

PA-39

User Manual



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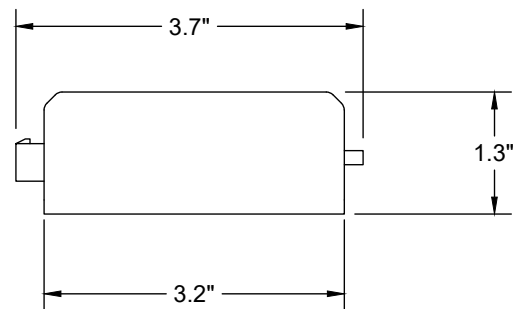
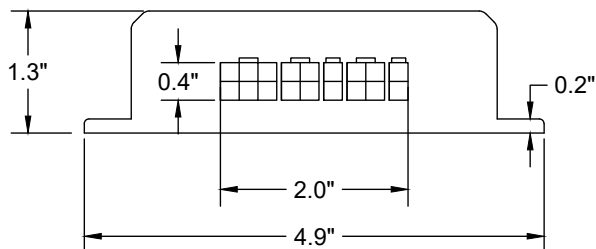
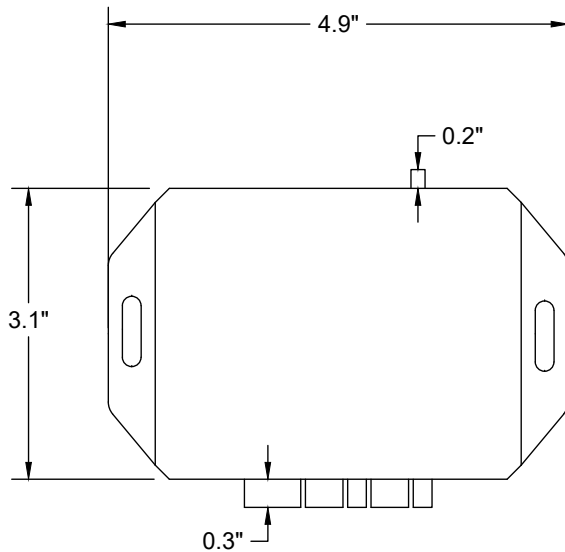
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Specifications



Control Ability	2 Actuators with Potentiometers In Sync/Sequence/Individual Control
Input Voltage	12-24VDC
Output Voltage	12-24VDC
Current	30A (15A Per Channel)
Kit Includes	1 Control Box, 1 Hand Remote, 1 Wire Harness, Mounting Hardware
Special Feature	Remote comes with 3 presets
Remote Functions	Up, Down, Pause (Momentary)
Size (L x H x W)	4.9" x 1.3" x 3.7"
Weight	0.8 lbs
Warranty	18 Months

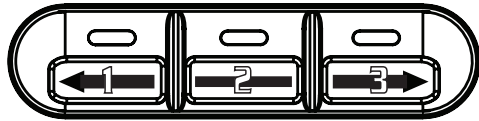
Dimensions



Included Components



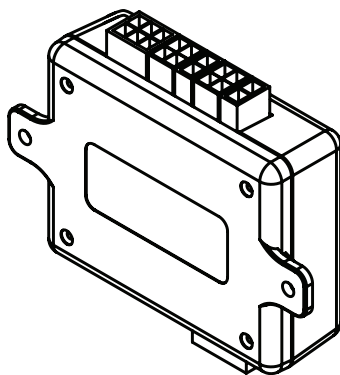
(1) Display



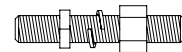
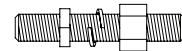
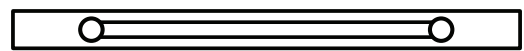
(1) Double-Sided Tape



