



C2322 Installation Instructions 2023-24 Chevy Colorado ZR2 2023-24 GMC Canyon AT4X Adventure Series Upper Control Arm

Read and understand all instructions and warnings prior to installation of product and operation of vehicle.

Zone Offroad Products recommends this system be installed by a professional technician. In addition to these instructions, professional knowledge of disassembly/ reassembly procedures and post installation checks must be known. Minimum tool requirements include the following: Assorted metric and standard wrenches, hammer, hydraulic floor jack and a set of jack stands. See the "Special Tools Required" section for additional tools needed to complete this installation properly and safely.

» PRODUCT SAFETY WARNING

Certain Zone Suspension Products are intended to improve off-road performance. Modifying your vehicle for off-road use may result in the vehicle handling differently than a factory equipped vehicle. Extreme care must be used to prevent loss of control or vehicle rollover. Failure to drive your modified vehicle safely may result in serious injury or death. Zone Offroad Products does not recommend the combined use of suspension lifts, body lifts, or other lifting devices.

You should never operate your modified vehicle under the influence of alcohol or drugs. Always drive your modified vehicle at reduced speeds to ensure your ability to control your vehicle under all driving conditions. Always wear your seat belt.

» TECHNICAL SUPPORT

Live Chat provides instant communication with Zone tech support. Anyone can access live chat through a link on www.zoneoffroad.com.

www.zoneoffroad.com may have additional information about this product including the latest instructions, videos, photos, etc.

Send an e-mail to tech@zoneoffroad.com detailing your issue for a quick response.

888.998.ZONE Call to speak directly with Zone tech support.

» PRE-INSTALLATION NOTES

1. Special literature required: OE Service Manual for model/year of vehicle. Refer to manual for proper disassembly/reassembly procedures of OE and related components.
2. Adhere to recommendations when replacement fasteners, retainers and keepers are called out in the OE manual.
3. Larger rim and tire combinations may increase leverage on suspension, steering, and related components. When selecting combinations larger than OE, consider the additional stress you could be inducing on the OE and related components.
4. Post suspension system vehicles may experience drive line vibrations. Angles may require tuning, slider on shaft may require replacement, shafts may need to be lengthened or trued, and U-joints may need to be replaced.
5. Secure and properly block vehicle prior to installation of Zone Offroad Products. Always wear safety glasses when using power tools.
6. If installation is to be performed without a hoist, Zone Offroad Products recommends rear alterations first.
7. 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 attitude. Always measure the attitude prior to beginning installation.

Difficulty Level

easy 1 **2** 3 4 5 difficult

Estimated installation: 2 hours

Special Tools Required

CH-42188-B - Ball Joint Separator

Tire/Wheel Fitment

12.50 or 315 wide tires on stock backspacing is the widest tire that will work. A further offset wheel than stock will also work for these tire widths.

IMPORTANT

It is required that ride height measurements be taken before and after installation. Measure from the **WHEEL AXLE CENTER** up to the **FENDER LIP** of the wheel opening. Do this for all 4 wheels. Record measurements below.**

BEFORE:

LF _____ *RF* _____ *LR* _____

RR _____

AFTER:

LF _____ *RF* _____ *LR* _____

RR _____



***These ride heights will be required if you have any ride height concerns after installation. Please be prepared to provide these to Technical Support.*

Kit Contents

Important Verify you have all of the kit components before beginning installation.

Qty	Part
1	Driver Side Upper Control Arm Assembly
2	Rubber Bushings
1	Ball Joint
1	Driver Side Upper Control Arm
1	Passenger Side Upper Control Arm Assembly
2	Rubber Bushings
1	Ball Joint
1	Passenger Side Upper Control Arm
2	Ball Joint Caps
2	O-Ring
8	Oval Fir Tree Zip Ties
1	Multi Purpose Grease Packer

INSTALLATION INSTRUCTIONS

PRE-INSTALLATION

1. Park vehicle on clean and level surface. Block the rear wheels for safety.
2. Measure the ride height of the vehicle from the center of the wheel to the fender and record.

Step 2 Note:

It is critical to measure and record the vehicle ride height before modifying or lifting the vehicle.

DISASSEMBLY INSTRUCTIONS

1. Raise the front of the vehicle with a hydraulic jack. Support the frame rails with jack stands and allow the front suspension to droop.
2. Remove the front wheels.
3. Remove the nut from the sway bar links attaching it to the steering knuckle. Remove the sway bar link stud from the steering knuckle. Save nut for later installation **Figure 1**



Figure 1

Perform the following installation steps on one side at a time.

4. Disconnect the ABS wire from steering knuckle and upper control arm to gain additional slack. Retain OE hardware from the steering knuckle for later installation **Figure 2**

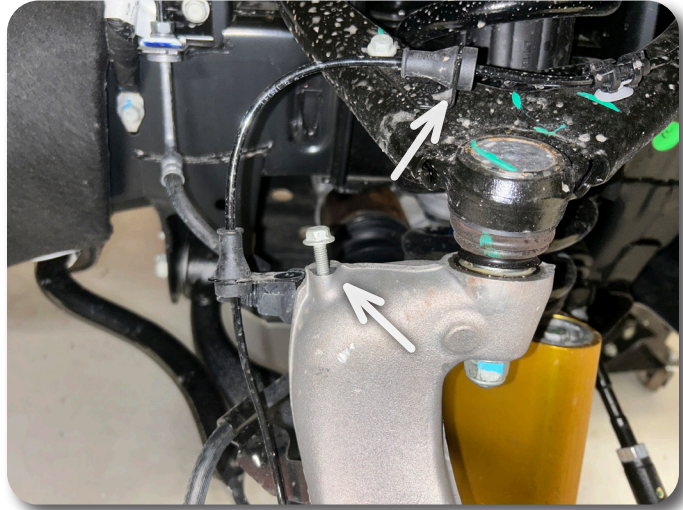


Figure 2

5. Disconnect the three ABS wire mount clips from the upper control arm completely in order to gain additional slack to remove the strut assembly. **Figure 3**

