



## US 2000 XC2 - DATA SHEET

Deep Cycle 6 -Volt



**Application:** Wherever Deep Cycle 6-volt batteries are needed.

**Dimensions:** 10-1/4 (260)L x 7-1/8 (181)W x 11-1/4 (286)H

**Type:** Flooded Lead Acid (FLA) non-sealed.

Case material: Polypropylene / Heat Sealed



		US	3	20		C		XC	2	_	S	PE	CI	FIC	CAT	ΓΙΟ	N	5		
BCI Group	Model	1-hr	2-hr	5-hr	6-hr	10-hr	20-hr	48-hr	72-hr	100-hr		Standard Terminal	I AMP	MINUTES @	MINUTES @	MINUTES @	Length	Width	Height	wet Weight
Size		Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate		Туре		75 AMPS	56 AMPS	25 AMPS			11-1/4	
GC2	US 2000 XC2	126	144	172	178	194	220	229	235	240	6	UTL	220	115	164	445	(260)	(181)	(286)	57 (26)





## **CHARGING INSTRUCTIONS:**

Following is the charging recommendation and charging profile using 2 stage chargers for US Battery deep cycle products. \*Equalization and float charge modes are not considered to be one of the stages in a charging profile.

1. Bulk Charge

Constant current @~10% of C/20 Ah in amps to 2.45+/-0.05 volts per cell

(e.g. 7.35 volts +/-0.15 volts per 6 volt battery)

2. Absorption Charge

Constant voltage (2.45+/-0.05 vpc) to 3% of C/20 Ah in amps then hold for 2-3 hours and terminate charge

Charge termination can be by maximum time (2-4 hr) or dV/dt (4 mv/cell per hour)

· (Optional Float Charge)

Constant voltage 2.17 vpc (6.51 volts per 6 volt battery) for unlimited time

Equalization Charge

Constant voltage (2.55+/-0.05 vpc) extended for 1-3 hours after normal charge cycle (repeat every 30 days)

**Notes:** Charge time from full discharge is 9-12 hours.

Absorption charge time is determined by the battery but will usually be ~3 hours at 2.45 volts per cell.

Float time is unlimited at 2.17 volts per cell. Specific gravity at full charge is 1.270 minimum

Battery temperature adjustment:

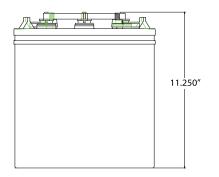
reduce the voltage by 0.028 Volts per cell for every 10°F above 80°F, increase by the same

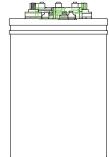
amount for temperatures below 80°F.

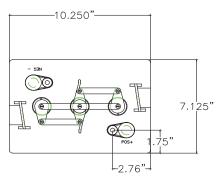
Deep cycle batteries need to be equalized periodically. Equalizing is an extended, low current charge performed after the normal charge cycle. This extra charge helps keep all cells in balance. Actively used batteries should be equalized once per month.

Manually timed chargers should have the charge time extended approximately 3 hours.

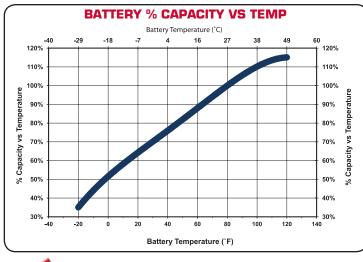
Automatically controlled chargers should be unplugged and reconnected after completing a charge.







# **EXPECTED LIFE CYCLES VS. DOD (XC, XC2 & AGM)** -Flooded Battery Cycle Life (XC & XC2) ▲AGM Battery Cycle Life (>200 Ah) 10,000 ▲ AGM Battery Cycle Life (<200 Ah) Expected Average Cycles Depth of Discharge (% of 20 Hour Capacity)



# **US 2000 XC2 - DATA SHEET**

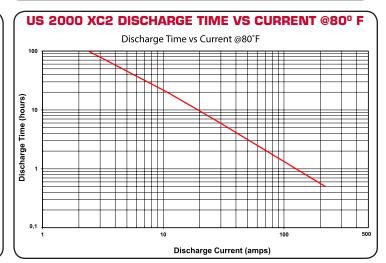
Deep Cycle 6 -Volt

U.S. Battery Recommended Terminal Torque and Connection Hardware											
U.S. Battery Terminal Type	Recommended Torque (in-lb)	Recommended Torque (ft-lb)	Recommended Connection Hardware								
UTL	95-105	7.9-8.8	<sup>1</sup> SS Hexnut with Lock Washer								
Molded-In UTL	95-105	7.9-8.8	<sup>1</sup> SS Hexnut with Lock Washer								
UT	95-105	7.9-8.8	<sup>1</sup> SS Hexnut with Lock Washer								
Flat Block	95-105	7.9-8.8	<sup>1</sup> SS Hexnut with Lock Washer								
Dual	95-105	7.9-8.8	1/6SS Hexnut with Lock Washer								
DC Marine	95-105	7.9-8.8	<sup>2</sup> SS Hexnut with Lock Washer								
Off-Set "S"	100-120	8.3-10	<sup>3</sup> Zn or SS Bolt w/Hexnut & Lock Washer								
Flag	100-120	8.3-10	<sup>4</sup> Zn or SS Bolt w/Hexnut & Lock Washer								
Large "L"	100-120	8.3-10.0	<sup>4</sup> Zn or SS Bolt w/Hexnut & Lock Washer								
Small "L"	100-120	8.3-10.0	<sup>4</sup> Zn or SS Bolt w/Hexnut & Lock Washer								
Bus Lug	120-180	10.0-15.0	5SS Hexnut with Lock Washer								
SAE	50-70	4.2-5.8	<sup>6</sup> No Hardware Supplied								

Proper connection is to position a lock washer between the nut and the connector (never between the connector and lead terminal) and apply the recommended torque or

Stainless Steel Hexnut with Stainless Steel Split-Ring Lock Washer (5/16" Positive & Negative) 2Stainless Steel Hexnut with Stainless Steel Split-Ring Lock Washer (3/8" Positive & 5/16" Negative) <sup>3</sup>Square-Head, SS or Zinc-Plated Bolt with SS or Zinc-Plated Hexnut & Split-Ring Lock Washer 4Square-Head or Hex-Head, SS or Zinc-Plated Bolt with SS or Zinc-Plated Hexnut & Split-Ring Lock Washer <sup>5</sup>Stainless Steel Hexnut with SS Split-Ring Lock Washer (1/2" Positive or 3/8" Positive & 3/8" Negative) <sup>6</sup>No Hardware Supplied - Application Uses SAE Clamp for Positive & Negative Tapered Post

Note: The use of flanged nuts and other types of nuts with captive washers or other hardware not listed above is not recommended by US Battery and their use may void the battery warranty.



### **U.S. Battery Operating Temperature Guidelines**

For charging, we recommend staying within 0°F to120°F (-18 to 49°C) to avoid charging frozen batteries at low temperature or going into thermal runaway at high temperature.

For discharging, we recommend -20°F to 120°F (-29 to 49°C). Batteries discharged at temperatures below 32°F (O°C) should be recharged immediately to avoid freezing.

Batteries discharged at temperatures above 120°F (49°C) should be allowed to cool before recharging.

Extreme temperatures can substantially affect battery performance and charging. Cold reduces battery capacity and retards charging. Heat increases water usage and can result in overcharging. Very high temperatures can cause "thermal run-away" which may lead to an explosion or fire. If extreme temperature is an unavoidable part of an application, consult a battery/charger specialist about ways to deal with the problem.

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