APEX-10K Inverter - Quick Start Guide

1. Safety Essentials

- Turn **OFF** all power sources before wiring.
- Indoor use only (IP20). Keep away from moisture, heat, and flammable materials.
- Electrical isolation gloves and safety glasses are recommended for safety.
- **NEVER** connect or disconnect wires while powered.

2. Mounting the Inverter

- Mount on a solid wall using included hardware.
- Maintain clearance: 50 cm (20 in) sides, 20 cm (8 in) top/bottom.
- Unscrew and remove front terminal cover.
- *(optional)* Inspect insect-proof netting for debris (located on the top left & right side) before wiring.



3. Recommended Cable Size Chart

Connections	Cable Sizes	Circut Breaker Model
PV Input	4 mm^2 / 12 AWG	(2-pole) 25A
AC Input GRID	Single phase: 6 AWG (**L1**,**L2**) 3 AWG (**N**) Split phase: 6 AWG (**L1**, **L2**, **N**)	Single phase: (2-pole) 125A Split phase: (3-Pole) 63A
AC Output LOAD	Single phase: 6 AWG (**L1**,**L2**) 3 AWG (**N**) Split phase: 6 AWG (**L1**, **L2**, **N**)	Single phase:(2-pole) 125A Split phase: (3-Pole) 63A
Battery	2 AWG (Minimum)	(2-pole) 250A

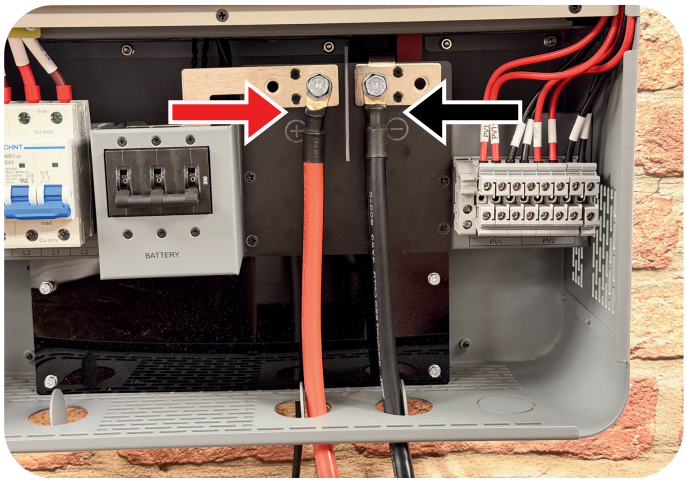
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4. Wiring Overview

Battery Wiring

***Note**: Do not overtighten the battery connections. Recommended torque is (8-10 N-m | 80-90 in-lb)*

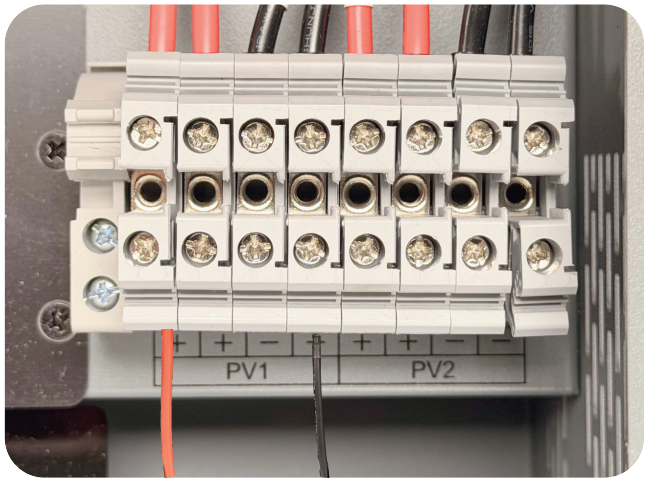
- Connect **Positive(+)** Battery **Terminal** to the **Positive(+) Terminal** on the Inverter.
- Connect **Negative(-)** Battery **Terminal** on the Battery to the **Negative(-) Terminal** on the Inverter.
- Use supplied ring terminals.





PV (Solar Panels)

- Connect each series of solar panels to PV1+ and PV1-.
- Make sure open circut voltage of the series connected PV panel **does not exceed 500V**
- Each MPPT (PV1 or PV2) can support 2 panel strings, but they must be identical in panel type and number of panels and the **combined current must not exceed 22 Amps for each MPPT**



