

BridgeCom SYSTEMS

IP65
APPROVED

WATERPROOF
with Display

*License
Free!*

MURS BAND
Multi-Use Radio Service

Model

BCS-MV65

with flashlight
5 work channels
7 weather channels



Helping You Communicate Using Radio

Welcome

Thank you for purchasing the BridgeCom BCS-MV65.

MURS two-way radio. The goal of BridgeCom is to provide a cost-effective, feature rich, easy to use radio.

This owner's manual will acquaint you with the features and operation of the radio. Every effort has been made in the preparation of this manual to properly operate the radio before use.

Multi-Use Radio Service (MURS) uses channels in the 151 – 154 MHz spectrum range. An individual license is not required to operate a MURS transmitter.

The most common use of MURS channels is for short-distance, two-way communications using small, portable hand-held radios that function similar to walkie-talkies. Your radio has 5 MURS frequencies and 7 NOAA weather channels.

MURS Work Channels

CH 1 = 151.820 MHz (11.25 kHz)

CH 2 = 151.880 MHz (11.25 kHz)

CH 3 = 151.940 MHz (11.25 kHz)

CH 4 = 154.570 MHz (20.00 kHz)

CH 5 = 154.600 MHz (20.00 kHz)

NOAA Weather Channels

WX1 162.550 MHz

WX2 162.400 MHz

WX3 162.475 MHz

WX4 162.425 MHz

WX5 162.450 MHz

WX6 162.500 MHz

WX7 162.525 MHz

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User Safety Information

As a user of this radio be fully aware of hazards to RF exposure.

The Federal Communications Commission (FCC), with its action in General Docket 93-62, November 7, 1997, has adopted a safety standard for human exposure to Radio Frequency (RF) electromagnetic energy emitted by FCC regulated equipment. Proper operation of this radio will result in user exposure far below the Occupational Safety and Health act (OSHA) and FCC limits.

DO NOT transmit for more than a 50% duty cycle (example: 1 min. transmitting, 1 min. receiving or in standby) transmitting more than 50% of the time may cause FCC RF exposure compliance requirements to be exceeded.

The radio is transmitting when the red LED is illuminated, hold the radio approximately 1 inch (2.5 cm) away from the MIC located on the front of the radio.

The above operating conditions are required for meeting FCC RF exposure compliance, failure to follow these restrictions are considered a violation.

Safety Warning

Do not transmit the radio with a damaged antenna or touch the antenna while transmitting. Strong electromagnetic waves are emitted from the radio which may damage the radio or cause an RF burn to your skin.

Do not use non-approved accessories with your radio. Unauthorized accessories may create unauthorized RF emissions or cause damage to the radio or may result in illegal operation.

Do not disassemble or modify the radio, doing so will void the warranty and may result in illegal operation.

Do not leave the radio in direct sunlight or around excessive heat, doing so may cause the battery to explode or catch fire.

Do not use radio if it has been immersed in water an electronic shock may occur or permanent damage may occur to the radio.

NOTE: *It is important for users to understand and recognize the general risks of using two-way radios.*

Unpacking

Please take care to remove the radio from the box. We recommend that you confirm the following items in the box before discarding the packaging materials.

■ Supplied Accessories

| ITEM | QTY |
|---------------------|-----|
| Radio | 1 |
| Antenna | 1 |
| 7.4V Li-ion battery | 1 |
| Charger cup | 1 |
| Wall Adaptor | 1 |
| Belt Clip | 1 |
| Manual | 1 |
| Wrist Strap | 1 |

Preparation

■ Charging instructions

- The battery pack is not charged at the factory, charge before use. After purchase or after long-term storage (more than two months), charging the battery pack for the first time does not allow the battery pack to reach its saturated usage capacity. After repeated charging and discharging two or three times, normal charging and battery capacity can be achieved.
- Turn off the power of the radio before charging. A radio that is left powered on in the charger cup may prevent the battery from charging properly.
- Once the battery fails to maintain its charge during normal use the battery pack may have reached the end of its life. Replacement with a new battery will be necessary.

