1055 / 1060 - 2020-PRESENT AWD / 2013-PRESENT RWD, FORD TRANSIT, HIGH CLEARANCE ADJUSTABLE LOWER CONTROL ARM

Version 1.1

General Notes

- For the most up to date and current instructions, please visit our website at www.vancompass.com
- Please read all instructions thoroughly before starting installing Van Compass products.
- **A proper alignment must be done immediately after installation of this control arm.**
- This is a bolt on suspension package that can be installed with simple hand tools and removed at a later time to return the vehicle to stock configuration if desired.
- This control arm is designed specifically for vehicles equipped with the Van Compass Topo 2.0 Lift kit. The rear control arm bushing and camber correction is designed specifically around our 2.0" lift kit. We cannot guarantee compatibility with other manufacturer's lift kits.
- The following instructions document the installation on a 2022 AWD Transit.
- These arms come assembled with the hardware listed below already installed.

Parts List

1055 – 2020-PRESENT, FORD TRANSIT AWD, HIGH CLEARANCE ADJUSTABLE LOWER CONTROL ARM

- (1) 105501-L — 2020-PRESENT, FORD TRANSIT AWD, HIGH CLEARANCE FLCA, DR SIDE
- (1) 105501-R — 2020-PRESENT, FORD TRANSIT AWD, HIGH CLEARANCE FLCA, PASS SIDE

OR:

1060 – 2013-PRESENT, FORD TRANSIT RWD, HIGH CLEARANCE ADJUSTABLE LOWER CONTROL ARM

- (1) 106001-L — 2020-PRESENT, FORD TRANSIT AWD, HIGH CLEARANCE FLCA, DR SIDE
- (1) 106001-R — 2020-PRESENT, FORD TRANSIT AWD, HIGH CLEARANCE FLCA, PASS SIDE

HARDWARE INCLUDED IN BOTH KITS:

- (2) 105505 — 2013-PRESENT, FORD TRANSIT, HIGH CLEARANCE FLCA, CAM BOLT
- (4) 105502 — 2013-PRESENT, FORD TRANSIT, HIGH CLEARANCE FLCA, CAM PLATE
- (2) NSC-8 — ½-13 UNC, STOVER NUT, CLEAR ZINC
- (6) HM10-1.50-60-10.9 — M10-1.50 X 60MM LONG, HEX HEAD BOLT
- (6) NSM10-1.50 — M10-1.50 STOVER NUT, CLEAR ZINC PLATE
- (12) WFM10 — M10 FLAT WASHER

Tools Needed

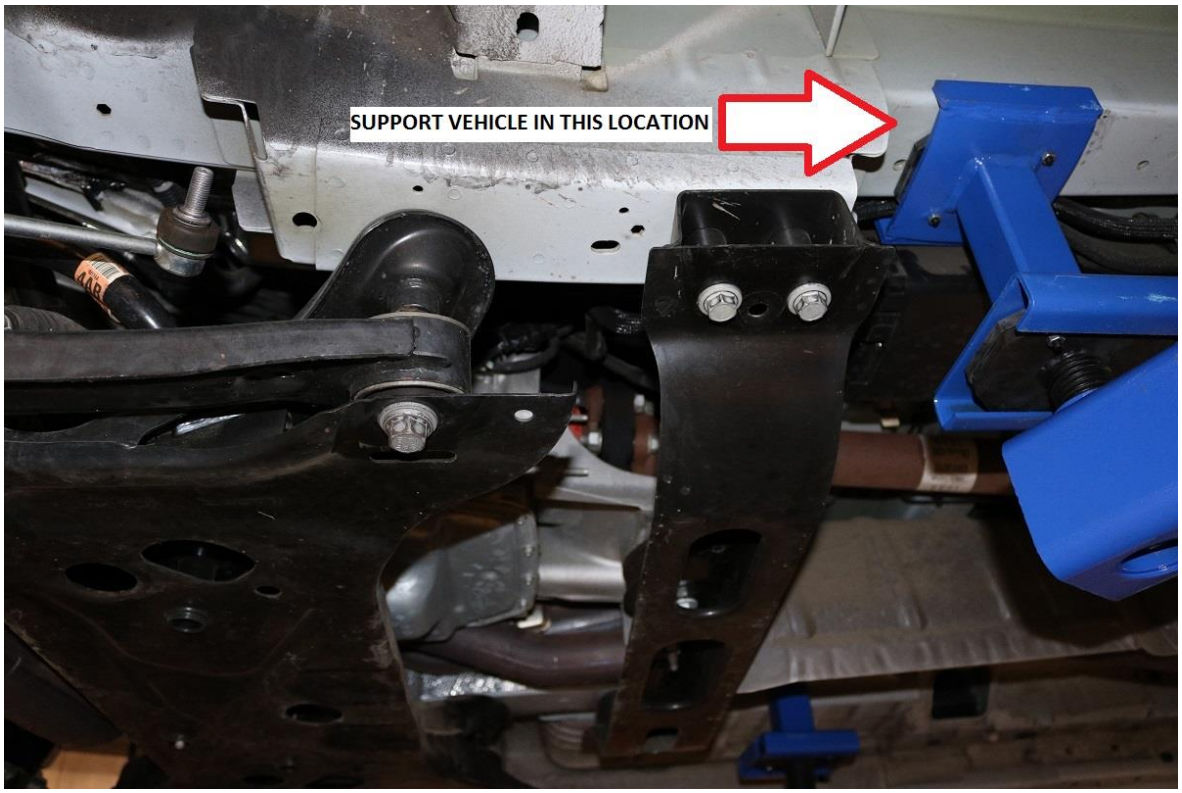
- One quality floor jack and 2 jack stands.
    - Optional – Automobile lift, one transmission jack / screw jack.
- Simple hand tools:
    - Torque Wrench
    - Hammer, dead blow, pry bar
    - Basic wrench and socket set:
        - Metric sizes: 8mm, 13mm, 15mm, 17-18mm, 21mm, 24mm, 30mm, 36mm
        - SAE sizes: ¾”

Approximate Installation Time

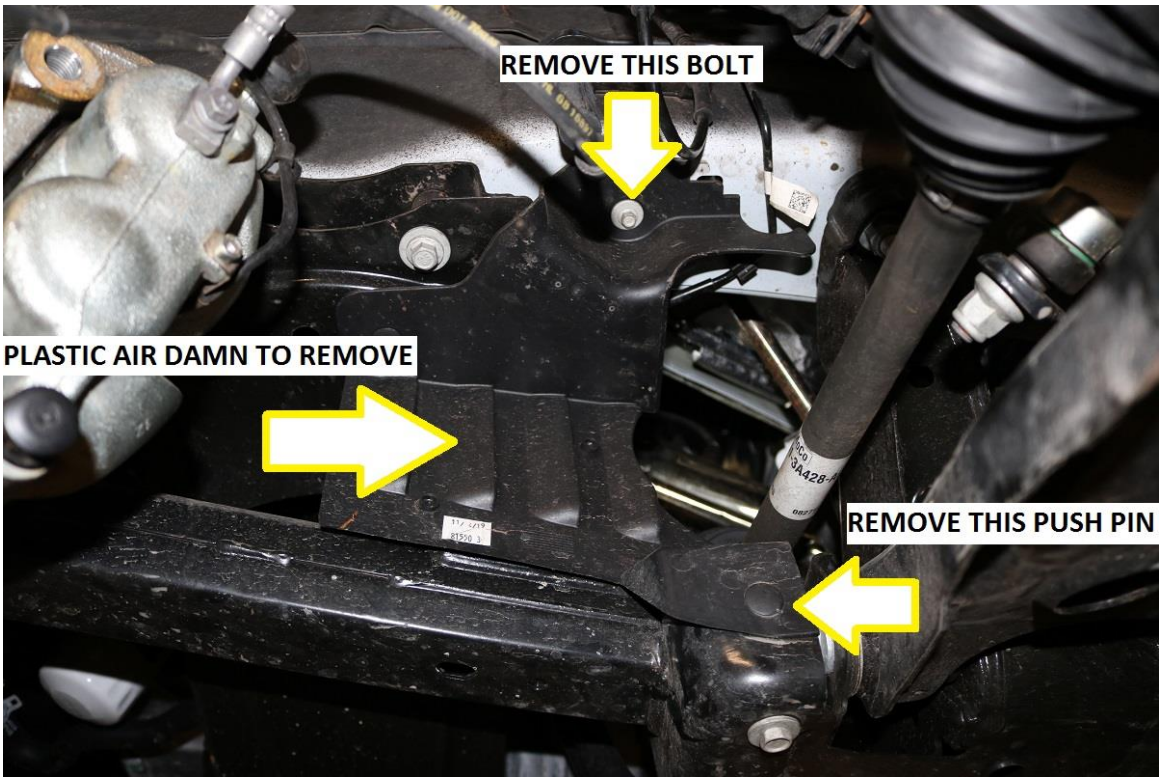
- Professional shop with automotive lift: 5-6 hours
- Driveway install with jack and jack stands: 7-8 hours

Installation

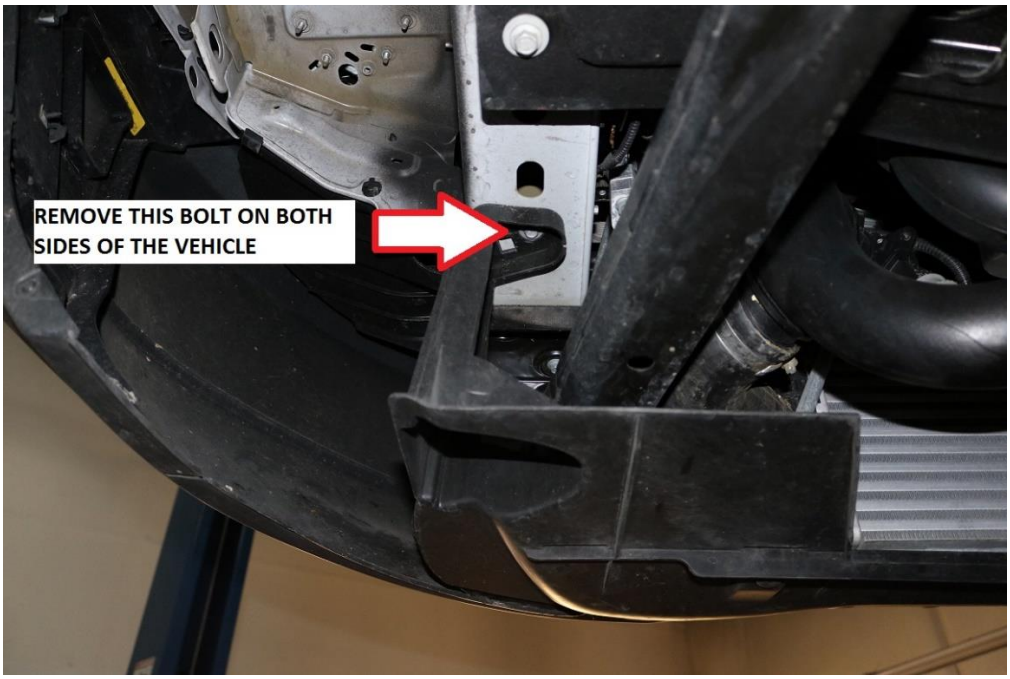
1) Lift the vehicle using a vehicle lift or a floor jack to safely support it on jackstands. Be sure that the entirety of the front suspension sub frame is not supported and can be lowered away from the main chassis of the vehicle. We recommend supporting the vehicle just behind the transmission cross member as shown in the image below.
2) Note the installation of this suspension package kit can be done simultaneously on both the left and right sides of the vehicle. Complete steps on both sides of the vehicle unless otherwise specified.



