# The Cobra line of quality products includes:

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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** 

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Enalish

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14 BAND™ HIGH-PERFORMANCE **DIGITAL RADAR/LASER DETECTOR WITH XTREME RANGE** SUPERHETERODYNE® TECHNOLOGY

XRS 9470

Part No. 480-663-P Version B

Nothing Comes Close to a Cobra®

Nothing Comes Close to a Cobra®

English

# Important Information and Customer Assistance

### Important Information

#### Federal Laws Governing the Use of Radar Detectors

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.

#### Safety Alert

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.

#### Safe Driving

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.

#### Security of Your Vehicle

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



#### **Customer Assistance**

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. productinfo@cobra.com (e-mail).

#### For Assistance Outside the U.S.A. Contact Your Local Dealer

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**Product Features** 

Superheterodyne® Technology

With super-fast sweep circuitry,

to even the fastest radar guns

XRS provides extra detection range

**Detection and Separate Alerts For:** 

Radar signals (X. K. Ka and Ku bands.

with signal strength indicated), Laser

signals, Safety Alert signals, VG-2

signals. Spectre I & IV+ signals

For 360° detection of laser signals

Detects radar ouns with "instant-on"

(very fast) speed monitoring capabilities

Detects the latest super-fast instant-on

and the best possible advance warning

# **Controls. Indicators and Connections**



\* Press and hold for four seconds to access these functions



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

## **Display**



Radar, VG-2, Spectre I & IV+ and Safety Indicators

Xtreme Range

LaserEve®

Instant-On Ready

Pop Detection

single pulse radar guns

With adjustable volume

Tone Alert or Voice Alert®

Strength. Pop, Laser, City/Highway and IntelliMute Pro Mode Indicators Signal Strength 1 (weakest) to 5 (strongest)

Indicator

X & K will light simultaneously when indicating

∖I∕ –**x κ**-Ka v s 〔

XKKaVS (

# Ku detection: UltraBright™ Data Display

Easy-to-read with adjustable brightness

**NOTE: In This Manual** 

When steady

be shown:

he shown:

the display will

When blinking

the display will

#### City or Highway

Modes to reduce false alerts

#### Alert Programming

Easy setting of radar bands to be monitored

### Safety Alert®

Traffic warning system distinguishes important safety alerts from other K band signals

#### Manual Mute or Auto Mute

A mute function of audio alerts

#### IntelliMute®

A mute function reduces false audio alerts by sensing engine RPMs

#### IntelliMute® Pro

Prevents detection by radar detector detectors (RDDs) when traveling at slower speeds

#### Mounting

Mounts easily on windshield or dashboard

# 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.

# Ordering From U.S.A.

Call 773-889-3087 for pricing or visit www.cobra.com.

#### For Credit Card Orders

Call 773-889-3087 [Press one from the main menu] 8:00 a.m. to 5:30 p.m. Central Time, Monday through Friday.

#### Make Check or Money Order Payable To

Cobra Flectronics Attn: Accessories Dept 6500 West Cortland Street, Chicago, IL 60707 U.S.A.

#### To Order Online

Please visit our website: www.cobra.com

Item#	Description
420-030-N-001	Straight 12V Power Cord
420-026-N-001	Coiled 12V Power Cord
545-159-N-001	Windshield Mounting Bracket
CLP-2B	Dual Port Power Adapter

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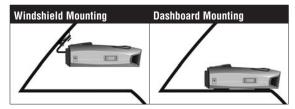
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# Installation

#### Installation

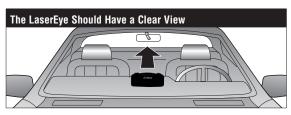
#### Where to Mount Your Unit

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. Make sure the unit is level with the road. 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.

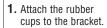
Radar and laser signals pass through glass but not through other materials and objects. Objects that can block or



weaken incoming signals include:

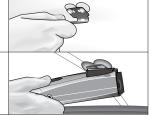
- Windshield wiper blades
- Mirrored sun screens
- Dark tinting at the top of the windshield
- Heated windshields currently available on some vehicles (Instaclear for Ford, Electriclear for GM.) Consult your dealer to see if you have this option.

#### **Windshield Mounting**

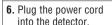


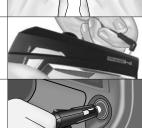


- 2. Make sure the rubber cups and your windshield are clean.
- **3.** Push the bracket firmly onto the windshield.



