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PART #	DESCRIPTION
61721	05-UP FSD 4-5.5" 2.5 VS RR BOLT IN COILOVER CONVERSION KIT

COMPONENTS INCLUDED	
(2) 164949R 05+ FSD 4-5.5" 2.5 VS RR BOLT IN COILOVER	(1) 61721H HARDWARE KIT (1) 611051 HARDWARE KIT
HARDWARE INCLUDED	
61721H HARDWARE KIT	
(2) 164017 05+ FSD C/O LOWER MOUNT (2) 160085 05+ FSD CO CONV 7.5" RESI BRACKET (2) 167011 05+ FSD 4" BUMP STOP SPACER (6) 605011 5/16-18 X 0.750 SCREW (12) 605016 5/16 FLAT WASHER (6) 605076 5/16-18 LOCK NUT (6) 605108 3/8-16 X 1.250 SCREW	(6) 605131 3/8 SPLIT LOCK WASHER (2) 605308 1/2-13 X 3.000 SCREW (2) 605322 1/2-13 LOCK NUT (4) 605330 1/2 FLAT WASHER (2) 605804 M8-1.25 X 120MM SCREW (2) 605806 M14-2.00 X 30MM SCREW
611051 HARDWARE KIT	
(4) 605931 1/2 X 2 1/16 - 3 ID #40 SS HOSE CLAMP	
TOOLS REQUIRED	
JACK JACK STANDS RECIPROCATING SAW SANDER DRILL 7/16" DRILL BIT TORQUE WRENCH	10MM SOCKET / WRENCH 22MM SOCKET / WRENCH 24MM SOCKET / WRENCH 5/16" SOCKET / WRENCH 7/16" SOCKET / WRENCH 9/16" SOCKET / WRENCH 3/4" 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 1.5" 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. 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.</p> <p>4. TAKE CARE TO MAKE SURE THE WIRE HARNESS ABOVE THE WHEEL LINERS ARE NOT GETTING PINCHED OR CHAFED AFTER INSTALL.</p>	



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 front wheels.

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



FIG.1



FIG.2

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



FIG.3

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

FIG.4



FIG.5



5. 5. Remove the 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



FIG.9



8. Grind any material that keeps the upper coil bucket from being smooth and flat. [FIGURE 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 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, using a 7/16" drill bit carefully drill the 3 holes that were marked with the reservoir bracket.

12. Spray paint the coil bucket to prevent corrosion from the removal of the cup or 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, install 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 (167011) and bolt (605804). Install in between the factory cup and the frame on both the driver and passenger side. [Torque to 20 ft-lbs] [FIGURE 12 & 13]

FIG.12



FIG.13



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 and attach reservoir to 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. With the supplied 1/2" hardware, mount the lower eyelet of the shock to the axle. Use a jack to help locate the assembly.

18. [Torque to 80 ft-lbs] [FIGURE 15]

FIG.15



FIG.16

19. Reinstall the plastic wheel liner. [FIGURE 16]

20. Repeat steps on passenger side. Reattach the trackbar. [Torque to factory spec]

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

22. Center the steering wheel by turning the tie rod adjuster. [FIGURE 17]

FIG.17



23. 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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PERFORMANCE SUSPENSION SYSTEMS AND SHOCK ABSORBERS

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PART #	DESCRIPTION
64045	2011-UP FSD RADIUS ARM DROP KIT

COMPONENTS INCLUDED	
(1) 164028 11+ FSD RADIUS ARM BRACKET (DRVR) (1) 164029 11+ FSD RADIUS ARM BRACKET (PASS)	(1) 64045H HARDWARE KIT
HARDWARE INCLUDED	
64045H HARDWARE KIT	
(6) 605200 7/16-14 X 1.500 (6) 605220 7/16-14 NYLOCK NUT (12) 605230 7/16 SAE FLAT WASHER	(4) 605601 3/4-10 X 5.500 (4) 605620 3/4-10 NYLOCK NUT (8) 605630 3/4 SAE FLAT WASHER
TOOLS REQUIRED	
JACK JACK STANDS DRILL 7/16" DRILL BIT TORQUE WRENCH 5/8" SOCKET / WRENCH 1 1/8" SOCKET / WRENCH	10MM SOCKET / WRENCH 13MM SOCKET / WRENCH 15MM SOCKET / WRENCH 18MM SOCKET / WRENCH 24MM SOCKET / WRENCH 27MM SOCKET / WRENCH
TECH NOTES	
N/A	