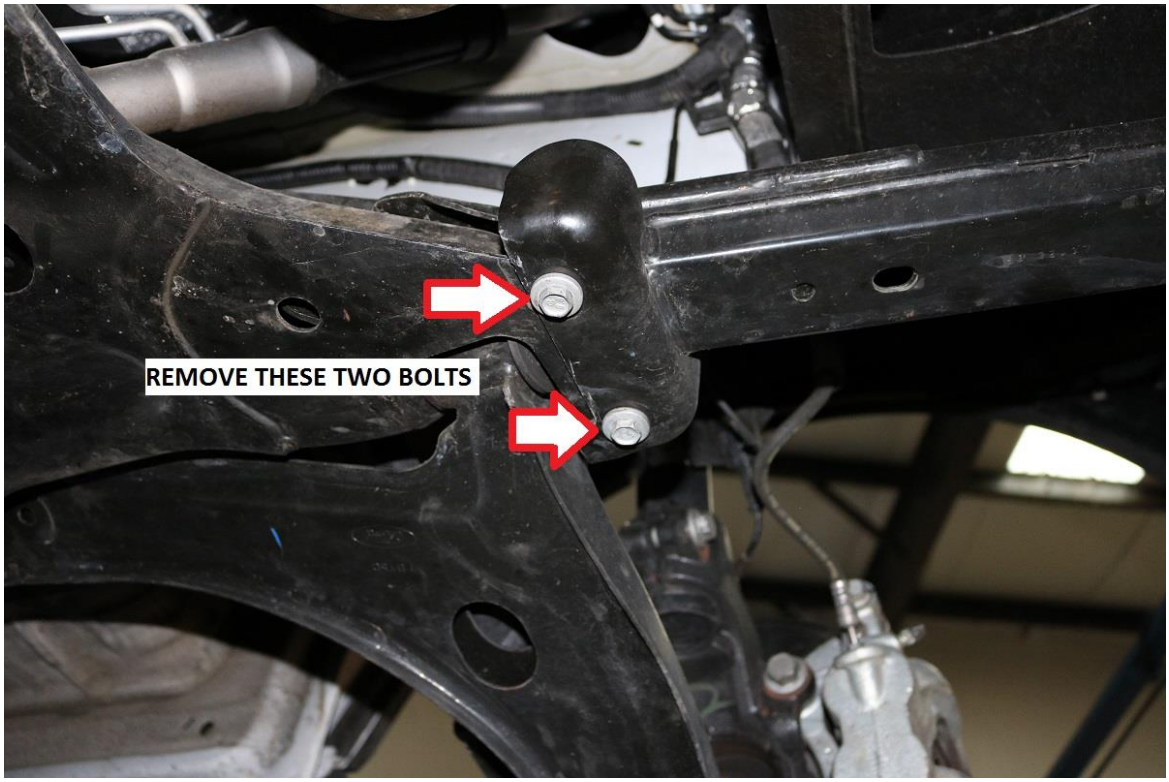
3) With the vehicle safely raised so the front suspension is completely unloaded, remove the front wheels / tires.
4) On AWD models, remove the inner plastic air damn pieces on each side of the vehicle. Use an 8mm socket / wrench to remove the bolt and an automotive trim removal tool to remove the push pin. See image below for reference.



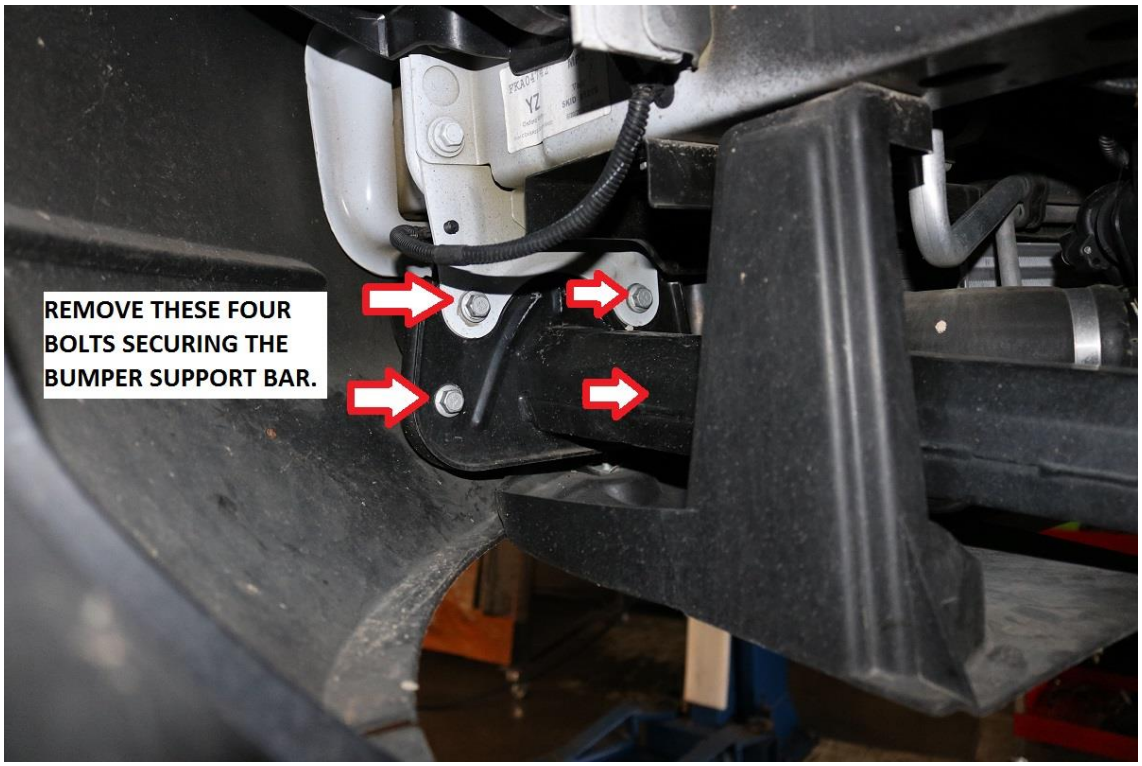
5) Remove the lower bumper support bars from the vehicle.
    a. Begin by locating and removing the two 10mm bolts securing the front lower air damn to the chassis.
    b. With these bolts removed, pull just this portion of the air damn down as to remove it from the chassis.



6) There are two bolts attaching these bars to the front suspension sub frame. Use a 13mm socket / wrench for removal.

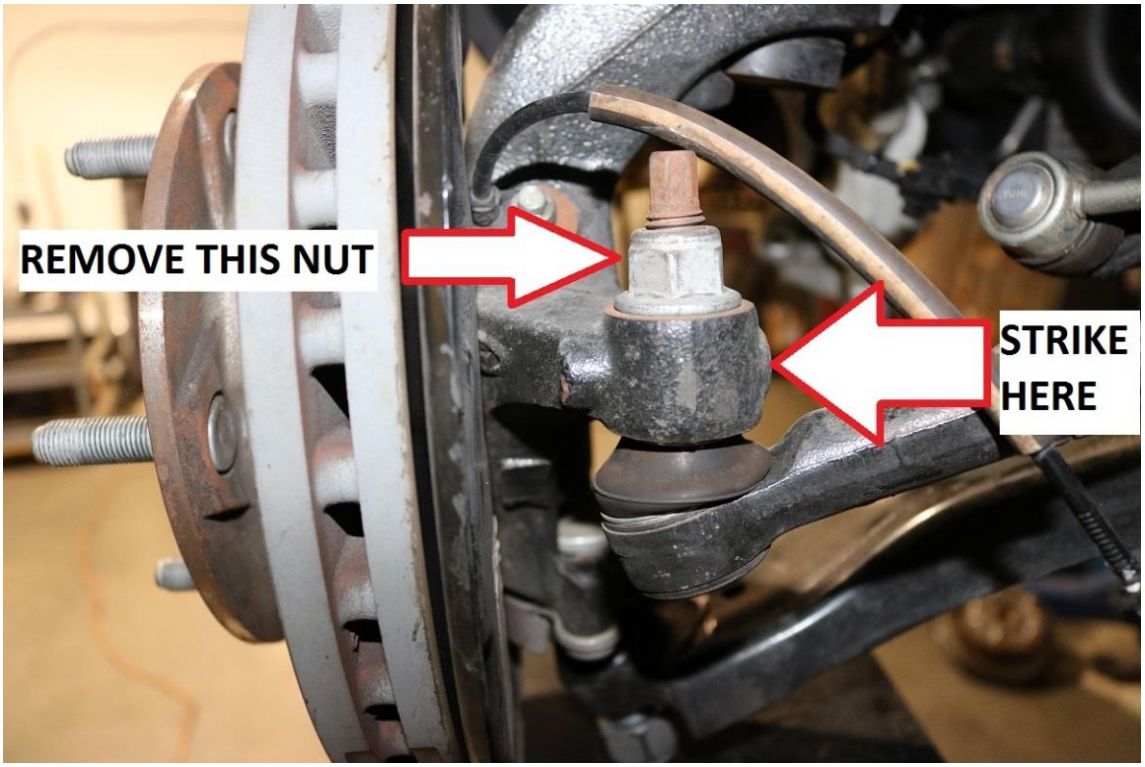


7) Behind the bumper, near the radiator, remove the four bolts attaching the bumper support bars to the bumper. Again, use a 13mm socket / wrench for removal.

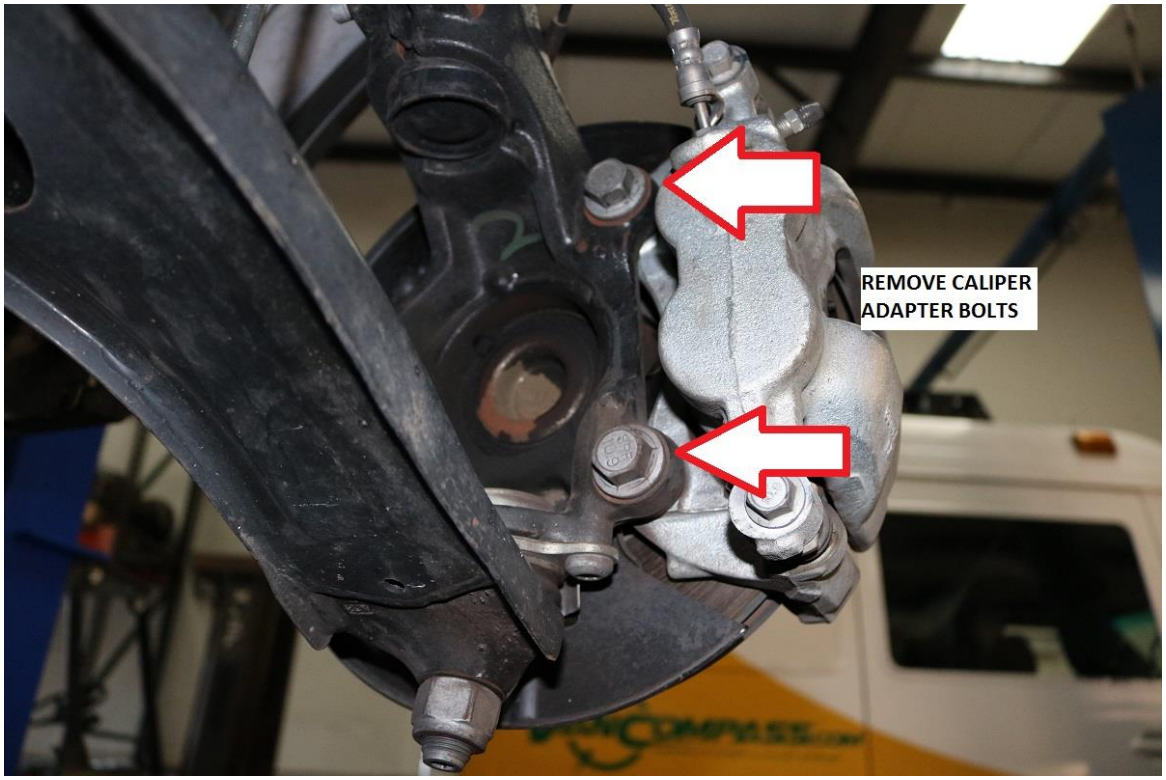


8) Remove the bumper support bars from the vehicle. This is a bit challenging but we have found the easiest way to do it is to move the front of the bars towards the outside of the vehicle and the back of the bars towards the inside of the vehicle. With some careful maneuvering, they can be removed without forcing them against the bumper or air damn.

