The Cobra line of quality products includes:

CB Radios
microTALK® Radios
Radar/Laser Detectors
Safety Alert® Traffic Warning Systems
Truck-Specific Navigation Systems
HighGear® Accessories
CobraMarine VHF Radios
Power Inverters
LED Lights
Jumpstarters
Accessories

For more information or to order any of our products, please visit our website:
www.cobra.com

Important Information

It is not against federal law to receive radar transmissions with your Cobra radar/laser detector. The Communications Act of 1924 guarantees your right to receive radio transmissions on any frequency. Local laws that contravene this Act, while illegal, may be enforced by your local law enforcement officials until and unless they are prohibited from doing so by federal court action.

Use of this product is not intended to, and does not, ensure that motorists or passengers will not be involved in traffic accidents. It is only intended to alert the motorist that an emergency vehicle equipped with a Cobra Safety Alert transmitter is within range as defined by that product. Please call local fire and police departments to learn if coverage exists in your area.

Motorists, as well as operators of emergency or service vehicles, are expected to exercise all due caution while using this product, and to obey all applicable traffic laws. Do not attempt to change settings of the unit while in motion.

Before leaving your vehicle, always remember to conceal your radar detector in order to reduce the possibility of break-in and theft.

Should you encounter any problems with this product, or not understand its many features, please refer to this owner’s manual. If you require further assistance after reading this manual, Cobra Electronics offers the following customer assistance services:

For Assistance in the U.S.A.

Automated Help Desk
English only. 24 hours a day, 7 days a week 773-889-3087 (phone).

Customer Assistance Operators
English and Spanish. 8:00 a.m. to 5:30 p.m. Central Time, Mon. through Fri. (except holidays) 773-889-3087 (phone).

Questions
English and Spanish. Faxes can be received at 773-622-2269 (fax).

Technical Assistance
English only. www.cobra.com (on-line: Frequently Asked Questions). English and Spanish. product.info@cobra.com (e-mail).

For Assistance Outside the U.S.A.

Contact Your Local Dealer

Customer Assistance

Introduction

Printed in China

Part No. 480-591-P

Version D

Operating Instructions

9 BAND® RADAR/LASER DETECTOR WITH EXTRA SENSORY DETECTION

ESD 9270
Congratulations! You've made a smart choice by purchasing a 9 Band radar/laser detector from Cobra. Just look at some of the sophisticated features and capabilities your new unit includes:

Detection And Separate Alerts For:
- Radar signals (X, K and Ka bands, with signal strength indicated), laser and VG-2 signals
- LaserEye for 360° detection of laser signals
- Instant-On Ready to detect radar guns with "instant-on" (very fast) speed monitoring capabilities
- Tone Alerts with adjustable volume
- UltraBright Data Display is easy to read

City or Highway Modes to reduce false alerts
- Safety Alert traffic warning system distinguishes important safety alerts from other K band signals
- Manual Mute or Auto Mute to mute audio alerts
- Mounting easily on windshield or dashboard

Displays and Product Features
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.
# Contents

## Introduction
- Important Information .................................. A1
- Customer Assistance .................................. A1
- Controls, Indicators and Connections .............. A2
- Display ............................................. A3
- Product Features .................................... A3

## Your Detector
- Installation ........................................... 2
- Getting Started ....................................... 5
- Settings ............................................. 6
  - Highway/City Mode .................................. 6
  - Muting an Alert .................................... 7
  - Auto Mute Mode .................................... 7
  - Data Display Brightness .............................. 8
  - VG-2 Alert Settings .................................. 8
  - Radar Alert Settings ................................ 9
- Detection ............................................. 10
  - Signals Detected ................................... 10
  - Audio Alerts ........................................ 10
  - Visual Display ...................................... 10
  - Instant-On Detection ................................ 12
  - Responding to Alerts ................................. 13
- Understanding Radar and Laser ......................... 14
  - Radar Speed Monitoring Systems ...................... 14
  - VG-2 ............................................. 14
  - Safety Alert Traffic Warning System ............... 14
  - LIDAR (Laser) ..................................... 15

## Customer Information
- Maintenance ........................................... 16
- Specifications ........................................ 17
- Limited 1-Year Warranty ............................... 18
- Product Service ...................................... 19
- Optional Accessories ................................ 20
- Accessories Order Info ................................ 21
- Trademark Acknowledgement ......................... 21

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Nothing Comes Close to a Cobra®
Installation

Where to Mount Your Unit

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.

