailed instructions.
- Illustrations in the Quick Guide are for reference only.
- For any questions, please visit renogy.com for help.



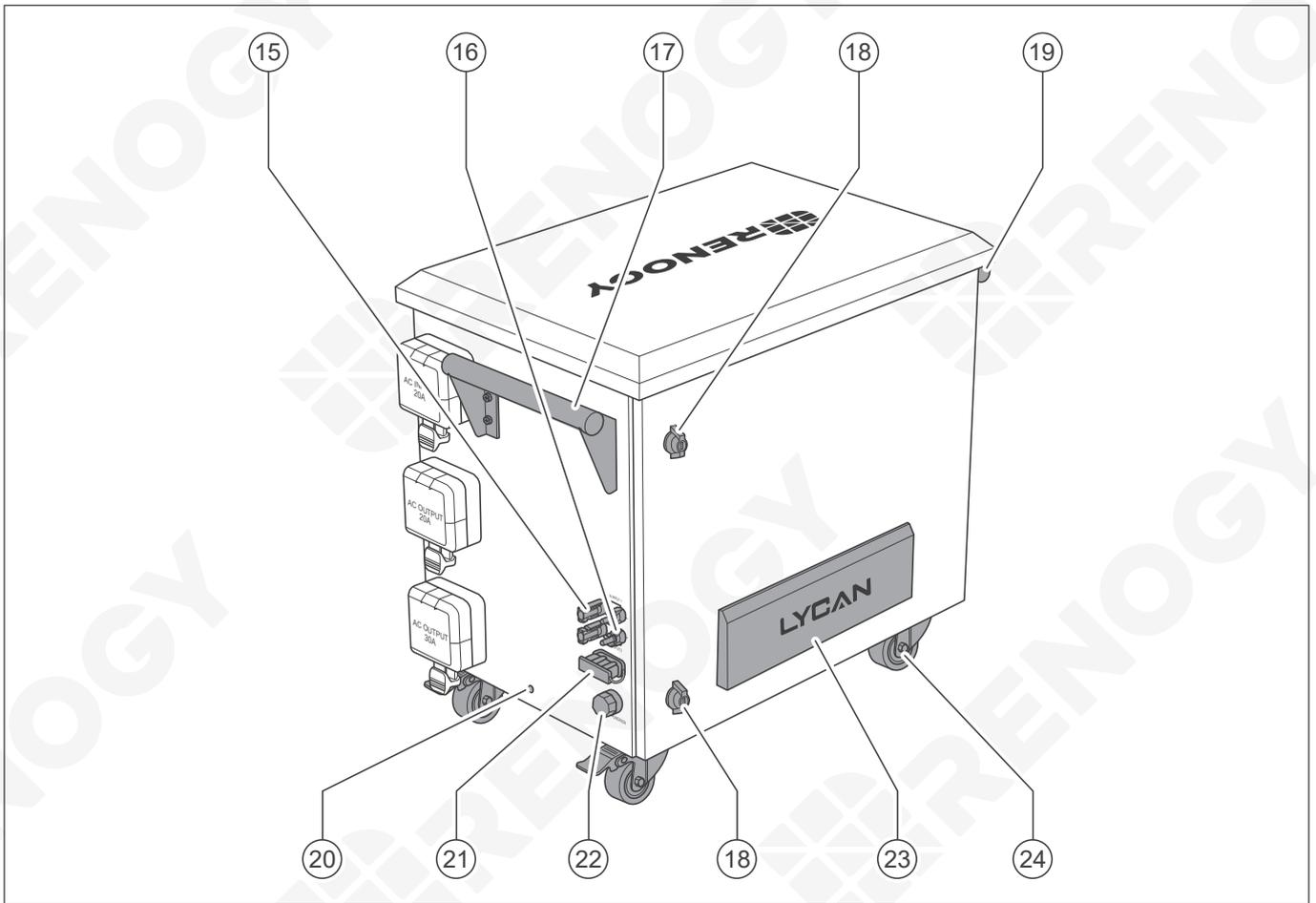
Product Overview



NO.	Item	NO.	Item
1	Solar Inverter Charger Display (Including Indicators and Buttons)	8	Viewing Window
2	Solar Input Circuit Breaker 1	9	Bluetooth Module
3	Solar Input Circuit Breaker 2	10	AC Output Circuit Breaker (20A)
4	Battery Circuit Breaker	11	AC Output Circuit Breaker (30A)
5	Surge Protection Device	12	AC Input Circuit Breaker (20A)
6	Front Door Locks	13	AC Outlet (30A)
7	AC Inlet (20A)	14	AC Outlet (20A)



Product Overview



NO.	Item	NO.	Item
15	Solar Connector 1	20	Grounding Hole
16	Solar Connector 2	21	Anderson Connector (Including Dust Cover)
17	Handle Bar (Pre-Installed)	22	RJ45 Jack (Including Waterproof Housing)
18	Back Door Locks	23	Vent Cover
19	Handle Bar (Installation Required)	24	Swivel Casters



- Please inspect the unit for any visible damage including cracks, dents, deformation, and other visible abnormalities before installation.
- All connector contacts shall be dry, clean, and free of any dirt and corrosion.
- DO NOT touch the exposed electrolyte or powder if the batteries inside LYCAN are damaged.
- Please wear proper protective equipment and use insulated tools during installation and operation.



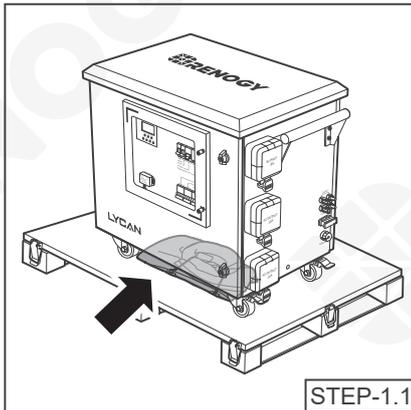
Installation

Recommended Tools

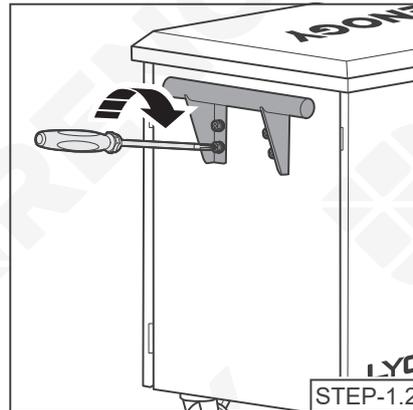
Phillips Screwdriver (#2)	Wrench (10mm)	Wrench (12mm)



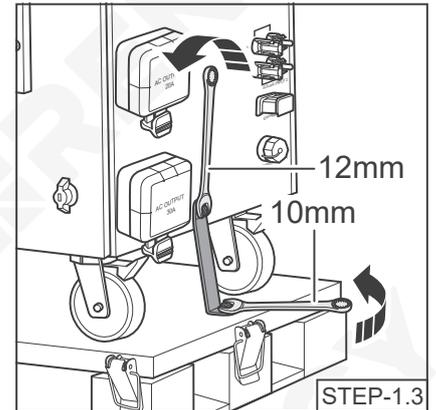
- Make sure that the Handle Bar is installed firmly on LYCAN.
- Allow at least 1 foot of space behind the Vent Cover for efficient heat dissipation.
- Install LYCAN at ground level on a flat surface. Ensure that the installation environment is clean, cool, ventilated and away from direct sunlight.
- If transporting the Swivel Casters over wet surfaces, ensure it is no more than 2 inches deep.



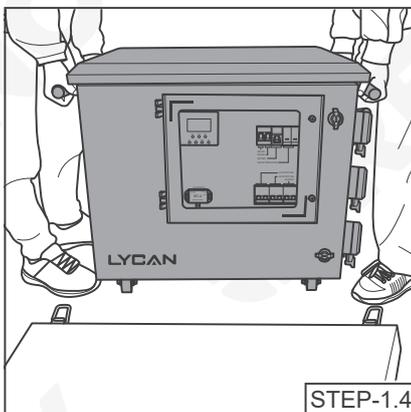
Find the Handle Bar and the Handle Bar Screws under LYCAN.



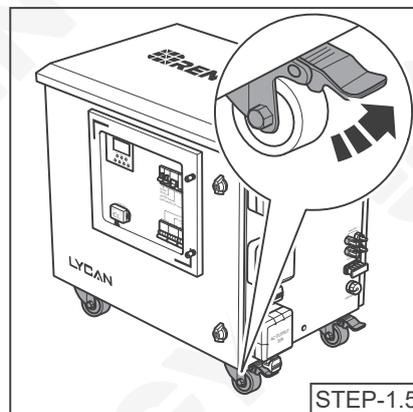
Install the Handle Bar on the left side of LYCAN with the Handle Bar Screws. Make sure that the Screws are firmly tightened with the Philips Screwdriver.



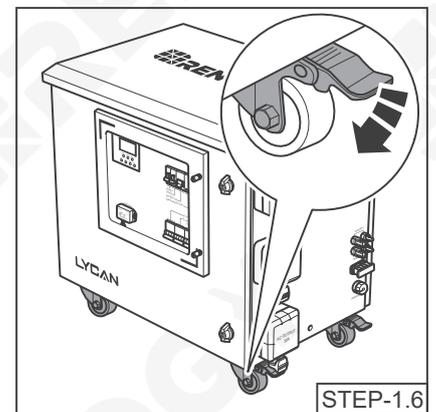
Loosen the screws to remove the fixing bracket from LYCAN. Keep the upper screw properly for subsequent grounding cable connection.



Lift LYCAN from the skid with two people.



