

Uniden®

 **Bearcat® 880**

Owner's Manual



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Features, specifications, and availability of optional accessories are all subject to change without notice.

UNPACKING

Carefully unpack your **Bearcat 880** and check the contents against this list:

- **Bearcat 880** CB 2-way mobile radio
- Microphone
- Mounting Bracket Kit
- DC Power Cord
- Reference Guide
- Part 95 Subpart D (FCC Rules)

If any items are missing or damaged, contact your place of purchase immediately.

DESCRIPTION

Your Uniden **Bearcat 880** represents the highest quality communications device designed for use in the Citizens Band Radio Service. It will operate on any of the 40 AM frequencies authorized by the Federal Communications Commission (FCC).



The Citizens Band Radio Service is under the jurisdiction of the Federal Communications Commission (FCC). Any adjustments or alterations which would alter the performance of the transceiver's original FCC type acceptance, or which would change the frequency determining method, are strictly prohibited. Replacement or substitution of crystal, transistors, ICs, regulator diodes, or any other part of a unique nature, with parts other than those recommend by Uniden, may cause violations of the technical regulations in Part 95 of the FCC Rules or in violation of type acceptance requirements in Part 2 of the rules.

ELIMINATION OF LICENSING

The FCC has ruled that CB Radio Service operators are no longer required to obtain an FCC License to operate their CB equipment. In doing so, the FCC now also permits CB station operation without station identification.

Elimination of individual station licenses does not reduce the operating privileges or responsibilities of CB users. An operator of a CB radio station is still required to comply with the Communications Act and with the rules of Citizens Band Radio Service.

EMERGENCY OPERATION

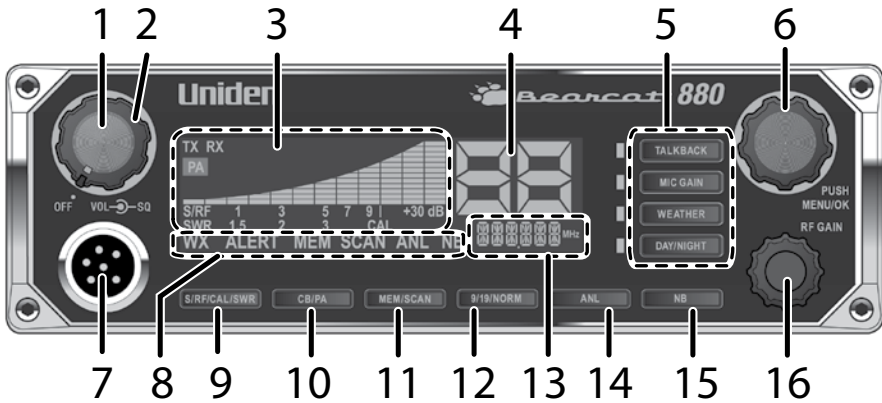
1. Press **9/19/NORM** or turn **Channel Selector** knob to **Channel 9**.
2. Press **PTT** switch on microphone and speak clearly.
3. If there is no response, select an active channel and ask that party to relay your emergency broadcast on **Channel 9**.



All channels except Channel 9 may be used for normal communication. The FCC reserves Channel 9 for emergency communications involving the immediate safety of individuals or protection of property. Use Channel 9 to render assistance to a motorist.

This is an FCC rule and applies to all CB radio operators.

CONTROLS AND FUNCTIONS



1. **Volume Control** knob with **Power On/OFF**
2. **SQUELCH** knob: Reduces background noise when there is no incoming signal.
3. **S/R/F/SWR Meter**: Displays Send/Receive signal strength, RF Power, and SWR reading.
4. **Channel Number display**.
5. **Operation buttons**:
 - **Talkback**: Press to hear what you sound like when transmitting.
 - **MIC Gain**: Adjusts microphone sensitivity. Delivers up to 100% modulation.
 - **Weather**: NOAA weather channels
 - **Day/Night**: Adjusts LCD backlight sensitivity between Day and Night modes.

6. **Channel/Select** knob: Selects transmission and reception channels. Push knob to select.

