Installing and Using Your & Cobra® 6 BAND



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



DETECTION SYSTEMModel ESD™-6500



ESD-6500

ON WINDSHIELD

ATTACH BRACKET TO WINDSHIELD

PLUG POWER CORD INTO DETECTOR

PLUG POWER CORD INTO CIGARETTE LIGHTER

NOTE: Detailed instructions on opposite side



ON DASH

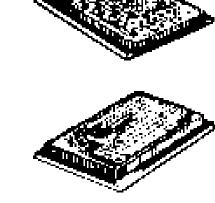
PEEL PROTECTIVE PAPER OFF ONE SIDE OF HOOK AND LOOP

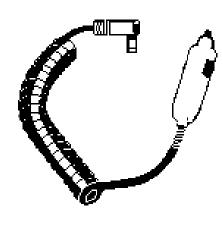
PEEL TOP PAPER OFF

POWER CORD INTO DETECTOR

PLUG POWER CORD INTO CIGARETTE LIGHTER

1. What You'll Need To Install The ESD-6500:





Windshield Bracket

Hook and Loop Material (For on-dash mounting)

Power Cord

2. Installing The ESD-6500: 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 - 8:00 pm,

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

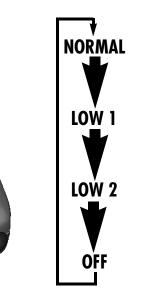
3. Operating The ESD-6500: A. Turn On and Adjust Volume



Display is briefly illuminated in the Test mode at Power ON.

NOTE: For your convenience, Display Dim, City/Highway, and Muting mode settings are retained





C. Set City/Highway Mode



CITY
For urban driving-reduces
number of X-Band audible
alerts.



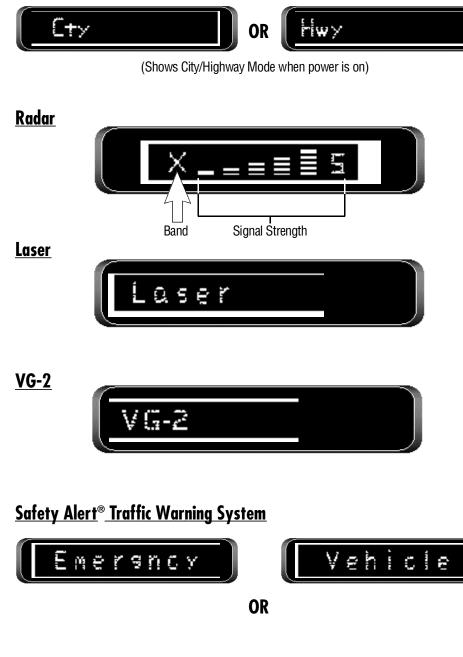


Auto Muting
Automatically reduces
volume of alert in progress
after 3 seconds.

Manual Muting
Press to reduce volume of alert in progress.

To Switch Between Modes
Press the Mute Button when no signal is being received. In Auto mode, the display will show an "M" on the far right.

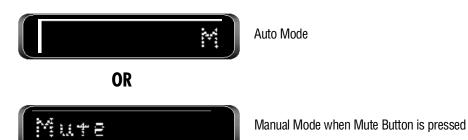
E. Indicators and Visual Alerts











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I. Introduction

Congratulations!

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™-6500 works and how radar and (LÍDAR) laser are used. Enjoy your Cobra ESD-6500 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 prohibited from doing so by Federal Court action.

> **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.

IV. Detection Alert

. Radar/VG-2/Laser Alerts			
Type of Audible Signal	Interpretation and Response		
Your COBRAESD-6500 starts to signal slowly, then increases in rate very rapidly.	Most likely police radar. FULLALERT.		
Your COBRAESD-6500 signals just once.	Most likely a false source, or could be pulsed radar. EXERCISE CAUTION.		
Very fast signal rate instantly.	Radar or VG-2 close by has been suddenly switched on. FULLALERT .		
Slow signal rate as you approach hill or bridge. Sharp increase in signal rate as you reach hill or bridge.	Most likely police radar on other side of hill or bridge. FULLALERT .		
Short-term, weak signaling; series of such signals.	Most likely a false radar source. EXERCISE CAUTION.		
Laser "chirps."	Take FULLCAUTION . There are no false laser signals.		
All Band Indicators illuminate,ESD-6500 double "braps" rapidly.	An emergency vehicle is in the vicinity, you are in the vicinity of a railroad crossing, or you are approaching a road hazard (construction site, accident scene, etc.) .		

