



# K89-0817301 Can-Am X3 Bulkhead Reinforcement Kit



## INTRODUCTION

# PLEASE RETAIN THIS DOCUMENT FOR FUTURE REFERENCE

If your ZBROZ® product has a damaged or missing part, please contact customer service directly and a new replacement part will be sent to you immediately.

For warranty issues, please return to the place of installation and contact ZBROZ®.

Business hours are Monday through Friday 8AM-5PM MST.

PHONE: (435) 753-7774

EMAIL: [customerservice@zbrozracing.com](mailto:customerservice@zbrozracing.com)

WEBSITE: [www.zbrozracing.com](http://www.zbrozracing.com)

## LIMITED LIFETIME WARRANTY

ZBROZ® will warranty to the original purchaser any failed ZBROZ® suspension product in the event of failure due to construction or material failure of the product. You will be required to contact ZBROZ® customer service with descriptions and photos that resulted in failure.

ZBROZ® builds suspension products to meet and exceed your expectations in quality, performance and durability. All ZBROZ® suspension products are rigorously tested during development and prototype parts are pushed to the limit by professional industry athletes, backcountry athletes and race teams. ZBROZ® Limited Lifetime Warranty excludes the following wear parts as these parts are considered defective when worn: Ball Joints, Bushings, Bump Stops, Tie Rod Ends, Heim Joints, Shock Absorbers Product purchased directly from ZBROZ® has a 90 day return policy on uninstalled products from the date of purchase (may be subject to restocking fee). Uninstalled product returns must be in the original ZBROZ® packaging. Please call (435) 753-7774 to get an RMA# for any return. Customer is responsible for shipping costs back to Zbroz Racing. Returns without RMA# will be refused. Contact ZBROZ® directly about any potentially defective parts prior to removal from vehicle.

ZBROZ® is NOT responsible for any subsequent damages to any related vehicle parts due to misuse, abuse, improper installation, or lack of maintenance. Furthermore, ZBROZ® reserves the right to change, modify or cancel this warranty without prior notice.

**FOLLOW INSTRUCTIONS TO ENSURE PROPER INSTALLATION**

***READ INSTRUCTIONS THOROUGHLY AND COMPLETELY BEFORE BEGINNING INSTALLATION. INSTALLATION BY A CERTIFIED PROFESSIONAL MECHANIC IS HIGHLY RECOMMENDED. ZBROZ® IS NOT RESPONSIBLE FOR ANY DAMAGE OR FAILURE RESULTING FROM IMPROPER INSTALLATION.***



**TOOLS:**

- Floor Jack or Lift (1)
- 18mm Socket (1)
- 18mm Open End Wrench (1)
- T40 Torx (1)
- Socket Driver (1)
- 10mm End Wrench (1)
- 15mm Socket (1)
- 19mm Open End Wrench (1)
- Flathead Screwdriver (1)
- 34mm Socket (1)
- 15mm Open End Wrench (1)



**PARTS:**

- Front Lower Control Arm Gusset (1)
- Rear Lower Control Arm Gusset (1)
- Front Upper Control Arm Gusset Assembly (1)
- Rear Upper Control Arm Gusset Assembly (1)
- Hardware Pack (1)

## Step 1 — Safety Warning



- **MISUSE OF THIS PRODUCT COULD LEAD TO INJURY OR DEATH.** You should never operate your vehicle under the influence of alcohol or drugs. All raised vehicles have increased risk including blind spots; damage, injury and/or death can occur if these instructions are not followed.
- Suspension systems or components that enhance the on and off-road performance of your vehicle may cause it to handle differently than it did from the factory. Extreme care must be used to prevent loss of control or vehicle rollover during abrupt maneuvers.
- Always operate your vehicle at reduced speeds to ensure your ability to control your vehicle under all driving conditions. Failure to drive safely may result in serious injury or death to driver and passengers. You should never operate your vehicle under the influence of alcohol or drugs.
- Driver and passengers must **ALWAYS** wear your seat belts, avoid quick sharp turns and other sudden maneuvers. ZBROZ® does not recommend the combined use of suspension lifts, body lifts, or other lifting devices.

- Constant maintenance is required to keep your vehicle safe. Thoroughly inspect your vehicle before and after every off-road use.
- It is the responsibility of the retailer and/or the installer to review all state and local laws, with the end user of this product, related to bumper height laws and the lifting of their vehicle before the purchase and installation of any ZBROZ® products.
- It is the responsibility of the driver to check their surrounding area for obstructions, people, and animals before moving the vehicle.
- All raised vehicles have increased blind spots; damage, injury and/or death can occur if these instructions are not followed.

## Step 2 — Installation Warning



- All steps and procedures described in these instructions were performed while the vehicle was properly supported on a two post vehicle lift with safety jacks.
- Use caution during all disassembly and assembly steps to insure suspension components are not over extended causing damage to any vehicle components and parts included in this kit.

- Included instructions are guidelines only for recommended procedures and are not meant to be definitive. Installer is responsible to insure a safe and controllable vehicle after performing modifications.
- ZBROZ® recommends the use of an OE Service Manual for model/year of vehicle when disassembly and assembly of factory and related components.
- Unless otherwise specified, tighten all bolts and fasteners to standard torque specifications listed within the OE Service Manual.
- Suspension components that use rubber or urethane bushings should be tightened with the vehicle at normal ride height. This will prevent premature wear or failure of the bushing and maintain ride comfort.
- Larger tire and wheel combinations may increase leverage on suspension, steering, and related components.
- Due to payload options and initial ride height variances, the amount of lift is a base figure. Final ride height dimensions may vary in accordance to original vehicle ride height. Always measure the vehicle ride height prior to beginning installation.

