

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

PART #	DESCRIPTION
211010	19-UP RAM 1500 2-3" 2.5 VS IR COILOVER KIT

COMPONENTS INCLUDED	
(1) 214960D 19-UP RAM 1500 C/O IR DRVR	(1) 214960P 19-UP RAM 1500 C/O IR PASS
HARDWARE INCLUDED	
(1) 611019 COILOVER HARDWARE KIT PAIR	
TOOLS REQUIRED	
JACK JACK STANDS TORQUE WRENCH HAMMER, SOCKET WRENCH 16MM SOCKET / WRENCH	18MM SOCKET / WRENCH 21MM SOCKET / WRENCH 24MM SOCKET / WRENCH 9/16" SOCKET / WRENCH
TECH NOTES	
<p>1. YOUR ICON COILOVER 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> <p>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" 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.</p> <p>3. WILL NOT WORK WITH AIR RIDE VEHICLES.</p> <p>4. WILL NOT WORK RAM 1500 CLASSIC.</p> <p>5. WILL NOT WORK WITH FACTORY UCA. USE ICON 281560DJ / 218550DJ.</p>	



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

INSTALLATION

1. Lift vehicle and securely place heavy duty jack stands under the manufacturer recommended lifting locations for the front of the vehicle. Take care when lifting the vehicle, and allow 3-4" of ground clearance from the tire. Remove front tires. NEVER WORK UNDER AN UNSUPPORTED VEHICLE. Remove the wheels.

2. Using a jack support the lower control arm to prevent the suspension from being fully extended. And remove all abs and brake line brackets from the UCA. [FIGURE 1]

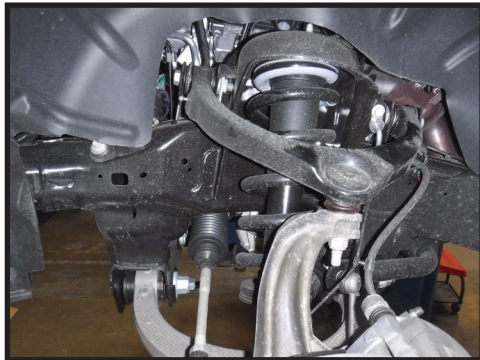


FIG.1

3. Starting on the driver side loosen the taper on the upper ball joint using an 21mm socket/wrench. Use a hammer to separate the upper ball joint taper and tie rod end. Support the spindle so that it does not over extend the CV joints when detached. [FIGURE 2]

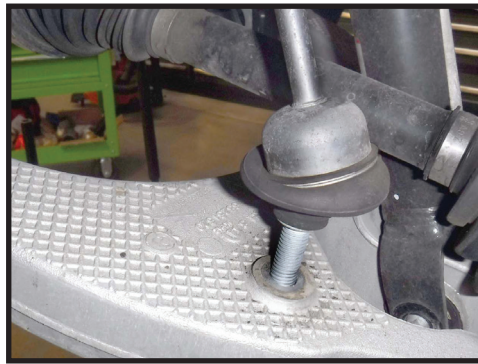


FIG.2

4. Using a 21mm wrench remove the tie rod end nut and tie rod end from the knuckle.

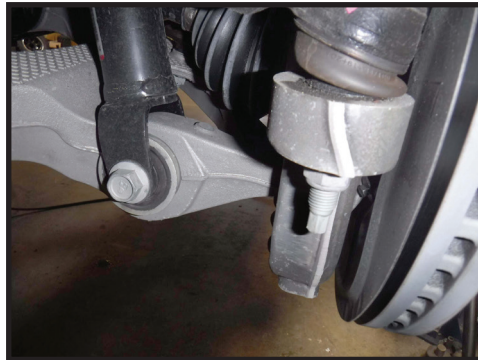
- 5.** Using a 18mm socket and remove the lower sway bar link nut. Move it up. [FIGURE 3]

FIG.3



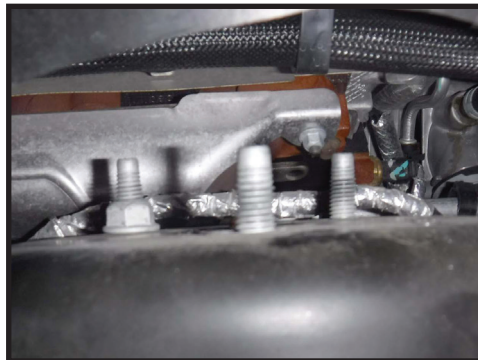
- 6.** Using a 21mm & 24mm wrench remove the lower coilover mount from the arm. [FIGURE 4]

FIG.4



- 7.** Take a 16mm socket or wrench and remove the coil over nut on top of the coilover bucket. [FIGURE 5]

FIG.5



- 8.** Install the new coilover using the supplied 3/8" coilover hardware and torque to 35 ft-lbs. Reinstall the lower shock bolt torquing to factory specs.
- 9.** Install the ICON UCA at this point if not all ready installed.
- 10.** Reconnect the tie rod and swaybar link and torque to factory specs.
- 11.** Repeat steps on opposite side.
- 12.** Reinstall wheels and tires and torque to factory specs.
- 13.** 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.***

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/>



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PART #	DESCRIPTION
216533	19-UP RAM 1500 REAR 2.0 IR

