

# BR01

BUSINESS RADIO

Instruction guide

Suitable for:



Business



Restaurants



Hospitality



Warehousing



**MIDLAND**<sup>®</sup>  
PUT YOURSELF IN ACTION



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Thanks for choosing Midland! **BR01** is a portable transceiver that is free use in almost all European countries. For further information, we suggest you look at the “Restrictions on the use” chart.

## Programming software (optional)

Thanks to Midland Programming software **PRG10**, it is possible to increase the performance of your radio or to reduce its functionality by disabling some of the default features (CTCSS, TOT...)

For further information, please consult the Programming software manual.

Any attempt to change frequencies or output power of the radio invalidates the approval.

## Content

- 1 BR01 transceiver
- 1 belt clip
- 12800mAh Li-ion rechargeable battery pack
- 1 USB cable

## Main characteristics

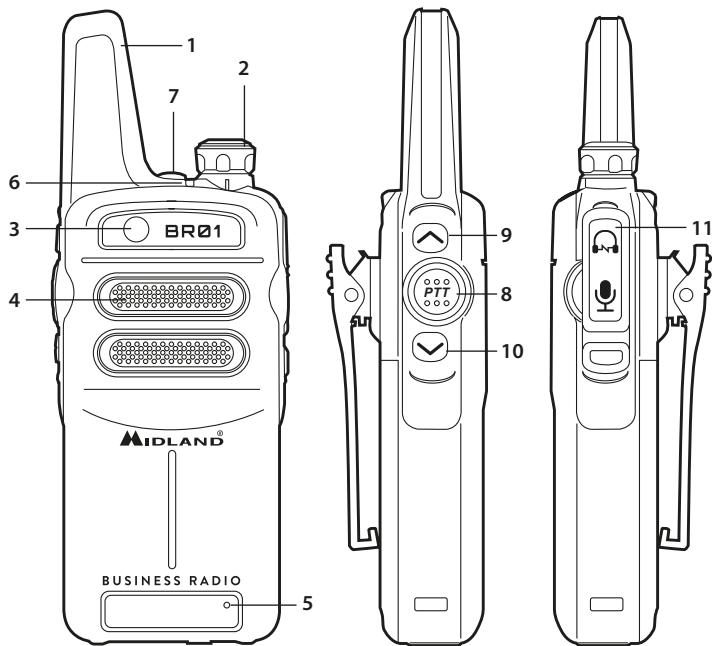
- PMR446 Transceiver
- Output power: ≤ 500mW ERP
- Channel spacing: 12.5KHz
- Battery life up to 37 hours
- Voice announcement
- Battery save
- Monitor
- Squelch
- 50 CTCSS tones and 232 DCS codes

## Coverage/Range

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 buildings or other obstructions is about **1 or 2 Km**. In open space but with obstructions like trees, leaves 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 more than **12 Km**.

# Main controls and parts of the radio



1. **Antenna**
2. **Encoder:** rotate clockwise or counter-clockwise to select the desired channel
3. **Power on button:** keep pressed to turn on/off the radio. When the radio is switched on, press shortly to turn on/off the flashlight.
4. **Speaker**
5. **Built-in microphone**
6. **Led indicator:**  
RED: TX;  
GREEN: RX.
7. **Flashlight**
8. **PTT:** push this button to transmit, release it to receive.
9. **Volume button +:** press to increase the volume. Keep pressed to start battery inquiry: level 4 -> battery 100%; level 3 -> battery 75%; level 2 -> battery 50%; level 1 -> battery 25%.
10. **Volume button -:** press to reduce the volume: Keep pressed to activate the **Monitor function**.
11. **External Speaker/Mic Jack-** allows the connection with external devices such as headsets, microphones.

# Operations

## Power on/off and volume adjustment

To turn the radio on, keep pressed the **Power on** button.

To adjust the volume level as you prefer, press the **Volume button +/-**.

In case the radio does not pick up any signal, activate momentarily the Monitor function that allows to detect also weak signals. Then, adjust the volume to the desired level.

To turn the radio off, keep pressed the **Power on** button until a switch off tone is heard.

## Transmission

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

The radio comes with 16 PMR446 channels: 8 + 8 pre-set. CTCSS tones and DCS codes cannot be set on channels 1-8 , only to channels 9-16.

Rotate the knob for the channel selection.

Keep pressed the **Volume button -** 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

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

Hold down the **Volume button -** to enable such function.



## Squelch

The Squelch function suppresses noises on the channel in use and allows to receive even weak signals.

**BR01** has 10 different Squelch levels that can be set by programming software: 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 will be the Squelch.

By default, the Squelch level of **BR01** is set on level 4.

*Make sure you do not set an excessively high squelch level because in this case 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.*

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

## CTCSS/DCS tones

CTCSS and DCS tones 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 and 232 DCS codes.

The CTCSS/DCS tones are a sort of “access codes” and enable the radio to communicate only with the other users set on the same frequency and on the same CTCSS/DCS tone. Undesired signals coming from other stations set on the same frequency but with different CTCSS/DCS tones won't be received.

## Flashlight

With **BR01** turned on, shortly press the **Power on** button to turn on/off the flashlight at the top side of the radio.

## Battery recharge

**BR01** is equipped for using a 3,7V Li-ion rechargeable battery pack which can be recharged by connecting the USB cable to the radio and to a USB-charger (5V-1A). It takes 10 hours to fully recharge the radio.

For maximum battery life, we recommend charging the battery pack when the **BR01** is off and the battery pack is fully discharged.

The **Battery power saving** feature enables a reduction in consumption of up to 50%. If it has been set, it automatically activates when the transceiver does not receive any signal for more than 5 seconds in order to save the battery life.