### Step 3 — Remove Tires



- (Image 1) Start by making sure to park on a flat surface. With a floor jack or lift, raise the vehicle off the ground.
- (Image 2) Remove the front tires

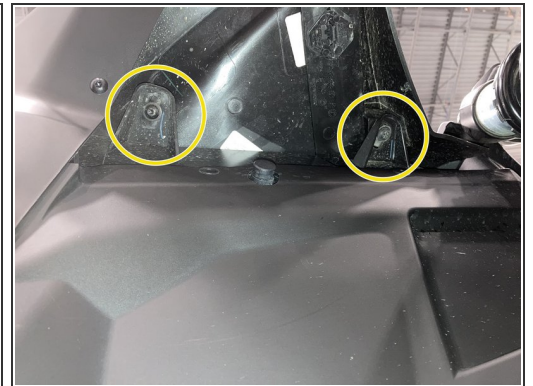


## Step 4 — Remove Plastics



- (Image 1) Remove the hood.
- (Image 2) Remove the fuel door cover.

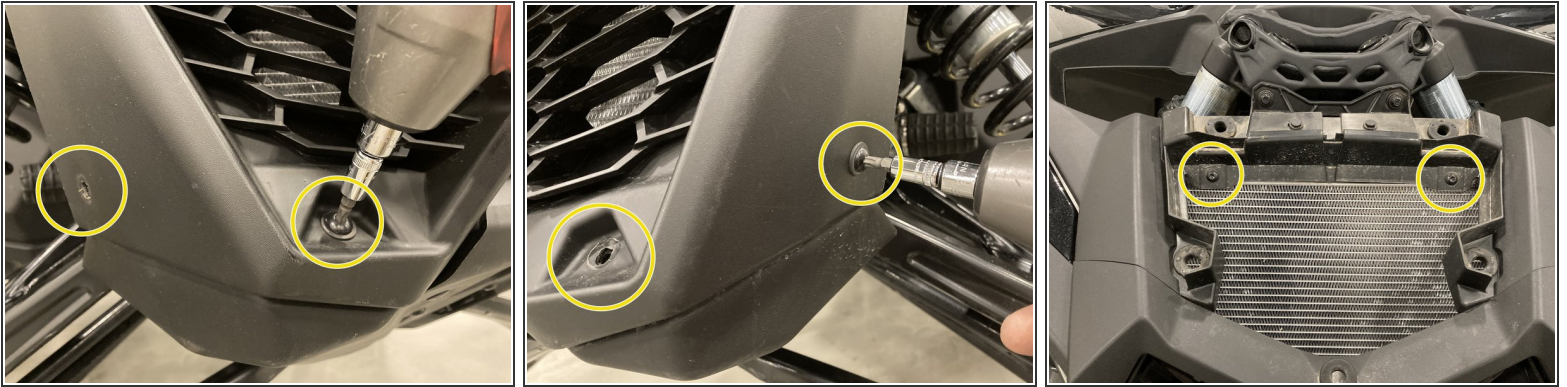
## Step 5 — Remove Fenders, Grill, Lights



- (Image 1) Remove the screw at the A pillar.
  - (Image 2) Remove the screw and nut between fender and hood.
  - (Image 3) Remove the two screws under the fender.
- i** Perform these steps on both sides of the vehicle.

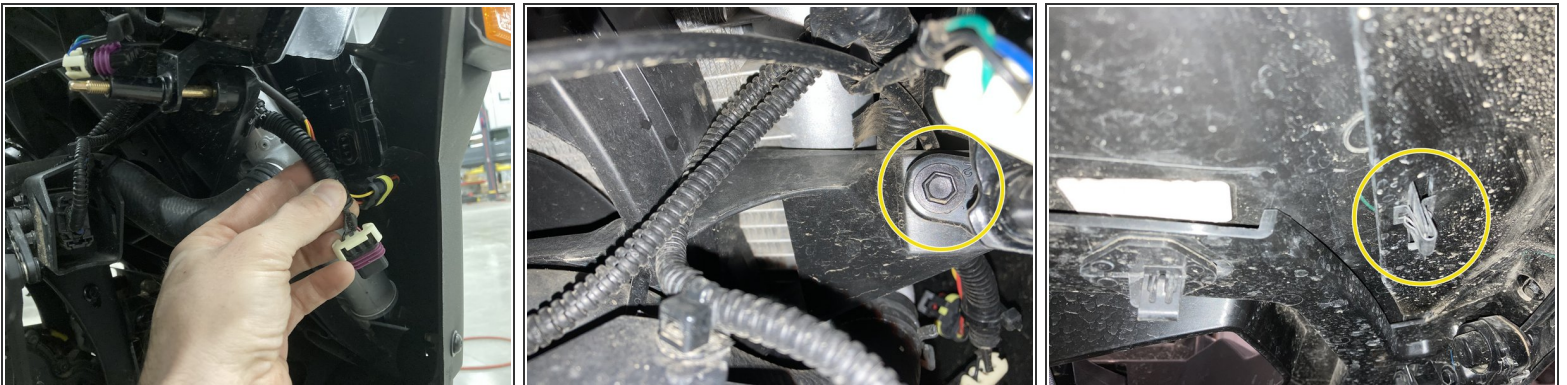


## Step 6 — Remove Fenders, Grill, Lights



- (Image 1) Remove the two screws at the bottom of the grill.
- (Image 2) Remove the two screws at the bottom of the grill on the other side.
- (Image 3) Remove the two screws by the top of the radiator.

## Step 7 — Remove Fenders, Grill, Lights



- (Image 1) Unplug the headlight and blinkers on both sides
- (Image 2) Remove the small black screw mounting the headlight.
- (Image 3) On some models, it may be necessary to remove the small metal clip retaining the tab under the fender.

