Cobra

Cobra microTALK™

Cobra Electronics Corporation
6500 West Cortland Street
Chicago, IL 60707

If You Think You Need Service

If you think you need service call 1.773.889.3087

"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 or 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 print 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 W. Cortland St., Chicago, IL 60707.

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 1.773.889.3087 for assistance.

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Printed in China
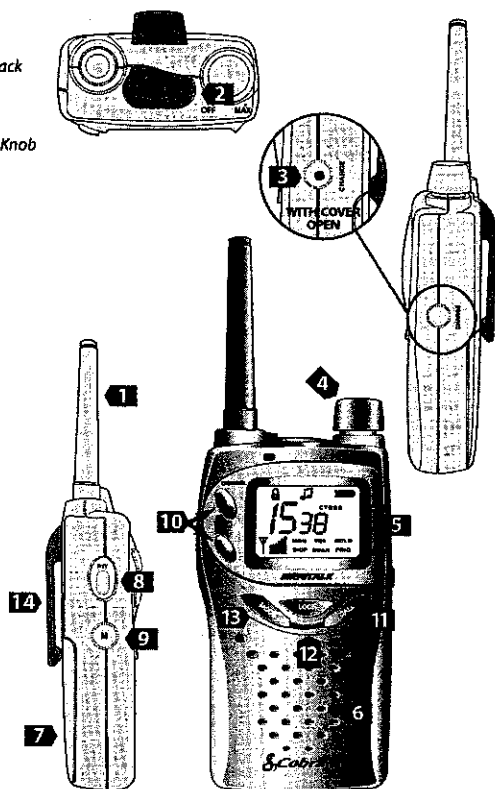
Part No. 480-007-P

Operating Instructions for your
Cobra microTALK™
2 Way Radio
PR 900 DX

Nothing comes close to a Cobra™

UHF Antenna

Speaker/Microphone Jack

Charger Jack

On/Off Power/Volume Knob

LCD Display Panel

Speaker

Battery Compartment

Talk Button (PTT)

Monitor/LCD Display
Light Button

Channel Select Button

Call Button

Lock Key

Mode Button

Belt Clip

Thank you for purchasing the Cobra microTalk PR 900 DX 2-way Radio. Properly used, this Cobra product will give you many years of reliable service.

Customer Support

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.

CAUTION
Important Safety Information For PR 900 DX

Your wireless handheld portable transceiver contains a radio frequency transmitter. When the PTT button is pushed it sends out RF signals. The device is authorized to operate at a duty factor not to exceed 50% to comply with Federal Communications Commissions (FCC) RF exposure safety level guidelines for hand-held wireless devices.

To maintain compliance with the FCC's RF exposure 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 transceiver on your body while using a headset or external microphone accessory, use only the supplied belt clip for this product and ensure that the antenna is at least 2 inches (5 centimeters) from your body when transmitting. If the distance between the antenna and the body is LESS THAN 2.0 INCHES (5 CM) DO NOT TRANSMIT WITH THIS DEVICE IN THE BODY WORN CONFIGURATION. Unauthorized antennas, modifications, or attachments could damage the transmitter and may violate FCC regulations.

Normal Operating Position: Hold the transmitter approximately 2 to 3" from your face and speak in a normal voice, with the antenna pointed up and away.

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@cobraelectronics.com

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

This device complies with part 15 of the FCC rules. Operation is subject to the condition that this device does not cause harmful interference.

Contents

Features of This Product
- UHF FM Frequencies
- Up to 5 Mile Range
- 15 GMRS Channels (7 shared FRS Channels)
- 38 CTCSS Subcodes
- LCD Function Display
- Auto Squelch
- Lock Key
- Call Feature (5 tone settings)
- Belt Clip
- Vox
- Super Flex Antenna
- Programmable/Priority Scan

Battery Installation

Note

Incorrect positioning can damage batteries and unit.

