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PRODUCT INFORMATION BULLETIN

AIR-EAGLE® SR PLUS 2.4 GHz RF Transmitter MODEL 36-1400-DC

DESCRIPTION

The AIR-EAGLE SR PLUS, MODEL 36-1400-DC is an R.F. transmitter capable of sending up to four dry contact input commands to an Air-Eagle SR 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 electrical apparatus with safe, convenient locations of up to 600 feet away. This unit is user-programmable for up to 16 digital addresses and eight network frequencies to allow multiple systems to operate simultaneously in the same area without interference.

APPROVALS

United States (FCC)	OUR-XBEEPRO
Canada (IC)	4214A-XBEEPRO
Europe (CE)	ETSI

INSTALLATION

1. Mount the AIR-EAGLE SR PLUS TRANSMITTER in a convenient location.
2. Install wiring to contact input terminal strip (Note – the terminal block header lifts up off the base for easy wiring)
3. Attach supplied antenna to connector on right side of unit.
4. Connect DC power to the proper terminals in your control circuit.

TERMINAL STRIP WIRING

Wire as shown based on number of contact inputs									
1	2	3	4	5	6	7	8	9	10
C Input 1	Input 1	C Input 2	Input 2	C Input 3	Input 3	C Input 4	Input 4	(-) 9-36VDC input	(+) 9-36VDC input

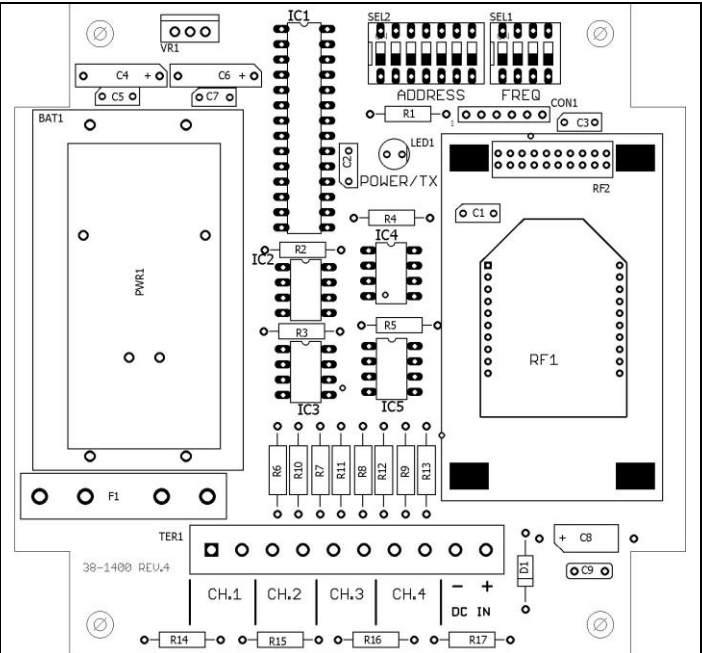
GENERAL OPERATION

A closure on any input transmits its channel command to activate the corresponding relay in the remote receiver. The transmission continues as long as the input is closed and ceases when the input opens.



Dimensions (with mounting plate) 6.3" L x 4.8" W x 2.3" H

CONTROLS & INDICATORS



TX LED	Illuminates green when power is applied. Changes to red while any contact input is closed and unit is transmitting.
Dry Contact Inputs	Transmits individual RF codes to the receiver
SEL2	Dip switch bank for digital address selection
SEL1	Dip switch bank for frequency selection

AIR-EAGLE® SR PLUS

2.4 GHz RF Transmitter

MODEL 36-1400-DC

DIGITAL ADDRESS & FREQUENCY SET-UP

This transmitter is factory programmed to Digital Address "1" and Frequency "1". 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. Note – only change digital address if using with a digitally addressable receiver. Otherwise, the digital address must be kept at the default of Digital Address "1".**

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

DIGITAL ADDRESS SET-UP

SEL2 (SW1 – 4)

	Digital Address	SW1	SW2	SW3	SW4
SEL2 (SW1-4)	1 (default)	OPEN	OPEN	OPEN	OPEN
	2	CLOSED	OPEN	OPEN	OPEN
	3	OPEN	CLOSED	OPEN	OPEN
	4	CLOSED	CLOSED	OPEN	OPEN
	5	OPEN	OPEN	CLOSED	OPEN
	6	CLOSED	OPEN	CLOSED	OPEN
	7	OPEN	CLOSED	CLOSED	OPEN
	8	CLOSED	CLOSED	CLOSED	OPEN
	9	OPEN	OPEN	OPEN	CLOSED
	10	CLOSED	OPEN	OPEN	CLOSED
	11	OPEN	CLOSED	OPEN	CLOSED
	12	CLOSED	CLOSED	OPEN	CLOSED
	13	OPEN	OPEN	CLOSED	CLOSED
	14	CLOSED	OPEN	CLOSED	CLOSED
	15	OPEN	CLOSED	CLOSED	CLOSED
	16	CLOSED	CLOSED	CLOSED	CLOSED

SEL2 (SW5-7) – Leave in OPEN position!!

