



**BIZTALK®** BUSINESS BAND TWO-WAY RADIO



BR200

[midlandusa.com](http://midlandusa.com)

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## INTRODUCTION

For over half a century, Midland Radio has been providing radio communication with superior quality, reliability, and strong value. With these core values in mind, the Midland BR200 provides a communication solution for manufacturing, retail, hospitality, construction, warehousing, maintenance, and other business uses.

## FEATURES

- 2 Watts Transmit Power
- 16 Channels
- 142 Privacy Codes
- 99 Frequency Channel Bank
- Monitor
- Scan
- Battery Save Mode
- Time Out Timer
- Bilingual Voice Announcements (English and Spanish)
- 10 Level Squelch Settings
- Low Battery Alert
- Accessory (Headset) Jack
- PC Programming
- Desktop Charger

## FCC NOTICE

The radio operates on UHF frequencies which require an FCC (Federal Communications Commission) license. You must be licensed prior to operating on these frequencies. Serious penalties could result from unlicensed use of these frequencies, in violation of FCC rules, as stipulated in the Communications Act's Sections 501 and 502 (amended).

You will be issued a call sign by the FCC which should be used for station identification when operating the radio on these channels. You should also cooperate by engaging in permissible transmissions only, avoiding channel interference with other users, and being prudent with the length of your transmission time.

To obtain a license or ask questions about the license application, contact the FCC at 1-888-CALL FCC or go to the FCC's website: <http://www.fcc.gov> and request form **601**.

## EXPOSURE TO RADIO FREQUENCY ENERGY

Your Midland radio is designed to comply with the following national and international standards and guidelines regarding exposure of human beings to radio frequency electromagnetic energy:

- United States Federal Communications Commission, Code of Federal Regulations: 47 CFR part 2 sub-part J
- American National Standards Institute (ANSI)/Institute of Electrical & Electronics Engineers (IEEE) C95.1-1992
- Institute of Electrical and Electronics Engineers (IEEE) C95.1-1999 Edition
- National Council on Radiation Protection and Measurements (NCRP) of the United States, Report 86, 1986
- International Commission on Non-Ionizing Radiation Protection (ICNIRP) 1998

To control your exposure and ensure compliance with the general population or uncontrolled environment exposure limits, transmit no more than 50% of the time. The radio generates measurable RF energy exposure only when transmitting.

## BODY WORN OPERATION

If you wear the radio on your body when transmitting, always use Midland supplied or approved belt clip, holster, case, or body harness for this product. Use of any accessories not supplied or approved by Midland may exceed FCC/Health Canada RF exposure guidelines. If you do not use accessories supplied or approved by Midland, **ensure the radio and its antenna are at least 1 inch (2.5cm) from your body when transmitting.**

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

## GETTING TO KNOW YOUR RADIO-QUICK START CONTROL

- A. Antenna  
Install the antenna per instructions below before operating the radio.

- B. LED Indicator  
The LED is green when receiving signals.  
Red when transmitting.

- C. Speaker.

- D. Channel Selection  
Rotate to the desired channel setting.

- E. Power/Volume  
Turn clockwise to turn the power on and increase the volume level.  
Turn counter-clockwise to decrease the volume level and turn the power off.

- F. Microphone

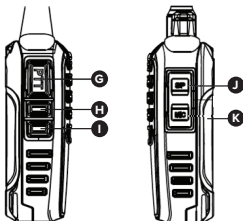
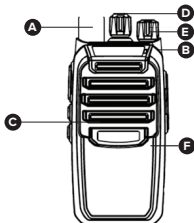
- G. PTT (Push To Talk)  
Press and hold to transmit voice communication.

- H. Monitor On/Off

- I. Scan On/Off

- J. Accessory Speaker/Mic Jack

- K. Rechargeable Battery Pack



## INSTALLING THE ANTENNA

Align the antenna with the threaded connector located on the top of the radio. Holding the antenna at the base, rotate the antenna clockwise until secure.



