

PA-40

User Manual



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Features and Specifications



“Plug & Play” – easy connection terminals. Can be set for wired override control.

INCLUDED IN BOX

- 1x Control Box
- 1x Power Harness with in-line 30A fuse (Not designed to fail when there is too much load or obstruction of actuator)
- 2x Wireless Remotes

Number of Channels	2 (Matching Linear Actuators)	
Feedback Input	Hall Effect Sensors	
Duty Cycle	10% (2 min on, 18 min off)	
Operational Temperature	-30° C to 80°C	
Housing Color	Black	
Housing Material	Plastic	
Certifications	CE	
Kit Includes	1 Control Box, 2 Wireless Remotes, 1 Power Wire Harness w/ in-line 30A fuse	
Wireless Frequency	433 MHz	
Wireless Range	100 feet	
Remote Functions	Up, Down, Pause (Momentary/Non-Momentary)	
Remote Battery Type	2x CR2016 3V Lithium Cell	
Warranty	18 Months	
Input Voltage	12 VDC	24 VDC
Output Voltage	10.9 VDC	19.7 VDC
Current Rating Total	20 A	20 A
Current Rating Per Channel	10 A	10 A
Dimensions	5.9" x 3.9" x 1.3"	5.83" x 3.83" x 1.32"
Unit Weight	0.6 lbs	0.6lbs



a) **Power:** Once power is applied through the wiring harness, the control box will beep once to signal that it is powered. Please note that a power supply that is not rated for the full load current of the actuators will have the actuator behave erratically.

b) **Programming the Wireless Remote:** To program a wireless remote with the control box, you must first remove the black box to expose the circuit board. Once the circuit board is powered, press and hold switch 'S1' at the same time as the UP or DOWN button on the wireless remote. The control box will beep to signal that the programming is complete. Up to 4 wireless remotes can be programmed to a control box. To erase a previously programmed wireless remote, simply program the control box 4 times with a different remote.

c) **Setup/Reset Procedure:** With the control box powered on and the actuators connected, you must reset the system before operation. To do this, press the UP and DOWN button on the wireless remote for 3 seconds. The control box will beep 3 times to signal the beginning of the reset procedure. During this time the actuators cannot be controlled and it will be operating at half speed. Once the reset procedure is finished the control box will beep once. This signals that it is ready for operation. To reset the control box using the wired rocker switch, power off the control box. Press and hold the down button on the rocker switch and power on the PA-40. The down button must be held for 3 seconds while the control box is on. Once the PA-40 makes a beep, release the down button to initiate the Reset Procedure.

***Reset Warning:** There is no synchronization in either Reset Mode (see page 4), it is important to ensure that both actuators are unloaded. If unavoidable, we recommend using the Secondary Reset Mode, however binding can still occur depending on the application.

At any point during either Reset Procedure, any command from the wireless or wired remote will cancel the procedure. It is important to complete a full reset procedure in either mode to achieve proper functionality.

d) **Out-of-sync Error:** During operation if one of the actuators is unplugged or unable to operate the box will go into an error state. Both actuators will stop moving and the control box will beep until it is powered off or the Reset Procedure is started.

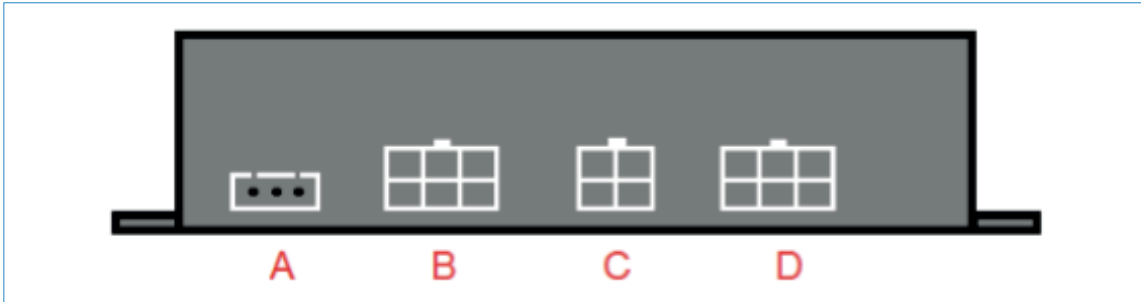
e) **Wired Control:** Another method of control is a wired rocker switch. This method only operates in momentary mode and will automatically override any commands from the wireless remote. An illustration of the connections required can be found under the Wiring Diagram section.

Operation Modes

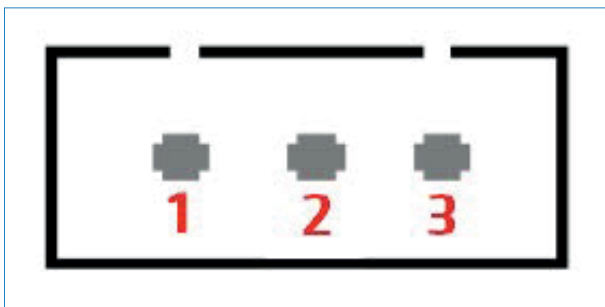


POSITION	MODE	OPERATION
<p>M1 M1</p> <p>M2 M2</p>	Non-Momentary Control (default)	Press UP or DOWN to go forward or backward. Press it again to stop.
<p>M1</p> <p>M2</p>	Momentary Control	Hold UP or DOWN to go forward or backward. Release it to stop.
<p>S S</p> <p>D D</p>	Primary Reset Mode	Both actuators will complete a full retraction, extension and retraction. Actuators will not travel in synchronous motion
<p>S</p> <p>D</p>	Secondary Reset Mode	Both actuators will retract at 70% speed. Actuators will not travel in synchronous motion.

Wiring Diagram



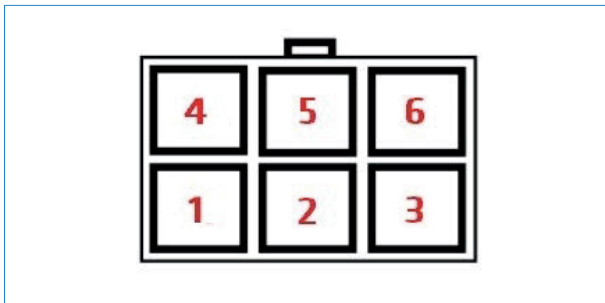
A. WIRED ROCKER SWITCH



1. Extend
2. COM
3. Retract

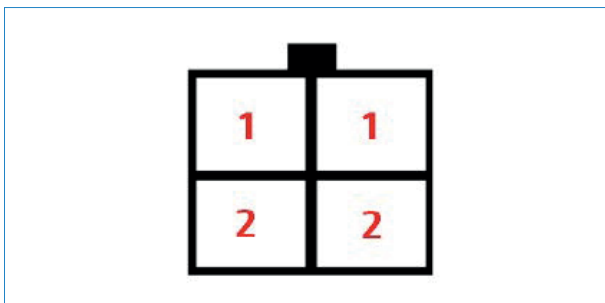
COMPONENT	PART NUMBER	MATING PART NUMBER
PCB Connector	S3B-XH-A(LF)(SN) by JST	XHP-3 by JST

B. HALL EFFECT ACTUATOR



1. Signal 1
2. GND
3. +5 VDC
4. M-
5. M+
6. Signal 2

C. POWER



1. Power +VDC
2. Power COM