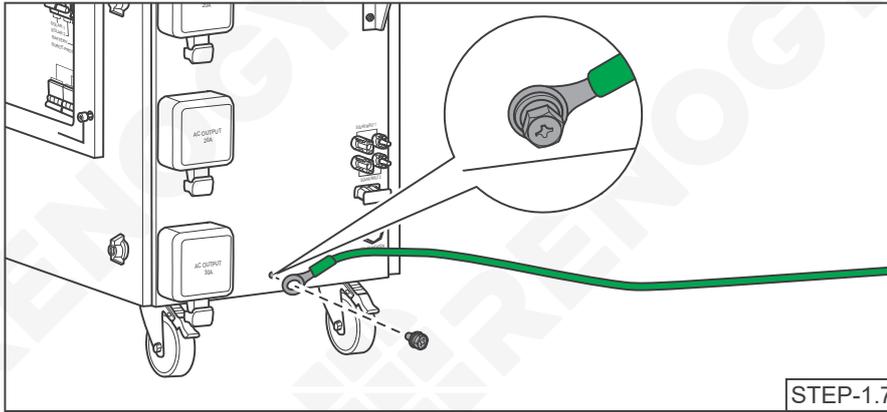
Release the Pedal Brakes on Swivel Casters. Move LYCAN to a proper installation location.



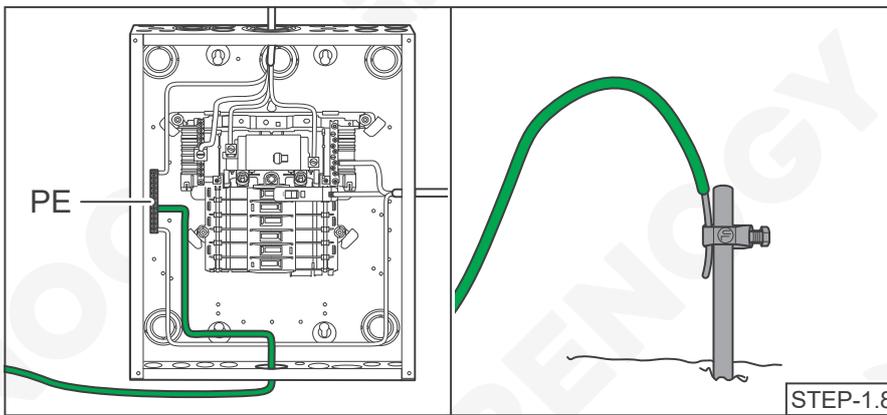
Engage the Pedal Brakes on Swivel Casters to prevent LYCAN from moving.



Installation



Connect the ring terminal of a grounding cable (not included) to the grounding hole of LYCAN with the screws removed from the fixing bracket.



Connect the bare wire end of the grounding cable to the grounding busbar (PE) of an AC load center (not included) or a grounding rod (not included).

Grounding Busbar (PE)
of the AC Load Center

Grounding Rod



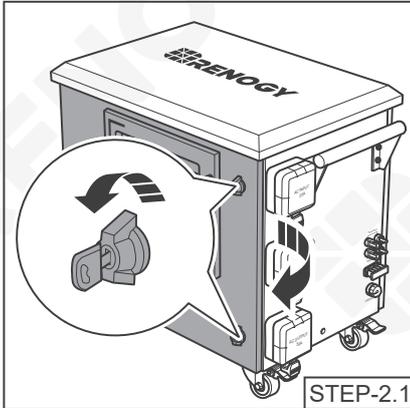
- Please secure the grounding cable connections to the proper specification.



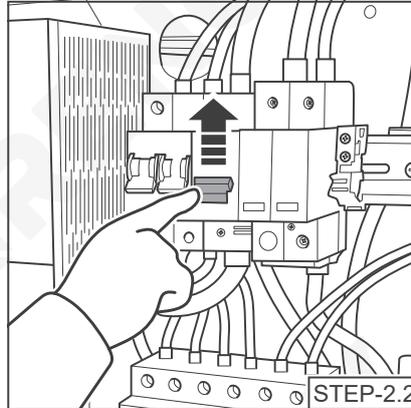
Turning On



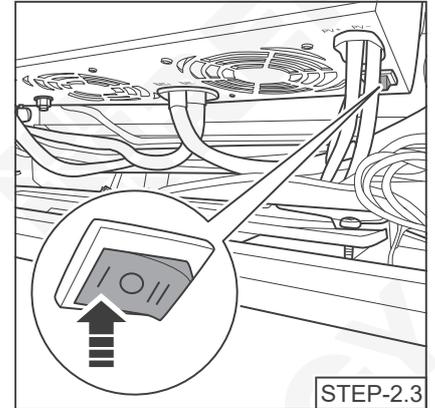
- Please turn LYCAN on before charging it or using it to power appliances.



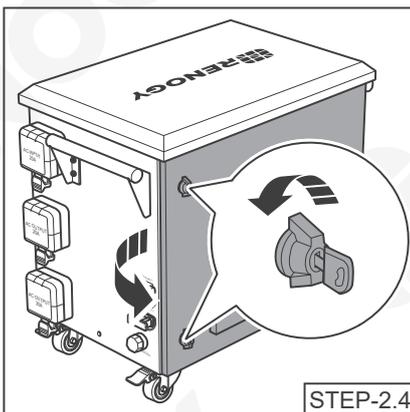
Open the Front Door Locks with the included Keys and rotate the wing knobs counterclockwise by 90° to open the front door.



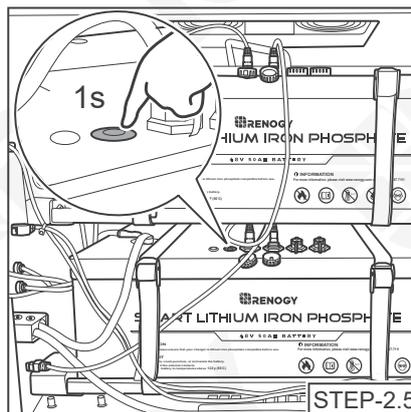
Push the switch up to close the Battery Circuit Breaker.



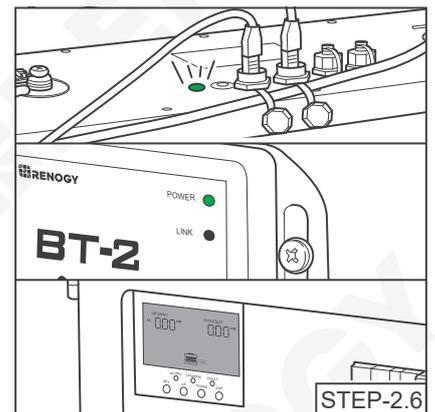
Rock the switch on the bottom of the solar inverter charger to the ON position (I) to turn on the solar inverter charger.



Open the Back Door Locks with the included Keys and rotate the wing knobs counterclockwise by 90° to open the back door.



Press and hold the power button on the top of either of the batteries for 1 second to turn on the batteries.



The indicators of the batteries flash green. The POWER indicator of the Bluetooth module lights up. The buzzer of the solar inverter charger beeps briefly, and the Solar Inverter Charger Display turns on.

LYCAN may not be operating properly and needs troubleshooting if the following occurs after turning LYCAN on. Please refer to the full user manuals of relevant products on renogy.com for troubleshooting instructions.

- 48V 50Ah Smart Lithium Iron Phosphate Battery: The indicator of the battery lights up red, flashes red, or does not light up.
- BT-2 Bluetooth Module: The POWER indicator of the Bluetooth module does not light up.
- 48V 3500W Solar Inverter Charger: The Solar Inverter Charger Display does not turn on, or the Solar Inverter Charger FAULT Indicator lights up red or flashes red.



- Please close the front door and back door, rotate the wing knobs clockwise by 90°, and lock the Front Door Lock and Back Door Lock after turning LYCAN on.

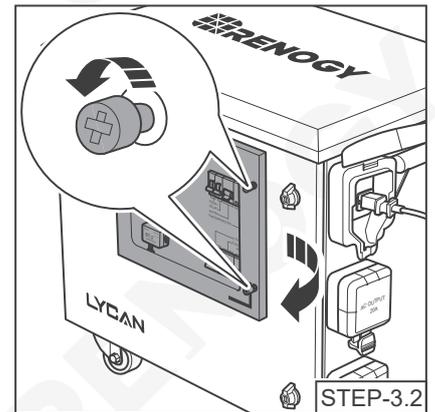
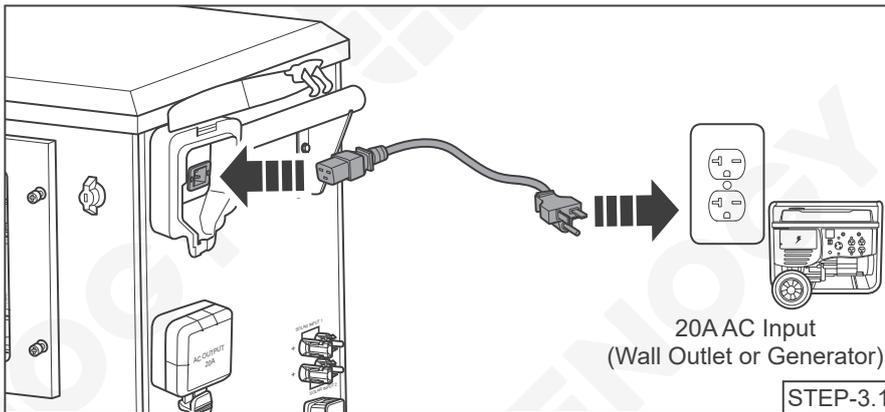


Charging



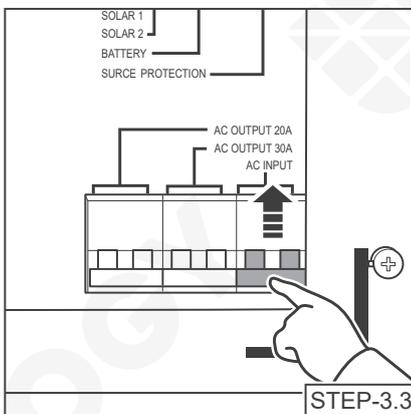
- LYCAN supports both AC charging and solar charging, which can be combined for a faster charging speed.
- The solar inverter charger is preset to operate with the batteries. While no additional programming is required, some parameters can be modified for specific applications. Please note that modifying the parameters outside the specified range can lead to irreversible damage to LYCAN and voids the warranty. Please refer to the full user manual of LYCAN on renogy.com for more information.

