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PRODUCT INFORMATION BULLETIN

AIR-EAGLE® XLT 900 MHz RF Transmitter MODEL 441-1400-DC

DESCRIPTION

The AIR-EAGLE XLT TX is an R.F. transmitter capable of sending four independent dry-contact input commands to an Air-Eagle XLT Receiver located up to 2500 feet away (longer ranges can be achieved with external high gain antennas) Any number of transmitters and receivers can be combined to create a medium range radio frequency system that operates hazardous or hard-to-reach electrical apparatus from safe, convenient locations. Seven user-selectable frequencies allow multiple systems to operate simultaneously in the same area without interference.

APPROVALS

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

INSTALLATION

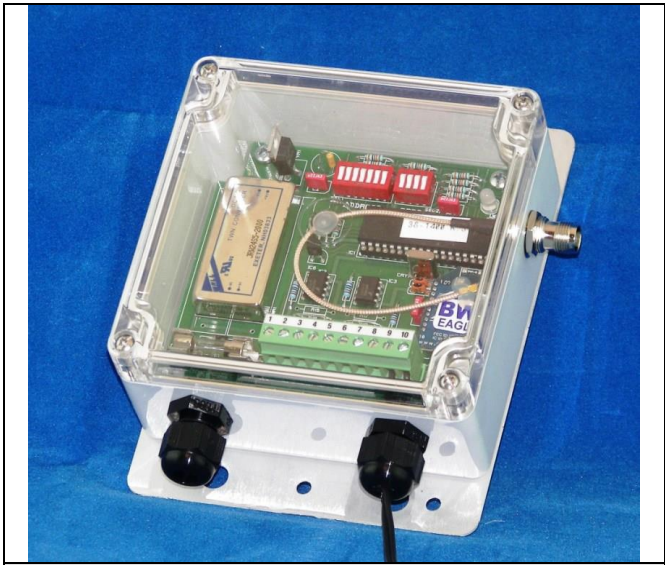
1. Mount the AIR-EAGLE XLT TRANSMITTER in a convenient location.
2. Install wiring to contact input terminal strip (Note – the terminal block header lifts off the base for easy wiring)
3. Make desired repeater mode and frequency selections using instructions on page 2.
4. Attach supplied antenna to connector on right side of unit.
5. Connect DC power to the proper terminals in your control circuit.

TERMINAL STRIP WIRING

Wire as shown based on number of contact inputs									
1	2	3	4	5	6	7	8	9	10
C Input 1	Input 1	C Input 2	Input 2	C Input 3	Input 3	C Input 4	Input 4	(-) 9-36VDC input	(+) 9-36VDC input

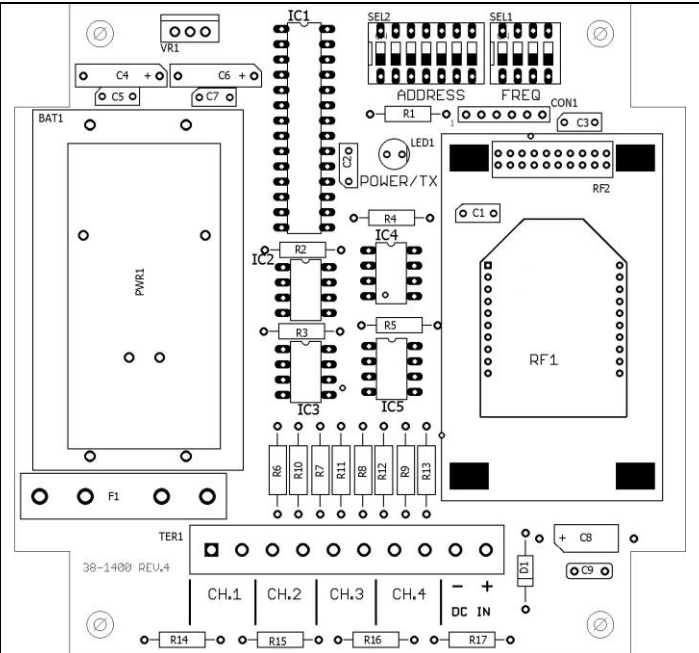
GENERAL OPERATION

A closure on any input transmits its channel command to activate the corresponding relay in the remote receiver. The transmission continues as long as the input is closed and ceases when the input opens.



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

CONTROLS & INDICATORS



TX LED	Illuminates green when power is applied. Changes to red while any contact input is closed and unit is transmitting.
Dry Contact Inputs	Transmits individual RF codes to the receiver
SEL2	Dip switch bank for digital address selection
SEL1	Dip switch bank for frequency & repeater mode selection

AIR-EAGLE® XLT

900 MHz RF Transmitter

MODEL 441-1400-DC

DIGITAL ADDRESS, FREQUENCY & REPEATER MODE SET-UP

The unit is shipped from the factory with all SEL1 and SEL2 switches in the open positions. By default it is operating on Digital Address #1, Frequency #1 and the command transmitted will not be repeated by the receivers. If you wish to transmit on a different address and/or frequency, and/or set the unit to transmit a repeating packet, follow the instructions on the table below.

Note – only change digital address if using with a digitally addressable receiver. Otherwise, the digital address must be kept at the default of Digital Address “1”.

- 1) Remove power from unit and remove top cover.
- 2) Select desired digital address, network frequency and repeater mode using tables below.
- 3) Reattach cover and apply power. Programming is now complete.

