Thank you for purchasing the Cobra 19 DX IV CB Radio Transceiver. Properly used, this Cobra product will give you many years of reliable service.

The Citizens Band 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.)

Customer Assistance
Should you encounter any problems with this product, or not understand its many features, please refer to this owner’s manual. If you require further assistance after reading this manual, Cobra Electronics offers the following customer assistance services:

For Assistance in the U.S.A.
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 5:30 p.m. Central Time, Mon. through Fri. (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

Nothing Comes Close to a Cobra®
For more information or to order any of our products, please visit our website:
www.cobra.com

The Cobra line of quality products includes:

CB Radios
microTALK® Radios
Radar/Laser Detectors
HighGear® Accessories
CobraMarine VHF Radios
Power Inverters
Cobra JumPacks®
Accessories

MOBILE RADIO
19 DX IV

Printed in China
Part No. 480-170-P
Version F
**Introduction**

**Product Features**

- 40 CB Radio Channels
- Instant Channels 9/19 NOR
- PA System
- Compact Size
- Dynamic Microphone
- Nine Foot Microphone Cord
- Front Panel Microphone Connector
- RF Gain

**Product Features and FCC Regulations**

**Features**

- 40 CB Radio Channels
- Instant Channels 9/19 NOR
- PA System
- Compact Size
- Dynamic Microphone
- Nine Foot Microphone Cord
- Front Panel Microphone Connector
- RF Gain

**FCC Regulations**

**FCC Rules**

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

**FCC Warnings**

All transmitter adjustments other than those supplied by the manufacturer as front panel operating controls, must be made by, or under the supervision of, the holder of an FCC-issued general Radio-Telephone Operator’s License. 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.

You should read and understand Part 95 (included with this unit) of the FCC Rules and Regulations, before operating your Cobra radio, even though the FCC no longer requires you to obtain an operator’s license.

**Optional Accessories and Ordering Info**

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

**Ordering from U.S.A.**

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

For credit card orders, complete and return this order form to fax number 773-622-2269. Or call 773-889-3087 (Press 1 from the main menu) 8:00 a.m. to 5:30 p.m. Central Time, Monday through Friday.

Make check or money order payable to:

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

To order online, please visit our website: www.cobra.com
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*Nothing Comes Close to a Cobra®*
Warnings

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 those 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.

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 are not allowed to 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.

CHANNEL 9 EMERGENCY MESSAGES
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.”

Included in this Package

You should find all of the following items in this package:

- CB Transceiver
- Microphone
- Transceiver Bracket
- Microphone Bracket
- Operating Manual

Mounting and Connections

Select a location for the transceiver and microphone bracket that is convenient for operation. In automobiles, the transceiver is usually mounted to the underneath of the dash panel, with the microphone bracket beside it.

A universal mounting bracket is supplied along with self tapping screws and star washers. The transceiver is held in the universal mounting bracket by two thumb screws, permitting adjustment at the most convenient angle.

To mount and connect your transceiver:
1. Hold the radio with mounting bracket in the exact location desired. 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 receptacle marked “ANT” on the back of the unit.
4. Connect the red lead of the DC power cord to an accessory 12 volt fuse.
5. Connect the black lead to the negative side of the automobile. This is usually the chassis. Any convenient location with good electrical contact (remove paint) may be used.

NOTE
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).

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.
7. Attach the four pin microphone cable to receptacle on front of unit and install unit in bracket securely.
Operation

Turning on Your Mobile Radio

Turn the On-Off/Volume knob clockwise to turn the power on and set the desired listening volume.

CB Antenna

Only a properly matched Antenna system will allow maximum power output. In mobile installations (cars, trucks, boats, etc.), an Antenna system that is non-directional should be used. 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.

NOTE
Cobra loaded-type antenna models HGA 1000, HGA 1500 and HGA 2000 are highly recommended for most installations. Consult your Cobra dealer for further details (or see order form on page 17). Three-way combination antennas are available which allow operation of all three bands (AM-FM and 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.

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.
Operation

Squelch
This control is used to cut off or eliminate receiver background noise in the absence of an incoming signal. 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.

Squelch is the “control gate” for incoming signals.

To squelch your radio:
1. Full clockwise rotation closes the gate, allowing only very strong signals to enter.
2. Full counterclockwise rotation opens the “gate,” allowing all signals in.
3. To achieve the Desired Squelch Setting (DSS), turn the Squelch control counterclockwise just until the noise stops. This is the DSS setting.

RF Gain
This control is used to adjust receiver sensitivity. Maximum sensitivity allows weak signals to be received. However, very strong signals (such as from a nearby transmitter) can cause distortion at that setting. Adjust until the distortion disappears. Reducing the receiver’s RF Gain eliminates distortion from very strong incoming signals.

To set RF Gain:
1. Full counterclockwise rotation minimizes gain for maximum distortion control.
2. To achieve the desired level of distortion control, turn the RF Gain knob counterclockwise until the distortion is eliminated.
3. After moving away from the strong signal, turn the RF Gain knob fully clockwise to receive all possible signals.