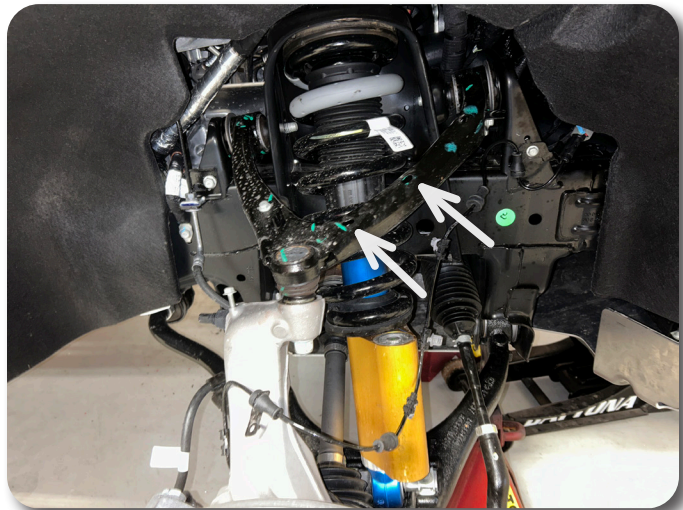


Figure 3

6. Remove the tie rod nut and thread it on until flush with the end of the ball joint. Use a CH-42188-B - Ball Joint Separator to separate the outer tie rod from the steering knuckle. Save nut for later installation. **Figure 4**

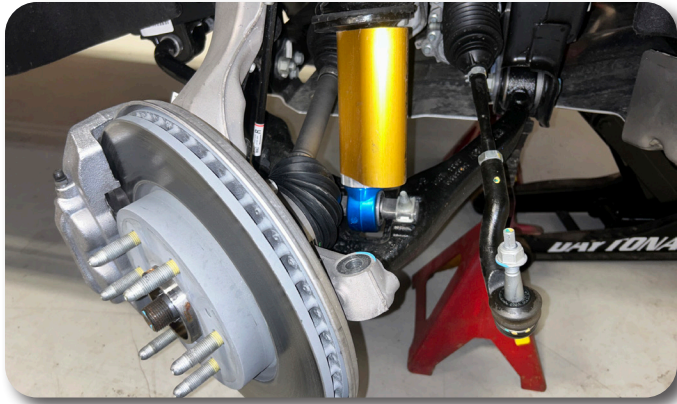


Figure 4

7. Remove the upper ball joint nut and thread it on until flush with the end of the ball joint. Using a CH-42188-B - Ball Joint Separator, separate the upper control arm from the steering knuckle. Disconnect the ball joint and allow the knuckle to swing rearward out of the way. Save nut for later installation. Figure 5, 6



Figure 5

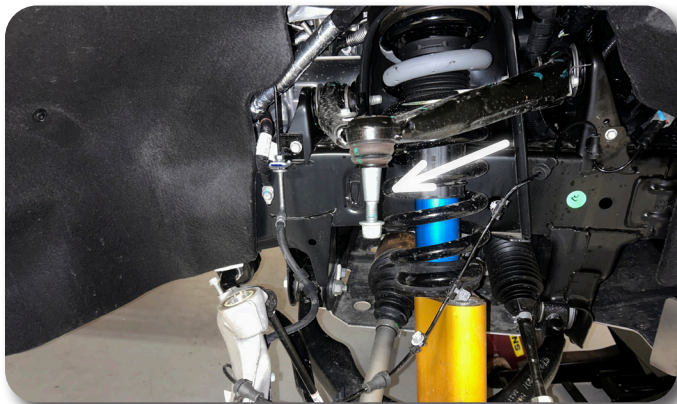


Figure 6

8. Disconnect any wire harness retainers from the upper strut mount nuts. Support the lower control arm with a hydraulic jack and remove the 3 upper nuts holding the top of the strut to the frame mount. DO NOT remove the center nut on the strut. Save hardware for later use.. Figure 7, 8, 9

Step 8 Note:

If needed, the fender liner may need to be removed for easier access to the three strut mount nuts..



