

INSTALLATION INSTRUCTION

88146

Rev A

FOR RANCHO SUSPENSION SYSTEM **RS6546**: CHEVROLET SUBURBAN

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 RS6546 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 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. 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.

F. Compare the contents of this system with the parts list in these instructions. If any parts are missing, contact the Rancho Technical Department at 1-800-574-6257.

G. 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.

H. 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.

I. 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.

J. 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)

K. 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.

L. 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.

M. The required installation time for this system is approximately 12 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.

N. 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.**

O. Important information for the end user is contained in the consumer information pack. If you are installing this system for someone else, display the information pack by hanging it from the rear view mirror.

P. 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) M12-1.25x50 HHCS D T L X P = Property Class (bolt strength) D = Nominal Diameter (millimeters) T = Thread Pitch (thread width, mm)						

PARTS LIST

P/N	DESCRIPTION	QTY.	P/N	DESCRIPTION	QTY.
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
176135	Axle Spacer	2	485	Sleeve	2
176138	Aft Brace Bracket	2	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
672	Coil Spring	2	860412	End Link Hardware Kit, Rear	1
860174	Subframe Hardware Kit	1	448	Sleeve	4
1429	Bump Stop (low profile)	2	545	Bushing	4
420041	Sleeve	1		M12 x 1.75 x 70 HHCS	2
520041	Bushing	2		M12 X 1.75 Nyloc Nut	2
	5/8-18x4.5 HHCS	2		SAE Washer	2
	5/8-18x5.5 HHCS	2		USS Washer	2
	5/8-18 Stover Nut	4	860413	Brake Line Bracket Kit	1
	5/8 SAE Washer	8	170014	Brake Line Bracket	1
	3/8-16 Nyloc Nut	2		5/16-18x1.25 HHCS	1
	3/8 SAE Washer	2		5/16-18 Top lock Nut	1
	Thread Lock	3		5/16 SAE Washer	2
860175	Front differential Hardware Kit	1	860414	Rear Drop Link Hardware	1
	9/16-12x1.75 HHCS	2		9/16-12x3.50 HHCS	2
	9/16-12 Stover Nut	2		9/16-12x4.00 HHCS	2
	9/16 SAE Washer	2		9/16-12 Stover Nut	4
	9/16 USS Washer	2		9/16 SAE Washer	8
860176	Axle Spacer Hardware Kit	1		1/2-13x1.25 HHCS	2
	M10-1.50x60 HHCS	12		1/2-13 Stover Nut	2
	SAE Washer	12		1/2 SAE Washer	4
860177	Support Tube Hardware Kit	1	860415	Rear Track Bar Hardware Kit	1
176137	Nut Bracket	2	420052	Sleeve	1
420042	.75x.095x2.73 Sleeve	4		9/16-12x4.00 HHCS	1
420045	1.00x.219x1.00 Sleeve	2		9/16-12 Stover Nut	1
520041	Bushing	8		9/16 SAE Washer	2
	1/2-13x1.25 HHCS	2		7/16-14x1.25 HHCS	1
	1/2-13x2.5 HHCS	2		7/16-14 Stover Nut	1
	1/2-13x4.00 HHCS	4		7/16 SAE Washer	2
	1/2-13 Stover Nut	6	860416	Bump Stop Hardware Kit, Rear	1
	1/2 SAE Washer	12		3/8-16x1.50 HHCS	4
860179	Differential Hardware Kit	1		3/8-16 Stover Nut	4
	M10-1.50x60 HHCS	4		3/8 SAE Washer	8
	7/16-14x3.0 HHCS	1	88146	Instructions	1
	7/16-14 Stover Nut	1	94140	Consumer Information Pack	1
	SAE Washer	4			
	7/16 SAE Washer	2			

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.

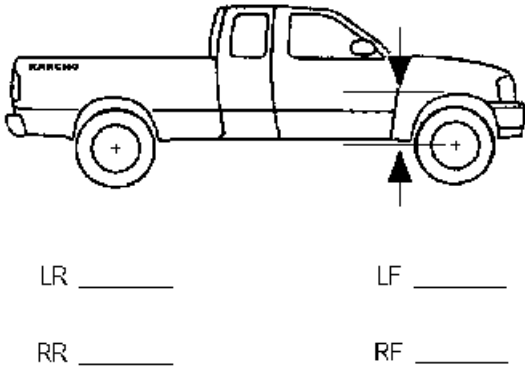


Illustration #1

- 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.

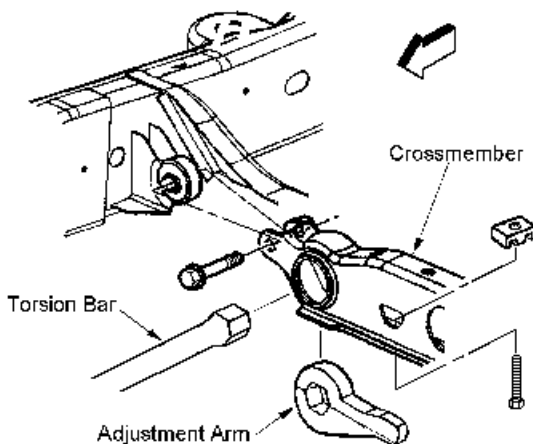


Illustration #2

- 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.

