

INSTALLATION INSTRUCTION

88146

Rev H

FOR RANCHO SUSPENSION SYSTEM **RS6547**: 4WD SUBURBAN/YUKON XL, 4WD TAHOE/YUKON, & 4WD AVALANCHE

READ ALL INSTRUCTIONS THOROUGHLY FROM START TO FINISH BEFORE BEGINNING INSTALLATION



IMPORTANT NOTES!

WARNING: This suspension system will enhance the off-road performance of your vehicle. It will handle differently, both on and off-road, from a factory equipped passenger car or truck. Extreme care must be used to prevent loss of control or vehicle rollover during abrupt maneuvers. Failure to drive this vehicle safely may result in serious injury or death to the driver and passengers. ALWAYS WEAR your seat belts, REDUCE your speed, and AVOID sharp turns and other abrupt maneuvers.

A. DO NOT install suspension system RS6547 on vehicles equipped with the **Autoride Suspension Option**.

B. Before installing this system, have the vehicle's alignment and frame checked by a certified technician. The alignment must be within factory specifications and the frame of the vehicle must be sound (no cracks, damage or corrosion).

C. Do not install a body lift kit with this suspension system or interchange Rancho components with parts from another manufacturer. Use the following Rancho shock absorbers: Front shocks RS9268 or RS17337, Rear shocks RS9274 or RS17346

D. Do not powdercoat, chrome, cadmium, or zinc plate any of the components in this system. To change the appearance of components, enamel paint can be applied over the original coating.

E. Welding on a car creates an electrical charge throughout the body and frame. Disconnect the vehicle's battery prior to any welding. Place welding ground clamps as near as possible to the weld. When welding on the frame, never use a vehicle suspension component as a welding ground point.

F. Each hardware kit in this system contains fasteners of high strength and specific size. Do not mix hardware kits or substitute a fastener of lesser strength. See bolt identification table on page 2.

G. Compare the contents of this system with the parts list in these instructions. If any parts are missing, contact the Rancho Technical Department at 1-734-384-7804.

H. Install all nuts and bolts with a flat washer. When both SAE (small OD) and USS (large OD) washers are used in a fastener assembly, place the USS washer against the slotted hole and the SAE washer against the round hole.

I. Apply a drop of thread locking compound to all bolts during installation. CAUTION: Thread locking compound may irritate sensitive skin. Read warning label on container before use.

J. Unless otherwise specified, tighten all nuts and bolts to the standard torque specifications shown in the table below. USE A TORQUE WRENCH for accurate measurements.

K. Some of the service procedures require the use of special tools designed for specific procedures. The following tools and supplies are recommended for proper installation of this system:

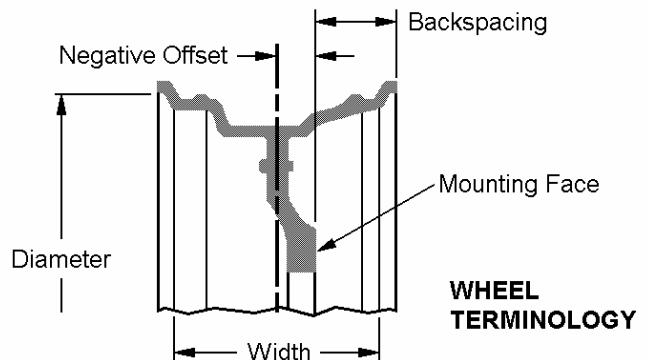
- Chevrolet Service Manual
- Torsion Bar Unloading Tool J36202
- Universal Steering Linkage Puller J24319
- Ball Joint Separator J43631
- Prevailing Torque Nuts (for steering linkage)
- Die Grinder
- Drill motor
- Assorted Drills: 1/8" through 1/2"
- Torque Wrench (250 FT-LB capacity)
- 1/2" Drive Ratchet and Sockets
- Assorted Combination Wrenches
- Heavy Duty Jack Stands
- Wheel Chocks (wooden blocks)
- Hydraulic Floor Jack
- Center punch
- File
- Large "C" Clamps, Bench Vise and Adjustable Straps
- Reciprocating Saw (to modify frame and differential)
- Hammer
- Wire Brush (to clean bracket mounting surfaces)
- Silicone Spray Lubricant
- Tape Measure
- Safety Glasses** (wear safety glasses at all times)

L. It is extremely important to replace torsion bars, CV flanges, and front drive shaft/pinion relationships as original. Be sure to mark left/right, front/rear, and indexing of mating parts before disassembly. A paint marker or light colored nail polish is handy for this.

M. Suspension components that use rubber or urethane bushings should be tightened with the vehicle at normal ride height. This will prevent premature failure of the bushing and maintain ride comfort.

N. The required installation time for this system is approximately 6 to 7 hours. Check off the box () at the beginning of each step when you finish it. Then when you stop during the installation, it will be easier to find where you need to continue from.

O. This suspension system was developed using the following tire & wheel combination: 285/75 R16 tire, 16 x 8 wheel with 4.5 inches of wheel backspacing. Before installing any other combination, consult your local tire and wheel specialist. **A 16-inch factory wheel with more than 4.5 inches of backspacing cannot be used with this suspension system.**



P. Rear axle offset may be noticed on some vehicles. The offset will vary somewhat with vehicle loading. Another factor is how centered the axle was under the body from the factory. For reference, it is recommended that you measure your vehicle's rear axle offset before installation of this kit.

Q. Important information for the end user is contained in the consumer/installer information pack. If you are installing this system for someone else, place the information pack on the driver's seat. Please include the installation instructions when you finish.

R. Thank you for purchasing the best suspension system available. For the best-installed system, follow these instructions. If you do not have the tools or are unsure of your abilities, have this system installed by a certified technician. RANCHO SUSPENSION IS NOT RESPONSIBLE FOR DAMAGE OR FAILURE RESULTING FROM AN IMPROPER OR MODIFIED INSTALLATION...

STANDARD BOLT TORQUE & IDENTIFICATION

INCH SYSTEM			METRIC SYSTEM			
Bolt Size	Grade 5	Grade 8	Bolt Size	Class 9.8	Class 10.9	Class 12.9
5/16	15 FT-LB	20 FT-LB	M6	5 FT-LB	9 FT-LB	12 FT-LB
3/8	30 FT-LB	35 FT-LB	M8	18 FT-LB	23 FT-LB	27 FT-LB
7/16	45 FT-LB	60 FT-LB	M10	32 FT-LB	45 FT-LB	50 FT-LB
1/2	65 FT-LB	90 FT-LB	M12	55 FT-LB	75 FT-LB	90 FT-LB
9/16	95 FT-LB	130 FT-LB	M14	85 FT-LB	120 FT-LB	145 FT-LB
5/8	135 FT-LB	175 FT-LB	M16	130 FT-LB	165 FT-LB	210 FT-LB
3/4	185 FT-LB	280 FT-LB	M18	170 FT-LB	240 FT-LB	290 FT-LB

1/2-13x1.75 HHCS D T L X			
G = Grade Marking (bolt strength) D = Nominal Diameter (inches) T = Thread Pitch (threads per inch)		L = Length (inches) X = Description (hex head cap screw)	

M12-1.25x50 HHCS D T L X			
P = Property Class (bolt strength) D = Nominal Diameter (millimeters) T = Thread Pitch (thread width, mm)		L = Length (millimeters) X = Description (hex head cap screw)	

