

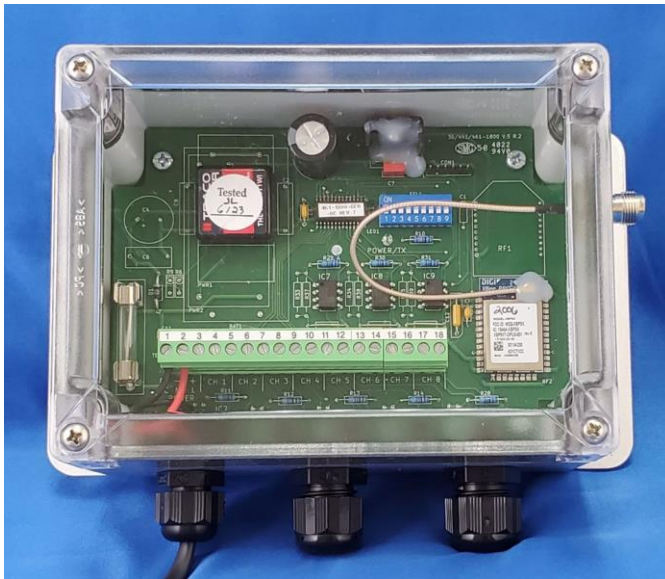
# AIR-EAGLE XLT PLUS

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## 461-1800-DC

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### 900 MHz RF Transmitter



Document Date: 6/26/2023  
Product Rev: 3

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**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.

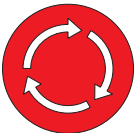
**SIGNAL RANGE**

Max range statements are estimates based on a clear line of sight with few interferences. Actual range will vary based on transmitting power, orientation of transmitter and receiver, height of transmitting and receiving antennas, weather conditions, electronic interference, terrain, and physical obstacles, including but not limited to; walls, building structures, trees (foliage), metal objects, and landscape (hills, mountains).



**WIRELESS STOP, ASTOP, and E-STOP SYSTEMS**

Wireless E-STOP systems should never be considered a primary life-saving device. At least one hard-wired switch must be available in the event the wireless system is not operational. Failure to comply may result in serious injury or death to personnel and damage to equipment.



Wireless STOP and ASTOP transmitters are not failsafe emergency stop controls. They are NOT to be used as a life-saving device. They are designed for wireless control of equipment or vehicle remote operation. Failure to use as intended may result in serious injury or death to personnel and damage to equipment.



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### INTRODUCTION

The Air-Eagle XLT Plus is an RF system designed for extra-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 to create an extra-long range radio frequency system that operates hazardous or hard-to-reach equipment from safe, convenient locations.

Eight user selectable frequencies allow multiple systems to be used in the same area without interference.

This transmitter is equipped to send eight independent dry-contact input commands to an Air-Eagle XLT Plus receiver located up to 5000 feet away. Longer ranges can be achieved with external antennas (See ACCESSORIES section). The Air-Eagle XLT Plus transmitter utilizes spread-spectrum technology and provides the utmost in security and reliability.

### INSTALLATION

1. **DISCONNECT** power from all equipment before proceeding with installation.
2. Mount the transmitter in a convenient location.
3. Install input control wiring to the terminal strip. (See TERMINAL STRIP WIRING section.)
4. Attach rubber duck antenna or coax from external antenna to connector on side of enclosure.
5. Connect supplied power input cable to your external power source.

### 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.

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### TERMINAL STRIP WIRING

Terminal 1	(-) 9-36 VDC
Terminal 2	(+) 9-36 VDC
Terminal 3	Input 1 Common
Terminal 4	Input 1
Terminal 5	Input 2 Common
Terminal 6	Input 2
Terminal 7	Input 3 Common
Terminal 8	Input 3
Terminal 9	Input 4 Common
Terminal 10	Input 4
Terminal 11	Input 5 Common
Terminal 12	Input 5
Terminal 13	Input 6 Common
Terminal 14	Input 6
Terminal 15	Input 7 Common
Terminal 16	Input 7
Terminal 17	Input 8 Common
Terminal 18	Input 8

