

uniden®

PRO 640XL

Professional Mobile CB radio

OWNER'S MANUAL

Welcome!

To the world of sophisticated, microprocessor controlled CB radio communications. Your Uniden PRO 640XL represents the most advanced mobile radio ever designed for use in the Citizens Band Radio Service. It will operate on any of the 40 AM, 40 USB or 40 LSB frequencies authorized by the Department of Transport and Communications (DOTAC). Your PRO 640 XL features a superheterodyne circuit with PHASE LOCKED LOOP techniques to assure precise frequency control. This radio has been type accepted and certified by the DOTAC.

WARNING

Before transmitting with your transmitter, you must obtain a Department of Transport and Communications Citizens Band Radio (CBRS) License. Obtain a brochure and a CBRS License Application Form at your nearest DOTAC office. Mail the completed application form and the appropriate fee to the Superintendent Regulatory of Licensing in the State or Territory in which the station will be operated.

CONNECTING THE POWER CORDS

With regard to the connection of the power cords, it may be possible or desirable to connect the red lead (for negative ground systems) or the black lead (for positive ground systems) to the ignition switch accessory terminal so that the radio is automatically turned off when the ignition switch (key) is turned off.

Alternately, the power lead may be connected to an available terminal on the fuse block or even to a point in the wiring harness. Care must be taken, however, to guard against a short circuit condition. When in doubt, please contact your vehicle dealer for specific information about your vehicle.

- 1. MIC GAIN** — Adjusts the modulation of the mic for crisp, clear transmission.
- 2. ANL/NB KEY** — You can select Noise Blanker and Automatic Noise Limiter or all filters OFF. The ANL/NB helps to reduce harsh background noise caused by a variety of interference sources.
- 3. DIM KEY** — The dimmer adjusts the front panel lights for optimum viewing.
- 4. INSTANT CH 9 and 19** — Press these keys to instantly select either channel. Press again to return to normal 40 channel operation.
- 5. TX and RX INDICATORS** — An LED lights to indicate when the radio is transmitting or receiving.
- 6. MICROPHONE** - The operational mode of the CB is controlled by the push-to-talk switch on the mic. Press the switch to activate the transmitter and disable the receiver. Release the switch to enable the receiver and disable the transmitter. When transmitting, hold the mic about 2 inches from your mouth and speak clearly in a normal voice. The mic included with the PRO 640XL is a detachable, low impedance, dynamic type.
- 7. S/RF/SWR METER** — This LED meter shows the relative strength of the received signal or the RF output and the Standing Wave Ratio of your antenna.
- 8. CHANNEL INDICATOR** — Displays the channel currently in use.
- 9. CHANNEL SELECTOR** - This switch selects the desired channel for transmission and reception. All channels, except channel 9, may be used for communications between stations operating under different license. Channel 9 has been reserved by the DOTAC for emergency communications involving the immediate safety of individuals or the immediate protection of property. Channel 9 also may be used to render assistance to a motorist. This is a DOTAC rule and applies to all operators of CB radios.
- 10. CLARIFIER** — Used to fine tune the receive frequency in USB/LSB modes.
- 11. RF GAIN** — Press this control when strong signals are present to improve signal reception sensitivity.
- 12. SQUELCH** — The Squelch control is used to eliminate background noise during the absence of a transmission. Turn the control fully counterclockwise, then slowly rotate it back, clockwise until all noise disappears. At this setting any transmission must be slightly stronger than the background noise to "Break Squelch" or to be heard. Further clockwise rotation will increase the threshold at which a signal will be heard. You can select any level to "Break Squelch"

Controls and Functions

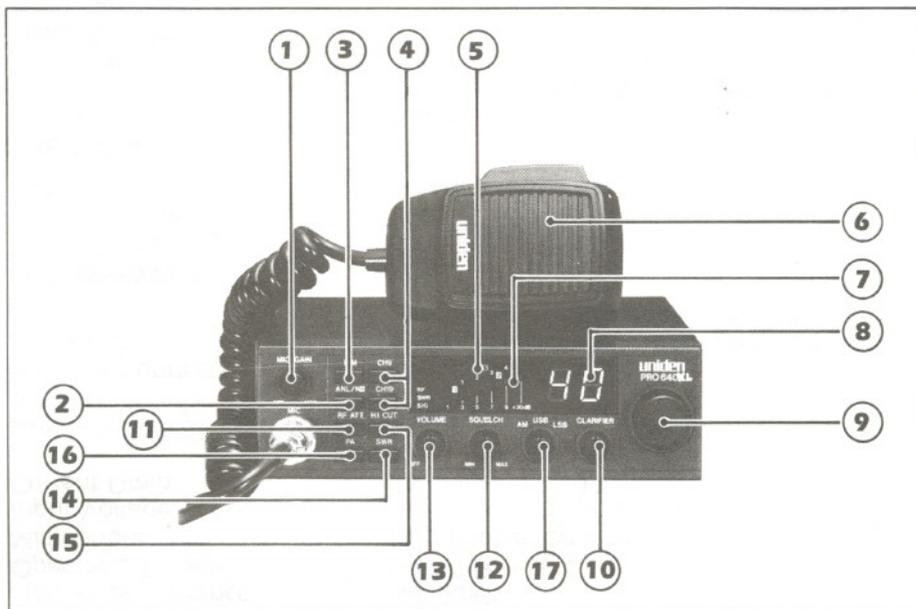
13. VOLUME CONTROL – Rotate clockwise to turn radio on and to increase volume.