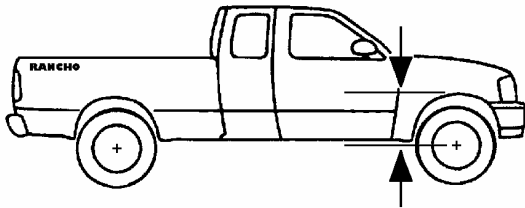
PARTS LIST

<u>P/N</u>	<u>DESCRIPTION</u>	<u>QTY.</u>	<u>P/N</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
176126	Subframe	1	860180	End Link Hardware Kit, Front	1
176128	Knuckle, Left	1	420044	Sleeve	2
176129	Knuckle, Right	1		Retainer	8
176130	Differential Support Bracket	1		3/8-16x14.0 HHCS	2
176131	Right Axle Tube Drop Bracket	1		3/8-16 Nyloc Nut	2
176132	Subframe Aft Brace	2	860411	T Bar Crossmember Hardware Kit	1
176138	Aft Brace Bracket	2	485	Sleeve	2
176159	Box Plate	1	552	Bushing	4
176190	Link Drop Bracket, Left Rear	1		3/8-16x1.00 HHCS	4
176191	Link Drop Bracket, Right Rear	1		3/8-16 Stover Nut	4
176192	Track Bar Relocation Bracket	1		3/8 SAE Washer	8
176193	Bump Stop Spacer	2		9/16-12x3.00 HHCS	2
176194	Torsion Bar Drop Bracket	2		9/16-12 Stover Nut	2
176195	Sway Bar End Link, Rear	2		9/16 SAE Washer	4
176235	Axle Spacer	2	860412	End Link Hardware Kit, Rear	1
673	Coil Spring	2	448	Sleeve	4
860174	Subframe Hardware Kit	1	545	Bushing	4
1429	Bump Stop (low profile)	2		M12-1.75 x 70 HHCS	2
420041	Sleeve	1		M12-1.75 Nyloc Nut	2
520041	Bushing	2		SAE Washer	2
	5/8-18x4.5 HHCS	2		USS Washer	2
	5/8-18x5.5 HHCS	2	860413	Brake Line Bracket Kit	1
	5/8-18 Stover Nut	4	170014	Brake Line Bracket	1
	5/8 SAE Washer	8		5/16-18x1.25 HHCS	1
	3/8-16 Nyloc Nut	2		5/16-18 Top lock Nut	1
	3/8 SAE Washer	2		5/16 SAE Washer	2
	Thread Lock	3	860414	Rear Drop Link Hardware	1
860175	Front differential Hardware Kit	1		M14-2.00 x 90 HHCS	2
	9/16-12x1.75 HHCS	2		M14-2.00 x 100 HHCS	2
	9/16-12 Stover Nut	2		M14-2.00 Top Lock Nut	4
	9/16 SAE Washer	2		SAE Washer	8
	9/16 USS Washer	2		1/2-13x1.25 HHCS	2
860176	Axle Spacer Hardware Kit	1		1/2-13 Stover Nut	2
	M10-1.50x60 HHCS	12		1/2 SAE Washer	4
	SAE Washer	12	860415	Rear Track Bar Hardware Kit	1
860177	Support Tube Hardware Kit	1	420052	Sleeve	1
176137	Nut Bracket	2		9/16-12x4.00 HHCS	1
420042	.75x.095x2.73 Sleeve	4		9/16-12 Stover Nut	1
420045	1.00x.219x1.00 Sleeve	2		9/16 SAE Washer	2
520041	Bushing	8		7/16-14x1.25 HHCS	1
	1/2-13x1.25 HHCS	2		7/16-14 Stover Nut	1
	1/2-13x2.5 HHCS	2		7/16 SAE Washer	2
	1/2-13x4.00 HHCS	4	860416	Bump Stop Hardware Kit, Rear	1
	1/2-13 Stover Nut	6		3/8-16x1.50 HHCS	4
	1/2 SAE Washer	12		3/8-16 Stover Nut	4
860179	Differential Hardware Kit	1		3/8 SAE Washer	8
	M10-1.50x60 HHCS	4	94180	Information Pack	1
	7/16-14x3.0 HHCS	1	780281	Rancho Decal	1
	7/16-14 Stover Nut	1	88146	Instructions	1
	SAE Washer	4	94119	Consumer Information	1
	7/16 SAE Washer	2	94177	Warning Sticker	1

FRONT SUSPENSION

VEHICLE PREPARATION & TORSION BAR REMOVAL

- 1) Park the vehicle on a level surface. Set the parking brake and chock rear wheels. Measure and record the distance from the center of each wheel to the top of the fender opening. See illustration #1.



LR _____ LF _____

RR _____ RF _____

Illustration #1

- 2) Raise the front of the vehicle and support the frame with jackstands. Remove the front wheels and set them aside.
- 3) Mark the torsion bars left and right. Make alignment marks on the torsion bars, the lower control arms, and the adjustment arms.
- 4) Install the GM torsion bar unloading tool (J 36202) and increase the tension on the torsion bar. Remove the adjusting bolt and nut. Relieve the tension on the torsion bar and remove the tool.
- 5) Slide the torsion bar forward and remove the adjustment arm. See illustration #2.

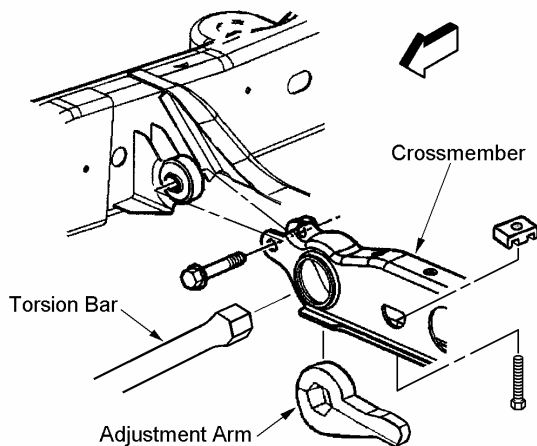


Illustration #2

- 6) Repeat steps 4 and 5 for the other side.
- 7) Remove the 2 bolts holding the torsion bar crossmember to the frame rail brackets. See illustration #2. Remove the crossmember.
- 8) Remove the torsion bars from the lower control arms.

WHEEL DRIVE SHAFT (HALFSHAFT) REMOVAL

- 1) Remove the front shock absorbers. Unsnap the bump stop from the mounting cup.
- 2) Remove the sway bar end links. See illustration #3.

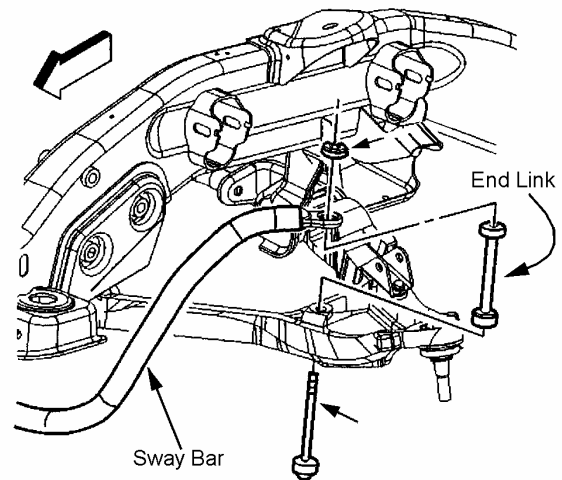


Illustration #3

- 3) Mark the differential output flange and the axle flange for installation reference.
- 4) Remove the nut and washer from the hub. Remove the six bolts from the inboard flange. See illustration #4.

