AIR-EAGLE XLT

441-HH-2-VBR

900 MHz RF Transmitter

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Product Rev: 12

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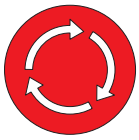
WARRANTY STATEMENT

BWI Eagle Inc. warrants the Air-Eagle Remote Control System, if properly used and installed, will be free from defects in material and workmanship for a period of **1 year** after date of purchase. Said warranty to include the repair or replacement of defective equipment. This warranty does not cover damage due to external causes, including accident, problems with electrical power, usage not in accordance with product instructions, misuse, neglect, alteration, repair, improper installation, or improper testing. This limited warranty, and any implied warranties that may exist under state law, apply only to the original purchaser of the equipment, and last only for as long as such purchaser continues to own the equipment. This warranty replaces all other warranties, express or implied including, but not limited to, the implied warranties or merchantability and fitness for a particular purpose. BWI Eagle makes no express warranties beyond those stated here. BWI disclaims without limitation, implied warranties of merchantability and fitness for a particular purpose. Some jurisdictions do not allow the exclusion of implied warranties so this limitation may not apply to you. To obtain warranty service, contact BWI Eagle for a return material authorization. When returning equipment to BWI Eagle, the customer assumes the risk of damage or loss during shipping and is responsible for the shipping costs incurred.

SIGNAL RANGE

Max range statements are estimates based on a clear line of sight with few interferences. Actual range will vary based on transmitting power, orientation of transmitter and receiver, height of transmitting and receiving antennas, weather conditions, electronic interference, terrain, and physical obstacles, including but not limited to; walls, building structures, trees (foliage), metal objects, and landscape (hills, mountains).



WIRELESS STOP, ASTOP, and E-STOP SYSTEMS

Wireless E-STOP systems should never be considered a primary life-saving device. At least one hard-wired switch must be available in the event the wireless system is not operational. Failure to comply may result in serious injury or death to personnel and damage to equipment.

Wireless STOP and ASTOP transmitters are not failsafe emergency stop controls. They are NOT to be used as a life-saving device. They are designed for wireless control of equipment or vehicle remote operation. Failure to use as intended may result in serious injury or death to personnel and damage to equipment.

SCAN ME

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INTRODUCTION

The Air-Eagle XLT TX is a handheld R.F. transmitter capable of sending up to two unique digital commands to an Air-Eagle XLT Receiver located up to 2500 feet away. This model is equipped with a vibrating feedback that confirms to the user that the transmitted signal has reached the receiver. 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 not in use to dramatically extend battery life.

INITIAL OPERATION SET-UP

This transmitter comes ready to operate with batteries installed. It is factory set to operate relays 1 & 2 on frequency 1, with repeater mode OFF. No setup is necessary unless you wish to change frequency, relay programming, or transmitting mode. (See FREQUENCY PROGRAMMING, RELAY PROGRAMMING, and TRANSMITTING MODE sections).

CONTROLS & INDICATORS

TX LED	LED illuminates RED when transmitting in standard mode or GREEN when in repeater mode. When this LED blinks briefly following a transmission, the battery needs to be replaced. *
Pushbuttons 1 & 2	Transmits individual button RF codes to the receiver.
Vibrate Alert	Vibration confirming that signal has been transmitted successfully.
*Note: 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 pressed 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 pressed 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.	

FREQUENCY PROGRAMMING

Read instructions completely before beginning programming procedure.

Transmitters are shipped from the factory set to Frequency 1 by default. The frequency can be changed at any time by following the procedure below. Once changed, it is recommended to label the transmitter with the selected frequency number.

*Note: Current frequency setting is maintained in flash memory during battery replacement. No reprogramming of frequency setting is necessary after battery change.

To Select Frequency:

1. Remove the battery cover from the back of the transmitter.

2. Remove only one of the batteries from the holder. Note polarity so it is re-inserted properly in the following steps.

3. Press and hold Button 1 on the transmitter. While holding button down, re-insert the battery into the holder.

4. Keep Button 1 pressed with battery in holder for 5 seconds until the TX LED turns RED.

5. Release Button 1 and the TX LED will begin to blink. The TX LED will blink RED four times, then GREEN four times.

6. To set the frequency, momentarily press Button 1 immediately after the TX LED has blinked the number of times for the desired frequency. See chart below. For example, to set frequency 6, release Button 1 and watch as the TX LED blinks RED four times, then GREEN twice, then quickly press the Button 1 to set the TX to frequency 6.

To Set Transmitter to:	Press Button 1 Immediately After:
Frequency 1	The 1st **RED** flash
Frequency 2	The 2nd **RED** flash
Frequency 3	The 3rd **RED** flash
Frequency 4	The 4th **RED** flash
Frequency 5	The 1st **GREEN** flash
Frequency 6	The 2nd **GREEN** flash
Frequency 7	The 3rd **GREEN** flash
Frequency 8	The 4th **GREEN** flash

7. After frequency is set, the TX LED will confirm your selection by blinking the numbers of times for the frequency that was set. For example, it will blink 6 times to indicate Frequency 6 has been selected. If the confirmation shows the incorrect frequency, simply restart the programming from Step 1.

