XT50 PRO

**WALKIE-TALKIE DUAL BAND
PMR446/LPD**

up to
8Km*

› User's manual

MIDLAND®

Main functions

- Dual Band LPD/PMR446 transceiver
  85 channels: 69 LPD + 16 PMR446
- Waterproof IPX2
- Power: 500mW ERP (PMR446); 10 mW ERP (LPD)
- Side Tone: end transmission noise muffler
- LCD display with backlight
- Low battery indicator
- Auto power save: automatic current economy circuit
- 38 CTCSS and 83 DCS tones in TX and RX
- CALL button
- RRM channel (only for Italy)
- Battery life up to 12 hours
- SCAN function
- Monitor function
- Keypad lock
- Roger Beep on/off
- VOX for hands-free communications with 6 selectable levels
- 2 Pin jack for ext. mike / ext. speaker
- Recharge jack: micro USB
- Weight: 94g
- Dimensions: 102x49x30mm
- Category: B

📄 *The manufacturer, with its effort to constantly improve product quality, reserves the right to change characteristics and features without prior notice.*

Content of the package

- 2 transceivers with belt clip
- 2 rechargeable battery packs 700mAh
- 2-way USB cable
- 2 earphone mikes MA21Li (only in the Hobby&Work version)

Coverage

The maximum range depends on terrain condition and is obtained during use in an open space.

The only limitation to maximum possible range are environmental factors such as blockage caused by trees, buildings, or other obstructions. Inside a car or a metallic constructions, the range can be reduced. Normally the coverage in the city, with buidings or other obstructions is about **1 or 2 Km**. In open space but with obstructions like trees, leafs or houses the maximum possible range is about **4-6 Km**. In open space, without obstructions and in sight, like for example in mountain, the coverage can be **8 Km.**
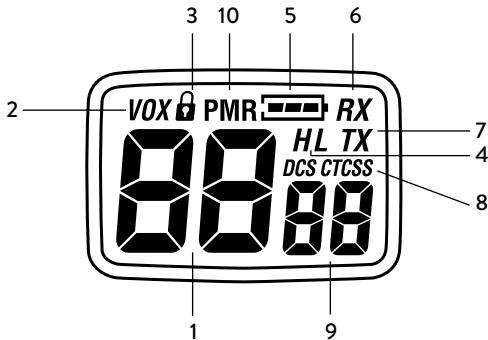
Above all....Safety!

Warnings

! *Do not open the radio for any reason! The radio's precision mechanics and electronics require experience and specialized equipment; for the same reason, the radio should under no circumstances be realigned as it 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.*
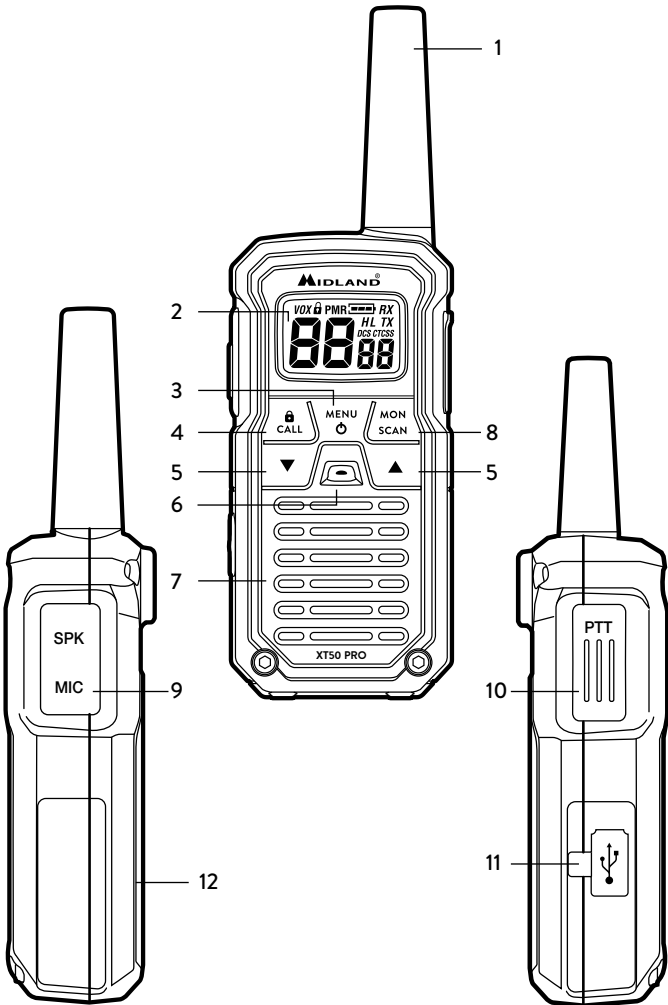
Identifying the parts