14. SWR KEY – Press to read the Standing Wave Ratio of your antenna. The SWR LED will light when the SWR key is pressed.

15. HI CUT KEY – Press to reduce the high frequency response of the receiver. This key can be used to help eliminate the hiss and pop of weak signal reception.

16. PA KEY – Press this switch to the Public Address mode when an external PA speaker is connected. When the PA mode is selected, the CB radio will be disabled. Adjust the PA output level by rotating the mic gain control.

17. AM/USB/LSB Switch – This switch selects the operating mode of either Amplitude Modulation, Upper Sideband, or Lower Sideband.



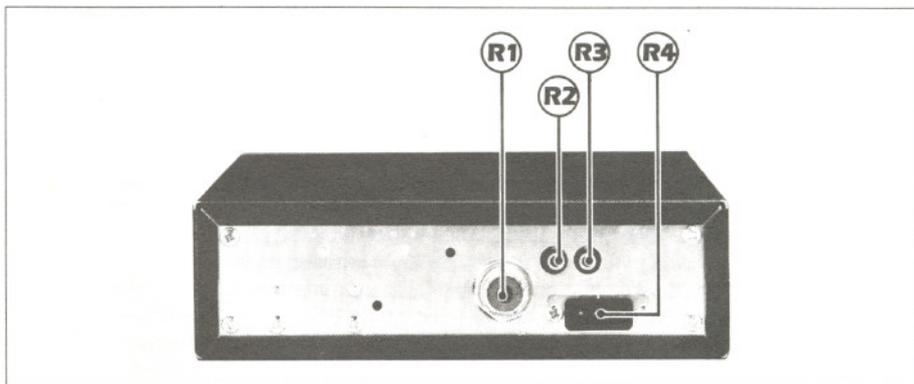
Pro 640XL Front Panel

R1. ANTENNA CONNECTOR — This female connector permits connection of the transmission line cable male connector (PL-259) to the transceiver.

R2. PUBLIC ADDRESS — An external 4 ohm 7-watt speaker must be connected to the "PA SP" jack located on the back of the unit. The speaker must be directed away from the mic to prevent feedback.

R3. EXTERNAL SPEAKER — The "EXT. SP." jack is used for remote monitoring. The external speaker should have a 4 ohm impedance and be rated at least 7 watts. When an external speaker is connected, the internal speaker is disabled.

R4. POWER CONNECTOR - This connector allows you to connect the power to the PRO 640XL with the power connecting cable.



Pro 640XL Rear Panel

Mobile Installation

Plan the location of the radio and microphone bracket before starting installation. Select a location that is convenient for operation and does not interfere with the driver or passenger in the vehicle. The radio should be securely fastened to a solid surface using the mounting bracket and self-tapping screws which are provided.

MOBILE ANTENNA

Since the maximum allowable power output of the transceiver is limited by the DOTAC, the antenna is a very important factor affecting transmission distance. It is for this reason that we strongly recommend that you install only a quality antenna in your new CB radio system. You have purchased a superior quality 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. We recommend that you use a SWR meter when installing your antenna. Set your PRO 640XL to channel 20 and make adjustments to the antenna until the meter shows SWR = 1. Your local dealer is qualified to assist you in the selection of the proper antenna to meet your application requirements.

For automobile installation, the whip antenna may be used with good effect. The most efficient and practical installation is a full quarter wave whip antenna mounted on the rear deck or fender top, midway between the rear window and bumper.

A short "loaded" whip antenna is more convenient to install on your automobile, although the efficiency is less than a full quarter wave whip antenna.

For marine installation, consult your dealer for information regarding an adequate grounding system and prevention of electrolysis between fittings on the hull and water.

