



# 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 half an inch 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 or deionized water is preferred.

**WARNING** Do not overfill. The maximum electrolyte level is an eighth of an inch below the vent well.

## STEP 3 CHECK THE STATE OF CHARGE

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

STATE OF CHARGE	SPECIFIC GRAVITY PER CELL Use a Hydrometer	6-Volt	8-Volt	12-Volt
		Use a Voltmeter		
100%	1.277	6.37	8.49	12.74
75%	1.228	6.22	8.29	12.44
50%	1.172	6.05	8.07	12.10
25%	1.111	5.87	7.83	11.74
Discharged	1.050	5.65	7.53	11.30

Is your battery below 75% state of charge? See **CHARGE THE BATTERY** on the back page.

Is your battery at or above 75% state of charge? See **PERFORM A LOAD TEST**.

## 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, to test a battery with a 215 Ah rating, 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. Lead-acid batteries should be fully charged 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 charging recommendations in the table below.

**DON'T FORGET** If electrolyte is less than half an inch above the plates, add distilled or deionized water before charging. Refer to **STEP 2 CHECK ELECTROLYTE LEVELS** for detailed instructions.

## 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.

Charging State		Voltage Regulation			
		Volts per Cell	6V	8V	12V
<b>Bulk*</b>	A constant current equal to 10% of the battery's 20-hour Ah rating until voltage regulation is reached	2.47	7.40	9.90	14.80
<b>Absorption*</b>	A constant voltage at voltage regulation until current drops to 3% of the battery's 20-hour Ah rating	2.47	7.40	9.90	14.80
<b>Finish*</b>	A constant current equal to 3% of the battery's 20-hour Ah rating for 2-3 hours or until voltage regulation is reached	2.55	7.65	10.20	15.30
<b>Equalization</b>	A constant voltage for 1-3 hours about every 30 cycles	2.70	8.1	10.8	16.2
<b>Float</b>	A continuous maintenance charge to replace capacity lost due to self-discharge	2.25	6.75	9.0	13.5

\*Perform on a daily basis.

## Safety Guidelines

Observe these safety guidelines when charging batteries.

- Wear safety goggles and protective gloves.
- 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 an eighth of an inch 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](http://interstatebatteries.com) or call Customer Service 888.772.3600.