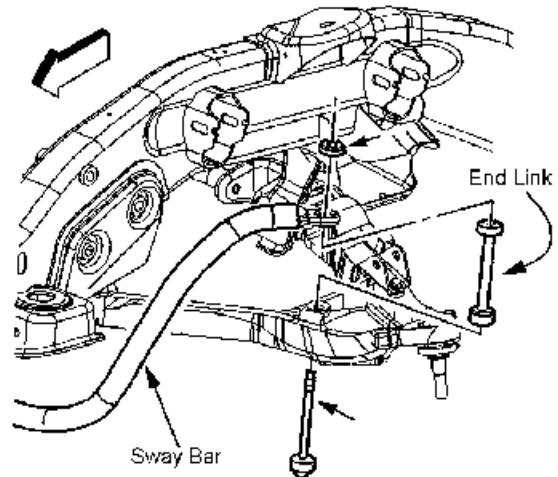


Illustration #3

- 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.

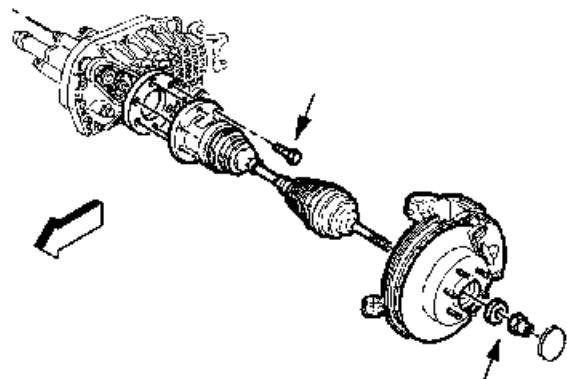


Illustration #4

- 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.

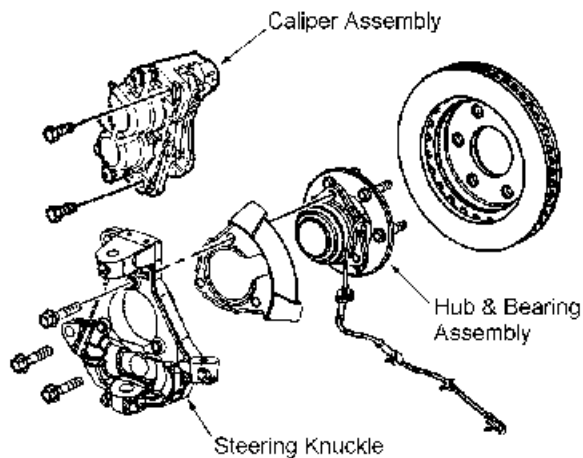


Illustration #5

- 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.

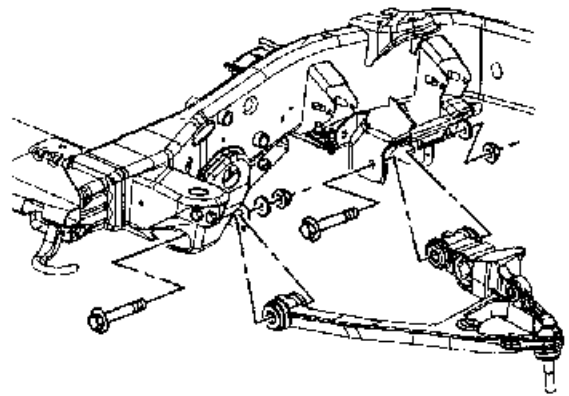


Illustration #6

- 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 mount as shown in illustration #7. File all sharp edges and paint exposed metal.



