



238 Pillow Street  
Butler, PA 16001  
724-283-4681  
724-283-5939 (fax)  
www.bwieagle.com

# PRODUCT INFORMATION BULLETIN

## AIR-EAGLE® GOLD PLUS REMOTE STOP SWITCH 900 MHz RF "Slave" Receiver MODEL 48-5440

### DESCRIPTION

The model 48-5440, "Slave" Receiver is designed to communicate with the "Base" Rx, model 48-5240 in long range applications requiring a wireless stop switch. Incorporating all the features of the base receiver, the slave replicates RF transmissions from the base thus eliminating the need to hard-wire the sequencing of remote belt control circuits. A maximum of 3 "slave" units can be addressed to communicate with 1 base receiver.

### INSTALLATION

DISCONNECT AC Power from all equipment before installation.

1. Mount the AIR-EAGLE GOLD SLAVE RX in a convenient location.
2. Install antenna. The unit has an antenna connector located on the right side on the enclosure.
3. Connect AC power and control to the proper terminals in your control circuit.

### TERMINAL STRIP WIRING

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		

- \* Note #1 – Relays #1 thru 4 utilize a fail-safe relay configuration. The relay contacts are shown above in their de-energized state. Ex: The normally closed contacts would be open during normal operation.
- \* Note #2 – Relays #5 thru #8 will be energized **only** while their corresponding transmitter(s) is logged into the system
- \* **Note #3 – Any loss of signal from the remote base receiver will de-energize ALL relays.**

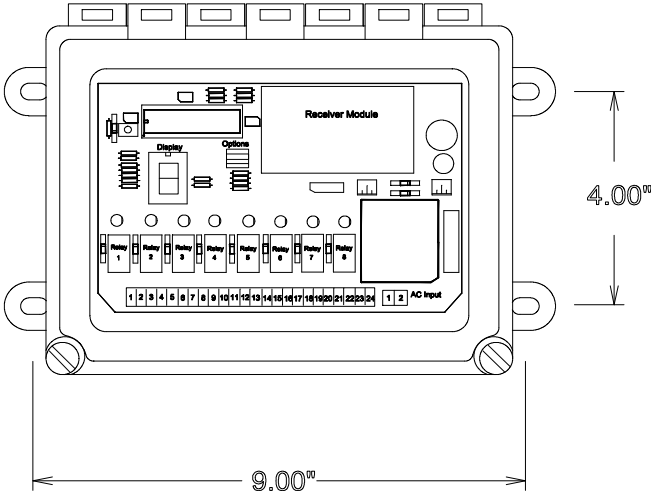
AC INPUT	
Terminal #1	120 VAC - (Hot)
Terminal #2	120 VAC - (Neutral)

### New and Improved Performance!

The Air-Eagle Gold Plus provides the same protection as the original Air-Eagle Gold but with enhanced output power. This allows for a 50% increase in overall range, while improving signal strength through and around buildings and other obstacles. These combine to maintain an even stronger "link" between transmitter and receiver.



### DIMENSIONS



Enclosure height equals 4 inches.

# AIR-EAGLE® GOLD PLUS

REMOTE STOP SWITCH  
900 MHz RF "Slave" Receiver

**MODEL 48-5440**

## CONTROLS AND INDICATORS

CONTROL / INDICATOR	FUNCTION		
RECEIVER MODULE	RF module that receives data from the remote transmitter(s)		
DISPLAY	7-Segment LED displays a number corresponding to the remote transmitter code being received.		
*SEL1 CONFIGURATION OPTIONS	SW #	OPEN	CLOSED
	SW1	Network #1 (default)	Network #2
	SW2	Slave RX #1 (default)	Slave RX #2
	SW3	Not Used	Slave RX #3
	SW4	Not Used	Not Used
RELAYS	Eight SPDT output control relays		

\*SEL1 CONFIGURATION OPTIONS – When installing more than one slave receiver, make sure to select SW2 or SW3 accordingly BEFORE powering up the system. Failure to do so will cause the slave receivers to conflict with each other and cause erratic operation.

## GENERAL OPERATION

When the unit is installed and electric power is applied the unit will go thru a "self-test" mode and confirm the network settings. During this test (approx 3 seconds) the 7-segment display will show a "0". When the test is complete, the display will momentarily show a dash (-) and then extinguish. Once communication has been established with the base receiver the display will show a "0" and relays #1 thru #4 will energize. When the first transmitter logs into the system, relay #5 will energize. When the second transmitter logs in, relay #6 will energize. When the third transmitter logs in, relay #7 will energize. And when the fourth transmitter has logged in, relay #8 will energize. These relays will remain energized until their corresponding transmitter has logged out of the system. During this time, the display will be alternating through the active transmitters logged in. Example: "0,1,2,0,1,2," will be displayed when 2 remotes are logged into the system. Up to 4 remote transmitters can communicate simultaneously with this receiver.