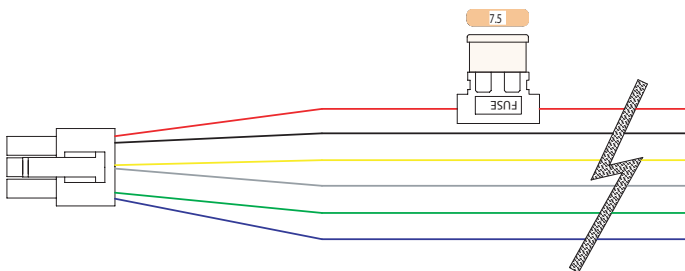
(1) Central Control Unit



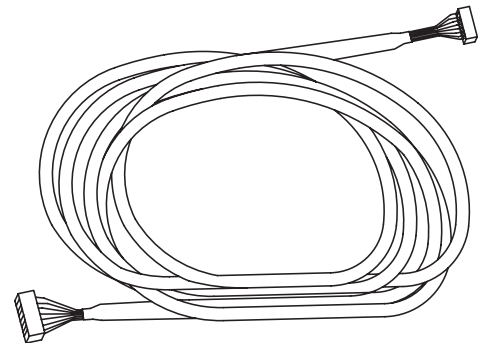
(1) Mounting Hardware



(1) Wire Harness



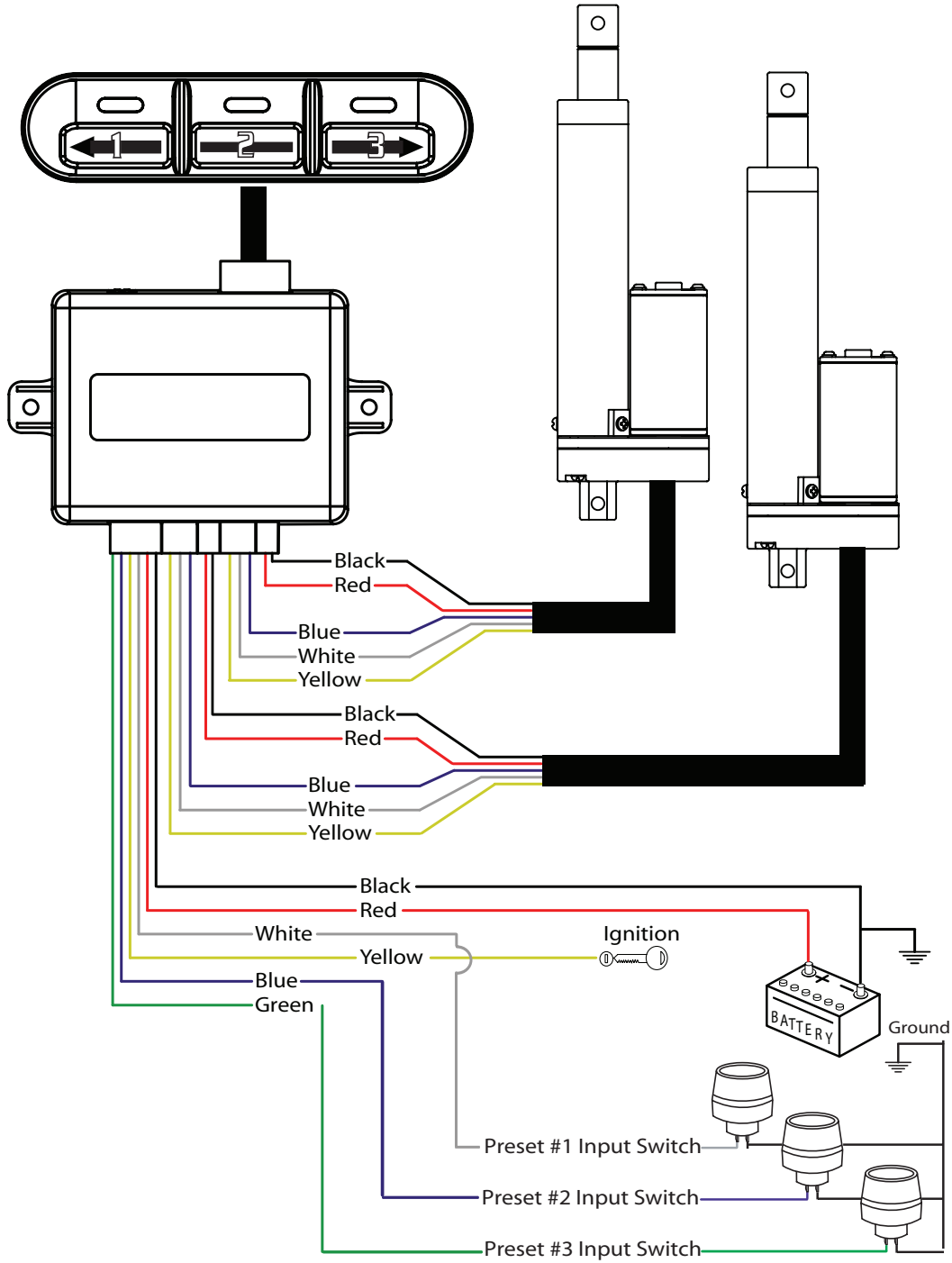
(1) Display Harness



OVERVIEW

The dual linear actuator controller is a programmable, 3 preset controller that allows individual or sequence linear actuator function.

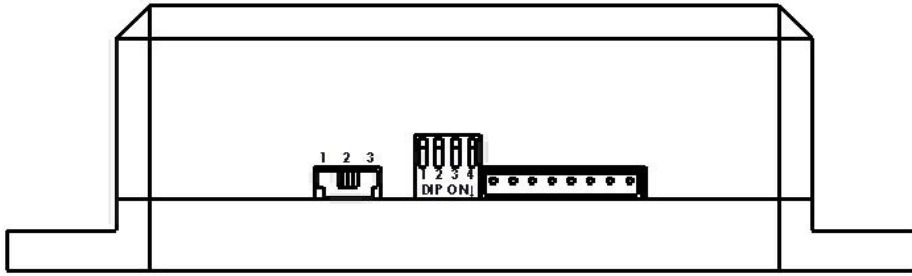
Basic Wiring Setup



Power Pin



Actuator Potentiometer Pin



Dip Switch Positions

Position 1: Actuator 1

Position 2: Both Actuators

To program both actuators, they must both be retracted. First, set the switch to position 1 and retract the first actuator. Then set the switch to position 3 and retract the second actuator.

Presets can be saved at any point desired along the stroke. They do not have to be set in order.

Position 3: Actuator 2

Moving the Actuators

Individual or sequence linear actuator function.



Single/Dual Operation



Press buttons 1 and 2 together to make the actuator retract.



PROGRAMMING PRESETS

There are three presets available on this model. Use the following instructions for programming.

1. Extend the actuator(s) to the point you'd like to have the first preset.



2. Press and hold button 1 for 5 seconds. The LED will flash to indicate the preset has been saved.