AC Charging

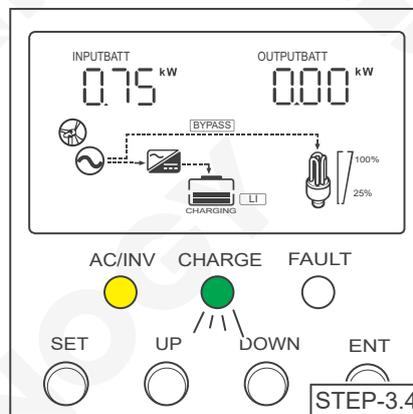


Connect LYCAN to a wall outlet or a generator (not included) with the included IEC C19 to NEMA 5-20P Power Cable.

Loosen the captive screws to open the Viewing Window.



Push the switch up to close the AC Input Circuit Breaker.



The Solar Inverter Charger Display shows that the battery is being charged by AC, and the Solar Inverter Charger CHARGE Indicator flashes green.

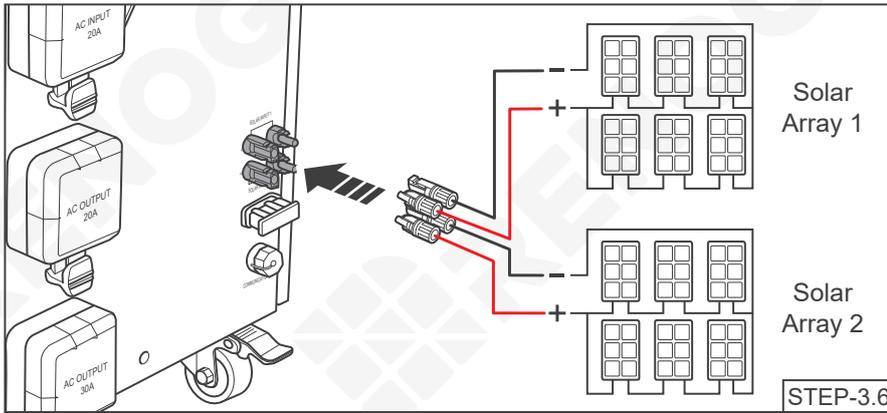


- The wall outlet and the outlet on the generator MUST be rated at 20A or greater.
- Please close the Viewing Window and tighten the captive screws after completing the steps above.
- Press the Solar Inverter Charger UP and DOWN Buttons to turn the page and view detailed charging status. Please refer to the full user manual of 48V 3500W Solar Inverter Charger on renogy.com for more instructions.

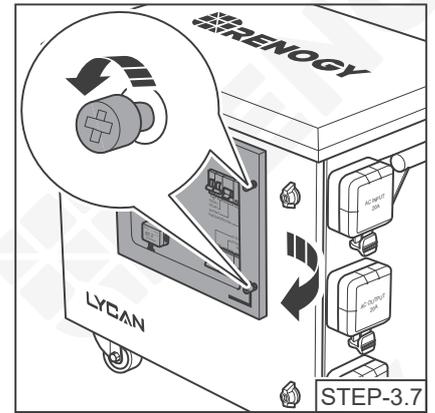


Charging

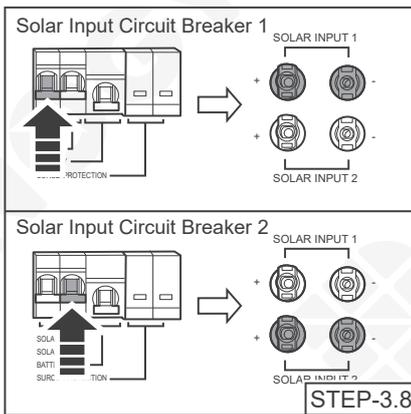
Solar Charging



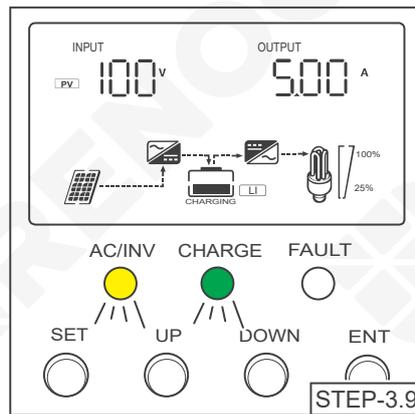
Connect the solar panels (sold separately) in series and/or parallel to form solar arrays. Connect the solar arrays to the Solar Connectors of LYCAN. LYCAN accepts up to 2 solar arrays.



Loosen the captive screws to open the Viewing Window.



Push the switch up to close the corresponding Solar Input Circuit Breaker.



The Solar Inverter Charger Display shows that the battery is being charged by solar, and the Solar Inverter Charger CHARGE Indicator flashes green.



Charging



- Please close the Viewing Window and tighten the captive screws after completing the steps above.
- The operating voltage of the solar array shall exceed 60VDC, the open circuit voltage shall NOT exceed 150VDC, and the short circuit current shall NOT exceed 20A.
- Make sure that the 2 solar arrays have the same operating voltage and are not partially shaded. Operating voltage mismatches or partial shading can cause current backflow and damage solar arrays.
- Press the Solar Inverter Charger UP and DOWN Buttons to turn the page and view detailed charging status. Please refer to the full user manual of 48V 3500W Solar Inverter Charger on renogy.com for more instructions.
- Additional protection devices including DC ground fault circuit interrupters, DC arc fault circuit interrupters, and rapid shutdown devices (not included) may be required to comply with the local and state codes for solar systems.



Powering Appliances

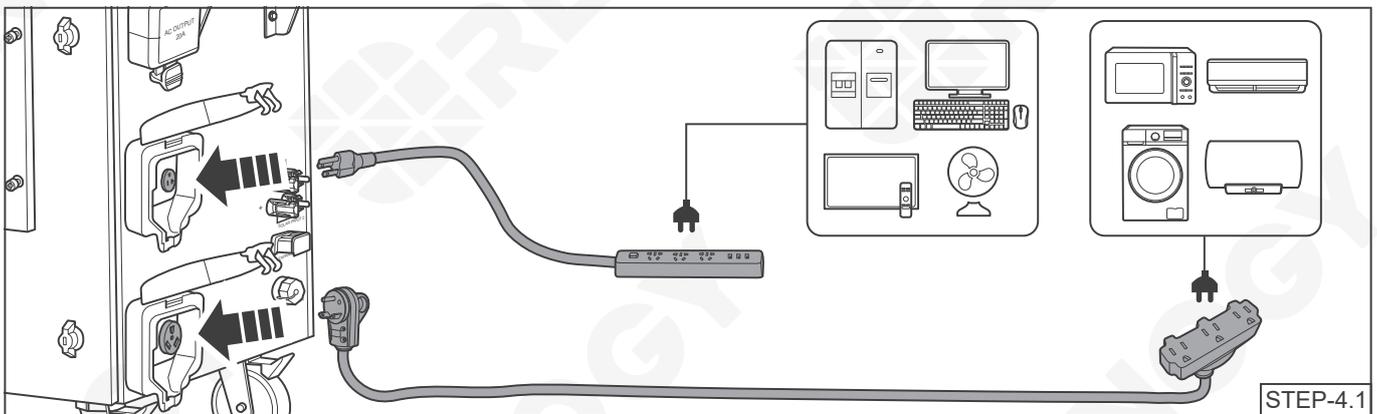


- LYCAN can power appliances at temporary sites, in permanent off-grid homes, and during emergencies with Power Strips, AC Load Centers, and Transfer Switches respectively. Please refer to the corresponding instructions based on actual applications.
- Please fully charge LYCAN prior to first use.

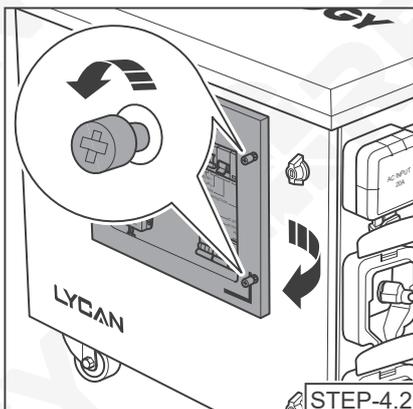
Temporary Power Supply

Recommended Accessories

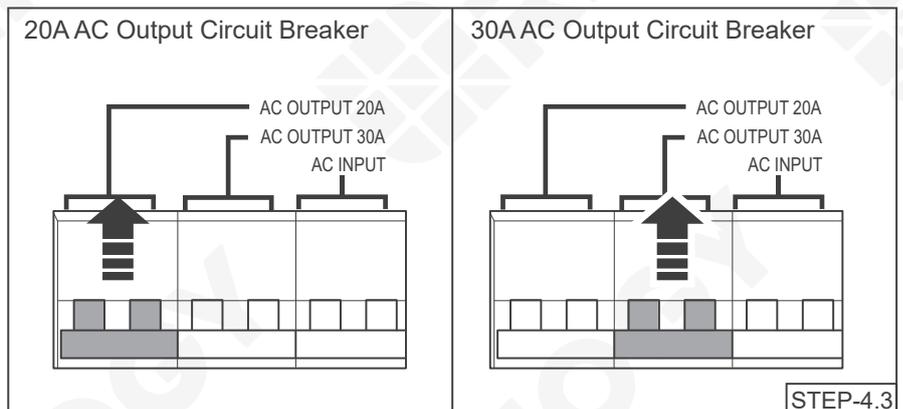
*Power Strip (20A Current Rating)	*Power Strip (30A Current Rating)



Connect the Power Strips (not included) with corresponding current ratings to the 20A and 30A AC Outlets of LYCAN. Plug appliances into the Power Strips.