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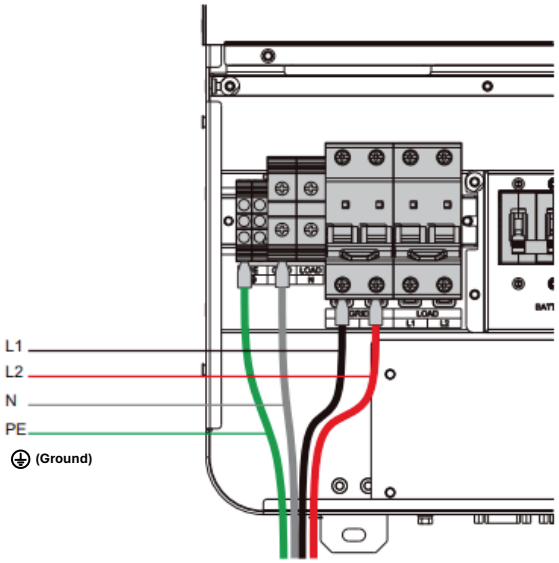
AC Wiring Color Codes

NEUTRAL	White Grey	**HOT**	Black Red	**GROUND**	Green Green-yellow Bare

(Optional)

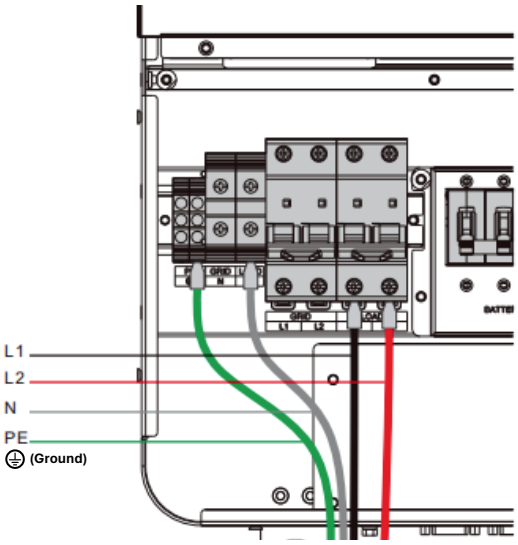
AC Input Wiring (Grid bypass for charging)

Connect **L1**, **L2**, **N**, **PE/Ground**.
Default mode: (Single Phase) 120/240 V.



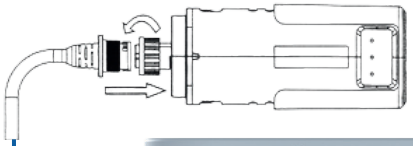
AC Output (Load) Wiring

Connect **L1**, **L2**, N, **PE/Ground**.
Do not exceed 63A per leg.

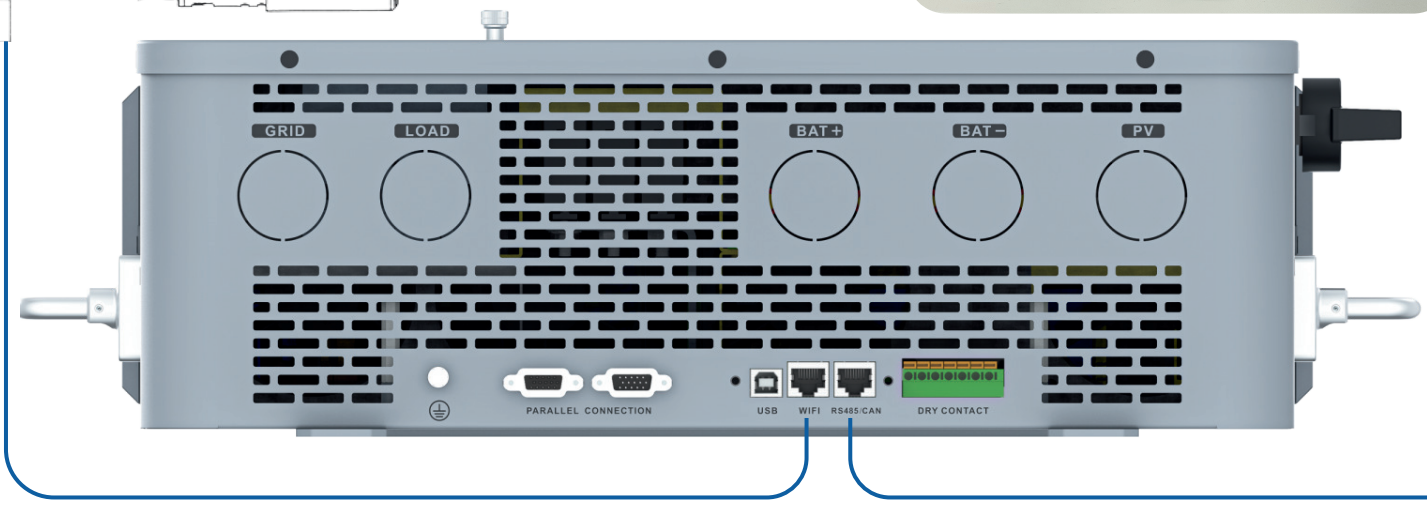


For the battery to communicate with the inverter, be sure to plug in the provided communication cable from the inverter RS485/CAN port to the battery.





