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PRODUCT INFORMATION BULLETIN

AIR-EAGLE® SR PLUS
2.4 GHz RF Transmitter
MODEL 36-10100-DC

DESCRIPTION

The AIR-EAGLE SR PLUS TX IS an R.F. transmitter capable of sending a single dry-contact input 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 electrical apparatus from safe, convenient locations. Eight user-selectable frequencies 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

DISCONNECT DC Power from all equipment before installation.

1. Mount the AIR-EAGLE SR TRANSMITTER in a convenient location.
2. Install wiring to contact input terminal strip
3. Install antenna. The unit has an antenna connector located on the right side on the enclosure. Attach the supplied portable antenna to this connector.
4. Connect DC power to the proper terminals in your control circuit.

TERMINAL STRIP WIRING

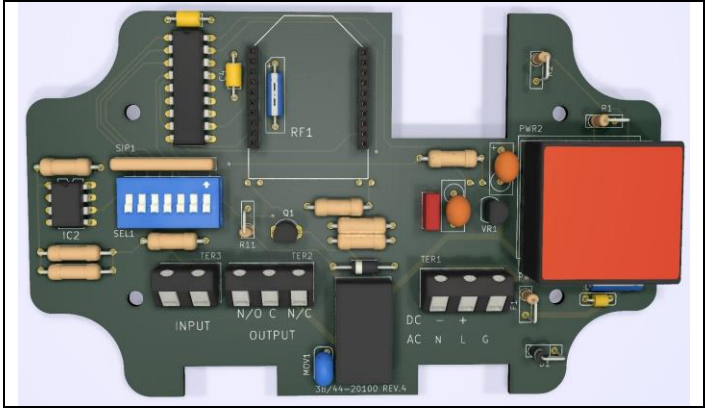
TER 3 DRY CONTACT INPUT		TER 2 RELAY OUTPUT		TER 1 AC/DC POWER INPUT	
1	Input 1 C	1	Not Used	1	(-) 9-36VDC
2	Input 1	2	Not Used	2	(+) 9-36VDC
		3	Not Used	3	Not Used

GENERAL OPERATION

A contact closure on the input transmits to energize relay 1 (or another relay as selected by the channel code transmitted) in any receiver within transmit range. The signal transmits continuously as long as the input is closed.

Dimensions (with mounting plate) 7.07L x 3.57W x 1.62H

CONTROLS AND INDICATORS



Power – LED1	Illuminates green when unit is powered
TX – LED2	Illuminates red when unit is transmitting
Relay – LED3	Not used on this model
RF1	RF module that sends data to the remote receiver
SEL1	Seven dip switches for selecting options and network frequency
TER3	Dry contact input
TER2	Relay output
TER1	Power Input

AIR-EAGLE® SR PLUS

2.4 GHz RF Transmitter

MODEL 36-10100-DC

CHANNEL CODE & FREQUENCY SET-UP

The unit is shipped from the factory with all SEL1 switches in the open positions. By default it is transmitting Channel #1 code and operating on Frequency #1. If you wish to transmit a different channel code or and/or change the frequency, follow the instructions on the table below.

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

CHANNEL SELECTION SET-UP

SEL1 (SW1-4)

Channel Code To Be Transmitted	SW1	SW2	SW3	SW4
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

FREQUENCY SET-UP

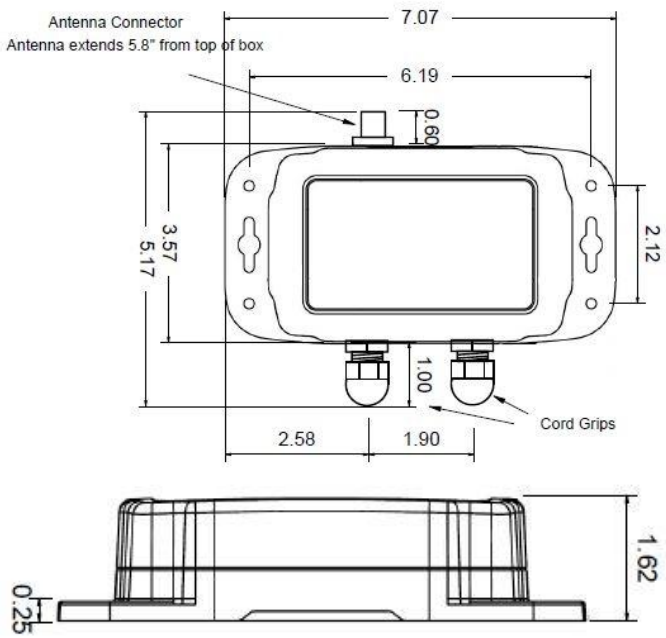
SEL1 (SW5-7)

Network Frequency	SW5	SW6	SW7
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

SPECIFICATIONS

DC Input	9 – 36 VDC, 5 W
Transmitter Frequency	2.4 GHz Spread Spectrum
RF Output Power	60 mW
Transmit Range	Approximately 600 Feet
Transmitter Frequencies	8 Independent Network Frequencies
Antenna Connection	TNC Female Connector
Operating Temperature	-40° F to +185° F
Enclosure	Polycarbonate NEMA 4, 12, 13 – IP66
Weight	Approx 2 lbs.

