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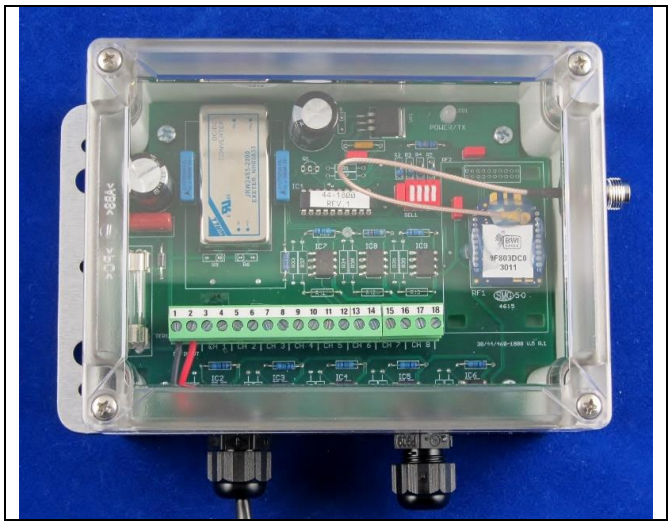
PRODUCT INFORMATION BULLETIN

AIR-EAGLE® SR PLUS
2.4 GHz RF Transmitter
MODEL 36UL-1800-DC



DESCRIPTION

The AIR-EAGLE SR PLUS, MODEL 36UL-1800-DC is an SGS certified R.F. transmitter capable of sending eight dry contact input commands to an Air-Eagle SR Receiver. 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 of up to 600 feet away. This unit is user-programmable for up eight network frequencies to allow multiple systems to operate simultaneously in the same area without interference.

Please read through this document in its entirety before proceeding with installation.

INSTALLATION

DISCONNECT DC Power from all equipment before installation.

1. Mount the control unit in a suitable location that allows the user to easily remove the lid of the enclosure for wiring access. When possible select a location that is not directly beside high energy transformers or large inductive relay housings. It is recommended to allow for a minimum of 2.0" clearance on all sides of the unit's housing & mounting plate. The power and control wiring exiting thru the provided cord grips should have ample room to bend without excessive stress. It is also important that any coax cable connected to the TNC connector have room to bend without "kinking".
2. Install dry contact input wiring to terminal strip (TER1).
3. Attach supplied rubber duck antenna to TNC connector on the right side of the unit.
4. Connect DC power to the proper terminals in your control circuit.

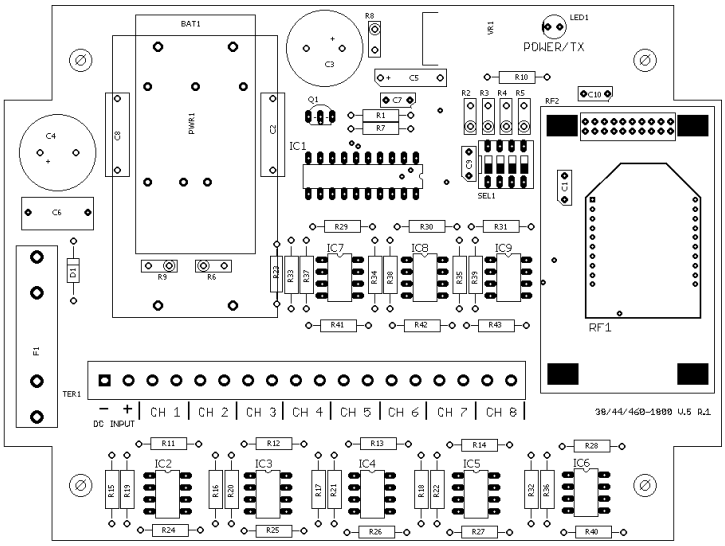
Note 1: (6) #10 thru holes & (4) 1/4-20 thru holes are provided on the mounted plate to secure the unit)

Note 2: The recommended power/control wire sizes to the terminal strip ranges from 24 AWG (0.205mm2) (min) to 18 AWG (0.823mm2) (max).

