C2304 Installation Instructions
2021-2025 Chevy/GMC Tahoe/Suburban/ Yukon/Yukon XL
3" Strut Spacer / Preload 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

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

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

Send an e-mail to ***tech-zone@ridefox.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: 3-4 hours

Special Tools Required

Strut Compressor

Cut Off Wheel / Reciprocating Saw

Welder (Optional)

Tire/Wheel Fitment

Stock Wheels and Tires will require 1/4" Wheel Spacer to clear upper control arm.

Recommended: 295/60 20x9 w/ 6.18-5.5" BS

285/75 17X9 w/ 6.18-5" BS)

33/12.50 / 20x9; 5.5" BS (GMC)**

285/65 20x9 w/ 6.18-6.25" BS *

285/70 17X9 w/ 6.18-5" BS

305/55 20x10 w/ 6.18-5.5" BS

*Trimming may be required

**Trimming IS required

Kit Contents

Qty	Description
1	UCA - DRV - Zone
1	UCA - PASS - Zone
1	Sway Bar Drop - Driver's Side - Black
1	Sway Bar Drop - Passenger's Side - Black
2	Front Top Spacer
2	Rear Fabricated Top Spacer
2	Rear Preload Spacer
1	B1507 Bag Kit - UCA
	2 - Ball Joint Cap - Zone
	1 - 874 Bolt Pack
	3 - Wire Clamp
	2 - 1/4"-20 x 3/4" Bolt
	2 - 1/4"-20 Prevailing Torque Nut
	4 - 1/4" SAE Washer
	2 - 12mm-1.75 Nylock Nut
	1 - 640 Bolt Pack
	4 - 14mm-2.00 x 80mm Bolt
	4 - 14mm-2.00 Prevailing Torque Nut
	8 - 9/16" SAE Washer or 14mm Washer
	2 - O Ring
	1 - Multi Purpose Grease, Packet, 1cc
2	Steering Stop
1	BP1122 Bolt Pack (Front Strut Spacer)
1	B1722 Bag Kit
2	Front Preload Spacer

Qty	Description
	1 - 863 Bolt Pack
	4 - 7/16"-14 x 2-1/2" Bolt
	4 - 7/16"-14 Prevailing Torque Nut
	8 - 7/16" SAE Washer
	6 - 10mm-1.50 x 55mm Bolt
	6 - 10mm-1.50 x 50mm Bolt
	12 - 10mm-1.50 Prevailing Torque Nut
	12 - 3/8" USS Washer
1	422 Bolt Pack
	4 - 3/8"-16 x 1-1/4" Bolt
	4 - 3/8"-16 Prevailing Torque Nut
	8 - 3/8" USS Washer
1	BP 1116 Bolt Pack (Rear Top Spacers)
	6 - 10mm-1.5 x 35mm Fully Threaded Carriage Bolt
	6 - 10mm Round Push Nut
	6 - 10mm-1.50 Prevailing Torque Hex Nut
	6 - 10mm Flat Washer
1	768 Jeep JK Bolt Pack
	2 - 1/4"-20 x 3/4" Bolt
	2 - 1/4"-20 Nylock Nut
	2 - 1/4" USS Washer
2	L Shaped Fan Shroud Bracket
1	Fender Trim Bracket - Drivers Side
1	Fender Trim Bracket - Passenger Side

Important—Measure Before Starting!

Measure from the center of the wheel up to the bottom edge of the wheel opening

LF_____ RF_____

LR_____ RR_____

Pre-Installation Notes

1. Control arms typically add 1-2 degrees caster above stock alignment specifications.
2. All aftermarket wheels should be test fit prior to mounting the tire to ensure proper clearance to the brake caliper. Some wheel profiles will not clear the brake caliper. These can be test fitted before the vehicle is lifted.
3. For replacement ball joints use service kit ZONF8202. Ball joint is directional and must be installed with the ‘dot’ facing either inward or outward on the vehicle, otherwise damage may occur.
4. This kit will not fit models with Air Ride Adaptive Suspension.

Front Installation Instructions

1. Park the vehicle on a clean, flat surface and block the rear wheels for safety.
2. Raise the front of the vehicle and support the frame rails with jack stands.
3. Remove the front wheels.
4. Disconnect the front driver's and passenger's side sway bar links from the lower control arm. Save hardware. Figure 1

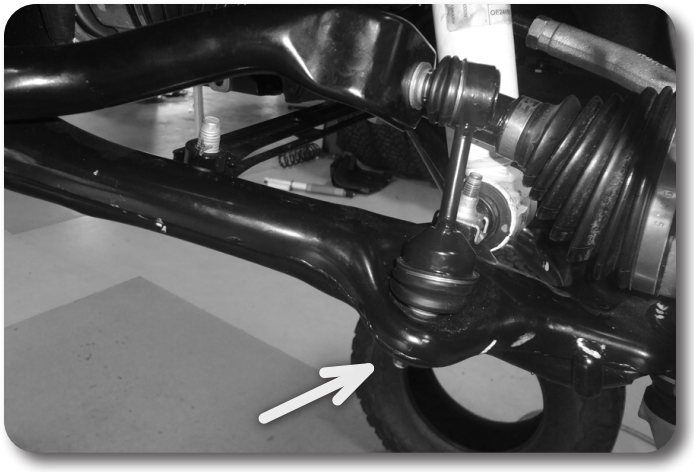


Figure 1

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

5. Remove the wire retaining clips from the strut studs and loosen but do not remove the three upper strut mount nuts at the frame. Figure 2 Do not loosen- the center strut rod nut.



Figure 2

6. Remove the nut from the steering tie rod end. Figure 3 Thread the nut back on a couple of turns by hand. Strike the knuckle near the tie rod end to dislodge the rod end taper from the knuckle. Remove the nut and the tie rod end from the knuckle. Save nut.



Figure 3

Step 5 Note:

For the passenger side inner nut it may be easier to access the nut through the engine bay.

7. Unclip the ABS wire from the knuckle for additional slack. Figure 4

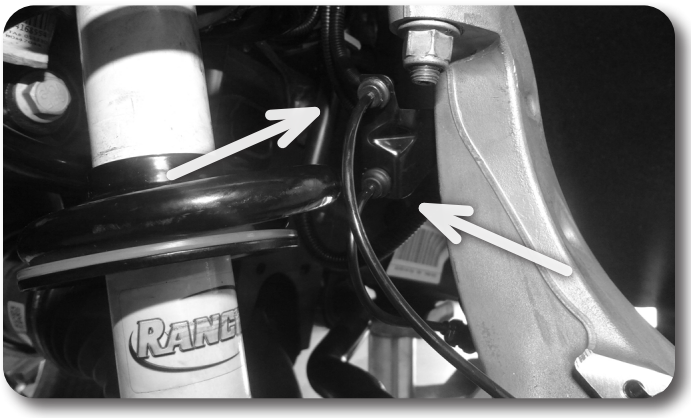


Figure 4

8. Support the lower control arm with a hydraulic jack and remove the nut from the upper ball joint. Figure 5A Thread the nut back on a couple of turns by hand. Strike the knuckle near the upper ball joint to dislodge the rod end taper from the knuckle. Remove the nut and allow the knuckle to swing rearward out of the way Figure 5B. Discard the factory ball joint nut.

Step 8 Note:

A strap can be used to hold the knuckle back in order to prevent the CV axle from pulling out of the inner joint.

