

Sterling-Power-USA

Can an Advanced Battery Charger Destroy a Battery?

- 1) The higher voltage the faster a battery will charge
- 2) Uncontrolled over-charging of a battery shall damage it.
- 3) Controlled advanced charging results in a fast charging battery with no inflicted damage to the batteries. Welcome to Sterling Power.

The Battery Test

PART 1

- I. We discharged a lead-acid 100A/Hr battery to 50% charge.
- II. Then we connected it to a 180A power supply and noted the different voltages as it charged.
- III. The red line shows the battery at 50% discharged at 13.2V the charge current was at 35 A. At 14.8V the charge current was at 160A which is a 457% increase.
- IV. The black line displays a 75% full charge at 13.2V where the current is 1A, whereas at 14.8V the current is 60A a 6000% improvement.

PART 2

- I. To test to see whether the charge has been stored in the battery or simply wasted we have taken 4 x 100 A lead acid batteries and drained them all to 50%. Each battery is then charged with a 200 A power supply but at different voltages 14.8V, 14.4V, 14.0V, 13.2V (as displayed).
- II. Each of the 4 batteries is then discharged through a 400 W inverter.
- III. The 400 W load on the inverter lasted 114 minutes with the 14.8V battery and only 48 minutes with the 13.2V. This is over 2 times longer.

Conclusion: charging a lead acid battery at 14.8V shall result in the battery retaining more of its charge and will therefore take longer to drain when in use.

