



High Performance Radar & Laser Detector  
Powerful. Accurate. Reliable.



More range



Reduces  
false alerts

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# **INTRODUCTION**

Congratulations! You've made a smart choice by purchasing a radar/laser detector from Cobra.

This booklet describes the simple steps for mounting and setting up your detector. It also provides helpful information about how radar and laser guns are used and how you can interpret the alerts you receive.

Just look at some of the sophisticated features and capabilities your new Cobra radar/laser detector includes.

## **RAD 380 FEATURES**

**Radar/Laser Protection** - Detects all radar and laser guns.

**LaserEye®** - Detects laser signals from both front and rear.

**Anti-Falsing Circuitry** - Automatically reduce false alerts from erroneous sources including automatic door openers and fixed position traffic flow monitoring systems.

**2<sup>nd</sup> Generation IVT Filter™** - Automatically reduces false alerts from moving In-Vehicle Technology sources such as collision avoidance systems and adaptive cruise control.

**City & Highway Modes** - Selectable modes reduces falsing in densely populated areas.

**Auto Mute** - Automatically mutes audio for sustained alerts.

**7-Segment Color Display** - Bright display with band identification icons and numeric signal strength meter.

**Audible Signal Strength Levels** - Unique tones provide signal strength and band identification.

**6' Power Cord, Windshield and Dash Mounts Included.**

## **PRODUCT SERVICE AND SUPPORT**

For any questions about operating or installing this new Cobra product, PLEASE CONTACT COBRA FIRST...do not return this product to the retail store. The contact information for Cobra will vary depending on the country in which you purchased and utilize the product. For the latest contact information, please go to [www.cobra.com/support](http://www.cobra.com/support) or call 1-800-543-1608.

If your product should require factory service, please go to [www.cobra.com/support](http://www.cobra.com/support) and follow the instructions for returning your product to the Cobra Factory Service Department.

## YOUR DEVICE

### WHAT'S IN THE BOX

- 12V Power Cord
- Windshield Mount with Suction Cups
- Hook & Loop fastener for dash mounting
- Quick Start Guide

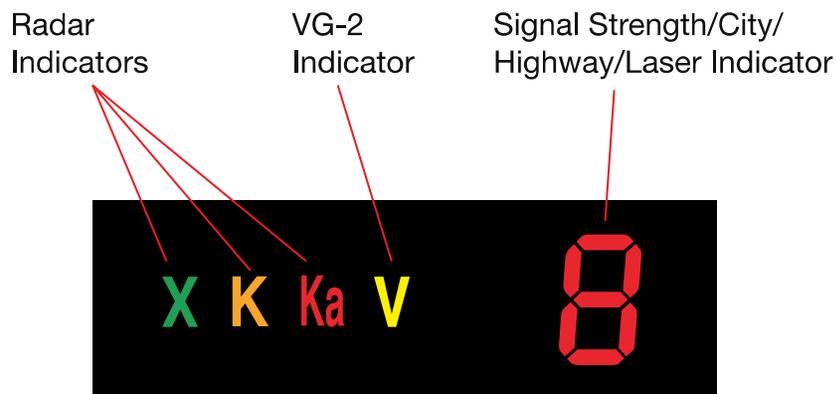
### OPTIONAL ACCESSORIES – available at [www.cobra.com](http://www.cobra.com)

- Coiled 12V Power Cord: **Item # 420-026-N-001**– Includes plug and fuse
- Straight Combination Radar USB Cord: **Item # PWR USB-01** – Includes plug and USB Output
- Dual Port Power Adapter: **Item # CLP-2B** – Includes adjustable plug (up to 90°) and fuse
- Hardwire Cord for Radar: **Item # RA-PSCB** – Wires your detector directly into the fuse box for a quick and clean installation without any dangling wires
- Install Mount: **Item # 545-002** – Includes 3M Dual Lock

# CONTROLS AND CONNECTIONS



## Easy to Read Display



# INSTALLATION

## WHERE TO MOUNT YOUR DETECTOR

You will get optimum performance from your detector if you mount it at a point approximately in the center of the vehicle, as low as possible on the front windshield without obstructing the unit's view of the road either to the front or rear. You can also mount it directly on the dashboard using the included hook-and-loop fastener.