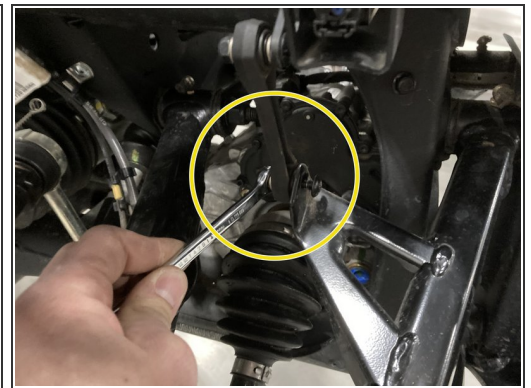
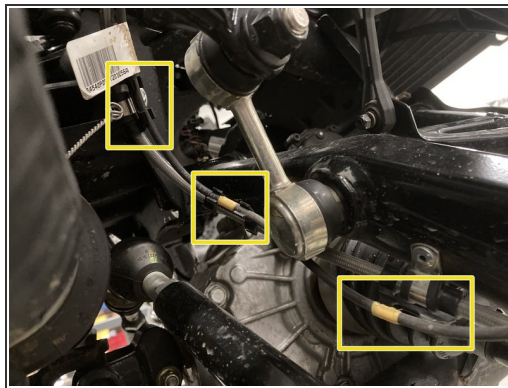
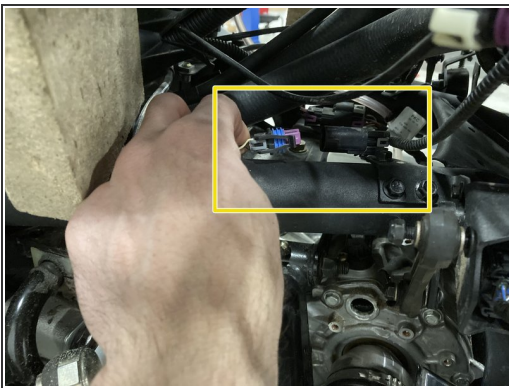
**i** Perform these steps on both sides of the vehicle.

## Step 8 — Remove Fenders, Grill, Lights



- Remove the fenders, hood, grill, and headlights as a single assembly exposing the radiator and suspension.

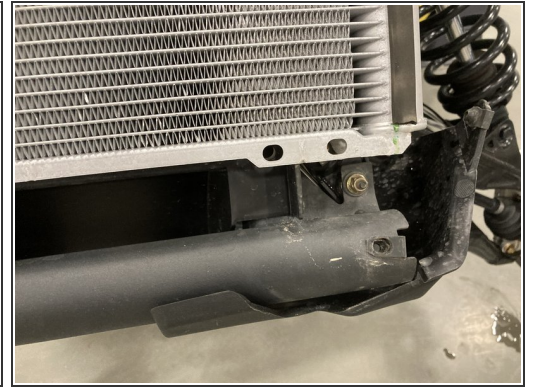
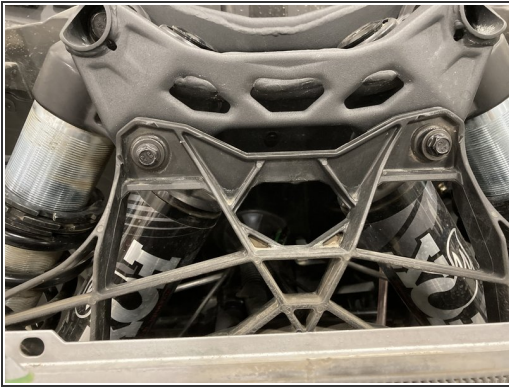
## Step 9 — If Equipped with Smart-Shox



- (Image 1) Disconnect the Smart-Shox plug at the frame.
  - (Image 2) Gently remove the Smart-Shox wire from the clips along the brake line.
  - (Image 3) Remove the Smart-Shox sensor link from the upper control arm.
- i** Perform these steps on both sides of the vehicle.

