

Orion2 TCU Trouble Shooting

Faults and Remedies

The Orion yellow power LED does not come on

1. The ignition wire does not have 12Volt
2. There is a short on the 5 Volt output from the TCU. - The magnetic crank or speed sensor, or the TPS sensor all use 5 Volt. (Check the wiring.)
3. Check if the TCU is earthed.

The Software does not connect to the TCU with the USB to UART Converter

1. Incorrect or faulty USB converter.
2. No Device Driver for the USB cable is installed on the PC.
3. Faulty TCU

The TPS does not want to calibrate

1. Check the wiring according to the drawing. See if it has 5 Volt, Ground and if the signal varies between 0 and 5 Volt.
2. Check Calibration procedure again. Make sure that you are in Map 1. When you press calibrate the bar will indicate movement from the TPS. Remember to save after calibration.

The RPM signal does not register in the software

1. Incorrect sensor wiring. (See drawings.)
2. Incorrect harness for the application. There is a standalone harness or a ECU connection harness.
3. Incorrect jumper settings.
4. Sensor gap too large. Make the gap between 0.5 and 1mm between sensor and iron teeth.
5. Incorrect Setup or Calibration.

The Speedometer does not register in the software

1. Incorrect sensor wiring. (See drawings.)
2. Incorrect harness for the application. There is a standalone harness or a ECU connection harness.
3. Incorrect jumper settings.
4. Sensor gap too large. Make the gap between 0.5 and 1mm between sensor and iron teeth.
5. Incorrect Setup or Calibration.

The Shifter indicates incorrect positions in the software

1. Incorrect wiring. (See drawings.)
2. Incorrect Setup or Calibration.
3. Shifter is not earthed.
4. Faulty or incorrect converter board.

The TCU does not want to shift from 1st gear to second

1. One of the above sensors is not working correctly. Make sure the software shows that drive is selected.
2. Incorrect profile settings.(See Tuning Principles.)

The Marker moves past the up or down shift line without shifting

1. Faulty Number of Gears setting uploaded.

2. Incorrect gear profile speed settings. (See Tuning Principles.)
3. Faulty Shifter Position switch.

The TCU shift before the Marker moves past the up or down shift line

1. Incorrect Speed settings for Gear down Speed or Kick down Speed.