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Unpacking

Carefully unpack your **PC78XL** and check the contents against this list:

- **PC78XL** CB 2-way mobile radio
- Microphone
- Mounting Bracket Kit
- DC Power Cord
- Reference Guide
- Part 95 Subpart D (FCC Rules)
- Product Registration Card

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

*Please be sure to complete and mail your Product Registration Card.*
Description

Your Uniden PC78XL 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).

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 also decided to permit 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.

Uniden is a registered trademark of Uniden America Corporation.

Features, Specifications, and availability of Optional Accessories are all subject to change without notice.

Emergency Operation

1. Set the switch to CH9 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. 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 operators of CB radios.
Controls and Functions

1. **Microphone Jack**
2. **ON/OFF - VOLUME**: Turns radio on or off; adjusts speaker volume.
3. **SQUELCH**: Reduces background noise when there is no incoming signal.
4. **RF GAIN**: Improves reception in strong signal areas.
5. **MIC GAIN**: Adjusts microphone sensitivity.
6. **DELTA TUNE**: Fine tunes the receiver.
7. **SWR CAL**: Calibrates the meter for Standing Wave Ratio (SWR) measurements.
8. **Channel Knob**: Selects channel.
9. **Channel Display**: Displays current channel selection.
10. **RX/TX Indicator**: Red—transmitting; green—receiving.
11. **ANT**: Indicates a high SWR condition in antenna system. Check antenna, cable and connections.
12. **Dynamic Squelch Control (DSC)**: Automatically sets Squelch to optimal level for stronger signals.
13. **CH9/OFF**: Turns Channel 9 on or off.
14. **BRT/DIM**: Adjusts the brightness of LED Channel Display and Indicator and RF Signal Meter.
15. **CB/PA Switch**: Selects PA (Public Address) or CB.

**NOTE**

Do not use PA function unless an external speaker is connected.
16. **NB/ANL-ANL/OFF**: Reduces external noise and interference from vehicle ignition systems.

17. **S/RF-SWR/CAL**: Selects meter function. *S/RF* - normal; *SWR* and *CAL* are for SWR measurements only. See page 8 for calibration procedures.

18. **Multi-function Meter**: Measures *SWR*, *RF* and *S* signal strength.

19. **POWER**: Connects DC power to transceiver.

20. **EXT. SP.**: Connects optional 8-ohm 4-watt speaker to remotely monitor receiver.

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

21. **PA SP.**: Connects external 8-ohm, 4-watt speaker to use as public address system.

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

22. **ANT.**: Connects antenna cable to transceiver.
Installation

MOBILE STATION INSTALLATION

NOTE
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 instructions for Connecting the Power Cords).
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, we strongly recommend 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. However, the efficiency of the short whip antenna is less than that of a full quarter-wave whip antenna.

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.
CONNECTING THE POWER CORDS

We recommend 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.

Or, 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 or positive ground system vehicle.

Most newer U.S. and foreign made cars, and small trucks, use a negative ground system. Some older cars, and some new large trucks, use a positive ground system.

With a negative ground system, the negative (-) battery terminal is usually connected to the vehicle motor block. If you cannot determine the polarity system of your vehicle, contact your vehicle dealer for information.

**Negative Ground System**
If you have a negative ground system, 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.

**Positive Ground System**
If you have a positive ground system, connect the black DC power cord from the transceiver to the negative (-) battery terminal or other convenient point. Then, connect the red power cord to the vehicle chassis or the positive (+) battery terminal.
To Receive

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

1. Turn unit **ON** and set. **VOLUME** Control to a comfortable level.

2. Select **CHANNEL**.

3. Set switch to **NB/ANL**.

**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.

**Set SQUELCH only** when the radio is not receiving a strong signal.
5. Adjust **RF GAIN** knob (small) to optimize reception in strong signal areas.

6. Adjust **DELTA TUNE** knob to reduce or eliminate adjacent channel interference.

7. Set meter switch to **S/RF**

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### 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 channel.
2. Adjust **MIC GAIN**.
3. When the channel is clear, press the microphone **PTT** switch and speak.
**Multi-Function Meter**

**SWR Meter**: Measures SWR (standing wave ratio) of antenna. Use it to check the antenna system or to adjust your antenna to the proper length.

To measure SWR:
1. Position meter switch to CAL.
2. Press microphone PTT switch. (Transmit)
3. Calibrate meter with the SWR CAL control by adjusting the needle to the ▼ mark.
4. Move the meter switch to the SWR position while pressing the microphone PTT switch.

A reading below 2 is acceptable. Higher readings indicate a problem in the antenna system. Problems may be caused by humidity, vibration, or corrosion. Check both ends of the coaxial cable connector. Also check for damage to the cable or antenna.