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 transmitter, the outgoing signal can indicate whether the transmitter is on a speeding emergency vehicle or train, or at a stationary road hazard location.

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, unlike a standard radar detector, your Cobra ESD-6500 is designed to differentiate between a standard K-band alert and a Safety Alert.

Since Safety technology is relatively new and the number of transmitters in operation is not yet widespread, you may not receive Safety alerts on a daily basis and should not be surprised to encounter some emergency vehicles, road hazards and trains that are not yet equipped with these transmitters and therefore fail to provide a signal. As Safety transmitters become more prevalent (the number of operating transmitters is growing every day), these Safety Alerts will become more common.

II. Installation

A. Location Selecting the proper location to mount the Cobra ESD-6500 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-6500 lenses 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.

1. Windshield wiper blades. Mount your Cobra ESD-6500 so that it will NOT be behind the blades when they are at rest.

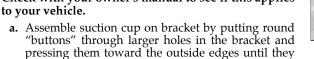
Examples of metal in the windshield area that can block or weaken incoming radar/laser

- 2. Mirrored sun screens. It is recommended that sun screens be removed, or they may impair the performance of your Cobra ESD-6500 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

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 to your vehicle.



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.

C. Radar Frequencies

There are now three frequencies that have been approved by the FCC (Federal Communications Commission) for use in speed monitoring equipmen They are: X Band (10.525 GHz), K Band (24.150 GHz), Ka Band (33.400—36.000 GHz) Your Cobra ESD-6500 can detect signals in all three bands including photo radar and STALKER

radar which use the Ka band, Cobra Safety Alert signals on the K band, VG-2 and laser. D. Facts About LIDAR (Laser)

What is LIDAR? LIDAR stands for Light Detection And Ranging. While everyone refers to it as LASER the

correct name is LIDAR.

How does LIDAR work? LIDAR operates a lot like RADAR. Like RADAR, it spreads out. Not as quickly, but it does spread, as shown on the diagram below.



LIDARs must have a clear line of sight to target a vehicle during the entire measurement interval. Intervening objects such as signposts, utility poles, tree branches, etc., will prevent a valid speed reading.

- Does weather have any effect on LIDAR?
- Yes, rain, snow, smoke, fog, and airborne dust particles will all reduce the effective range, and if sufficiently dense, may prevent its operation. Can LIDAR operate through glass?
- No, LIDAR guns cannot obtain readings through any glass. But the laser pulse can be received through glass to easily and quickly trigger a laser detector's alarm.
- Can LIDAR operate while moving?
- No, since LIDAR is line of sight, an officer cannot drive, aim, and shoot while driving. • Is a LIDAR DETECTOR legal to use?
- Yes, it is legal in all 50 states.

c. Mounting on Windshield To install the Cobra ESD-6500 onto the windshield, simply press it firmly on to the glass. Sometimes

d. Adjustment

e. Removal

2. Dashboard Mounting

tion on reverse side)

attach the hook and loop material.

V. Maintenance

with minimum maintenance

Replacing Power Cord Fuse

2. Is the fuse OK?

1. Is the power cord properly connected?

Need Service" section of the Owner's Manual.

tions may not apply to you.

purpose are limited in duration to the length of this warranty.

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

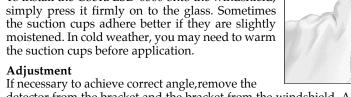
consumer purchaser, provided that the product is utilized within the U.S.A.

the date of first consumer purchase, such as a duplicated copy of a sales receipt.

ing checks:



the suction cups before application. If necessary to achieve correct angle, remove the



DO NOT BEND THE BRACKET USING THE ESD-6500 AS A LEVER.

lifting one edge with your finger, or by pulling on tab.

a. Remove backing from one side and apply to dash.

and reinstall your Cobra ESD-6500 detector at any time.

To remove the Cobra ESD-6500 from your windshield, release each suction cup by

Mounting your ESD-6500 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 illustra-

b. Clean dashboard with common rubbing alcohol to remove dirt and grease.

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 you that your Cobra ESD-6500 has a level, clear view of the road before you

Your COBRAESD-6500 RADAR/LASER DETECTOR will give you years of trouble-free service

If your COBRALASER DETECTOR ESD-6500 isn't operating, we suggest you make the follow-

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

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

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 war-

ranty. For further details concerning procedures for obtaining service, see the "If You Think You

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

All implied warranties, including warranties of merchantability and fitness for a particular

COBRA shall not be liable for any incidental, consequential or other damages; including,

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 limita-

COBRA ELECTRONICS CORPORATION

6500 W. Cortland Street, Chicago, Illinois 60707

without limitation, damages resulting from loss of use or cost of installation.

