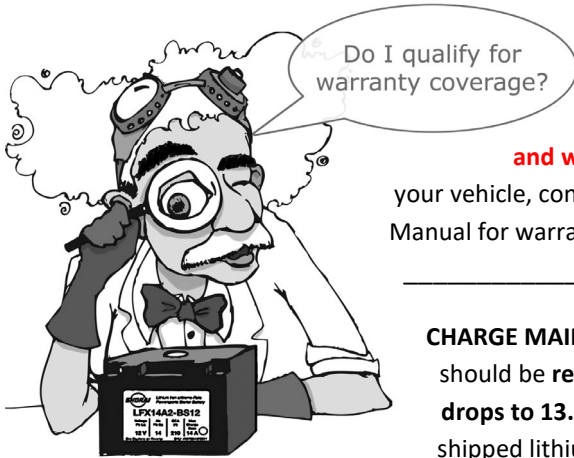




# Tips from Doc Megawatt... Save Time, Trouble & Money

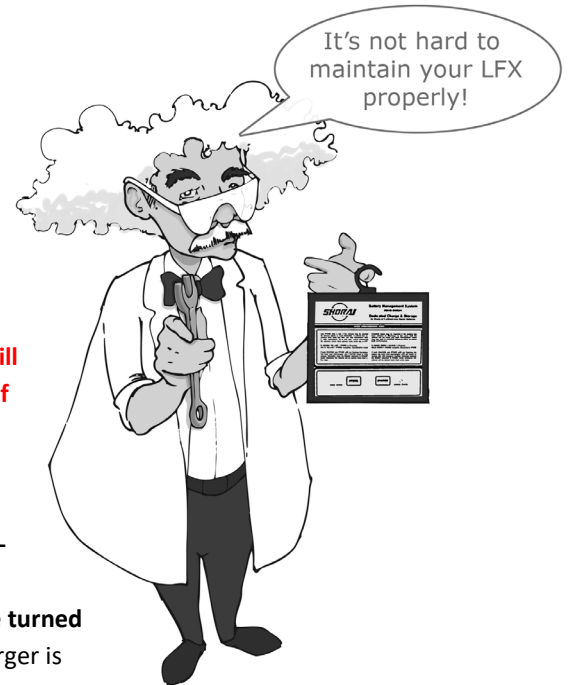


Do I qualify for warranty coverage?

**TO QUALIFY FOR WARRANTY COVERAGE:** You only need to visit <http://shoraipower.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 your seller to exchange it for the proper battery. See the included User Manual for warranty details and return instructions for your location.

**CHARGE MAINTENANCE:** LFX™ batteries should be **recharged whenever voltage drops to 13.15 volts, or sooner.** When shipped lithium batteries have a very low

30% state of charge, so always fully charge your new Shorai battery before first use in the vehicle. 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 twice a month, then you should charge the battery every few weeks.** "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. Do NOT use any charger/tender if it has an automatic "desulfation mode", "repair", "recondition", or "recovery" mode, which cannot be turned off.** Improper charging is dangerous and will void your warranty. A Shorai BMS Charger 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).

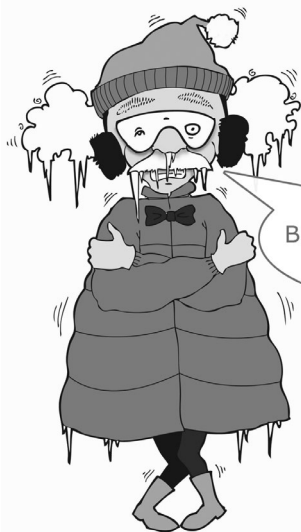
Avoid storage at temperatures below 0F/-18C or above 90F/32C whenever possible. Any charging during storage should be performed at temperatures above freezing, for best results. If you want to keep the battery in the vehicle during storage but are uncertain when you'll ride next, set a reminder to charge your battery once a month, for most vehicles. If you know that your vehicle has an especially high key-off drain then charge more often, accordingly. If using the Shorai BMS01 Charger use CHARGE MODE to charge occasionally as needed during storage.

Shorai LFX Batteries have included a BMS protection circuit since mid 2022. If battery voltage falls too low, the main terminals are disconnected to prevent a damaging "too deep" discharge. In this case charging with a "smart" battery charger may not work, as the

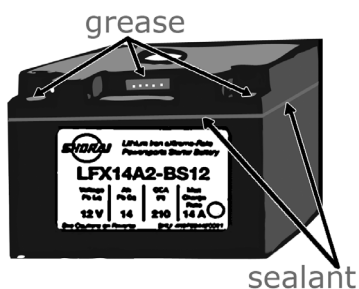
charger will see zero volts and refuse to start. The BMS can be unlocked several ways:

- 1) Use the Shorai BMS01 Charger in CHARGE MODE (not store mode)
- 2) Attach any 12V~15V DC Power Supply to main terminals for just 3 seconds
- 3) "Jump" from one 12V battery to the LFX battery **for just 3 seconds** (best to use another motorcycle battery rather than car)
- 4) Use an old "dumb" charger. If charger output is more than 2A only use it to unlock the BMS, then shift to an appropriate charger for LiFe Lithium batteries.

If you ride once a month or more, there is no need to ever charge for most motorcycles.



**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!**