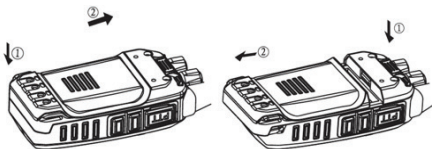
- Be careful not to over tighten to avoid damaging the antenna mount.
- Do not operate the radio without the antenna installed as it may cause damage to the radio.

## INSTALLING THE BATTERY

Your radio operates with a Lithium-Ion battery. Care should be taken when installing or removing the battery as not to short circuit the battery contacts causing damage to the battery pack.

### To install the battery:

With the back of the radio facing you, install the battery by sliding the pack along the back of the radio until the latch on the radio locks.



### To remove the battery:

Release the battery latch and slide the battery down and away from the radio.

## INSTALLING THE BELT CLIP

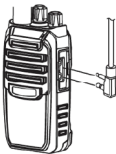
With the back of the radio facing you, align the BELT CLIP with the screw holes on the radio. Attach the BELT CLIP with the Phillips-Head screws that came with the belt clip.

**!** Be careful not to over tighten screws to avoid damaging radio chassis.



## INSTALLING EXTERNAL ACCESSORIES

Pull the accessory jack cover to the side exposing the speaker/mic jacks. Insert the accessory plug into the speaker/mic jack, making sure it is securely in place and has made a good connection.



## CHARGING THE BATTERY PACK

Your radio is equipped with a Lithium-Ion battery pack which can be recharged by inserting the radio or battery into the desktop charger (as described below). You should charge the battery pack when the Charge Battery Alert comes on, and remove the radio from the charger when the charging is finished.

To charge using the Desktop Charger:

1. Plug the DC barrel plug on the adaptor cord into the connector on the back of the charging base.
2. Plug the AC adaptor into a 120V AC wall outlet, making sure the AC outlet has power.
  - The charger's LEDs turns green when power is present.
3. Make sure the battery contacts and charge terminals are clean and in good condition.

4. Slide the radio with installed battery, or a spare battery without radio, into the charger being careful to align the slots on the battery with the tabs inside the charger base.
5. The charger LED's will turn red and begin charging the battery.
6. Charging time depends on the charge level of the battery.
7. After charging is complete the LED will turn green.
8. Remove the radio from the charger.

To charge using the BGC200 Multi-Unit Charger Accessory:

The (optional) Multi-Unit Charger (MUC) allows the drop-in charging of 6 radios and 6 batteries from a single AC outlet.

1. Plug the barrel plug on the adaptor cord into the connector on the back of the charging base.
2. Plug the AC adaptor into a 120V AC wall outlet. Make sure the AC outlet has power.
3. The charger's LEDs turns green when power is present.
4. Make sure the battery contacts and charge terminals are clean and in good condition.
5. Slide the radio with installed battery, or a spare battery without radio, into the charger being careful to align the slots on the battery with the tabs inside the charger opening.
6. The charger LEDs will turn red and begin charging the unit.
7. Charging time depends on the charge level of the battery.
8. After charging is complete, the LED will turn green.

It is recommended that the battery pack be charged with the radio turned off to ensure it fully charges.



- Only use the Midland Lithium-Ion battery pack.
- Do not attempt to charge any battery packs other than the one indicated in the manual. This may cause leakage and damage to the radio or charger and void your warranty.
- For long term storage of the radio, turn the radio OFF and remove the batteries from the radio.



## USE AND CARE

- Use only a soft, damp cloth to clean the radio.
- Do not use alcohol or cleaning solutions to clean the radio.
- Do not immerse the radio in water.
- Dry the radio with a dry lint-free cloth should it get wet.
- Turn off the radio and remove the batteries during long-term storage.

## ABOUT RANGE

Your BR200 is designed to give you maximum range under optimum conditions.

Industrial	Multi-Level
Inside Steel-Concrete Building	Inside a Multi-level Building
Up to 250,000 sq. ft.	Up to 20 floors

Optimum conditions are:

- Open warehouse floor plan or area.
- Open rural areas without obstructions.
- Flat areas where you can see the other person to ensure you get maximum range.
- You are using fully charged batteries - a low battery will cause low power conditions.
- Your radio is set to use its highest transmit power level.

