

INSTALLATION INSTRUCTIONS

8827

Rev A

FOR SUSPENSION SYSTEM RS6427: CHEVEROLET K1500

READ ALL INSTRUCTIONS THOROUGHLY FROM START TO FINISH BEFORE BEGINNING INSTALLATION



IMPORTANT NOTES!

A. Before installing this system, have the vehicle's alignment and frame checked at a state approved facility. The alignment must be within factory specifications and the frame must be sound (no cracks, damage or corrosion).

B. Do Not install a body lift kit with Rancho's suspension system or interchange parts from this system with components from another manufacturer. Use the appropriate Rancho shock absorbers. Contact your local Rancho representative for the correct applications.

C. Compare the contents of this system with the parts list in these instructions. If any parts are missing, including fasteners, contact the Rancho Technical Department at 1-800-5SHOCKS. Each hardware kit in this system contains fasteners of high strength and specific size. Do not substitute a fastener of lesser strength or mix one hardware kit with another.

D. Apply THREAD LOCKING COMPOUND to all bolts during installation. One drop on the exposed threads of each bolt before installing the nut is sufficient to provide an adequate bond. CAUTION: Thread locking compound may irritate sensitive skin. Read warning label on container before use.

E. 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.

F. Unless otherwise specified, tighten all bolts to the standard torque specifications listed at the end of the note's section. Do not use an impact wrench to tighten any of these bolts. They tend to over tighten smaller bolts and under tighten larger bolts. USE A TORQUE WRENCH!!!

G. Rancho parts come with a protective coating. Do not chrome, cadmium, or zinc plate any of the components in this system.

H. This system is a "bolt on assembly". Do not weld any of these components to the vehicle. If any component breaks or bends, contact your local Rancho dealer or Rancho for replacement parts.

I. 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.

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
- ☐ Ball Joint Separator (J 23742)
- ☐ Torsion Bar Unloading Tool (J 36202)
- ☐ Differential Carrier Bushing Remover (J 36616)
- ☐ Knockout Removal tool (J 38794)
- ☐ Die Grinder
- ☐ Drill motor
- ☐ Drills: 1/8", 1/2"
- ☐ Torque Wrench (250 FT-LB capacity)
- ☐ 1/2" Drive Ratchet and Sockets
- ☐ Assorted Combination Wrenches
- ☐ Assorted Hex-Key Wrenches
- ☐ Heavy Duty Jack Stands
- ☐ Wheel Chocks (wooden blocks)
- ☐ Hydraulic Floor Jack
- ☐ Center punch
- ☐ File
- ☐ Large "C" Clamps and or Bench Vise
- ☐ Hacksaw
- ☐ Hammer
- ☐ Wire Brush (to clean bracket mounting surfaces)
- ☐ Tape Measure
- ☐ Silicone RTV Adhesive
- ☐ Brake Fluid (DOT 3)
- ☐ **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. This system is compatible with GM's Alignment Adjustment Kit #15538596 and other similar kits. Even though the pivots have been relocated, the adjustments are made the same way as with stock components. The only difference is that you must loosen the new bolt on the top of the forward pocket.

M. If the torsion bar adjusting bolts "bottom out" before the 23.5" height is reached, check the adjusting arms and bolts for wear before replacing torsion bars. Replace fatigued torsion bars with Rancho Torsion Bar Kit 640.