Install Batteries
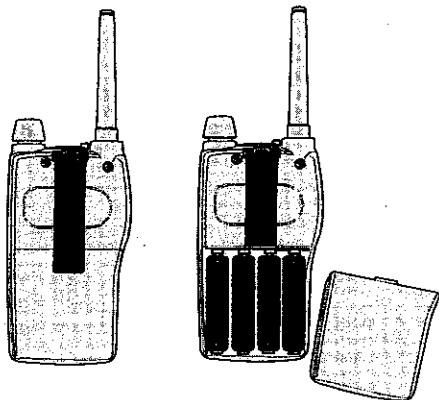
❶ *Pull* lock tab down and lift door up (towards you) to remove battery cover.

❷ *Insert* 4 "AAA" batteries. Position batteries according to polarity markings.

Battery Low

When in normal use the (▇▇▇▇) BATT LOW icon may begin flashing. This is a warning that batteries are getting low.

Antenna

The radio is equipped with a Superflex antenna, which flexes without breaking and withstands the demands of an active lifestyle.

Battery Low

Note

When battery capacity is at the 1/3 level it is recommended that you recharge your rechargeable batteries or replace your alkaline batteries.
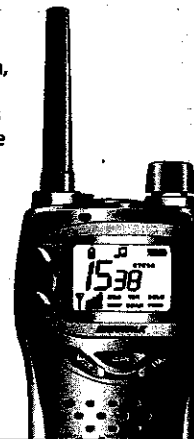
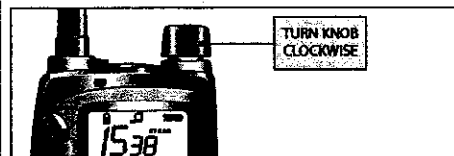*Charge port is located on side of unit.*

Antenna

Turning On Your microTalk PR 900 DX

Note

Whenever the unit is on you can receive communications, (except while pushing the PTT talk button, or while in mode function).
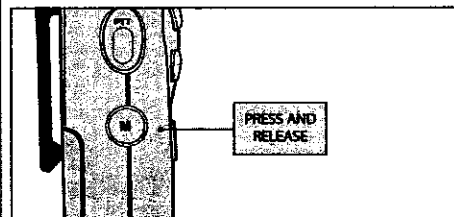
Illuminating the Display

Turning On Your microTalk PR 900 DX

TURN KNOB CLOCKWISE

Turn the Volume control clockwise to switch power on. Set volume to desired level. Turn the Volume control counter-clockwise to turn power off.
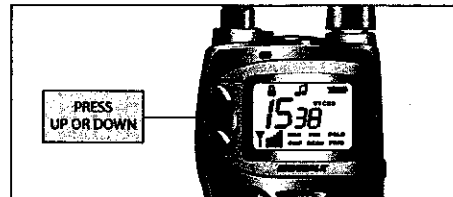
Illuminating the Display

PRESS AND RELEASE

Press and release 🔘 *Monitor Button to illuminate display for ten seconds.*

Select Channels (1-15)

Channels 1-7 are shared with FRS radios.

PRESS UP OR DOWN

❶ Turn on microTalk PR 900 DX. An audible "tone" will indicate the unit is on and the LCD will self-test for 2 seconds and then go to Operational Mode.

❷ *Select* channel by pressing and releasing the Channel button up or down.

Select CTCSS Subcode (00-38)

Selecting a CTCSS subcode will enable you to filter out unwanted conversations and allow greater privacy. For example, when with a group of friends, you select channel 7 and subcode 1, you will hear your friends and filter out conversations on channel 7 with subcodes 2 through 38.

Select Channels

Note

Units must be on same channel and CTCSS code to communicate.

Note

Push and hold Channel up or down Buttons for fast channel advance.
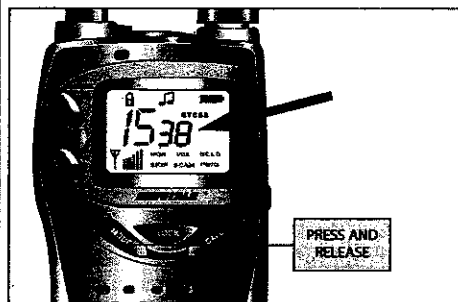
Select CTCSS Subcode

Note

If you push and hold the Mode Button, the LCD display will cycle through the different functions.
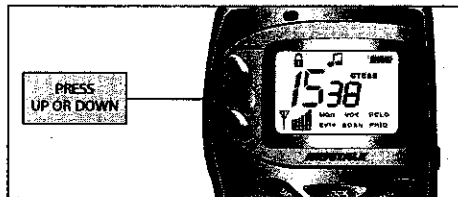
Select CTCSS Subcode