## OPERATING YOUR RADIO

### POWER ON/OFF AND VOLUME

1. Rotate the POWER/VOLUME knob clockwise to turn the radio on and increase the volume level.
2. Rotate the control counter-clockwise to reduce the volume level and to turn the radio off.

### CHANNEL SELECTION

1. Rotate the channel section knob to the desired setting.
2. The radio will announce the channel numbers as you rotate the knob.

**!** Make sure you are using the same channel/frequencies as others in your communications group or you will not be able to hear or talk to them.

## TRANSMITTING AND RECEIVING A CALL

For maximum clarity, hold the radio at least 1 inch (2.5 cm) from your mouth.

1. Press and hold the **PTT** button and speak in a normal voice into the microphone. The RX/TX LED will glow red while transmitting.
2. To receive a call, release the **PTT** button. The RX/TX LED will glow green when your radio is receiving a transmission.

## CHANNEL SCAN

Press the bottom side key for 3 seconds to turn scanning on or off. The radio will rapidly scan through all available channels stopping briefly on a channel in use to hear the conversation. You may join the conversation by pressing your PTT button and using the radio normally. The radio will return to scan mode after 5 seconds of inactivity.

## MONITOR

Press the top side key to turn Monitor on or off.  
Monitor is used to check for channel traffic before you transmit.

## PROGRAMMING SOFTWARE

The free software available on the support page at [www.midlandusa.com](http://www.midlandusa.com) website.

The BA1 programing cable is required to program your radio. It is listed in the back of this manual and available at [www.midlandusa.com](http://www.midlandusa.com).

## PRIVACY CODES

CTCSS (Continuous Tone Coded Squelch) and DCS (Digitally Coded Squelch) allow several users to share the same channel frequency without disturbing each other. With CTCSS or DCS enabled, the channel is muted to all incoming signals unless they carry the same CTCSS or DCS tone. When a transmission with the same tone is received, the channel un-mutes and the voice audio can be heard. When the transmission ends the channel becomes muted again. Transmissions that do not have the same tone will not be heard.

Your BR200 radio has 142 privacy codes, which can be used on any channel. The selected privacy code may be different for each channel, but must be the same for a channel on all radios you wish to talk to. Programming a new privacy code overwrites any previous code programmed. privacy codes can be set using the FREE programming software that can be downloaded from [www.midlandusa.com](http://www.midlandusa.com).

**!** You will not be able to hear or talk to other radios that do not match your frequency and Privacy Code by channel and frequency.

## TROUBLESHOOTING GUIDE

Problem	Solution
<b>No Power</b>	<ol style="list-style-type: none"> <li>1. Make sure the battery is fully charged and correctly installed.</li> <li>2. Check the On/Off Volume Control to make sure the radio is turned on.</li> </ol>
<b>Can't Receive Messages</b>	<ol style="list-style-type: none"> <li>1. Confirm the radios are set to the same channel frequency and privacy code setting.</li> <li>2. Make sure you are within range of the other radio (see About Range).</li> <li>3. Make sure there are not any major obstructions between you and the other radio (see About Range).</li> </ol>
<b>Charger Not Functioning</b>	<ol style="list-style-type: none"> <li>1. Make sure the contacts on the bottom of the radio are clean, nothing in the way of making connection with the charger contacts.</li> <li>2. Make sure the charger is plugged in and the outlet has power.</li> <li>3. Make sure the battery pack is installed properly.</li> </ol>

For further assistance, contact the Midland Customer Service Team at (816) 241-8500. Most problems can be remedied over the phone without returning the radio for service.

## SPECIFICATIONS

Channels: 16

Privacy Codes: 142

Operating Frequency: UHF Band, 450~470MHz

Power Source: 3.7VDC Li-Ion Battery Pack

**DEFAULT FREQUENCIES CHART**

CH No.	Freq. (MHz)	Code	CH No.	Freq. (MHz)	Code
1	464.5500	1	9	464.5500	29
2	467.9250	1	10	467.9250	29
3	467.8500	1	11	467.8500	29
4	467.8750	1	12	467.8750	29
5	464.5500	6	13	464.5500	-
6	467.9250	6	14	467.9250	-
7	467.8500	6	15	467.8500	-
8	467.8750	6	16	467.8750	-

