

Operating Instructions for Your



CITIZENS BAND 2-WAY MOBILE RADIO WITH INSTANT EMERGENCY CHANNEL 9

Model **18 WXST**

Welcome to the Cobra Family of 2-way communications. Cobra has dedicated over 30 years of research and development to the technology that made Cobra #1 in CB Radios. Please take some time to read this booklet. Although this CB is simple to operate, we want you to be aware of all the unique features your new CB Radio offers.

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 A remote control frequencies.)

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



"Cuts Static coming in, adds Punch going out!"

Cobra proudly introduces the first Patent Pending technology that dramatically improves the transmission and reception of CB radio signals.

This revolutionary system reconfigures the transmission signal which allows it to be transferred more effectively through cluttered airwaves. It literally "punches" your message through the hundreds of thousands of signals that are in the air. At the same time, **SoundTracker** system dynamically adjusts the relationship between the signal and static commonly referred to as noise. This allows Cobra's **SoundTracker** system to significantly reduce the amount of static on all incoming CB signals. The system can be further optimized when two SoundTracker CB's are used to talk to each other.

The end result is a clearer, cleaner sounding reception of signals and more powerful transmission which *dramatically* improve CB Communications

WARNING

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.

LICENSING

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.

Installation

Location

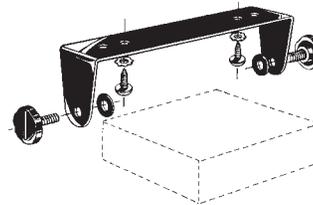
Plan the location of the transceiver and microphone bracket before starting the installation. Select a location that is convenient for operation and does not interfere with the driver or passengers in the vehicle. In automobiles, the transceiver is usually mounted to the underneath of the dash panel, with the microphone bracket beside it.

Mounting and Connections

The transceiver is held in the universal mounting bracket by two thumb screws, permitting adjustment at the most convenient angle.

A universal mounting bracket is supplied along with self tapping screws and star washers. The mounting must be mechanically strong and also provide a good electrical connection to the chassis of the vehicle. To mount the transceiver:

1. Determine the most convenient location in your vehicle. Hold the COBRA radio with mounting bracket in the exact location desired. If nothing will interfere with mounting it in the desired position, remove the mounting bracket and use it as a template to mark the location for the mounting screws.
2. Drill necessary holes and secure mounting bracket in location.



3. Connect the antenna cable plug to the standard receptacle on the unit. Most CB antennas are terminated with a type PL-259 plug which mates with the receptacle marked "ANT."
4. Connect the red lead of DC power cord to +13.8 VDC. In automobile installations, +13.8VDC is usually obtained from the accessory contact in the fuse box. This prevents the set being left on accidentally and also permits operating the unit without the vehicle's engine running.
Before installing the CB radio, visually check the vehicle battery connections to determine which battery terminal, positive or negative (positive is the larger of the two) is grounded to the engine block (or chassis).
5. Connect the black lead to the negative side of the automobile. This is usually the chassis of the car. Any convenient location with good electrical contact (remove paint) may be used.
6. Mount the microphone bracket on right side of the transceiver or near it using two screws supplied. When mounting in an automobile, place the bracket under the dash so the microphone is readily accessible.

CB Antenna

Since the maximum allowable power output to the transmitter is limited by the FCC, the antenna is one important factor affecting transmission distance. Only a properly matched antenna system will allow maximum power transfer from a 50-ohm transmission line to the radiating element. In mobile installations (cars, trucks, boats, etc.), an antenna system that is non-directional should be used.

A vertically polarized quarter-length whip antenna provides the most reliable operation and the greatest range. The shorter loaded-type whip antennas are more attractive, compact and adequate for applications where the maximum possible range is not required. Also the loaded whips do not present the problems of height imposed by the full quarter-wavelength whip.

Mobile whip antennas utilize the metal body of the vehicle as a ground plane. When mounted at a corner of the vehicle they are slightly directional, in the direction of the body of the vehicle. For all practical purposes, however, the radiation pattern is non-directional. The slight directional characteristic will be observed only at extreme distances. A standard antenna connector (Type SO-239) is provided on the transceiver for easy connection to a standard PL-259 cable termination. Cobra loaded-type antenna models AT-35, AT-60 and AT-70 are highly recommended for most installations. Consult your Cobra dealer for further details (or see order form at the back of this book).