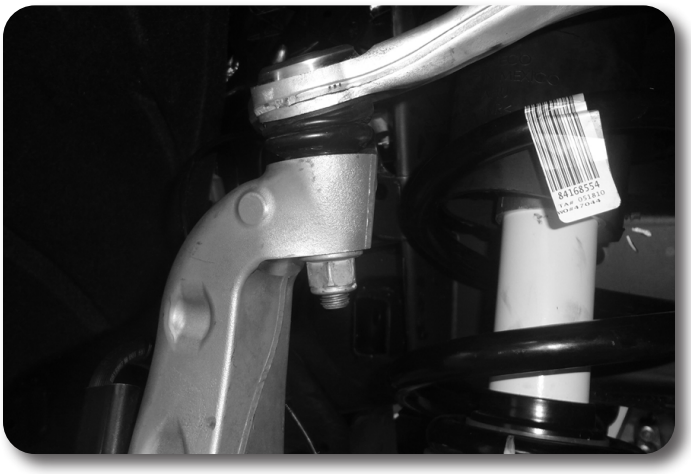


Figure 5A



Figure 5B

9. Remove the two lower strut bar pin bolts. Figure 6 The bolts will not be reused. Lower the control arm with the jack so there is enough room to remove the factory strut.



Figure 6

10. If equipped, disconnect the MRC wiring plug that is located at the top of the strut rod. Figure 7

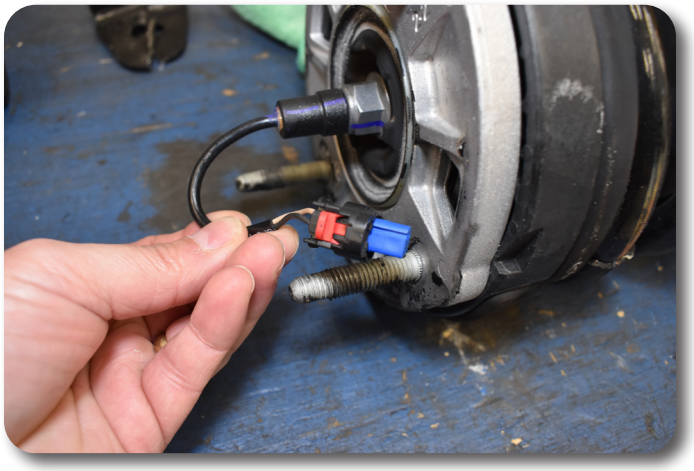


Figure 7

11. Remove the three nuts attaching the strut to the frame Figure 8. Remove the strut from the vehicle. DO NOT remove the center strut rod nut. Discard the nuts, they will not be reused.



Figure 8

Control Arm Installation

12. Remove the ABS wire / brake sensor wire from the upper control arm. Remove the upper control arm from the vehicle by removing the two bolts attaching the upper control arm to the strut bucket / frame Figure 9. Save hardware.



Figure 9

13. The new replacement control arm assemblies have a larger profile than the OEM assemblies. They are also designed with a wider range of available travel. Due to these unique differences, the tab on the side of the strut bucket must be removed to avoid interfering with the proper function of the new control arm assembly. Cut the tab from the side of the strut bucket as shown in Figure 10.

IMPORTANT

FAILURE TO FOLLOW PROCEDURE FOUND IN STEP 13 CAN RESULT IN BUSHING DAMAGE.

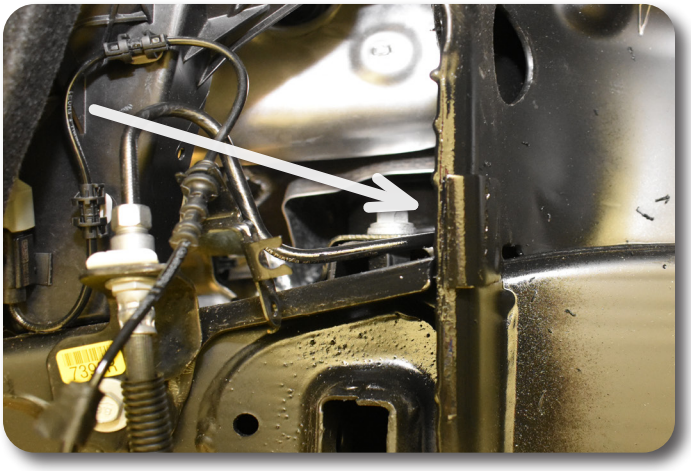


Figure 10

Step 14 Note:

The UCA hardware is located in Bolt Pack 640.

14. Install the new upper control arm to the vehicle using the **new provided 14mm bolts, washers, and nuts from Bolt Pack 640 and using thread locker.** Run the bolt with a washer from the inside out of the strut bucket outwards with a washer and nut on the outer bushing washer surface. Do this for the front and rear control arm mounts. Figure 11. Snug up hardware.

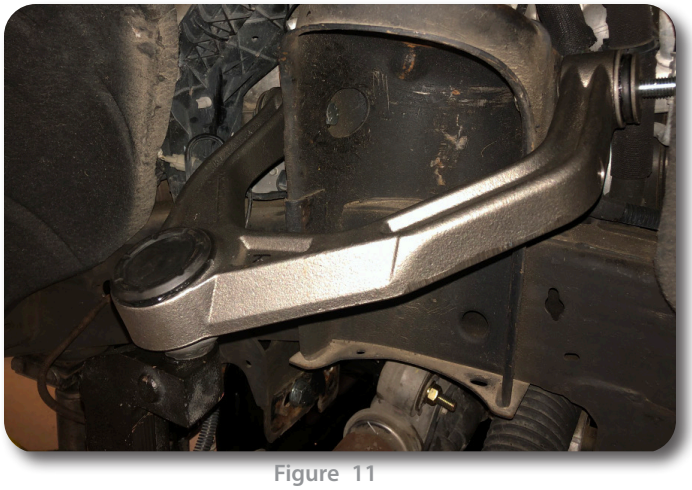


Figure 11

15. Attach the ball joint on the new upper control arm to the knuckle. Snug up ball joint using the OE Nylock Nut, but do not torque down. The upper ball joint will be removed from the knuckle later so that the strut can be installed.

16. Set the ride height from the fender lip to the center of the hub at 26" (3.5" Kits). **Using a torque wrench on the inside of the strut bucket and a wrench on the outside bushing to prevent the nut / bushing from moving**, tighten the control arm hardware to **126 ft-lbs**. This will ensure the rubber bushings are tightened to the right position and not put preload in the rubber bushings. DO NOT spin the "bushing side" hardware when tightening, only tighten from the inside "frame side". Figure 12A, 12B

Step 16 Note:

The OE nylock nut will only be temporarily used to set the control arm at the correct ride height so that the rubber bushing preload is correct. DO NOT USE THE OE NYLOCK NUT FOR THE FINAL INSTALL.