GROUND INFORMATION

Most newer cars and small trucks use a negative ground system, while some older cars and some newer, larger trucks may use a positive ground system. A negative ground system is generally identified by the "-" battery terminal being connected to the vehicle motor block, but if you cannot determine the polarity of your vehicle, consult your vehicle dealer for information.

NOTE: This radio may be installed and used in any 12-volt DC negative or positive ground system.

NEGATIVE GROUND SYSTEM

If you are operating on a negative ground system, connect the red DC power cord from the radio to the positive "+" battery terminal or other convenient point and connect the black power lead to the chassis or vehicle frame, or the negative "-" terminal of the battery.

POSITIVE GROUND SYSTEM

If you are operating on a positive ground system, connect the black DC power cord from the radio to the negative "-" battery terminal or other convenient point and connect the red power lead to the chassis or vehicle frame, or the positive "+" terminal of the battery.

Operating Procedure

TO RECEIVE

1. Be sure that the power source, antenna and microphone are properly connected.
2. Turn the unit on by rotating the Volume control clockwise.
3. Set the channel selector switch to the desired channel.
4. Set the Volume control to a comfortable listening level.
5. Listen to the background noise from the speaker. Turn the Squelch control clockwise until the noise disappears (no signal should be present). Leave the control at this setting. The squelch is now properly set. The receiver will remain quiet until a signal is actually received. Do not advance the control too far, or some weaker signals will not be heard.
6. If the transmission you are hearing has annoying high frequency distortion try activating the Hi Cut feature.

TO TRANSMIT

1. Be sure the operator has read and understands DOTAC rules and regulations prior to operating the transmitter.
2. Select the desired channel for transmission.
3. If the channel is clear, depress the push-to-talk switch on the side of the microphone and speak

CAUTION: The transceiver Voltage Standing Wave Ratio (V.S.W.R.) measurement must be performed prior to the use of the transmitter. A "V.S.W.R." ratio in excess of 2:1 may damage the transmitter. Please check your SWR reading frequently by pressing the SWR key.

PREVENTIVE MAINTENANCE

At six to twelve month intervals, the following system checks should be made:

1. Check the Standing Wave Ratio (V.S.W.R.)
2. Inspect all electrical connections
3. Inspect antenna coaxial cable for wear
4. Inspect all screws and other mounting hardware

Memo

MEMORANDUM FOR THE DIRECTOR, FBI

DATE: 10/15/68

TO: SAC, NEW YORK

FROM: SAC, NEW YORK (100-100000)

SUBJECT: [Illegible]

RE: [Illegible]

[Illegible]

[Illegible]

[Illegible]

100-100000

10/15/68

[Illegible]

[Illegible]

[Illegible]

[Illegible]

[Illegible]

[Illegible]

[Illegible]

Troubleshooting

If your PRO 640XL is not performing up to your expectations, please try these simple steps. If you still cannot get satisfactory results after reading this manual and following the trouble shooting steps, please call Uniden Australia Pty. Ltd. at (02) 599-3100.

| Trouble | Check |
|---|--|
| Unit will not turn on. No power. | <ol style="list-style-type: none">1. Check power cord and all connections.2. Check power cord fuse.3. Check vehicle electrical system. |
| Poor reception | <ol style="list-style-type: none">1. Check and adjust Squelch2. Check antenna system and cable, connectors.3. Check operation mode of the radio. |
| Weak transmission | <ol style="list-style-type: none">1. Check antenna system and cable, connectors.2. Check antenna grounding.3. Check for corrosion on connectors. |

If you determine that service is necessary contact your local dealer or pack the unit in its original carton. Send it along with a brief, concise description of the problem, your name, address, phone number, and a copy of the original purchase receipt to the address listed in the warranty.

SERVICING YOUR CB

Technical information, diagrams and charts will be provided upon request. It is the user's responsibility to see that this radio is operating at all times in accordance with the DOTAC Citizens Band Radio Service regulations. We highly recommend that you consult a qualified radiotelephone technician for service and alignment of this radio. When ordering parts, it is important to specify the correct model number and serial number of this radio.

Please refer to the **WARNING** information on the first page of this manual.

