Customer Service - Tech Notes

TechNote #400005

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Explaining TRUEcharge Voltage Settings Control

The temperature settings for gassing, and float voltage are preset in the computer and cannot be adjusted. However, if the remote temp sensor is connected it will override the program's Cold/Warm/Hot settings table to provide a range of V gassing voltage ranging from approx. 14.0 -14.8V and corresponding V float 13.1-13.9V.

The TRUEcharge temp sensor and circuit provides a voltage to the internal computer to set the voltage dependent on temperature. The remote temp sensor is an RTD (resistive temperature device) a with negative temperature coefficient. The table below shows the temp sensor/RTD's approximate resistance values for the various temperatures:

Degrees Celsius	Ohms +/-10% tolerance	
0	9369	
5	7240	corresponds to approximately 14.8V gassing/13.9Vfloat in Flooded setting.
10	5640	
15	4427	
20	3500	corresponds to approximately 14.4V gassing/13.5Vfloat in Flooded setting.
25	2886	
30	2232	corresponds to approximately 14.0V gassing/13.1Vfloat in Flooded setting.
40	1460	
50	977	
60	669	

A 10 K potentiometer in series with a 680R resistor would allow some control, or a resistor network could give discrete settings. The charger program will cap the upper voltage at 14.8V regardless of the temp sensor input. The higher the resistance the higher the TRUEcharge's output voltage since the RTD and charge algorithm both have inverse equations, i.e. two negatives make a positive coefficient.

Note: The warranty may be void if the charger has been modified.

If you have any questions please call Statpower Tech Support 9 am-5 pm PST (604) 420 1585, or fax in your questions (604) 420 1591.