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## PRODUCT INFORMATION BULLETIN

### AIR-EAGLE® SR PLUS 2.4 GHz RF Transceiver MODEL 36-6000-120VAC

#### DESCRIPTION

The AIR-EAGLE SR PLUS RF TRANSCEIVER is a dual I/O unit designed to transmit and receive unique signals from another transceiver located up to 600 feet away. This model comes equipped with three contact inputs and two 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 eight network frequencies to allow multiple systems 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.

#### INSTALLATION

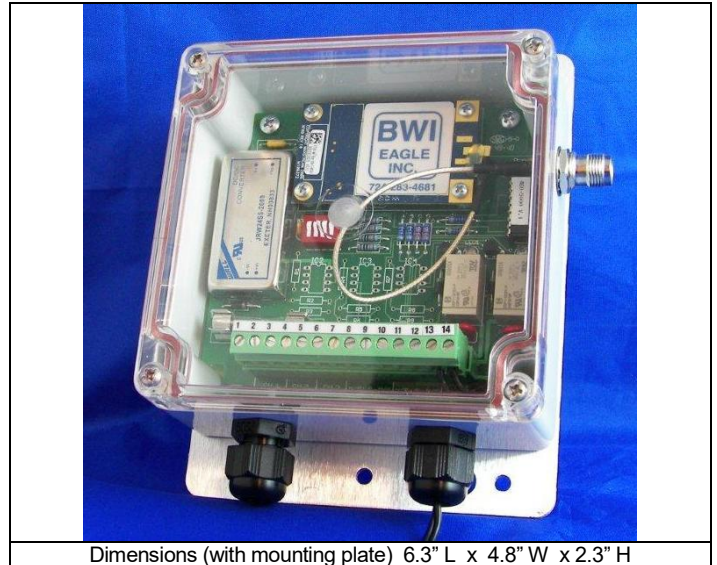
DISCONNECT Power from all equipment before installation.

1. Mount the control unit in a convenient location.
2. Install control wiring to terminal strip.
3. Make desired relay, channel code and frequency selections using instructions on page 2.
4. Attach antenna to TNC connector located on the right side on the enclosure.
5. Plug supplied AC to DC wall plug adapter into 120VAC power outlet.

#### PC BOARD SET-UP INFORMATION

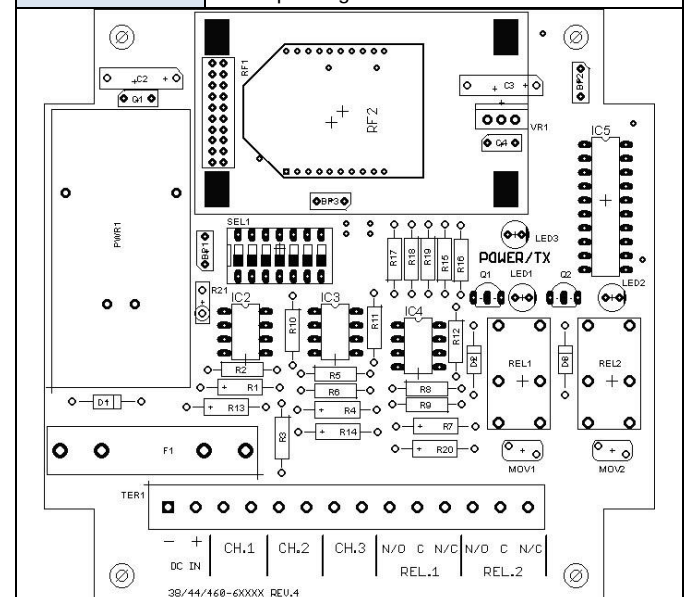
Make the following connections on the PC Board Terminal Strip (TER1)

| TERMINAL STRIP WIRING (TER1) |                                |                                        |
|------------------------------|--------------------------------|----------------------------------------|
| Terminal 1                   | Negative (-) 12VDC INPUT       | From supplied 120VAC wall plug adapter |
| Terminal 2                   | Positive (+) 12VDC INPUT       |                                        |
| Terminal 3                   | CH1 Dry Contact Input (Common) |                                        |
| Terminal 4                   | CH1 Dry Contact Input          |                                        |
| Terminal 5                   | CH2 Dry Contact Input (Common) |                                        |
| Terminal 6                   | CH2 Dry Contact Input          |                                        |
| Terminal 7                   | CH3 Dry Contact Input (Common) |                                        |
| Terminal 8                   | CH3 Dry Contact Input          |                                        |
| Terminal 9                   | CH1 Relay N/O                  |                                        |
| Terminal 10                  | CH1 Relay C                    |                                        |
| Terminal 11                  | CH1 Relay N/C                  |                                        |
| Terminal 12                  | CH2 Relay N/O                  |                                        |
| Terminal 13                  | CH2 Relay C                    |                                        |
| Terminal 14                  | CH2 Relay N/C                  |                                        |



#### CONTROLS & INDICATORS

|                              |                                                                            |
|------------------------------|----------------------------------------------------------------------------|
| POWER/TX LED                 | Illuminates Green when power is applied, changes to Red when transmitting. |
| LED1                         | Green LED illuminates continuously while relay #1 is energized             |
| LED2                         | Green LED illuminates continuously while relay #2 is energized             |
| CH1 – CH3 Dry Contact Inputs | Transmit individual RF codes to the remote transceiver                     |
| REL1 & REL2                  | Two SPDT output control relays                                             |
| RF1                          | RF Module that transmits/receives data for corresponding unit              |



# AIR-EAGLE® SR PLUS

2.4 GHz RF Transceiver

MODEL 36-6000-120VAC

## RELAY, CHANNEL CODES & FREQUENCY SETTINGS

The unit is shipped from the factory with SEL1 switches in the open positions. The relays will operate as maintained momentary, the unit is transmitting & receiving channel 1 & 2 commands and it is operating on frequency 1. If you wish to change these default settings, follow the instructions on the table below.