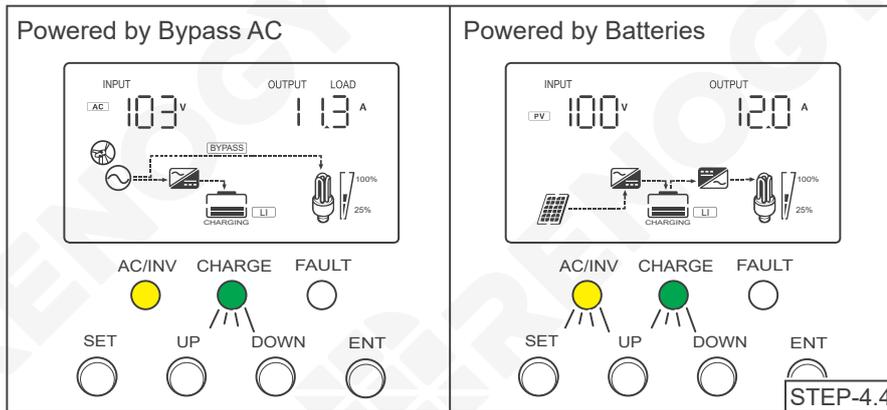
Loosen the captive screws to open the Viewing Window.



Push the switch up to close the corresponding AC Output Circuit Breaker.



Powering Appliances



The Solar Inverter Charger AC/INV Indicator lights up yellow when the appliances are powered by bypass AC.

The Solar Inverter Charger AC/INV Indicator flashes yellow when the appliances are powered by the batteries.



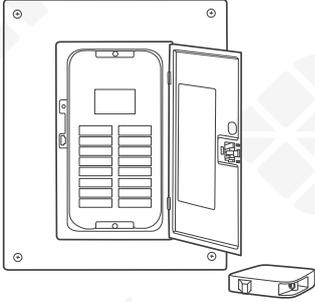
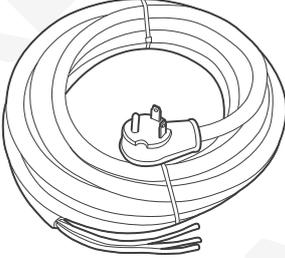
- Please close the Viewing Window and tighten the captive screws after completing the steps above.
- When the 20A AC Outlet is used to power appliances, the continuous loads shall not exceed 16A, and the noncontinuous loads shall not exceed 20A.
- When the 30A AC Outlet is used to power appliances, the continuous loads shall not exceed 24A, and the noncontinuous loads shall not exceed 30A.
- When the appliances are powered by bypass AC, the continuous loads shall not exceed 16A, and the noncontinuous loads shall not exceed 20A, no matter which AC Outlet is used.



Powering Appliances

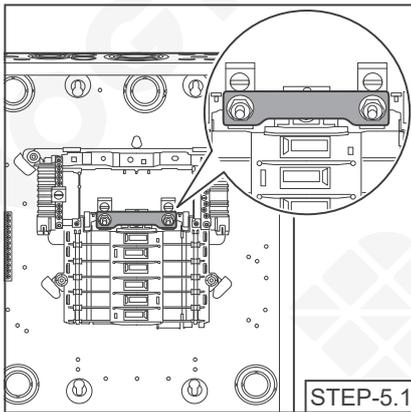
Off-Grid Living

Recommended Accessories

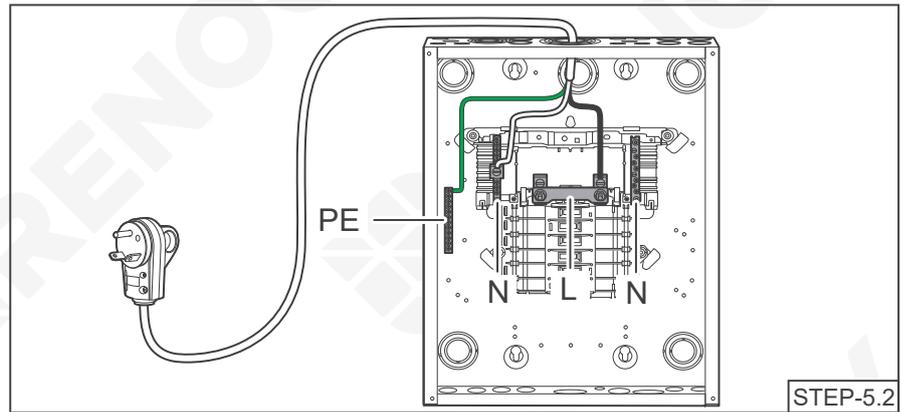
*AC Load Center and AC Circuit Breakers	*NEMA TT-30P to Bare Wire Adapter Cable
	



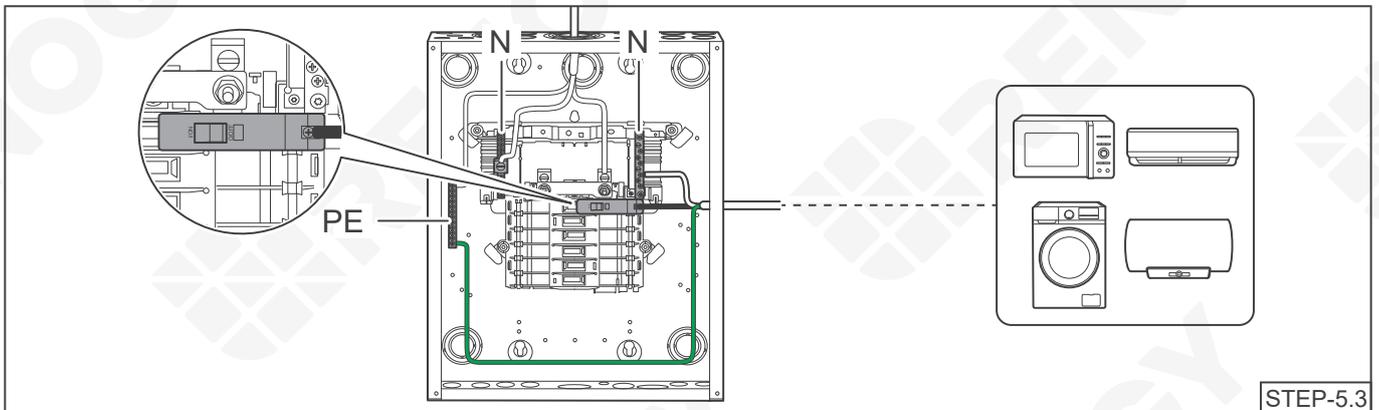
- For a safe and reliable installation, it is recommended that the installation be carried out by a trained and licensed electrician.
- Please read the user manual of the AC Load Center carefully before installation.



Remove the cover of the AC Load Center (not included).
Connect the 2 live terminals with a copper busbar (not included).



Connect the bare wire end of the Adapter Cable (not included) to the AC Load Center. The black live wire goes to either of the live terminals (L), the white neutral wire goes to the neutral busbar (N), and the green ground wire goes to the grounding busbar (PE).

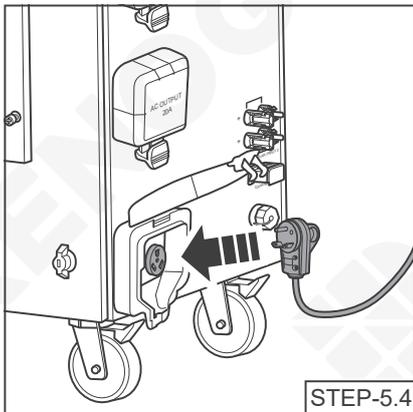


Select appropriate AC Circuit Breakers (not included) based on the current ratings and types of the appliances. Connect the appliances to the AC Load Center. The black live wires go to AC Circuit Breakers, the white neutral wires go to the neutral busbar (N), and the green ground wires go to the grounding busbar (PE).

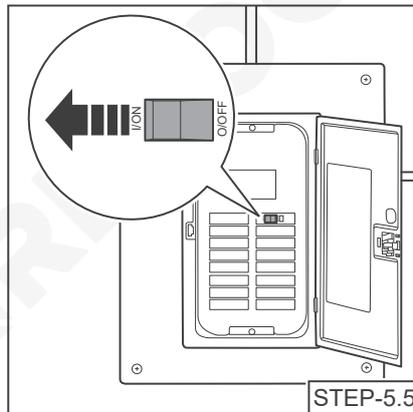


Powering Appliances

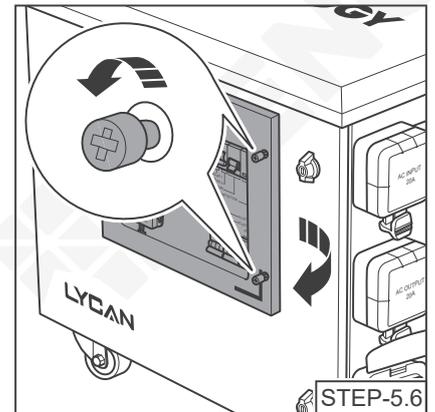
Off-Grid Living



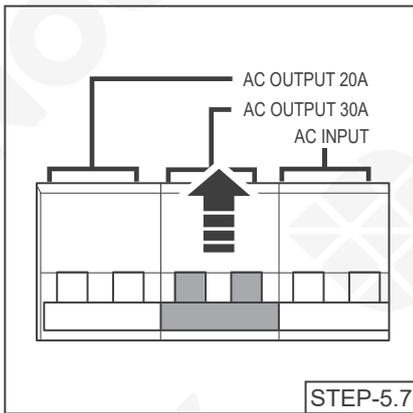
Connect the plug end of the Adapter Cable to the 30A AC Outlet of LYCAN.



