

# Dontek Electronics

## Sensors: General Trouble Shooting

### Sensor Problems

Many Pool (Pipe) and Roof sensor problems are related to post installation connection issues or cable damage. Some of these problems can be fixed by the Pool owner on site.

### Common Sensor Error Messages (Note: Some older Controllers only communicate via numbers)

77/99 or "Pool/Roof Sensor Disconnected or Open Circuit" error... It could be a faulty Pool or Roof sensor but it could also be a sensor connection or cable problem.

66/88 or "Pool/Roof Sensor Reversed Polarity or Short Circuit" error... It could be that the cable connections to the plug have been reversed, or, most likely, it could be a damaged sensor cable that is causing a short circuit. (eg. positive & negative wires touching)

67/89 or "Pool/Roof Sensor too Hot/Cold (Out of Range)" error... It could be a faulty Pool or Roof sensor but if Pool Sensor related, it could be that the Solar pump has lost "Prime" and is over-heating the pool sensor.

### Sensor Trouble Shooting

**A** - If possible, before doing any problem diagnosis, try unplugging both sensors and re-plug swapping the Pool and Roof sensors around to see if the problem follows the suspected faulty sensor.

For example, assuming you have an "Open Circuit" or "Short Circuit" error on a Pool sensor, do you get an "Open Circuit" or "Short Circuit" error on the Roof sensor when sensors are swapped around? If you do, then this confirms you have a faulty Pool Sensor (ie. it cannot be read in either socket) and that it's not a controller fault. If you still get the same error (ie. regardless of which socket it's plugged into) then it's likely to be a problem with the controller and it will need repair.

**Note:** On some very old controllers, sensor cables may be "hard-wired" into the bottom the unit rather than connected via a plug & socket.

### Potential Sensor Problem Causes & Fixes

**B** - Bad connection of sensor plug into controller socket... check that sensor plug is securely pressed into socket; unplug and re-plug it. Also check the sensor plug for corrosion/rust; clean up/replace as required.

**C** - Bad connection of cable to sensor plug... check that both positive and negative cable leads are screwed securely into the plug. If necessary, detach cable from plug, cut off cable ends, expose new wire & reattach.

**D** - Damaged cable... check for visible signs of cable damage and if necessary, cut out & re-join or, replace cable. Cable damage is not always obvious. Roof sensor cables that go underground prior to being positioned on Roof, can be damaged or get water logged. Birds, pets & fallen tree branches can damage sensor cables.

**E** - Corroded or loose controller sensor sockets... visually inspect for deterioration (rust/corrosion) of socket pins, and also try to identify a loose socket connection to circuit board. Either problem will need a unit repair.

**F** - Pool/Roof Sensor too Hot/Cold (Out of Range)... if Pool sensor too Hot related, ensure pump is Primed. If Roof sensor too Cold related, ensure sensor is correctly positioned on roof. (ie. not in or overhanging gutter)

**G** - Faulty sensor (ie. actual sensor at end of cable)... if problem is none of the above, then it's likely that the sensor itself has gone faulty... replace sensor. **Note:** Lightning can damage Roof sensors. ( ..and controllers)