




Set/City Button 
 Select/Dim Button 
 Program/Mute Button 



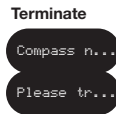
To Calibrate the Compass Using Program Mode (See Page 7 For Instructions on Using Program Mode)

In Program mode, go to Set Compass.	Tone	Visual Display	Voice
	None	Set Compass	None
Press and release the Set/City button to begin setting the compass.	One (1) beep	Drive in 2 circles... Press SET when done...	Set Compass
Within two minutes, drive your vehicle in a circle twice, then press the Set/City button again.	Three beeps	Compass Set! For two seconds followed by direction of travel (N, NE, E, SE, S, SW, W or NW)	Compass Set
Press and release either the Select/Dim button to proceed to the next user mode or the Program/Mute button to exit Program mode.	None	None	None



NOTE
 If you do not press the **Set/City** button within two minutes after beginning the set compass process, compass calibration will automatically terminate.

Tone	Visual Display	Voice
One beep	Compass not set... Please try again...	Compass not set... Please try again...



Pop Alert

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

To Turn Pop Detect Mode On or Off Using Program Mode (See Page 7 For Instructions on Using Program Mode)

In Program mode, go to Pop Detect.

Tone	Visual Display	Voice
Two beeps	Pop On	Pop On
One beep	Pop Off	Pop Off



Ku and X Band Detection

The new **Ku Band** may be introduced to North America in the future. To prevent false alerts until it is, the factory default for **Ku Band** detection is off. In parts of North America, annoying false alerts from door openers and similar devices are triggered on the **X Band**. If desired, **X Band** can be turned off. The factory default for **X Band** detection is on.

To Turn X and/or Ku Mode Off or On Using Program Mode (See Page 7 For Instructions on Using Program Mode)

In Program mode, go to X or Ku band.

Tone	Visual Display	Voice
One beep	X-Band Off	X Off
Two beeps	X-Band On	X On
One beep	Ku-Band Off	Ku Off
Two beeps	Ku-Band On	Ku On


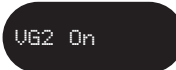


VG-2 Alert

The detector is undetectable by VG-2 detection devices and will alert you when such a device is in use near your vehicle. During the alert, the unit continues to detect other signals. You can choose whether or not you want your unit to show **VG-2 Alerts**. With VG-2 Detect mode on, you can also choose whether or not you want your unit to sound audible VG-2 Alerts. The factory settings are VG-2 Detect on and VG-2 Detect Audio on.



To Turn VG-2 Detect Mode Off or On Using Program Mode (See Page 7 For Instructions on Using Program Mode)

In Program mode,
go to VG-2 Detect.

Tone	Visual Display	Voice
One beep	VG2 Off	VG2 Off
Two beeps	VG2 On	VG2 On
VG-2 Detect Off	VG-2 Detect On	
		

To Turn VG-2 Audio Mode Off or On Using Program Mode (See Page 7 For Instructions on Using Program Mode)

In Program mode,
go to VG-2 Audio.



Tone	Visual Display	Voice
One beep	VG2 Audio Off	VG2 Audio Off
Two beeps	VG2 Audio On	VG2 Audio On
VG-2 Audio Off	VG-2 Audio On	
		

Spectre 1 Alert

The detector is undetectable by Spectre 1 detection devices and will alert you when such a device is in use near your vehicle. During the alert, the unit continues to detect other signals. You can choose whether or not you want your unit to show **Spectre 1 Alerts**. With Spectre 1 Detect mode on, you can also choose whether or not you want your unit to sound audible Spectre 1 Alerts. The factory settings are Spectre 1 Detect on, Spectre 1 Audio on.



To Turn Spectre 1 Detect Mode Off or On Using Program Mode (See Page 7 For Instructions on Using Program Mode)

In Program mode,
go to Spectre 1 Detect.

Tone	Visual Display	Voice
One beep	Spectre Off	Spectre Off
Two beeps	Spectre On	Spectre On
Spectre 1 Detect Off	Spectre 1 Detect On	
		

To Turn Spectre 1 Mode Off or On Using Program Mode (See Page 7 For Instructions on Using Program Mode)

In Program mode,
go to Spectre 1 Audio.

Tone	Visual Display	Voice
One beep	Spectre Audio Off	Spectre Audio Off
Two beeps	Spectre Audio On	Spectre Audio On
Spectre 1 Audio Off	Spectre 1 Audio On	
		

SmartPower

Your detector includes the **SmartPower** feature that, when activated, will put the unit into Standby mode (low power) for about 30 minutes after the car's engine has been turned off. After 30 minutes in Standby mode, the unit will automatically turn off.