Figure 7

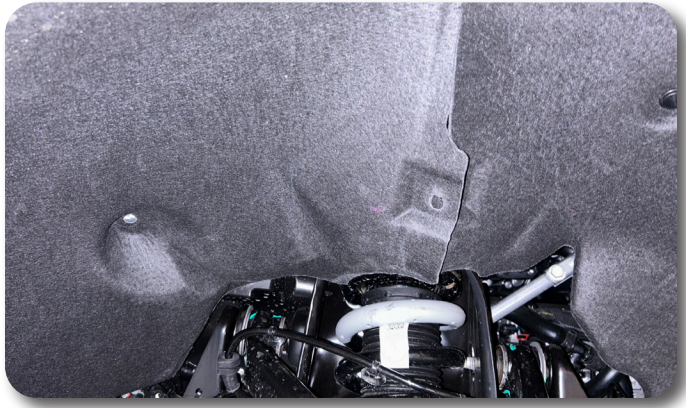


Figure 8

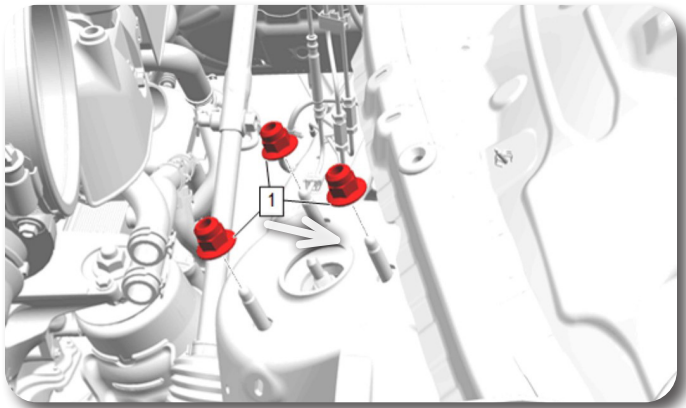


Figure 9

9. Remove the two lower strut bolt. Save hardware for later installation Figure 10



Figure 10

10. Using the jack, lower the control arm and knuckle enough to remove the strut, being careful not to overextend any lines or the CV shaft.

Step 10 Note:
If needed, remove the nut attaching the CV shaft.

UPPER CONTROL ARM INSTALLATION

11. Remove the two bolts attaching the OE upper control arm to the frame. Figure 11



Figure 11

12. Install the new Zone Offroad Adventure Series Upper Control arm to the OE mounts using the OE hardware. Leave hardware loose at this time. Figure 12



Figure 12

13. Temporarily install the upper control arm to the steering knuckle. Using a jack, raise the upper control arm and steering knuckle assembly to the ride height desired. Figure 13

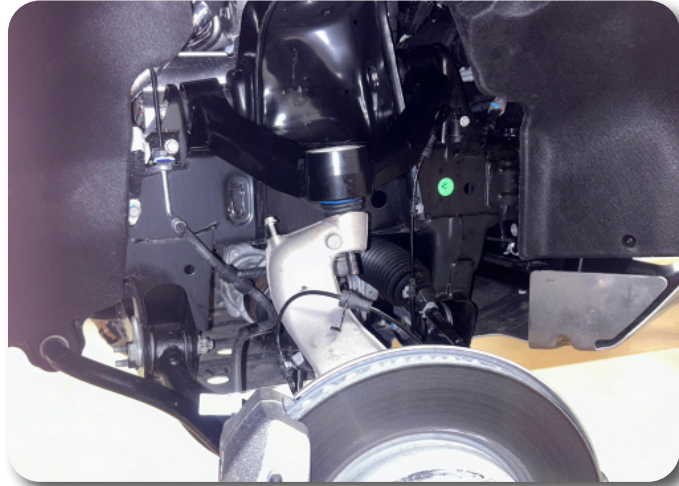


Figure 13

14. The desired ride height is dependent upon what the upper control arms are being paired with. If upgrading an existing lift to this upper control arms, set the hub to fender ride height the same as the initial ride height measurements. If these upper control arms are being installed with a new lift, use the initial ride height measurement and add the amount of lift being installed with the upper control arms. (Example: Intial ride height is 23-1/2" and a 3" lift is being added, set the ride height at 26-1/2".) Figure 14



Figure 14

15. With the ride height set to the proper height, torque the OE bushing hardware to 118 ft-lbs.
16. Remove the upper ball joint from the steering knuckle at this time. The knuckle assembly can now be lowered for strut installation.

FRONT INSTALLATION - CONTINUED

If installing at the same time as a lift, follow lift instructions at this time.

17. Loosely re-install the strut with the hardware removed previously.
18. Raise the lower control arm and install the lower mount hardware. Tighten the two lower strut bolts to 37 ft-lbs.
19. Torque the upper strut mount nuts to 39 ft-lbs.
20. Re-connect the upper ball joint to the steering knuckle. Torque the upper ball joint nut with a first pass to 30 ft-lbs and a final pass of 60-75 degrees. **Figure 15**



Figure 15

21. Re-connect the tie rod to the steering knuckle, Torque the tie rod nut with a first pass to 26 ft-lbs and a final pass of 90-105 degrees. **Figure 16**

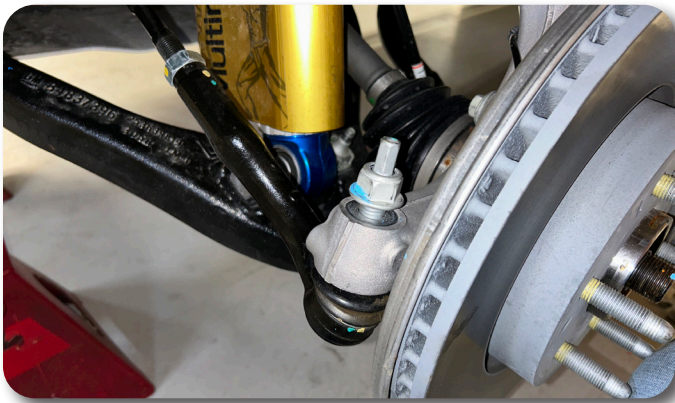


Figure 16

22. Complete the upper control arm installation procedure on the other side at this time.
23. Reattach the sway bar links to the steering knuckles and tighten the nut to 118 ft-lbs.
24. Re-install the brake line brackets and ABS wire clips to the upper control arm using the provided oval fir tree zip ties. **Figure 17**

