



## Preparation:

- Disconnect the negative battery terminal. Park the vehicle on level ground and set the emergency brake.
- We recommend reading through the installation instructions in whole before performing the work.
- Estimated Installation Time: **4 Hours**

***\*\*This installation requires 2 people for best results\*\****

## You will need the following tools:

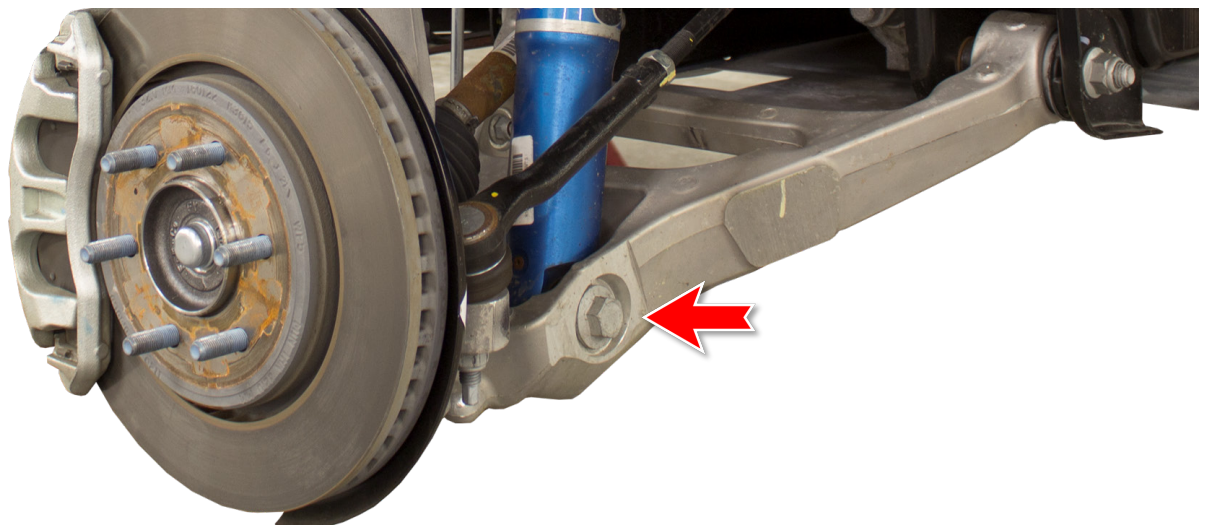
- |                           |                          |                           |
|---------------------------|--------------------------|---------------------------|
| - Ratchet                 | - 9/16" Socket & Wrench  | - 13/16" Socket & Wrench  |
| - 3/4" Socket & Wrench    | - 15/16" Socket & Wrench | - 1 1/16" Socket & Wrench |
| - 1 3/16" Socket & Wrench | - 5/8" 12-Point Socket   | - 18mm Socket             |
| - 21mm Socket             | - Welder                 | - Grinder                 |
| - Black Paint             |                          |                           |

## Included in Kit:

- |                                                 |                                                   |
|-------------------------------------------------|---------------------------------------------------|
| 2 - Lower Control Arms                          | 8 - Misalignment Spacers for 1" Spherical Bearing |
| 2 - Top Misalignment Spacer for 1.5" Bearing    | 2 - Bottom Misalignment Spacer for 1.5" Bearing   |
| 4 - Front Mounting Spacer (2009-2014 Only)      | 2 - Hex Head Bolts (M20-2.5 x 120mm)              |
| 4 - Washers (M20)                               | 2 - Metal Lock Nuts (M20-2.5)                     |
| 2 - 12-Point Flange Cap Screw (5/8"-18 x 4")    | 2 - Washers (5/8")                                |
| 2 - Metal Lock Nuts (5/8"-18)                   | 4 - Hex Head Bolts (9/16-12 x 1 1/4")             |
| 8 - Washers (9/16")                             | 4 - Metal Lock Nuts (9/16"-12)                    |
| 2 - 2009-2014 Weld On Strap Tabs                | 2 - 2015-Current Weld On Strap Tabs               |
| 2 - Aluminum Sway Bar End Link Tubes            | 4 - Rod Ends (1/2")                               |
| 4 - Grade 8 Nuts (1/2"-20)                      | 8 - Misalignment Spacers for 1/2" Rod Ends        |
| 4 - Grade 8 Bolts (3/8"-16 x 2 1/2")            | 8 - Washers (3/8")                                |
| 4 - Metal Lock Nuts (3/8"-16)                   | 2 - Grade 8 Bolts (1/2"-20 x 2 1/4")              |
| 4 - Washers (1/2")                              | 2 - Metal Lock Nuts (1/2"-20)                     |
| 2 - 2009-2014 Sway Bar Adapter Brackets         | 2 - 15-Up Sway Bar Adapter Upper Piece            |
| 2 - 15-Up Sway Bar Adapter Lower Piece (Narrow) | 2 - 15-Up Sway Bar Adapter Lower Piece (Wide)     |