SmartPower Entering Standby Mode

Pwr Save

Before SmartPower enters Standby mode, you will hear one beep and **Pwr Save** will appear on the display. To return the unit to normal Power mode or exit Standby mode, start the car, press any button or turn the unit off and then on again. The factory setting is SmartPower on.

To Turn SmartPower Mode Off or On Using Program Mode (See Page 7 For Instructions on Using Program Mode)

In Program mode, go to SmartPower.

Tone	Visual Display	Voice
One beep	SmartPower Off	SmartPower Off
Two beeps	SmartPower On	SmartPower On

SmartPower Off	SmartPower On
...Power off	...Power on

DigiView Data Display Brightness

Your detector has a **Bright** display mode (for daytime driving) and three levels of **Dim** display modes (**Dim** for dusk driving, **Dimmer** for night driving and **Dark** where no visual alerts will be displayed) to control the display's brightness levels. The factory setting is Bright. The factory Dim mode default setting is Dimmer.

Dark Indicator



Select/Dim Button
Press and release

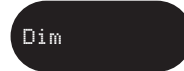


To Change the Brightness to Dim

Press and release the **Select/Dim** button once.

Tone	Visual Display	Voice
Two beeps	Dim, Dimmer or Dark	Dim, Dimmer or Dark

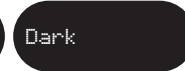
Dim Display



Dimmer Display



Dark Display



NOTE

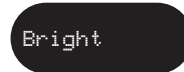
When you change to Dim mode, the unit will enter whichever dim default mode is set at the time.

To Change the Brightness to Bright

Press and release the **Select/Dim** button again.

Tone	Visual Display	Voice
One beep	Bright	Bright

Bright Display



Setting Dim Default

You can set the default level for Dim mode (Dim, Dimmer or Dark) either in Program mode or directly using the **Select/Dim** button.



To Set the Display Dim Mode Default Directly Using the Set/Dim Button		
	Tone or Voice	Visual Display
Press and hold the Select/Dim button	One beep each time the display cycles	Cycles — see chart above
Release the Select/Dim button to select the current display as default.	None	Dim, Dimmer or Dark

To Set the Display Dim Mode Default Using Program Mode (See Page 7 For Instructions on Using Program Mode)

	Tone	Visual Display	Voice
In Program mode, go to Display Dim, Dimmer or Dark.	Two beeps	Dim	Dim
	One beep	Dimmer	Dimmer
	One beep	Dark	Dark

Detection

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.

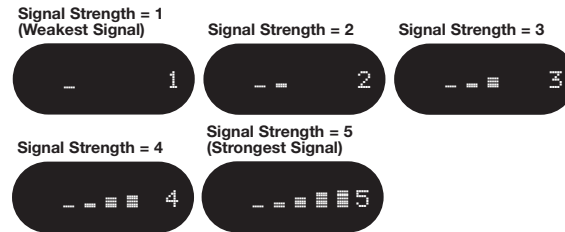
Audio Alerts

A distinctly different **Alert** tone is used for each type of signal detected (including separate tones for each laser signal). For X, K, 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 28.

Visual Display

An indication of the type of signal detected will appear in the DigiView Data Display. During X, K, Ka and Ku alerts, you will also see from one to five vertical bars, indicating the strength of the signal detected.

Signal Strength Chart



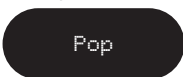
Radar Signals and Visual Displays

Type of Signal	Visual Display	Voice
X Band Radar	X and Signal Strength	X Alert
K Band Radar	K and Signal Strength	K Alert
Ka Band Radar	Ka and Signal Strength	Ka Alert
Ku Band Radar	Ku and Signal Strength	Ku Alert
Pop Radar Mode	Pop	Pop Alert

X Signal Detected K Signal Detected Ka Signal Detected Ku Signal Detected



Pop Signal Detected

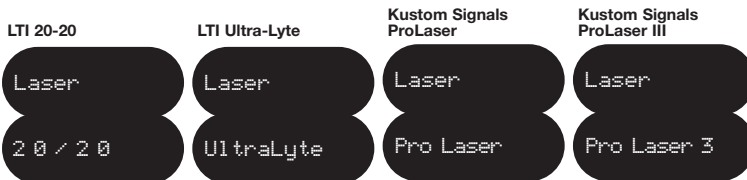


Laser Signals and Visual Displays

Type of Signal	Visual Display	Voice
LTI 20-20*	Laser 20/20	Laser Alert
LTI Ultra-Lyte*	Laser UltraLyte	Laser Alert
Kustom Signals ProLaser*	Laser Pro Laser	Laser Alert
Kustom Signals ProLaser III*	Laser Pro Laser 3	Laser Alert

* Your detector provides 360° detection of these signals.

