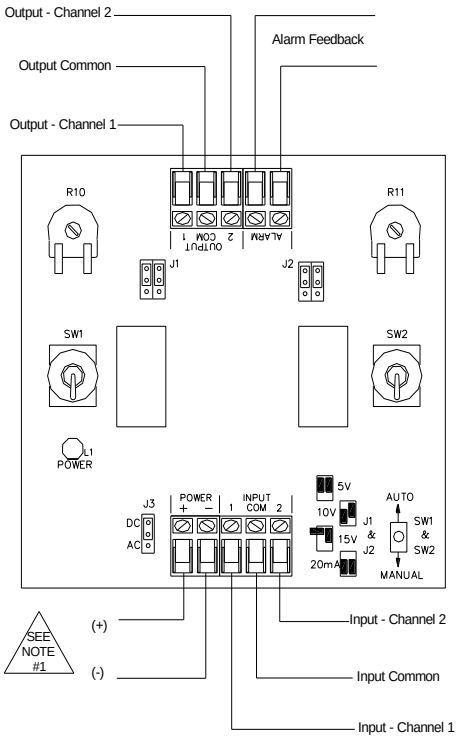
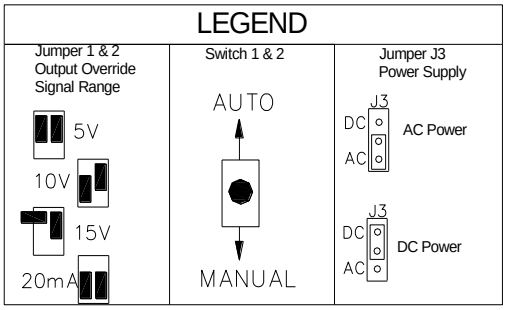
Installation and Operation Instructions
MAO
Analog Manual Override Switch W/ Alarm
Dual Channel, Adjustable Output





Installation

READ THESE INSTRUCTIONS BEFORE YOU BEGIN INSTALLATION.

Ground yourself to discharge static electricity before touching any electronic equipment, as some components are static sensitive. The interface device can be mounted in any position. If circuit board slides out of snap track, a non-conductive "stop" may be required. Use only fingers to remove board from snap track. Slide out of snap track or push up against side of snap track and lift that side of the circuit board to remove. **Do not flex board. Use no tools.**

POWER CONNECTIONS – THIS PRODUCT ACCEPTS 24 VDC OR 24 VAC POWER.

Be sure to follow all local electrical codes. Refer to wiring diagram for connection information. Make all connections with the power off.

1. **DC Power** - Refer to wiring diagram for connection information. If the 24 VDC power is shared with devices that have coils such as relays, solenoids, or other inductors, each coil must have an MOV, DC Transorb or diode, connects to the positive side of the power supply.
2. **24 VAC** – with power off, connect each transformer secondary leg to the 24VAC PW terminals on the board. Check the wiring configuration of any other loads that may be connected to this transformer. If required by BAS or controller specification, the 24VAC neutral can be earth grounded at the transformer. Analog input, digital input, and analog output circuits should not be earth grounded at two points.
   Any field device connected to this transformer must use the same common. If you are not sure of other field device configuration, use separate transformers for isolation.

3. **If the 24VAC power is shared** with other devices that have coils such as relays, solenoids, or other inductors, each coil must have an MOV, AC Tranzorb, or other spike snubbing device across each of the shared coils. Without these snubbers, coils produce very large voltage spikes when de-energizing that can cause malfunction or destruction of electronic circuits.
4. You should measure the actual voltage output of the secondary. If the output is not fully loaded you may read a higher voltage than the circuit board can handle.

Calibration and Checkout

STEP 1) POWER JUMPERS Set jumper J3 for the correct power supply type (AC or DC).

STEP 2) SET SWITCHES To obtain the input signal on the output signal connection, set switches SW1 and SW2 in the "AUTO" position.

STEP 3) SET JUMPERS Set Jumpers J1 (Output 1) and J2 (Output 2) to the desired output signal range.

STEP 4) SET SWITCHES To obtain the output range set by jumpers J1 and J2 on the output signal connection, set switches SW1 and SW2 in the "MANUAL" position.

STEP 5) VARY POTS Vary the voltage on the output channels, while in "MANUAL" operation, by turning potentiometers R10 and R11

STEP 6) FEEDBACK The Alarm Feedback will indicate the mode of operation to the user by creating a shorted(standard version) or resistive (optional version) feedback.

NOTE: A/MAO-PMNT will be supplied with the Switches(SW1 & SW2) and Potentiometers(R10 & R11) installed on the backside(solderside) of the PCB.

EU Commission Directive 2002/95/EC (RoHS) Compliant

Product Specifications

Supply	**Voltage**	24 VAC or 24 VDC, +/- 10%
	Current	100 mA Maximum
Alarm Contact Load Rating		3 Watts or 2 Amps Maximum
Override Analog Input	**Voltage Range/Impedance**	0-24 VDC / 2A Maximum
	Selectable Range/ Impedance	0-5 VDC/250 Ohms Min., 0-10 VDC/500 ohms Min., 0-15 VDC/750 Ohms Min., 0-20 mA/750 Ohms Max.

Warranty Specification

The ACI Wireless Series is covered by ACI's Two (2) Year Limited Warranty, which is located in the front of ACI'S SENSORS & TRANSMITTERS CATALOG or can be found on ACI's web site: www.workaci.com.