

# SURVIVING THE COLD

OH, MAN! I KNEW WE SHOULD'VE CHECKED THE BATTERIES BEFORE WE LEFT!

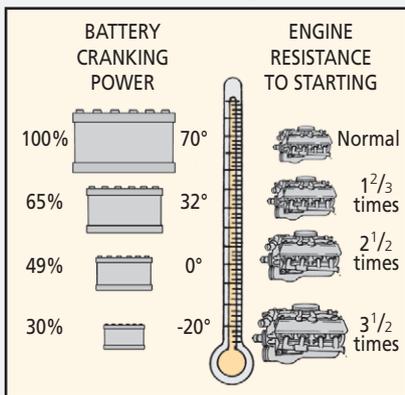
YEAH! AND BEING STRANDED OUT HERE WHEN THE HAWK IS OUT MAKES THINGS WORSE!

I'M FUH-FUH-FREEZING ALREADY!!



Gold weather is here and the hawk is out. But that doesn't mean you have to use only Hawker AGM batteries. Flooded lead-acid batteries can take you and your vehicles through the winter, too. You've gotta give them special care to survive the cold, though.

A fully charged lead-acid battery loses a third of its cranking power at 32°F. At 0°F, it has less than half its cranking power, and at -20°F it has only 30 percent. If that's what happens to a battery in good shape, guess what happens to one that's in bad shape?! So check your batteries now so they'll work when cold weather hits.



TAKE THESE STEPS TO DETERMINE IF YOUR BATTERIES CAN SURVIVE THE COLD.



## Read the TM

Have a copy of the battery pub, TM 9-6140-200-14, *Operator's, Unit, Direct Support and General Support Maintenance Manual for Lead-Acid Storage Batteries*, handy. Read it and refer to it.

All the guidance you need to test and keep your batteries fully charged is in Chapter 3 of TM 9-6140-200-14. Here are some points to keep in mind.

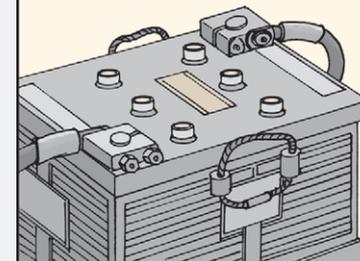
## Test the Battery Condition

Before testing the condition of a battery, check the level of electrolyte. Add distilled water, NSN 6810-00-682-6867, as needed. Then start the vehicle's engine and let it run on fast idle (1,000-1,200 rpm) for at least 20 minutes, or attach a charger for 20-30 minutes. Charging mixes the water and electrolyte.

Make sure you do this because if they don't mix, you'll end up only testing water! This mixing also helps keep plain water from freezing, preventing cracked battery cases.

It's best to test the electrolyte right after shutting off the engine. Use the antifreeze and battery tester, NSN 6630-00-105-1418.

If you add water, charge engine 20 minutes to mix electrolyte



## Check Specific Gravity

Before putting a battery—old or new—on the job, mechanics, test its specific gravity. That tells you the battery's state of charge.

If the specific gravity is less than 1.100, or if the difference in specific gravity between cells is more than 0.025, don't use the battery! Turn it in.

Specific gravity less than 1.100? Don't use battery!

