

PART #	DESCRIPTION
91616	15-UP F-150 2WD 0-3" 2.5 VS IR COILOVER KIT

COMPONENTS INCLUDED	
(1) 194955 15+ F-150 IR VS COILOVER (DRVR)	(1) 611019 COILOVER HARDWARE KIT
(1) 194955 15+ F-150 IR VS COILOVER (PASS)	(1) 611052 14-UP F150 CO LOWER HARDWARE KIT
HARDWARE INCLUDED	
611019 HARDWARE KIT	
(6) 605101 3/8-16 X 1.000 BOLT	(6) 605131 3/8 SPLIT LOCK WASHER
611052 HARDWARE KIT	
(4) 605201 7/16-14 X 3.000 BOLT	(4) 605231 WASHER 1.00 X .469 X .125
(4) 605230 7/16 FLAT WASHER	
TOOLS REQUIRED	
JACK JACK STANDS HAMMER TORQUE WRENCH 8MM SOCKET / WRENCH	10MM SOCKET / WRENCH 15MM SOCKET / WRENCH 18MM SOCKET / WRENCH 21MM SOCKET / WRENCH 9/16" SOCKET / WRENCH 5/8" 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 2.00" OF EXPOSED THREADS BETWEEN THE BOTTOM OF THE TOP CAP AND 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. PHOTOS DEPICT 4WD MODEL, BUT INSTALLATION INSTRUCTIONS ARE THE SAME FOR 2WD APPLICATIONS.</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 INSTALLTION 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>

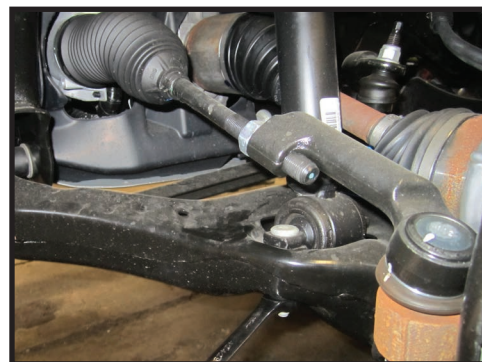
## INSTALLATION

- 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.
- Disconnect the sway bar from the links using an 18mm and an 8mm socket/wrench. (FIGURE 1)

FIG.1



FIG.2



- Remove the nuts from the lower bar pin studs on the factory coilover using an 18mm socket/wrench. (FIGURE 2)

4. Use a hammer to push the studs out of the bar pin. (FIGURE 3)

FIG.3

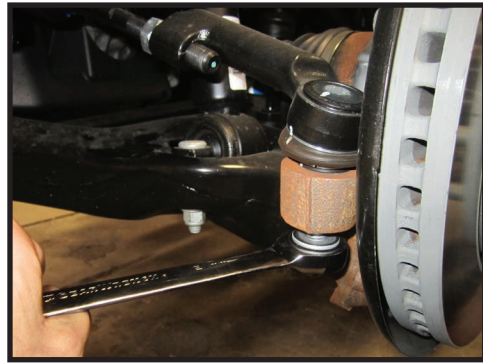
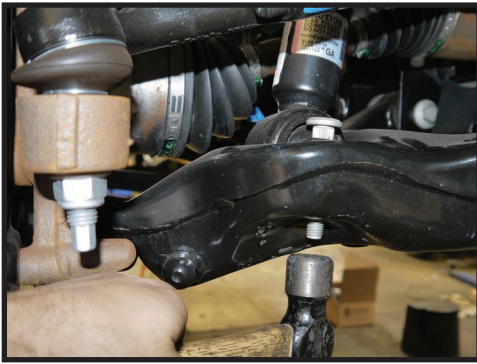


FIG.4

5. Loosen the nut connecting the steering knuckle to the tie rod using a 21mm and a 10mm socket/wrench. (FIGURE 4)

6. Using a hammer or a ball joint separator, separate the taper from the knuckle, remove the nut and disconnect the tie rod.

7. Loosen the nut connecting the steering knuckle to the UCA using a 21mm socket/wrench. (FIGURE 5)

FIG.5



8. Using a hammer or a ball joint separator, separate the taper from the knuckle. Remove the nut and disconnect the UCA from the knuckle.

9. Using an 18mm socket/wrench, remove the 3 nuts from the upper shock mount and remove the factory coilover. (FIGURE 6)

FIG.6



10. Install the coilover using the supplied 3/8" hardware. Bolt the upper mount to the coil bucket and tighten with a 9/16" socket/wrench [Torque to 30 ft-lbs]. The driver side has two upper holes rearward and 1 forward. The passenger side is the opposite. The bolts go through the holes on the upper mount without the dimples next to them. (FIGURE 7)

FIG.7



11. Install the 7/16" hardware from the bottom of the lower control arm and connect to the bar pin using a 5/8" socket/wrench [Torque to 50 ft-lbs]. The bar pin is installed offsetting the shock forward. The supplied thick washer goes on the bottom side of the arm with the standard washer between the bolt head and the thick washer.



**12.** Connect the UCA to the knuckle using a 18mm socket/wrench. [Torque to factory spec] (FIGURE 8)

**FIG.8**



**FIG.9**

**13.** Connect the tie rod to the knuckle using a 21mm and a 10mm socket/wrench. [Torque to factory spec] (FIGURE 9)

**14.** Repeat steps 3 - 13 on passenger side.

**15.** Connect the sway bar to the sway bar links. [Torque to factory spec] (FIGURE 10)

**FIG.10**



**16.** Install the front wheels and lower the vehicle to the ground. [Torque to factory spec]

**17.** Have the truck 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.

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