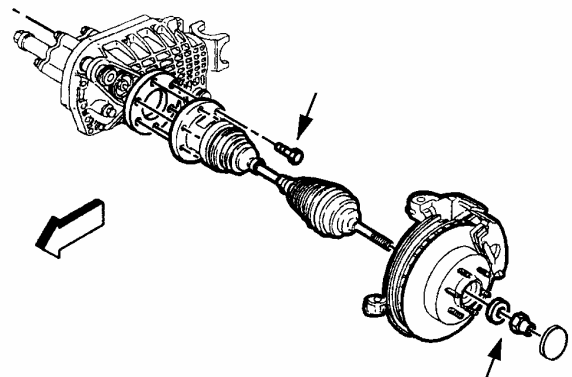


Illustration #4

- 5) Pull the halfshaft out of the hub and through the lower control arm opening. Be careful not to damage the drive shaft boots.
- 6) Repeat steps 3 through 5 for the other side.

STEERING KNUCKLE & LOWER CONTROL ARM REMOVAL

- 1) Separate the brake hose from the bracket on top of the steering knuckle. Use pliers to pry the bracket open. Remove the bolt and brake hose bracket from the upper control arm.
- 2) Remove the brake caliper and its mounting bracket as an assembly. Hang the caliper assembly with wire or a tie wrap.
- 3) Remove the brake rotor.
- 4) Remove the prevailing torque nut from the outer tie rod stud. Discard nut. Disconnect the tie rod end from the steering knuckle with a universal puller.
- 5) If applicable, separate the ABS speed sensor cable at the frame and the upper control arm.
- 6) Remove the hub and bearing assembly mounting bolts. See illustration #5. Remove the hub and bearing assembly.

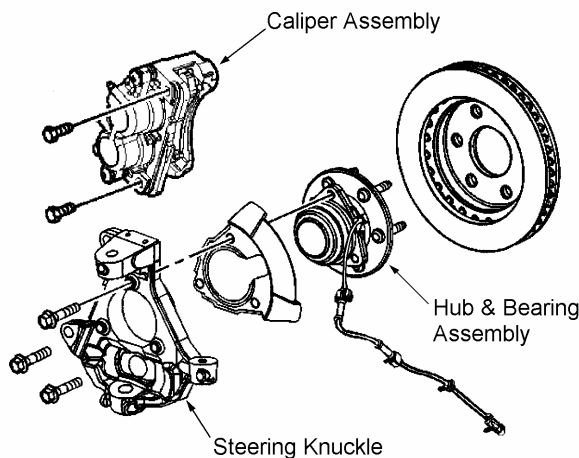


Illustration #5

- 7) Remove the nuts at the upper and lower ball joints. Disconnect the ball joints from the steering knuckle using separating tool J43631. Remove the steering knuckle.
- 8) Remove the lower control arm pivot bolts. See illustration #6. Remove the lower control arm.

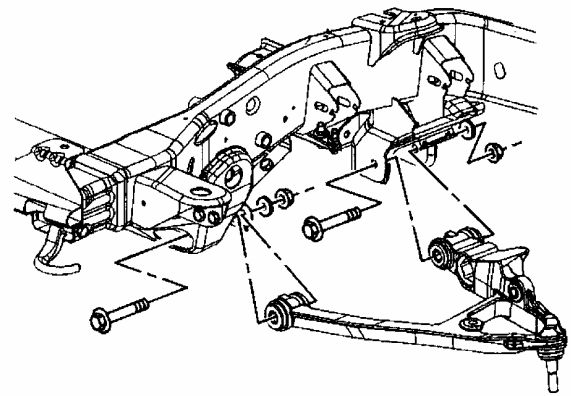


Illustration #6

- 9) Repeat steps 1 through 8 for the other side.

FRONT DIFFERENTIAL REMOVAL

- 1) If applicable, remove the front differential skid plate.
- 2) Reference mark the front drive shaft U-joint to the differential yoke. Remove the bolts and retainers from the yoke and slide the shaft rearward to disengage. Tape the bearing cap assemblies and secure the shaft out of the way.
- 3) Disconnect the electrical connector and the vent hose from the differential assembly.
- 4) Cut off the front differential lower frame bracket even with the lower control arm pocket. See illustration #7.



Illustration #7

- 5) Remove the right axle tube nuts and the differential lower mounting bolt. See illustration #8.

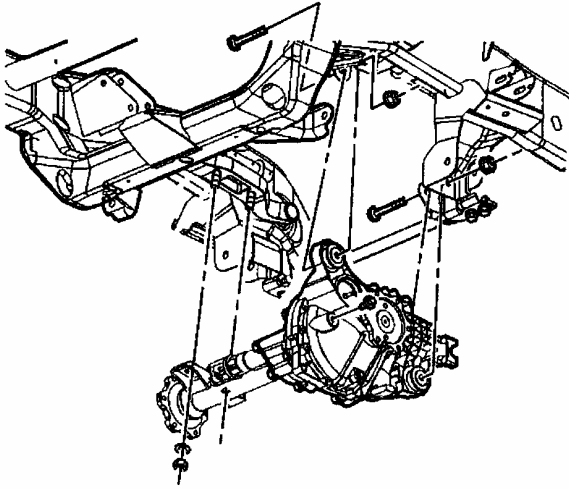


Illustration #8

- 6) Support the front differential assembly with a floor jack. Remove the upper mounting nut and bolt.
- 7) Remove the differential assembly from the vehicle.

FRONT DIFFERENTIAL & SUBFRAME INSTALLATION

NOTE: There are two ways to provide clearance between the front differential and the lower control arm frame bracket. Cutting the frame bracket and welding in a plate is one way, cutting the fins off the differential case is another. Either way is acceptable, **only one is necessary.**

-
- 1) Option 1 (Cutting & Welding):
 - Cut 1 1/4 inches off the inside of the lower control arm pocket and what's left of the differential frame bracket. See illustrations #9 and #10.

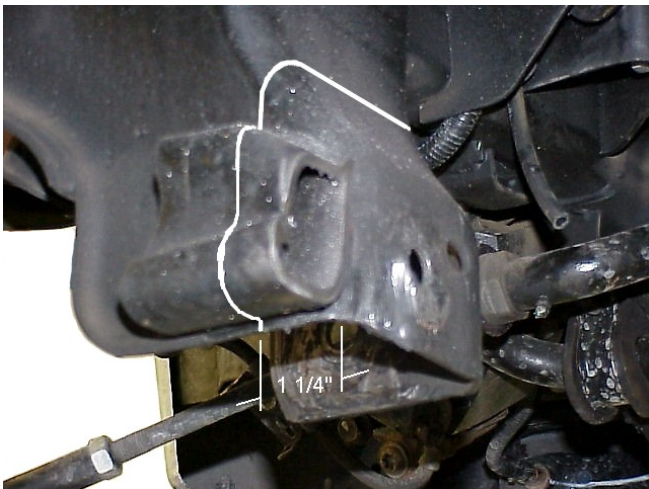


Illustration #9

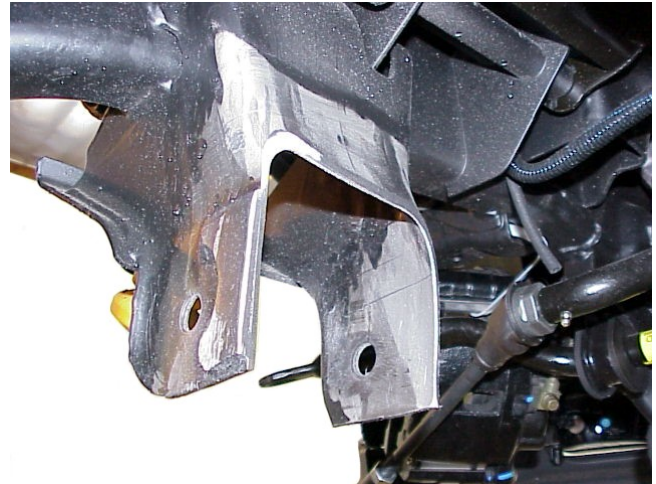


Illustration #10

NOTE: Removing the rest of the differential bracket, as shown in illustration #10, is optional.

