Midland G7XT

3 *Watt transceiver*

INSTRUCTION GUIDE

477MHz CB Radio

MIDLAND®

Midland G7 XT

Citizen Band Transceiver

1: INTRODUCTION

Combining the latest technology in radio communication along with an ergonomic design, the Midland G7 XT makes the ideal and effective solution for both the professionals who need to stay in touch with colleagues (construction sites, buildings, hotels, trade fairs, shows) or with leisure users who just want to keep up with friends and family. Its robust frame, ease of use and simple functions mean that it ideal for use in any activity. The Midland G7 XT is extremely practical and operates on the UHF Citizen Band. No user licence is required for operation in Australia or New Zealand.

Coverage

The maximum rage greatly depends on the terrain and line of sight in open areas. The limitations to maximum range are environmental factors such as blockage from hills, valleys, trees, buildings or other obstructions. Inside a vehicle, the range may be reduced. Normally the coverage in the city with buildings or other obstructions is about 1-2 km. In open space but with obstructions like trees or buildings the maximum range is about 4-6 km. In an open space without obstructions, the coverage may be more than 12km.

Main functions

- VIBRACALL function
- LCD display with backlight
- Low battery indicator
- Auto power save
- 38 CTCSS tones in TX and RX
- Automatic squelch adjustment
- Buttons for channel selection
- SCAN function
- Keypad lock
- Hi/low power selection
- Roger Beep on/off
- VOX for hands-free communications
- 2 Pin jack for speaker microphone / battery recharge

NOTE: To constantly improve product quality, the manufacturer reserves the right to upgrade features and specifications without prior notice.

2. SAFETY

2.1 Warnings

Follow all directions and warnings about batteries stated at chapter 4.1. Do not disassemble the radio for any reason! Precision mechanics and electronics require experience and specialized equipment. The radio has already been calibrated for maximum performance. Unauthorized opening of the transceiver will void the warranty. Do not use detergents, alcohol, solvents, or abrasives to clean the equipment. Just use a soft clean cloth. If the radio is very dirty, slightly dampen the cloth with a mixture of water and a neutral soap.

3. IDENTIFYING THE PARTS

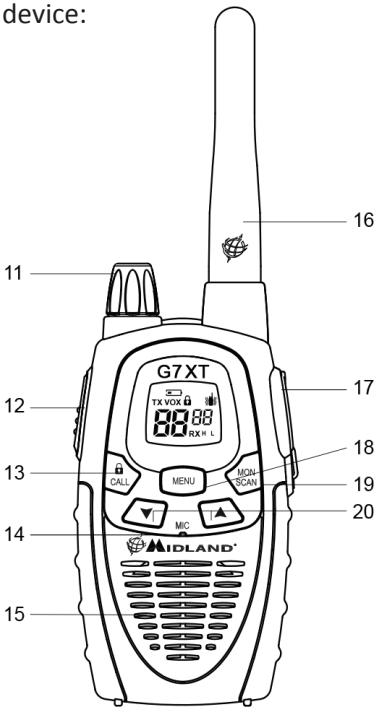
3.1 Display

Your Midland G7 XT keeps you constantly updated on its operational status through a Liquid Crystal Display (LCD). The symbols and corresponding parameters that may appear are described below:

1. **VOX** – Activation of VOX function.
2. **TX** – During transmission (PTT pressed).
3. – This symbol appears when the keypad lock is activated.
4. **CHANNEL** – These two large digits indicate the channel selected.
5. – It warns of the battery pack charge status.
6. – Vibra-Call function activated.
7. **H (High) / L (Low)** – Shows high or low power selection.
8. **RX** – (busy channel): Appears on the display when the tranceiver is receiving a signal.
9. **CTCSS tones** – These 2 small digits indicate the selected CTCSS tone (1-38).
10. – This icon identifies the shift channel (see paragraph 6)

3.2 Radio

Refer to this picture to identify the various parts of the device:



11. **VOLUME** knob - On/off switch and volume adjustment.
12. **PTT** button (push to talk) – Press this button to transmit.
13. **CALL/** 🔒 button – To send a call on the selected channel. If pressed for about 5 seconds, the keypad lock is activated.
14. **Built-in MICROPHONE** – Sound is picked up by this microphone.
15. **Built-in SPEAKER** – Here is where the speaker is housed.
16. **ANTENNA** – Receives and transmits radio signals.
17. **SPK/MIC socket** (under protective cover) – To connect to external audio devices (headphones, microphone etc.) and to the battery charger.
18. **MENU button** – Press this button to display the device's menu.
19. **MONITOR/SCAN button** – Press this button once to activate SCAN (scanning of channels). Keep the same button pressed for about 2 seconds to activate MON function. This function temporarily cuts off Squelch (for weak signals).
20. **Scroll buttons ▲/▼** – Press these buttons to change settings within the MENU.