- **4.** Attach the detector to the bracket. Check the angle of the unit.
- 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



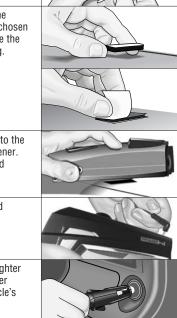


- 7. Plug the cigarette lighter adapter on the power cord into your vehicle's cigarette lighter.
- 8. You can temporarily remove the detector whenever you wish by pressing the bracket release button and sliding it off the bracket.

#### **Dashboard Mounting**

- 1. Place the detector on the dashboard to find a location where the unit has a clear, level view of the road. The angle can NOT be adjusted after mounting.
- 2. Remove the paper backing from one side of the hookand-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.







To Turn On the Unit and Adjust the Audio Volume				
Rotate the On-Off/	Tone	Voice	Visual Display	
<b>Volume</b> control clockwise (away from you).	Three beeps	Testing, then three beeps System Ready, then	h appears in the display indicating that the power is On	
		Voice Alert		



#### 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.

# **Auxiliary Audio Jack**

The Auxiliary Audio Jack can be used to connect external speakers in environments with high ambient noise levels. The internal speaker will be disconnected. (This uses a mini stereo audio connector.)



# **Settings**

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

- Buttons can have multiple functions.
- Depending on your choice of Voice Alert or Tone Alert mode, you will hear either voice messages or tones confirming changes in settings.
- All settings will be stored in memory when the power is turned Off and recalled when the power is turned back On.

# **Highway/City Mode**

Setting your detector to City mode delays all X band audio alerts until the signal strength reaches Level 3. (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 (either in Voice Alert or Tone Alert mode) as you complete each step. The factory setting is **Highway** mode.



To Change From Highway Mode to City Mode				
Press and release	Tone	Voice	Visual Display	
the <b>City</b> button.	One beep	City	C appears	

To Change From City Mode Back to Highway Mode				
Press and release	Tone	Voice	Visual Display	
the <b>City</b> button again.	Two beeps	Highway	h appears in the display	

# **UltraBright Data Display Brightness**

You can choose from three settings for Brightness of the display. You can cycle through the settings by repeatedly pushing the **Dim** button. The factory setting is **Bright**.



To Change the Brightness to Dim				
Press and release	Tone	Voice	Visual Display	
the <b>Dim</b> button once.	One beep	Dim	Display dims	

To Change the Brightness to Dark			
Press and release	Tone	Voice	Visual Display
the <b>Dim</b> button again.	One beep	Dark	Display remains dim (no visual alerts will be seen)

To Change the Brightness to Bright			
Press and release	Tone	Voice	Visual Display
the <b>Dim</b> button a third time.	Two beeps	Bright	Display returns to full brightness

# Your Detector

**Settings** 

# **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



To Turn Auto Mute On				
Press and release	Tone	Voice	Visual Display	
the <b>Mute</b> button again while no alert is occurring.	Two beeps	Auto Mute On	None	

To Turn Auto Mute Off				
Press and release	Tone	Voice	Visual Display	
the <b>Mute</b> button while no alert is occurring.	One beep	Auto Mute Off	None	

#### **IntelliMute**

IntelliMute is a unique feature that allows you to avoid alerts you don't need to hear because you are stopped or moving slowly. By sensing the "revs" (RPMs) of your engine, IntelliMute knows when you are at low speed and automatically mutes audio radar alerts.

Before IntelliMute will work, you must set an activation point for your engine's revs (see page 10). Whenever the revs are below that point, IntelliMute will begin muting. The activation point will be stored in memory and recalled each time the power is turned On. The factory setting is IntelliMute Off.



#### NOTE

IntelliMute may not work with some vehicles because it cannot sense the engine's revs. In such cases, you can reduce unwanted audio alerts by using Auto Mute and City mode when appropriate.



To Turn IntelliMute On				
Press and release	Tone	Voice	Visual Display	
the <b>IntelliMute</b> button.	Two beeps	IntelliMute On	Dot appears next to the large character on the right	

To Turn IntelliMute Off				
Press and release	Tone	Voice	Visual Display	
the <b>IntelliMute</b> button again.	One beep	IntelliMute Off	Dot disappears	

# Settinas

#### What to Remember While Using IntelliMute

**IntelliMute** works with both City and Auto Mute modes.

Whenever your engine revs are below the activation point, the dot next to the large character on the right side of the display will remain lit. Above the activation point, the dot will blink twice every two seconds.