## Removal:

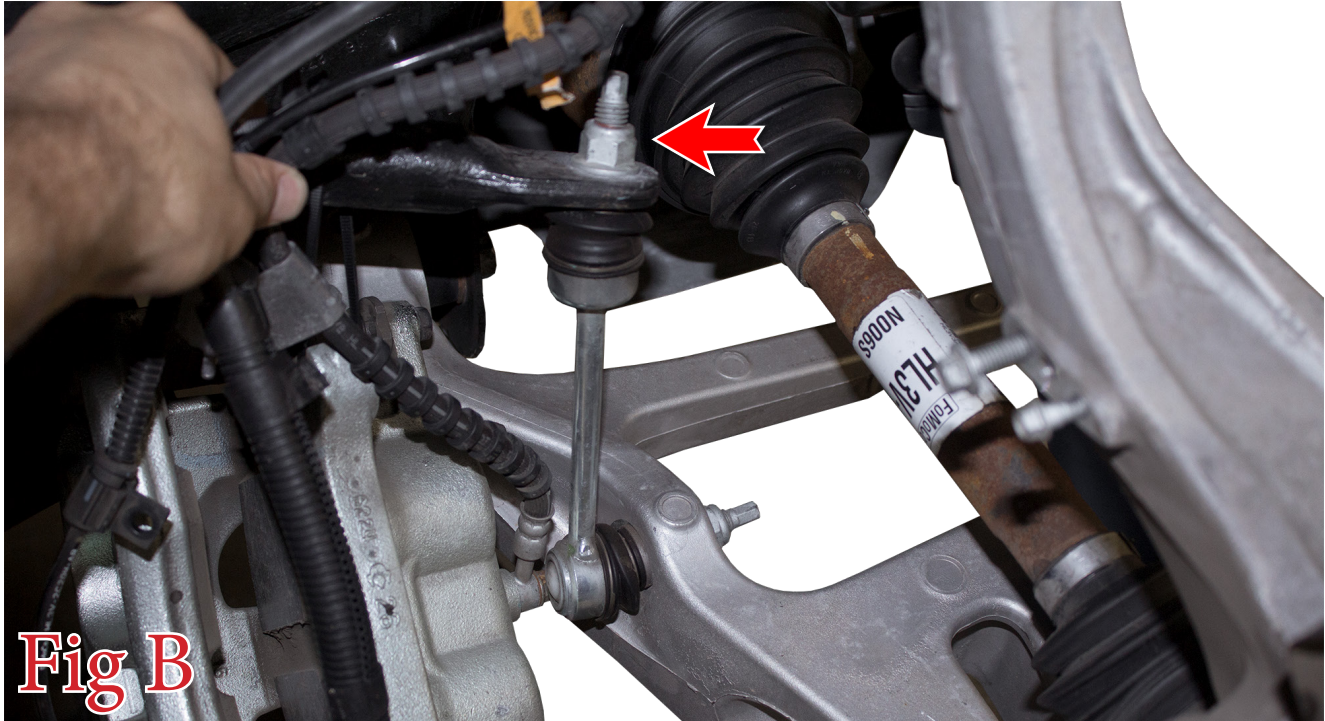
1. Place vehicle on jack stands and remove the front tires.
2. Using a 1 1/16" Socket and a 1 3/16" Wrench, remove the lower shock mounting bolt. (Fig A)