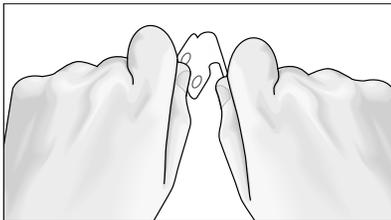
The detector's lens must not be blocked and the LaserEye should have a clear view out the back window to allow maximum detection.

Radar and laser signals pass through glass but not through other materials and objects. Objects that can block or weaken incoming signals include:

- Windshield wiper blades
- Mirrored sunscreens
- Dark tinting at the top of the windshield
- Heated windshields currently available on some vehicles (Instaclear for Ford, Electriclear for GM). Consult your dealer to see if you have this option.

## WINDSHIELD MOUNTING

1. Make sure the rubber cups and your windshield are clean
2. Push the bracket firmly onto the windshield.
3. Attach the detector to the bracket. **Importantly:** check that the unit is parallel to the road's surface.
4. To adjust the angle if necessary, gently push or pull on the bracket to bend it. **DO NOT** use the detector to bend the bracket.



5. Plug the power cord into the detector.
6. Plug the cigarette lighter adapter on the power cord into your vehicle's cigarette lighter.

## DASHBOARD MOUNTING

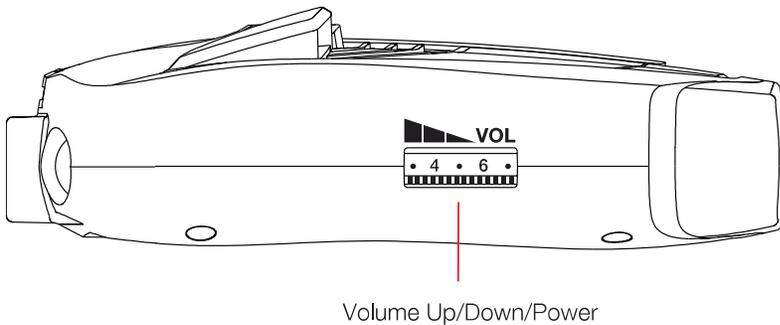
1. Place the detector on the dashboard to find a location where the unit has a clear, level view of the road and is parallel to the road's surface. The angle **CANNOT** be adjusted after mounting.
2. Remove the paper backing from one side of the hook-and-loop fastener.
3. Attach the pad to the dashboard at your chosen location and remove the other paper backing.

4. Attach the detector to the hook-and-loop fastener. You can remove and reattach the unit as often as you like.
5. Plug the power cord into the detector.
6. Plug the cigarette lighter adapter on the power cord into your vehicle's cigarette lighter.

## BASIC OPERATION

### POWERING ON THE DEVICE, ADJUSTING VOLUME

To turn on the unit and adjust the audio volume, rotate the On-Off/ Volume control clockwise (away from you).



**NOTE:** In some vehicles, power is supplied to the cigarette lighter even while the ignition is Off. If this is the case with your vehicle, you should turn Off or unplug your detector when parking for lengthy periods.

### SENSITIVITY MODES

Setting your detector to City mode sensitivity delays all X band audio alerts at lower signal strength levels. (A single beep will sound when the signal is first detected.) This will reduce false alerts while you are driving in, or near, urban areas where there are many sources for conflicting X band signals such as microwave towers and automatic door openers. The factory setting is Highway mode.

To change the sensitivity mode, press the SEN button.

Highway Mode



City Mode



## ANTI-FALSING CIRCUITRY

Your RAD 380 is designed to provide you the truest alerts and minimize the distraction of erroneous signals from radar-based fixed-position and moving sources.

- Adjustable Sensitivity: City / Highway modes allow driver to adjust sensitivity to driving environment, reducing false alarms from fixed position sources such as automatic door openers.
- IVT Filter: system automatically reduces false alerts from moving In-Vehicle Technology sources such as collision avoidance systems and adaptive cruise control.

## MUTE

Your detector allows you to quickly turn Off an audio Alert by momentarily pressing the MUTE button. If you press the MUTE button a second time during the Alert, the audio Alert will be turned back On.

## AUTO MUTE

Auto Mute will automatically reduce the audio volume of all alerts after four seconds for as long as the signal is detected. The factory setting for Auto Mute is On.

### To Turn Auto Mute Off

Press and release the MUTE button while no alert is occurring.  
RAD 380 will beep **once**.