Below Activation Point Above Activation Point





If, for any reason, the unit stops sensing your engine's revs, IntelliMute will indicate an error and automatically turn Off.

The rev point you set will be stored in the unit's memory when power is turned Off and recalled each time the power is turned On.



#### NOTE

The rev point must be reset if you use your detector in a different vehicle.



#### NOTE

When initially choosing your IntelliMute activation point, a setting of approximately 300 to 600 RPMs above idle is recommended. You can reset the activation point at any time to fit your individual preferences and driving style.

#### Setting the IntelliMute Activation Point

Your detector must be installed in your vehicle.



#### CAUTION

Do not attempt to set the rev point while driving. Your vehicle should be parked and idling.

IntelliMute must be turned On before setting the activation point. Depending on whether the unit is in Tone Alert or Voice Alert mode, you will hear a series of beeps or voice messages as you follow the steps on the next page.



and release the

IntelliMute

button.

# **Settings**



IntelliMute Button Press and release

Press and hold the <b>IntelliMute</b> button for two seconds.	Tone	Voice	Visual Display	
	Two beeps	Set Engine Revs	None	
Rev your engine to the level you wish to set (recommend slightly above idle) and hold revs steady for two seconds.	None	None	Three bars will flash in succession 1	
At the desired rev level, press	Three beeps	IntelliMute Set	All three bars flash three times	



If the unit is unable to sense usable pulses within three seconds or if you do not set a rev point within 20 seconds of beginning these steps, IntelliMute will indicate an error and automatically turn Off.

Tone	Voice	Visual Display
Four beeps	IntelliMute Error, followed by	E appears
	IntelliMute Off	хккауѕЕ



#### IntelliMute Pro

**IntelliMute Pro** prevents detection by radar detector detectors (RDDs) such as VG-2, Spectre I and Spectre IV+ when traveling at slower speeds. It is intended for use by experienced users only.

When IntelliMute Pro is turned On, and engine RPMs are below the IntelliMute activation point, your detector's radar detection circuits are turned Off to prevent detection by RDDs.

Before IntelliMute Pro can be turned On, you must have turned On and Set the IntelliMute activation point. (See pages 9 through 11.)

#### **CAUTION**

When IntelliMute Pro is On, **NO** radar signals will be detected and **NO** alerts will be given at RPMs **below** the IntelliMute activation point.



#### To Turn IntelliMute Pro On

While no signal	Tone	Voice
is being detected, press and hold both the <b>IntelliMute</b> and <b>City</b> buttons for four seconds.	Two beeps	IntelliMute Pro On

#### To Turn IntelliMute Pro Off

Press and hold both	Tone	Voice	Visual Display
the <b>IntelliMute</b> and <b>City</b> buttons for four seconds.	One beep	IntelliMute Pro Off	<b>c</b> or <b>h</b> will show steady



# Voice/Tone Setting

You can set your detector to sound alerts with either a **Voice** or a **Tone**. You can change settings by using the **Mute** button. In Voice Alert mode, you will first hear several tones, then a voice message announcing the type of signal detected, followed by more tones. In Tone Alert mode, you will hear the tones only. The factory setting

#### To Change From Voice Alert to Tone Alert

While no signal	Tone	Voice	Visual Display
is being detected, press and hold the <b>Mute</b> button for two seconds.	One beep	Tone Alert	None

While no signal	Tone	Voice	Visual Display
is being detected, press and hold the <b>Mute</b> button for two seconds again.	None	Voice Alert	None

## VG-2 and Spectre I & IV+ Alert Settings

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

Your detector **can** be spotted by Spectre IV+ RDDs, but is invisible to VG-2 and Spectre I RDDs. You can choose whether you want to be alerted to VG-2 and Spectre I & IV+ RDD signals. The factory setting for VG-2 and Spectre I & IV+ alerts is Off.