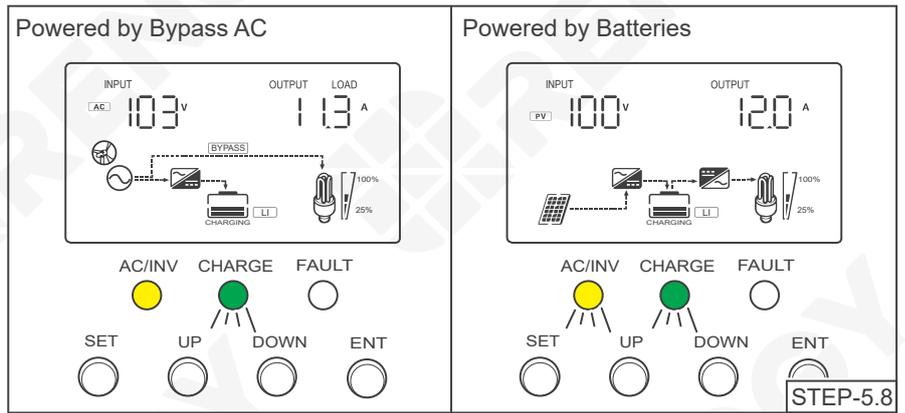
Replace the cover to the AC Load Center. Push the switches toward the center of the AC Load Center to close all the AC Circuit Breakers.



Loosen the captive screws to open the Viewing Window.



Push the switch up to close the 30A AC Output Circuit Breaker.



The Solar Inverter Charger AC/INV Indicator lights up yellow when the appliances are powered by bypass AC.

The Solar Inverter Charger AC/INV Indicator flashes yellow when the appliances are powered by the batteries.



- Please close the Viewing Window and tighten the captive screws after completing the steps above.
- The AC Circuit Breakers and the appliances MUST be rated at 120VAC.
- The continuous loads shall not exceed 24A, and the noncontinuous loads shall not exceed 30A.
- When the appliances are powered by bypass AC, the continuous loads shall not exceed 16A, and the noncontinuous loads shall not exceed 20A.



Powering Appliances

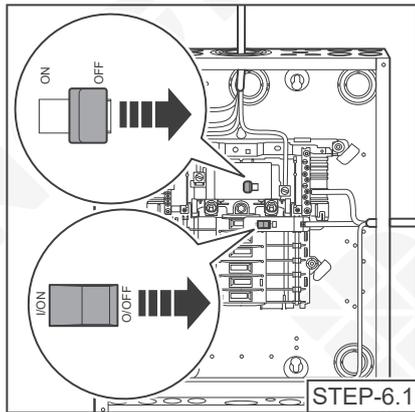
Emergency Backup

Recommended Accessories

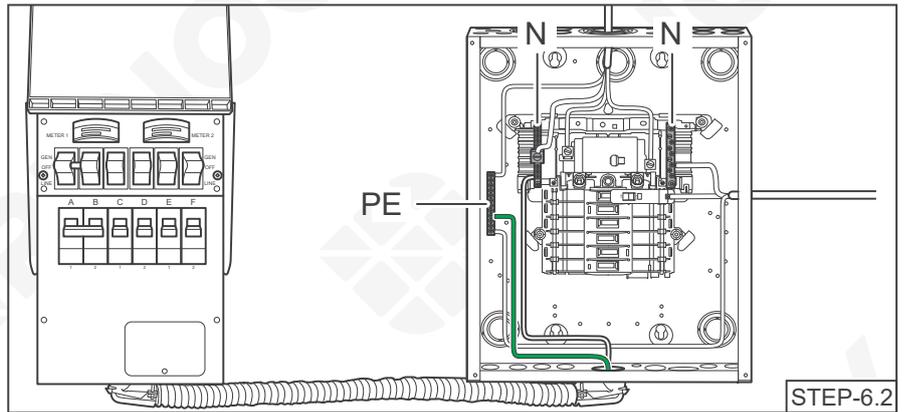
*Reliance Controls 306A Pro/Tran 2 Manual Transfer Switch	*NEMA TT-30P to NEMA L14-30R Adapter Cable



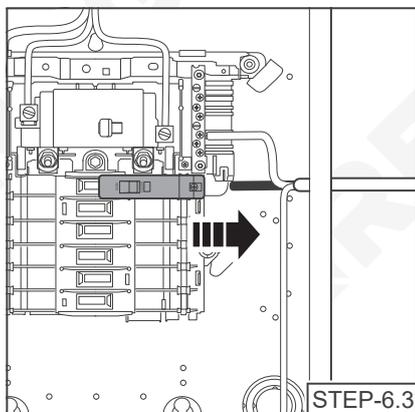
- For a safe and reliable installation, it is recommended that the installation be carried out by a trained and licensed electrician.
- Please read the user manual of the Transfer Switch carefully before installation.



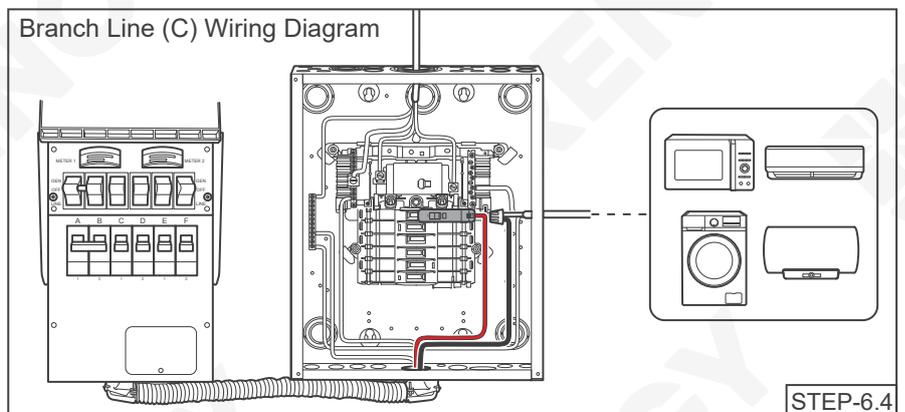
Push the switches toward the sides of the AC load center to open all the AC circuit breakers. Remove the cover of the AC load center.



Connect the bare wires from the Transfer Switch (sold separately) to the AC load center. The white neutral wire goes to the neutral busbar (N), and the green ground wire goes to the grounding busbar (PE).



Determine the 120VAC circuits that need to be used during an emergency. Disconnect the black live wires from the corresponding AC branch circuit breakers.



Find the red and black wires from the Transfer Switch that are marked C, D, E, and F. Connect the red wires to the selected AC branch circuit breakers. Insert the black wires marked the same letter and the black live wires disconnected from the AC branch circuit breakers into wire connectors (not included). Twist the wire connectors tightly.

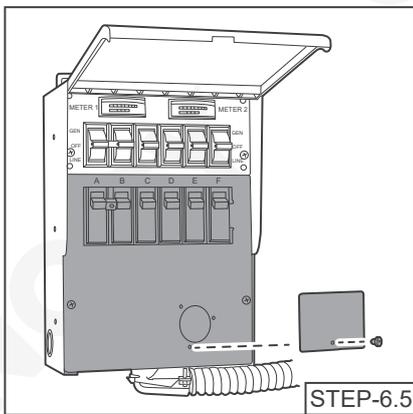


Powering Appliances

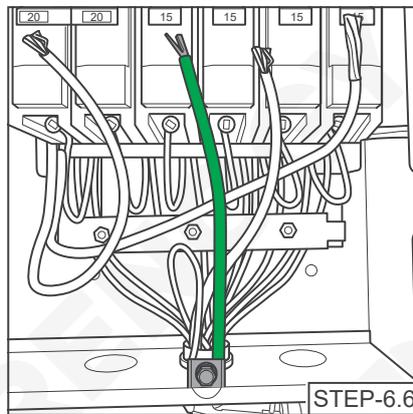
Emergency Backup



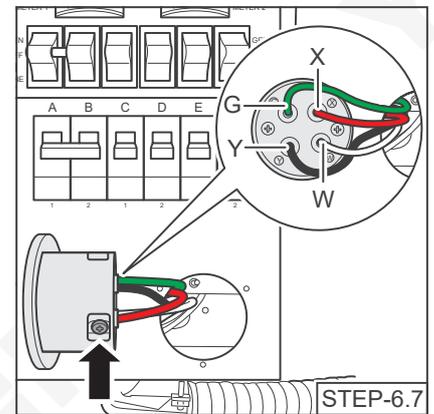
- Connect the Transfer Switch to 120VAC circuits in the AC load center **ONLY**.
- The current ratings of the AC circuit breakers in the Transfer Switch shall not exceed the current ratings of the corresponding AC branch circuit breakers in the AC load center.
- With a pre-installed double-pole AC branch circuit breaker, the circuits A and B of the Transfer Switch shall not be connected to the 120VAC circuits of the AC load center. If more 120VAC circuits are needed to be used during an emergency, please replace the double-pole AC branch circuit breaker on the circuits A and B with 2 single-pole AC branch circuit breakers, and remove the handle tie from the corresponding circuit selector switches. Refer to the user manual of the Transfer Switch for more instructions.



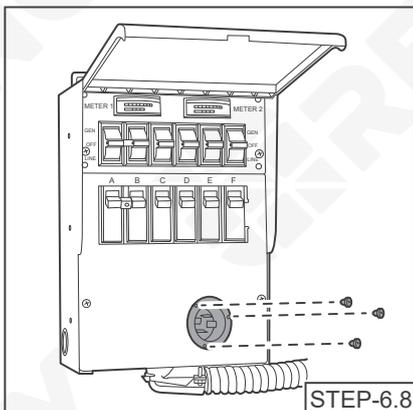
Remove the cover and the power inlet filler plate of the Transfer Switch.