Repeat this process for preset 2 and 3, using the respective buttons. For setting presets on actuator 2, slide the dip switch to position 2.

Dual Actuator Sequence Programming



Step 1: DIP Switch Positioning

Ensure 4-Bit DIP Switch Configuration:

Set Switch 3 in ON position (0100 = SW 4, SW 3, SW 2, SW 1). All other switches must be in OFF position.

Step 2: Actuator 1 Position Programming (Must be followed in order)

Actuator 1 Start Position:

1. Slide the 3-way position horizontal slider switch to the utmost LEFT (position 1) to set programming mode to ACTUATOR 1 MODE
2. Hold down buttons 2&3 at the same time to EXTEND the actuator. Hold own buttons 1&2 at the same time to RETRACT the actuator.
3. When the starting position of actuator 1 is selected HOLD DOWN BUTTON 1 for five (5) seconds until red light above the button flashes. Once the button flashes, actuator 1 starting position is saved.

Actuator 1 End Position:

1. Ensure the 3-way position in the utmost LEFT position
2. Hold down buttons 2&3 at the same time to EXTEND the actuator. Hold own buttons 1&2 at the same time to RETRACT the actuator.
3. When the ending position of actuator 1 is selected HOLD DOWN BUTTON 3 for five (5) seconds until red light above the button flashes. Once the button flashes, actuator 1 ending position is saved.

