

11-04-2019 REV.A



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PART #	DESCRIPTION
57801CP	91-97 LAND CRUISER (80 SERIES) 0-3" FRONT 2.5 VS RR CDCV SHOCK

# **COMPONENTS INCLUDED** (4) 611006 HEAVY DUTY STEM BUSHING KIT (2) 154856C 91-97 91-97 LAND CRUISER 80 0-3" (1) 611051 #36 1.188-2.750 STAINLESS HOSE FRONT 2.5 VS RR CDCV (2) 150019 80 SERIES LC FRONT RESI MOUNT CLAMP KIT (4) HARDWARE INCLUDED N/A **TOOLS REQUIRED** 8MM NUT DRIVER JACK JACK STANDS 12MM SOCKET / WRENCH TORQUE WRENCH 19MM SOCKET / WRENCH **TECH NOTES**

1. YOUR ICON SHOCK ASSEMBLIES COME FACTORY CHARGED TO 150 PSI. RELEASING NITROGEN PRESSURE MAY LEAD TO SHOCK MALFUNCTION AND REDUCED RIDE QUALITY. FAILURE CAUSED BY

2. INSTALL STEM BUSHINGS AND HARDWARE AS SHOWN IN THE DIAGRAM. FAILURE CAUSED BY INCORRECT INSTALLATION OF STEM BUSHINGS AND HARDWARE IS NOT COVERED UNDER ICON'S

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



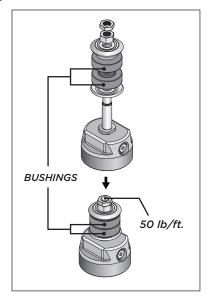
## WARNING!

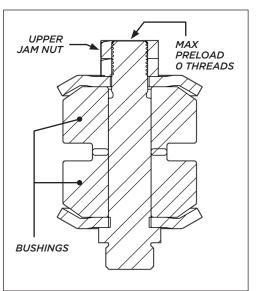
- \*\* READ ALL INSTRUCTIONS THOROUGHLY FROM START TO FINISH BEFORE BEGINNING INSTALLATION! IF THESE INSTRUCTIONS ARE NOT PROPERLY FOLLOWED SEVERE FRAME, SUSPENSION AND TIRE DAMAGE MAY RESULT TO THE VEHICLE!
- \*\* ICON VEHICLE DYNAMICS RECOMMENDS THAT YOU EXERCISE EXTREME CAUTION WHEN WORKING UNDER A VEHICLE THAT IS SUPPORTED WITH JACK STANDS.
- \*\* ICON VEHICLE DYNAMICS RECOMMENDS ALL 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

WARRANTY POLICY.

- 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. With a floor jack under the front axle, slightly raise the axle housing to remove tension then loosen the lower shock mounts. Make sure the axle is secure and well supported.
- 3. Carefully remove the nuts from the upper and lower shock mount stems. Use caution to make sure that the axle doesn't drop.
- **4.** CAUTION: As you lower the front axle watch for binding of the front drive shaft on the sway bar and overextension of brake lines and differential breathers. Disconnect the sway bar and brake line brackets if necessary.
- **5.** Slowly and carefully lower the front axle and remove the OEM shock. Continue to lower the front axle until there is sufficient room to install the longer ICON shock.
- 6. Fasten upper shock mounting location: Install stem bushings and hardware as shown in the diagram. Install the lower nut and fasten until there are enough exposed threads available to secure the upper jam nut. Install jam nut until it is flush with the top of the stem (DO NOT OVERTIGHTEN) and torque to 50 ft-lbs while holding the lower nut with a 19mm wrench. Do not overtighten bushing assembly, as this can lead to shock stem failure. Failure caused by incorrect installation of stem bushings and hardware is NOT covered under ICON's warranty policy. (SEE DIAGRAM) →





HEAVY DUTY STEM BUSHING DIAGRAM & ASSEMBLY

- 7. Orient the shock so that the reservoir hose is pointing forward and going over the coil bucket.
- 8. Fasten lower shock mounting location: Install a washer and bushing on the lower stem and raise the axle guiding the stem through the lower shock mount. Install the remaining bushing, washer, and nuts in the same order as the upper shock mount.
- 9. Tighten both the upper and lower stem nuts so that the jam nut is flush with the shock stem. [Torque jam nut to 50 ft-lbs]
- 10. Install the reservoir mounting bracket to the coil bucket. Remove the forward outer nut on the coil bucket and install bracket as shown and reinstall the nut loosely for now. There are (2) holes in the bracket but only one is used per side. Slide the hose clamp through the slots in the bracket and around the reservoir. With most of the slack taken up on the hose clamps rotate the bracket and reservoir inward against the bucket and frame and tighten both the nut and hose clamps in this position for maximum tire clearance. [FIGURE 1 & 2]





FIG.2

11. Some vehicles have a brake line bracket near the lower shock mount that can interfere with the shock body on full compression. It may be necessary to slightly bend the bracket away from the shock. [FIGURE 3]



FIG.3

- 12. Check component clearances at full droop. Sway bar drop brackets and/or extended brake lines may be necessary with the additional droop travel. ICON offers an extended brake line kit (PN: 53009).
- 13. Reinstall wheels and slowly lower vehicle back to the ground. [Torque lugs to factory spec]

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**

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.

#### SELE-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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