

# GB1

► User manual



PMR446 TRANSCEIVER |





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MIDLAND GB1 is an extremely compact PMR446 mobile transceiver designed for mounting in modern vehicles with limited space. GB1 is free use in almost all European countries.

## Content of the packaging

- MIDLAND GB1 transceiver
- Mounting bracket
- Antenna with cable
- Microphone
- Microphone holder
- Screws
- Cigarette lighter power cable

## 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.

## 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.

## Main features

- Power: 500mW
- Operating temperature: from -20° to +55°C
- Flip function
- 50 CTCSS tones and 104 DCS codes (normal) + 104 DCS codes (inverted) that can be enabled through the optional programming software
- Monitor function
- SCAN function

### Programming software (optional)

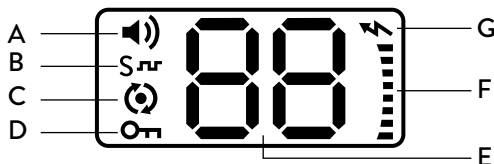
Thanks to the programming software PRG-GB1, it is possible to increase the performance of your radio or to reduce its functionality by disabling some of the default features (CTCSS, TOT...).

For further information, please consult the Programming software manual.

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

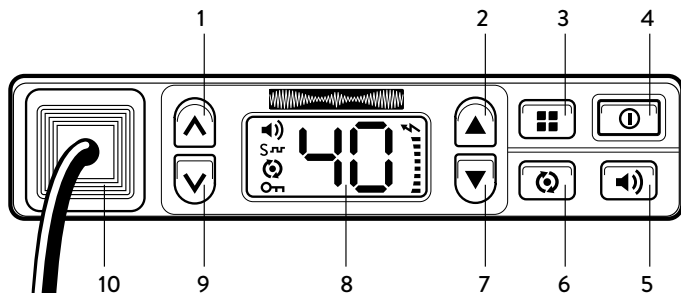
# Description of the controls

## Display



- A This icon appears when the radio receives a signal or when the squelch is opened;
- B Indicates a CTCSS tone or DCS code activated on the selected channel;
- C Indicates that the selected channel is included in the list of channels to be scanned (only the first 8 channels are enabled by default). To enable/disable some channels to the scan list, see paragraph "Scan".
- D Keypad lock; only **▲/▼ buttons** are active.
- E These digits show the selected channel;
- F This icon appears when the radio receives a signal or when it's transmitting;
- G Transmission mode.

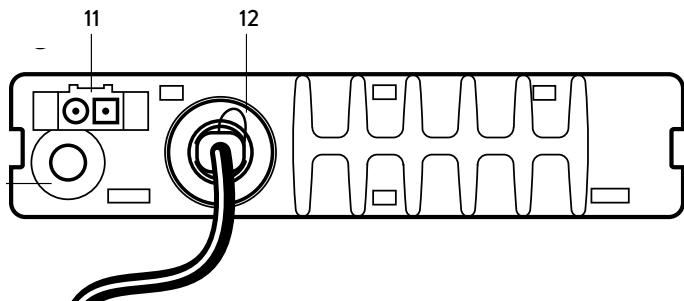
## Radio (Front side)



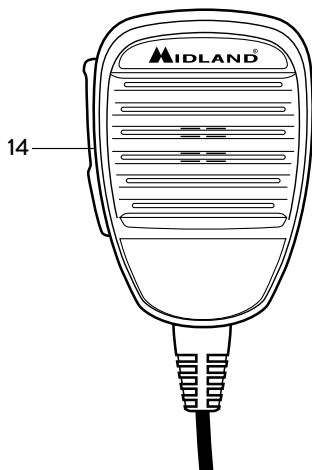
- 1-9 **▲/▼ buttons;** to increase / decrease the volume level (from 0 to 15). Press to select the desired audio level.
- 2-7 **Channel ▲/▼:** to select the desired channel (from 01 to 99).
- 3 **Menu:** push this button to enter the functions **Menu** (from F1 to F5) where you can change the radio parameters. Press **Menu** and select the desired function with the **▲/▼** buttons. Confirm by pushing again **Menu** and select the desired level with **Channel ▲** or **Channel ▼**.
- 4 **On/Off:** press this key to switch on or off the unit.
- 5 **Monitor:** this button suppresses noises on free channels and allows to receive even weak signals.
- 6 **Scan:** push this button to start/stop the channel scan. The scan can be done on the channels enabled to the scan and will stop when a signal is detected and starts again after 4 seconds if the signal disappears.
- 8 **LCD display**
- 10 **RJ mike connector:** connect the microphone or the optional programming cable to this jack.



