DETECTION SYSTEM Model ESD™-6200



U.S. Patent No. 5,497,148



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1. What You'll Need To Install The ESD-6200:

NOTE: Detailed instructions on opposite side

2. Installing The ESD-6200:



ESD-6200

ON WINDSHIELD

ATTACH CUPS TO BRACKET

ATTACH BRACKET TO WINDSHIELD

ATTACH DETECTOR TO BRACKET

BEND BRACKET FOR CORRECT DETECTION ANGLE (IF NEEDED)

PLUG POWER CORD INTO DETECTOR

PLUG POWER CORD INTO CIGARETTE LIGHTER



Windshield Bracket

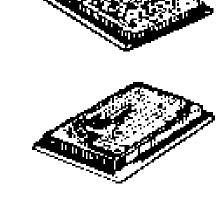
ON DASH

PEEL PROTECTIVE PAPER OFF ONE SIDE OF HOOK AND LOOP

PEEL TOP PAPER OFF

POWER CORD INTO DETECTOR

PLUG POWER CORD INTO CIGARETTE LIGHTER





Hook and Loop Material (For on-dash mounting) **Power Cord**

NEED HELP?

Customer Assistance

If you have any questions about operating or installing your new Cobra product, or if you are missing parts... Please Call Cobra First! DO NOT RETURN THIS PRODUCT TO THE STORE Call our Automated Help Desk at (773) 889-3087 24 hours a day, 7 days a week A Consumer Service Representative can be reached through this same number 8:00 am - 5:00 pm,

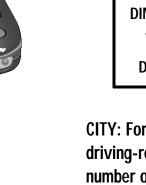
CST Monday through Priday (Except holidays) Technical assistance is also available on-line in the Frequently Asked Questions (FAQ) section at www.cobraelec.com or by e-mail to productinfo@cobreelec.com

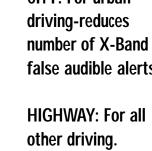
3. Operating The ESD-6200:

A. Turn On and Adjust Volume







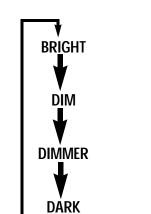


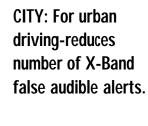




LEDs are briefly illuminated at

Power ON

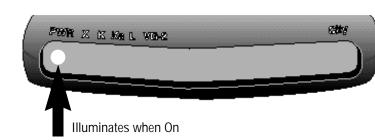




Press to reduce volume of audible alert in progress.



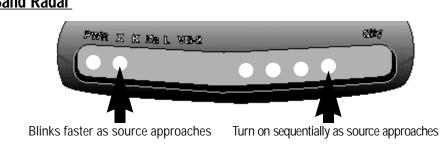
F. Indicators and Visual Alerts



X Band Radar

K Band Radar

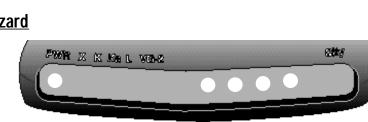
<u>Laser</u>



Road Hazard

City/Highway Mode

<u>VG-2</u>



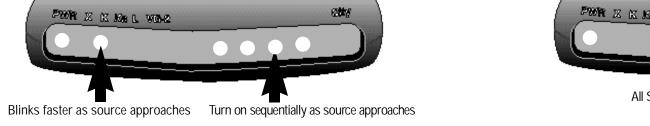
Illuminates when in CITY mode

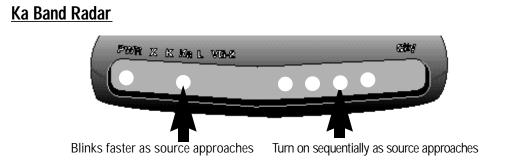
Blinks at a

steady rate

Safety Alert® Warnings

All Signal Meter lights flash simultaneously. This indicates a stationary source.

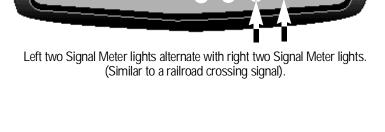




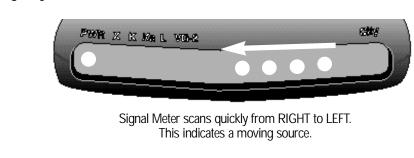
Lights Up

Blinks at a

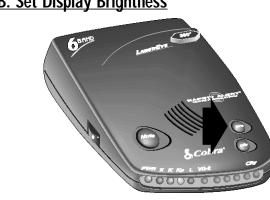
<u>Train</u>

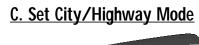


Emergency Vehicle

















ESD-6200.MANUAL.qx 10/23/98 3:48 PM Page 2

prohibited from doing so by Federal Court action.

