



105 Bonnie Drive  
Butler, PA 16002  
724-283-4681  
724-283-5939 (fax)  
www.bwieagle.com

## PRODUCT INFORMATION BULLETIN

### AIR-EAGLE® SR PLUS 2.4GHz RF Transceiver MODEL 36-40400-120VAC

#### DESCRIPTION

The Air-Eagle SR PLUS RF TRANSCEIVER is a four I/O unit designed to transmit and receive unique signals from one or more transceivers located up to 600 feet (or more) away. This model comes equipped with four contact inputs and four 5amp 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 eight network frequencies to allow multiple systems to operate simultaneously in the same area and utilizes spread-spectrum technology to provide 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 AC Power from all equipment before installation.

1. Mount the Air-Eagle XLT TRANSCEIVER in a convenient location.
2. Install input & output wiring to the terminal strip (Note – terminal strip header lifts up off base for easy wiring)
3. Install antenna to TNC connector on the right side of the enclosure.
4. Connect AC power to the proper terminals in your control circuit.

#### TERMINAL STRIP WIRING

| INPUTS      |                | OUTPUTS |                     |    |              |
|-------------|----------------|---------|---------------------|----|--------------|
| 1           | Common Input 1 | 9       | N/O Relay #1        | 15 | N/O Relay #3 |
| 2           | Input 1        | 10      | C Relay #1          | 16 | C Relay #3   |
| 3           | Common Input 2 | 11      | N/C Relay #1        | 17 | N/C Relay #3 |
| 4           | Input 2        | 12      | N/O Relay #2        | 18 | N/O Relay #4 |
| 5           | Common Input 3 | 13      | C Relay #2          | 19 | C Relay #4   |
| 6           | Input 3        | 14      | N/C Relay #2        | 20 | N/C Relay #4 |
| 7           | Common Input 4 |         |                     |    |              |
| 8           | Input 4        |         |                     |    |              |
| AC INPUT    |                |         |                     |    |              |
| Terminal #1 |                |         | 120 VAC - (Hot)     |    |              |
| Terminal #2 |                |         | 120 VAC - (Neutral) |    |              |



\*Note – DC powered version pictured

#### GENERAL OPERATION

Contact closures on inputs 1 thru 4 in the control transceiver transmit to activate relay #1 thru #4 in the remote transceiver. Inputs from the remote equipment provide closures to remote transceiver that transmit to energize relays #1 thru #4 in the control transceiver.

| INPUT ACTIVATED     | ACTION                                     |
|---------------------|--------------------------------------------|
| "1"                 | Transmits channel 1 command to remote unit |
| "2"                 | Transmits channel 2 command to remote unit |
| "3"                 | Transmits channel 3 command to remote unit |
| "4"                 | Transmits channel 4 command to remote unit |
| INPUT CODE RECEIVED | ACTION                                     |
| "1"                 | Relay #1 energizes, maintained momentary   |
| "2"                 | Relay #2 energizes, maintained momentary   |
| "3"                 | Relay #3 energizes, maintained momentary   |
| "4"                 | Relay #4 energizes, maintained momentary   |

# AIR-EAGLE® SR PLUS

## 2.4GHz RF Transceiver

### MODEL 36-40400-120VAC

## RELAY & FREQUENCY SET-UP

This unit is shipped from the factory with SEL1 switches #1 thru #7 in the open positions. All four relays will operate in a maintained momentary manor, and unit is receiving commands on frequency one. 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 and/or network frequency using table below.
- 4) Reattach cover and apply power.
- 5) Programming is now complete.

### RELAY CONFIGURATION

| SEL1 SWITCH NUMBER | OPEN                                             | CLOSED                         |
|--------------------|--------------------------------------------------|--------------------------------|
| SW1                | Relays #1 thru #4 maintained momentary (default) | Relays #1 thru #4 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 momentarily

|       |                        |
|-------|------------------------|
| SW2-4 | Not used on this model |
|-------|------------------------|

### FREQUENCY SET-UP

| SEL1    | Network Frequency | SW5    | SW6    | SW7    |
|---------|-------------------|--------|--------|--------|
| (SW5-7) | 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 |

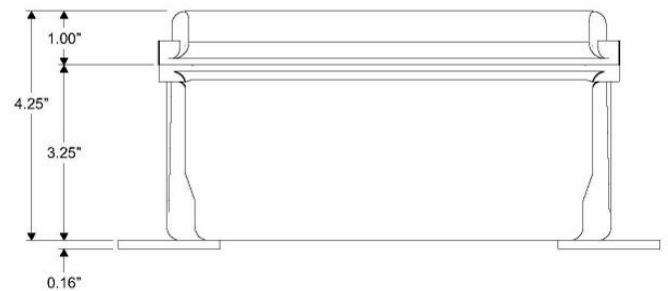
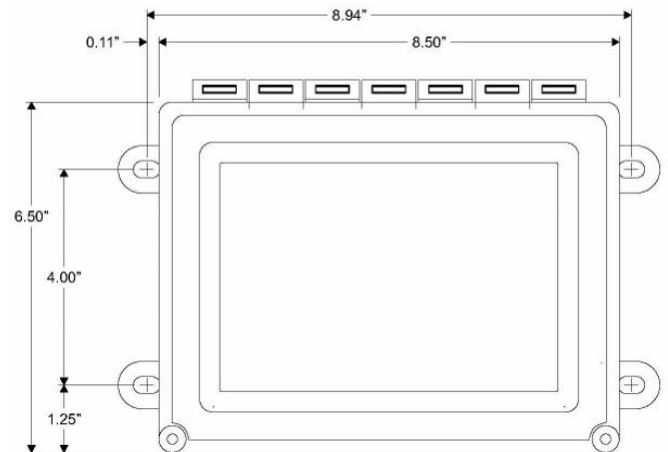
## SPECIFICATIONS

|                   |                                                       |
|-------------------|-------------------------------------------------------|
| AC Input          | 120 VAC, 16 W, 50/60 Hz                               |
| Fuse Protected    | 1 amp                                                 |
| Frequency         | 2.4GHz Spread Spectrum                                |
| Relay Contacts    | SPDT 5 amp @ 120VAC or 30VDC per channel              |
| Transmitter Data  | Four Dry Contact Inputs                               |
| RF Output Power   | 60 mW                                                 |
| Transceiver Range | Approximately 600 feet                                |
| RF Channels       | Eight independent network frequencies                 |
| Enclosure         | Hinged fiberglass with window / NEMA 3, 3R, 4, 12, 13 |
| Operating Temp    | -40° F to +185° F                                     |

## APPROVALS

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

## DIMENSIONS



## REPLACEMENT PARTS & ACCESSORIES

|                                                                                                                                                                 |                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| PC Board (Main)                                                                                                                                                 | 36-40402-120VAC                |
| Standard Antenna (Included):                                                                                                                                    |                                |
| 2.4GHz TNC Portable Antenna (For distances up to 600 feet*)                                                                                                     | 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 –<br>Connects external antenna(s) to base unit(s).                                                                                 | 49-4000-XX<br>(XX = # of Feet) |
| * = Line of Sight                                                                                                                                               |                                |