- Disconnect the battery. See “Important Note E”.
- Weld box plate 176159 to the lower control arm bracket as shown in illustration #11.

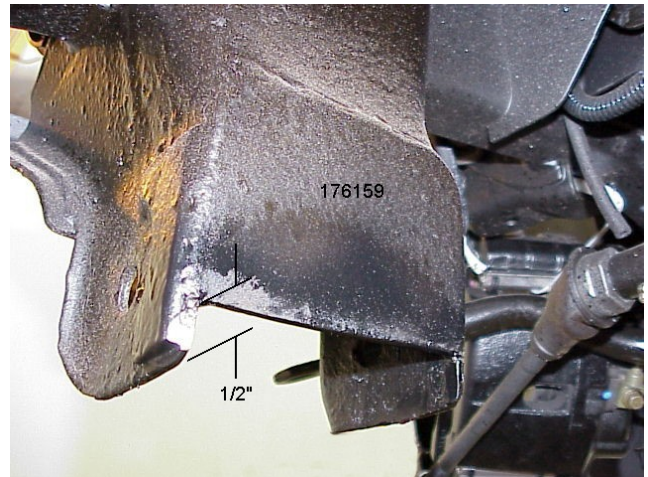


Illustration #11

NOTE: Box plate 176159 does not have a protective coating and may develop surface rust. Remove rust before welding plate to lower control arm frame bracket. After installation, coat the plate and bracket with enamel paint or undercoating.

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- 1) Option 2 (Cutting Only):
 - Cut a **section of the fins** from the front differential as shown in illustration #12.
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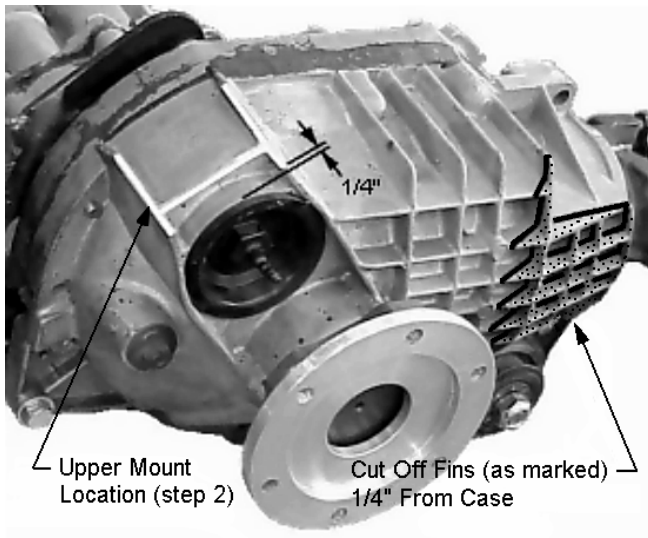


Illustration #12

- 2) Cut off the differential upper mount 1/4" from the case. See illustration #12.
- 3) Install bushings 520041 into differential support bracket 176130. Apply silicon lubricant and press sleeve 420041 through the installed bushings.
- 4) Attach bracket assembly 176130 to the front differential as shown in illustration #13. Use the hardware from kit 860179. Tighten to specifications.

NOTE: Gear oil may leak from the case when the original bolts are removed.

- 5) Loosely attach drop bracket 176131 (as shown in illustration #13) to the differential axle tube with the 9/16" hardware from kit 860175.
- 6) Attach the front differential assembly to the subframe (176126) with the original hardware. Tighten the nuts and bolts to 75 ft. lbs.
- 7) Attach the low profile bump stops (1429) to the subframe with the 3/8" hardware from kit 860174.
- 8) Using a piece of 1/2" plywood, support the subframe and differential assembly with a floor jack.
- 9) Raise the subframe up into the lower control arm frame brackets. Attach the subframe to the brackets with the original hardware. Tighten the subframe to bracket bolts to 107 ft. lbs.
- 10) Attach the right axle tube bracket 176131 to the frame bracket with the original hardware. Tighten all bracket mounting nuts and bolts to 75 ft. lb.

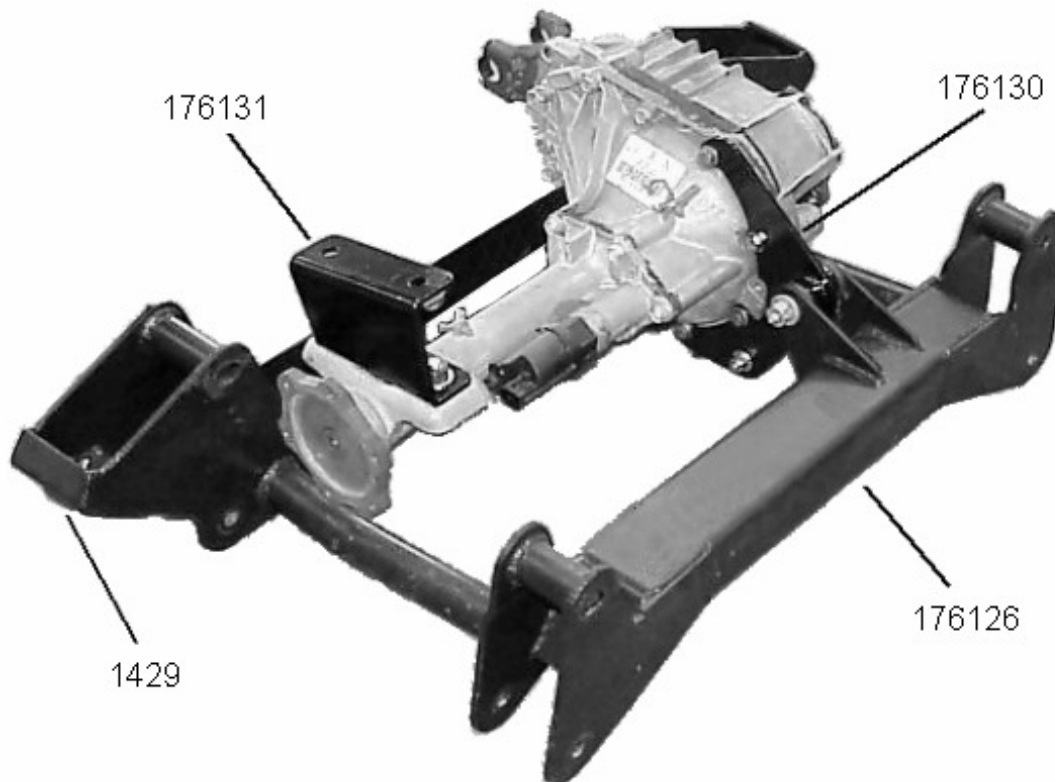


Illustration #13

NOTE: Verify that the left side of the front differential does not contact the rear frame bracket of the lower control arm. If necessary, cut off more of the fins from the differential case (illustration #12). **FAILURE TO PROVIDE CLEARANCE COULD CAUSE DAMAGE TO THE DIFFERENTIAL AND AXLE ASSEMBLY.**

11) Reconnect the vent hose and electrical connector. Align marks and reconnect the front drive shaft to the differential.