Illustration #7

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

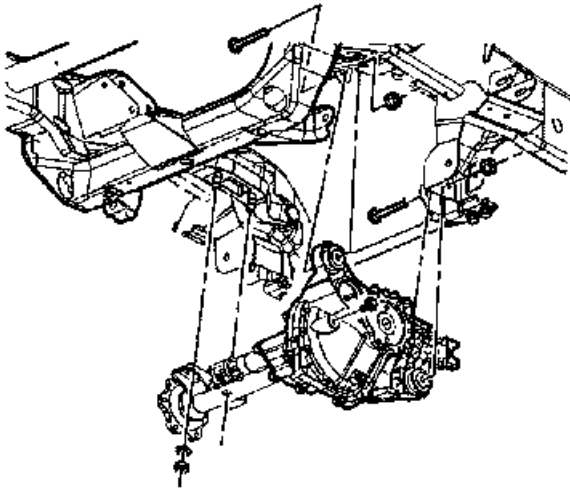


Illustration #8

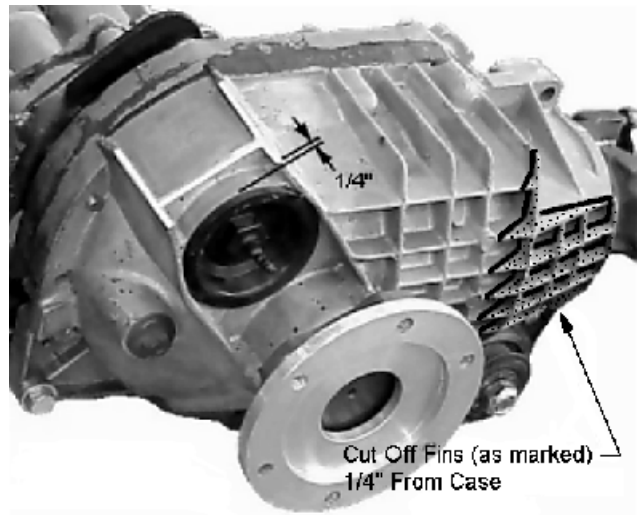


Illustration #9

- 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

- 1) ✓ Cut off the upper mount (1/4" from the case) and **a section of the fins** from the front differential. See illustration #9.

CAUTION: When modifying the front differential, do not cut into the case itself.

- 2) ✓ Install bushings 520041 into differential support bracket 176130. Apply silicon lubricant and press sleeve 420041 through the installed bushings.
- 3) ✓ Attach bracket assembly 176130 to the front differential as shown in illustration #10. Use the hardware from kit 860179. Tighten to specifications.

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

- 4) ✓ Loosely attach drop bracket 176131 (as shown in illustration #10) to the differential axle tube with the 9/16" hardware from kit 860175.

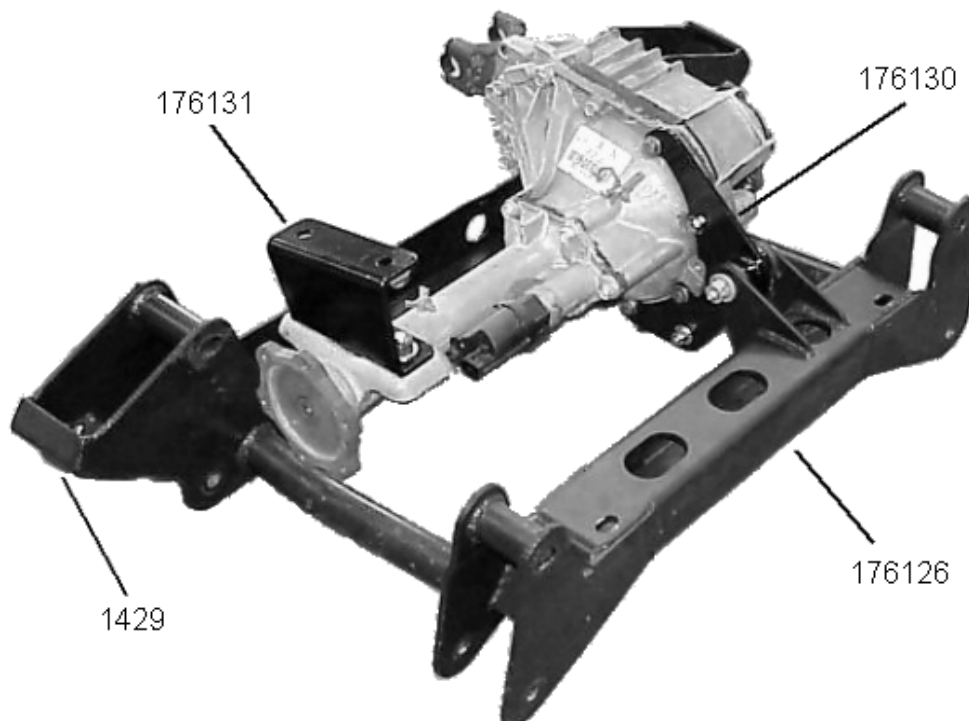


Illustration #10

- 5) ✓ Attach the front differential assembly to the subframe (176126) with the original hardware. Tighten the nuts and bolts to 75 ft. lbs.
- 6) ✓ Attach the low profile bump stops (1429) to the subframe with the 3/8" hardware from kit 860174.
- 7) ✓ Using a piece of 1/2" plywood, support the subframe and differential assembly with a floor jack.
- 8) ✓ 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.
- 9) ✓ 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.

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 #9).

FAILURE TO PROVIDE CLEARANCE COULD CAUSE DAMAGE TO THE DIFFERENTIAL AND AXLE ASSEMBLY.

- 10) ✓ 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 #11.. Tighten the mounting bolts to 133 ft. lbs.
- 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.

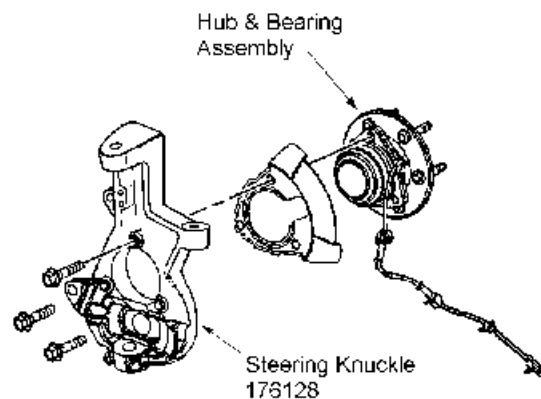


Illustration #11

- 6) ✓ Place axle spacer 176135 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. See illustration #12.