TERMINAL STRIP WIRING

1	(-) 10 - 24 VDC		
2	(+) 10 - 24 VDC		
3	Input 1 Common	11	Input 5 Common
4	Input 1	12	Input 5
5	Input 2 Common	13	Input 6 Common
6	Input 2	14	Input 6
7	Input 3 Common	15	Input 7 Common
8	Input 3	16	Input 7
9	Input 4 Common	17	Input 8 Common
10	Input 4	18	Input 8

CONTROLS & INDICATORS



POWER/TX LED	Illuminated green when power is applied. Changes to red when transmitting data
Inputs 1 thru 8	Eight normally open dry contact inputs
SEL1	Dip switch bank for selecting operating frequency
RF1	RF module that transmits data to the remote receiver

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FREQUENCY SET-UP

This transmitter is shipped with the SEL1 switches in the open positions and is operating on Frequency 1. If you wish to change the default frequency setting, follow the instructions below:

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

	Network Frequency	SW1	SW2	SW3
SEL1 (SW 1-3): *(NETWORK FREQUENCY)*	1	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
SEL1 (SW4)	Reserved for future use			

SPECIFICATIONS & CLASSIFICATIONS

SPECIFICATIONS	
DC Input	10 – 24 VDC @ 10 Watts
Fuse Protected	2 amp
RF Frequency	2.4GHz Spread Spectrum
Input Channels	8 Dry Contact Inputs
RF Output Power	60 mW
Transmitter Range	Approximately 600 Feet
Transmitter Frequencies	8 Independent Network Frequencies
Antenna Connection	TNC Bulkhead
Enclosure	Polycarbonate, IP66 Approved
Operating Temperature	-10° C to +55° C
Altitude	Under 2000 meters
SGS CLASSIFICATIONS Per UL 60730-1 and CAN/CSA E60730-1	
Automatic Control and Electrically Operated Control	
Incorporated Control and an Independently Mounted Control	
Type 1.C Action; Micro-Interruption	
PTI of Materials Used for Insulation: Material Group IIIb	
Electrical Shock Risk: Class II Control	
Period of Electrical Stress Across Insulating Parts Supporting Live Parts: Long Period	
Pollution Degree 2	

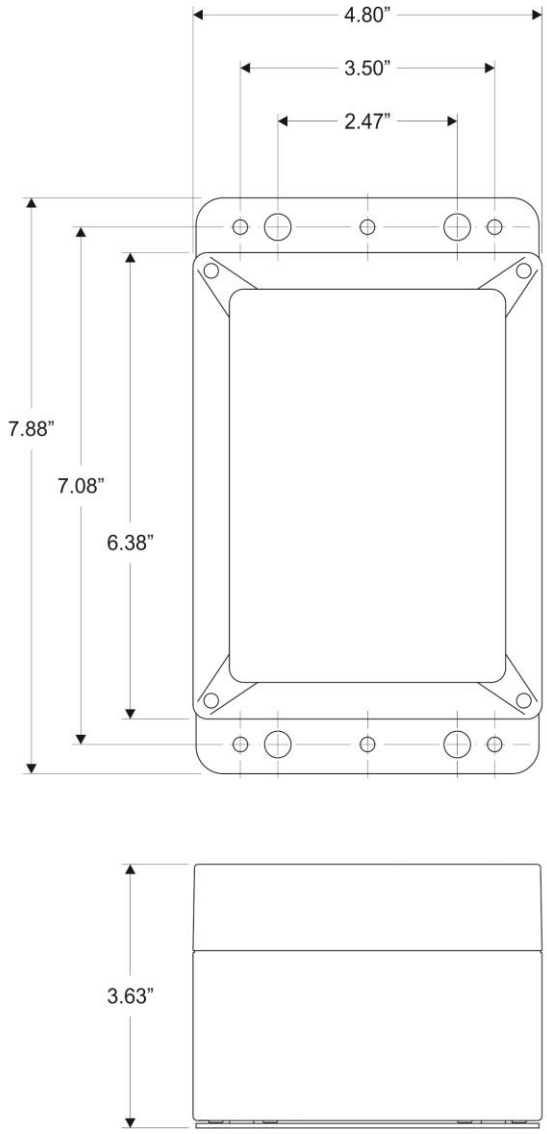
APPROVALS

SGS Certified	SGSNA/19/SUW/00017
United States (FCC)	OUR-XBEEPRO
Canada (IC)	4214A-XBEEPRO
Europe (CE)	ETSI