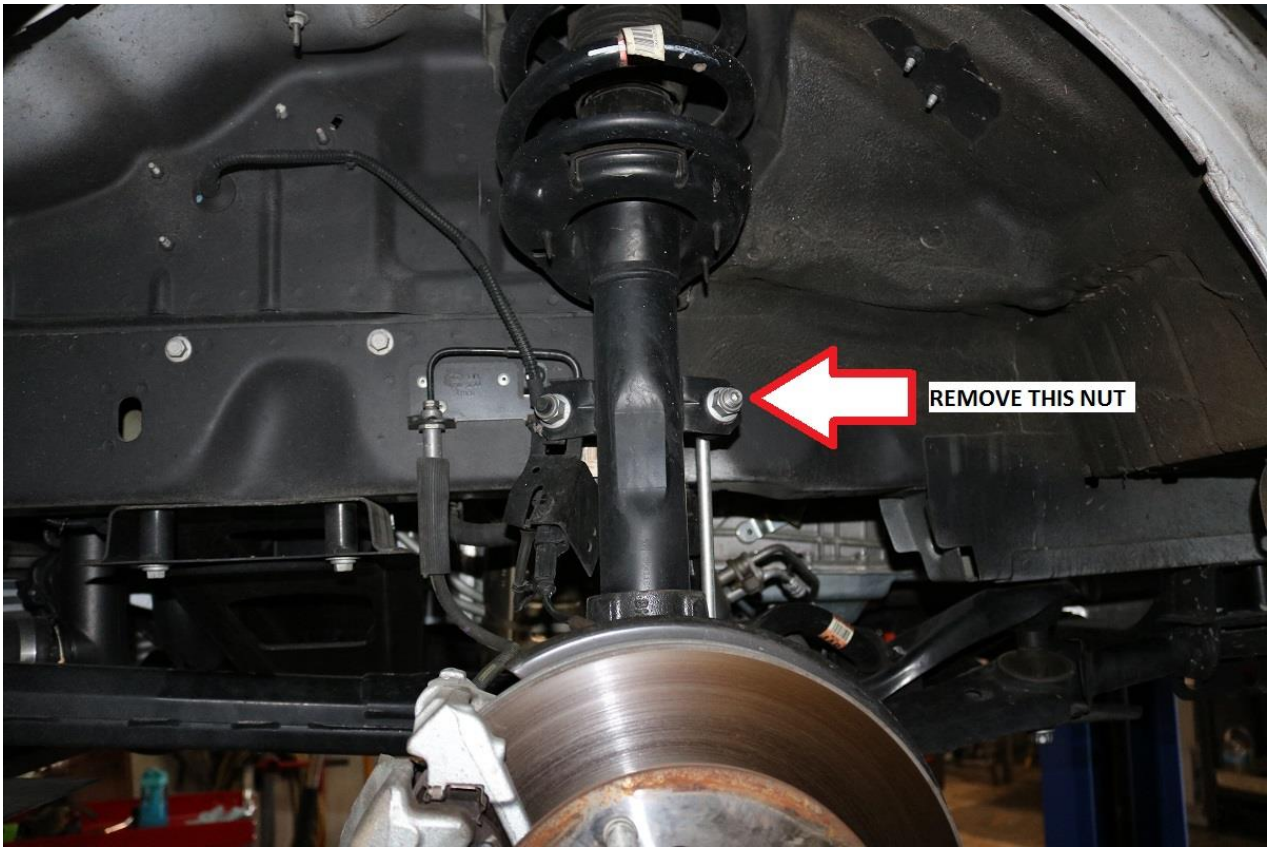
9) Remove the tie rod end at the steering knuckle. Use a 21mm socket / wrench for removal. A tie rod end puller or pickle fork may be used to separate the tie rod end from the steering knuckle. Alternatively, a couple firm blows with a 5lb sledge to the steering knuckle will often easily break the taper free.



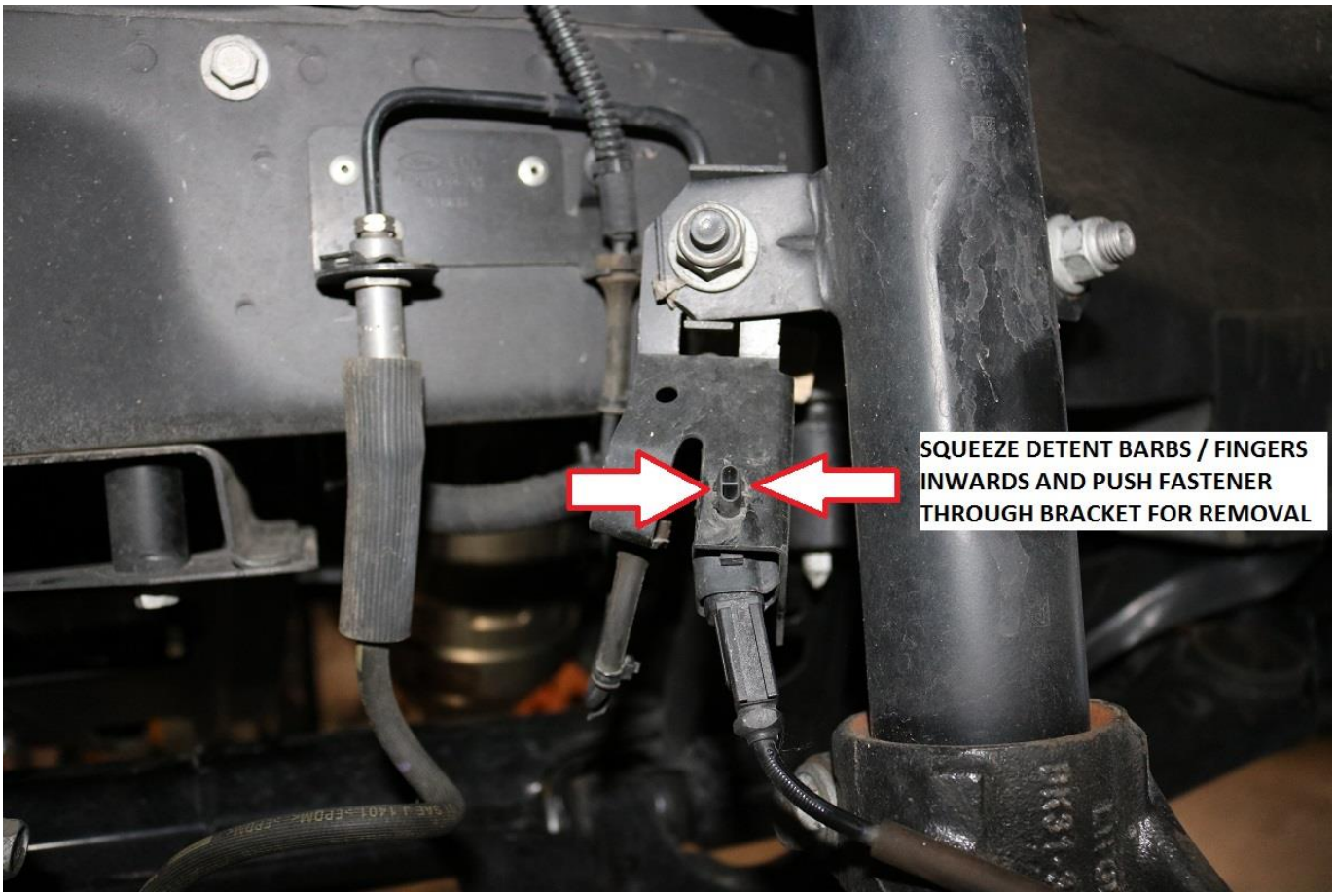
10) Use a 21mm socket / wrench to remove the brake caliper adapter bolts at the steering knuckle. There are two bolts per caliper.
    c. Secure the brake caliper out of the way, forward of the front suspension. Do not allow the caliper to hang by the brake hose.



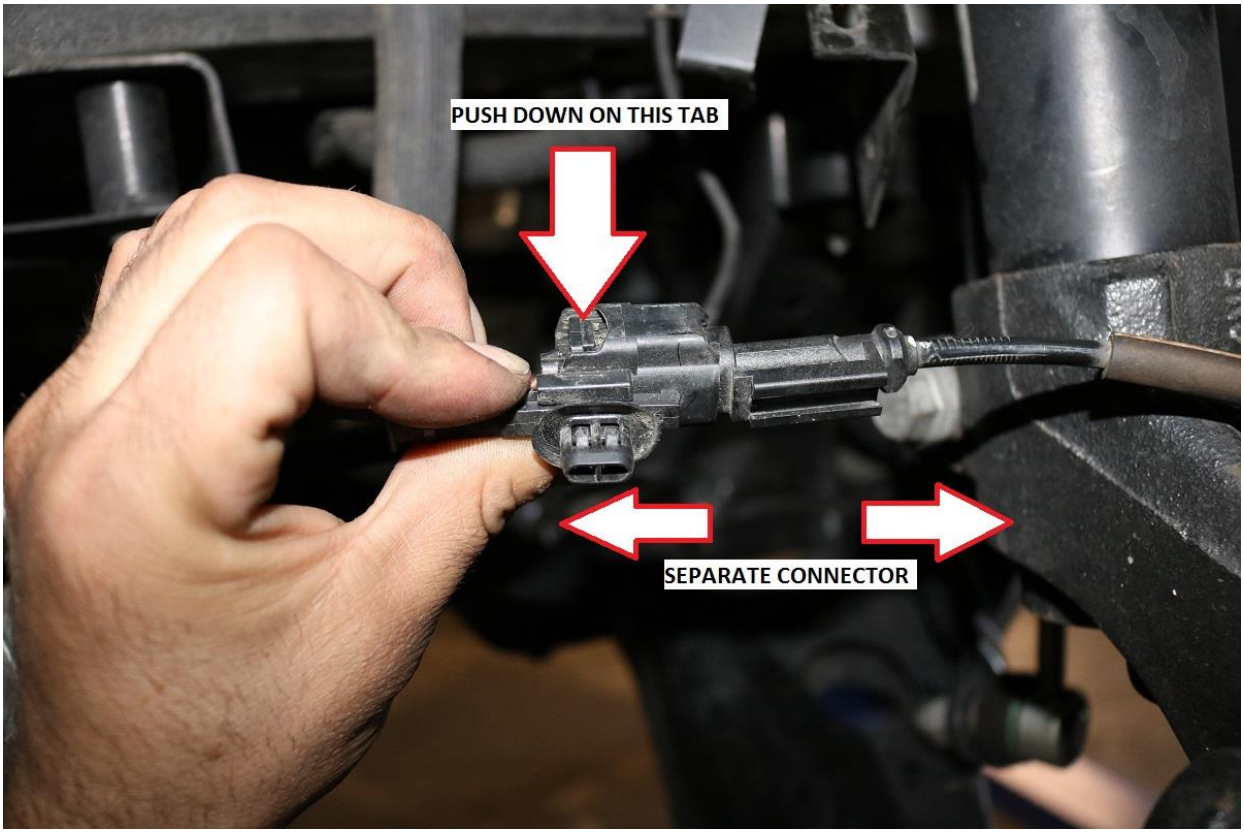
11) Disconnect the sway bar end link from the strut. Use an 18mm wrench and 6mm allen to remove the nut from the sway bar end link stud.



