21-26 GM SUV REAR 2.5 VS RR COILOVER KIT

INSTALL INSTRUCTIONS:

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SKU: 110-91361



COMPONENTS INCLUDED:

QUANTITY	PART #	DESCRIPTION
1	CMS-174960RD	Cognito 21-23 GM SUV Rear 2.5”-3.5” CO 2.5 VS RR Driver
1	CMS-174960RP	Cognito 21-23 GM SUV Rear 2.5”-3.5” CO 2.5 VS RR Passenger
1	611019	Coilover Hardware Kit
1	611051	#36 1.188-2.750 Stainless Hose Clamp Kit (4)

HARDWARE INCLUDED:

QUANTITY	PART #	DESCRIPTION
2	250014	8.5 Face Off Set Resi Mount
2	605144	3/8-12 X.750 Flanged Self Tap CZINC
6	605101	3/8”-16 X 1.000 HHCS GR8 YZINC
6	605131	3/8” Split Lock Washer GR8 YZINC
6	605133	3/8” SAE Flat Washer GR8 YZINC

TOOLS REQUIRED:

Floor Jack	T15 Torx
Jack Stands	9/16” Socket / Wrench
Sharpie	5/16” Nut Driver
Drill	13, 18, 24mm Socket / Wrench
11/32 Drill Bit	Torque Wrench

TECH NOTES

- Your COGNITO shock assemblies come factory charged to 180 psi. Releasing nitrogen pressure may lead to shock malfunction and reduced ride quality. Failure caused by low nitrogen pressure is not covered under icon’s warranty policy.
- 110-91407 Toe Link required for proper suspension clearance and geometry.
- Read instructions carefully and study the pictures (if included) before attempting installation.
- If this product was purchased as part of a bundle/package, familiarize yourself with each set of instructions included with the bundle/package before beginning.
- Check the parts and hardware packages against the parts list to assure that your kit is complete before starting
- Install time: 3-4 hours.

WARNING

Please read this entire instruction sheet before beginning installation. Proper installation of these components requires a qualified mechanic. Always wear safety glasses when using power tools, and take appropriate precautions when working under a vehicle. If these instructions are not properly followed you may jeopardize your, and your passenger’s safety, and severe frame, suspension or tire damage may also result from improper installation.
Modification of vehicle suspension can interfere with ride-height sensors, active suspension, lane departure features, semi-autonomous, and autonomous driving features. It is the responsibility of the installer to determine feature compatibility prior to installation. Recalibration of sensors may be required in the event of any modification.

REQUIREMENTS

- Installation requires a qualified mechanic.
- Follow the OE specifications when replacing or re-installing OE fasteners, retainers, and hardware specified in the OEM service manual.
- Always wear safety glasses when using power tools.
- When a lift is required to perform the installation of these products ensure the vehicle is properly supported before attempting installation or serious injury may occur.

INSTALLATION

1. Place the truck on a flat surface with the parking brake engaged, chock the front tires.
2. Use a suitable floor jack in the manufacturer designated spot on the frame to lift the front of the truck, then place a suitable jack stand under the frame and set the truck down securely on the jack stand. NEVER WORK UNDER AN UNSUPPORTED VEHICLE. Remove the rear wheels and tires.
3. Begin by removing the rear portion of the fender liner using a T15 torx bit. The rear portion will fold out of the way to access the top of the coilover hardware. **[FIGURE 1]**



Figure 1

4. Support the lower control arm. Remove the upper coilover nuts using an 18mm. **[FIGURE 2]**



Figure 2

5. Remove the lower arm pivot bolt at the knuckle using a 24mm. **[FIGURE 3]**



Figure 3

6. Remove the brake line tabs from the lower control arm using a 13mm. **[FIGURE 4]**



Figure 4

7. Remove the lower control arm bolt and nut using an 18mm. Remove the coilover from the vehicle and set aside. **[FIGURE 5 & 6]**



Figure 5



Figure 6

8. Grab the COGNITO coilover assembly now and install the upper mount into the coil bucket using the supplied 3/8 bolts, flat washer and split lock washer. The split lock washer goes on the bolt first before the flat washer. Torque to 35 ft-lbs. **[FIGURE 7 & 8]**