The unit’s lens must not be blocked and the LaserEye should have a clear view out the back window to allow 360° 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 sun screens
- 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. Attach the rubber cups to the bracket.
2. Make sure the rubber cups and your windshield are clean.
3. Push the bracket firmly onto the windshield.
4. Attach the detector to the bracket.
5. 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.
6. Plug the power cord into the detector.
7. 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.

Getting Started

To Turn On The Unit And Adjust The Audio Volume

Rotating the On-Off/Volume control clockwise (away from you)...

<table>
<thead>
<tr>
<th>Audio</th>
<th>Visual Display</th>
</tr>
</thead>
<tbody>
<tr>
<td>Three beeps</td>
<td>The LED in the lower left corner of the screen will light to indicate that the power is On.</td>
</tr>
</tbody>
</table>

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.
Settings

When changing the Settings on your detector, please keep in mind:

- Each time the unit is turned On the factory settings of Highway and Auto Mute-On will be set. They can be changed while the unit is in use as described in the following sections.

Highway/City Mode

Setting your detector to City mode 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.

To change settings, follow the procedure listed below, which indicates what you will see and hear as you complete each step. The factory setting is Highway mode.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Audio</th>
<th>Visual Display</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highway Mode</td>
<td>One beep</td>
<td>C LED Lights</td>
</tr>
<tr>
<td>City Mode</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To Change From Highway Mode To City Mode

Press and release the City button.

To Change From City Mode To Highway Mode

Press and release the City button again.

Muting an Alert

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 Mode

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.

To Turn Auto Mute On

Press and release the Mute button again while no alert is occurring.
Data Display Brightness

You can choose from three settings for Brightness of the display. Repeatedly push the Dim button to cycle through the settings. In Dark mode the power LED will blink slowly to indicate that power is On. 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

<table>
<thead>
<tr>
<th>Audio</th>
<th>Visual Display</th>
</tr>
</thead>
<tbody>
<tr>
<td>On = One Beep</td>
<td>V/S Flashes Once</td>
</tr>
<tr>
<td>Off = Two beeps</td>
<td>V/S Flashes Twice</td>
</tr>
</tbody>
</table>

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 Band 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.

<table>
<thead>
<tr>
<th>Audio</th>
<th>Visual Display</th>
</tr>
</thead>
<tbody>
<tr>
<td>X On = Two beeps</td>
<td>X/K LED Flashes Twice</td>
</tr>
<tr>
<td>X Off = One beep</td>
<td>X/K LED Flashes Once</td>
</tr>
</tbody>
</table>

To Turn K Band On and Off

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

<table>
<thead>
<tr>
<th>Audio</th>
<th>Visual Display</th>
</tr>
</thead>
<tbody>
<tr>
<td>K On = Two beeps</td>
<td>X/K Flashes Twice</td>
</tr>
<tr>
<td>K Off = One beep</td>
<td>X/K Flashes Once</td>
</tr>
</tbody>
</table>

To Turn Ka Band On and Off

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

<table>
<thead>
<tr>
<th>Audio</th>
<th>Visual Display</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ka On = Two beeps</td>
<td>Ka Flashes Twice</td>
</tr>
<tr>
<td>Ka Off = One beep</td>
<td>Ka Flashes Once</td>
</tr>
</tbody>
</table>
Signals Detected
The tables on the following pages show you the types of Signals your detector will detect, as well as the visual alerts it provides for each of them.

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. (See responding to alerts on page 13.)

Visual Display
An indication of the type of signal detected and, for radar signals, the signal strength will appear in the UltraBright Data Display. Radar signal strength will be indicated by steady, flashing, or a combination of steady and flashing LEDs as shown in the signal strength chart below.

