

COBRA ELECTRONICS CORPORATION 6500 W. Cortland Street Chicago, Illinois 60707 for your 8 **Cobra**[®] 45WX Ô **Citizens Band** 2-way Handheld **CB** Radio 16 Weather Radio

Operating instructions



"Ingenious Products for Easier Communication."

S

Printed in Thailand

Cobra Electronics Corp.© 1997

Part no. 480-156-P-001

How to use your





CONTENTS:

Introduction	,
Features3	
Technical Support and service3	
Controls and Indicators4/5)
The CB Story6)
FCC Warnings6)
Included with your 45WX7	!
Getting Started8	6
Antenna8	6
Battery Pack8	6
Operation9)
Turning your Hand-Held CB on9)
Setting the Squelch9)
Selecting a channel10)
LCD Display Panel -Batt Low light 10)
Transmit / Receive10)
One Touch Channel 9 & 1911	
Dual Watch11	
All Channel Scan12	

Weather Channels12	
Power High / Low13	
Auto Battery Save Icon13	
Memory Channels14	
Memory Channel Scan14	
5 Digit Frequency Display15	
In Vehicle Use15	
Lighted Display16)
Key Lock16)
How your CB can serve you16)
A few rules you should know17	
Weather Channel Messages17	
Channel 9 Emergency Messages18	
CB 10 Codes19	ł
Frequency Ranges20	
Specifications21	
Warranty Information22	
Optional Accessories23	

Operation (continued)

INTRODUCTION

The Cobra 45WX is truly the ultimate handheld CB transceiver — No other handheld CB radio gives you so many state-of the-art features in such convenient, compact design. The 45WX is designed to give you consistent, outstanding performance in virtually all conditions and situations. To insure you get the most from the Cobra 45WX, please read this operating guide carefully before using the unit.

FEATURES

-40 CB Radio Channels
-10 Weather Channels
-Snap-On Battery System
-Full Featured LCD Display Panel
-Instant Channel 9 & 19
-Dual Watch Channel Monitor
-Full Channel Scan
-Key Lock
-Eight Memory Locations
-Memory Scan
-High \ Low Power Switch
-Flexible Antenna
-Battery Saver Circuitry
-Speaker Microphone Jack
-BNC Antenna Connector

TECHNICAL SUPPORT

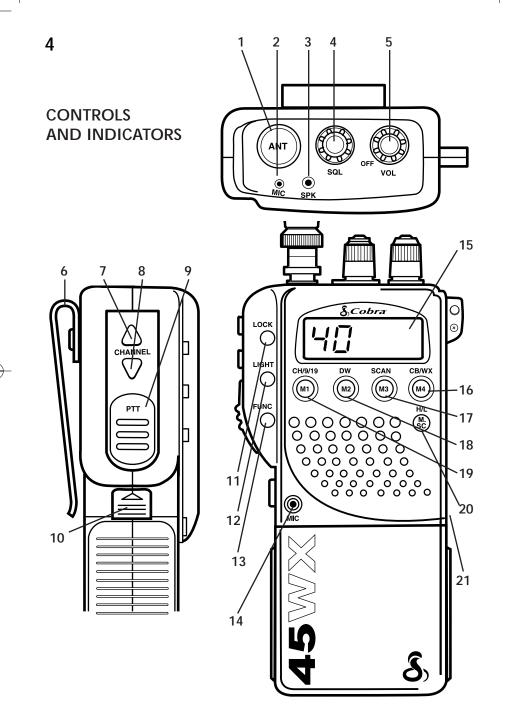
For technical assistance, please call our Automated Help Desk which can assist you by answering the most frequently asked questions about Cobra products.

(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 - 8:00 pm, Monday through Friday, CST.