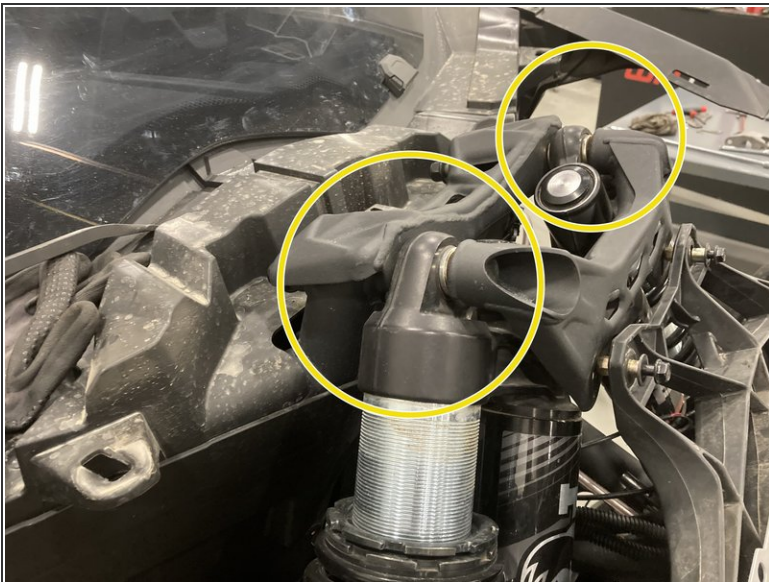


## Step 10 — Radiator Mounts



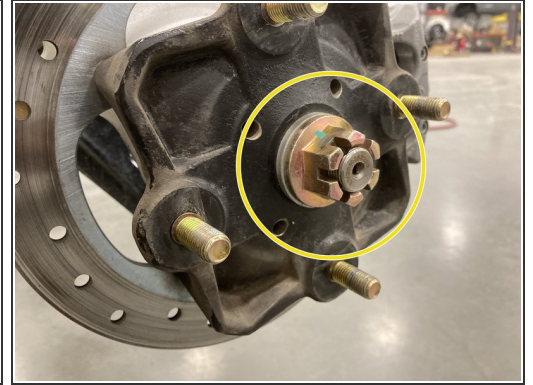
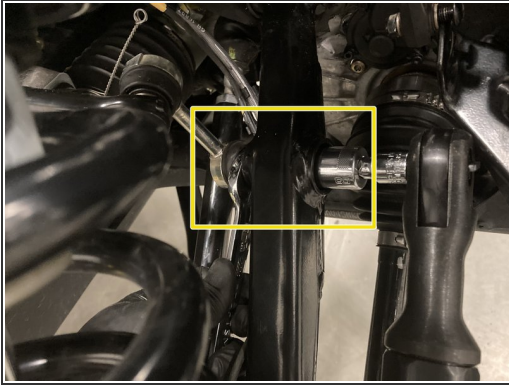
- (Image 1) Remove the upper radiator bolts.
- (Image 2 and 3) Remove the lower radiator bolts.
- ⓘ Do not loose the spacers in the center of the radiator mount bushings. These tend to fall out.

## Step 11 — Prepare to Remove the Shocks



- (Image 1) Remove the nuts from the upper shock mounts at the frame.
- (Image 2) Remove the nuts from the shock mounts at the a-arm.
- Do not remove the shocks at the this time.

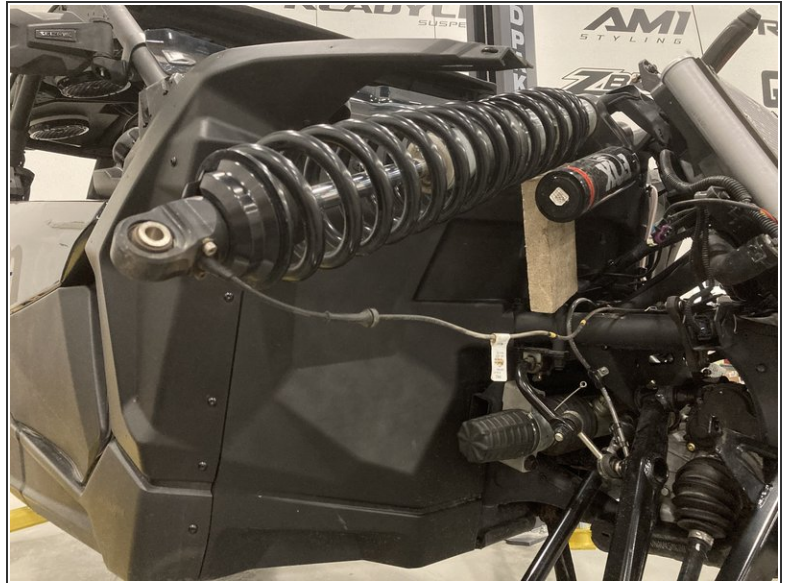
## Step 12 — Remove Sway Bar Links and CV Nuts



- (Image 1) Remove the sway bar links from the upper control arms.
  - ⓘ The nut is hidden inside the control arm.
  - ⓘ Use a 19mm wrench (preferably a thin wrench) to hold the link shaft from spinning while removing the nut.
- (Image 2) Remove the cotter pin retaining the nut on the CV shaft.
- (Image 3) Remove the nut from the CV shaft.
- ⓘ Perform these steps on both sides of the vehicle.



## Step 13 — Remove the Shocks



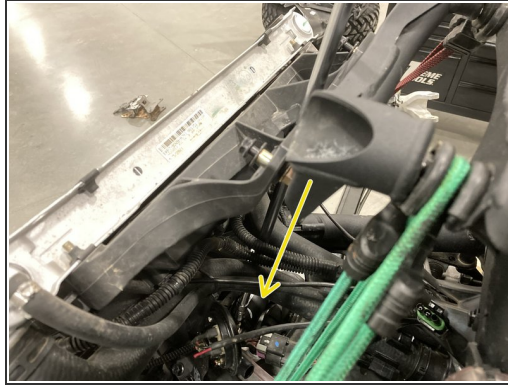
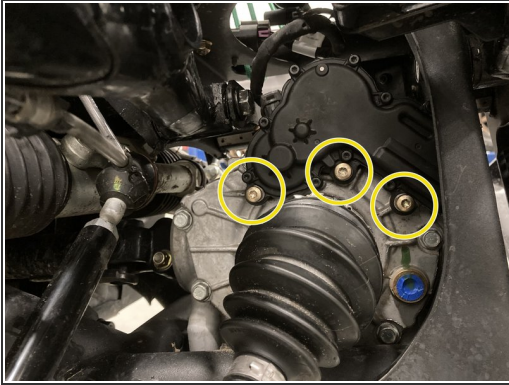
- (Image 1) Remove the lower shock bolt and gently lower the suspension.

**⚠** If equipped with Smart-Shox, take care not to damage the wire near the lower shock mount and control arm.

**⚠** Take care not to damage the CV shaft as the suspension is lowered with the shock removed.

- (Image 2) Remove the upper shock bolt.
- Remove the shock.
- i** Perform these steps on both sides of the vehicle.

