US Battery Charging Procedure

√ **Three-Stage Charging** – US Battery's preferred method

√ **Bulk Charge** – Constant current at 10% of C/20 Ah rating in amps to 2.40 volts/cell

√ **Absorption Charge** – Constant voltage of 2.40 volts/cell to 3% of C/20 Ah rating in amps

√ **Finish Charge** – Constant current at 3% of C/20 Ah rating to 2.55 volts/cell with charge time of 3 hours

√ **Equalization Charge** – Constant voltage of 2.55 volts/cell for an additional 2 hours after a normal charge cycle repeated every 30 days

Charging Procedure (Three-Stage Charger)	Charge Profile - US 2000 XC2 C/20 Rated Capacity = 216 Ah	Charge Profile - US 2200 XC2 C/20 Rated Capacity = 232 Ah	Charge Profile - US 8VGC XC2 C/20 Rated Capacity = 170 Ah
Bulk Charge	216 Ah x 10% = 21.6A 2.40 vpc x 3 cells = 7.20 volts	232 Ah x 10% = 23.2A 2.40 vpc x 3 cells = 7.20 volts	170 Ah x 10% = 17A 2.40 vpc x 4 cells = 9.60 volts
Absorption Charge	2.40 vpc x 3 cells = 7.20 volts 216 Ah x 3% = 6.48 amps	2.40 vpc x 3 cells = 7.20 volts 232 Ah x 3% = 6.96 amps	2.40 vpc x 4 cells = 9.60 volts 170 Ah x 3% = 5.10 amps
Finish Charge	216 Ah x 3% = 6.48 amps 2.55 vpc x 3 cells = 7.65 volts terminate after 3 hours*	232 Ah x 3% = 6.96 amps 2.55 vpc x 3 cells = 7.65 volts terminate after 3 hours*	170 Ah x 3% = 5.10 amps 2.55 vpc x 4 cells = 10.20 volts terminate after 3 hours*
Equalization Charge	2.55 vpc x 3 cells = 7.65 volts time period = 2 hours frequency = every 30 days	2.55 vpc x 3 cells = 7.65 volts time period = 2 hours frequency = every 30 days	2.55 vpc x 4 cells = 10.20 volts time period = 2 hours frequency = every 30 days

**US Battery recommends "charge termination can be by maximum time (2-4 hr) or dV/dt (4 mv/cell per hour)"*