



# DEEP CYCLE BATTERY MAINTENANCE



**TROJAN**  
DEEP CYCLE

Trojan makes battery care simple with this guide featuring information on proper testing, watering, cleaning, storage, charging, equalizing and system configuration. Includes a handy glossary for your reference.

Building and Maintaining Better Batteries  
Since 1925



## Simple Steps For Longer Battery Life

Trojan Battery Company has manufactured batteries for eighty years. Our experience shows that the key to achieving optimum performance and long life is a solid battery maintenance program using the simple procedures outlined here.

### Equipment:

Trojan recommends the following equipment for use in battery care and maintenance:

- Wrench
- Distilled Water
- Voltmeter
- Hydrometer
- Post Cleaner
- Baking Soda
- Petroleum Jelly
- Goggles & Gloves

**CAUTION: Always wear protective clothing, gloves, and goggles when handling batteries and electrolyte.**



### Inspection

1. Examine the outside appearance of the battery.
  - Look for cracks in the container.
  - The top of the battery, posts and connections should be free of dirt, fluids and corrosion. (If batteries are dirty, see Cleaning section.)
  - Replace any damaged batteries.
2. Any fluids on or around the battery may indicate that electrolyte is spilling, leaching or leaking out.
  - Leaking batteries must be replaced.
3. Check all battery cables and connections.
  - Look closely for loose or damaged parts.
  - Replace any cable that is broken or frayed.

**WARNING: Do not smoke near batteries.**

4. Tighten all wiring connections to the proper specification (following page.) Be sure there is good contact with the terminals.

**WARNING: Do not over-tighten terminals. Over-tightening can result in post breakage, post meltdown or fire.**

5. For optimum performance, equalize the batteries (flooded) before putting them back into service. (See Equalizing section.)

### Electrolyte Freezing Point@Various States of Charge\*

SPECIFIC GRAVITY	%STATE OF CHARGE	FREEZING TEMPERATURE
1.280	100	-92.0°F
1.265	92	-71.3°F
1.250	85	-62.0°F
1.200	62	-16.0°F
1.150	40	+5.0°F
1.100	20	+19.0°F

\*Source: BCI Battery Service Manual 1995

### Charging

Correctly charging batteries requires administering the right amount of current at the right voltage. Most charging equipment automatically regulates these values. Some chargers allow the user to set these values. For proper charging, refer to the instructions that came with your charging equipment.

#### Important things to remember:

1. Become familiar with, and follow the instructions from, the charger manufacturer.
2. Batteries should be charged after each period of use.
3. Lead-acid batteries do not develop a memory and need not be fully discharged before recharging.
4. Charge only in well-ventilated areas. Keep sparks or flames away from a charging battery.
5. Verify charger voltage settings are correct.
6. Check electrolyte level. (See Watering section.)
7. Tighten all vent caps before charging.
8. Do not overcharge or undercharge the batteries.
9. Never charge a frozen battery.
10. Avoid charging at temperatures above 120° F.