4. PREPARING THE TRANSCEIVER

The following items are supplied in the package: 2 transceivers; dual desktop charger; wall adaptor; 2 x 800m A/h NiMH battery packs; 2 x belt clips; operation manual. If any of the above are missing or damaged, please contact your supplier immediately.

4.1 Battery pack recharge

The supplied batteries are 6.0V NiMH type and must be recharged whilst in the transceiver. It takes about 12 hours to fully recharge.

To recharge the batteries:

1. Connect the socket of the wall adaptor to a mains power socket and insert the charging plug of the radio into the wall adaptor.
2. When charging is complete, take out the plug from the radio and remove the wall adaptor.

Do not overcharge batteries! When these are fully charged, the charging process may not stop automatically. Do not forget to detach the wall adaptor from the radio as soon as the batteries are charged.

Do not try to charge alkaline batteries or non-rechargeable batteries. Make sure that when you charge the radio, only rechargeable NiMH batteries are fitted in the battery compartment! It is dangerous to attempt to recharge other types of batteries (for example alkaline or manganese batteries). Batteries which are not suitable to be recharged may leak, explode or even burn and cause damage!
Using a different battery charger other than the one specified can cause damage to your device.

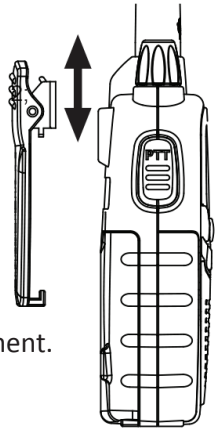
Do not throw batteries into fire or place them near heat as this may cause injuries. Dispose of batteries according to local regulations. Do not mix old and new batteries or batteries of different types.

4.2 Installing and removing the belt clip
The belt clip easily attaches the transceiver to your belt. This clip must be removed to replace the batteries. To remove the belt clip follow the illustration below. To re-affix the clip, slot into the guides at the back of the transceiver until it locks into place.

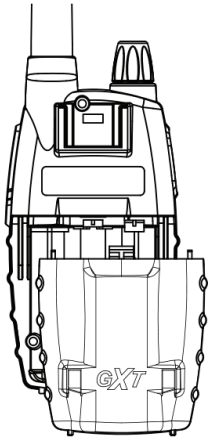
4.3 Removing/Installing the batteries

4.3a Removal
1. Remove the belt clip as depicted in Picture 1.
2. Open the battery compartment as shown in Picture 2.
3. Remove the batteries.

4.3b Installation
1. Install the new batteries into compartment.
2. Re-affix the battery cover and belt clip.



Picture 1



Picture 2

5. BASIC OPERATION

5.1 Turning on/off
To turn on the transceiver, turn the **Volume [11]** knob clockwise until you hear it click. The LCD display will light up and do an Auto-Test. Subsequently you will hear 3 beeps of different tones. To turn off the transceiver, turn the knob counter-clockwise until you hear another click. The LCD display will turn off and subsequently you will hear 3 beeps of different tones.

5.2 Volume control

Turn the knob **Volume [11]** to about half way and adjust it to a comfortable level as soon as a signal is received. If no signal is received, use the Mon/Scan [19] button described at par.5.4.

5.3 Transmit and receive

The button **PTT [12]** is located on the top left side of the device. To transmit:

1. Make sure that no one else is currently talking on the selected channel
2. Keep button PTT[12] firmly pressed. TX [2] will appear on the display
3. Before you start talking, wait for a fraction of a second then speak normally in the direction of the microphone, and hold the device at a distance of about 5cm.
4. When you have finished, release the PTT[12]. TX [2] will disappear from the display
5. When the radio is in receiving mode, it will receive any communication transmitted on that channel (RX [8] displayed).

The antenna should be more than 25mm away from the head or body while in transmit mode.
Do not transmit whilst near blasting equipment or in an explosive environment.
Do not let children operate a radio transmitter without adult supervision.
Before transmitting on a UHF channel, listen to ensure it is not already in use.

