



G7 EVO

INSTRUCTIONS



USER MANUAL



About this guide

The contents of this document are provided for information purposes only and are subject to change without notice. We have made every effort to ensure that this manual is accurate and complete. However, we accept no liability for any errors or omissions that may have been made.



Thank you for choosing Midland products!

G7 EVO,
the PMR446/LPD dual-band radio.



The rebirth of an icon.

More power, greater clarity, more freedom. The new standard in mobile communication.
Always ready to use, wherever you are, with no connection restrictions.

Sommario

Equipment	3
Coverage relating to the PMR band	3
Key features	4
Radio Montana Network	5
First and foremost... Safety!	5
Description of the Parties	6
Preparation	8
Basic operations	11
MENU button	13
Troubleshooting and resetting the radio	18
Resetting the settings	18
Technical specifications	19

Equipment

The contents vary depending on the type of packaging:

Single pack:

- 1 transceiver with a belt clip
- 1 USB-C to USB-C cable
- 1 USB-A to USB-C adapter
- 1 PB-G7 EVO Li-Ion battery pack, 1800mAh

Twin Pack:

- 2 transceivers with belt clips
- 1 USB-C to USB-C cable
- 1 double desktop charger
- 1 USB-A to USB-C adapter
- 2 PB-G7 EVO Li-ion battery packs, 1800mAh each

If any parts are missing or damaged, please contact your supplier immediately.

Coverage relating to the PMR band

The performance of transceivers depends on environmental and atmospheric conditions. Environmental factors such as elevation, buildings, trees and foliage can reduce coverage. Optimal performance is achieved in open country, whilst the range may be reduced, for example, inside a car or a building. Typically, coverage in urban areas, where there are buildings, is 1 or 2 km. In open country, but where there are trees, houses and foliage, coverage is 4–6 km. In open country, with a clear line of sight and no interference whatsoever – such as in the mountains – coverage can reach 12 km.

Key features

- Dual-Band LPD/PMR446 Transceiver
- 87 channels: 16 PMR446 + 2 RRM channels (Italy-Spain) + 69 LPD
- PMR446 frequency band: 446.00625 – 446.19375 MHz
- LPD frequency band: 433.075 – 434.775 MHz
- Quick setup of the second channel for the Dual Watch function
- Side tone: transmission tone muffler
- Enhanced audio, 40% more than the G7 PRO
- Large display, 30% larger than the G7 PRO
- Backlit liquid crystal display
- 1800mAh Li-Ion battery pack (23-hour battery life)
- Compact, just 26mm deep
- VIBRACALL function
- Bright blue backlight for improved readability in all conditions
- Backlight OFF/On (timed)
- Low battery indicator
- Auto power save: automatic battery-saving circuit
- 38 CTCSS tones for transmission and reception, and 104 DCS tones
- CALL button, with 5 selectable tones
- 6-level squelch adjustment
- Channel selection buttons
- SCAN, Monitor
- Keyboard lock to prevent accidental keystrokes
- High/Low power selection (PMR band)
- Roger Beep (can be switched off)
- VOX for hands-free communication with 6 levels
- 2-pin socket for external microphone/external speaker
- USB-C charging port
- FB: background noise filter on reception (range limit)

In its commitment to constantly improving product quality, the manufacturer reserves the right to alter the product's specifications without prior notice.

Radio Montana Network

The **G7 EVO** features two channels dedicated to the Rete Radio Montana (RRM I and RRM S) service, which are currently available in certain countries such as Italy, Spain, France, Portugal and the United Kingdom. Find out more: <https://www.reteradiomontana.it/canale-8-16>
The two channels are in the PMR446 band and are shown on the display as follows:



First and foremost... Safety!

Warnings

Your transceiver has been designed to give you years of safe and reliable performance, and as with all equipment When using electrical appliances, there are a few precautions we recommend you follow:

- Do not open the device: tampering may damage the device and invalidate the warranty.
- To charge the device, always use the charger supplied in the box.
- Avoid exposure to extreme temperatures.
- If smoke or unusual odours are detected, switch off the device immediately and remove the battery.

