

# BR03

BUSINESS RADIO

Instruction guide

Suitable for:



Restaurants



Fashion Stores



Hospitality



**MIDLAND**<sup>®</sup>



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## The package includes

- BR03 transceiver
- Swivelling belt clip
- Micro USB cable
- Rechargeable Li-Ion battery pack 3.7V 2300mAh
- Double desktop charger (to recharge the radio+battery or the battery only)
- Wall adaptor

## Main features

- Compact radio with elegant design
- PMR446 transceiver
- Channels 99 (8+91 pre-programmed)
- Output power: 500mW
- Channel spacing: 12.5KHz
- Voice announcement on/off
- VOX function adjustable in 10 different levels
- Splashproof IPX2
- Scan function
- Keypad beep on/off
- Roger Beep
- Battery save
- Monitor
- Squelch adjustable in 10 different levels
- Customizable hidden led display with adjustable brightness
- Low battery voice indication
- Speaker/mike jack 2 Pin Kenwood
- 2300 mAh Li-Ion battery pack
- PC programmable

## 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 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**.

## Maintenance

Your BR03 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 some suggestions:

Do not attempt to open the unit. Non-expert handling of the unit may damage it and/or void the warranty.

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.

Do not transmit without antenna.

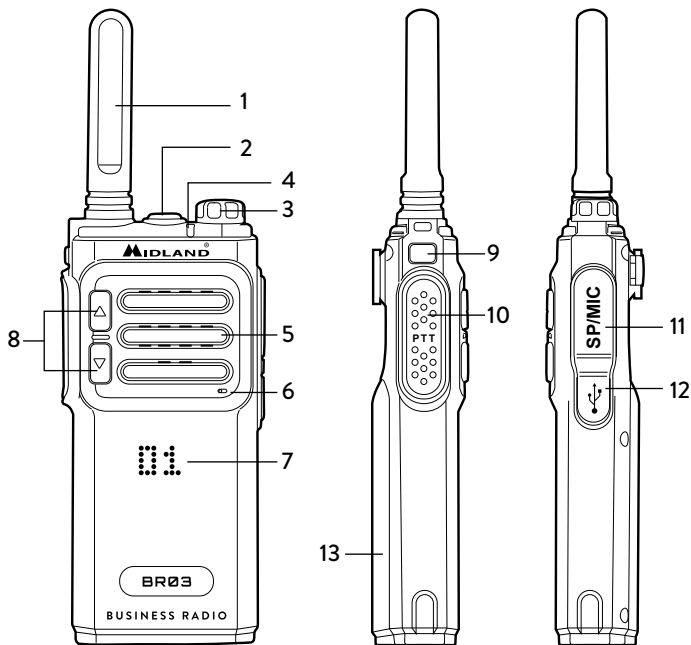
## Programming software (optional)

Thanks to Midland Programming software PRG-10 specifically made for BR03, it is possible to increase the performance of your radio.

For further information, please consult the Programming software manual.

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

## Main controls and parts of the radio



1. **Antenna**
2. **Side key2:** The functions of this control can be customized through the optional programming software PRG-10. Push it briefly to enter the radio's menu; while if you keep it pressed the scan feature will be activated.
3. **Power/Volume knob:** turn clockwise to power on and increase the volume level. Turn counter-clockwise to decrease the volume level and power off.

4. **Led indicator:**  
red: transmission;  
orange: transmission with CTCSS/DCS tones;  
green: reception.
5. **Speaker**
6. **Microphone**
7. **Customizable hidden display**
8. **UP/DOWN controls:** Press briefly to go forwards/backwards of 1 channel; if you keep the button pressed you will skip 10 channels forwards/backwards.  
In scan mode, the **UP/DOWN** controls allow to change the scan direction.  
If you press **UP** or **DOWN**, the channel in use will be shown even though the display is turned off.
9. **Side key1:** the functions of this control can be personalized through the programming software PRG-10. Briefly press this button to activate the Monitor function; or keep it pressed to display the battery status.
10. **PTT:** press to transmit, release to receive.
11. **Speaker/mike jack 2 Pin Kenwood:** allows the connection with external accessories such as microphones, headsets, etc. When this jack is not used, protect it with the proper rubber cap.
12. **Micro USB port:** the radio's battery can also be recharged via USB. Connect the USB cable supplied in the package into this port.
13. **Li-Ion battery pack 3.7V 2300mAh**



# Operations

## Power on/off and volume adjustment

Rotate the **Power/Volume knob** clockwise to turn the radio on.