Selecting a Channel
Rotate the Channel knob clockwise until desired channel is displayed.

Channel 9/NOR/Channel 19
Set CH 9 to obtain instant access to the emergency channel.
Set NOR position to use the channel knob to choose any of the 40 channels.
Set CH 19 to obtain instant access to the information and calling channel.

CB/PA
In the CB position, the PA function is disabled and the unit will transmit and receive on the selected channel. The PA function should not be used unless a PA speaker is connected. In the PA position, the transmit function is disabled and the microphone output will go only to the PA speaker.

S/RF Power Meter
Shows relative transmitter RF output power and input signal strength when receiving. The Liquid Crystal Display (LCD) segments increase with signal strength.

TX Indicator
The TX Indicator will light when in the transmit mode. “Busy” will appear when there is an incoming signal.
Operation

Ignition Noise Interference
Use of a mobile receiver at low signal levels is normally limited by the presence of electrical noise. 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 radio has an automatic noise limiter, in some installations ignition interference may be high enough to make good communications impossible. Consult your authorized Cobra dealer or a two-way radio technician for help in locating and correcting the source of severe noise.

Temporary Mobile Operation
For Temporary Mobile Operation, 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.

NOTE
Red Wire is connected to positive side of socket center tip. Black Wire is connected to negative side contacts.
Radio resets to CH 9 when connected to cigarette lighter plug.
When using the unit with cigarette adapter, turn off when not in use to avoid draining the battery.

Operating Procedure to Receive
Be sure that power cord, antenna and microphone are connected to the proper connectors before proceeding further. The CB/PA switch should be in the CB position.

To receive:
1. Turn the radio on by rotating the On-Off/Volume knob clockwise.
2. Rotate the Squelch/RF Gain knob counterclockwise until incoming signal is heard.
3. Select the desired channel.
4. Set the On-Off/Volume knob and the Squelch/RF Gain knob to a comfortable listening level.

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

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.
**Maintenance/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 fuses in the DC power cord. The main power lead (red) has a two 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 is properly plugged in.
4. Make certain the antenna is properly assembled and connected.

If you are unable to correct the problem, refer to product service on page 14 for the correct procedure for warranty and post-warranty service from Cobra.

**Frequency Ranges**

The Cobra 19 DX IV transceiver represents one of the most advanced AM two-way radios for use 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.

<table>
<thead>
<tr>
<th>CB Channel</th>
<th>Channel Frequency in MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>26.965</td>
</tr>
<tr>
<td>2</td>
<td>26.975</td>
</tr>
<tr>
<td>3</td>
<td>26.985</td>
</tr>
<tr>
<td>4</td>
<td>27.005</td>
</tr>
<tr>
<td>5</td>
<td>27.015</td>
</tr>
<tr>
<td>6</td>
<td>27.025</td>
</tr>
<tr>
<td>7</td>
<td>27.035</td>
</tr>
<tr>
<td>8</td>
<td>27.055</td>
</tr>
<tr>
<td>9</td>
<td>27.065</td>
</tr>
<tr>
<td>10</td>
<td>27.075</td>
</tr>
<tr>
<td>11</td>
<td>27.085</td>
</tr>
<tr>
<td>12</td>
<td>27.105</td>
</tr>
<tr>
<td>13</td>
<td>27.115</td>
</tr>
<tr>
<td>14</td>
<td>27.125</td>
</tr>
<tr>
<td>15</td>
<td>27.135</td>
</tr>
<tr>
<td>16</td>
<td>27.155</td>
</tr>
<tr>
<td>17</td>
<td>27.165</td>
</tr>
<tr>
<td>18</td>
<td>27.175</td>
</tr>
<tr>
<td>19</td>
<td>27.185</td>
</tr>
<tr>
<td>20</td>
<td>27.205</td>
</tr>
<tr>
<td>21</td>
<td>27.215</td>
</tr>
<tr>
<td>22</td>
<td>27.225</td>
</tr>
<tr>
<td>23</td>
<td>27.235</td>
</tr>
<tr>
<td>24</td>
<td>27.245</td>
</tr>
<tr>
<td>25</td>
<td>27.265</td>
</tr>
<tr>
<td>26</td>
<td>27.275</td>
</tr>
<tr>
<td>27</td>
<td>27.285</td>
</tr>
<tr>
<td>28</td>
<td>27.295</td>
</tr>
<tr>
<td>29</td>
<td>27.305</td>
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<tr>
<td>30</td>
<td>27.315</td>
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<tr>
<td>31</td>
<td>27.325</td>
</tr>
<tr>
<td>32</td>
<td>27.335</td>
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<tr>
<td>33</td>
<td>27.345</td>
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<tr>
<td>34</td>
<td>27.355</td>
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<tr>
<td>35</td>
<td>27.365</td>
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<tr>
<td>36</td>
<td>27.375</td>
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<tr>
<td>37</td>
<td>27.385</td>
</tr>
<tr>
<td>38</td>
<td>27.395</td>
</tr>
<tr>
<td>39</td>
<td>27.405</td>
</tr>
</tbody>
</table>
## Specifications