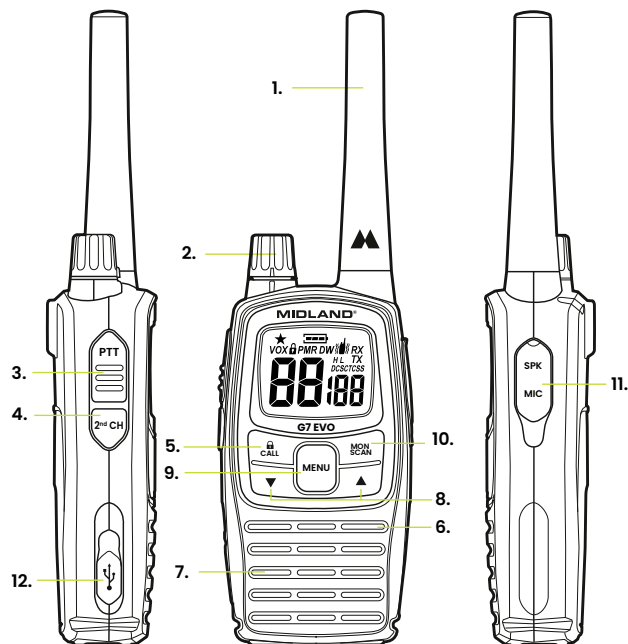
Description of the Parties

LCD (liquid crystal) display



00	These two large digits indicate the number of the selected channel
VOX	Enabling the VOX function.
	Keyboard lock is active.
DW	Enabling the Dual Watch function
	Battery status indicator.
	Indicator of active Vibra-Call function
H/L	Indicates whether high or low power has been selected for transmission (TX) (in the PMR band only).
RX	Radio in receive mode (channel occupied).
TX	Radio is transmitting (PTT button pressed).
DCS-CTCSS	Selected ringtone type.
100	Selected CTCSS tone number or DCS code (CTCSS: 1-38; DCS: 1-104).
PMR	This indicates that the radio is operating on the PMR446 channels.
	Indicates the "2nd CH" setting

Apparatus



- Antenna.**
- OFF/VOLUME knob** – Turns the radio on and off and adjusts the volume.
- PTT** – Press this button to transmit.
- 2nd CH** – press and hold the button for about 7 seconds to set the second channel for the DW (dual watch) function.
- CALL/LOCK button** – This is used to send a call signal on the selected channel. Alternatively, holding it down for about 3 seconds activates the keypad lock function.
- MIC** – Built-in microphone for broadcasting.

7. **Built-in speaker** – For audio reception.
8. **▲ ▼ buttons** – These are used to change the settings within the menu.
9. **MENU** – Press this button to access the radio's settings menu.
10. **MON/SCAN** – Press briefly to activate the SCAN function. Press and hold for about 3 seconds to access the Monitor function, which temporarily disables the squelch so that even weak signals can be received.
11. **SPK | MIC (protected)** – These allow connection to external devices (headphones, microphones, etc.).
12. **USB-C charging port.**

Preparation

Charging the battery pack

The **G7 EVO** transceiver uses a 1800 mAh rechargeable -Li-ion battery, which provides the power required to operate the device. Please follow the instructions below carefully to ensure correct, efficient and safe charging.

Charging via a dual desktop charger

Requirements

Ensure that the power source you are using is capable of supplying sufficient power for charging. To charge two radios at the same time, a power source capable of delivering at least 5 W is recommended.

Procedure

1. Place the radio in the charging dock.
2. Charging takes **3–4 hours**, depending on the remaining charge level.

LED indicator on the base

- **Red** = Battery charging
- **Green** = Charging complete

Charge via the radio's -USB-C port

Requirements

Check that the power supply is capable of providing sufficient power. For a single radio, a power supply of at least 2.5 W is recommended.

Procedure

1. Connect the -USB-C cable to the dedicated port on the radio.
2. Charging takes **3–4 hours**, depending on the remaining charge level.