COMPONENTS INCLUDED	
(1) 214921 19-UP RAM 1500 REAR 2.0 IR	(2) 611007 MEDIUM DUTY STEM BUSHING KIT
HARDWARE INCLUDED	
611007 BUSHING KIT HARDWARE	
(2) MED DUTY 9/16 ID STEM BUSHING (1) MED DUTY 9/16 ID STEM WASHER	(1) MED DUTY 12MM ID STEM WASHER (1) M12-1.25 LOCK NUT
TOOLS REQUIRED	
TORQUE WRENCH 10MM SOCKET / WRENCH 18MM SOCKET / WRENCH	19MM SOCKET / WRENCH 21MM SOCKET / WRENCH
TECH NOTES	
<p>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 LOW NITROGEN PRESSURE IS NOT COVERED UNDER ICON'S WARRANTY POLICY.</p>	



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INSTALLATION

1. Remove front portion of rear fender liner using an 8mm. [FIGURE 1]

FIG.1



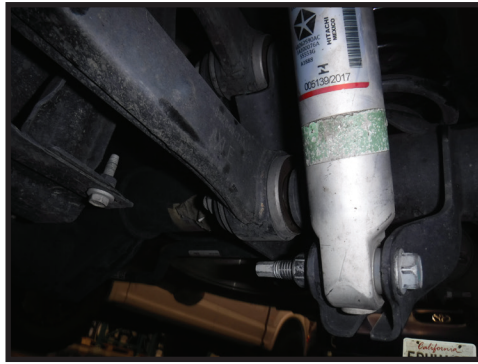
2. Remove the stem bushing nut using an 18mm. [FIGURE 2]

FIG.2



3. Remove the lower shock bolt using a 21mm and remove the stock shock. [FIGURE 3]

FIG.3

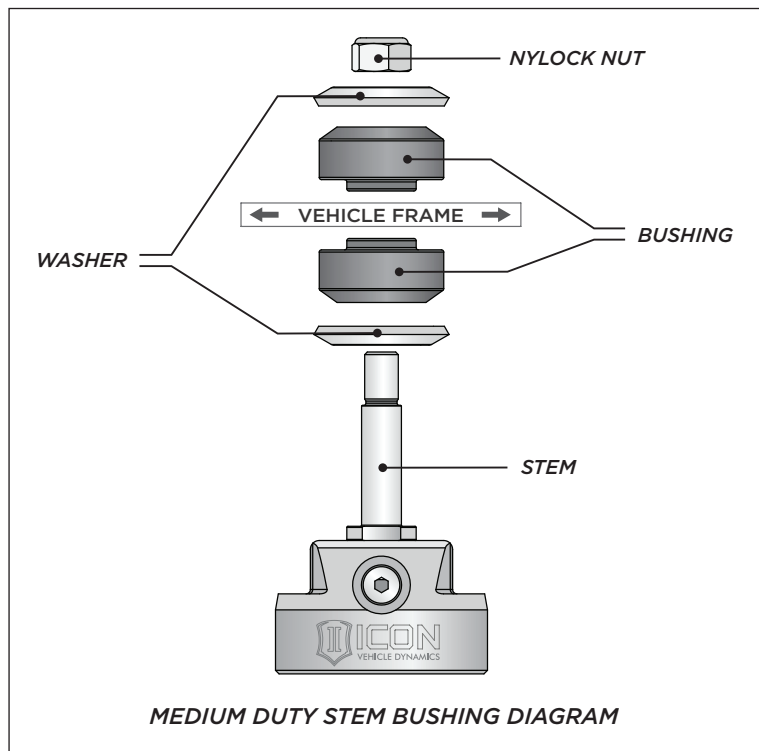


4. Assemble the supplied stem bushing on the shock stem.

5. Install the new ICON shock.

6. Torque the lower shock bolt to factory spec. [21mm]

7. Install stem hardware as seen in diagram. Tighten the stem nut until the lock is engaged. Do not overtighten bushing assembly as this can lead to premature bushing wear. Failure caused by incorrect installation of bushings is not covered under ICON's warranty policy. [SEE DIAGRAM]



8. Install fender liner using an 8mm.

VERIFY ALL FASTENERS ARE PROPERLY TORQUED BEFORE DRIVING VEHICLE.

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

2.0 ALUMINUM SERIES TECHNICAL INFORMATION

MAINTENANCE

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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 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)

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)

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 after every outing.

SELF-SERVICE:

- Contact ICON for service kits & tools at (951) 689-4266.

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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!

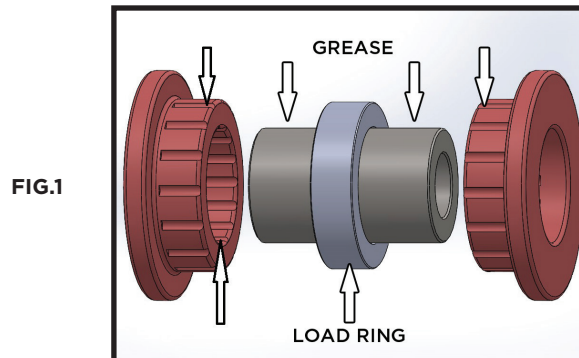
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INSTALLATION

- 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.

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

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