

6-24-2024 REV.A



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PART #	DESCRIPTION
71657	2021 GM SUV 2.5 RR COILOVER KIT

COMPONENTS INCLUDED			
(1) 174963RD 21 GM SUV 2.5 VS RR CO (DRVR) (1) 174963RP 21 GM SUV 2.5 VS RR C (PASS)	(2) 2500020 7.5" OFFSET RESI MOUNT (1) 611019 COILOVER HARDWARE KIT (1) 611051 HOSE CLAMP KIT		
HARDWARE INCLUDED			
(2) 605131 3/8 SPLIT LOCK WASHER	(2) 605144 3/8-12 X .75 FLANGED SELF TAP		
611019 HARDWARE KIT			
(6) 605101 3/8-16 X 1.000 BOLT	(6) 605131 3/8 SPLIT LOCK WASHER		
TOOLS REQUIRED			
JACK JACK STANDS DRILL 11/32" DRILL BIT TORQUE WRENCH	5/16" NUT DRIVER 9/16" SOCKET / WRENCH 8MM SOCKET / WRENCH 15MM SOCKET / WRENCH 18MM SOCKET / WRENCH		
TECH NOTES			

1. YOUR ICON COILOVER ASSEMBLIES COME FACTORY CHARGED TO 250 PSI. RELEASING NITROGEN

PRESSURE MAY LEAD TO SHOCK MALFUNCTION AND REDUCED RIDE QUALITY. FAILURE CAUSED BY

2. YOUR ICON COILOVER ASSEMBLIES COME SHIPPED AT ICON'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

LOW NITROGEN PRESSURE IS NOT COVERED UNDER ICON'S WARRANTY POLICY.

DAMAGE WILL OCCUR TO COILOVER AND/OR VEHICLE.



#### **WARNING!**

- \*\* READ ALL INSTRUCTIONS THOROUGHLY FROM START TO FINISH BEFORE BEGINNING INSTALLATION! IF THESE INSTRUCTIONS ARE NOT PROPERLY FOLLOWED SEVERE FRAME, SUSPENSION AND TIRE DAMAGE MAY RESULT TO THE VEHICLE!
- \*\* ICON VEHICLE DYNAMICS RECOMMENDS THAT YOU EXERCISE EXTREME CAUTION WHEN WORKING UNDER A VEHICLE THAT IS SUPPORTED WITH JACK STANDS.
- \*\* ICON VEHICLE DYNAMICS RECOMMENDS ALL INSTALLATION TO BE PERFORMED BY A PROFESSIONAL SHOP/SERVICE TECHNICIAN. PRODUCT FAILURE CAUSED BY IMPROPER INSTALLATION WILL NOT BE COVERED UNDER ICON'S WARRANTY POLICY.

# INSTALLATION

FIG.1

3. ESTIMATED INSTALL TIME: 2 HOURS.

- 1. Using a properly rated jack, raise the front of the vehicle and support the frame rails with jack stands. Ensure the jack stands are secure and set properly before lowering the jack. NEVER WORK UNDER AN UNSUPPORTED VEHICLE. Remove the front wheels.
- 2. Using a floor jack, support the lower control arm (LCA) to prevent the suspension from being at full extension.
- 3. 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.
- 4. Remove the nuts from the studs using an 18mm. [FIGURE 1]



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



FIG.2

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





FIG.4

- **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]
- **8.** Lower the LCA enough to rotate and remove the coilover assembly.
- 9. Refer to ICON UCA instructions.

FIG.3

FIG.5

- 10. Mount the ICON coilover to the coil bucket using the supplied 3/8" coilover hardware and a 9/16". [Torque to 35 ft-lbs]
- 11. Mount the bar pin to the LCA using the factory bolts and a 15mm. [Torque to factory spec]
- 12. Connect the spindle to the UCA using the factory nut and an 18mm. [Torque to factory spec]
- 13. Using an 11/32" drill bit, drill out the hole in the frame as shown. [FIGURE 5 & 6]





FIG.6

- 14. Use the supplied self-tapping 3/8" screw to tap the drilled hole.
- 15. 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.
- 16. Mount the reservoir to the bracket using the supplied hose clamps. Fasten using a 5/16" but do not overtighten. [FIGURE 7]



- FIG.7
- 17. Mount the brake line to the UCA using the factory hardware and a 10mm. [Torque to factory spec]
- 18. Reinstall wheels and lower vehicle to the ground. [Torque lugs to factory spec]
- 19. Have the vehicle professionally aligned.

### ICON VEHICLE DYNAMICS LIABILITY DISCLAIMER

ICON does not make any representations or warranties regarding the fitness of any ICON product for a particular installation or conformance of any ICON product with a particular vehicle application. Installation of any ICON suspension system is at the sole discretion of the end user and in making a purchase of any ICON 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 ICON suspension system. ICON 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 ICON suspension system, purchaser shall indemnify and hold harmless ICON, its agents, employees, officers and owners from and against any and all loss, expense, damage or injury that ICON may sustain as the result of such claim. [If applicable, ICON defers to and recommends recalibration of any/all vehicle stability systems after suspension installation.]

### 2.5 VS SERIES SHOCK & COILOVER TECHNICAL INFORMATION

#### **MAINTENANCE**

ICON 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 ICON 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 ICON 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 ICON 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 ICON distributor)
- Remove any buildup of mud or debris from shocks and coil springs after every outing.

## SELF-SERVICE:

Contact ICON for service kits & tools at (951) 689-4266.

#### PRODUCT REGISTRATION

Please visit: http://www.iconvehicledynamics.com/tech-support/registration/ to register your product.

### ICON VEHICLE DYNAMICS SHOCK ABSORBER WARRANTY

This shock absorber has a 1 year warranty against any manufacturer's defects. If a shock fails within the initial year of ownership, the shock must be shipped to ICON Vehicle Dynamics for inspection and service. If a shock is inspected and it has been determined the shock failed due to neglect, damage caused by improper installation or any other reason besides "normal wear and tear", the owner of said shock is responsible for all service costs. This includes labor, parts, and shipping.

ICON Vehicle Dynamics warrants to the original retail purchaser who owns the vehicle on which the product was originally installed. ICON Vehicle Dynamics does not warrant the product for finish, alterations, modifications and/or installation contrary to ICON Vehicle Dynamics instructions. ICON Vehicle Dynamics products are not designed, nor are they intended to be installed on vehicles used in race applications, for racing purposes or for similar activities. (A "race" is defined as any contest between two or more vehicles, or a contest of one or more vehicles against the clock, whether or not such contest is for a prize). This warranty does not include coverage for police or taxi vehicles, race vehicles, or vehicles used for government or commercial purposes. Also excluded from this warranty are sales outside of the United States of America and Canada.

ICON Vehicle Dynamics' obligation under this warranty is limited to the repair or replacement, at ICON Vehicle Dynamics' discretion, of the defective product. Any and all costs of removal, installation or re-installation, freight charges and incidental or consequential damages are expressly excluded from this warranty. Items that are subject to wear are not considered defective when worn and are not covered.

ICON Vehicle Dynamics components must be installed as a complete kit as shown in our current application guide. Any substitutions or exemptions of required components will immediately void the warranty. Some finish damage may happen to parts during shipping and is not covered under warranty.

This warranty is expressly in lieu of all other warranties expressed or implied. This warranty shall not apply to any product that has been improperly installed, modified or customized subject to accident, negligence, abuse or misuse.

To send a shock in for warranty please visit our website http://www.iconvehicledynamics.com/tech-support/shock-service/



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