



Marine Battery Testing

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Open Circuit Voltage versus State of Charge

READING ELECTRIC, a leading supplier of electro-mechanical equipment, services, and problem solver for Industrial and Commercial customers for over 50 years provides technical information to the Region's Residential, Commercial and Industrial Community. This Bulletin provides information about the Marine Battery Testing procedure for Open Circuit Voltage vs. State of Charge

REMEMBER: When removing your old batteries, installing, commissioning new batteries, or performing servicing operations, be sure to follow safety precautions and always WEAR PROPER EYE PROTECTION.

The Open Circuit Voltage Test (some times also called the 'No Load Test') is a test that can be performed quickly and easily. **The O.C.V. Test can provide early warning that batteries need servicing or are in the early stages of failure.** The O.C.V. Test provides information on how much charge is left in the battery and also provides an indication of the battery's self-discharge rate. **In general, a battery in good condition will remain at 100% charge for several weeks when subjected to self-discharge conditions only.** Remember; the only definitive test for battery condition is the Load Test.

To conduct this test you need a Voltmeter that is connected to your battery either permanently or a hand-held model. The hand-held model is connected to the positive and negative terminals of the battery. **A 'true' O.C.V. of a battery can only be determined after the battery has been removed from the load (charge or discharge) for 24 hours.**

State of Charge	Open Circuit Voltage		
	Flooded Wet Cell	Sealed Gel Electrolyte	Sealed AGM Electrolyte
	--- Volts DC ---		
100%	12.6 or Higher	12.85 or Higher	12.8 or Higher
75%	12.4	12.65	12.6
50%	12.2	12.35	12.3
25%	12.0	12.00	12.0
0%	11.8	11.80	11.8

Note: For 6-volt batteries, divide the figures in half.

READING ELECTRIC is a leading **Authorized Full Service Distributor** and offers a complete line of Deka Batteries. For assistance and additional information on Battery Power Systems, contact Russ Yerger at READING ELECTRIC. Phone: 610-929-5777; Fax: 610-929-1670; Visit our Website at www.readingelectric.com or email us for additional information at info@readingelectric.com