

**MIDLAND®**



**PRO5X**  
**5W UHF LMR/CB**  
**80CH IP54 WATER/DUSTPROOF**

 **5 year**  
warranty\*

\*3 year standard warranty.  
To claim bonus 2 year warranty visit  
[www.midlandaustralia.com.au](http://www.midlandaustralia.com.au)  
to register your product.

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## What's In The Box

- PRO5X Transceiver
- Belt Clip
- Li-Ion Battery Pack 2600mAh
- Desktop Charger
- Wall Adaptor

## Optional Accessories

- MA25LK Waterproof Speaker Microphone
- MA31LK Air Tube Earpiece Microphone
- MA21LK Earpiece Microphone
- CA13-4 4-Bay Desktop Charger
- AL15 12V Cig. DTC Lead
- PRG10 Programming Software (Approved Agent Only)

## Technical Features

- Channels: 80CB/128LMR
- Switchable Output Power: 1/2/5W
- Frequency Range: CB 476.425 ~ 477.4125MHz, LMR 450 ~ 520MHz
- Ingress Protection: IP54
- Chassis: Aluminium
- Battery Capacity: 2600mAh Li-Ion
- Battery Save Mode: Yes
- CTCSS Tones: 50
- DCS Tones: 108
- Function Keys: 2
- Display: Backlit LCD
- Monitor Mode: Yes
- Dual Watch: Yes
- Simplex/Duplex Mode: Yes
- CH Scan: Yes
- Key Lock: Yes
- Roger Beep: Yes
- Squelch: Yes
- VOX: Yes
- Accessories Port: 2-Pin Kenwood Type

## Specifications

### General

Frequency Range:	450- 520 MHz
Channels:	80/128
Operating temperature:	-20°+55°
Operating voltage:	7.4V
Operating mode:	Simplex/Duplex
Dimensions:	60mmx42mmx117mm (Antenna excluded)
Weight:	261g (Battery included)
Impedance:	Antenna 50Ω
Duty cycle:	5/5/90%
Category:	B
SAR:	0.647W/Kg

### Transmitter

Frequency Stability:	±2.5PPM
Output Power:	≤5W ERP
Max Frequency Deviation:	≤2,5KHz
Audio Distortion:	≤3%
Adjacent Channel Power:	< 60 dB
Spurious Emissions:	Within European Legal Terms

### Receiver

RF Sensitivity:	<0.2UUV@20 dB SINAD
Audio Distortion:	2%
Audio Response:	300Hz ÷ 3KHz
Adjacent Channel Selectivity:	>70dB
Intermodulation Rejection:	>60dB
Spurious Emissions:	Within European legal terms
Blocking:	>84dB

Specifications are subject to change without notice.

## **Programming Software (Optional)**

Midland's Programming software PRG10, allows approved agents to adjust the functionality by enabling or disabling some features (VOX, ROGER BEEP, CALL TONE, SCRAMBLER...) and program licenced frequencies.

For further information, please consult the Programming software manual.

### **NOTE:**

***Any un-approved attempt to change frequencies or output power of the radio invalidates warranty and you can be made accountable by the relevant authorities!***

## **Coverage/Range**

The maximum range depends on the terrain conditions.

The range can be reduced due to obstructions caused by trees, buildings or other obstructions. Inside a car or a metallic construction.

Normally the coverage in the city will be far less than in open spaces.

