



# Tips from Doc Megawatt... Save Time, Trouble & Money



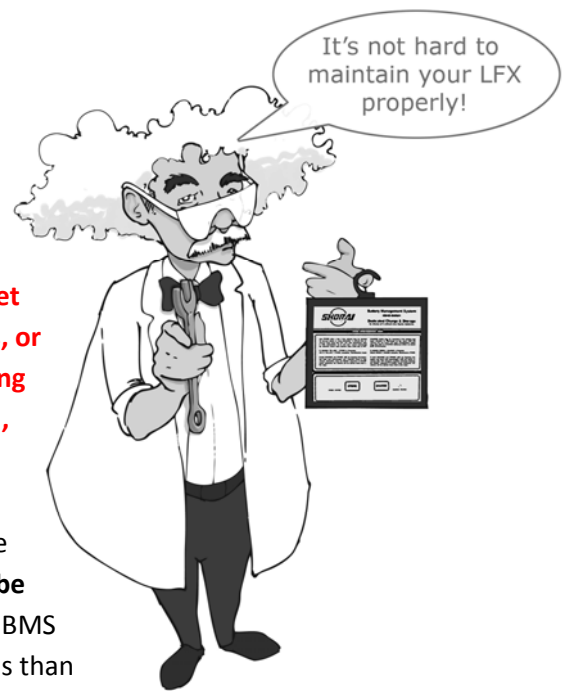
Do I qualify for warranty coverage?

**TO QUALIFY FOR WARRANTY COVERAGE:** You only need to visit <http://shorai.com> PRIOR TO INSTALLATION and use our year/make/model finder to verify that you have purchased the correct battery for your vehicle. **Use of an incorrect battery in your vehicle can be dangerous and will void any guarantee or warranty.** If your LFX™ battery is not recommended for your vehicle, contact Shorai Direct to exchange it for the proper battery. See the included User Manual for warranty details.

## CHARGE MAINTENANCE: LFX™ batteries should be recharged whenever voltage drops to 13.1

**volts, or sooner.** If you have a vintage, custom, or off-road vehicle which has NO draw on the battery when key is OFF, then you should only need to charge your LFX™ battery once a year. **However, most modern street bikes have a draw even when key is off, to support clock, computer, alarms, or other devices. This draw will eventually drain the battery, which is damaging and could void your warranty. So if you are not riding**

**you should charge the battery**. “Smart” lead-acid chargers with automatic cutoff may be used for periodic charging, but will NOT work as a tender/maintainer and should be disconnected immediately after charge has finished. **Older lead chargers without automatic shut-off should never be used.** Improper charging is dangerous and will void your warranty. A Shorai BMS Charger - with Store Mode - is highly recommended for anyone who rides less than twice a month. Alternatively, you may disconnect the negative cable from the battery for storage, and charge once per year in that case.



It's not hard to maintain your LFX properly!



Stay cool in storage, for a long, long life...

**LONG TERM STORAGE:** Cool storage is good for any type of battery. You may remove the battery from vehicle for summer storage and place in a cool, dry location – with terminals taped to avoid short circuit (ideal is about 34F/1C, so a refrigerator is great). Avoid storage at temperatures below 0F/-18C or above 90F/32C whenever possible. Any charging during storage should be performed at temperatures above freezing, for best results. If you want to keep the battery in the vehicle during storage, but are uncertain when you'll ride next, a Shorai BMS Charger connected in Store Mode is the best choice to maintain battery charge. An hour before riding, unplug the BMS charger and disconnect from wall power, then reconnect and start Charge Mode to fully charge and balance the battery.



**COLD WEATHER STARTING:** Down to about 20 degrees Fahrenheit (-7C) most users find that they can start normally on first crank. If your headlight comes on at key-ON, it is good for the batteries to flow some current before cranking in cold weather. The suggested headlight-on time before cranking depends on the temperature. If starting at 40F/5C, 30 seconds will help wake the battery and increase cranking performance. If at 0F/-17C, leave the lights on for 4~5 minutes before cranking. The result will be a better first crank, and longer battery life. If the engine fails to start on first crank, that first crank has warmed the battery, and the second attempt will be much stronger. Other accessories that can be turned on before cranking can also be used for this purpose, such as heated gear, radio, etc... Insuring that the battery is fully charged after storage also improves first-start performance in cold weather.

**WATER/CORROSION:** Avoid high pressure power washing around the battery case, or constant exposure to water. If the battery may be occasionally submerged, we highly suggest application of sealant to **fill the horizontal seam between top and bottom of the battery case**, and that



the 5-pin port be fully packed with **dielectric grease**. (dielectric grease is a good idea in any case to insure no pin corrosion). Also, heavy grease should be liberally applied to terminals for wet environments.



**SHORT CIRCUIT:** Starter batteries of any type contain a large amount of energy. During a short circuit, ALL that energy is released in a matter of seconds, creating an extremely hot arc welder, possibly causing fire or explosion. You **MUST** be very careful at all times to avoid short circuit of the positive and negative terminals. **Do NOT wear jewelry on wrist or neck while handling batteries.** INSURE that when installed the positive and negative terminals are properly covered and insulated from the vehicle. Do NOT use carbon fiber battery hold down units, as carbon is an electrical conductor. **Be CAREFUL!**

