

Cobra[®] **microTALK**

Owner's Manual



2-WAY RADIO MODEL
PR 245

Printed in China
Part No. 480-111-P
Revised 11-21-03

Nothing comes close to a Cobra[®]

English



Staying in touch with your family and friends is convenient and easy when using your microTALK® radio. Some of the many uses you will discover include:

Communicating with others while hiking, biking, and working; keeping track of family and friends at a crowded public event; checking with travel companions in another car; talking with neighbors; arranging meeting spots with others while shopping at the mall.

Belt Clip

Secure your microTALK® radio while on the go.

Carrying your microTALK® radio with you is easy when using the belt clip or optional wrist strap.

Wrist Strap

The belt clip easily attaches to your belt, purse, or backpack. Simply squeeze the clip and place it where you prefer.



Customer Assistance

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**

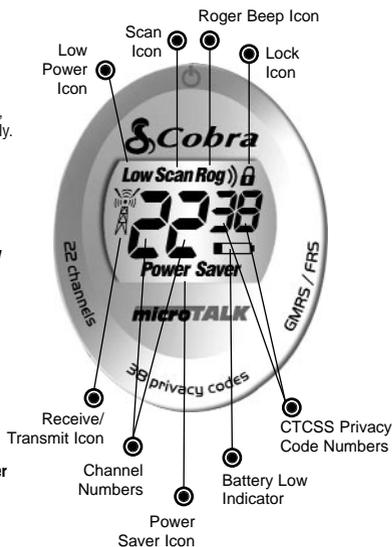
©2003 Cobra® Electronics Corporation
6500 West Cortland Street
Chicago, Illinois 60707 USA
www.cobra.com



Features

- 2-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 Privacy Codes**
- Scan Channel, privacy code**
- Backlit LCD Display**
- Call Alert**
 Five (5) selectable tones
- Button Lock**
- Speaker/Microphone Jack**
- Roger Beep**
 Selectable On/Off
- Battery/Power Saver**
- Keystroke Tones**
- Auto Squelch**
- Maximum Range Extender**
- Belt Clip**

Backlit LCD Display



Important FCC Licensing Information

This radio operates on General Mobile Radio Service (GMRS) frequencies which require a Federal Communications Commission (FCC) license. See page 14 for licensing and other related information.

Caring For Your microTALK® Radio

Your microTALK® radio will give you years of trouble-free service if cared for properly. Handle the radio gently. Keep the radio away from dust. Never put the radio in water or in a damp place. Avoid exposure to extreme temperatures.

Remove Belt Clip



Pull Up Lock Latch



Insert Batteries



Batteries

To Install Or Replace Batteries:

- Remove belt clip by releasing belt clip latch and sliding clip up.
- Pull up on the battery door latch to remove the battery compartment cover.
- Insert four (4) AAA batteries. (Always use high quality alkaline batteries.) Position batteries according to polarity markings.
- Replace battery compartment cover and belt clip.

Contact your local Cobra® dealer or Cobra® directly for optional accessories. Only Cobra® authorized accessories are recommended.



The Basics To Get You Started

Your microTALK® radio is easy to use. To get started, simply:

- Press and hold the **Mode/Power** button to turn **On** your radio.
- Press the **Channel Up** or **Channel Down** button to select a channel.



Both radios must be tuned to the same channel to communicate.

- Press and hold the **Talk** button while speaking into the microphone.
- When finished talking, release the **Talk** button and listen for a response.

Mode/Power Button



Turning On Your microTALK® Radio

To Turn On Your Radio:

1. Press and hold the **Mode/Power** button until you hear a series of audible tones indicating the radio is **On**.

Your microTALK® radio is now in **Standby** mode, ready to receive transmissions. The radio is always in **Standby** mode except when the **Talk**, **Call** or **Mode/Power** buttons are pressed.

Battery Low



Battery Low

When battery power is low, the **Battery Low** icon will blink. Your batteries should be replaced or recharged, if using rechargeable batteries.

Battery Save Mode



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 the **Power Saver** icon will flash in the display. This will not affect the radio's ability to receive incoming transmissions.

Talk Button



Two (2) Inches [Five (5) cm] From Mouth



Communicating With Another Person

To Talk To Another Person:

1. Press and hold the **Talk** button.
2. With the microphone about two (2) inches [five (5) cm] from your mouth, speak in a normal voice.
3. Release the **Talk** button when you are finished talking and listen for a response.