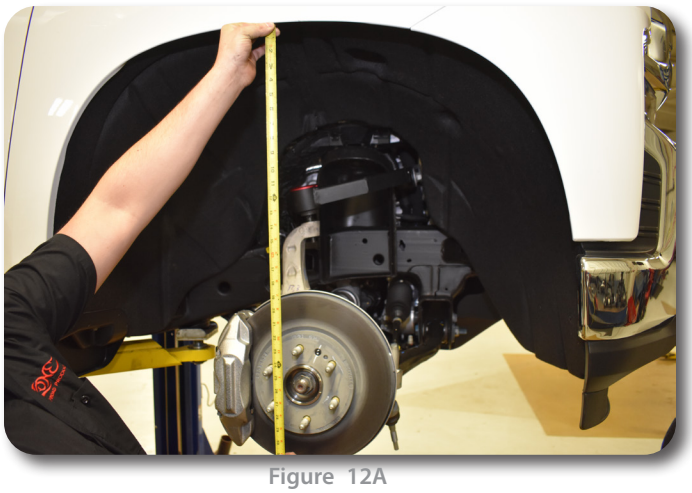


Figure 12A

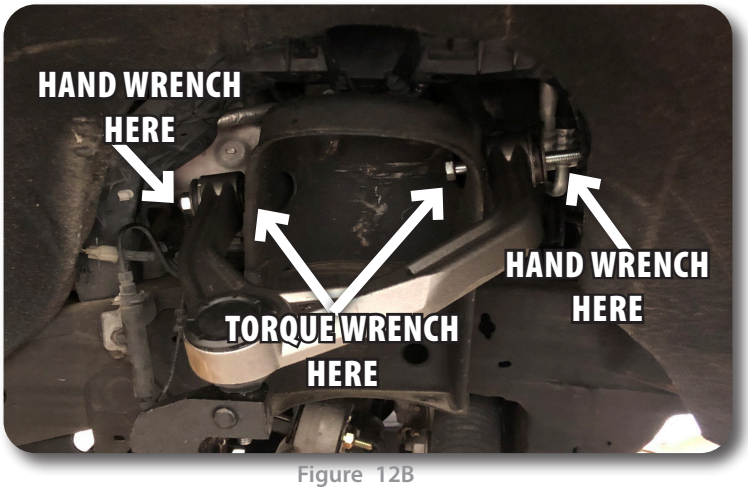


Figure 12B

Strut Preload / Spacer Installation

17. If equipped with MRC wiring, the plug will need to be remove from the wiring to remove the cylinder for the top hat. Slide the blue plastic piece to the side to remove it. Use a pick to depress the male pin lock to remove from the plug. Note the orientation of the wiring before removal. Figure 13A, 13B

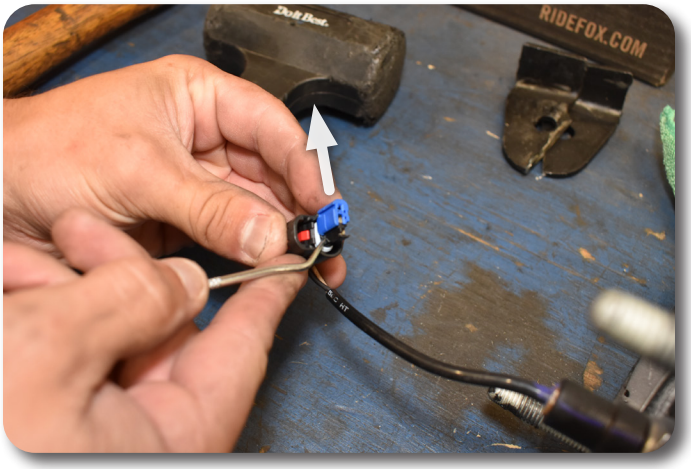


Figure 13A



Figure 13B

18. The strut assembly must be disassembled for installation of the preload spacer. Place alignment marks on the upper strut mount, isolator, spring, strut body, and lower coil seat Figure 14.



Figure 14

19. Using an appropriate strut compressor, compress the coil spring and remove the upper strut nut.

Caution *Coil Spring is under extreme pressure. Improper removal/installation of coil spring could result in serious injury or death. Use only a high-quality spring compressor and carefully read and follow the manufacturer's instructions*

20. Remove the factory 10mm studs that are pressed into the upper strut mount Figure 15.

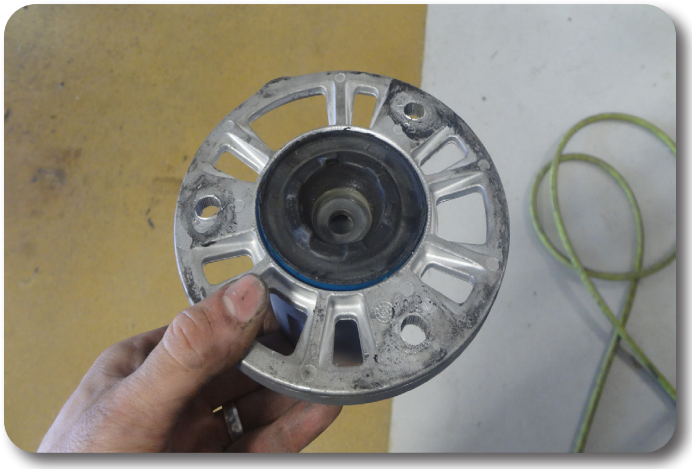


Figure 15

Step 20 Note:

The studs will not be reinstalled. A hammer and vice can be used to knock out the studs. Be careful not to damage the aluminum upper strut mount

21. Install the preload spacer along with the new 10mm x 55mm bolts into the recessed hex on the bottom of the preload spacer Install the preload spacer on to the upper strut mount. The bolt holes will only line up one way Figure 16.



Figure 16

Step 21 Note:

The 10mm x 55mm bolts are the longer of the two 10mm bolts provided

22. Install the coil spring plastic isolator on to the preload spacer Figure 17. The plastic isolator can only install one way.

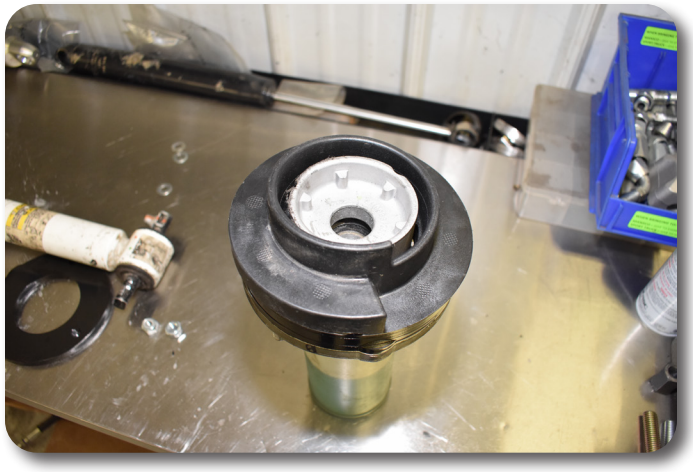


Figure 17

23. Reassemble the strut assembly lining up the marks made in the previous step. Be sure to reinstall all of the factory components including the rubber isolator onto the plastic isolator and bump stop Figure 18. Do not remove the assembly from the strut compressor at this time.



Figure 18

! Caution *Coil Spring is under extreme pressure. Improper removal/installation of coil spring could result in serious injury or death. Use only a high-quality spring compressor and carefully read and follow the manufacturer's instructions*

24. Due to lower bar pin angle in the strut, the top hat of the strut assembly must be rotated 180 degrees. Compress the coil spring slightly and rotate the upper plate 180 degrees Figure 19A, 19 B.



Figure 19A Before



Figure 19B After

25. Install the 10mm x 50mm - shorter bolts into the holes on the bottom of the strut spacer into the recessed hex openings Figure 20.



Figure 20

26. Install the strut spacer onto the strut with the provided washers and nuts. Figure 21 Torque the nuts to 35 ft-lbs. The spacer will only install one way.

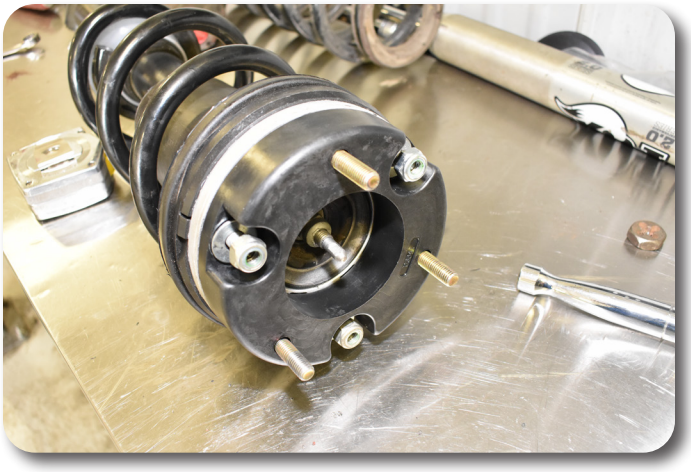


Figure 21

27. Remove the nut clips from the lower mount of the strut Figure 22.



Figure 22

Strut Installation

28. Remove the upper ball joint from the knuckle. Discard OE nylock nut. Make sure the knuckle is supported so it does not pull out the CV.