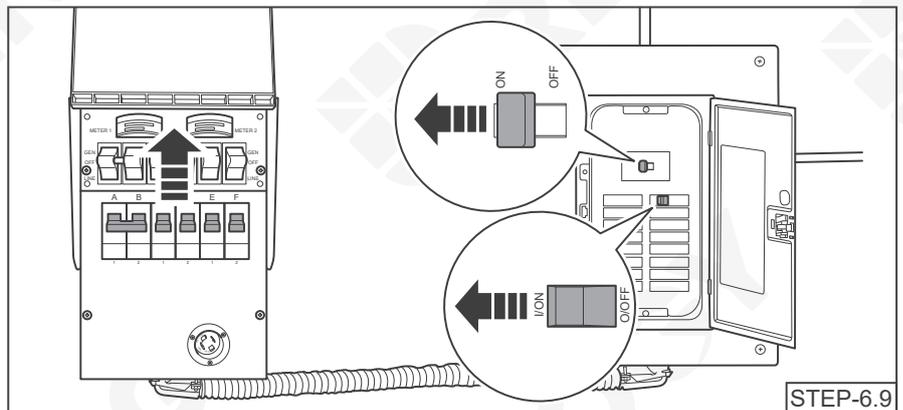
Connect the green ground wire (included in the Transfer Switch) to the grounding terminal of the Transfer Switch.



Replace the cover to the Transfer Switch. Run the bare wires inside the Transfer Switch through the power inlet mounting hole. Connect the bare wires to the power inlet (included in the Transfer Switch). The green ground wire goes to the G terminal, the white neutral wire goes to the W terminal, the black and red live wires go to the X and Y terminals. Tighten the terminal screws on the side of the power inlet.



Mount the power inlet onto the Transfer Switch.

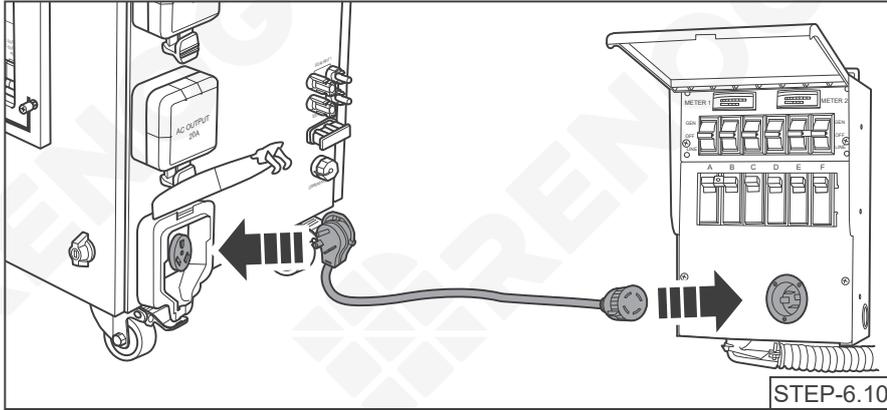


Replace the cover to the AC load center. Push the switches up to close all the AC circuit breakers in the Transfer Switch. Push the switches toward the center of the AC load center to close all the AC circuit breakers in the AC load center.



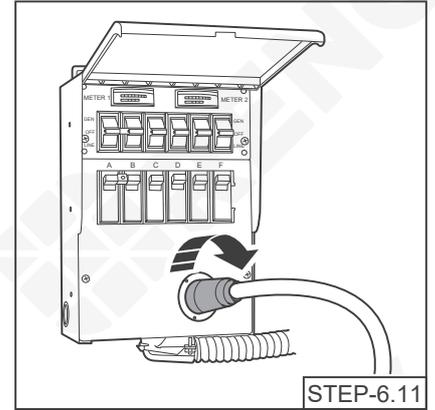
Powering Appliances

Emergency Backup



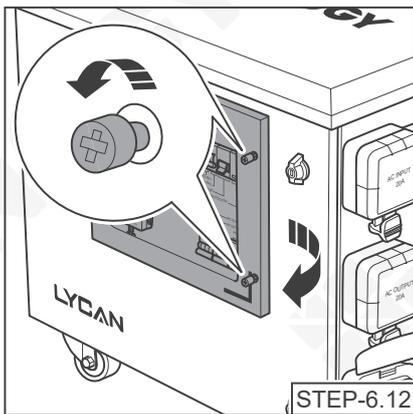
STEP-6.10

Connect the 30A AC Outlet of LYCAN to the power inlet of the Transfer Switch with the Adapter Cable (sold separately).



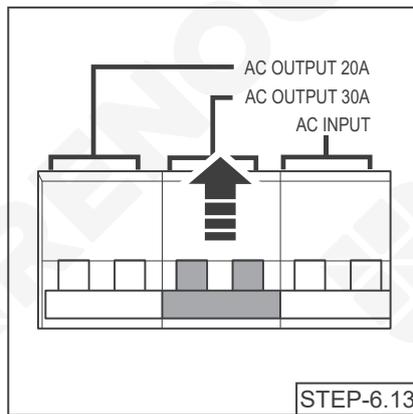
STEP-6.11

Twist the receptacle end of the Adapter Cable clockwise to lock it into place.



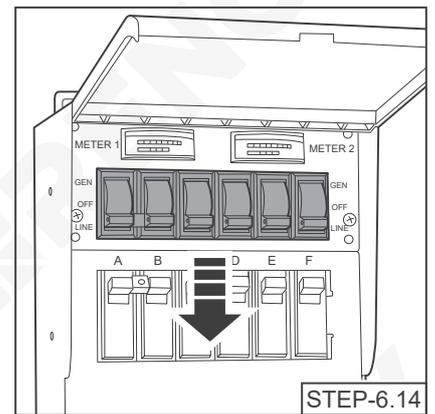
STEP-6.12

Loosen the captive screws to open the Viewing Window.



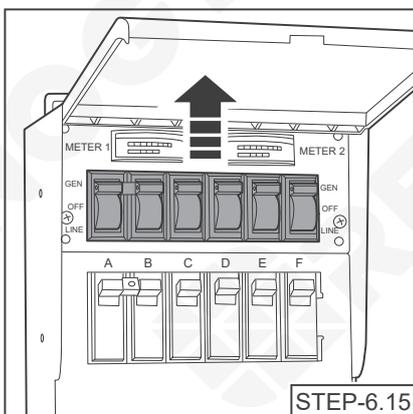
STEP-6.13

Push the switch up to close the 30A AC Output Circuit Breaker.



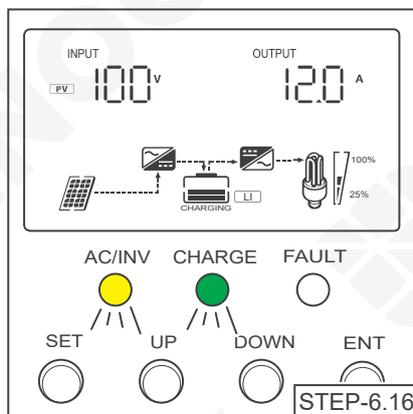
STEP-6.14

Move all the circuit selector switches on the Transfer Switch to the LINE position.



STEP-6.15

During an emergency, determine the circuits to be powered by LYCAN, and move the corresponding circuit selector switches on the Transfer Switch to the GEN position.



STEP-6.16

The Solar Inverter Charger Display shows that the appliances are powered by the batteries, and the Solar Inverter Charger AC/INV Indicator flashes yellow.



Powering Appliances

Emergency Backup



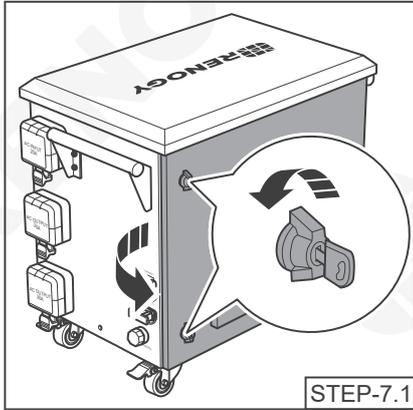
- LYCAN can be used as an uninterruptible power supply (UPS) with an automatic transfer switch.
- Please close the Viewing Window and tighten the captive screws after completing the steps above.
- The continuous loads shall not exceed 24A, and the noncontinuous loads shall not exceed 30A.
- Leave LYCAN plugged into a wall outlet at all times to keep it topped off and ready to power appliances during an emergency.



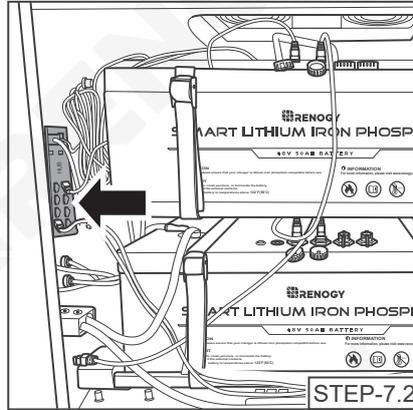
Bluetooth Pairing



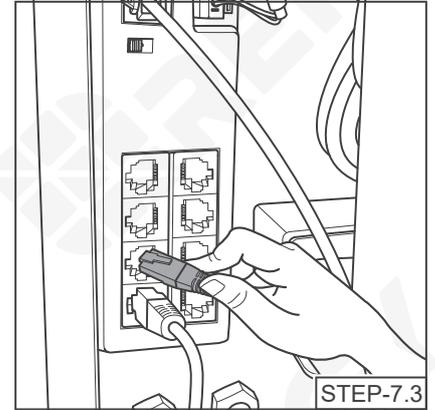
- Please scan the QR code on the last page of the Quick Guide to download the DC Home app.



Open the Back Door Locks with the included Keys and rotate the wing knobs counterclockwise by 90° to open the back door.



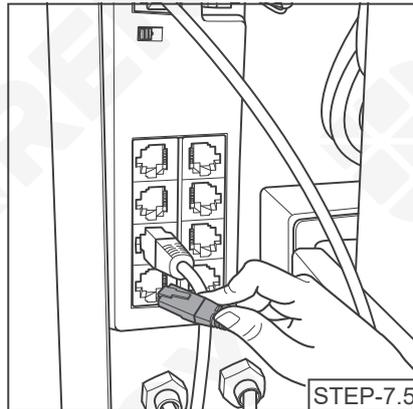
Locate the communication hub.