DIMENSIONS



REPLACEMENT PARTS & ACCESSORIES

PC Board (Main)	36-10102-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)
2 Ft. Bulkhead Assembly (Used when mounting receive inside another enclosure)	49-5004-2-ISO
* = 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 DATE: 04/24/19 / PRODUCT REV. 4

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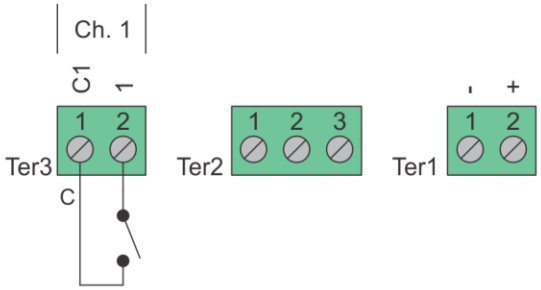
INPUT/OUTPUT WIRING
1-Input Transmitter / 1-Relay Receiver

Dry Contact Input Wiring - Standard

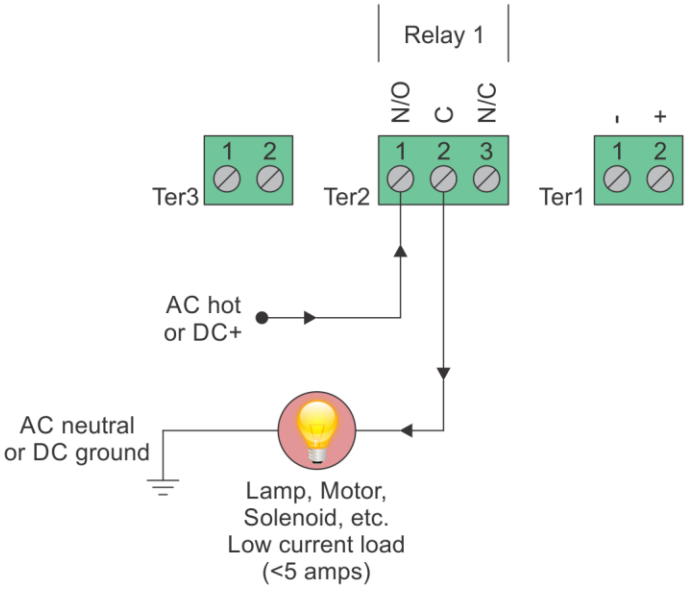
Standard wiring of a dry contact input transmitter
Shorting together the contacts of the respective channel will cause it to transmit. This can be done with any type of manual or automatic switch.



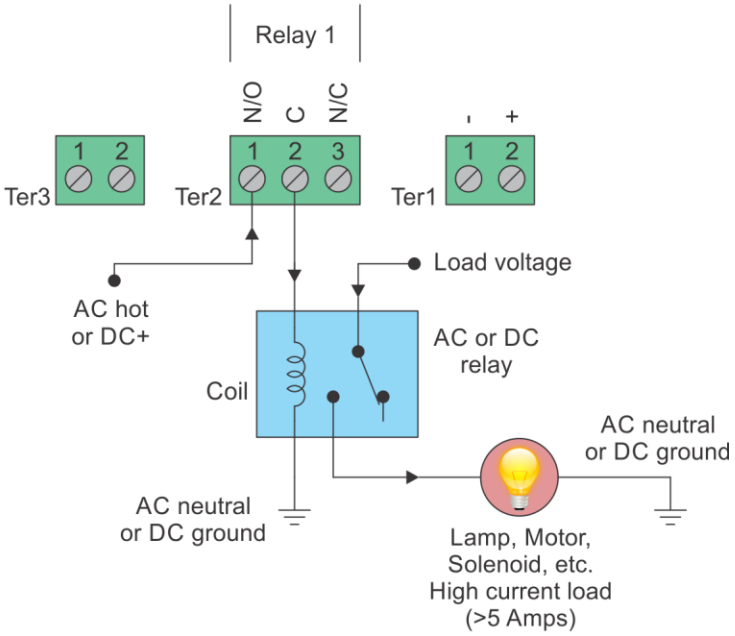
Relay Output Wiring

Receiver outputs are dry relay contacts, like an SPDT switch. When the relay is in a de-energized state, the N/C (normally closed) contact is connected to C (common). When the relay is energized the N/O (normally open) contact is connected to C (common).

Relay Output Wiring - Normally Open Application with Externally Supplied Voltage



Internal Relay - Loads Less Than 5 Amps
Loads up to 5 Amps may be wired directly to the internal relays. Wiring to the N/O contact will cause the load to turn on when the relay is energized (the load is on when the relay is on). Wiring to the N/C contact will cause the load to turn on when the relay is de-energized (the load is on when the relay is off). AC or DC voltages can be switched through the relay.



External Relay - Loads Over 5 Amps
Loads over 5 Amps must use an external high current relay. Diagram shows how to turn on the relay using the lower current internal relay of the receiver. AC or DC voltages can be switched through the relay.
Note: A protection diode for DC coils or an MOV for AC coils is recommended to reduce inductive EMI noise.

Wiring configurations shown here are examples. The wiring for your application may differ.
Call BWI Eagle for assistance or consult an electrician.

Updated: 4/29/2019