N. 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.

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 SPECIFICATIONS						
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	165FT-LB	210 FT-LB
3/4	185 FT-LB	280 FT-LB	M18	170 FT-LB	240FT-LB	290 FT-LB
BOLT IDENTIFICATION						
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.
1348	Left Upper Control Arm	1	7865	D Spacer	2
1349	Right Upper Control Arm	1		1/2-13x1.5 HHCS	2
170072	Bracket Spacer	1		1/2-13 Stover Nut	2
170073	Differential, LR Bracket	1		1/2 SAE Washer	4
170074	Brake Hose	2		9/16-12x3.5 HHCS	2
1792	Differential, LF Bracket	1		9/16-12 Stover Nut	2
1793	Differential, Right Bracket	1		9/16 SAE Washer	4
1795	Pivot Bracket	2	8516	Rear Pivot Hardware Kit	1
1798	Skid plate Rear Bracket	1	420008	Sleeve .75x.090x2.16	2
317	Add-A-Leaf	2	580	Fwd Bushing	2
7873	Skid plate Front Spacer	1	581	Rear Bushing	2
8061	Ball Joint Hardware Kit	1	7864	Pivot Washer	4
	1/8" Cotter Pin	3	7866	Pivot Sleeve 1.75x.095x1.23	2
	5/16-18 Stover Nut	8		M14-2.0 Stover Nut	4
	Thread Lock	2	8519	Skid Plate Hardware Kit	1
8062	Ball Joint Hardware Kit	1		M10-1.50x70 HHCS	2
	5/16-18x1.0 HHCS	8		10mm Lock Washer	2
	5/16 Washer	18		3/8-16x1.0 HHCS	2
	11" Tie Wrap	4		3/8-16 Stover Nut	2
8063	CV Hardware Kit	1		3/8 SAE Washer	6
	M10-1.25x25 SHCS	12	8527	Droop Stop Hardware Kit	1
	Washer	12	1558	Adjustment Plate	6
8337	Center Bolt Nut Kit	1		#10-24 Nyloc Nut	4
	3/8-24 Nut	2		#10-24x.75 HHMS	4
8367	Center Bolt	2	8592	Differential Hardware Kit	1
8512	Differential, LF Hardware Kit	1		M10-1.50x60 HHCS	2
579	Bushing	2		3/8-16x1.25 HHCS	2
7870	Sleeve .75x.562x1.84	1		3/8-16 Nut	2
	1/2 SAE Washer	4		3/8 SAE Washer	4
	1/2-13 Nut	2		7/16-14x1.25 HHCS	1
	1/2-13x1.5 HHCS	1		7/16-14 Nut	1
	1/2-13x3.5 HHCS	1		7/16 SAE Washer	2
8513	Differential, LR Bushing Kit	1		1/2-13x4.5 HHCS	1
420011	Shouldered Sleeve	2		1/2-13 Nut	1
573	Eccentric Bushing	2		1/2 SAE Washer	2
8514	Differential, RF Bushing Kit	1		9/16-18x2.0 HHCS	2
585	Bushing	4		9/16-18 Nut	2
7869	Sleeve .75x.090x2.23	2		9/16 SAE Washer	4
8515	Fwd Pivot Hardware Kit	1		D-washer	1
481	Sleeve 1.0x.565x1.55	2	860086	Brake Hose Gasket Kit	1
564	Bushing	4	170078	Copper Washer	4
7852	Pivot Washer	4	8827	Instructions	1
			94140	Consumer Information Pack	1

◀ FRONT SUSPENSION ▶

Vehicle Preparation & General Disassembly

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 figure #1.

LF: _____ RF: _____

LR: _____ RR: _____

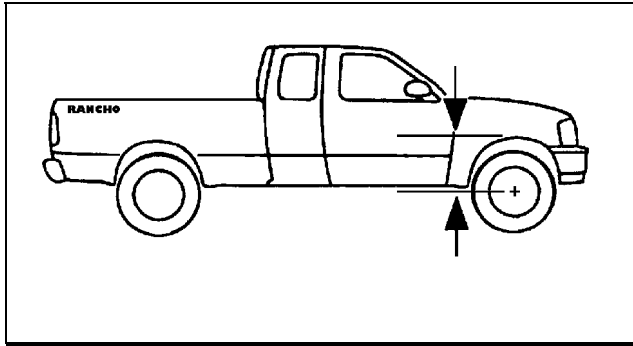


Figure #1

2. ☐ Raise the front of the vehicle and support the frame with jackstands. Remove the front wheels and set them aside.

3. ☐ Make reference marks on the torsion bars, the adjustment arms, and the lower control arms. Measure and record the length of the torsion bar adjusting bolts. See figure #2.

Left side: _____ Right side: _____

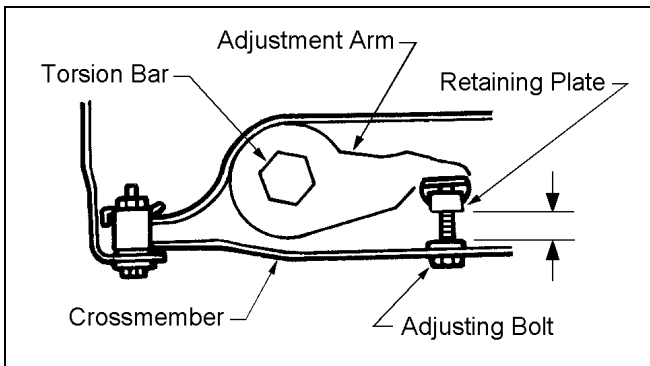


Figure #2

4. ☐ Install the torsion bar unloading tool and increase the tension on the torsion bar. Remove the adjusting bolt and retaining plate. Relieve the tension on the torsion bar. Repeat for other side.
5. ☐ Remove the front skid plate, if equipped.

