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# PRODUCT INFORMATION BULLETIN

## AIR-EAGLE® SR 2.4 GHz RF Receiver MODEL 38-8000-DC Rev.3

### 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 eight function receiver is equipped with high current SPDT relays and is user-programmable for up to 128 digital addresses and eight selectable 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 38-8000-DC 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 DC 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 DC 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	(-) 9-36VDC INPUT
2	C Relay #1	8	C Relay #3	14	(+) 9-36VDC 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

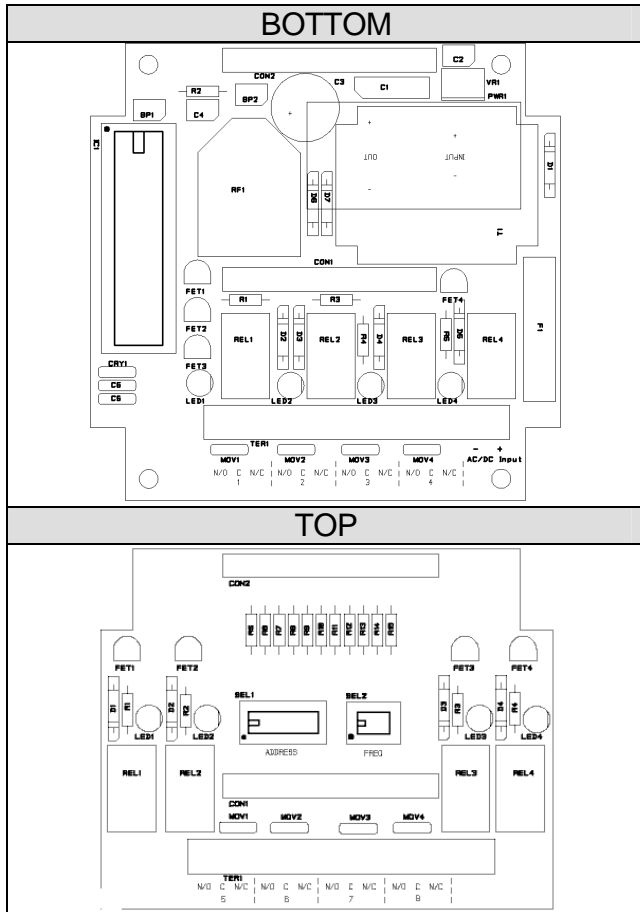
1	N/O Relay #5	7	N/O Relay #7	13	Not Used
2	C Relay #5	8	C Relay #7	14	Not Used
3	N/C Relay #5	9	N/C Relay #7		
4	N/O Relay #6	10	N/O Relay #8		
5	C Relay #6	11	C Relay #8		
6	N/C Relay #6	12	N/C Relay #8		

# AIR-EAGLE® SR

2.4 GHz RF Receiver

**MODEL 38-8000-DC – Rev.3**

## CONTROLS AND INDICATORS



LED1 – LED8	Will be illuminated when the corresponding relay is energized
REL1 thru REL8	Eight SPDT output control relays

## SPECIFICATIONS

DC Input	9 – 36 VDC @ 10 Watts
Relay Contacts	SPDT 5 amp @ up to 36 VDC per relay
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	Polycarbonate / NEMA 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 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	

## REPLACEMENT PARTS & ACCESSORIES

PC Board (Main)	38-8002-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 Lightning 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 of 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.