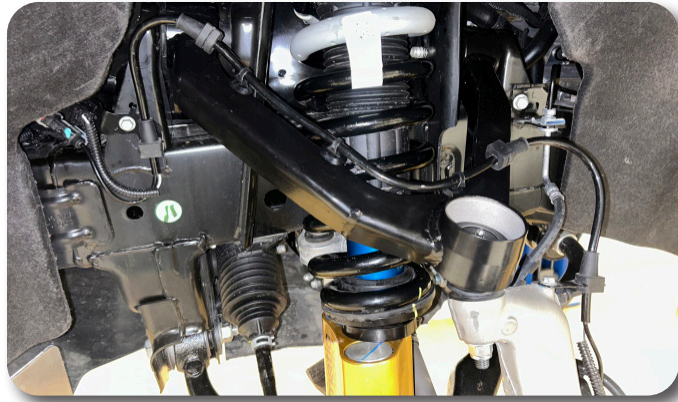


Figure 17

25. Reattach the ABS wire mount to the steering knuckle and torque to 80in-lbs.
26. Grease the ball joint at this time with 3-4 pumps. Do NOT overgrease the ball joint. Install the o-ring onto the black ball joint cap. Lightly grease the o-ring using the grease packet provided and install the cap onto the control arm by lightly tapping it down with a rubber mallet.
27. Install the tires and lower the vehicle to the ground, bounce the front end to settle the suspension.

Post Installation

1. Check all hardware for proper torque.
2. Check hardware after 500 miles.
3. Adjust headlights.
4. A front end alignment must now be performed to original equipment specifications.
5. At regular maintenance intervals make sure the upper ball joint is greased (3-5,000 miles). The grease fitting can be accessed using a flathead screwdriver and removing the cap from the ball joint cup.

Post-Installation Warnings

1. Check all fasteners for proper torque. Check to ensure for adequate clearance between all rotating, mobile, fixed, and heated members. Verify clearance between exhaust and brake lines, fuel lines, fuel tank, floor boards and wiring harness. Check steering gear for clearance. Test and inspect brake system.
2. Perform steering sweep to ensure front brake hoses have adequate slack and do not contact any rotating, mobile or heated members. Inspect rear brake hoses at full extension for adequate slack. Failure to perform hose check/ replacement may result in component failure.
3. Perform head light check and adjustment.
4. Re-torque all fasteners after 500 miles. Always inspect fasteners and components during routine servicing.



C1310 Installation Instructions 2023-24 Chevy Colorado ZR2 2023-24 GMC Canyon AT4X 3" Strut Spacer and Perch Collar Lift Kit

Read and understand all instructions and warnings prior to installation of product and operation of vehicle.

Zone Offroad Products recommends this system be installed by a professional technician. In addition to these instructions, professional knowledge of disassembly/ reassembly procedures and post installation checks must be known. Minimum tool requirements include the following: Assorted metric and standard wrenches, hammer, hydraulic floor jack and a set of jack stands. See the "Special Tools Required" section for additional tools needed to complete this installation properly and safely.

»» PRODUCT SAFETY WARNING

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You should never operate your modified vehicle under the influence of alcohol or drugs. Always drive your modified vehicle at reduced speeds to ensure your ability to control your vehicle under all driving conditions. Always wear your seat belt.

»» TECHNICAL SUPPORT

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www.zoneoffroad.com may have additional information about this product including the latest instructions, videos, photos, etc.

Send an e-mail to tech@zoneoffroad.com detailing your issue for a quick response.

888.998.ZONE Call to speak directly with Zone tech support.

»» PRE-INSTALLATION NOTES

1. Special literature required: OE Service Manual for model/year of vehicle. Refer to manual for proper disassembly/reassembly procedures of OE and related components.
2. Adhere to recommendations when replacement fasteners, retainers and keepers are called out in the OE manual.
3. Larger rim and tire combinations may increase leverage on suspension, steering, and related components. When selecting combinations larger than OE, consider the additional stress you could be inducing on the OE and related components.
4. Post suspension system vehicles may experience drive line vibrations. Angles may require tuning, slider on shaft may require replacement, shafts may need to be lengthened or trued, and U-joints may need to be replaced.
5. Secure and properly block vehicle prior to installation of Zone Offroad Products. Always wear safety glasses when using power tools.
6. If installation is to be performed without a hoist, Zone Offroad Products recommends rear alterations first.
7. 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 attitude. Always measure the attitude prior to beginning installation.

Difficulty Level

easy 1 2 **3** 4 5 difficult

Estimated installation: 4-5 hours

Special Tools Required

CH-42188-B - Ball Joint Separator

Tire/Wheel Fitment

315/70R17 - Stock Wheels

35x12.5R17 - Stock Wheels

35x12.5R17, w/ 17x8.5 and 4.75 to 5" Backspacing *

35x12.5R20, w/ 20x9 and 5" Backspacing *

*Trimming may be required

IMPORTANT

It is required that ride height measurements be taken before and after installation. Measure from the **WHEEL AXLE CENTER** up to the **FENDER LIP** of the wheel opening. Do this for all 4 wheels. Record measurements below.**

BEFORE:

LF _____ *RF* _____ *LR* _____ *RR* _____

AFTER:

LF _____ *RF* _____ *LR* _____ *RR* _____



***These ride heights will be required if you have any ride height concerns after installation. Please be prepared to provide these to Technical Support.*

Kit Contents

Important Verify you have all of the kit components before beginning installation.

Qty	Part	Qty	Part
2	Upper Strut Spacer	1	BP1076 Bolt Pack
2	Lower Strut Spacer	4	10mm Washer
2	Perch Collar Spacers	6	10mm-1.50 Top Lock Flange Nut
2	5/8" Differential Drop Spacer	4	10mm-1.50 x 85mm Hex Head Bolt
5	1/4" Skid Plate Spacer Washer	6	14mm Washer
2	2" Lift Block	2	14mm-2.00 Nut
2	Rear Shock Relocation Bracket	2	14mm-2.00 x 110mm Hex Head Bolt
4	9/16" x 10" U-Bolts	2	14mm-2.00 x 80mm Hex Head Bolt
		2	3/8"-16 Nut
		2	3/8"-16 x 1" Hex Head Bolt, Grade 8, Clear Zinc
		5	5/16" Thick Fender Washer
		4	5/16" USS Washer,
		5	8mm-1.25 x 30mm Hex Head Bolt,
		8	9/16" SAE Washer
		8	9/16"-18 High Nut

INSTALLATION INSTRUCTIONS

PRE-INSTALLATION

1. Park vehicle on clean and level surface. Block the rear wheels for safety.
2. Measure the ride height of the vehicle from the center of the wheel to the fender and record.