### To Turn Auto Mute On

Press and release the MUTE button again while no alert is occurring.  
RAD 380 will beep **twice**.

## DISPLAY BRIGHTNESS

You can choose from three settings for Brightness of the display. Repeatedly push the DIM button to cycle through the settings. The factory setting is Bright.

## VG-2 ALERT SETTINGS

Police use radar detector detectors (RDDs) to spot users of radar detectors. Your detector is able to identify signals from VG-2 RDDs and can provide alerts when any of these or similar devices are in use near your vehicle.

Your detector is invisible to VG-2 RDDs. You can choose whether you want to be alerted to VG-2 RDD signals. The factory setting for VG-2 alert is Off.

### To Turn VG-2 Alerts On and Off

While no signal is being detected, press and hold the Dim button for four seconds.

On = One beep and V flashes once

Off = Two beeps and V flashes twice

# **RADAR ALERT SETTINGS**

The detector allows you to choose whether it will show alerts on the X, K and Ka Bands. The factory settings are: X, K, and Ka On.

## **To Turn X Band On and Off**

While no signal is being detected, press and hold both the DIM and MUTE buttons for four seconds.

X Off = One beep and X flashes once

X On = Two beeps and X flashes twice

## **To Turn K Band On and Off**

While no signal is being detected, press and hold both the SEN and MUTE buttons for four seconds.

K Off = One beep and K flashes once

K On = Two beeps and K flashes twice

## **To Turn Ka Band On and Off**

While no signal is being detected, press and hold both the SEN and DIM buttons for four seconds.

Ka Off = One beep and Ka flashes once

Ka On = Two beeps and Ka flashes twice

# **DETECTION**

The following tables show you the types of signals your detector will detect, and the visual alerts for each.

## **AUDIO ALERTS**

A distinctly different Alert tone is used for each type of signal detected (including separate tones for each laser signal). For X, K and Ka band radar signals, the tones will repeat faster as you approach the signal source. The repeat rate of the tones gives you useful information about the signal detected.

## VISUAL DISPLAY

An indication of the type of signal detected will appear in the display. During X, K, and Ka alerts, a number will also appear, indicating the strength of the signal detected. (1 = weakest, 5 = strongest).

Weak X Signal Detected



Moderate K Signal Detected



Strong Ka Signal Detected



Laser Signal Detected



VG-2 Alert Signal Detected



## SIGNALS AND VISUAL DISPLAYS

Type of Signal	Visual Display
X Band Radar	<b>X</b> is Steady
K Band Radar	<b>K</b> is Steady
Ka Band Radar	<b>Ka</b> is Steady
Laser	<b>L</b> is Steady
VG-2 RDD	<b>V</b> is Steady

## INSTANT-ON DETECTION

Your detector is designed to detect Instant-On speed monitoring signals, which can suddenly appear at full strength.

NOTE You should take appropriate action immediately whenever an Instant-On alert is given.

# RESPONDING TO ALERTS

Description	Interpretation	Recommended Response
Tone repeats slowly at first, then speeds up rapidly	Probably police radar	FULL ALERT
Tone sounds one time only	Probably a false alarm, but possibly pulsed radar or VG-2 nearby.	Exercise caution
Tone instantly begins repeating rapidly.	Radar or VG-2 nearby has been activated suddenly.	FULL ALERT
Tone repeats slowly as you approach a hill or bridge, then speeds up sharply as you reach it.	Probably police radar beyond the hill or bridge.	FULL ALERT
Tone repeats slowly for a short period.	Probably a false alarm.	Exercise caution
Any type of laser alert.	Laser alerts are never false alarms.	FULL ALERT

# UNDERSTANDING RADAR AND LASER

## RADAR SPEED MONITORING SYSTEMS

Three band frequencies have been approved by the Federal Communications Commission (FCC) for use by speed monitoring radar equipment:

- X band 10.525 GHz
- K band 24.150 GHz
- Ka band 33.400 – 36.00 GHz

## VG-2

VG-2 is a Radar Detector Detector (RDD) that works by detecting low-level signals emitted by most radar detectors. Your detector does not emit signals that can be detected by VG-2, but does detect VG-2 signals and will alert you when a VG-2 device is in use near your vehicle.

While no signal is being detected, press and hold the Dim button for four seconds.

The factory setting for VG-2 alerts is Off.

