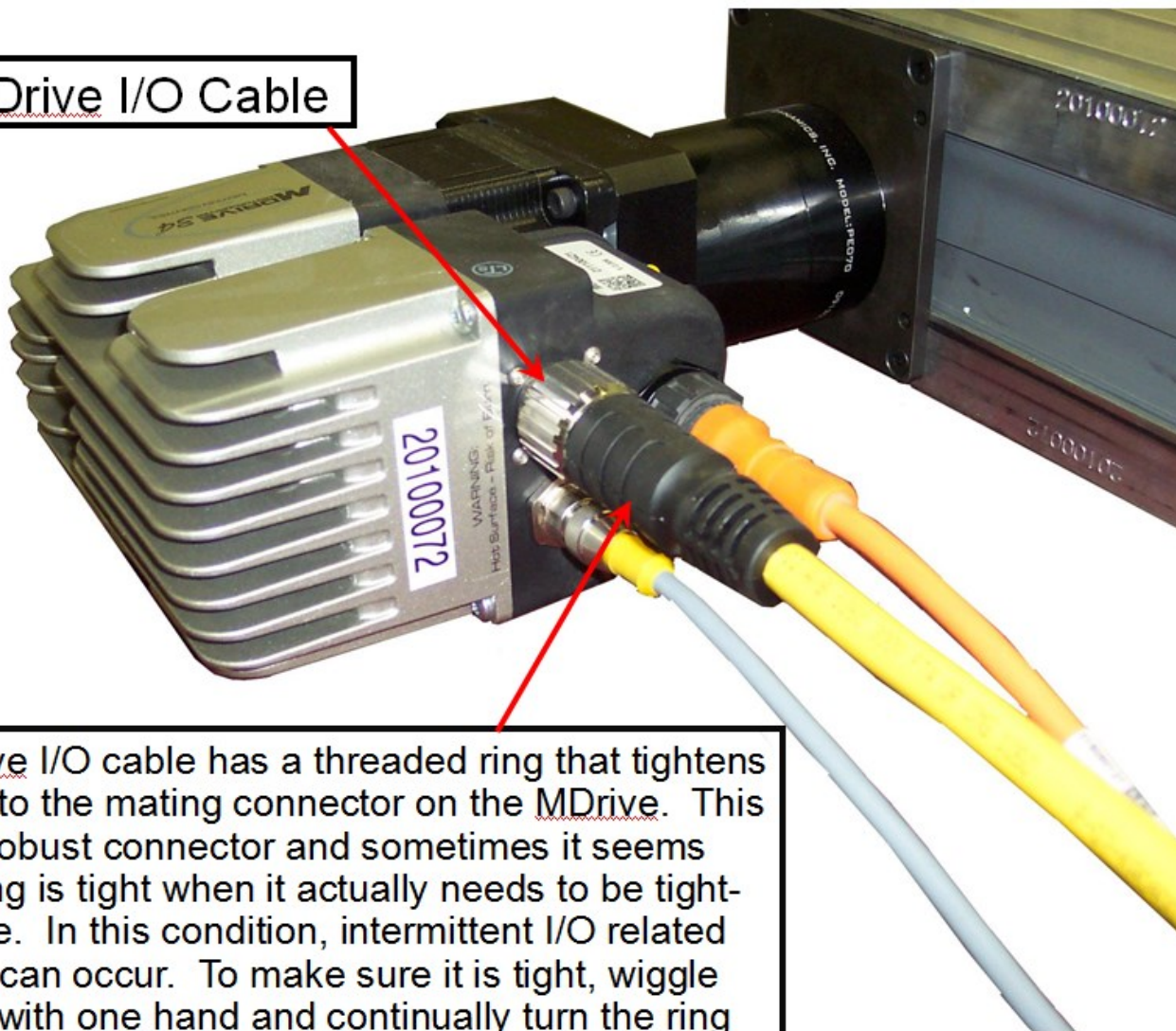


## Diagnosing Scotchman CPO Tool Safe Error

If you are getting the SAW NOT IN SAFE POSITION error then the RazorGage isn't seeing the TOOL SAFE input from the saw. The first step in troubleshooting this problem is to tighten the MDrive I/O cable. See instructions below.