Step 3: Actuator 2 Position Programming (Must be followed in order)

Actuator 2 Start Position:

1. Slide the 3-way position horizontal slider switch to the utmost RIGHT (position 3) to set programming mode to ACTUATOR 2 MODE
2. Hold down buttons 2&3 at the same time to EXTEND the actuator. Hold own buttons 1&2 at the same time to RETRACT the actuator.
3. When the starting position of actuator 1 is selected HOLD DOWN BUTTON 1 for five (5) seconds until red light above the button flashes. Once the button flashes, actuator 2 starting position is saved.

Actuator 2 End Position:

1. Ensure the 3-way position in the utmost LEFT position
2. Hold down buttons 2&3 at the same time to EXTEND the actuator. Hold own buttons 1&2 at the same time to RETRACT the actuator.
3. When the ending position of actuator 1 is selected HOLD DOWN BUTTON 3 for five (5) seconds until red light above the button flashes. Once the button flashes, actuator 2 ending position is saved.

Dual Actuator Sequence Programming



Step 4: Sequence Operation Mode

After completing steps 1 through 3, set the 3-way position horizontal slider switch to the CENTER (position 2).

Your sequential programming is complete and may now be operated.

Operation Sequence and Information:

Button 1: Sets actuators 1 and 2 to START position. Regardless of the individual actuator position, the actuators will return to their programmed START position.

Sequence in the following order:

1. Actuator 2 moves to START position
2. Actuator 1 moves to START position

Button 3: Sets actuators 1 and 2 to END position. Regardless of the individual actuator position, the actuators will position to their programmed END position.

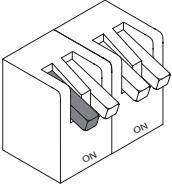
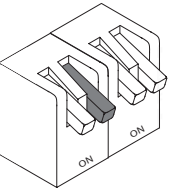
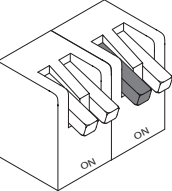
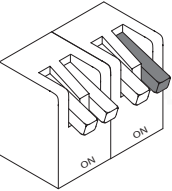
Sequence in the following order:

1. Actuator 1 moves to END position
2. Actuator 2 moves to END position

Button 2: Controls the reversal of the sequence of actuator extension. For example, if actuator 1 extends before actuator 2, pressing button 2 will result in actuator 2 extending before actuator 1.

Dip Switch Function



Position		Function	Action	For
#1 	ON	Operates only when ignition is present.	Operates only when the yellow ignition wire receives + 12VDC.	For controlling items when ignition is on;
	OFF	Operates only when ignition is not present	Operates only when the yellow ignition wire is not receiving + 12VDC.	For making an actuator function when the power to the entire system is turned off.
#2 	ON	Auto return to preset 1 with loss of ignition. Auto return to preset 2 with ignition.	When + 12 VDC is removed from yellow ignition wire, the actuator will travel to preset 1. When the yellow ignition wire receives + 12VDC, the actuator will travel to preset 2.	For projects that return to their positions when the entire power to a system is turned off.
	OFF	No function of actuators.	When power to the system is turned off, the actuators will not move.	For projects where no actuator movement is required when power is off.
Position		Function		
#3 	ON	This position is used for the dual actuator preset for 2 stage sequences.		
	OFF	2 stage feature off.		
#4 	ON	Retreat safety ON. This feature allows the system to detect if an object is preventing the actuator from completing its motion. The controller performs a speed check after reading the actuator position value. The actuator will retract a small amount and do another speed check. The response will either be 'error' or 'normal'. When an error is present, the actuators will stop motion and extend to the max preset.		
	OFF	Retract safety OFF.		