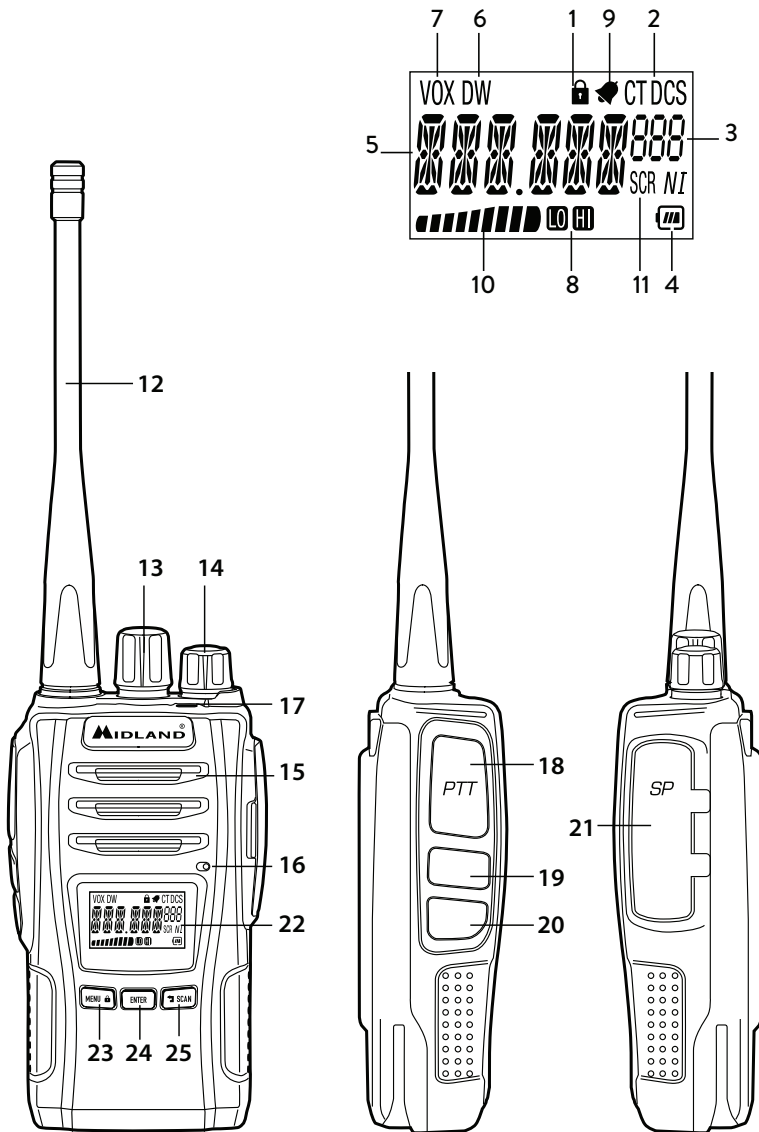
## **Suggestions and Warnings**

Your PRO5X is designed to fulfill any warranty obligations and for you to enjoy this product for many years.

We recommend you to follow these suggestions:

- Do not attempt to open the unit.
- Non-expert handling of the unit may damage it and annul the warranty.
- When using a regulated power supply, take note of the power voltage range to avoid damages.
- High temperatures can shorten the life of electronic devices, and distort plastics.
- If it appears that the Radio diffuses peculiar smell or smoke, immediately turn the radio off, disconnect it from the charger and remove the battery.
- Do not transmit without antenna.

# Function Keys and Icons



## LCD Display

1. Keypad Lock On Icon
2. Selected CTCSS Tone or DCS Code
3. Menu Number in Menu Mode or CH Scanning Active
4. Battery Level
5. Channel In Use
6. Dual Watch Activated
7. VOX Function On
8. Power Level Setting
9. Roger Beep On
10. TX and RX Signal Strength
11. Scrambler Feature On (Through Programming Software)

## Radio

12. Antenna
13. CH +/- or Menu Scroll Up/Down
14. Power On/Off & Volume +/-
15. Speaker
16. Microphone
17. LED: Red TX, Green: RX
18. PTT: Press To Transmit Or Release To Receive
19. Short Press: Squelch Off (Monitor)  
Long Press: VOX On/Off
20. Short Press: Low/Mid/High Power Select  
Long Press: Simplex/Duplex Mode
21. External Speaker/Mic Jack (Kenwood Type)
22. LCD Display
23. Short Press: Menu  
Long Press: Keypad lock
24. Enter in Menu Mode
25. Short Press: Function "Back" in Menu Mode  
Long Press: CH Scan

## Battery Recharge

The PRO5X is equipped with a 7.4V Li-ion rechargeable battery pack, which can be recharged by connecting the socket of the AC/DC wall adaptor to a mains power socket and inserting the jack of the wall adaptor into the desktop charger plug.

It takes approximately 5 hours to fully recharge the radio.

The LED of the desktop charger indicates the status of the recharge:

Red = Charging, Green = Full Charge.

For maximum battery life, we recommend you to charge the battery pack when the radio is switched off and the battery pack is fully discharged.

