

OWNER'S MANUAL

For Duraboost Lithium Ion Battery

DURABOOST

Li-Ion



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VEHICLE INSPECTION

BATTERY PREPARATION

CHARGING

INSTALLATION

STORAGE

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FEATURES



Ultra Light Weight

60% lighter than a lead acid battery



Perfect Shelf Life

Exceeds 12 months (Lead-acid batteries last 6 months)

Premium Charge Acceptance

When charged with a 10C current battery can reach a 90% charge in under 6 minutes.



Highly Safe

The battery Design and lithium-ion phosphate material provides safe performance Maintenance Free



Overcharge Protection

Battery will not allow overcharging



100% Maintenance Free

• Factory sealed
• Ready to install



Multiple Position

Battery can be installed in any position



Automatic Mode

Battery will go into sleep mode to keep the battery from damage if it drops below minimum charge



WARNING

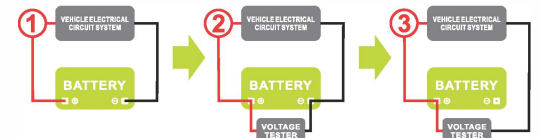


- DO NOT use with battery chargers that produce a charge voltage over 14.9V
- DO NOT charge battery with chargers that are equipped with an Automatic "desulfation mode".
- DO NOT immerse the battery in water.
- DO NOT use or store the battery near sources of sparks, fire, or heat.
- DO NOT reverse the positive (+) or negative (-) terminals.
- DO NOT short-circuit the battery by connecting wires or other metal objects to the positive (+) and negative (-) terminals.
- DO NOT puncture or damage the battery case.
- DO NOT strike, throw, or subject the battery to severe physical shock.
- DO NOT directly solder connections to the battery terminals.
- DO NOT attempt to disassemble, open, or modify the battery in any way.
- DO NOT use the battery in combination with primary batteries (such as dry cell batteries) or batteries of different capacity, type, technology, or brand.
- DO NOT use more than one battery in parallel or in series.
- DO NOT use the battery if it gives off an odor, generates heat, becomes discolored, deformed, or appears abnormal in any way. If the battery is in use or being recharged, remove it from the device or charger immediately and discontinue use.
- DO NOT press on indicator button longer than few seconds.
- DO NOT dispose of the battery before completely discharging it.
- Make sure battery terminals are properly installed and tightened. Loose connections may cause damage to the battery and vehicle.
- The battery cranking power will be diminished at or below -5°C (23°F).
- Keep out of reach of Children and Pets.

1. VEHICLE INSPECTION

Before installing the battery complete the following electrical inspections, to verify the proper operation of your vehicle's charging system.

Vehicle Charging Voltage Check

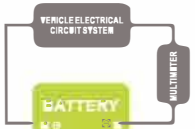


Use a manufacturer approved voltage tester to check the vehicle's charging voltage, by following the below steps:

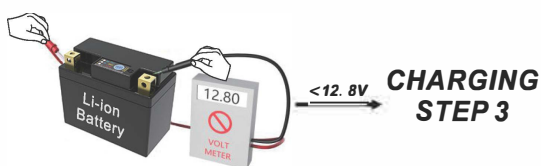
1. Connect the vehicle's **RED** wire to the battery's **POSITIVE** terminal, then vehicle's **BLACK** wire connects to **NEGATIVE** terminal. Now start the vehicle.
2. Connect the voltage tester to the vehicle's wires, **RED** wire connects to **POSITIVE**, **BLACK** wire connects to **NEGATIVE**. The tester should indicate the battery has an open circuit voltage.
3. Disconnect the negative wire from the battery terminal, the tester will now indicate the vehicle charging voltage. Increase the vehicle RPMs 2000 and check voltage. Then increase vehicle RPMs to 5000 and check the charging voltage again. A charging voltage between 14.0V~14.9V is acceptable.

NOTE:

- If the charging voltage is below 14.0V, the lithium battery can not fully charge.
- If the charge voltage is over 14.9V, the battery will be damaged and bodily/property damage can occur. DO NOT install lithium batteries in malfunctioning charging systems.
- Vehicle Drain Current Check
Turn off the engine, connect the multimeter (milliamperes mode) to the battery's negative terminal and the vehicle's negative wire in series, then check the vehicle drain current in milliamperes mode.
 - A drain current less than 1mA, is acceptable.
 - A drain current between 1mA-3mA, can cause the lithium battery to over discharged. Check battery voltage monthly and maintain if necessary.
- DO NOT install a lithium battery in a vehicle with a drain current greater than 3mA.



