

2-24-2015 REV.A



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PART #	DESCRIPTION
217802CP	14-UP RAM 2500 2.5" FRONT 2.5 VS RR CDCV SHOCKS

#### **COMPONENTS INCLUDED** (1) 214946C 14+ RAM 2500 2.5" FRONT 2.5 RR (4) 605136 3/8-16 X 1.000 BUTTON HEAD CDCV (DRVR) (2) 611006 9/16 HD STEM BUSHING KIT (1) 214946C 14+ RAM 2500 2.5" FRONT 2.5 RR (1) 611051 HOSE CLAMP KIT CDCV (PASS) (4) 605133 3/8 WASHER (2) 250006 7.5 UNIVERSAL 90 DEGREE RESI MT (4) 605124 3/8-16 LOCKNUT THIN HARDWARE INCLUDED 611006 CONTENTS (2) 255200 STEM BUSHING 9/16 ID (1) 605809 M12-1.25 JAM NUT (2) 254200 9/16 STEM WASHER (1) 605810 M12-1.25 NUT 611051 CONTENTS (4) 605931 1/2 X 2 1/16 - 3 ID #40 SS HOSE CLAMP **TOOLS REQUIRED**

7/32" ALLEN

5/16" NUT DRIVER

21MM SOCKET / WRENCH

9/16" WRENCH 19MM WRENCH (X2)

# 7/16" DRILL BIT TECH NOTES

JACK

DRILL

JACK STANDS

TORQUE WRENCH

1. FAILURE TO INSTALL THE BRAKE LINE RELOCATION BRACKETS (PART #214108/214109) SUPPLIED WITH THE ICON 2.5" SPRING KIT (PART #214200) WILL LEAD TO BRAKE LINE FAILURE FROM THE SHOCK CRASHING INTO THE BRAKE LINES.

2. THE DRIVER SIDE SHOCK IS SHOWN ON THE RIGHT SIDE IN THE PHOTO.



# **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.

# INSTALLATION

- 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.
- 2. Support the front axle with a jack and remove the driver side and passenger side front shocks using a 21mm socket/wrench for the lower shock mount and 19mm socket/wrench for the stem.
- 3. Install the shock using the (254200) stem washer on the stem, followed by a (255200) bushing and then inserting the shock stem into the factory mount. Install the supplied (255200) 9/16" bushing and then a (254200) washer on top of the bushing followed by the taller m12 nut. Install the nut only a few turns so the upper assembly is loose. (FIGURE 1)



FIG.1

**NOTE:** Installing the upper stem bushing tight before installing the lower bolt will increase the difficulty of the lower bolt installation due to the way the radius arm swings as it cycles down. Leaving it loose allows it much more freedom.

NOTE: Take care not to wedge the reservoir hose against the clip referenced in (FIGURE 1) as it will cut the hose casing.

**4.** With the upper assembly loose, line up the shock in the lower mount using the jack to position the axle at the right height to install the factory lower shock bolt with a 21mm socket/wrench. [Torque to factory spec] (FIGURE 2)



FIG.2

FIG.4

FIG.6



FIG.3

- 5. Fasten the supplied (605810) large nut until 2-3 threads are showing and then install the supplied (605809) thin jam nut to lock it against the tall nut. [Torque the jam nut to 50ft-lbs] (FIGURE 3)
- 6. Locate the reservoir bracket and clamp it to the coil bucket to mark the two holes that need to be drilled. (FIGURE 4)





FIG.5

- 7. Remove the bracket and protect the backside of where you will be drilling thru. Drill two holes with a 7/16" drill bit. (FIGURE 5)
- 8. Spray paint the exposed metal to prevent corrosion.
- **9.** Install the bracket with supplied 3/8" button head screws, washers and lock nuts. Use a 7/32" allen wrench and 9/16" socket/wrench to tighten. [Torque to 30 ft-lbs] (FIGURE 6)





FIG.7

- 10. Attach the reservoir to the bracket using the supplied hose clamps and a 5/16" nut driver. Roll the reservoir into the clamps to roll the hose inward, this will make the compression adjuster knob more accessible. (FIGURE 7)
- 11. Repeat steps on the passenger side.

**NOTE**: Over tightening the large stem nut will cause to too much bushing preload which will cause premature wear on internal shock components and also effect vehicle ride characteristics.

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.

#### 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

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