BWI EAGLE

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PRODUCT INFORMATION BULLETIN

AIR-EAGLE® XLT *PLUS*
High Power 900 MHz RF Transmitter
DUAL CONTACT INPUT
MODEL 461-1000-DC

DESCRIPTION

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

INSTALLATION

1. Mount the AIR-EAGLE XLT PLUS TRANSMITTER in a convenient location.
2. Install transmit control wiring to contact input terminal strip.
3. Attach rubber duck antenna or coax from external antenna to connector on side of enclosure.
4. Connect supplied power input cable to your external power source.

PC BOARD SET-UP INFORMATION

Make the following connections on the PC Board Terminal Strip (TER1)

TERMINAL STRIP WIRING (TER1)	
Terminal 1	Negative (-) 9-36VDC INPUT
Terminal 2	Positive (+) 9-36VDC INPUT
Terminal 3	CH1 Dry Contact Input (Common)
Terminal 4	CH1 Dry Contact Input
Terminal 5	CH2 Dry Contact Input (Common)
Terminal 6	CH2 Dry Contact Input
Terminal 7	CH3 Dry Contact Input (Common)
Terminal 8	CH3 Dry Contact Input
Terminal 9	Not Used
Terminal 10	Not Used
Terminal 11	Not Used
Terminal 12	Not Used
Terminal 13	Not Used
Terminal 14	Not Used
Terminal 15	Not Used
Terminal 16	Not Used
Terminal 17	Not Used
Terminal 18	Not Used

CONTROLS & INDICATORS
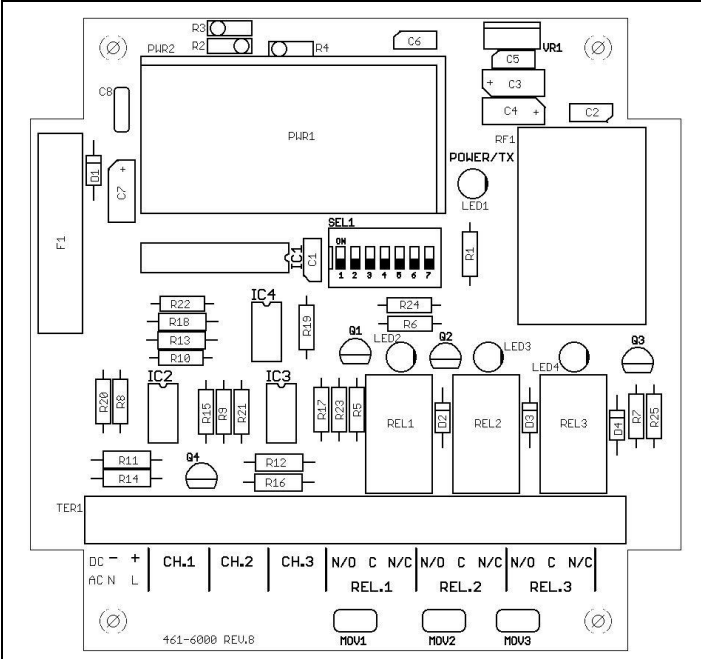
PWR/TX LED	Illuminates Green when power is applied, changes to Red when transmitting.
LED 1, 2 & 3	Not used on this model
CH1 – CH3 Dry Contact Inputs	Transmit individual RF codes to the remote receiver
REL1, REL2, REL3	Not used on this model
RF1	RF Module that transmits/receives data