## AVAILABLE FREQUENCIES CHART

Freq. (MHz)	Freq. (MHz)	Freq. (MHz)	Freq. (MHz)
464.5000	462.8375	467.8875	452.7625
464.5500	462.8625	467.9125	452.8625
467.7625	462.8875	469.4875	456.1875
467.8125	462.9125	469.5125	456.2375
467.8500	464.4875	469.5375	456.2875
467.8750	464.5125	469.5625	468.2125
467.9000	464.5375	462.1875	468.2625
467.9250	464.5625	462.4625	468.3125
461.0375	466.0375	462.4875	468.3625
461.0625	466.0625	462.5125	468.4125
461.0875	466.0875	467.1875	468.4625
461.1125	466.1125	467.4625	468.5125
461.1375	466.1375	467.4875	468.5625
461.1625	466.1625	467.5125	468.6125
461.1875	466.1875	451.1875	468.6625
461.2125	466.2125	451.2375	456.3375
461.2375	466.2375	451.2875	456.4375
461.2625	466.2625	451.3375	456.5375
461.2875	466.2875	451.4375	456.6375
461.3125	466.3125	451.5375	457.3125
461.3375	466.3375	451.6375	457.4125
461.3625	466.3625	452.3125	457.5125
462.7625	467.7875	452.5375	457.7625
462.7875	467.8375	452.4125	457.8625
462.8125	467.8625	452.5125	

**CTCSS PRIVACY CODES CHART**

Code No.	Freq. (Hz)	Code No.	Freq. (Hz)
1	67.0	20	131.8
2	71.9	21	136.5
3	74.4	22	141.3
4	77.0	23	146.2
5	79.7	24	151.4
6	82.5	25	156.7
7	85.4	26	162.2
8	88.5	27	167.9
9	91.5	28	173.8
10	94.8	29	179.9
11	97.4	30	186.2
12	100.0	31	192.4
13	103.5	32	203.5
14	107.2	33	210.7
15	110.9	34	218.1
16	114.8	35	225.7
17	118.8	36	233.6
18	123.0	37	241.8
19	127.3	38	250.3

# DCS PRIVACY CODE CHART

No.	Code	No.	Code	No.	Code	No.	Code
1	23	27	165	53	413	79	731
2	25	28	172	54	423	80	732
3	26	29	174	55	431	81	734
4	31	30	205	56	432	82	743
5	32	31	223	57	445	83	754
6	43	32	226	58	464	84	36
7	47	33	243	59	465	85	53
8	51	34	244	60	466	86	122
9	54	35	245	61	503	87	145
10	65	36	251	62	506	88	212
11	71	37	261	63	516	89	225
12	72	38	263	64	532	90	246
13	73	39	265	65	546	91	252
14	74	40	271	66	565	92	255
15	114	41	306	67	606	93	266
16	115	42	311	68	612	94	274
17	116	43	315	69	624	95	325
18	125	44	331	70	627	96	332
19	131	45	343	71	631	97	356
20	132	46	346	72	632	98	446
21	134	47	351	73	654	99	452
22	143	48	364	74	662	100	454
23	152	49	365	75	664	101	455
24	155	50	371	76	703	102	462
25	156	51	411	77	712	103	523
26	162	52	412	78	723	104	526

## LIMITED WARRANTY

Midland Radio Corporation will repair or replace, at its option without charge, any Midland UHF transceiver which fails due to a defect in material or workmanship within one year following the initial consumer purchase.

This warranty does not apply to water damage, battery leak or abuse. Accessories have a 90-day warranty from date of purchase, including any antennas, batteries, chargers, or headsets/earphones.

This warranty does not include the cost of labor for removal or re-installation of the product in a vehicle or other mounting.

For product purchased in the USA:

Performance of any obligation under this warranty may be obtained by returning the warranted product, prepaid freight, along with proof of purchase to:

Midland Radio Corporation  
Warranty Service Department  
5900 Parretta Drive  
Kansas City, MO 64120

This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

Note: The above warranty applies only to merchandise purchased in the United States of America or any of the territories or possessions thereof, or from a U.S. Military exchange.