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

Rotate the control counter-clockwise till hearing a mechanical “click”, to turn the radio off.

## Transmission

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 that will verify if 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 temporarily excluding (opening) the Squelch, in order to listen to signals that are too weak to keep the Squelch permanently opened.

Briefly press the **Function key 1** to enable such function.

## Scan

Keep pressed the **Function key 2** for about 3 sec. to enable the SCAN function: the radio will scan all channels starting from the channel in use. The display of the radio will show a flowing arrow from left to right (scan upwards); with the **UP/DOWN** controls it is possible to change the scan direction (scan downwards).

Whenever a signal is detected, the scan will stop on a busy channel.

With the optional programming software PRG-10 you can choose 3 different scan modes.

The scan mode set by default is the one on the received carrier.

When the signal is no longer detected, the scan will automatically start again after 7 seconds roughly.

Pressing the **PTT** will stop the scan and the radio will transmit on the channel in use.

To start the scan again, press the **Function key 2**.

## Vox

BR03 enables hands-free conversations through the VOX function: 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 (OFF,1,2,3...9) through the programming software or the radio menu.

OFF means that the VOX is turned off, 1 is the lowest VOX sensitivity level and 9 is the highest one.

To adjust the VOX to the desired level through the radio menu, follow these steps:




- Briefly press the **Function key 2**.
- Press twice the **Function key 1**. The display will show the sensitivity level with the indication “**VOX**”. With the **UP/DOWN** keys set the desired level from 0 to 9.
- Confirm by pushing **PTT** or wait for about 3 seconds.

## Voice announcement

BR03 comes with voice announcement: this feature informs you about any operation/selection you are doing with the radio.

To activate/deactivate the voice announcement follow these steps:

Press briefly the **Function key 2**.

Press the **Function key 1** for three times. The display will show “” followed by “” (in case the voice announcement is enabled) or by “” if it is deactivated.

With the **UP/DOWN** keys you can enable/disable this function. To confirm your selection press **PTT** or wait for about 3 seconds.

The voice announcement can also be enabled/disabled through the optional programming software.

## Squelch

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

BR03 has 10 different Squelch levels: 0 means that the Squelch is permanently on; from level 1 to level 9 you will have different levels of noise reduction.

By default, the Squelch level of BR03 is set on level 5.




The levels can be set through the optional programming software or through the radio menu.

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.

The squelch has to be adjusted without received signals.

Procedure:

- Press briefly the **Function key 2**.
- Press once the the **Function key 1**. The display will show “  ”.
- Select the squelch level through the **UP/DOWN** keys; confirm with the **PTT** control or wait for about 3 seconds.

## Keypad Beep



With this function, BR03 emits an audio beep everytime a button is pressed.

To activate/deactivate the keypad beep:

Press the **Function key 2**.

Push the **Function key 1** for 5 times till the display will show  and .

Enable or disable the keypad beep with the **UP/DOWN** keys.

 = ON ;  = OFF.

Confirm by pushing **PTT** or wait for 3 seconds.

## Recharging the battery pack

BR03 is equipped for using a 3.7V 2300mAh Li-Ion rechargeable battery pack.

It is possible to recharge the complete radio or the battery pack only.

Place the radio into the bigger slot of the desktop charger or the battery pack into the smaller slot.

Connect the socket of the AC/DC wall adaptor to a mains power socket and insert the jack of the wall adaptor into the desktop charger plug.

It takes 5-6 hours to fully recharge the radio.

For maximum battery life, we recommend charging the battery pack when the BR03 is off and the battery pack is fully discharged.

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

It is also possible to recharge the battery pack by connecting the supplied USB cable into the micro USB port on the radio.

In this case, the led indicator on the front side of the radio (control n. 4) will turn red while charging, and will turn off when the battery pack is fully charged.

If you turn on the radio and then connect the micro USB cable, the display will show the battery level while the radio is being charged, exactly like in the smartphones.

The Battery power saving feature enables a reduction in consumption of up to 50%. If it has been set, it comes on automatically when the transceiver does not receive any signal for more than 7 seconds in order to save the battery life. Power saving can be set only through Programming software.

