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PA-ED1

User Manual

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SAFETY PRECAUTIONS

When installing and using your Progressive Automations linear actuator, basic safety precautions should always be followed. Please read all safety precautions thoroughly and be familiar with all functions of the product before use. Apply all other relevant precautions when operating electrical and moving mechanical devices.

DANGER

To reduce the risk of electrical shock and injuries:

- Do not attempt to modify or repair the actuator.
- Avoid using the actuator in environments with explosive gases or flammable materials.
- Avoid using the actuator beyond its specified Ingress Protection rating.
- Make sure that the power source is properly grounded. Neglecting proper grounding can result in a dangerous electrical hazard.

WARNING

To reduce personal harm and injury:

- Follow recommended load ratings and specifications for the actuator.
- Avoid leaving the actuator unattended during operation.
- Avoid operating the actuator in areas with high levels of airborne contaminants.
- Ensure a clear path for full extension and retraction of the actuator.
- Keep hands and body parts clear of the actuator while it is in motion.
- Exercise caution around pinch points and moving components during the actuator's operation.
- Keep all loose clothing, jewelry, and personal items away from the actuator's moving parts.

OPERATING NOTES

Warranty

Any attempts to disassemble or tamper with the actuator's internal components or operation outside of the advertised usage limitations will result in voiding the product's warranty. For more information on our warranty terms, visit:

<https://www.progressiveautomations.com/pages/warranty-terms>

Force Restrictions

Linear actuators must be used within the specified force rating outlined in this documentation. Load must be evenly distributed. Exceeding the recommended force rating may result in failure of the linear actuator. It may also damage the product and void the warranty. Please note that the weight of the load does not always equal the total force due to mechanical advantage, wherein the force may increase or decrease depending on the application.

Operation Time

Linear actuators must be operated within the specified operation time and frequency. Exceeding the duty cycle rating can significantly reduce the actuator's expected lifespan and will void the warranty.

SPECIFICATIONS

RATED LOAD CONFIGURATIONS

Note: The rating below is for the linear actuator only. The rating of the vehicle bed could depend on the model type.

Rated Load (lbs)	12 VDC Current (A)	
	No Load	Full Load
899	3.5	20.0

¹Speed specifications have a $\pm 10\%$ tolerance.