8. Once the proper selection has been confirmed, replace battery cover tightly.

*Note: If you fail to select a frequency during the programming procedure the transmitter will blink the frequency currently set in the transmitter as shown in the chart above. This can be used to view the transmitter's frequency without changing it.

Programming is now complete. Repeat the above procedure to change the frequency at any time.

RELAY PROGRAMMING

Read instructions completely before beginning programming procedure.

Transmitters are shipped from the factory set to operate relays 1 and 2 in the remote receiver by default. The relays to be operated can be changed at any time by following the procedure below. Once changed, it is recommended to label the transmitter with the selected relay numbers.

*Note: Current relay setting is maintained in flash memory during battery replacement. No reprogramming of relay setting is necessary after battery change.

Relay settings may be programmed two different ways: Sequential or Individual.

Sequentially set buttons operate two sequential relays: e.g., 1 and 2, 5 and 6, 12 and 13, etc.

Individually set buttons operate two non-sequential relays: e.g., 1 and 4, 6 and 9, 1 and 15, etc.

To Select Sequential Relay Settings:

1. Remove the battery cover from the back of the transmitter.
2. Remove only one of the batteries from the holder. Note polarity so it is re-inserted properly in the following steps.
3. Press and hold Button 1 on the transmitter. While holding the button down, re-insert the battery into the holder.
4. Keep Button 1 pressed with battery in holder for 8 seconds until the TX LED turns GREEN (after briefly turning RED).
5. Release Button 1, then quickly press it the number of times equal to the desired relay setting. For example, press it 4 times to select Relays 4 and 5. See chart below.

Relay Setting	Transmitter is Operating Receiver Relays:
1	Relay 1 and Relay 2
2	Relay 2 and Relay 3
3	Relay 3 and Relay 4
4	Relay 4 and Relay 5
5	Relay 5 and Relay 6
6	Relay 6 and Relay 7
7	Relay 7 and Relay 8
8	Relay 8 and Relay 9

Relay Setting	Transmitter is Operating Receiver Relays:
9	Relay 9 and Relay 10
10	Relay 10 and Relay 11
11	Relay 11 and Relay 12
12	Relay 12 and Relay 13
13	Relay 13 and Relay 14
14	Relay 14 and Relay 15
15	Relay 15 and Relay 16
16	Relay 16 and Relay 16 *

6 The TX LED will turn red (waiting for Button 2 input). Press Button 1 once again to specify that Button 2 is to be sequential and to end the programming. The TX LED will then blink GREEN a number of times confirming the new relay setting. See chart above. If the confirmation shows the incorrect relay setting, simply restart the programming from Step 1.

*Note: If Relay 16 is selected during Sequential programming, both buttons will operate Relay 16.

(continued)

RELAY PROGRAMMING (continued)

To Select Individual (Non-Sequential) Relay Settings:

1. Remove the battery cover from the back of the transmitter.

2. Remove only one of the batteries from the holder. Note polarity so it is re-inserted properly in the following steps.

3. Press and hold Button 1 on the transmitter. While holding the button down, re-insert the battery into the holder.

4. Keep Button 1 pressed with battery in holder for 8 seconds until the TX LED turns GREEN (after briefly turning RED).

5. Release Button 1, then quickly press it the number of times equal to the desired relay setting for that button. For example, press it 4 times to select Relay 4.

6. When the TX LED turns RED, then quickly press Button 2 the number of times equal to the desired relay setting for that button. For example, press it 8 times to select Relay 8.

7. The TX LED will confirm the new relay settings by blinking GREEN a number of times to signal the Button 1 relay setting, followed by blinking RED a number of times to signal the Button 2 relay setting. For example, 4 green blinks followed by 8 red blinks confirms Button 1 is set to relay 4 and Button 2 is set to relay 8.

Programming is now complete. Repeat the above procedure to change the relay setting at any time.

To View Currently Selected Relay Settings:

Selected relays can be checked at any time without changing the settings.

1. Remove the battery cover from the back of the transmitter.

2. Remove only one of the batteries from the holder. Note polarity so it is re-inserted properly in the following steps.

3. Press and hold Button 1 on the transmitter. While holding the button down, re-insert the battery into the holder.

4. Keep Button 1 pressed with battery in holder for 8 seconds until the TX LED turns GREEN (after briefly turning RED).

5. Release Button 1 and wait while the TX LED stays GREEN for approximately 8 seconds, then goes out. It will then begin to blink.

6. The TX LED will blink GREEN a number of times indicating the current relay setting for Button 1. For example, it will blink 4 times to indicate Relay 4. If the relays are sequential, it will stop here. It can be assumed that Button 2 is set to the next sequential relay. If the relays are not sequential, the TX LED will blink RED a number of times indicating the current relay setting for Button 2.

TRANSMITTING MODE

Read instructions completely before beginning programming procedure.