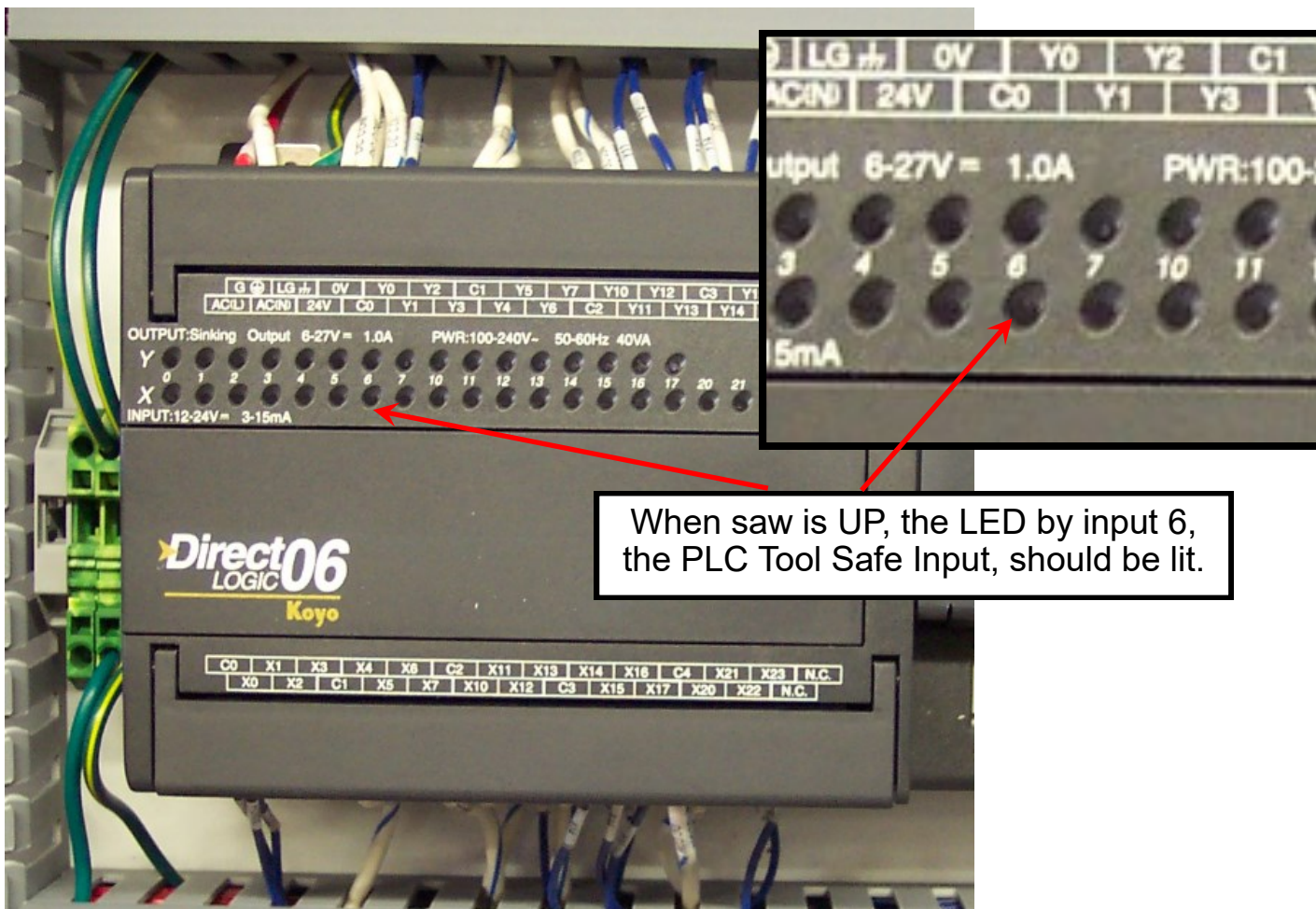
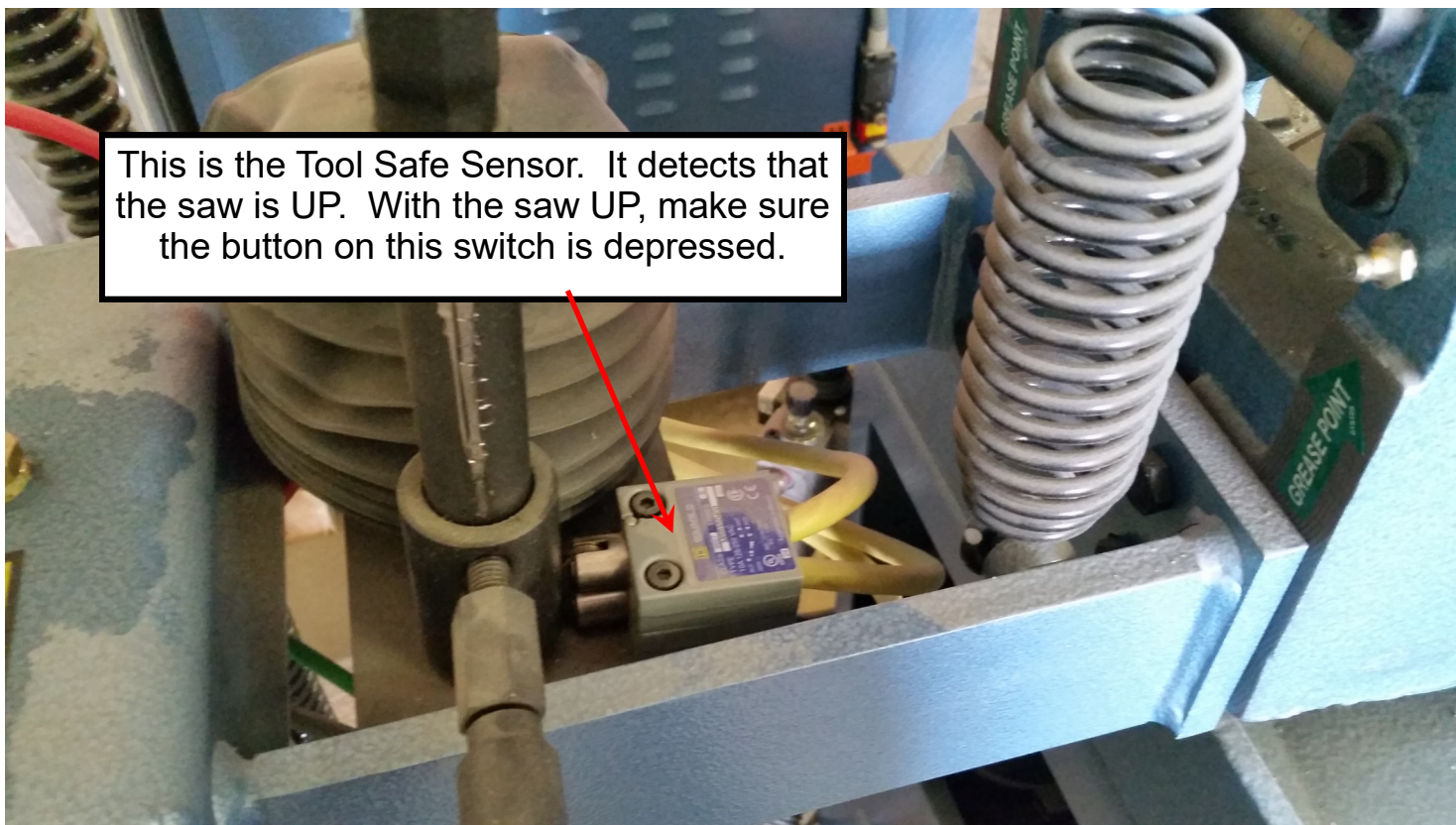
MDrive I/O Cable