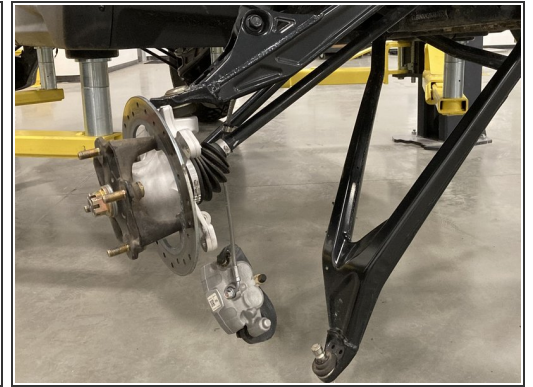
## Step 14 — (If Equipped) Remove the Smart-Lok



- (Image 1) Remove the three bolts around the face of the Smart-Lok mechanism.
- (Image 2) Remove the single bolt on the left side of the Smart-Lok mechanism.
  - ⓘ This bolt is easily accessible using a long extension reaching down from the radiator.
- Unplug the Smart-Lok mechanism from the harness.
  - ⚠ Remove any dirt and grime surrounding the Smart-Lok mechanism before removing the unit from the differential.
- (Image 3) Remove the mechanism from the vehicle.

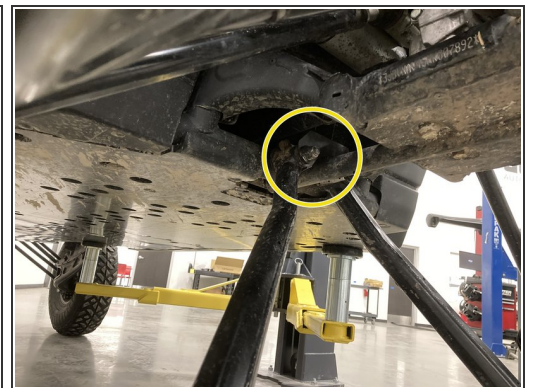
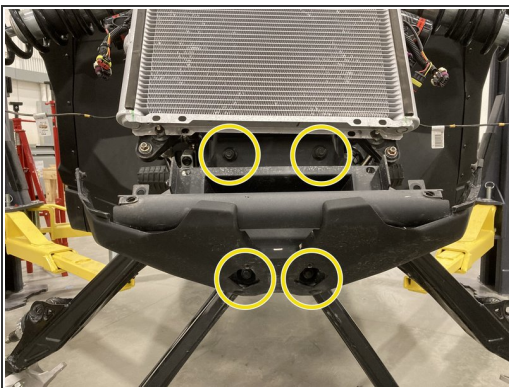


## Step 15 — Support the Suspension



- (Image 1) Using some sort of strap and the factory shock bolts in the factory location to support the suspension.
  - (Image 2) Remove the lower ball joint nut and bolt.
  - (Image 3) Let the lower control arm hang free from the knuckle.
- i** Perform these steps on both sides of the vehicle.

## Step 16 — Remove the Control Arm Nuts



- (Image 1) Remove the four nuts holding the front side of the upper and lower control arms. **Discard the factory nuts.**
- (Image 2) Remove the rear upper control arm nuts. **Discard the factory nuts.**
- (Image 3) Remove the rear lower control arm nuts. **Discard the factory nuts.**

## Step 17 — Remove the Upper Control Arms



- (Image 1) Remove the front bumper/bulkhead.
- (Image 2) Slide the lower control arms off the bolts and set them on the ground.
- ⚠ (Image 3) Take care not to damage the silver thrust washers mounted around the control arm bushings.

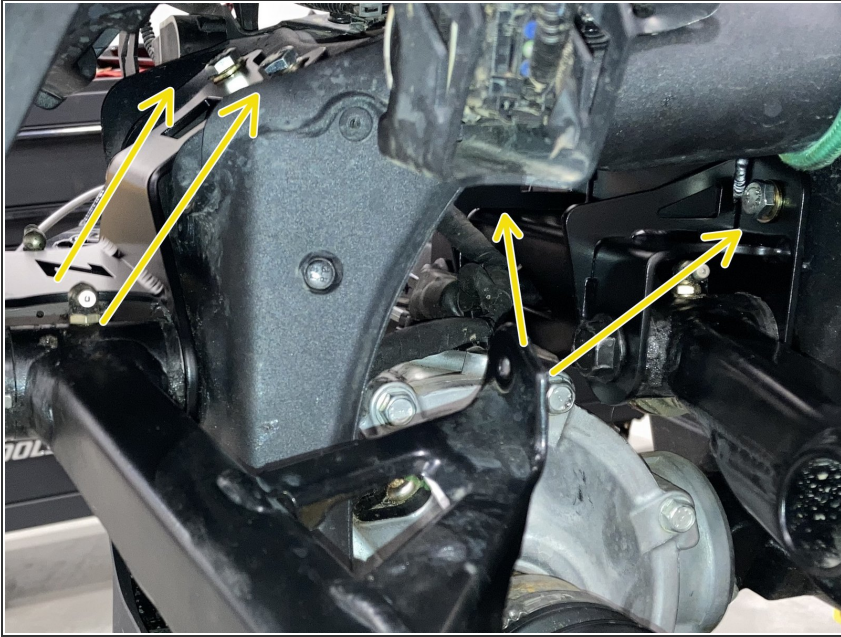
## Step 18 — Remove the Upper Control Arms



- (Image 1) Gently remove the upper control arm bolts front and rear.
- ⓘ The upper control arms should balance in that position with the bolts removed.
- ⓘ (Image 2) Take care not to damage the thin thrust washers that wrap around the bushings as these will be used during install.
- (Image 3) Discard the shims and brackets that were removed from the upper and lower control arms.



