

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

PART #	DESCRIPTION
212150	2009-UP RAM 1500 REAR 1.5" DUAL RATE COIL SPRING

COMPONENTS INCLUDED	
(2) 218150 2009-UP RAM 1500 REAR 1.5" DUAL RATE COIL SPRING	
HARDWARE INCLUDED	
N/A	
TOOLS REQUIRED	
FLOOR JACK JACK STANDS TORQUE WRENCH	15MM SOCKET / WRENCH 18MM SOCKET / WRENCH
TECH NOTES	
N/A	



WARNING!
<b>** 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!</b>
<b>** ICON VEHICLE DYNAMICS RECOMMENDS THAT YOU EXERCISE EXTREME CAUTION WHEN WORKING UNDER A VEHICLE THAT IS SUPPORTED WITH JACK STANDS.</b>
<b>** 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.</b>

## INSTALLATION

- 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.
- Remove the sway bar link from the sway bar using (2) 18mm. [FIGURE 1]

FIG.1

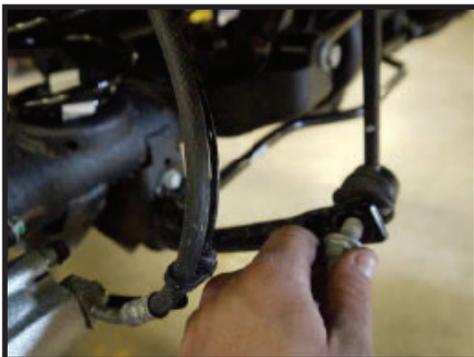


FIG.2



- Remove the track bar bolt from the axle using a 21mm. [FIGURE 2]

4. With the axle supported, disconnect the shocks from the axle using (2) 21mm. Slowly lower the axle just enough to remove the rear coils. Be careful not to damage the brake lines [FIGURE 3]. If ICON shocks were purchased, refer to shock instructions.

FIG.3



5. Install the ICON coils and lift the axle enough to connect the shocks. Connect the shocks using (2) 21mm. [FIGURE 4] [Torque to factory spec]

FIG.4



6. Reconnect the sway bar to the sway bar links using (2) 18mm. [Torque to factory spec]

7. Reconnect the track bar using a 21mm. [Torque to factory spec]

8. Remount the wheels and set the truck on the ground.

**VERIFY ALL FASTENERS ARE PROPERLY TORQUED BEFORE DRIVING VEHICLE.**

**RETORQUE ALL NUTS, BOLTS AND LUGS AFTER 100 MILES AND PERIODICALLY THEREAFTER.**

### **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.

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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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PART #	DESCRIPTION
217715P	09-UP RAM 1500 0-3" REAR 2.5 VS PB

COMPONENTS INCLUDED	
(2) 214945 09+ RAM 1500 0-3" REAR 2.5 VS PB	
HARDWARE INCLUDED	
N/A	
TOOLS REQUIRED	
JACK JACK STANDS TORQUE WRENCH	19MM SOCKET / WRENCH 21MM SOCKET / WRENCH
TECH NOTES	
<p>1. PIGGYBACK RESERVOIR CLOCKING IS CRITICAL TO PROPER FUNCTION. FAILURE TO MAKE SURE THAT THE RESERVOIRS ARE ORIENTED PROPERLY (AS SHOWN) WILL CAUSE DAMAGE AND NOT BE COVERED UNDER OUR WARRANTY POLICY.</p> <p>2. YOUR ICON SHOCK ASSEMBLIES COME FACTORY CHARGED TO 250 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.</p>	



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## INSTALLATION

- Using a properly rated jack, raise the rear 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 rear wheels.
- Support the rear axle with a jack then remove the driver and passenger side rear shocks using a 19mm and 21mm socket/wrench.
- Place the new shock into its mount then install the upper shock bolt. Fasten using the factory hardware, but do not tighten yet.
- With the upper assembly loose, line up the lower mount using the jack to position the axle at the right height then install the factory lower shock bolt. Make sure that the misalignment spacers are oriented to space the shock AWAY from the frame.
- Torque the upper and lower shock mounts to factory specification, as outlined in your owner's manual.
- Ensure that the driver side reservoir is facing forward as shown. [FIGURE 1]

FIG.1



7. The passenger side reservoir must be rotated on the shock body for clearance as shown. Firmly grasp the manifold and rotate it until it is properly angled to clear the emergency brake cable. The manifold must spin on the body until proper clearance has been achieved. Failure to clear the brake cable will cause irreparable damage that is not covered under warranty. [FIGURE 2]

FIG.2



8. Install the rear wheels and lower the 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.

#### **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.

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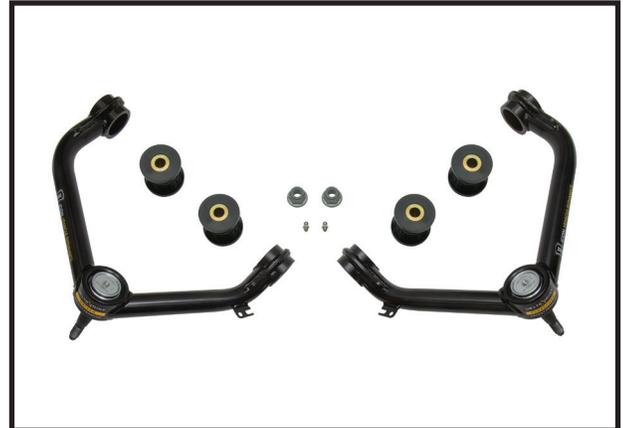
This warranty is expressly in lieu of all other warranties expressed or implied. This warranty shall not apply to any product that has been improperly installed, modified or customized subject to accident, negligence, abuse or misuse.

