

Automatic Temperature Compensation

Automatic temperature compensation – Why is it important?

The temperature of a battery affects its ability to take a charge. All lead acid batteries need to be pushed to their "gassing threshold" in order to become fully charged. However, the gassing threshold changes with the temperature: it is higher in colder temperatures and lower in hotter temperatures.

A charger that does not have automatic temperature compensation can cause boiling of batteries at high temperatures, or under charging of batteries at low temperatures. It is also possible for thermal runaway to occur at higher temperatures.

Minn Kota chargers utilize automatic temperature compensation to measure the temperature of the battery, and then adjust the output voltage to assure 1) that the battery is fully charged by reaching and maintaining the gassing threshold while 2) protecting the battery from "boiling" due to overcharging at high temperatures.

