**Bridgecom ECHO E30 Manual**

## WELCOME

Thank you for purchasing the BridgeCom Echo GMRS two-way radio. The goal of the BridgeCom Echo 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 BridgeCom Echo. Every effort has been made in the preparation of this manual in order to properly operate the radio before use.

**STOP**

STOP: This radio requires an FCC GMRS license to operate. To obtain a GMRS license go https://www.fcc.gov/fcc-form-605 Scroll to General Mobile Radio Service (GMRS) (47 CFR Part 95) click on FCC 605 Main Form to download and follow the instructions on the form.

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### ⚠ Reminder

In order to avoid failure, please use supplied charger for charging of your BridgeCom Echo GMRS two- way radio.

## 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 tran-smitting. 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*¹   Li-ion Battery Pack   Belt Clip

USB Charger   Hand Strap   Instruction Manual

American Standard Adapter   Radio Programming Cable

## GETTING ACQUAINTED

Your BridgeCom Echo GMRS two-way radio is pre-programmed for 30 operating channels indicated with a voice prompt per channel selected. Once you have downloaded the programming software, using the provided programming cable you can customize your radios TX power, CTCSS and DCS tones, add and delete to your scan list. Program your side key, top button as well as other features.

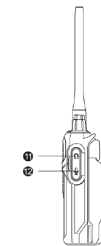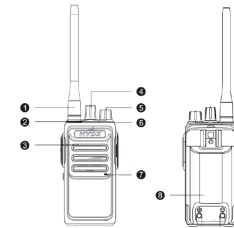### TTX/RX Operating Channel Frequencies

| Channel | Frequency | Tone |
|---|---|---|
| CH 01 | 462.5625 | PL/CTCSS Default tone 67.0Hz |
| CH 02 | 462.5875 | PL/CTCSS Default tone 67.0Hz |
| CH 03 | 462.6125 | PL/CTCSS Default tone 67.0Hz |
| CH 04 | 462.6375 | PL/CTCSS Default tone 67.0Hz |
| CH 05 | 462.6625 | PL/CTCSS Default tone 67.0Hz |
| CH 06 | 462.6875 | PL/CTCSS Default tone 67.0Hz |
| CH 07 | 462.7125 | PL/CTCSS Default tone 67.0Hz |

**Channels 8 - 14 are fixed low power .5W only.**

| Channel | Frequency | Tone |
|---|---|---|
| CH 08 | 467.5625 | PL/CTCSS Default tone 67.0Hz |
| CH 09 | 467.5875 | PL/CTCSS Default tone 67.0Hz |
| CH 10 | 467.6125 | PL/CTCSS Default tone 67.0Hz |
| CH 11 | 467.6375 | PL/CTCSS Default tone 67.0Hz |
| CH 12 | 467.6625 | PL/CTCSS Default tone 67.0Hz |
| CH13 | 467.6875 | PL/CTCSS Default tone 67.0Hz |
| CH 14 | 467.7125 | PL/CTCSS Default tone 67.0Hz |
| CH 15 | 462.550 | PL/CTCSS Default tone 141.3Hz |
| CH 16 | 462.575 | PL/CTCSS Default tone 141.3Hz |
| CH 17 | 462.600 | PL/CTCSS Default tone 141.3Hz |
| CH 18 | 462.625 | PL/CTCSS Default tone 141.3Hz |
| CH 19 | 462.650 | PL/CTCSS Default tone 141.3Hz |
| CH 20 | 462.675 | PL/CTCSS Default tone 141.3Hz |
| CH 21 | 462.700 | PL/CTCSS Default tone 141.3Hz |
| CH 22 | 462.725 | PL/CTCSS Default tone 141.3Hz |

**Repeater Channels**

| Channel | Freq 1 | Freq 2 | Tone |
|---|---|---|---|
| CH 23 | 462.550 | 467.550 | PL/CTCSS Default tone 141.3Hz |
| CH 24 | 462.575 | 467.575 | PL/CTCSS Default tone 141.3Hz |
| CH 25 | 462.600 | 467.600 | PL/CTCSS Default tone 141.3Hz |
| CH 26 | 462.625 | 467.625 | PL/CTCSS Default tone 141.3Hz |
| CH 27 | 462.650 | 467.650 | PL/CTCSS Default tone 141.3Hz |
| CH 28 | 462.675 | 467.675 | PL/CTCSS Default tone 141.3Hz |
| CH 29 | 462.700 | 467.700 | PL/CTCSS Default tone 141.3Hz |
| CH 30 | 462.725 | 467.725 | PL/CTCSS Default tone 141.3Hz |

| | |
|---|---|
| 1. Fixed Antenna | 2. Top Button |
| 3. Speaker | 4. Channel Knob |
| 5. Volume/Power Switch | 6. Indicator Light |
| 7.Microphone | 8. Battery |
| 9. Push to Talk (PTT) | 10. Side Key |
| 11. Earphone Interface | 12. Microphone Interface |

## Controls, Indicators and Features

**· LED Indicator**
A Green light indicates radio is receiving. A Red light indicates radio is transmitting.The green light flashes while waiting for activity during scan.