6. ☐ Using a floor jack, raise the lower control arm enough to straighten the stabilizer bar link assembly. Disconnect the stabilizer bar from the control arm.

7. ☐ Remove the front shock absorber.

8. ☐ Repeat steps 6 and 7 for other side.

Upper Control Arm Assembly

1. ☐ Using lacquer thinner or rubbing alcohol, clean the pivot sleeves (7866) and the red bushings (580 & 581) from kit 8516.

2. ☐ Apply a thin coat of silicone RTV adhesive halfway into and around the inside edge of both pivot sleeves. Insert bushing 580 into the glued end of each sleeve.

3. ☐ Slide a washer (7864) from kit 8516 over each pivot sleeve and up against the bushing. Lubricate the outside of the pivot sleeves and the inside face of the washers with a molybdenum (moly) grease.

4. ☐ Insert a greased sleeve assembly into the rear pivot tube of each upper control arm (1348 & 1349) as shown in figure #3.

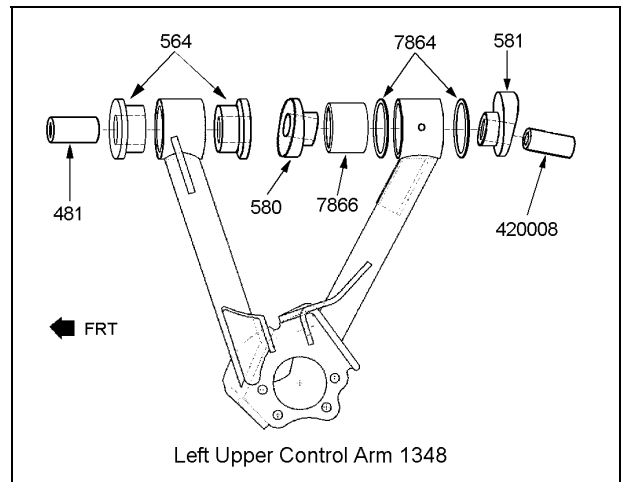


Figure #3

5. ☐ Lubricate the inside face of the two remaining washers (7864). Slide one washer over the outer end of each pivot sleeve and up against the pivot tube of the control arm.

6. ☐ Apply a thin coat of silicone adhesive (into the outer opening) and insert bushing 581 into each pivot sleeve. Rotate the bushing so that its outer edge is parallel with the outer edge of bushing 580. See figure #3. Using a C-clamp, press sleeve 420008 through each bushing assembly.

7. ☐ Install bushings 564 into the front pivot tube of upper control arms 1348 and 1349. See figure #3. Press sleeve 481 through each bushing assembly with a C-clamp.

Front Differential Removal

1. ☐ Reference mark the front propeller shaft to the slip yoke of the front differential carrier. Remove the propeller shaft from the differential. See figure #4.

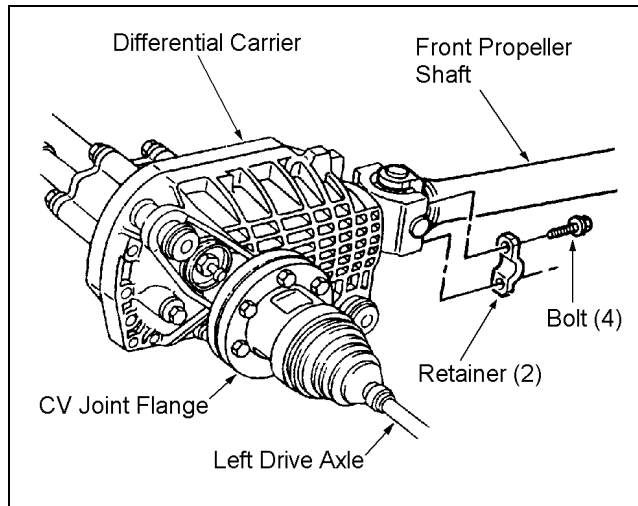


Figure #4

2. ☐ Tape the U-joint bearing caps (to keep them from falling) and rest the propeller shaft on the exhaust crossover pipe. **CAUTION:** Do not allow the propeller shaft to separate from the transfer case.

3. ☐ Remove the differential carrier skid plate.

4. ☐ Reference mark the CV joint flanges and remove the 6 bolts from both the left and right sides. See figures #4 and #5. Compress the drive axle assemblies for clearance and tie them up and out of the way. Do Not remove the CV boot or disassemble the CV.

5. ☐ Disconnect the axle vent hose and plug openings to prevent contamination.

6. ☐ Unplug the electrical connectors located on the right axle tube.

7. ☐ Remove the differential carrier lower mounting nut and bolt. Remove the two nuts and bolts from the differential right axle tube. See figure #5.