I. Introduction Congratulations!

IV. Detection Alert

A. Radar/VG-2/Laser Alerts

Type of Audible Signal

Your COBRAESD-6200 starts to signal

Your COBRAESD-6200 signals

Very fast signal rate instantly.

reach hill or bridge.

Laser "chirps."

iust once.

slowly, then increases in rate very rapidly

Slow signal rate as you approach hill or

Short-term, weak signaling; series of such

or train, or at a stationary road hazard location.

standard K-band alert and a Safety Alert.

B. Facts About the Safety Alert *Traffic Warning System

FCC-approved Safety Alert® Transmitters emit microwave radar signals to indicate the presence

of a safety-related concern. Depending on the frequency of these signals, as set on the transmit-

These microwave signals are located in the K-band and as a result, any radar detector which

detects K-band radar will detect these Safety signals as standard K-band radar alerts. However,

Since Safety technology is relatively new and the number of transmitters in operation is not yet wide-

some emergency vehicles, road hazards and trains that are not yet equipped with these transmitters

operating transmitters is growing every day), these Safety Warnings will become more common.

and therefore fail to provide a signal. As Safety transmitters become more prevalent (the number of

spread, you may not receive Safety alerts on a daily basis and should not be surprised to encounter

unlike a standard radar detector, your Cobra ESD-6200 is designed to differentiate between a

ter, the outgoing signal can indicate whether the transmitter is on a speeding emergency vehicle

bridge. Sharp increase in signal rate as you

You have just purchased the most sophisticated RADAR/LASER DETECTOR available today. This booklet contains instructions and information designed so that you will be able to understand how the Cobra ESD™-6200 works and how radar and (LIDAR) laser are used. Enjoy your Cobra ESD-6200 Radar/Laser Detector and DRIVE SAFELY.

Federal Law Governing Use of Radar Detectors It is not against Federal Law to receive radar transmissions on your COBRA Radar Detector. The Communications Act of 1934 guarantees your right to receive radio transmissions on any frequency. Local laws that contravene the Communications Act of 1934, while illegal, may be enforced by your local law enforcement officials until and unless they are

> WARNING: Before leaving your car, make sure that you conceal your radar detector. This will reduce the possibility of break-in and theft of your unit.



Use of this product is not intended to, and does not, ensure that the motorist and any passenger will not be involved in a traffic accident. It is only intended to alert the motorist that an emergency or service vehicle equipped with a CODE 3 or Cobra Safety Alert Transmitter is in the area as defined by the range of the product. Motorists are expected to exercise all due caution while using this product, and to observe and follow all applicable traffic laws. Operators of emergency or service vehicles are also expected to exercise all due caution while using this product, and to observe and follow all applicable traffic laws.

Interpretation and Response

Most likely a false source, or could be pulsed

Radar or VG-2 close by has been suddenly

Most likely police radar on other side of hill

Take **FULLCAUTION**. There are no false

Most likely police radar.

radar. EXERCISE CAUTION.

switched on. FULLALERT.

or bridge. FULLALERT.

EXERCISE CAUTION.

Most likely a false radar source.

FULLALERT.

II. Installation

Selecting the proper location to mount the Cobra ESD-6200 is very important for optimum performance. Both radar and laser transmissions pass through glass but not through other objects. For this reason the Cobra ESD-6200 lens must not be blocked, and it should have a view of the rear window to take advantage of LaserEye 360° detection. It is best to locate your detector in the middle of the front windshield.

Examples of metal in the windshield area that can block or weaken incoming radar/laser

- 1. Windshield wiper blades. Mount your Cobra ESD-6200 so that it will NOT be behind the blades when they are at rest.
- 2. Mirrored sun screens. It is recommended that sun screens be removed, or they may impair the performance of your Cobra ESD-6200 by acting as an impenetrable barrier
- 3. Regular tinted glass does not affect radar reception, although the darker tint at the top of the tinted windshield prevents laser light from penetrating.
- 4. Heated windshields, currently available as an option for some Ford[®] (Instaclear) and GM[®] (Electriclear) vehicles act as an impenetrable barrier to radar signals. (If in doubt, check with your dealer to see if this applies to your vehicle).

B. Mounting 1. Windshield Mounting

C. Radar Frequencies

What is LIDAR?

speed reading.

