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Marine Batteries – Spring Readiness

Starter and Deep Cycle Battery Testing – Conductance Test

READING ELECTRIC, a leading supplier of electro-mechanical equipment, services, and problem solver for Industrial and Commercial customers for over 45 years provides technical information to the Region's Residential, Commercial and Industrial Community. This Bulletin provides information on checking the condition of batteries (starting and house batteries) to ensure dependable operation. There are two tests that are recommended by battery manufacturers to check battery condition: Load Testing and Conductance Testing. This Bulletin describes the Conductance Test.

In recent years, the Conductance Test has become recognized as a standard for determining the condition of a battery. Briefly, conductance describes the ability of a battery to conduct current which determines how much power (amps) a battery can supply. Conductance is a measurement of the plate surface that is available in the battery for a chemical reaction that produces current. As the battery ages, the plate surface will sulfate or shed active material. This causes a loss of surface area on the plates and a corresponding adverse effect on battery performance. The Conductance Test has gained in popularity among professional Battery Service Organizations because of the following features:



- 1) The Test is fast; requiring just seconds and does not require a fully charged battery.
- 2) The Test is passive and does not cycle or discharge the battery as does a Load Test.
- 3) Because the Test is passive, it does not create heat or any sparks providing a safe test environment.
- 4) The Test is simple and accurate. Today's Conductance Digital Analyzers require only a pin-point connection on the battery posts and are equipped with the test algorithms that provide a digital 'pass – fail' output.

Conductance Testing: First and foremost, when conducting any operations with batteries follow safety precautions and always WEAR PROPER EYE PROTECTION.

- #1:** Disconnect your battery from the other batteries in your bank. Clean the battery posts if necessary.
- #2:** Connect the leads of the Digital Analyzer to the proper battery terminals. If you do not have a Conductance Digital Analyzer, contact Reading Electric for assistance.
- #3:** Most Digital Analyzers will be menu driven and ask for the following input: a) Type of Battery: Lead Acid, AGM, Gel, etc; b) Battery rating system to be used: CCA, MCA, CA, DIN, JIS; c) Rating of the Battery, if you do not know the battery rating; contact Reading Electric for assistance.
- #4:** Press enter to start the test.

The normal Test Results are: Good Battery; Good Battery-Recharge; Charge and Retest; Replace Battery.

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