NOTE:

- *Do not recharge the battery pack once it is fully charged. Doing so may cause the life of the battery pack to shorten or the battery pack may be damaged.*
- *After Recharging the battery pack, remove from the charger cup.*
- *Do not short the battery terminals or discard batteries in a fire or normal trash waste.*

■ Charging step

Attach the A/C wall adaptor to the charger cup by inserting the barrel connector into the socket located on back of the charger cup. Plug the A/C wall adaptor in a 110V wall outlet the charger will show a green light.

Insert the battery pack or the radio with the battery pack into the charger card slot.

The red light of the charger flashes to start charging; after the full charge, the green light is on and charging is complete.

■ Installation / Removal of lithium battery

Ensure the radio is powered off before attaching or removing the battery by using the control knob on top of the radio. Rotate the knob counter clockwise until you hear a click and the knob no longer rotates.

◇ Installation

Using your thumb press and hold the belt clip into its open position. Align the battery pack tabs with the corresponding position on the aluminum frame by holding the battery slightly up and pushing the battery forward and into the two frame slots by using the other end of the battery pushing downward and into the frame. Ensure the battery is properly seated prior to pushing the main battery latch into place (Do not force the battery or latch into position). You should hear a firm click once the battery is latched and properly installed.

Turn on the radio using the control knob on top of the radio by rotating clockwise. A click will be heard to indicate power has been applied, once the radio has completed its power on sequence it is ready to use.

◇ Removal

To remove the battery, turn off the radio using the control knob on top of the radio per previous installation step.

Lift up on the release tab indicated by OPEN until the main latch opens located just below the release tab (Do not pull the release tab past its stopping point). Hold the belt clip up per previous instruction, slightly lift and pull the battery out and away from the radio.

■ Antenna Installation / Removal

Ensure the radio is powered off per previous instruction.

◇ Installation

Align the antenna onto the threaded location on top of the radio by holding at the base of the antenna. Screw the antenna into place

by rotating in a clockwise direction being careful not cross thread the antenna until firmly seated (Do not overtighten the antenna).

◇ Removal

Remove the antenna by holding the antenna at the base and unscrew the antenna counterclockwise until completely out of the threaded connector.

NOTE: Do not use the antenna as a handle, Hang a key- chain or external speaker microphone on the antenna. This will damage the antenna and reduce the performance of the radio.

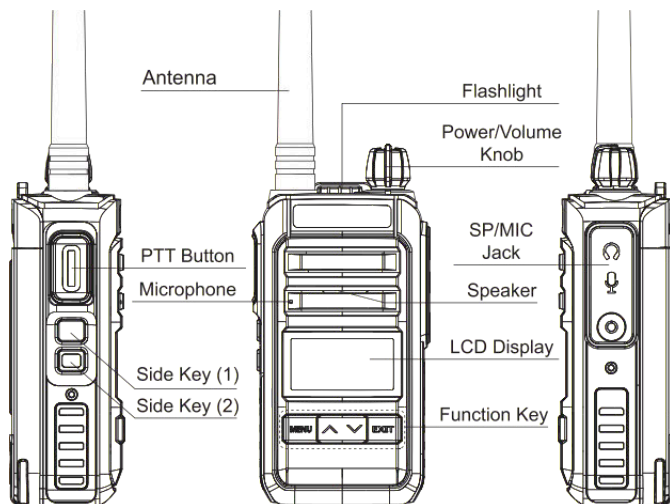
■ Installation / Removal of belt clip

The belt clip should be pre-installed at the factory. To remove the belt clip, use a small Phillips head screw driver to remove the two screws holding the clip to the frame. To install the belt press and hold the belt clip in place and align the screws into the frame holes being careful not to cross thread the screws (Do not over tighten the screws or risk stripping the screw holes).

■ Installing external speakers / Microphone headphones

Remove the accessory dust cover using a coin or slotted screwdriver (keep the cover in a safe place for use when an attached accessory is not being used). Insert the accessory into appropriate jack, press and release top side key (1) to open the radio squelch/monitor function and adjust the volume control to a comfortable listening level prior to inserting an ear accessory. Press and release side key (1) again to close the squelch.

Getting Familiar with Radio



■ Function key explanation

[MENU] Key

- Short press: enters menu selection mode;

[UP] Key

- Short press: Moves up to the next channel or the next menu selection;
- Long press: Rapidly traverses up the selections;

[DOWN] Key

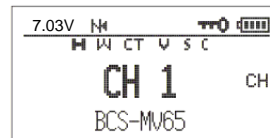
- Short press: Moves down to the next channel or the next menu selection;
- Long press: Rapidly traverses down the selections;

[EXIT] Key

- Short press: exits the menu mode;
- Long press: Lock/unlock all buttons and keys with exception of PTT;

■ LCD display

On the display are various indicators that indicate selected function.



◇ LCD icon

| | |
|--------------------|--------------------------------|
| 7.03V | battery voltage |
| H/L | noise cancelling |
| CH1-CH5 | Selected operating channel |
| WX1-WX7 | Selected NOAA weather channel |
| Key lock icon | Key lock |
| Battery level icon | Battery indication |
| H/L | power (High /H, Low/L) |
| W/N | bandwidth (Width/W, Narrow /N) |
| CT/DT | CTCSS/DCS |
| VOX | VOX |
| C | Compand |

■ Main function

- 151 – 154 MHz
- Output power High 2W, Low 1W
- Waterproof IP65 rating driven rain
- Flashlight
- CTCSS/DCS
- Compand function
- Scanning function
- VOX
- Voice Prompt
- Vibration
- Noise cancelling

■ Side key functions

PTT : Push-to-Talk Switch

Each side key has two functions depending on a short press and release or a long press and hold.

Side Key1 : Short press Monitor function SQL on/off; long press Flashlight on/off.

Side Key2 : Short press Scanning on/off; long press Noise Cancelling on/off.

Operation

■ Power ON / Adjust volume

Power on radio by rotating the volume switch clockwise; power off by rotating the volume switch counterclockwise.

■ Channel Select

Press the **[UP / DOWN]** key to select the required channel.

■ Transmit / Receive

Press and hold the PTT key to transmit, LED indicator light is RED, you may begin speaking into the microphone. Release PTT key, the indicator light is off and the radio is in receive mode waiting for a response.

If the receive signal is properly matched the squelch of the radio will open the speaker and voice will be heard. LED indicator is BLUE when receiving a carrier only frequency or matched CTCSS or DCS tone. If no voice response is heard verify all radio CTCSS or DCS tone are correctly matched for the channel selected. A press and release of side key 1 will open tone squelch to monitor a toned channel.

Menu Setting

■ Menu usage

The menu contains the settings of the various functions of the radio. You can manually change the settings in the menu.

Press the **[Menu]** key to enter the menu system

- Select the **[UP/DOWN]** key to step thru the menu selection list;
- Press the **[Menu]** key to enter the menu selection setting;
- Press the **[UP / DOWN]** key to select the setting, then press the
- **[Menu]** key to confirm.
- Press **[Exit]** key to exit the menu system and return to the original working mode.
- If no selection is made within 10 seconds, the radio will automatically return to the original working mode.

■ Menu List

| Num | Menu options | Secondary menu selection choice options | Secondary menu function description |
|-----|--------------|---|--|
| 00 | Power | Low power / High power | Low power equals 1W / high power equals 2W |
| 01 | Beep | Close/Open | Turn off/on beep tones |
| 02 | Scan | On/ press EXIT to stop scan | Enters scan mode, at least 2 channels are required to start scanning |
| 03 | VOX | Close/Open | Turn off/on automatic PTT voice control for hands free operation. |

| Num | Menu options | Secondary menu selection choice options | Secondary menu function description |
|-----|--|---|---|
| 04 | TOT (Time-out-timer) | Off | No limit to transmission talk time. |
| | | 15sec/.../270sec | Sets the maximum time limit for allowed transmission, once timed out a release of the PTT is required to begin another transmission. |
| 05 | SQL | Level 0-9 | Adjust level between 0-9 the higher the level, the stronger the receive signal is required to open the speaker audio. The lower the level enables the radios ability to pick up weak signals. |
| 06 | Backlight | Close | Backlight is off until a key, button press or signal is received. |
| | | Open | Backlight is always on. |
| | | Automatic 5 seconds/ ... / 60 seconds | Backlight turns off after the set timer expires. |
| 07 | VOX Level (used in conjunction with VOX setting) | Close | Disables VOX operation. |
| | | Level 0-9 | Sets sensitivity of the microphone for hands free operation with or without a VOX accessory attached. |
| 08 | Compand | Close/Open | Compresses the signal transmitted from the microphone and expands it again at the receiver maximizing the audio signal's dynamic range and minimizes noise. |

| Num | Menu options | Secondary menu selection choice options | Secondary menu function description |
|-----|-------------------------------------|---|---|
| 09 | Key Lock Mode | Manual | Press and hold the EXIT key to lock keys and buttons. Press and hold a second press to unlock. |
| | | Automatic 5 seconds / ... / 30 seconds | Automatically locks keys and button after the timer setting expires. Press and hold the EXIT key to remove the timer. |
| 10 | Dec-CTDCS (Receiver decode tone) | Off | Press [EXIT] key to select: Off, CTCSS, DCSN, DCSI; |
| | | CTC-67.0 /.../ 254.1 | |
| | | DCS-D023N/.../ DCS-D754I | |
| 11 | Enc-CTDCS (Transmitter encode tone) | Off | Press [EXIT] key to select: Off, CTCSS, DCSN, DCSI; |
| | | CTC-67.0 /.../ 254.1 | |
| | | DCS-D023N/.../ DCS-D754I | |
| 12 | Save Mode (Battery usage) | Off | Battery power save is turned off |
| | | 1:1/.../1:10 | Extends daily battery life between charges. The higher the ratio the longer the radio can be used during the day. Note: a high ratio may result in missed calls or words. |
| 13 | Power on tone | Off/Beep tone/ Chord tone | Turn off or select the desired tone feature upon turning on radio power. |
| 14 | Scan Add/Delete | Delete/Add | Delete or add the selected channel to the radio scan list. |

| Num | Menu options | Secondary menu selection choice options | Secondary menu function description |
|-----|--------------|---|--|
| 15 | Roger | Close/Open | Beep tone signal sent to notify other users a transmission has ended. |
| 16 | Boot Screen | Picture | Chosen feature is displayed upon radio power up. |
| | | Voltage | |
| | | Information | |
| 17 | Wait Light | Close/Open | Blue flashing LED indicates the radio is powered on waiting for activity when display is not active. |
| 18 | Voice Sort | Close/Open | Used to active voice prompts to navigate radio settings. |
| 19 | Vibration | Close/Open | Used to alert channel activity with a low volume setting. |
| 20 | Reset | Close/Open | Reset radio to factory default. |

CTCSS / DCS

50 group CTCSS and 105 groups DCS.

| CTCSS(Hz) | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|
| 67.0 | 85.4 | 107.2 | 136.5 | 165.5 | 186.2 | 210.7 | 254.1 |
| 69.3 | 88.5 | 110.9 | 141.3 | 167.9 | 189.9 | 218.1 | |
| 71.9 | 91.5 | 114.8 | 146.2 | 171.3 | 192.8 | 225.7 | |
| 74.4 | 94.8 | 118.8 | 151.4 | 173.8 | 196.6 | 229.1 | |
| 77.0 | 97.4 | 123.0 | 156.7 | 177.3 | 199.5 | 233.6 | |
| 79.7 | 100.0 | 127.3 | 159.8 | 179.9 | 203.5 | 241.8 | |
| 82.5 | 103.5 | 131.8 | 162.2 | 183.5 | 206.5 | 250.3 | |