## Battery save

The battery save allows a reduction of the battery consumption; this feature is enabled by default.

The battery save can be disabled and enabled again.

Enter the radio's menu and follow these steps:

Briefly press the **Function key 2**.

Press the the **Function key 1** 4 times. The display will show "BAT" followed by "..." (if the battery save is enabled) or by "..." (disabled).

The battery save can also be activated/deactivated through the programming software.

## Adjusting the brightness of the hidden led display

Press briefly the **Function key 2**.

The display will show the current level of the brightness followed by the icon .

Select the desired level (from 1 to 4) through the **UP/DOWN** keys and confirm by pushing **PTT** or wait for about 3 seconds.

## Firmware version indication

To show the firmware version of the radio follow this procedure:

Press the the **Function key 2**.

Press the the **Function key 1** 6 times.

The firmware version will appear on the display.

# Troubleshooting

Problem	Possible Cause	Solution
<b>The radio doesn't switch on</b>	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.
<b>The radio switches off shortly after it has been switched on</b>	Discharged battery pack.	Recharge the battery pack.
<b>The battery pack does not recharge</b>	The battery has not been connected or installed correctly.	Inspect the connections of the battery-charger and the installation of the batteries.
<b>The radio switches on but is unable to receive signals</b>	The site of installation is too shielded.	Move to an 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.
<b>Noise is always present in reception mode</b>	The Monitor function is enabled.	Disable the Monitor function.
<b>It is not possible to communicate with other parties</b>	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.

<b>Reception is fragmented and/or disturbed</b>	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.
<b>Transmission is not always possible</b>	The channel is used by an excessive number of parties or the transmission has been barred due to a busy channel.	Select another channel. Ask the radio link provider to disable the block due to busy channel.
<b>VOX causes the radio to accidentally enable transmission</b>	The sensitivity and/or environmental noise is too high.	Reduce the VOX sensitivity.
<b>The VOX feature requires speaking in a loud voice</b>	The sensitivity is too low.	If the environmental noise is not high, increase the sensitivity or use an optional microphone.
<b>The autonomy of the battery pack is limited</b>	Commission time is too high.	Try reducing the transmission time and/or using a low power.
<b>Logic related faults (unreadable displayed symbols, functions blocked, etc.)</b>	Incorrect setting caused by a problem with the power supply.	Recharge the battery pack

# Technical specifications

## General

Frequency band	446.00625- 446.09375 MHz (PMR446)
Channels	99 PMR446 (8+91 pre-programmed)
Operating temperature	-20° / +55°
Voltage	3,7V
Operating mode	Simplex
Dimensions	126mm×57mm×27mm (w/out antenna)
Weight	142g (Battery included)
Antenna impedance	50Ω
Duty cycle	5/5/90%

## Transmitter

Frequency stability	±2.5PPM
Output power	≤500mW ERP
Max frequency deviation	≤2,5KHz
Audio Distortion	≤3%
Adjacent channel power	< 60 dB
Spurious emissions	Within European legal terms
Occupied bandwidth	Within European legal terms

## Receiver

RF sensitivity	<0.2Uv@20 dB SINAD
Audio distortion	≤3%
Audio response	300Hz ÷ 3KHz
Category	B
Adjacent channel selectivity	Within European legal terms
Intermodulation rejection	Within European legal terms
Spurious emissions	Within European legal terms
Blocking	Within European legal terms

Specifications are subject to change without notice.





Prodotto o importato da: **CTE INTERNATIONAL s.r.l.**

Via R. Sevardi 7 - 42124 Reggio Emilia Italia

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

L'uso di questo apparato può essere soggetto a restrizioni nazionali. 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 Mancasale 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.

Importé par: **ALAN FRANCE S.A.R.L.**

5, Rue Ferrie, Zac les Portes du Vexin 95300 Ennery - France

[www.alan-midland.fr](http://www.alan-midland.fr)

L'utilisation de cet appareil peut être sujet à des restrictions nationales. Avant l'utilisation, lire les instructions. Si le produit contient des piles/piles rechargeables, ne les jeter pas dans le feu. Après l'utilisation, ne jetez pas les batteries dans l'environnement mais utilisez les conteneurs appropriés.



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