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GENERAL OPERATION

A contact closure on each input transmits to energize the corresponding relay in any receiver within transmit range. The signal transmits continuously as long as the input is closed.
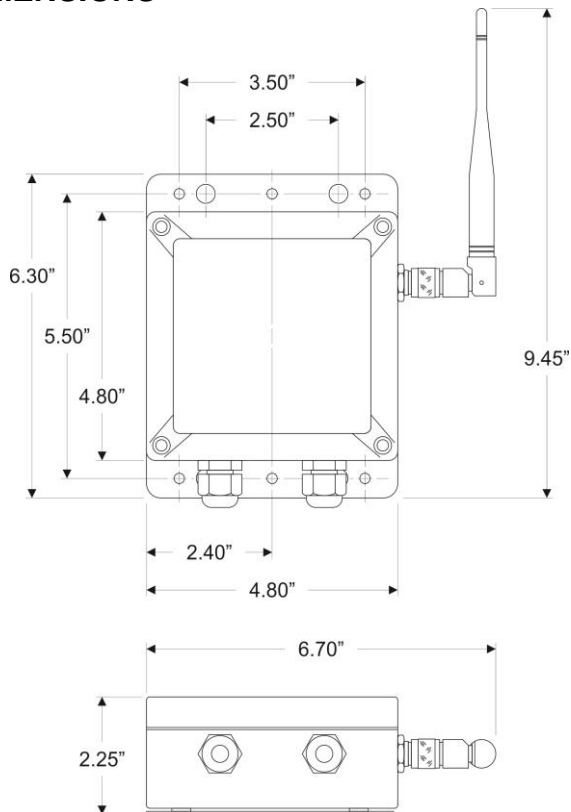
FREQUENCY SET-UP

The unit is shipped from the factory with all SEL1 switches in the open positions. By default, it is operating on Frequency #1. If you wish to change the frequency, follow the instructions on the table below.

1) Remove power from unit
2) Remove top cover.
3) Select desired network frequency using table below.
4) Reattach cover and apply power.
5) Programming is now complete.

	Network Address	SW1	SW2	SW3
SEL 1 (SW 1-3):	1 (default)	OPEN	OPEN	OPEN
	2	CLOSED	OPEN	OPEN
(NETWORK FREQUENCY)	3	OPEN	CLOSED	OPEN
	4	CLOSED	CLOSED	OPEN
	5	OPEN	OPEN	CLOSED
	6	CLOSED	OPEN	CLOSED
	7	OPEN	CLOSED	CLOSED
	8	CLOSED	CLOSED	CLOSED
SEL 1 (SW4-7)	Reserved for future use			

DIMENSIONS

SPECIFICATIONS

Power Supply	9-36 VDC, 5 W
Fuse Protected	2 amp
Transmitter Data	Three DRY Contact Inputs
Transmit Frequency	900MHz Spread Spectrum
RF Networks	Eight Independent Network Frequencies
RF Output Power	1 Watt
Transmit Range	Up to 1 Mile with Rubber Duck Antenna / Up to 10 Miles with External Antenna

Note: Range figures are estimates, based on free-air terrain with limited sources of interference. Actual range will vary based on transmitting power, orientation of transmitter and receiver, height of transmitting antenna, height of receiving antenna, weather conditions, interference sources in the area, and terrain between receiver and transmitter, including, but not limited to, indoor and outdoor structures such as walls, metal objects, trees, buildings, hills, and mountains.

Enclosure	Polycarbonate, IP66 (NEMA 4)
Operating Temp	-40º F - +185º F

APPROVALS

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

ACCESSORIES

Standard Antenna (Included):	
900MHz TNC "Rubber Duck" Antenna	49-1103
Mobile/Base Antennas – Used to help achieve max range in both non line of sight and line of sight applications. - Contact BWI Eagle for recommendations	
900MHz Thru-Hole Mount Mobile Antenna	49-2101
900MHz Magnet Mount Mobile Antenna	49-2102
900MHz Omni Directional Base Antenna	49-3101
900MHz Yagi Directional Base Antenna	49-3102
High Quality Coax Cables – Used to connect external high gain antennas to control unit	
Flex Coax Cable w/Connectors – Available in 5',15',25',30',40',60',80',100' Lengths	49-4000-XX (XX = # of Feet)
Bulkhead Extensions – Used to provide an external antenna connection when mounting control unit inside another enclosure	
TNC Male to TNC Bulkhead Cable Assembly - Available in 2', 4', 7' Lengths	49-5004-X-ISO (X = # of Feet)