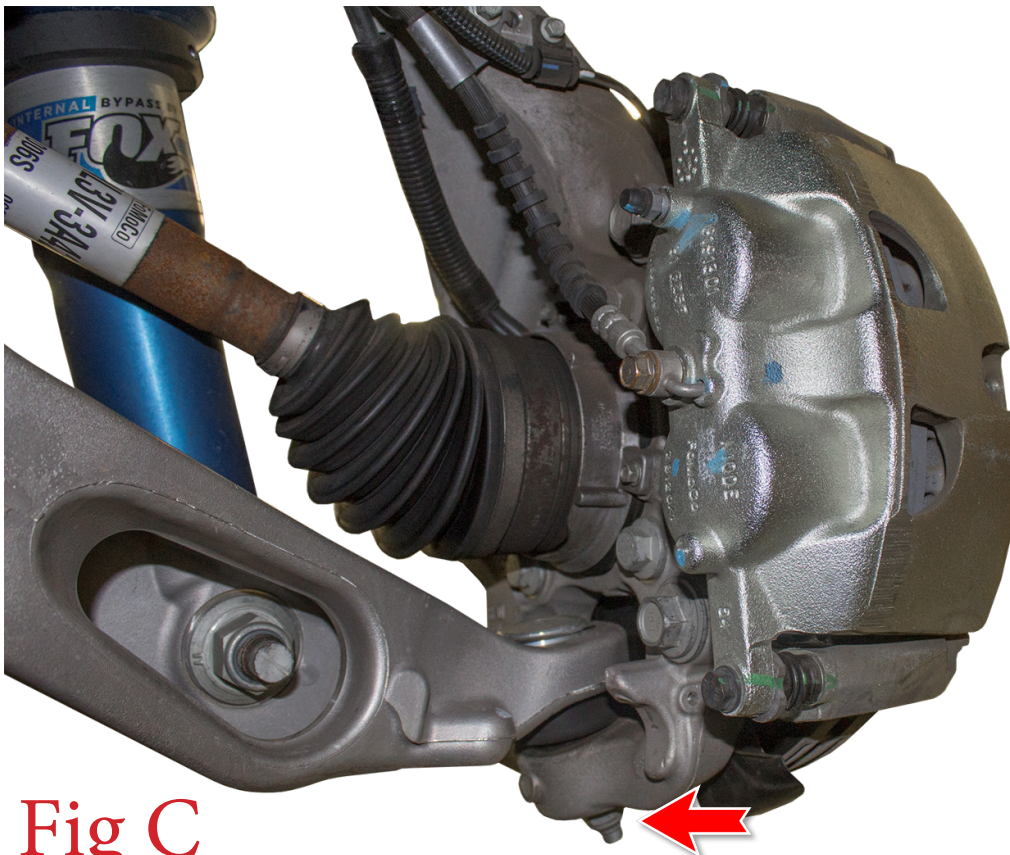
**Fig A**



3. Using an 18mm Socket, remove the upper sway bar end link bolt. Then, pop the sway bar end link free from the sway bar. (Fig B)



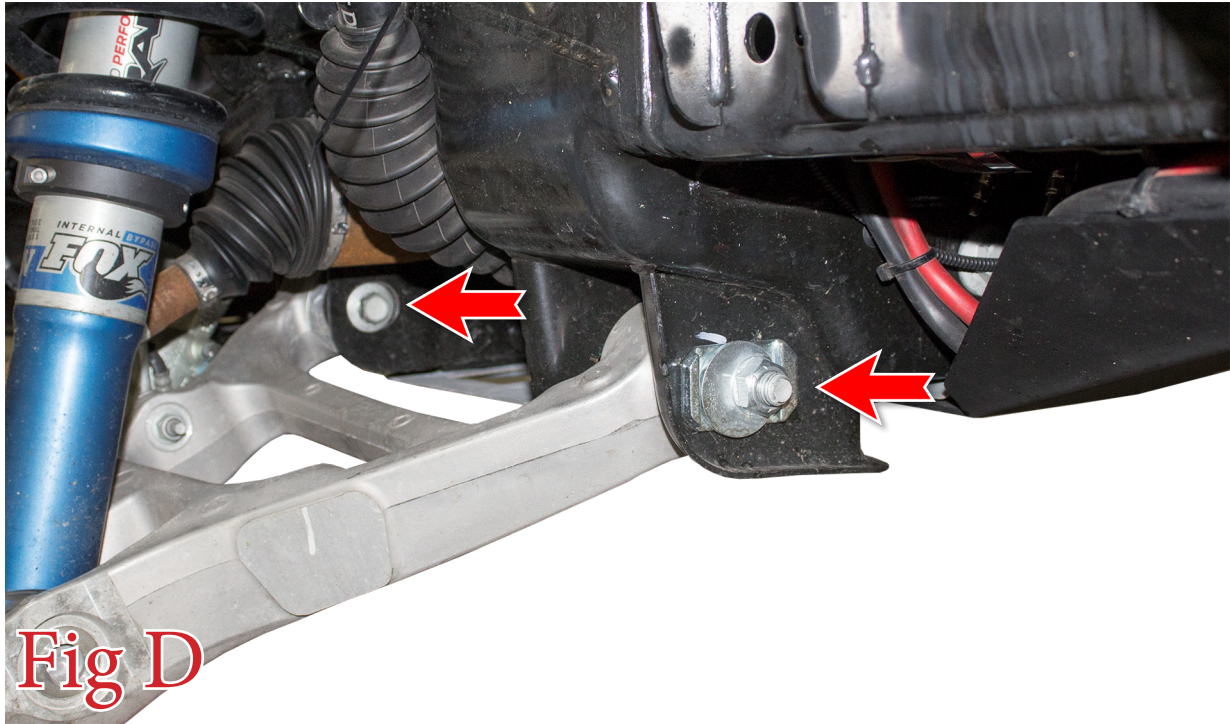
4. Using a 21mm Socket, remove the lower ball joint nut. Then, pop the ball joint free from the spindle. (Fig C)