Note

Press and hold Channel Button up or down for fast channel advance.
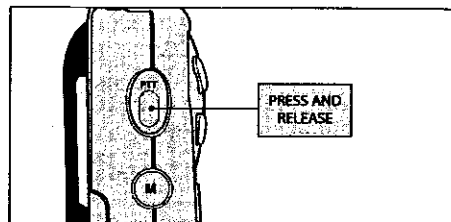
Select CTCSS Subcode

❶ After selecting a channel as instructed on page 5, *press and release* **⬙ Mode** Button. Smaller numbers and the "CTCSS" icon will flash next to channel display on LCD.

❷ *Select* subcode number by pressing and releasing the ⬙ Channel Button up or down.

❸ When desired subcode is displayed *press and release* ⬙ PTT Button or the ⬙ mode button to confirm your selection.
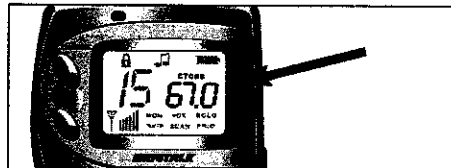
❹ Your PR 900DX can also display the CTCSS subcode as a frequency number rather than as a subcode number. To select the frequency number display option, make sure your PR 900DX is off. While pressing the ⬙ mode button, turn the unit on. Use the ⬙ Channel up/down buttons to toggle between TcCode (subcode number) and TcFrE9 (subcode frequency number). Push the ⬙ PTT TALK button to confirm your selection. CTCSS subcode numbers and the corresponding frequency numbers are listed on page 26.

6   **7**

Talking to Another Party

Note

While Talk Button (PTT) is depressed you cannot receive incoming calls.
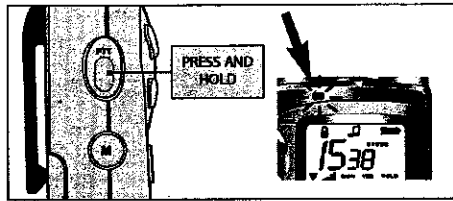
1 *Press and hold* ⊙ PTT Talk Button.
The transmit LED will light up in red.
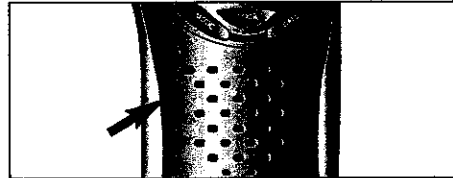
2 Hold mic about 2 inches from mouth.
Speak in a normal voice.
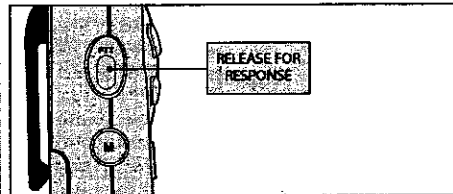
3 *Release* ⊙ PTT Talk Button and listen
for response.

Standby Mode

When finished talking, release ⊙ PTT Talk Button
to receive incoming transmissions.

Your microTalk PR 900 DX is always in the standby
mode when the ⊙ PTT Talk Button is not
pressed and you are not in function mode. See
Advanced Features section on page 14.

Standby Mode

Calling Another Party

Calling Another Party

To alert another party you wish to communicate:

1. *Turn on* your microTalk PR 900 DX 2-way radio. An audible "tone" will indicate the unit is on. The LCD will self-test for 2 seconds and then go to operational mode.