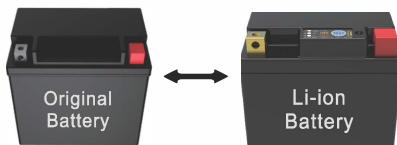
2. BATTERY PREPARATION



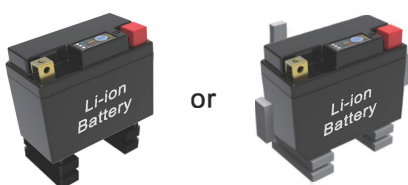
- Check the lithium battery voltage with a voltage tester before installing. If the voltage is less than 12.8V, charge the battery according to, charging section STEP 3.



- Remove the original lead acid battery from vehicle, **NEGATIVE** terminal first, to avoid short circuit.



- Compare original battery TO lithium battery.
- Confirm the battery terminal locations, to ensure the old battery and new battery are the same.



- Check battery dimensions, length, width, and height.
- Add the provided foam spacer to the battery, to ensure best possible battery fitment.

3. CHARGING

- Only use battery chargers designed for use with 12V lithium-ion batteries, and that have an output voltage between 14.0~14.9V.
- DO NOT use battery chargers that are equipped with desulfation modes.

WARNING! Charging a lithium-ion battery using a charger with a "desulfation mode", will damage the battery and could cause bodily harm

- Always remove the battery from the vehicle before charging.
- Connect the charger's RED wire to the battery's POSITIVE terminal, then charger's BLACK wire connects to NEGATIVE terminal. Now activate the charger.

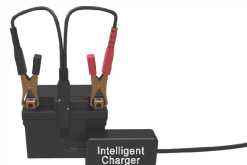
CHARGING LABEL



- After charging, leave the battery for 1 to 2 hours before checking the battery voltage. If the voltage is less than 12.8V, the battery requires additional charging.



<12.8V

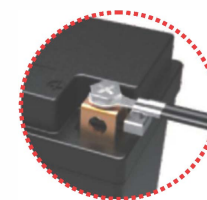


- **NOTE:** If the battery becomes too hot to touch, stop charging the battery. Allow battery to cool before you resume charging the battery.

4. INSTALLATION SECTION

- **CLEAN** the battery wires and terminals with a wire brush to remove any corrosive oxidation.
- **PLACE** the new lithium battery in the battery tray.
- **CONNECT** positive cable first, then connect negative cable to prevent sparks.
- **CONNECT TERMINALS**

- **Positive** red cable from ignition to Positive Post.
- **Negative** black cable from engine or chassis to Negative Post.



5. STORAGE SECTION

- The battery should be stored at 20%~100% charge.
- The battery should be stored in a clean, dry, and Ventilated environment (-20~40°C/-4~104°F), not in contact with any corrosive substances and away from sparks, heat, and fire.
- The battery should be charged completely within first 90 days, then charge once every 180 days when in storage.

6. TRANSPORTATION SECTION

- The battery should **ONLY** be transported with a charge below 70%. *(For air shipments the battery MUST be below a 30% charge and all air shipping IATA regulations must be followed).*

- The battery should be secured with insulation and shockproof material, to avoid damage from sudden jolts and impacts.
- The battery should be handled with care when loading and unloading during transport. Do not throw the battery and avoid collisions.
- Do not transport the battery together with flammables, explosive objects, or sharp metal goods.

7. MAINTENANCE

- Disconnect the negative battery cable from the battery, when the vehicle is in storage or used infrequently.
- Use a maintainer or charger, designed for lithium-ion batteries, to maintain the battery between rides.
- If the battery is not in use for longer periods of time, check the voltage to ensure it's at or above 12.8 Volts. If the voltage is lower than 12.8V recharge as described in Section 3 of the instructions.
- Keep battery wires and terminals clean and securely fastened.
- NEVER attempt to open the battery. Doing so will result in bodily harm and property damage.

8. BMS FEATURES

- The Intelligent Battery Management System (BMS) provides over charge protection for the battery.
- If the charge voltage exceeds 15.3V(+/-0.1V), the battery will go into Overcharge Protection Mode.
- Over Discharge Protection. This battery will go into sleep mode if the battery falls below 8V for more than 2 minutes.
- Short Circuit Protection. This battery will go into sleep mode if the battery experiences a short circuit.
- Over Temperature Protection. This battery will go into over temperature protection if the battery experiences a significant increase in temperature.

9. OTHER

- **COMOTO** bears no liabilities for problems caused by not properly reading and following the above instructions.
- For any questions, please contact the retailer you purchased the battery from.

⚠ WARNING: Cancer and Reproductive Harm - www.p65warnings.ca.gov