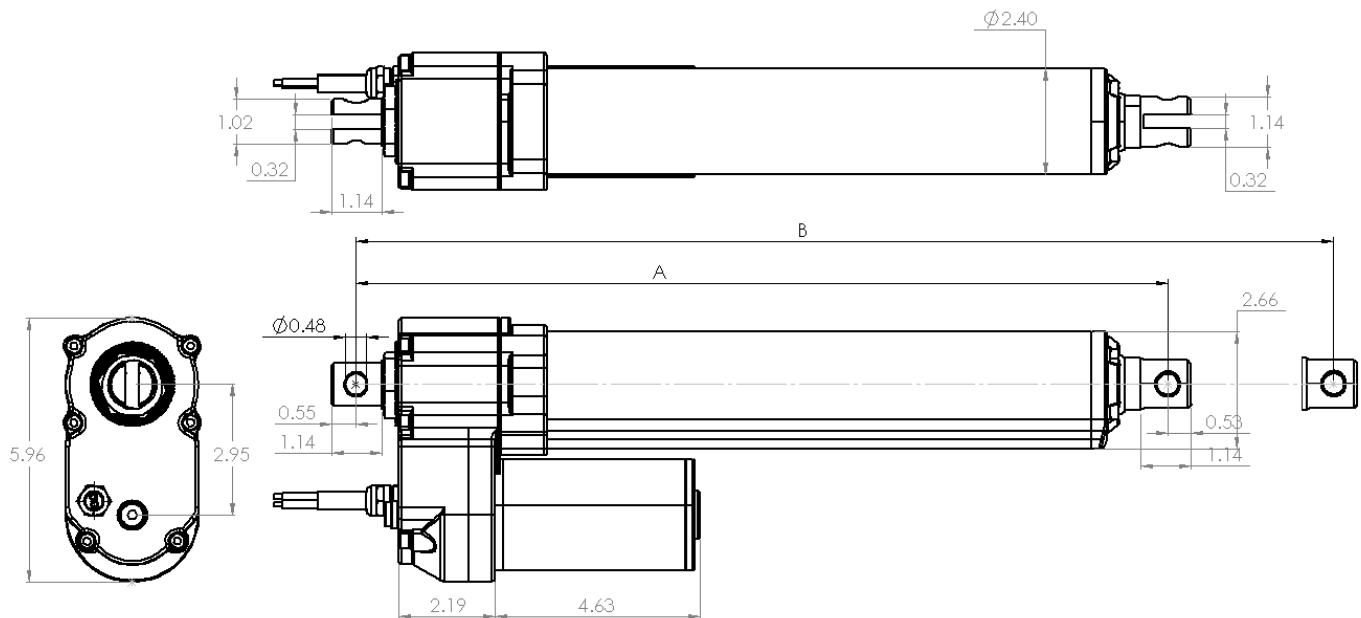
SPECIFICATIONS

Input Voltage	12 VDC
Stroke	11.34"
Duty Cycle	10% (2 minutes on, 18 minutes off)
Weather Protection	IP65
Operational Temperature	-25°C to 65°C (-13°F to 149°F)
Operating Noise	≤65 dB
Actuator Cable Length	39.37"
Actuator to Rocker Cable Length	179.13"
Connector	Aptiv Weather Pack 2-Pin
Front Mounting Hole Size	0.48" (Customizable)
Rear Mounting Hole Size	0.48" (Customizable)
Stroke Rod Material	Stainless Steel (SUS304)
Housing Material	Aluminum Alloy
Kit Includes	1x Actuator, 1x Wiring Harness, 20x Zipties
Certifications	CE, RoHs

DIMENSIONS

Note: All dimensions are listed in inches.

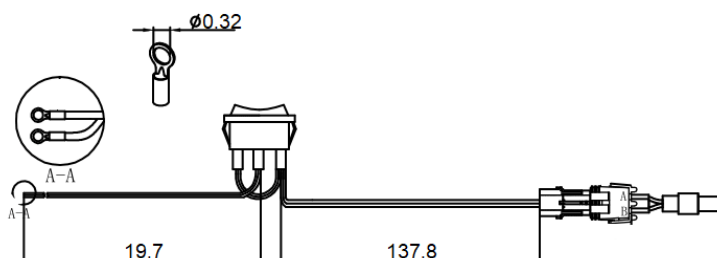
ACTUATOR DIAGRAM



HOLE TO HOLE LENGTH

Stroke Length	11.34"
A (Fully Retracted)	18.39
B (Fully Extended)	29.72

WIRING HARNESS DIAGRAM



PARTS INCLUDED

ACTUATOR



WIRING HARNESS



ZIP TIES



INSTALLATION STEPS

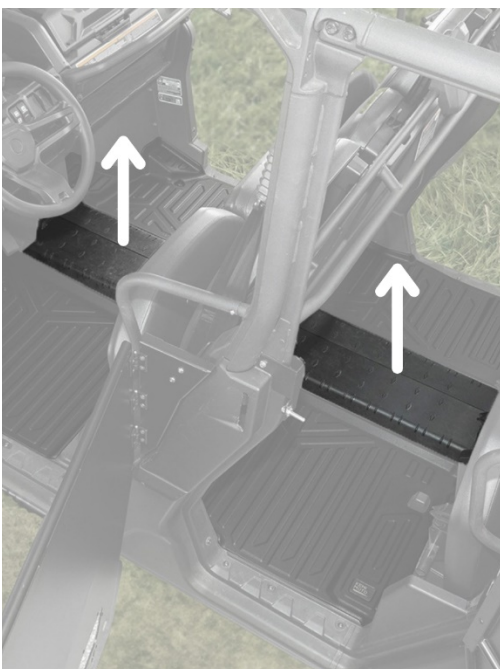
REMOVE THE BATTERY COVER AND DISCONNECT BATTERY

Begin the installation by removing the battery cover located under the rear or front passenger seat. Once exposed, disconnect the battery from the vehicle.



REMOVE THE FLOOR COVERS

Remove the floor panels covering the central channel, where most electrical and plumbing lines run. The Electric Dump Bed Kit wiring will follow this route. If the vehicle has a rear seat, there may be two covers to remove.



REMOVE THE BULKHEAD COVER

Remove the cover between the central channel and the control panel. Alternatively, unbolt one side and tuck the wire behind it later.



