



### Quick Tips!

**Cycle Life affects battery life!** So what's a cycle? It's when you take a fully charged battery, discharge it, then fully recharge it. The typical starting, lighting, and ignition (SLI) flooded battery is designed to accept 12.6 volts and is considered drained when it reaches a 40 percent depth of discharge...at that point its open circuit voltage is about 12 volts and typical 6TMF batteries can be recovered about 235 times. **Be careful** not to fall below that point though, because you might not be able to recover it! **The Hawker® Armasafe Plus 6TAGM battery** is about 12.3 volts at the same 40 percent depth of discharge but it is **able to be recovered about 500 times!!!** And, if you completely drain it (100 percent depth of discharge) an open circuit voltage battery test will read 11.5 volts or lower...you should still be able to recover it 150 times!!! Obviously, though, draining the battery to that low of a level affects battery life...so your best bet is to keep it charged and never let it fall below 12.3 volts. By the way, whenever you start your engine, your battery will exhibit a shallow cycle. What's a shallow cycle, you ask? It's when the battery is drained less than 5 percent of its capacity during the discharge. Not to worry, while your vehicle is running, the onboard alternator or generator replenishes the loss.

### Do you know:

**that Hawker® is more than just the 6TAGM Armasafe™ Plus battery?** Interested in other Hawker® batteries for your tactical vehicles, construction equipment, auxiliary equipment, tactical quiet generators (TQG), ATVs, remote weapon stations, or objective gunner protection kit (OGPK)? Then visit us at [www.hawkermilpc.com](http://www.hawkermilpc.com) and see what solutions we can provide for you...or call one of our Hawker® Field Support Representatives!

### Answer to question from last issue:

**How do I recover a deeply drained Hawker® battery?** Well, depending upon the age of the battery, as well as how long it's been left in a deeply discharged state...you just might be able to bring it back to life. You see, as batteries age...and as they drain...plate sulfation occurs naturally. Therefore, **rule number 1** – never let your battery drain past 11.5 volts (open circuit voltage). Too late???, then **rule number 2** – get it on a charger as quickly as possible to prevent additional plate sulfation and to reverse the sulfation process. The charger should apply no more than 15 volts and no less than 10 amps to the battery. If, after an initial charge, you have not reached install specs per TB 9-6140-252-13, then **rule number 3** - drain some energy from the battery (using a carbon pile load tester, or a 12 volt accessory such as a vehicle lamp, etc.). Then, reconnect the battery to the charger. While charging, it should continue to reverse the sulfation process and accept a greater charge. If after your second attempt you have added at least .2 (that's point 2) volts or more, keep going through the process...you just might be on your way to recovery! However, if you cannot get the battery to accept at least .2 volts, then the battery has lived its useful life. Remember, if a battery is left in a deeply drained state for too long, the plate sulfation reaches a point of no return...and its time to replace it with a new one. **So...keep your Hawker® batteries charged and prevent plate sulfation!**

### Training:

**HALT! Are you throwing away good batteries???** Want to learn how to recover and maintain them?

**Here's how**...request free diagnostic, preventive maintenance, and corrective maintenance training from a Hawker® FSR.

### Questions?

Check out our website at: [www.hawkeraplus.com](http://www.hawkeraplus.com)

Call us at 877-485-1472

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