D. Facts About LIDAR (Laser)

correct name is LIDAR.

· How does LIDAR work?

spread, as shown on the diagram below.

• Does weather have any effect on LIDAR?

sufficiently dense, may prevent its operation

• Can LIDAR operate through glass?

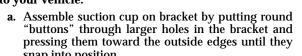
Can LIDAR operate while moving?

• Is a LIDAR DETECTOR legal to use?

Yes, it is legal in all 50 states.

The WINDSHIELD MOUNTING BRACKET offers convenient mounting to windshields and provides for easy movement of detector between vehicles.

Note: Some new vehicles have a soft plastic coating on the inside surface of the windshield. Suction cups can permanently mark this "anti-lacerative" coating. Check with your owner's manual to see if this applies



b. Install bracket to detector: align bracket with slot on rear of detector and slide bracket into opening. To remove bracket from detector, simply pull bracket out of slot.

There are now three frequencies that have been approved by the FCC (Federal

They are: X Band (10.525 GHz), K Band (24.150 GHz), Ka Band (33.400—36.000 GHz)

Your Cobra ESD-6200 can detect signals in all three bands including photo radar and STALKER

LIDAR stands for <u>Light Detection And Ranging</u>. While everyone refers to it as LASER the

LIDAR operates a lot like RADAR. Like RADAR, it spreads out. Not as quickly, but it does

LIDARs must have a clear line of sight to target a vehicle during the entire measurement inter-

val. Intervening objects such as signposts, utility poles, tree branches, etc., will prevent a valid

Yes, rain, snow, smoke, fog, and airborne dust particles will all reduce the effective range, and if

No, LIDAR guns cannot obtain readings through any glass. But the laser pulse can be

No, since LIDAR is line of sight, an officer cannot drive, aim, and shoot while driving.

received through glass to easily and quickly trigger a laser detector's alarm.

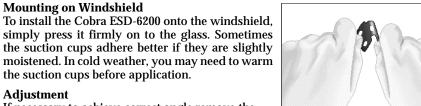
Communications Commission) for use in speed monitoring equipment.

radar which use the Ka band, Cobra Safety Alert signals on the K band, VG-2 and laser.

simply press it firmly on to the glass. Sometimes the suction cups adhere better if they are slightly moistened. In cold weather, you may need to warm the suction cups before application.

and reinstall your Cobra ESD-6200 detector at any time.

c. Mounting on Windshield



d. Adjustment If necessary to achieve correct angle, remove the detector from the bracket and the bracket from the windshield. Adjust the bracket

DO NOT BEND THE BRACKET USING THE ESD-6200 AS A LEVER.

To remove the Cobra ESD-6200 from your windshield, release each suction cup by lifting one edge with your finger, or by pulling on tab. **Dashboard Mounting**

Mounting your ESD-6200 to the dashboard of your vehicle requires a clear, level unobstructed view of the road for the detector, without blocking the driver's vision. Select a mounting position that allows the detector to have a clear view of the road ahead. Using the hook and loop material provided, proceed as follows: (See illustration on reverse side)

a. Remove backing from one side and apply to dash. b. Clean dashboard with common rubbing alcohol to remove dirt and grease. Remove backing from other side and place detector on top. Let adhesive set. Note: With this hook and loop material dashboard mounting, it's easy for you to remove

Remember: Without means to adjust the angle of the detector (when mounted as above), be sure that your Cobra ESD-6200 has a level, clear view of the road before you attach the hook and loop material.

V. Maintenance

Your COBRAESD-6200 RADAR/LASER DETECTOR will give you years of trouble-free service with minimum maintenance.

Replacing Power Cord Fuse Unscrew cap of cigarette lighter adapter and remove fuse. Replace with 1-ampere fuse only.

If your COBRALASER DETECTOR ESD-6200 isn't operating, we suggest you make the follow-

1. Is the power cord properly connected? 2. Is the fuse OK?

3. Is the cigarette lighter socket clean and free from corrosion?

Limited One Year Warranty

COBRA ELECTRONICS CORPORATION warrants that its COBRAradar detectors, and the component parts thereof, will be free of defects in workmanship and materials for a period of one (1) 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 detectors, products or component parts upon delivery to the COBRAfactory 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. For further details concerning procedures for obtaining service, see the "If You Think You Need Service" section of the Owner's Manual.

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.

COBRA ELECTRONICS CORPORATION

III. Operation

A. Band Detection

This detector is designed to detect X, K, Superwide Ka Band Radar, Laser, VG-2, and Safety Alert signals, (Emergency Vehicle, Road Hazard and Train).