Specifications

| | |
|----------------------|--|
| Channels: | 40 AM, 40 USB, 40 LSB |
| Frequency Range: | 26.965 to 27.405 MHz |
| Frequency Control: | Phase Locked Loop (PLL) synthesizer |
| Frequency Tolerance: | $\pm 0.005\%$ |
| Operating Temp.: | -10°C to $+50^{\circ}\text{C}$ |
| Microphone: | Plug in type: dynamic |
| Input Voltage: | 13.8 VDC nom. (+ or - ground) |
| Current Drain: | TX: full mod., 3.0A RX: with max audio output, 1.2A |
| Size: | 6 7/8" W x 8 1/4" D x 2"H |
| Weight: | 3 lb. 2 oz. |
| Antenna Connector: | UHF, SO-239 |
| LED Meter: | Indicates relative RF output and received signal strength and standing wave ratio. |

TRANSMITTER

| | |
|-------------------|--|
| Power Output: | AM maximum of 4W SSB maximum of 12W PEP |
| Freq. Response: | 300 - 2,500 Hz |
| Output Impedance: | 50 ohms, unbalanced |

RECEIVER

| | |
|---------------------|--|
| Sensitivity: | AM $0.5\mu\text{V}$ SSB $0.25\mu\text{V}$ for 10dB (S + N)/N typical 6dB @ 7KHz, 70dB @ 10KHz typical |
| Selectivity: | 75 dB typical |
| Image Rejection: | 10.695 MHz |
| I.F. Frequency: | Selectable attenuator for optimum reception (AGC): less than 10dB change in audio output for inputs from 10 to 50,000 microvolts |
| RF Gain Control: | RF type |
| Automatic Gain: | Adjustable; threshold less than $1\mu\text{V}$ |
| Noise Blanker: | 7 watts max. into 4 ohms |
| Squelch: | 300 to 3,000 Hz |
| Audio Output Power: | less than 10% @ 5 watts, @ 1,000Hz |
| Freq. Response: | 4 ohms, 7 watts round |
| Distortion: | (not supplied) 4 ohms |
| Internal Speaker: | 7 watts in external 4 ohm speaker |
| External Speaker: | |
| PA System: | |

Memo

MEMORANDUM FOR THE DIRECTOR, FBI

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TO: SAC, NEW YORK

FROM: SAC, NEW YORK (100-100000)

SUBJECT: [Illegible]

RE: [Illegible]

[Illegible]

[Illegible]

[Illegible]

100-100000

Special Agent in Charge

100-100000

WARRANTY

Uniden PRO 640XL CB Radio Australian 2 Year Warranty.

(Accessories are covered for 90 days only).

Note: Please keep your sales docket as it provides evidence of warranty.

WARRANTOR: Uniden Australia Pty. Ltd.

ELEMENTS OF WARRANTY: Uniden warrants to the original retail owner for the duration of this warranty, its PRO 640XL CB Radio (hereinafter referred to as the 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 only shall terminate and be of no further effect Two (2) Years after the date of original retail sale. This warranty will be deemed invalid if the product is (A) Damaged or not maintained as reasonable and necessary, (B) Modified, altered, or used as part of any conversion kits, subassemblies, or any configurations not sold by Uniden, (C) improperly installed, (D) Repaired by someone other than an authorised Uniden Repair Agent for a defect or malfunction covered by this warranty, (E) Used in conjunction with any equipment or parts or as part of a system not manufactured by Uniden, (F) Installed, programmed or serviced by anyone other than an authorised Uniden Repair Agent, (G) Where the Serial Number label of the product has been removed or damaged beyond recognition.

PARTS COVERED: This warranty covers for 2 years; the Transceiver and Microphone only. All accessories, (Leads, Brackets, Clips, Screws etc), are covered for 90 days only.

STATEMENT OF REMEDY: In the event that the product does not conform to this warranty at any time while this warranty is in effect, the warrantor will at its discretion, repair the defect or replace the product and return it to you without charge for parts or service. **THIS WARRANTY DOES NOT COVER OR PROVIDE FOR THE REIMBURSEMENT OR PAYMENT OF INCIDENTAL OR CONSEQUENTIAL DAMAGES.**

WARRANTY CARD: If a warranty card had been included with this product then please fill it in and return it to us within 14 days of purchase. Your name and the serial number of the product will then be registered in our database and this will help us to process your claim with greater speed and efficiency should you require warranty service.

PROCEDURE FOR OBTAINING PERFORMANCE OF WARRANTY. In the event that the Product does not conform to this warranty, the Product should be shipped or delivered freight pre-paid, with evidence of original purchase, (eg/a copy of the sales docket), to the warrantor at:

UNIDEN AUSTRALIA PTY LTD - SERVICE DIVISION
345 Princes Highway, Rockdale, Sydney. NSW 2216.
Ph (02) 599 3100 Fx (02) 599 3278

Customers in other States should ship or deliver the Product
freight pre-paid to their nearest Uniden Authorised Repair Centre.
(Contact Uniden for the nearest Warranty Agent to you).

Adelaide (08) 365 2588 Brisbane (07) 290 1188
Melbourne (03) 335 4322 Perth (09) 227 6386