SIM Troubleshooting

07/08/98

ProTek 24 series

All firmware versions

Troubleshooting steps:

1. Apply 3.6VDC to the malfunctioning analog input. If in the field, connect analog input to the positive end of the lithium RAM backup battery using a test jumper. This is the purple battery on the main PCB, at front center. The PCB is silkscreened BATT adjacent to the battery. This battery should be approximately 3.6VDC.
2. Go to screen 21 and monitor the appropriate input. 3.6VDC should give an indication of approximately 225W in the RF mode, or 3.6V if in the
3. Confirm that the reading is steady and wanders no more than 1 digit in the least significant place. If that is the case, then the SIM card is functioning correctly and external sensor, cable or wiring are suspect. Eliminate suspects by appropriate substitution.
4. If that is not the case, perform the same test on another input to confirm the validity of the initial test.
5. If the second analog input tested performs correctly, reconnect the battery to the analog input and measure the voltage at the associated J2 test pin on the SIM card. It may actually be easier to find the associated yellow .1uf film capacitor immediately below the scaling jumpers. Measure the voltage at the (uppermost) lead closest to the scaling jumpers. A steady reading of about 3.6VDC should be noted. If not, the SIM cable interconnect is suspect.
6. Measure the voltage at pin 15 of U9, a CD4051 at approximate center of the SIM card. Approximately 0.9VDC should be present and steady. If not the scaling components, protective zener Z3, or possibly U9 are suspect.
7. If about 0.9VDC is present, replace U9 from the spare SIM.