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## Marine Battery Off-Season Storage

### Storing your Marine Battery for more than 30 days

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 Off-Season Storage.

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

Anytime a battery is stored for more than 30 days, the following steps should be taken to extend battery life and reliability.

- 1) Charge battery to 100% and keep them above 75% state of charge; check the 'Open Circuit Voltage' every 60 to 90 days; see table below. Recharge if necessary. A discharged battery can freeze and burst.
- 2) Do not overcharge and do not leave a trickle charger connected.
- 3) Ideally, store batteries in a cool, dry place with temperatures not below 32°F or above 80°F. Typically, batteries will self discharge at faster rates at higher temperatures.

For example:	<u>Temperature</u>	<u>Self Discharge Rate</u>
	100°F	0.003 Specific Gravity per day or 2.5% per day
	80°F	0.002 Specific Gravity per day or 1.4% per day
	50°F	0.0005 Specific Gravity per day or 0.35% per day
	30°F	0.0001 Specific Gravity per day or 0.07% per day

**Note: 0.001 Specific Gravity equals .7% of Charge; 1.265 Specific Gravity equals 100% Charge**

- 4) If batteries are to remain on the vessel, disconnect the **ground cable** of the battery to avoid discharge by parasitic loads such as clocks, bilge pumps, etc.
- 5) Clean battery if dirty, and discard the rag used.

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](http://www.readingelectric.com) or email us for additional information at [info@readingelectric.com](mailto:info@readingelectric.com)

#### Open Circuit Voltage vs. State of Charge

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