

Cobra[®]
CM 300-005
C.P.S. (Cobra Positioning System)



Owner's Manual

NOTE: This device complies with part 15 of FCC rules: Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received including interference that may cause undesired operation.
CAUTION: Modifications or parts not approved by Cobra Electronics Corporation may violate FCC Rules and void authority to operate this equipment.
 This device complies to Canadian Standard ICES-003.
 CAN ICES-3B/NMB-3B.



Thank you for purchasing a CobraMarine C.P.S. (Cobra Positioning System) external GPS receiver. Properly used, this Cobra product will give you many years of reliable service.

You should find all of the following items in the package with your CobraMarine C.P.S. receiver. Included in this package:



CM 300-005 Unit



Cobra Radio GPS Cable



Universal GPS Cable



Owner's Manual



3M Hook & Loop Mounting Pad

Please take a moment to read through this product manual to fully understand how to properly mount and operate your CM 300-005.

How Your CobraMarine[®] C.P.S. Works

The C.P.S. contains a GPS (Global Positioning System) receiver to receive your current position (Latitude and Longitude) anywhere on Earth and convert this information to interface to any fixed mount marine VHF radio using the NMEA 0183 specifications. With it properly connected, in an emergency, your position information will be included in a DSC (Digital Selective Calling) Distress call, alerting the authorities and the vessels around you, allowing assistance to know exactly where you are.

Connecting to the Cobra MR F57 and MR F77 Marine VHF Radios

Your CobraMarine C.P.S. has been designed to Plug-N-Play with the CobraMarine MR F57 and MR F77 fixed mount marine VHF radios.



1. Simply connect the integrated plug of the C.P.S. into the GPS input jack on your MR F57 or MR F77 radio.
2. Turn on your radio and the C.P.S. will automatically be powered by the radio and will automatically acquire the GPS satellite signals.
3. The MR F57 will automatically display your current position after the C.P.S. acquires your position.
4. Since the MR F77 radio already has a built-in GPS receiver, you will need to go into the GPS setup menu and turn off the internal GPS to use the C.P.S. input.
5. Be sure to use electrical tape or heat shrink tubing to secure and water proof the connections.

Connecting to a CobraMarine MR F45-D, MR F75-D, MR F80-D fixed Mount Radio

Your CobraMarine C.P.S. has been designed to plug into your CobraMarine MR F45-D, MR F55-D, and MR F75-D fixed mount marine VHF radios with one extra step of connecting the C.P.S. power wires to your boats DC power.



1. Connect the C.P.S. plug into the jack of the Cobra Radio GPS cable.
2. Connect the Cobra Radio GPS Cable plug into the jack labeled "GPS" on the back of your CobraMarine[®] radio.



3. Attach the red wire from the C.P.S. power cable to the positive terminal on the boat battery and connect the black wire to negative ground.



4. Your CobraMarine radio will automatically display your current position after the C.P.S. acquires your position.
5. Be sure to use electrical tape or heat shrink tubing to water proof the connections.

Connecting to any NMEA 0183 Compliant Fixed Mount Marine VHF Radio, Chart Plotter, or Other Devices



1. Plug the C.P.S. plug into the jack of the Universal GPS cable.
2. Connect the Yellow wire of the Universal GPS cable to the NMEA 0183 + Data input of your fixed mount VHF marine radio, chart plotter, or other device (see your device owner's manual for wiring and use instructions).
3. Attach the red wire from the C.P.S. power cable to the positive terminal on the boat battery and connect the black wire to negative ground.
4. Next, attach the Red wire from the C.P.S. power cable to power (+13.8VDC) and attach the Black wire to the negative ground.
5. The C.P.S. will automatically start sending your current position after acquiring the GPS satellite position.
6. Be sure to attach the wires securely (soldering is recommended) applying electrical tape or heat shrink tubing to water proof the connections.

Mounting the C.P.S Antenna

The C.P.S. has been designed with a sensitive GPS receiver which allows it to be mounted out of the way, under the console for super easy installation using the included hook & loop mounting pad. This is great for installations on fiberglass boats. If the installation on a boat that has an aluminum or steel pilot house, you may need to mount the C.P.S outside using screws (not included) with the notches provided on the C.P.S. housing.

Specifications

Sensitivity		
(GPS Only)	Tracking & Navigation	-162 dBm
	Reacquisition	-160 dBm
	Cold Start	-148 dBm
	Hot Start	-157 dBm
Horizontal Position Accuracy		
	GPS Without SBAS	< 2.5 Meters
	GPS With SBAS	< 2.0 Meters
Accuracy of Timepulse Signal		
	RMS	30 nS
	99%	< 60 nS
Velocity Accuracy		
		0.1 m/s
Heading Accuracy		
		0.5 Degrees
Dynamics		
		< 4 g
Operational Limits		
	Altitude	50,000 Meters
	Velocity	500 m/s

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, phone 773-889-3087.

Customer Assistance Operators:

English and Spanish. 8:00 a.m. to 5:30 p.m. Central Time, Monday through Friday (except holidays), phone 773-889-3087.

Questions:

English and Spanish. Faxes can be received at 773-622-2269.

Technical Assistance:

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

For Assistance Outside the USA:

Contact Your Local Dealer

Trademark Acknowledgement

Cobra®, CobraMarine® and the snake design are registered trademarks of Cobra Electronics Corporation, USA.

Cobra Electronics Corporation™ is a trademark of Cobra Electronics Corporation, USA.

“3M” is a trademark of 3M Company.

WARNING: This product contains chemicals know to the State of California to cause cancer and birth defects or other reproductive harm.

Limited 3-Year Warranty

For Products Purchased in the U.S.A.

Cobra Electronics Corporation warrants that its Cobra Positioning System (C.S.P.), and the component parts thereof, will be free of defects in workmanship and materials for a period of three (3) years 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 Cobra Positioning System (C.S.P.), products or component parts upon delivery to the Cobra Factory Service Department, accompanied by proof of the date of first consumer purchase, such as a duplicated copy of a sales receipt.

You must pay any initial shipping charges required to ship the product for warranty service, but the return charges will be at Cobra's expense, if the product is repaired, this warranty gives you specific rights, and you may also have other rights which vary from state to state.

Exclusions: This limited warranty does not apply:

1. To any product damaged by accident.
2. In the event of misuse or abuse of the product, or as a result of unauthorized alterations or repairs.
3. If the serial number has been altered, defaced or removed.
4. If the owner of the product resides outside the U.S.A.

All implied warranties, including warranties of merchantability and fitness for a particular purpose are limited in duration to the length of this warranty.

Cobra shall not be liable for any incidental, consequential or other damages; including, without limitation, damages resulting from loss of use or cost of installation.

Some states do not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations may not apply to you.

Product Service

For any questions about operating or installing this new Cobra product, or if parts are missing... **PLEASE CALL COBRA FIRST**... do not return this product to the store. See customer assistance on reverse side of this sheet. If this product should require factory service, please call Cobra before sending the product. This will ensure the fastest turn-around time on any repair. If Cobra asks that the product be sent to its factory, the following must be furnished to have the product serviced and returned:

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

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