

## PRODUCT/SERVICE BULLETIN

ISSUE DATE: February 15, 1993 TO: All O.E.M. Manufacturers and Installers FROM: HWH Corporation RE: Battery Voltage and Grounds

## BATTERY VOLTAGE AND GROUNDS

Batteries should be fully charged. Batteries must be in good condition with no weak cells. The system can draw up to 200 amps. An alternator, convertor or battery charger will not supply enough power for the system to operate properly.

The system will stop its operation and the "BATTERY" symbol on the touch panel will light when either of the battery voltages drops below 8.5 - 9.0 volts.

Proper ground of all components is critical. Faulty grounds or low battery voltage, especially for the control box, solenoid manifold or the pump assembly may cause control box component damage, sticking pump relays and/or improper or erratic operation.

If you hear relays chattering, shut down the system immediately and make sure that the batteries are fully charged.

If a relay should stick, tap with a screw driver handle, charge batteries then turn the system back on. If the system works properly, the relay is OK - (do not replace).