



9652 Loiret Blvd  
Lenexa, KS 66219-2406  
www.KustomSignals.com

TEL: 800.458.7866  
913.492.1400  
FAX: 913.492.1703

## Eagle 3 Wireless Speed Sensing (WSS)

10/07/2020

### Vehicle Speed Sensing (VSS) Background

Kustom Signals has been delivering our patented TruTrak™ Vehicle Speed Sense feature with our RADAR for more than 20 years. TruTrak takes the pulses from the patrol vehicle's speedometer and syncs with the Kustom RADAR. This feature has many benefits including an independent verification of the Doppler patrol speed which eliminates common RADAR anomalies like shadowing, batching, and combining. It also enables the popular feature for automatic mode switching from stationary to moving operations and vice versa. The Eagle 3 RADAR with the patent pending Wireless Speed Sensing (WSS) delivers the benefits of the wired vehicle integration with none of the headaches of locating and connecting into the electronic speedometer signal.

### The Issue

A growing number of police vehicles no longer have a VSS signal easily accessible to be integrated with the RADAR. Additionally, the automotive manufactures have long said that the OBD II port should not be used for auxiliary equipment and the upfitter's guides clearly indicate the risks associated with this type of connection. Regardless of these warnings, some RADAR manufactures are using the OBD II port for power and to query the VSS signals. Some manufactures are even warning customers that they will void their RADAR warranty if they move equipment to a new vehicle and utilize the wrong OBD II cable!

### OEM Message to Upfitters - Do NOT connect to OBD II

Ford recently released the [2020 Modifiers Guides](#) and have updated their statement relative connections to Control Modules and CAN-Bus networks stating, "Do not install any components into the control modules or module harness. Connecting into this system may affect control module operation."

Dodge recently published addendums to their Pursuit Upfitter Guides for the [Charger](#) and [Durango](#) confirming the VSS signal is no longer available in the Durango. The guide also states, "CAN Communication and Cybersecurity – In 2018 and newer vehicles, the vehicle security gateway blocks unauthorized CAN communication from the vehicle diagnostic connector."

*Your Trusted Partner in Law Enforcement*



9652 Loiret Blvd  
Lenexa, KS 66219-2406  
www.KustomSignals.com

TEL: 800.458.7866  
913.492.1400  
FAX: 913.492.1703

## The Solution

The Eagle 3 is the first RADAR to provide a method to independently verify the Doppler patrol speed without an electrical connection to the patrol vehicle. The Eagle 3 with Wireless Speed Sensing has an integrated antenna that utilizes satellite signals as an independent speed source to verify the patrol vehicle's Doppler ground speed. That means the Eagle 3 wireless technology is built-in so no customer IT support is required. Only the actual Doppler signal is used for the Patrol Speed reading. The satellite signals are used to guide the RADAR DSP to search for the Patrol Doppler signal in a specific area. The result is the Eagle 3 with WSS features Automatic Mode Switching and eliminates common RADAR anomalies like shadowing, batching, and combining without the need for a wired connection from the RADAR to the patrol vehicle.

**Want more information? Contact us today!**

*Your Trusted Partner in Law Enforcement*