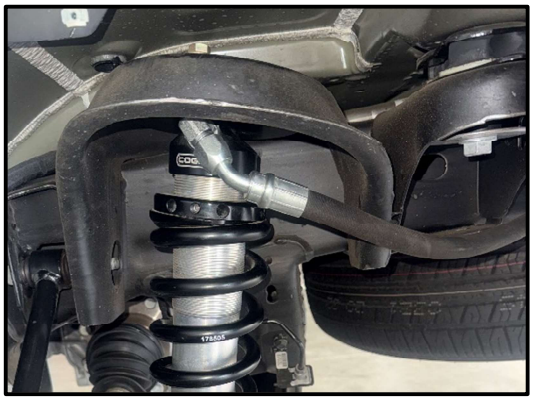


Figure 7



Figure 8

9. Install the lower coilover hardware using the OEM bolt and nut. Torque to 100 ft-lbs. **[FIGURE 9]**

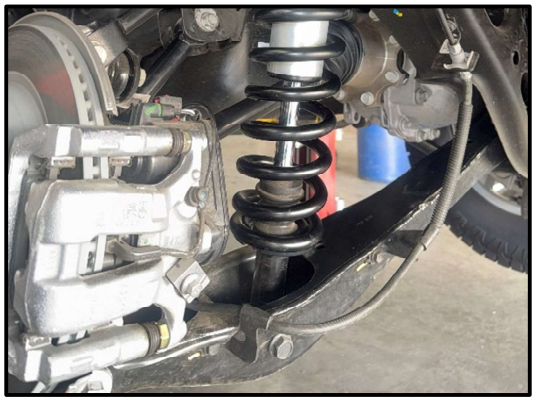


Figure 9

10. Reinstall the brake line bracket and lower control arm pivot bolt. Torque the pivot bolt to 180 ft-lbs.

11. Use pliers to bend the brake line bracket up to relieve some tension on the brake line from the added droop travel **[FIGURE 10 & 11]**



Figure 10



Figure 11

12. Install the remote reservoir now using the supplied bracket, hose clamp and self-tapping 3/8” bolt and 3/8” split lock washer. Hold the reservoir and bracket up to position and mark the hole for drilling with the 11/32” drill bit. Once drilled, install the bracket with hose clamps installed, then attach the reservoir. (Some models may have an exhaust on the driver side. The reservoir will need to be mounted a little higher on the frame to clear.) **[FIGURE 12 & 13]**

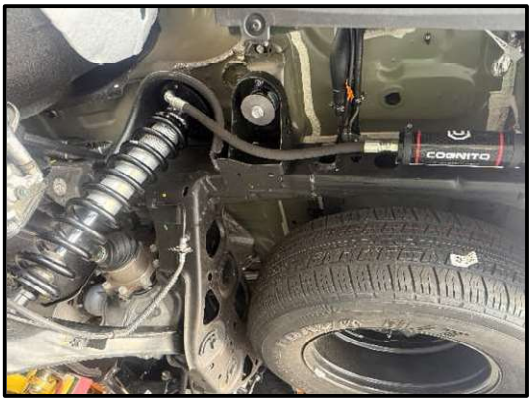


Figure 13



Figure 14

13. Reinstall the fender liner now.

14. Repeat steps on the passenger side. Passenger side reservoir location is similar but needs to clear the plastic splash guard and exhaust. **[FIGURE 14 & 15]**

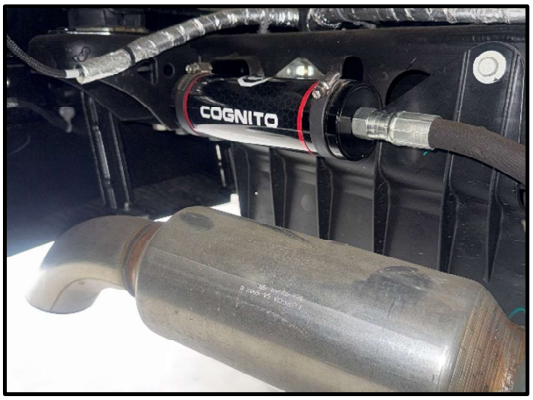


Figure 14



Figure 15

15. Reinstall the wheels and tires, remove the vehicle from the jackstands and lower it back to the ground. [Torque lugs to factory specs]

VERIFY ALL FASTENERS ARE PROPERLY TORQUED BEFORE DRIVING VEHICLE.
RETORQUE ALL NUTS, BOLTS AND LUGS AFTER 100 MILES AND PERIODICALLY THEREAFTER.

2.5 VS SERIES SHOCK & COILOVER TECHNICAL INFORMATION

MAINTENANCE

COGNITO shock absorbers are a high quality rebuildable race style shock absorber designed for optimal performance. With a unit of this caliber on your vehicle, routine
maintenance is required to keep them looking and operating in like new condition. Residual oil and assembly lube may be present at all seal paths from the factory out of the
box and is considered normal. Pooling of oil however is not acceptable at any time and one should contact the COGNITO dealer where purchased.