## Step 19 — Install Upper Control Arm Gussets

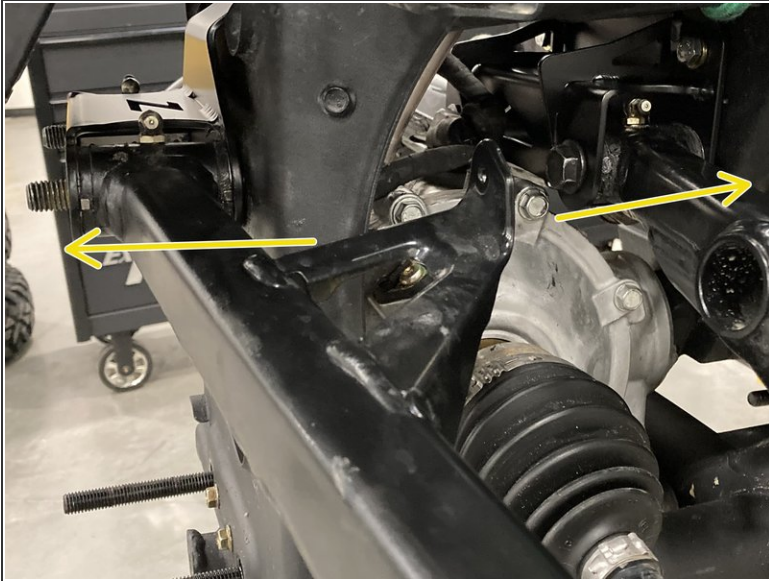


- Install the supplied front and rear upper gussets. Put the supplied bolt and washer through the gusset and frame followed by a washer and nut on the back side.

**⚠ DO NOT TIGHTEN AT THIS TIME!**

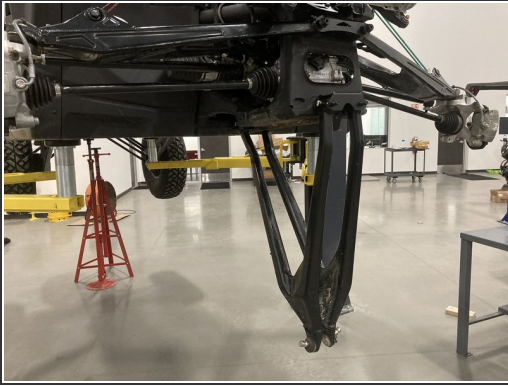
**i** Two bolts per bracket.

## Step 20 — Install the Upper Control Arms



- (Image 1) Slip the upper control arms in between the new gussets.
  - ⚠ (Image 2) Be careful not to damage the silver thrust washers around the bushings.
- (Image 1) Insert the front bolts facing forward.
  - ⓘ Do not install the nuts at this time.
- (Image 1) Insert the rear bolts facing rearward.
- Install the supplied nuts on the back side.
  - ⓘ Do not tighten at this time.
- ⓘ Perform these steps on both sides of the vehicle.

## Step 21 — Prepare the Lower Control Arms



- (Image 1) Install the lower control arms and gussets.
  - ❗ The step is easier with the help of another person.
  - ❗ (Image 2 and 3) **PRO TIP** Lay the control arms on the ground and place the gussets over the control arms and thrust washers.
  - ❗ (Image 2 and 3) **PRO TIP** Use the bolts from the lower ball joints to hold the front gusset on the arms and a third bolt to hold the gusset on one of the rear bushings.

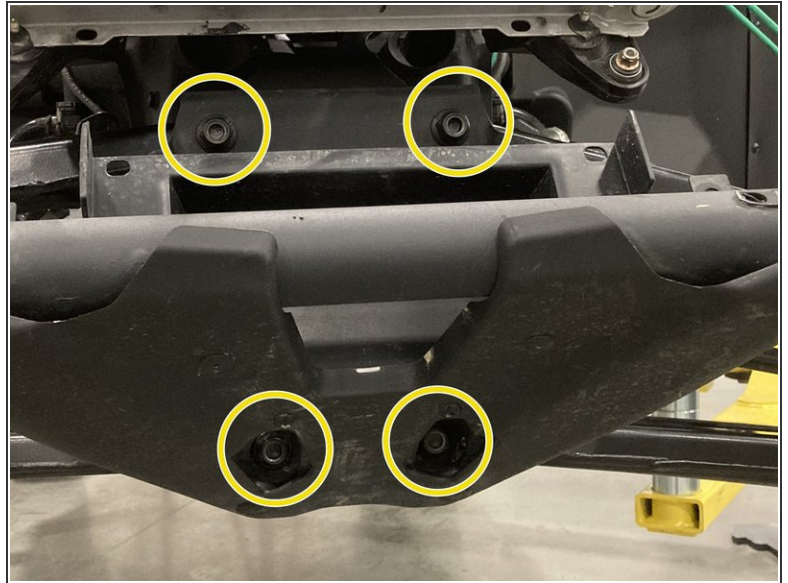
## Step 22 — Install the Lower Control Arms



- (Image 1 and 2) Raise the control arms together and flip the rear gusset over the frame.
- (Image 3) Slide the control arms and gussets simultaneously over the factory bolts.



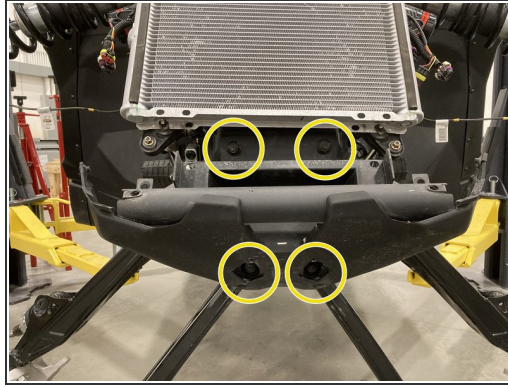
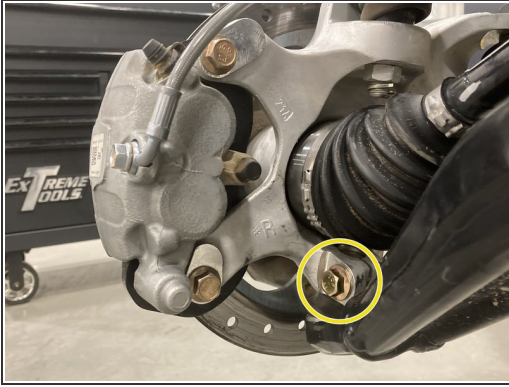
## Step 23 — Install the Bumper



- (Image 1) Install the supplied nuts on the rear bushings.
  - ⓘ Do not tighten at this time.
- (Image 2) Install the Bumper/Bulkhead over the upper and lower control arms and gussets and install the four supplied nuts.
  - ⓘ Do not tighten at this time.