8. ☐ Using a hacksaw, cut off the differential carrier rear frame mount as shown in figure #6.

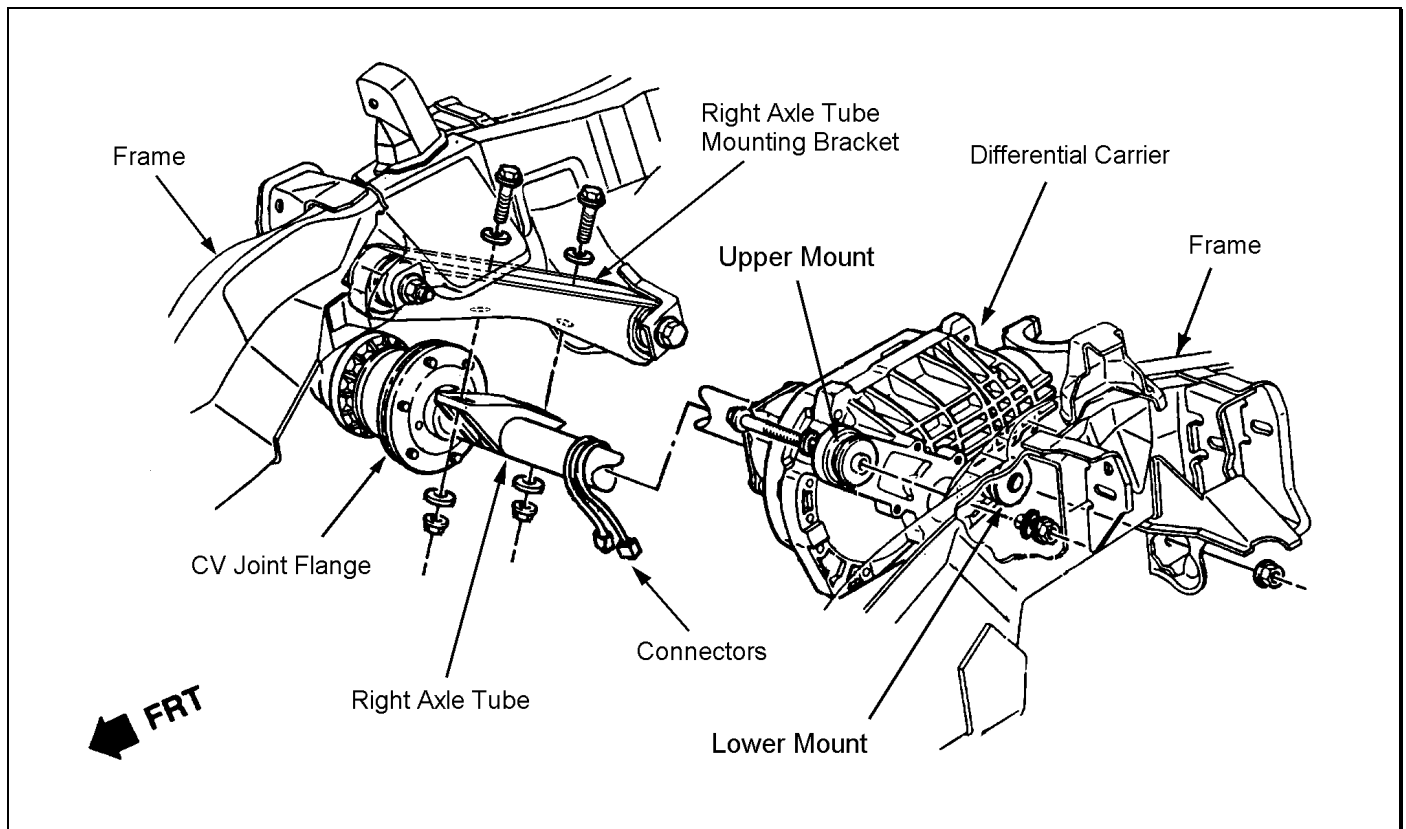


Figure #5

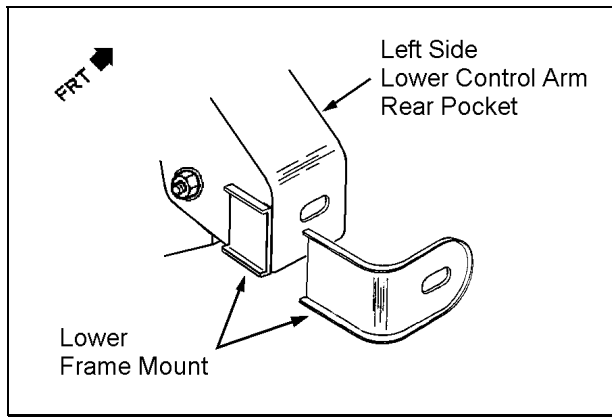


Figure #6

9. ☐ Support the front differential with a floor jack and remove the differential carrier upper mounting nut and bolt. Carefully lower and remove the front differential. **CAUTION:** When lowering the front differential secure it to the jack to keep it from falling.

