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## PRODUCT INFORMATION BULLETIN

### AIR-EAGLE® XLT

900MHz RF Transceiver

**MODEL 44-40800-120VAC**

#### DESCRIPTION

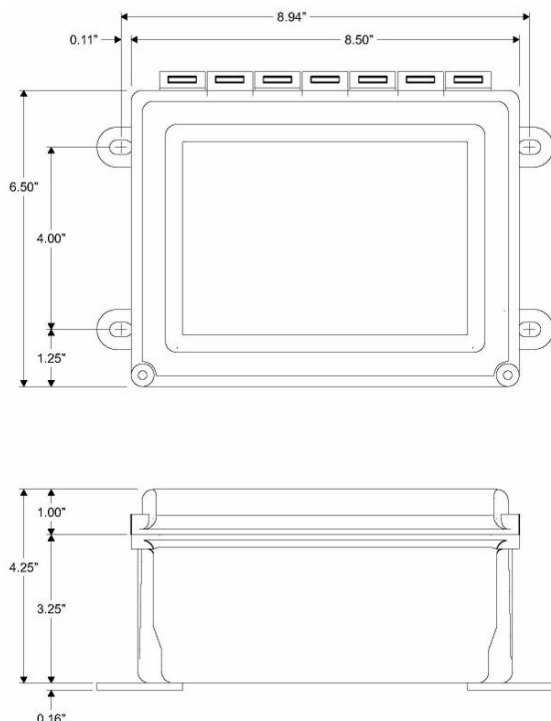
The Air-Eagle XLT is one of a series of RF systems designed for long-range wireless remote control in a variety of industrial applications. Systems can consist of any number of transmitters, transceivers and receivers and can be configured to remotely control pumps, lights, conveyors, gates and other electrical apparatus. This model comes equipped with eight dry contact inputs and eight independent SPDT control relays that can be directly interfaced with the customer's equipment or PLC. The Air-Eagle XLT is capable of receiving remote signals transmitted from several miles away and utilizes spread-spectrum technology to provide the utmost security and reliability even in the noisiest RF environments.

#### INSTALLATION

DISCONNECT AC Power from all equipment before installation.

1. Mount the Air-EAGLE XLT TRANSCEIVER in a convenient location.
2. Install input and output wiring to terminal strip.
3. Install antenna onto connector located on the right side on the enclosure.
4. Connect AC power to the proper terminals in your control circuit.

#### DIMENSIONS



#### TERMINAL STRIP WIRING

| RELAY OUTPUTS  |                |    |                     |    |              |
|----------------|----------------|----|---------------------|----|--------------|
| 1              | N/O Relay #1   | 10 | N/O Relay #4        | 19 | N/O Relay #7 |
| 2              | C Relay #1     | 11 | C Relay #4          | 20 | C Relay #7   |
| 3              | N/C Relay #1   | 12 | N/C Relay #4        | 21 | N/C Relay #7 |
| 4              | N/O Relay #2   | 13 | N/O Relay #5        | 22 | N/O Relay #8 |
| 5              | C Relay #2     | 14 | C Relay #5          | 23 | C Relay #8   |
| 6              | N/C Relay #2   | 15 | N/C Relay #5        | 24 | N/C Relay #8 |
| 7              | N/O Relay #3   | 16 | N/O Relay #6        |    |              |
| 8              | C Relay #3     | 17 | C Relay #6          |    |              |
| 9              | N/C Relay #3   | 18 | N/C Relay #6        |    |              |
| CONTACT INPUTS |                |    |                     |    |              |
| 1              | Common Input 1 | 10 | Input 5             |    |              |
| 2              | Input 1        | 11 | Common Input 6      |    |              |
| 3              | Common Input 2 | 12 | Input 6             |    |              |
| 4              | Input 2        | 13 | Common Input 7      |    |              |
| 5              | Common Input 3 | 14 | Input 7             |    |              |
| 6              | Input 3        | 15 | Common Input 8      |    |              |
| 7              | Common Input 4 | 16 | Input 8             |    |              |
| 8              | Input 4        | 17 | Not Used            |    |              |
| 9              | Common Input 5 | 18 | Not Used            |    |              |
| AC INPUT       |                |    |                     |    |              |
| Terminal #1    |                |    | 120 VAC - (Neutral) |    |              |
| Terminal #2    |                |    | 120 VAC - (Hot)     |    |              |

# AIR-EAGLE® XLT

900MHz RF Transceiver

**MODEL 44-40800-120VAC**

## APPROVALS

|                     |               |
|---------------------|---------------|
| United States (FCC) | MCQ-XB900HP   |
| Canada (IC)         | 1846A-XB900HP |

## GENERAL OPERATION

Contact closures on inputs 1 thru 8 in the control transceiver transmit to activate relays #1 thru #8 in the remote transceiver. Inputs from the remote equipment provide closures to remote transceiver that transmit to energize relays 1 thru 8 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 |
| "5"                 | Transmits channel 5 command to remote unit |
| "6"                 | Transmits channel 6 command to remote unit |
| "7"                 | Transmits channel 7 command to remote unit |
| "8"                 | Transmits channel 8 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   |
| "5"                 | Relay #5 energizes, maintained momentary   |
| "6"                 | Relay #6 energizes, maintained momentary   |
| "7"                 | Relay #7 energizes, maintained momentary   |
| "8"                 | Relay #8 energizes, maintained momentary   |

## 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  | Eight Dry Contact Inputs                              |
| RF Output Power   | 250 mW                                                |
| Transceiver Range | Approximately 2500 feet w/standard antenna            |
| RF Channels       | Seven independent network frequencies                 |
| Enclosure         | Hinged fiberglass with window / NEMA 3, 3R, 4, 12, 13 |
| Operating Temp    | -40° F to +185° F                                     |

## RELAY & FREQUENCY SET-UP

This unit is shipped from the factory with the SEL1 switches in the open positions. All eight relays will operate in a maintained momentary manner, 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 #8 maintained momentary (default) | Relays #1 thru #8 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 |

## REPLACEMENT PARTS & ACCESSORIES

|                                                                              |                             |
|------------------------------------------------------------------------------|-----------------------------|
| PC Board (Main)                                                              | 44-40802                    |
| Standard Antenna (Included):                                                 |                             |
| 900MHz Portable Antenna (For distances up to 2500 Ft*)                       | 49-1103                     |
| Optional Antennas and Accessories:                                           |                             |
| 900MHz Omni Directional Antenna (For distances up to 2 miles*)               | 49-3101                     |
| 900MHz 13dB Yagi Antenna Long Range Operation (For distances up to 4 miles*) | 49-3102                     |
| Flex Coax Cable w/Connectors                                                 | 49-4000-XX (XX = # of Feet) |
| * = Line of Sight                                                            |                             |

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