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**MOTOROLA
BEARCOM
BC300D
Portable Radio**

MOTOROLA BEARCOM BC300D Portable Radio User Guide

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MOTOROLA BEARCOM BC300D Portable Radio

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European Union (EU) and United Kingdom (UK) Waste of Electrical and Electronic Equipment (WEEE)

Directive

The European Union's WEEE directive and the UK's WEEE regulation require that products sold into EU countries and the UK must have the crossed-out wheelie bin label on the product (or the package in some cases). As defined by the WEEE directive, this crossed-out wheelie bin label means that customers and end users in EU and UK countries should not dispose of electronic and electrical equipment or accessories in household waste. Customers or end users in EU and UK countries should contact their local equipment supplier representative or service center for information about the waste collection system in their country.

Disclaimer

Please note that certain features, facilities, and capabilities described in this document may not be applicable to or licensed for use on a specific system, or may be dependent upon the characteristics of a specific mobile subscriber unit or configuration of certain parameters. Please refer to your Motorola Solutions contact for further information.

Supplier's Declaration of Conformity

Supplier's Declaration of Conformity Per FCC CFR 47 Part 2 Section 2.1077(a)

Responsible Party
Name: Motorola Solutions, Inc.
Address: 2000 Progress Pkwy, Schaumburg, IL. 60196
Phone Number: 1-**800-927-2744**
Hereby declares that the product:
Model Name: BC300D
conforms to the following regulations:
FCC Part 15, subpart B, section 15.107(a), 15.107(d), and section 15.109(a)

Class B Digital Device
As a personal computer peripheral, 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.

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 in-terference 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 inter-ference 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 or TV technician for help.

Important Safety Information

RF Energy Exposure and Product Safety Guide for Portable Two-Way Radios

CAUTION:
This radio is restricted to Occupational use only. Before using the radio, read the RF Energy Exposure and Product Safety Guide that comes with the radio. This guide contains operating instructions for safe usage, RF energy awareness, and control for compliance with applicable standards and regulations.

- Any modification to this device, not expressly authorized by Motorola Solutions, may void the user's authority to operate this device.
- Any modification to this device, not expressly authorized by Motorola Solutions, may void the user's authority to operate this device.
- Under Innovation, Science, and Economic Development Canada (ISED) regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by ISED. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.
- This radio transmitter has been approved by Innovation, Science, and Economic Development Canada (ISED) to operate with Motorola Solutions-approved antenna with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Notice to Users (FCC and Innovation, Science and Economic Development Canada (ISED))
This device complies with Part 15 of the FCC rules and Innovation, Science and Economic Development Canada's license-exempt RSS's per the following conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.
- Changes or modifications made to this device, not expressly approved by Motorola Solutions, could void the authority of the user to operate this equipment.

Read Me First

This user guide covers the basic operations of the radio models offered in your region.

Notations Used in This Manual
Throughout the text in this publication, you notice the use of Warning, Caution, and Notice. These notations are used to emphasize that safety hazards exist, and the care that must be taken or observed.

WARNING: An operational procedure, practice, or condition, and so on, which may result in injury or death if not carefully observed.

CAUTION: An operational procedure, practice, or condition, and so on, which may result in damage to the equipment if not carefully observed.

NOTE: An operational procedure, practice, or condition, and so on, which is essential to emphasize.

Special Notations

The following special notations are used throughout the text to highlight certain information or items:

Table 1: Special Notations

Example	Description
Menu key or **PTT** button	Bold words indicate a name of a key, button, or soft menu item.
Your radio shows `Bluetooth On.`	Typewriter words indicate the MMI strings or messages displayed on your radio.
`<required ID>`	The courier, bold, italic, and angle brackets indicate user input.
Setup → Tone → All Tones	Bold words with the arrow in between indicate the navigation structure in the menu items.

Feature and Service Availability

Your dealer or administrator may have customized your radio for your specific needs.

NOTE:

Not all features in the manual are available in your radio. Contact your dealer or administrator for more information.

You can consult your dealer or system administrator about the following:

- What are the functions of each button?
- Which optional accessories may suit your needs?
- What are the best radio usage practices for effective communication?
- What maintenance procedures promote longer radio life?