## LIDAR (LASER)

The correct name for the technology that most people refer to as laser is actually LIDAR, which stands for Light Detection and Ranging. LIDAR operates much like radar. Its signal spreads out like a radar signal, though not as widely.

Unlike radar, LIDAR must have a clear line of sight to its target vehicle throughout the entire measurement interval. Obstructions such as signposts, utility poles, tree branches, etc., will prevent valid speed measurement.

Some common questions about LIDAR include:

**Does weather have any effect on LIDAR?**

Yes. Rain, snow, smoke, fog or airborne dust particles will reduce the effective range of LIDAR and can, if dense enough, prevent its operation.

**Can LIDAR operate through glass?**

Yes. Newer LIDAR guns can obtain readings through most types of glass. However, the laser pulse also can be received through glass to trigger an alarm by your detector.

**Can LIDAR operate while in motion?**

No. Because LIDAR operates by line of sight, the person using it cannot drive the vehicle, aim and operate the gun all at the same time.

**Is it legal for police to use LIDAR?**

Yes, LIDAR is allowed to be used in all 50 States by police. Your detector detects LIDAR (laser).

## **MAINTENANCE**

Your detector is designed and built to give you years of trouble-free performance without the need for service. No routine Maintenance is required.

If your unit does not appear to be operating properly, please follow these troubleshooting steps:

- Make sure the power cord is properly connected.
- Make sure the socket of your vehicle's cigarette lighter is clean and free of corrosion.
- Make sure the power cord's cigarette lighter adapter is firmly seated in your cigarette lighter.

# **SPECIFICATIONS**

## **BANDS AND FREQUENCIES**

<b>Band</b>	<b>Frequencies</b>	
X Band	10.525	± 0.050 GHz
K Band	24.125	± 0.125 GHz
Ka Band	34.700	± 1.300 GHz
VG-2	11.500	± 0.250 GHz
Laser	910 ± 50 nm	100 PPS

## **WARNING**

Modifications or parts substitutions not approved by Cobra Electronics Corporation may violate FCC Rules and void your authority to operate this equipment.

U.S. Patent Number: 6,078,279

# **WARRANTY**

## **LIMITED 1-YEAR WARRANTY**

Cobra Electronics Corporation warrants that this product and the component parts thereof, will be free of defects in workmanship and materials for a period of one year from the date of first consumer purchase. This warranty may be enforced by the first consumer purchaser. If the product is under warranty, it will be repaired or exchanged depending on the model as determined at Cobra's sole discretion. Such remedy shall be your sole and exclusive remedy for any breach of warranty.

The procedure for obtaining service and support, and the applicability of this warranty, will vary depending on the country or jurisdiction in which you purchased and utilize the product. For the details on obtaining product service, support and warranty please visit

[www.cobra.com/support](http://www.cobra.com/support)

Provided that the product is utilized within the U.S.A.- Cobra will, without charge, repair or replace, at its option, defective products, products or component parts upon delivery to the Cobra Factory Service department, accompanied by proof of the date of first consumer purchase, such as a duplicated copy of a sales receipt. You must pay any initial shipping charges required to ship the product for warranty service, but the return charges, to an address in the U.S.A., will be at Cobra's expense, if the product is repaired or replaced under warranty.

This warranty gives you specific legal rights, and you may also have other rights which may vary from state to state and country to country.

Exclusions: This limited warranty does not apply: 1) To any product damaged by accident; 2) In the event of misuse, ordinary wear, failure to follow directions, or improper maintenance of the product or as a result of unauthorized alterations or repairs; 3) If the serial number has been altered, defaced, or removed; 4) If the product was purchased or is utilized in a jurisdiction not covered by the limited warranty.

All implied warranties, including warranties of merchantability and fitness for a particular purpose are limited in duration to the length of this warranty. Cobra shall not be liable for any incidental, consequential or other damages; including, without limitation, damages resulting from loss of use or cost of installation.

Some states and countries do not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state and country to country

## **TRADEMARKS ACKNOWLEDGEMENT,** **WARNINGS, and REGULATORY INFORMATION**

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NOTE: This device complies with part 15 of FCC rules: Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received including interference that may cause undesired operation.

CAUTION: Modifications or parts not approved by Cobra Electronics Corporation may violate FCC Rules and void authority to operate this equipment. This device complies with RSS-310 of Industry Canada. Operation is subject to the condition that this device does not cause harmful interference.