$\mathcal{S}_{\mathcal{S}}Cobra^{\circ}$ micro (ALK° Operating Instructions for Your Cobra $^\circ$ microTALK $^\circ$ 2-WAY RADIO MODEL PR 945 DX Instrucciones operativas del RADIO BIDIRECCIONAL MODELO PR 945 DX &Cobra

Nothing comes close to a Cobra™

<u>Nada</u> se compara a Cobra™

English, pages 1-16 Español, páginas 17-34

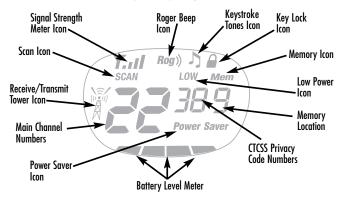
Product Features

ENGLISH

- TWO-WAY RADIO with up to a six (6) mile (10 km) range
- 22 CHANNELS (seven (7) shared with FRS/GMRS, seven (7) FRS only, eight (8) GMRS only)
- 38 CTCSS PRIVACY CODES
- Selectable HI/LOW POWER Output (on all GMRS channels)
- UHF FM Frequencies
- BACKLIT LCD Display
- EXTERNAL SPEAKER/MICROPHONE Jack
- 10 MEMORY LOCATIONS
- FULL CHANNEL/CTCSS SCAN
- MEMORY SCAN

- SIGNAL STRENGTH Meter
- MAXIMUM RANGE Extender
- 10 CALL SIGNAL Selections
- "ROGER BEEP" Confirmation Tone (selectable On/Off)
- KEYSTROKE TONES (selectable On/Off)
- AUTO SQUEICH
- CALL Button
- BATTERY SAVER Circuitry
- LOCK Button
- BELT CLIP
- WATER RESISTANT

BACKLIT LCD DISPLAY



for licensing and

additional information.

Batteries

To install or replace batteries:

- 1. Remove belt clip by releasing belt clip latch and sliding clip down.
- 2. Pull down on the Battery Latch to remove the battery compartment cover.
- 3. Insert four (4) AAA batteries. (Always use high quality alkaline batteries.) Position batteries according to Belt Clip polarity markinas.
- 4. Replace Battery Compartment cover and belt clip.







(NOTE: Contact your local Cobra® dealer or Cobra® directly for optional charger accessories.)

Turning On Your microTALK® Radio

1 Rotate the ON-OFF/VOLUME switch clockwise to turn On the radio (and to



adjust the volume). An audible tone will indicate the radio is On.

Your microTALK® is now in Standby mode, ready to receive transmissions. The radio is always in Standby mode except when the TALK, CALL, or MODE buttons are pressed.

Battery Low

Battery power is indicated by the segments appearing at the bottom of the LCD. As battery power decreases, fewer seaments will be visible. When bA Lo begins to flash, the batteries should be replaced. If you are using rechargeable batteries, they should be recharged.



Auto Battery Save

Your microTALK® radio has a unique circuit designed to extend battery life. If there are no transmissions within ten (10) seconds, the radio will automatically switch to Battery Save mode and POWER SAVER will appear in the display. This will not affect the radio's ability to receive incoming transmissions.



Selecting a Channel

Channels 1-7 are shared with FRS/GMRS. Channels 8-14 are FRS only. Channels 15-22 are GMRS only. (IMPORTANT: See page 16 for FRS/GMRS frequency allocations and compatibility chart.)

CHANNEL SELECT

Button

1. With the radio On select any of the 22 channels by pushing the

CHANNEL SELECT button up or down.

(NOTE: Both radios must be tuned to the same channel to communicate)

Selecting a CTCSS Privacy Code

CTCSS (Continuous Tone Coded Squelch System) is an advanced tone coding system allowing you to select one of 38 privacy codes to reduce interference from other users on the channel. (NOTE: If you are using a privacy code, both radios must be tuned to the same channel and privacy code to communicate Fach channel will remember the last privacy code you selected.)

To select a privacy code:

1. After selecting a main channel press and release the MODF button A small number



- 2. Push the CHANNEL SELECT button up or down to select a privacy code. You can hold the button up or down for fast advance
- 3. When your desired privacy code is displayed, press and release the LOCK button



Calling Another Person

To alert another person that you are calling:

1. Press and release the CALL button. The other person will hear a two (2) second ringing tone. (See page 12 on how to select between ten (10) call tone settings.)



You cannot send or receive transmissions during the two (2) second call tone.

Talking to Another Person

- 1. Press and hold the TALK button.
- **2.** With the microphone about two (2) inches (5 cm) from your mouth, speak in a normal voice.