#### To Turn VG-2 and Spectre I & IV+ Alerts On and Off

	Tone	Voice	Visual Display
e	On = Two Beeps	Spectre VG-2 On	<b>V</b> will blink twice in the display
	Off = One Beep	Spectre VG-2 Off	<b>V</b> will blink once in the display

Visual Display

c or h will blink



# Settings and Detection

### **Radar Alert Settings**

The detector allows you to choose whether it will show **alerts on the X, K** and **Ku bands**. The factory settings are: X Band and K Band On; Ku Band Off.

TΛ	Turn	Y	Band	On	and	Off

the <b>Dim</b> and <b>Mute</b>	Tone	Voice	Visual Display
	X On = Two beeps	X On	<b>X</b> will blink twice in the display
	X Off = One beep	X Off	<b>X</b> will blink once in the display

#### To Turn K Band On and Off

While no signal is being detected, press and hold both the <b>Mute</b> and <b>City</b> buttons for four seconds.	Tone	Voice	Visual Display
	K On = Two beeps	K On	<b>K</b> will blink twice in the display
	K Off = One beep	K Off	<b>K</b> will blink once in the display

#### To Turn Ku Band\* On and Off

While no signal is	Tone	Voice	Visual Display	
being detected, press and hold the City button for four	Ku On = Two beeps	Ku On	<b>X</b> and <b>K</b> will blink twice in the display	
seconds.	Ku Off = One beep	Ku Off	X and K will blink once in the display	

# **Pop Alert**

The Pop Mode Radar Gun is a single-pulse Doppler radar that is a feature of a K and Ka (Bee III Ka radar gun) band Instant-On radar gun. It uses a single, short-time pulse to measure the target vehicle's speed.

The Pop mode receiver senses Pop singles beyond the effective range of Pop radar guns. As the Pop mode receiver is so sensitive, you should limit the use of Pop Detect mode to highway and rural driving.

**Pop Alert** will alert you to Pop radar signals. During the alert, the unit continues to detect other signals. The factory setting is Pop Detect Off.

#### Pop Alert (continued)

To Turn Pop Alert On and Off			
While no signal is being detected, press and hold both the <b>Dim</b> and <b>City</b> buttons for four seconds.	Tone	Voice	Visual Display
	Pop On = Two beeps	Pop On	P will blink twice in the display
	Pop Off = One beep	Pop Off	P will blink once in the display

#### **Detection**

The tables on the following pages show you the types of **Signals** your detector will detect, as well as the voice and visual alerts it provides for each of them.

In **Voice Alert** mode you will first hear several tones, then a voice message announcing the type of signal detected, followed by more tones. In **Tone Alert** mode, you will hear the tones only.

In both Voice Alert and Tone Alert modes, a distinctly different alert tone is used for each type of signal detected (including separate tones for each laser signal). For X, K, Ka and Ku 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 18.)

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

X Signal Detected



K Signal Detected



Ka Signal Detected



Ku Signal Detected



# Detection

During pop alerts, the letter P will appear; and during laser alerts, the letter **L** will appear, instead of the signal strength indication.

POP Signal Detected

Laser Signal Detected

x K Ka V S P



During VG-2 or Spectre I or IV+ alerts, the letter **V** will appear. It will be steady during VG-2 and blink during Spectre I or IV+. VG-2 Alert Signal Detected

Spectre I or IV+ Alert Signal Detected





During Safety Alert, the letter **S** will appear.

Safety Alert Signal Detected



Radar Signals, Voice and Visual Displays

Type of Signal	Voice	Visual Display
X Band Radar	X Alert	<b>X</b> and Signal Strength
K Band Radar	K Alert	<b>K</b> and Signal Strength
Ka Band Radar	Ka Alert	Ka and Signal Strength
Ku Band Radar	Ku Alert	X K and Signal Strength
Pop Radar Mode	Pop Alert	P is Steady

X Signal Detected

K Signal Detected

Ka Signal Detected

Ku Signal Detected









**POP Alert Signal Detected** 





# Spectre I or IV+ Alert Signal Detected



**Detection** 

#### **Laser Signals, Voice and Visual Displays**

Type of Signal	Voice	Visual Display
LTI 20-20*	Laser	L is Steady
LTI Laser*	Laser	L is Steady
Kustom Signals Laser 340*	Laser	L is Steady
Kustom Signals Laser*	Laser	L is Steady
Stalker LIDAR*	Laser	L is Steady
Laser Atlanta SpeedLaser/Kustom Signals-ProLaser II*	Laser	L is Steady

<sup>\*</sup> Your detector provides 360° detection of these signals.