2. *Select* desired channel by pressing and releasing 🔋 Channel Button up or down. Both the calling and receiving units must be on same channel and subcode for the call function to work.
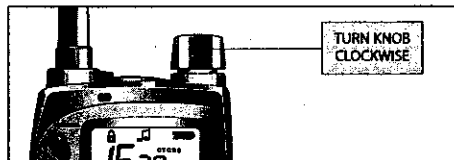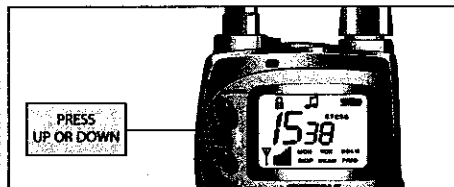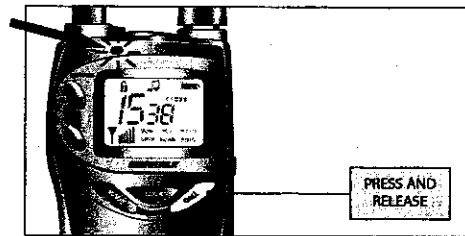

3. *Press and release* 📞 Call Button. The unit you are calling will hear a 2 second ring tone, and the transmit LED will light up in red

4. Your PR 900 DX allows you to send call alerts in any 1 of 5 user tone settings. To select your desired tone:

   A. Make sure your PR 900 DX is off.

   B. Press and hold the 📞 call button while at the same time turning on the unit.

   C. Press the 🔋 channel up or down button to listen to each of the 5 tone settings.

   D. When you reach a desired tone, press the 🔘 PTT button to program your selection.

Note
Your microTalk PR 900 DX is always in the standby mode when the Talk Button is not depressed.

Note
Your incoming "Call" audio ringing level is dependent on your unit's volume setting.

Both the calling and receiving units must be on same channel and subcode for the call function to work.

Auto Squelch

Auto Squelch

Your microTalk PR 900 DX 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.

Auto Squelch sensitivity can be changed to HI (least sensitive) or LOW (most sensitive) by pressing the mode button until the "5" (HI or LO) is displayed. Use the channel up or channel down buttons to toggle between HI or LO sensitivity. Press the talk PTT button to confirm your selection.

Maximum Range Extender

Maximum Range Extender

When the signal you want to hear is consistently weak, you may place the radio in Maximum Range mode. Press and hold the ⊙ Monitor Button for 1 second. To return to normal operation, press and hold the ⊙ Monitor Button again or change channels.

Note

To learn more about the range of your microTalk PR 900 DX, see page 22.

Range is dependent on battery condition and geographic terrain.

PRESS
UP OR DOWN
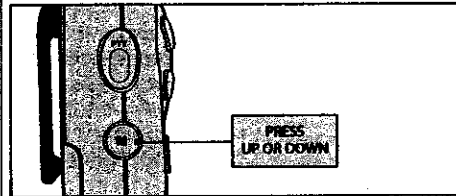
External Mic/Headphone Jack

Your microTalk PR 900 DX 2-Way Radio can be fitted with a variety of accessories (not included), freeing your hands for other tasks.

To attach an external mic/headphone accessory:
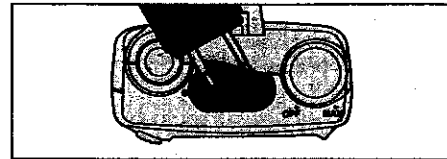
● Insert plug into SPKR/MIC jack on the top of the unit.

External Mic/ Headphone Jack

Note

To order optional microphone/ speaker accessories, see page 31.

Advanced Features

Advanced Features

Your microTalk PR 900 DX has many advanced features not found on other 2-way radios.
These include:
- Lock Key
- Busy Channel Lock Out
- VOX
- Channel/Sub Channel Scan
- Priority Scan Selection Mode
- Tone Indicator Settings:
  - Key Stroke Tone

Lock Function

Lock Function

The Lock Function locks the channel up and down buttons and mode button to avoid accidental operation.

Note
Call Button, Monitor Button and Talk Button do not lock and are fully operational while the unit is locked.

The unit cannot lock while selecting a mode.

To engage the Lock Function:
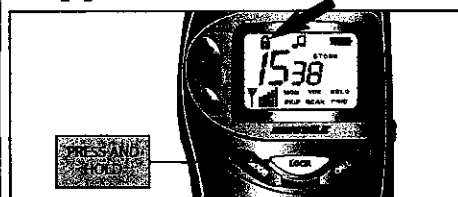
① *Press and hold the* ⤙ **Lock** Button for one second. Lock icon 🔒 will be visible. If the Beep Function is ON you will hear an audible confirmation. Most buttons are locked.

② To "unlock" *press and hold the* ⤙ **Lock** Button for one second. There is no 🔒 lock icon visible. If the Beep Function is ON you will hear an audible confirmation. Buttons are "unlocked."