TALK Button

response. You cannot receive incoming calls while pressing the TALK button.

"Roger Beep" Confirmation Tone

Your listener will hear an audible tone when vou release the TALK button. This alerts the other party that you are finished talking and it is OK for them to speak. (NOTE: The Roger Beep can be turned Off and On, see page 10.)

Listening for a Response When you are finished talking:

1. Release the TALK button to receive incomina transmissions Your microTALK® is always in listenina mode while the TALK button is

not pressed.

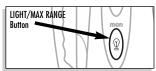


2. Adjust the volume by rotating the ON-OFF/VOLUME switch.

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Illuminating the Display

1. Press and release the LIGHT/MAX RANGE button to illuminate the display for ten (10) seconds.



Auto Squelch/Maximum Range

Your microTALK® radio is equipped with Auto Squelch, which automatically shuts Off weak transmissions and unwanted noise due to terrain, conditions, or if you've reached your maximum range limit. You can temporarily turn Off Auto Squelch or turn On Maximum Range Extender, allowing all signals to be received and extending the maximum range of your radio.

To temporarily turn Off Auto Squelch:

1. Press the LIGHT/MAX RANGE button less than five (5) seconds. If you hear two (2)



beeps, you have turned the Maximum Range Extender On (see page 6).

To turn Maximum Range Extender On:

1. Press and hold the LIGHT/MAX RANGE button for at least five (5) seconds until you hear two (2) beeps which indicates the Maximum Range Extender is On.

To turn Maximum Range Extender Off:

1. Press and release the LIGHT/MAX RANGE button or change channels.

Using the Lock Function

The Lock function locks the CHANNEL, MODE and HI/LOW POWER buttons to prevent accidental operation.

To use the Lock function:

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1. While in Standby mode, press and hold the LOCK button for one (1) second. The Lock icon will blink when the radio is locked Buttons that are NOT





locked are the CALL, LOCK, LIGHT/MAX RANGE, TALK buttons, and ON-OFF/VOLUME switch which are all fully functional while the radio is locked

2. To "unlock" buttons, press and release the LOCK button again. The Lock icon disappears and all buttons will be unlocked.

External Speaker/ Microphone Jack

Your microTALK® radio can be fitted with an external speaker/microphone, freeing your hands for other tasks. (See page 16 for optional accessories.)

To attach an external speaker/microphone:

- 1. Open the SPKR/MIC tab on top of the radio.
- 2. Insert the plug into the SPKR/MIC jack.



(CAUTION: Do not use an external speaker/microphone with common ground circuits with this radio. Damage can result. We recommend using only Cobra® authorized accessories.)

Using the **MODE Button**

The MODF button allows you to use and program the



various functions of your microTALK® radio. If you press and hold the MODE button, the LCD will cycle through the different functions.

Programming Memory Locations

Your microTALK® radio has ten (10) memory locations (0-9) for storing your most frequently used channels and privacy codes.

To program locations:

1. Push the MODE button until the Memory icon and the memory location flashes



2. Select the memory location you wish to change by pushing the CHANNEL SELECT button up or down.



3. Press and release the MODF button again. The Memory icon and the main channel number will flash



4. Select the main channel you wish to store by pushing the CHANNEL SELECT button up or down.

5. Press the MODE button again to store the main channel in memory andmove to privacy code



selection. The privacy code number begins flashing and the Memory icon continues to flash.

- **6.** Select the privacy code (00-38) you wish to store by pushing the CHANNEL SELECT button up or down.
- 7. Press the LOCK button to program your selection. You may also press the TALK button to transmit your



selected channel and privacy code, which will be stored into the memory location you are using. (NOTE: To "unprogram" a memory location you programmed previously, select 00 for both the main channel and privacy code in steps 4 through 6.)

8. Press and release the LOCK button to return to Standby mode at your new memory location, or press and release



the MODE button to save the memory location and proceed to other functions.

Recalling Memory Locations To recall a channel you have stored in a memory location:

1. Press the MODE button until the Memory icon and a memory location flashes

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at this memory location until you exit Memory Function mode by pressing the LOCK button

3. Repeat steps 1 and 2 to recall other memory locations.

Using the Scan Function

Your microTALK® radio can automatically scan main channels (1-22), the privacy codes (00-38) within one main channel, or memory locations.

