

# Uniden®



## **PRO401HH Handheld CB Radio**

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# INTRODUCTION

The PRO401HH 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
- ▶ 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.
- ▶ TX Power select slide switch (HI = 4W; LOW = 1W)
- ▶ 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
- ▶ Internal battery select switch (alkaline or rechargeable)

## SAFETY NOTICE

- ▶ Do not expose the PRO401HH 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

If any of these items are missing or damaged, immediately contact your place of purchase or Uniden's Parts Department.



PRO401HH Radio



Antenna



DC Power Cable



Other printed materials

Not shown: Wrist Strap

## PARTS OF THE RADIO



- 1 **Belt Clip**
- 2 **Battery Compartment**

*NOTE: A switch inside the compartment lets you select rechargeable or Alkaline batteries.*

- 3 **Channel UP/DOWN**  
Selects which channel the radio will transmit or receive on.
- 4 **Push to Talk**  
Allows you to transmit.

- 5 **Antenna Jack**  
Connect the detachable antenna to this jack.
- 6 **Squelch knob**  
Adjusts the level at which the radio squelches or suppresses weak radio signals. To filter out weaker signals and background noise, turn the knob clockwise to increase the squelch level. To decrease the squelch level so you can hear weaker radio signals, turn the knob counter-clockwise.
- 7 **Volume Control**  
Powers on the radio and adjusts the volume.
- 8 **Microphone**  
Speak into the microphone when transmitting.
- 9 **Wrist Strap Slot**  
Connect the wrist strap to the belt clip.
- 10 **Speaker Jack**  
Connects to an external speaker (not included). The internal speaker is disabled.
- 11 **Microphone Jack**  
Connects to an external microphone (not included).
- 12 **13.8 V DC External Power Jack**  
Provides power to the unit. you can use external power sources such as a car battery to power the unit and to recharge the Ni-MH rechargeable batteries.
- 13 **Transmit Power Switch (HI/LOW)**  
Select a power output level for transmission.

*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.*

# SET UP

## INSTALL ANTENNA

Install the included rubber antenna onto the radio.

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*The PRO401HH can also use any type of 50  $\Omega$  / 27 MHz band antenna. Although a telescoping antenna might provide better transmission and receiving, it is not as compact or easy to use as the antenna included in the package.*

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## CONNECTING TO POWER

Your PRO401HH can operate on DC power or batteries.

### **DC Power**

- 1 Plug DC power cable into the PRO401HH.
- 2 Plug the other end into your vehicle's cigarette lighter/DC power conversion plug.
- 3 The red power LED is steady on when the unit is connected to external power (not batteries).

### **Battery Power**

You can use either 9 non-rechargeable alkaline batteries or 9 rechargeable Ni-MH batteries with this unit.

- 1 Open battery cover.
- 2 Set the internal switch to match the battery type you are using [either alkaline or rechargeable (Ni-MH) batteries].
- 3 Insert the 9 batteries according to the directions indicated inside the battery compartment.
- 4 Close battery cover.

### **LED Display**

The LED display turns off after 1.5 seconds to conserve battery power.

It will also turn off 1.5 seconds after you close Squelch.

To see the display again, open Squelch.

## **Low Power Indication**

The red LED blinks when battery power is low. Replace/recharge the batteries or connect to a power source.

# **OPERATION AND MAINTENANCE**

## **BASIC OPERATION**

Turning the radio on	Turn the <b>Volume</b> knob clockwise until it clicks and the 7 segment LED comes on.
Turning the radio off	Turn the <b>Volume</b> knob counter-clockwise until it clicks and the 7 segment LED turns off.
Selecting a channel	Press the Channel UP or DOWN button on the side to move up or down the channel list.
Changing the volume	Turn the <b>Volume</b> knob clockwise to increase the volume; turn it counter-clockwise to decrease the volume.
Transmitting	<ul style="list-style-type: none"><li>- Tune the radio to the channel you want to transmit on, and listen to make sure the channel is clear.</li><li>- Press and hold the <b>PTT</b> button.</li><li>- Hold the microphone about 2 inches away from your mouth and speak in a normal voice.</li><li>- Release the <b>PTT</b> button to listen for a response.</li></ul>

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

## **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 transmitting
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 _____

## 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.

<b>PROBLEM:</b>	<b>THINGS TO TRY:</b>
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. Check the antenna, cable and connectors.
Background noise	Adjust the squelch level.
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 (PRO401HH).
- ▶ 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.

## SPECIFICATIONS

<b>GENERAL</b>	
Channels	40 AM
Frequency Range	26.965 to 27.405 MHz
Frequency Control	Phase Locked Loop (PLL) synthesizer
Frequency Tolerance	±0.005%
Operating Temperature	14°F to 131°F (-10°C to +55°C)
Microphone	Electret Type
Input Voltage	13.8 V DC nom, 10.9VDC – 15.6VDC
Current Drain	TX full mod., 1.7A

RX	with max. audio output, 1.7A
Size	2.16 x 7.1 x 1.7 in (55 x 180 x 45 mm)
Weight	0.56 lbs (255 g).
<b>TRANSMITTER</b>	
Power Output	4 Watts @13.8 VDC
Modulation	85% - 95%
Freq. Response	400 Hz – 2.5 KHz
Output Impedance	50 ohms, unbalanced
<b>RECEIVER</b>	
Sensitivity	<1 $\mu$ V 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 1 $\mu$ V
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

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*Specifications and features are subject to change without notice.*

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## FCC PART 15 & IC COMPLIANCE

FCC Compliance Statement: This device complies with Part 15 of the FCC rules. Operation is subjected to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that

may cause undesired operation.

This device complies with Industry Canada license-exempt RSS standard(s). 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 the device.

Changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.