



# QUICK START GUIDE

48V

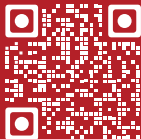
TROJAN® ONEPACK™ 48V LITHIUM-ION BATTERY

# PHONE APPLICATION

Download The Trojan SmartBattery® App to monitor your battery's State-of-Charge. This mobile app connects to your battery through Bluetooth® connection.



AVAILABLE ON GOOGLE PLAY AND APPLE APP STORE



Download on the  
**App Store**



GET IT ON  
**Google Play**

**The new Trojan SmartBattery App provides the status of your battery at your fingertips.**

# SAFETY

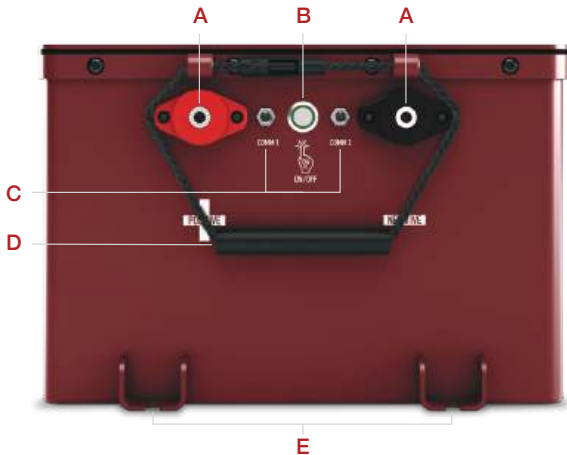
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- Turn battery off during installation.
- Wear proper personal protective equipment (eye protection and gloves).
- Use insulated tools.
- Do not wear jewelry or other metallic objects when handling batteries.
- Keep sparks and flames away from batteries. This includes sources of static electricity.
- Use handles attached to battery when lifting. Recommended two-person lift when moving battery.
- Use cables of appropriate length and gauge (See Trojan Lithium OnePack 48V User's Guide for specific cable sizes).
- Prior to connecting cables, make sure the charger is disconnected.
- Do not open the battery case.
- Only use Lithium-Ion approved chargers, refer to the Trojan Charger Compatibility Guide.
- Review product warning labels and Trojan Lithium OnePack 48V User's Guide.
- Lithium-ion batteries may disconnect from a host system without warning under a variety of conditions for safety and to avoid internal damage ("automatic disconnection"). Automatic disconnection will result in total power loss.

# BATTERY INTERFACE

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- A. Power Terminals (M8 threads)
- B. ON/OFF Power Switch
- C. Communications Port 1 & 2
- D. Handle
- E. Mounting Feet



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OnePack conserves power by entering sleep mode after 4 hours of inactivity if the battery is above 25% State of Charge. If below 25%, it enters sleep mode after 1 hour of inactivity. To wake the battery, press the dashboard button or hold the battery's on/off button approximately 6 seconds. If the gauge is on, the battery is on; if off, the battery is off. Refer to the User's Guide for full functionality of the State of Charge Gauge and OnePack Operation.

# GETTING STARTED



Before first use, it is recommended to complete a full charge cycle on the battery and let it remain at idle overnight. This allows the state of charge to reset and ensures gauge accuracy. If this step is not completed before first use, the state of charge gauge may be inaccurate until reset has occurred.



**Power On/Off:** Locate the ON/OFF button on the side of the battery in-between the power terminals.



**Turning On:** Press the button, hold for approximately 6 seconds, and release. A green blinking LED light will appear to indicate the battery is on.



**Turning Off:** Press the button, hold for approximately 6 seconds, and release. Verify that the green LED is no longer blinking.

# CHARGING & DISCHARGING



Using charging profiles designed for lead-acid or other battery types will cause permanent damage to the battery.  
Contact your local Trojan Authorized Lithium-ion Dealer for support.

**ATTENTION!**  
USE ONLY WITH COMPATIBLE  
LITHIUM-ION CHARGERS;  
SCAN FOR THE APPROVED LIST



## CHARGER SPECIFICATIONS

### CHARGER SETTINGS & CHARGE PERFORMANCE

Lithium-ion Charger Compatibility Guide - Scan the QR Code for Approved List

Recommended Charging Voltage 54.7V to 56.0V

### MAXIMUM CHARGING CURRENT @ TEMPERATURE

	TR-48-110-M	TR-48-170-M	TR-48-170-HP
< 32°F (< 0°C)	0A	0A	0A
32°F to 50°F (0°C to 10°C)	31.5A	51.3A	51.3A
50°F to 68°F (10°C to 20°C)	52.5A	85.5A	85.5A
68°F to 113°F (20°C to 45°C)	105A	171A	171A
113°F to 131°F (45°C to 55°C)	21A	34.2A	34.2A
> 131°F (> 55°C)	0A	0A	0A