12) Remove the wheel speed sensor wiring from the strut.

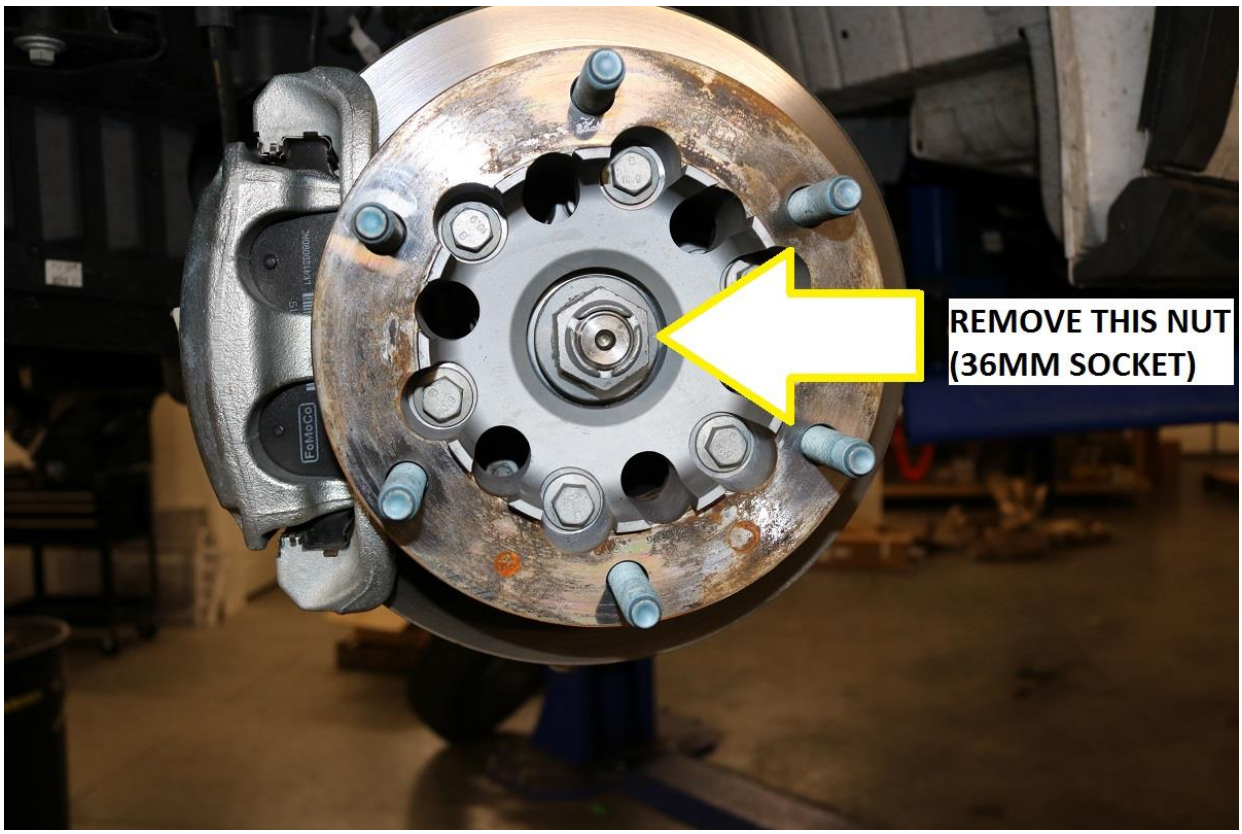


13) Completely remove the wheel speed sensor wiring from the strut. Separate the wheel speed sensor from the chassis harness.

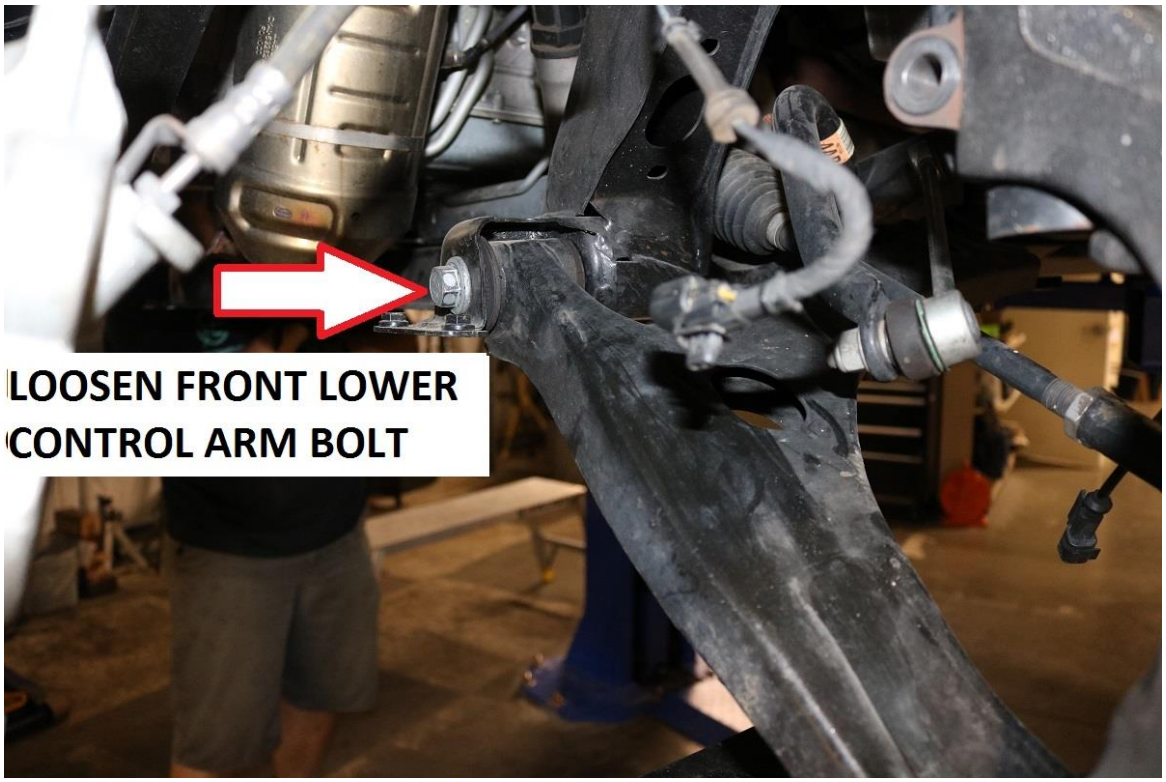


14) On AWD models, remove the front axle nut. Use a 36mm socket for removal.

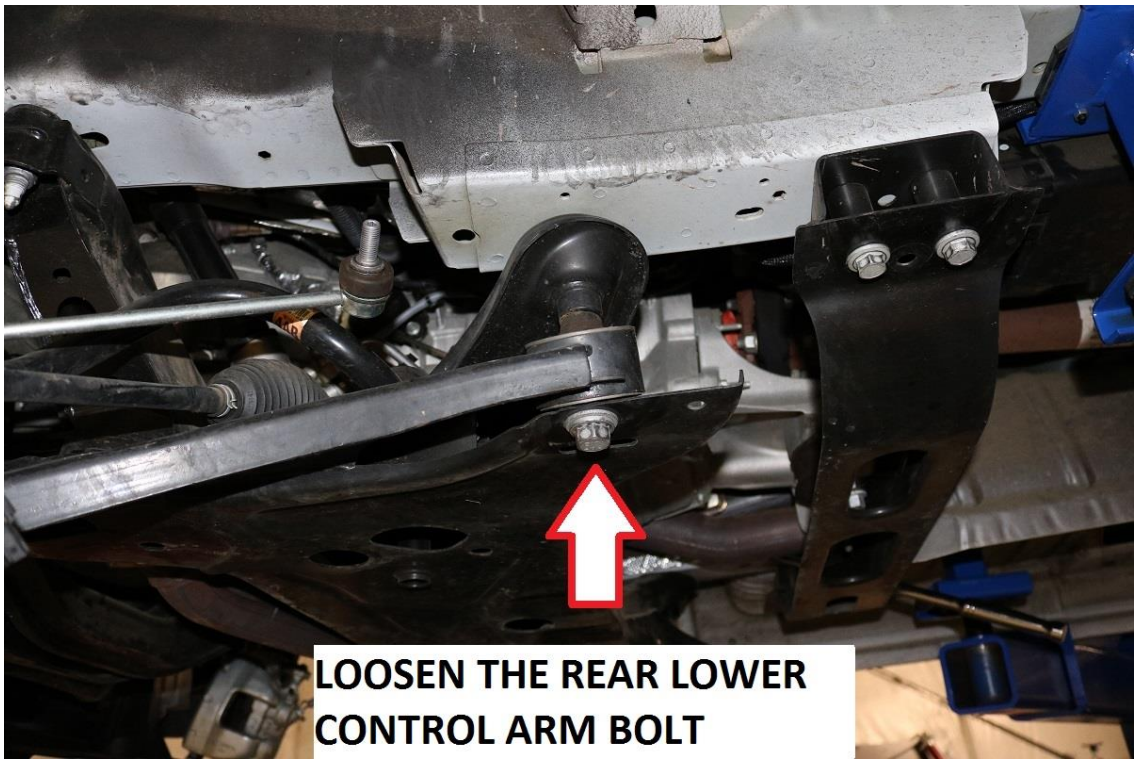
a. Once the nut is removed, use a rubber mallet or dead blow to knock the CV shaft inwards. Just make sure it will easily slide in and out of the hub at this time.

