

12-31-24 REV.A



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**COMPONENTS INCLUDED** 

PART #	DESCRIPTION
58790X	24 GX550 2.5 VS RR CDXS COILOVER KIT

(1) 154605RXD 24 GX550 DRVR 2.5 VS RR CDCV CO (1) 154605RXP 24 GX550 PASS 2.5 VS RR CDCV CO	(1) 150151 FRONT DRVR RESI MOUNT (1) 150152 FRONT PASS RESI MOUNT (1) 611051 HOSE CLAMP KIT (1) 611025 HARDWARE KIT		
HARDWARE INCLUDED			
(4) 605144 3/8-12 X .750 SELF TAP BOLT (2) 150122 5/16 BUMP STOP SPACER	(1) 605969 VIBRATITE RED		
TOOLS REQUIRED			

JACK JACK STANDS TORQUE WRENCH RATCHET HAMMER BALL JOINT SEPARATOR	5/16 NUT DRIVER 10MM SOCKET / WRENCH 12MM SOCKET / WRENCH 14MM SOCKET / WRENCH 19MM SOCKET / WRENCH 22MM SOCKET / WRENCH
	19MM SOCKET / WRENCH 22MM SOCKET / WRENCH 24MM SOCKET / WRENCH 35MM SOCKET / WRENCH

## **TECH NOTES**

- 1. YOUR ICON COILOVER ASSEMBLIES COME FACTORY CHARGED TO 150 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.
- 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 2" 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.
- 3. 55156 REQUIRED.
- 4. 58552DJ OR 58452DJ REQUIRED.
- 5. ESTIMATED INSTALL TIME: 3 HOURS.

## INSTALLATION

- 1. Installation of PN 55156 must be completed prior to starting the installation of the coilovers.
- Place the truck on a flat surface with the parking brake engaged, chock the REAR/FRONT tires.



## **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.
  - 3. 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/REAR wheels and tires.
  - 4. Remove sway bar link bolt using a 19mm socket. [FIGURE 1]



5. Remove the two bolts that hold on the brake line and ABS bracket to the knuckle using a 12mm socket. [FIGURE 2 & 3]



FIG.2

FIG.4

FIG.6



FIG.3

6. Remove the ABS sensor from knuckle using a 10mm socket. [FIGURE 4 & 5]





FIG.5

7. Remove the brake caliper from the spindle using a 19mm. Once removed, use a strap or rope to support the caliper so it does not hang by the brake line. Remove the brake rotor and set aside. [FIGURE 6 & 7]





FIG.7

8. Remove the cotter pin from the tie rod nut using pliers, then remove tie rod nut using 24mm. [FIGURE 8 & 9]





9. Use a ball joint separator or a hammer to loosen the tie rod taper. [FIGURE 10]



FIG.10

10. Remove the hub dust cap using a flat blade screwdriver. [FIGURE 11]



FIG.11

11. Using a screw driver, pry up the indent in the nut and remove with a 35mm socket. [FIGURE 12 & 13]



FIG.12



FIG.13

12. Using a dead blow hammer, hit the stub axle to free it form the hub. It will not come out completely yet. [FIGURE 14]



13. Remove the lower two knuckle bolts using a 22mm socket. [FIGURE 15 & 16]





FIG.16

14. Support the CV shaft and remove steering knuckle.

FIG.15

FIG.19

15. Support the lower control arm. Using a 14mm socket, remove the (4) upper nuts from the factory coilover. [FIGURE 17]



FIG.17

16. Remove the lower shock mount using a 22mm socket and wrench. [FIGURE 18]



FIG.18

17. Located the marked area behind the shock stud located in [FIGURE 19 & 20]. Use a barrel sander sand down approximately 3/16" paint after.





18. Using channel locks remove the factory bump stop. Locate (PN 150122), place it onto the factory bump stop. Using the provided red loctite reinstall the bump stop with spacer. [FIGURE 20 & 21]





FIG.22

19. Install the ICON coilover in the lower arm. [Torque to factory specs] [FIGURE 23]



FIG.23

**20.** Install the four 3/8 bolt into the upper mount using the washer, lock washer and the supplied thread locker using a 9/16" wrench. Torque to 35 ft-lbs. [FIGURE 24]



FIG.24

21. Remove the factor rubber cover in front of the upper control arm on the frame using the two holes in the frame. Drill them to 11/32. [FIGURE 25 & 26]



FIG.21





22. Line up the supplied resi bracket and install the supplied 3/8 self thread screw. [FIGURE 27]



**FIG.27** 

23. Use the supplied hose clamps to secure the resi to the bracket. [FIGURE 28, 29 & 30]



**FIG.28** 



FIG.29



- **24.** Reinstall spindle, insert the stub axle back into the hub, making sure the splines are aligned. Insert the lower 2 bolts into the spindle. [Torque to factory specs]
- 25. Install tie rod and nut. Torque to factory spec and reinstall cotter pin.
- 26. Install the upper control arm balljoint into the spindle and secure with the nut.
- 27. Torque the lower balljoint bolts to factory spec. Torque the upper balljoint to factory spec if using the OEM arm, or 70 ft-lbs for ICON Delta Joint Pro.
- 28. Install the axle nut and torque to factory spec. Install nut lock plate and cotter pin. Then use a dead blow hammer to install the hub cap.
- 29. Install rotor onto hub and install brake caliper back onto spindle. [Torque bolts to factory spec]
- **30.** Reconnect brake line and ABS brackets onto spindle.
- 31. Install ABS sensor back into the spindle and the bracket
- 32. Repeat steps on opposite side.
- 33. Install wheels and tires, lower vehicle to the ground. Torque lug nuts.
- 34. Get vehicle professionally aligned.

## ICON VEHICLE DYNAMICS LIMITED LIFETIME WARRANTY

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.



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