STEERING KNUCKLE & HALFSHAFT INSTALLATION

1) Loosely attach the left lower control arm to the subframe with the 5/8” hardware from kit 860174.

2) Connect left steering knuckle 176128 to the lower and upper control arm ball joints. Tighten the nut on the lower ball joint stud to 74 ft. lbs., and the nut on the upper ball joint stud to 37 ft. lbs.

3) Apply thread lock and attach the hub and bearing assembly to the left steering knuckle with the original hardware. See illustration #14. Tighten the mounting bolts to 133 ft. lbs.

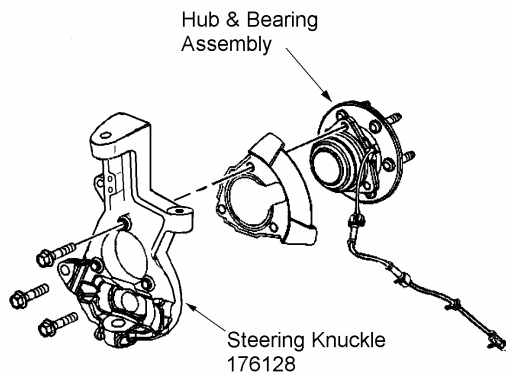


Illustration #14

4) Loosen the tie rod end jam nut and thread the tie rod end inward two complete turns. Retighten the jam nut and attach the tie rod end to the new knuckle. Tighten the new prevailing torque nut to 33 ft. lbs.

5) Insert the wheel drive shaft (halfshaft) into the knuckle hub. Install the shaft washer and nut.

NOTE: Do not lubricate the wheel drive shaft splines and the knuckle with grease.

6) Place axle spacer 176235 against the differential flange. Place the axle flange against the

spacer. Align the flange marks and attach the axle to the differential with the hardware from kit 860176. Be sure to apply thread lock to the bolts. Tighten the flange bolts to 58 ft. lbs.

7) Install the brake rotor. Reattach the front caliper with the original mounting bolts. Be sure to clean the bolt threads and apply thread lock. Tighten the caliper mounting bolts to 129 ft. lbs.

8) Place a drift or large screwdriver through the caliper to prevent the drive axle from turning. Tighten the axle hub nut to 165 ft. lbs. Remove the drift from the rotor.

9) Insert tab of brake hose clamp into one of two mounting holes on the back of the steering knuckle. Attach clamp to knuckle with the original screw as shown in illustration #15. Tighten mounting screw securely.



Illustration #15

10) If applicable, reconnect the ABS cable. Attach the ABS cable to the knuckle and upper control arm with tie wraps. See illustration #16.

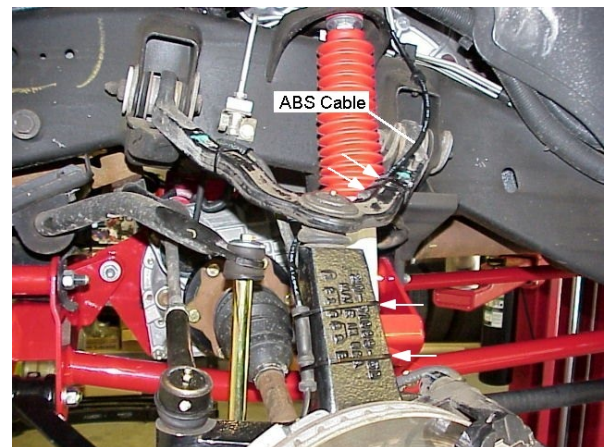


Illustration #16

11) Repeat steps 1 through 11 for the other side.

12) Attach the sway bar to the lower control arm with the new end link assemblies (from kit 860180) and the original bushings. See illustration #17. Insert the 3/8" x 14" bolt from the top.

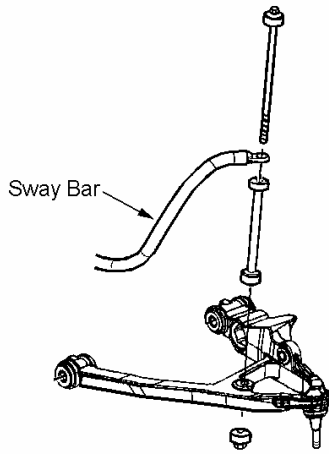


Illustration #17

13) Install new Rancho shock absorbers.

AFT BRACE INSTALLATION

1) Lubricate two bushings (520041) and one sleeve (420042), from kit 860177, with a silicon spray. Press the bushings and sleeve into aft brace 176132 as shown in illustration #18.

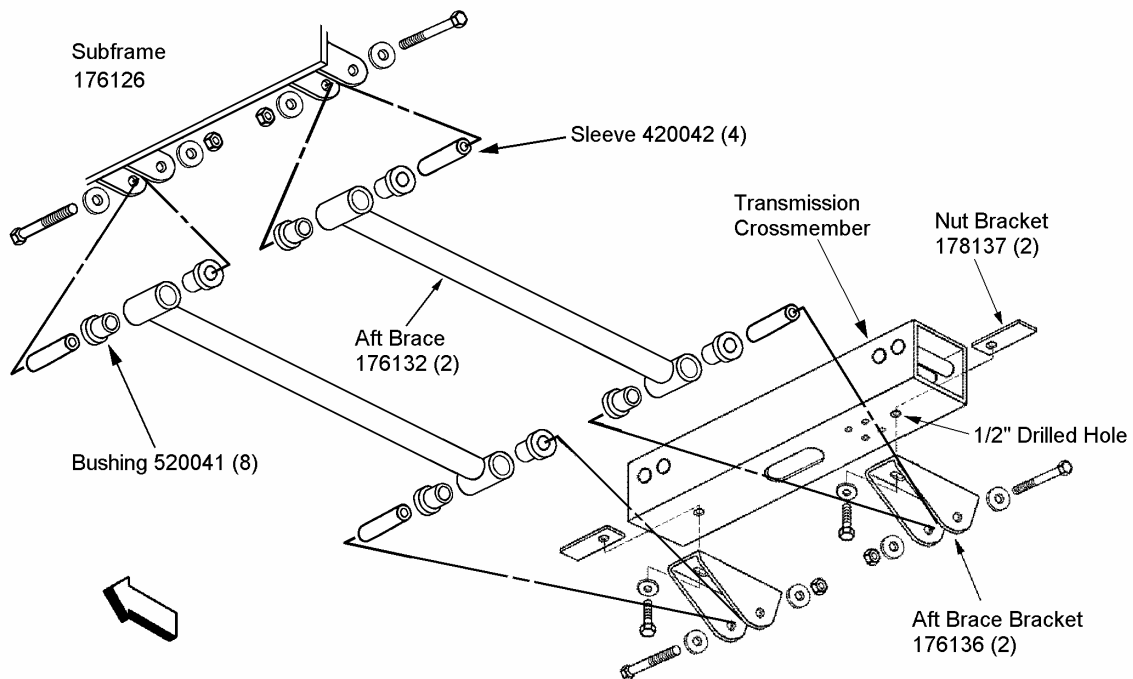


Illustration #18

2) Repeat step 1 to install the rest of the bushings and sleeves.

