Uniden®

PRO501HH
Handheld CB Radio

CONTENTS

INTRODUCTION

The PRO501HH radio is a mobile radio designed for use in the Citizens Band (CB) Radio Service. It will operate on any of the 40 AM frequencies authorized by the Federal Communications Commission (FCC). Your radio features a superheterodyne circuit with Phase Locked Loop techniques to assure precise frequency control.

FEATURES

- ► 40 AM channels
- ► 10 Weather channels
- ► Dual Channel Watch
- ► Full Channel Scan
- ► Instant Channel 9/19
- ► High/Low power saver switch (HI = 4W; LOW = 1W)
- ► Key lock
- ► Backlight On/Off
- ► Condenser microphone.
- ► Ceramic filter: Delivers greater selectivity and reduces adjacent channel interference.
- ► AGC (Automatic Gain Control) for a constant sound level.
- ► Automatic modulation control for a constant audio transmit modulation level.
- ► Low distortion IC audio circuit.
- ► Automatic noise limiter to reduce pulse noise.
- ► Antenna with BNC connector.
- ► External speaker jack and external MIC jack
- ► Jack for external power source and battery charger.
- ► Rechargeable (9 AA Ni-MH) or Alkaline (9 AA) batteries (not included)

5

SAFETY NOTICE

► Do not expose the PRO501HH to water or extreme temperatures.

► Do not leave batteries installed over a long period of time as leakage may occur and cause damage to the radio.

► Never use different batteries from the ones suggested.

► Never use harsh chemicals to clean this radio. Use a damp soft cloth.

INCLUDED IN YOUR PACKAGE

PRO501HH Radio	Antenna
Belt Clip	DC Power Cable

Not shown: Wrist Strap, Charge Adapter

NO.	DESCRIPTION
1	Antenna
2	Channel Up (▲)
3	Channel Down (▼)
4	PROG.
5	Push-to-Talk
6	Scan
7	Microphone

7

NO.	DESCRIPTION
8	Jacks/LED Area
	– External speaker jack
	– External mic jack
	– Charge jack
	– DC power supply jack
	– Charge LED (Red: Charging; Green: Full Charge; Blinking Red: Abnormal charge state)
9	Speaker
10	9/19, DUAL
11	Backlight/Key Lock
12	Automatic Noise Limiter (ANL)
13	CB/WX PWR H/L
14	LCD Screen
15	Squelch knob
16	Power/Volume Knob

NOTE: FCC rules reserve Channel 9 for motorist assistance and other emergency communications. Channel 9 should only be used in(situations where there is immediate danger to the safety of individuals or the protection of property.

Make sure you have read and understood part 95 of the FCC rules and regulations before using the transmitter.

LCD
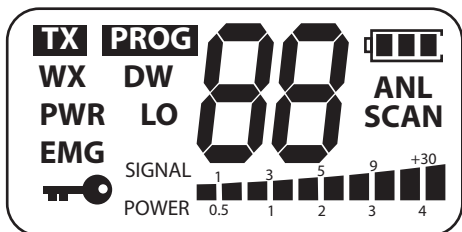
LCD ITEM	MEANING
TX	Transmitting
PROG	Program key is active.
WX	Weather Channel
DW	Dual Watch
PWR LO	Transmit Power Low
EMG	Emergency channel indicator
88	Channel Number
🔋	Battery Strength (4 steps)
ANL	Automatic Noise Limiter
SCAN	Scan function active
🔑	Key lock function active
SIGNAL/POWER meter	SRF meter
	Strength of incoming signal/Strength of outgoing transmission

9

SETUP

INSTALL

Install the included rubber antenna onto the radio.

*CAUTION: Make sure the SWR is **less than 2:1** before using the radio. An SWR higher than 2:1 can damage the transmitter.*

This radio transmitter 513C-UT422 has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

ANTENNA TYPE	MAX GAIN	IMPEDANCE
All antenna types	3 dBi	50Ω

CONNECT TO POWER

Your PRO501HH can operate on DC power or batteries.

DC Power

1   Plug DC power cable into the PRO501HH.

2   Plug the other end into your vehicle's cigarette lighter/DC power conversion plug.

Battery Power

You can use either 9 non-rechargeable alkaline batteries or 9 rechargeable Ni-MH batteries (not included) with this unit.

1   Open battery cover.

2   Insert the 9 batteries according to the directions indicated inside the battery compartment.

3   Close battery cover.

Charge the Radio

NiMH rechargeable batteries are not fully charged when first installed in the radio. After installing the rechargeable NiMH batteries for the first time, place the radio in the charge adapter. Let it charge for about 12 hours or until the LED on the charge adapter turns green.

Regardless of which type of batteries you use in this radio, the battery icon flashes when power is low. Replace the alkaline batteries or recharge the unit if using the rechargeable NiMH batteries.