UNSEAT THE CONTROL PANEL

Detach the control panel from the dash. Full removal is not necessary.



INSTALL ROCKER SWITCH

Remove a blanking plate on the control panel. Feed both ends of the wiring harness through the opening and snap the rocker switch into place. The ends of the wires should now be behind the control panel.



INSTALL WIRES TO POWER BLOCK

Locate the +12VDC and common screw terminals behind the control panel. Remove the nuts to prepare the wiring harness for installation. Identify the side of the harness with the circular crimp terminals. Connect the red wire to the +12VDC terminal and the black wire to the common terminal.



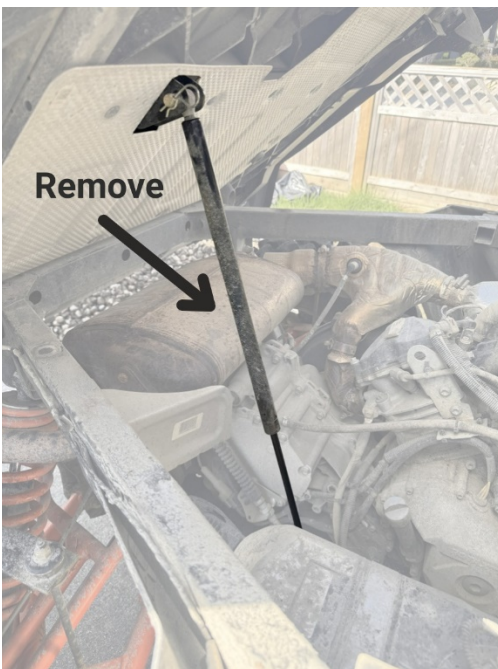
ROUTE WIRES FROM POWER BLOCK TO ENGINE BAY

Route the wire with the connector behind the dash, down the bulkhead cover, and into the central channel, and out the opening next to the battery into the engine bay.



REMOVE GAS SPRING FROM THE ATV

Make sure the bed is as upright as possible to relieve the gas spring in preparation for removal. Once done, remove the cotter pins from both mounting pins on both ends of the gas spring. Remove the mounting pins and then remove the gas spring entirely.



REMOVE BED LATCH

Since the PA-ED1 actuator will lock the bed, remove the manual latch entirely.