Technical assistance is also available on-line in the Frequently Asked Question (FAQ) section at www.cobraelec.com or by e-mail to productinfo@cobraelec.com



- 1. BNC Antenna Connector
- 2. Microphone Jack
- 3. Speaker Jack
- 4. Squelch Control
- 5. On/Off Volume Control
- 6. Belt Clip
- 7. Channel Up Key
- 8. Channel Down Key
- 9. PTT (Push To Talk) Key
- 10. Battery Cartridge Slide Release
- 11. Lock Key
- 12. Light Key
- 13. Function Key
- 14. Microphone
- 15. LCD Display Panel
- 16. CB & Weather Channel / Memory Location (4) Key
- 17. Channel Scan / Memory Location (3) Key
- 18. Dual Watch / Memory Location (2) Key
- 19. Instant Channel 9 & 19 / Memory Location (1) Key
- 20. High & Low Power / Memory Scan Key
- 21. Power Jack

THE CB STORY

The Citizens Band lies between the shortwave broadcast and 10-meter Amateur radio bands, and was established by law in 1949. The Class D two-way communications service was opened in 1959. (CB also includes a Class A citizens band and Class C remote control frequencies.)

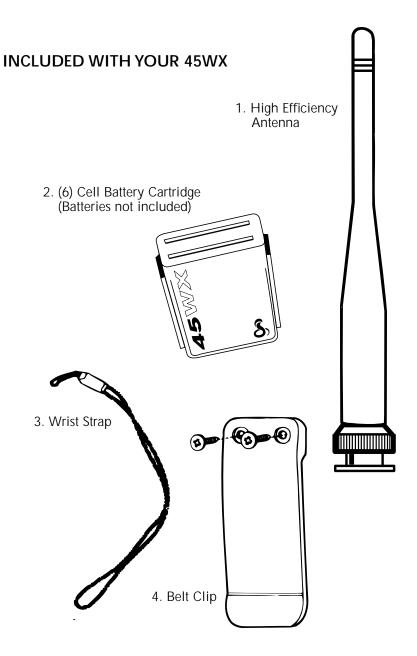
FCC regulations permit only "transmissions" (one party to another) rather than "broadcasts" (to a wide audience). Thus, advertising is not allowed on CB Channels because that is "broadcasting."

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 violation of the technical regulations of Part 95 of the FCC Rules, or violation of Type Acceptance requirements of Part 2 of the Rules.

Citizens Band (CB) Radio operators are no longer required to obtain an FCC license to operate their CB equipment or provide station identification.

Nevertheless, an operator of a CB radio station is still required to comply with the communications act and with the rules of CB Radio Operation.



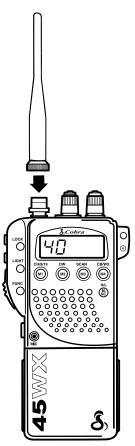
8

GETTING STARTED

ANTENNA

BATTERY PACK

Attach antenna securely by turning clockwise.



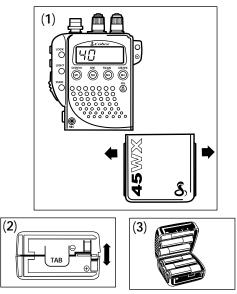
**See Accessories on page 23 for rechargeable battery pack option.

Insert (6) new "AA" Alkaline batteries (not

provided) into the battery cartridge. To install batteries, (1) remove the battery cartridge from the unit. (2) Lift the tab on top of the battery pack and separate the two halves. (3) Install the batteries according to the polarity markings provided on the cartridge. Note: Incorrect battery installation can damage the batteries and cartridge. Slide on Battery pack until secure.

Alkaline batteries:

Top grade Alkaline batteries should be used.



Nickel Cadmium (NiCad) Batteries: Batteries with 700 mAh minimum recommended. Top Grade NiCad batteries can be ordered direct from Cobra. See page 23 for details.

OPERATION TURNING ON/SQUELCH

9

TURNING YOUR HANDHELD CB ON

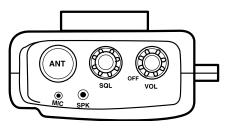
Rotate the power ON-OFF Volume Control clockwise.

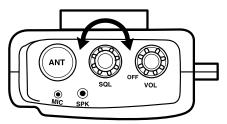
Open the squelch by fully turning counterclockwise and adjust the volume to a comfortable level.

