2019-UP GM 1500 2.5 RR COILOVER KIT

INSTALL INSTRUCTIONS:

2019-UP GM 1500 2.5 RR COILOVER KIT
SKU: 110-91357



COMPONENTS INCLUDED:

QUANTITY	PART #	DESCRIPTION
1	CMS-174963RD	Cognito 19-UP GM SUV 2-3.5" CO 2.5 VS RR Driver
1	CMS-174963RP	Cognito 19-UP GM SUV 2-3.5" CO 2.5 VS RR Passenger
1	611019	Coilover Hardware Kit

HARDWARE INCLUDED:

QUANTITY	PART #	DESCRIPTION
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	8mm Socket / Wrench
Jack Stands	15mm Socket / Wrench
Torque Wrench	18mm Socket / Wrench

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.

TECH NOTES:

- Your Cognito coilover assemblies come factory charged to 250 psi. Releasing nitrogen pressure may lead to shock malfunction and reduced ride quality. Failure caused by low nitrogen pressure is not covered under Cognito's warranty policy.
- Your Cognito coilover assemblies come shipped at Cognito's recommended ride height. Reducing droop travel will reduce ride quality. Do not preload the coil beyond 1.125" of exposed threads between the bottom of the top cap and the top of the coil adjuster nut. Adjusting preload beyond this setting will cause the coil to bind and damage will occur to coilover and/or vehicle.
- 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
- Estimated install time: 3-4 hours

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 rear 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 front wheels and tires.
3. Using a floor jack, support the lower control arm (LCA) to prevent the suspension from being at full extension.
4. Remove the wiring harness mounts from the studs of the factory coilovers. A long flathead screwdriver helps to remove the harness on the passenger side.

5. Remove the nuts from the studs using an 18mm. **[FIGURE 1]**



Figure 1

6. Remove the bolts from the bar pin using a 15mm. **[FIGURE 2]**



Figure 2

Disconnect the brake line brackets from the upper control arm (UCA) using a 10mm. [FIGURE 3]



Figure 3

7. Disconnect the UCA from the steering knuckle using an 18mm. Take care to not overextend the CV joints. Support the steering knuckle using heavy duty zip ties, safety wire, tie downs, or bungee cords. **[FIGURE 4]**



Figure 4

8. Lower the LCA enough to rotate and remove the coilover assembly.
9. Mount the COGNITO coilover to the bucket using the supplied 3/8" coilover hardware and a 9/16". [Torque to 35 ft-lbs]
10. Mount the bar pin to the LCA using the factory bolts and a 15mm. [Torque to factory spec]
11. Connect the spindle to the UCA using the factory nut and an 18mm. [Torque to factory spec] **[FIGURE 5]**



Figure 5

12. Use an 11/32" drill bit to drill out the existing hole in the frame. **[FIGURE 6 & 7]**



Figure 6

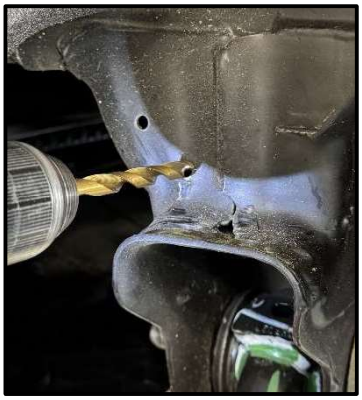


Figure 7

13. Use the supplied self-tapping 3/8” screw to tap the drilled hole.
14. Mount the reservoir bracket to the frame using the self-tapping screw and a 9/16”. The bracket should be offset forward moving the reservoir further from the coilover.
15. Mount the reservoir to the bracket using the supplied hose clamp. Use a 5/16” to fasten it but do not overtighten. **[FIGURE 8]**



Figure 8

16. Mount the brake line to the UCA using the factory hardware and a 10mm. [Torque to factory spec]
17. Reinstall the wheels and lower the vehicle to the ground. [Torque lugs to factory spec]
18. Have the vehicle professionally aligned.

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

COGNITO MOTOR SPORTS LIABILITY DISCLAIMER

COGNITO does not make any representations or warranties regarding the fitness of any COGNITO product for a particular installation or conformance of any COGNITO product with a particular vehicle application. Installation of any COGNITO suspension system is at the sole discretion of the end user and in making a purchase of any COGNITO suspension system, the purchaser assumes the responsibility and liability for any and all damage or injury, of any kind or nature whatsoever, caused by, resulting from, arising out of, or occurring in connection with the use or installation of any COGNITO suspension system. COGNITO is not liable for and specifically disavows any installation that is not in conformance with original equipment manufacturer’s recommendations or instructions. Purchaser agrees that in the event of any claim or lawsuit arising out of the installation or use of an COGNITO suspension system, purchaser shall indemnify and hold harmless COGNITO, its agents, employees, officers and owners from and against any and all loss, expense, damage or injury that COGNITO may sustain as the result of such claim. [If applicable, COGNITO defers to and recommends recalibration of any/all vehicle stability systems after suspension installation.]

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.

34935 Flyover Ct Bakersfield, CA 93308 Phone: (866) 426-4648 Fax: (661) 588-8295
www.cognitomotorsports.com