# BWI EAGLE

## AIR-EAGLE® XLT PLUS
### 900MHz RF Transmitter
### MODEL 441-HHE-4

## DESCRIPTION

The AIR-EAGLE XLT TX IS a handheld R.F. transmitter capable of sending up to four unique digital commands to an Air-Eagle XLT Receiver located up to 2500 feet away. Any number of transmitters and receivers can be combined to create a medium-range radio frequency system that operates hazardous or hard-to-reach equipment from safe, convenient locations. Eight user-programmable frequencies allow multiple systems to operate simultaneously in the same area without interference. This transmitter will automatically go into "sleep" mode when no buttons are being depressed on the unit to dramatically extend battery life.
Note: This product is not designed for use in life-saving applications.

## INITIAL OPERATION SET-UP

This transmitter comes ready to operate, with batteries installed, and factory programmed to Frequency #1. No setup is necessary unless you wish to change frequency or transmit mode. (See FREQUENCY PROGRAMMING AND TRANSMITTING MODE SETUP on page 2).

## SPECIFICATIONS

| Keypad | Durable Sealed Membrane Keypad – Eliminates Dust, Dirt and Moisture Failures | |
|---|---|---|
| Enclosure | Aluminum AIMgSi | Enclosure w/Ring is Rated IP40 *Not Waterproof |
| Protective Ring | ASA+PC-FR (UL 94V-0) | |
| Power Requirements | 6.0 VDC | |
| Battery Type | (4) 1.5V Alkaline each, size AA to equal 6.0VDC nominal. ***ONLY use Alkaline Batteries | |

**\*Note: Current frequency settings are maintained in flash memory during battery replacement. No reprogramming of frequency settings is necessary!**

| Battery Life (Active Usage) | Up to 6 months |
|---|---|
| Battery Life (Sleep Mode) | Up to 1 Year |
| Transmit Frequency | 900MHz Spread Spectrum |
| RF Output Power | 250 mW |
| RF Networks | Eight Independent Frequencies |
| Transmit Range | Up to 2500 Feet |

Note: Max range figures are estimates, based on free-air terrain with limited sources of interference. Actual range will vary based on transmitting power, orientation of transmitter and receiver, height of transmitting antenna, height of receiving antenna, weather conditions, interference sources in the area, and terrain between receiver and transmitter, including, but not limited to, indoor and outdoor structures such as walls, metal objects, trees, buildings, hills, and mountains

| Operating Temperature | -40º F to +185º F |
|---|---|
| Approximate Weight | .6 lbs (with belt clip) |



Dimensions – 4.0" L x 4.0" W x .1.6" D
(note: Stop button and belt clip adds 1.15" to depth)

## CONTROLS & INDICATORS

| TX LED | LED illuminates "**RED**" continuously while button is depressed, and unit is transmitting. When this LED blinks briefly following a transmission, the battery needs to be replaced. See Note #1 |
|---|---|

**Note #1** – The low battery notification signals have been improved to provide more noticeable indications and to safely disable communications BEFORE a low battery condition can corrupt internal memory causing device failure. When a low battery is first detected, the TX LED will blink several times after all buttons are released. If it is possible to replace the batteries now, please do so. If not, the operator has approximately 15 more button activations. During this time, when a button is depressed and held, the TX LED will blink SLOWLY. The slow blinking will continue several more times after all buttons are released. Transmissions are still being sent to the receiver during this time. When a button is depressed and the TX LED is RAPIDLY blinking, the RF output is disabled, and NO signal will reach the receiver. The batteries MUST NOW BE REPLACED to resume normal functions.

| **Single Button Commands:** | |
|---|---|
| Stop Button | Transmits channel 1 code to the receiver |
| Keypad Buttons 1 thru 4 | Transmit channel 1 thru 4 codes to the receiver |
| **Dual Button Commands:** | |
| Keypad Buttons 3 & 4 | Change frequency (See FREQUENCY PROGRAMMING) |

