DIAGNOSING THE ISSUE

Use the sections below to narrow down the cause of the issue (sensor or cabling).

- If voltage is correct and jumping between the designated pins causes the SPS number on the controller to register above 1000, the issue is with the sensor.

- If either voltage is not correct or jumping between Power and Signal does nothing, the issue is with the cable or the control box / node (whichever is installed).

SPS NUMBER LOCATION

LONG BOX CONTROLLERS

1. From the home screen, use the down arrow until the screen reads "Hold -> To Enter Advanced Menu."

2. Press and hold the right arrow until "Vehicle Setup" appears.

3. Use the right arrow to navigate to the Status Menu.

4. Press the down arrow once to see the screen with "foot swtch" and "steer swtch." The SPS number is in the bottom right corner.

CRUIZER (II) AND ENVIZIO PRO

Tools → **Steering** → **SmarTrax Information** → **Set**

VIPER 4

SmarTrax → **Sensor Status Tab**

VIPER PRO

Tap on the SmarTrax box → **STX Setup** → **Set** (Next to Sensor Type)

YAW SENSORS

With the SmarTrax control box / node powered on, the Yaw Sensor plug on the SmarTrax valve cable should provide the following voltages:

Testing Between Pins	Voltage
Power (12 V) and Signal	12 Volts
Power (12 V) and Ground	12 Volts
Signal and Power (5 V)	4.5 - 5 Volts
Signal and Ground	0 Volts
Ground and Power (5 V)	5 Volts

Power (12 V) Pin 1   **Pin 4 Power (5 V)**

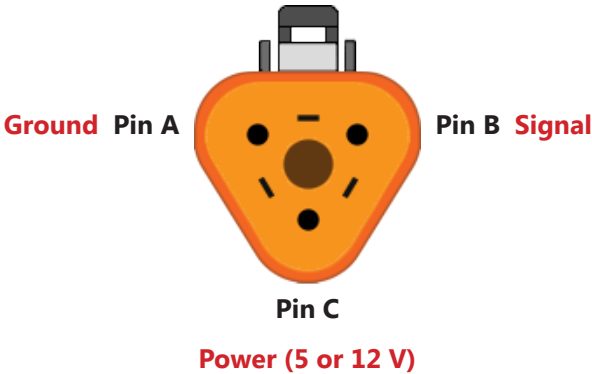**Signal Pin 2**   **Pin 3 Ground**

To get the SPS number to jump to the maximum reading, jump between Power (5 V) and Signal. The SPS number should register above 1000. Unplugged, the SPS number should register 0.

STEERING SENSOR VOLTAGE TESTING

STEERING POSITION (SPS) AND WHEEL ANGLE (WAS) SENSORS

With the SmarTrax control box / node powered on, the SPS/WAS connector should provide the following voltages:

Testing Between Pins	Voltage
Power and Ground	5 or 12 Volts
Power and Signal	4.5 - 12 Volts
Signal and Ground	0 Volts

Ground **Pin A**   **Pin B** **Signal**

Pin C

Power (5 or 12 V)

To get the SPS number to jump to the maximum reading, jump between Power and Signal. The SPS number should register above 1000. Unplugged, the SPS number should register 0.

BLACK ROTARY SENSOR ADAPTERS

Ground   **Not Used**

Signal   **Power (5 V)**

The 063-0181-014 rotary sensor adapter cable adapts from the triangular 3-pin SPS/WAS connector. This cable is used to adapt to the 063-0181-013 black rotary sensor. If your system uses this cable, test voltages at this connector first. Perform the same pin tests as described above for the SPS/WAS connector.

- If voltage is correct and pin jumping causes the SPS number to register above 1000, the issue is with the sensor.

- If the voltage is incorrect or jumping between Power and Signal does nothing, test the 3-pin SPS/WAS connector. This will determine if the issue is with the adapter cable, the main harness, or the control box / node.

LINEAR SENSOR ADAPTERS

Not Used   **Power (12 V)**

Signal   **Ground**

The 115-4001-232 linear sensor adapter cable adapts from the triangular 3-pin SPS/WAS connector. This cable is used to adapt to a linear sensor (the 416-0001-052, for example). If your system uses this cable, test voltages at this connector first. Perform the same pin tests as described above for the SPS/WAS connector.

- If voltage is correct and pin jumping causes the SPS number to register above 1000, the issue is with the sensor.

- If the voltage is incorrect or jumping between Power and Signal does nothing, test the 3-pin SPS/WAS connector. This will determine if the issue is with the adapter cable, the main harness, or the control box / node.

STEERING SENSOR VOLTAGE TESTING