Unplug either of the Ethernet cables connected to the secondary communication ports of the communication hub.



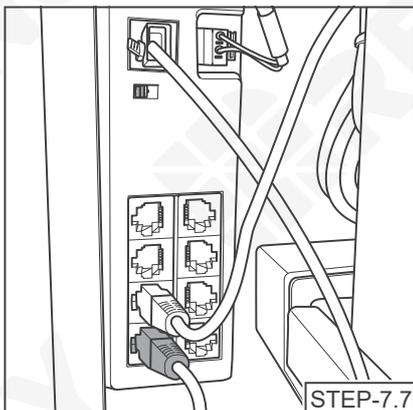
Open the DC Home app. Click "+" to search for new devices. Click "Confirm" to add the newly found device to the device list.



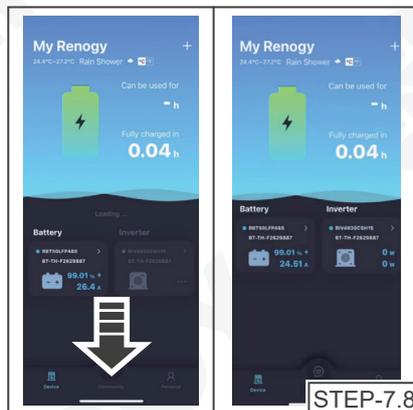
Plug the Ethernet cable back into the secondary communication ports of the communication hub. Unplug the other Ethernet cable.



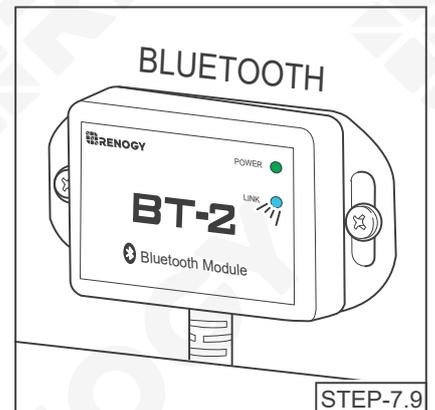
Open the DC Home app. Click "+" to search for new devices. Click "Confirm" to add the newly found device to the device list.



Plug the Ethernet cable back into the secondary communication ports of the communication hub.



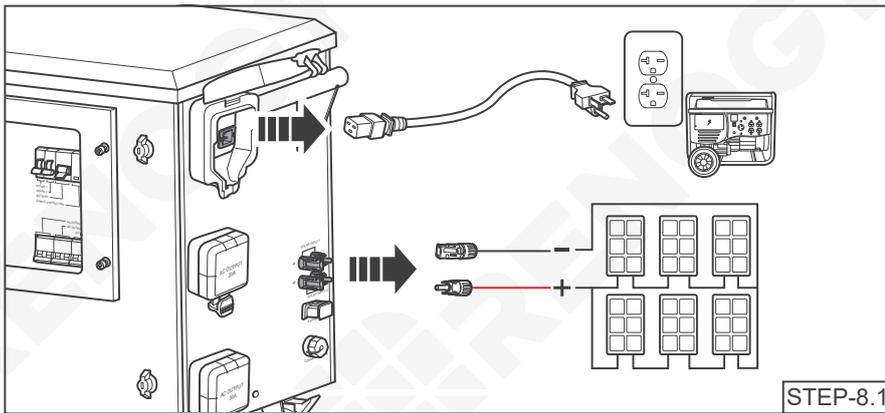
Swipe down to refresh the device list.



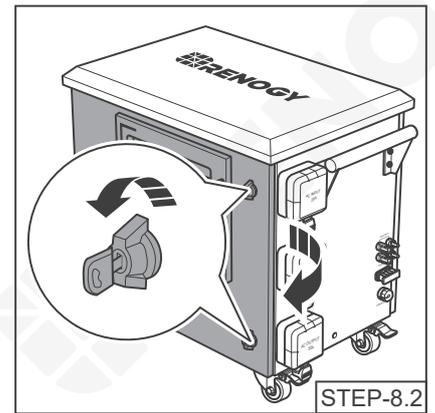
The LINK indicator of the Bluetooth Module flashes blue.



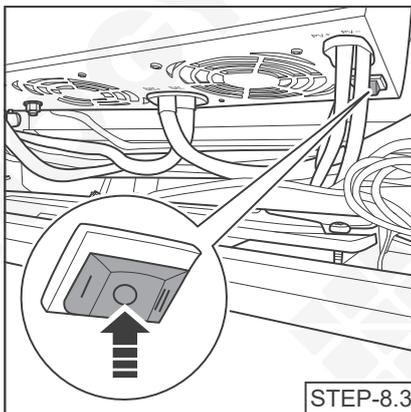
Turning Off



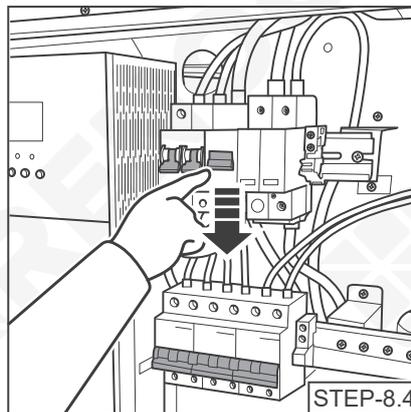
Disconnect solar and AC inputs from LYCAN.



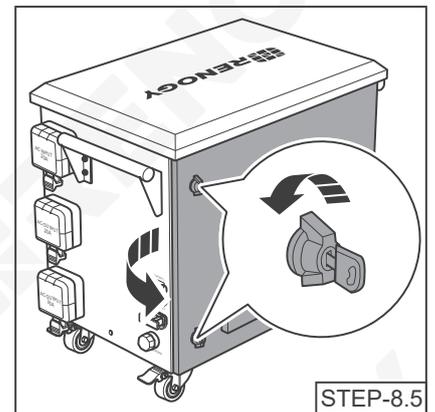
Open the Front Door Locks with the included Keys and rotate the wing knobs counterclockwise by 90° to open the front door.



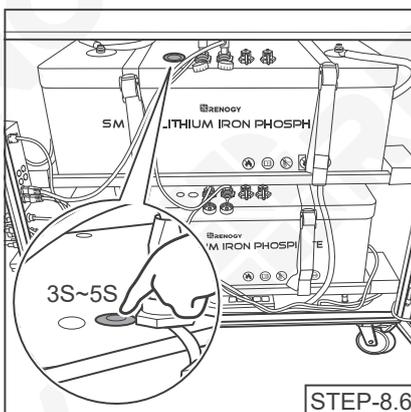
Rock the switch on the bottom of the solar inverter charger to the OFF position (O) to turn off the solar inverter charger. The Solar Inverter Charger Display turns off, and the Solar Inverter Charger Indicator goes out after a small delay.



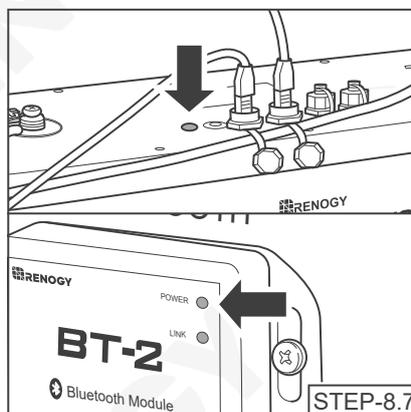
Push the switches down to open all the circuit breakers.



Open the Back Door Locks with the included Keys and rotate the wing knobs counterclockwise by 90° to open the back door.



Press and hold the power button on the top of the upper battery for 3-5 seconds to turn off the batteries.



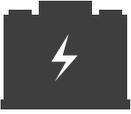
The indicators of the battery and the Bluetooth module go out.



Turning Off



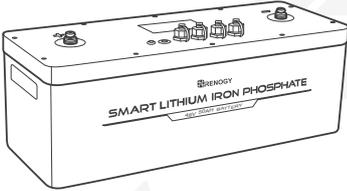
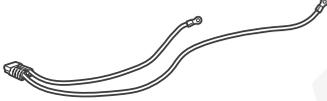
- Please close the front door and back door, rotate the wing knobs clockwise by 90°, and lock the Front Door Lock and Back Door Lock after turning LYCAN off.
- If LYCAN is not going to be used for a long time, and neither solar nor AC power are available to keep LYCAN topped off, please turn LYCAN off to prevent the batteries from overdischarging.



*Capacity Expansion

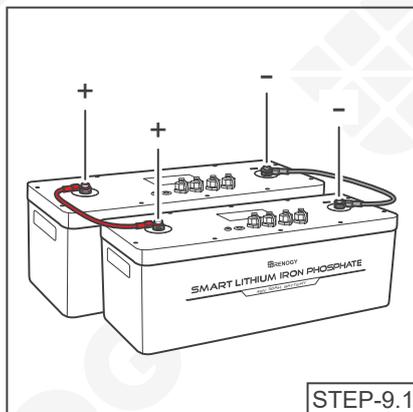
If necessary, additional batteries can be connected to the Anderson Connector of LYCAN for capacity expansion.