## Rear side



- 11 Power supply connector
- 12 Antenna cable
- 13 EXT SPK jack: you can connect an external speaker to this jack (3.5mm). In this case the internal speaker is automatically excluded.



## Microphone

- 14 PTT: press to transmit

# Functions

## Turning on/off

Press **ⓘ** to turn on/off the unit. When the radio is turned on, you can press this button to adjust the backlight (6 levels available).

## Channel selection

Select the desired channel with the **▲/▼** buttons.

If you hold down the **▲/▼** buttons for 2 seconds, the channels will scroll quickly upwards or downwards.

## Transmission and reception

Select the desired channel

Press the **PTT** button on the microphone and speak with a normal tone of voice to the microphone

To receive, release the **PTT**.

## 'FLIP' function

Thanks to this function, the unit can be mounted with the speaker facing up or down; the display can read in either orientation.


To activate this function, keep pressed **▼** while turning on the radio: the LCD display will flip by 180°. Hold down **▲** while turning on the radio to restore to normal position.

## Menu

In the functions **Menu** it is possible to change the radio's parameters. Press the **Menu button** and select the desired function (from F1 to F5) by using the **▲** or **▼** keys. Confirm by pressing **Menu** again and select the desired value with the **▲** or **▼** buttons.

**The functions menu is composed of the following 5 options listed here below:**

- F1 CTCSS** (subaudio tones): you can select the desired CTCSS tone; you can choose amongst 50 different tones from 67Hz to 254,1Hz. If you select **'OF'** the CTCSS tone is disabled.
- F2 DSC codes**: the codes available are from 1 to A4. If you select **'OF'** the DCS code is disabled.
- F3 SQUELCH LEVEL**: it allows to select the squelch threshold level (from 0 to 9. 0 = no squelch threshold). To open the squelch and disable a threshold previously set, press **⏏**).
- F4 KEYPAD BEEP**: whenever a key is pressed the radio will emit a beep tone. If it's too loud or too soft for you, it can be adjusted with 9 different levels between b0 and b8. b0 = no beep.
- F5 RF POWER**: to select the tx power level. Two levels are available: **HI** (high) and **LO** (low). This menu is active only in the export version.



 *If you hold down the **Menu button** for 3 seconds, you will enable the keypad lock; the display shows **o** and only **▲** and **▼** keys will be active.*




To disable the keypad lock push the Menu button again for 3 seconds.

## Monitor

This function allows to temporarily open the squelch so as to listen to signals that are too weak to be received. Briefly press **⏏** to open the squelch. This key also excludes the CTCSS and DCS tones programmed on that channel.

## Scan

The channel scan starts or is interrupted with the  **Scan key**. The scanning will be done on the channels enabled for it, it will stop when a signal is found and will automatically resume after 4 seconds if the channel is clear again. By default only the first 8 channels are scanned; to remove a channel from this list, select the desired channel and then keep pressed the  **Scan key** for 2 seconds.

The  icon will disappear from the display. To add again the channel to the scan list, hold down the  **Scan key** for 2 seconds; the display will show again the  icon.

## CTCSS TONES

<b>01</b>	67.0	<b>11</b>	94.8	<b>21</b>	131.8	<b>31</b>	171.3	<b>41</b>	203.5
<b>02</b>	69.3	<b>12</b>	97.4	<b>22</b>	136.5	<b>32</b>	173.8	<b>42</b>	206.5
<b>03</b>	71.9	<b>13</b>	100.0	<b>23</b>	141.3	<b>33</b>	177.3	<b>43</b>	210.7
<b>04</b>	74.4	<b>14</b>	103.5	<b>24</b>	146.2	<b>34</b>	179.9	<b>44</b>	218.1
<b>05</b>	77.0	<b>15</b>	107.2	<b>25</b>	151.4	<b>35</b>	183.5	<b>45</b>	225.7
<b>06</b>	79.7	<b>16</b>	110.9	<b>26</b>	156.7	<b>36</b>	186.2	<b>46</b>	229.1
<b>07</b>	82.5	<b>17</b>	114.8	<b>27</b>	159.8	<b>37</b>	189.9	<b>47</b>	233.6
<b>08</b>	85.4	<b>18</b>	118.8	<b>28</b>	162.2	<b>38</b>	192.8	<b>48</b>	241.8
<b>09</b>	88.5	<b>19</b>	123.0	<b>29</b>	165.5	<b>39</b>	196.6	<b>49</b>	250.3
<b>10</b>	91.5	<b>20</b>	127.3	<b>30</b>	167.9	<b>40</b>	199.5	<b>50</b>	254.1