Radio Overview

Action	Description
1	Antenna
2	Channel Selector Knob
3	On/Off/Volume Control Knob
4	LED Indicator
5	Push-to-Talk (PTT) Button
6	Programmable Side Button 1
7	Programmable Side Button 2
8	Microphone
9	Speaker
10	Programming Port
11	Accessory Connector

Programmable Buttons

Depending on the duration of a button press, the programmable buttons function differently.

Table 2: Button Press Duration

Action	Description
Press	Press and release.
Long press	Press and hold for 4 seconds or less depending on the settings through the Customer Programming Software (CPS).

Assignable Radio Functions

You can assign a list of radio functions to the programmable buttons.

Table 3: Types of Programmable Functions

Function	Description
All Alert Tones On/Off	Allows you to toggle all tones and alerts on or off.
Battery Indicator	Allows you to indicate battery strength by using the LED Indicator.
High/Low Power	Allows you to toggle transmit power level between high and low.
Monitor	Allows you to monitor a channel.
Nuisance Delete	Allows you to temporarily remove an unwanted channel, except for the Selected Channel, from the scan list. The Selected Channel refers to the selected zone or channel combination of you from which scan is initiated.
One Touch Access	Allows you to directly initiate a predefined Private Call, Group Call, Call Alert, or Home Revert.
Repeater/Talkaround	Allows you to toggle between using a repeater and communicating directly with another radio.
Scan On/Off	Allows you to toggle scan on or off.
Tight/Normal Squelch	Allows you to toggle squelch level between tight and normal.

LED Indications

The LED Indicator shows the operational status of your radio. A qualified technician can permanently disable the LED indication by preprogramming it.

Table 4: LED Indications

Indication	Status
Solid Red	The radio is transmitting.
Blinking Red	The battery capacity is low.
Solid Yellow	The radio is scanning for activity.
Solid Green	The radio is receiving transmission.
Blinking Green	The radio is scanning for activity.

Getting Started

This chapter provides instructions on how to prepare your radio for use.

Charging the Battery

Your radio is powered by a Lithium-Ion (Li-Ion) battery. Prerequisites: Turn off your radio when charging. Procedure:

- To comply with warranty terms and avoid damages, charge the battery using an authorized charger.

- Charge a new battery 14 to 16 hours before initial use for best performance. Batteries charge best at room temperature.

Attaching and Removing the Battery

Attaching the Battery

Procedure:

1. Slide the battery into the battery compartment.

2. Flip the battery latch close and press it onto the battery until it locks in place.

Removing the Battery

Procedure:

1. Turn off your radio.
2. Flip the battery latch open.
3. Slide the battery out of the battery compartment and lift it.

Attaching and Removing the Antenna

Attaching the Antenna

Procedure:

1. Set the antenna in the receptacle.
2. Turn the antenna clockwise.

NOTE: Fastening the antenna blocks water and dust from entering the radio.

Removing the Antenna

Procedure:

1. Turn the antenna counterclockwise.
2. Remove the antenna from the receptacle.

Attaching and Removing the Belt Clip

Attaching the Belt Clip

Procedure:

Align the grooves on the clip with the grooves on the battery and press it downwards until it clicks.

Removing the Belt Clip

Procedure:

1. To remove the clip, press the belt clip tab away from the battery.
2. Slide the clip upwards and away from the radio.

Attaching the Universal Connector Cover
The universal connector is located beside the antenna. You can connect authorized accessories to the radio through the universal connector.
When and where to use: Replace the universal connector cover or dust cover when the universal connector is not in use.

Procedure:

1. Insert the slanted end of the cover into the slots above the universal connector.
2. Secure the connector cover to the radio by pressing the cover inwards.

Removing the Universal Connector Cover

Procedure:

Remove the universal connector cover or dust cover by pulling the cover out.

Postrequisites: Replace the dust cover when the universal connector is not in use.

Turning the Radio On

Procedure:

Turn the On/Off/Volume knob clockwise until a click sounds.

Result:
If your radio is turned on, your radio shows the following indications:

A tone sounds.
NOTE: If the Tones/Alerts function is disabled, no tone sounds.

The orange LED blinks, followed by the green LED.

NOTE:
If your radio fails to turn on although your battery is charged and properly attached, contact your dealer for assistance.

Turning the Radio Off

Procedure:
Turn the On/Off/Volume knob counterclockwise until a click sounds.

Adjusting the Volume

Procedure:
To adjust the volume of your radio, perform one of the following actions:

- To increase the volume, turn the On/Off/Volume Control knob clockwise.
- To decrease the volume, turn the On/Off/Volume Control knob counterclockwise.

