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# PRODUCT INFORMATION BULLETIN

## AIR-EAGLE® SR 2.4 GHz RF Receiver MODEL 38-20100

### 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. Systems can consist of any number of receivers and handheld or contact input transmitters working together. This receiver is equipped with single relay that can switch 5 amps @ 120VAC or 30VDC. The relay is user programmable for momentary, toggle/latching or latching operation and can be directly interfaced with the customer's equipment or P.L.C. Eight user selectable frequencies allow multiple systems to be used in the same area. Capable of receiving remote signals transmitted from up to 100 feet away (with the SR transmitter) or up to 600 feet away (with the SR PLUS transmitter), the Air-Eagle SR Receiver 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

### INSTALLATION

DISCONNECT AC Power from all equipment before installation.

1. Mount the AIR-EAGLE SR RECEIVER in a convenient location.
2. Install wiring to terminal strip
3. Attach supplied rubber duck antenna to TNC connector on the top side of the unit.
4. Plug supplied AC adapter into 120VAC wall outlet.

### TERMINAL STRIP WIRING

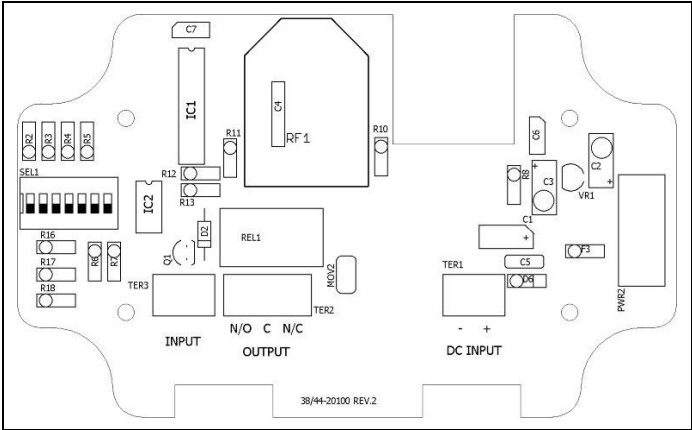
TER 3 INPUT		TER 2 RELAY OUTPUT		TER 1 AC/DC POWER INPUT	
1	N/A	1	N/O	1	(-) 9-36VDC *
2	N/A	2	C (common)	2	(+) 9-36VDC*
		3	N/C		

\*From supplied 120VAC wall adapter



Dimensions (with mounting plate) 7.07L x 3.57W x 1.62H

### CONTROLS AND INDICATORS



Power – LED1	Illuminates green when unit is powered
TX – LED2	N/A
Relay – LED3	Illuminates green when relay is energized
RF1	RF module that receives data from the remote transmitter
REL1	SPDT output control relay
SEL1	Seven dip switches for selecting relay options and operating frequency

# AIR-EAGLE® SR

## 2.4 GHz RF Receiver

### MODEL 38-20100

## RELAY MODES

All BWI Eagle receivers can be factory configured for any combination of various modes of operation. Most receivers provide limited user-selectable options. Described here are the three main modes of operation:

Maintained Momentary <i>(default in all models)</i>	Relay mimics button or input – when button is depressed or input closed, relay will be energized. When button or input is released, the relay de-energizes
Toggle Latching (One Button for ON/OFF)	Relay changes and holds its state each time the corresponding button is depressed (i.e. press once, relay energizes; press again, relay de-energizes; press again, relay energizes etc.)
Latching (Two Buttons for ON/OFF)	Relay energizes and latches upon press of designated "ON" Button and remains energized until it receives a signal from the separate designated "OFF" Button

## RELAY & FREQUENCY SET-UP

The unit is shipped from the factory with SEL1 switches in the open positions. The relay will operate as maintained momentary 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	Maintained Momentary <i>(default)</i>	Toggle Latching (Single Button Control)
SW2	Maintained Momentary <i>(default)</i>	Latching (Two Button Control)
SW3	Vibrating Feedback Off	Vibrating Feedback On
SW4**	Repeater Function Off <i>(default)</i>	Repeater Function On

\*\* Enable SW4 Repeater Function in ONLY one Receiver Per System

### FREQUENCY SET-UP

SEL1 (SW5-7)	Network Frequency	SW5	SW6	SW7
	1	<i>(default)</i>	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	100-240 VAC, 16 W, 50/60 Hz from supplied wall adapter
Relay Contact	SPDT 5 amp @ 120VAC or 30VDC
Fuse Protected	1 amp
Receiver Frequency	2.4 GHz Spread Spectrum
Receiver Range – Dependant upon transmitter – see below:	
Using SR Series TX	Approximately 100 feet
Using SR+ Series TX	Approximately 600 feet
Receiver Channels	Eight independent network frequencies
Operating Temperature	-40° F to +185° F
Enclosure	Polycarbonate NEMA 4, IP66
Weight	Approx 2 lbs.

## REPLACEMENT PARTS & ACCESSORIES

PC Board (Main)	38-20102
Standard Antenna (Included):	
2.4GHz TNC Portable Antenna (For distances up to 600 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)
2 Ft. Bulkhead Assembly (Used when mounting receive inside another enclosure)	49-5004
* = 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.