DIFFERENTIAL DROP INSTRUCTIONS

1. Raise the front of the vehicle with a hydraulic jack. Support the frame rails with jack stands and allow the front suspension to droop.
2. Remove the front wheels.
3. Remove the five OE skid plate bolts. The hardware can be discarded. **Figure 1**



Figure 1

4. One side at a time, remove the 14mm bolt attaching the differential to the frame.
Figure 2

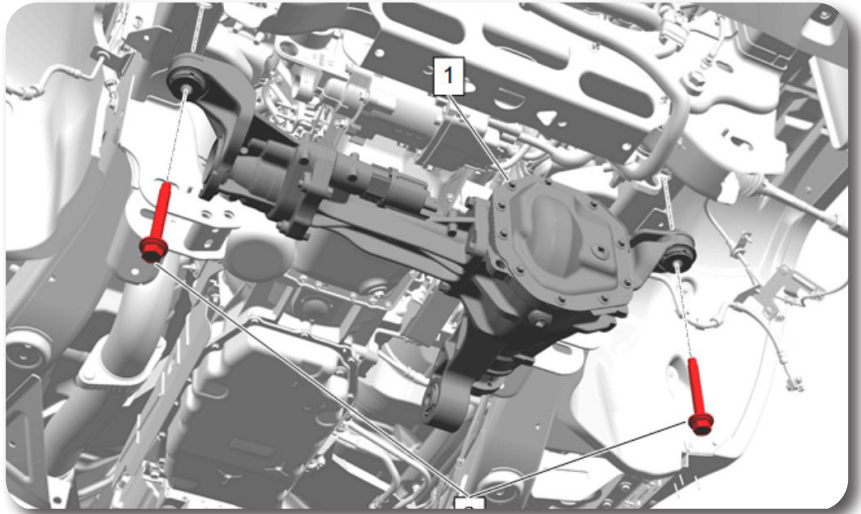


Figure 2

Step 5 Note:

The opposite side differential mounting bolt may need to be loosened to fit the spacer between the frame and differential..

Step 5 Note:

The 14mm x 110mm bolts and 14mm washers are in in bolt pack BP1076.

5. Install the provided 5/8" tall differential drop spacer between the frame and the differential. Use the provided 14mm x 110mm bolt and a 14mm washer with thread locker to attach the differential with spacer to the frame. Repeat this procedure on the opposite side of the vehicle. Figure 3



Figure 3

Step 7 Note:

The 8mm x 30mm bolts and 5/16" thick washers are in bolt pack BP1076.

6. Torque the 14mm differential drop hardware to 118 ft-lbs.
7. Re-install the OE skid plate using the five provided 1/4" tall spacer washers between the skid plate and the frame. Use the provided 8mm x 30mm bolts and 5/16" thick washer to attach the skid plate to the frame. Torque this 8mm hardware to 16 ft-lbs. Figure 4



Figure 4

DISASSEMBLY INSTRUCTIONS

8. Remove the nut from the sway bar links attaching it to the steering knuckle. Remove the sway bar link stud from the steering knuckle. Save nut for later installation Figure 5



Figure 5

Perform the following installation steps on one side at a time.

9. Disconnect the ABS wire from steering knuckle and upper control arm to gain additional slack. Retain OE hardware from the steering knuckle for later installation Figure 6

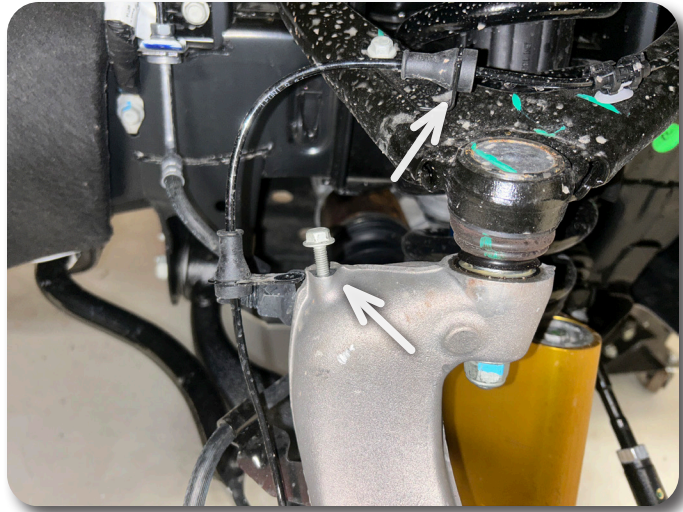


Figure 6

10. Disconnect the three ABS wire mount clips from the upper control arm completely in order to gain additional slack to remove the strut assembly. The ABS wire will need to re-mount to these wire mount clips. Figure 7

