

# AIR-EAGLE SR PLUS

## 36-HH-1

### 2.4 GHz RF Transmitter



Document Date: 6/21/2021  
Product Rev: 12



# 36-HH-1

## 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 SYSTEMS WORK IN CONJUNCTION WITH HARD-WIRED SYSTEMS.

Wireless Stop and E-Stop devices must work in conjunction with a hard-wired system. A wireless system should never be considered a primary life-saving device. At least one hard-wired switch must be available in the event the wireless signal is lost. Failure to comply may result in serious injury or death to personnel and damage to equipment.

# 36-HH-1



Dimensions – 4.25” L x 2.68” W x .91” D  
(note: belt clip adds .43” to depth)

## INTRODUCTION

The Air-Eagle SR PLUS TX is a handheld R.F. transmitter capable of sending a single digital command to an Air-Eagle SR Receiver located up to 600 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 not in use to dramatically extend battery life.

## INITIAL OPERATION SET-UP

This transmitter comes factory set to frequency 1, to operate relay 1 and transmitting at power level 4 (max range of 600 feet). If you wish to change the default settings, follow the instructions for FREQUENCY PROGRAMMING, RELAY PROGRAMMING, AND POWER LEVEL PROGRAMMING

## CONTROLS & INDICATORS

TX LED	LED illuminates “ <b>RED</b> ” continuously while button is depressed and unit is transmitting. When this LED blinks briefly following a transmission, the battery needs to be replaced. <b>See Note #1</b>
<p><b>Note #1</b> – 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.</p>	
Pushbutton	Transmits an individual RF code to the receiver

# 36-HH-1

## FREQUENCY PROGRAMMING

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

All transmitters are set to Frequency 1 by default. The frequency can be changed at any time by following the procedure below. Once changed, we recommend labeling the transmitter with the selected frequency number. Frequency settings will not be changed during normal battery replacement.

The TX LED guides you through the programming procedure. To change the setting, follow these steps:

### **To select from Frequencies 1 thru 8:**

1. Remove the battery cover from the back of the transmitter
2. Remove ONE of the batteries from the holder (be sure to note polarity so it is re-inserted properly in the following steps)
3. Using one hand, depress and hold down Button 1 on the transmitter. While holding button down, re-insert the battery into the holder.
4. With Button 1 still depressed and battery in holder, keep the button pressed for 5 seconds until the LED turns **RED**.
5. Release Button 1 and the TX LED will begin to blink. As shown in chart below, the TX LED will blink **RED** for frequencies 1 thru 4 and will blink **GREEN** for frequencies 5 thru 8.
6. To set the frequency, you must momentarily press Button 1 immediately after the LED has blinked the number of times for the desired frequency. ***For example, to set to frequency 6, you release Button 1 and watch as the LED blinks RED four times, then GREEN twice, THEN quickly press the button to set the TX to frequency 6.***

Press Button Immediately After:	To Set Unit To:
The First RED Flash	Frequency 1
The Second RED Flash	Frequency 2
The Third RED Flash	Frequency 3
The Fourth RED Flash	Frequency 4
The First GREEN Flash	Frequency 5
The Second GREEN Flash	Frequency 6
The Third GREEN Flash	Frequency 7
The Fourth GREEN Flash	Frequency 8

7. Once you have momentarily pressed the button to set the frequency, the TX LED will confirm your selection by blinking the numbers of times for the frequency that was set. (Note, if the confirmation shows the incorrect frequency, simply restart the programming from Step 1.
8. Once the proper selection has been confirmed, programming is complete. 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, and the transmitter is active for normal operation.

You may repeat the above procedure if you wish to change the frequency at any time.

## 36-HH-1

### RELAY PROGRAMMING

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

All transmitters are set to operate Relay 1 in the remote receiver by default. The relay to be operated can be changed at any time by following the procedure below. Once changed, we recommend labeling the transmitter with the selected relay number. If unsure of which relay the transmitter is set to operate, follow steps 1 thru 6 below. Relay settings will not be changed during normal battery replacement.

#### To view which Relay unit is set to operate:

1. Remove the battery cover from the back of the transmitter.
2. Remove ONE of the batteries from the holder (be sure to note polarity so it is re-inserted properly in the following steps).
3. Using one hand, depress and hold down Button 1 on the transmitter. While holding button down, re-insert the battery into the holder.
4. With Button 1 still depressed and battery in holder, keep the button pressed for 5 seconds until the LED turns **RED**.
5. Keep holding Button 1 in until the LED turns **GREEN**. (about 3 more seconds).
6. Release button and wait while the LED stays GREEN for about 8 seconds, goes out, then begins to blink. The LED will then blink **GREEN** the number of times equal to the relay number it is set to operate.