The MDrive I/O cable has a threaded ring that tightens the cable to the mating connector on the MDrive. This is a very robust connector and sometimes it seems like the ring is tight when it actually needs to be tightened more. In this condition, intermittent I/O related problems can occur. To make sure it is tight, wiggle the cable with one hand and continually turn the ring clockwise until you are certain it is tight.

If you are confident that the I/O cable is tight then we need to determine if the device sending the signal is working. The Tool Safe sensor is a switch that tells the RazorGage that the saw is in its HOME position. On a down cutting saw the HOME position will be the UP position. On an up cutting saw the home position will be with the saw down. Many of these sensors have an LED to indicate their state. With the saw in the home position, try to locate the sensor that tells the RazorGage that the saw is out of the way and look for an LED. If that LED is lit then the sensor is working. The following page shows how to use a meter to determine if the RazorGage is receiving the Tool Safe signal.







If the LED by input 6 on the PLC is not coming on when the saw is in the up position and you've made sure that the switch plunger is depressed, use a meter set for resistance to check to make sure the switch is closing the circuit. See below.



**! DANGER**

**Hazardous voltage.**

**Contact may cause electric shock or burn.**

**Turn off and lock-out system power before servicing.**

**IMPORTANT** - Disconnect power to saw before continuing! Set meter to test for resistance and insert probes in the terminals shown below. If the circuit is closed the resistance will be less than 1.

Insert probes here.

Set meter to test for resistance.

