

BATTERY INFORMATION

CHARGING - The OCV test is the only way to determine the state of charge of a sealed no-maintenance battery.

Open Circuit Voltage (OCV) Test An OCV test may be performed with a voltmeter.

- To determine if the battery is experiencing a problem, turn off all electrical loads and the charging source.
- For an accurate reading, allow the battery to sit with no electrical loads applied for at least one hour.
- Connect a voltmeter to the positive and negative terminals and measure the terminal post voltage with no loads or chargers connected to the battery.
- To determine the battery's state of charge, compare the OCV reading on the voltmeter to the Open Circuit Voltage Chart.

Open Circuit Voltage	State of Charge
12.66 Volt	100%
12.45 Volt	75%
12.24 Volt	50%
12.06 Volt	25%
11.89 Volt	0%

Source: http://www.interstatebatteries.com/www/faqs/tech_talk/maintenance/testing.htm

BATTERY LIFE – A standard car battery or power supply battery is designed to perform well when it is maintained and operated at full charge. There is a power source like the alternator in a car, or the charging circuit in a Universal Power Supply that keeps the battery at peak charge. These batteries function well in applications that require only shallow discharge cycles.

A “deep cycle” battery is designed to provide power with deeper discharge cycles. The battery is built with thicker plates and higher density active chemical plate material. This increases battery life substantially when the application depletes a greater percentage of the battery charge.

Even though “deep cycle” batteries are designed for deeper discharge, battery life cycle performance is still affected by the depth of discharge. The chart below is an approximation of the relationship.

% Depth of Discharge	Cycles to End of Battery Life*
25	2200
50	1000
75	550
100	250

*End of battery life at 50% capacity

Deep cycle battery manufacturers recommend that discharge levels not fall below 50% to obtain optimum deep cycle battery life.

The batteries we use in our filter systems are quality sealed “deep cycle” AGM batteries and they are sized to provide the 50% reserve capacity recommended.