4-20-2017 REV.B



7929 Lincoln Ave. Riverside, CA 92504 Phone: 951.689.ICON Fax: 951.689.1016

PART #	DESCRIPTION
58755	07-UP TUNDRA 3.0 VS RR CDCV COILOVER KIT

#### **COMPONENTS INCLUDED** (1) 154970RCD 07+ TUNDRA 3.0 RR CDCV (DRVR) (1) 154970RCP 07+ TUNDRA 3.0 RR CDCV (PASS) HARDWARE INCLUDED 58755H HARDWARE KIT (2) 154006 07+ TUNDRA RESI MOUNT (2) 605847 M14-2.0 JAM NUT (4) 159013 SLEEVE .750 X .563 X .125 (4) 159014 SLEEVE .750 X .563 X .375 (2) 605848 M14-2.0 X 50MM SOCKET SCREW (4) 605926 ZIP TIF (2) 295525 JM14MT PTFE MALE ROD END (2) 605936 ADEL CLAMP VINYL COATED .400" (2) 295526 JF14MT PTFE FEMALE ROD END (2) 605937 PINCH CLAMP 15/16 - 1 1/16 (2) 605144 3/8-12 X .750 FLANGED SELF TAP (1) 611025 07+ TUNDRA CO HARDWARE KIT PAIR (2) 605812 M14-2.00 NYLOCK NUT (1) 611051 STAINLESS STEEL HOSE CLAMP KIT 611025 COILOVER HARDWARE KIT

(4) 605931 1/2 X 2 1/16 - 3 #40 SS HOSE CLAMP	
TOOLS REQUIRED	

(8) 605101 3/8-16 X 1.000 HHCS

JACK
JACK STANDS
TORQUE WRENCH
DRILL
MARKER
11/32" DRILL BIT
11MM ALLEN WRENCH
BLACK SPRAY PAINT

ANGLE GRINDER W/ CUTOFF WHEEL 5/16" SOCKET / WRENCH 9/16" SOCKET / WRENCH 12MM SOCKET / WRENCH 17MM SOCKET / WRENCH

(8) 605131 3/8" SPLIT LOCK WASHER

22MM SOCKET / WRENCH 24MM 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.

611051 HOSE CLAMP HARDWARE KIT

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 1.25" OF EXPOSED THREADS BETWEEN THE BOTTOM OF THE TOP CAP AND 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. THIS 3.0 COILOVER KIT MUST BE USED WITH AN ICON UPPER CONTROL ARM KIT. BILLET (58560) OR TUBULAR (58460).

4. FAILURE TO TRIM SWAYBAR ENDS WILL RESULT IN SHOCK DAMAGE NOT COVERED UNDER ICON'S WARRANTY POLICY.

5. FAILURE TO TRIM BUMPSTOP MOUNT WILL RESULT IN SHOCK DAMAGE NOT COVERED UNDER ICON'S WARRANTY POLICY.



### 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 INSTALLTION 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

- 1. While the truck is still on the ground, remove the sway bar links using a 19mm.
- 2. 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.
- 3. Remove the factory skid plate using a 12mm. [FIGURE 1]



FIG.2

4. Remove the sway bar using a 17mm. [FIGURE 2]

1

5. Mark the ends of the sway bar as shown. Cut the ends of the sway bar as marked. [FIGURE 3 & 4]





FIG.4

6. Paint exposed metal to prevent rust.

FIG.3

FIG.5

- 7. Disconnect the tie rod from the spindle using a 24mm.
- 8. Disconnect the upper control arm from the spindle. Be careful to not over extend the CV joints by letting the spindle tilt away from the frame.
- **9**. Remove the (4) nuts securing the upper coil seat to the coil bucket. Do not loosen or remove the larger center nut securing the spring seat to the shock shaft. [FIGURE 5]



FIG.6

- 10. Support the lower control arm with a jack and remove the bolt holding the shock eye to the lower control arm. Note orientation, this bolt will be reused. [FIGURE 6]
- 11. Lower the jack and remove the stock coilover assembly. Due to rubber bushing stiffness you may need to push down on the suspension. To make it easier you can use a pry bar over the top of the upper control arm and under the pivot bolt for additional leverage. Be careful not to damage any brake lines or wires that may be routed down the control arm.
- 12. Trim the bumpstop and bumpstop mount as shown. [FIGURE 7]



FIG.7

- 13. Install new ICON coilover assembly: there are 7 threaded holes in the top of the upper shock mount, you will be using 4 of them.
- 14. Using a 9/16" socket/wrench, install upper mount with the hose pointing outward and towards the front using (4) of the supplied (605101) bolts and (605131) lock washers. [Torque to 33 ft-lbs]

15. Install shock bolt in the lower control arm: The lower shock mount has (1) long and (1) short spacer. Make sure the short spacer is oriented toward the rear of the vehicle. This will space the shock further rearward in the pocket to ensure adequate clearance for the shock rod end. [Torque to factory spec] [FIGURE 8]

FIG.8

- 16. Connect the upper control arm to the spindle. [Torque to spec]
- 17. Connect the tie rod to the spindle using a 24mm. [Torque to factory spec]
- 18. Mount the Sway bar using factory bolts and a 17mm. [Torque to factory spec]
- 19. Mount the skid plate using the factory bolts and a 12mm. [Torque to factory spec]
- **20**. Remove plastic caps from the frame as shown. Drill the holes out to an 11/32". Using the supplied 3/8" Self-tappers, run the bolt in to form the threads, and then remove the bolt. [FIGURE 9]



FIG.9

21. Mount the reservoir bracket with the front bolt only. Place the supplied adel clamp on the reservoir hose as shown. The rear bolt goes through the adel clamp, and reservoir bracket. This requires you to hold the reservoir in position while putting the bolt in the bracket. [FIGURE 10 & 11]

FIG.10





FIG.11

- 22. With the adel clamp in place, and the reservoir positioned on the reservoir bracket, mount the reservoir to the bracket using the supplied hose clamps and a 5/16".
- 23. Install wheels and lower vehicle to the ground [Torque to factory spec].

24. Assemble sway bar links as shown and adjust length to 4.0" as a starting point. Depending on alignment specifications, you may need to adjust the sway bar links to a shorter length to gain adequate coil cup clearance. Cycle the suspension to ensure no contact.

**25**. Connect the supplied sway bar links using the wide spacers (159014) and factory bolt in lower control arm [Torque to factory spec]. Use the supplied narrow spacers (159013), 14mm bolt (605848), and supplied nut (605812) connecting the sway bar to link. Fasten with an 11mm allen and a 19mm socket/wrench. [Torque to 100 ft-lbs] [FIGURE 12]



FIG.12

**26.** Remove the factory pinch clamps on the outer end of the tie rod boots on both the driver and passenger side. Slide the tie rod boots approximately 1" inward and fasten using the supplied (605937) pinch clamps. Cycle the steering to make sure that the boots do not contact the shocks at full lock. Failure to check steering clearances may result in steering and/or shock damage. **[FIGURE 13]** 



FIG.13

27. 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.



### 3.0 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/

# **ICON** VEHICLE DYNAMICS

PERFORMANCE SUSPENSION SYSTEMS AND SHOCK ABSORBERS

7929 Lincoln Ave. Riverside, CA 92504 Phone: 951.689.ICON Fax: 951.689.1016 www.iconvehicledynamics.com