#### To select the Relay you wish to operate:

1. Remove the battery cover from the back of the transmitter.
2. Remove ONE of the batteries from the holder (be sure to note polarity so it is re-inserted properly in the following steps).
3. Using one hand, depress and hold down Button 1 on the transmitter. While holding button down, re-insert the battery into the holder.
4. With Button 1 still depressed and battery in holder, keep the button pressed for 5 seconds until the LED turns **RED**.
5. Keep holding Button 1 in until the LED turns **GREEN**. (about 3 more seconds).
6. Release button and quickly press the number of times equal to the relay number you wish to operate.
7. Once you stop pressing for three seconds, the LED will blink back **GREEN** the number of times of the relay it's now controlling to confirm your selection.
8. If you didn't make the proper relay selection, you must repeat the procedure beginning at Step 3.

You may repeat the above procedure anytime you wish to change which relay the transmitter is to operate.

# 36-HH-1

## POWER LEVEL PROGRAMMING

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

All transmitters are set to Power Level 4 (max range 600 ft) default. The power level can be changed at any time by following the procedure below. Power level settings will not be changed during normal battery replacement.

The TX LED guides you through the programming procedure. To change the setting, follow these steps:

### **To view the power level:**

1. Remove the battery cover from the back of the transmitter
2. Remove ONE of the batteries from the holder (be sure to note polarity so it is re-inserted properly in the following steps)
3. Using one hand, depress and hold down Button 1 on the transmitter. While holding button down, re-insert the battery into the holder.
4. With Button 1 still depressed and battery in holder, keep the button pressed for 5 seconds until the LED turns **RED**.
5. Keep holding Button 1 in until the LED turns **GREEN** (about 2 more seconds).
6. Keep holding Button 1 until the LED starts **BLINKING GREEN** (about 2 more seconds)
7. Release button and wait while LED continues **BLINKING GREEN** for about 8 seconds, then stops, then blinks again. It will blink the number of times equal to the power level setting.

LED Flashes:	Indicates Unit is Set To:
<b>GREEN – one time</b>	<b>Power Level 1 – Approx 100 Ft Range</b>
<b>GREEN – two times</b>	<b>Power Level 2 – Approx 250 Ft Range</b>
<b>GREEN – three times</b>	<b>Power Level 3 – Approx 400 Ft Range</b>
<b>GREEN – four times</b>	<b>Power Level 4 – Approx 600 Ft Range</b>

### **To select the power level:**

1. Remove the battery cover from the back of the transmitter
2. Remove ONE of the batteries from the holder (be sure to note polarity so it is re-inserted properly in the following steps)
3. Using one hand, depress and hold down Button 1 on the transmitter. While holding button down, re-insert the battery into the holder.
4. With Button 1 still depressed and battery in holder, keep the button pressed for 5 seconds until the LED turns **RED**.
5. Keep holding Button 1 in until the LED turns **GREEN** (about 2 more seconds).
6. Keep holding Button 1 until the LED starts **BLINKING GREEN** (about 2 more seconds).
7. Release button and quickly press the number of times equal to the power level desired.
8. Once you stop pressing for three seconds, the LED will blink back **GREEN** the number of times of the power level to confirm your selection.
9. If you didn't make the proper power level selection, you must repeat the procedure beginning at Step 3.

You may repeat the above procedure anytime you wish to change the power level of the transmitter.

## 36-HH-1

### APPROVALS

United States (FCC)	MCQ-XBEE3
Canada (IC)	1846A-XBEE3
Europe (CE)	ETSI
Australia	RCM
Brazil	ANATEL 06329-18-01209

### SPECIFICATIONS

<b>Keypad</b>	Durable Sealed Membrane Keypad – Eliminates Dust, Dirt and Moisture Failures	
<b>Enclosure</b>	ABS UL94 HB	Enclosure with ring is rated IP54 *Not Waterproof
<b>Protective Ring</b>	SEBS (TPE)	
<b>Power Requirements</b>	3.0 VDC	
<b>Battery Type</b>	(2) 1.5V lithium each, size AAA, to equal 3.0VDC nominal. ***For best performance use ONLY Energizer Brand Lithium Batteries	
<b>*Note: Current frequency settings are maintained in flash memory during battery replacement. No reprogramming of frequency settings is necessary!</b>		
<b>Battery Life(Active Usage)</b>	Up to 6 months	
<b>Battery Life(Sleep Mode)</b>	Up to 1 Year	
<b>Transmit Frequency</b>	2.4GHz Spread Spectrum	
<b>RF Networks</b>	Eight Independent Network Frequencies	
<b>RF Output Power</b>	User Selectable from 1mW - 60 mW	
<b>Max Transmit Range</b>	User-Selectable from 100 - 600 Feet	
<b>Note: 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.</b>		
<b>Operating Temperature</b>	-40° F to +185° F	
<b>Weight</b>	Approx .22 lbs. (w/belt clip)	