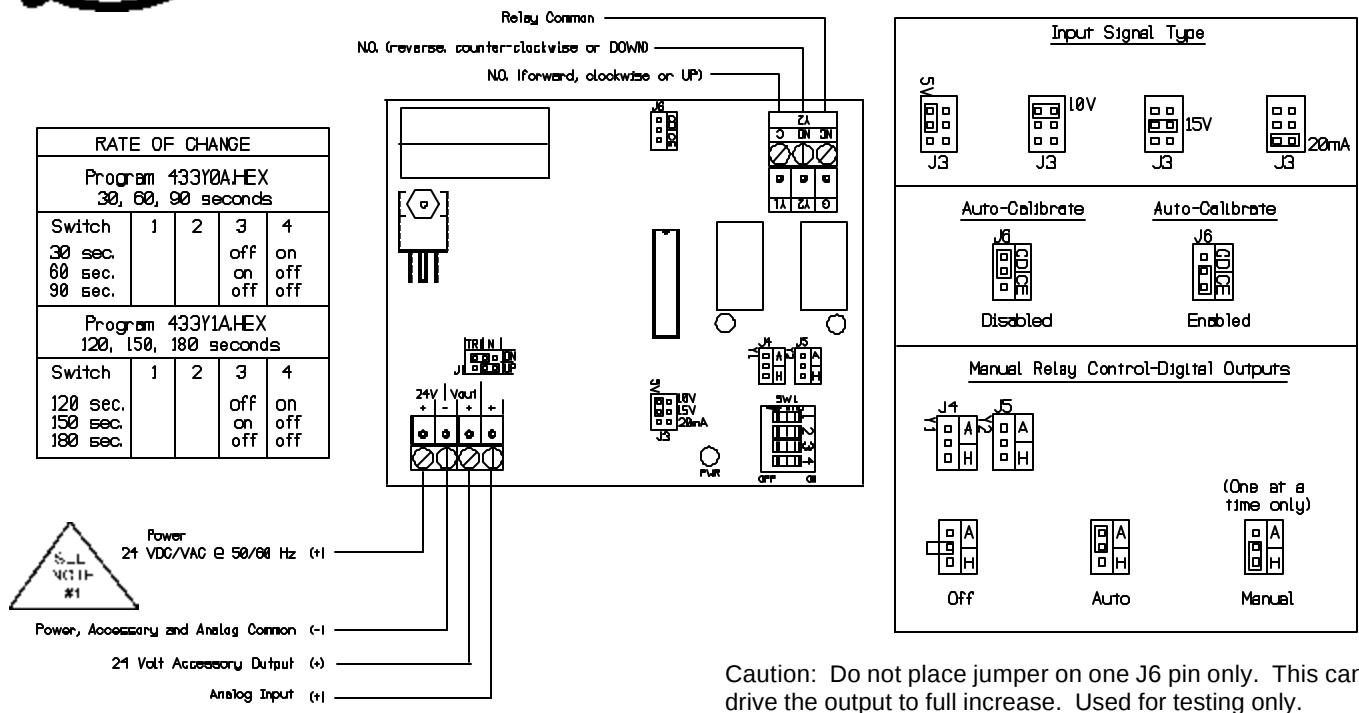




Caution: Do not place jumper on one J6 pin only. This can drive the output to full increase. Used for testing only.

INSTALLATION

READ THESE INSTRUCTIONS BEFORE YOU BEGIN INSTALLATION.

Ground yourself before touching board. Some components are static sensitive.

MOUNTING:

Circuit board may 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 against side of snap track and lift that side of the circuit board to remove. Do not flex board or use tools.

POWER CONNECTIONS - THIS PRODUCT ACCEPTS 24 VOLTS AC OR DC POWER

BE SURE TO FOLLOW ALL LOCAL AND ELECTRICAL CODES. REFER TO WIRING DIAGRAM FOR CONNECTION INFORMATION.

- 1) It is highly suggested that the 24 VAC neutral of all transformers be earthed 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.
- 2) If the 24 volt AC power is shared with devices that have coils such as relays, solenoids, or other inductors, each coil must have an MOV, AC Transorb, 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.
- 3) If the 24 volt DC 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 placed across the coil or inductor. The cathode, or banded side of the DC Transorb or diode, connects to the positive side of the power supply.
- 3) 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.

Analog input signal ranges are jumper selectable by using Jumper J3, as shown on Page 1.

The output of the AFP is two relays. One relay controls UP (increase), the other DOWN (decrease) depending, of course, on the actuator configuration. The rate of change these outputs make on the actuator are determined by DIP switch SW1 setting. Refer to "Rate of Change" Chart on Page 1 and set switches accordingly.

Jumper setting J6 enables or disables "Auto Calibrate". Because no feedback is used to determine the actuator's position, an error is created that accumulates over time. In order to combat that error, the output will be automatically reset every 21 changes in the motor position. The AFP resets the output by turning the output all the way to one extreme or the other, depending on which one is closer to the current set point. If the current setpoint is less than 50%, then it pulses the output all the way down. If the current set point is greater than or equal to 50%, then it pulses the output all the way up. Once the extreme is reached, the output will automatically be returned to the desired set point.

If you prefer your controller to take care of resets, the Auto Calibrate feature can be disabled by putting jumper shunt J6 in the "CD" position. J6 in the "CE" position enables the Automatic Calibrate feature. If the jumper shunt is on only one pin and power is applied, the actuator will go to full UP (increase) and remain! If already powered, this action will not take place unless the power is removed and reapplied. This is used for test purposes only in the production of the AFP. **Make sure jumper J6 is in one of the two settings defined on the chart on page 1.**

Transorbs are now incorporated in the output circuit of the AFP.

When power is applied to terminals +24v and (-) the "POWER" LED will light. When the AFP is not powered on terminals +24V and (-), both relays are open.

Power:	24 VAC or 24 VDC +/- 10%, 50 or 60 Hz	
Power Consumption:	208 mA RMS maximum	
Analog Inputs (Jumper Selctable):	0-5 VDC	0-15 VDC
	0-10 VDC	0-20 mA
Input Impedance:	Voltage/10,000 ohms	
	Current/250ohms	
Output: Floating Point:	Tworelaycontactoutputs(Increase/Decrease)	