#### Laser Signal Detected





#### NOTE

Beep rate changes with different laser alerts.

#### Safety Alert Signals, Voice and Visual Displays

Type of Signal	Voice	Visual Display
Emergency Vehicles	<b>Emergency Vehicle Approaching</b>	<b>S</b> is Steady
Road Hazards	Road Hazard Ahead	<b>S</b> is Steady
Trains	Train Approaching	<b>S</b> is Steady

#### Safety Alert Signal Detected

XKKaVS [





There are different tones for each Safety Alert.

### VG-2 and Spectre I or IV+ Alert Signals, Voice and Visual Displays

Type of Signal	Voice	Visual Display
Interceptor VG-2	VG-2 Alert	<b>V</b> is Steady
Spectre I or IV+	Spectre Alert	<b>V</b> Blinks

VG-2 Alert Signal Detected



There are different tones for each alert.

# Detection



#### 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.

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, VG-2, or Spectre I or IV+ nearby.	Exercise caution
Tone instantly begins repeating rapidly.	Radar, VG-2 or Spectre I or IV+ 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
Any Safety Alert.	You are nearing an emergency vehicle, railroad crossing, or road hazard (construction, accident, etc.).	Exercise caution



# **Understanding Radar and Laser**

# **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 24.150 GHz K band

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 and Spectre I & IV+

VG-2 and Spectre I & IV+ are radar detector detectors (RDDs) that work by detecting low-level signals emitted by most radar detectors. Your detector does not emit signals that can be spotted by VG-2 and Spectre I RDDs. However, your detector can be spotted by Spectre IV+ RDDs. Your unit detects signals from these or similar devices and will alert you when such 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 a safety-related concern. Depending on the frequency of the signal emitted, it can indicate a speeding emergency vehicle or train, or a stationary road hazard.

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, trains and road hazards 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.



# Understanding Radar and Laser and Maintenance

# Your Detector

# **Specifications**

## 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?

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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 LIDAR legal to use?

Yes. It is legal in all 50 states.

#### **Maintenance**

### **Maintenance of Your Radar Detector**

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** 

Band	Frequencies			
X Band	10.525	± 0.050	GHz	
K Band	24.125	± 0.125	GHz	
Ka Band	34.700	± 1.300	GHz	
Ku Band	13.435	± 0.035	GHz	
VG-2	11.500	± 0.250	GHz	
Laser	910 ± 50nm 910 ± 50nm 910 ± 50nm 910 ± 50nm 910 ± 50nm 910 ± 50nm	100 125 130 200 238 340	PPS PPS PPS PPS PPS PPS	
Spectre I	13.300	± 0.200	GHz	
Spectre IV/IV+	Not Disclosed			
Safety Alert Traffic Warning	24.070 24.110	± 0.010 ± 0.010	GHz GHz	
System	24.190 24.230	± 0.010 ± 0.010	GHz GHz	

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. 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 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 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 or replaced under warranty.

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 first at 773-889-3087 BEFORE sending the product. This will ensure the fastest turnaround 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. Send the complete unit, including power cord. (It is not necessary to include the mounting bracket.)
- 2. For warranty repair, enclose some form of proof-of-purchase, such as a photocopy or carbon copy of a sales receipt. If you send the original receipt, it cannot be returned.
- 3. Enclose a typed or clearly written description of the problem you are having with your unit, plus the name and address where you want the unit returned.
- **4.** Pack the unit securely to prevent damage during transit. If possible, use the original packing materials.
- 5. Ship prepaid and insured using a traceable carrier such as United Parcel Service (UPS). Federal Express or Insured Priority mail with delivery confirmation. Ship to: Cobra Factory Service, Cobra Electronics Corporation, 6500 West Cortland Street, Chicago, IL 60707 U.S.A.
- **6.** Please allow three to four weeks before contacting us about the status of your service. Call 773-889-3087 for assistance. If your unit is under warranty, it will either be repaired or replaced upon receipt, depending on the model. If your unit is out of warranty, you will receive a letter informing you of the repair or replacement charge.



# Ontional Accessories

## **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 ordering info on page 25.



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°) and fuse Item # CI P-2B



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