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PRODUCT INFORMATION BULLETIN

AIR-EAGLE® XLT 900MHz RF Transceiver MODEL 461-40400-120VAC

DESCRIPTION

The AIR-EAGLE XLT PLUS RF TRANSCEIVER provides two-way wireless control of electronic equipment and apparatus at distances up to 1 mile (*). This model comes equipped with four dry contact inputs and four relay outputs. This allows the user to not only transmit information out, but receive a confirming signal back that the operation was performed. A terminal strip has been provided for interfacing with external dry contact inputs as well as dry contact relay outputs. The Air-Eagle XLT TRX is user-programmable for up seven network frequencies to allow multiple systems to operate simultaneously in the same area.
(*) - Longer distances can be achieved by using external antennas)

INSTALLATION

DISCONNECT Power from all equipment before installation.

1. Mount the AIR-EAGLE XLT PLUS TRANSCEIVER in a convenient location.
2. Install input & output wiring to the terminal strip (Note – terminal strip header lifts off base for easy wiring)
3. Install antenna to TNC connector on the right side of the enclosure.
4. Connect AC power to the proper terminals in your control circuit.

TERMINAL STRIP WIRING

| INPUTS | | OUTPUTS | | | |
|-------------|----------------|---------------------|--------------|----|--------------|
| 1 | Common Input 1 | 9 | N/O Relay #1 | 15 | N/O Relay #3 |
| 2 | Input 1 | 10 | C Relay #1 | 16 | C Relay #3 |
| 3 | Common Input 2 | 11 | N/C Relay #1 | 17 | N/C Relay #3 |
| 4 | Input 2 | 12 | N/O Relay #2 | 18 | N/O Relay #4 |
| 5 | Common Input 3 | 13 | C Relay #2 | 19 | C Relay #4 |
| 6 | Input 3 | 14 | N/C Relay #2 | 20 | N/C Relay #4 |
| 7 | Common Input 4 | | | | |
| 8 | Input 4 | | | | |
| AC INPUT | | | | | |
| Terminal #1 | | 120 VAC - (Neutral) | | | |
| Terminal #2 | | 120 VAC - (Hot) | | | |



*Note – DC Powered Unit Pictured

GENERAL OPERATION

Contact closures on inputs 1 thru 4 in the control transceiver transmit to activate relay #1 thru #4 in the remote transceiver. Inputs from the remote equipment provide closures to remote transceiver that transmit to energize relays #1 thru #4 in the control transceiver.

| INPUT ACTIVATED | ACTION |
|---------------------|--|
| "1" | Transmits channel 1 command to remote unit |
| "2" | Transmits channel 2 command to remote unit |
| "3" | Transmits channel 3 command to remote unit |
| "4" | Transmits channel 4 command to remote unit |
| INPUT CODE RECEIVED | ACTION |
| "1" | Relay #1 energizes, maintained momentary |
| "2" | Relay #2 energizes, maintained momentary |
| "3" | Relay #3 energizes, maintained momentary |
| "4" | Relay #4 energizes, maintained momentary |

AIR-EAGLE® XLT

900MHz RF Transceiver

MODEL 461-40400-120VAC

RELAY & FREQUENCY SET-UP

This unit is shipped from the factory with SEL1 switches #1 thru #7 in the open positions. All four relays will operate in a maintained momentary manor, and unit is receiving commands on frequency one. If you wish to change these default settings, follow the instructions on the table below.

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

RELAY CONFIGURATION

| SEL1 SWITCH NUMBER | OPEN | CLOSED |
|--------------------|--|--------------------------------|
| SW1 | Relays #1 thru #4 maintained momentary (default) | Relays #1 thru #4 toggle/latch |

Maintained Momentary – Relay mimics button or input – when depressed or closed, relay will be energized; when released, relay de-energizes

Toggle Latch – Relay changes (and holds) its state each time the corresponding button or input is depressed or closed momentarily

SW2-4 Not used on this model

FREQUENCY SET-UP

| SEL1 | Network Frequency | SW5 | SW6 | SW7 |
|---------|-------------------|--------|--------|--------|
| (SW5-7) | 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 |

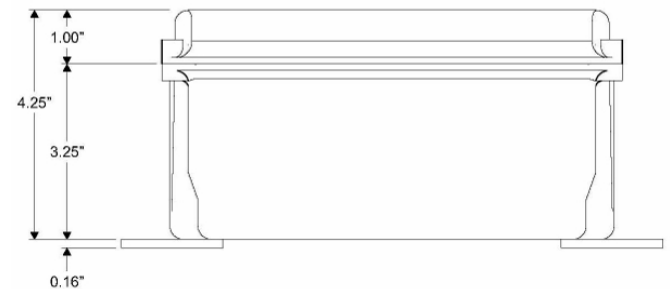
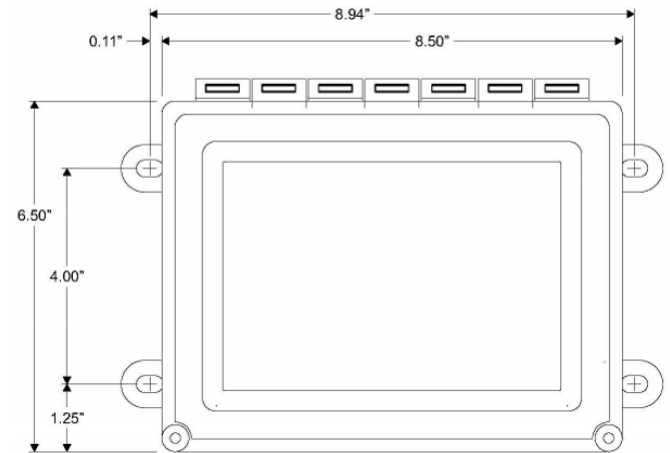
SPECIFICATIONS

| | |
|-------------------|---|
| AC Input | 120 VAC, 16 W, 50/60 Hz |
| Fuse Protected | 1 amp |
| Frequency | 900MHz Spread Spectrum |
| Relay Contacts | SPDT 5 amp @ 120VAC or 30VDC per channel |
| Transmitter Data | Four Dry Contact Inputs |
| RF Output Power | 1 Watt |
| Transceiver Range | Approximately 1 Mile (Up to 10 miles with external antenna - see accessories) |
| RF Channels | Seven independent network frequencies |
| Enclosure | Hinged fiberglass with window / NEMA 3, 3R, 4, 12, 13 |
| Operating Temp | -40° F to +185° F |

APPROVALS

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

DIMENSIONS



REPLACEMENT PARTS & ACCESSORIES

| | |
|---|-----------------------------|
| PC Board (Main) | 44-40402-120VAC |
| Standard Antenna (Included): | |
| 900MHz Portable Antenna (For distances up to 1 Mile*) | 49-1103 |
| Optional Antennas and Accessories: | |
| 900MHz Omni Directional Antenna (For distances up to 5 miles*) | 49-3101 |
| 900MHz 13dB Yagi Antenna Long Range Operation (For distances up to 10 miles*) | 49-3102 |
| Flex Coax Cable w/Connectors | 49-4000-XX (XX = # of Feet) |
| * = Line of Sight | |

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