To scan main channels:

1. Press the MODE button until the Scan icon and main channel number flashes.

- 2. Push the CHANNEL SELECT button up or down and the radio will begin scanning the main channels (NOTE: The radio "ianores" privacy codes while scanning main channels)
- 3. The radio will continue to scan all main channels and stop if an incomina transmission is detected. The radio will remain on that channel for ten (10) seconds. During that time you can:
 - a) Press and hold the TALK button and talk. The radio will remain on that channel and return to Standby mode.
 - b) Push the CHANNEL SELECT button up or down to resume scanning main channels

TALK Button

c) Press the MODE button to proceed to privacy code scanning (see following page). If you do not press any button within ten (10) seconds, the radio will automatically resume scanning main channels.

Using the Scan Function (continued)

To scan privacy codes:

- While in Standby mode, press the CHANNEL SELECT button up or down to choose the main channel you wish to scan.
- 2. Press the MODE button until the Scan icon and the privacy code number flashes





- Push the CHANNEL SELECT button up or down and the radio will begin scanning privacy codes within the main channel you selected.
- 4. The radio will continue to scan privacy codes and stop if an incoming transmission is detected. The radio will remain on that code for ten (10) seconds. During that time you can:
 - Press and hold the TALK button and talk. The radio will remain on that channel and privacy code, then return to Standby mode.
 - b) Push the CHANNEL SELECT button up or down to resume scanning privacy codes.

c) Press the MODE button to proceed to memory location scanning (see below). If you do not press any button within ten (10) seconds, the radio will automatically resume scanning privacy codes.

To scan memory locations:

Press the MODÉ button until the Scan icon, Memory Location icon and memory location number flashes.



- 2. Push the CHANNEL SELECT button up or down and the radio will begin scanning memory locations.
- The radio will continue to scan all memory locations and stop if an incoming transmission is detected. The radio will remain on that location for ten (10) seconds. During that time you can:
 - a) Press and hold the TALK button and talk. The radio will remain on



that memory location channel and return to Standby mode.

 b) Push the CHANNEL SELECT button up or down to resume scanning memory locations.



c) Press the MODE button to proceed to other functions.

If you do not press any button within ten (10) seconds, the radio will automatically resume scanning memory locations.

You must have at least two (2) memory locations programmed in order to scan memory locations.

(NOTE: If you want to reduce the number of memory locations being scanned you need to "unprogram" all unwanted locations by changing both the main channel and privacy code to 00. See Programming Memory Locations, page 8.)

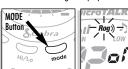
"Roger Beep" Confirmation Tone

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 is OK for them to speak. This feature can be turned On or Off.

To turn "Roger Beep" On or Off:

When turning On your microTALK® radio for the first time, "Roger Beep" will be On.

 Press the MODE button until the "Roger Beep" icon flashes on the LCD. The current On or Off setting is displayed.



2. Press the CHANNEL UP or CHANNEL DOWN button to select "Roger Beep" On or Off.



- **3.** a) Press the MODE button to enter the new setting and proceed to other functions
 - b) Press the LOCK button to enter the new setting and return to Standby mode.
 - c) Do not press any buttons for 15 seconds to enter the new setting and return to STANDRY MODE

The setting you select will be saved when you turn your radio Off and On again. When the "Roger Beep" is On, the "Roger Beep" icon will be displayed.

Keystroke Tones

With Keystroke Tones turned On, your radio will sound beeps each time you press a button or change a setting.

To change Keystroke Tones:

 Press the MODE button until the Keystroke Tones icon flashes on the LCD. The current On or Off setting is displayed.





2. Press the CHANNEL UP or CHANNEL DOWN button to turn Keystroke Tones On or Off



- **3.** a) Press the MODE button to enter the new setting and proceed to other functions
 - b) Press the LOCK button to enter the new setting and return to STANDBY MODE.
 - c) Do not press any buttons for fifteen

 (15) seconds to enter the new setting
 and return to STANDBY MODE.

10 Call Tone Settings

You can choose between ten (10) different call tone settings to transmit a unique call alert.

To change a Call Tone Setting:

1. Press the MODE button until the letter "C" and the current call tone number (1 through 10) is displayed. The current call tone will sound for one (1) second.





2. Press the CHANNEL UP or CHANNEL DOWN button to hear the other call tone settings.



- **3.** a) Press the MODE button to enter the new setting and proceed to other functions.
 - b) Press the LOCK button to enter the new setting and return to STANDBY MODE.
 - c) Do not press any buttons for fifteen
 (15) seconds to enter the new setting and return to STANDBY MODE.

High/Low Power

When in close proximity to another party, or during favorable conditions, you can switch from High to Low Power to extend battery life. (NOTE: This feature applies to GMRS channels 1 through 7 and 15 through 22 only. Channels 8 through 14 operate exclusively on low power.)