Low Power Indication

The battery icon shows a reduced power level and its outline flashes. Connect the DC power cable to a power source and to the radio to continue to use it until you can recharge/replace the batteries.

CONNECT EXTERNAL SPEAKER

Your radio supports an external speaker for remote monitoring. The external speaker is sold separately.

	EXTERNAL SPEAKER
Function	Remote receiver monitoring or substitution for internal speaker
Impedance	8 Ohms
Rating	1 Watt
Connect to	**EXT.SP**. jack (⅛-in/3.5 mm)

	EXTERNAL SPEAKER
Notes	The internal speaker is disabled when an external speaker is connected.

OPERATION

KEY BASICS

KEY	PRESS	PRESS/ HOLD	PRESS+ PROG	PRESS/ HOLD+ PROG
PROG	Turn on/off.	NA	NA	NA
CB/WX **PWR H/L**	Change WX to CB channel/ back,	NA	Change TX power to HI or LO.	NA
ANL	Turn ANL on/off.	NA	NA	NA
SCAN	Start/stop scanning channels	NA	NA	NA
9/19 **DUAL**	Recall instant CH9/CH19	NA	Start/stop Dual Watch	Enter DW CH Program Mode
LIGHT **LOCK**	Backlight on/off	Key Lock on/off	NA	NA

12

KEY	PRESS	PRESS/ HOLD	PRESS+ PROG	PRESS/ HOLD+ PROG
▲ **(UP)**	Channel Selection Resume Scan Change Scan direction	Channel Scroll	Channel selection to CH1	NA
▼ **(DOWN)**	Channel Selection Resume Scan Change Scan direction	Channel Scroll	Channel selection to CH21	NA
PTT	Push to talk		NA	NA

BASIC OPERATION

Turning the radio on	Turn the **Volume** knob clockwise until it clicks and the LCD display turns on.
Turning the radio off	Turn the **Volume** knob counter-clockwise until it clicks and the LCD display turns off.
Adjusting Squelch	Turn the **Squelch** knob counter-clockwise to open squelch or clockwise to close it.
Selecting a channel	Press the ▲ or ▼ button on the side to move up or down the channel list. Press and hold the buttons to move quickly through the channels.

Changing the volume	After turning the radio on, turn the **Volume** knob clockwise to increase the volume; turn it counter-clockwise to decrease the volume.
Transmitting	– Tune the radio to the channel you want to transmit on, and listen to make sure the channel is clear. – Press and hold the PTT button. – Hold the microphone about 2 inches away from your mouth and speak in a normal voice. – Release the **PTT** button to listen for a response.
Scanning channels	Press **SCAN** in CB mode; the radio scans the channels, stopping when it receives a transmission. Press **SCAN** again to stop scanning
Lock keys to prevent accidental activation.	Press and hold ▬● to actiate key lock; the Lock icon displays. Only **PTT**, **LIGHT**, and **LOCK** keys and the **VOLUME** and **SQUELCH** knobs are active. With Key Lock activated, press and hold ▬● to deactiate key lock; the Lock icon goes away and all keys are now active.
Turn backlight on and off	Press 🔦 to turn the LCD backlight on for 10 seconds. Press it again while the backlight is on to turn it off.

NOTE: Make sure you have read and understood part 95 of the FCC rules and regulations before using the transmitter.

CB OPERATION

CB Communication Codes

The "10" code allows you to communicate easier in noisy environments. The following table lists some of the most common codes and their meaning.

CODE	MEANING
10-1	Receiving poorly
10-2	Receiving well
10-3	Stop transmiting
10-4	OK - Understood
10-6	Busy - Stand By
10-7	Out of service - Leaving air
10-8	In service - Subject to call
10-9	Please repeat
10-10	Transmission completed - Standing by
10-13	Road advice - Weather conditions
10-20	What is your location?
10-33	Emergency traffic
10-36	Exact time
10-41	Switch to channel
10-62	Cannot receive - use phone
10-70	Fire at _____
10-200	Police needed at _____

EMERGENCY OPERATION

The Pro501HH provides instant access to emergency channels 9 and 19. Press **9/19 DUAL** once for channel 9; press it twice for channel 19. Press **9/19 DUAL** a third time to return to the original channel.

DUAL WATCH

Dual Watch lets you monitor two channels at the same time for incoming transmissions.

Programming Dual Watch Channels

1   Select a channel using the ▲ or ▼ keys.

2   Press and release **PROG** key. The Program icon displays.

3   Press and hold **DUAL** key until the radio beeps. The Program icon disappears and the DW icon flashes.

4   Select another channel using the ▲ or ▼ keys.

5   Press and release **DUAL**; the radio beeps and the DW icon stays on.

6   The LCD switches between the two channels selected as it monitors both for transmissions.

7   Press ▲ or ▼ to exit Dual Watch mode.

AUTOMATIC NOISE LIMITER

Automatic Noise Limiter (ANL) suppresses white noise. Press **ANL** to turn it on.