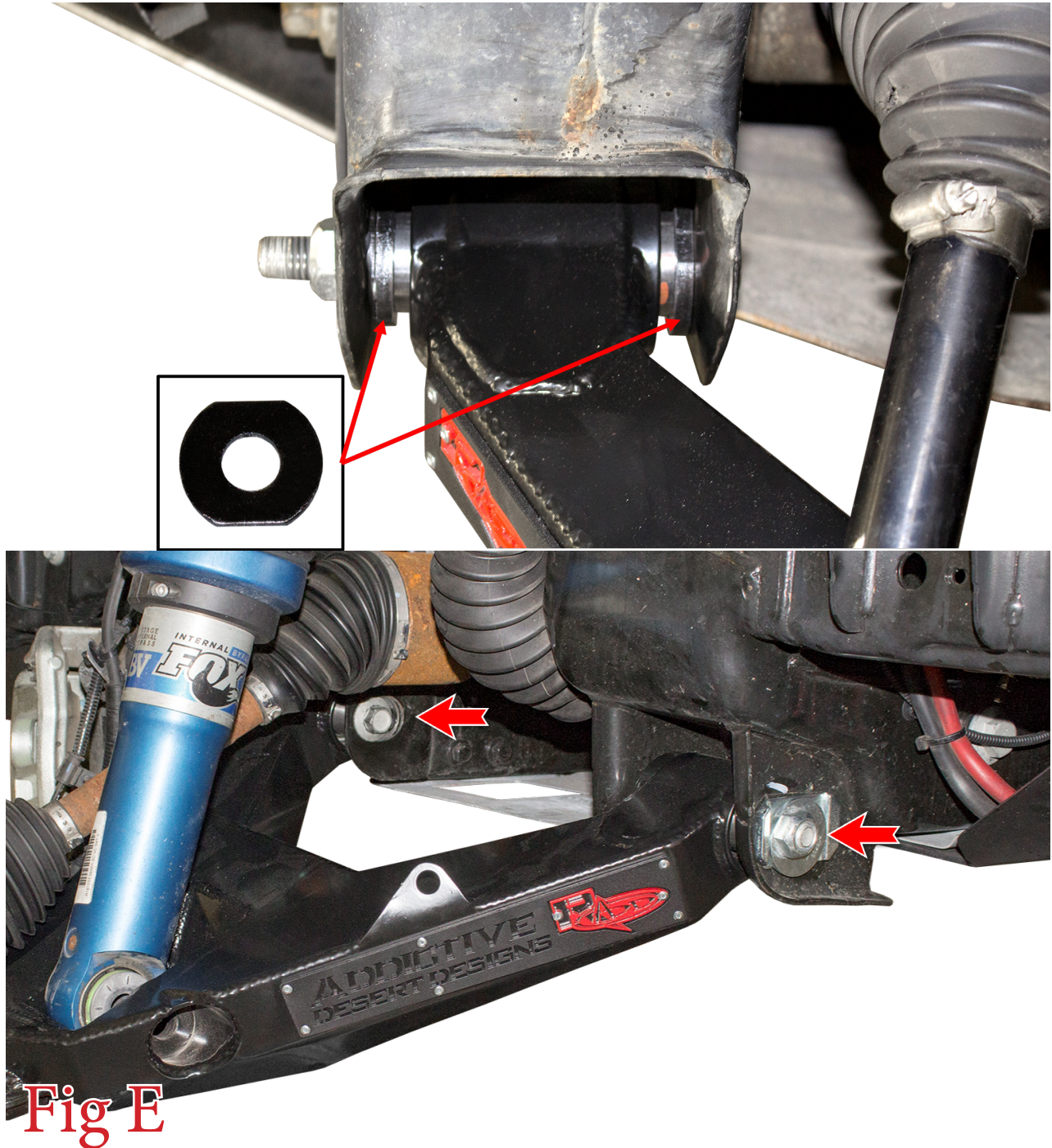
5. Using a 13/16" Socket and a 1 1/16" Wrench, remove the lower control arm mounting bolts. Then, remove the lower control arm from the vehicle. (Fig D)





