

# Solar-One Maintenance

## Bi-Weekly

1. Record hydrometer reading of pilot cell (the cell with the lowest specific gravity when first installed.) Rotate Pilot cell annually.
2. Check the water level (add as needed.)
3. Record Amp/Hrs consumed.
4. Inspect connections for corrosion (clean as needed.)

## Bi-Monthly

1. Record hydrometer readings of all cells (after the battery is fully charged.)
  - A. If the average readings are less than 1.275 - 1.285 check all charging sources and adjust as needed.
  - B. If one or two cells read 20 points more or less than the average, circle those readings and check for improvement At next monthly reading. If the low cells do not improve, the cells are in need of an equalize charge, specific gravity adjustment or internal inspection.
2. Check water level (add as needed.)
3. Record Amp/hrs consumed.
4. Record battery temperature.
5. Clean battery with a damp cloth. (If battery tops are wet with acid use neutralizing agent with a clean paint brush, dry thoroughly.)
6. Equalize the battery (see page 9 of the users manual)
7. Inspect connections for corrosion (clean as needed)

## Yearly

1. Torque all terminal bolts.

# Solar-One Operating Tips

## A BATTERY IS FULLY CHARGED WHEN:

- A. The on charge voltage has stabilized.
- B. The battery is gassing freely.
- C. The specific gravity of the electrolyte stops rising and is 1.275 - 1.285.
- D. Charger current readings level off to 2%-5% of the battery's capacity.

## A BATTERY IS FULLY DISCHARGED WHEN:

- A. The specific gravity is 1.160 - 1.180
- B. The cell voltages are 1.75 -1.83 vpc

## ROUTINE MAINTENANCE

- A. Maintain proper electrolyte level.
- B. Charge properly.
- C. Repair immediately when necessary.
- D. Do not over charge.
- E. Do not over discharge.
- F. Keep accurate battery records.
- G. Keep battery clean and dry.
- H. Keep idle batteries charged.
- I. Equalize at least once a month.

For a more detailed description on the operation of the HUP SOLAR-ONE see the operators manual.