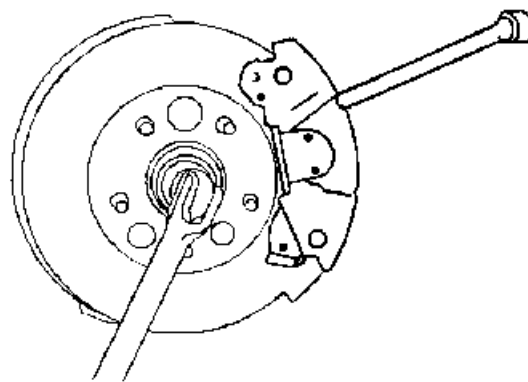


Illustration #12

- 9) ✓ Tighten the axle hub nut to 165 ft. lbs. Remove the drift from the rotor.
- 10) ✓ Slide the brake hose clamp down and attach it to the top hole in the back of the steering knuckle. Use a clamp bolt from the original knuckle.
- 11) ✓ If applicable, reconnect the ABS cable. Attach the ABS cable to the knuckle and upper control arm with tie wraps. See illustration #13.

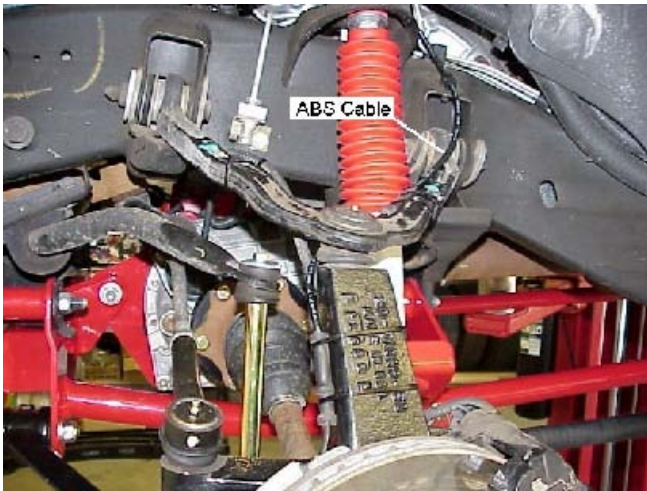


Illustration #13

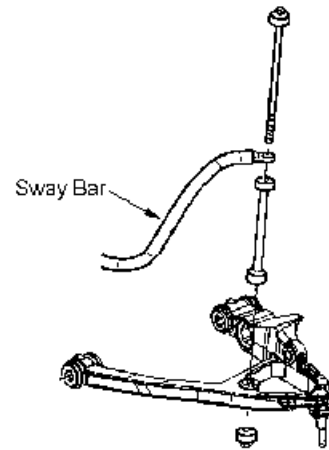


Illustration #14

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

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

14) ✓ 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 15.