SETTING THE SQUELCH

Think of your squelch control as a gate for incoming signals. If you turn the squelch control fully clockwise, you effectively close the "gate" and no signals will pass through. If you turn the squelch control fully counterclockwise, you open the gate and all signals come through.

To achieve the Desired Squelch Setting (DSS), turn the squelch control counterclockwise until you just hear noise. Then turn the squelch control back clockwise just until the noise stops. This **DSS** setting only lets strong signals through.





OPERATION SELECT CHANNEL/DISPLAY/TRANSMIT

OPERATION ONE TOUCH 9 & 15/DUAL WATCH

10

SELECTING A CHANNEL

Turn on your 45WX, push the UP arrow.

To select a higher channel, push the UP arrow key.

To select a lower channel, push the DOWN arrow key.

**Note: To guick advance channels, press and hold the selection key.

LCD DISPLAY

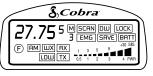
All the information you need is provided from this LCD display panel.

2 digit channel display / 5 digit frequency display (F)= Function Key indicator AM = Amplitude Modulation [EMG] = Emergency channel 9 \overline{WX} = Weather station TX = Transmit indicator **RX** = Receive indicator LOW = Low power setting M = Memory indicator

Memory channel number Scan = Scan indicator DW = Dual Watch indicator SAVE = Auto Battery Save feature indicator

LOCK = Lock key indicator

BATT = Battery low indicator



CHANNEL

CHANNEL

PTT

TRANSMIT / RECEIVE

To transmit, push the PTT button. The **TX** will be displayed during transmissions.

Hold the 45WX mic about 2 inches from your mouth.

Speak into the microphone in a normal voice.

Release the PTT button to receive incoming transmissions.

Note: While the PTT button is depressed, you cannot receive transmissions. The **RX icon is displayed when the radio is in receive mode.



Instant access to emergency channel 9 or information channel 19.

Example: You are on channel 40 and wish to check channel 9 & 19.

To switch to channel 9, push once.

To switch to channel 19, push twice.

To return to original channel, push three times.

**Note: At anytime you can change channels by pressing the channel selector key.

DUAL WATCH

Dual Watch allows simultaneous monitoring of any two preselected channels.

Example: You want to monitor channel 11 and 17 for incoming transmissions.

Set your squelch to the Desired Squelch Setting (**DSS**). (See pp 9)

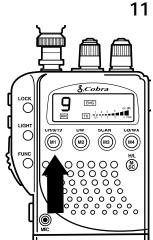
Select channel 11, and push and hold the DW key until a "beep" is heard. The **DW** icon will flash.

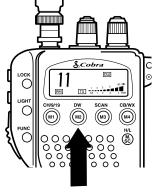
Select channel 17, and push and hold the **DW** key until a "beep" is heard. The DW icon will stay on and the 45WX will switch between channels 11 and 17.

The 45WX will stop scanning and monitor a channel when it receives an incoming transmission.

Five seconds after the transmission stops, the 45WX will continue to switch between Channels.

Note: At a later date, you can recall your preset DW channels by pushing and releasing the **DW key.





OPERATION WEATHER SCAN/WEATHER CHANNEL

СК

СК

iΗT

٩C

CH/9/19

(M1)

OPERATION POWER HI-LO/LOW BATTERY

12

ALL CHANNEL SCAN

Scans all 40 channels.

Be sure your squelch is set to the Desired Squelch Setting. (See pp 9)

Push the Scan key.

The 45WX will stop scanning and monitor a channel when it receives an incoming transmission. Five seconds after the transmission stops, the 45WX will continue scanning.

**Note: At anytime you can stop scanning by pressing another key on the 45WX.

WEATHER CHANNELS

10 National Weather Channels (8 NOAA and 2 Canadian) provide full coverage to keep you informed of weather conditions.

Push the CB/WX key.

The WX icon will appear.

Change weather channels by pushing the Up/Down channel keys. Sometimes more than one channel can be received. Select the weather channel with the clearest audio quality.