When installed in a boat, the transceiver will not operate at maximum efficiency without a ground plate unless the vessel has a steel hull. Before installing the transceiver in a boat, consult your dealer for information regarding an adequate grounding system and prevention of electrolysis between fittings in the hull and water.

3-Way Combination Antennas are available which allow operation of all three bands (AM-FM & CB), using a single antenna. However, use of this type of antenna usually results in less than normal transmit and receive range when compared to a standard-type "Single Band" antenna designed for CB only.

Ignition Noise Interference

Use of a mobile receiver at low signal levels is normally limited by the presence of electrical noise. The primary source of noise in automobile installations is from the alternator and ignition system in the vehicle. Under most operating conditions, when signal level is adequate, the background noise does not present a serious problem. Also, when extremely low level signals are being received, the transceiver may be operated with vehicle engine turned off. The unit requires very little current and therefore will not significantly discharge the vehicle battery.

Even though this COBRA radio has an automatic noise limiter, in some installations ignition interference may be high enough to make good communications impossible. The electrical noise may come from several sources. Many possibilities exist, and variations between vehicles require different solutions to reduce the noise. Consult your COBRA dealer or a 2-way radio technician for help in locating and correcting the source of severe noise.

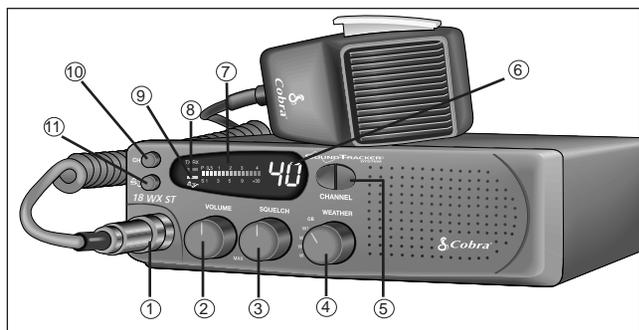
Temporary Mobile Operation

To operate your COBRA transceiver from a car on a temporary basis, you may want to purchase an additional cigarette lighter adapter from your COBRA dealer. This adapter and a magnetic mount antenna allow you to quickly "install" your transceiver for temporary use.

Operation

Controls and Indicators

Refer to controls, indicators and connectors as illustrated below:

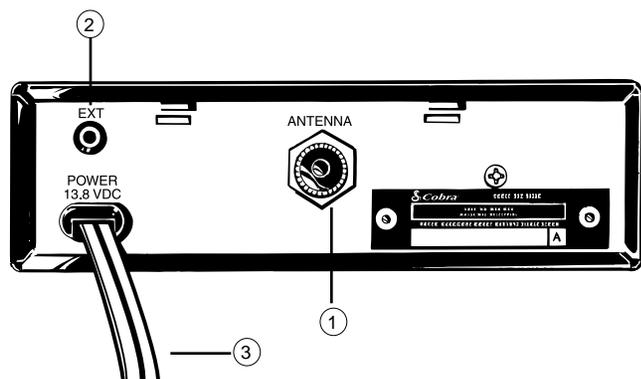


A. Front Panel

1. **Microphone Connector.** Allows for convenient removal of the microphone plug when storage is required. The microphone **MUST** be connected to the unit at all times when in use, for proper operation.
2. **Off/On/Volume.** Turn clockwise to turn power on and set the desired listening volume.
3. **Squelch.** This control is used to cut off or eliminate receiver background noise in the absence of an incoming signal. For maximum receiver sensitivity, it is desired that the control be adjusted only to the point where the receiver background noise or ambient background noise is eliminated. Adjust until the receiver noise disappears. This will require the incoming signal to be slightly stronger than average receiver noise. Further clockwise rotation will increase the threshold level which a signal must overcome in order to be heard. Only strong signals will be heard at a maximum clockwise setting.
4. **CB, WX1, WX2, WX3.** CB mode is for normal CB operation. Switch to WX1, or WX2, or WX3 to find the Weather VHF Radio Station active in your area.
5. **Channel Up/Down Buttons.** When depressed, these buttons are used to select any one of the forty citizens band channels desired.
For a "RAPID" change of channels, depress and **hold** the desired button (up or down). This allows all 40 channels to be covered in about 6 seconds.
6. **LED Channel Display.** The selected channel will be displayed.
7. **S/R/F Power Meter.** Shows relative transmitter RF output power and input signal strength when receiving. The LED (Light Emitting Diode) segments glow green to amber to red...this indicates receive or transmit activity.
8. **RX/TX Indicator LED.** 4 red indicator will light when in the *receive* mode. A green indicator lights when in *receive* mode. When weather channel is selected, the channel display will be turned off.
9. **SoundTracker™ LED.** A red indicator will illuminate when the SoundTracker system is engaged on your CB.
10. **Channel 9 Button.** Depressing this button provides instant access to emergency Channel 9. Channel 9 on display will flash to remind you that the function is activated.
11. **SoundTracker™ Switch.** Depressing this button turns on the SoundTracker system in your radio.
 - **Automatic Noise Limiter.** This is a non-switchable feature that is always "on" to reduce background noise.