  NOTE: Your radio can be programmed to have a minimum volume offset where the volume level cannot be

  lowered past the programmed minimum volume.

Time-Out Timer

Time-Out Timer sets a fixed duration for a transmission. Your system administrator can set the time-out time for a channel through the radio software.
Before your radio reaches the time-out time, a ten-second warning beep sounds.
When your radio reaches the time-out time, your radio stops transmitting, and the following radio indications occur:

- A tone sounds.
- The red LED extinguishes.

  To resume transmission, you must release the PTT button and wait for the penalty timer to expire.

Selecting Channels

Your radio supports up to 16 channels. Each channel can be programmed with different features that support different groups of users.

Procedure:
Select channels by toggling the Channel Selector knob.
Your radio indicates the channel number through voice announcement. If the channel is not programmed, an error tone sounds.

Calls

Depending on the type of call, you can make, receive, and respond to calls in both Conventional Analog and Digital mode.

Group Calls
Group Calls are calls from an individual radio to a group of radios. To communicate in a group, your radio must first be configured as a part of the talkgroup.

Making Group Calls

Procedure:

1. To select a channel with an active group ID, toggle the Channel Selector knob.
2. To call, press the PTT button.
3. Wait for the Talk Permit Tone to end, and speak into the microphone.
4. To listen, release the PTT button.

   If your radio does not detect voice activity for a predetermined period, the call ends.

Responding to Group Calls
When and where to use: When you receive Group Calls, your radio shows the following indications:

- The green LED illuminates.
- Your radio unmutes and the incoming call sounds through the speaker.

Procedure:

1. To respond, press the PTT button.

2. Wait for the Talk Permit Tone to end, and speak into the microphone.
3. To listen, release the PTT button.

Private Calls
Private Calls are calls from an individual radio to another individual radio.

Making Private Calls

Procedure:

1. To select a channel with an active subscriber ID, toggle the Channel Selector knob.
2. To call, press the PTT button.
3. Wait for the Talk Permit Tone to end, and speak into the microphone.
4. To listen, release the PTT button.

   If your radio does not detect voice activity for a predetermined period, the call ends.

Responding to Private Calls
When and where to use: When you receive Private Calls, your radio shows the following indications:

- The green LED illuminates.
- Your radio unmutes and the incoming call sounds through the speaker.

Procedure:

1. To respond, press the PTT button.
2. Wait for the Talk Permit Tone to end, and speak into the microphone.
3. To listen, release the PTT button.

   If your radio does not detect voice activity for a predetermined period, the call ends.

All Calls
All Calls are one-way calls from an individual radio to all radios on a channel. All Calls are used for making important announcements. The recipients on the channel cannot respond to All Calls.

When you receive All Calls, your radio shows the following indications:

- A tone sounds.
- The green LED illuminates.
- Your radio unmutes and the incoming call sounds through the speaker.

  All Calls do not wait for a predetermined period before ending. You can only continue with programmed button

  functions after the All Call ends. If you switch to a different channel during an All Call, your radio stops receiving

  the call.

Making All Calls

Procedure:

1. To select a channel with an active group ID, toggle the Channel Selector knob.
2. To call, press the PTT button.
3. Wait for the Talk Permit Tone to end, and speak into the microphone.

Call Alert Operation

Call Alert paging enables you to alert a specific radio user to call you back.

Making Call Alerts

Procedure:
Press the programmed One Touch Access button.

Result:
If the call alert acknowledgment is received, a positive tone sounds.
If the call alert acknowledgment is not received, a negative tone sounds.

Responding to Call Alerts
When and where to use: When you receive a Call Alert, the following radio indications occur:

- A repetitive tone sounds.
- The yellow LED blinks.

Procedure:
To respond, press the PTT button within four seconds.

Talkaround

This feature allows you to continue communicating when your repeater is non-operational, or when your radio is out of range from the repeater but within the talk range of other radios.
The talkaround setting is retained even after powering down.

Toggling Between Repeater and Talkaround Modes

Procedure:
Press the programmed Repeater/Talkaround button.

Result:
If a positive tone sounds, your radio is in talkaround mode.
If a negative tone sounds, your radio is in repeater mode.

Monitor Feature

The feature allows you to remotely activate the microphone of a target radio. You can use this feature to monitor any audible activity surrounding the target radio.