## DCS CODES

<b>01</b>	<b>023</b>	<b>19</b>	116	<b>37</b>	225	<b>55</b>	325	<b>73</b>	452	<b>91</b>	627
<b>02</b>	<b>025</b>	<b>20</b>	122	<b>38</b>	226	<b>56</b>	331	<b>74</b>	454	<b>92</b>	631
<b>03</b>	<b>026</b>	<b>21</b>	125	<b>39</b>	243	<b>57</b>	332	<b>75</b>	455	<b>93</b>	632
<b>04</b>	<b>031</b>	<b>22</b>	131	<b>40</b>	244	<b>58</b>	343	<b>76</b>	462	<b>94</b>	654
<b>05</b>	<b>032</b>	<b>23</b>	132	<b>41</b>	245	<b>59</b>	346	<b>77</b>	464	<b>95</b>	662
<b>06</b>	<b>036</b>	<b>24</b>	134	<b>42</b>	246	<b>60</b>	351	<b>78</b>	465	<b>96</b>	664
<b>07</b>	<b>043</b>	<b>25</b>	143	<b>43</b>	251	<b>61</b>	356	<b>79</b>	466	<b>97</b>	703
<b>08</b>	<b>047</b>	<b>26</b>	145	<b>44</b>	252	<b>62</b>	364	<b>80</b>	503	<b>98</b>	712
<b>09</b>	<b>051</b>	<b>27</b>	152	<b>45</b>	255	<b>63</b>	365	<b>81</b>	506	<b>99</b>	723
<b>10</b>	<b>053</b>	<b>28</b>	155	<b>46</b>	261	<b>64</b>	371	<b>82</b>	516	<b>A0</b>	731
<b>11</b>	<b>054</b>	<b>29</b>	156	<b>47</b>	263	<b>65</b>	411	<b>83</b>	523	<b>A1</b>	732
<b>12</b>	<b>065</b>	<b>30</b>	162	<b>48</b>	265	<b>66</b>	412	<b>84</b>	526	<b>A2</b>	734
<b>13</b>	<b>071</b>	<b>31</b>	165	<b>49</b>	266	<b>67</b>	413	<b>85</b>	532	<b>A3</b>	743
<b>14</b>	<b>072</b>	<b>32</b>	172	<b>50</b>	271	<b>68</b>	423	<b>86</b>	546	<b>A4</b>	754
<b>15</b>	<b>073</b>	<b>33</b>	174	<b>51</b>	274	<b>69</b>	431	<b>87</b>	565		
<b>16</b>	<b>074</b>	<b>34</b>	205	<b>52</b>	306	<b>70</b>	432	<b>88</b>	606		
<b>17</b>	<b>114</b>	<b>35</b>	212	<b>53</b>	311	<b>71</b>	445	<b>89</b>	612		
<b>18</b>	<b>115</b>	<b>36</b>	223	<b>54</b>	315	<b>72</b>	446	<b>90</b>	624		

## Reset

With this function all settings will return to the default settings.

Keep pressed **▲** and turn on the radio; release the button after you hear the beep tones.

# Technical specifications

<b>General</b>	
Frequency range	446.00625- 446.09375 MHz (PMR446)
Working temperature	-20°/+55° C
Operating voltage	12Vdc ± 10%
Operate mode	Simplex
Dimensions	100x85x22mm
Weight	220g
Antenna impedance	50Ω
Duty cycle	5/5/90%
Category	B
<b>Transmitter</b>	
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
<b>Receiver</b>	
RF sensibility	<0.5μV@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

*Specifications are subject to change without notice.*

*A readily accessible disconnect device shall be incorporated in the installation wiring. The disconnect device shall disconnect both poles simultaneously.*





INFORMAZIONE AGLI UTENTI: Ai sensi dell'art. 13 del decreto legislativo 25 luglio 2005, n.151 "Attuazione delle Direttive 2002/95/CE, 2002/96/CE e 2003/108/CE, relative alla riduzione dell'uso di sostanze pericolose nelle apparecchiature elettriche ed elettroniche, nonché allo smaltimento dei rifiuti". Il simbolo del cassonetto barrato riportato sull'apparecchiatura indica che il prodotto alla fine della propria vita utile deve essere raccolto separatamente dagli altri rifiuti. L'utente dovrà, pertanto, conferire l'apparecchiatura giunta a fine vita agli idonei centri di raccolta differenziata dei rifiuti elettronici ed elettrotecnici, oppure riconsegnarla al rivenditore al momento dell'acquisto di una nuova apparecchiatura di tipo equivalente, in ragione di uno a uno. L'adeguata raccolta differenziata per l'avvio successivo dell'apparecchiatura dismessa al riciclaggio, al trattamento e allo smaltimento ambientalmente compatibile contribuisce ad evitare possibili effetti negativi sull'ambiente e sulla salute e favorisce il riciclo dei materiali di cui è composta l'apparecchiatura. Lo smaltimento abusivo del prodotto da parte dell'utente comporta l'applicazione delle sanzioni amministrative di cui al dlgs. n.22/1997 (articolo 50 e seguenti del dlgs. n.22/1997).

