

PART #	DESCRIPTION
27840P	07-18 JK 4.5" FRONT 2.5 RR SHOCK

COMPONENTS INCLUDED	
(2) 124948 JK 4.5" FRONT 2.5 RR SHOCK (2) 611008 9/16" MEDIUM DUTY STEM BUSHING	(2) 611057 JK 2.5 FRONT LOWER BRACKET (2) 611058 JK FRONT RESI MOUNT KIT 2.0/2.5
HARDWARE INCLUDED	
(4) 257164 HEIM SPACER COM10	
611007 HARDWARE KIT	
(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 NYLOCK NUT
611057 HARDWARE KIT	
(1) 124021 JK 2.5" LOWER SHOCK DOUBLER (1) 139004 .750 X .510 X 1.450 SLEEVE (1) 159007 .750 X .510 X 1.530 WELD SPACER (1) 605101 3/8 X 1 BOLT (1) 605121 3/8" LOCK NUT	(2) 605133 3/8" FLAT WASHER (1) 605312 1/2 X 4.5 BOLT (1) 605321 1/2" LOCK NUT (2) 605330 1/2" FLAT WASHER
611058 HARDWARE KIT	
(1) 124016 JK FRONT 7.5" RESI MOUNT (2) 605144 3/8 X 3/4 FLANGED SELF TAP BOLT	(2) 605931 1/2 X 2 1/16 - 3 HOSE CLAMP
TOOLS REQUIRED	
JACK JACK STANDS WELDER BLACK SPRAY PAINT DRILL 21/64" DRILL BIT CENTER PUNCH	TORQUE WRENCH 8MM NUT DRIVER 9/16" SOCKET / WRENCH 17MM SOCKET / WRENCH 18MM SOCKET / WRENCH 19MM SOCKET / WRENCH
TECH NOTES	
<p>1. 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> <p>2. REQUIRES BUMP STOP SPACER (SUPPLIED WITH ICON 4.5" LIFT KIT).</p> <p>3. REQUIRES WELDING OF LOWER SHOCK TAB.</p> <p>4. FAILURE TO MOUNT SHOCK USING SUPPLIED TABS AND INSTRUCTIONS WILL RESULT IN SHOCK DAMAGE, VEHICLE DAMAGE, AND POSSIBLE INJURY.</p> <p>5. ORIENT HOSE CLAMP ON PASSENGER SIDE RESERVOIR SO THAT IT DOESN'T INTERFERE WITH THE WINDSHIELD WASHER RESERVOIR.</p>	

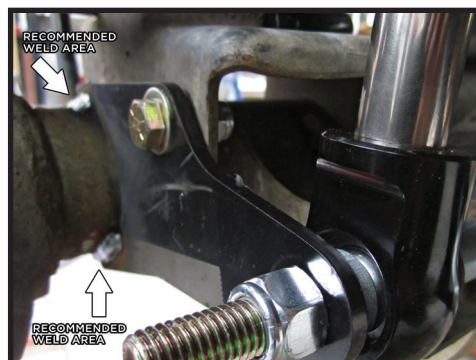


WARNING!
<p><b>** READ ALL INSTRUCTIONS THOROUGHLY FROM START TO FINISH BEFORE BEGINNING INSTALLATION! IF THESE INSTRUCTIONS ARE NOT PROPERLY FOLLOWED SEVERE FRAME, SUSPENSION AND TIRE DAMAGE MAY RESULT TO THE VEHICLE!</b></p> <p><b>** ICON VEHICLE DYNAMICS RECOMMENDS THAT YOU EXERCISE EXTREME CAUTION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

## 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. Remove the front wheels.
2. Using a floor jack under the front end, slightly raise the front axle housing to remove the weight of the axle off the bolt. Remove the lower shock bolt. (Make sure the axle is well supported)
3. Use a 16MM to remove the upper shock stem nut and remove the OEM shock.
4. Use the supplied 3/8" x 1.0" bolt, nut and washers to locate the lower shock doubler bracket (124021) in the correct location outward of the OEM shock mount. There is a factory hole for the 3/8" bolt. [FIGURE 1]

FIG.1



**5.** Line up the doubler plate eyelet and the OEM shock mount by sliding the supplied 1/2" X 4.5" bolt through the doubler plate and the OEM shock mount. Tighten the 3/8" locator bolt to secure the doubler plate in position.

**6.** Use the (159007) weld sleeve to keep the space between the doubler plate and OEM shock as well as the (139004) spacer sleeve to keep the space between the OEM shock mount tabs. Mark on the axle to sand. Remove bracket and sand to bare metal then reinstall bracket and spacers. Weld the doubler plate to the axle housing, a professional welder is highly recommended! [FIGURE 2]

NOTE: Failure to use weld sleeve may result in inadequate spacing.



