

1. **UNIT DESCRIPTION** - Kustom Signals, Inc. Directional Radar Unit (DRU) is a one piece, battery powered speed monitoring doppler radar device that can discriminate vehicle direction. The transmitter, receiver and antenna are integral. The receiver is a two channel I/Q quadrature output. The unit transmits in K band at 24.150 GHz +/- .1GHZ. The transmitter is a Gunn diode cavity stabilized Continuous Wave oscillator. All received signals are digitally processed and converted to RS232 format. Data from the DRU is digitized vehicle speed and direction can be received by any peripheral capable of receiving and processing RS232 data.
2. **INTENDED PURPOSE** – The DRU is designed to be used for monitoring and data logging vehicle speed. These data are then used to provide real time visual speed prompts for motorists and historical speed and direction data for statistical studies. The DRU is to be used only in stationary applications as it is not capable of processing data while on a moving platform
3. **SETUP** – The DRU is intended for use in the Kustom Signals, Inc. speed monitoring awareness radar trailers. DC power is supplied to the DRU by the trailers onboard batteries. When power is applied operation is automatic. All usage is stationary