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PRODUCT INFORMATION BULLETIN

AIR-EAGLE® XLT PLUS High Power 900MHz RF Receiver Latching Relay Model MODEL 46-2500

DESCRIPTION

The AIR-EAGLE XLT PLUS 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 multi-input 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. The Air-Eagle XLT Plus is capable of receiving remote signals transmitted from several miles away and it's built in signal strength tester aids in determining optimum placement. The model 46-2500 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 Plus 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.

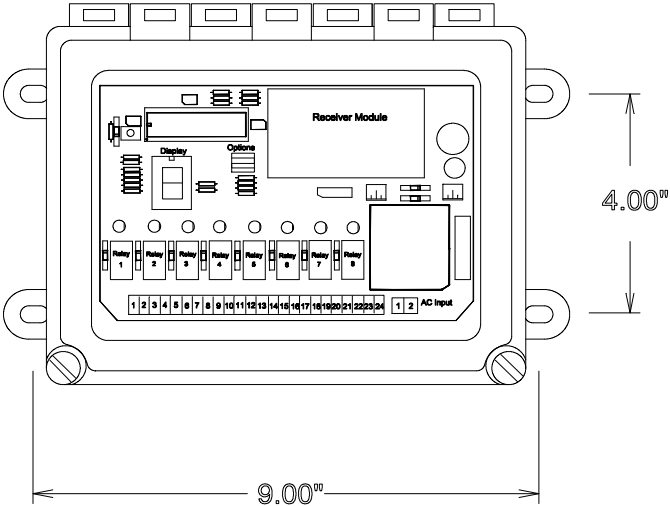
TERMINAL STRIP WIRING

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 Relay #8
5	C Relay #2	14	C Relay #5	23	C Relay #8
6	N/C Relay #2	15	N/C Relay #5	24	N/C Relay #8
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)



DIMENSIONS



Enclosure height equals 4.25 inches.

RELAY OPERATION

46-1000 Signals Received	Relay Function
Input 1 Closed	Relay 1 energizes, latching
Input 2 Closed	Relay 1 de-energizes
Relays 3 thru 8 not used with the 46-1000 transmitter	

AIR-EAGLE[®] XLT PLUS

High Power 900MHz RF Receiver

MODEL 46-2500



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 <u>or</u> 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
SEL1 (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		

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"	Relay #1 is energized	Signal Strength "1" received (weakest)
"2"	Relay #2 is energized	Signal Strength "2" received
"3"	Relay #3 is energized	Signal Strength "3" received
"4"	Relay #4 is energized	Signal Strength "4" received
"5"	Relay #5 is energized	Signal Strength "5" received
"6"	Relay #6 is energized	Signal Strength "6" received
"7"	Relay #7 is energized	Signal Strength "7" received
"8"	Relay #8 is energized	Signal Strength "8" received
"9"	N/A	Signal Strength "9" received (strongest)

SPECIFICATIONS

AC Input Models	120 VAC, 16 W, 50/60 Hz
Fuse Protected	1 amp
Transceiver Frequency	900 MHz Spread Spectrum
Receiver Range	Approximately 1 mile (up to 25 miles with external antennas - see accessories)
Receiver Coding	Four independent networks
Enclosure	Hinged fiberglass with window / NEMA 4, 4x, 12 + 13

REPLACEMENT PARTS & ACCESSORIES

PC Board (Main)	46-2502
Air-Eagle XLT Transmitter (Contact Input)	46-1000
Replacement Transceiver Antennas:	
900MHz TNC Portable Antenna (For Distances Of Up To 2 Miles *)	49-1103
900MHz Omni Directional Base Antenna (For Distances Of Up To 10 Miles *)	49-3101
900MHz 13.9dB Yagi Directional Base Antenna (For Distances Of Up To 25 Miles *)	49-3102
* = 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 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.

DOCUMENT DATE: 4-Nov-04



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