Information on the radio display

- **Flashing battery icon** = Battery charging
- **A static battery icon and the word 'FULL'** = Charging complete

Tips for optimal charging:

It is recommended that you switch off the radio whilst charging to optimise the trial.

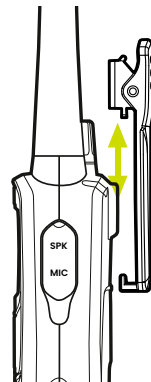
Precautions:

- Only use the charger supplied with the device. Using incompatible chargers may damage the battery or the transceiver.
- Only use the battery pack supplied with the device.
- Do not expose the battery or charger to extreme temperatures. Avoid charging in environments that are too hot or humid.
- In the event of any faults, such as smoke or unusual odours during charging, immediately disconnect the battery from the charger and remove it.

Removing/attaching the belt clip

The standard rear clip allows you to easily attach the transceiver to your belt. However, this must be removed if you need to remove the battery pack. To remove the belt clip, follow the instructions in FIGURE 1. To re-attach the clip to the unit, position it in the groove on the back of the transceiver and slide it until you hear the latch click into place.

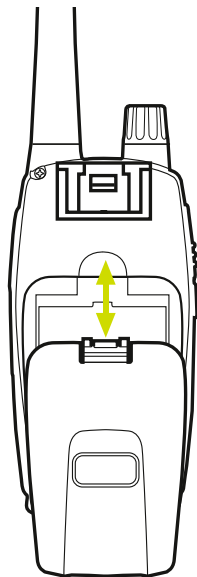
FIGURE 1



Removing/securing the battery pack

1. Remove the belt clip as explained in the previous paragraph.
2. Open the battery compartment by pulling the tab as shown in FIGURE 2;
3. Remove or insert the battery pack from the device;
4. Close the battery compartment with the cover provided and re-attach the belt clip

FIGURE 2



Basic operations

On/Off

To switch on the transceiver, turn the **VOLUME** knob clockwise until you hear a mechanical click: the LCD display will light up and perform a self-test, after which you will hear two beeps of different pitches.

To switch off the transceiver, turn the knob anti-clockwise until you hear the mechanical click again.

Volume control

Set the **VOLUME** knob to the halfway position and, as soon as you receive a signal, adjust the volume to a comfortable level. If you do not receive any signals, you can use the **MON/SCAN** button described in the section 'MON button'.

Transmission and reception

Pressing the **PTT button** switches the unit to low or high power transmission (depending on the selection made in the menu: **H** or **L**) in the PMR band.

To send:

1. Make sure that no one else is speaking on the selected channel;
2. Press and hold the **PTT button**: '**TX**' will appear on the display;
3. Wait a fraction of a second and speak in a normal tone of voice into the transceiver's microphone;
4. When you have finished, release the **PTT button**: '**TX**' will disappear from the display;
5. When the radio is in receive mode (PTT button released), you will automatically receive any transmissions; when a signal is received, '**RX**' will appear on the display.

When transmitting and receiving, try to keep the antenna as vertical as possible and ensure that there are no obstacles in the direction of the other party.

Selecting a channel

1. Press the **MENU** button; the channel number will start flashing on the display.
2. Select the desired channel using the **▲ ▼** buttons.
 - **PMR446**: 1 to 16 + two RRM channels.
 - **LPD**: from 1 to 69.
3. Press **the PTT button** to confirm, or wait 5 seconds.

Band switch: PMR446 only or PMR446/LPD

1. Switch off the radio.
2. Switch it back on by holding down **MENU** and **MON/SCAN**.
3. The display will show three dashes “- _ _”.
4. Press the following buttons in sequence: **▼** – **MENU** – **▲**. You will see on the display that the dashes are gradually replaced by a series of ‘o’s. If you enter the sequence incorrectly, the G7 EVO will exit this procedure.
5. At the end of the sequence, the display will show the band currently in use. You can now choose between “**PL**” (PMR446 + LPD channels) or “**P**” (PMR446 only) using the **▲** or **▼** buttons.
6. Press the **PTT** button to confirm your choice.

