

Cobra® microTALK®

Operating Instructions for your

Cobra® microTALK®

2-Way Radio

FRS 120



Nothing comes close to a Cobra™

Family Radio Service

Family Radio Service

Ever wish you could talk to someone who wasn't within earshot? Like contacting ski partners back at the lodge? Or letting a friend know how to find you in a busy mall? Cobra®'s microTALK® FRS 120 is a great way for friends or family to have fun and be safe by staying in touch while on the go.

The FCC (Federal Communications Commission) has created 14 license free frequency bands, or channels, called Family Radio Service (FRS) frequencies. These channels are in the UHF (Ultra High Frequency) band which means great penetration through buildings, thick forests, hills, and other dense structures. They are also FM (Frequency Modulation) signals which means crystal clear reception even in crowded, noisy environments.

FCC Warnings

Replacement or substitution of transistors, regular diodes or other parts of a unique nature, with parts other than those recommended by Cobra®, may cause a violation of the technical regulations of part 95 of the FCC Rules, or violation of Type Acceptance requirements of Part 2 of the Rules.

Included with your microTALK®

1. Belt Clip
2. Wrist Strap
3. Two microTALK® SNAP™™ removable fronts.

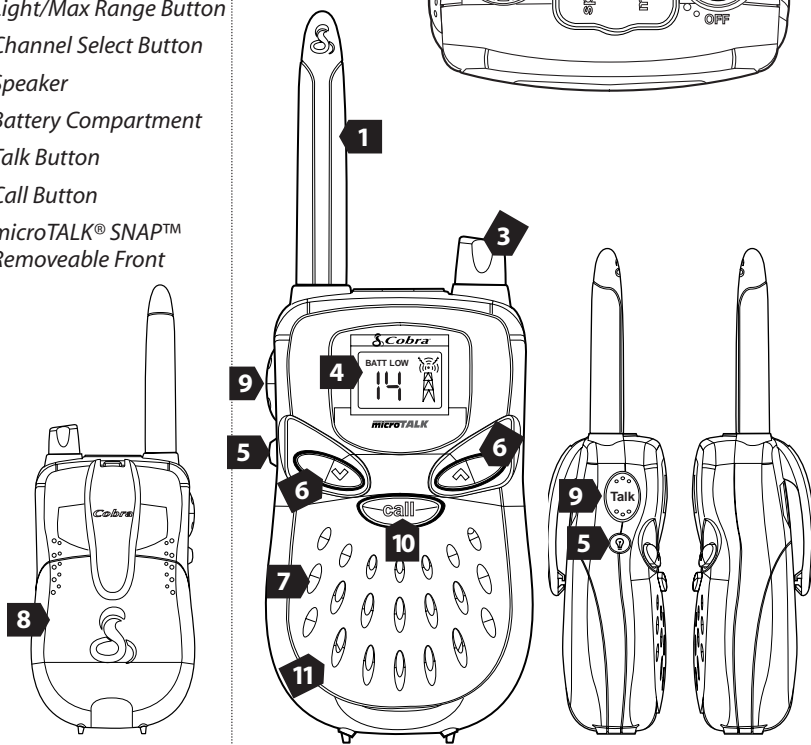
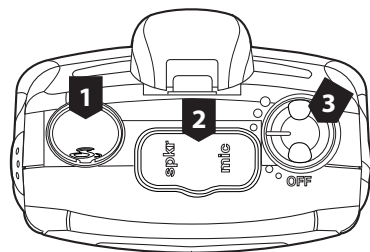
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Features of This Product

- Two-way radio with up to a 2 mile range
- 14 channels
- Backlit LCD
- Roger beep confirmation tone
- Call feature
- SuperFlex™ antenna
- Speaker/Microphone jacks
- Belt clip
- Wrist strap

1. Antenna
2. Microphone/Speaker Jack
3. On/Off Volume Switch
4. LCD Display Panel
5. Light/Max Range Button
6. Channel Select Button
7. Speaker
8. Battery Compartment
9. Talk Button
10. Call Button
11. microTALK® SNAP™ Removeable Front



Thank you for purchasing the Cobra® FRS 120 2-Way Radio. Your microTALK® radio comes with the new microTALK® SNAP™ removable front, which allows you to customize the appearance of your radio! Several color choices are included with your purchase. For instructions on removing the microTALK® SNAP™ front, see page 11. For additional color choices available as accessories (sold separately), please see the brochure and order form included.