### **Note:**

***Using a different battery charger other than the one specified can cause damage to your device or may even cause explosions and personal injuries. Warranty will be voided.***

The Battery power saving feature enables a reduction in consumption of up to 50% and saves the battery life. If it has been set, it automatically activates when the transceiver does not receive any signal for more than 5 seconds. Power saving can be disabled only through the Programming software.

## Operations

### Power On/Off and Volume Adjustment

Rotate the PWR/VOL knob clockwise to turn the radio on.

Rotate the control clockwise /counter-clockwise to adjust the volume level as preferred.

To turn the radio off, rotate the control counter-clockwise until hearing a mechanical "click".

### Transmission and Reception

To communicate, all radios in your group must be set to the same channel.

Briefly press the Function key 1 to enable the Monitor feature in order to make sure that the frequency is not busy, then press the PTT button.

Release the PTT key to receive.

Only one user at a time can talk during radio communications. Therefore, it is important not to transmit when you are receiving a communication and use the transmission mode sparingly to allow other users to talk.

Transmission consumes a significant amount of energy and should therefore be used sparingly to prolong the battery life.

If you are unable to contact a station that you have no problems in receiving, the station may be using CTCSS tones or DCS codes.



## Monitor Mode

The Monitor feature is for excluding (opening) the Squelch, in order to listen to signals that are very weak.

Press briefly the Function key 1 to enable this function.

## Scrambler


The scrambler feature is designed to protect communications.

This feature prevents parties from other networks from hearing and understanding voice communications.

This function can be activated only through the programming software PRG-10 (optional).

It is possible to set 11 different pre-set scrambler codes or to customize the scrambler frequency. This can be done on every channel.

## Keypad Lock

Long press the MENU key for 3 seconds and the  icon will appear on the display. The controls/functions will be locked except the PTT, channel selection and power on/off/volume.

## Menu Functions

Below is a list of the default functions that you will find in the menu of this radio.

Press the MENU button and then turn the CH +/- knob to find the desired function. Press ENTER to select the desired function, then turn the CH +/- knob to make your change.

## DW (Dual Watch)

This function allows you to monitor 2 channels of your choice.

To enable the Dual Watch, follow these steps:

1. Rotate the CH +/- knob, select one of the two channels you want to monitor.
2. Press the MENU button, then DW will appear on the display.
3. Push ENTER.
4. Select the second channel you want to monitor through the CH +/- knob.
5. Confirm your selection by pushing ENTER.
6. The display will show alternately the two channels along with DW icon.
7. To stop the dual watch, press the BACK key.

## SQ (Squelch)

The Squelch function suppresses noises on free channels and allows you to receive weak signals.

The radio has 10 (0-9) different Squelch levels that can be set by programming software or via the Menu:

0 means that the Squelch is turned off; from level 1 to level 9 you will have different levels of noise reduction. The higher is the level, the louder the Squelch will be.

To select the Squelch level:

1. Press the MENU button.
2. Turn the CH +/- knob until SQ is displayed.
3. Press the ENTER button.
4. Turn the CH +/- knob and select the desired Squelch level (10 levels are available).
5. Confirm your selection by pushing ENTER.
6. Press BACK to exit the menu.

#### **NOTE:**

***Squelch must always be adjusted when no signals are present.***

***Make sure you do not set an excessively high squelch level because you may not be able to receive weaker signals. On the other hand an excessively low Squelch value could enable the Squelch even when no signals are present.***

#### **SubAud (CTCSS/DCS)**

CTCSS tones and DCS codes are similar to access codes and enable the radio to communicate only with the users that are tuned on the same channel and have set the same code.

For each channel you can set up to 50 CTCSS tones, 106 DCS I codes.


To select a CTCSS tone:

1. Press the MENU button.
2. Turn the CH +/- knob till SubAud appears on the display in TX and RX mode;
3. Push ENTER to enter the function.
4. Turn CH +/- knob and select the desired tone (CTC; DCS N; DCS I)
5. To confirm, press the ENTER button.
6. Rotate the CH +/- knob to select the desired tone and push ENTER to confirm.
7. Press BACK to exit the menu.

#### **RB (Roger Beep)**

When the PTT button is released, the radio will beep to confirm to other users that you've finished your transmission and that they can start talking.

