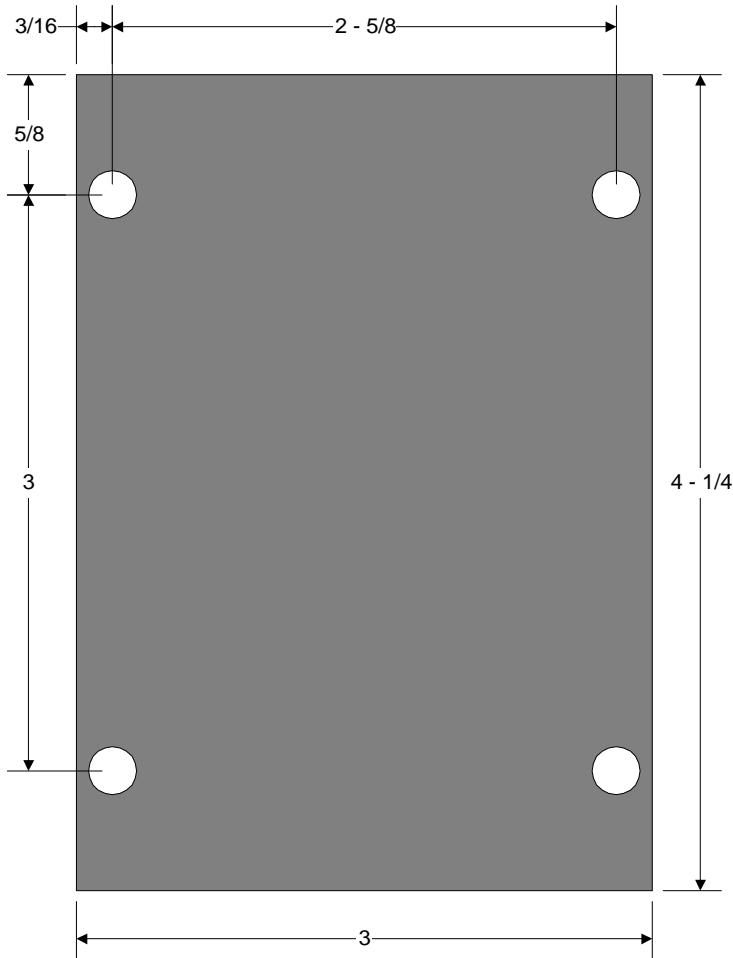


Mounting Template



Warranty

The RD-24 is warranted against defects in components and workmanship for 1 year from the date of original purchase. During this time a defective unit returned to the factory with shipping prepaid will be repaired or replaced, at our discretion, without additional cost to the user.

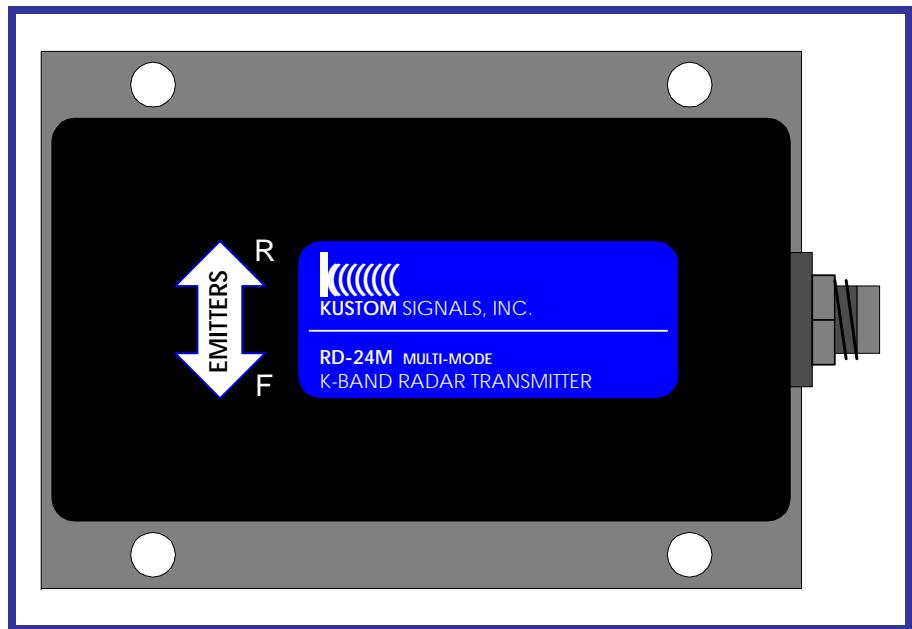
The RD-24 contains no user-serviceable parts. Opening the unit will void this warranty and will also invalidate the unit's FCC certification.

