



[Knowledgebase](#) > [Engine Articles](#) > [VR Sensor Signal - Multiple Zero Crossing](#)

## VR Sensor Signal - Multiple Zero Crossing

- 2024-09-27 - [Engine Articles](#)

The attached report details a problem that has been seen on both the SECM48 and SECM70 with a VR crank encoder sensor, but may occur on other ECUs too.

The problem is that the signal has a second bump on its way from low to high voltage. This second bump can cause the signal to cross zero twice for a single tooth resulting in an erratic speed reading.

The fix is to add a 10kohm resistor between the VR+ and VR- signal wires. This cleans up the signal and fixes the problem.

- Tags
- [SECM 70](#)

### Attachments

- [Crank signal issue report 92149\\_R\\_9.pdf \(1.12 MB\)](#)