TECH NOTE:	09-005
TITLE:	**Sensors function indicated by LED**
DATE:	**05/22/09**
REVISION:	**1.0**

Description: this Technote summarizes the function of the embedded LED's in sensor loop wiring that indicate function status.

Background: Sensors are available in one of two wiring formats, NPN or PNP, with NPN being the most common today. Either type can be used as long as the spreader control is configured correctly during set up.   If there is a question about sensor function at the time of new or replacement installation of a sensor, consult the set up manual of the spreader control in use to confirm that it is configured for the correct sensor type (NPN or PNP).

Cirus harnesses function for both NPN and PNP: however, the LED indication responds depending on type of sensor.

LED indications for NPN type sensors – standard setup for Cirus' snow and ice sensor systems

Power is on, no sensors enabled   Power is on, one NPN sensor enabled   Power is on, three NPN sensors enabled

With pigtails removed, presence of amber LED confirms NPN setup and good harness wiring;

Amber LED flashes when sensor is actively sending pulses;

Steady amber LED may indicate sensor stopped at gear tooth; Remove pigtail or rotate device to confirm: