JD5007-00

SCR/SCRF Series Battery Charger Application Note

REDUCING POSITIVE FEEDBACK

BACKGROUND

The SCR/SCRF Series battery charger has been designed to regulate at the output terminals while measuring at an internal location. As current increases, the output voltage will also increase to overcome the losses of the dc breaker, fusing and wiring. This slight rise in output voltage is designed to provide smooth operation while connected to a battery 4 times the Ah rating of the charger. Some high voltage and low current models, and/or their connection on a larger battery, may cause a slow oscillation from near full to zero current over a few seconds. This configuration and circumstance may require moving a wire to reduce the charger's positive feedback.

SERVICE PROCEDURE

NOTE: Remove all ac and dc power from the battery charger before performing the following procedure.

1. Locate the wire connected to the Equalize Potentiometer (R5) that runs out from the front panel harness toward the fixed ceramic resistor (R1). There will be two wires connected to R5.

A) In chargers with standard PVC color-coded wiring, this wire is #18 AWG black.

B) In chargers with switchboard insulation system (SIS) wiring, this wire is marked "#36".

2. You may need to cut a few wire ties in the panel harness to select the correct wire.

3. Follow the wire away from R5 to a point where the length will be able to reach the negative (-) terminal of the DC Ammeter (M1). Eight (8) inches should be enough.

4. Cut the wire at the appropriate point and fold it up so the connection is now from the Equalize Potentiometer (R5) to the negative (-) terminal of the DC Ammeter (M1).

5. Add a ring lug (#18 AWG with a #10 hole) to the cut end of the wire still attached to R5 and connect the lug to the DC Ammeter (M1) stud.

6. Cover the cut end of the wire that remains (connected to R1) with electrical tape and leave in the harness.

CHARGER RESTART

No further adjustments to the charger are needed. Reconnect AC power and any DC loads to the charger. Restart the charger using the standard procedure listed in the operating manual.

If on power-up, the charger only provides an output of 6-8 Volts, the wire has not been connected properly or is open between the Equalize Potentiometer (R5) and the DC Ammeter (M1).