For Product Purchased in Canada:

Performance of any obligation under this warranty may be obtained by returning the warranted product, along with proof of purchase, to your dealer in Canada.

This warranty gives you specified legal rights. Additional warranty rights may be provided by law in some areas.

This warranty gives you specified legal rights. Additional warranty rights may be provided by law in some areas.

NOTE: Features & specifications are subject to change without notice.  
MIDLAND is not responsible for unintentional errors or omissions  
on its packaging or owner's manual.



## ACCESSORIES

Accessories can be purchased from your local dealer or at [www.midlandusa.com](http://www.midlandusa.com).

### BGC200



Multi-Unit  
Charger  
\$99.99

### BA2



Over the Ear  
Headset  
\$29.99

### BA3



Concealed  
Headset  
\$39.99

### BA4



Speaker  
Microphone  
\$39.99

### BA9



D-ring  
Headset  
\$29.99

### BRB200



Li-Ion  
Spare Battery  
\$29.99

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:  
(1) this device may not cause harmful interference, and  
(2) this device must accept any interference received, including interference that may cause undesired operation.



5900 Parretta Drive  
Kansas City, MO 64120  
Call 816.241.8500

We'd love to hear from you! Let us know what you think of your new Midland product at



or by visiting us at

**midlandusa.com**

**Note: Features & Specifications are subject to change without notice. MIDLAND is not responsible for unintentional errors or omissions on its packaging.**

## SAFETY TRAINING INFORMATION



Your Midland Radio Corporation radio generators RF electromagnetic energy during transmit mode. This radio is designed for and classified as “Occupational Use Only”, meaning it must be used only during the course of employment by individuals aware of the hazards, and the ways to minimize such hazards. This radio is NOT intended for use by the “General Population” in an uncontrolled environment. This radio has been tested and complies with the FCC RF exposure limits for “Occupational Use Only”. In addition, your Midland Radio Corporation radio complies with the following Standards and Guidelines with regard to RF energy and electromagnetic energy levels and evaluation of

such levels for exposure to humans:

◆ FCC OET Bulletin 65 Edition 97-01 Supplement C, Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields.

◆ American National Standards Institute (C95.1-1992), IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.

◆ American National Standards Institute (C95.3-1992), IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields— RF and Microwave.

◆ The following accessories are authorized for use with this product. Use of accessories other than those (listed in the instruction) specified may result in RF exposure levels exceed the FCC requirements for wireless RF exposure.



To ensure you're your expose to RF electromagnetic energy is within the FCC allowable limits for occupational use, always adhere to the following guidelines:

❖ **DO NOT** operate the radio without a proper antenna attached, as this may damage the radio and may also cause you to exceed FCC RF exposure limits. A proper antenna is the antenna supplied with this radio by the manufacturer or antenna specifically authorized by the manufacturer for use with this radio.

❖ **DO NOT** transmit for more than 50% of total radio use time ("50% duty cycle"). Transmitting more than 50% of the time can cause FCC RF exposure compliance requirements to be exceeded. The radio is transmitting when the "TX indicator" lights red. You can cause the radio to transmit by pressing the "PTT" switch.

❖ **ALWAYS** keep the antenna at least 2.5 cm (1 inch) away from the body when transmitting and only use the belt-clip which is listed in instructions when attaching the radio to your belt, etc., to ensure FCC RF exposure compliance requirements are not exceeded. To provide the recipients of your transmission the best sound quality, hold the antenna at least 5 cm (2 inches) from your mouth, and slightly off to one side.

The information listed above provides the user with the information needed to make him or her aware of RF exposure, and what to do to assure that this radio operates within the FCC RF exposure limits of this radio.

### **Electromagnetic Interference/Compatibility**

During transmissions, your Midland Radio Corporation radio generates RF energy that can possibly cause interference with other devices or systems. To avoid such interference, turn off the radio in areas where signs are posted to do so. **DO NOT** operate the transmitter in areas that are sensitive to electromagnetic radiation such as hospitals, aircraft, and blasting sites.

### **Occupational/Controlled Use**

The radio transmitter is used in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure.