BRIDGE PRO 268 Manual

BridgeCom SYSTEMS

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WELCOME

Thank you for purchasing the Bridge Pro 268 series of two-way radio. The goal of the BP-268 series 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 BP-268 series. Every effort has been made in the preparation of this manual in order properly operate the radio before use.

This manual is applicable to BP-268 and BP-268V version.

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SAFETY INFORMATION

This radio is for occupational use only, and is to be used under work related conditions. 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 without the antenna attached, 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.

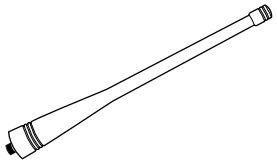
Do not disassemble or modify the radio, doing so will void the warranty and may result in illegal operation.

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

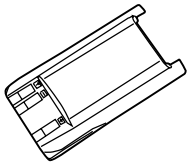
Do not use radio if it has been immersed in water an electronic shock may occur or permanent damage may occur to the radio.

ACCESSORIES

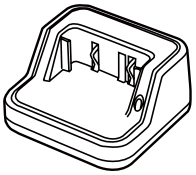
Standard Accessories



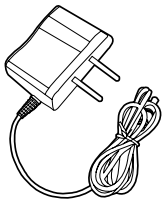
Antenna



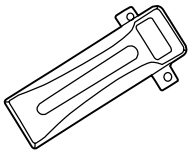
Li-ion Battery Pack



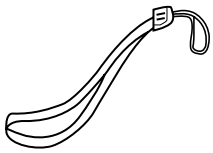
Charger



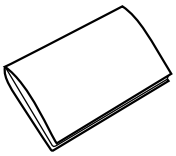
AC Adaptor



Belt Clip



Hand Strap

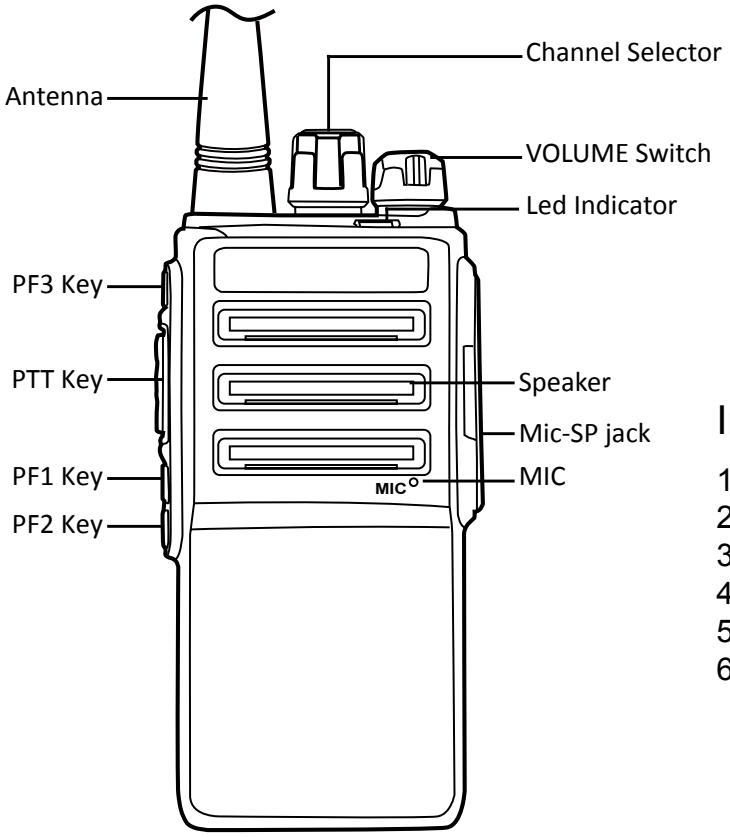


Instruction Manual

Charger Indication

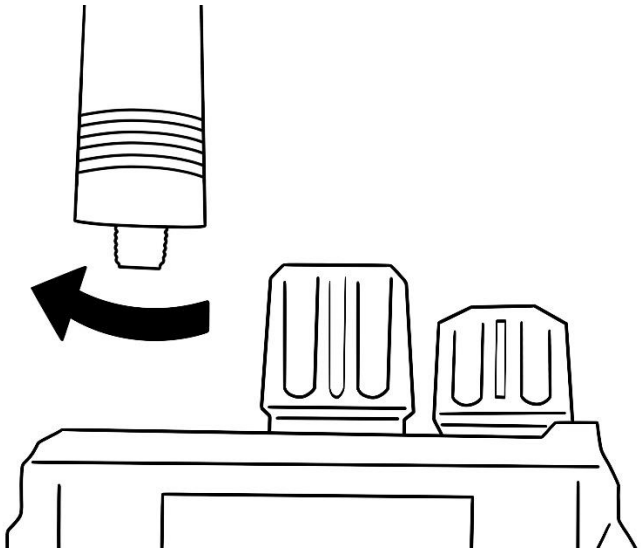
STATUS	Self-Examination When Powered on	No Battery	Normal Charge	Fully Charged	Trouble
LED	Red (for 1 second)	Green	Red	Green	Red and green light alternates

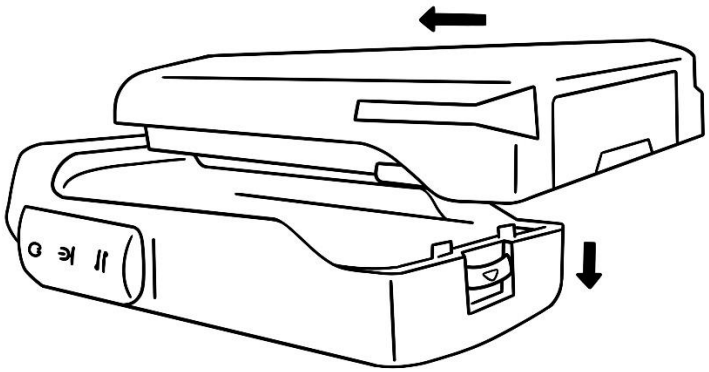
GETTING ACQUAINTED



Indicator Status:

1. Red light flashes: Battery needs charged
2. Red light solid on: Transmit
3. Green light flashes: Scan mode
4. Green light on: Receive matched carrier
5. Blue LED on: Receive matching digital signal
6. Green to White LED on: Programming started





BASIC OPERATION

Ensure the antenna and a fully charged battery have been properly attached before attempting the following steps.

1.Power on the radio

Turn the volume knob clockwise to turn on the radio, after approximately 5 seconds the Green LED will turn on, once illuminated after approximately 5 seconds you will hear a power on beep/announcement.

2. Adjust Volume

Turn the volume knob to adjust the volume, clockwise will increase the volume and counter clockwise decreases volume.

3.Selecting a zone

Press programmed zone key to change zones with a maximum of 16 channels per zone.

4.Selecting a Channel

Turn the channel knob clockwise to select channel positions.

5.Receiving

When the radio receives a digital signal, the blue LED turns on. When the radio receives an analog signal, the green LED turns on.

●Analogue RX: Radio receives a carrier and or with a matched tone to open squelch.

●Digital RX: When radio receives a correct call with a matched ID, the radio will turn on the speaker to receive voice audio.

6.Make A Call

Press and hold PTT, the LED will turn red indicating TX (Transmit), speak clearly into the microphone

7.Man-down Alarm

When the Man-down alarm function is turned on, the radio will alarm when the radio operator/or radio has fallen in a horizontal position. Raising the radio back to a vertical position will stop the alarm.

PROGRAMMABLE KEY FUNCTION

The PF1, PF2, PF3 keys are programmable by PC software, each key can be enabled up to 3 functions. a short press, a 1 second press or a long press. Consult your radio provider for available functions that have been programmed into your radio.

1. Voltage

In standby, press the key programmed as " Voltage" to check current battery capacity.

2. Power Switch

In standby, press the key programmed as " Power Switch" to change the power level.

3. Repeater

In standby, press the key programmed as " Repeater" to turn on Repeater function, press this key again to turn off repeater function.

Note: If current channel is working by repeater frequency, turning off this function, the radio will stop repeater communication.

4. Reverse

In standby, press the key programmed as "Revers" to turn on frequency revers function, press this key again to turn off revers function.

Note: This function is only valid in analog mode, when frequency revers function is on. The TX frequency and RX frequency will be reversed, the CTCSS/DCS will also be reversed.

5. Digital Encryption

In standby, press the key programmed as" Digital Encryption", the radio will announce encryption status or encryption group. Press this key again to choose encryption group or turn off encryption.

Note: This function is valid only in DMR mode only, when 2 radios use the same encryption code.

6. Analog Call

In standby, press the key programmed as" Ana Call", the radio will transmit the DTMF/2TONE/5TONE code in current channel.

Note: This function is valid only for an analog channel.

7. VOX Level

In standby, press the key programmed as" VOX Level", the radio will announce current VOX level. Press this key again to adjust VOX level or turn off VOX.

8. Scan

In standby, press the key programmed as "Scan", the radio will start scanning the list on the current channel location, press this key again to turn off the scan function.

9. Emergency Alarm

In standby, press the key programmed as" Emergency Alarm", the radio will start the alarm by its programmed method, press this key again to turn off alarm.

10. Record Switch

In standby, press the key programmed as" Record Switch", the radio will announce "Record on" and start voice recording, press this key again to turn off recording, the radio will announce "Record off"

Note: The standard version supports 30 hours of voice recording for DMR channels.

11. Monitor

In standby, press the key programmed as "Monitor" function, the radio will turn off signaling and squelch level

to monitor a weak signal or ID not matched signal. A repeat press of this key will turn off monitor. Note: In analog mode, the radio will emit white noise.

12. Send Alarm

In standby, press the key programmed as "Send Alarm" function, the radio will announce "Alarm" and Alarm Number 1-5 plus the alarm sound. A repeat press of this key can choose the Alarm Number, then press PTT to send the chosen alarm sound to a contact list or group members in current DMR channel.

Note: This function only valid for DMR channel.

13. Hot key 1-6

In standby, press the key programmed as "Hot Key X " function to send signaling for 2TONE, 5TONE, DTMF, Remote kill, remote monitor, beep etc.

14. Work Alone

In standby, press the key programmed as "Work Alone " to turn on this function, the radio will announce "work alone on", press this key again to turn off work alone function.

Note: After turning on the work alone function, the radio will send out an alarm after a preset time.

15. Phrase Record

In standby, press the key programmed as "Phrase Record" to turn on recording function, the radio will announce" record" and the current recording number (1-25), press this key again to choose recording number after the number is chosen, Press and hold the PTT key and start speaking, release PTT to stop recording.

Note: This function valid only for DMR channels.

16. Phrase Playback/Deletion

In standby, press the key programmed as" Phrase Playback/Deletion", the radio will announce "Phrase

playback" and number, and will start playing the voice recording, during playback, pressing the PTT key will send the current recording to the contact list or group number in the current channel. To delete recording hold the PTT until you hear " Phrase Delete", the current recording will be deleted.

Note: This function valid only for DMR channels.

17. Rx &Tx Record Replay

In standby, press the key programmed as "Rx & Tx Record Replay" to playback the last communication recording.

18. Zone

In standby, press the key programmed as "Next Zone" or "Prev- Zone" to change zone. Note: The radio has total of 16 zones, each zone has 16 channels.

19. Mic Level

In standby, press the key programmed as "Mic Level", the radio will announce choose mic level. Note: This radio has 5 microphone gain levels.

20. Mic Quality

In standby, press the key programmed as "Mic Quality", the radio will announce choose mic status. Note: Choose the mic quality according to your voice character to enable so the receiver can hear clearly. This function valid only for DMR channels.

21. Scene Mode

During receiving, press the key programmed as "Scene Mode", to choose a suitable mode to allow the user to hear a clear voice.

Note: This function valid only for DMR channels.

22. GPS Report

In standby, press the key programmed as "GPS Report" to turn on or turn off GPS report. GPS report time, ID, call type, the channel must be programmed by PC software.

Note: This function valid only for DMR channels. (Function is currently not available)

23. Status Info Report

In standby, press the key programmed as "Status Info Report" to turn on or turn off Status Report. Status report Character, time, ID, call type, channel must be programmed by PC software.

Note: This function valid only for DMR channels.

24. Status Info Report

In standby, press the key programmed as "Status Info Report" to turn on or turn off Status Report. Status report Character, time, ID, call type, channel must be programmed by PC software.

Note: This function valid only for DMR channels.

24. Record Report

In standby, press the key programmed as "Record Report" to turn on or turn off Record Report. Record report group, time, ID, call type, channel must be programmed by PC software.

Note: This function valid only for DMR channels.

25. Resume factory default

Hold PTT and PF1 key while powering on radio, release these 2 keys when the light blue LED indicator turns on, power off and power on the radio, the radio resumes its default value.

Other programmable key functions such as "Roaming" may be programmed into your radio. Please consult your BridgeCom Dealer for operation of the programmed key function.

TECHNICAL SPECIFICATIONS

General	
Frequency Range	UHF Version:450-512Mhz , FCC ID:SK4BP-268 VHF Version:136-174Mhz , FCC ID:SK4BP-268V
Operation Type	DMR Digital and analog
Channel Capacity	256 channels
Channel Spacing	12.5KHz (Narrow Band)
Phase-locked Step	5KHz, 6.25KHz
Operating Voltage	7.4VDC ±20% /(2600mAh)
Frequency Stability	±1.1 ppm
Operating Temperature	-30℃~ +50℃
Size	127×57×32mm (with battery pack)
Weight	208g (with battery pack, antenna)
Antenna Impedance	50Ω
FCC Approvals	CFR Title 47 Part 90 Private Land Mobile Radio CFR Title 47 Part 15 Subpart B

Receiving Part	
Sensitivity (12dB SINAD)	≤0.35μV
Digital Sensitivity	0.3uV/-117.4dBm (BER 5%) 0.7uV/-110dBm (BER 1%)
Adjacent Channel Activity	≥60dB

Transmitting Part	
Measurement Methods	Per TIA/EIA-603 2.2.19
Power Output	UHF 6W; VHF 7W
Modulation limit	±2.5KHz@12.5KHz
Adjacent Channel Power	≥ 60dB
Hum & Noise	≥ 36dB
Spurious Emission	≤-20dBm
Emission Designator	Data: K39F1W-6W-12.5kHz(UHF) K39F1W-7W-12.5kHz(VHF) Digital Voice: 7K40F1D-6W-12.5kHz(UHF) 7K40F1D-7W-12.5kHz(VHF) Analog Voice: 11K0F 3E
Audio Distortion	≤5%
Error rate	≤3%

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 two years 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@BridgeComSystems.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. This document contains information proprietary to Bridge Embedded Systems, Inc. and BridgeCom Systems, Inc. Its contents may not be reproduced, in whole or in part, without express written permission from either Bridge Embedded Systems, Inc. or BridgeCom Systems, Inc. The information is provided "AS IS" without warranty of any kind, either expressed or implied.

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 STATEMENTS WARNING AND COMPLIANCE STATEMENT

FCC Part 15.19 Warning Statement

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 including received interference that may cause undesired operation.

FCC Part 15.21 Warning Statement

The grantee is not responsible for any changes or modifications not expressly approved by the party responsible for compliance. Such modifications could void the user's authority to operate the equipment. Replacement of any transmitter component (crystal, semiconductor, etc.) Not authorized by the local government radio management departments equipment authorization for this radio could violate the rules

FCC Part 15.105(b) Warning Statement

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.

FCC Part 15.121(f) Warning Statement

WARNING: MODIFICATION OF THIS DEVICE TO RECEIVE CELLULAR RADIOTELEPHONE SERVICE SIGNALS IS PROHIBITED UNDER FCC RULES AND FEDERAL LAW.

RF Exposure Statement

Our 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”.

Inaddition, our 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:

---IEEE Std. 1528:2013 and KDB447498, 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 information listed above provides the user with the information needed to make him or her aware of RF exposure and what to do to as-sure that this radio operates with the FCC RF exposure limits of this radio.

Electromagnetic Interference/Compatibility

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

Attention:

This device complieswith IEEE and ICNIRP exposure limits for occupational/controlled RF exposure emvironment at operating duty factors of up to 50% and is authorized by the FCC for Occupational Use Only. An appropriate warning lable is affixed to all units. In order to comply with RF exposure requirements, a minimum distance of 2.5 cm must be maintained when held-to-face, and body-worn operations are restricted to the approved original acessories (belt clip), a minimum distance of 0 cm. Do not use this device when antenna shows obvious damages.

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Call us at: (816) 532-8451

Visit bridgecomsystems.com for all of your radio support and education needs.

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