- 1) Remove power from unit
- 2) Remove top cover.
- 3) Select desired relay operation, channel codes to be sent & received and network frequency using table below.
- 4) Reattach cover and apply power.
- 5) Programming is now complete.

### RELAY CONFIGURATION

| SEL1 SWITCH NUMBER | OPEN                         | CLOSED                |
|--------------------|------------------------------|-----------------------|
| SW1                | Relay #1 momentary (default) | Relay #1 toggle/latch |
| SW2                | Relay #2 momentary (default) | Relay #2 toggle/latch |

**Maintained Momentary** – Relay mimics button or input – when depressed or closed, relay will be energized; when released, relay de-energizes

**Toggle Latch** – Relay changes (and holds) its state each time the corresponding button or input is depressed or closed.

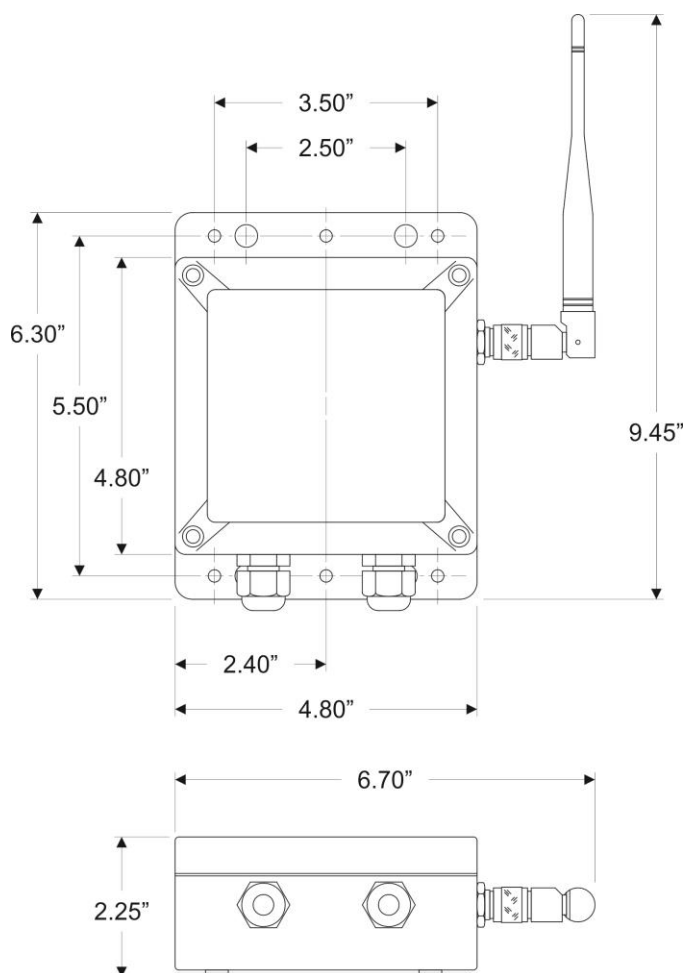
### CHANNEL CODE SET-UP

| SEL1 (SW3-4) | Channel Codes To Be Transmitted & Received | SW3    | SW4    |
|--------------|--------------------------------------------|--------|--------|
|              | 1 & 2 (default)                            | OPEN   | OPEN   |
|              | 3 & 4                                      | CLOSED | OPEN   |
|              | 5 & 6                                      | OPEN   | CLOSED |
|              | 7 & 8                                      | 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 |

## DIMENSIONS



## APPROVALS

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

## SPECIFICATIONS

|                       |                                                        |
|-----------------------|--------------------------------------------------------|
| Power Input           | 100-240 VAC, 16 W, 50/60 Hz from supplied wall adapter |
| Relay Contacts        | SPDT 5 amp @ 120VAC or 30VDC                           |
| Fuse Protected        | 1 amp                                                  |
| Transceiver Frequency | 2.4 GHz Spread Spectrum                                |
| RF Output Power       | 60 mW                                                  |
| Transceiver Range     | Approximately 600 feet                                 |
| Transceiver Channels  | 8 Independent Network Frequencies                      |
| Antenna Connection    | TNC Bulkhead                                           |
| Operating Temperature | -40° F to +185° F                                      |
| Enclosure             | Polycarbonate, IP66 (NEMA 4)                           |
| Weight                | Approx 2 lbs.                                          |

# AIR-EAGLE® SR PLUS

2.4 GHz RF Transceiver

**MODEL 36-6000-120VAC**

## REPLACEMENT PARTS & ACCESSORIES

|                                                                                                                                                                 |                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| PC Board (Main)                                                                                                                                                 | 36-6002-DC                     |
| Standard Antenna (Included):                                                                                                                                    |                                |
| 2.4GHz TNC Portable Antenna                                                                                                                                     | 49-1201                        |
| 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 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<br>(XX = # of Feet) |
| 2 Ft. Bulkhead Assembly (Used when mounting receiver 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.

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