To return to normal CB operation, push the CB/WX key again. The **AM** icon will appear.

40 AM RX TX àНТ CH/9/19 DW SCAN CB/WX (M2) (M1) (мз NC H/L (M. SC 0000 Ο

8 Cobra

TX

CB/WX

(M4

SCAN

(МЗ

have a broadcast tower

within transmission range

×

9

ШX

DW

(M2)

0000000

**Note: Some areas may not

of your 45WX.

8 Cobra

SCAN

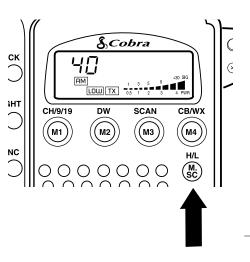
POWER HIGH / LOW

Reduces power output to 1 watt to extend battery life.

Push the H/L key. The **LOW** icon will appear.

To return to full power, push the H/L key again.

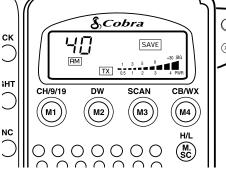
**Note: Reduce power setting reduces the range of your 45WX.



AUTO BATTERY SAVE **INDICATOR**

Your 45WX has a unique circuit designed to dramatically extend the life of the batteries. If there are no transmissions within 10 seconds, your 45WX will automatically switch to battery save mode. The SAVE icon will appear and power usage will be reduced. Full power will be restored with the push of any key.

**Note: The Auto Battery Save Circuit will not effect incoming transmissions.



OPERATIONS MEMORY CHANNELS/MEMORY CHANNEL SCAN

LOCK

LIGHT

FUNC

40

(M2)

(F) AM

OPERATION FREQUENCY DISPLAY/IN VEHICLE USE

14

MEMORY CHANNELS

Recall eight of your most used channels.

Saving Channels in Memory

Select desired channel to store in memory.

Press Function key once. The (\mathbf{F}) icon will appear.

Press and hold the desired memory location key. The Micon will appear with the corresponding memory location number.

**Note: There are four memory locations as indicated on the key pad; F/M1, F/M2, F/M3, F/M4. There are four additional memory locations available; F/Lock, F/Light, F/Channel Up, F/Channel Down.

Retrieving Channels from Memory

Press the Function key.

Press and release the desired memory location key.

MEMORY CHANNEL SCAN

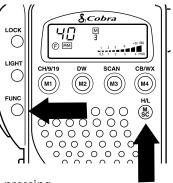
Be sure your squelch is set to the Desired Squelch Setting (DSS). (See pp 9)

Press and release the Function key.

Press and release the M.SC key.

The 45WX will stop scanning and monitor a memory channel when it receives an incoming transmission. Five seconds after the transmission stops, the 45WX will continue scanning.

**Note: At anytime you can stop scanning by pressing another key on the 45WX.





(M. SC)

00

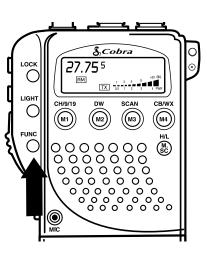
00

000

000

Push and hold the function key for approximately 3 seconds.

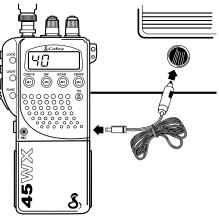
To switch back to channel readout. push and hold the function key until the display changes.



IN VEHICLE USE

Your 45WX can be connected to a 12 volt power source with the cigarette power cord adaptor provided. Connect adaptor as shown.

**Note: Due to the characteristics of CB transmissions, it may be difficult to transmit and receive from inside your car with antenna provided. Roof mounted antennas can dramatically improve transmissions and will increase your range. You will need a quality roof mount antenna and a BNC/SO239 adapter. See accessories section for details.



OPERATION LIGHTED DISPLAY/KEY LOCK/HOW YOUR CB SERVES YOU

16

LIGHTED DISPLAY

To illuminate the display push the light key.

Display will illuminate for 5 seconds, then automatically turn off to save batteries.