### FREQUENCY SETUP

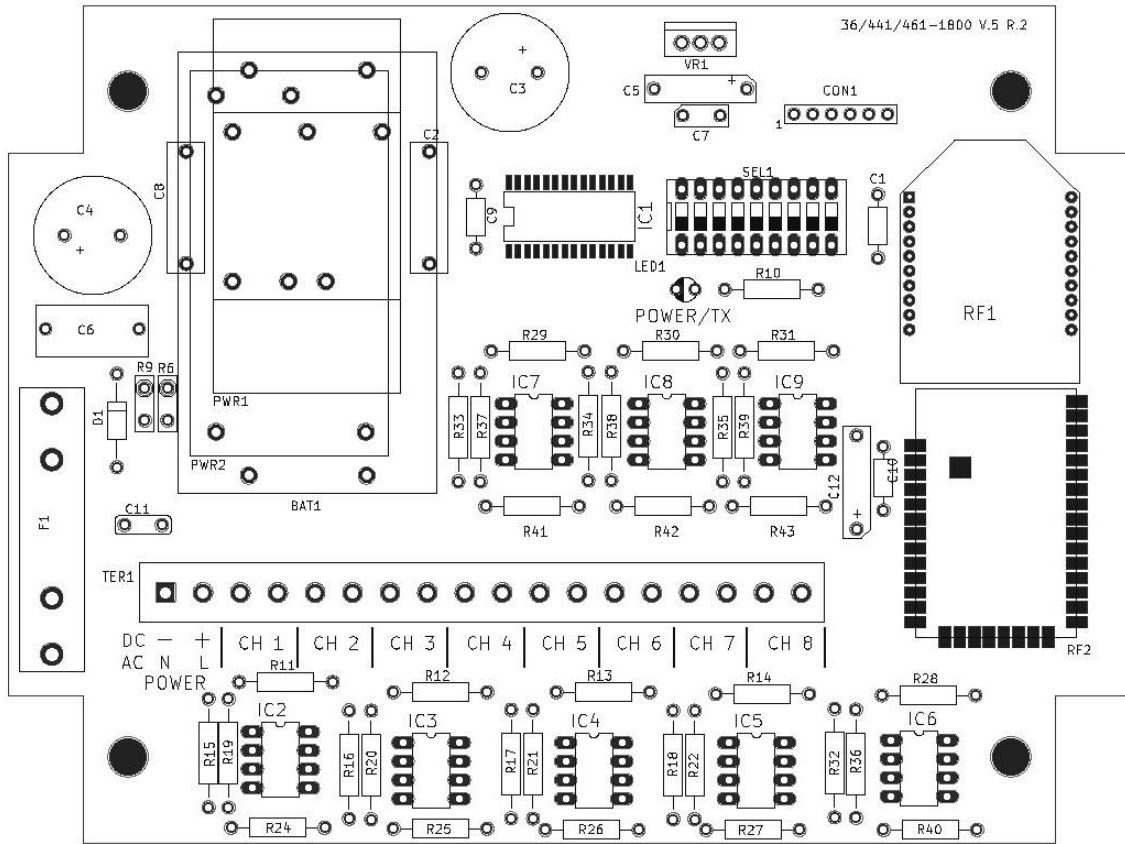
The unit is shipped from the factory with SEL1 switches in the open positions. The unit is transmitting on frequency 1. To change the default setting, follow the instructions below:

1. **\*IMPORTANT\***  
Disconnect power from unit.
2. Remove top cover.
3. Select desired frequency using the table.
4. Reattach cover.
5. Reconnect power to unit.
6. Programming is complete.

NETWORK FREQUENCY	SW1	SW2	SW3
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
8	CLOSED	CLOSED	CLOSED
Note: SW4, SW5, SW6, SW7, SW8, and SW9 are not used on this model			

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## CONTROLS & INDICATORS



<b>POWER/TX LED1</b>	Dual color LED illuminates red while unit is booting up, changes to green when boot-up is successful and unit is ready to operate. If this LED fails to turn green, power unit off for 15-20 seconds, then reapply power.
<b>CH 1 – CH 8 Inputs</b>	Eight normally open dry contact inputs
<b>SEL1</b>	Dip switch bank for selecting operating frequency
<b>RF1</b>	RF module that transmits data to the remote receiver

## APPROVALS

United States (FCC)	MCQ-XBPSX
Canada (IC)	1846A-XBPSX
Australia	RCM
Brazil	ANATEL: 05774-16-01209