Customer Support

Properly used, this Cobra® product will give you years of reliable service. Should you encounter any problems with the product or not understand its many features, please refer to this owner's manual. If, after referring to the manual, you still need help, call Cobra® Customer Service at 773.889.3087.

Cobra® Customer Service

Live operators are available
M-F 8:00 am - 6:00 pm CST
at: 773.889.3087

Automated Technical
Assistance available 24
hours a day, seven days a
week. E-mail questions to:
productinfo@cobra.com

Cobra® on the World Wide
Web: Frequently Asked
Questions (FAQ) can be
found on-line at:
www.cobra.com

Battery Installation

Note

Batteries are not included with microTALK® 2-way radio. Always use 3 high quality AA alkaline batteries or optional battery pack (sold separately).

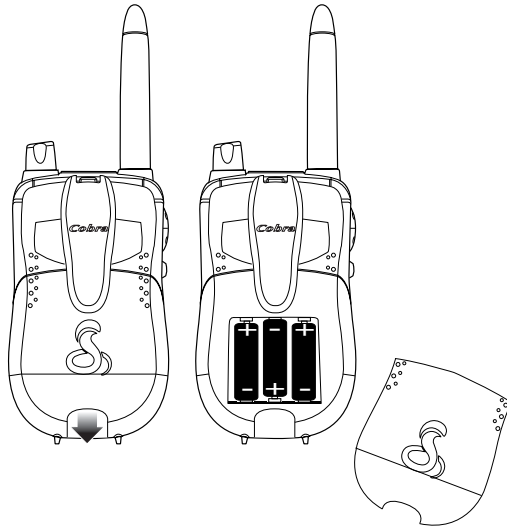
Note

When batteries are low the BATT LOW indicator will blink.

Note

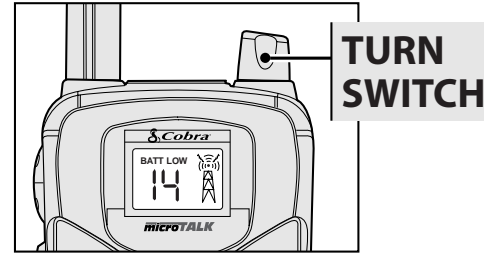
Visit Cobra® Electronics (www.cobra.com) for information about optional battery pack and desktop charger accessories.

Install Batteries



- 1 Pull lock tab down to remove battery cover.
- 2 Insert three "AA" batteries. Position batteries according to polarity markings.

Turning On Your microTALK®



- 1 Turn the On/Off/Volume switch. An audible "tone" will indicate the unit is on.

Illuminating the Display



- 1 Push and release  LIGHT/MAX RANGE button to illuminate display for ten seconds.

Turning On Your microTALK®

Note

Whenever the unit is on you can receive communications.

Illuminating the Display

Auto Squelch

Auto Squelch

Your microTALK® is equipped with Auto Squelch, which automatically shuts off weak transmissions and unwanted noise due to terrain conditions or if you have reached your range limit.

Maximum Range Extender

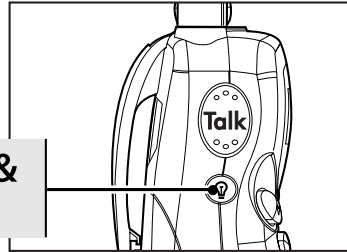
Maximum Range Extender

Auto Squelch can be temporarily removed to allow all signals to enter (Maximum Range Extender).

Note

To learn more about the range of your microTALK®, see page 9.

Range is dependent on battery condition and geographic terrain.



- 1 Push and hold  LIGHT/MAX RANGE button to allow all signals to enter.

