



105 Bonnie Drive
Butler, PA 16002
724-283-4681
724-283-5939 (fax)
www.bwieagle.com

PRODUCT INFORMATION BULLETIN

AIR-EAGLE® XLT Analog & Digital 900 MHz RF Transmitter MODEL 441AN/D-1000-120VAC

DESCRIPTION

The AIR-EAGLE XLT, MODEL 441AN/D-1000-120VAC is an RF transmitter capable of transmitting one analog or voltage input and one dry-contact input signal to an analog / dry-contact relay output receiver. The transmitter and receiver combine to create a long-range radio frequency system that monitors and operates hazardous or hard-to-reach electrical apparatus from safe, convenient locations of up to 2500 feet away (or longer with optional antennas).. This unit is user-programmable for up to eight network frequencies to allow multiple systems to operate simultaneously in the same area without interference.

INSTALLATION

1. Mount the AIR-EAGLE XLT TRANSMITTER in a convenient location.
2. Install wiring to input terminal strip and select input type by setting dip switches 1 and 2 on SEL1 (see INPUT OPTIONS)
3. Install antenna onto TNC connector on side of unit.
4. Plug supplied AC wall plug adapter into 110VAC outlet.

TERMINAL STRIP WIRING

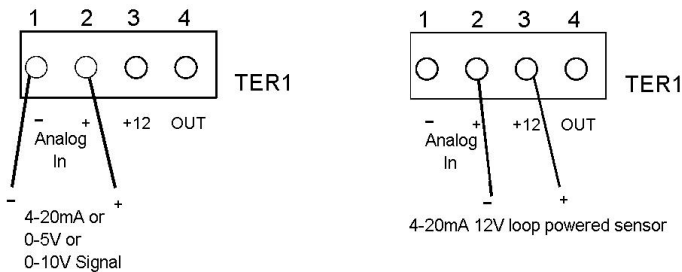
TER2 (LEFT BLOCK)			
1	2	3	4
Dry-Contact – Common	Dry-Contact – N/O	(-) 12VDC input from included AC wall adapter	(+) 12VDC input from included AC wall adapter

TER1 (RIGHT BLOCK)			
1	2	3	4
Analog In (-)	Analog In (+)	(+) 12VDC	Open Drain Output (not used)

Note #1 – Input type **MUST** be selected for the terminal strip wiring to take effect! (See INPUT OPTIONS & FREQUENCY SET-UP)

Note #2 – When using in 4-20mA mode or voltage mode connect input to TER1, Pins 1 and 2 – be sure to observe polarity

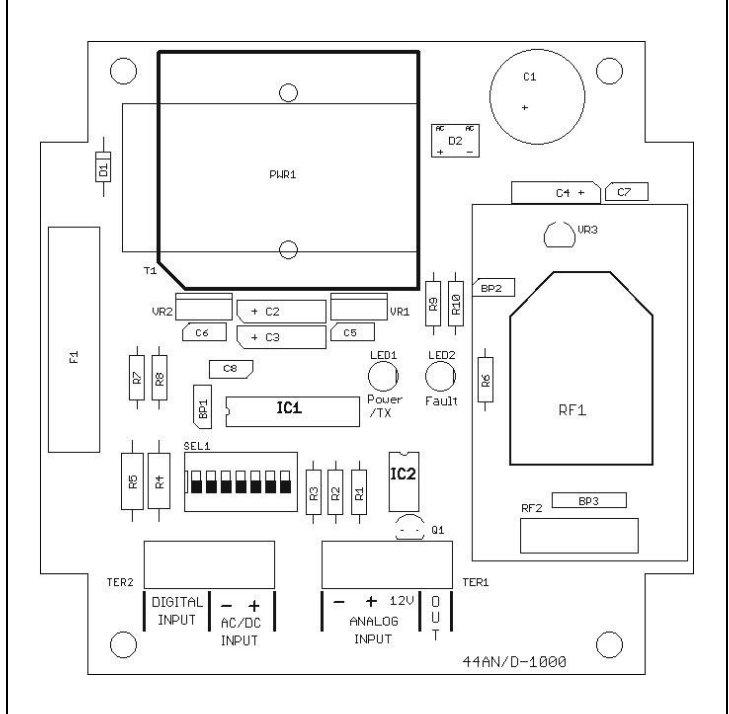
Note #3 – You can use a 12V loop powered 4-20mA sensor by connecting the (-) side to TER1, Pin 2 and (+) side to TER1, Pin 3. (use 12V powered sensor only – see wiring picture)