29. Reinstall the strut into the vehicle using the provided 10mm nuts and washers at the upper mount Figure 23. Leave the hardware loose.

Step 29 Note:

Do not tighten the upper strut nuts at this time, it will make it easier to install the lower strut spacer.

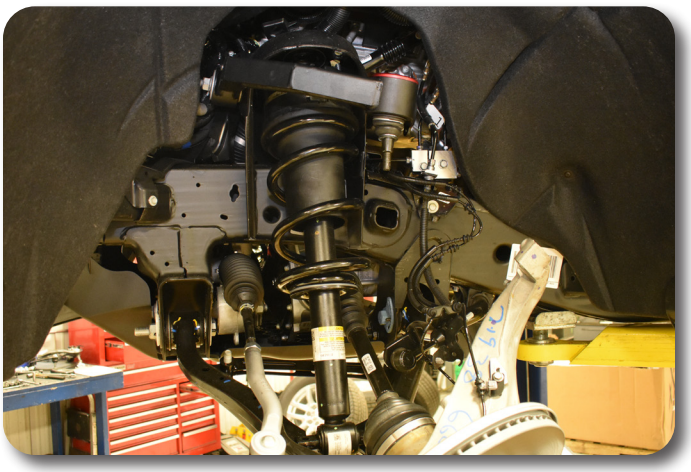


Figure 23

30. Reinstall the lower mount with the 7/16" hardware. Run the bolts from top down to provide clearance to the CV shaft Figure 24. Torque the lower mount hardware to 37 ft-lbs.



Figure 24

31. With the lower hardware tight, torque the upper strut mount nuts to 40 ft-lbs.

32. Reattach the upper ball joint to the knuckle Figure. 25. **Use the provided 12mm nylock nut in bolt pack 874.** Use the jack to support the lower control arm and torque the upper ball joint nut to 26 ft-lbs with the first pass and 60-75 degrees on the final pass.

Step 32 Note:

The nylock nut is located in Bolt Pack 874.



Figure 25

33. Reattach the tie rod to the knuckle and torque the factory nut to 44 ft-lbs.

34. Repeat installation on the opposite side of the vehicle. When both sides are complete, reattach the sway bar links and tighten hardware to 60 ft-lbs.

35. Reattach the brake wire / ABS wires to the factory position on the knuckle Figure 26. Use the provided wire clamps and 1/4" bolt to attach the brake wire / ABS wire to the upper control arm. Check for enough slack in the wires and adjust as necessary.



Figure 26

Sway Bar Relocation

36. Remove the 4 bolts attaching the sway bar to the frame as shown in Figure 27.

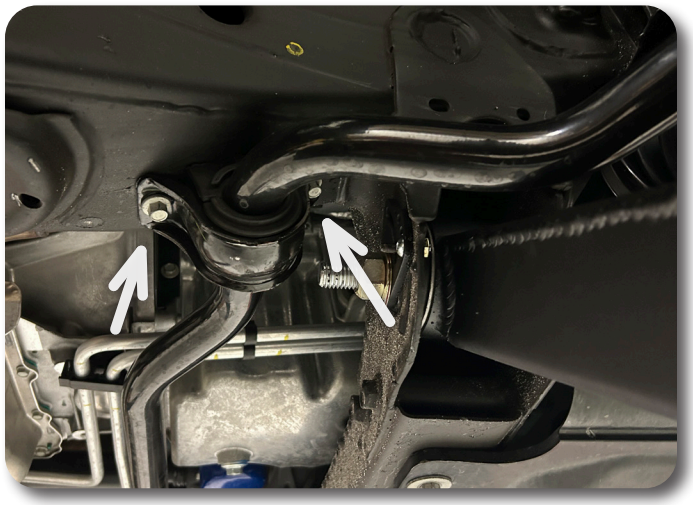


Figure 27

37. Install the sway bar drop brackets to the frame using the factory hardware. Install the bracket so that the sway bar drop is pushed towards the rear of the vehicle within the slots. The sway bar drop bracket will drop the sway bar straight down / rearward as shown in Figure 28.



Figure 28

38. Attach the sway bar to the sway bar drop bracket using the provided 3/8" hardware. Push the sway bar towards the rear of the frame to create the most clearance to the CV shaft as shown in Figure 29. Tighten hardware to 37 ft-lbs.

Step 38 Note:

The 3/8" hardware is located in Bolt Pack 422.

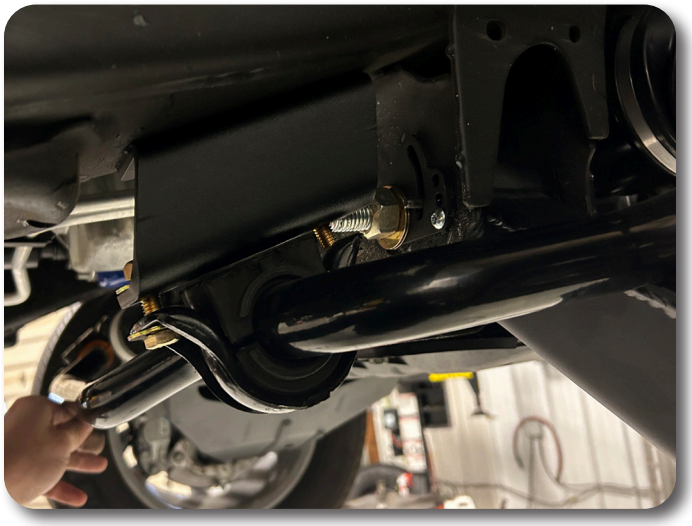


Figure 29

Front Installation - Final

39. Reinstall the front wheels and lower the vehicle to the ground. Torque lug nuts to 140 ft-lbs in a crossing pattern.

40. Grease the ball joint at this time with 3-4 pumps. Do NOT over grease the ball joint. Install the o-ring onto the black ball joint cap. Using the provided grease packet, lightly grease the o-ring and install the cap onto the control arm by lightly tapping it down with a rubber mallet.

41. **Optional:** Due to control arm clearance and certain size wheel and tire combinations, a steering stop may be required. These are only needed when the tire hits the upper control arm at full lock. Prep the lower control arm for welding, remove paint. Disconnect the battery in the truck to protect electronics.

42. **Optional:** Weld steering stop on to lower control arm as shown. Figure 30

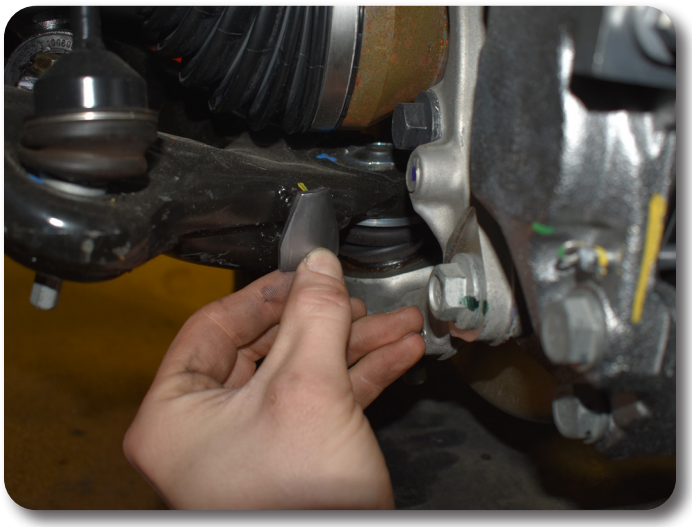


Figure 30

REAR INSTALLATION INSTRUCTIONS

Rear Disassembly

43. Park the vehicle on a clean, flat surface and block the front wheels for safety.

44. Raise the rear of the vehicle and support the frame rails with jack stands.

Note: It may be necessary to disengage electric parking brake and put vehicle in neutral to fully droop rear suspension.