B. Signal Strength Meter

The Signal Strength Meter on your detector indicates relative range. The meter is made up of the Visual Alarm Indicators (X, K, Ka, and Laser) for low level radar/laser signals and

the Signal Strength LEDs for stronger signal. C. Audible Alarm Indicator A different alert tone will sound for X, K, Ka, Laser, VG-2 and Safety signals (Emergency Vehicle,

Road Hazard and Train). These sounds are demonstrated during the power-on sequence each

time you turn your Cobra ESD-6200 on. The ESD-6200 will announce the reception of speed

monitoring and Safety Alert	signals as follows:		
	Voice Alert Message:		
"Be Careful"	"X Alert "K A "Laser Alert" "VC	Alert" "Ka Alert" G-2 Alert"	
"Be Careful"	Safety Alert Warnings: "Emergency Vehicle Approaching" "Road Hazard Ahead" "Train Approaching"		

The message "Be Careful..." and the Voice Alert Message will sound at the start of the alert. The Voice Alert Message will be followed by the corresponding Tone Alerts. See Section H for turning off the Voice Mode. D. Instant-on Detection

The Cobra ESD-6200 is also designed to detect Instant-on speed monitoring signals. **Immediate action is required** when warning is given.

E. Power/Volume Control

erly insured.

Plug the Cobra ESD-6200 power adapter cord into POWER connector. Insert other end into cigarette lighter of the vehicle. The POWER/VOLUME CONTROL on the left side of the Cobra ESD-6200 controls power and regulates the audible alert volume. To turn on, turn the thumbwheel away from you. Each time the unit is turned on, an automatic test pattern takes place:

- This pattern consists of the Alarm Indicators and SIGNAL STRENGTH METER illuminating in unison with the audio alarm for two seconds.
- The green POWER LED remains illuminated after the test sequence is completed.

For technical assistance, please call our Automated Help Desk which can assist you by answering the most frequently asked questions about Cobra products. (773) 889-3087 24 hours a day, 7 days a week. A Consumer Service Representative can be reached through this same number 8:00 am - 8:00 pm, Monday through Friday, CST. Technical assistance is also available on-line in the Frequently Asked Question (FAQ) section at www.cobraelec.com or by e-mail to productinfo@cobraelec.com

If You Think You Need Service, Call 773-889-3087

If your product should require factory service please call Cobra first before sending your unit in. This will ensure the fastest turnaround time on your repair. You may be asked to send your unit to the Cobra factory. It will be necessary to furnish the following, in order 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 or sales receipt. If you send the original receipt it cannot be

- 2. Send the entire product. For example-must include detector, bracket with suction cups,
- 3. Enclose a description of what is happening with the unit. Include a typed or clearly
- printed name and address of where the unit is to be returned. 4. Pack unit securely to prevent damage in transit. If possible, use the original packing materi-
- 5. Ship prepaid and insured by way of a traceable carrier (to avoid loss in transit) such as United Parcel Service (UPS), Roadway Parcel Service (RPS), or First Class Insured Mail to Cobra Factory Service, Cobra Electronics Corporation, 6500 W. Cortland St., Chicago, IL 60707. Cobra is not responsible for units not received if package has not been prop-
- 6. If the unit is in warranty, upon receipt of your unit it will either be repaired or exchanged depending on the model. Please allow approximately 3 to 4 weeks before contacting us for status. If the unit is out of warranty a letter will automatically be sent informing you of the repair charge or replacement charge. If you have any questions, please call 773-889-3087 for assistance.

F. VG-2 Undetectable

Some states or municipalities use devices referred to as "VG-2". The VG-2 device detects low level energy radiated by the internal oscillators of radar detectors. The VG-2 device also radiates a similar type of energy. The ESD-6200 detects the VG-2's radiation before the VG-2 can detect the ESD-6200. The ESD-6200 then briefly turns off its internal oscillator, rendering it invisible to the VG-2, and alerts you to VG-2's presence. During these short intervals, the ESD-6200 is not able to receive radar or Safety Alert signals (laser reception is not affected). Once past the VG-2, the ESD-6200 returns to normal operation.