To switch from high to low power:

1. Press and release the HI/LOW button. When in low power, and when using channels 8 through 14, the LOW icon will be visible in the LCD display.





Signal Strength Meter

Your microTALK® radio is equipped with a signal strength meter that shows the strength of your incoming or outgoing transmissions. The ascending bars next to the signal strength indicate the strength of the signal. The greater the number of bars visible, the stronger the signal. The fewer number of bars visible, the weaker the signal.



microTALK® Range

Your microTALK® radio has a range of up to six (6) miles (10 km) when using GMRS channels on HI power. In LOW power and on channels 8 through 14, your radio's range is up to two (2) miles (3 km). Your range will vary depending on terrain and conditions. In flat, open country your radio will operate at maximum range.



Buildings and foliage in the path of the signal can reduce the range.



Dense foliage and hilly terrain will further reduce the signal.



Remember, you can achieve maximum range by using Maximum Range Extender. See page 5 for details.

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General Specifications

A. FRS/GMRS FREQUENCY ALLOCATION AND COMPATIBILITY

Important: Please note that Cobra® GMRS models with 15 channels may designate different channel numbers for the same frequency. For example, a Cobra® 15 channel GMRS model would need to be tuned to channel 11 in order to communicate with a 22 channel GMRS tuned to channel 15. Please refer to the chart below for channel/ frequency number connocibility.

- A = Channel No. For 22 Channel GMRS Models
- B = Channel No. For 15 Channel GMRS Models
- C = Type of Radio Service
- D = Frequency in MHz
- E = Power in Watts a = 2.0/0.5 (selectable)
 - h = 0.5

Α	В	C	D	E
1	1	FRS/GMRS	462,5625	а
2	2	FRS/GMRS	462,5875	а
3	3	FRS/GMRS	462,6125	а
4	4	FRS/GMRS	462,6375	α
5	5	FRS/GMRS	462,6625	а
6	6	FRS/GMRS	462,6875	а
7	7	FRS/GMRS	462,7125	а
8		FRS	467,5625	b
9		FRS	467,5875	b
10		FRS	467,6125	b
11		FRS	467,6375	b
12		FRS	467,6625	b
13		FRS	467,6875	b
14		FRS	467,7125	b
15	11	GMRS	462,5500	а
16	8	GMRS	462,5750	а
17	12	GMRS	462,6000	а
18	9	GMRS	462,6250	а
19	13	GMRS	462,6500	а
20	10	GMRS	462,6750	а
21	14	GMRS	462,7000	а
22	15	GMRS	462,7250	а
			,	

liculions		
B. RECEIVER		· <u></u>
	RADIO	NOMINAL
1. SENSITIVITY		
FOR 12 DB SINAD	dBm	-121
FOR CALL SIG DETECTION	dBm	-121
2. MAX. AUDIO OUTPUT @10% THD	mW	200
3. MAX. S/N RATIO @ 1mV RF INPUT	dB	50
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	
7. ADJACENT CH. REJECTION	dB	60
8. INTERMODULATION REJECTION	dB	65
9. SPURIOUS RESPONSE REJECTION	dB	55
C. TRANSMITTER		
	RADIO	NOMINAL
1. POWER		
Hi (GMRS only)	W	2
Low (GMRS /FRS)	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 RATTERY OPERATING RANGE

IMPORTANT NOTICE: FCC LICENSE REQUIRED

This two-way radio operates on GMRS (General Mobile Radio Service) frequencies which require an FCC (Federal Communications Commission) license. A user must be licensed prior to operating on channels 1 through 7 or 15 through 22, which comprise the GMRS channels of this radio. Serious penalties could result for unlicensed use of GMRS channels, in violation of FCC rules, as stipulated in the Communications Act's Sections 501 and 502 (amended). Licensed users will be issued a call sign by the FCC, which should be used for station identification when operating this radio. GMRS users should also cooperate by engaging in permissible transmissions only, avoiding channel interference with other GMRS users, and being prudent with the length of their transmissions time.

For licensing information and application forms, please call the FCC Hotline at 800-418-FDRM. Request form #159 and form #605. Questions regarding the license application should be directed to the FCC at 888-CALL-FCC. Additional information is available on the FCC's website at www.fcc.gov.

Safety Information for microTALK® Radios

Your wireless handheld portable transceiver contains a low power transmitter. When the Talk button is pushed, it sends out radio frequency (RF) signals. The device is authorized to operate at a duty factor not to exceed 50%. In August 1996, the Federal Communications Commissions (FCC) adopted RF exposure guidelines with safety levels for handheld witeless devices.

