



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

# PRODUCT INFORMATION BULLETIN

## AIR-EAGLE® SR 2.4 GHz RF Receiver MODEL 38-5000

### DESCRIPTION

The AIR-EAGLE SR is an RF system designed for short to medium range wireless remote control of electrical apparatus in a variety of industrial applications. This four function receiver is equipped with high current SPDT relays and is user-programmable for up to 128 digital addresses and eight network frequencies to allow multiple transmitters and receivers to operate simultaneously in the same area without interference. Capable of receiving remote signals transmitted from up to 300 feet away (with the SR Transmitter) or up to 1200 feet away (with the SR Plus Transmitter), the model 38-5000 utilizes spread-spectrum technology and provides the utmost security and reliability even in the noisiest RF environments.

### APPROVALS

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

### APPLICATIONS

Designed by request for an automobile manufacturing plant, this unit can also control doors, gates, barriers, tail gates, electrically controlled hydraulic valves, propane shut off controls, winches, anchor lifts, lights, sprinkling systems, movie screens, curtains, news weather screens, alarm systems, skeet throwers, saw mill applications, grain or aggregate chutes, conveyor belts, boat lifts, and more.

### INSTALLATION

DISCONNECT AC Power from all equipment before installation.

1. Mount the AIR-EAGLE SR RECEIVER 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 AC power and control to the proper terminals in your control circuit.



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

### TERMINAL STRIP WIRING – BOTTOM PCB

|   |              |    |              |    |                     |
|---|--------------|----|--------------|----|---------------------|
| 1 | N/O Relay #1 | 7  | N/O Relay #3 | 13 | 120 VAC - (Neutral) |
| 2 | C Relay #1   | 8  | C Relay #3   | 14 | 120 VAC - (Hot)     |
| 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

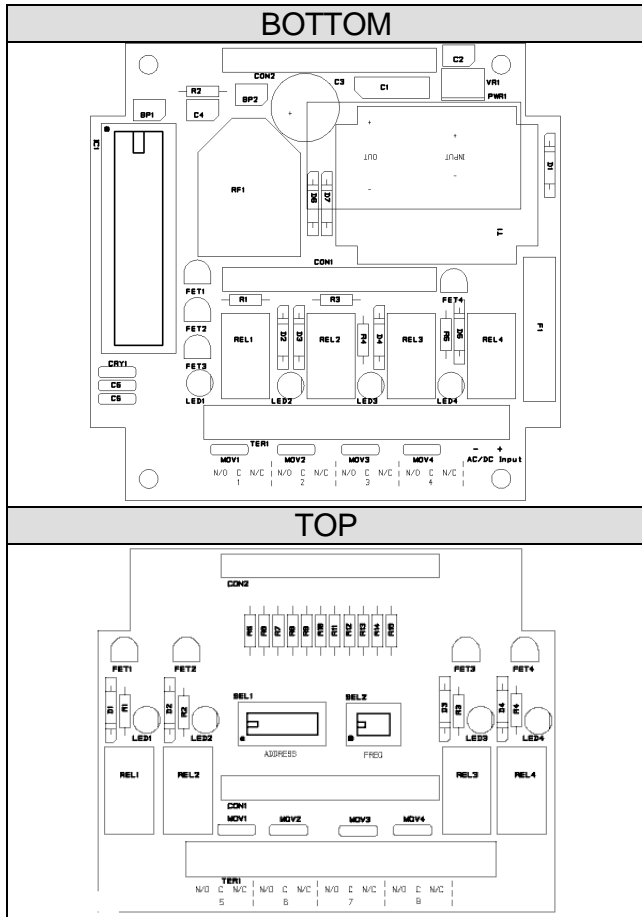
|   |          |    |          |    |          |
|---|----------|----|----------|----|----------|
| 1 | Not used | 7  | Not used | 13 | Not used |
| 2 | Not used | 8  | Not used | 14 | Not used |
| 3 | Not used | 9  | Not used |    |          |
| 4 | Not used | 10 | Not used |    |          |
| 5 | Not used | 11 | Not used |    |          |
| 6 | Not used | 12 | Not used |    |          |

# AIR-EAGLE® SR

## 2.4 GHz RF Receiver

### MODEL 38-5000

### CONTROLS AND INDICATORS



|                |   |
|----------------|---|
| LED1 – LED4    | Will be illuminated when the corresponding relay is energized |
| REL1 thru REL4 | Four SPDT output control relays                               |

### SPECIFICATIONS

|  |   |
|--|---|
| AC Input   | 120 VAC, 16 W, 50/60 Hz                 |
| Relay Contacts   | SPDT 5 amp @ 120 VAC or 50 VDC          |
| Fuse Protected   | 1 amp                                   |
| Receiver Range – Dependant upon transmitter – see below: |   |
| Using 38 Series TX                                       | Approximately 300 feet                  |
| Using 36 Series TX                                       | Approximately 1200 feet                 |
| Receiver Frequency                                       | 2.4 GHz Spread Spectrum                 |
| Receiver Coding  | 128 Digital Addresses                   |
| Receiver Channels  | 8 Independent Network Frequencies       |
| Antenna Connection                                       | TNC Bulkhead                            |
| Enclosure  | ABS Plastic, NEMA 3, 3R, 4, 4X, 12 + 13 |
| Operating Temperature                                    | -40° F to +185° F                       |

### DIGITAL ADDRESS & FREQUENCY SET-UP

**Address:** The unit is shipped from the factory with SEL1 switches in the open positions (Digital Address = "0") If using this receiver with a *handheld* transmitter, this setting must **NOT BE CHANGED**. If using this receiver with a contact input transmitter, this setting can be changed by the user in any combination **but must match the transmitter that is set up to communicate with this receiver**.

**Frequency:** The frequency is factory set at #1. See the table below to change frequencies.

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

|  |  |        |        |        |
|--|--|--------|--------|--------|
| SEL1 (ADDRESS)                         | Seven dip switches for selecting digital address of this transmitter (Maximum of 128 combinations) |        |        |        |
| SEL 2 (SW 1-3):<br>(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)                             | Reserved for future use  |        |        |        |

### REPLACEMENT PARTS & ACCESSORIES

|  |                                |
|--|--------------------------------|
| PC Board (Main)  | 38-5002                        |
| 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<br>(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