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INSTALLATION

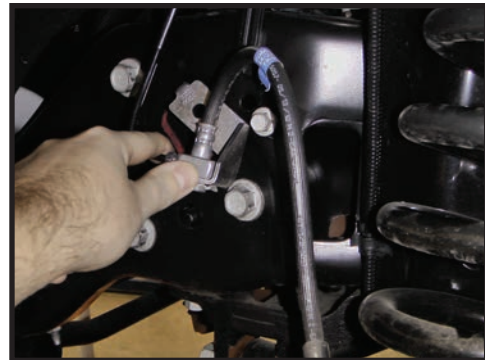
NOTE: If installing in conjunction with a box kit, skip to step 7.

- 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.
- Remove the sway bar links from the sway bar using an 18mm socket/wrench. Leave them connected to the differential. [FIGURE 1]

FIG.1



FIG.2



- Disconnect the upper brake line brackets from the frame using a 13mm socket/wrench and lower brake line brackets from the differential using a 10mm socket/wrench. [FIGURE 2]

4. On the driver side of the track bar remove the nut and the upper track bar bolt using two 30mm sockets/wrenches. [FIGURE 3]

FIG.3



5. Support the axle with a floor jack and remove the front shocks. The shocks are limiting droop so make sure the axle is securely supported or it will drop when the shocks are removed. Use an 18mm socket/wrench to remove the lower bolt.

6. As you slowly lower the axle, the coils will unload from the mounts. Be careful not to stretch or damage any lines connected to the differential or radius arms.

7. Some trucks have a transfer case skid plate that must be removed first. Use a 15mm socket/wrench to loosen and then remove the nut clips from the frame.

8. With both coils unloaded, the radius arms have little force on them and can be safely removed from the frame mount. Use a 27mm and a 30mm socket/wrench.

9. Position the driver side radius arm bracket into the stock radius arm pocket. Loosely install the supplied (605601) bolts with (605230) washers into the front frame and radius arm bracket holes. [FIGURE 4]

FIG.4



10. Rotate the bracket up until it meets the frame. Install (605200) bolts with (605230) washers and (605220) nylock nuts through the 2 holes in the bottom of the frame rail. [Torque to 55 ft-lbs]

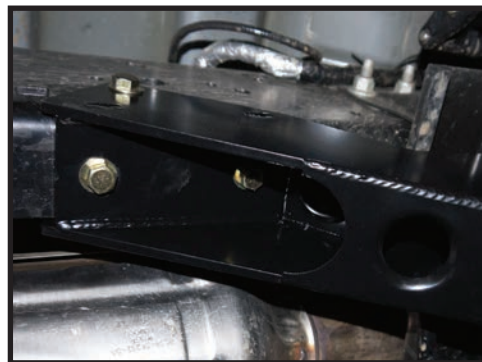
11. Use the bracket as a guide to center punch and drill 7/16" hole on the side of the frame. Deburr hole and install a (605200) bolt with (605230) washer and (605220) nut. [Torque to 55 ft-lbs]

12. On the passenger side, the hole in the side of the frame is there but the two holes in the bottom of the frame will need to be drilled. Using the bracket as a guide, center punch and drill the holes on the bottom for the frame to 7/16". Install both (605200) bolts [Torque to 55 ft-lbs] [FIGURE 5 & 6]

FIG.5



FIG.6



13. Install two (605601) remaining bolts in the remaining frame/bracket hole.

14. You should have both of the frame brackets installed loosely on the vehicle. [Torque 3/4 bolts to 260 ft-lbs] [Torque stock bolts to factory spec]

15. Move the radius arms up into the pockets of the drop bracket and install the factory bolt. Tighten using a 27mm and a 30mm socket/wrench. [Torque to factory spec]

16. Use a jack to raise the axle high enough to install the shocks. Be careful not to lift the truck off of it's supports.
17. Tighten the front shocks using an 18mm socket/wrench. [Torque to factory spec]
18. Install the sway bar to the sway bar links, then tighten using an 18mm socket/wrench. [Torque to factory spec]
19. Connect the track bar using the factory bolt and two 30mm sockets/wrenches. [Torque to factory spec].
20. Install the upper brake line brackets using a 13mm socket/wrench and lower brake line brackets using a 10mm socket/wrench. [Torque to factory spec]
21. Install the front wheels and lower the vehicle back to the ground. [Torque to factory spec]
22. 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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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.

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