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### SPECIFICATIONS

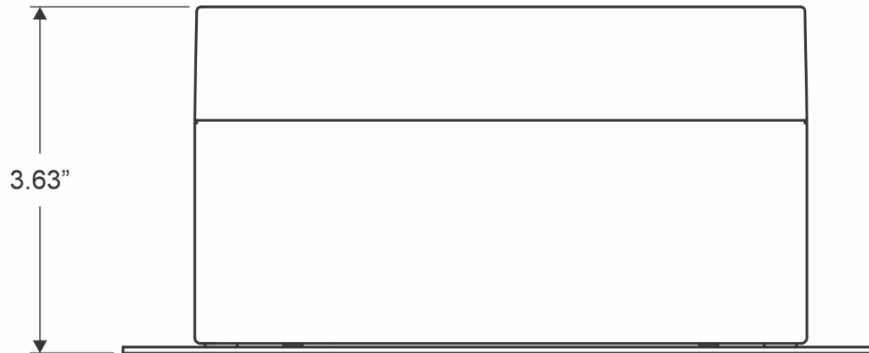
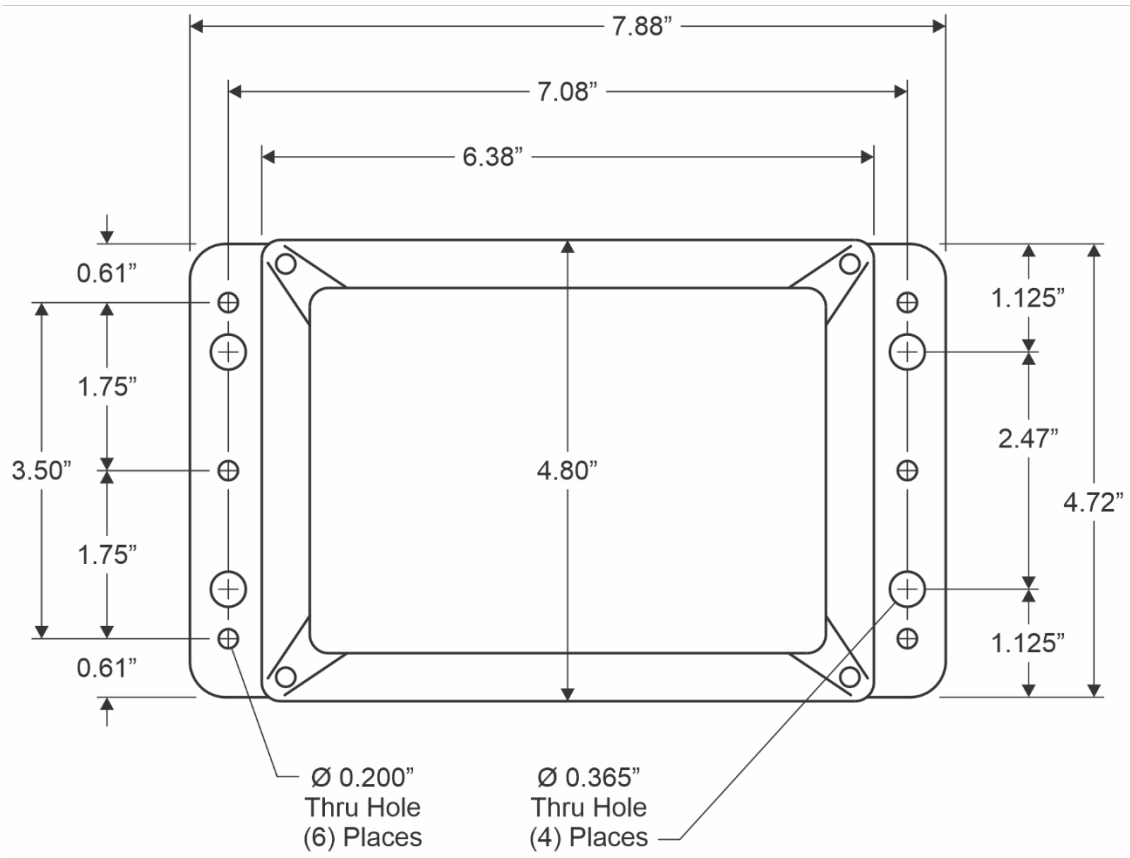
<b>Power Supply</b>	9-36VDC @ 10W
<b>Fuse Protected</b>	1 amp
<b>Frequency</b>	900 MHz Spread Spectrum
<b>Input Channels</b>	Eight Dry Contact Inputs
<b>RF Output Power</b>	1 Watt
<b>Range</b>	Up to 5000 feet *
<b>RF Networks</b>	Eight Independent Network Frequencies
<b>Antenna Connection</b>	TNC Bulkhead
<b>Enclosure</b>	Polycarbonate, IP66 (NEMA 4)
<b>Operating Temperature</b>	-40° F to +185° F
<p>*Note: Max range statements are estimates based on a clear line of sight with few interferences. Actual range will vary based on transmitting power, orientation of transmitter and receiver, height of transmitting and receiving antennas, weather conditions, electronic interference, terrain, and physical obstacles, including but not limited to; walls, building structures, trees (foliage), metal objects, and landscape (hills, mountains).</p>	