3) Loosely attach each aft brace assembly to the rear of the subframe (176126) with the hardware from kit 860177.

4) If applicable, remove the transfer case skid plate.

5) To mount the driver side aft brace bracket, drill a 1/2" hole through the bottom of the transmission crossmember. See illustration #18.

6) Insert nut bracket 176137 inside the crossmember as shown in illustration #18. Align the bracket over the existing or previously drilled hole.

7) Apply thread lock and insert a 1.25" bolt with washer (from kit 860177) through the slotted hole in bracket 176138. Attach the bracket to the crossmember by threading the bolt into the nut bracket. Do not tighten the bolt at this time.

8) Repeat steps 6 and 7 for the other side.

9) Attach each aft brace to the crossmember brackets with the hardware from kit 860177. See illustration #18.

10) Tighten the aft brace mounting bolts to 80 FT-LBS then the bracket to crossmember bolts to 65 FT-LBS.

11) If applicable, cut the corner of the skid plate to avoid contact with the aft brace bracket. Reinstall the transfer case skid plate.

TORSION BAR & DROP BRACKET INSTALLATION

1) Place torsion bar drop bracket 176194 against the frame rail directly below the crossmember bracket. Temporarily install the 9/16" bolt from kit 860411. See illustration #19.

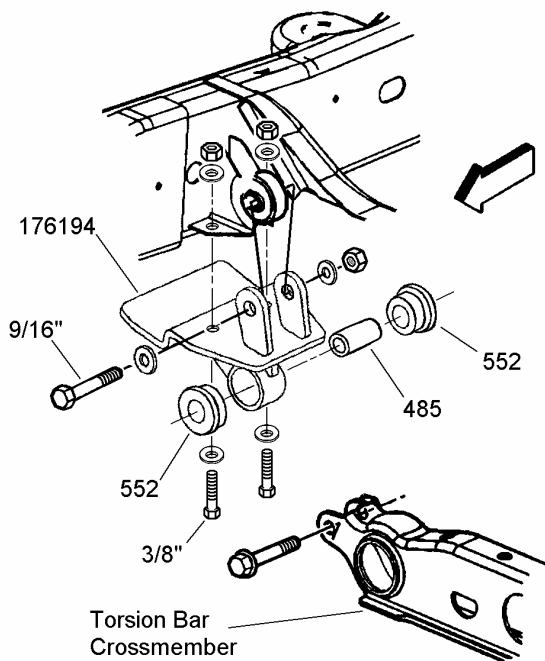


Illustration #19

2) Mark and center punch the 2 holes on the bottom of the existing bracket.

3) Remove the bracket and drill a 7/16" hole at each of the marked locations.

4) Repeat steps 1 through 3 for the other side.

5) Align marks and insert the left and right torsion bars into their respective lower control arms. Slide the bars forward.

6) Insert two bushings and a sleeve (from kit 860411) into each new torsion bar drop bracket.

7) Attach the drop brackets to the crossmember with the original bolts.

8) Attach the crossmember assembly to the frame brackets with the 9/16" and 3/8" hardware from kit 860411. Tighten the 3/8" bolts to 35 ft. lbs. then the 9/16" & original bolts to 70 ft. lbs.

9) Slide a torsion bar rearward through the crossmember while holding the adjustment arm in proper position. Verify that the reference mark on the adjustment arm matches the mark on the end of the torsion bar.

10) Install the torsion bar unloading tool and increase the tension on the torsion bar.

11) Reinstall the retaining plate and adjusting bolt. Thread the adjusting bolt in until 1.6 inches of threads are exposed below the retaining plate. Remove the unloading tool.

12) Repeat steps 9 through 11 for other side.

13) Install front wheels and lower vehicle to ground. Tighten the lug nuts to 140 ft. lbs.

14) Tighten the lower control arm pivot bolts to 107 ft. lbs.

REAR SUSPENSION

END LINK, SHOCK ABSORBER, & COIL SPRING REMOVAL

1) Chock front wheels. Raise the rear of the vehicle and support the frame with jack stands. Remove the rear wheels.

2) Support the rear axle assembly with a floor jack.

3) Remove the end link nut and bolt from the frame bracket. Remove the end link nut from the ball stud. See illustration #20.

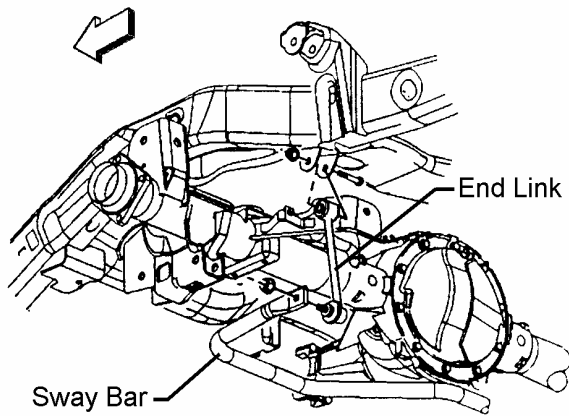


Illustration #20

- 4) Remove the end link.
- 5) Repeat steps 3 and 4 for the other side.
- 6) Remove the upper shock absorber nut and bolt. Remove the lower shock absorber nut and bolt. See illustration #21. Remove the shock absorber.

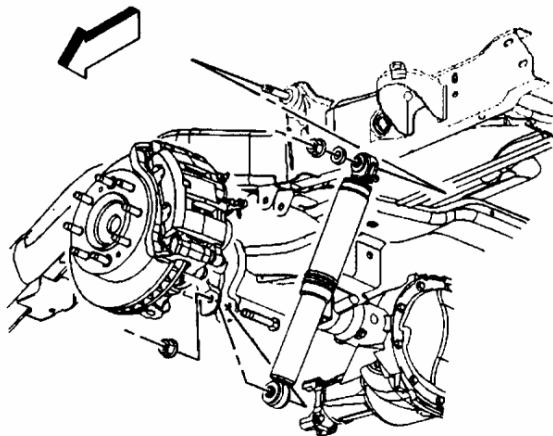


Illustration #21

- 7) Repeat step 6 for the other side.
- 8) Remove the nut and bolt holding the track bar to the rear axle.
- 9) Remove the bracket holding the brake line junction block to the rear differential. Remove the two bolts attaching the brake line to the left and right sides of the rear axle.
- 10) Carefully lower the rear axle. Do not allow the axle to hang by any hoses or cables. Remove the coil springs and insulators. See illustration #22.

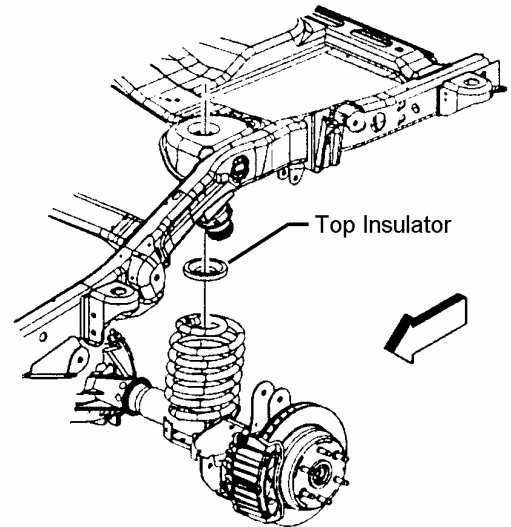


Illustration #22

LINK DROP BRACKET & BUMP STOP SPACER INSTALLATION

- 1) Starting with the driver side, remove the nuts and bolts attaching the upper and lower links to the frame. See illustration #23. Do not detach the links from the passenger side.