45. Remove the rear wheels. Remove the 9 inner fender screws - T15 Figure 31



Figure 31

46. Before removing the strut mark the outside of the strut with a paint pen. Figure 32



Figure 32

47. Remove bolts for brake line brackets. Figure 33

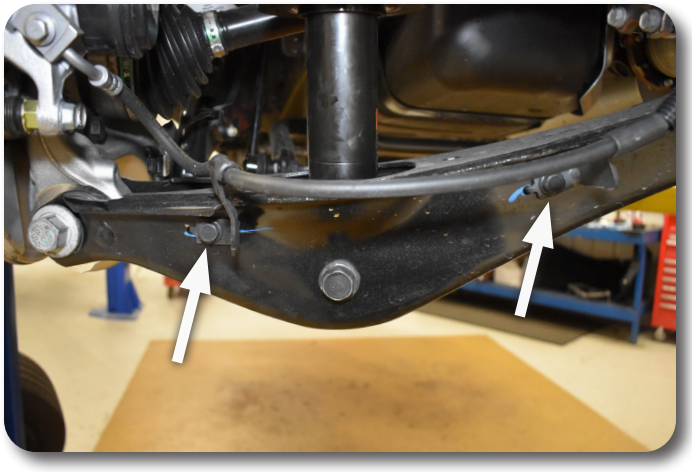


Figure 33

48. Loosen the lower arm cam bolts. Figure 34

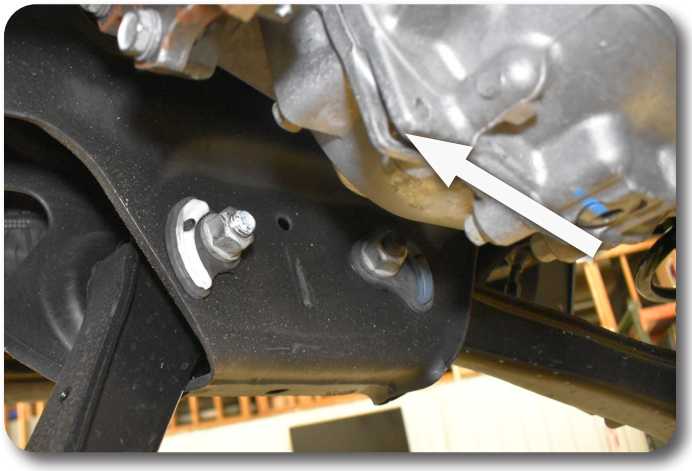


Figure 34

49. Support lower arm with a jack. Figure 35



Figure 35

50. Disconnect the lower strut nut. Do not remove the bolt. Figure 36



Figure 36

51. Disconnect control arm from bearing knuckle. Figure 37

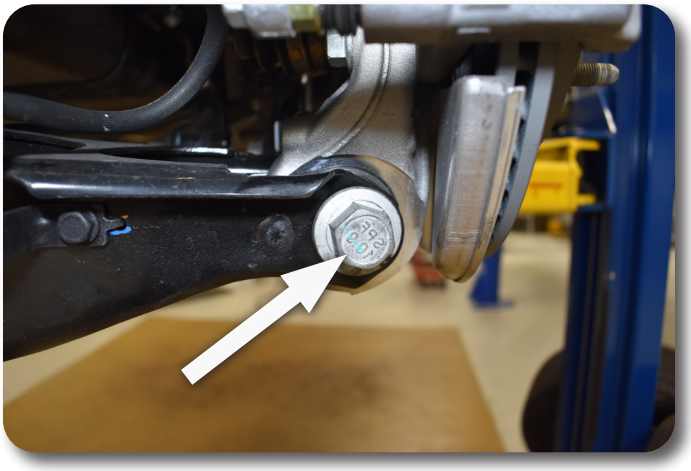


Figure 37

52. Remove the lower strut bolt. Allow lower arm to swing down. Figure 38



Figure 38

53. If equipped with MRC, unclip MRC wire from the rear stud by prying it up and off with a flat head screwdriver. Figure 39



Figure 39

54. Disconnect the strut wiring by sliding out the red clip. Figure 40



Figure 40

55. Remove the 3 upper strut nuts and remove the strut. Figure 41



Figure 41

Strut Disassembly

56. Slide the blue plastic clip directly to the side, then the connector can be de-pinned. Make note as to which wire is in slots marked 1 and 2. Figure 42



Figure 42

57. Using a strut compressor, Compress spring. Figure 43



Figure 43

58. With the coil spring compressed, remove the center strut nut. Figure 44



Figure 44

59. Decompress and remove the strut from the top hat.

60. Remove the top hat from the coil and cut the studs down to 7/8” long. Figure 45

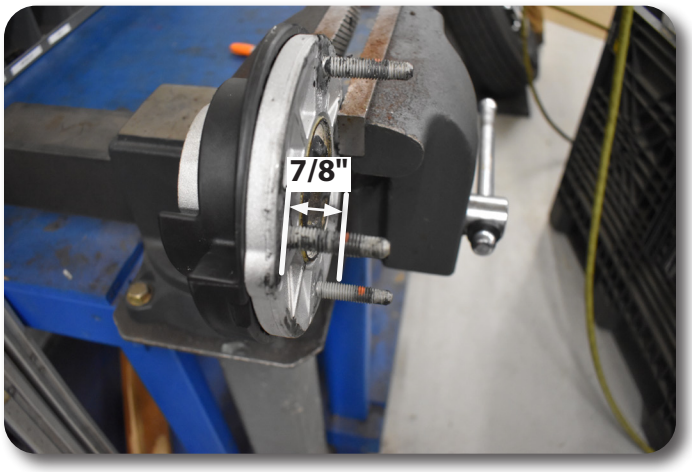


Figure 45

61. Remove the rod end spacer. Figure 46



Figure 46

62. Using a soft hammer to remove the cylinder cap. Figure 47



Figure 47

63. Remove the spring seat. Figure 48

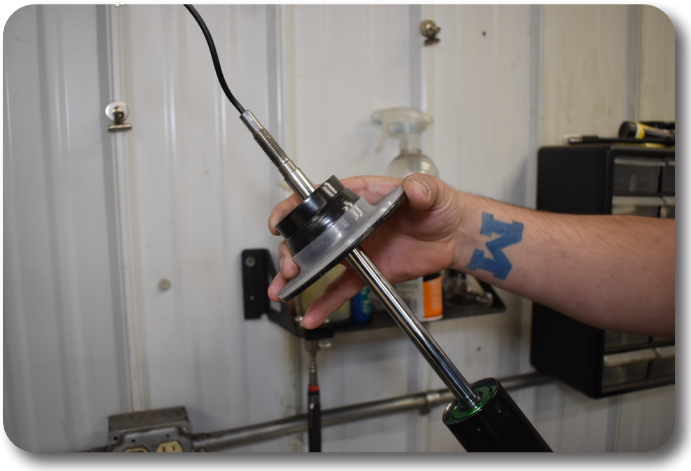


Figure 48

64. Install the pre-load spacer. Figure 48



Figure 49

65. Re-install the spring seat. Figure 50



Figure 50

66. Re-Install the cylinder cap, tap into place. Figure 51



Figure 51

67. Re-Install the rod end spacer. Figure 52



Figure 52

68. Due to the additional preload, compress your coil spring further such that the top hat can be installed.. Figure 53



Figure 53

69. Using a piece of wire and tape, fish the MRC cylinder wiring back up through the top hat. Install the nut and torque to 52 ft-lb. Figure 54

