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PRODUCT INFORMATION BULLETIN

AIR-EAGLE® XLT 900 MHz RF Receiver MODEL 44-20100-DC

DESCRIPTION

The AIR-EAGLE XLT is an RF system designed for medium to long 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 a 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. Seven user selectable frequencies allow multiple systems to be used in the same area. Capable of receiving remote signals transmitted from up to 2500 feet away (with the handheld transmitter) or up to 2 miles away (with the contact input transmitter), the Air-Eagle XLT utilizes spread-spectrum technology and provides the utmost security and reliability even in the noisiest RF environments.

APPROVALS

United States (FCC)	MCQ-XB900HP
Canada (IC)	1846A-XB900HP

INSTALLATION

DISCONNECT DC Power from all equipment before installation.

1. Mount the AIR-EAGLE XLT RECEIVER in a convenient location.
2. Install wiring to terminal strip
3. Install antenna to the TNC connector on top of unit.
4. Connect DC power to the proper terminals in your control circuit.

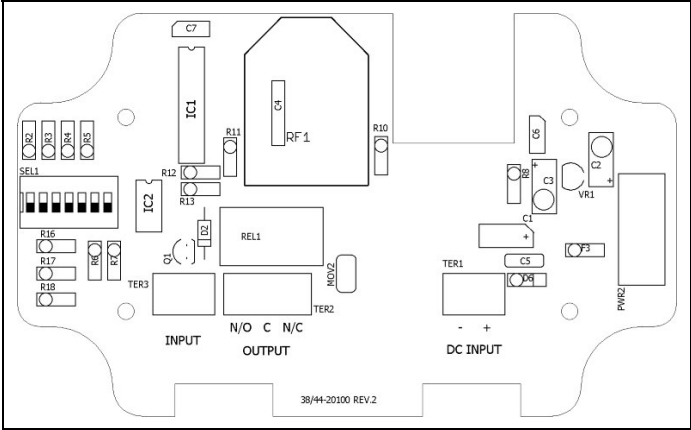
TERMINAL STRIP WIRING

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		



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® XLT

900 MHz RF Receiver

MODEL 44-20100-DC

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 (default in all models)	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 (default)	Toggle Latching (Single Button Control)
SW2	Maintained Momentary (default)	Latching (Two Button Control)
SW3	Vibrating Feedback Off	Vibrating Feedback On
SW4**	Repeater Function Off (default)	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 (default)	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

SPECIFICATIONS

DC Input	9 – 36 VDC @ 10 Watts
Relay Contact	SPDT 5 amp @ 120VAC or 30VDC
Fuse Protected	1 amp
Receiver Frequency	900 MHz Spread Spectrum
Receiver Range – Dependant upon transmitter – see below:	
Using Handheld TX	Approximately 2500 feet
Using Stationary TX & External Antenna	Up to 2 Miles
Receiver Channels	Seven independent network frequencies
Operating Temperature	-40° F to +185° F
Enclosure	Polycarbonate NEMA 4, 12, 13 – IP66
Weight	Approx 2 lbs.

REPLACEMENT PARTS & ACCESSORIES

PC Board (Main)	44-20102
Standard Antenna (Included):	
900MHz Portable Antenna (For distances up to 2500 feet*)	49-1103
Optional Antennas and Accessories – Used to increase range in both non line of sight and line of sight applications. - Contact BWI Eagle for recommendations	
900MHz Omni Directional Antenna (For distances up to 2 miles*)	49-3101
900MHz 13dB Yagi Antenna Long Range Operation (For distances up to 4 miles*)	49-3102
Flex Coax Cable w/Connectors	49-4000-XX (XX = # of Feet)
2 Ft. Bulkhead Assembly (Used when mounting receiver inside another enclosure)	49-5004-2

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.

DOCUMENT DATE: 6/7/17 / PRODUCT REV.3