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PRODUCT INFORMATION BULLETIN

AIR-EAGLE® XLT

900MHz RF Receiver MODEL 44-2250

DESCRIPTION

The AIR-EAGLE XLT is one of a series of RF systems designed for long-range wireless remote control in a variety of industrial applications. Each system, consisting of a receiver and transmitter can be configured to remotely control pumps, lights, conveyors, gates and other electrical apparatus. Integral high current relays can be directly interfaced with the customer's equipment or P.L.C. Capable of receiving remote signals transmitted from several miles away, the model 44-2250 utilizes spread-spectrum technology and provides the utmost security and reliability even in the noisiest RF environments.

INSTALLATION

DISCONNECT AC Power from all equipment before installation.

1. Mount the AIR-EAGLE XLT RECEIVER in a convenient location.
2. Install antenna. The unit has an antenna connector located on the right side on the enclosure. Attach the coax cable from the external FM 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	10	N/O Relay #4	19	N/O Relay #7
2	C Relay #1	11	C Relay #4	20	C Relay #7
3	N/C Relay #1	12	N/C Relay #4	21	N/C Relay #7
4	N/O Relay #2	13	N/O Relay #5	22	N/O Reset Input
5	C Relay #2	14	C Relay #5	23	C Reset Input
6	N/C Relay #2	15	N/C Relay #5	24	Not Used
7	N/O Relay #3	16	N/O Relay #6		
8	C Relay #3	17	C Relay #6		
9	N/C Relay #3	18	N/C Relay #6		

AC INPUT	
Terminal #1	120 VAC - (Hot)
Terminal #2	120 VAC - (Neutral)



CONTROLS AND INDICATORS

CONTROL / INDICATOR	FUNCTION		
RECEIVER MODULE	RF module that receives data from the remote transmitter		
DISPLAY	7-Segment LED displays a number corresponding to the relay command being received or signal strength		
SEL 1 (SW 1 & 2): <i>USED TO SET NETWORK FREQUENCY</i>	Network Address	SW1	SW2
	1	OPEN	OPEN
	2	CLOSED	OPEN
	3	OPEN	CLOSED
SEL 1 (SW 3 & 4): <i>USED TO SET CONFIGURATION OPTIONS</i>	SW #	OPEN	CLOSED
	SW3	No "Signal Loss Delay"	5 Second "Signal Loss Delay"
	SW4	Normal Operation	Signal Strength Indicator
RELAYS	Eight SPDT output control relays		

APPROVALS

United States (FCC)	OUR-9XSTREAM
Canada (IC)	4214A-9XSTREAM

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900MHz RF Receiver

MODEL 44-2250

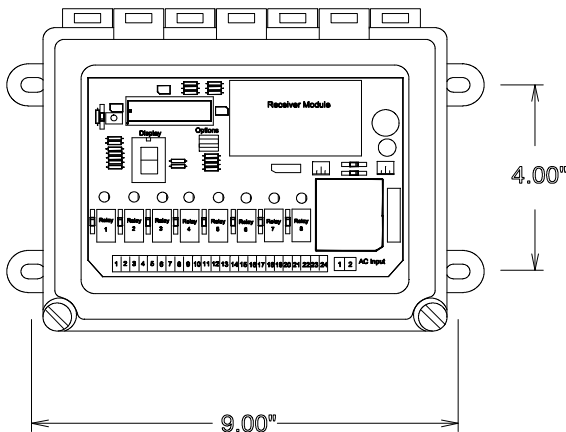
GENERAL OPERATION

Relays #1 thru #8 energize or de-energize based on specific commands from an authorized transmitter. The LED display continually updates, indicating the current relay command being received.

NUMERIC DISPLAY	SEL1-#4 OPEN (NORMAL OPERATION)	SEL1-#4 CLOSED (SIGNAL STRENGTH INDICATION)
"0"	Power on/No Relays energized	Power on / No Signal being received
"1"	Relays 2,4 & 5 de-energize, Relay 1 energizes, latching.	Signal Strength "1" received (weakest)
"2"	Relays 1,4 & 5 de-energize, Relay 2 energizes, latching.	Signal Strength "2" received
"3"	Relay #3 is energized	Signal Strength "3" received
"4"	Relays 1,2 & 5 de-energize, Relay 4 energizes, latching.	Signal Strength "4" received
"5"	Relays 1,2 & 4 de-energize, Relay 5 energizes, latching.	Signal Strength "5" received
"6"	Relay #6 is energized	Signal Strength "6" received
"7"	Resets any energized relay(s) and energizes Relay #7, momentary	Signal Strength "7" received
"8"	N/A	Signal Strength "8" received
"9"	N/A	Signal Strength "9" received (strongest)

Note – Upon an external contact closure on terminals #22 and #23, all relays will de-energize until the external contact closure has been removed.

DIMENSIONS



Enclosure height equals 4.25 inches.

SPECIFICATIONS

AC Input	120 VAC, 16 W, 50/60 Hz
Fuse Protected	1 amp
Relay Contacts	SPDT 5 amp @ 120 VAC per channel
Receiver Range	Approximately 2500 feet (Up to 4 miles with external antenna - see accessories)
Receiver Frequency	900 MHz Spread Spectrum
RF Channels	Four independent network frequencies
Enclosure	Hinged fiberglass with window / NEMA 3, 3R, 4, 12, 13
Operating Temp	-40° F to +185° F

REPLACEMENT PARTS & ACCESSORIES

PC Board (Main)	Fill In
Standard Antenna (Included):	
900MHz Portable Antenna (For distances up to 2500 feet*)	49-1103
Optional Antennas and Accessories:	
900MHz Omni Directional Antenna (For distances of 2500 feet to 2 miles*)	49-3101
900MHz 13dB Yagi Antenna Long Range Operation (For distances of 2 miles to 4 miles*)	49-3102
Flex Coax Cable w/Connectors	49-4000-XX (XX = # of Feet)
Inline Lightening Arrestor	49-5002

* = Line of Sight

LIMITED WARRANTY STATEMENT

BWI Eagle Inc. warrants the Air-Eagle XLT 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 Eagle 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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