**Signal Strength Chart**

<table>
<thead>
<tr>
<th>Signal Strength</th>
<th>Visual Display</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Weakest Signal)</td>
<td>X/K is Steady &amp; lower LEDs show signal strength</td>
</tr>
<tr>
<td>2</td>
<td>X/K is Steady &amp; lower LEDs show signal strength</td>
</tr>
<tr>
<td>3</td>
<td>Ka is Steady &amp; lower LEDs show signal strength</td>
</tr>
<tr>
<td>4</td>
<td>X/K is Steady &amp; lower LEDs show signal strength</td>
</tr>
<tr>
<td>5 (Strongest Signal)</td>
<td>X/K is Steady &amp; lower LEDs show signal strength</td>
</tr>
</tbody>
</table>

**Radar Signals and Visual Displays**

<table>
<thead>
<tr>
<th>Type of Signal</th>
<th>Visual Display</th>
</tr>
</thead>
<tbody>
<tr>
<td>X Band Radar</td>
<td>X/K is Steady &amp; lower LEDs show signal strength</td>
</tr>
<tr>
<td>K Band Radar</td>
<td>X/K is Steady &amp; lower LEDs show signal strength</td>
</tr>
<tr>
<td>Ka Band Radar</td>
<td>Ka is Steady &amp; lower LEDs show signal strength</td>
</tr>
</tbody>
</table>

**Laser Signals and Visual Displays**

<table>
<thead>
<tr>
<th>Type of Signal</th>
<th>Visual Display</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTI 20-20*</td>
<td>L is Steady</td>
</tr>
<tr>
<td>LTI Laser*</td>
<td>L is Steady</td>
</tr>
<tr>
<td>Kustom Signals Laser 340*</td>
<td>L is Steady</td>
</tr>
<tr>
<td>Kustom Signals Laser*</td>
<td>L is Steady</td>
</tr>
<tr>
<td>Stalker LIDAR*</td>
<td>L is Steady</td>
</tr>
<tr>
<td>Laser Atlanta SpeedLaser/Kustom Signals-ProLaser II*</td>
<td>L is Steady</td>
</tr>
</tbody>
</table>

* Your detector provides 360° detection of these signals.

**Laser Signal Detected**

L
### Visual Display (continued)

#### Safety Alert

<table>
<thead>
<tr>
<th>Type of Signal</th>
<th>Visual Display</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency Vehicles</td>
<td>V/S is Steady</td>
</tr>
</tbody>
</table>

**Safety Alert Detected**

![V/S Icon]

#### VG-2 Alert

<table>
<thead>
<tr>
<th>Type of Signal</th>
<th>Visual Display</th>
</tr>
</thead>
<tbody>
<tr>
<td>VG-2 RDD</td>
<td>V/S is Steady</td>
</tr>
</tbody>
</table>

**VG-2 RDD Detected**

![V/S Icon]

### 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

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

Your detector detects signals in all three radar bands, plus Ku band (13.435 GHz), which is an approved frequency used in parts of Europe and Asia.

**VG-2**

VG-2 is a “detector detector” 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 device is in use near your vehicle.

Safety Alert Traffic Warning System

FCC-approved Safety Alert transmitters emit microwave radar signals that indicate the presence of an emergency vehicle.

Because these microwave signals are within the K band frequency, most conventional radar detectors will detect Safety Alert signals as standard K band radar. Your detector, however, is designed to differentiate between standard K band and Safety Alert signals, and give separate alerts for each.

Safety Alert technology is relatively new. Safety Alert transmitters can be found in limited numbers in all 50 states, but the number is growing. Depending on your location, you may not receive these alerts regularly and may often encounter emergency vehicles without being alerted. As the number of transmitters increases, these alerts will become more common.

When you receive such an alert, please watch for emergency vehicles ahead of you, on cross streets and behind you. If you see an emergency vehicle approaching, please pull over to the right side of the road and allow it to pass.

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 sign posts, utility poles, tree branches, etc., will prevent valid speed measurement.

