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PRODUCT INFORMATION BULLETIN

AIR-EAGLE[®] SR PLUS 2.4 GHz RF Transceiver MODEL 36AN-6000-4-200-DC

DESCRIPTION

The AIR-EAGLE XLT, MODEL 36AN-6000-4-20-DC is an RF transceiver capable of transmitting two 4-20mA or 0-5VDC inputs and receiving two 4-20mA analog signals. Two transceivers are used together to create a medium range radio frequency system that monitors electrical apparatus from safe, convenient locations of up to 600 feet away. 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 SR PLUSTRANSCEIVER in a convenient location
- 2. Install wiring to input/output terminal strip.
- 3. Designate a "master" unit and set SEL1 Switch #3 accordingly.
- 4. Install antenna onto TNC connector on side of unit.
- 5. Connect supplied power input cable to your external power source.

TERMINAL STRIP WIRING

1	2	3	4	5	6	7	8	9	10
Input 1 4-20mA (-)	Input 1 4-20mA (+)	Input 2 4-20mA (-)	Input 2 4-20mA (+)	Output 1 4-20mA (-)	Output 1 4-20mA(+)	Output 2 4-20mA(-)	Output 2 4-20mA(+)	(-) 9-36VDC input	(+) 9-36VDC input

CONTROLS & INDICATORS





INPUT OPTIONS & FREQUENCY SET-UP

This transceiver is factory set for 4-20mA input, 4mA link loss 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 options and/or frequency using table below.
- 4) Reattach cover and apply power.
- 5) Programming is now complete.

INPUT CONFIGURATION							
SEL1 SWITCH NUMBER	OF	PEN	CLO	CLOSED			
SW1	4-20mA Input	(default)	0-5VDC li	0-5VDC Input			
SW2	Link Loss 4mA	(default)	Link Loss	Link Loss 20mA			
<mark>SW3</mark>	Slave (default)		Master	Master			
Note – A dedicated master unit MUST be selected.							
SW4	Reserved for future use						
FREQUENCY SET-UP							
	Network Frequency	SW5	SW6	SW7			
	1 (default)	OPEN	OPEN	OPEN			
	2	CLOSED	OPEN	OPEN			
SEL1	3	OPEN	CLOSED	OPEN			
(SW5-7)	4	CLOSED	CLOSED	OPEN			
	5	OPEN	OPEN	CLOSED			
	6	CLOSED	OPEN	CLOSED			
	7	OPEN	CLOSED	CLOSED			
	8	CLOSED	CLOSED	CLOSED			

AIR-EAGLE® SR PLUS 2.4 GHz RF Transceiver

MODEL 36AN-6000-4-20O-DC

APPROVALS

United States (FCC)	MCQ-XBEE3
Canada (IC)	1846A-XBEE3
Europe (CE)	ETSI
Australia	RCM
Brazil	ANATEL 06329-18- 01209

SPECIFICATIONS

Inputs	Two 4-20mA (or) 0-5VDC			
Outputs	Two 4-20mA			
Safety Timer	15 seconds			
Update Time	4 samples / second			
DC Input	9 – 36 VDC @ 10 Watts Fuse Protected – 1A Slo-Blo			
Enclosure	Polycarbonate NEMA 4 (IP66)			
	2.4GHz Spread Spectrum			
Frequency	8 Independent Networks			
RF Output Power	60 mW			
Transmit Range	Up to 600 Feet			
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.				
Operating Temperature	-40° F to +185° F			

ACCESSORIES

Standard Antenna (Included):				
2.4GHz TNC "Rubber Duck" Antenna	49-1201			
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				
2.4GHz Thru-Hole Mount Mobile Antenna	49-2201			
2.4GHz Magnet Mount Mobile Antenna	49-2202			
2.4GHz Omni Directional Base Antenna	49-3201			
2.4GHz Yagi Directional Base Antenna	49-3202			
High Quality Coax Cables –				
Used to connect external high gain antennas to control unit				
	49-4000-XX			
Flex Coax Cable w/Connectors – Available in	(XX = # of			
5',15',25',30',40',60',80',100' Lengths	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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38/44AN-6000 Transceiver

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.





The above diagram shows the channel 1 output hooked to a 4-20mA receiver or PLC. The input resistance of the receiver can be up to 500 ohms. Anything higher and the current will be limited to below 20 mA since the maximum output voltage of the channel outputs is 10 volts.