



## QUICK INSTALLATION GUIDE



**INSIGHT 48V030-GC2** **LiFePO4**

### THANK YOU FOR CHOOSING RELiON!

This Quick Installation Guide contains important information regarding the proper installation of your InSight Series lithium battery. This QIG only applies to RELiON InSight Series 48V030-GC2 lithium battery.

#### INSTALLATION INSTRUCTIONS

##### 1. USE PARALLEL CONNECTIONS

The InSight 48V030-GC2 is a 48V, 30Ah battery that is only to be connected in parallel to meet your energy requirements. To get 60Ah connect two 48V InSight batteries in parallel, if you want 90Ah connect three in parallel and so on. You may connect up to ten 48V InSight batteries in parallel. They are only to be used in a 48V system and cannot be connected in series.

##### 2. INSTALL THE BATTERIES CLOSE TOGETHER

If you are replacing your existing batteries with fewer than the original batteries, install the new InSight batteries close to each other in the battery compartment.

##### 3. USE RELiON INSIGHT BATTERY SPACERS

We recommend using our Battery Spacers to fill the empty battery spots so you can use the existing battery hold-downs that come in your vehicle. These can be purchased on our website at [reliombattery.com](http://reliombattery.com). If you do not use our Battery Spacers, please ensure your InSight batteries are securely held down.

##### 4. CABLE SIZE

Be sure to use cables of equal lengths to connect your InSight batteries.

##### 5. TORQUE

Use the proper torque.  
79.7 – 88.5 in-lbs • 9 – 10 N-m

##### 6. UTILIZE CAN CABLES

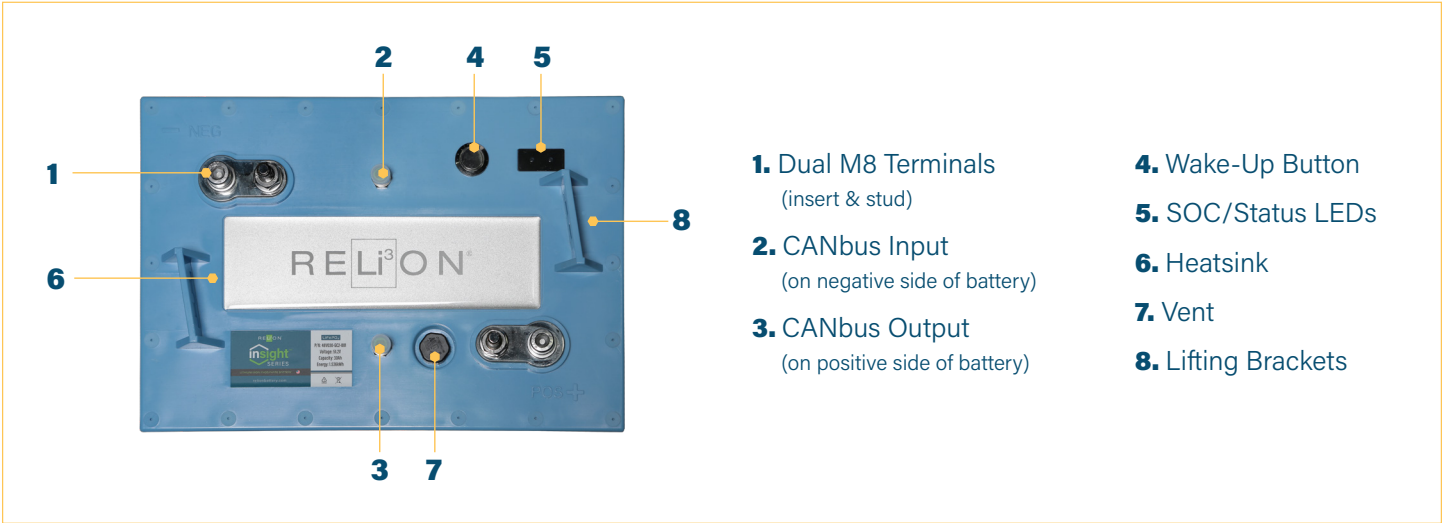
CAN cables are provided with your InSight battery. Starting with the first battery connect the CAN cable from the Output (on positive side of battery) to the Input (on negative side of battery) of the 2nd battery and so on. See image below for Input and Output CAN ports. The CAN port on the negative side of the 1st battery and on the positive side of the last battery will remain unused.

##### 7. WAKE UP THE BATTERY

Once connected, press and hold the Wake-Up button on one of the batteries until you see the first LED flash green. It will continue to flash green every 5 seconds. You will notice that once you wake up one battery the remaining batteries will automatically wake up. Once the batteries are awake, you can tap the Wake-Up button to see the state-of-charge (SOC) of each battery. Refer to our LED de-coder to determine the SOC. If the batteries are not at an equal SOC, they will balance upon being used.

##### 8. CHARGING

Wait 2 full minutes after using your battery before connecting your charger.



- 1.** Dual M8 Terminals  
(insert & stud)
- 2.** CANbus Input  
(on negative side of battery)
- 3.** CANbus Output  
(on positive side of battery)
- 4.** Wake-Up Button
- 5.** SOC/Status LEDs
- 6.** Heatsink
- 7.** Vent
- 8.** Lifting Brackets

**BATTERY INTERFACE:**

The battery cover has two tri-color (green, orange, and red) that are used to communicate the status of the battery, the SOC of the battery, as well as protection modes and errors. LED1 is on the left side and LED2 is on the right side of the LED display when facing the battery from the positive post side.

**LEDS - STATE INDICATORS:**

STATE	LED 1	LED 2
OFF	OFF	OFF
Active	Flashing Green (every 5 sec)	OFF
Battery Under Protection	Flashing Red (every 5 sec)	OFF
Charging	Off	Flashing Green (every 2 sec)
FW Update	Solid Green	Solid Green

**LEDS - SOC STATUS:**

SOC	LED 1	LED 2
0 - 10%	Solid Green	Flashing Red
10% - 30%	Solid Green	Solid Red
30% - 50%	Solid Green	Flashing Orange
50% - 75%	Solid Green	Solid Orange
75% - 98%	Solid Green	Flashing Green
100%	Solid Green	Solid Green

## LEDS - ERROR INDICATORS:

STATE	LED 1	LED 2
Temperature Protection	Flashing Green	Flashing Red
Over Load Protection	Solid Green	Solid Orange
Battery Under Voltage Protection	Solid Green	Flashing Red

## PRECAUTIONS:

Lithium Iron Phosphate (LiFePO<sub>4</sub>) batteries are an inherently safe chemistry. Please reference RELiON's Lithium Iron Phosphate Safety Document (available on our website at [reliombattery.com](http://reliombattery.com)) for more details. However, as with any electronics, safety measures should always be taken. Please adhere to the instructions for safe handling and operation.

- Wear safety glasses when installing batteries
- Use a wrench with a rubber coated handle
- Do not place any objects on top of batteries
- Make sure all cable connections are properly tightened
- Refer to RELiON's LiFePO<sub>4</sub> SDS for additional information



## TECHNICAL SUPPORT:

If you have technical questions about your RELiON battery, please contact the original place of purchase or RELiON Battery directly:



[powerpros@reliombattery.com](mailto:powerpros@reliombattery.com)



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[Reliombattery.com](http://Reliombattery.com)

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