<table>
<thead>
<tr>
<th><strong>General</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Channels</strong></td>
<td>CB – 40 CH</td>
</tr>
<tr>
<td><strong>Frequency Range</strong></td>
<td>CB – 26.965 to 27.405 MHZ</td>
</tr>
<tr>
<td><strong>Frequency Tolerance</strong></td>
<td>0.005 %</td>
</tr>
<tr>
<td><strong>Frequency Control</strong></td>
<td>PLL (Phase Lock Loop) Synthesizer</td>
</tr>
<tr>
<td><strong>Operating Temperature Range</strong></td>
<td>-30° C TO + 65° C</td>
</tr>
<tr>
<td><strong>Microphone</strong></td>
<td>Plug-in Condenser</td>
</tr>
<tr>
<td><strong>Input Voltage</strong></td>
<td>13.8VDC nom. (negative ground)</td>
</tr>
<tr>
<td><strong>Current Drain</strong></td>
<td>Transmit: AM full mod., 1.4A (maximum)</td>
</tr>
<tr>
<td></td>
<td>Receive: Squelched, 0.9 A; full audio output, 1.2A (nominal)</td>
</tr>
<tr>
<td><strong>Size</strong></td>
<td>1.75&quot; H x 4.5&quot; W x 7&quot; D</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>3.25 lbs.</td>
</tr>
<tr>
<td><strong>Antenna Connector</strong></td>
<td>UHF; SO-239</td>
</tr>
<tr>
<td><strong>Meter</strong></td>
<td>LCD’s; indicates relative power output and received signal strength</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Transmitter</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Power Output</strong></td>
<td>4 watts</td>
</tr>
<tr>
<td><strong>Modulation</strong></td>
<td>AM (Amplitude Modulation)</td>
</tr>
<tr>
<td><strong>Frequency Response</strong></td>
<td>300 to 3000 Hz</td>
</tr>
<tr>
<td><strong>Output Impedance</strong></td>
<td>50 ohms, unbalanced</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Receiver</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sensitivity</strong></td>
<td>Less than 1 µV for 10dB (S+N)</td>
</tr>
<tr>
<td><strong>Selectivity</strong></td>
<td>6 dB @ 7 KHz, 60 dB @ 10KHz</td>
</tr>
<tr>
<td><strong>Image Rejection</strong></td>
<td>60 dB, typical</td>
</tr>
<tr>
<td><strong>Adjacent-Channel Rejection</strong></td>
<td>50 dB, typical</td>
</tr>
<tr>
<td><strong>Automatic Noise Limiter</strong></td>
<td>Built-in</td>
</tr>
</tbody>
</table>

## Warranty

**Limited One-Year Warranty**

**For Products Purchased in the U.S.A.**

Cobra Electronics Corporation warrants that its Cobra CB radios, and the component parts thereof, will be free of defects in workmanship and materials for a period of one 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 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.

This warranty gives you specific legal rights, and you may also have other rights which may 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.

**For Products Purchased Outside the U.S.A.**

Please contact your local dealer for warranty information.

**Trademark Acknowledgement**

Cobra®, Nothing Comes Close to a Cobra® and the snake design are registered trademarks of Cobra Electronics Corporation, USA. Cobra Electronics Corporation™ is a trademark of Cobra Electronics Corporation, USA.
Product Service

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 Priority 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 to four 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 in Canada

For out of warranty service, ship prepaid this product to: AVS Technologies Inc., 2100 Trans Canada Hwy S., Montreal, Quebec, H9P 2N4. We reserve the right to repair or replace the radio with an equivalent product. Please include the following information: Date of Purchase, Model Number, Dealer Purchased From, Dealer Address, Dealer Phone Number.

For Products Used in Canada

Industry Canada Notice

Operation is subject to the following two conditions: 1) this device may not cause interference, and 2) this device must accept any interference, including interference that may cause undesired operation of this device.

For Products Purchased Outside the U.S.A. or Canada

Please contact your local dealer for product service information.
**Accessories**

- **Replacement Microphone Bracket**
  - HG M73
  - 741-080-9-001

- **Replacement Mounting Bracket**
  - HG M77
  - 250-199-9-001

- **Replacement Thumb Screws**
  - HG M75
  - 634-001

- **Four Pin Replacement Dynamic Microphone**
  - HG M73

- **Four Pin Noise Canceling Microphone**
  - HG M77

- **Four Pin Power Microphone**
  - HG M75

- **21” Base Loaded Magnet Mount Antenna**
  - HG A1000

- **38” Base Loaded Magnet Mount Antenna**
  - HG A1500

- **Dynamic External Speaker**
  - HG S100

- **Noise Canceling External Speaker**
  - HG S300

- **Noise Canceling With Talk Back External Speaker**
  - HG S500