| DCS Code | | | | | | | | | |
|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 023 | 065 | 132 | 205 | 255 | 331 | 413 | 465 | 612 | 723 |
| 025 | 071 | 134 | 212 | 261 | 332 | 423 | 466 | 624 | 731 |
| 026 | 072 | 143 | 223 | 263 | 343 | 431 | 503 | 627 | 732 |
| 031 | 073 | 145 | 225 | 265 | 346 | 432 | 506 | 631 | 734 |
| 032 | 074 | 152 | 226 | 266 | 351 | 445 | 516 | 632 | 743 |
| 036 | 114 | 155 | 243 | 271 | 356 | 446 | 523 | 645 | 754 |
| 043 | 115 | 156 | 244 | 274 | 364 | 452 | 526 | 654 | |
| 047 | 116 | 162 | 245 | 306 | 365 | 454 | 532 | 662 | |
| 051 | 122 | 165 | 246 | 311 | 371 | 455 | 546 | 664 | |
| 053 | 125 | 172 | 251 | 315 | 411 | 462 | 565 | 703 | |
| 054 | 131 | 174 | 252 | 325 | 412 | 464 | 606 | 712 | |

Warranty and Service

Limited Warranty This product is warranted by BridgeCom Systems, Inc. to be free of defects in materials and workmanship for a period of one year from the date of purchase. If a defective part causes this product to operate improperly during the one-year warranty period, we will service it to the original owner free of charge if shipped to BridgeCom Systems at the owner's expense.

This warranty does not apply to any parts damaged due to improper use or violation of instructions. It does not extend to damage incurred by misuse or abuse, unauthorized modifications, natural causes such as lightning, fire, floods, and other such catastrophes; nor to damage caused by environmental extremes, such as power surges and/or transients, theft, or accidents.

All warranties must be performed at BridgeCom Systems, Inc. No credit will be given for unauthorized repair work attempted by the customer. BridgeCom Systems, Inc. will repair or replace the equipment and return to the customer freight pre-paid, within the continental United States. Equipment found not to be defective will be returned at the customer's expense, and it will include the cost to ship, test, and return the equipment.

Equipment returned for repair must have a return merchandise authorization (RMA) number. To obtain an RMA contact our Technical Support Department at (636)-205-1736 or email techsupport@BridgeCom-Systems.com. All returned equipment must have the RMA number listed on the outside of the shipping container.

Ship all returns to: BridgeCom Systems, Inc. Attn: Repair 113 South Bridge Street Smithville, MO 64089 Out of warranty repairs and service charges are billed at the current hourly rate plus parts. **PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE.**

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BridgeCom Systems, Inc. does not assume any liability for damages. Technical information and specifications in this document are subject to change without notice. Changes or modifications to this device not expressly approved by BridgeCom Systems could void the user's authorization to operate this device.

FCC Statement:

Any 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.

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.

SAR tests are conducted using standard operating positions accepted by FCC with the device transmitting at its highest certified power level in all tested frequency bands, although the SAR is determined at the highest certified power level, the actual SAR level of the device while operating can be well below the maximum value. Before a new model is available for sale to the public, it must be tested and certified to the FCC that it does not exceed the exposure limit established by the FCC. Tests for each product are performed in positions and locations as required by the FCC.

For body worn operation, this device has been tested and meets the FCC RF exposure guidelines when used with and accessory designated for this product or when used with and accessory that contains no metal.

To maintain compliance with FCC RF exposure guidelines hold the transmitter and antenna at least 1 inch (2.5 centimeters) from your face and speak in a normal voice, with the antenna pointed up and away from the face.

The equipment complies with FCC radiation exposure limits set forth for and uncontrolled environment. In order to comply with the FCC RF exposure requirement, the antenna installation must comply with following:

Users must be fully aware of the hazards of the exposure and able to exercise control over their RF exposure to qualify for the higher exposure limits.

Your wireless hand-held portable transceiver contains a low power transmitter. This product sends out radio frequency (RF) signals when the Push-to-Talk(PTT) button is pressed.

The device is authorized to operate at a duty factor not to exceed 50%.

BridgeCom
SYSTEMS