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

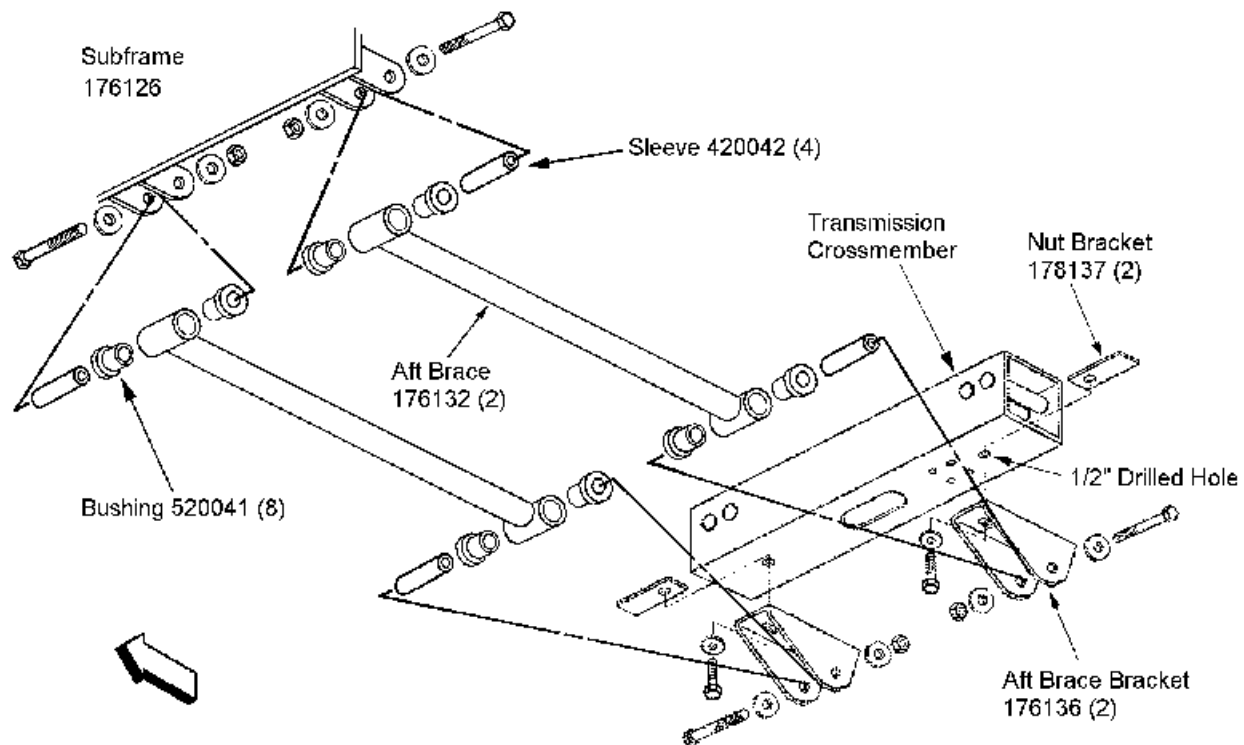


Illustration #15

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 #15.
- 6) ✓ Insert nut bracket 176137 inside the crossmember as shown in illustration #15. 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 #15.
- 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 #16.
- 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 arms forward.

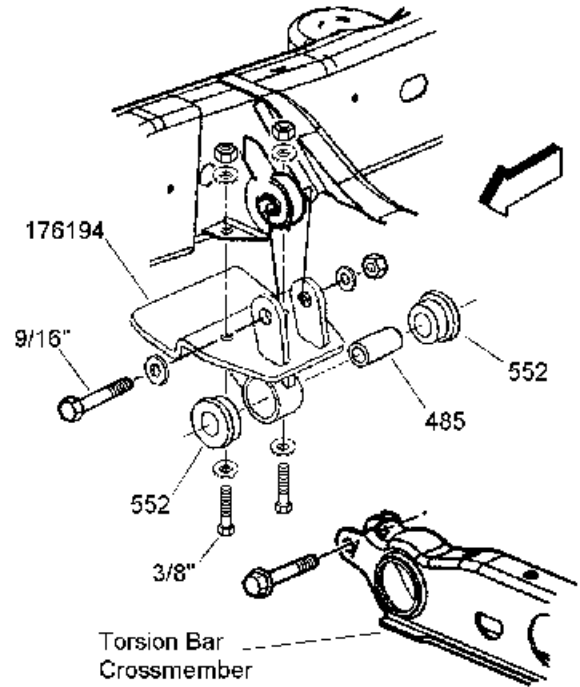


Illustration #16

- 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 #17.

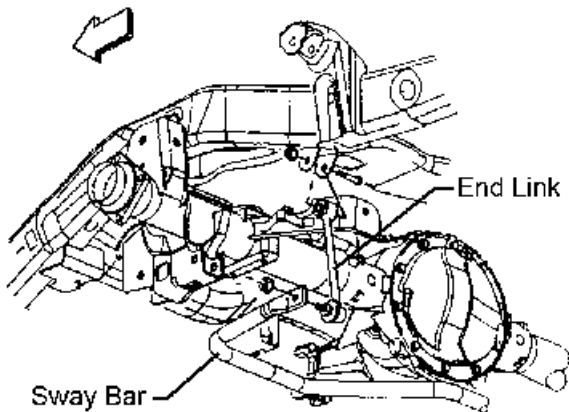


Illustration #17

- 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 #18. Remove the shock absorber.

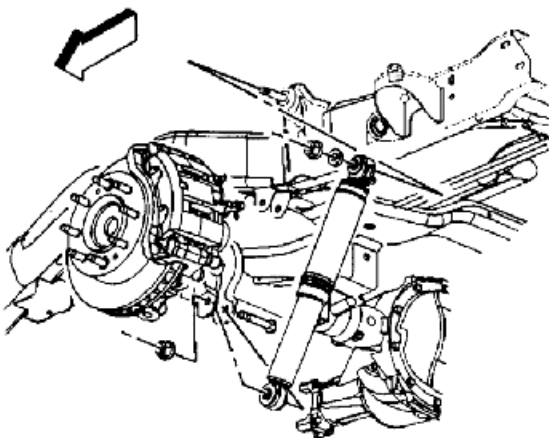


Illustration #18

- 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 #19.

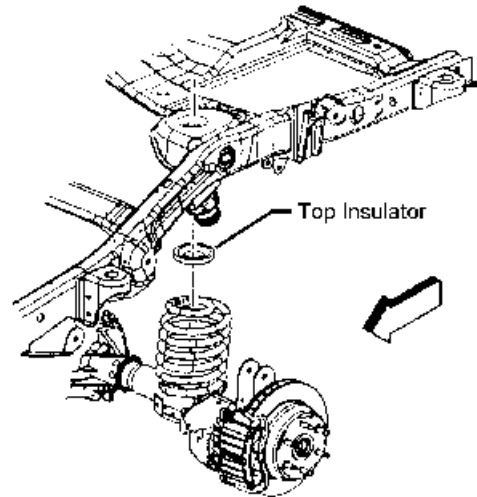


Illustration #19

LINK DROP BRACKET INSTALLATION

- 1) ✓ Starting with the driver side, remove the nuts and bolts attaching the upper and lower links to the frame. See illustration #20. Do not detach the links from the passenger side.