Roger Beep is disabled by default, but can be activated with the following procedure:

1. Press the MENU button
  2. Rotate the CH +/- knob until the display shows RB
  3. Press ENTER
  4. Rotate the CH +/- knob and select ON
  5. Confirm your selection by pushing ENTER
  6. Press the BACK key to return to the main menu.
- The display will show  indicating that Roger Beep has been activated.

## **Beep (Keypad)**

Every time a button is pressed, you will hear a Beep tone.

To enable/disable the beeps, follow this procedure:

1. Press the MENU button.
2. Turn the CH +/- knob until BEEP is displayed.
3. Push ENTER to enter the function.
4. Turn the CH +/- knob to activate/deactivate the Beep tones.
5. Confirm your selection with ENTER.
6. Push the BACK key to exit the menu.

## **VOX**

The VOX feature enables hands free conversations without using the PTT key. Just speak in the direction of the microphone and the communication will be automatically activated. The VOX sensitivity can be adjusted in 10 different levels (0,1,2,3...9) through the Menu or programming software.

OFF means that the VOX is turned off, level 9 has the highest VOX sensitivity.

To activate the VOX levels:

1. Press MENU.
2. Rotate the CH +/- knob till the display shows VOX.
3. Enter the function by pushing the ENTER key.
4. Rotate the CH +/- knob again to select the desired VOX level:  
9= Highest sensitivity, 1=lowest sensitivity.
5. Confirm your selection by pushing ENTER.
6. Push BACK to exit the menu.

## **VOXTIM (Vox Delay Times)**

This function allows to set a delay at the end of hands-free (VOX) transmission to let people finish their conversation before returning to Rx mode.

1. Press MENU.
2. Rotate the CH +/- knob until the display shows VOXTIM.
3. Press ENTER to enter the function.
4. Rotate the CH +/- knob again to set the desired delay time (from 0.5 to 3 seconds).
5. To confirm press ENTER.
6. Press BACK to exit the MENU.

## **SCAN (Scan Modes)**

To set the SCAN mode follow these steps:

1. Press MENU and rotate the CH +/- knob until the display shows SCAN.
2. Press ENTER and rotate the CH +/- knob to select the type of scan mode (TO/CO/ SE).  
TO - Time-operated Scan

Whenever a signal is detected, the radio will suspend the scan for 5 seconds and then will continue to scan even if the signal is still present.

CO: Carrier-operated Scan

Whenever a signal is detected, the radio will stop scanning. It will resume to scan once the signal will disappear.

SE: Search Scan

The radio will stop scanning and exit the Scan mode once detected a signal.

3. To confirm press ENTER then Press BACK to exit the MENU.

### **TOT (TX timeout timer)**

The PRO5X can be programmed with a transmission timer that temporarily blocks transmissions if the radio has been used beyond the maximum time permitted.

The radio is forced in reception mode if it continues transmitting after the preset timer threshold has been reached.

To restart the transmission, release the PTT.

To enable this function:

1. Press the MENU button.
2. Turn the CH +/- knob until TOT is displayed.
3. Push ENTER to enter the function.
4. Turn the CH +/- knob and set a timer from 30 to 180 seconds.
5. Confirm your selection with ENTER.
6. Press BACK to exit the menu.

### **Light (Display backlight)**

To enable/disable the LCD backlight:

1. Press the MENU button.
2. Turn the CH +/- knob until LIGHT is displayed.
3. Push ENTER to enter the function.
4. Turn the CH +/- knob to activate/deactivate the backlight.
5. There are 3 available options: "ON", "OFF" and "TIME"-  
TIME: The display backlight activates when you press any key and lasts a few seconds.  
OFF: Backlight is off at all times and for all functions.  
ON: Backlight always on.

NOTE: in this mode the power save is off, so the battery consumption will increase.

6. Confirm your selection with ENTER.
7. Press BACK to exit the menu.

### **Reset**

With reset, all functions and parameters will return to factory settings.

We suggest that you making this procedure only if really needed.

While turning on the radio, keep pressed "FUNCTION KEY 2" + "ENTER". The display will show RESET and the radio will re-boot.