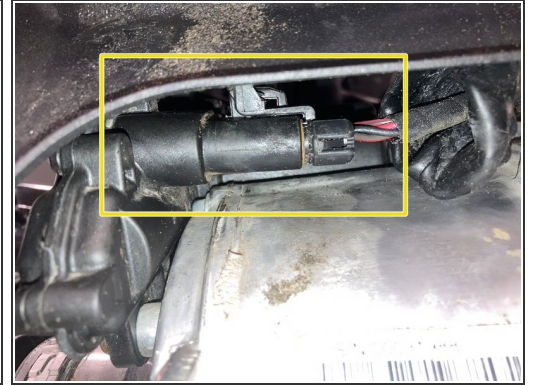
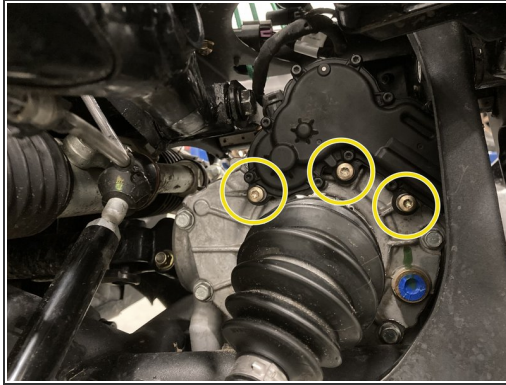


## Step 24 — Install Ball Joint, Torque the arms



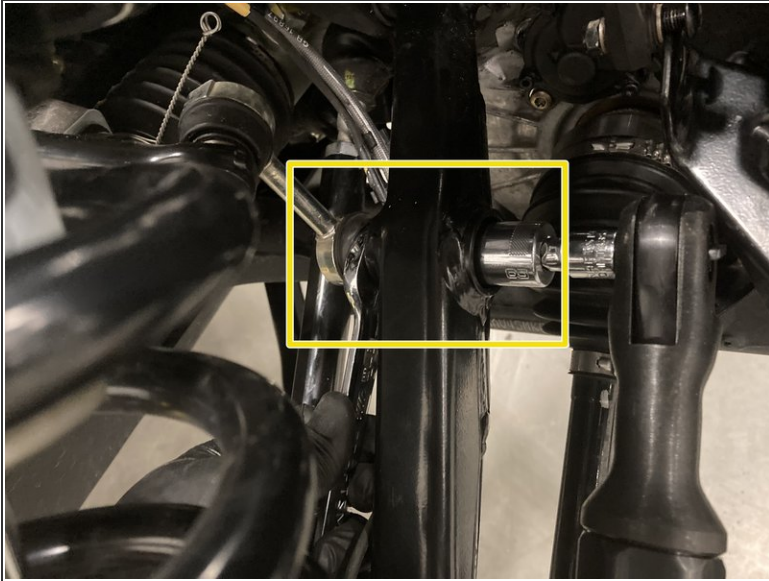
- Connect the lower control arm (ball joint) with the knuckle.
  - (Image 1) 35 lbf-ft
- Tighten the 4 control arms (8 nuts supplied) at the frame mounts.
  - (Images 2 and 3) 77 lbf-ft

## Step 25 — Install the Smart-Lok Mechanism



- (Image 1) Install the Smart-Lok in the differential.
- (Image 2) Install the three bolts in the side of the Smart-Lok.
  - ⓘ Do not tighten at this time.
- Install the one bolt on the left side of the Smart-Lok.
  - (all 4 bolts) 90 lbf-in
- ⚠ **Note the torque rating- do not overtighten these screws.**
- (Image 3) Connect the plug on the Smart-Lok.

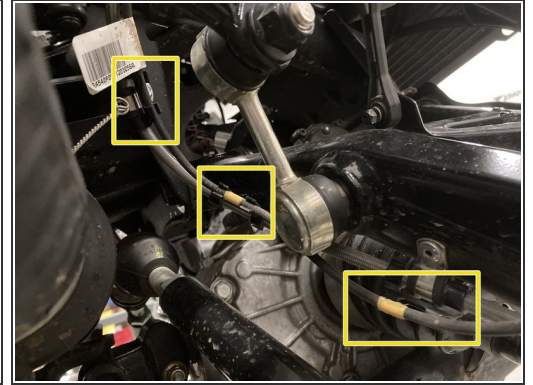
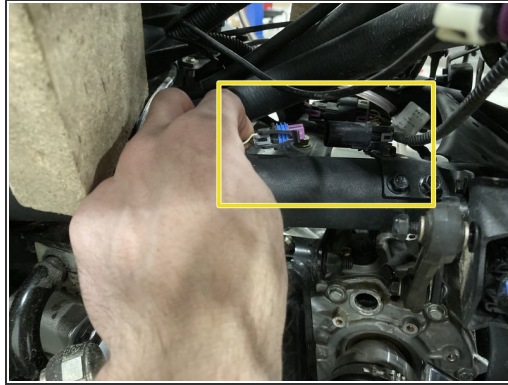
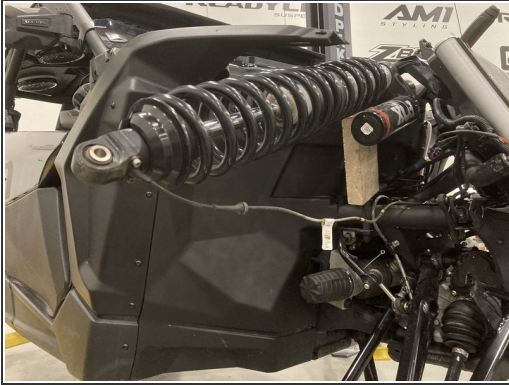
## Step 26 — Reassembly