Important:

To maintain compliance with the FCC's RF guidelines, hold the transmitter at least 2 inches (5 centimeters) from your face and speak in a normal voice, with the antenna pointed up and away. If you wear the handset on your body while using the headset accessory, use only the Cobra® supplied belt dip for this product and ensure that the antenna is at least 1 inch (2.5 centimeters) from your body while transmitting. If the distance between the antenna and the body is LESS THAN 1.0 inch (2.5 cm), DO NOT USE THIS DEVICE IN THE BODY WORN CONFIGURATION. Use only the supplied antenna. Unauthorized antennas, modifications, or attachments could damage the transmitter and may violate FCC regulations.

Normal Position:

Hold the transmitter approximately 2 inches (5 cm) from your face and speak in a normal voice, with the antenna pointed up and away.

Note:

This device complies with part 15 of the 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.

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.

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FOR PRODUCTS PURCHASED IN U.S.A.

Cobra® Electronics Corporation warrants that its Cobra® PR Radios, and the component parts thereof, will be free of defects in workmanship and materials for period of one (1) year from the date of first consumer purchose. This warranty may be enforced by the first consumer purchoser, provided that the product is utilized within the U.S.A.

Cobra® will, without charge, repair or replace, at its option, defective PR 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 Cobro's expense, if the product is repaired or replaced under warranty.

CUSTOMER ASSISTANCE

After reading this owner's manual, if you have any questions about installing or operating your microTALK® radio, or if you are missing any parts, please contact Cobra® first. Do not return this product to the store. Cobra® Electronics offers the following customer support services.

For Assistance In the U.S.A.

In this user's manual, you should find all the information you need to operate your microTALK® radio. If you require further assistance after reading this manual, Cobra® Electronics offers the following customer assistance services:

Automated Help Desk

English only. 24 hours a day, 7 days a week 773-889-3087 (phone).

Customer Assistance Operators

English and Spanish. 8:00 a.m. to 6:00 p.m. CT, Monday through Friday (except holidays) 773-889-3087 (phone).

Questions

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

Technical Assistance

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

For Assistance Outside the U.S.A.

Contact Your Local Dealer

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 misses or abuse of the product or as a result of unauthorized alterations or repairs; 3) if the serial number has been altered, faced 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 apoly to you.

If your product should require factory service please call Cobra® first before sending your radio in. This will ensure the fastest turn-around time on your repair.

ensure the rastest rum-around time on your repair.
You may be asked to send your radio 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 radio. Include a typed or clearly printed name and address of where the radio is to be returned. 4) Pack radio 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 radio is in warranty, upon receipt of your radio it will either be repaired or exchanged depending on the model. Please allow approximately 3-4 weeks before contacting us for status. If the radio 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

Name				
Address (No P.O. Boxes	s)			
City	State/Province	Zip	Country	
Telephone				
Credit Card Number	Type: ☐ Visa ☐ Mastercard ☐ Discover		Exp. Date	

Customer Signature

Amount	Qty	Cost Each	U.S	ltem #
	U.S. Subtotal			
	(Tax if Applicable)	Tax Table	/Handling*	AmountShipping/Handl
	Shipping/Handling	Ohio, Wisconsin add 5% Indiana, Michigan add 6%		\$10.00 or less \$10.01-\$25.00
	Total	Illinois add 8.75%		\$25.01-\$50.00
dEv Novt Day or	onal \$26.95 for Ead	*For AK HI and PR add addit		\$50.01-\$90.00
and PR add additional \$26.95 for FedEx Next Day or r FedEx 2nd Day. Excludes weekends and holidays shipments.				\$90.01-\$130.00 \$130.01-\$200.00
S Prices subject to	r delivery in the II o	Please allow 2-3 weeks for	10% of	\$200.01 nlus

change without notice.

Optional Accessories

You can find accessories at your local Cobra® dealer, or in the U.S.A. you can order directly from Cobra®

Ordering From U.S.

Call 773-889-3087 for pricing or visit www.cobra.com.

For credit card orders, complete and return this order form to fax number 773-622-2269.

Or call 773-889-3087 (Press 1 from the main menu) 8:00 a.m. to 6:00 p.m. CT, Monday through Friday.

Make check or money order payable to:

Cobra® Electronics, Attn: Accessories Dept. 6500 West Cortland Street, Chicago, IL 60707 USA

To order online, please visit our website: www.cobra.com

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