DIGITAL ADDRESS SET-UP

SEL2 (SW1 – 4)

SEL2 (SW1-4)	Digital Address	SW1	SW2	SW3	SW4
	1 (default)	OPEN	OPEN	OPEN	OPEN
2	CLOSED	OPEN	OPEN	OPEN	OPEN
3	OPEN	CLOSED	OPEN	OPEN	OPEN
4	CLOSED	CLOSED	OPEN	OPEN	OPEN
5	OPEN	OPEN	CLOSED	OPEN	OPEN
6	CLOSED	OPEN	CLOSED	OPEN	OPEN
7	OPEN	CLOSED	CLOSED	OPEN	OPEN
8	CLOSED	CLOSED	CLOSED	OPEN	OPEN
9	OPEN	OPEN	OPEN	CLOSED	CLOSED
10	CLOSED	OPEN	OPEN	CLOSED	CLOSED
11	OPEN	CLOSED	OPEN	CLOSED	CLOSED
12	CLOSED	CLOSED	OPEN	CLOSED	CLOSED
13	OPEN	OPEN	CLOSED	CLOSED	CLOSED
14	CLOSED	OPEN	CLOSED	CLOSED	CLOSED
15	OPEN	CLOSED	CLOSED	CLOSED	CLOSED
16	CLOSED	CLOSED	CLOSED	CLOSED	CLOSED

SEL2 (SW5-7) – Leave in OPEN position!!

FREQUENCY SET-UP

SEL1 (SW1-3)

SEL1 (SW1-3)	Network Frequency	SW1	SW2	SW3
	1 (default)	OPEN	OPEN	OPEN
2	CLOSED	OPEN	OPEN	OPEN
3	OPEN	CLOSED	OPEN	OPEN
4	CLOSED	CLOSED	OPEN	OPEN
5	OPEN	OPEN	CLOSED	CLOSED
6	CLOSED	OPEN	CLOSED	CLOSED
7	OPEN	CLOSED	CLOSED	CLOSED

REPEATER MODE

SEL1 SWITCH NUMBER	OPEN	CLOSED
SW4	Repeater Mode OFF (default)	Repeater Mode ON

SPECIFICATIONS

DC Input	9-36VDC Input @ 10 W Fuse Protected – 1A Slo-Blo
Transmit Data	Four Dry Contact Inputs
Transmit Frequency	900MHz Spread Spectrum
RF Output Power	250 mW
Transmit Range	Approximately 2500 Feet w/standard antenna
Transmitter Channels	7 Independent Network Frequencies
Enclosure	Polycarbonate, IP66 (NEMA 4)
Operating Temperature	-40° F to +185° F

REPLACEMENT PARTS & ACCESSORIES

PC Board (Main)	441-1402-DC
Standard Antenna (Included):	
900MHz Portable Antenna (For distances up to 2500 feet*)	49-1103
Optional Antennas and Accessories:	
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 receive inside another enclosure)	49-5004-2-ISO
* = 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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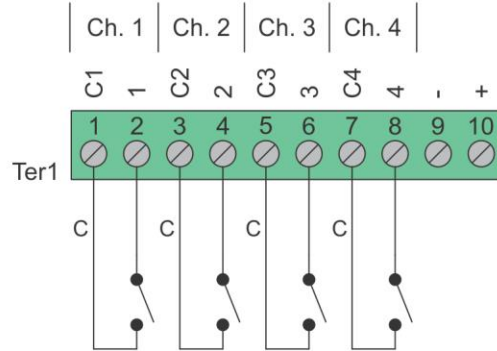


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DRY CONTACT INPUT WIRING 4-Input Transmitter

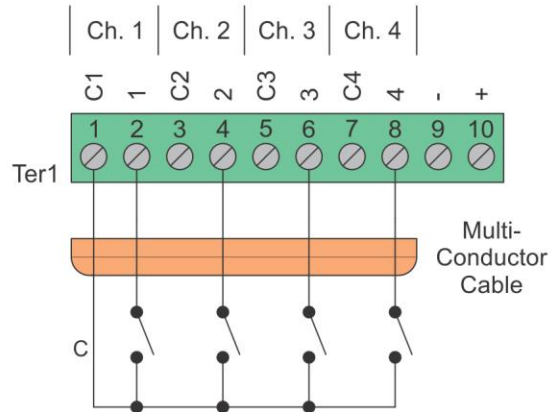
Standard wiring of a dry contact input transmitter

Shorting together the contacts of the respective channel will cause it to transmit. This can be done with any type of manual or automatic switch.



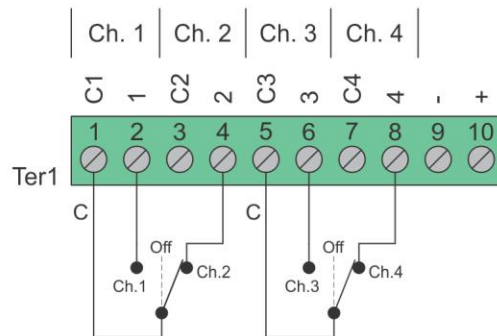
Standard Wiring for Common Ground Applications

Because each channel shares a common (C) terminal, inputs can be wired as shown to allow for fewer conductors to be run to the transmitter.



SPDT Switches

The common (C) terminal of the switch only needs to be connected to one of the channels ground terminal. In this configuration two channels would be transmitting all the time. A switch with a center "off" position would allow transmitting to stop. In this example channels 2 and 4 are transmitting.



Wiring configurations shown here are examples. The wiring for your application may differ.
Call BWI Eagle for assistance or consult an electrician.