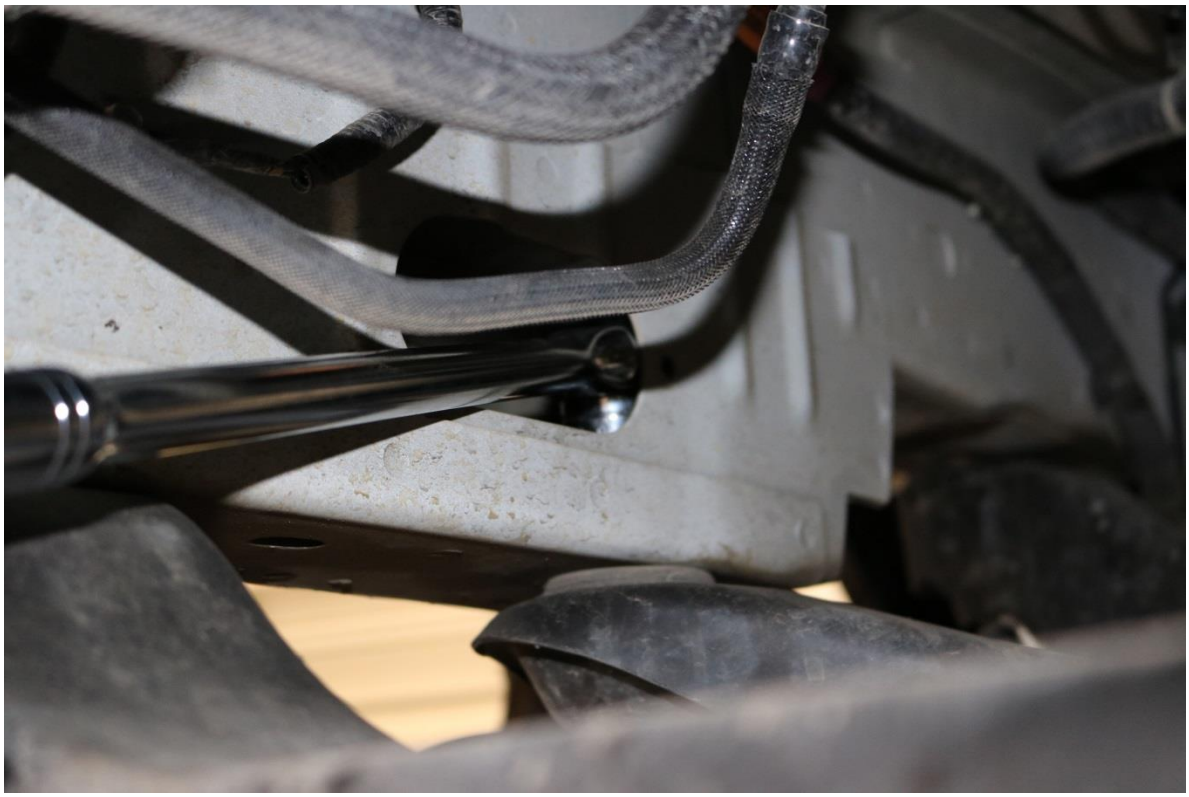


15) Loosen the front lower control arm bolt. Use a 21mm socket / wrench.

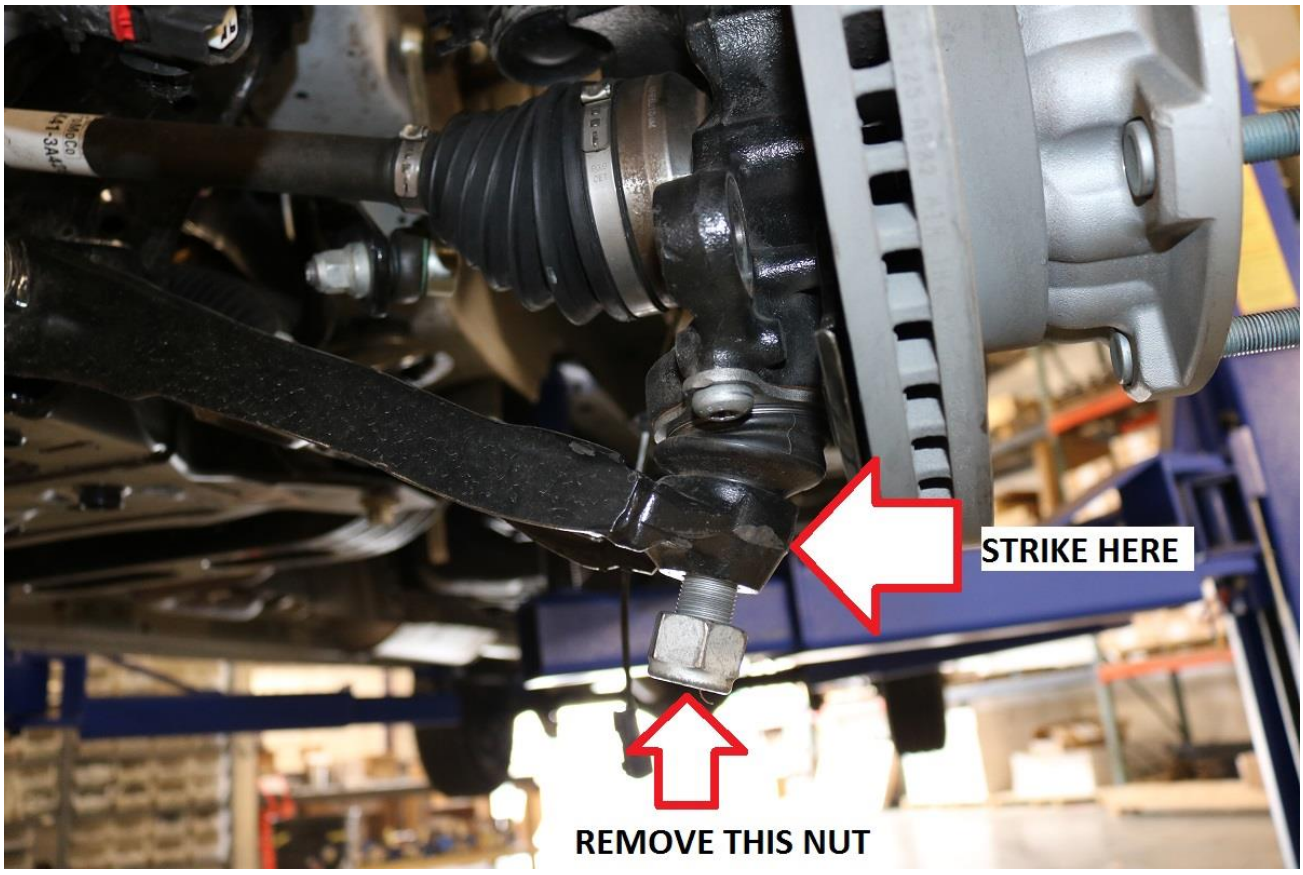


16) Loosen the rear lower control arm bolt. Note, the nut for this bolt is not captured well on 2013-2017 models and will often need to be held from inside the frame rail using a 24mm socket. This can be a bit tricky. We have found a breaker bar with a standard length 24mm socket to be the best tool for holding the nut from inside the frame rail.
    d. Loosen the bolt approximately 3 full turns using a 21mm socket / wrench on the bolt head.
    e. See images below for reference.

