



105 Bonnie Drive  
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## PRODUCT INFORMATION BULLETIN

### AIR-EAGLE® SR PLUS

2.4GHz 20 Dry Contact Input Transmitter

**MODEL 36-12000-DC**

#### DESCRIPTION

The AIR-EAGLE SR PLUS, MODEL 36-12000-DC RF TRANSMITTER IS a dry contact input transmitter designed to send up to twenty independent commands to an Air-Eagle Receiver(s) that can be located up to 600 feet away. Any number of transmitters and receivers can be combined to create a system. The Air-Eagle SR PLUS TX is user-programmable for up to eight network frequencies to allow multiple systems to operate simultaneously in the same area. Utilizing spread-spectrum technology this unit provides the utmost security and reliability even in the noisiest RF environments.

#### INSTALLATION

DISCONNECT DC Power from all equipment before installation.

1. Mount the AIR-EAGLE SR PLUS TRANSMITTER in a convenient location.
2. Install antenna. The unit has an antenna connector located on the right side on the enclosure. Attach the coax from the external antenna to this connector.
3. Connect dry contact inputs from external equipment to the proper terminals on the PCB (see below)
4. Connect DC power source to unit.

#### DIGITAL FREQUENCY SET-UP

This transmitter is factory programmed to Frequency #1. This setting can be changed by the user at any time **but must match the corresponding receiver(s)**.

- 1) Remove power from unit
- 2) Open hinged cover.
- 3) Select desired network frequency using table below.
- 4) Reattach cover and apply power.
- 5) Programming is now complete.

| SEL1 (SW 1-4)                                 | Not used on this model |        |        |        |
|---|------------------------|--------|--------|--------|
| SEL 1 (SW 5-7):<br><br>(NETWORK<br>FREQUENCY) | Network<br>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 |



Dimensions 8" L x 6" W x 4" H

#### TERMINAL STRIP WIRING

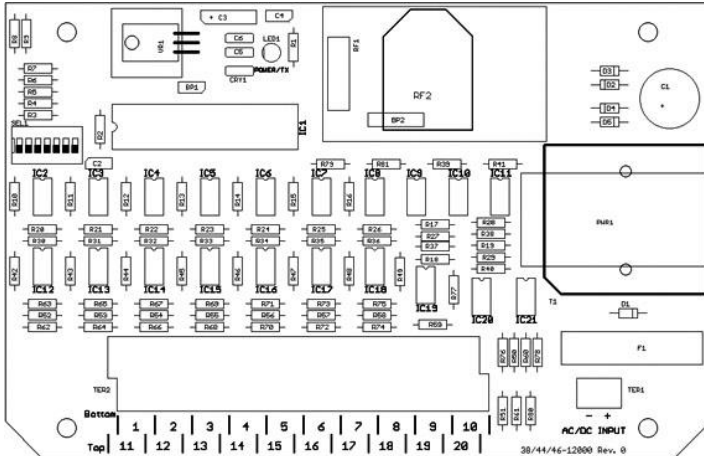
| BOTTOM TERMINAL BLOCK   |                   |    |                   |
|-------------------------|-------------------|----|-------------------|
| 1                       | C Input #1        | 11 | C Input #6        |
| 2                       | Input #1          | 12 | Input #6          |
| 3                       | C Input #2        | 13 | C Input #7        |
| 4                       | Input #2          | 14 | Input #7          |
| 5                       | C Input #3        | 15 | C Input #8        |
| 6                       | Input #3          | 16 | Input #8          |
| 7                       | C Input #4        | 17 | C Input #9        |
| 8                       | Input #4          | 18 | Input #9          |
| 9                       | C Input #5        | 19 | C Input #10       |
| 10                      | N/O Input #5      | 20 | N/O Input #10     |
| TOP TERMINAL BLOCK      |                   |    |                   |
| 1                       | C Input #11       | 11 | C Input #16       |
| 2                       | Input #11         | 12 | Input #16         |
| 3                       | C Input #12       | 13 | C Input #17       |
| 4                       | Input #12         | 14 | Input #17         |
| 5                       | C Input #13       | 15 | C Input #18       |
| 6                       | Input #13         | 16 | Input #18         |
| 7                       | C Input #14       | 17 | C Input #19       |
| 8                       | Input #14         | 18 | Input #19         |
| 9                       | C Input #15       | 19 | C Input #20       |
| 10                      | Input #15         | 20 | Input #20         |
| DC INPUT TERMINAL BLOCK |                   |    |                   |
| 1                       | (-) 9-36VDC Input | 2  | (+) 9-36VDC Input |