Note – The receiver will automatically assign a number to a remote during log in. This assignment will be the same until the operator "logs out" from this receiver.

DISPLAY VIEW	INDICATES
BLANK	Not linked with the remote base receiver
"0" (ZERO)	Linked to the remote base receiver – no transmitters logged in.
"1" (ONE)	The <b>first</b> remote has logged into the system and Relay #5 has energized
"2" (TWO)	The <b>second</b> remote has logged into the system and Relay #6 has energized
"3" (THREE)	The <b>third</b> remote has logged into the system and Relay #7 has energized
"4" (FOUR)	The <b>fourth</b> remote has logged into the system and Relay #8 has energized

## SPECIFICATIONS

AC Input Models	120 VAC, 16 W, 50/60 Hz
Fuse Protected	1 amp
Transceiver Frequency	900 MHz 74 Channel Auto-Select
Receiver Range	Approximately 3/4 mile (up to 10 miles with external antennas - see accessories)
Enclosure	Hinged fiberglass with window / NEMA 4, 4x, 12 + 13

## REPLACEMENT PARTS & ACCESSORIES

PC Board (Main)	48-5442
Air-Eagle Gold TX	48-5100
Replacement Transceiver Antennas:	
Medium Range Operation - External (Greater than 2/3 mile / Less than 2 miles) *	49-3101
Long Range Operation - External (Greater than 2 miles / Up to 10 miles) *	49-3102
* = Line of Sight	

## 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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## MODEL 48-5440 - RELAY LOGIC

ACTION TAKEN	DISPLAY	RELAY 1	RELAY 2	RELAY 3	RELAY 4	RELAY 5	RELAY 6	RELAY 7	RELAY 8
LINKED	0	ON	ON	ON	ON	OFF	OFF	OFF	OFF
TX 1 LOG-IN	1	ON	ON	ON	ON	ON	N/A	N/A	N/A
TX 1 STOP SWITCH ACTIVATED	1	OFF	ON	ON	ON	ON	N/A	N/A	N/A
TX 1 STOP SWITCH RELEASED	1	ON	ON	ON	ON	ON	N/A	N/A	N/A
TX 1 LOSS OF SIGNAL	0	LATCHING OFF	ON	ON	ON	OFF	N/A	N/A	N/A
TX 1 LOG-OUT	0	ON	ON	ON	ON	OFF	N/A	N/A	N/A
TX 2 LOG-IN	2	ON	ON	ON	ON	N/A	ON	N/A	N/A
TX 2 STOP SWITCH ACTIVATED	2	ON	OFF	ON	ON	N/A	ON	N/A	N/A
TX 2 STOP SWITCH RELEASED	2	ON	ON	ON	ON	N/A	ON	N/A	N/A
TX 2 LOSS OF SIGNAL	0	ON	LATCHING OFF	ON	ON	N/A	OFF	N/A	N/A
TX 2 LOG-OUT	0	ON	ON	ON	ON	N/A	OFF	N/A	N/A
TX 3 LOG-IN	3	ON	ON	ON	ON	N/A	N/A	ON	N/A
TX 3 STOP SWITCH ACTIVATED	3	ON	ON	OFF	ON	N/A	N/A	ON	N/A
TX 3 STOP SWITCH RELEASED	3	ON	ON	ON	ON	N/A	N/A	ON	N/A
TX 3 LOSS OF SIGNAL	0	ON	ON	LATCHING OFF	ON	N/A	N/A	OFF	N/A
TX 3 LOG-OUT	0	ON	ON	ON	ON	N/A	N/A	OFF	N/A
TX 4 LOG-IN	4	ON	ON	ON	ON	N/A	N/A	N/A	ON
TX 4 STOP SWITCH ACTIVATED	4	ON	ON	ON	OFF	N/A	N/A	N/A	ON
TX 4 STOP SWITCH RELEASED	4	ON	ON	ON	ON	N/A	N/A	N/A	ON
TX 4 LOSS OF SIGNAL	0	ON	ON	ON	LATCHING OFF	N/A	N/A	N/A	OFF
TX 4 LOG-OUT	0	ON	ON	ON	ON	N/A	N/A	N/A	OFF

Latching Off – Power must be removed and reapplied to reset the relays from a latching condition