MON (Monitor) button

The Monitor button allows you to temporarily bypass the squelch so that you can listen to any extremely weak signals that are unable to open it permanently. This will prevent you from hearing the transmission in bits and pieces.

To activate the Monitor function:

- Press and hold the **MON/SCAN** button for about 2 seconds to listen to all radio traffic on the selected channel.
- To deactivate this function, press the **MON/SCAN** button for about 2 seconds.

Scan all channels

The **G7 EVO** can automatically search for signals across all channels in the PMR/LPD bands by ‘scanning’ them, i.e. selecting them rapidly in sequence. When a signal is detected, the scan stops on that signal. Once the desired communication has been found, simply press the **PTT** button to start communicating.

Pressing the **PTT** button whilst scanning will allow us to transmit on the channel from which we started scanning the band.

The **▲/▼** buttons allow you to reverse the scan direction and avoid listening to channels with unwanted communications.

To scan the channels:

- Briefly press the **MON/SCAN** button: the **G7 EVO** will start scanning the channels.
- To stop the scan, press the **MON/SCAN** button again; your transceiver will return to the channel from which we started the scan.

Display lighting

If the ambient lighting is not bright enough for you to read the display clearly, pressing the **MENU** button will illuminate it for about 5 seconds. The display lighting uses extra power from the batteries. Please try to use it sparingly.

Keyboard lock

- Press and hold the **CALL/🔒** button for about 5 seconds. The symbol that appears on the display **🔒** indicates that the function has been activated. Only the **PTT** and **CALL/🔒** buttons remain active.
- To deactivate the function, press and hold the **CALL/🔒** button again for about 5 seconds.

Power Save

The **automatic battery-saving feature** reduces power consumption by up to 50%; if the radio does not receive a signal for more than 5 seconds, the feature is activated automatically.

When the batteries are flat, **‘bTLO’** will appear on the display; the battery pack must be recharged.

MENU button

Selecting a channel

Press the **MENU** button *once*; the channel number will start flashing on the display. Use the **▲/▼** buttons to scroll through the PMR channels and then the LPD channels until you have selected the desired channel. Press the **PTT** button to confirm, or wait 10 seconds.

Selection of CTCSS/DCS tones

The **G7 EVO** can receive in two modes:

- A. **Open Traffic:** in this case, you will hear all the selected conversations on the chosen channel;
- B. **CTCSS/DCS group modes:** the tones act as a sort of access code, allowing you to communicate only with those users who are on the same channel and have the same code as you. The radio will remain muted until it receives the correct tone that has been set.

Procedure for activating the 38 CTCSS/104 DCS tones in RX and TX:

1. Switch on the appliance.
2. Select the desired channel.
3. **Press** the **MENU** button *twice* until the display shows ‘**oF**’ flashing on the right (‘**oF**’ is the default setting).
4. When you press the **▲/▼** keys, the display will show **CTCSS** (**ct** flashing) or **DCS** (**dc** flashing); press **MENU** to access the CTCSS or DCS codes. Now use the **▲/▼** keys to select the desired tone.
5. To confirm the setting, press the **PTT** button or wait for about 10 seconds.

Squelch Level Selection

The squelch eliminates background noise on the channel in use and allows you to receive very weak signals.

The **G7 EVO** has 6 (1–6) squelch levels available: **levels 1 to 6** have decreasing squelch sensitivity (from most sensitive to least sensitive).

The squelch is set to level 2 by default.

To select the desired squelch level:

1. Switch on the appliance.
2. Select the desired channel.
3. **Press** the **MENU** button **three times** until the currently set squelch level flashes on the display (default setting: "2").
4. When you press the **▲/▼** buttons, the display will show the various squelch levels.
5. To confirm the setting, press the **PTT** button or wait for about 10 seconds.

High/low transmission power selection (PMR band)

The transmission phase is the one that uses the most battery power.

To extend the battery life, you can select the low transmission power setting when transmitting over short distances.

- To do this, **press** the **MENU** button **four times**; '**Pr H**' will appear on the display. Use the **▲/▼** buttons to select '**L**', then press **PTT** to confirm, or wait 10 seconds.
- If you want to transmit over a long distance, press the buttons in sequence again and select **H**. The high power setting is 500 mW, whilst the low power setting is 10 mW.