LTI 20-20 LTI Ultra-Lyte Kustom Signals ProLaser Kustom Signals ProLaser III



 **NOTE**
Beep rate changes with different laser alerts.

Strobe Alert Signals and Visual Displays

Type of Signal	Visual Display	Voice
3M Opticom or Tomar*	Emergency Vehicle	Emergency Vehicle Approaching

* Your detector provides 360° detection of these signals.

Strobe Alert Display (Flashing)



Safety Alert Signals and Visual Displays

Type of Signal	Visual Display	Voice
Emergency Vehicles	Emergency Vehicle	Emergency Vehicle Approaching
Road Hazards	Road Hazard	Road Hazard Ahead
Trains	Train	Train Approaching

Emergency Alert Signal Detected Road Hazard Alert Signal Detected Train Alert Signal Detected




 **NOTE**
There are different tones for each Safety Alert.

VG-2 and Spectre 1 Alert Signals and Visual Displays

Type of Signal	Visual Display	Voice
VG-2 Alert	VG2	VG-2 Alert
Spectre 1	Spectre1	Spectre Alert

Spectre 1 Alert Signal Detected VG-2 Alert Signal Detected



 **NOTE**
There are different tones for each alert.

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.

Pop Detection

Your detector is designed to detect single pulse mode radars. These radars are designed to have a low probability of detection. You should note that these radar guns have a much shorter range while in this mode.

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, Spectre 1 or VG-2 nearby.	Exercise caution
Tone instantly begins repeating rapidly.	Radar, Spectre 1 or VG-2 nearby has been activated suddenly.	FULL ALERT
Pop mode tone.	Pop mode gun very close.	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 or Strobe Alert.	You are nearing an emergency vehicle, railroad crossing, or road hazard (construction, accident, etc.).	Exercise caution

Understanding Radar and Laser

Radar Speed Monitoring Systems

Four 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
Ku band	13.435 GHz

Your detector detects signals in all four radar bands.

VG-2 and Spectre 1

VG-2 and **Spectre 1** are “detector detectors” that work by detecting low-level signals emitted by most radar detectors. Your detector does not emit signals that can be detected by VG-2 or Spectre 1, but does detect VG-2 and Spectre 1 signals and will alert you when a device is in use near your vehicle, if you so choose.

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.

Strobe Alert

Special strobes mounted on the light bars of authorized emergency vehicles (fire trucks, police cars, ambulances) automatically change traffic signals as the vehicle approaches an intersection. These strobes and the special strobe detectors located on the traffic signals, introduced fairly recently by 3M and Tomar, are already in use in more than 1000 cities nationwide. Cobra's exclusive **Strobe Alert** detector will detect these special strobes and give an emergency vehicle alert.

When you receive such an alert, please watch for an approaching emergency vehicle and pull over to allow it to pass. To inquire about coverage in your area, contact your local fire and police departments.

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 LIDAR legal to use?

Yes. It is legal in all 50 states.

Pop Radar Guns

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. Despite the fact that the short, single pulse makes the unit very sensitive to officer hand and vehicle movement and reduces the range of the gun in Pop mode to 50% of its range in Continuous Wave mode, this feature is added in an attempt to make the radar gun invisible to Radar Detectors.

Although your detector can sense Pop signals beyond the effective range of Pop radar guns, there will be a signal to sense only if a gun is triggered. In addition, the Pop mode receiver section is more prone to false alerts because of its extra sensitivity. This is especially so in urban areas. As a result, you should consider using the Pop Detect mode only in highway and rural situations. Cobra Electronics has included a user selectable on or off Pop Detect mode.

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
Safety Alert Traffic Warning System	24.070	± 0.010	GHz
	24.110	± 0.010	GHz
	24.190	± 0.010	GHz
	24.230	± 0.010	GHz
Ka Band	34.700	± 1.300	GHz
Ku Band	13.435	± 0.050	GHz
Laser	910	± 50	nm
Strobe	700	± 300	nm

Unit Dimensions and Weight

Dimensions* (H x W x D)	Weight*
1½" x 3¼" x 4⅞"	6.45 oz.
(38 mm x 78 mm x 124 mm)	(183 g)

* Dimensions and weight measurements are approximate.

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 12 Band Radar/Laser Detectors, and the component parts thereof, will be free of defects in workmanship and materials for 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 12 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 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 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.

Trademark Acknowledgement

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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.



Straight 12V DC Power Cord

Includes plug and fuse
Item # 420-030-N-001



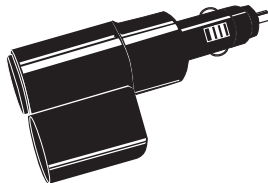
Windshield Mounting Bracket

Includes suction cups
Item # 545-139-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 # CLP-2B