Some common questions about LIDAR include:

- **Does weather have any affect 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.
- Check the power cord fuse. (Unscrew the ribbed end cap of the cigarette lighter adapter and examine the fuse. If required, replace it with a 2-amp fuse only.)

Specifications

### Band and Frequencies

<table>
<thead>
<tr>
<th>Band</th>
<th>Frequencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>X Band</td>
<td>10.525 ± 0.050 GHz</td>
</tr>
<tr>
<td>K Band</td>
<td>24.125 ± 0.125 GHz</td>
</tr>
<tr>
<td>Safety Alert</td>
<td>24.070 ± 0.010 GHz</td>
</tr>
<tr>
<td>Traffic Warning System</td>
<td>24.110 ± 0.010 GHz</td>
</tr>
<tr>
<td></td>
<td>24.190 ± 0.010 GHz</td>
</tr>
<tr>
<td></td>
<td>24.230 ± 0.010 GHz</td>
</tr>
<tr>
<td>Ka Band</td>
<td>34.700 ± 1.300 GHz</td>
</tr>
<tr>
<td>VG-2</td>
<td>11.500 ± 0.250 GHz</td>
</tr>
<tr>
<td>Laser</td>
<td>910 ± 50 nm</td>
</tr>
</tbody>
</table>

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

This radar detector is covered by one or more of the following U.S. patents: 5,497,148; 5,594,432; 5,612,685; 6,078,279; 6,094,148; 6,621,447.

Additional patents may be listed inside the product or pending.
**Limited 1-Year Warranty**

For Products Purchased in the U.S.A.

Cobra Electronics Corporation warrants that its Cobra 9 Band Radar/Laser Detectors, 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, provided that the product is utilized within the U.S.A.

Cobra will, without charge, repair or replace, at its option, defective 9 Band Radar/Laser Detectors, 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 will be at Cobra’s expense, if the product is repaired. This warranty gives you specific rights, and you may also have other rights which vary from state to state.

**Exclusions:** This limited warranty does not apply:

1. To any product damaged by accident.
2. In the event of misuse or abuse 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 owner of the product resides outside the U.S.A.

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 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.

**Product Service**

For any questions about operating or installing this new Cobra product, or if parts are missing…PLEASE CALL COBRA FIRST…do not return this product to the store. See customer assistance on page A1.

If this product should require factory service, please call Cobra before sending the product. This will ensure the fastest turn-around time on any repair. If Cobra asks that the product be sent to its factory, the following must be furnished to have the product serviced and returned:

1. For Warranty Repair include some form of proof-of-purchase, such as a mechanical reproduction or carbon of a sales receipt. Make sure the date of purchase and product model number are clearly readable. If the originals are sent, they cannot be returned;
2. Send the entire product;
3. Enclose a description of what is happening with the product. Include a typed or clearly printed name and address of where the product is to be returned, with phone number (required for shipment);
4. Pack product securely to prevent damage in transit. If possible, use the original packing material;
5. Ship prepaid and insured by way of a traceable carrier such as United Parcel Service (UPS) or Priority Mail to avoid loss in transit to: Cobra Factory Service, Cobra Electronics Corporation, 6500 West Cortland Street, Chicago, Illinois 60707 U.S.A.;
6. If the product is in warranty, upon receipt of the product it will either be repaired or exchanged depending on the model. Please allow approximately 3 – 4 weeks before contacting Cobra for status. If the product is out of warranty, a letter will automatically be sent with information as to the repair charge or replacement charge.

For any questions, please call 773-889-3087 for assistance.
Optional Accessories

You can find quality Cobra products and accessories at your local Cobra dealer, or in the U.S.A., you can order directly from Cobra. See order info on page 21.

- Straight 12V DC Power Cord
  Includes plug and fuse
  Item #420-030-N-001

- Windshield Mounting Bracket
  Includes suction cups
  Item #545-159-N-001

- Coiled 12V DC Power Cord
  Includes plug and fuse
  Item #420-026-N-001

- Dual Port Power Adapter
  Includes adjustable plug (up to 90°) & fuse
  Item #CLP-2B