B. Rear Panel

- 1. Antenna Connector.** This female connector permits connection of the transmission line cable male connector to the transceiver.
- 2. External Speaker.** The External Speaker Jack is used for remote receiver monitoring. The external speaker should have 8-ohm impedance and be rated to handle at least 4.0 watts. When the external speaker is plugged in, the internal speaker is automatically disconnected.
- 3. Power:** This cable is permanently attached to the radio. If you wish to remove the radio after installation, disconnect at fuse holder and ground connector.



Operating Procedure to Receive

1. Be sure that power cord, antenna and microphone are connected to the proper connectors before proceeding further. The weather switch should be in the "CB" position.
2. Turn the radio ON by rotating the VOLUME CONTROL clockwise.
3. Rotate SQUELCH CONTROL counterclockwise until incoming signal is heard.
4. Select the desired channel.
5. Set VOLUME CONTROL to a comfortable listening level.
6. Engage the SoundTracker system by depressing the button labeled ST.

Listen to the background noise from the speaker. Turn the SQUELCH CONTROL slowly clockwise until the noise JUST disappears (no signal should be present). Leave the control at this setting. The squelch is now properly adjusted. The receiver will remain quiet until a signal is actually received. Do not advance the control too far, or some of the weaker signals will not be heard. The revolutionary SoundTracker system allows you to reduce unwanted background noise (static) and increase the signal for better reception.

Operating Procedure to Transmit

1. Select the desired channel.
2. The receiver and transmitter are controlled by the press-to-talk switch on the microphone. Press the switch and the transmitter is activated; release switch to receive. When transmitting (on a clear channel), hold the microphone two inches from the mouth and speak clearly in a normal voice.

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

SOUNDTRACKER SYSTEM

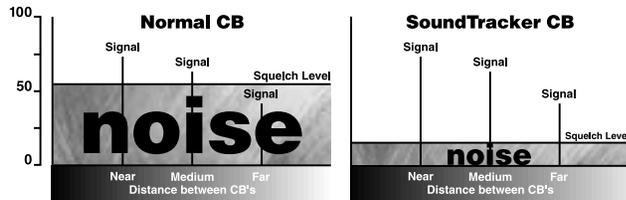
While previous systems only “blacked out” or limited noise in higher sound frequencies, the revolutionary new SoundTracker System actually reduces noise while leaving the signal intact in the reception mode. In the transmission mode, it actually strengthens the signal, providing you with a significant reduction in noise on reception and transmission.

Sound clarity is measured by the ratio of the signal level to the noise level. The higher the signal-to-noise ratio, the better the sound.

HOW SOUNDTRACKER WORKS

On Reception—“Cuts Noise Coming In”

With a normal CB, distant signals fall below the squelch level and are unintelligible. With a SoundTracker CB, the noise level is cut by up to 90%, which increases the signal-to-noise ratio and dramatically improves signal clarity. This also allows you to significantly reduce the squelch level, which greatly expands your listening range.



On Transmission—“Strengthens Signals Going Out”

A SoundTracker CB strengthens the transmit signal by more effectively using the available RF power output of the CB. The result is improved transmission signal clarity and an expanded transmission range.

Maintenance and Adjustment

Your COBRA CB transceiver is specifically designed for the environment encountered in mobile installations. The use of all solid state circuitry and its light weight result in high reliability. Should a failure occur, however, review the following, then if necessary, replace parts only with identical parts. Do not substitute.

1. Check connections to the source of power and make sure it is the 13.8 VDC required to operate your radio.
2. Check the fuse in the DC power cord. The main power lead (red wire) has a 2 amp 3AG type fuse in its holder. Use only the above specified type and size fuse for maximum protection. Failure to do so, will void the warranty.
3. **Make certain the microphone properly plugged in.**
4. Make certain the antenna is properly assembled and connected.