All channels, except Channel 9, may be used for normal communication. Channel 9 is reserved by the FCC for emergency communications involving the immediate safety of individuals or protection of property. Channel 9 may also be used to render assistance to a motorist.

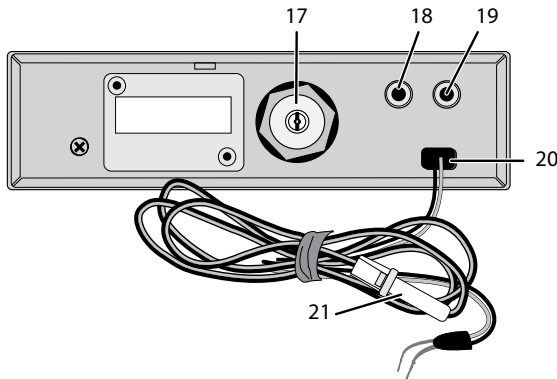
This is an FCC rule and applies to all CB operators.

7. Microphone socket: 6 poles.
8. LEDs light when their corresponding function is active.
9. **S/RF/CAL/SWR**: Push to to check signal strength, RF Power, and SWR reading.



Do not use PA function unless an external speaker is connected.

10. **CB/PA**: Selects **CB** (Citizens Band) or **PA** (Public Address).
11. **MEM/SCAN**: Last channel selected or scan channels.
12. **9/19/NORM**: Press to button to switch between emergency channel 9, channel 19, and standard CB channels.
13. MHz Display: Displays the MHz of the selected channel.
14. **ANL**: Turns **ANL** (Automatic Noise Limiter) feature on and off. **ANL** reduces external noise.
15. **NB**: **NB** (Noise Blanker) feature on and off. **NB** reduces interference from vehicle ignition systems
16. **RF Gain** knob: Improves reception in strong signal areas.



17. Antenna socket: Connects antenna to the unit.
18. **PA SP**: Connects optional external 8-ohm, 4-watt speaker for use as a public address system.

To prevent acoustic feedback, separate the microphone from the speaker when operating the PA at high output levels.

19. **EXT. SP**: Connects an 8-ohm 4-watt speaker to remotely monitor the receiver.



When the external speaker is plugged in, the internal speaker is off.

20. **POWER**: Connects DC power to transceiver.
21. Fuse

INSTALLATION

MOBILE STATION INSTALLATION



Plan the location of the transceiver and microphone bracket before beginning installation.

1. Select a location that is convenient for operating the radio, but does not interfere with the driver or passenger.
2. Install bracket with self-tapping screws provided.
3. Connect wiring (see page 7).
4. Attach the microphone bracket to side of the radio.
5. Attach radio to bracket.

Mobile Station Antenna

Because the maximum power output of the transmitter is limited by the FCC, the quality of your antenna is very important. To achieve the maximum transmission distance, Uniden strongly recommends that you install only a high quality antenna. You have just purchased a superior transceiver - don't diminish its performance by installing an inferior antenna.

Only a properly matched antenna system will allow maximum power transfer from the 50 ohm transmission line to the radiating element. Your **Uniden** dealer is qualified to help you select the proper antenna

for your requirements. A whip style antenna may be used for automobile installation.

A short 'loaded' whip antenna is easier to install on an automobile, but its efficiency is less than that of a full quarter-wave whip antenna.

Connecting the Power Cords

Uniden recommends connecting the power lead to the Ignition Switch Accessory Terminal. This way, the transceiver is automatically turned off when the ignition switch is turned off.

As an alternative, the power cord may be connected to an available terminal on the fuse block or to a point in the wiring harness. However, caution must be taken to prevent a short circuit. If in doubt, contact your vehicle dealer for information.

Ground Information

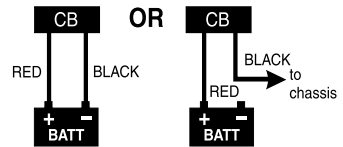


This transceiver may be installed and used in any 12-volt DC negative ground system vehicle.

Negative Ground System

With a negative ground system, the negative (-) battery terminal is usually connected to the vehicle motor block.