Busy Channel Lock Out (BCLO)

BCLO mode prevents transmission whenever the unit detects another conversation on the same channel.

① Press 🔒 Mode Button until the (BCLO) icon flashes on the LCD panel.

② Press the ⬍ Channel Up or Down button to toggle the (BCLO) function "on" or "off".

③ Press the ⓞ PTT Button to confirm your selection. The BCLO icon will be visible when BCLO "on" is selected.
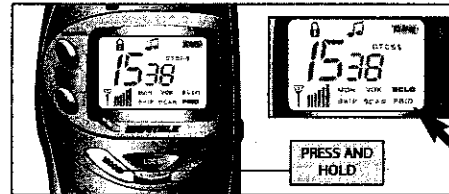
VOX

VOX

Vox setting allows you to have hands-free conversation. Your voice is detected and the radio transmits without the need to press the PTT button.

To set radio for VOX operation:

● Rotate the volume control counterclockwise to turn power OFF.

● Press and hold the 🔘 PTT button.

● Rotate the volume control clockwise to turn power ON.

To set the VOX sensitivity level,

    A. Press the 🔧 Mode button until VOX icon flashes and VOX appears in LCD Panel.

    B. Press the 📶 Channel Up or Down button to select from 01-10 Voice Levels with 01 being the least sensitive and 10 being the most sensitive.

    C. Press the 🔘 PTT button to confirm your selection.

    D. To turn off the VOX feature, rotate the volume control counterclockwise to turn power OFF and then turn power ON again.

The VOX sensitivity level setting is dependent on the background noise and will need to be adjusted accordingly.

Scan Function

● Turn on microTalk PR 900 DX. An audible "tone" will indicate the unit is on and then the LCD will go through a 3 second self-test and then go to Operational Mode.
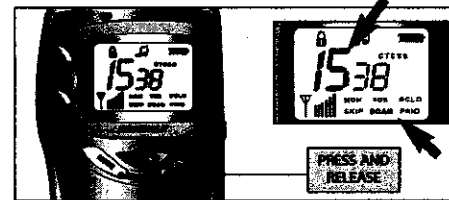
● *Press and release* 🔧 Mode button until (**SCAN**) icon and Main Channel flashes.

Scan Function

Scan Function *continued*

PRESS

❸ *Press* Channel button and the unit will begin scanning the main channels.

❹ Unit will continue to scan all main channels with subcodes that are on the scan list (p. 19) and stop if an incoming transmission is detected.

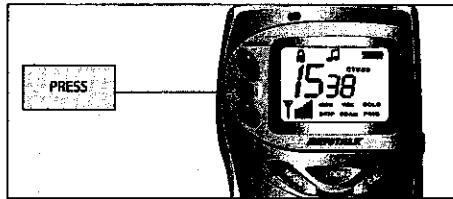A. *Press and hold* PTT button and talk. Your radio will return to operational mode on that channel as long as a signal is detected

or...

B. *Press* Channel button to rescan the main channel.

or...

C. To exit scan either press the mode button or turn the unit off.

Auto Channel Scan List Selection Mode

This feature allows you to add or remove channels from the scan list. The scan list is pre-programmed to channels 1-15 with no CTCSS subcodes.

❶ Press the ◈ Mode Button until the icon **SKIP** or **SCAN** flashes on the LCD panel. The channel is set to the solid icon.

❷ Pressing the call button will toggle between skip and scan.

❸ Press the ◉ PTT Button to confirm your selection(s).

PRESS AND RELEASE

Auto Channel
Scan List
Selection
Mode
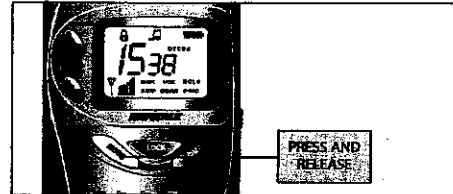
Priority Scan Channel Selection Mode

Priority Scan Channel Selection Mode

This function allows you to monitor one particular channels while scanning other channel at the same time. If you pre-set any priority channel other than the current channel in use, the pre-set channel will be scanned every 0.5 second and any strong signals on that channel will be displayed.