If you are unable to correct the problem, refer to the SERVICE INSTRUCTIONS at the end of this manual for the correct procedure for warranty and post-warranty service from COBRA.

Replacement Warning

Replacement or substitution of certain parts with replacements other than those recommended by Cobra may be a violation of the technical regulations of Part 95 of the FCC rules, or of Type Acceptance requirements of Part 2 of said rules.

When making adjustments, be sure to re-read applicable portions of this instruction manual to make certain you are following correct procedure and that the radio was properly installed, etc.

A Few Rules That Should Be Obeyed

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 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.

Use Channel 9 For Emergency Messages Only

The 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	"A tornado sighted six miles of town."
Not Permitted	"This is observation post number 10. No tornado sighted."

Limited Two Year Warranty

COBRA ELECTRONICS CORPORATION warrants that its COBRA citizens band (CB) radio, and the component parts thereof, will be free of defects in workmanship and materials for period of two (2) year 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 citizens band (CB) 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. 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 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.

This limited warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Cobra Electronics Corporation,
6500 W. Cortland Street, Chicago, IL 60707

If You Think You Need Service, Call 773-889-3087

“If your product should require factory service please call Cobra first before sending your unit in. This will ensure the fastest turnaround 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. Must include CB unit and microphone.
3. Enclose a description of what is happening with the unit. Include a typed or clearly printed name and address of where the unit is to be returned.
4. Pack unit securely to prevent damage in transit. If possible, use the original packing material.
5. Ship **prepaid and insured by way of a traceable carrier** (to avoid loss in transit) **such as United Parcel Service (UPS), Roadway Parcel Service (RPS) or First Class Insured Mail to Cobra Factory Service, Cobra Electronics Corporation, 6500 W. Cortland St., Chicago, IL 60707. Cobra is not responsible for units not received if package has not been properly insured.**
6. If the unit is in warranty, upon receipt of your unit it will either be repaired or exchanged depending on the model. Please allow approximately 3 to 4 weeks before contacting us for status. If the unit is out of warranty a letter will automatically be sent informing you of the repair charge or replacement charge. If you have any questions, please call 773-889-3087 for assistance.

NOTES

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

OPTIONAL ACCESSORIES

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

Description	Part No.	Cost Ea.	X Qty.	=	Amount
ELECTRET CONDENSER MICROPHONE Replacement microphone with 4-pin screw-on connection	545-157-N-004	\$15.00			
DC POWER CORD Exact replacement	420-002-N-001	\$7.00			
MOUNTING BRACKET Exact replacement	250-003-N-001	\$4.50			
MOUNTING BRACKET SCREWS Exact replacements	523-775-9-001	\$.60 ea			
POWER MICROPHONE Amplified power mic	CA-75	\$19.95			
POWER/NOISE-CANCELLING MICROPHONE Amplified power mic with noise-cancelling design	CA-77	\$39.95			
POWER/ECHO MICROPHONE Amplified power mic with echo circuitry	CA-79	\$69.95			
ATW-400 High performance, dual band, CB and Weather magnetic mount antenna	ATW-400	\$39.95			
ATW-480 High performance, dual band, mirror mount antenna. Replacement whip. (Cable and bracket not included).	ATW-480	\$29.95			

(Prices subject to change without notice)

- ** Illinois residents add 7%
- ** Cook Co. residents add .75% (7.75% total)
- ** Chicago residents add 1% (8.75% total)
- ** Indiana residents add 5%
- ** Michigan residents add 4 %
- ** Ohio residents add 6%
- ** Wisconsin residents add 5%

Fax to:	Amount	_____
1-773-622-2269	(Tax if applicable)	_____
Mail to:	Shipping/handling	\$3.50
Cobra Accessories Dept.	Total	_____
6500 W. Cortland St.,		
Chicago, IL 60707		

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.

Make check or money order (no stamps) payable to Cobra Electronics and mail with this order form to:

Cobra Accessories Dept.
6500 W. Cortland St., Chicago, IL 60707
Call 773-889-3087, or fax 773-622-2269 for credit card orders
Allow 4 to 6 weeks for delivery. Offer valid in Continental U.S. only.

Please print clearly:

Name _____

Address (Not P. O. Box) _____

City _____ **State** _____ **Zip** _____

Credit Card No. _____ **Exp. Date** _____

Customer Signature _____

Circle One:

Visa MasterCard Discover

CUT ALONG DOTTED LINE

FOLD HERE

PLACE
STAMP
HERE

S Cobra®
6500 West Cortland Street
Chicago, IL 60707

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