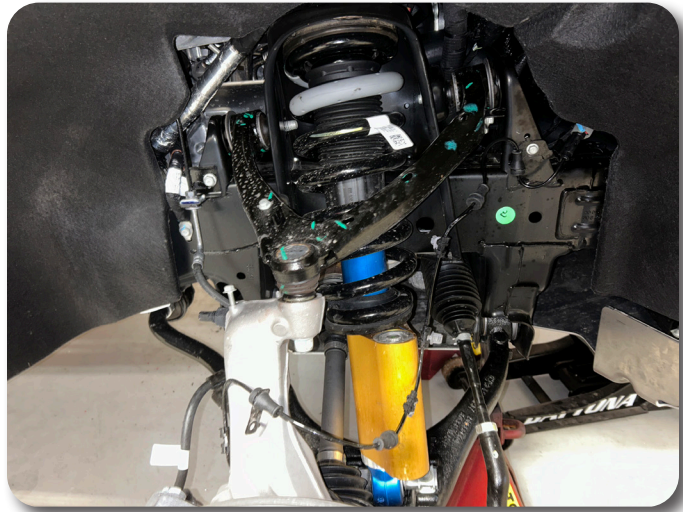


Figure 7

11. Remove the tie rod nut and thread it on until flush with the end of the tie rod. Use a CH-42188-B - Ball Joint Separator to separate the outer tie rod from the steering knuckle. Save nut for later installation. Figure 8

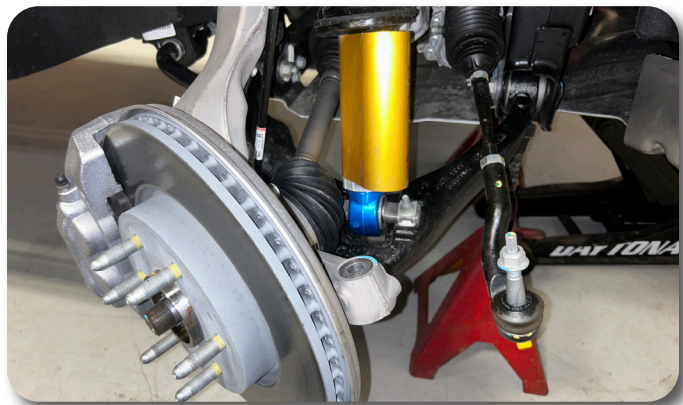


Figure 8

12. Remove the upper ball joint nut and thread it on until flush with the end of the ball joint. Using a CH-42188-B - Ball Joint Separator, separate the upper control arm from the steering knuckle. Disconnect the ball joint and allow the knuckle to swing rearward out of the way. Discard ball joint nut. **Figure 9, 10**

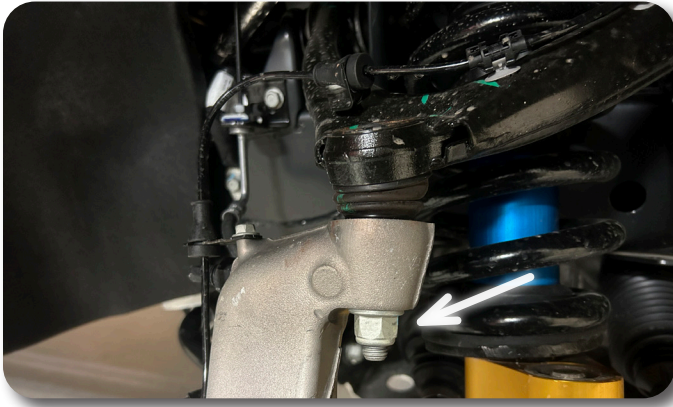


Figure 9

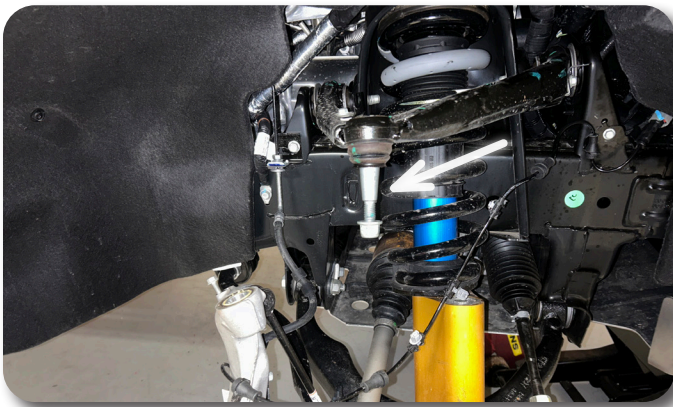


Figure 10

13. Disconnect any wire harness retainers from the upper strut mount nuts. Support the lower control arm with a hydraulic jack and remove the 3 upper nuts holding the top of the strut to the frame mount. **DO NOT** remove the center nut on the strut. Discard nuts, these will not be re-used. **Figure 11, 12, 13**



Figure 11

Step 13 Note:

If needed, the fender liner may need to be removed for easier access to the three strut mount nuts..



