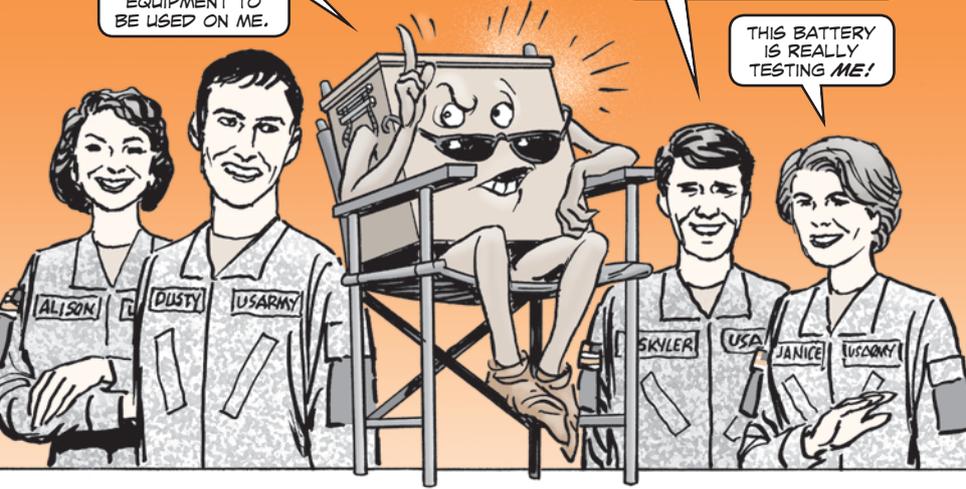


VRLA Battery Testing

I NEED MY CHARGING DONE NOW AND I ONLY WANT SPECIAL EQUIPMENT TO BE USED ON ME.

I KNOW THIS BATTERY NEEDS SPECIAL CHARGING EQUIPMENT BUT DOES HE HAVE TO BE SUCH A DIVA?

THIS BATTERY IS REALLY TESTING ME!

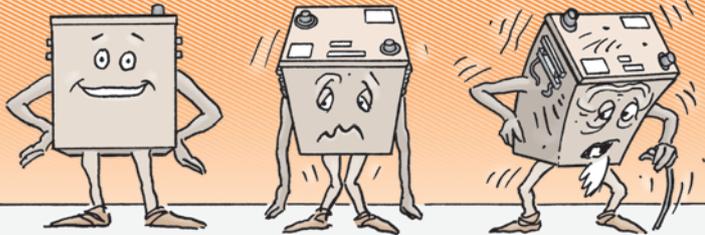


BY NOW, YOU PROBABLY KNOW THAT VALVE REGULATED LEAD-ACID (VRLA) BATTERIES REQUIRE SPECIAL CHARGING EQUIPMENT.

THESE BATTERIES CAN BE TESTED USING EQUIPMENT THAT'S ALREADY FIELDIED IN TEST SETS.



IF YOU USE THE EQUIPMENT PROPERLY, YOU CAN DETERMINE WHETHER A BATTERY IS GOOD, NEEDS CHARGING OR SHOULD BE TURNED IN.



I'M WONDERING WHICH TOOLS CHARGE AND TEST VALVE-REGULATED LEAD-ACID BATTERIES?

YOU'RE NOT THE ONLY ONE, SOLDIER!

KEEP READING FOR THE ANSWERS TO THAT AND MORE.



Charging

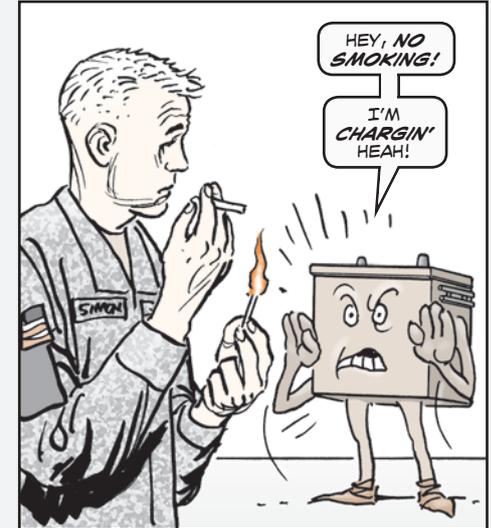
VRLA batteries have stricter recharging requirements than flooded batteries. You first have to decide if you want to recharge VRLA batteries on or off your weapon system. The preferred method is to charge the batteries on the weapon system.

Charge VRLA batteries in a well-ventilated area using a constant voltage recharging system. **Do not** smoke or have open flames in the charging area. Immediately stop charging if a battery shows signs of melting or swelling or if the surface of the battery becomes too hot to comfortably touch with a bare hand.

Battery chargers are found in the Standard Automotive Tool Set (SATS) (LIN S25885), NSN 4910-01-490-6453; the Automotive Maintenance and Repair: Field Maintenance, Basic Tool Set (LIN T24660), NSN 4910-00-754-0705; the Number 1 Common (LIN W32593), NSN 4910-00-754-0654; and the Number 2 Common (LIN W32730) tool sets, NSN 4910-00-754-0650.

The Pulse Tech Pro 4HD battery charger, NSN 6130-01-500-3401, is located in all four tool kits and automatically switches from 12 to 24 volts. It senses the battery's condition and provides only the right amount of charge for the battery.

The Pro 4HD comes with two output cable ends: one for the NATO connection and one with battery clamps. The charger will shut itself off when charging is complete.



Testing

You need to test your VRLA battery **before** installing it in a vehicle and **before** turning it in as unserviceable. To get an accurate view of the battery's health, fully charge it before testing.

There are several tools you can use to test the VRLA battery: a voltage meter, a load tester or a conductance tester (digital battery tester-analyzer).

Voltage meters are found in the SATS, Shop Equipment Contact (SECM) (LIN S25681), NSN 4940-01-548-9064; Forward Repair System (FRS) (LIN F64544), NSN 4940-01-533-1621; and the Field Maintenance Module 1 (LIN T65312), NSN 4910-01-501-7342.

The multimeter will allow you to conduct an open circuit voltage (OCV) test of the battery. If the OCV is below 12.85V, you must recharge the battery and v test again.

Load testers, such as NSN 6130-01-447-7294, will give you an indication of the battery's ability to hold its voltage while under load. They are found in the FRS, Number 1 Common, and the Number 2 Common tool sets.

Make sure you read the operator's manual before using load testers. Batteries should be fully charged before using a load tester and must be recharged after using a load tester.

Conductance testers are found in the SATS and the FRS. These testers are very sensitive and can find battery defects or weaknesses long before any problem or capacity loss is noticed. This simple-to-use tester has a digital menu screen that allows the user to identify battery voltage, cold cranking amps, and battery condition.