LOCK KEY

Lock all function buttons preventing accidental actuation.

To lock the key pad push the lock key.

To Unlock, push the LOCK key again.

HOW YOUR CB CAN SERVE YOU

- Warn of traffic tie ups ahead.
- Provide weather and road information.
- Provide help fast in event of emergency or breakdown.
- Suggest good spots to eat and sleep.
- Make long trips more interesting, and help keep you awake.

- Provide direct contact with your office or home.
- Make friends as you travel.
- Provide "local information" to find your destination.
- Help law enforcement officers by reporting drunk and reckless drivers.

A FEW RULES YOU SHOULD KNOW

- 1. You are not allowed to carry on a conversation with another station for more than five minutes at a time without taking a one-minute break to give others a chance to use the channel.
- 2. You are not allowed to blast others off the air by overpowering them with illegally amplified transmitter power or illegally high antennas.
- 3. You can't use the CB to promote illegal activities.
- 4. You are not allowed to use profanity.
- 5. You may not play music in your CB.
- 6. You may not use your CB to sell merchandise or professional service.

WEATHER CHANNEL MESSAGES

You can receive up to the minute local area weather reports provided by NOAA (National Oceanic Atmospheric Administration) 24 hours a day, 7 days a week. An agency of the U.S. Department of Commerce, NOAA warns of dangerous weather, charts our seas and skies, guides our use and protection of ocean and coastal resources and conducts research to improve our understanding and stewardship of the environment.

The National Weather Service operates about 380 stations. Approximately 90 percent of the Nation's population is within listening range of a NOAA Weather Radio broadcast.

A similar network of about 15 stations using the same frequencies broadcast continuous weather information across much of southern Canada.

If you have a question concerning NOAA Weather Radio or wish to receive a listing of NOAA Weather Radio receiver locations, please contact your nearest National Weather Service Office, or write to National Weather Service (Attn: W/OM11), National Oceanic and Atmospheric Administration, Silver Spring, MD. 20910.

**Note: Some areas may not have a broadcast tower within the transmission range of your 45WX.



Scobra

SCAN

CB/WX

1171

(M2)

 \cap

18 USE CHANNEL 9 FOR EMERGENCY ONLY

Operating Procedure for Emergency Communications

1. For **EMERGENCY** communications, set radio to Ch. 9. For nonemergency communications, select desired Channel by rotating the CHANNEL UP/DOWN tuning knob until reaching the desired Channel.

Be sure the antenna is properly connected to the radio before transmitting. Prolonged transmitting without an antenna, or use of a poorly matched antenna, could cause damage to the transmitter.

2. When asking for aid on Channel 9 it is suggested that you request a **REACT** base to respond by saying "Break Channel 9 for a REACT base" and provide the **CB DISTRESS DATA (called "CLIP)**:

<u>CALL SIGN-Identify yourself and vehicle.</u>

LOCATION-Be exact.

INJURIES-Number. Type. Trapped?

<u>PROBLEM-</u> Give details and help required. Air <u>CLIP</u> repeatedly so any monitor can aid you.

If you don't receive a response on Ch. 9; try Ch.14 or 19.

FCC gives the following examples of permitted and prohibited types of communications for use on Channel 9. These are guidelines and are not intended to be all-inclusive.

	Permitted	Example Message		
Yes "A tornado sighted six miles north of town."				
No "This is observation post number 10. No tornado sigh				
	Yes	"Lam out of gas on Interstate 95 at mile marker 121."		

Yes	"I am out of gas on Interstate 95 at mile marker 121."				
No	"I am out of gas in my driveway."				
Yes	"There is a four-car collision at Exit 10 on the Beltway, send police and ambulance."				
No	"Traffic is moving smoothly on the Beltway."				
Yes	"Base to Unit 1, the Weather Bureau has just issued a thunderstorm warning. Bring the sailboat into port."				
No	"Attention all motorists. The Weather Bureau advises that the snow tomorrow will accumulate 4 to 6 inches."				
Yes	"There is a fire in the building on the corner of 6th and Main Streets."				
No	"This is Halloween patrol unit number 3. Everything is quiet here."				