Connect the red DC power cord from the transceiver to the positive (+) battery terminal or other convenient point. Then connect the black power cord to the vehicle chassis or negative (-) battery terminal.



MARINE INSTALLATION

Consult your dealer for information regarding marine installation. It is important to adequately ground the system and to prevent electrolysis between the fittings in the hull and the water.

USING YOUR BEARCAT 880

S/RF/SWR METER

You can check your incoming and outgoing signal strength and wattage as you use your Bearcat 880. The 12-column LCD display (refer to item number 3 on page 4) displays this data. Press and hold the PTT button on the microphone to see the RF output power levels. Release the PTT button to see incoming signal strength. Press and release **S/RF/SWR** to cycle through these measurements as well.

TO RECEIVE SIGNALS



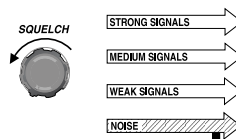
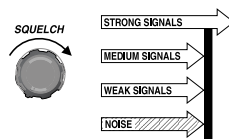
Be sure that the power source, antenna, and microphone are properly connected before proceeding.

1. Turn unit **ON**. Set **VOLUME** to a comfortable level.
2. Select **CHANNEL**.
3. Set noise limitations as desired (**ANL/NB**).

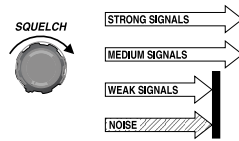


Dynamic Squelch Control automatically sets Squelch to the optimal level for stronger transmission and signal clarity. To scan for weaker signals, turn off **Dynamic Squelch Control** and perform the following steps:

4. Turn **SQUELCH** fully clockwise so only strong signals can get through.
- 4b. Turn **SQUELCH** fully counterclockwise until you hear a hiss. Everything gets through - noise, weak signals, and strong signals.



- 4c. Turn **SQUELCH** back clockwise until the hiss stops. Only clearer signals get through.



NOTE Set **SQUELCH** only when the radio is not receiving a strong signal.

5. Turn the **RF Gain** knob to set the RF gain sensitivity to Local or Distance.
6. Press **MIC Gain** to adjust the microphone sensitivity.

TO TRANSMIT

CAUTION Perform a voltage Standing Wave Ratio (SWR) measurement prior to using the transmitter. A SWR ratio in excess of 2:1 may damage the transmitter.

NOTE Be sure to read and understand Part 95, FCC Rules and Regulations before operating your transmitter.

1. Select a channel.
2. Press **MIC Gain** to adjust the microphone sensitivity.
3. When the channel is clear, press the **PTT** button and speak. Release the button when you have finished speaking.



You can also transmit while you are on emergency channels 9 or 19. Press the **PTT** button to transmit emergency information.

PREVENTIVE MAINTENANCE

Every six months:

1. Check the Standing Wave Ratio (**SWR**).
2. Be sure all electrical connections are tight.
3. Inspect antenna coaxial cable for wear or breaks in shielding.
4. Be sure all screws and mounting hardware are tight.

MAINTENANCE

The **Bearcat 880** is designed to give you years of trouble-free service. There are no user-serviceable parts inside. Except for the fuse in the DC power cord, no maintenance is required.

To replace a blown fuse:

1. Press ends of the fuse holder together. Twist to open. Carefully separate the two pieces.
2. Remove the fuse and inspect. If blown, replace with the same type fuse.



*Use only the fuse specified for your **Bearcat 880**. Failure to do so may void your warranty.*

TROUBLESHOOTING

In the event of system malfunction, perform the following procedures:

| Problem | Suggestion |
|------------------------|---|
| Unit does not power up | <ul style="list-style-type: none">• Check power cord connections.• Check fuse.• Check vehicle electrical system. |
| No reception | <ul style="list-style-type: none">• Check microphone connection.• Set CB/PA to CB.• Check VOLUME and SQUELCH.• Check antenna.• Check antenna connection.• Adjust RF Gain. |
| Poor Reception | <ul style="list-style-type: none">• Check VOLUME and SQUELCH.• Be sure antenna SWR is normal.• Adjust RF Gain. |
| No Transmission | <ul style="list-style-type: none">• Set CB/PA switch to CB.• Check microphone connection.• Adjust MIC Gain. |
| Low Transmission | <ul style="list-style-type: none">• Adjust MIC Gain. |

If you do not get satisfactory results after performing the above checks, call the **Uniden Customer Service Center** at 1-800-297-1023, 8:00 a.m. to 5:00 p.m. CST, Monday through Friday.