REPLACEMENT PARTS & ACCESSORIES

PC Board (Main)	36UL-1802-DC
Standard Antenna (Included):	
2.4GHz TNC Portable Antenna (For distances up to 600 feet*)	49-1201
Optional Antennas and Accessories – Used to increase range in both non line of sight and line of sight applications. - Contact BWI Eagle for recommendations	
2.4GHz Thru-Hole Mount Mobile Antenna	49-2201
2.4GHz Magnetic Mount Mobile Antenna	49-2202
2.4GHz Omni Directional Antenna	49-3201
2.4GHz 13dB Yagi Antenna	49-3202
Flex Coax Cable w/Connectors – Connects external antenna(s) to base unit(s).	49-4000-XX (XX = # of Feet)
2 Ft. Bulkhead Assembly (Used when mounting unit inside another enclosure)	49-5004-2-ISO
* = Line of Sight	

DIMENSIONS



AIR-EAGLE® SR PLUS

2.4GHz 8 Input Transmitter

MODEL 36UL-1800-DC

REPAIR STATEMENT

NO USER SERVICEABLE PARTS! RETURN TO THE MANUFACTURER FOR SERVICE.

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: 10/19/2021 / PRODUCT REV.5

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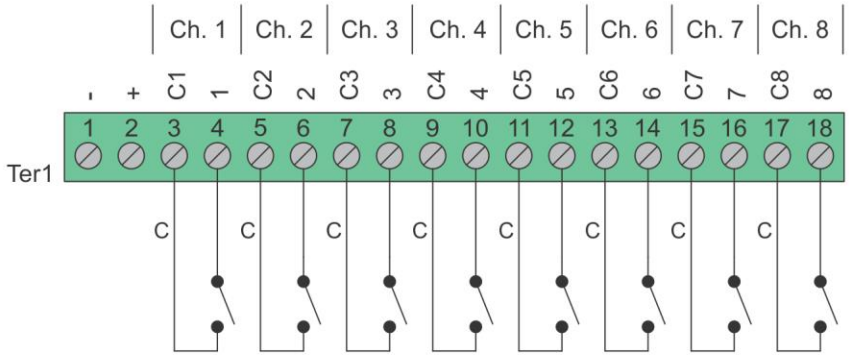
DRY CONTACT INPUT WIRING
8-Input Transmitter

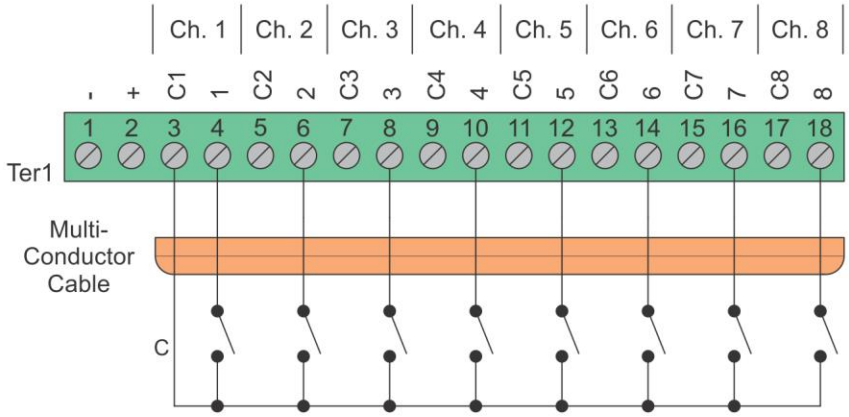
Standard wiring of a dry contact input transmitter

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

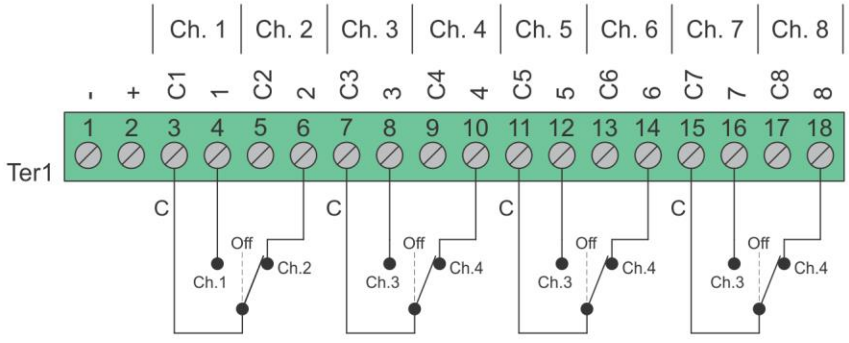
Because each channel shares a common (C) terminal, inputs can be wired as shown to allow for fewer conductors to be run to the transmitter.



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.

Updated: 4/29/2019