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

CONTROLS & INDICATORS

POWER/TX LED	Illuminates GREEN when powered on – Changes to RED when transmitting digital data
INPUT FAULT LED	Used in 4-20mA mode only – Illuminates RED when current loop open



AIR-EAGLE® XLT

Analog & Digital 900 MHz RF Transmitter

MODEL 441AN/D-1000-120VAC

INPUT OPTIONS & FREQUENCY SET-UP

This transmitter is factory set with no input type selected and to operate on frequency #1. If you wish to change the default settings, follow the instructions using the table below:

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

INPUT CONFIGURATION

SEL1 SW1 & 2	INPUT TYPE	SW1	SW2
	No Input Selected (default)	OPEN	OPEN
	4-20mA Input	CLOSED	OPEN
	0-5VDC Input	CLOSED	CLOSED
	0-10VDC Input	OPEN	CLOSED
SW3 & 4	Reserved for future use		

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
	8	CLOSED	CLOSED	CLOSED

SPECIFICATIONS

Inputs	One 4-20mA or voltage input (0-5 or 0-10VDC)
	One dry-contact input
Fuse Protected	2 amp slow-blow
Update Time	4 samples / second
AC Input	100-240 VAC, 16 W, 50/60 Hz from supplied wall adapter
Enclosure	Polycarbonate NEMA 4 (IP66)
Frequency	900MHz Spread Spectrum 8 Independent Networks
RF Output Power	250 mW
Transmit Range	Up to 2500 Feet with Standard Antenna
<small>Note: Max 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</small>	
Operating Temperature	-40° F to +185° F

APPROVALS

United States (FCC)	MCQ-XB900HP
Canada (IC)	1846A-XB900HP
Australia	RCM
Brazil	ANATEL 3727-12-1209

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

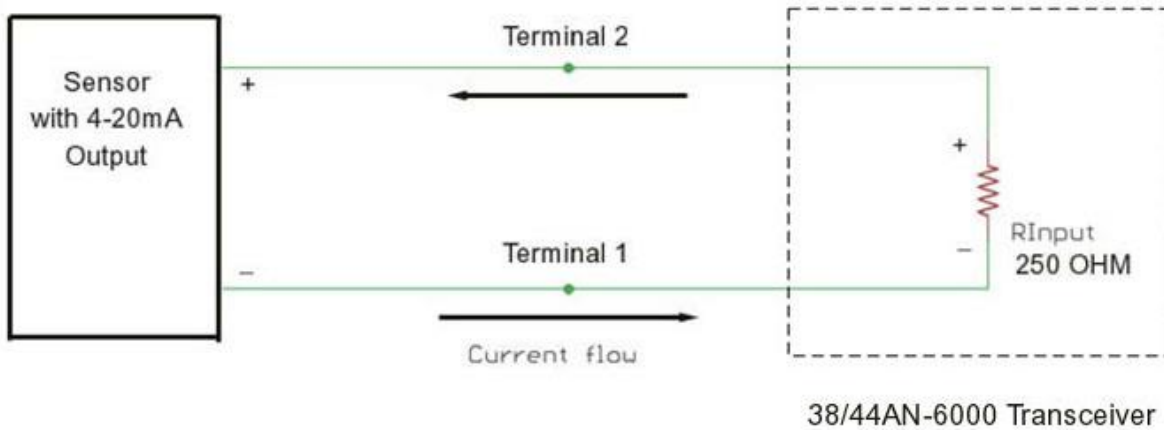
BWI Eagle Inc. warrants the Air-Eagle Remote Control System, if properly used and installed, will be free from defects in material and workmanship for a period of 1 year after date of purchase. Said warranty to include the repair or replacement of defective equipment. This warranty does not cover damage 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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441AN-1000-120VAC 4-20mA Installation



The above diagram shows a 4-20mA sensor hooked to channel 1 input. The 250 Ohm input resistor will drop a voltage of 1 Volt at 4mA and 5 Volts at 20mA. The sensor may be of any type and voltage that has a 4-20mA output. Even if the sensor runs on a voltage higher than 5 volts the current is still maintained between 4 and 20 milliamps so that the voltage drop on the resistor is always between 1 and 5 volts. Remaining voltage is dropped internally in the sensor. Loop powered sensors are not able to be used on this particular unit.