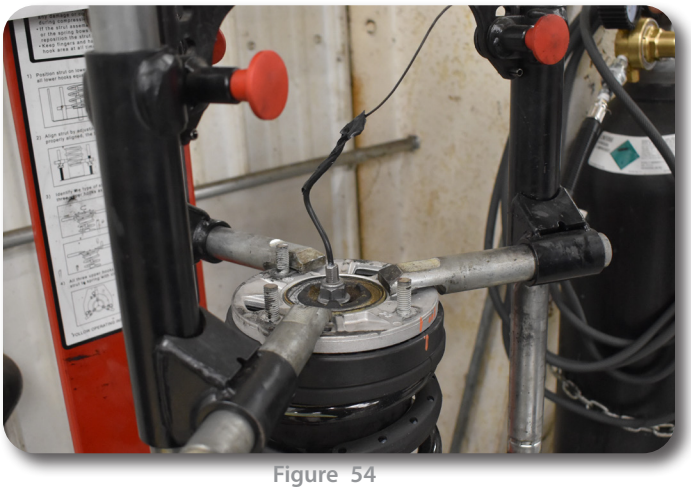


Figure 54

70. Remove strut from strut compressor.

71. Install carriage bolts and retaining washers into the square holes in the top spacer. Figure 55



Figure 55

72. Install the top spacer to the top hat using the factory hardware. Figure 56

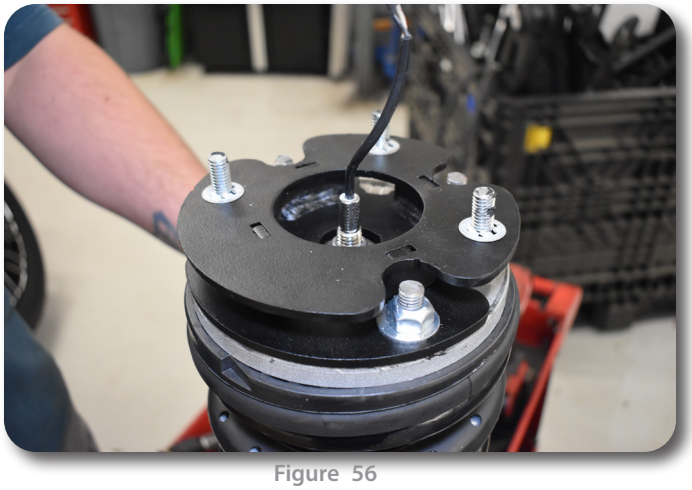


Figure 56

73. Re-attach the MRC wiring to the end plug. Figure 57

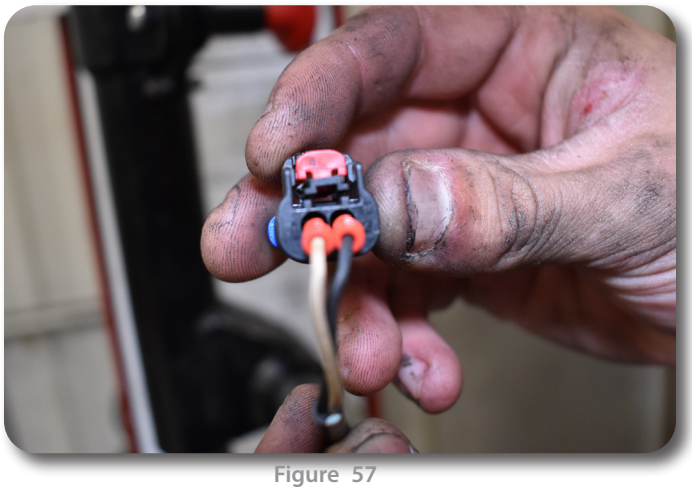


Figure 57

74. Install the strut into the strut bucket using the provided nuts and washers. Leave loose. Figure 58

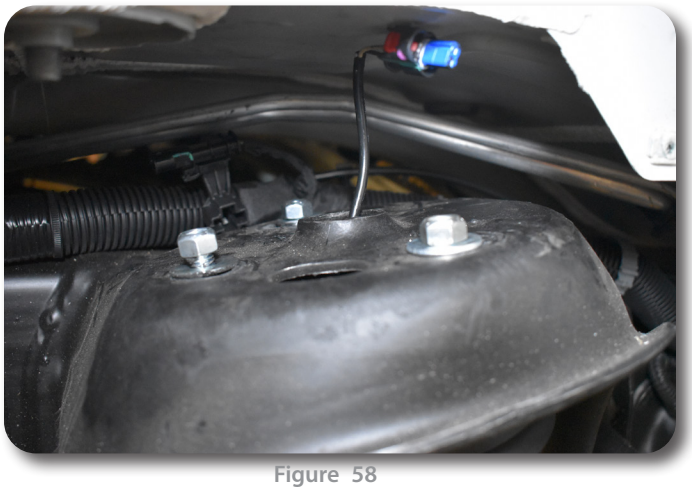


Figure 58

75. Swing up the lower arm and connect the lower strut eye to the lower arm using the factory hardware. Snug but do not torque until the vehicle is on the ground. Torque 85 lb ft. Figure 59

Note: It may be necessary to rotate the bottom eye of the strut to align with the lower arm mounting holes.



Figure 59

76. Re-Attach the lower control arm to the knuckle. Torque to 133 ft-lb. Figure 60



Figure 60

77. Torque the 3 upper strut nuts to 43 lb ft. Figure 61



Figure 61

78. Re-attach the brake line brackets to the lower arm. Torque to 16 ft-lb.
79. Install wheels and tires. Torque lug nuts to 140 ft-lbs. Lower vehicle to the ground.
80. Torque rubber bushings at this time from earlier steps.

81. Check all hardware for proper torque.

82. Check hardware after 500 miles.

83. Adjust headlights.

84. The vehicle will need a complete front and rear end alignment

85. 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.

» Front Fender Trim and Bracket Installation

Yukon and Yukon XL Only

1. Remove all fender liner fasteners from the rear of the front fender well to access the plastic bracket underneath. Remove the fastener clip from the bracket and retain. Figure 62

