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PRODUCT INFORMATION BULLETIN

AIR-EAGLE® SR PLUS

2.4 GHz RF Transceiver MODEL 36-4000-DC – Rev.3

DESCRIPTION

The AIR-EAGLE SR PLUS RF TRANSCEIVER IS a four I/O unit designed to transmit and receive unique signals from an identical unit located up to 1200 feet away. This model comes equipped with four contact inputs and four high current SPDT relay outputs. This allows the user to not only transmit information out, but receive a confirming signal back that the operation was performed. The Air-Eagle SR PLUS TRX is user-programmable for up to 128 digital addresses and eight network frequencies to allow multiple transceivers to operate simultaneously in the same area and utilizes spread-spectrum technology and provides the utmost security and reliability even in the noisiest RF environments. A terminal strip has been provided for interfacing with external dry contact inputs as well as dry contact relay outputs. This unit can operate remote machinery such as pumps, gates, chutes etc.

INSTALLATION

DISCONNECT DC Power from all equipment before installation.

1. Mount the AIR-EAGLE SR PLUS TRANSCEIVER in a convenient location.
2. Install antenna. The unit has an antenna connector located on the right side on the enclosure. Attach the supplied portable antenna to this connector.
3. Connect DC power and control to the proper terminals in your control circuit.

TERMINAL STRIP WIRING – BOTTOM PCB

| | | | | | |
|---|--------------|----|--------------|----|--------------------|
| 1 | N/O Relay #1 | 7 | N/O Relay #3 | 13 | (-) 9-36 VDC INPUT |
| 2 | C Relay #1 | 8 | C Relay #3 | 14 | (+) 9-36 VDC INPUT |
| 3 | N/C Relay #1 | 9 | N/C Relay #3 | | |
| 4 | N/O Relay #2 | 10 | N/O Relay #4 | | |
| 5 | C Relay #2 | 11 | C Relay #4 | | |
| 6 | N/C Relay #2 | 12 | N/C Relay #4 | | |

TERMINAL STRIP WIRING –TOP PCB

| | | | |
|---|--------------|----|--------------|
| 1 | N/O Input #1 | 7 | N/O Input #4 |
| 2 | C Input #1 | 8 | C Input #4 |
| 3 | N/O Input #2 | 9 | Not Used |
| 4 | C Input #2 | 10 | Not Used |
| 5 | N/O Input #3 | | |
| 6 | C Input #3 | | |



Dimensions (with mounting plate) 6.3" L x 4.8" W x 4.3" H

DIGITAL ADDRESS & FREQUENCY SET-UP

This transceiver is factory programmed to Frequency #1 and Digital Address "0". These settings can be changed by the user in any combination **but must match its corresponding transceiver.**

- 1) Remove top cover.
- 2) Select desired address and/or network frequency
- 3) Move SW4 on SEL2 to the "CLOSED" position.
- 4) Wait approximately one second, then move SW4 on SEL2 back to the "OPEN" position.
- 5) Programming is now complete. Replace top cover.

Note – Selected address and frequency settings will be maintained, in the internal flash memory, even if power is removed from unit. The above procedure needs to be performed only if changing digital address and/or network frequency)

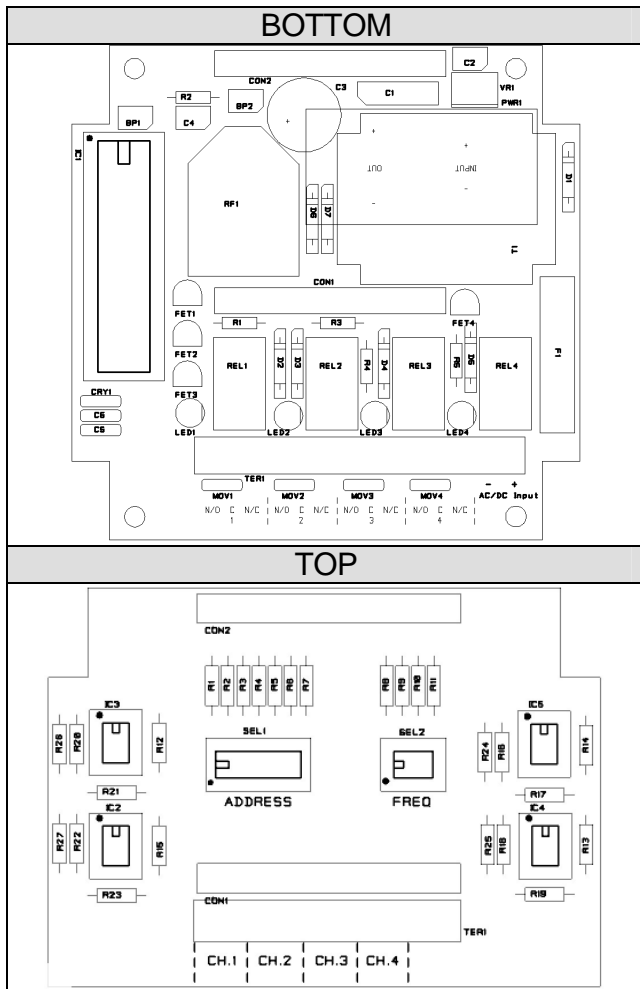
| | | | | |
|--|--|--------|-------------|--------|
| SEL1 (ADDRESS) | Seven dip switches for selecting digital address of this transmitter (Maximum of 128 combinations) | | | |
| SEL 2 (SW 1-3): (NETWORK FREQUENCY) | Network Address | SW1 | SW2 | SW3 |
| | 1 | OPEN | OPEN | OPEN |
| | 2 | CLOSED | OPEN | 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 | |
| SEL2 (SW4) | Normal Operation | | Programming | |
| | OPEN | | CLOSED | |

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2.4 GHz RF Transceiver

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CONTROLS AND INDICATORS



| | |
|-----------------|---|
| LED1 – LED4 | Will be illuminated when the corresponding relay is energized |
| Inputs 1 thru 4 | Four normally open dry contact inputs |
| REL1 thru REL4 | Four SPDT output control relays |

SPECIFICATIONS

| | |
|-----------------------|-------------------------------------|
| DC Input | 9 – 36 VDC @ 10 Watts |
| Relay Contacts | SPDT 5 amp @ 120 VAC or 50 VDC |
| Fuse Protected | 1 amp |
| Transceiver Frequency | 2.4 GHz Spread Spectrum |
| RF Output Power | 60 mW |
| Transceiver Range | Approximately 1200 feet |
| Transceiver Channels | 8 Independent Network Frequencies |
| Antenna Connection | TNC Bulkhead |
| Enclosure | Polycarbonate / NEMA 4, 4x, 12 + 13 |
| Operating Temperature | -40° F to +185° F |

APPROVALS

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

REPLACEMENT PARTS & ACCESSORIES

| | |
|---|--------------------------------|
| PC Board (Main) | 36-4002-DC |
| Standard Antenna (Included): | |
| 2.4GHz TNC Portable Antenna (For distances up to 1200 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) |
| Inline Lightening 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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