You cannot receive incoming calls while pressing the **Talk** button.



Both radios must be tuned to the same channel to communicate.

Channel Button



Channel Number



Channels

To Select A Channel:

1. With the radio **On**, select any of the 22 channels by pressing the **Channel Up** or **Channel Down** button.



Both radios must be tuned to the same channel to communicate.

Channels 1 through 7 are shared with FRS/GMRS. Channels 8 through 14 are FRS only. Channels 15 through 22 are GMRS only.



See page 13 for FRS/GMRS frequency allocations and compatibility charts.

Listening

**Listening For A Response****When You Are Finished Talking:**

1. Release the **Talk** button to receive incoming transmissions. Your microTALK® radio is always in **Standby** mode while the **Talk** or **Call** buttons are not pressed.

Volume Button

**Volume****To Adjust The Volume:**

1. Press the **Volume Up** or **Volume Down** button.

Volume Level



A double beep sound is used to indicate the minimum and maximum volume levels (1 through 8).

Call Button

**Call Button****To Alert Another Person That You Are Calling:**

1. Press and release the **Call** button.

The other person will hear a two (2) second call tone. You cannot send or receive transmissions during the two (2) second call tone.



See page 12 on how to select between five (5) call tone settings.

Light/Max Range

**Display Illumination****To Illuminate Your 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.

Light/Max Range

**To Temporarily Turn Off Auto Squelch:**

1. Press the **Light/Max Range** button for less than five (5) seconds.

If you hear two (2) beeps, you have turned the maximum range extender **On** (see below).

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.

Lock Function

The **Lock** function locks the **Channel Up**, **Channel Down**, and **Mode/Power** buttons to prevent accidental operation.

Lock Button

**To Turn The Lock On Or Off:**

1. Press and hold the **Lock** button for two (2) seconds.

A double beep sound is used to confirm your lock **On** or **Off** request. When in **Lock** mode, the **Lock** icon will be displayed.

Lock Icon



Speaker/Microphone Jack

Your microTALK® radio can be fitted with an external **Speaker/Microphone**, freeing your hands for other tasks. Contact your local Cobra® dealer or Cobra® directly for optional accessories. Only Cobra® authorized accessories are recommended.

Speaker/Microphone



To Attach Your Speaker/Microphone:

1. Open the speaker/microphone tab on top of your microTALK® radio.
2. Insert the plug into the speaker/microphone jack.

microTALK® Range

Your microTALK® radio has a range of up to six (6) miles (10 km). Your range will vary depending on terrain and conditions.

Maximum Range



In flat, open country your radio will operate at maximum range.

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

Reduced Range



Dense foliage and hilly terrain will further reduce the range of the radio.

On FRS Channels 8 through 14, your radio automatically switches to low power, which will limit the range the radio can communicate.

Reduced Range



Remember, you can achieve maximum range by using maximum range extender. See page 5 for details.

Scrolling Through The Mode Function

By scrolling through the **Mode** function, you will be able to select or turn **On** preferred features of your microTALK® radio. When scrolling through the **Mode** function, your radio features will be displayed in the same predetermined order:

Mode/Power Button



- Set Privacy Code
- Set Channel Scan
- Set Privacy Code Scan
- Set Call Tones
- ▼ Set Roger Beep On/Off

CTCSS Privacy Codes

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.



If you are using a privacy code, both radios must be tuned to the same channel and privacy code to communicate. Each channel will remember the last privacy code you selected.

Mode/Power Button



To Select A Privacy Code:

1. After selecting a channel, press the **Mode/Power** button until the small numbers next to the channel number flash on the LCD.
2. Press the **Channel Up** or **Channel Down** button to select a privacy code. You can hold the **Channel Up** or **Channel Down** button for fast advance.
3. When your desired privacy code is displayed:
 - a. Press the **Mode/Power** 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 **Standby** mode.

Privacy Code



Channel Button



Channel Scan

Your microTALK® radio can automatically scan channels.

Mode/Power Button



To Scan Channels:

1. Press the **Mode/Power** button until the **Scan** icon and the channel numbers flash on the display.
2. Press the **Channel Up** or **Channel Down** button to begin scanning channels.