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

Remove backing from other side and place detector on top. Let adhesive set.



detector from the bracket and the bracket from the windshield. Adjust the bracket



B. LED Text Display The ESD-6500's state-of-the-art LED dot matrix display presents clear text messages even in sunlight. A four position Dim mode is provided for dusk or night driving (please see "I. Dim Button" for details).

III. Operation

A. Band Detection

Safety Alert signals.

The display shows the band (X, K or Ka) signal strength in bar form, and a numerical indication of signal strength. e display does not indicate Laser VG-2

This detector is designed to detect X, K, Superwide Ka Band Radar, Laser, VG-2, and

ignal strength. Safety Alert® Traffic Warning System Emerancy Vehicle

Road Hazard

City, Highway Mode 传统十号

Automatically reduces Pressing the Mute button during an alert will cause the display volume of alert in progress to show "Mute" for three senconds, after which the display will revert to the previous visual message.

C. Audible Alarm Indicator A different alert tone will sound for X, K, Ka, Laser, VG-2 and Safety signals.

D. Instant-on Detection The Cobra ESD-6500 is also designed to detect Instant-on speed monitoring signals. Immediate action is required when warning is given.

> For technical assistance, please call our Automated Help Desk which can assist you by answering the most frequently asked

> > (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

questions about Cobra products.

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 material.
- 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, IL60707. Cobra is not responsible for units not received if package has not been properly insured. 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.

E. Power/Volume Control

Plug the Cobra ESD-6500 power adapter cord into POWER connector. Insert other end into cigarette lighter of the vehicle. The POWER/VOLUME CONTROLon the left side of the Cobra ESD-6500 controls power and regulates the audible alert volume. To turn on, turn the thumbwheel away from you.

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-6500 detects the VG-2's radiation before the VG-2 can detect the ESD-6500. The ESD-6500 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-6500 is not able to receive radar or Safety Alert signals (laser reception is not affected). Once past the VG-2, the ESD-6500 returns to normal operation.

G. Muting Mode The ESD-6500 offers two Mute modes-Auto and Manual. To switch between them, press the Mute button when no signal is being received. In Auto mode (an "M" is shown in the display) the alarm will be reduced in volume after three seconds. In Manual mode, press the Mute button to reduce volume. In either mode, the next alarm will begin with normal volume. The ESD-6500 will retain the chosen mode while Off.

mode is automatically engaged when the unit is powered up. To engage City Mode, press down on the Highway/City button. To reactivate the Highway Mode simply press down on the Highway/City button again. Adouble beep confirms Highway Mode. The ESD-6500 will retain the chosen mode while Off. In the Highway Mode, your Cobra ESD-6500 operates at full sensitivity on all three radar bands plus laser.

The Highway / City function is controlled by a 2-step momentary button. The Highway

In the City Mode, the X-band audio alert threshold is lowered to reduce false alerts. In or near cities, there are many sources of false radar signals such as microwave relay towers. I. Dim Button

You may select from four levels of brightness for your Cobra ESD-6500 display: Normal, Low 1, Low 2 and Dark. Pressing once on the Dim Button reduces the display brightness to Low 1; pressing a second time reduces it to Low 2; pressing a third time turns the display off; pressing it a fourth time returns the display to Normal. Adouble beep confirms Normal orightness. The ESD-6500 will retain the chosen mode while Off.

COBRA RADAR DETECTOR ACCESSORIES

Description	Part No.	Cost Ea.	X Qty. = Amount
STRAIGHT DC POWER CORD Including plug/fuse for ESD-6500	420-080-N-001	\$10.00	
CURLED TYPE POWER CORD For ESD-6500	420-080-N-002	\$10.00	
WINDSHIELD MOUNTING BRACKET	545-139-N-001	\$7.00	

WINDSHIELD MOUNTING BRACKET	545-139-N-001 \$7.00
(Prices subject to change without notice.)	
★★ Illinois residents add 7%	Amount
 Cook County, ILresidents additional .75% (7.75 Chicago, ILresidents additional 1% (8.75%) 	^{6%} total) % total) (Tax if applicable ^{★★})
** 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

Allow 4 to 6 weeks for delivery. Offer valid in Continental U.S. only.