# AIR-EAGLE® SR PLUS

## 2.4 GHz 8 Input RF Transmitter

### MODEL 36-12000-DC

## CONTROLS AND INDICATORS



|                  |  |
|------------------|--|
| LED1             | Illuminated green when power is applied.<br>Changes to red when transmitting data. |
| Inputs 1 thru 20 | Twenty normally open dry contact inputs  |

## APPROVALS

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

## SPECIFICATIONS

|                         |                                   |
|-------------------------|-----------------------------------|
| DC Input                | 9 - 36 VDC @ 10 Watts             |
| Fuse Protected          | 1 amp                             |
| RF Frequency            | 2.4 GHz Spread Spectrum           |
| Input Channels          | 20 Dry Contact Inputs             |
| RF Output Power         | 60 mW                             |
| Transmitter Range       | Approximately 600 feet            |
| Transmitter Frequencies | 8 Independent Network Frequencies |
| Antenna Connection      | TNC Bulkhead                      |
| Enclosure               | Fiberglass / NEMA 4, 4x, 12 + 13  |
| Operating Temperature   | -40° F to +185° F                 |

## REPLACEMENT PARTS & ACCESSORIES

|   |                                |
|---|--------------------------------|
| PC Board (Main)   | 36-12002-DC                    |
| Optional Antennas and Accessories –<br>Used to increase range in both non line of sight and line of sight applications. - Contact BWI Eagle for recommendations |                                |
| 2.4GHz Omni Directional Antenna   | 49-3201                        |
| 2.4GHz 13dB Yagi Antenna  | 49-3202                        |
| Flex Coax Cable w/Connectors –<br>Connects external antenna(s) to base unit(s).   | 49-4000-XX<br>(XX = # of Feet) |
| Inline Lightning Arrestor   | 49-5002                        |
| * = 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.

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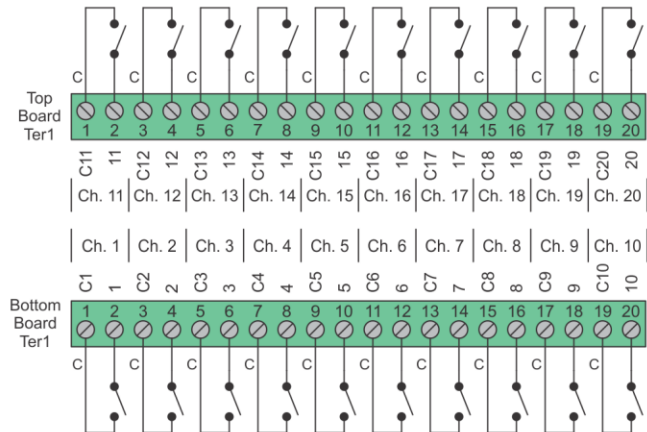


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# DRY CONTACT INPUT WIRING 20-Input Transmitter

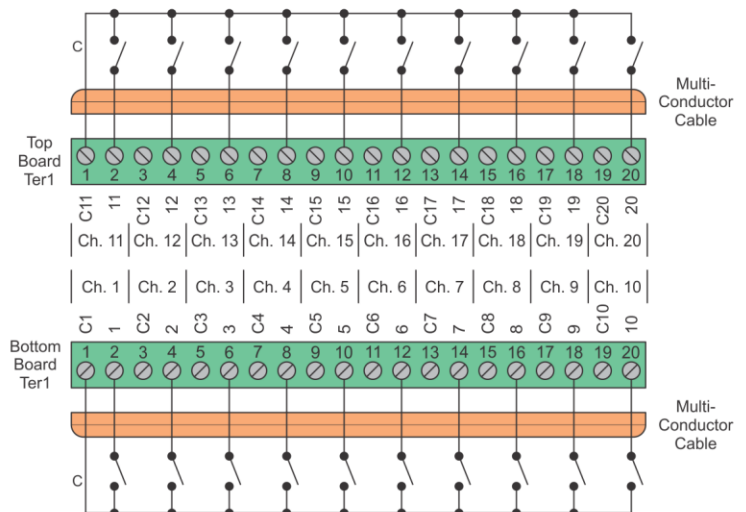
## Standard wiring of a dry contact input transmitter

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 ten channels would be transmitting all the time. A switch with a center "off" position would allow transmitting to stop.

In this example channels 2, 4, 6, 8, 10, 12, 14, 16, 18, and 20 are transmitting.