To access the Priority Scan menu:

● Press the ✎ Mode Button until the **PRIO** icon flashes on the LCD panel.

❷ Press the ⟟ Channel Up or Down Button to select the desired channel number you wish to monitor. Only channels on the scan list will be available as a priority channel.

❸ Press the ⓪ PTT Button to lock in new priority channel.
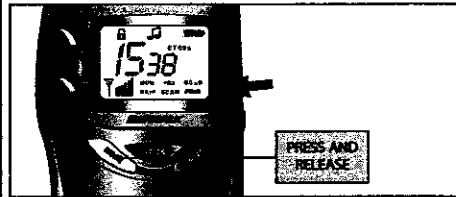
Key Tone Settings

This function allows the radio to sound a tone whenever the following keys are pressed: Monitor Button, Channel Up or Down Button, Mode Button or Scan Button.

To turn the key tones on or off:

● Press the ✎ Mode Button until the musical note icon flashes on the LCD panel.

❷ Press the ⟟ Channel Up or Down Button to toggle the key tone feature on or off.

❸ Press the ⓪ PTT Button to confirm your selection.
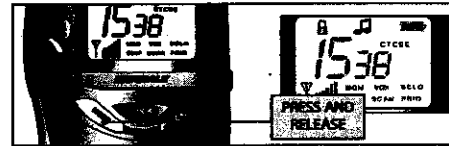
Key Tone Settings

Note

The musical note icon will display in standby mode whenever the beep tones are activated.

microTalk PR 900 DX Range

microTalk PR 900 DX Range

Your microTalk PR 900 DX Radio has a range up to 5 miles in GMRS. This effective range can be shortened under some conditions.

Note

To achieve maximum range the auto squelch can be overridden. Refer to Maximum Range Extender section on page 12.

Under flat, open conditions you will experience the radio's maximum range.
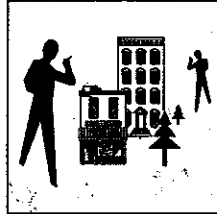
Range can be reduced by buildings and foliage in the path of the signal.
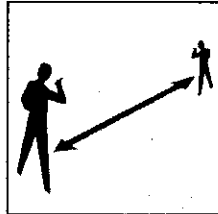
Range will be further reduced by dense foliage and hilly terrain.

microTalk PR 900 DX 2-Way Radio Can Make Your Life Easier and Safer

As you become familiar with your microTalk Professional Radio you will find many of your own uses for the unit. Some suggestions include:
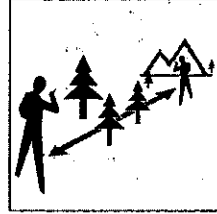
Talking with fellow hikers.
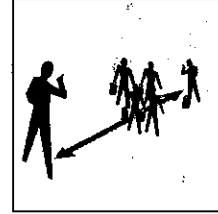
Keeping track of the kids in a shopping mall.
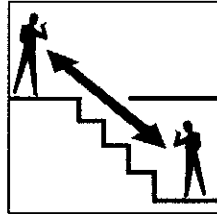
Communicating between basement and first, second or third floor.
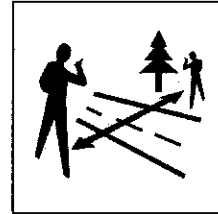
Talking to a neighbor or a friend.

microTalk PR 900 DX 2-Way Radios Can Make Your Life Easier and Safer

microTalk
PR 900 DX
2-Way Radios
Can Make
Your Life
Easier and
Safer

microTalk PR 900 DX 2-Way Radio Can Make Your Life Easier and Safer
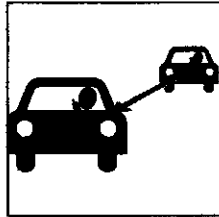
Checking on traveling companions in another car.
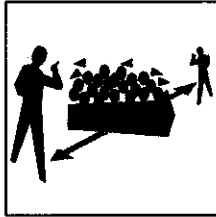
Agree on a meeting spot after an event.

The microTalk PR 900 DX unit represents one of the most advanced FM two-way radios available.