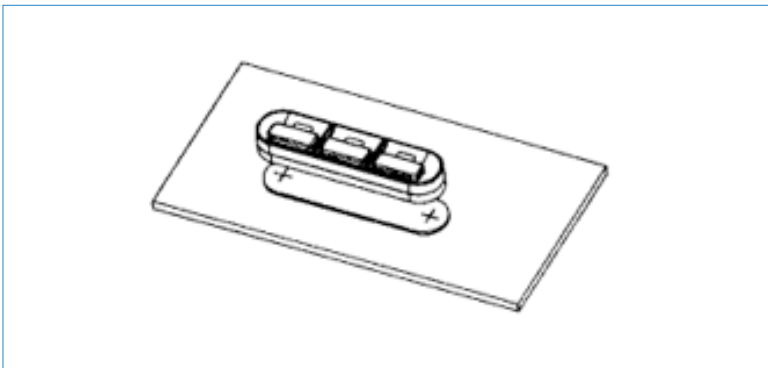


Mounting

This section outlines the mounting procedure for the display remote. There are a variety of options available. Use this guide to decide which is best for your operation.

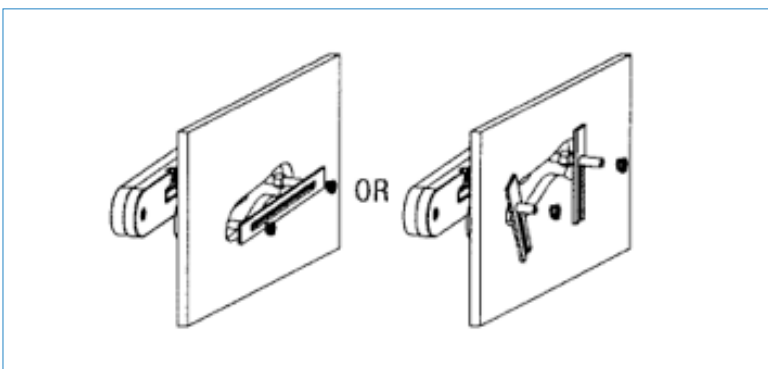
Double-Sided Tape

We have included double-sided tape which can be used to mount the display to any surface.



Mounting Bolts

The mounting bolts that have been provided are a stable and secure mounting option. Use the double sided tape or the support bracket for marking and drilling holes.



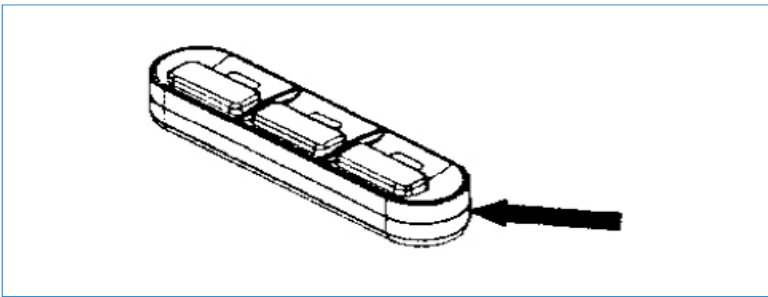


Reversible Rear Display Panel

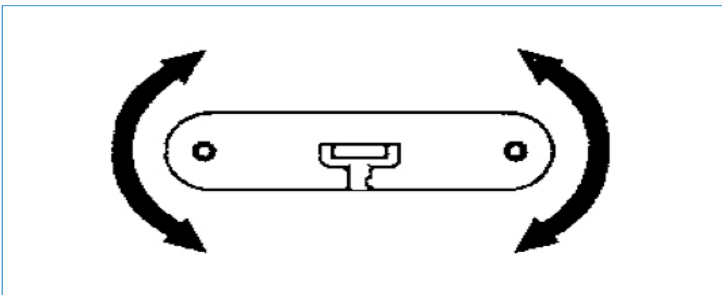
The rear display is designed so that the harness can exit either the top or the bottom of the display remote.

Use the following instructions to reverse the display:

1. Gently separate the two halves of the display. Use a fingernail or other tool to snap the halves apart. They are not attached with screws.



2. Reverse the display.



3. Snap the front and rear halves back into place.