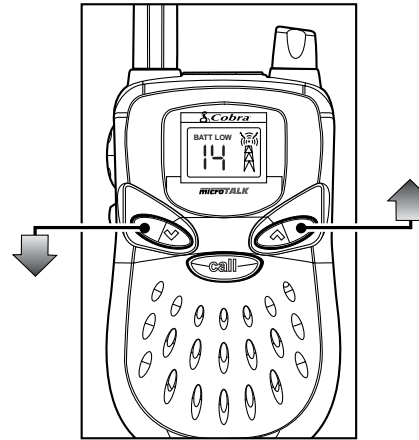
Auto Monitor

Auto Monitor

When the signal you want to hear is consistently weak, you may place the radio in Maximum Range mode without having to constantly hold the button: Press and hold the Maximum Range Extender button for five seconds. Two beeps confirm Auto Monitor is on. To return to normal operation, momentarily press the Maximum Range Extender button again or change channels.

Select Channel

- 1 Turn on the microTALK® 2-Way Radio.



- 2 Select any of the 14 channels by pushing the channel up or down buttons.

Select Channel

Note

Units must be tuned to the same channel number in order to communicate.

Calling Another Party

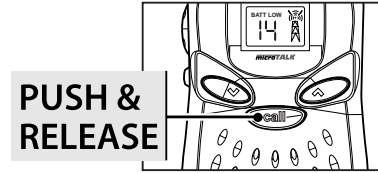
Note


Both units must be ON and tuned to the same channel.

Your incoming "Call" signal volume is dependent on the unit volume setting.

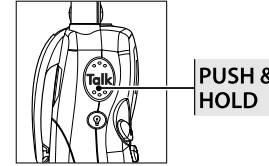
Calling Another Party


To alert another party that you wish to communicate:

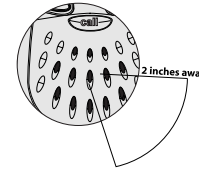


- 1 Push and release  CALL button. The unit you are calling will hear a two second ringing tone.

Talking To Another Party



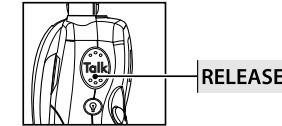
- 1 Push and hold  TALK button.



- 3 Hold mic about 2 inches from mouth. Speak in a normal voice.



- 2 The TX/RX indicator will be displayed.



- 4 Release  TALK button and listen for response.

Talking To Another Party


Note

While the  TALK button is depressed you cannot receive incoming calls.

Roger Beep Confirmation Tone

Roger Beep Confirmation Tone



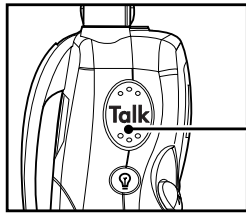
Your listener will hear an audible tone when you release the  TALK button.

This alerts the other party that you are finished talking and it's OK for them to begin talking.

Listening For Another Party


Listening For Another Party


When finished talking:




RELEASE

Note

While the  TALK button is depressed you cannot receive incoming calls.

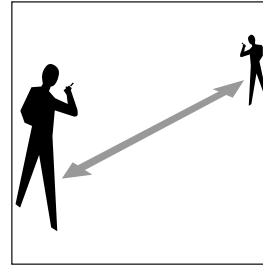
- 1 Release  TALK button to receive incoming transmissions.

Your microTALK® is always in listening mode when the  TALK button is not pressed.

- 2 Adjust volume by *turning* the On/Off Volume Switch

microTALK® Range

Your microTALK® Radio has a range of up to 2 miles. This effective range can be shortened under some conditions.



1. Under flat, open conditions you will experience the microTALK®'s maximum range.



2. Range can be reduced by buildings and foliage in the path of the signal.



3. Range will be further reduced by dense foliage and hilly terrain.

microTALK® Range

Note

To achieve maximum range the auto squelch can be overridden. Refer to *Maximum Range Extender* section on page 4.

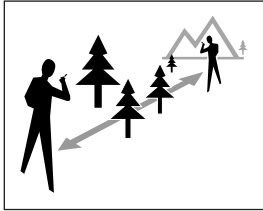
Making Life Easier and Safer

microTALK® 2-Way Radio Can Make Life Easier and Safer

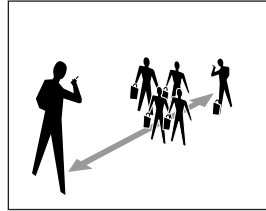
microTALK® 2-Way Radio Can Make Life Easier and Safer

As you become familiar with your microTALK® Radio you will find many of your own uses for the unit.

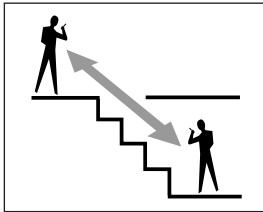
Some suggestions include:



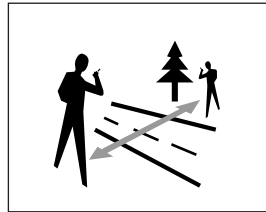
1. Talking with fellow hikers.



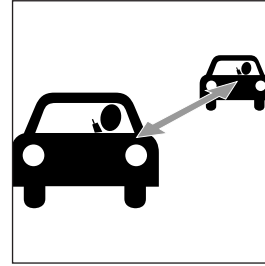
2. Keeping track of the kids in a shopping mall.



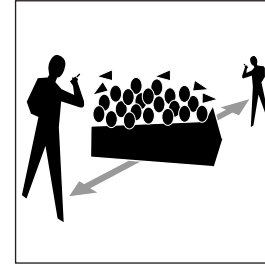
3. Communicating between basement and first, second or third floor.



4. Talking to a neighbor or a friend.



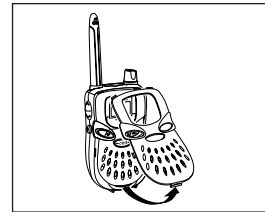
5. Checking on traveling companions in another car.



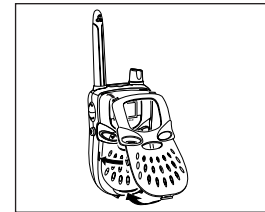
6. Agree on a meeting spot after an event.

microTALK® SNAP™ Removable Front

Your microTALK® Radio comes with the new microTALK® SNAP™ removeable front.



TO REMOVE: Use the slight indentation between the SNAP™ front and bottom front of the unit to lift it off.



TO ATTACH: First engage the tabs into the top of the unit. Next snap in the middle tabs. Finally snap in the bottom tab.

microTALK® SNAP™ Removable Front

External Microphone/ Speaker Jack

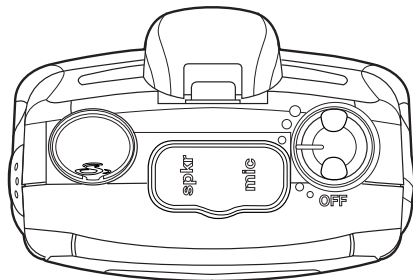
Note

External microphone/
speaker is not included with
the unit. See page 19 for
optional accessories.

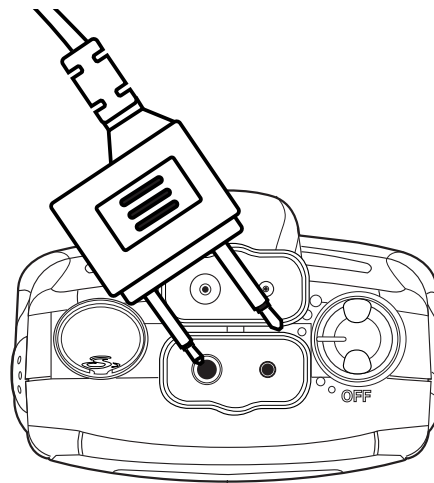
External Microphone/Speaker Jack

Your microTALK® 2-Way Radio can be fitted with an external microphone/speaker, freeing your hands for other tasks.

To attach the external microphone/speaker:



- 1 Open Spkr/Mic tab on top of unit.



- 2 Insert plug into the Spkr/Mic jack.

Caring for Your **microTALK**® Radio

Caring for Your microTALK® Radio

Note

Modifying or tampering with the radio's internal components can cause malfunction and will invalidate the warranty. If your radio is not performing as it should, please call Cobra at 773.889.3087. Do not return the unit to the retailer.

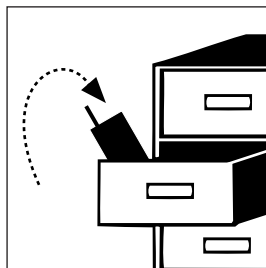
Caring for Your microTALK® Radio

The microTALK® 2-Way Radio will give you years of service if cared for properly.

Here are some suggestions:



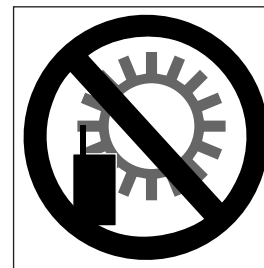
1. Handle unit gently.



2. Keep away from dust.



3. Never place the unit in water or in a moist place.



4. Avoid exposure to extreme temperatures.

I. GENERAL SPECIFICATIONS

A. FREQUENCIES

CHANNEL ASSIGNMENT

CH 1: 462.5625MHz	CH 8: 467.5625MHz
CH 2: 462.5875MHz	CH 9: 467.5875MHz
CH 3: 462.6125MHz	CH 10: 467.6125MHz
CH 4: 462.6375MHz	CH 11: 467.6375MHz
CH 5: 462.6625MHz	CH 12: 467.6625MHz
CH 6: 462.6875MHz	CH 13: 467.6875MHz
CH 7: 462.7125MHz	CH 14: 467.7125MHz

B. RECEIVER

	UNIT	NOMINAL
1. SENSITIVITY		
FOR 12 DB SINAD	dBm	-119
FOR CALL SIG. DETECTION	dBm	-121
2. MAX. AUDIO OUTPUT @10% THD	mW	150
3. MAX. S/N RATIO @ 1mV RF INPUT	dB	45
4. SQUELCH		
a) SENSITIVITY	dB m	-121
b) ATTACK TIME	mS	150
c) CLOSING TIME	mS	200
5. AUDIO FREQUENCY RESP.		
@ 300 HZ	dB	-3
@ 2500 HZ	dB	-10
6. SIGNAL DISPLACEMENT BW	+/-KHZ	5
7. ADJACENT CH. REJECTION	dB	55
8. INTERMODULATION REJECTION	dB	55
9. SPURIOUS RESPONSE REJECTION	dB	65

C. TRANSMITTER

	UNIT	NOMINAL
1. EFFECTIVE RADIATED POWER	mW	500
2. CARRIER FREQ. STABILITY	±Hz	500
3. MODULATION LIMITING	KHz	2.5
4. CARRIER ATTACK TIME	mS	30
5. AUDIO FREQUENCY RESPONSE		
@ 300 HZ	dB	-10
@ 2500 HZ	dB	4
6. AUDIO DISTORTION	%	3
7. HUM NOISE	dB	38
8. TRANSIENT FREQ. BEHAVIOR		
a) TX ON	mS	30
b) TX OFF	mS	5

D. POWER SUPPLY

1. BATTERY LIFE (1:1:18 RATIO)	HR	24
2. BATTERY OPERATING RANGE	V	3.2 - 4.5

Limited Two Year Warranty

Optional Accessories



Cobra® Electronics Corporation

6500 West Cortland Street
Chicago, Illinois 60707 USA

COBRA® ELECTRONICS CORPORATION warrants that its COBRA® FRS Radios, and the component parts thereof, will be free of defects in workmanship and materials for period of two (2) 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.

COBRA® will, without charge, repair or replace, at its option, defective FRS radios, 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 legal 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.

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.



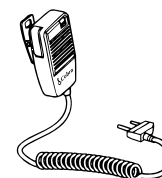
Vox Headset Mic

VOX (Voice Operated Transmitter) headset and microphone allows hands-free operation.
MA-VOX



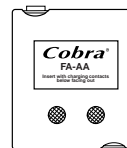
Ear Bud Mic with PTT

Compact earbud and microphone with Push-to-Talk switch.
MA-EBM



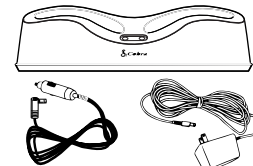
Lapel Speaker/Microphone

Remote microphone/speaker with Push-to-Talk switch.
MA-SM



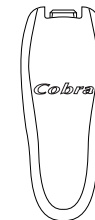
NiMH Rechargeable Battery Pack

High performance Nickel Metal Hydride battery pack for multiple charging.
FA-AA



2 Port Desktop Charger

Charges two NiMH battery packs. Battery pack must be removed from FRS120 for recharging. (Note: appearance may vary)
FA-CS



Replacement Belt Clip

FA-BC2

You Can Find These Fine Accessories At Your Local Cobra® Dealer

If you wish, you can order directly from Cobra®.

Order by phone

Call 773.889.3087 (Press 1 from the main menu) 8 a.m.-6 p.m. M-F CST.)

Order by mail or fax

Call 773.889.3087 for pricing. Fill out order form on next page, and mail/fax directly to Cobra®.

Order over the Web

www.cobra.com

Accessory Order Form

Shipping & Handling

Amount of Order	Shipping/Handling
\$25.00 and under	\$4.75
\$25.01 - \$40.00	\$6.95
\$40.01 - \$80.00	\$9.25
\$80.01 - \$120.00	\$10.25
\$120.01 - \$160.00	\$11.75
\$160.01 and up	\$14.50

For AK, HI and PR please add an additional \$15.00 for UPS shipments.

Item #	Description	Cost Ea.	Qty.	Amount
MA-VOX	Vox Headset Mic			
MA-EBM	Ear Bud Mic with PTT			
MA-SM	Lapel Speaker/ Microphone			
FA-AA	Battery			
FA-CS	Charger			
FA-BC2	Replacement Belt Clip			

Prices subject to change without notice.

Tax Table

Illinois residents add 8.75%
 Indiana residents add 5%
 Michigan residents add 6%
 Ohio residents add 5%
 Wisconsin residents add 5%

Subtotal _____
 (Tax if applicable) _____
 Shipping/handling _____
Total _____

For credit card orders fill out order form and fax to: 773.622.2269 or call 773.889.3087 (Press 1 from the main menu) 8:00 am - 6:00 pm, M-F, CST.

Make check or money order (no stamps) payable to:
 Cobra® Electronics
 Attn: Accessories Dept.
 6500 West Cortland Street
 Chicago, IL 60707 USA

Please print clearly

Name _____

Address (No P.O. Box) _____

City _____ State _____

Zip _____ Telephone (____) _____

Credit Card No. _____

Exp. Date _____

Customer Signature _____

Circle One: Visa MasterCard Discover

Allow 2-3 weeks for delivery. Offer valid in Continental U.S. only.



Cobra® Electronics Corporation
6500 West Cortland Street
Chicago, IL 60707 USA

The Cobra® line of quality products also includes:

- Citizens Band Radios
- microTALK® Radios
- Radar/Laser Detectors
- GPS
- SafetyAlert® Traffic Warning Systems
- Accessories
- HighGear™ Accessories

Nothing comes close to a Cobra™

If You Think You Need Service

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 - 6:00 pm, Monday through Friday, CST.

Technical assistance is also available on-line in the Frequently Asked Questions (FAQ) section at www.cobra.com or by e-mail to productinfo@cobra.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 turn-around 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 of a sales receipt. If you send the original receipt it cannot be returned.
2. Send the entire product.
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 such as United Parcel Service (UPS) or First Class Mail to avoid loss in transit to: Cobra® Factory Service, Cobra® Electronics Corporation, 6500 West Cortland Street, Chicago, IL 60707 USA.
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.

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