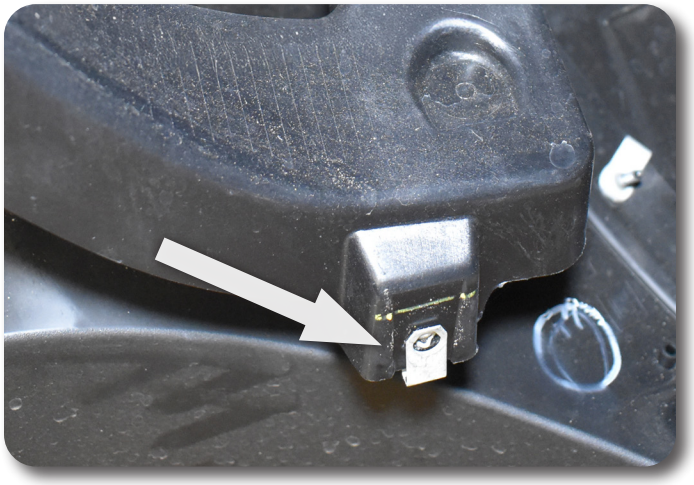


Figure 62

2. Mark and trim the bracket as shown on Figure 63A, 63B.

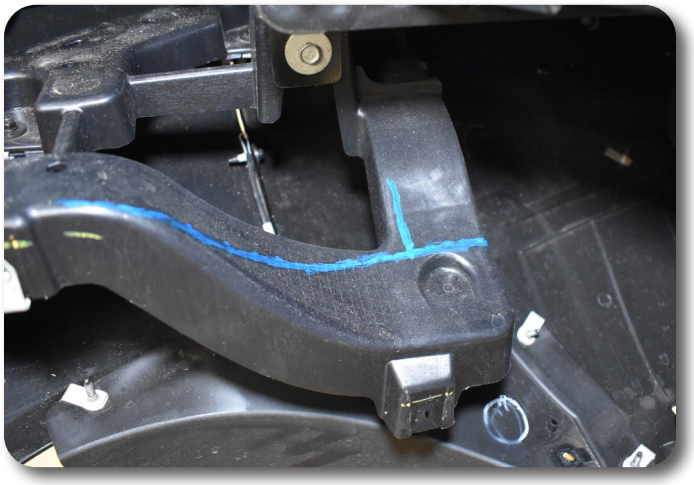


Figure 63A



Figure 63B

3. Cut a slot as shown in. Figure 64

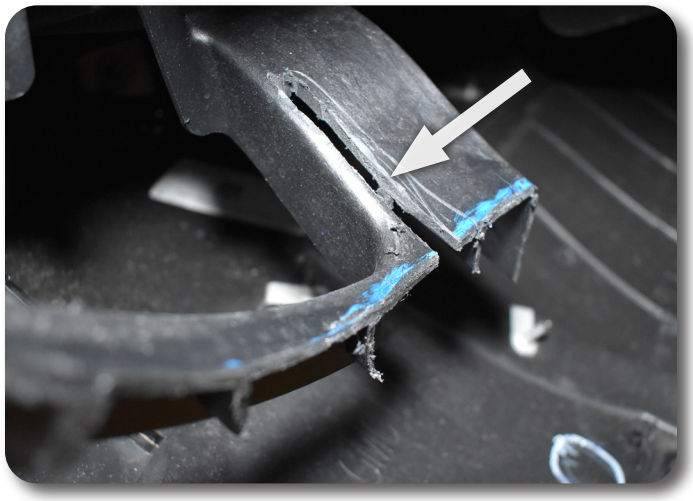


Figure 64

4. Using the provided bracket measure out 1- 1/2", Fig. 36. Mark where to drill the hole. Figure 65A, 65B



Figure 65A

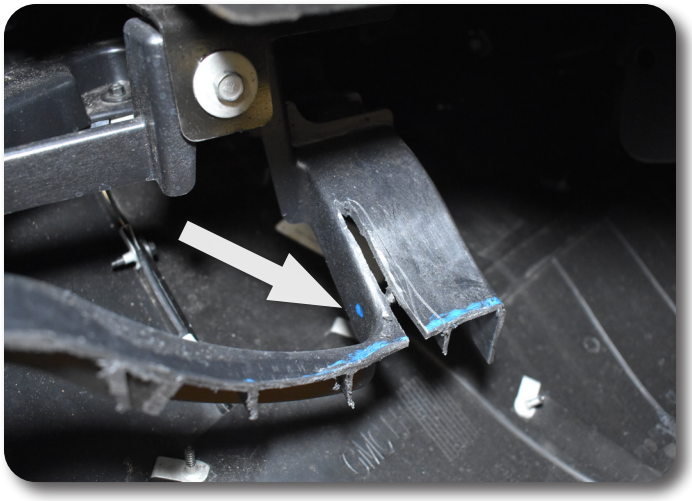


Figure 65B

5. Attach the provided bracket to the plastic bracket using the provided nut, bolt and washers. Install the fastener clip to the bracket, Figure 66

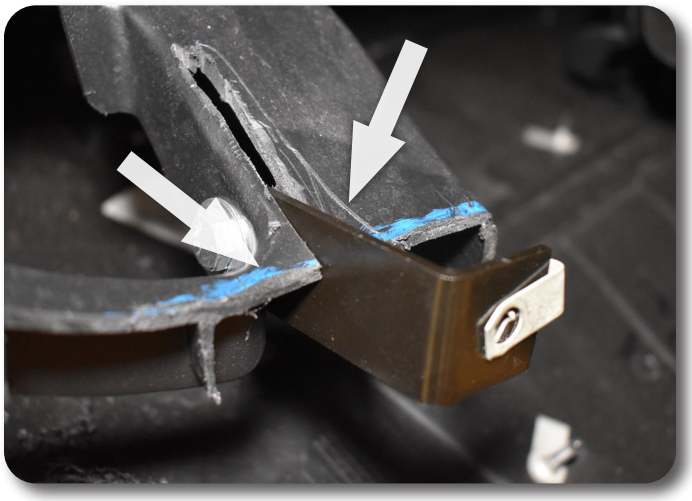


Figure 66

6. Using a straight pick, make a hole through the fender liner to align with the new bracket fastener clip. Figure 67A, 67B



Figure 67A

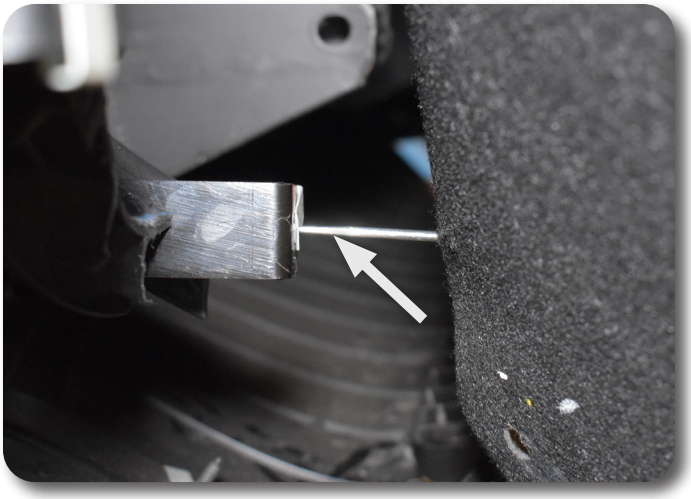


Figure 67B

7. Attach the fender liner to the new bracket using the factory hardware. Figure 68



Figure 68

8. Repeat on the other side of the vehicle.

Rear Fender Well Trim - All Models

1. Mark the front of the rear lower fender liner as shown in Figure 69.

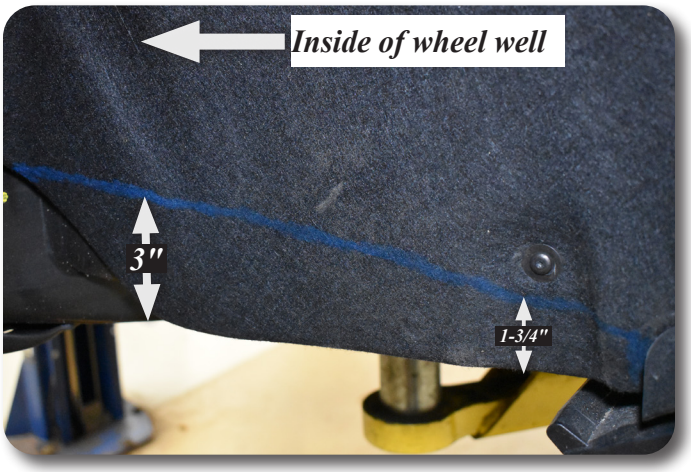


Figure 69

2. Mark the rocker panel, rock guard for trimming following the OE contour, offset the rocker panel rock guard edge 1" as shown in Figure 70

