

**TECHNICAL BULLETIN NO. 20130403**

April 3, 2013

**SUBJECT                      Output from Damaged Sensors**

**PRODUCT FAMILY         Sensors used with WatchDog Stations**

**DETAILS**

If sensors are physically damaged, they probably will not provide correct values. The following charts list problems, their effects, and what will appear when displaying the sensor value on the station LCD.

**General Sensor Behavior**

| <b>Problem</b>  | <b>LCD Display</b>   |
|---|--|
| Sensor cable unplugged                                      | Sensor Error   |
| Cable cut, or one or more wires within the cable are broken | Sensor Error   |
| Sensor output wire shorted to ground                        | Sensor Error   |
| Sensor power wire shorted to sensor output wire             | Lowest possible value, usually 0. Exceptions: Temperature, Leaf Wetness, Barometric Pressure, and Irrigation On/Off, which show the highest possible value.  |
| Sensor power wire shorted to ground                         | Lowest possible value, usually 0. Exceptions: Temperature, Leaf Wetness, Barometric Pressure, and Irrigation on/off, which show the highest possible value. NOTE: Fast battery draw will occur, indicated by extremely short battery life. |

**Rain Sensor-Specific Behavior**

| <b>Problem</b>  | <b>LCD Display</b>   |
|---|--|
| Cable cut, or one or more wires within the cable are broken | No rainfall will be recorded   |
| Sensor output wire shorted to ground                        | No rainfall will be recorded. NOTE: Fast battery draw will occur, indicated by short battery life. |

**Watermark Sensor-Specific Behavior**

| <b>Problem</b>  | <b>LCD Display</b>  |
|---|---|
| Green cable cut, or one or more wires within the cable are broken | Sensor Error  |
| Green wires shorted to each other                                 | 0.0 kPa   |
| Green insulation broken, exposing the wires to the soil           | Any value within the 0 to 200 kPa range, dependent upon the soil moisture level |