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PRODUCT INFORMATION BULLETIN

AIR-EAGLE® SR 2.4 GHz RF Receiver MODEL 38-2000 – Rev.4

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. Each system consists of a 4-relay receiver and handheld or contact input transmitter. The integral high current relays in the receiver are user-programmable for up to four combinations of momentary or latching operation. This model also has up to eight user-programmable frequencies and can be directly interfaced with the customer's equipment or P.L.C. 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 38-2000 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

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.

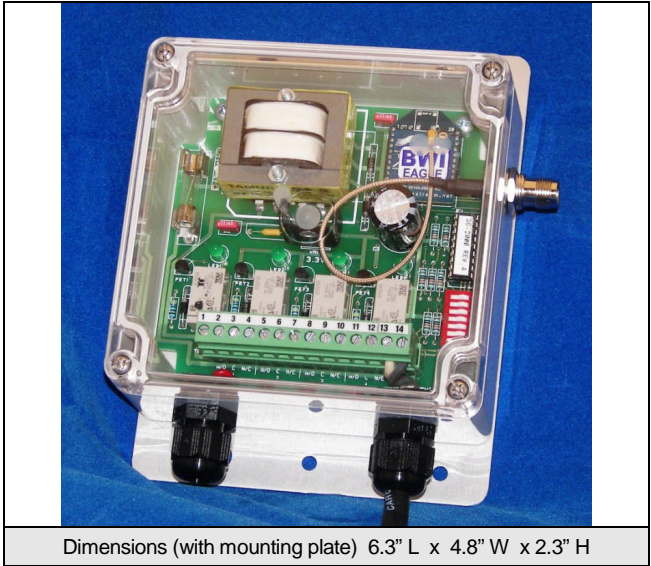
INSTALLATION

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.

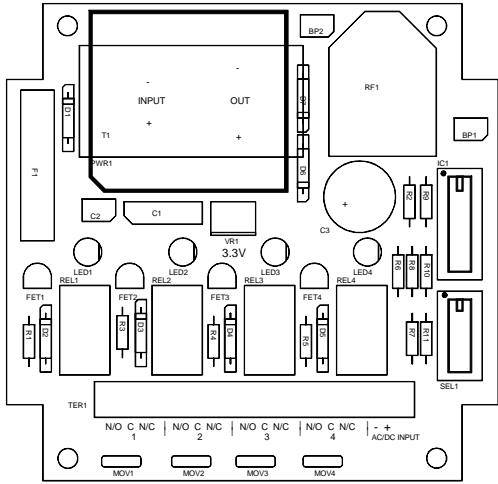
TERMINAL STRIP WIRING

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		



Dimensions (with mounting plate) 6.3" L x 4.8" W x 2.3" H

CONTROLS AND INDICATORS



LED1	Illuminates when relay #1 is energized
LED2	Illuminates when relay #2 is energized
LED3	Illuminates when relay #3 is energized
LED4	Illuminates when relay #4 is energized
RF1	RF module that receives data from the remote transmitter
REL1 thru REL4	Four SPDT output control relays
SEL1	Seven dip switches for selecting relay options and operating frequency

AIR-EAGLE® SR

2.4 GHz RF Receiver

MODEL 38-2000 – Rev.4

RELAY & FREQUENCY SET-UP

The unit is shipped from the factory with SEL1 switches in the open positions. All four relays 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 top cover.
- 2) Select desired relay configuration and/or network frequency
- 3) Move SWITCH "7" on SEL1 to the "CLOSED" position.
- 4) Wait approximately one second then move SWITCH "7" on SEL1 back to the "OPEN" position.
- 5) Programming is now complete. Replace top cover.

Note – Selected relay configuration 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* the relay configuration and/or network frequency)

RELAY CONFIGURATION

SEL1 SWITCH NUMBER	OPEN	CLOSED
"1"	Relay #1 momentary	Relay #1 toggle/latch
	Relay #2 momentary	Relay #2 toggle/latch
"2"	Relay #3 momentary	Relay #3 toggle/latch
	Relay #4 momentary	Relay #4 toggle/latch
"3"	Reserved for future use	

FREQUENCY SET-UP

SEL1 (SW4-6)	Network Address	SW4	SW5	SW6
	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

OTHER

SEL1 SWITCH NUMBER	Normal Operation	Programming
"7"	OPEN	CLOSED

SPECIFICATIONS

AC Input	120 VAC, 16 W, 50/60 Hz
Relay Contacts	SPDT 5 amp @ 120VAC or 50VDC
Fuse Protected	1 amp
Receiver Frequency	2.4 GHz Spread Spectrum
Receiver Range – Dependant upon transmitter – see below:	
Using 38 Series TX	Approximately 300 feet
Using 36 Series TX	Approximately 1200 feet
Receiver Channels	Eight independent network frequencies
Operating Temperature	-40° F to +185° F
Enclosure	ABS Plastic, NEMA 3, 3R, 4, 4X, 12, 13
Weight	Approx 2 lbs.

REPLACEMENT PARTS & ACCESSORIES

PC Board (Main)	38-2002
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 Lightening Arrestor	49-5002
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.

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