## Installation:

6. Using the OEM Lower Control Arm Mounting Bolts, mount the lower control arm to the vehicle. Tighten these bolts to OEM torque spec. \*\*If you have a 2009-2014 F150 or Raptor, you will have to use the supplied Mounting Spacers (x4) on the front mounting point between the misalignment spacers and the frame\*\* (Fig E)







7. Place the Top and Bottom Misalignment Spacers into the 1.5" Uniball on your new Lower Control Arm. (Fig F)

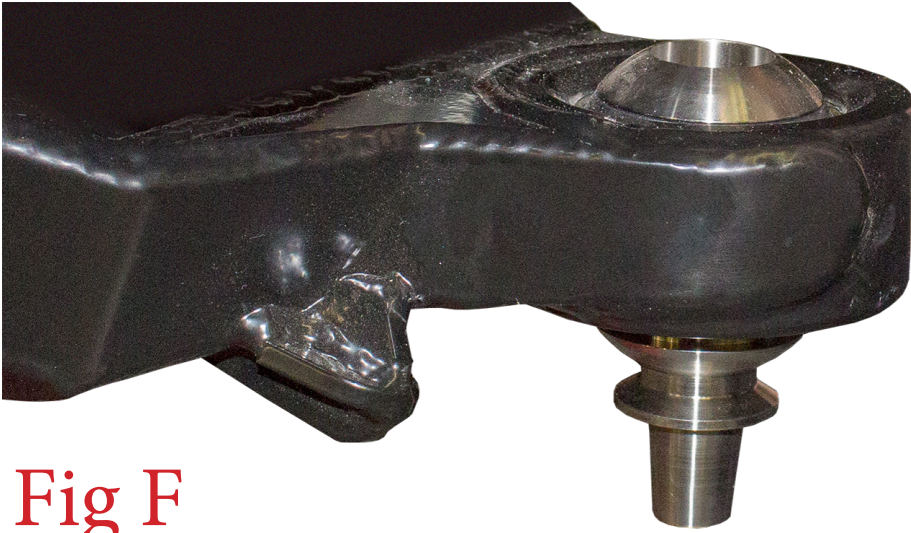


Fig F

8. Mount the lower control arm and spindle together using the supplied 5/8" Flange Cap Screw (x1), 5/8" Washer (x1), and 5/8" Metal Lock Nut (x1). Tighten this bolt to 70 foot pounds. (Fig G)

