

PART #	DESCRIPTION
91250	19-UP FORD RANGER 2.5 VS IR COILOVER KIT

COMPONENTS INCLUDED	
(1) 194930D 19-UP RANGER 2.5 VS IR COILOVER (DRVR) (1) 194930P 19-UP RANGER 2.5 VS IR COILOVER (PASS)	(1) 611019 COILOVER HARDWARE KIT (PAIR) (1) 611052 COILOVER LOWER HARDWARE KIT (PAIR)
HARDWARE INCLUDED	
611019 HARDWARE KIT	
(6) 605101 3/8 X 1.00 BOLT	(6) 605131 3/8 SPLIT LOCK WASHER
611052 HARDWARE KIT	
(4) 605205 7/16-14 X 2.750 BOLT (4) 605230 7/16 FLAT WASHER	(4) 605231 WASHER 1.00
TOOLS REQUIRED	
FLOOR JACK JACK STANDS TORQUE WRENCH AIR HAMMER	15MM SOCKET / WRENCH 18MM SOCKET / WRENCH 9/16" SOCKET / WRENCH 5/8" SOCKET / WRENCH
TECH NOTES	
<p>1. 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 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>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>	



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

- 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 tie rod from the spindle using an 18mm. Loosen the nut to the end of the shank but do not remove entirely so that the nut protects the threads. Dislodge the taper by using a ball joint separator or by striking the spindle on the outside of the taper with a large hammer. [FIGURE 1]

FIG.1



FIG.2



- Disconnect the UCA from the spindle using an 18mm. Loosen the nut to the end of the shank but do not remove entirely so that the nut protects the threads. Dislodge the taper by either using a ball joint separator or by striking the spindle on the outside of the taper with a large hammer. [FIGURE 2]
- Separate the UCA from the spindle. Support the spindle so that it does not overextend the CV joints when detached.

5. Remove the nuts from the bar pin of the lower shock mount using an 18mm. [FIGURE 3]

FIG.3



FIG.4

6. Using an air hammer, hammer the studs up and out of the lower control arm. [FIGURE 4]

7. Using a 15mm, remove the (3) nuts from the upper mount. DO NOT loosen or remove the large nut in the center of the coil assembly! [FIGURE 5]

FIG.5



FIG.6

8. Install the ICON coilover. This may require you to pry downward on the lower arm to get the rod end into the lower control arm pocket.

9. Mount the coilover to the frame using a 9/16" and the supplied (611019) hardware kit. [Torque to 30 ft-lbs] [FIGURE 6]

10. Mount the bar pin to the lower control arm using a 5/8" and the supplied (611052) hardware kit. [Torque to 50 ft-lbs] [FIGURE 7]

FIG.7



FIG.8

11. Reconnect the OEM UCA to the spindle using an 18mm. [Torque to factory spec] [FIGURE 8]

12. Connect the tie rod to the spindle using an 18mm. [Torque to factory spec]

13. Repeat steps for opposite side.

14. Install the front wheels and lower the vehicle to the ground. [Torque lugs to factory spec]

15. 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.



ICON VEHICLE DYNAMICS®
PERFORMANCE SUSPENSION SYSTEMS AND SHOCK ABSORBERS