Required Accessories

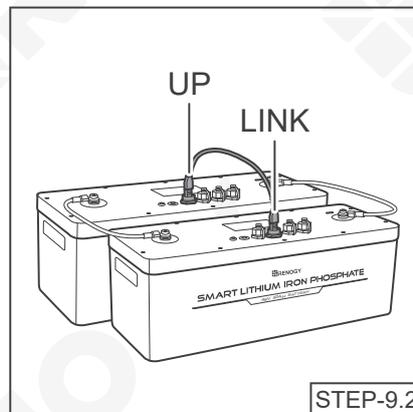
Renogy 48V 50Ah Smart Lithium Iron Phosphate Battery	Anderson Connector to Ring Terminals Adapter Cable
	



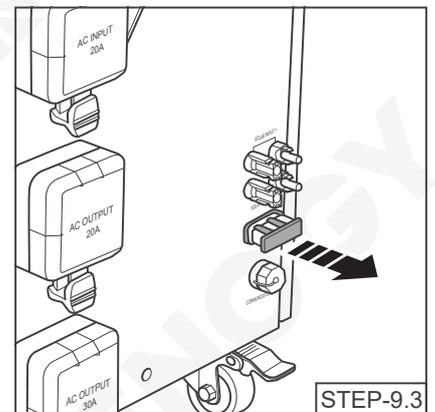
- ONLY connect Renogy 48V 50Ah Smart Lithium Iron Phosphate Batteries to LYCAN for capacity expansion. Connecting other brands or models of batteries to LYCAN can damage LYCAN and/or the batteries.
- Please read the full user manual of 48V 50Ah Smart Lithium Iron Phosphate Battery on renogy.com carefully before connecting additional batteries to LYCAN.
- DO NOT connect more than 6 Batteries to LYCAN.
- Connect the Batteries in parallel and to LYCAN with 4AWG or larger cables.



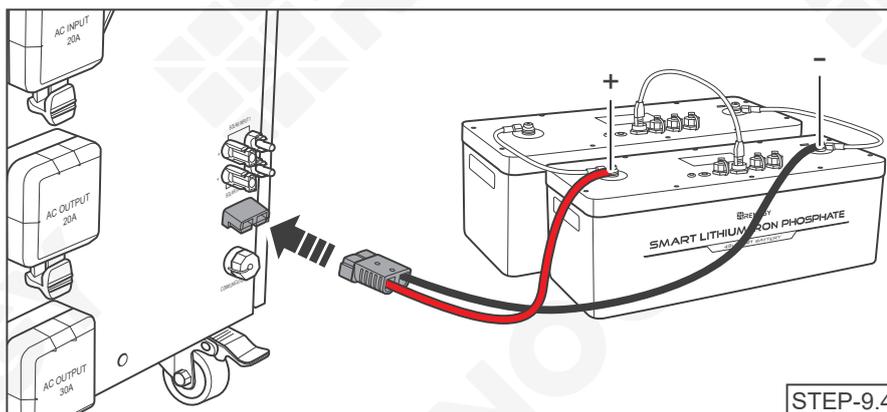
Connect the Batteries (sold separately) in parallel with battery cables (sold separately).



Connect the UP communication ports of the latter Batteries to the LINK communication ports of the former ones with Ethernet cables (not included).



Remove the Dust Cover of the Anderson Connector.



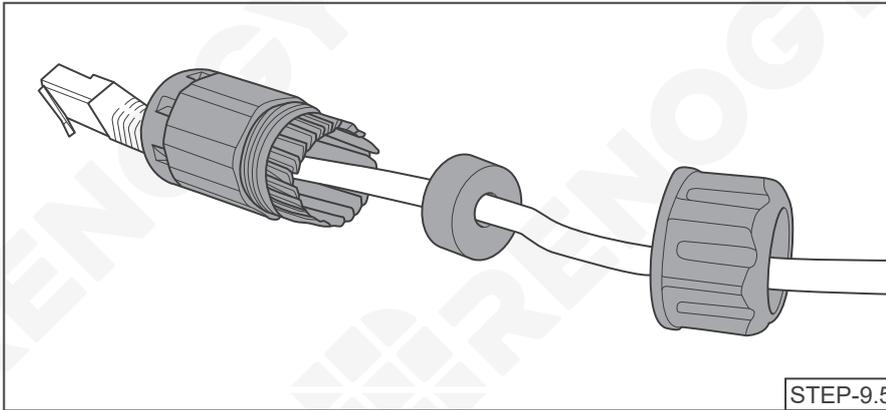
Connect the positive and negative terminals of the first Battery to LYCAN with the Adapter Cable (not included).



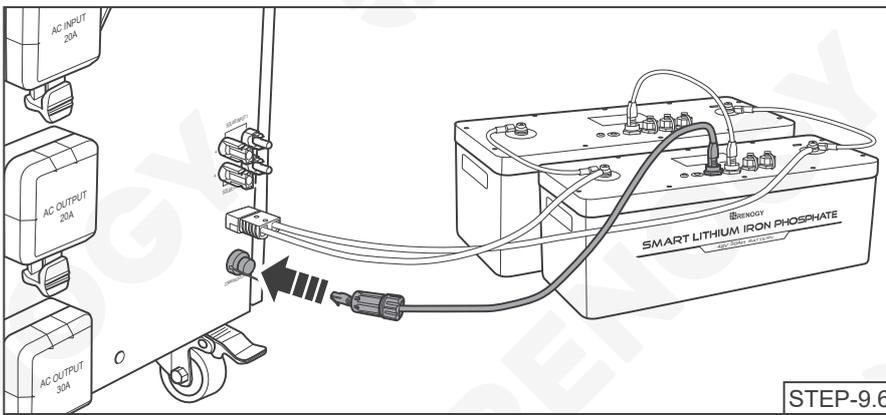
- Verify the polarity before the connection. Reversed polarity can damage LYCAN and/or the Batteries.



*Capacity Expansion



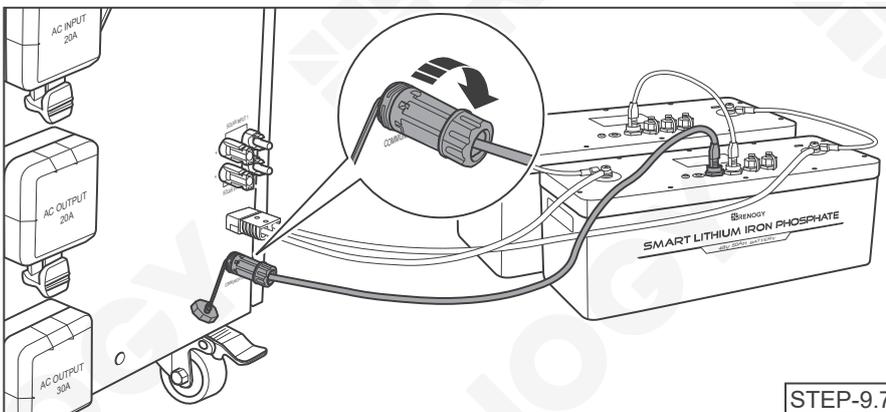
Install the included RJ45 Plug Waterproof Housing on one end of a Ethernet cable.



Connect the UP communication port of the first battery to the RJ45 Jack of LYCAN.



- CAT5 or above Ethernet cables are required.



Screw the RJ45 Plug Waterproof Housing into the Waterproof Housing of the RJ45 Jack.

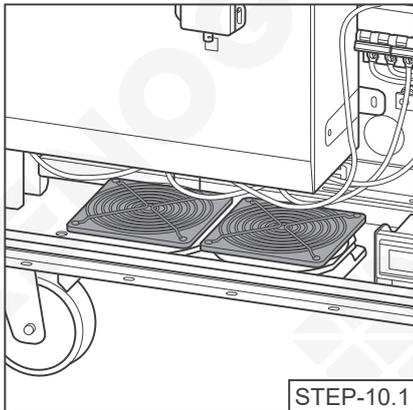


- Please repeat the Bluetooth Pairing procedures to pair the newly connected Batteries with the DC Home app.

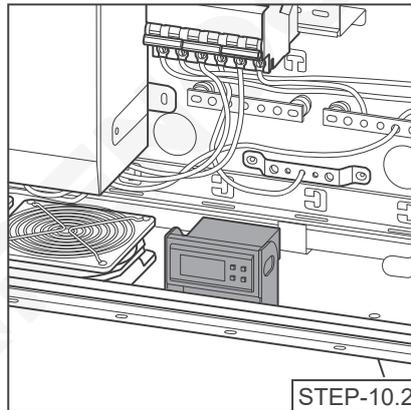


Maintenance

Fan Operation



The fans are located at the bottom of LYCAN. They start operating when the temperature of the air vent rises above 131°F (55°C) and stop operating when the temperature of the air vent drops below 113°F (45°C).



The thermostat is located next to the fan and displays the temperature of the air vent.



- Clean the fans regularly. The accumulation of debris and dust can block the fans and affect the heat dissipation of LYCAN.
- The parameters of thermostat have been preset. No additional parameter setting is required.
- DO NOT modify the parameters of thermostat. Modifying the parameters can lead to irreversible damage to LYCAN and voids the warranty.

Inspection

Please perform regular inspections by following the steps below.

- Examine the external appearance of LYCAN. The enclosure and connector contacts of LYCAN shall be clean, dry, and free of corrosion.
- Check the external cables and connections of LYCAN. Replace any damaged cables and tighten any loose connections.



- In some applications, corrosion can form around the contacts internal to the Anderson Connector. The corrosion can cause loosening of spring retention force and increase of mated contact resistance, leading to premature failure of the connection. Please apply dielectric grease onto each connector contact at regular intervals. Dielectric grease can repel moisture and protect the connector contact against corrosion.



Maintenance

Storage

Please follow the tips below to ensure that LYCAN emerges from storage in a good condition.

- Charge LYCAN to 30%-50% and turn it off before storage.
- Make sure that the front door and back door are locked, and the Viewing Window is closed.
- Store the battery in an open, well ventilated, dry, clean area with temperatures between 32°F~104°F (0°C~40°C).
- DO NOT expose LYCAN to extreme temperatures.
- Engage the Pedal Brakes on Swivel Casters to prevent LYCAN from moving.
- Charge LYCAN at least once every 3 months to prevent it from overdischarging.
- Fully charge LYCAN when it is taken out of storage.
- Keep the keys properly. If the keys are lost, please visit renogy.com for help.



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Visit renogy.com to find the full User Manual or get more support via "Contact Us".

Your voice matters! Scan the QR code to submit your feedback on the product.



Welcome to join Renogy Power **PLUS** Community by scanning the QR code to install DC Home App. Find your e-warranty here, and more.

