# ICON Vehicle Dynamics 61720 Installation Instructions

Bolt-In Coilover Conversion Kit with Cams, Ford F250 & F350 4WD

Part number: 61720

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# 61720 INSTALLATION INSTRUCTIONS

1-15-2025 REV.G

| PART # | DESCRIPTION |
|---|---|
| 61720 | 05-UP FSD 2.5 VS RR BOLT IN COILOVER CONVERSION KIT |

## COMPONENTS INCLUDED

| | |
|---|---|
| (2) 164948R 05+ FSD 2.5 VS RR BOLT IN CO | (1) 61720H HARDWARE KIT |

## HARDWARE INCLUDED

61720H HARDWARE KIT

| | |
|---|---|
| (2) 164017 05+ FSD C/O LOWER MOUNT | (6) 605131 3/8 SPLIT LOCK WASHER |
| (2) 160085 05+ FSD CO CONV 7.5" RESI BRACKET | (2) 605308 1/2-13 X 3.000 SCREW |
| (2) 167004 05+ FSD 2" BUMP STOP SPACER | (2) 605322 1/2-13 LOCK NUT |
| (2) 167008 FSD ALIGNMENT CAM 0.5 CAM/2.3CAS | (2) 605330 1/2 FLAT WASHER |
| (6) 605011 5/16-18 X 0.750 SCREW | (2) 605803 M8-1.25 X 70MM SCREW |
| (12) 605016 5/16 FLAT WASHER | (2) 605806 M14-2.00 X 30MM SCREW |
| (6) 605076 5/16-18 LOCK NUT | (2) 605900 1/8 X 2.000 COTTER PIN |
| (6) 605108 3/8-16 X 1.250 SCREW | (1) 611051 HOSE CLAMP KIT |

## TOOLS REQUIRED

| | |
|---|---|
| JACK | 10MM SOCKET / WRENCH |
| JACK STANDS | 22MM SOCKET / WRENCH |
| RECIPROCATING SAW | 24MM SOCKET / WRENCH |
| SANDER | 5/16" SOCKET / WRENCH |
| DRILL | 7/16" SOCKET / WRENCH |
| 7/16" DRILL BIT | 9/16" SOCKET / WRENCH |
| TORQUE WRENCH | 3/4" SOCKET / WRENCH |

## TECH NOTES

*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.*

*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 .7" OF EXPOSED THREADS BETWEEN THE BOTTOM OF THE TOP CAP AND THE TOP OF THE COIL ADJUSTER NUT. ADJUSTING PRELOAD BEYOND THIS SETTING WILL RESULT IN UNCORRECTABLE CASTER AND IS NOT RECOMMENDED AS DAMAGE CAN OCCUR TO COILOVER AND/OR VEHICLE.*

*3. RETURNING TO A STOCK COIL SPRING REQUIRES FABRICATION. IF YOU PLAN TO RETURN VEHICLE TO STOCK AT A LATER DATE. DO NOT DISCARD THE COIL CENTERING CUP THAT IS REMOVED IN STEP 7.*

*4. ALIGNMENT CAM INSTALLATION NOT REQUIRED FOR VEHICLES EQUIPED WITH ICON RADIUS ARM SYSTEM (#64041).*

*5. TAKE CARE TO MAKE SURE THE WIRE HARNESS ABOVE THE WHEEL LINERS ARE NOT GETTING PINCHED OR CHAFED AFTER INSTALL.*



**WARNING!**

*** 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!*

*** ICON VEHICLE DYNAMICS RECOMMENDS THAT YOU EXERCISE EXTREME CAUTION WHEN WORKING UNDER A VEHICLE THAT IS SUPPORTED WITH JACK STANDS.*

*** 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.*

## 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 wheels.

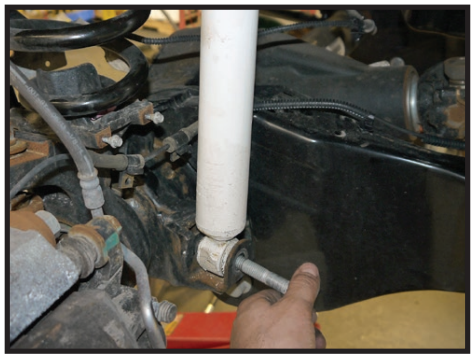


**FIG.1**

***2.*** Remove driver and passenger front shocks with a 3/4" socket/wrench. **[FIGURE 1 & 2]**



**FIG.2**



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***3.*** Remove track bar bolt at frame. **[FIGURE 3]**