**· Channel Knob**
Continuous rotating for selection of channels 1-30, channels can be selected by rotating the channel selector knob either clockwise or counter-clockwise. A voice prompt indicates the selected channel.

**· Power Switch and Volume Control**
Rotating the control knob clockwise will power on the radio, rotating the control knob counter-clockwise will turn off the radio. Once powered on the radio will announce the current channel selected.  Rotating the volume control knob clockwise increases volume, rotating counter-clockwise decreases the volume.

**· Monitor**
Always monitor the channel you intend to communicate before transmission. Press the monitor key on the side of the radio and monitor for channel activity. If no voice communication is heard the channel is clear for transmission.

**· PTT**
To begin a transmission center the microphone approximately 1 inch from your mouth push and hold the PTT switch located on the side of the radio and begin speaking clearly into the microphone. Once you have completed your transmission release the PTT and wait for a response.

**·Squelch**
The purpose of squelch is to mute the speaker white noise when no signals are present.Your radio has been preset for optimal squelch function. Using the programmer, you can customize your squelch sensitivity setting, the lower the setting the more sensitive your radio is picking up a weak signal, setting a higher the number will open the squelch with a stronger signal.

**·TOT**
This function can be used to limit the time a user can continuously transmit on a channel for extended amounts of time.This feature is also useful if for some reason your radio is stuck in the transmit mode. If your radio continues to transmit over the limit time (set by the programming software), the radio stops transmitting and sounds a warning. To stop the warning sound, release the PTT and the radio will revert back to receive state. This feature can be programmed using the programming software.

**·Scan**
Scanning allows the radio to step through the channels that have been added to your scan list, listening for a conversation.Once conversation is heard the radio will stop on that channel to allow a transmission back on that channel. If you do not respond radio will resume scanning when the timer expires.

**·Busy Channel Lockout**
If programmed with your programming software this feature will prevent a transmission when the selected channel is busy either by carrier or tone signaling.

**·High /Low Power Setting**
Radio default setting is per operating frequency.
You can switch power by PC programming software.

**·15-Wide/Narrow Band Selection**
Fixed per operating frequency.

**·VOX**
You can enable or disable VOX with your PC programming software.
With the VOX function is active, when talking into the microphone your voice activates the transmitter. When using a headset, adjust the VOX level to an appropriate level. If the microphone is too sensitive noise will activate the transmitter; if the microphone is not sensitive enough, your voice will not activate transmitter.

**·CTCSS/DCS Privacy Tones**
CTCSS and DCS privacy tones can be customized using your programming software. When a channel is programmed with CTCSS or DCS, squelch will only open when the tone signal matches (De-codes)the received CTCSS or DCS tone.If your radio receives different tones other than those programmed the squelch will not be open and is indicated by a green LED with no speaker audio, observe the LED is off before attempting to transmit to avoid talking over another user on the same frequency. Using the monitor function will open the squelch allowing you to listen or verify the conversation has ended. The Busy Channel Lockout feature can be used in conjunction with privacy tones to keep from stepping over other users.

**·Local Alarm Function**
If programmed, pressing the alarm button on the top of the radio will send out the alarm sound. A press/release of PTT, turns off alarm.

**·Battery Save**
If enabled with your programming software this feature allow less drain on your battery allowing for longer daily operating periods. This feature does not prevent your battery from aging.

## Troubleshooting

| Symptom | Try This |
|---|---|
| Radio will not power on | The battery may need to be charged or renewed. |
| Battery lasts only a short time after being fully charged. | The battery may have reached its end of life cycle. Replace with a new battery. Only dispose of batteries at a recycle center DO NOT dispose in the trash. |
| Unable to speak to other users. | Verify the frequency and or the tone settings you are using are the same as other users or the repeater. Verify you are transmitting within effective range of a user or a repeater. |
| Hearing other conversations on a channel | Program privacy tones or program different privacy tones on that channel. |
| Low power alarm | Either charge or replace with a fully charged battery. Possibly damage to the battery may occur if continued use without charging. |

## 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 @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:

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. WARNING: Modification of this device to receive cellular radiotelephone service signals is prohibited under FCC rules and Federal Law.

## FCC PART 15.21 WARNING STATEMENT

NOTE:
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.