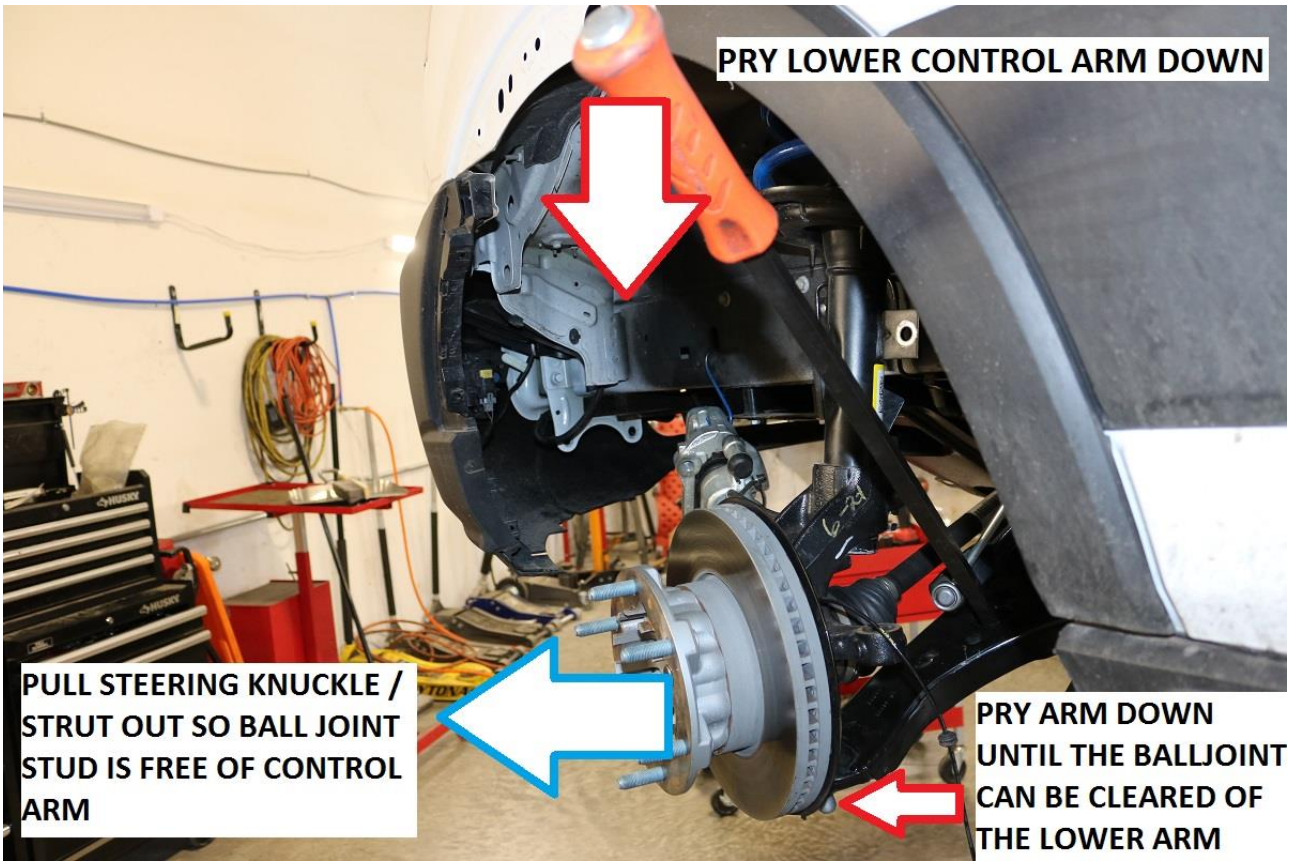




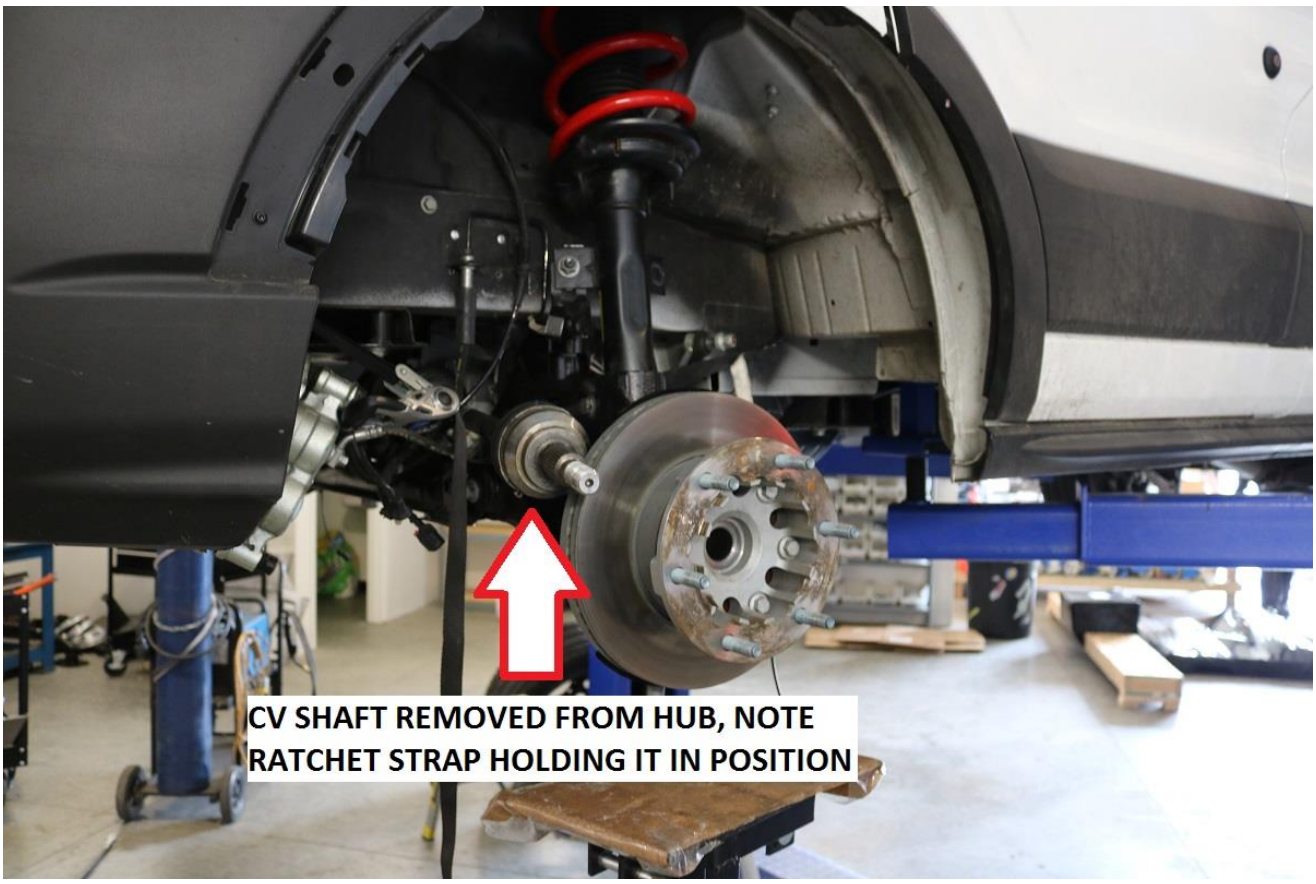
17) Remove the lower ball joint nut using a 30mm socket. Once removed, separate the taper of the ball joint stud from the lower control arm.
    a. Again, a tie rod end puller or pickle fork may be used to separate the tie rod end from the steering knuckle. However, a couple firm blows with a 5lb sledge to the lower control arm will often easily break the taper free without damaging the dust boot.



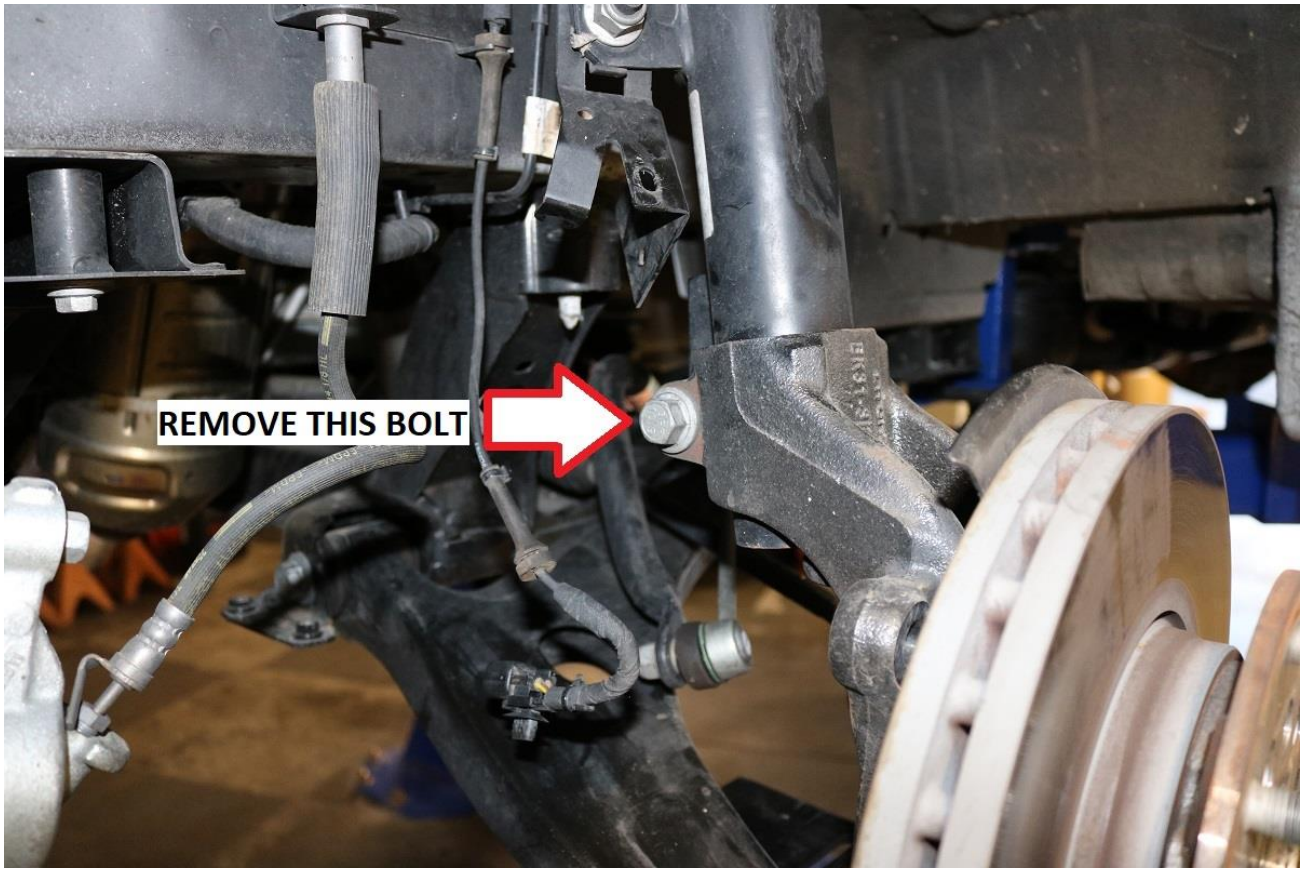
18) With the lower ball joint taper broken free from the lower control arm, use a long pry bar or similar tool to pry the lower control arm down enough to pull the bottom of the strut / steering knuckle clear of the lower control arm.
    a. There is large hole in the lower control arm near the sway bar which works as a good pry point. Pry the arm downwards to the point where the stud of the lower ball joint can clear the control arm.
    b. Be careful not to damage the boot of the lower ball joint once it is free from the lower control arm.



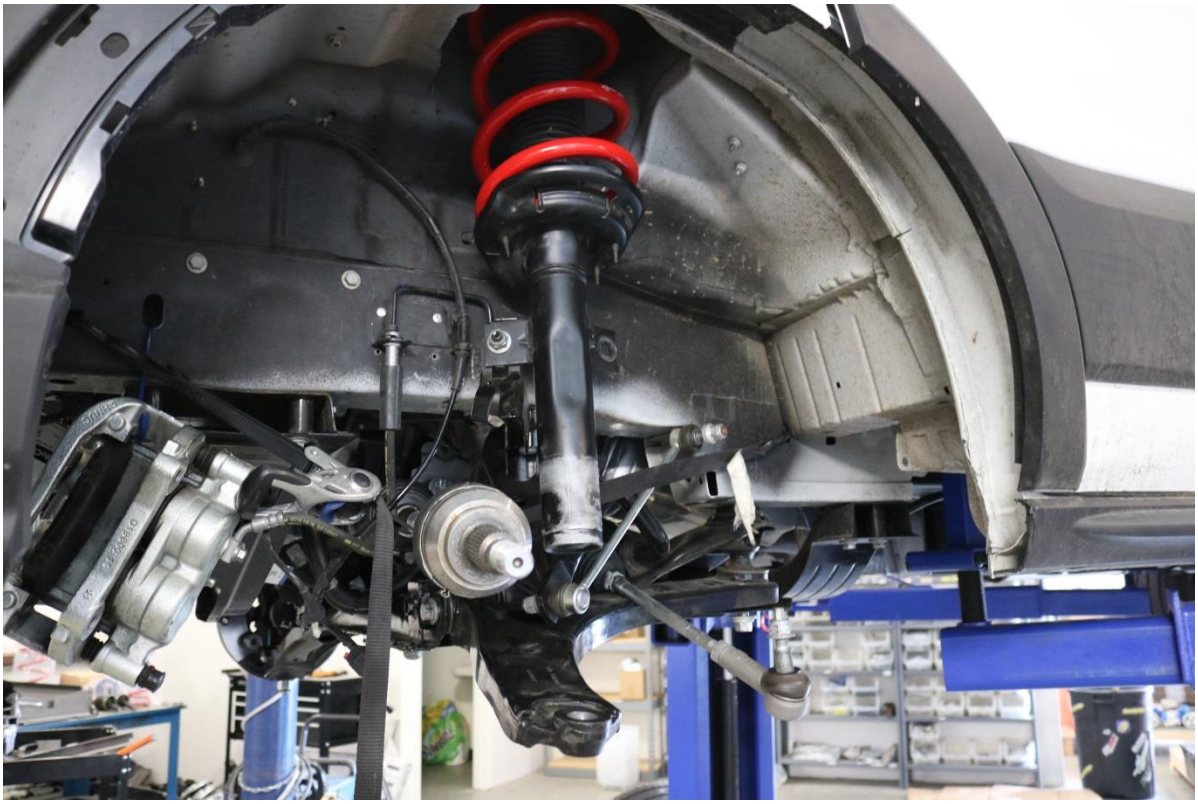
19) On AWD models, turn the steering knuckle to full steering lock and pull the wheel / hub outwards to remove the CV shaft from the hub.
    a. Note; to prevent the CV shafts from overextending and potentially coming apart, do not let them hang at full bind. Use a ratchet strap or similar tool to hold them in a reasonable position.



20) With the CV free from the hub, support the steering knuckle with a transmission or floor jack and remove the 18mm lower strut bolt.