Scan Channels



The radio ignores specific privacy codes while scanning channels.

Channel Button



The **Scan** icon will continue to be displayed when scan is **On**. Your radio will continue to scan all channels and stop if an incoming transmission is detected. Your radio will remain on that channel for ten (10) seconds.

While setting channel scan, if you do not press any buttons for 15 seconds, your radio will automatically return to **Standby** mode on the channel or channel/privacy code displayed before you entered mode functions.

During Channel Scan (while receiving an incoming transmission), You Can Choose From The Following:

- a. Press and hold the **Talk** button to communicate on that channel. Your radio will remain on that channel and return to **Standby** mode.
- b. Press the **Channel Up** or **Channel Down** button to resume scanning channels.

If you press the **Talk** button while scanning and not within ten (10) seconds of receiving a transmission, you will transmit on the channel on which you last received a transmission. This will return the radio to **Standby** mode.

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

During Channel Scan (while not receiving a transmission), You Can Choose From The Following:

- a. Press and hold the **Talk** button to communicate on the channel or channel/privacy code that was displayed before you entered mode functions or the channel on which, during scanning, you last received a transmission. This will return the radio to **Standby** mode.
- b. Press the **Mode/Power** button to proceed to set privacy code scan on the channel that was either displayed before you entered mode functions or on which, during channel scanning, you last received a transmission (see page 10 for further details).
- c. Press the **Lock** button to return to **Standby** mode on the channel/privacy code that was displayed before you entered mode functions or the channel on which, during scanning, you last received a transmission.

Privacy Code Scan

Your microTALK® radio can automatically scan the **Privacy Codes** (00 through 38) within one (1) channel.

Select Channel



Mode/Power Button



Scan Privacy Codes



Channel Button



To Scan Privacy Codes:

1. While in **Standby** mode, press the **Channel Up** or **Channel Down** button to choose the channel on which you wish to scan privacy codes.
2. Press the **Mode/Power** button until the **Scan** icon and the privacy code numbers flash on the display.
3. Press the **Channel Up** or **Channel Down** button to begin scanning privacy codes within the channel you selected.

The **Scan** icon will continue to be displayed when privacy code scan is **On**. Your radio will continue to scan privacy codes and stop as an incoming transmission is detected. Your radio will remain on that channel/privacy code for ten (10) seconds.

While setting privacy code scan, if you do not press any buttons for 15 seconds, your radio will automatically return to **Standby** mode on the channel/privacy code that was displayed before you entered mode functions.

During Privacy Code Scan (while receiving an incoming transmission), You Can Choose From The Following:

- a. Press and hold the **Talk** button to communicate on that channel/privacy code. Your radio will remain on that channel/privacy code and return to **Standby** mode.
- b. Press the **Channel Up** or **Channel Down** button to resume scanning privacy codes.

If you press the **Talk** button while scanning and not within ten (10) seconds of receiving a transmission, you will transmit on the channel/privacy code on which you last received a transmission. This will return the radio to **Standby** mode.

If you do not press any button within ten (10) seconds, your radio will automatically resume scanning privacy codes.

During Privacy Code Scan (while not receiving a transmission), You Can Choose From The Following:

- a. Press and hold the **Talk** button to communicate on the channel/privacy code that was displayed before you entered mode functions or the channel/privacy code on which, during scanning, you last received a transmission. This will return the radio to **Standby** mode.
- b. Press the **Mode/Power** button to proceed to other functions.
- c. Press the **Lock** button to return to **Standby** mode on the channel/privacy code that was displayed before you entered mode functions or the channel/privacy code on which, during scanning, you last received a transmission.

Five (5) Call Tone Settings

You can choose between five (5) different **Call Tone Settings** to transmit a unique call alert.

Mode/Power Button



Call Tone Setting



Channel Button



To Change A Call Tone Setting:

1. Press the **Mode/Power** button until the letter "C" and the current call tone number (01 through 05) is displayed.
2. Press the **Channel Up** or **Channel Down** button to hear the other call tone settings.
3. Choose one (1) of the following:
 - a. Press the **Mode/Power** 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.

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.

Mode/Power Button



Roger Beep Off



Channel Button



To Turn Roger Beep On Or Off:

1. Press the **Mode/Power** button until the **Roger Beep** icon flashes. 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. Choose one (1) of the following:
 - a. Press the **Mode/Power** button to enter the new setting and return to **Standby** mode.
 - b. Press the **Lock** button to enter the new setting and return to **Standby** mode.