ANL does not function when the radio is in WX mode.

WEATHER

The PRO501HH accesses 10 weather channels.

1   Press and release **CB/WX** key. The WX icon and the current weather channel display.

2   Select a different weather channel using the ▲ or ▼ keys.

3   Press and release **CB/WX** key to return to normal CB operation. The WX icon disappears.

MAINTENANCE

Clean the unit with a damp cloth only; never use harsh chemicals.

TROUBLESHOOTING

If your radio is not performing to your expectations, please try these simple steps. If these steps don't solve your problem, visit the Uniden website for troubleshooting and FAQ information.

PROBLEM:	THINGS TO TRY:
Radio won't turn on (no power)	Check the radio's power cord and all connections. Check the fuse in the radio's power cord. Check your vehicle's electrical system.
Poor reception	Adjust the squelch level (See page 13). Check the antenna, cable and connectors.
Background noise	Adjust the squelch level (See page 13).
Weak transmission	Check the antenna, cable and connectors. Check the antenna grounding. Check for corrosion on the connectors.

SERVICE AND REPAIR INFORMATION

► Save your purchase receipt for proof of warranty.

► When ordering parts, it is important to specify the correct model number of this radio (PRO501HH).

► It is the user's responsibility to make sure the radio is operating in accordance with the FCC Citizens Radio Service regulations at all times.

FREQUENCY LISTS

CB CHANNEL FREQUENCY LIST

CH NO.	FREQ. (MHZ)	AM RX	AM TX
1	26.965	O	O

CH NO.	FREQ. (MHZ)	AM RX	AM TX
2	26.975	O	O
3	26.985	O	O
4	27.005	O	O
5	27.015	O	O
6	27.025	O	O
7	27.035	O	O
8	27.055	O	O
9	27.065	O	O
10	27.075	O	O
11	27.085	O	O
12	27.105	O	O
13	27.115	O	O
14	27.125	O	O
15	27.135	O	O
16	27.155	O	O
17	27.165	O	O
18	27.175	O	O
19	27.185	O	O
20	27.205	O	O
21	27.215	O	O
22	27.225	O	O
23	27.255	O	O
24	27.235	O	O
25	27.245	O	O
26	27.265	O	O

CH NO.	FREQ. (MHZ)	AM RX	AM TX
27	27.275	O	O
28	27.285	O	O
29	27.295	O	O
30	27.305	O	O
31	27.315	O	O
32	27.325	O	O
33	27.335	O	O
34	27.345	O	O
35	27.355	O	O
36	27.365	O	O
37	27.375	O	O
38	27.385	O	O
39	27.395	O	O
40	27.405	O	O

WEATHER CHANNEL FREQUENCY LIST

CH NO.	FREQ. (MHZ)	FM RX
WX01	162.550	O
WX02	162.400	O
WX03	162.475	O
WX04	162.425	O
WX05	162.450	O
WX06	162.500	O
WX07	162.525	O
WX08	161.650	O
WX09	161.775	O

CH NO.	FREQ. (MHZ)	FM RX
WX010	163.275	O

SPECIFICATIONS

GENERAL
Channels	40 AM
Frequency Range	26.965 to 27.405 MHz
Frequency Control	Phase Locked Loop (PLL) synthesizer
Frequency Tolerance	±0.005%
Operating Temperature	14ºF to 131ºF (-10ºC to +55ºC)
Microphone	Electret Type
Input Voltage	13.8 V DC nom, 10.9VDC – 15.6VDC
Current Drain	TX full mod., 1.7A
RX	@RX max. audio 0.4A
Size	2.3 x 7.04 x 1.67 in (58.5 x 179 x 42.5 mm)
Weight	0.56 lbs (255 g).

TRANSMITTER
Power Output	4 Watts @13.8 VDC
Modulation	85% - 95%
Freq. Response	400 Hz – 2.5 KHz
Output Impedance	50 ohms, unbalanced

RECEIVER
Sensitivity	<1 µV for 10 dB; (S + N) /N typical
Selectivity	6 dB @ 7kHz, 70 dB @ 10kHz typical
I.F. Frequency	Double Conversion Superheterodyne 1st - 10.695 MHz 2nd - 455 kHz

Automatic Gain Control (AGC)	less than 10dB change in audio output for inputs from 10 to 50,000 microvolts
Squelch	Adjustable; threshold less than 1µV
Audio Output Power	0.5 watts max. @ 8 ohms
Freq. Response	300 to 2000 Hz
Distortion	less than 8% at 1KHz
Internal Speaker	8 ohms, 1 watts

Specifications and features are subject to change without notice.

FCC PART 15 & IC COMPLIANCE

Discover other CB radios and components on our website.