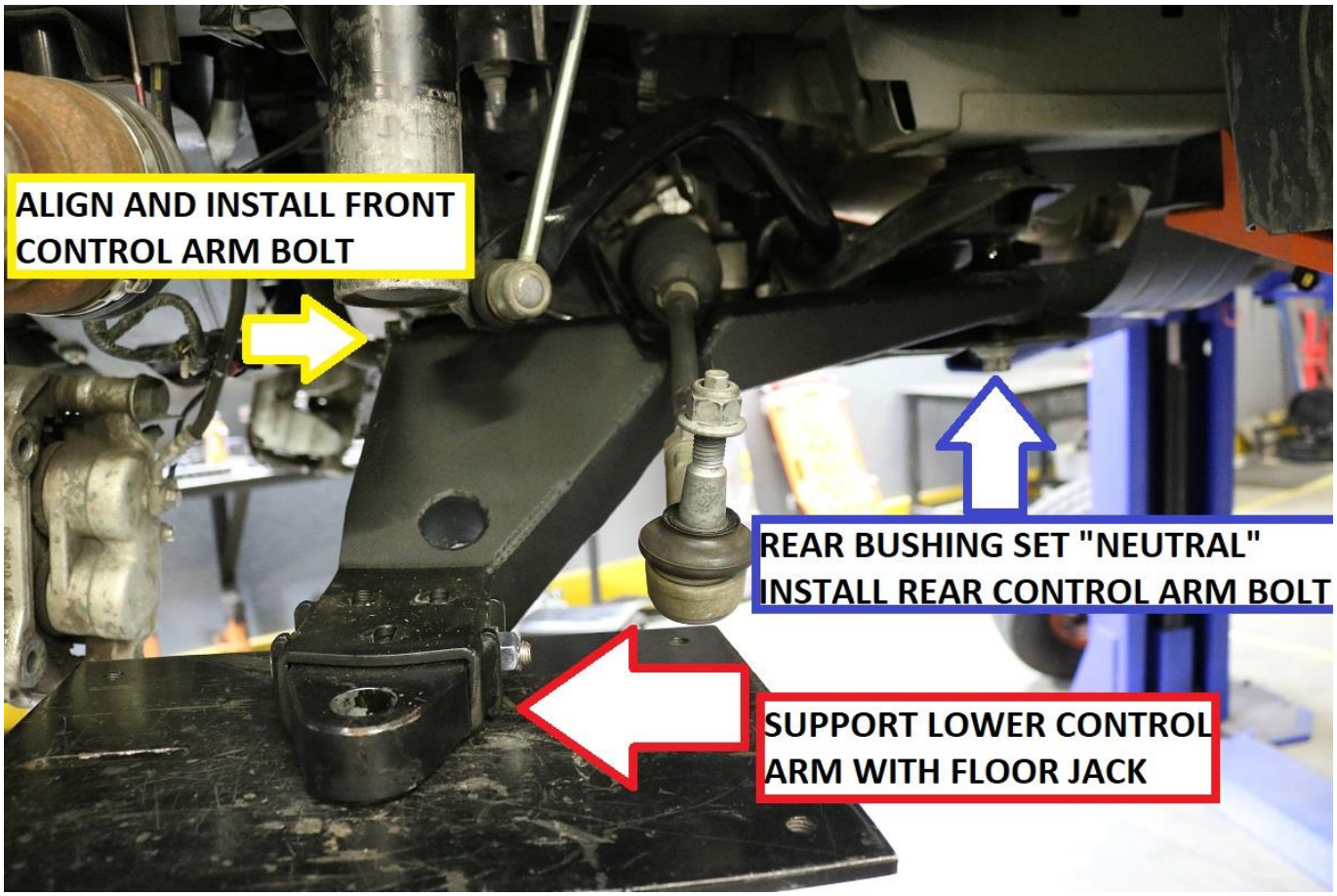
21) Remove the steering knuckle from the strut and set it aside.



22) With the steering knuckle removed from the vehicle, go ahead and fully remove the lower control arm from the vehicle.

a. Utilize a 21mm socket / wrench again to remove both the front and rear lower control arm bolts and remove the control arm from the vehicle.

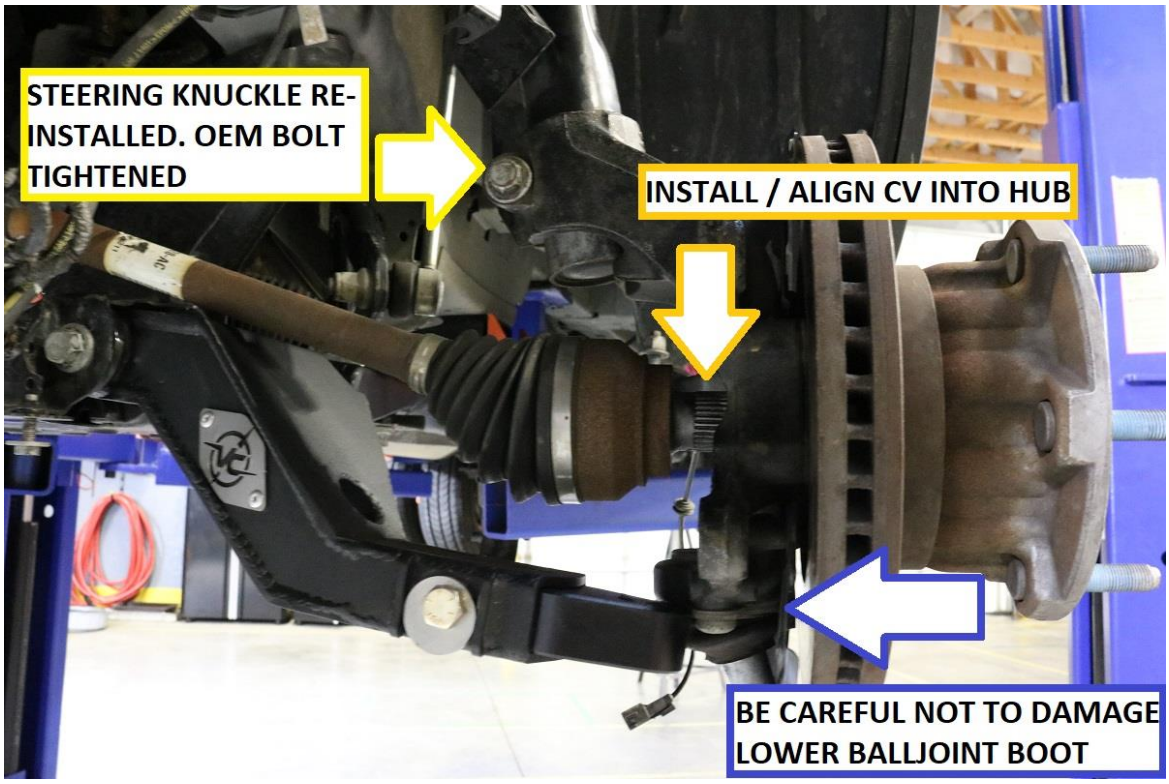
23) The control arms will come preassembled with hardware installed.
   a. Fit the assembled 1055 control arm to the vehicle. Note the arms are left and right specific and can only be installed one way. Driver side installation is shown.
   b. Utilize a floor jack as shown to support the lower control arm in a manner that sets the rear control arm bushing "neutral"
   c. Re-install the OEM control arm bolts previously removed. We suggest using anti-seize on the OEM control arm bolts to prevent corrosion and rust should the arms need removal at a later date.
   d. Start the front and rear control arm bolts but do not fully tighten at this time.



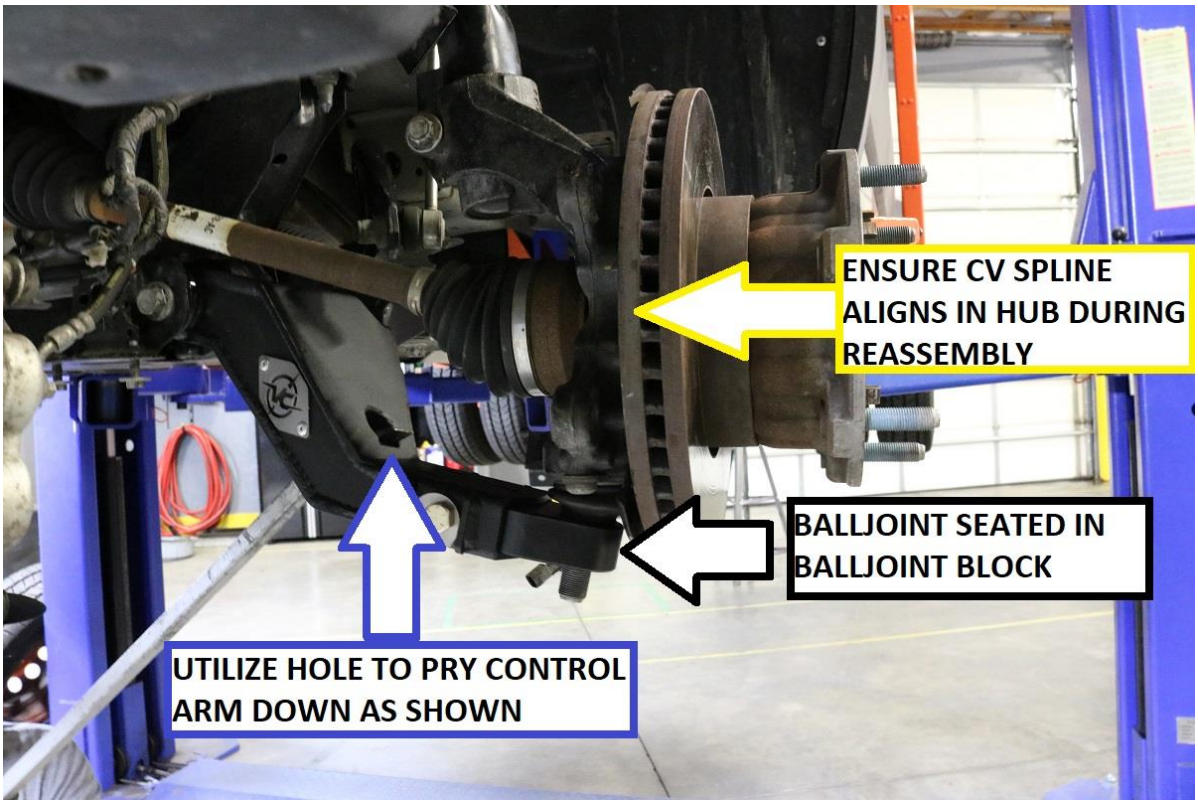
24) We recommend coating the inside of the steering knuckle where the strut slides into place with some anti-seize. This will not only allow for easier installation, but will also allow for simpler removal of the strut down the line should replacement / service be required.

25) Re-install the steering knuckle. Make sure the tab on the back of the strut aligns into the slot on the back of the steering knuckle. A floor jack or trans jack is helpful in holding the knuckle back in place.
   a. Make sure the strut is bottomed out in the steering knuckle.
   b. Use a dab of blue Loctite on the threads and re-install the factory lower strut bolt. Use an 18mm wrench and torque to 76 ft-lbs (103 N.m). Rotate an additional 180 degrees after torque is achieved.