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## FREQUENCY PROGRAMMING

***Please read through these instructions completely before beginning programming procedure!***

*At any time, you can check the current frequency setting by depressing Buttons 3 & 4 simultaneously, for approximately 5 seconds, until the TX LED is illuminated "**RED**". Then release the buttons and watch until the TX LED begins to blink. The TX LED will blink "**RED**" one, two, three or four times for Frequencies 1 thru 4, or will blink "**GREEN**" one, two, three or four times for Frequencies 5 thru 8 accordingly. See table below for clarification.*

| LED Flashes: | Indicates Unit is Operating On: |
|---|---|
| **RED – one time** | **Frequency 1** |
| **RED – two times** | **Frequency 2** |
| **RED – three times** | **Frequency 3** |
| **RED – four times** | **Frequency 4** |
| **GREEN – one time** | **Frequency 5** |
| **GREEN – two times** | **Frequency 6** |
| **GREEN – three times** | **Frequency 7** |
| **GREEN – four times** | **Frequency 8** |

*To change the setting, follow these steps:*

### To select from Frequencies 1 thru 4:

1. Depress Buttons 3 & 4 simultaneously until the TX LED is illuminated "**RED**". (Approximately 5 seconds)

2. Release Buttons 3 & 4, then while the TX LED is still illuminated "**RED**", depress button #1 to select "Frequency 1" or button #2 to select "Frequency 2" etc. If the transmit LED goes out before you have selected a network, no settings will have changed, ***and*** the LED will blink corresponding to the frequency that the TX is currently set to. You must then begin again at step 1 if you wish to change the current setting.

3. The TX LED will blink to confirm that your frequency selection has been accepted, and then will go out. For instance, if you have selected Frequency #1, the TX LED will blink "**RED**" *once* to confirm. If you have selected Frequency #4, the TX LED blinks "**RED**" *four times* to confirm.

### To select from Frequencies 5 thru 8:

1. Depress Buttons 3 & 4 simultaneously until the TX LED is illuminated "**GREEN**". (Approximately 7 seconds)

2. Release Buttons 3 & 4, then while the TX LED is still illuminated "**GREEN**", depress button #1 to select "Frequency 5" or button #2 to select "Frequency 6" etc. If the transmit LED goes out before you have selected a network, no settings will have changed, ***and*** the LED will blink corresponding to the frequency that the TX is currently set to. You must then begin again at step 1 if you wish to change the current setting.

3. The TX LED will blink to confirm that your frequency selection has been accepted, and then will go out. For instance, if you have selected Frequency #5, the TX LED will blink "**GREEN**" *once* to confirm. If you have selected Frequency #6, the TX LED blinks "**GREEN**" *two times* to confirm.

Programming is now complete, and the transmitter is active for normal operation.

You may repeat the above procedure if you wish to change the frequency at any time. See note* in SPECIFICATIONS.

## TRANSMITTING MODE SETUP

The transmitter can be set to be in a standard transmission mode or in a repeater mode where all receivers will repeat the transmission.

### To select transmission mode:

1. Remove one battery from the transmitter
2. Press and hold button 4 while inserting the battery
3. Continue holding button 4 for 10 seconds until the LED starts flashing **GREEN**/**RED** quickly.
4. Press button 1 for standard mode or button 2 for repeating mode.

At this point the LED will illuminate **RED** if standard mode was selected or **GREEN** if repeater mode was selected. If no button is pressed for 10 seconds, then the LED will illuminate to show the current transmission mode.

## NOTES ON TRANSMISSION MODE

The standard transmission mode is best for situations where quick button response is needed. This type of transmission is typically used when you'll be watching what you're controlling, so repeating is not necessary.

For repeating mode there is a short delay added to the button commands to allow the system to repeat between multiple receivers without collision. This type of system is usually something where many units spread out over a large area need to be controlled simultaneously and response speed isn't a priority.

Both types of transmission can be used simultaneously in the same system although repeating transmissions could cause some lag in the standard transmissions.

## APPROVALS

| United States (FCC) | MCQ-XB900HP |
|---|---|
| Canada (IC) | 1846A-XB900HP |

## LIMITED WARRANTY STATEMENT