During transmission, a low battery level will significantly affect the performance of your transceiver.

VOX function

The Midland **G7 EVO** allows for hands-free conversations via the VOX function. The VOX function can be activated with or without accessories.

The **G7 EVO** is equipped with 3 different types of VOX:

- **Standard VOX** (Vo on display)
- **VOX babysitting** (Vb on the display)
- **VOX Bike** (Vc for motorcyclists).

All these modes can be selected across two levels as follows:

1. To activate the VOX function, **press** the **MENU** button **five times**.
2. In the PMR band, '**VOX**' will appear on the display; use the **▲/▼** buttons to select:
Of: disabled
Vo1/Vo2 - Vb1/Vb2 - Vc1/Vc2:
1 corresponds to Level 1 (Low sensitivity), 2 to Level 2 (High sensitivity);
3. Press the **PTT** button to confirm, or wait 10 seconds.
4. To deactivate the VOX function, follow the instructions above and select the '**of**' option.

Vibra-Call function

The Midland **G7 EVO** is equipped with the "Vibra-Call" feature, which allows you to activate vibration when the "CALL TONE" is received. To activate this, follow these instructions:

1. **Press** the **MENU** button **six times** in the PMR band until the display shows **■**;
2. Press the **▲/▼** buttons to enable or disable the function (**on**: Enable – **of**: Disable);
3. Confirm by pressing the **PTT** button or wait 10 seconds.

*This means that every time a ring tone is received, the Midland **G7 EVO** will vibrate.*

This function will prevent you from hearing the ring tone.

ROGER BEEP function (End-of-call confirmation tone)

When you release the **PTT** button – that is, at the end of each transmission – a tone is emitted, indicating to the person you are speaking to that they can start talking. On the Midland **G7 EVO**, this function is disabled by default.

1. **Press** the **MENU** button **7 times** in the PMR band until "**rb of**" appears on the display;
2. Use the **▲/▼** buttons to select "**on**" and "**rb on**" will appear on the display;
3. Press the **PTT** button, or wait 10 seconds to confirm the setting. The Roger Beep is now activated.

CALL function

The Midland **G7 EVO** can send 5 different ringtones. To send one, press the **CALL/📞** button.

Tones can be selected as follows:

1. **Press** the **MENU** button **8 times** in the PMR band until the display shows "**CA 1**".
2. By pressing the **▲/▼** button, you can listen to the 5 preset melodies;
3. Confirm by pressing the **PTT** button or wait 10 seconds.
4. This way, whenever a ring tone is played, that particular ringtone will be used.

If the Vibracall function is also enabled, the ringtone will not be audible.

'2nd CH' function / Dual Watch

This function allows you to constantly monitor two channels of your choice. The side button (below the PTT) labelled '**2nd CH**' is used to set the first channel to be monitored during the **Dual Watch (DW)** function.

Procedure

1. Select the first channel you wish to monitor.
2. **Press and hold** the "**2nd CH**" button **for about 7 seconds**. The icon ★ will appear on the radio display.
3. Switch to the second channel you wish to stay tuned to.
4. Once the second channel has been selected, the display will show '**DW**' alongside the selected channel.

Default behaviour

- When the **G7 EVO** radio receives a call on one of the two monitored channels, it automatically shows the relevant channel on the display and activates the speaker. **The G7 EVO** will remain on this channel for approximately 5 seconds after the transmission has ended, to give you the chance to reply.
- When DW mode is active, pressing the "**2nd CH**" button briefly allows you to choose which of the two channels to show on the display.

Related option: 'CC' menu

This function is linked to a setting in the menu, identified by the abbreviation '**CC**', which allows you to set how the display behaves once a transmission has been received.

Available options

- "**of**" (default). Once the radio has finished receiving a signal on one of the two DW channels, it returns to displaying the channel selected as the main channel.
- "**on**". The radio continues to display the channel on which the call took place, even after the call has ended.