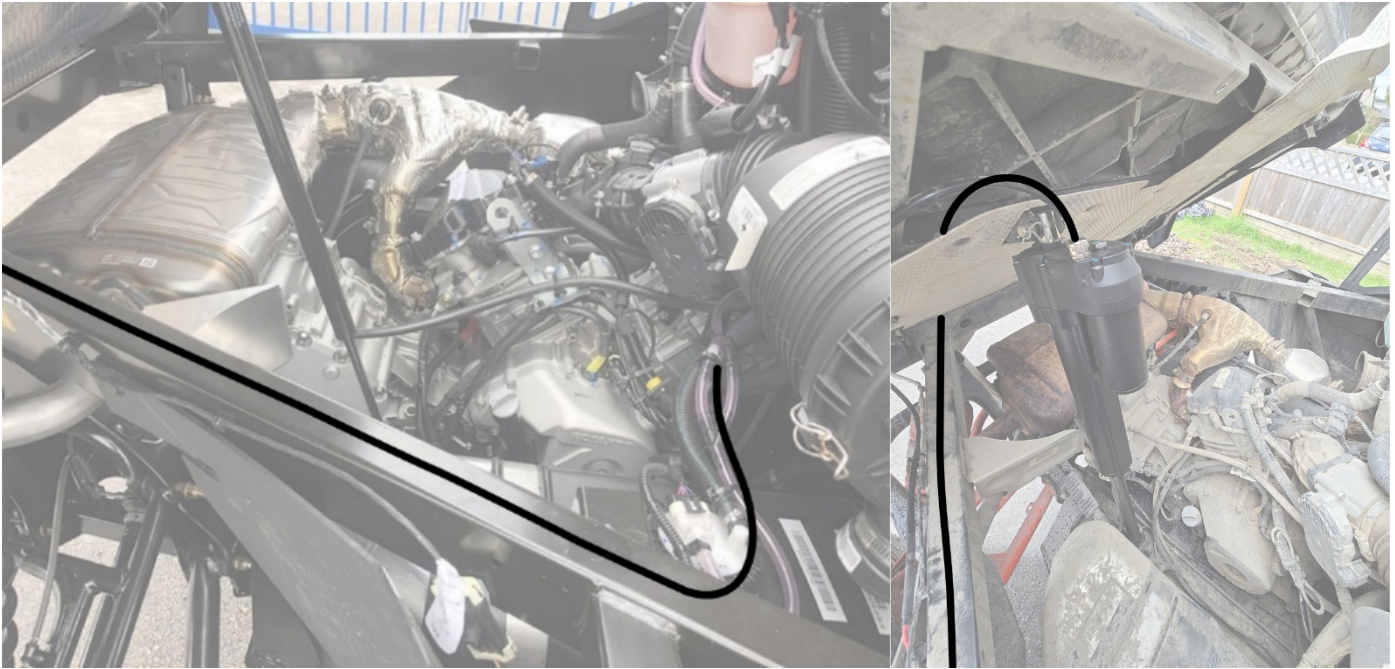
INSTALL ROD SIDE OF ACTUATOR TO THE ATV

Install the rod end of the actuator into the ATV mounting using the existing hardware. Ensure it matches the orientation shown in the reference image.



CONNECT AND WIRE THE ACTUATOR

Route the wire that was routed in previous steps towards the actuator as shown in the pictures. Use zip-ties to secure it to the prescribed route. Connect the actuator to this harness via the connector.



EXTEND THE ACTUATOR

Reconnect the ATV battery. Turn the ignition on and press the extend button on the rocker switch to extend the actuator. Have someone guide it to avoid obstructions in the engine bay. Extend it fully so the motor end can reach the mounting on the bed.

CONNECT ACTUATOR TO BED

Install the motor end of the actuator to the mounting on the bed using existing hardware.



TEST SYSTEM

Extend and retract the actuator with the rocker switch to check for smooth operation of the bed lift.

REATTACH INTERIOR PANELS

Secure all panels that were previously removed back onto the vehicle.

COMPATIBILITY LIST

Note: This Kit is not compatible with any models equipped with Air Conditioning from the factory.

PA-ED1-900-CM	Can-Am Defender HD 5 : 2017-2021
	Can-Am Defender HD 5 DPS : 2017-2021
	Can-Am Defender HD 7 : 2022+
	Can-Am Defender HD 7 DPS : 2022+
	Can-Am Defender HD 8 : 2016-2021
	Can-Am Defender HD 8 DPS : 2016-2021
	Can-Am Defender HD 8 XT : 2016-2021
	Can-Am Defender HD 8 XT Cab : 2016-2021
	Can-Am Defender HD 9 : 2022+
	Can-Am Defender HD 9 DPS : 2022+
	Can-Am Defender HD 9 DPS Cab : 2022+
	Can-Am Defender HD 9 XT : 2022+
	Can-Am Defender HD 10 : 2016+
	Can-Am Defender HD 10 6x6 : 2020+
	Can-Am Defender HD 10 DPS : 2016+
	Can-Am Defender HD 10 Mossy Oak : 2018+
	Can-Am Defender HD 10 Pro : 2020+
	Can-Am Defender HD 10 XMR : 2018+
	Can-Am Defender HD 10 XT : 2016+
	Can-Am Defender HD 10 XT Cab : 2016-2019
	Can-Am Defender HD 10 XTP : 2018+
	Can-Am Defender MAX HD 7 : 2022+
	Can-Am Defender MAX HD 8 : 2017-2021
	Can-Am Defender MAX HD 8 DPS : 2017-2021
	Can-Am Defender MAX HD 8 XT : 2017-2021
	Can-Am Defender MAX HD 8 XT Cab : 2017-2021
	Can-Am Defender MAX HD 9 : 2022+
	Can-Am Defender MAX HD 9 DPS : 2022+
	Can-Am Defender MAX HD 9 XT : 2022+
	Can-Am Defender MAX HD 10 DPS : 2017+
	Can-Am Defender MAX HD 10 Lone Star Edition : 2018+
	Can-Am Defender MAX HD 10 XMR : 2019+
	Can-Am Defender MAX HD 10 XT : 2017+
	Can-Am Defender MAX HD 10 XT Cab : 2017+