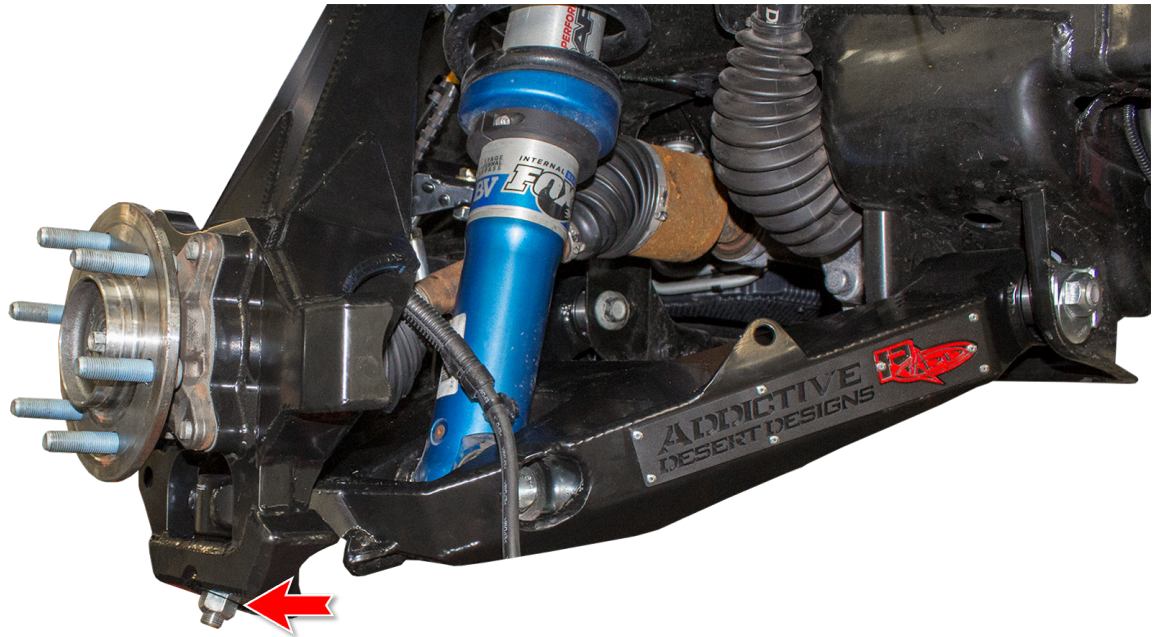


Fig G



9. Raise the lower control arm assembly until the shock enters the shock pocket. Then, use the supplied M20 Bolt (x1), M20 Washers (x2), and M20 Nut (x1) to secure the shock to the arm. (Fig H)



Fig H

10. Set the sway bar end link to 6 1/4" total length. Leave the nuts loose for now so you can line the heims up with the mounting points as you install the end links. (Fig I)



Fig I





11. Locate the correct set of sway bar brackets for your vehicle. One set covers the 2009-2014 F150/Raptor, while the other set covers the 2015-Current F150/Raptor. The 2015-Current F150 Sway Bar Brackets have 3 Pieces per side. Refer to (Fig J).

### 2015-Current F150/Raptor



### 2009-2014 F150/Raptor



Fig J

12. IF YOU HAVE A 2009-2014 F150/RAPTOR, FOLLOW THIS STEP, OTHERWISE, SKIP TO THE NEXT STEP. Set the sway bay adapter bracket in place on the sway bar and loosely hold it in place using the supplied 1/2" Bolt (x1), 1/2" Washer (x2), and 1/2" Nut (x1). Then, set the assembled sway bar end links in place. Secure the sway bar end links to the sway bar adapter bracket and the lower control arm mounting points using the supplied 3/8" Bolts (x2), 3/8" Washers (x4), and 3/8" Nuts (x2). Tighten these bolts to 30 foot pounds. then, tighten the sway bar adapter bracket bolt to 70 foot pounds. Tighten the sway bar end link nuts. (Fig K)