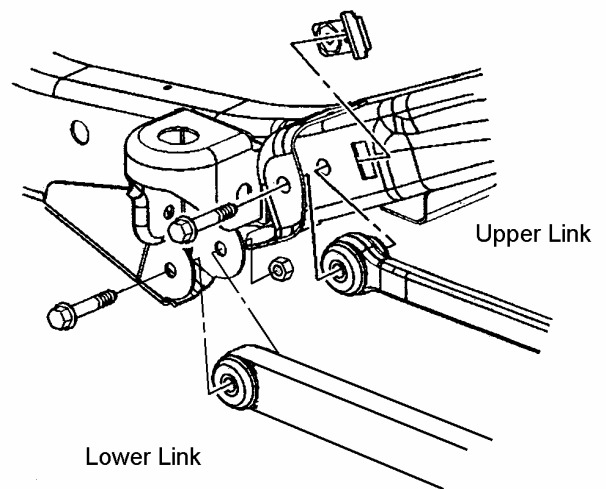


Illustration #23

- 2) Disconnect the brake cables from the equalizer. See illustration #24. Remove the cables from the mounting bracket by depressing the locking tabs. Slide the upper cable out of the link bracket.

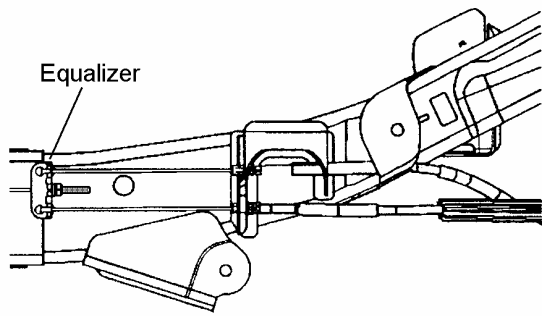


Illustration #24

- 3) Insert left link drop bracket 176190 into the frame brackets. See illustration #25. Attach the bracket to the frame with the original bolts and the 1/2" hardware from kit 860414.

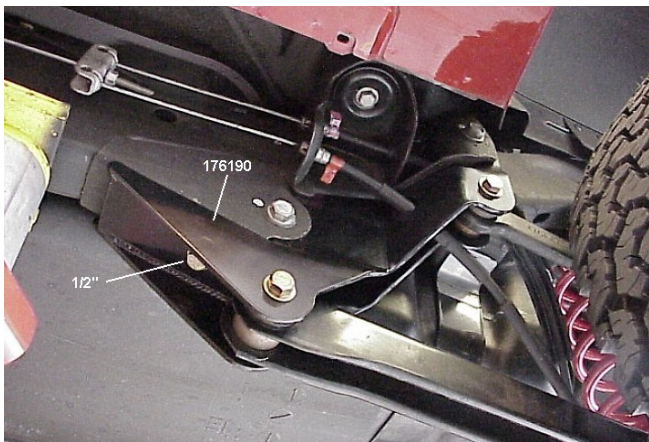


Illustration #25

- 4) Tighten the 1/2" nut and bolt to 65 ft. lbs. and the original bolts to 80 ft. lbs.
- 5) Loosely attach the upper link to drop bracket 176190 with the 9/16" hardware from kit 860414.

NOTE: Do not attach the lower link or brake cables at this time. Do not tighten the link pivot bolts until the vehicle is at normal ride height.

- 6) Loosen the bolt attaching the lower link to the axle bracket. Allow the lower link to hang downward.
- 7) Place bump stop spacer 176193 on top of the lower link axle bracket. See illustration #26. Align the rear hole in the new bracket with the existing hole. Mark the additional mounting hole location.

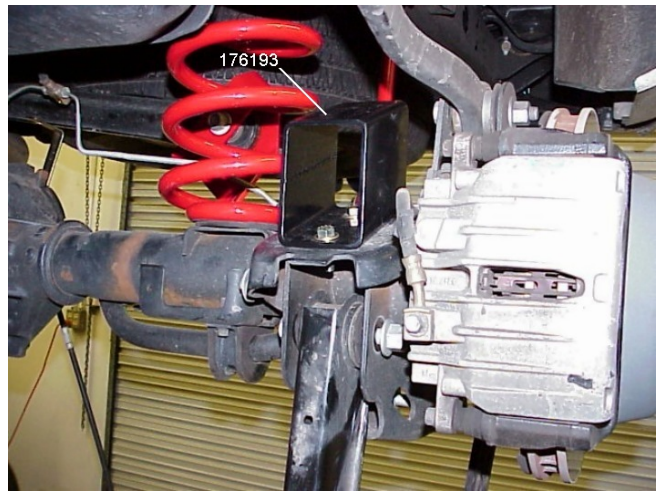


Illustration #26

- 8) Remove the spacer and drill a 3/8" hole at the marked location.
- 9) Attach bump stop spacer 176193 to the axle bracket with the 3/8" hardware from kit 860416.
- 10) Loosely attach the lower link to drop bracket 176190 with the 9/16" hardware from kit 860414.
- 11) Repeat steps 1 through 10, excluding step 2, to install drop bracket 176191 and bump stop spacer 176193 on the passenger side.

COIL SPRING & SHOCK ABSORBER INSTALLATION

- 1) Place new coil springs (673) with original insulators on the rear axle. Raise the axle and guide the springs into the frame pockets.

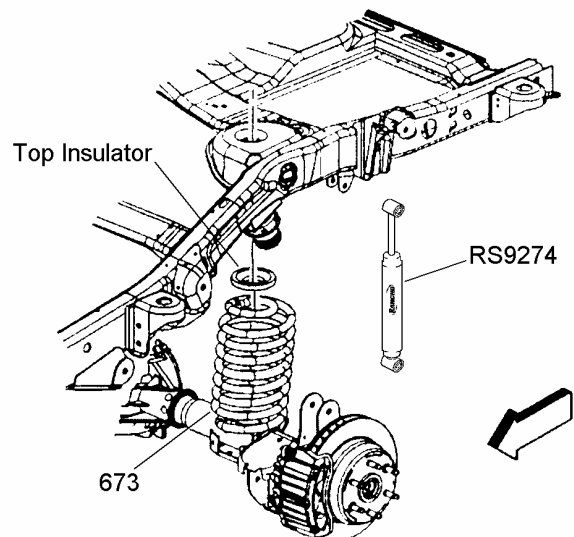


Illustration #27

- 2) Attach new Rancho shock absorbers to the upper and lower mounts.
- 3) Insert the brake cables through the holes in the new drop bracket and into the frame mount until the locking tabs snap into place. Refer back to illustration #25. Attach the cable ends to the equalizer.

BRAKE LINE BRACKET INSTALLATION

- 1) Attach the new brake line bracket 170014 to the rear differential with the original bracket bolt. See illustration #28.