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 compatibility.

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	B	C	D	E
1	1	FRS/GMRS	462.5625	1.0
2	2	FRS/GMRS	462.5875	1.0
3	3	FRS/GMRS	462.6125	1.0
4	4	FRS/GMRS	462.6375	1.0
5	5	FRS/GMRS	462.6625	1.0
6	6	FRS/GMRS	462.6875	1.0
7	7	FRS/GMRS	462.7125	1.0
8	FRS	FRS	467.5625	0.5
9	FRS	FRS	467.5875	0.5
10	FRS	FRS	467.6125	0.5
11	FRS	FRS	467.6375	0.5
12	FRS	FRS	467.6625	0.5
13	FRS	FRS	467.6875	0.5
14	FRS	FRS	467.7125	0.5
15	11	GMRS	462.5500	1.0
16	8	GMRS	462.5750	1.0
17	12	GMRS	462.6000	1.0
18	9	GMRS	462.6250	1.0
19	13	GMRS	462.6500	1.0
20	10	GMRS	462.6750	1.0
21	14	GMRS	462.7000	1.0
22	15	GMRS	462.7250	1.0

B. Receiver

	Unit	Nominal
1. Sensitivity		
For 12 dB SINAD	dBm	-121
For Call Signal Detection	dBm	-121
2. Max. Audio Output	mW	200
@ 10% THD		
3. Max. S/N Ratio	dB	50
@ 1mV RF Input		
4. Squelch		
a) Sensitivity	dBm	-121
b) Attack Time	mS	150
c) Closing Time	mS	200
5. Audio Frequency Response		
@ 300 Hz	dB	-10
@ 2500 Hz	dB	-10
6. Signal Displacement BW	+/-kHz	5
7. Adjacent Channel Rejection	dB	40
8. Intermodulation Rejection	dB	65
9. Spurious Response Rejection	dB	55

C. Transmitter

	Unit	Nominal
1. Power		
GMRS	W	1
FRS Only	mW	500
2. Carrier Frequency Stability	±Hz	500
3. Modulation Limiting	kHz	2.5
4. Carrier Attack Time	mS	80
5. Audio Frequency Response		
@ 300 Hz	dB	-12
@ 2500 Hz	dB	+6
6. Audio Distortion	%	3
7. Hum Noise	dB	30
8. Transient Frequency Behavior		
a) TX On	mS	30
b) TX Off	mS	5

D. Power Supply

	Unit	Nominal
1. Battery Life (5:5:90 RATIO)		
With Alkaline Batteries	HR	24
2. Battery Operating Range	V	4.2 - 6.0

Nothing comes close to a Cobra®

IMPORTANT NOTICE: FCC LICENSE REQUIRED

This 2-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 transmission time.

For licensing information and application forms, please call the FCC Hotline at 800-418-FORM. 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 wireless devices.

Important:

FCC RF Exposure Requirements: For body-worn operation, this radio has been tested and meets the FCC RF exposure guidelines when used with Cobra® accessories supplied or designated for this product. Use of other accessories may not ensure compliance with FCC RF exposure guidelines. 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 two (2) inches from your face and speak in a normal voice, with the antenna pointed up and away.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two (2) 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.

Product Service Questions

If you have any questions about operation or installing your new Cobra® product, or if you are missing parts...

Please call Cobra® first! DO NOT RETURN THIS PRODUCT TO THE STORE! See customer assistance on page A1.

For Products Purchased In The U.S.A.

If your product should require factory service, please call Cobra® first before sending your radio. This will ensure the fastest turn-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 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, Illinois 60707 U.S.A.
- 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 three (3) to four (4) weeks before contacting Cobra® 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.

For Products Purchased Outside The U.S.A.

Please contact your local dealer for product service information.



The Cobra® line of quality products includes:

CB Radios • microTALK® Radios • Radar/Laser Detectors
Safety Alert® Traffic Warning Systems • Accessories
GPS (Global Positioning System) • HighGear® Accessories
VHF Marine Radios • Power Inverters



For more information or to
order any of our products,
please visit our website:

www.cobra.com

Nothing comes close to a Cobra®

English