CB 10-CODES

Citizens Band radio operators have largely adopted the **"10-code"** for standard questions and answers. Its use permits faster communications and better understanding in noisy areas. The following table lists some of the more common codes and their meanings:

Code	Meaning	Code	Meaning
10-1	Receiving poorly	10-37	Wrecker needed at
10-2	Receiving well	10-38	Ambulance needed at
10-3	Stop transmitting	10-39	Your message delivered
10-4	OK, message received	10-41	Please turn to channel
10-5	Relay message	10-42	Traffic accident at
10-6	Busy, stand by	10-43	Traffic Tie up at
10-7	Out of service, leaving air	10-44	I have a message for you
10-8	In service, subject to call	10-45	All units within range
10-9	Repeat message		please report
10-10	Transmission completed,	10-50	Break channel
	standing by	10-60	What is next
10-11	Talking too rapidly		message number?
10-12	Visitors present	10-62	Unable to copy,
10-13	Advise Weather/Road	10 ()	use phone
	conditions	10-63	Net directed to
10-16	Make pick up at	10-64	Net clear
10-17	Urgent business	10-65	Awaiting your next message/assignment
10-18	Anything for us?	10-67	All units comply
10-19	Nothing for you, return to base	10-07	Fire at
10-20	My location is	10-70	Proceed with transmission
10-21	Call by telephone	10-71	in sequence
10-22	Report in person to	10-77	Negative contact
10-23	Stand by	10-81	Reserve hotel room for
10-24	Completed last assignment	10-82	Reserve room for
10-25	Can you contact	10-84	My telephone number is
10-26	Disregard last information	10-85	My address is
10-27	I am moving to channel	10-91	Talk closer to mike
10-28	Identify your station	10-93	Check my frequency on
10-29	Time is up for contact		this channel
10-30	Does not conform to FCC rules	10-94	Please give me a
10-32	I will give you a radio check		long count
10-33		10-99	Mission completed, all
10-34	Trouble at this station		units secure
10-35	Confidential information	10-200	Police needed at
10-36	Correct time is		

FREQUENCY RANGE

The COBRA 45 WX transceiver represents one of the most advanced AM two-way radios used as a Class D station in the Citizens Radio Service. This unit features advanced Phase Lock Loop (PLL) circuitry providing complete coverage of all 40 CB channels and 10 weather channels as shown below.

CB Channel	Channel Freq. in MHz	CB Channel	Channel Freq. in MHz	Weather Channel	Weather Freq. in MHz
1 2 3	26.965 26.975	21 22 23	27.215 27.225 27.255	1 2	162.550 162.400
3 4 5	26.985 27.005 27.015	23 24 25	27.235 27.235 27.245	3 4	162.475 162.425
6 7 8 9 10	27.025 27.035 27.055 27.065 27.075	26 27 28 29 30	27.265 27.275 27.285 27.295 27.305	5 6 7 8	162.450 162.500 162.525 161.650
11 12 13 14 15	27.085 27.105 27.115 27.125 27.135	31 32 33 34 35	27.315 27.325 27.335 27.345 27.355	9 0	161.775 163.275
16 17 18 19 20	27.155 27.165 27.175 27.185 27.205	36 37 38 39 40	27.365 27.375 27.385 27.395 27.405		