### ACCESSORIES

STANDARD ANTENNA (INCLUDED)	
900MHz TNC Portable "Rubber Duck" Antenna	49-1103
MOBILE/BASE ANTENNAS (OPTIONAL) Used to help achieve max range in non-line-of-sight and line-of-sight applications. Contact BWI Eagle for recommendations.	
900MHz Thru-Hole/Bracket 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 CABLE Used to connect external antennas to control unit.	
Flex Coax Cable w/Connectors (Available in 5', 15', 25', 30', 40', 60', 80', and 100' lengths)	49-4000-XX (XX = length in feet)
BULKHEAD EXTENSION 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', and 7' lengths)	49-5004-X-ISO (X = length in feet)

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## DIMENSIONS



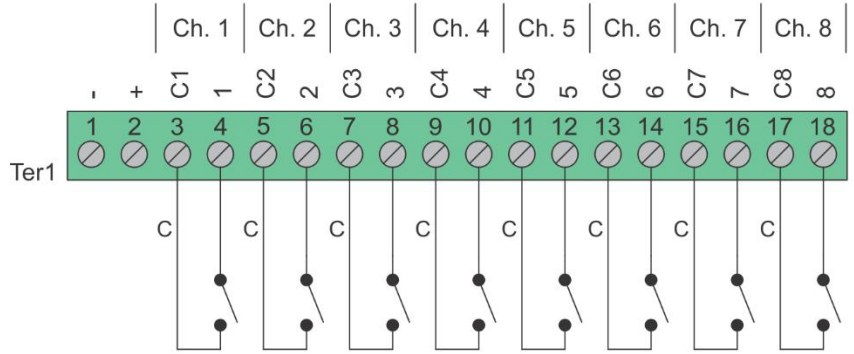


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# DRY CONTACT INPUT WIRING 8-Input Transmitter

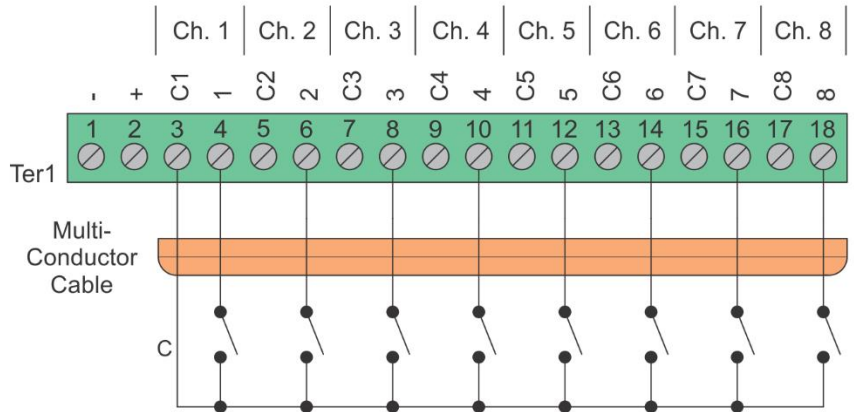
### Standard wiring of a dry contact input transmitter

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.



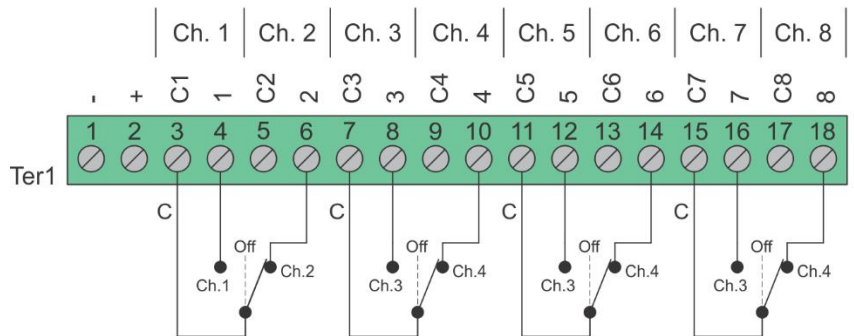
### Standard Wiring for Common Ground Applications

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 four channels would be transmitting all the time. A switch with a center "off" position would allow transmitting to stop. In this example channels 2, 4, 6, and 8 are transmitting.



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