## Troubleshooting

<b>Problem</b>	<b>Possible Cause</b>	<b>Solution</b>
The radio doesn't switch on.	The battery pack is discharged and/or has not been installed correctly.	Verify that the battery pack is charged and that it has been correctly installed.
The radio switches off shortly after it has been switched on.	Discharged battery pack.	Recharge the battery pack.
The battery pack does not recharge.	The battery-charger has not been connected or installed correctly.	Inspect the connections of the battery-charger and the installation of the batteries.
The radio switches on but is unable to receive signals.	The site of installation is too shielded.	Move to another area.
	The volume is too low.	Adjust the volume level.
	Incorrect CTCSS or DCS.	Check that the CTCSS tone or DCS code corresponds to the one set by the parties you are communicating with.
It is not possible to communicate with other parties.	An incorrect radio channel has been selected.	Select the same radio channel used by the parties you are communicating with.
	The radio is installed in a shielded area or is too far from the party you are communicating with.	Move to another area.
	Incorrect CTCSS or DCS.	Check that the CTCSS tone or DCS code corresponds to the one set by the parties you are communicating with.
Reception is fragmented and/or disturbed.	The signal is very weak.	Try temporarily to disable the Squelch by means of the Monitor feature.
	The transmission distance is excessive and/or there are obstacles in the transmission path.	Move closer to the party you are communicating with or to another area.
	Other parties are using the same channel.	Check the traffic on the radio channel by means of the Monitor feature and select another channel if required.
	The radio has been installed too close to equipment that causes interference (televisions, computers, etc)	Increase the distance between the radio and this equipment.
The autonomy of the battery pack is limited.	Transmission time is too long.	Try to reduce the transmission time.

## Notes

## Notes

# WARRANTY

Congratulations on your purchase of a quality Mobile Communication Product! You're joining thousands of satisfied customers who enjoy & experience the benefits of the products we distribute. In the unlikely event that some technical difficulty arises with your purchase, be assured that we are most anxious to see that the problem is quickly rectified to your satisfaction. Please familiarise yourself with the following simple conditions of our warranty. This warranty covers faults through component failure or failure of the product to operate in accordance with published specifications. Product failure as a result of unreasonable environmental conditions, accident, misuse, improper installation, unauthorised repair, vehicle electrical or wiring faults or neglect etc, will not be covered by this warranty. Removal and installation costs, if any, would be paid by the owner as well as any freight or postage costs of transporting the product to Autobacs. Autobacs shall not be liable or responsible for any loss of use of this product or any form of consequential loss.

## CONSUMER WARRANTY

This product is warranted by Midland's Australian distributor- Autobacs Australia PTY. LTD to be free from defects in materials and workmanship under **NORMAL USE** for a period of **THREE YEARS** from the date of purchase. To claim bonus 2 year warranty, visit [www.midlandaustralia.com.au](http://www.midlandaustralia.com.au) to register your product. The battery and accessories are warranted for **TWELVE MONTHS**.

### WITHIN 30 DAYS OF PURCHASE DATE:

Please return the unit for replacement to our National Service Centre or the Retailer from where you made the purchase. All accessories must be included. Proof of purchase date **must** accompany the products.

### AFTER 30 DAYS OF PURCHASE DATE:

Warranty repair and service is carried out by our National Service Centre. Repair and service will be carried out at no cost to the owner if proof of ownership and the date of purchase can be verified to the satisfaction of the authorised centre concerned with this repair. This proof should take the form of either:

- The warranty card accompanying this product, stamped and dated by the dealer.
- A Tax Invoice or Receipt showing full details of original vendor, purchaser, model number and serial number.

## COMMERCIAL WARRANTY

A product used in or associated with a commercial application will carry a limited TWELVE MONTHS warranty. An abnormal commercial application is one where usage, dust, vibration, heat/cold and other environmental conditions exist at an extreme level.

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

**Purchaser's Name:** \_\_\_\_\_

**Purchaser's Address:** \_\_\_\_\_  
\_\_\_\_\_

**Model Number:** \_\_\_\_\_ **Serial Number:** \_\_\_\_\_

**Dealer Name:** \_\_\_\_\_ **Date of Purchase:**     /     /

**Dealer Address:** \_\_\_\_\_

**Invoice/Sales Docket no:** \_\_\_\_\_

General Hints: To expedite service and prompt return of the equipment, please:

- Clearly describe the fault in detail
- Safely and securely pack the unit for transport
- Include your return address
- Provide proof of purchase date as outlined above

### National Service Contacts:

**AUTOBACS AUSTRALIA PTY LTD**

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