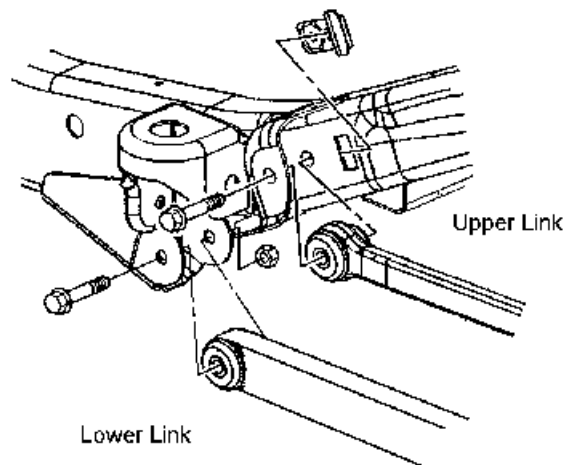


Illustration #20

2) ✓ Disconnect the left side brake cable from the equalizer. Remove the cable from the mounting bracket by depressing the locking tabs.

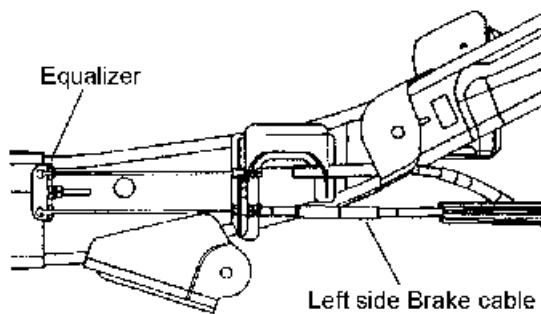


Illustration #21

3) ✓ Insert left link drop bracket 176190 into the frame brackets. See illustration #22. Temporarily attach the bracket to the frame with the original bolts.

4) ✓ Mark and center punch the new 1/2" hole location on the bottom of the original lower link bracket.

5) ✓ Remove the drop bracket and drill a 1/2" hole at the marked location.

6) ✓ Reattach drop bracket 176190 to the frame with the original hardware. Install the 1/2" hardware from kit 860414. Tighten the 1/2" nut and bolt to 65 ft. lbs. and the original bolts to 80 ft. lbs.

7) ✓ Insert the brake cable through the hole in the new drop bracket and into the frame mount until the locking tabs snap into place. See illustration #23. Attach the cable end to the equalizer.



Illustration #22

8) ✓ Attach the upper and lower links to drop bracket 176190 with the 9/16" hardware from kit 860414. Do not tighten the bolts until the vehicle is at normal ride height.

9) ✓ Repeat steps 1 through 8, excluding the brake cable, to install drop bracket 176191 on the passenger side.

COIL SPRING & SHOCK ABSORBER INSTALLATION

- 1) ✓ Place new coil springs (672) with original insulators on the rear axle. Raise the axle and guide the springs into the frame pockets.
- 2) ✓ Attach new Rancho shock absorbers to the upper and lower mounts.

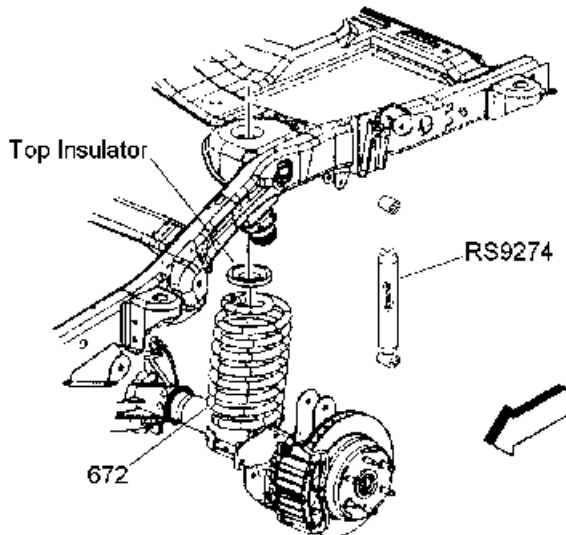


Illustration #23

BRAKE LINE BRACKET INSTALLATION

- 1) ✓ Attach the new brake line bracket 170014 to the rear differential with the original bracket bolt. See illustration #24.



Illustration #24

- 2) ✓ Carefully reshape the brake line and attach the junction block to the top of bracket 170014. Use the 5/16" hardware from kit 860143.

- 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 #25. Use the 9/16" hardware from kit 860415.