Figure 12

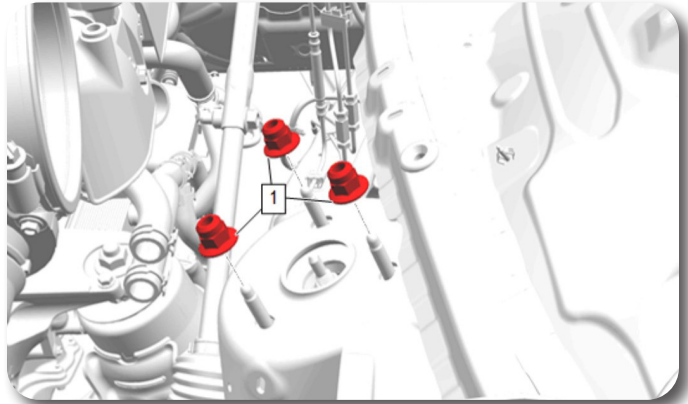


Figure 13

14. Remove the two lower strut bolts. Discard these bolts, they will not be re-used
Figure 14

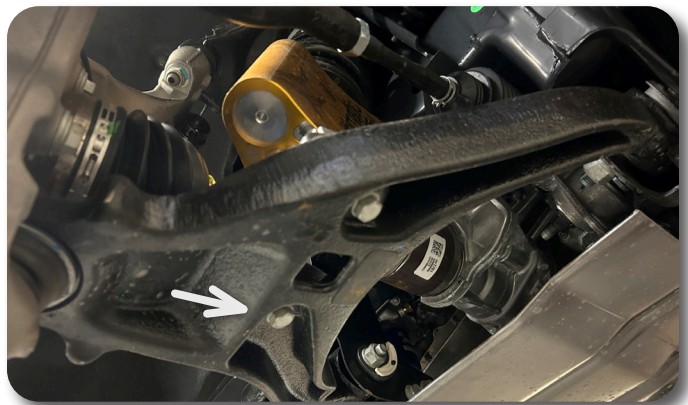


Figure 14

Step 15 Note:

If needed, remove the nut attaching the CV shaft.

15. Using the jack, lower the control arm and knuckle enough to remove the strut, being careful not to overextend any lines or the CV shaft.
16. Follow the Zone Offroad upper control arm instructions at this time.

STRUT SPACER AND PERCH COLLAR INSTALLATION

17. Mark the strut upper mount to coil spring and coil spring to strut for orientation when re-assembling the strut. Figure 15

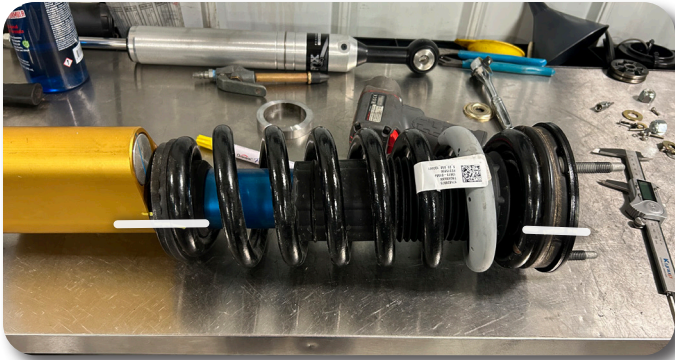


Figure 15

- Using a strut compressor, compress the coil spring and remove the upper strut mount center nut. Disassemble the strut to the point as shown in the figures below. Figure 16, 17



Figure 16



Figure 17

- Remove the strut seal dust cap and lower spring seat. Figure 18, 19



Figure 18



Figure 19

20. Install the 1/2" tall lower spring seat perch collar onto the strut. It may need to be tapped down the body to seat flush on the bottom surface. Figure 20



Figure 20

21. Re-install the lower spring seat on top of the perch collar and the strut seal dust cap. Re-assemble the strut using the factory upper spring mount lining up the marks made in the previous step. The strut will be re-assembled identical to a stock strut with the perch collar spacer in the shown location. Figure 21



Figure 21

22. Install the strut spacer onto the factory upper strut studs. Figure 22



Figure 22

STRUT INSTALLATION

23. Loosely re-install the strut with strut spacer to the frame with the provided 10mm locking flange nuts. Figure 23



Figure 23

24. Raise the lower control arm and install the lower strut spacer between the control arm and the strut. Install using the provided 10mm x 85mm bolts and 10mm washers. These will tighten to the OE nut clips on the lower barpin. Tighten the two lower strut bolts to 37 ft-lbs. Figure 24



Figure 24

25. Torque the upper strut mount nuts to 39 ft-lbs.
26. Re-connect the upper ball joint to the steering knuckle. Torque the upper ball joint nut with a first pass to 30 ft-lbs and a final pass of 60-75 degrees. Figure 25

Step 18 Note:

The 10mm top lock flange nuts are in in bolt pack BP1076.

Step 19 Note:

The 10mm x 85mm bolts and 10mm washers are in in bolt pack BP1076.

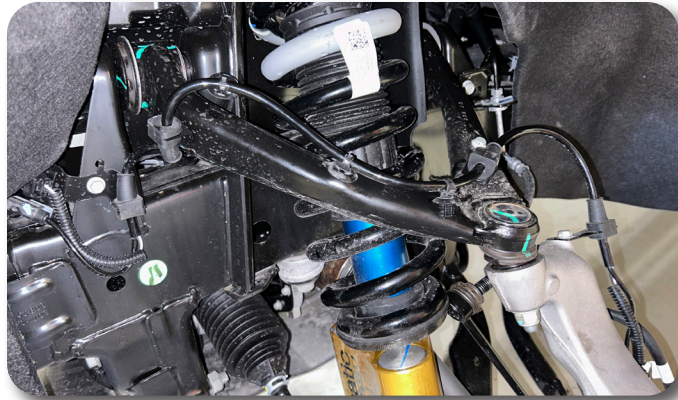


Figure 25

27. Re-connect the tie rod to the steering knuckle, Torque the tie rod nut with a first pass to 26 ft-lbs and a final pass of 90-105 degrees. Figure 26

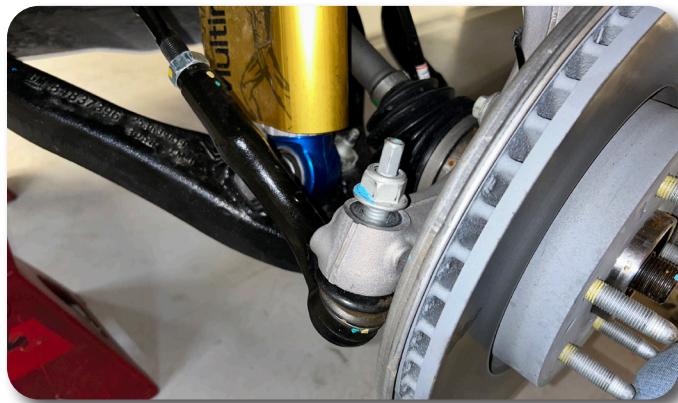


Figure 26

28. Complete the strut spacer installation procedure on the other side.
29. Reattach the sway bar links to the steering knuckles and tighten the nut to 118 ft-lbs.
30. Re-install the brake line brackets and ABS wire clips to the upper control arm. Do not attach the ABS wire to the upper control arm near the front bushing.
31. Reattach the ABS wire mount to the steering knuckle and torque to 80in-lbs.
32. Install the tires and lower the vehicle to the ground, bounce the front end to settle the suspension.