HH-45 WX SPECIFICATIONS

GENERAL

CHANNELS

FREQUENCY RANGE

FREQUENCY TOLERANCE FREQUENCY CONTROL OPERATING TEMPERATURE RANGE MICROPHONE INPUT VOLTAGE

ANTENNA CONNECTOR METER SIZE, WITH 6 CELL BATT. PACK WEIGHT

TRANSMITTER

POWER OUTPUT

MODULATION FREQUENCY RESPONSE OUTPUT IMPEDANCE

RECEIVER

CB SENSITIVITY IF FREQUENCY

AUDIO OUTPUT FREQUENCY RESPONSE 2ND IF IMAGE REJECTION ADJACENT CH. REJECTION AUTOMATIC NOISE LIMITER FREQUENCY CONTROL

WEATHER

SENSITIVITY IF FREQUENCY

AUDIO OUTPUT FREQUENCY RESPONSE EMERGENCY ALERT TONE

CB - 40 CH WEATHER - 10 CH CB - 26.965 TO 27.405 MHZ WEATHER - 161.650 TO 163.275 MHZ 0.005 % PLL (PHASE LOCK LOOP) SYNTHESIZER -30° C TO + 65° C ELECTRET, PUSH-TO-TALK 9V VDC, DETACHABLE 12 VDC, EXTERNAL TYPE BNC LCD DISPLAY, ICONS 2¹/₂″L x 5³/₄″H X 1³/₈″D 9 oz.

3.5 W AT 9 VDC - HIGH, 1.0 W IN LOW 4.0 W AT 13.8 VDC - HIGH, 2.0 IN LOW AM 300 - 3000 HZ AT -6 DB 50 OHMS, UNBALANCED

```
LESS THAN 1 UV FOR 10 DB S/N
DUAL CONVERSION
1 ST - 10.690 MHZ, 2ND - 455 KHZ
500 mW MAXIMUM AT 10 % DISTORTION
300 - 3000 HZ AT -6 DB
GREATER THAN 60 DB
50 DB MIN.
BUILT- IN.
PLL (PHASE LOCK LOOP)
```

LESS THAN 1 uV FOR 12 DB SINAD DUAL CONVERSION 1st: -10.690 MHz 2nd: -455 KHz MAXIMUM 500 mW AT 10 % DISTORTION 300 - 3000 HZ AT -6 DB 1050 HZ, TONE DECODER

LIMITED TWO YEAR WARRANTY

COBRA ELECTRONICS CORPORATION warrants that its COBRA CB 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.A.

COBRA will, without charge, repair or replace, at its option, defective CB 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. For further details concerning procedures for obtaining service, see the "If You Think You Need Service" section of the Owner's Manual.

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.

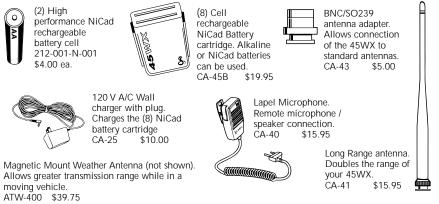
COBRA shall not be liable for any incidental, consequential or other damages; including, without limitation, damages resulting from loss of use or cost of installation.

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.

COBRA ELECTRONICS CORPORATION 6500 W. Cortland Street Chicago, Illinois 60707

OPTIONAL ACCESSORIES

You can find these fine accesories at your local Cobra CB dealer.



If you wish, you can order directly from Cobra

Order by phone:

Call 1-773-889-3087 (Press 1 from the main menu) 8a.m.-8p.m. M-F CST.

Order by mail or fax: Please fill out order form below, and mail/fax directly to Cobra.

Part No.	Cost Ea.	X Qty. = Amoun	** Illinois residents add 7%		
212-001-N-001	\$4.00		** Cook Co. residents add .75% (7.75% total)		
CA-45B	\$19.95		** Chicago residents add 1% (8.75% total)		
CA-25	\$10.00		** Indiana residents add 5%		
CA-43	\$5.00		** Michigan residents add 4 %		
CA-41	\$15.95		** Minnesota residents add 6%		
ATW-400	\$39.75		** Ohio residents add 6%		
CA-40	\$15.95		** Wisconsin residents add 5%		
Fax to: 1-773-622-2	2 69 (Ta	nount x if applicable) pping//handling al	Mail to:Cobra Accessories Dept.\$3.50Chicago, IL 60707		

Name					
Address (No	ot P.O. Box)				
City		State _		Zip	
Credit Card	No			_ Exp. Date	
Customer Signature					
Circle One:	Visa	MasterCard		Discover	

Allow 4 to 6 weeks for delivery. Offer valid in Continental U.S. only.