Display

1. **Selected channel**
2. **VOX** - Function activated
3. 🔒 - Keypad lock activated
4. **H/L** - Indicates the high / low power selection in transmission (only in PMR band)
5. ▭ - Battery status indicator
6. **RX** - Radio in rx mode (busy channel)
7. **TX** - Radio in transmission (PTT pressed)
8. **DCS/CTCSS** - Type of sub-audio tone selected
9. **Code of the selected CTCSS or DCS tone** (CTCSS: 1-38; DCS: 1-83)
10. **PMR** - This simbol indicates that the radio is operating on the PMR446 channels

Transcceiver

1. **Antenna**
2. **LCD display**
3. **MENU/⏻** - Press this control to turn on/off the unit or to enter the radio's menu
4. **CALL/🔒** – Press this button to lock the keypad or to send out a call signal.
5. **▲ - ▼ controls** - use these buttons to adjust the volume, select the channels and functions.
6. **Microphone**
7. **Built-in Speaker.**
8. **MON/SCAN** - With this button you can enable/disable the Scan and Monitor functions.
9. **SPK | MIC** (under the protective cover) - To connect to external audio devices such as microphones, headphones, etc.
10. **PTT** - Press to transmit.
11. **USB port** for the recharge of the radio
12. **Battery and battery compartment.** The transceiver accepts the supplied rechargeable battery pack or 3 x AAA alkaline/ rechargeable batteries.
📄 *The supplied battery packs must be recharged before the first use (see the section "Recharge" for more info).*

Installing/removing the battery pack

1. Remove the belt clip;
2. Open the battery compartment;
3. Remove or insert the battery pack;
4. Close the battery cover and fix the belt clip.

Let's communicate!

To turn on/off the radio
Hold down **MENU/⏻** for 3 seconds.

Channel selection
Press once the **Menu** button and then select the desired channel by the ▲/▼ buttons. Press **PTT** to confirm the selection. Remember that both radios must be set on the same channel.

Transmission
Keep pressed the **PTT** button. The display will show *"Tx"* and *"to"*. Release the **PTT** and the radio beeps to confirm to other users that your transmission has finished ('Roger Beep', see paragraph).

Reception
Simply release the **PTT** button. When you receive a signal *"Rx"* is displayed.

Volume adjustment
Press the ▲/▼ to adjust the volume at the desired level.

🔒 button
This feature is very useful to avoid accidental pressure of the buttons. Press and hold the **"🔒/CALL"** button for more than 3 seconds. The 🔒 icon confirms that the keypad lock is activated. Only **PTT** and **🔒/CALL** will still be active. Repeat the same procedure to unlock the keypad.

Menu button
The following functions can be selected by pressing the **Menu** button:
- VOX
- Roger Beep on/off
- Channel setting
- CTCSS/DCS tone setting
- Keypad Beep
- High/low power selection (PMR band)
- Tone selection for the CALL feature

VOX function and its sensitivity

The VOX function lets you open the transmission by voice without the use of the **PTT** button. To get the most use from the VOX feature you must first determine what sensitivity (noise level) is needed to activate the VOX.

Push the **Menu** button until *"VOX"* blinks on the display. Select the desired VOX level by means of the ▲/▼ buttons .

Press the PTT or wait 3 seconds as confirmation.

VOX can be adjusted in 6 positions:

· **Level 1 has the highest sensitivity**
· **level 6 has the lowest one.**

To disable the VOX mode

Press the **Menu** button until the display shows *"VOX"*. Select *"OF"* by means of the ▲/▼ buttons and then push **PTT** to confirm.

📄 *To use the VOX with the optional headset, move the small switch of the headset to the VOX position. Move it back to PTT position if you don't use the VOX function.*

Roger Beep: End transmission tone

When the **PTT** is released the radio will beep to confirm to other users that your transmission is finished. This feature is enabled by default.

To disable it:
1. Press the **Menu** button till the display shows *"rb"*
2. Select *"oF"* by means of the ▲/▼ buttons.
3. Confirm your selection by pushing the **PTT** button.

PMR446/LPD channel setting

Press once the **Menu** button and then select the desired channel by the ▲/▼ buttons. Press **PTT** to confirm the selection.

CTCSS tones selection

XT50 PRO can receive in two modes:
a. **Open traffic:** in this case you will hear any communication transmitted on the selected channel;
b. **Group mode CTCSS/DCS**: CTCSS/DCS tones are access keys that allow you to receive only messages coming from parties using the same channel and code. The speaker will remain muted until the correct tone is received.

To activate 1 of 38 different CTCSS/83 DCS tones in RX and TX
1. Turn on the radio.
2. Select the desired channel.
3. Press twice **MENU** until the Display shows *oF* (blinking on the right side).
4. By pushing the ▲/▼ controls the display will show ***CTCSS*** (blinking) or
5. ***DCS*** (blinking); press **MENU** to enter the CTCSS or DCS tones. Now
6. select the desired tone with the ▲/▼ keys.
7. To confirm the setting, press the **PTT** key or wait for approximately 5 seconds.

Key tones

To deactivate the keypad beep, follow these steps:
1. Press **MENU** button, until *"bP on"* is displayed.
2. Use the ▲/▼ buttons until the display shows *"bP of"*.
3. Confirm by pushing the **PTT** or wait for 5 seconds.
Now you won't hear any beep at the pressure of any button.