The Power saving function is activated by default and can be modified only by software.

## Maintenance

Your **BR01** was designed to fulfill any warranty obligations and to enjoy this product for many years.

As for all the electronically devices, we recommend you to follow this few suggestions:

- Do not attempt to open the unit. Non-expert handling of the unit may damage it and/or annul the warranty.
- When using regulated power supply, take notice of power voltage, that must be between 3,4V and 4,2V to avoid damages.
- High temperatures can shorten the life of electronic devices, and warp or melt certain plastics. Do not store the radio in dusty or dirty areas.
- Keep the Radio dry. Rainwater or damp will corrode electronic circuits.
- If it appears that the Radio diffuses peculiar smell or smoke, please shut off its power immediately and take off the charger or battery from the Radio.

# Technical specifications

General	
Frequency range	446.00625- 446.09375 MHz (PMR446)
Channels	16 PMR446 (8+8 preprogrammed)
Working temperature	-20°/+55° C
Operating voltage	3.7V
Operate mode	Simplex
Dimensions	150x55x27 mm
Weight	157g (Battery pack included)
Antenna impedance	50Ω
Duty cycle	5/5/90%
Category	B
Transmitter	
Frequency stability	±2.5PPM
Output power	≤500mW ERP
Max frequency deviation	≤2,5KHz
Audio distortion	≤3%
Adjacent channel power	< 60 dB
Spurious radiation	Within European legal terms
Occupied bandwidth	Within European legal terms
Receiver	
RF sensibility	<0.4μV@20 dB SINAD
Audio distortion	≤3%
Audio response	300Hz ÷ 3KHz
Adjacent channel selectivity	Within European legal terms
Intermodulation rejection	Within European legal terms
Spurious response	Within European legal terms
Blocking	Within European legal terms

# Troubleshooting

<b>Problem</b>	<b>Possible Cause</b>
The radio doesn't switch on	The battery pack is discharged and not recharged correctly.
The radio switches off shortly after it has been switched on	Discharged battery pack.
The battery pack does not recharge	The battery-charger has not been used correctly.
The radio switches on but is unable to receive signals	The site of installation is too shielded
	The volume is too low
	Incorrect CTCSS or DCS
It is not possible to communicate with other parties	An incorrect radio channel has been selected
	The radio is installed in a shielded area or you are communicating with a mobile phone
	Incorrect CTCSS or DCS
Reception is fragmented and/or disturbed	The signal is very weak.
	The transmission distance is excessive or there are obstacles in the transmission path
	Other parties are using the same channel
	The radio has been installed too close to other electronic devices causing interference (televisions, computers, etc.)
The autonomy of the battery pack is limited	Commission time is too high.

	<b>Solution</b>
...d/or has not been installed	Verify that the battery pack is charged and that it has been correctly installed.  Recharge the battery pack.
...connected or installed cor- d.	Inspect the connections of the battery-charger and the installation of the batteries.  Move to another area.  Adjust the volume level.
...n selected.	Check that the CTCSS tone or DCS code corresponds to the one set by the parties you are communicating with.
...a or is too far from the party	Select the same radio channel used by the parties you are communicating with.  Move to another area.
	Check that the CTCSS tone or DCS code corresponds to the one set by the parties you are communicating with.
	Try temporarily disabling the Squelch by means of the Monitor feature.
...ive and/or there are obsta-	Move closer to the party you are communicating with or to another area.
...annel	Check the traffic on the radio channel by means of the Monitor feature and select another channel if required.
...se to equipment that causes , etc.)	Increase the distance between the radio and this equipment.  Try reducing the transmission time and/or using a low power.

Prodotto o importato da:

**CTE INTERNATIONAL s.r.l.**

Via. R.Sevardi 7- 42124 Reggio Emilia Italia

[www.midlandreurope.com](http://www.midlandreurope.com)

In Italia l'uso di questo apparato è soggetto ad una dichiarazione. Prima dell'uso leggere attentamente le istruzioni. Se il prodotto contiene batterie: non gettare nel fuoco, non disperdere nell'ambiente dopo l'uso, usare gli appositi contenitori per la raccolta.

Produced or imported by:

**CTE INTERNATIONAL s.r.l.**

Via. R.Sevardi 7 42124 Mandasale Reggio Emilia Italy

Imported by:

**ALAN - NEVADA UK**

Unit 1 Fitzherbert Spur Farlington Portsmouth Hants.

P06 1TT - United Kingdom

[www.nevada.co.uk](http://www.nevada.co.uk)

The use of this transceiver can be subject to national restrictions. Read the instructions carefully before installation and use. If the product contains batteries: do not throw the battery into fire. To disperse after use, throw into the appropriate containers.

Importado por:

**MIDLAND IBERIA, SA**

C/Cobalt, 48 - 08940 Cornellà de Llobregat (Barcelona - España)

[www.midland.es](http://www.midland.es)

El uso de este equipo puede estar sujeto a la obtención de la correspondiente autorización administrativa. Lea atentamente las instrucciones antes de usar el equipo. si el producto contiene pilas o baterías no las tire al fuego ni las disperse en el ambiente después de su uso, utilice los contenedores apropiados para su reciclaje.

Vertrieb durch:

**ALAN ELECTRONICS GmbH**

Daimlerstraße 1K - D-63303 Dreieich Deutschland

[www.alan-electronics.de](http://www.alan-electronics.de)

Die Benutzung dieses Handfunkgerätes ist von den landesspezifischen Bestimmungen abhängig. Vor Benutzung Bedienungsanleitung beachten. Bei Verwendung von Batterien beachten Sie bitte die Umweltbestimmungen. Batterien niemals ins offene Feuer werfen, und nur in dafür vorgesehene Sammelbehälter entsorgen.



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