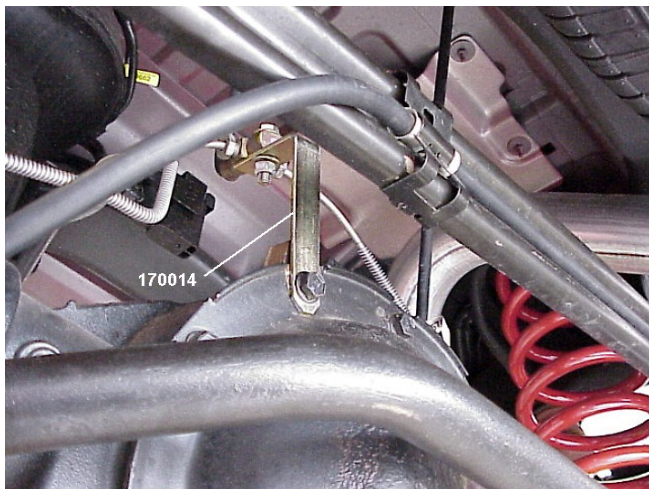


Illustration #28

- 2) Carefully reshape the brake line and attach the junction block to the top of bracket 170014. Use the 5/16" hardware from kit 860413.
- 3) Reattach the brake line to the rear axle with the two original bolts.

TRACK BAR BRACKET INSTALLATION

- 1) Attach track bar bracket 176192 to the track bar with the original hardware. Insert sleeve 420052 and attach the new track bar bracket to the original as shown in illustration #29. Use the 9/16" hardware from kit 860415.
- 2) Drill a 7/16" hole through the axle bracket at the location shown in illustration #30. Install the additional 7/16" hardware from kit 860415.
- 3) Tighten the 9/16" bolt to 77 ft. lbs. and the 7/16" bolt to 45 ft. lbs. Do not tighten the original track bar bolt until the vehicle is at normal ride height.

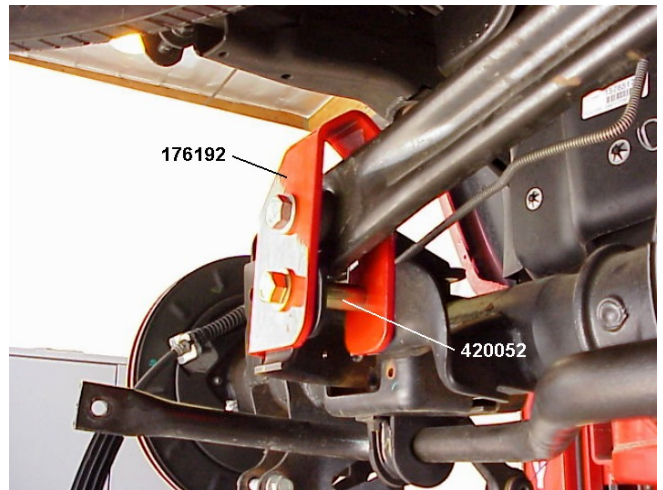


Illustration #29

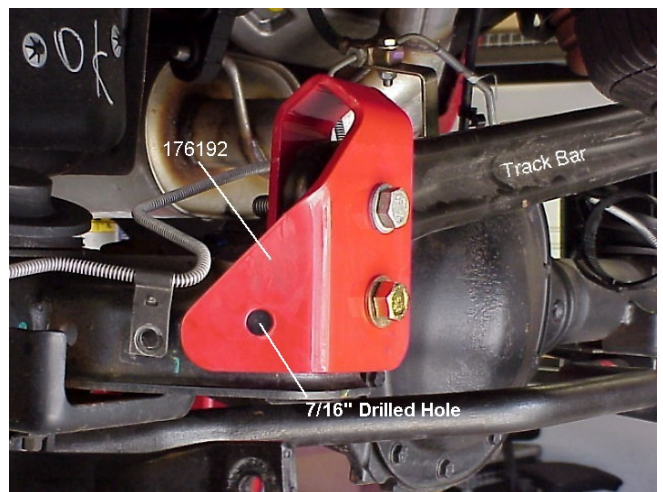


Illustration #30

SWAY BAR END LINK ASSEMBLY & INSTALLATION

- 1) Apply silicone lubricant and press bushing 545 into sway bar end link 176195. See illustration #31. Apply silicone lubricant and press sleeve 448 into the installed bushing.

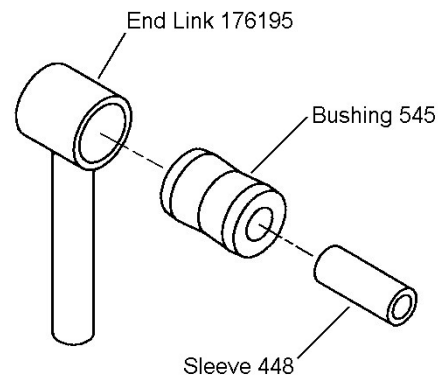


Illustration #31

2) Repeat step 1 to install the rest of the bushings and sleeves.

3) Attach the end link assembly to the frame bracket with the original bolt. Attach the sway bar to the end link with the 12mm hardware from kit 860412. See illustration #32.

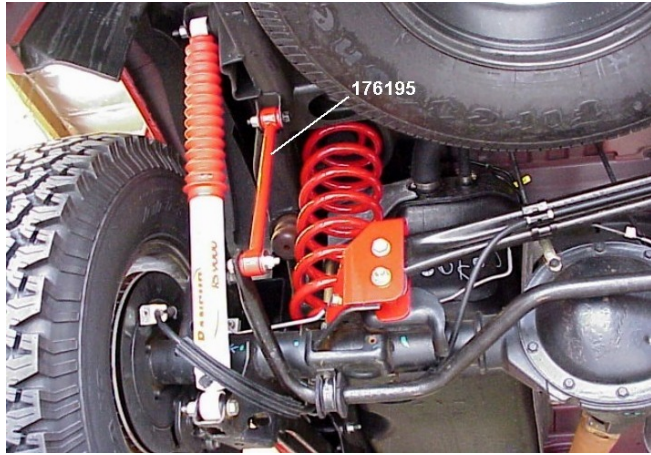


Illustration #32

4) Repeat step 3 for the other side. Do not tighten the end link bolts until the vehicle is at normal ride height.

5) Install rear wheels and lower vehicle to ground. Tighten lug nuts to 140 ft. lbs.

6) Tighten the end link bolts to 24 ft. lbs. Tighten the track bar bolt to 77 ft. lbs. Tighten the upper link arm bolts to 77 ft. lbs and the lower link arm bolts to 89 ft. lbs.

FINAL CHECKS & ADJUSTMENTS

1) Jounce suspension and move the vehicle to normalize ride height. Verify that the front spindle to fender height is 25.5" and that both sides are equal. If necessary, reinstall GM tool J 36202 and adjust the tension on the torsion bars to correct the height.

2) Turn the front wheels completely left then right. Verify adequate tire, wheel, and brake hose clearance. Inspect steering and suspension for tightness and proper operation.

3) With the suspension at maximum extension (full droop), inspect and rotate all axles and drive shafts. Check for binding and proper slip yoke insertion. The slip yoke should be inserted a minimum of one inch into the transfer case and/or transmission.

4) Ensure that the vehicle brake system operates correctly. If new brake hoses were installed, verify that each hose allows for full suspension movement.

5) Readjust headlamps. Have vehicle Aligned at a certified alignment facility.

Recommended Alignment Specifications

Caster (degrees): 4.5° ! 1.0°

Camber (degrees): 0° - .3°

Sum Toe In (degrees): .1° ! .2°

Please retain this publication for future reference. See Important Note Q.

Notes: _____