LIMITED WARRANTY STATEMENT

DRY CONTACT INPUT WIRING
## 3-Input Transmitter

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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.
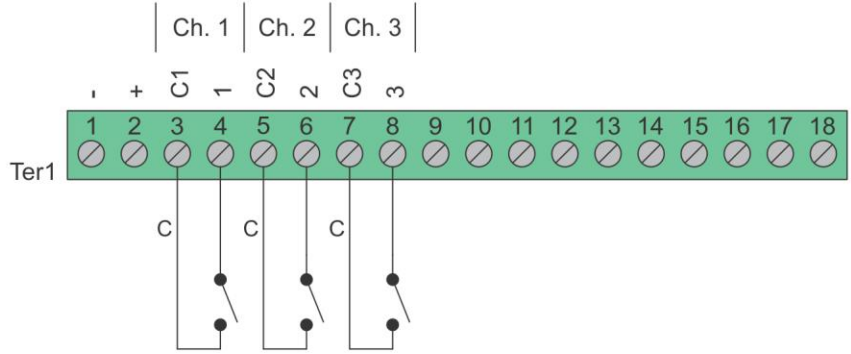
Standard Wiring for Common Ground Applications

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.

Multi-Conductor Cable
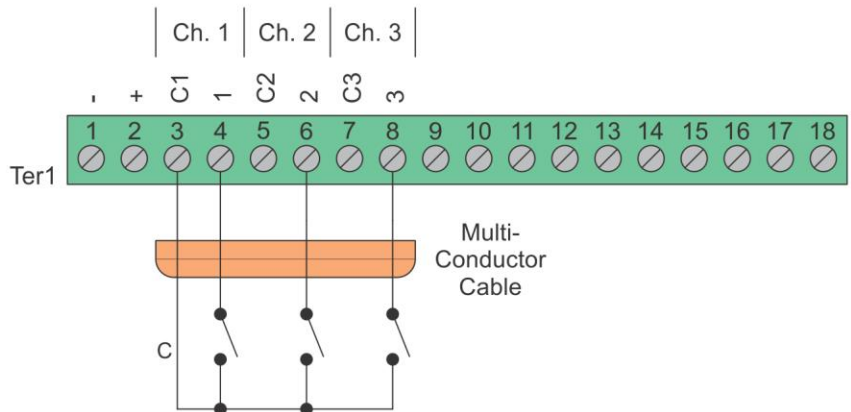
SPDT Switches

The common (C) terminal of the switch only needs to be connected to one of the channels ground terminal. In this configuration one channel would be transmitting all the time. A switch with a center "off" position would allow transmitting to stop.
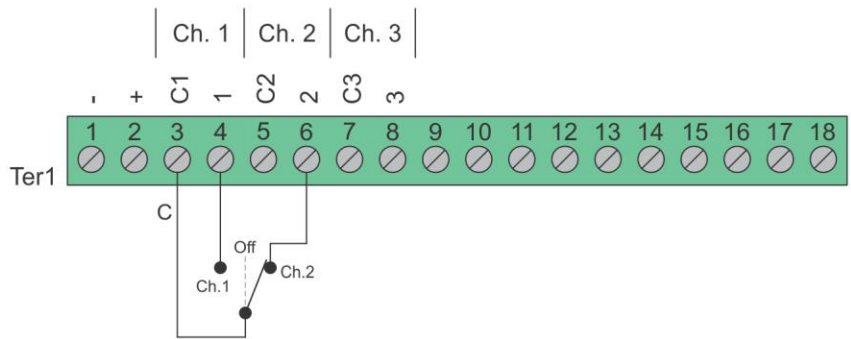
Wiring configurations shown here are examples. The wiring for your application may differ.
Call BWI Eagle for assistance or consult an electrician.

Updated: 4/29/2019