5.4 MON button (Monitor)

The Monitor button is for temporarily excluding (opening) the squelch in order to listen to weaker signals. By excluding squelch you will avoid listening to communication "chopped" by the squelch. To activate the Monitor function, so as to listen to all traffic on the selected channel, hold down the **MON/SCAN [19]** button for about 2 seconds. Continue pressing **MON/SCAN [19]** button for about 2 seconds to disable this function.

5.5 Scanning all channels

Midland G7 XT can automatically search for signals throughout the band by scanning, i.e. selecting the channels in rapid sequence. When a signal is detected, the scanning pauses on that channel and you can transmit by pushing **PTT [12]**. If you press **PTT [12]** during scan you can transmit on the channel from which the scanning started.
The scroll buttons ▲/▼ **[20]** allow you to change the direction of scanning (from lower channels to higher ones or vice versa) and therefore to skip communications which are of no interest. Press briefly the button **MON/SCAN [19]** to start scanning. To stop scan, press **MON/SCAN [19]**. The transceiver will go back to the channel from which the scanning originally started.

5.6 Display backlight

If there is insufficient light to read the display, press the **MENU [18]** button to illuminate for about 5 seconds.
NOTE: Switching on the backlight is an additional drain on the batteries

5.7 Keypad lock

Hold down **CALL/ 🔒 [13]** for about 5 seconds and 🔒 [3] will be displayed as confirmation. Only **PTT [12]** and **CALL/ 🔒 [13]** remain active. To disable this function, continue pressing **CALL/ 🔒 [13]** for approximately 5 seconds.

5.8 Power save

The battery power saving feature enables a reduction in power consumption of up to 50%. Power saving comes on automatically when the transceiver does not receive any signal for more than 7 seconds. When the batteries are discharged, the icon **[5]** appears on the display. Replace or recharge the batteries.

5.9 Operational Issues

There are known operational issues transmitting in narrowband (2.5kHz deviation) but being received on older wideband equipment (5.0kHz deviation). Narrow band radios (12.5kHz) may sound soft on a 25kHz radio and similarly 25kHz radios may sound loud on 12.5kHz radios. The user may need to adjust the volume to suit this variation.

6. MENU BUTTON

6.1 Channel selection

Press the **MENU [18]** button once. The channel number **[4]** will start flashing on the display. Press the scroll buttons **▲/▼ [20]** to scroll up or down the channels until finding the desired channel. Press the **PTT [11]** button to confirm, or wait for 5 seconds.

CHL	Freq (MHz)	CHL	Freq (MHz)	CHL	Freq (MHz)	CHL	Freq (MHz)
1	476.425 ~	21	476.925	41	476.4375	61#	476.9375
2	476.450 ~	22#	476.950	42	476.4625	62#	476.9625
3	476.475 ~	23#	476.975	43	476.4875	63#	476.9875
4	476.500 ~	24	477.000	44	476.5125	64	477.0125
5*	476.525 ~	25	477.025	45	476.5375	65	477.0375
6	476.550 ~	26	477.050	46	476.5625	66	477.0625
7	476.575 ~	27	477.075	47	476.5875	67	477.0875
8	476.600 ~	28	477.100	48	476.6125	68	477.1125
9	476.625	29	477.125	49	476.6375	69	477.1375
10	476.650	30	477.150	50	476.6625	70	477.1625
11	476.675	31	477.175 ~	51	476.6875	71	477.1875 ~
12	476.700	32	477.200 ~	52	476.7125	72	477.2125 ~
13	476.725	33	477.225 ~	53	476.7375	73	477. 2375 ~
14	476.750	34	477.250 ~	54	476.7625	74	477.2625 ~
15	476.775	35*	477.275 ~	55	476.7875	75	477.2875 ~
16	476.800	36	477.300 ~	56	476.8125	76	477.3125 ~
17	476.825	37	477.325 ~	57	476.8375	77	477.3375 ~
18	476.850	38	477.350 ~	58	476.8625	78	477.3625 ~
19	476.875	39	477.375	59	476.8875	79	477.3875
20	476.900	40	477.400	60	476.9125	80	477.4125

***** Emergency use only # Rx only ~ Repeater channels

Special function channels

Channels 5 and 35 (paired for Duplex repeaters) are reserved as emergency channels and should only be used in an emergency.
Channels 22 and 23 are for Telemetry use. Voice communications are not allowed on these channels by law.