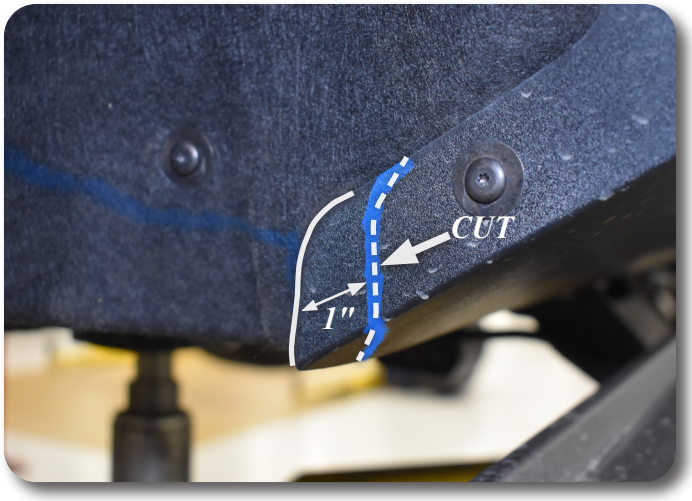


Figure 70

3. Using a cut off wheel, trim the rocker guard. Figure 71A, 71B



Figure 71A



Figure 71B

4. Debur and clean up the edges. Round corners to match the OE contours. Figure 72



Figure 72

5. Using a sharp utility knife trim the liner on the marked line. The liner will be trimmed to just expose the bottom edge of the frame member. Figure 73



Figure 73

1. Remove all fender liner fasteners from the rear of the front fender well to access the bracket underneath. Remove the fastener clip from the bracket and the four bolts, retain hardware. Figure 74

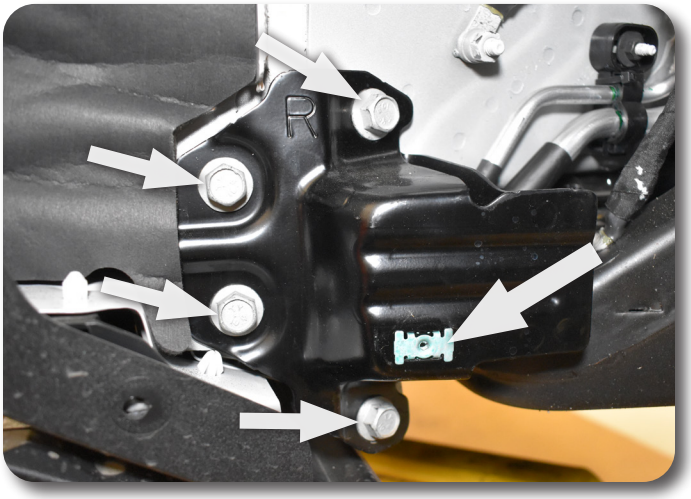


Figure 74

2. Install the fastener clip to the provided bracket. Figure 75



Figure 75

3. Install the provided bracket using the factory hardware. Figure 76

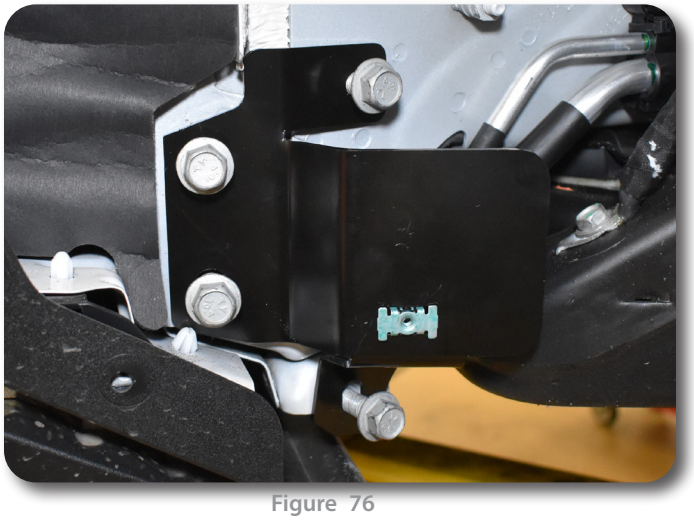


Figure 76

4. Re-install the inner liner fasteners.

» Front Fender Trim and Bracket Installation

Tahoe/Suburban

1. Remove inner liner fasteners to expose the front side of the fender well. Remove the liner fastener clip and retain. Figure 77

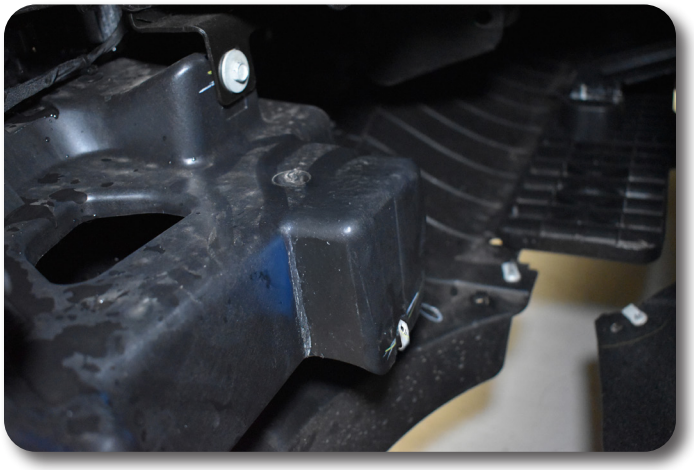


Figure 77

2. Use the existing contour as guide for the cut line. Figure 78



Figure 78

3. Cut along the line or tape. Figure 79A, 79B



Figure 79A



Figure 79B

4. Using the provided bracket position so that the fastener is flush with the cut out. (See Figure 57) Drill a 3/8" hole offset 1/2" from the cut edge. Center between the 2 ridge lines of supporting material. Shown in Figure 80.

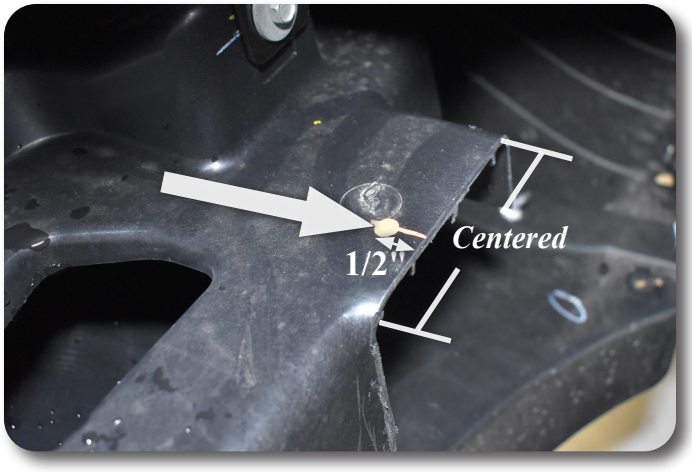


Figure 80

5. Install the provided bracket and hardware as shown in Figure 81. Install the factory liner clip to the bracket.

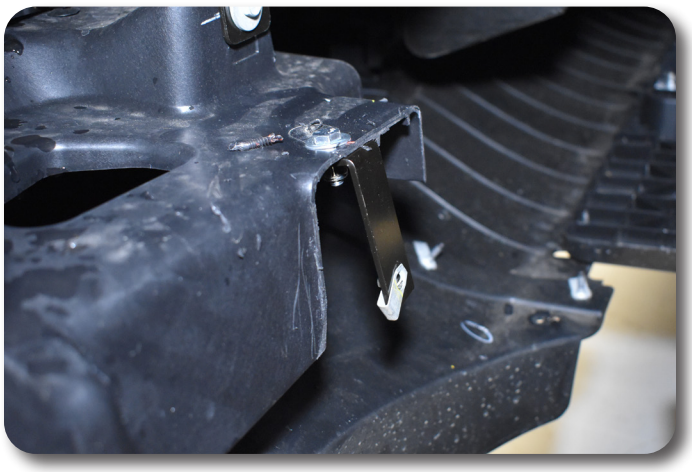


Figure 81

6. Re-Install the liner and all fasteners.
7. Repeat steps on the others side of the vehicle,

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.