

105 Bonnie Drive Butler, PA 16002 724-283-4681 724-283-5939 (fax) www.bwieagle.com

## PRODUCT INFORMATION BULLETIN

# AIR-EAGLE® SR PLUS 2.4 GHz Permissible RF Transmitter MODEL 36-1200-1B-BAT-MSHA

MSHA APPROVAL NO: 18-A080003-0

#### **DESCRIPTION**

The AIR-EAGLE SR PLUS, MODEL 36-1200-1B-BAT-MSHA, is an MSHA approved R.F. transmitter designed to send a "STOP" command to Relay #1 and a "RUN" command to Reset Relay #1 in the Air-Eagle SR Receiver, Model 38-2190, from up to 600 feet away. This unit is user-programmable for up to 128 digital addresses and eight network frequencies to allow multiple transmitters and receivers to operate simultaneously in the same area without interference.

#### **INSTALLATION**

- Mount the AIR-EAGLE SR PLUS TRANSMITTER in a convenient location where the operator will have easy access to the stop button.
- 2. Remove top cover and install the 2 Duracell AA Alkaline batteries that were provided. Replace top cover.

#### **DIGITAL ADDRESS & FREQUENCY SET-UP**

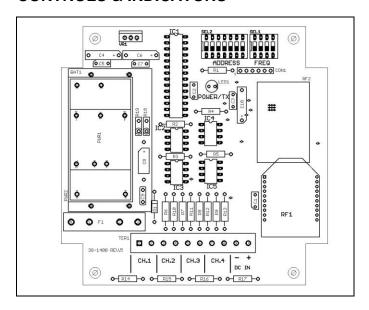
This transmitter is factory programmed to Frequency #1 and Digital Address "0". These settings can be changed by the user in any combination but must match the receiver that is set up to communicate with this transmitter. If using this transmitter with a 4-relay receiver, the digital address must be kept at the default of Digital Address "0".

- 1) Remove power from unit
- 2) Remove top cover.
- Select desired address and/or network frequency using table below.
- 4) Reattach cover and apply power.
- 5) Programming is now complete.

SEL1 (ADDRESS)	Seven dip switches for selecting digital address of this transmitter (Maximum of 128 combinations)			
	Network Frequency	SW1	SW2	SW3
SEL 2 (SW 1-3):	1	OPEN	OPEN	OPEN
	2	CLOSED	OPEN	OPEN
(NETWORK FREQUENCY)	3	OPEN	CLOSED	OPEN
	4	CLOSED	CLOSED	OPEN
	5	OPEN	OPEN	CLOSED
	6	CLOSED	OPEN	CLOSED
	7	OPEN	CLOSED	CLOSED
	8	CLOSED	CLOSED	CLOSED
SEL2 (SW4)	Reserved for future use			



#### **CONTROLS & INDICATORS**



TX LED	Illuminates continuously while any button is depressed, and unit is transmitting. When this LED blinks briefly following a transmission, the battery needs to be replaced.
STOP (Large red) Pushbutton	Transmits a "STOP" code to de-energize Relay #1 in the receiver
RUN (Green) Pushbutton	Transmits a "RUN" code to reset Relay #1 in the receiver

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#### **SPECIFICATIONS**

Power Requirements	3.0 VDC		
Battery Type	(2) Duracell "AA", PC1500, 1.5 volt alkaline to equal 3.0VDC nominal.  NOTE – Only ALKALINE batteries can be used in this unit!		
Battery Life			
(Active Usage)	Approximately 3 months		
Battery Life (Idle)	Up to 1 Year		
Dry Contact Input #1	Pre-wired to "STOP" pushbutton		
Dry Contact Input #3	Pre-wired to "RUN" pushbutton		
Enclosure	Polycarbonate, NEMA 4		
Transmit Frequency	2.4GHz Spread Spectrum		
Transmitter Channels	8 Independent Network Frequencies		
Antenna Connection	TNC Female		
RF Output Power	60 mW		
Transmit Range	Up to 600 Feet		
Note: Max range figures are estimates, based on free-air terrain with limited sources of			

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 -40° F to +185° F

#### **ACCESSORIES**

Standard Antenna (Included):				
2.4GHz TNC "Rubber Duck" Antenna	49-1201			
Mobile/Base Antennas – Used to help achieve max range in both non line of sight and line of sight applications Contact BWI Eagle for recommendations				
2.4GHz Thru-Hole Mount Mobile Antenna	49-2201			
2.4GHz Magnet Mount Mobile Antenna	49-2202			
2.4GHz Omni Directional Base Antenna	49-3201			
2.4GHz Yagi Directional Base Antenna	49-3202			
High Quality Coax Cables – Used to connect external high gain antennas to control unit				
Flex Coax Cable w/Connectors – Available in 5',15',25',30',40',60',80',100' Lengths  Bulkhead Extensions –	49-4000-XX (XX = # of Feet)			
Used to provide an external antenna connection when mounting control unit inside another enclosure				
TNC Male to TNC Bulkhead Cable Assembly - Available in 2', 4', 7' Lengths	49-5004-X-ISO (X = # of Feet)			

#### **APPROVALS**

United States (FCC)	MCQ-XBEE3
Canada (IC)	1846A-XBEE3
Europe (CE)	ETSI
MSHA	18-A080003-0

#### LIMITED 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.

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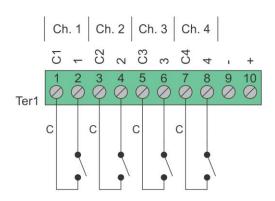


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## DRY CONTACT INPUT WIRING 4-Input Transmitter

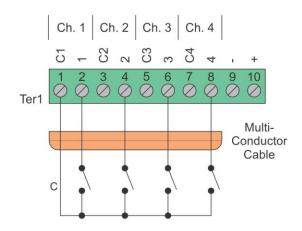
### Standard wiring of a dry contact input transmitter

Shorting together the contacts of the respective channel will cause it to transmit. This can be done with any type of manual or automatic switch.



### Standard Wiring for Common Ground Applications

Because each channel shares a common (C) terminal, inputs can be wired as shown to allow for fewer conductors to be run to the transmitter.



#### **SPDT Switches**

The common (C) terminal of the switch only needs to be connected to one of the channels ground terminal. In this configuration two channels would be transmitting all the time. A switch with a center "off" position would allow transmitting to stop.

In this example channels 2 and 4 are transmitting.

Wiring configurations shown here are examples. The wiring for your application may differ.

Call BWI Eagle for assistance or consult an electrician.