G. Band Alarm Indicators

When the Cobra ESD-6200 detects an X-band radar signal, the red "X" Visual Alarm Indicator (LED) will flash in unison with the X-Band audio tone. When the ESD-6200 detects a K-band signal, the amber "K" Visual Alarm Indicator will flash in unison with the K or Ka Band audio tone. When the ESD-6200 detects a Ka-Band radar signal, the (color) "Ka" Visual Alarm Indicator will flash in unison with the Ka-Band Audio Tone. When the ESD-6200 detects pulses of laser light, the yellow "L" LED will flash in unison with the Laser tone. When VG-2 is detected, the amber "VG-2" LED will flash with an audio tone. When a Safety Alert signal is detected, the pattern of signal meter will indicate that a Safety Alert signal is being received and which type it is.

H. Mute/AutoMute Button **Manual Mute:**

The mute function is controlled by a momentary button. Pressing MUTE will eliminate the audio during the alert. The detector will automatically reset to normal operation after the alert has passed. It will also reset to normal any time the detector is turned off.

When in AutoMute the unit will reduce the audible sound by half after four seconds of the warning. This feature is switchable

Switching from AutoMute/Manual Mute:

When no signal is present, pressing this button for less than 2 seconds will switch the unit between AutoMute Mode and Manual Mute. A double beep will confirm unit is in AutoMute and a single beep will confirm unit is in Manual Mute Mode. When in the Voice Mode, the ESD-6200 will announce "Auto Mute" or "Mute".

Switching from Tone/Voice+Tone:

When no signal is present, pressing the button for more than 2 seconds will switch the unit between Tone and Voice+Tone Mode. A "Voice Alert" will confirm Voice+Tone has been selected and a single beep will confirm that Tone Only Mode has been selected.

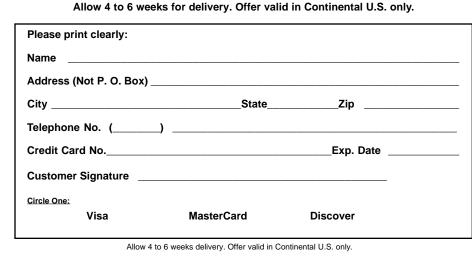
COBRA RADAR DETECTOR ACCESSORIES

Description	Part No.	Cost Ea.	X Qty. = Amount
STRAIGHT DC POWER CORD Including plug/fuse for ESD-6200	420-015-N-001	\$10.00	
CURLED TYPE POWER CORD For ESD-6200	420-026-N-001	\$10.00	
WINDSHIELD MOUNTING BRACKET	545-135-N-001	\$10.00	
(Prices subject to change without notice.)			
★ Illinois residents add 7%		ount	
** Cook County, ILresidents additional .75% (7.75% total) ** Chicago, ILresidents additional 1% (8.75% total)		x if applica	able ^{★★})

★★ Indiana residents add 5% Shipping/handling \$3.75 ★★ Michigan residents add 6 % ★★ Ohio residents add 6% ★★ Wisconsin residents add appropriate %

Make check or money order (no stamps) payable to Cobra Electronics and mail with this order form to: Cobra Accessories Dept. 6500 W. Cortland St., Chicago, IL 60707

Call 773-889-3087, or fax 773-622-2269 for credit card orders



The Highway/City function is controlled by a 2-step momentary button. The Highway mode is automatically engaged when the unit is powered up. To engage City Mode, press down on the Highway/City button. A green LED will light to indicate that the detector is in City Mode. To reactivate the Highway Mode simply press down on the Highway/City button again. The green LED will go dark to indicate that the detector is in Highway Mode. When in the Voice Mode, the ESD-6200 will announce "City Mode" or "Highway Mode" to confirm your selection.

The ESD-6200 will retain the chosen mode while off.

In the Highway Mode, your Cobra ESD-6200 operates at full sensitivity on all three radar bands plus laser In the City Mode, the X-band audio alert sensitivity is lowered to reduce false alerts. In or near cities, there are many sources of false radar signals. Microwave relay towers for telephone and TV signaling, anti-shoplifting systems and bank alarms-all are examples of false

X-band sources. J. Dim/Dark Button

I. City/Highway

You may select from four levels of brightness for your Cobra ESD-6200 display: Bright, Dim, Dimmer, and Dark. The mode that was last set shall be maintained during the time the detector is off. Pressing once on the Dim Button reduces the display brightness to Medium, pressing a second tome reduces it to Low; pressing a third time turns the display Off; pressing a fourth time returns the display to High. When in the Voice Mode, the ESD-

6200 will announce "Bright", "Dim", "Dimmer" and "Dark" to confirm your selection.

K. Audio Output Jack Use to connect an external speaker to the ESD-6200 in environments with high ambient noise levels. The internal speaker will be disconnected. The audio output will be voice or tone depending on your selection.

NOTES