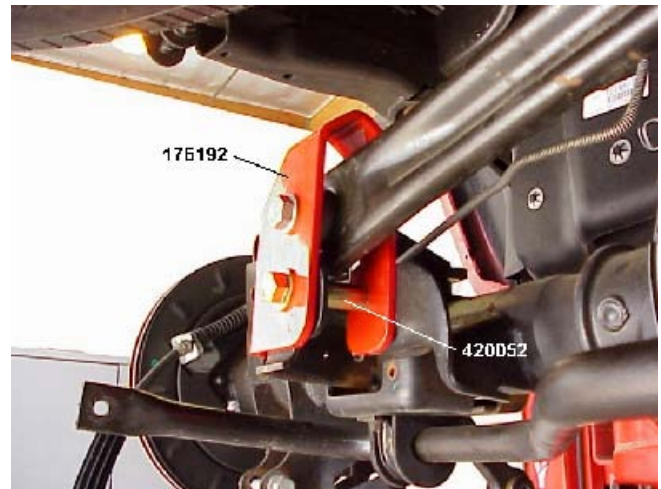


Illustration #25

- 2) ✓ Drill a 7/16" hole through the axle bracket at the location shown in illustration #26. Install the additional 7/16" hardware from kit 860415.

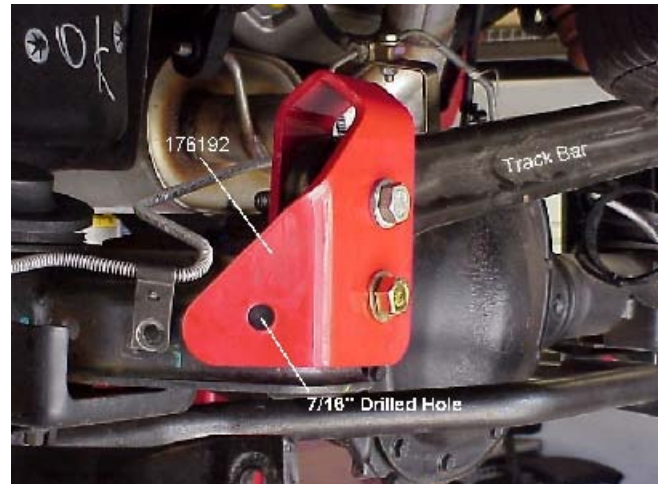


Illustration #26

- 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.

BUMP STOP SPACER INSTALLATION

- 1) ✓ Place bump stop spacer 176193 on top of the lower link axle bracket. See illustration #29. Align the rear hole in the new bracket with the existing hole. Mark the additional mounting hole location.

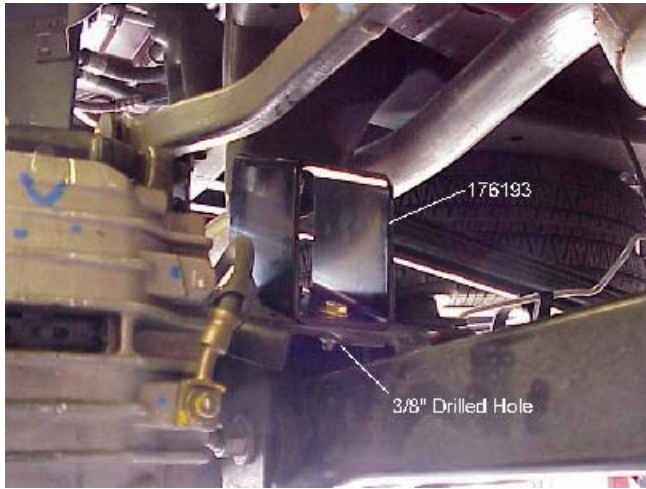


Illustration #29

- 2) ✓ Remove the spacer and drill a 3/8" hole at the marked location.
- 3) ✓ Attach bump stop spacer 176193 to the axle bracket with the 3/8" hardware from kit 860416.
- 4) ✓ Repeat steps 1 through 3 for the other side.

SWAY BAR END LINK ASSEMBLY & INSTALLATION

- 1) ✓ Apply silicone lubricant and press bushing 545 into sway bar end link 176195. See illustration #27. Apply silicone lubricant and press sleeve 448 into the installed bushing.

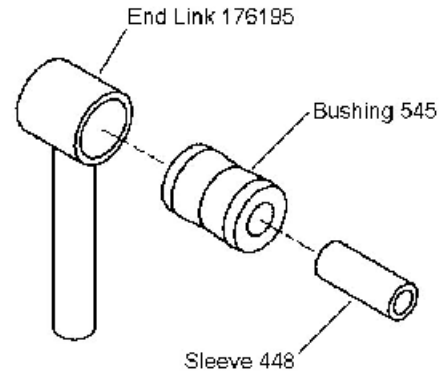


Illustration #27

- 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 #28.



Illustration #28

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.

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

Recommended Alignment Specifications

Caster (degrees): $4.5^{\circ} \pm 1.0^{\circ}$

Camber (degrees): $0^{\circ} - .3^{\circ}$

Sum Toe In (degrees): $.1^{\circ} \pm .2^{\circ}$

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.



Notes:

ABOUT OUR WARRANTY

Rancho Industries USA, warrants the listed products for the listed time period and/or mileage to the original retail purchaser against defect and wear-out when used on passenger cars and light trucks under normal operating conditions. The warranty does not apply to Rancho products which have been improperly applied or installed. The consumer will be responsible for removing from the vehicle and returning any defective item(s), transportation costs prepaid, to the dealer from which it was purchased or a Rancho Authorized Installer, and for reinstallation of the part upon return. A copy of the sales receipt is required for all warranty adjustments. Rancho Industries will, without charge, repair or replace at its option, defective products or component part(s).