**FIG.3**



***4.*** Lower front axle until the coils can be removed from vehicle. **[FIGURE 4 & 5]**

**FIG.4**





**FIG.5**

***5.*** Remove lower coil mount with a 22mm socket/wrench and the lines attached to it using 10mm socket/wrench. **[FIGURE 6 & 7]**

**FIG.6**





**FIG.7**

***6.*** Remove the inner fender liner.

***7.*** With a reciprocating saw and a 10" blade, use the coil bucket as a guide and cut out the centering cup from the upper coil mount on both driver and passenger side. **[FIGURE 8]**

**FIG.8**





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***8.*** Grind any material that keeps the upper coil bucket from being smooth and flat. **[FIGURE 9]**

**FIG.9**



***9.*** Locate (164035) reservoir mount which is also the drill template. With a c-clamp or welding vise grips, clamp the reservoir mount so that the 90 degree flange is parallel to the length of the vehicle as shown. **[FIGURE 10]**

**FIG.10**



***10.*** Using a transfer punch, mark the locations of all 3 holes in the reservoir bracket.

***11.*** Protecting all components in the engine compartment, use a 7/16" drill bit to drill the 3 holes that were marked with the reservoir bracket.

***12.*** Use touch up paint on the coil bucket to prevent corrosion from the removal of the coil cup and the drilled holes.

***13.*** Locate (164017) lower shock mount and install using the supplied M14 hardware as shown with a 22mm socket/wrench. [Torque to 100 ft-lbs] **[FIGURE 11]**

**FIG.11**



***14.*** Using the supplied 5/16" hardware, reattach the factory lines that were attached to the factory lower coil seat with a 1/2" socket/wrench. [Torque to 24 ft-lbs]

***15.*** Remove the foam bump stop from the factory cup and remove the bolt holding the cup to the chassis with a 10mm socket/wrench. Locate the billet bumpstop spacer (167004) and 8MM x 170 bolt and install in between the factory cup and the frame on both the sides. [Torque to 20 ft-lbs] **[FIGURE 12 & 13]**

**FIG.12**





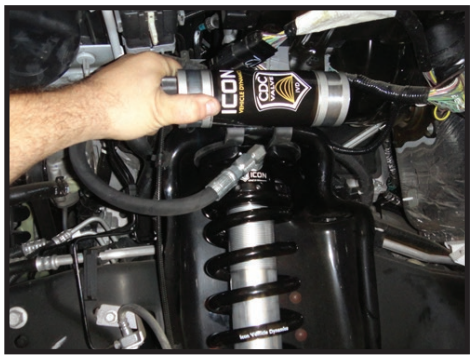
**FIG.13**



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***16.*** Install the driver side coilover: The reservoir hose will point towards the front of the vehicle indicating the driver side. With the reservoir bracket sandwiched between the coil bucket and the coilover mount, use the supplied 3/8" hardware to fasten the coilover to the coil bucket. [Torque to 45 ft-lbs] Twist the hose and loop around to the reservoir mount as shown. Attach the reservoir to the mount using the supplied hose clamps with a 5/16" socket/wrench. **[FIGURE 14]**

**FIG.14**



**NOTE:** Failure to use the supplied reservoir bracket will cause the hose fitting to crash into the coil bucket.

***17.*** If mounting a secondary reservoir, use the doubler mount as shown. **[FIGURE 15]**

**FIG.15**




***18.*** With the supplied 1/2" hardware, mount the lower eyelet of the shock to the axle. Use a jack to help locate the assembly. [Torque to 80 ft-lbs] **[FIGURE 16]**

**FIG.16**



***19.*** Reinstall the plastic wheel liner. **[FIGURE 17]**

**FIG.17**





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***20.*** Remove the cotter pin from the ball joint and remove the nut with a 24mm socket/wrench, then remove the stock alignment cam. **[FIGURE 18]**

**FIG.18**



***21.*** Install new alignment cam supplied in kit: make sure arrow is pointing toward front of truck and flat end of cam is aligned with flat end on knuckle. Use the old cam to tap in the new cam and install castle nut. [Torque to 69 ft-lbs] Install cotter pin.

***22.*** Repeat steps on passenger side. Reattach the track bar. [Torque to factory spec]

***23.*** Install wheels/tires and remove vehicle from jack stands. [Torque lugs to factory spec]

***24.*** Straighten the steering wheel by adjusting tie rod adjuster. **[FIGURE 19]**

**FIG.19**



***25.*** 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.***





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# 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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