CALL function

XT50 PRO can send an audio signal to other users, by pressing **CALL/🔒**.
You can choose amongst 5 different call tones:
1. Push the **MENU** button 6 times, until the display shows "CA 1".
2. By pushing ▲/▼ you will hear the 5 pre-set melodies.
3. Confirm by pressing the **PTT** key or wait for 5 seconds.
Now, each time your XT50 PRO sends out a tone call, it will beep with the selected melody.

Choosing high or low transmission power (PMR band)

Batteries are drained more quickly during transmission. In order to extend the battery life you can select the low power when transmitting over short distances. Procedure:
1. Press the **MENU** button for 3 times and *Pr H* will be displayed.
2. Select *L* using the scroll buttons ▲/▼.
3. Press **PTT** to confirm, or wait for 5 seconds.
If you want to transmit a longer distance repeat the above procedure to select the high power. At step 2 select *H*. When the batteries are in good conditions, high power is 500mW, whereas low power is 10mW.

📄 *A low battery level during transmission will reduce the performance of your device.*

MON/SCAN

Monitor function

When this feature is activated, the radio can receive very low and weak signals. This is very useful when you need to talk but the distance is as far as the maximum range possible; with the monitor feature you can extend the coverage of the radio.

The disadvantage is the reception of loud background noises.

Activation/Deactivation: Keep pressed **MON/SCAN** till the display shows *"Rx"*.

SCAN function

The SCAN mode monitors the busy channels.

It is used to check the traffic radio on all the channels before transmitting and allows the unit to stop on a channel that someone is talking on. When the radio stops on a busy channel, the scan will resume after about 5 seconds.

To activate the SCAN function
1. Push **MON/SCAN**.
2. While the scan mode is operating, if you push the ▲/▼ controls you can choose the scanning direction.

To deactivate it:
Press **MON/SCAN** or **PTT**.

Recharge

When the battery pack or the batteries are discharged, the icon 🔋 starts blinking: it is necessary to start the recharge as soon as possible. The icon blinks only if the radio is turned on.

ATTENTION

Alkaline batteries cannot be recharged.

Do not recharge the radio without the rechargeable batteries or without the battery pack.

For the very first time, we recommend to recharge the radio for 8/10 hours.

Insert the battery pack into the radio. Plug the USB supplied in the package into the USB port of the radio. The icon with its bars will be displayed to indicate that the radio is being charged. Once the batteries are fully charged the

bars of the icon 🔋 will be steady. We recommend to disconnect the power supply (disconnect the USB cable).

📖 *the USB cable must be connected to devices with a charge current of 500mAh at least.*

Auto power save

XT50 PRO is supplied with an automatic current economy circuit. If the transceiver receives no signal for more than 10 seconds, the "power save function" automatically activates. The battery life may increase by up to 50 %.

Accessories

XT50 PRO is provided with a MIC/SPK jack for the connection of external accessories such as mikes or headsets. This plug is 2-pin type and is compatible with all Midland accessories.

Troubleshooting and radio reset

XT50 PRO is designed to provide you with years of optimal performance. If for some reason problems arise, refer to this chapter before contacting a service centre in your region.

Reset

If your transceiver experiences a logical malfunction (improper symbols on the display, blocking of functions, etc.), it may not be experiencing a true failure, but rather a problem caused by external factors. For example, it may have an incorrect setting brought on by a noise or spikes in the electrical system during battery recharging. In such cases, you can reset the transceiver to its factory-programmed settings, by resetting all parameters:

• Turn off the transceiver
• Keep pressed the ▲ button and turn on the radio at the same time. All the functions will be reset ex-factory.

Before you go ahead with the reset, we recommend that you take note of all the settings you have carried out as they will be deleted.

Technical specifications

Channels ....85: 69 LPD+16 PMR446
Frequency range .... 446.00625 ÷ 446.09375MHz (PMR446)
.... 433.075 - 434.775MHz (LPD)
Channel spacing...12.5 KHz (PMR); 25 KHz (LPD)
Power supply.. 700mAh battery pack
.... 3x AAA type 4.5V(Alkaline)
Temperature .... -20° to +55°
Dimensions (w/o antenna).....................................49 (L)x 102 (H)x30 (D) mm
Weight (w/o batteries)...94gr
Duty cycle.. TX 5%, RX 5%, stand-by 90%
Category ....B

Transmitter

Output power..................................10 or 500mW (PMR446) - 10mW (LPD)
Modulation... FM
Spurious rejection .... within European legal terms

Receiver

Sensitivity @ 12dB Sinad 0,30µV
Adjacent channel rejection...70dB
Audio output power.. ~250mW @ 10% THD
Receiver category ....3 (referred to LPD only)
Jack for ext.mike .... stereo 2,5 mm
Jack for ext. speaker ....mono 3.5 mm
Maximum transmission time in an hour .... 6 minutes,
.... equivalent to a duty cycle of 10%

Specifications are subject to change without notice.

CE 🗑 ♻ **RoHS** Compliant

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