FIG.2

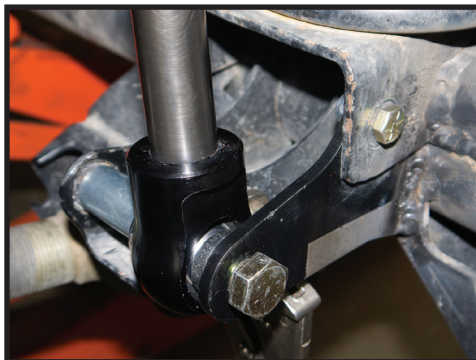
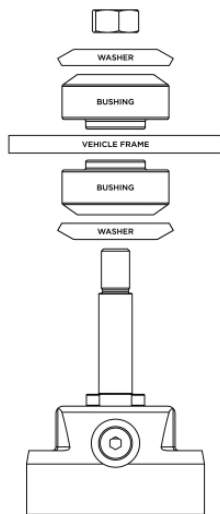


FIG.3

**7.** Spray paint the welded portion of the (124021) doubler plate and factory axle housing to prevent corrosion.

**8.** Install the shock between the doubler plate and the outside of the OEM shock mount. Use the provided spacer sleeve to fill the void between the OEM shock tabs. Install hardware in the following order with the head of the bolt towards the wheel: 1/2" x 4.5" bolt, 1/2" washer, (124021) doubler plate, heim spacer, shock rod end, heim spacer, OEM shock tab, (139004) spacer sleeve, OEM shock tab, 1/2" washer, 1/2" lock nut. [Torque to 65 ft-lbs] [FIGURE 3]

**9.** Use a jack to lower the axle housing far enough to slide the top of the shock into position in the OEM shock location. Install stem hardware as seen in diagram. Raise axle housing to aid with stem installation into the shock mount. Install the lock nut until 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]



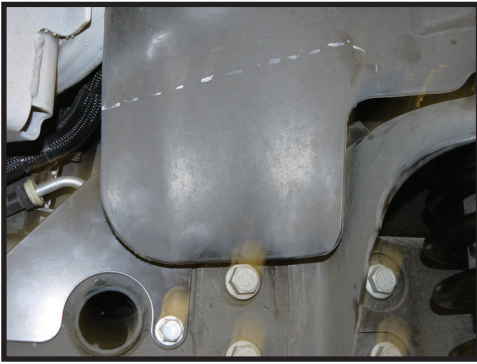
NOTE: 2012-2018 Models will require trimming of the plastic box located directly above the passenger side upper shock mount in order to gain access to the upper shock mount nut. [FIGURE 4]



FIG.4

**10.** If desired, trim the plastic fender liner to leave the remote reservoir exposed. [FIGURE 5 & 6]

**FIG.5**



**FIG.6**

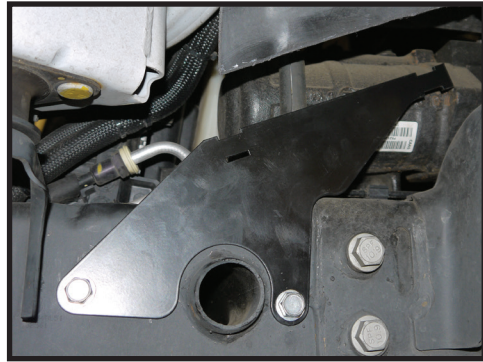


**11.** Orient the reservoir mounting bracket on frame rail forward of the coil bucket and mark center of the 2 holes. [FIGURE 7]

**FIG.7**



**FIG.8**



**12.** Inspect the opposite side of the frame rail, checking for any hoses or lines that have to be temporarily removed or held out of the way. Center punch and drill to 21/64”.

**13.** Use a 9/16” to thread the supplied 3/8” x 3/4” self tapping bolts into the frame rail, a minimum 2 full rotations.

**14.** Remove the 3/8” x 3/4” self tap bolt and secure the remote reservoir bracket. [Torque to 30ft-lbs] It's optional to trim the plastic fender liner so that the reservoir is completely exposed. [FIGURE 8]

**15.** Place the reservoir in the reservoir mounting bracket with the ICON Shield logo orientated up into the fender well and secure the reservoir with the supplied 1/2” hose clamps using an 8mm nut driver. Do not overtighten hose clamps. [FIGURE 9]

**FIG.9**



**16.** Repeat steps 2-15 for opposite side.

**17.** Reinstall the 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.

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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