The following channels can be used for repeater operation and are shown on the display as 1 to 8 , 41 to 48 in the table below.

CH selected	Received CH	Transmit CH	CH selected	Received CH	Transmit CH
1	1	31	41	41	71
2	2	32	42	42	72
3	3	33	43	43	73
4	4	34	44	44	74
5 *	5*	35*	45	45	75
6	6	36	46	46	76
7	7	37	47	47	77
8	8	38	48	48	78

* Emergency channel only

6.2 CTCSS tones selection

Midland G7 XT can receive in two modes:

a) **Open traffic:** Any communication transmitted on the selected channel can be heard

b) **Group mode CTCSS:** CTCSS tones are access keys that receive only messages coming from parties using the same channel and code. The speaker will remain muted until the correct CTCSS tone is received.

To activate 1 of 38 different CTCSS tones in RX and TX

1. Turn on the radio.
2. Select the desired channel
3. Press **MENU [18]** twice until the display shows the channel with the CTCSS tone **[9]** flashing on the right (**"of"** default condition).
4. Select the desired CTCSS tone by pushing ▲/▼ [20] controls.
5. To confirm the setting, press the **PTT [12]** key or wait for approximately 5 seconds.

To deactivate CTCSS tones

To operate with no CTCSS code:

1. Press **MENU [18]** key twice until the display shows the desired channel and the **CTCSS [9]** tone blinks on the right.
2. Select **"of"** with ▲/▼ **[20]** controls.

Note: *The addition of codes is possible on all channels except the emergency channels 5 & 35*

6.3 Choosing high or low transmission power

Batteries are drained more quickly during transmission. In order to extend battery life, select low power when transmitting over short distances.

1. Press the **MENU [18]** button 3 times and **Pr** will be displayed.
2. Select **L [7]** using the scroll buttons ▲/▼ **[20]**.
3. Press **PTT [12]** to confirm, or wait for 5 seconds.

To transmit over a longer distance, repeat the above procedure to select high power. At step 2 select **H [7]**. When the batteries are in good conditions, high power is 3W, whereas low power is 1W.

Note: Low battery levels during transmission will reduce the radio's performance.

6.4 VOX function

Midland G7 XT enables hands free conversations through VOX function. The sensitivity of VOX can be adjusted in 2 different levels. VOX function can be enabled with or without accesories. To activate **VOX** function press the **MENU [18]** button 4 times and **VOX [1]** will appear on the display. Use the scroll ▲/▼ **[20]** buttons to select:

- OFF: Disabled
- 2: 1st Level (Low sensitivity)
- 2: 2nd Level (High sensitivity)

Press **PTT [12]** to confirm or wait 5 seconds. To disable the **VOX** function follow the instructions above and select option **oF**.

6.5 Vibra-Call function

Midland G7XT is equipped with the "Vibra-Call" feature, which provides a silent alert for incoming calls. It will vibrate when calls are received.

To activate it, follow these steps:

1. Press the **MENU [18]** button 5 times, until the display shows **[6]**;
2. Use the ▲/▼ **[20]** buttons to disable or enable this feature (ON: enables, OF disables.
3. Push **PTT [12]** to confirm or wait for 5 seconds.

Note: When Vibracall function is enabled, call tone will not be heard.

6.6 ROGER BEEP (End Transmit Tone)

Every time you end a transmission (PTT [12] released), sound indicates to the other party that s/he can start talking. This function is factory disabled. To activate it:

1. Press the **MENU [18]** button six times until the display shows " **rb oF**"
2. Using the scroll buttons ▲/▼ **[20]** select "**on**" and "**rb oF**";
3. To confirm the roger beep activation, press **PTT [12]** or wait for 5 seconds.

6.7 CALL Function

Midland G7XT can send 5 different call tones. Press the **CALL/ 🔒 [13]** key.

To select the call tones:

1. Push the **MENU [18]** button seven times until the display shows "**CA 1**".
2. Using the scroll buttons ▲/▼ **[20]** select "**on**" and "**rb oF**";
3. To confirm the roger beep activation, press **PTT [12]** button or wait for 5 seconds.

Now, each time your Midland G7XT sends out a tone call, it will beep with the selected melody.