**RF Meter**: Measures RF Output Power for transmitter. To use, position the meter switch at S/RF. Press microphone PTT switch to read transmitting power.

**S-Meter**: Measures incoming signal strength. To use, position the meter switch at S/RF. The meter swings to indicate signal strength.

i.e. S 3, S 5, S 7 ...
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 PC78XL 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.

![Warning]

Use only the fuse specified for your PC78XL.
Failure to do so may void your warranty.
## Troubleshooting

<table>
<thead>
<tr>
<th>Problem</th>
<th>Suggestion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit does not power up</td>
<td>- Check the ignition key position.</td>
</tr>
<tr>
<td></td>
<td>- Check power cord connections.</td>
</tr>
<tr>
<td></td>
<td>- Check fuse.</td>
</tr>
<tr>
<td></td>
<td>- Check vehicle electrical system.</td>
</tr>
<tr>
<td>No reception</td>
<td>- Check microphone connection.</td>
</tr>
<tr>
<td></td>
<td>- Set CB/PA switch to CB.</td>
</tr>
<tr>
<td></td>
<td>- Check VOLUME and SQUELCH.</td>
</tr>
<tr>
<td></td>
<td>- Check antenna.</td>
</tr>
<tr>
<td></td>
<td>- Check antenna connection.</td>
</tr>
<tr>
<td></td>
<td>- Set RF GAIN to MAX</td>
</tr>
<tr>
<td>Poor Reception</td>
<td>- Check VOLUME and SQUELCH.</td>
</tr>
<tr>
<td></td>
<td>- Be sure antenna SWR is normal.</td>
</tr>
<tr>
<td></td>
<td>- Set RF GAIN to MAX</td>
</tr>
<tr>
<td></td>
<td>- Check and adjust DELTA TUNE</td>
</tr>
<tr>
<td>No Transmission</td>
<td>- Set CB/PA switch to CB.</td>
</tr>
<tr>
<td></td>
<td>- Check microphone connection.</td>
</tr>
<tr>
<td></td>
<td>- Check MIC GAIN and adjust to MAX</td>
</tr>
<tr>
<td>Low Transmission</td>
<td>- Be sure antenna SWR is normal.</td>
</tr>
<tr>
<td></td>
<td>- Check MIC GAIN and adjust to MAX</td>
</tr>
</tbody>
</table>

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 read the Warning information on page 1 of this Guide.

**NOTE**

When ordering parts, be sure to specify the correct model number and serial number of the unit.
The following list contains common “10-Codes” used by CB radio operators for faster communication and better understanding.

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

General

Channels: 40
Frequency Range: 26.965 to 27.405 MHz
Frequency Control: Phase Locked Loop (PLL) synthesizer
Frequency Tolerance: ±0.002%
Operating Temperature: -30° to +50°C
-10°C to +50°C (DSC on)
Microphone: Plug-in type; dynamic
Input Voltage: 13.8 VDC nominal (positive or negative ground)
Current Drain:
TX: AM full modulation, 2.2A (max.)
RX: Squelched, 0.3A; with maximum audio output, 1.2A (nominal)
Size: 7-9/32” W x 8-57/64” D x 2-13/64” H
Weight: 4 lbs. 3 oz. with microphone
Antenna Connector: UHF, SQ-239
Meter: Illuminated; indicates relative power output and received signal strength.

Transmitter

Power Output: 4 watts
Modulation: High- and low-level, Class B amplitude modulation
Frequency Response: 300 to 3000 Hz
Output Impedance: 50 ohm, unbalanced

Receiver

Sensitivity: Less than 1µV for 10 dB, (S+N)/N
Selectivity: 6 dB @ 7 kHz, 60 dB, @10 kHz
Image Rejection: 80 dB typical
Adjacent-Ch. Rejection: 60 dB typical
IF Frequencies:
1st: 10.695 MHz
2nd: 455 kHz
Automatic Gain Control (AGC):
Less than 10 dB change in audio output for inputs from 10 to 50,000 µV
RF Gain Control: Adjustable for optimum signal reception
Delta Tune Range: ±1.5 kHz, continuously adjustable
Noise Blanker: RF type
Squelch: Adjustable; threshold less than 1 µV
Audio Output Power: 4 watts
Frequency Response: 300 to 3000 Hz
Distortion: Less than 7% at 3 watts, 1000 Hz
Internal Speaker: 16 ohms, round
External Speaker: 8 ohms, disables internal speaker when connected

PA System

Power Output: 4 watts into external speaker
External Speaker for PA speaker:
8 ohms when CB/PA switch is in PA. The PA also monitors the receiver; separate jack provided.

Specifications shown are typical and subject to change without notification
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 terminate 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
back cover