Note: To monitor remotely, connect included WiFi Logger



5. Power-On Sequence

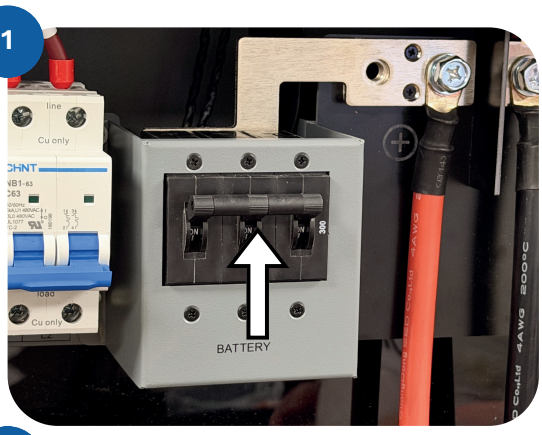
1. Turn **ON** the **Battery Breaker** on the Inverter.
2. Turn **ON** your **Battery**
   (Power switch/button located on the battery "if equipped")
   (Wait 10 Seconds...)
3. Turn **ON** the **Inverter**.

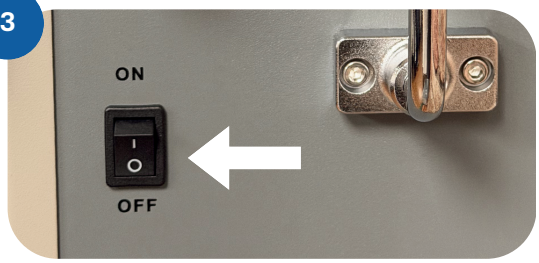
(Wait 45 Seconds...)

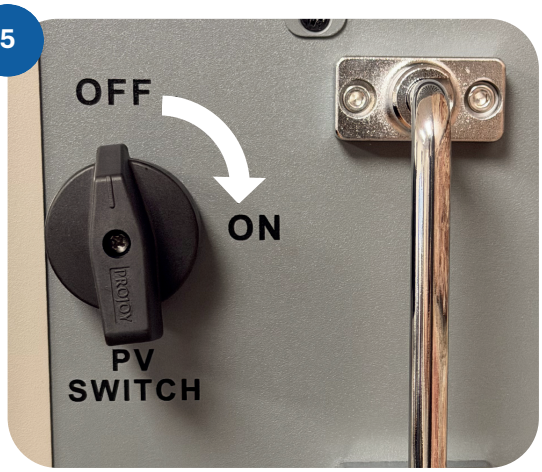
4. Set the **Recommended Settings** from the table below using the LCD screen. (For additional parameters, refer to user manual)

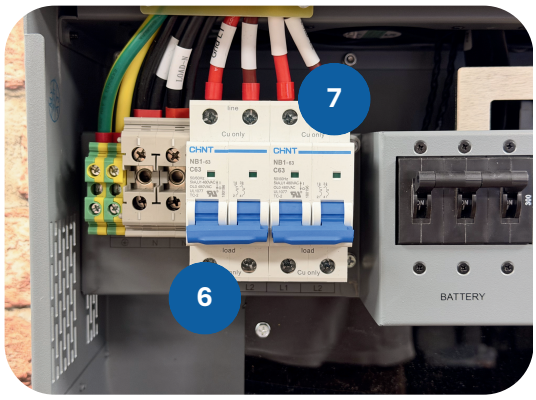
Menu	Setting	Recommended Input
1	Output Mode	Sub or Sbu
32	BMS Comms	CAN
33	BMS Protocol	LUX or UZE (universal)
39	Charging current limit mode	LCSET
07	Battery charge current	200
08	Battery Type	L16 (LFP)
28	Grid charge current	120
38	Output Voltage	120/240Vac

5. Turn **ON** the **PV Switch**.
6. Turn **ON** the **Grid Breaker**.
7. Turn **ON** the **Load Breaker**.









6. LED Indicators

Red	Alert/Fault
Green	Battery is Charging
Yellow	System is Ready

7. Start-up Checklist

- [ ] All wiring torqued. (8-10 N-m | 80-90 in-lb)
- [ ] Correct wire sizes used.
- [ ] PV voltage verified.
- [ ] Battery polarity correct.
- [ ] All connections secured.
- [ ] Terminal covers reinstalled.
- [ ] No fault indicators are present.

Need Additional Assistance?

Contact BigBattery **Tech Support**

Email: Support@BigBattery.com

Phone: (818) 280-3091 (Opt. 2)

Additional Resources

APEX-10K
User Manual

Install the SOLARMANSmart APP to stay connected to your home from anywhere. Enjoy the confidence of knowing your energy is always under control.

SOLARMAN Smart

We are thrilled to help you power your life with safe, sustainable, and reliable American Engineered technology. Let's get you up and running!

— The BigBattery Team

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