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

*Note: When setting up the Transmitting Mode, the TX LED will cycle through all other set up options (Frequency, Relay) before it gets to the transmitting mode setting. This is why you need to hold the button for 11 seconds until the TX LED starts blinking GREEN/RED quickly.

To Select Transmitting Mode:

1. Remove the battery cover from the back of the transmitter.
2. Remove only one of the batteries from the holder. Note polarity so it is re-inserted properly in the following steps.
3. Press and hold Button 1 on the transmitter. While holding button down, re-insert the battery into the holder.
4. Keep Button 1 pressed with battery in holder for 11 seconds until the TX LED starts blinking GREEN/RED quickly.
5. Release Button 1, then press once for standard mode or twice for repeating mode.
6. TX LED will turn RED if standard mode was selected or GREEN if repeater mode was selected.
7. If no button is pressed for 10 seconds, the TX LED will Illuminate to the current transmitting mode.

Once the transmitting mode has been selected, the TX LED will illuminate RED (standard mode) or GREEN (repeater mode) during all future transmissions.

Programming is now complete. Repeat the above procedure to change the transmitting mode at any time.

Notes On Transmitting Mode:

The standard transmitting mode is preferred when quick button response is needed. This type of transmission is typically used when the machinery being controlled is in view of the operator where signal repeating is not necessary.

Repeating mode has a short delay added to the button commands to allow the signal to repeat between multiple receivers without collision. This type of transmission is typically used when multiple receiving units are spread over a large area and are being controlled simultaneously. Immediate response time is not a priority.

Both types of transmissions can be used simultaneously in a system with multiple transmitters, although repeating transmissions could cause some lag in the standard transmissions.

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SPECIFICATIONS

Keypad	Durable Sealed Membrane Keypad – Eliminates Dust, Dirt and Moisture Failures	
Enclosure	ABS UL94 HB	Enclosure with ring is rated IP54 (Not Waterproof)
Protective Ring	SEBS (TPE)	
Power Requirements	3.0 VDC	
Battery Type	(2) 1.5V lithium each, size AAA, to equal 3.0VDC nominal. For best performance use only Energizer Brand Lithium Batteries. *	
Battery Life (Active Usage)	Up to 6 months	
Battery Life (Sleep Mode)	Up to 1 Year	
Transmit Frequency	900MHz Spread Spectrum	
RF Networks	Eight Independent Network Frequencies	
RF Output Power	250 mW	
Max Transmit Range	Up to 2500 Feet	
Operating Temperature	-40º F to +185º F	
Weight	Approx 0.22 lbs. (w/belt clip)	
*Note: Current frequency setting is maintained in flash memory during battery replacement. No reprogramming of frequency setting is necessary.		
**Note: Max range statements are estimates based on a clear line of sight with few interferences. Actual range will vary based on transmitting power, orientation of transmitter and receiver, height of transmitting and receiving antennas, weather conditions, electronic interference, terrain, and physical obstacles, including but not limited to; walls, building structures, trees (foliage), metal objects, and landscape (hills, mountains).		

APPROVALS

United States (FCC)	MCQ-XB900HP
Canada (IC)	1846A-XB900HP
Australia	RCM
Brazil	ANATEL 3727-12-1209

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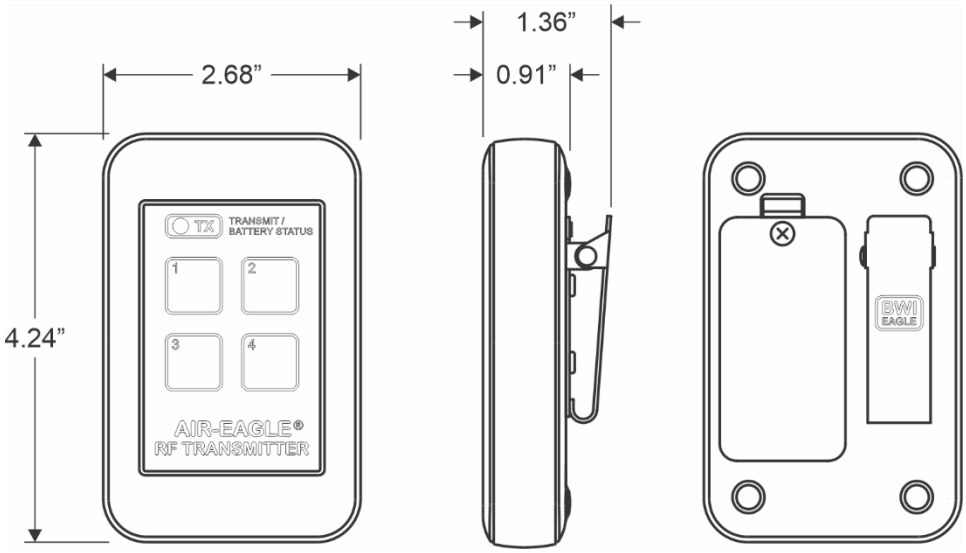
DIMENSIONS