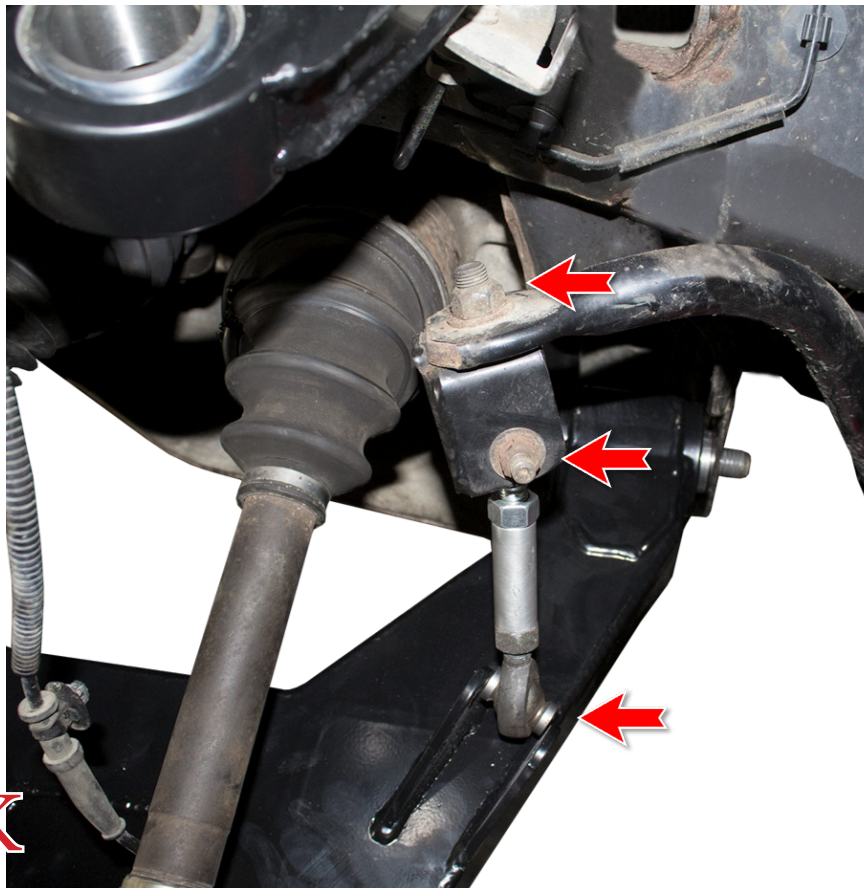


Fig K



**13. IF YOU HAVE A 2015-UP F150/RAPTOR, FOLLOW STEPS 13-14, OTHERWISE, SKIP TO STEP 15.** For the 2015-Up F150/Raptor, there is one set of upper pieces and two sets of lower pieces. If you have a wide diameter sway bar, you will need to use the lower pieces with the thinner tabs on them. If you have a narrow diameter sway bar, you will need to use the lower pieces with the thicker tabs on them. Bolt the upper and lower pieces to each end of your sway bar as shown. **If your sway bar has a stamped, squared end, you will have to grind the corners off.** Then, use the supplied 1/2" Bolts (1 per side), 1/2" Washers (2 per side), and 1/2" Lock Nuts (2 per side) to bolt the upper/lower brackets to each end of the sway bar. (Fig L)



← **Main Sway Bar Adapter Bracket**



← **Sway Bar Bracket Lower Pieces**

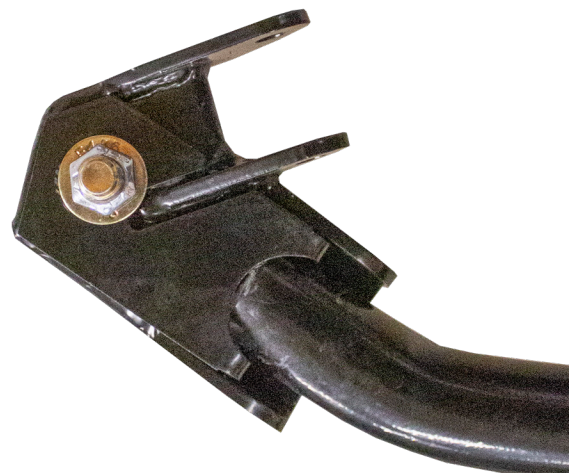
**Thicker Tabs = Used with  
Narrow Sway Bar**

**Thinner Tabs = Used with  
Wide Sway Bar**

**If the end of your sway bar looks like  
this, you will need to trim the cor-  
ners (along the yellow lines shown)  
until it fits into the sway bar adapter  
bracket.**



**Then, bolt the upper  
and lower piece to  
each end of your sway  
bar as shown.**



**Fig L**





14. Set the assembled sway bar end links in place. Secure the sway bar end links to the sway bar adapter bracket and the lower control arm mounting points using the supplied 3/8" Bolts (x2), 3/8" Washers (x4), and 3/8" Nuts (x2). Tighten these bolts to 30 foot pounds. Then, tighten the sway bar adapter bracket bolt to 70 foot pounds. Tighten the sway bar end link nuts. (Fig M)







15. Locate the correct limit strap tab for your vehicle. There is one for the 2009-2014 F150/Raptor and one for the 2015-Current F150. Refer to (Fig N).