- Attach the sway bar link to the control arm.
  - (Image 1) 52 lbf-ft
- If equipped with Smart-Shox, attach the sensor link on the front side of the upper control arms.
  - (Image 2) 90 lbf-in

 Do not over tighten these screws!

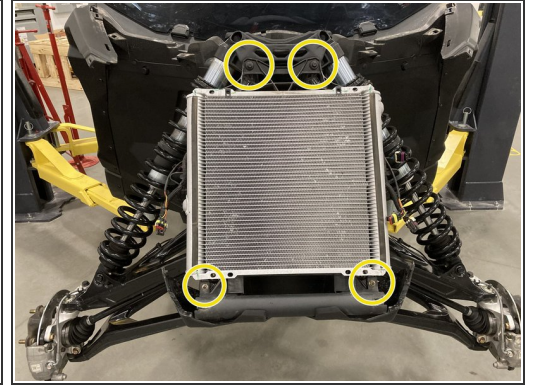
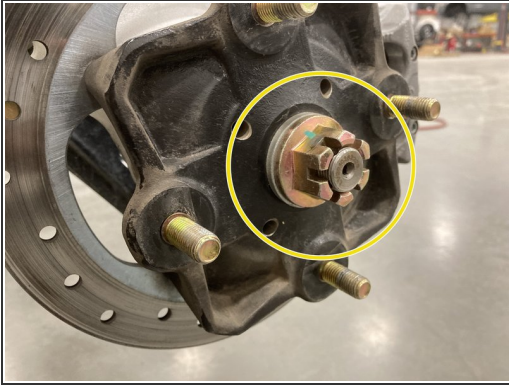
## Step 27 — Install the Coilovers



- (Image 1) Install the coilovers.
  - ⚠ If equipped with Smart-Shox, be careful not to damage the wire near the lower mounting bolt.
  - (Both coilover bolts) 77 lbf-ft
- (Image 2) If equipped with Smart-Shox, connect the electrical harness at the frame.
- (Image 3) If equipped with Smart-Shox, insert the harness in the retaining clips on the brake lines.

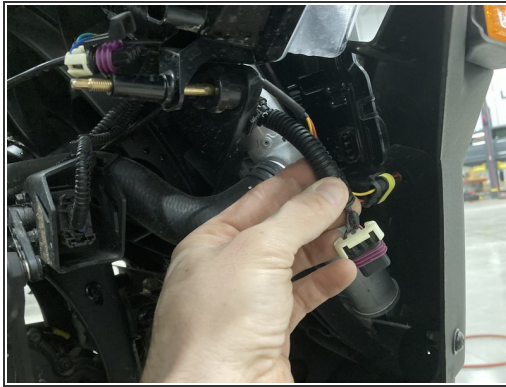
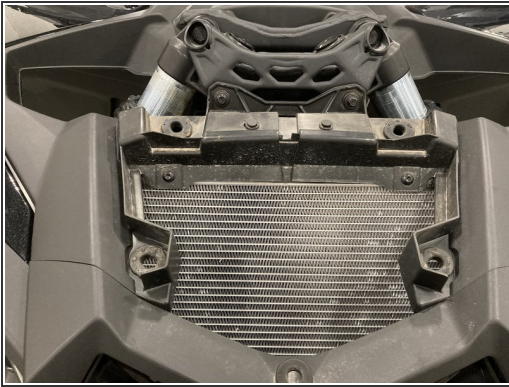


## Step 28 — Reassembly



- Install the CV axle washer dome faced out and retaining nut.
    - (Image 1) 184 lbf-ft
  - (Image 2) Tighten a little more if needed to align and install the cotter pin.
  - (Image 3) Install the 4 radiator mounting bolts.
- ⚠ Ensure the bushing spacers are present.
- 90 lbf-in
- ⚠ Do not over tighten these nuts.

## Step 29 — Install Fenders, Grill, Lights



- (Image 1) Install the plastics and headlights reversing the removal steps.
- (Image 2) Plug in the headlights and park lights.
- (Image 3) Snap the hood on.
- Replace the fuel cap cover.

## Step 30 — Finish Install



- Install the wheels.
- Torque to wheel manufacturer's specs. (89 lbf-ft for factory wheels and lug nuts)
- Lower the vehicle.



By installing this product, you acknowledge that this vehicle has been modified. As a result, this vehicle may handle differently than that of factory-equipped vehicles. As with any vehicle, extreme care must be used to prevent loss of control or roll-over during sharp turns or abrupt maneuvers. Always wear seat belts, and drive safely, recognizing that reduced speeds and specialized driving techniques may be required. Failure to drive this vehicle safely may result in serious injury or death. Do not drive this vehicle unless you are familiar with its unique handling characteristics and are confident of your ability to maintain control under all driving conditions. Some modifications (and combinations of modifications) are not recommended and may not be permitted in your state. Consult your owner's manual, the instructions accompanying this product, and state laws before undertaking these modifications. You are responsible for the legality and safety of the vehicle you modify using these components.