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Alle Artikel, die auf der Verpackung oder der Gebrauchsanweisung dieses Symbol tragen, dürfen nicht in den normalen Mülltonnen entsorgt werden, sondern müssen an gesonderten Sammelstellen abgegeben werden. Dort werden die Materialien entsprechend ihrer Eigenschaften getrennt und, um einen Beitrag zum Umweltschutz zu liefern, wiederverwertet.

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- E** CTE International SRL. declara, bajo su responsabilidad, que este aparato cumple con lo dispuesto en la Directiva 99/05/CE, del Parlamento Europeo y del Consejo de 9 de marzo de 1999, transpuesta a la legislación española mediante el Real Decreto 1890/2000, de 20 de noviembre. La Declaración de Conformidad está disponible en **[www.midlandeurope.com](http://www.midlandeurope.com)**
- F/LUX/CH** Par la présente Cte International Srl déclare que le modèle est conforme aux exigences essentielles et autres dispositions pertinentes de la directive 1999/5/EC. La déclaration de conformité est disponible sur le site internet **[www.midlandeurope.com](http://www.midlandeurope.com)**
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- BG** С настоящото CTE international Srl декларира, че продукта е в съответствие с основните изисквания и съответните модификации на Директива 1999/5/EC. Декларацията за съвместимост е налична на сайта: **[www.midlandeurope.com](http://www.midlandeurope.com)**
- N** CTE INTERNATIONAL Srl erklærer at produktet er i overensstemmelse med de viktigste kravene og andre relevante betingelser i Direktivet 1999/5/EF. Samsvarserklæringen finnes tilgjengelig på nettstedet **[www.midlandeurope.com](http://www.midlandeurope.com)**
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- HR** Cte International Srl ovime izjavljuje da je ime ovog modela u suglasnosti sa bitnim zahtjevima te ostalim relevantnim odredbama Propisa 1999/5/EC. Ova Izjava o suglasnosti je dostupna na web stranici **[www.midlandeurope.com](http://www.midlandeurope.com)**.
- ES** Käesolevaga kinnitab Cte International Srl selle mudeli vastavust direktiivi 1999/5/EC olulistele nõuetele ja teistele asjakohastele sätetele. Vastavusdeklaratsioon on kättesaadav veebilehel **[www.midlandeurope.com](http://www.midlandeurope.com)**
- LT** CTE International patvirtina, kad šis modelis atitinka visus esminius

Direktyvos 1999/5/EC bei su ja susijusių dokumentų reikalavimus. Atitikties deklaracija yra pateikiama internetinėje svetainėje **www.midlandeurope.com**

- LV** CTE INTERNATIONAL Srl deklarē, ka produkts atbilst pamatprasībām un citiem ar to saistītajiem Direktīvas 1999/5/EK noteikumiem. Atbilstības deklarācija ir pieejama mājas lapā: **www.midlandeurope.com**
- SK** Týmto Cte International Srl prehlasuje, že tento názov model je v zhode so základnými požiadavkami a ďalšími príslušnými ustanoveniami smernice 1999/5 / ES. Vyhlásenie o zhode je k dispozícii na webových stránkach **www.midlandeurope.com**
- SL** Cte International Srl deklarira da je ta model skladen z bistvenimi zahtevami in drugimi relevantnimi določili EU direktive 1999/5/EC. Deklaracija o skladnosti je na voljo na spletni strani **www.midlandeurope.com**
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Prodotto o importato da:

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

Via. R.Sevardi 7- 42124 Reggio Emilia Italia

[www.cte.it](http://www.cte.it) - [www.midlandeurope.com](http://www.midlandeurope.com)

L'uso di questo apparato può essere soggetto a restrizioni nazionali (per l'uso in Italia in modalità PMR446, è richiesta una dichiarazione di possesso come da D.L. 259 del 01/08/03 art. 99 comma 3; All. 25 art. 36 e successivi aggiornamenti) . Prima dell'uso leggere attentamente le istruzioni.

Produced or imported by:

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

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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.

Importado por:

**ALAN COMMUNICATIONS, SA**

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

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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.

Vertrieb durch:

**ALAN ELECTRONICS GmbH**

Daimlerstraße 1K - D-63303 Dreieich Deutschland

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

Die Benutzung dieses Funkgerätes ist von den landesspezifischen Bestimmungen abhängig. Vor Benutzung Bedienungsanleitung beachten.

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