The RD-24 is manufactured in the U.S.A. for Kustom Signals, Inc.
by Systems Innovation, Inc.
3215 East Main St. • Endwell, NY 13760 USA
www.systemsinnovationinc.com



RD-24 SERIES K-BAND RADAR TRANSMITTERS

USER'S GUIDE AND INSTALLATION PROCEDURE



*This document covers both the
RD-24M Multi-Mode and RD-24T Tri-Mode
K-Band Radar Transmitters
(RD-24M shown in illustration above)*

Kustom Signals, Inc.
9325 Pflumm • Lenexa, KS 66215
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About the RD-24 Series

Vehicle accidents are a leading cause of injury and death for on-duty police officers because driving at high speed always invites the possibility that a civilian vehicle may enter the officer's path or fail to yield. Slow-moving vehicles such as farm tractors and construction equipment that must share the road are also at risk from drivers who suddenly encounter them and, for various reasons, do not have sufficient time to react in order to avoid a collision.

The *RD-24 Series K-Band Radar Transmitters* aim to provide a solution to both problems by producing a strong, bidirectional signal designed to trigger a K-band alert on any radar detector that comes into range of the unit. A speeding driver will usually react to this signal by slowing down, and studies have shown that nearby traffic also slows as a result. Drivers who are forewarned in this way also have a better chance of safely reacting to the oncoming police vehicle or the slow-moving vehicle they are about to encounter.

NOTE

This product can not and does not guarantee the prevention of traffic accidents. It is only intended to alert other motorists to a situation that requires extra attention on their part. Motorists and users of this product are expected to exercise reasonable caution and to observe and follow all applicable traffic laws.

An RD-24 can also function as a stand-in for expensive radar-based traffic cameras when a few cameras are being rotated between several locations. An RD-24 placed in the empty camera enclosure simulates the camera's transmitter activity, and prevents drivers with radar detectors from knowing that the camera is not actually present. This has the potential to result in greater compliance with posted speed limits.

NOTE

This product can not and does not guarantee that drivers will adhere to posted speed limits or react appropriately to the real or simulated presence of a traffic camera.

The RD-24M and RD-24T both provide three *operational* modes: Continuous Output (always on), Consistent Timed Output (3 seconds on, 10 seconds off) and Random Output (2 to 10 seconds on and off in a pseudo-random sequence that repeats about once every 3½ hours).

The RD-24M also provides three *directional* modes: Front Only, Both Directions, or Alternating Front/Rear. The RD-24T emits to the front only and does not provide a selectable directional mode.

The various combinations of these modes are selected by the way in which the RD-24 is connected to its power source, as explained in the **Wiring** section on the next page.

Operational Characteristics

The RD-24 transmits a signal directly ahead of and, in the case of the RD-24M, also directly behind the vehicle on which it is mounted. Detection range will depend upon the sensitivity of the receiving radar detector; testing has shown that the range can vary from as little as 0.2 miles to as much as 1.3 miles or more. Range can also be affected by the surrounding terrain, buildings, and other traffic. It is therefore important to mount the RD-24 so that it can emit its signal in an unobstructed fashion to both the front (marked 'F' on the label of both units) and the rear (marked 'R' on the label of the RD-24M).

Installation

The RD-24 is weatherproof and requires no special protection against heat, cold or moisture. The template on the back page provides a guide for the mounting hole locations of the RD-24. The mounting holes are for #8 hardware.

On police units, the RD-24 should be mounted on top of or inside the light bar. If mounted inside the vehicle, performance will be reduced due to attenuation caused by the metal body of the car. On other vehicles the RD-24 may be mounted in any convenient location that does not obstruct signal emission.

Wiring

The RD-24 is designed for use with 12 volt negative ground systems. Reverse-polarity protection is provided and incorrect connections will not damage the RD-24, but may result in a blown fuse in the vehicle.

A 15-foot power cord is provided with a waterproof twist-lock connector on one end and bare wires on the other. Plug the cable connector into the mating socket on the RD-24, ensuring the connector is fully seated, and twist the connector until it clicks and locks. Then route the wire safely to a power source so that its insulation will be protected from abrasion and chafing.

On the cable's other end, always connect the RED wire to a source of +12 volts, and always connect the BLACK wire to ground. Then select the desired combination of operating and directional modes as shown in the chart below.

RD-24M and RD-24T		RD-24M Only	
Desired Operating Mode	Connect GREEN Wire to ...	Desired Directional Mode	Connect WHITE Wire to ...
Continuous	Ground	Front Only	Ground
Timed	+12 Volts	Alternating F/R	+12 Volts
Random	Do Not Connect	Both Directions	Do Not Connect

A switch capable of carrying at least ½ amp of current may be placed in line with the RED wire to turn the RD-24 on and off if desired.