

Golf Car Battery



How to Test and Charge Your Golf Car Battery

STEP 1 VISUAL INSPECTION

Inspect your battery for any physical damage or alterations to the battery posts. Replace any damaged or altered batteries. (Batteries with physical damage are not eligible for warranty.)

STEP 2 CHECK ELECTROLYTE LEVELS

If the electrolyte level is at least $\frac{1}{2}$ " above the plates, proceed to **STEP 3 CHECK THE STATE OF CHARGE**.

If the electrolyte level is at or below plate level, add water and recharge before going to the next step. Distilled water is preferred.

WARNING Do not overfill. The maximum electrolyte level is $\frac{1}{8}$ " below vent well.

STEP 3 CHECK THE STATE OF CHARGE

Check your battery with a hydrometer or a voltmeter and compare to this table.

6-Volt		8-Volt		12-Volt
GC2-XHD	2300	GC8-HD-UTL	GC8-XHD	12VGC
GC2-HD	2400	GC8-HD-UT	GC8-HD-A	
GC2-RD			GC8-HD-S	

STATE OF CHARGE	SPECIFIC GRAVITY PER CELL Use a Hydrometer	VOLTAGE PER BATTERY Use a voltmeter				
		100%	1.285	6.48	6.39	8.57
75%	1.255	6.25	6.31	8.32	8.41	12.61
50%	1.225	6.07	6.22	8.05	8.29	12.44
25%	1.185	5.85	6.11	7.80	8.15	12.22
Discharged	1.140	5.65	6.00	7.53	8.00	12.00

Below 75% state of charge?
See **CHARGE THE BATTERY** on the back page.

At or above 75% state of charge?

PERFORM A LOAD TEST

If your battery's state of charge is 75% or higher, perform a load test and follow these simple instructions to test its voltage.

- Check the top battery label for the Ampere hour (Ah) rating.
- Apply a current load of twice the Ah rating for 15 seconds and then compare resulting voltage under load to **Minimum Voltage Table**.
For example, the GC2-HD has a 215 Ah rating. $215 \times 2 = 430$ Amps. To load test the GC2-HD, you should apply 430 Amps to the battery for 15 seconds.

Resulting voltage readings may vary based on the ambient temperature. Refer to the **Minimum Voltage Table** for a list of minimum voltages versus temperature for your golf car battery. If the battery fails to meet the minimum voltage, recharge and recheck. Upon second fail, replace the battery.

Minimum Voltage Table

Temperature		Minimum Voltage		
F	C	6-Volt	8-Volt	12-Volt
100	38	4.95	6.60	9.90
90	32	4.90	6.53	9.80
80	27	4.85	6.47	9.70
70	21	4.80	6.40	9.60
60	16	4.75	6.33	9.50
50	10	4.70	6.26	9.40
40	4	4.65	6.20	9.30
30	-1	4.55	6.06	9.10
20	-7	4.45	5.93	8.90
10	-12	4.35	5.80	8.70
0	-18	4.25	5.67	8.50

CHARGE THE BATTERY

If your battery's state of charge is below 75%, recharge the battery. Battery chargers, available at interstatebatteries.com or your Distributor, come with varying settings to match multiple battery types and needs. Lead-acid batteries should be brought up to full charge as soon as possible. Operating partially charged batteries can shorten the life and reduce the capacity. As batteries age, they may need to be watered more often and charged for longer periods of time.

To effectively charge your golf car battery, closely follow your charger manufacturer's instructions. If applicable, adjust your battery charger's voltage regulation settings to conform to the needs of your battery. Find your golf car battery on the **Voltage Regulation Per Battery Table** and the voltage settings necessary for proper charging.

DON'T FORGET If electrolyte is less than ½" above the plates, add clean water before charging. Refer to **STEP 2 CHECK ELECTROLYTE LEVELS** for detailed instructions.

Voltage Regulation Per Battery Table	6-Volt		8-Volt		12-Volt
	GC2-XHD GC2-HD GC2-RD	2300 2400	GC8-HD-UTL GC8-HD-UT	GC8-XHD GC8-HD-A GC8-HD-S	12VGC
Bulk Charge: A constant current and increasing voltage that usually charges to approximately 80%	7.2V	7.2V	9.46V	9.6V	14.4V
Absorption: A constant voltage and decreasing current to charge to 95%	7.65V	7.75V	10.2V	10.33V	15.5V
Float: A reduced voltage and current to charge to 100%	6.7V	6.6V	8.92V	8.8V	13.2V
Equalization: An optional setting for desulfation	7.8V	7.8V	10.4V	10.4V	15.6V

Charging Multiple Batteries

When charging multiple batteries connected in series, remember to recalculate your voltage requirements by multiplying the charging voltage regulation by the number of batteries connected in series.

For example, if you have connected four GC2-XHD batteries in a series to create a 24-volt system, you would calculate a bulk charge voltage this way: $4 \times 7.2V = 28.8V$

Safety Guidelines

Observe these safety guidelines when charging batteries.

- Wear goggles.
- Avoid smoking or sparks in your working area.
- Always monitor battery during charging.
- Do not allow batteries to overheat. If excessive overheating or spewing occurs, disconnect the charger from the battery.
- Avoid charging at temperatures above 120 F.

After Charging

Check the electrolyte level again. (Refer to **STEP 2 CHECK ELECTROLYTE LEVELS** for detailed instructions.) If needed, batteries should be watered up to ¼" below the bottom of the vent well.

QUESTIONS? ASK YOUR BATTERY EXPERTS

If you have any questions, ask the experts at Interstate Batteries. Locate your closest Interstate Distributor at interstatebatteries.com or call Customer Service 888.772.3600.