FREQUENCY SET-UP

SEL1 (SW1-3)

	Network Frequency	SW1	SW2	SW3
SEL1 (SW1-3)	1 (default)	OPEN	OPEN	OPEN
	2	CLOSED	OPEN	OPEN
	3	OPEN	CLOSED	OPEN
	4	CLOSED	CLOSED	OPEN
	5	OPEN	OPEN	CLOSED
	6	CLOSED	OPEN	CLOSED
	7	OPEN	CLOSED	CLOSED
	8	CLOSED	CLOSED	CLOSED

SEL1 (SW4) – Not used on this model

SPECIFICATIONS

DC Input	9 - 36 VDC @ 10 Watts
Transmit Frequency	2.4GHz Spread Spectrum
Transmit Data	Dry Contact Input
Transmitter Coding	16 Digital Addresses
Frequency Channels	8 Independent Network Frequencies
Antenna Connection	TNC Female
RF Output Power	60 mW
Transmit Range	Approximately 600 Feet
Enclosure	Polycarbonate, IP66 (NEMA 4)
Operating Temperature	-40° F to +185° F

REPLACEMENT PARTS & ACCESSORIES

PC Board (Main)	36-1402-DC
Standard Antenna (Included):	
2.4GHz TNC Portable Antenna (For distances up to 600 feet*)	49-1201
Optional Antennas and Accessories – Used to increase 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 Magnetic Mount Mobile Antenna	49-2202
2.4GHz Omni Directional Antenna	49-3201
2.4GHz 13dB Yagi Antenna	49-3202
Flex Coax Cable w/Connectors – Connects external antenna(s) to base unit(s).	49-4000-XX (XX = # of Feet)
* = Line of Sight	

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.

DOCUMENT REV. DATE: 1/17/19 / PRODUCT REV.5



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Dry Contact Input Wiring - (Four Input Model Shown)

Figure 1 shows 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.

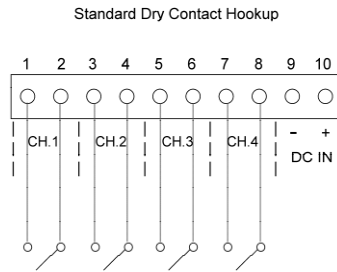


Figure 1

Figure 2 shows how the circuit board is laid out. The odd numbered terminals are all at DC Ground potential. **NOTE:** On 8 channel transmitters, channels 5 through 8 are configured the same way.

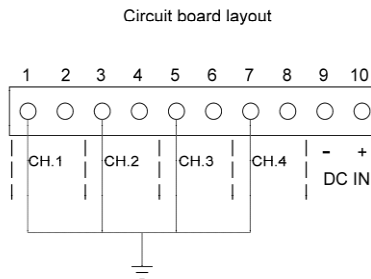


Figure 2

Because each channel shares a common terminal, you can wire the inputs as in Figure 3, allowing for fewer conductors to have to be run to the transmitter

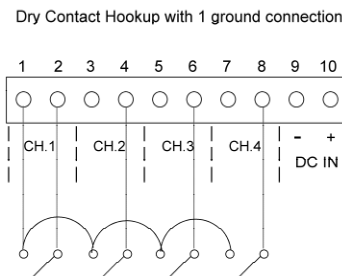


Figure 3

Figure 4 shows 2 SPDT switches wired to all 4 channels. Note that the common terminal of the switch only needs to be connected to one of the channels ground terminals. In this configuration you would be transmitting 2 channels all the time. A switch with a center "off" position would allow you to quit transmitting.

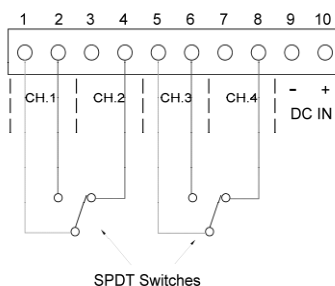


Figure 4