6.8 Dual Watch Function

This function allows the monitoring of 2 channels of your choice.

1. Select 1 of the 2 channels to be monitored.
2. Press the **MENU [18]** button 9 times, until the display shows "**TX oF RX**".
3. With the ▲/▼ **[20]** button, select the second channel to monitor.
4. Push the **PTT [12]** key or wait 5 seconds.

6.9 Keypad Beep

To deactivate the keypad beep, follow these steps:

1. Press the **MENU [18]** button 8 times until "**bP on**" is displayed
2. Use the ▲/▼ **[20]** buttons until the display shows "**bP of**".
3. Confirm by pushing the **PTT [12]** or wait for 5 seconds.

7. TROUBLESHOOTING

Your Midland G7XT is designed to provide years of optimal performance. If problems arise, reset the device before contacting the service centre in your region.

7.1 Reset

If the tranceiver freezes or experiences a logic error (improper symbols on the display, blocking of functions, etc.) it may not be defective. Rather, the problem may be caused by external factors like noise or a spike in the electrcal system while charging. In such cases, reset the transciever to its factory-programmed settings:

1. Turn off the transciever.
2. Remove the batteries for about 60 seconds

Note: Before resetting we recommend that you take note of all personal settings since these may be deleted during the reset process.

8. Repeater Functions

Channels marked Duplex are reserved for repeater use in some areas. These are paired with higher channels as output/input (1/31, 2/32, etc). To avoid interference check for local repeater activity before using these channels in Simplex mode. Your radio has a Repeater Access function to allow use of local Repeater stations (if available in your area). Repeaters are shared radio systems installed by interested parties (clubs, local businesses etc.) that pick up transmissions on specific channels and re-transmit (or re-peat) the received signal to another channel. You may access the repeater if it is within range. The repeater RECEIVE channels are 1 - 8, 41 - 48 and TRANSMIT channels 31-38 and 71-78.

Important Requirements When Using Repeater Channels

- Speech transmissions are not allowed on channel 22 and 23 (RX Only)
- CTCSS and Call ring tone calling should be disabled on channel 5 & 35
- If Call ring tone calling is provided, it can only operate for a maximum of 3 seconds once in any 60 second period.

10. TECHNICAL SPECIFICATIONS

GENERAL

Compliant Specification	AS/NZS 4365
Frequency Range	476.425-477.4125 MHz
Number of Channels	80 UHF CB
Channel Spacing	12.5 kHZ
Operation Mode	Simplex channels 1-8 Semi Duplex Channels 1-8, 41-48
Power Supply	6+/-10% V DC
Duty Cycle	TX 5%, RX 5%, stand-by 90%
RF Output	3.0 watts max

TRANSMITTER

Modulation	FM

RECEIVER

Sensitivity	0,35uV
Adjacent channel rejection	70dB
Audio output power	300mW @ 10% THD
Intemediate Frequencies	1st - 21.4 MHz 2nd - 450 kHZ

MECHANICAL

Dimensions (without battery)	58 (L) x 122 (H) x 34 (D) mm
Weight (without battery)	123 grams
Jack for ext. mike and recharge	stereo 2.5mm
Jack for ext. speaker	mono 3.5mm

ENVIRONMENTAL

Temperature Range	-10°C to + 60°C

Original accessories

For a detailed and updated list of suitable accessories, please go to:
www.audioxtra.com.au or www.midlandradio.eu

Disposal of all articles displaying this symbol on the body, packaging or instruction manual should be in a recycle bin or at a specialised waste disposal centre. This will contribute to environmental protection.

WARRANTY

Congratulations on your purchase of a quality MIDLAND 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 AudioXtra. AudioXtra shall not be liable or responsible for any loss of use of this product or any form of consequential loss.

CONSUMER WARRANTY

This **radio** is warranted by AudioXtra International Pty Ltd to be free from defects in materials and workmanship under **NORMAL USE** for a period of **TWENTY FOUR MONTHS** from the date of purchase. 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:

a) The warranty card accompanying this product, stamped and dated by the dealer.
b) 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 **SIX MONTH** 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.

Please complete details below in the event of warranty service being required.

Purchaser's Name: _____

Purchaser's Address: _____

_____

Model Number: G7 XT 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:

a) Clearly describe the fault in detail
b) Safety and security pack the unit for transport
c) Include your return address
d) Provide proof of purchase date as outlined above

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www.midlandradio.ea

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