In the case that the customer is unable to return to the original place of purchase or an Authorized Installer, the consumer may contact Rancho Industries at 1-800-574-6257 to obtain a Return Authorization Number prior to shipping. The consumer will be responsible for removing from the vehicle and returning any defective item(s), transportation cost pre-paid, to the following address: 1 International Drive, Monroe MI. 48161. A copy of the sales receipt is required for any warranty adjustments. Rancho Industries will, without charge, repair or replace at its option, defective products or component part(s). Such item(s) will be returned with transportation costs prepaid within the United States from Rancho Industries. The customer will be responsible for reinstallation.

Exclusions from this warranty are sales outside of the United States, the finish, any condition(s) caused by abnormal use or service, and product-specific limitations, if any, listed below.

THE LOSS OF USE OF THE PRODUCT, LOSS OF TIME, INCONVENIENCE, COMMERCIAL LOSS OR CONSEQUENTIAL DAMAGES ARE NOT COVERED. RANCHO INDUSTRIES RESERVES THE RIGHT TO CHANGE THE DESIGN OF ANY PRODUCT WITHOUT ASSUMING ANY OBLIGATION TO MODIFY ANY PRODUCT PREVIOUSLY MANUFACTURED.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH MAY VARY FROM STATE TO STATE. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS OR ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

THERE ARE NO WARRANTIES, EXPRESSED OR IMPLIED INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS, WHICH EXTEND BEYOND THIS WARRANTY PERIOD. THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE FACE HEREOF. SELLER DISCLAIMS IMPLIED WARRANTY OF MERCHANTABILITY.

THIS WARRANTY SHALL NOT APPLY TO ANY RANCHO PRODUCT WHICH HAS BEEN MODIFIED, CUSTOMIZED OR IMPROPERLY INSTALLED. WARRANTY DOES NOT APPLY TO ANY RANCHO COMPONENTS USED FOR RACING PURPOSES, OR RACE TYPE ACTIVITIES. WARRANTY DOES NOT APPLY TO ANY RANCHO INDUSTRIES RACING PRODUCTS.

The product, time periods and/or mileage under this warranty are as follows:

RS5000 / RS5600 / RS9000 / RSX

LIMITED LIFETIME WARRANTY

Limited lifetime warranty on these Rancho shock absorbers. Rancho Industries warrants each new shock against factory defects in material and workmanship (except for finish, including the shock boot) for as long as the original retail purchaser owns the vehicle on which the units were originally installed.

RC9000 REMOTE CONTROL

LIMITED 2 YEAR, 24,000 MILE WARRANTY

Limited 2 year, 24,000 mile warranty on these Rancho products. Rancho Industries warrants each new RS4000, Air Rancho shock and RC9000 Remote Control System against factory defects in material and workmanship (except for finish, including shock boot) for the first to occur of 2 years or 24,000 miles after the date of purchase.

SUSPENSION COMPONENTS LIMITED LIFETIME WARRANTY

Limited lifetime warranty on all of Rancho's suspension products. Rancho Industries warrants each new Suspension Component against factory defects in material and workmanship (except finish) for as long as the original retail purchaser owns the vehicle on which the products were originally installed.

THIS LIMITED WARRANTY DOES NOT COVER THE FOLLOWING:

- Any component that has been modified, customized, or improperly installed
- Any part that is obsolete and is no longer available or supplied by Rancho

RANCHO GEAR

Disclaimer Statement

Grille Guards, Side Steps, Skid Plates and Taillight Guards are designed as decorative accessories to enhance the styling of the vehicle and are not intended as collision protection devices. These products offer no significant incremental collision protection beyond that provided by the original vehicle design as produced by the vehicle manufacturer. Buyer assumes all risk and liability whatsoever resulting from the installation and use of Rancho Gear products. Rancho assumes no liability for injury, collision or other road hazard. These products are not a substitute for safe and careful driving.

Vehicles equipped with supplemental restraint systems (air bags) that are deployed by impact rather than a sudden velocity decrease should not be modified or altered with any aftermarket grill guard or brush bar. Such modification could alter the deployment of the airbag(s) in the event of a frontal impact, collision or other road hazard.

Limited 5 Year Warranty

Limited 5 year warranty on Rancho Gear products. Rancho Industries warrants each new Grille Guard, Side Step, Taillight Guard and Skid Plate against factory defects in material and workmanship (except finish) for 5 years after the date of purchase.

RIGHTS RESERVED

Rancho Industries reserves the right to make changes in design, material and specifications or to make product changes as deemed necessary without prior notice. Obligations or liabilities will not be assumed with respect to similar products previously advertised.

PRINTING ERRORS

Every effort has been made to avoid printing errors in our literature. However, if there are any specification or application errors, we must disclaim responsibility.

This document was created with Win2PDF available at <http://www.daneprairie.com>.
The unregistered version of Win2PDF is for evaluation or non-commercial use only.