SERVICING YOUR TRANSCEIVER

Technical information, diagrams, and charts are provided on request. It is the user's responsibility to see that this radio is operating at all times in accordance with the FCC Citizens Radio Service regulations. We highly recommend that you consult a qualified radio/telephone technician for servicing and aligning this CB radio product. Please refer to the WARNING information on page 2 of this Guide.



When ordering parts, be sure to specify the correct model number and serial number of the unit.

SPECIFICATIONS

GENERAL

| | |
|------------------------|--|
| Channel: | 40 |
| Frequency Range: | 26.965 - 27.405 MHz |
| Frequency Control: | PLL Synthesizer |
| Antenna Impedance: | 50 ohms |
| Power Input: | 13.8VDC |
| Current Drain | |
| TX: | AM Full Modulation 1.5A (max) |
| RX: | At no signal: 400mA |
| Operating Temperature: | -22°F to 140°F (-30°C to 60°C) |
| Accessories: | DC Power Cord Microphone Microphone Hanger Mounting Bracket |
| Size (W x D x H): | 6.3 in x 6.3 in. x 2.2 in. (without knobs and jacks) (160.5 mm x 160.5 mm x 217 mm) |
| Weight: | 2.2 Pounds |
| TRANSMITTER | |
| Output Power: | 4 watts |

TRANSMITTER (Cont'd)

| | |
|-------------------------------|--------------------|
| Emission Type: | 6A3 |
| Hum and Noise: | Better than 40 dB |
| Frequency Tolerance: | ±0.002% |
| Modulation Percentage (Peak): | 100% |
| Spurious Rejection: | -70 dB |
| Output Impedance: | 50 ohm, unbalanced |

RECEIVER

| | |
|-------------------------------------|---------|
| Sensitivity at 10 dB S+N/N: | 0.5 µV |
| Sensitivity at 500 mW Audio Output: | 0.5 µV |
| Squelch Threshold: | 0.5 µV |
| Antenna Impedance: | 50 ohms |
| Squelch Tight: | 1000 µV |
| Signal Meter S-9: | 100 µV |
| Audio Output Power (max.): | 5 watts |
| Audio Output (10% Dist.): | 4 watts |
| Adjacent Channel Rejection: | 55dB |
| Image Rejection: | 65dB |
| Internal Speaker Impedance: | 16 ohms |
| External Speaker Impedance: | 8 ohms |

PUBLIC ADDRESS

| | |
|---------------------------------|---------|
| Output Power at 10% Distortion: | 4 watts |
|---------------------------------|---------|

Specifications shown are typical and subject to change without notice.

TWO-YEAR EXTENDED WARRANTY

Important: Evidence of original purchase is required for warranty service.

WARRANTOR: UNIDEN AMERICA CORPORATION ("Uniden")

ELEMENTS OF WARRANTY: Uniden warrants, for two years, to the original retail owner, this Uniden Product to be free from defects in materials and craftsmanship with only the limitations or exclusions set out below.

WARRANTY DURATION: This warranty to the original user shall ter-

minate and be of no further effect two years after the date of original retail sale. The warranty is invalid if the Product is (A) damaged or not maintained as reasonable or necessary, (B) modified, altered, or used as part of any conversion kits, subassemblies, or any configurations not sold by Uniden, (C) improperly installed, (D) serviced or repaired by someone other than an authorized Uniden service center for a defect or malfunction covered by this warranty, (E) used in any conjunction with equipment or parts or as part of any system not manufactured by Uniden, or (F) installed or programmed by anyone other than as detailed by the owner's manual for this product.