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

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PART #	DESCRIPTION
218550DJ	09-UP RAM 1500 TUBULAR UCA DJ KIT

COMPONENTS INCLUDED	
(1) 214600 09+ RAM 1500 UCA (DRVR)	(1) 214601 09+ RAM 1500 UCA (PASS)
HARDWARE INCLUDED	
(2) 197200 DELTA JOINT (4) 219103 SLEEVE 1.000 X .563 X 1.965 (8) 297034 HAT BUSHING 1.625 X 1.000 X .850	(4) 297042 POLY RING 1.590 X 1.005 X .250 (4) 605903 1/4-28 X 90 DEG STEEL ZERK (2) 605432 FLAT WASHER
TOOLS REQUIRED	
JACK JACK STANDS	TORQUE WRENCH VARIOUS SOCKETS / WRENCHES
TECH NOTES	
<p>1. ICON RECOMMENDS OPTIONAL BILLET DUST COVER SET (191011) TO PREVENT DEBRIS FROM PACKING UP AROUND THE ZERK FITTING.</p> <p>2. ALL ICON UPPER CONTROL ARMS HAVE BEEN ENGINEERED TO ALLOW FOR THE MOST POSSIBLE CASTER, WHILE STILL ALLOWING THE VEHICLE TO BE PROPERLY ALIGNED. NOTIFY YOUR PROFESSIONAL ALIGNMENT SHOP OF THIS INFORMATION SO THAT MAXIMUM RIDE QUALITY CAN BE ACHIEVED.</p> <p>3. ICON DELTA JOINTS ARE PRE-GREASED FROM THE FACTORY. ICON RECOMMENDS GREASING THE DELTA JOINT EVERY 3,000 MILES (OR EVERY OIL CHANGE). ADD NEW GREASE UNTIL ALL OF THE OLD GREASE IS EXPELLED FROM THE BOTTOM OF THE DELTA JOINT ASSEMBLY, WIPE AWAY EXCESS WITH A RAG OR SHOP TOWEL.</p>	



**WARNING!**

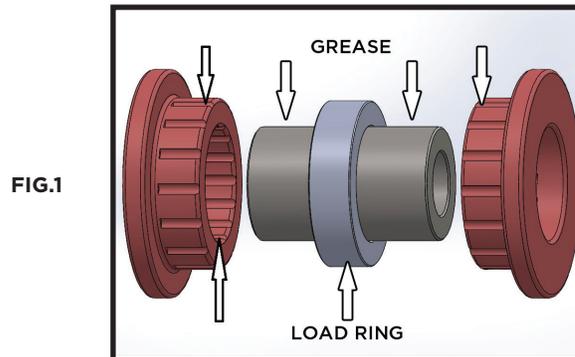
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## INSTALLATION

- 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.
- Using a jack, slightly lift the lower control arm to prevent the suspension from being at full droop.
- Turning the steering wheel to the driver side will allow easy access to the nut on the upper control arm ball joint that connects the spindle and upper control arm. Remove the safety cotter pin and loosen the ball joint nut.
- Support the spindle so that it does not over extend the CV joints when detached.
- With the upper control arm disconnected from the spindle, loosen the upper control arm from its mounts in the frame. Remove OEM upper control arm.
- Before installing your new upper control arms, care must be taken to grease the bushings (liberally) prior to installing assembly. Failure to grease properly will cause premature bushing wear and increased noise. [FIGURE 1]



- Each arm is clearly labeled which side it should be installed on.
- With greased bushings installed, place the driver side upper control arm into the arm mounts on the chassis and hand tighten OEM hardware.

9. Pivot the Delta Joint stem so that it is inline with the taper bore in the spindle. The new Delta Joint will be very stiff the first time you move it.
10. Rotate the upper control arm downward and install the stem through the spindle taper. Install the supplied flat washers (605432) in between the spindle and the flanged nut. Fasten flanged nut on to the taper pin. [Torque to 75 ft-lbs]
11. Tighten the upper control arm mounts on the chassis. [Torque to factory spec]
12. Install wheels and lower vehicle to the ground. [Torque to factory spec]
13. Repeat steps on opposite side.
14. Have the vehicle professionally aligned.

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**ICON VEHICLE DYNAMICS®**  
PERFORMANCE SUSPENSION SYSTEMS AND SHOCK ABSORBERS

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