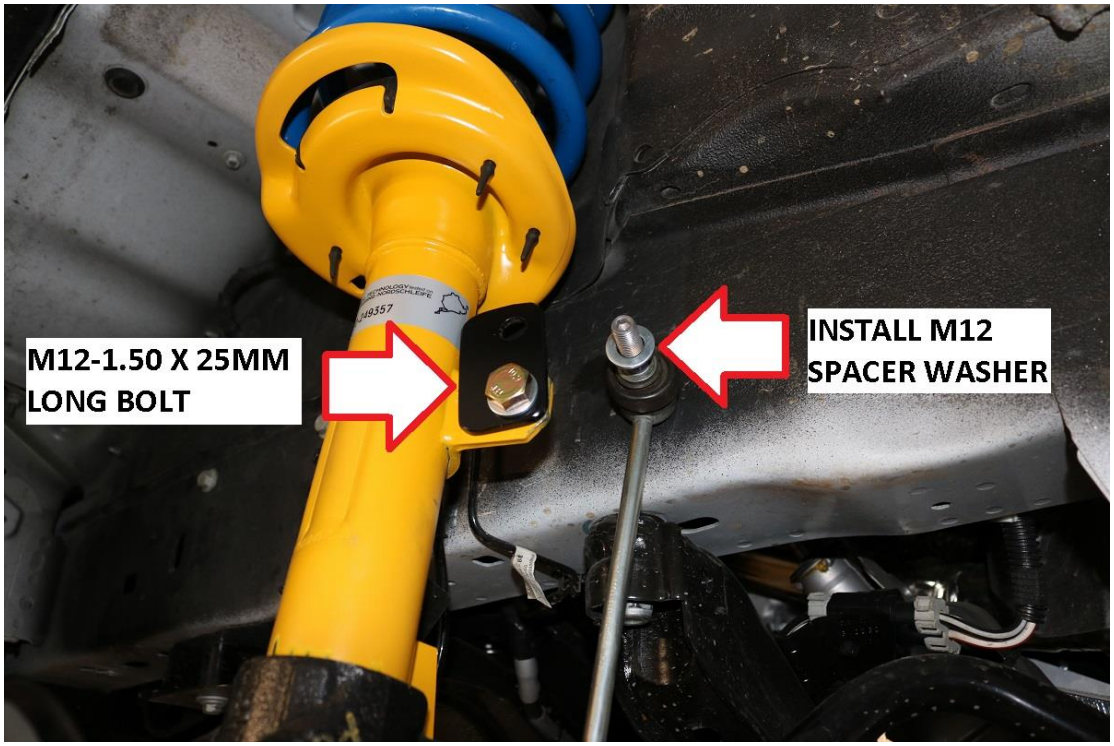
26) Install the CV into the hub but do not install the axle nut at this time.



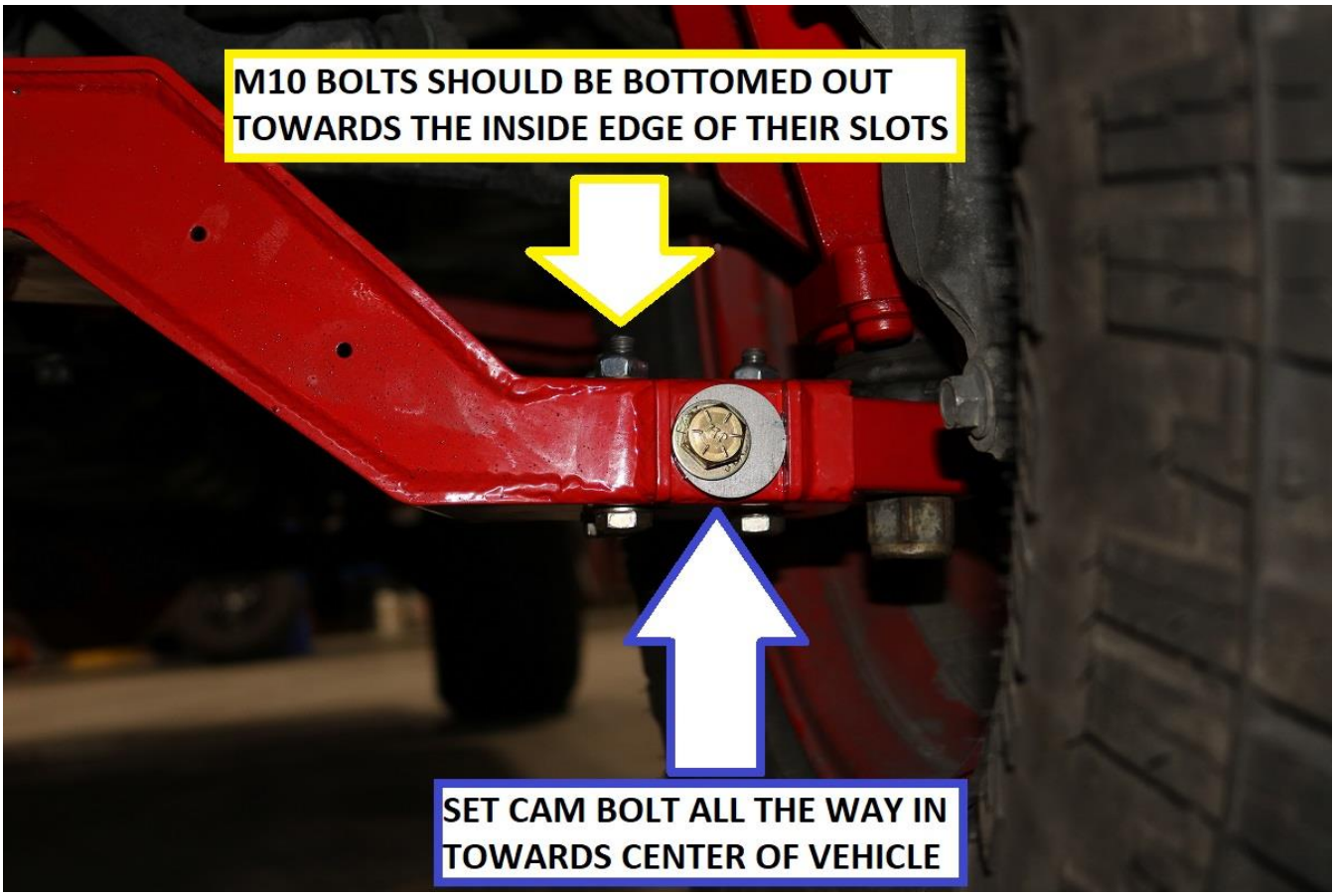
27) Coat the inside of the tapered ball joint hole in the lower control arm with anti-seize for ease of future serviceability.
28) At this point it is recommended to have a helper aide in prying down the lower control arm. Utilize the hole in the new control arm to pry down the arm until the lower ball joint can be re-seated into the ball joint block.
    a. Simultaneously align the CV spline into the hub during reassembly.
    b. Once seated, re-install the ball joint nut and torque to 184 ft-lbs (250 Nm) with a 30mm socket.



29) Reconnect the sway bar end link to the strut. There should be an M12 washer on the sway bar link stud prior to fitting it into the relocation bracket as shown below.
    a. An 18mm socket / wrench and 6mm allen will be needed. Use the OEM nut and torque to 76 ft-lbs (103 N.m)



30) Reconnect the wheel speed sensor wiring and secure it back to the strut using the OEM clips. See image in step 12 for reference.
31) Install the caliper back onto the steering knuckle. Use the OEM bolts removed in step 10 and a 21mm socket / wrench. Use a dab of blue Loctite on the threads and torque to 203 ft-lbs (275 N.m).
32) Install the tie rod end back onto the steering knuckle. Use a 21mm socket / wrench and torque to 59 ft-lbs (80 N.m)
33) Torque the axle nut with a 36mm socket to 250 ft-lbs (339 Nm).
34) The control arms come pre-assembled with the cam bolts set all the way inwards to match the length of a factory lower control arm. We recommend using this as a baseline to get the vehicle to an alignment shop. Double check torque specs prior to driving and to utilize for the alignment tech:
    a. Use a ¾" socket / wrench to torque the cam bolt to 80 ft-lbs (108 N.m)
    b. Use a 19mm socket / wrench to torque the 3x M10 bolts per arm to 45 ft-lbs (61 N.m)



35) Re-install wheels / tires.

c. Lug nut torque for SRW and DRWs are the same; 148 ft-lbs (200 N.m).

36) Immediately take vehicle to alignment shop for a proper alignment to be done.

37) Re-check all bolt torques after 100 miles of driving.

Installation is Complete

RELEASE OF LIABILITY

I, the customer, do hereby release and forever discharge Van Compass LLC, their agents, employees, successors and assigns, and their respective heirs, personal representatives, affiliates, successors and assigns, and any and all persons, firms or corporations liable or who might be claimed to be liable, whether or not herein named, from any and all claims, demands, damages, actions, causes of action or suits of any kind or nature whatsoever, whether known or unknown, fixed or contingent, which I now have or may hereafter have or claim to have, as a result of or in any way relating to the following: Parts sold & installed by Van Compass LLC or parts sold & installed by end-user; any parts sold online, any parts sold online or installed by a re-seller, any parts installed by an installation shop.

It is understood and agreed that this payment is made and received in full and complete settlement and satisfaction of the aforesaid actions, causes of action, claims and demands; that this Release contains the entire agreement between the parties; and that the terms of this Agreement are contractual and not merely a recital. Furthermore, this Release shall be binding upon the undersigned, and his respective heirs, executors, administrators, personal representatives, successors and assigns. This Release shall be subject to and governed by the laws of the State of Idaho.

PRODUCT SAFETY WARNING:

Van Compass LLC strongly recommends the installation of products be done by a certified mechanic. If this does not occur, be certain the person(s) installing the product read, understand and follow all instructions and warnings pertaining to the application before installation. Do not add, alter, or fabricate any factory or aftermarket parts to increase vehicle height over the intended height of the Van Compass LLC product purchased. Mixing component brands is not recommended.

Installation of suspension lift kits or any other lifting kits or devices will raise the center of gravity. For this reason, Van Compass LLC urges that extreme caution be used when encountering driving conditions which may cause vehicle imbalance. Furthermore, the driver's field of vision and judgment will not be as good due to the height of the vehicle. Due to the installation of larger tires, the speedometer will read slower than the actual speed being traveled and more distance will be required to stop the vehicle. It is the owner's responsibility to caution and warn any potential driver of the vehicle about these driving and handling conditions. Van Compass LLC will not be held liable or responsible for damages or personal injuries resulting from the use of lifting devices and or related products. The tires and rims should be changed to sufficiently increase the vehicle's total overall width and stability to help accommodate lifting devices.

Van Compass LLC aftermarket suspension products and accessories modify a vehicle for uses which exceed conditions anticipated by the vehicle manufacturer. The uses include the high performance demands required during off-road. These conditions vary in the degree of extremity and cannot be controlled by the vehicle or product manufacturer. If the components within the suspension system or accessories become worn due to frequent and/or extreme use, the safety and reliability of the vehicle is at risk. The maintenance of aftermarket equipment to ensure the vehicle occupants safety is entirely your responsibility. Do not purchase Van Compass LLC products unless you are willing to accept this responsibility. Do not install any Van Compass LLC suspension products or accessories unless you feel competent at installing the product without causing present or future injury to yourself or other vehicle occupants; seek an authorized installation center.

Most states have some type of law limiting vehicle height. The amount of lift allowed, and how the lift can be achieved, varies greatly. Several states offer exemptions for farm and commercial registered vehicles. It is the vehicle owner's responsibility to check state and local laws to ensure that their vehicle will be incompliance. Van Compass LLC reserves the right to make changes in design, materials and specifications as deemed necessary without prior notice and without assuming obligation to modify any product previously manufactured. Obligation or liabilities will not be assumed with respect to similar products previously advertised.

This Release of Liability and Product Safety Warning has been read and fully understood by the undersigned and has been explained to me.