STATEMENT OF REMEDY: In the event that the product does not conform to this warranty at any time while this warranty is in effect, warrantor will either, at its option, repair or replace the defective unit and return it to you without charge for parts, service, or any other cost (except shipping and handling) incurred by warrantor or its representatives in connection with the performance of this warranty. Warrantor, at its option, may replace the unit with a new or refurbished unit. THE LIMITED WARRANTY SET FORTH ABOVE IS THE SOLE AND ENTIRE WARRANTY PERTAINING TO THE PRODUCT AND IS IN LIEU OF AND EXCLUDES ALL OTHER WARRANTIES OF ANY NATURE WHATSOEVER, WHETHER EXPRESS, IMPLIED OR ARISING BY OPERATION OF LAW, INCLUDING, BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THIS WARRANTY DOES NOT COVER OR PROVIDE FOR THE REIMBURSEMENT OR PAYMENT OF INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Some states do not allow this exclusion or limitation of incidental or consequential damages so the above limitation or exclusion may not apply to you.

LEGAL REMEDIES: This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. This warranty is void outside the United States of America.

PROCEDURE FOR OBTAINING PERFORMANCE OF WARRANTY: If, after following the instructions in the owner's manual you are certain that the Product is defective, pack the Product carefully (preferably in its original packaging). The Product should include all parts and

accessories originally packaged with the Product. Include evidence of original purchase and a note describing the defect that has caused you to return it. The Product should be shipped freight prepaid, by traceable means, to warrantor at:

Uniden America Corporation

Parts and Service Division

4700 Amon Carter Blvd

Fort Worth, TX 76155

(800) 297-1023, 8 a.m. to 5 p.m., Central, Monday through Friday

RADIO CODE DEFINITIONS

The following list contains common “10-Codes” used by CB radio operators for faster communication and better understanding.

| Code | Meaning | Code | Meaning |
|-------------|-------------------------------------|-------------|---|
| 10-1 | Received poorly | 10-34 | Trouble at this station |
| 10-2 | Receiving well | 10-35 | Confidential information |
| 10-3 | Stop transmitting | 10-36 | Correct time is |
| 10-4 | OK, message received | 10-37 | Wrecker needed at |
| 10-5 | Relay message | 10-38 | Ambulance needed at |
| 10-6 | Busy, stand by | 10-39 | Your message is delivered |
| 10-7 | Out of service, leaving air | 10-41 | Please turn to channel |
| 10-8 | In service, subject to call | 10-42 | Traffic accident at |
| 10-9 | Repeat message | 10-43 | Traffic tie up at |
| 10-10 | Transmission completed, standing by | 10-44 | I have a message for you |
| 10-11 | Talking too rapidly | 10-45 | All units within range please report |
| 10-12 | Visitors present | 10-50 | Break channel |
| 10-13 | Advise Weather/ Road conditions | 10-60 | What is next message number |
| 10-16 | Make pickup at | 10-62 | Unable to copy, use phone |
| 10-17 | Urgent business | 10-63 | Net directed to |
| 10-18 | Anything for us? | 10-64 | Net clear |
| 10-19 | Nothing for you, return to base | 10-65 | Awaiting your next message/ assignment |
| 10-20 | My location is | 10-67 | All units comply |
| 10-21 | Call by telephone | 10-70 | Fire at |
| 10-22 | Report in person to | 10-71 | Proceed with transmission in sequence |
| 10-23 | Stand by | 10-77 | Negative contact |
| 10-24 | Completed last assignment | 10-81 | Reserve hotel room for |

| | | | |
|-------|-------------------------------|--------|-------------------------------------|
| 10-25 | Can you contact | 10-82 | Reserve room for |
| 10-26 | Disregard last information | 10-84 | My telephone number is |
| 10-27 | I am moving to channel | 10-85 | My address is |
| 10-28 | Identify your station | 10-91 | Talk closer to microphone |
| 10-29 | Time is up for contact | 10-93 | Check my frequency on this channel |
| 10-30 | Does not conform to FCC rules | 10-94 | Please give me a long count |
| 10-32 | I will give you a radio check | 10-99 | Mission completed, all units secure |
| 10-33 | EMERGENCY TRAFFIC | 10-200 | Police needed at |