GMRS Codes	Channel Frequency in MHz	(Channels 1-7 shared with FRS)
1	462.5625	
2	462.5875	
3	462.6125	
4	462.6375	
5	462.6625	
6	462.6875	
7	462.7125	
8	462.5750	
9	462.6250	
10	462.6750	
11	462.5500	
12	462.6000	
13	462.6500	
14	462.7000	
15	462.7250	

Frequency
Ranges

CTCSS Code	Frequency	CTCSS Channel	Frequency
01	67.0 Hz	21	136.5 Hz
02	71.9 Hz	22	141.3 Hz
03	74.4 Hz	23	146.2 Hz
04	77.0 Hz	24	151.4 Hz
05	79.7 Hz	25	156.7 Hz
06	82.5 Hz	26	162.2 Hz
07	85.4 Hz	27	167.9 Hz
08	88.5 Hz	28	173.8 Hz
09	91.5 Hz	29	179.9 Hz
10	94.8 Hz	30	186.2 Hz
11	97.4 Hz	31	192.8 Hz
12	100.0 Hz	32	203.5 Hz
13	103.5 Hz	33	210.7 Hz
14	107.2 Hz	34	218.1 Hz
15	110.9 Hz	35	225.7 Hz
16	114.8 Hz	36	233.6 Hz
17	118.8 Hz	37	241.8 Hz
18	123.0 Hz	38	250.3 Hz
19	127.3 Hz		
20	131.8 Hz		

Caring for Your microTalk PR 900 DX Radio

The microTalk PR 900 DX 2-Way Radio will give you years of service if cared for properly. Here are some suggestions:
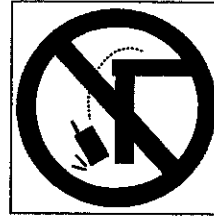
Handle unit gently.
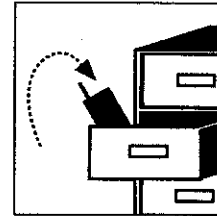
Keep away from dust.

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

Avoid exposure to extreme temperatures.

Caring for Your microTalk PR 900 DX 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.

I. GENERAL SPECIFICATIONS

B. RECEIVER

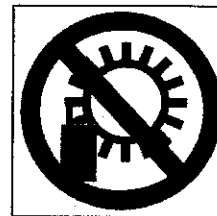|	UNIT	
1. SENSITIVITY		
FOR 12 DB SINAD	uV	0.25
FOR CALL SIG. DETECTION	uV	0.2
2. MAX. AUDIO OUTPUT @5% THD	MW	300
3. MAX. S/N RATIO @ 1mV RF INPUT	DB	45
4. SQUELCH		
a) SENS.	uV	0.2
b) ATTACK TIME	mS	120
c) CLOSING TIME	mS	200
5. AUDIO FREQUENCY RESP.		
@ 300 HZ	DB	-2
@ 2500 HZ	DB	-6
6. SIGNAL DISPLACEMENT BW	+/-KHZ	6
7. INTERMODULATION REJECTION	DB	65
8. SPURIOUS RESPONSE REJECTION	DB	65

C. TRANSMITTER

	UNIT	
1. EFFECTIVE RADIATED POWER	W	2
2. CARRIER FREQ. STABILITY	ppm	5
3. MODULATION LIMITING	KHZ	4.0
4. CARRIER ATTACK TIME	mS	80
5. AUDIO FREQUENCY RESPONSE		
@ 300 HZ	DB	-10
@ 2500 HZ	DB	+4
6. AUDIO DISTORTION	%	3
7. HUM and NOISE	DB	-40
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	18
2. BATTERY (4 x AAA)	V	

COBRA ELECTRONICS CORPORATION warrants that its COBRA Radios, and the component parts thereof, will be free of defects in workmanship and materials for a 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.A.

COBRA will, without charge, repair or replace, at its option, defective 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.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.
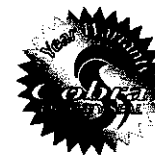
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MA-SM	Lapel Speaker/Microphone	$24.95		
MA-VOX	Vox Headset/Mic	$49.95		
FA-BP	Rechargeable Battery Pack	$19.95		
3515-0812-RC	Charger Adapter	$10.00		

Prices subject to change without notice.

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Cook Co. residents add .75% (7.75% total)
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