16. Using the supplied 9/16" Bolts (x2), 9/16" Washers (x4), and 9/16" Lock Nuts (x2), attach the supplied limit strap to the lower control arm and the supplied weld on strap tab to the other end of the limit strap.
17. With the lower control arm at full droop, place the tab against the frame where the upper control arm mount meets the frame. The tab should lay against the upper control arm mount. Using a sharpie, mark the location of the bottom edge of the tab on the frame.
18. Unbolt the tab from the limit strap. The tab will be welded 1" higher than the mark you just made. Measure 1" vertically up from the mark you just made and weld the tab to the frame at that mark. Make sure to prep the frame for welding before you weld and make sure to paint the limit strap tab after you've welded it.
19. Raise the lower control arm and bolt the limit strap to the newly welded tab using the same hardware from Step 16. Tighten both limit strap bolts just until they are snug, but the limit strap can still move freely. (Fig O)
20. Repeat this entire procedure on the other side of the vehicle.
21. Reinstall your front wheels and take your vehicle off the jack stands.





## 2009-2014 F150/Raptor



## 2015-Current F150

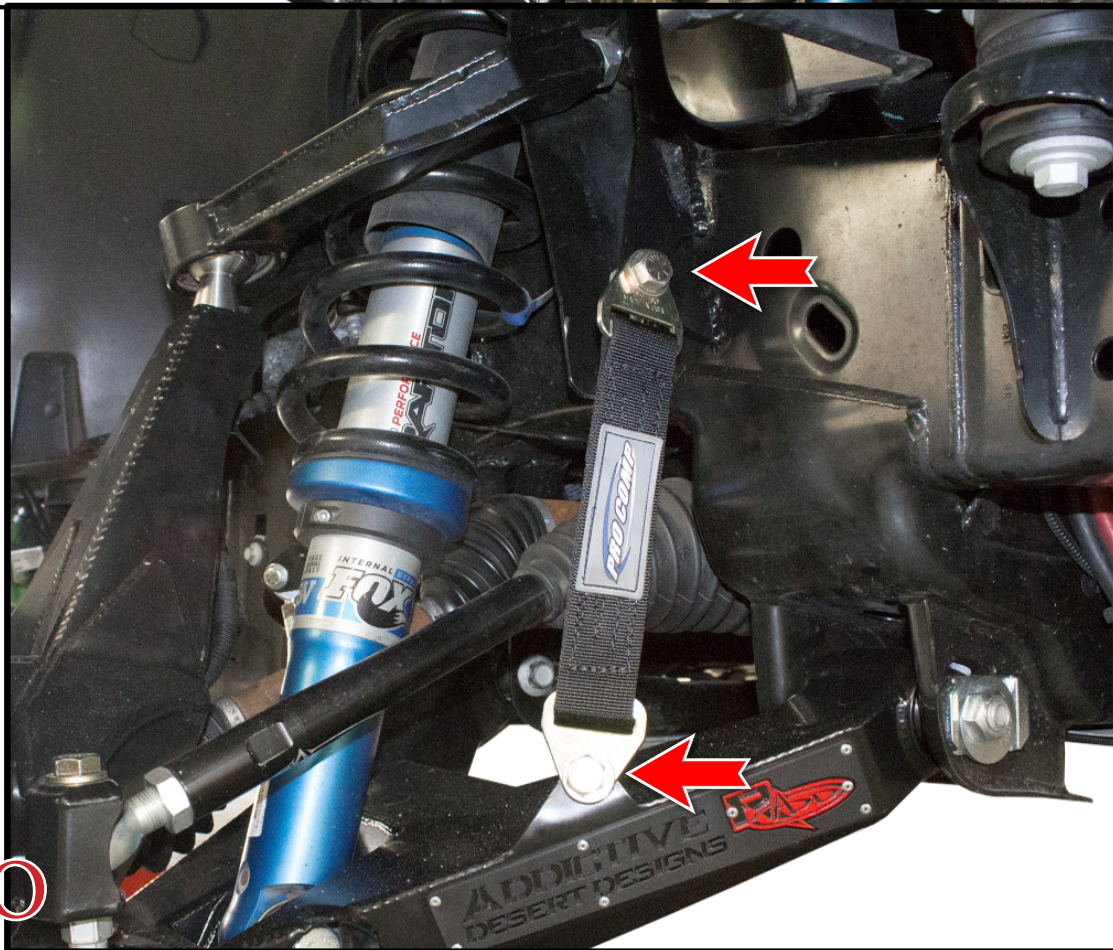


Fig O

22. Stand back and enjoy your new ADD Lower Control Arms.
23. Check and re-tighten, if needed, all mounting bolts after 100 miles and periodically thereafter.

For Additional Support or Technical Questions,  
Please Call 480-671-0820 or  
Email [Info@AddictiveDesertDesigns.com](mailto:Info@AddictiveDesertDesigns.com)