## DISCHARGE SPECIFICATIONS

### PERFORMANCE AND SYSTEM SPECIFICATIONS @ 77°F (25°C)

	TR-48-110-M	TR-48-170-M	TR-48-170-HP
Maximum Continuous Discharge Current	200A	200A	300A
Maximum Pulse Discharge Current (30 sec)	300A	300A	425A
Maximum Instantaneous Discharge Current (2 sec)	525A	525A	750A

# NEEDED FOR INSTALLATION

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**Eye Protection  
& Gloves**



**Team Lift**  
(recommended)

Battery Weight of TR-48-110-M: 120lbs (54kg)

Battery Weight of TR-48-170-M: 170lbs (77kg)

Battery Weight of TR-48-170-HP: 170lbs (77kg)



**Insulated  
Torque Wrench**



**13mm Deep  
Well Socket**



**Cables**



**Voltmeter**  
(optional)



**Before installation, fully charge the battery to 100% SOC.  
See Charger Compatibility Guide for list of approved chargers.**

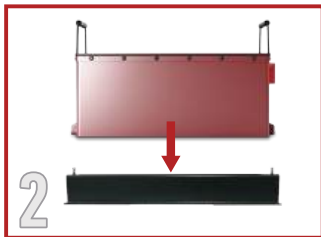


# INSTALLATION

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Install mounting bracket into equipment's battery compartment. Refer to the Trojan Vehicle & Mounting Bracket Compatibility Guide when selecting the correct bracket for your equipment.



Use the battery's lifting handles to place the OnePack 48V battery onto the mounting bracket in the equipment's battery compartment.



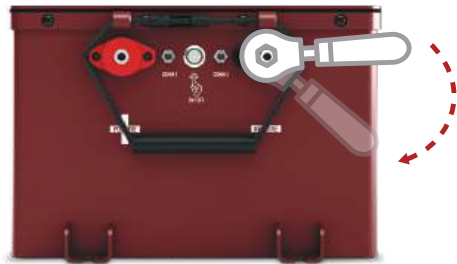
Fasten all hardware to secure the mounting bracket and battery before operating the equipment.

**⚠ Customer equipment images are for visual representation purposes only. Specific installation requirements will vary. Select appropriate Trojan product for your application. For more detailed installation instructions, refer to Trojan Lithium OnePack 48V User's Guide.**



# INSTALLATION (Cont.)

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## Cable Sizing:

- Battery cables should be sized to handle the expected load. Refer to the Trojan Lithium OnePack 48V User's Guide for the maximum amperage based on the cable gauge size.

## Cable Connections:

- Tighten all cable connections to the proper specification to make sure there is good contact with the terminals. Over-tightening can result in terminal breakage.

## Terminal Torque:

- 50-60 in-lbs

**Do not install battery in reverse polarity. This may permanently damage the battery.**

**Do not install battery in series or parallel with any other batteries. This may permanently damage the battery.**

# RECOMMENDED ACCESSORIES

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## **Dashboard Gauge:**

- Three Line Display.
- Low Battery Indication.
- Water & Dustproof.
- Backlight for Easy Viewing.
- Easy Dashboard Installation.

## **Power Button:**

- Turn Battery ON/OFF from Dashboard.
- Water & Dustproof.
- Easy Dashboard Installation.



# TROJAN TRUST

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- Developing deep-cycle batteries since 1925.
- Full range of advanced Deep-Cycle Flooded, Trojan AES AGM, and Lithium-Ion batteries.
- Quality components for reliability and performance.
- Industry-leading return on investment and low cost of ownership.
- Outstanding technical and customer service.
- Trojan's battery testing procedures adhere to both BCI and IEC test standards.
- Global – sold in over 120 countries.





## **TECHNICAL SUPPORT**

### **Call Trojan Battery Technical Support:**

United States and Canada: 800-423-6569, dial ext. 3045

International: +1-562-236-3045

**Email:** [technical@trojanbattery.com](mailto:technical@trojanbattery.com)

**On the web:** [trojanbattery.com/resources/technical-support](http://trojanbattery.com/resources/technical-support)

### **Corporate Headquarters**

Trojan Battery Company  
12380 Clark Street  
Santa Fe Springs, CA 90670

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For more details, scan the  
QR code to download the  
**Trojan® Lithium OnePack™**  
**48V Series User's Guide**