BELOW ARE GUIDELINES BASED ON HOW YOU USE YOUR VEHICLE BUT YOUR MILEAGE MAY VARY:

STREET USE:

- Send in for factory servicing every 40,000 miles or if a leak develops, ride quality decreases, or they begin to make excessive noise.
- Remove any buildup of road salt, mud, or debris from shocks and coil springs anytime accrued.
- Clean with mild soap and water with each oil change or anytime you notice build up.
- Wax the cylinders yearly with automotive wax to prevent corrosion.
- Check nitrogen pressure yearly. (252004 charge needle assembly available at any COGNITO distributor).
- Check bearings for excessive wear yearly.
- DO NOT apply any type of lube to the upper and lower bearings.

STREET/DIRT:

- Send in for factory servicing every 15,000 miles or if a leak develops, ride quality decreases, or they begin to make excessive noise.
- Clean with mild soap and water with each oil change, offroad trip, or anytime you notice build up.
- Wax the cylinders yearly with automotive wax to prevent corrosion.
- Check nitrogen pressure each dirt outing. (252004 charge needle assembly available at any COGNITO distributor).
- Check bearings for excessive wear yearly.
- DO NOT apply any type of lube to the upper and lower bearings.

DIRT USE:

- Send in for factory servicing every 1,000 miles.
- Check nitrogen pressure each outing. (252004 charge needle assembly available at any COGNITO distributor).
- Remove any buildup of mud or debris from shocks and coil springs after every outing.

SELF-SERVICE:

- Contact COGNITO for service kits & tools at (866) 426-4648.

WARRANTY / RETURN POLICY / SAFETY

Cognito Limited Lifetime Warranty

Cognito Motorsports, Inc. hereinafter "Cognito," warrants to the original retail purchaser, that its suspension products are free from workmanship and material defects for as long as the purchaser owns the vehicle on which the product(s) were originally installed. This warranty will be void if any modifications are made to the components, including alterations to the surface finish, i.e.; painting, powder coating, plating, and/or welding, or if they are improperly installed. Cognito truck suspension products are not designed nor intended to be installed on "competition" vehicles used in race applications, stunt or for exhibition purposes that are outside of the intended operating conditions specified by the manufacturer. Racing and competition are defined as any contests between two or more vehicles; or vehicles competing individually on off road circuits in timed events (whether or not such contests are for an award or prize).

This warranty does not include coverage for police, taxi, government or commercial vehicles, and the warranty does not cover Cognito products sold outside of the USA. Cognito's obligations under this warranty are specified and applied at its sole discretion, and warranty coverage is limited to repair or replacement of the defective product(s). Any and all costs of removal, installation or reinstallation; freight charges, incidental or consequential damages associated with the covered products are expressly excluded from this warranty.

The following items are exempt from Cognito limited warranty coverage: bushings, bump stops, tie-rod ends (Heim joints) and limiting straps. These parts are "consumables" and designed to wear as a normal part of their duty cycle, therefore they are not considered defective when worn. The aforementioned products are warrantied separately against defects in workmanship, for 60 days from the date of purchase. As a condition of warranty validation, respective Cognito suspension components must be installed as a complete system (not combined with non-Cognito hardware or ancillary parts). Any substitutions or omission of required components will void the warranty. Some minor cosmetic wear and imperfections may occur to parts during shipping, which is not covered under this warranty. This limited warranty does not apply to any components that have been subjected to collision damage, negligence, alteration, abuse, or misuse, and coverage does not extend to products manufactured by third-party companies. Cognito reserves the right to supersede, discontinue, or change the design, finish, part number and/or application of its parts when deemed necessary, without notice.

Return Policy

Product returns will not be accepted without prior written approval from an authorized Cognito representative. All products being returned must be shipped via trackable, prepaid freight. Returned products are subject to a 25% percent restocking fee. The eligible return period for products purchased directly from Cognito is 30 days from the verified date when the product(s) were originally received by the purchaser.

Product Safety Advisory

The installation of Cognito steering and suspension components will modify your vehicle's original factory equipment and geometry, which may cause it to handle differently than a stock (unaltered) vehicle. Installation of these components is not intended to strengthen nor reinforce the vehicle's frame, nor are they designed to increase rollover protection. It is necessary to periodically inspect all suspension and drive train components for proper attachment, torque specifications, operation, and for any potential unusual wear or damage. Installation of these parts will modify the height of the vehicle and may raise the center of gravity. Modifying vehicle height combined with off road operation may increase your vehicle's susceptibility to rollover conditions, which may cause serious injury or death. Many states regulate allowable vehicle height modifications, and it is your responsibility to know and comply with the legal requirements specified by the laws where you reside. Modifications to your vehicle's ride height may also affect the ride quality, driver input response, trackability and handling, and wear to your vehicle's suspension components and tires.

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