REAR INSTALLATION

1. Block the front tires.
2. Raise the rear of the vehicle with a hydraulic jack. Support the frame rails with jack stands and allow the rear suspension to droop.
3. Remove the rear wheels.

Perform the following installation steps on one side at a time.

4. Remove the lower shock bolt. Save hardware for later installation. Figure 27

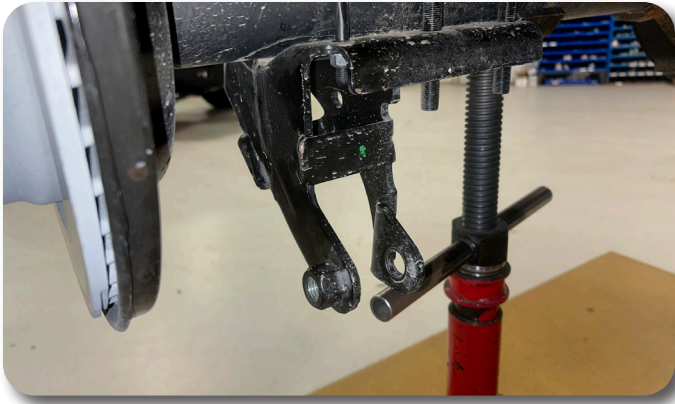


Figure 27

5. Remove the four U-bolt nuts and remove the U-bolts from the vehicle. The OE U-bolts and nuts can be discarded.
6. Lower the axle enough to install the 2" lift block between the leaf spring and the axle. The smaller side of the block should be placed towards the front of the vehicle.
7. Fasten the entire assembly with the provided U-bolts, washers, and high nuts. Snug but do not torque the U-bolts at this time. **Figure 28**



Figure 28

8. Repeat block installation of the driver's side. Take care not to over extend any OE brake or ABS lines.
9. Install the rear shock relocation to the rear lower shock mount using the OE lower shock mount bolt and the 1.4" spacer sleeve. The rear shock relocation will go towards the inside of the shock mount. Leave hardware loose. **Figure 29**

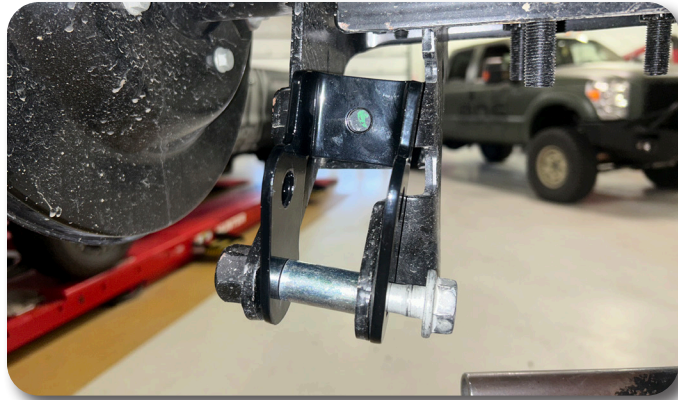


Figure 29

10. Mark and drill out the hole on the lower shock mount to 7/16". Figure 30



Figure 30

11. Install a 3/8" x 1" bolt, 5/16" USS washer, and 3/8" nut through the shock relocation bracket and the drilled hole in the lower mount. Tighten this hardware to 33 ft-lbs. Figure 31



Figure 31

Step 12 Note:

The rear axle may need to be raised up to attach the shocks to the axle.

12. Reinstall the OE shocks to the shock relocation bracket upper mounting hole using the provided 14mm x 80mm bolt, 14mm washers, and 14mm nut. Torque the OE shock mount bolt with the spacer sleeve to 65 ft-lbs. Do not torque the actual shock mount bolt until the vehicle is on the ground.
13. Repeat shock relocation bracket installation on both sides of the vehicle.
14. Install the tires and lower the vehicle to the ground, bounce the rear end to settle the suspension.

15. Torque the shock hardware with the provided 14mm bolt to 118 ft-lbs
16. Torque the U-bolt nuts to 100-120 ft-lbs.

POST INSTALLATION

1. Check all hardware for proper torque.
2. Check hardware after 500 miles.
3. Adjust headlights.
4. A front end alignment must now be performed to original equipment specifications.

Post-Installation Warnings

1. Check all fasteners for proper torque. Check to ensure for adequate clearance between all rotating, mobile, fixed, and heated members. Verify clearance between exhaust and brake lines, fuel lines, fuel tank, floor boards and wiring harness. Check steering gear for clearance. Test and inspect brake system.
2. Perform steering sweep to ensure front brake hoses have adequate slack and do not contact any rotating, mobile or heated members. Inspect rear brake hoses at full extension for adequate slack. Failure to perform hose check/ replacement may result in component failure.
3. Perform head light check and adjustment.
4. Re-torque all fasteners after 500 miles. Always inspect fasteners and components during routine servicing.