Monitoring Channels

Procedure:
Press the programmed Monitor button and hold the button to continue monitoring the channel.

Result:
If the channel is in use, the following radio indications occur:

- Radio activity sounds.
- The yellow LED illuminates.

  If the monitored channel is free, the following radio indications occur:

- "White noise" sounds.
- The yellow LED illuminates.

  Postrequisites: To stop monitoring the channel, release the programmed Monitor button.

Scan

Your radio scans through the programmed scan list for the current channel looking for voice activity when you start a scan.

Your radio also performs dual-mode scan. If you are on a digital channel, and your radio locks onto an analog channel, your radio automatically switches from digital mode to analog mode during the call. If you are on an analog channel, and your radio locks onto a digital channel, your radio automatically switches from analog mode to digital mode during the call.

Table 5: Scan Types

Type	Description
Main Channel Scan (Manual)	Your radio scans all the channels or groups in your scan list. When scanning, your radio may, depending on the settings, automatically start on the last scanned active channel or group, or on the channel where scan was initiated.

Turning Scan On or Off

Procedure:
Press the programmed Scan button.

Result:
If Scan is enabled, the following radio indications occur:

- A positive tone sounds.
- The yellow LED blinks.

  If Scan is disabled, the following radio indications occur:

- A negative tone sounds.
- The yellow LED extinguishes.

Responding to Transmissions During Scanning
During scanning, your radio stops on a channel or group where activity is detected. The radio stays on that channel for a programmed duration known as hang time.

Procedure:

1. Press the PTT button.

2. Wait for the Talk Permit Tone to end, and speak into the microphone.

3. To listen, release the PTT button

Deleting Nuisance Channels

If a channel continually generates unwanted calls or noise (termed a "nuisance" channel), you can temporarily remove the unwanted channel from the scan list. This capability does not apply to the channel designated as the Selected Channel.

Procedure:

1. Press the programmed Nuisance Delete button until you hear a tone.

2. Release the programmed Nuisance Delete button.

Initiating Radio Enable

Procedure:

1. Select the channel with the subscriber ID that you want to enable transmission from.

2. Short press Side Button 1

Your radio shows the following indications:

- A tone sounds.
- The red LED blinks once.

  The receiving radio shows the following indications:
- A tone sounds.
- The LED extinguishes.

Initiating Radio Disable

Procedure:

1. Select the channel with the subscriber ID that you want to disable transmission from.

2. Short press Side Button 2.

Your radio shows the following indications:

- A tone sounds.
- The red LED blinks once.

  The receiving radio shows the following indications:
- The Talk Prohibit Tone sounds.
- The LED flickers.

Authorized Accessories List

Table 6: Antennas

Part Number	Description
PMAE4020_	Mag One, UHF, 450–470 MHz, Stubby Antenna
PMAE4104_	Mag One, UHF, 400–470 MHz, Wideband Antenna

Table 7: Battery

Part Number	Description
PMNN4075A_	Mag One Li-Ion, 1700 mAh Battery
PMNN4075B_	Mag One Li-Ion, 2000 mAh Battery

Table 8: Cable

Part Number	Description
PMDN4077_	Programming Cable USB

Table 9: Carry Device

Part Number	Description
RLN5644_	Belt Clip for 2 in. Belt Width

Table 10: Charger

Part Number	Description
PMPN4171_	Mag One Single-Unit Charger
PMPN4140_	Desktop Single-Unit Base Charger

Table 11: Earbuds and Earpieces

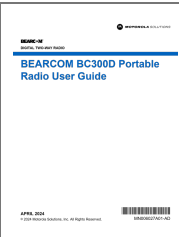| Part Number	Description
PMLN6534_	Mag One Earbud with In-Line Microphone/PTT/VOX Switch
PMLN6531_	Mag One Ear Receiver with In-Line Microphone/PTT/VOX Switch

Table 12: Headset and Headset Accessory

Part Number	Description
PMLN6542_	Mag One Ultra-Lightweight Headset with Boom Microphone and In-Line PTT Switch

Table 13: Remote Speaker Microphone

Part Number	Description
PMMN4092_	Mag One Remote Speaker Microphone

Documents / Resources

[MOTOROLA BEARCOM BC300D Portable Radio](#) [pdf] User Guide
MN006027A01, MN006027A01-AD, BEARCOM BC300D Portable Radio, BEARCOM BC300D, Portable Radio, Radio

References

- [User Manual](#)