How to set the 'CC' option

1. **Press** the **MENU** button **10 times** (in PMR mode).
2. Use the ▲/▼ buttons to select one of the two options: "**of**" or "**on**".
3. Confirm by pressing the **PTT** button, or wait for about 10 seconds for the data to be saved automatically.

Disabling the DW function

To exit the DW function completely: from any channel currently selected on the display, press and hold the "**2nd CH**" button for approximately 7 seconds.

Keypad Beep

If you wish to disable the keypress sounds, you can do so by following these steps:

1. **Press** the **MENU** button **9 times** in the PMR band until the display shows "**bp on**".
2. Press the ▲/▼ buttons until the display shows "**bp of**".
3. Confirm by pressing the **PTT** button or wait 5 seconds.
4. This way, whenever you press a key, you won't hear any sound.

Backlighting

The **G7 EVO** is equipped with a display backlight with a timer function.

When any key is pressed (except the PTT), the backlight turns on and remains on for 7 seconds after the last key press. The timed backlight is enabled by default, but can be disabled.

If you switch this off, the display will never light up automatically; this makes the radio 'invisible' when used at night and helps to reduce battery consumption slightly.

How to turn off the backlight

1. **Press** the **MENU** button **11 times** (in the PMR band) until '**bl on**' appears on the display.
2. Use the ▲/▼ keys to select the "**bl of**" option.
3. Confirm by pressing the **PTT** button, or wait 5 seconds for the settings to be saved automatically.

Background Filter

The **G7 EVO** features an active **audio filter** as standard, designed to make incoming audio clearer by reducing background noise when the connection is at the edge of the range.

The speech signal (the relevant speech) is clearer and easier to understand, whilst background noise is reduced, thereby improving the perception of the other person's voice.

Disabling this function may result in a slightly higher data rate, but with an increase in background noise during reception.

How to disable the Background Filter

1. **Press** the **MENU** button **12 times** (in the PMR band) until the display shows "**Fb on**".
2. Use the ▲/▼ keys to select the "**Fb of**" option.
3. Confirm by pressing the **PTT** button, or wait 5 seconds for the settings to be saved automatically.

Troubleshooting and resetting the radio

Your Midland **G7 EVO** should provide you with years of trouble-free use. However, should you encounter any problems, please refer to this section before contacting your local service centre.

Resetting the settings

If your transceiver exhibits any logical malfunctions (inconsistent symbols on the display, functions freezing, etc.), this may not be a genuine fault, but rather a problem caused by other external factors, such as an incorrect setting resulting from interference from the mains supply whilst the battery pack is being charged.

In this case, you can restore the transceiver to its factory settings by clearing its memory and resetting its settings:

1. Switch off the transceiver;
2. Press and hold the ▲ button whilst switching on the radio. All functions will be reset to their factory settings.

Before performing the reset, we recommend that you make a note of all the settings you have configured, as they will be deleted.

Technical specifications

Channels	16 PMR446 + 69 LPD
Frequency	PMR446 446.00625 ÷ 446.19375 MHz
	LPD 433.075 – 434.775 MHz
Channel spacing	12.5 KHz (PMR); 25 KHz (LPD)
Power supply	3.7 VDC (battery pack)
Operating temperature	from -20° to +55°
Dimensions (excluding the antenna)	59 (W) x 126 (H) x 26 (D) mm
Weight (excluding batteries)	123,3g
Operating cycle	TX 5%, RX 5%, standby 90%
Category	B
Transmitter	
Output power	10 or 500 mW (selectable)
Type of modulation	FM
Spurious rejections	complies with ETSI standards
Receiver	
Sensitivity at 12dB Sinad	<0.2 µV
Adjacent channel rejection	70 dB
Audio output power	500mW at 10% THD
External USB-C charging socket	500/1000 mA
External microphone socket	2.5 mm stereo jack
External speaker socket	3.5 mm mono jack
Maximum transmission time per hour	6 minutes, equivalent to one cycle 10% utilisation

Specifications are subject to change without notice.

PLEASE NOTE: The power adapter acts as the device's disconnect point; the charging base must remain close to the device and be easily accessible.





www.midlandeurope.com