Front Differential & Drop Bracket Installation

1. ☐ Remove the right axle tube mounting bracket See figure #5.
2. ☐ Press two bushings and a sleeve (from kit 8514) into each end of right differential drop bracket 1793. Position the drop bracket assembly into the right axle tube frame pockets. Install original hardware and tighten to specifications. See figure #7.

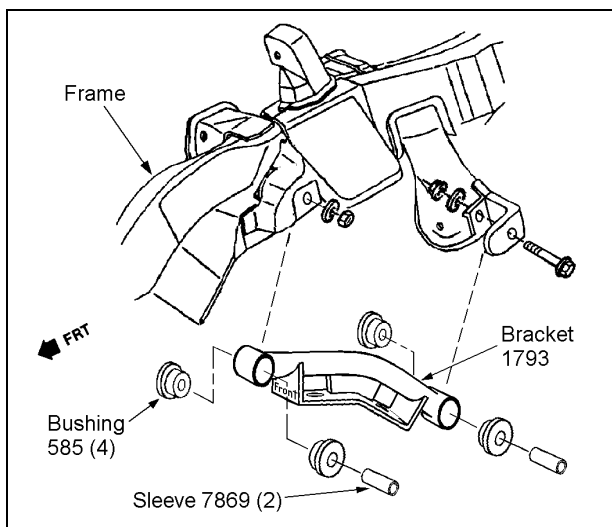


Figure #7

3. ☐ Position drop bracket 1792 into the differential carrier upper frame pocket. Bracket should angle forward and rest against the top of the pocket. Insert original mounting bolt to hold bracket in place. Using the drop bracket as a template, mark hole in top of pocket. Remove bracket.

4. ☐ Drill a 1/2" hole through the top of the differential carrier upper frame pocket.

5. ☐ Remove the upper and lower bushings from the differential carrier with bushing removal tool J 36616 or an equivalent pressing device. **CAUTION:** Do Not use a hammer. A sharp blow can crack the differential case.

6. ☐ Insert shouldered sleeves 420011 into eccentric bushings 573. Install each bushing assembly (with sleeve at bottom) into the rear mounting hole of the differential carrier. See figure #8.

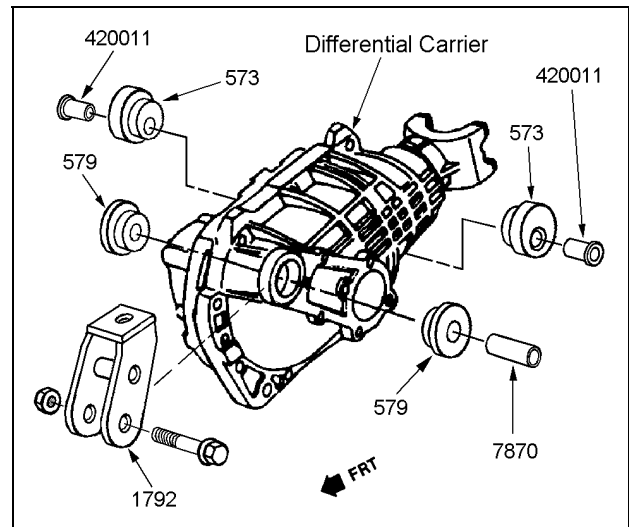


Figure #8

7. ☐ Insert bushings 579 into the upper mounting hole of the differential carrier. Using a C-clamp, press sleeve 7870 through the two bushings.

8. ☐ Attach drop bracket 1792 to the differential carrier upper mount with the original hardware. See figure #8. Tighten nut and bolt to 80 FT-LBS.

9. ☐ Reposition the front differential under the vehicle with a floor jack. Carefully raise the differential assembly and attach bracket 1792 to the upper frame mount with hardware from kit 8512. Snug nuts and bolts down evenly then tighten to specifications.

10. ☐ Insert spacer 170072 and loosely attach the right axle tube to frame bracket 1793. Use the 9/16" hardware from kit 8592. See figure #9.

11. ☐ Remove the nut and washer from the rear mounting bolt of the driver side lower control arm. Push the bolt in, flush with the control arm pocket.

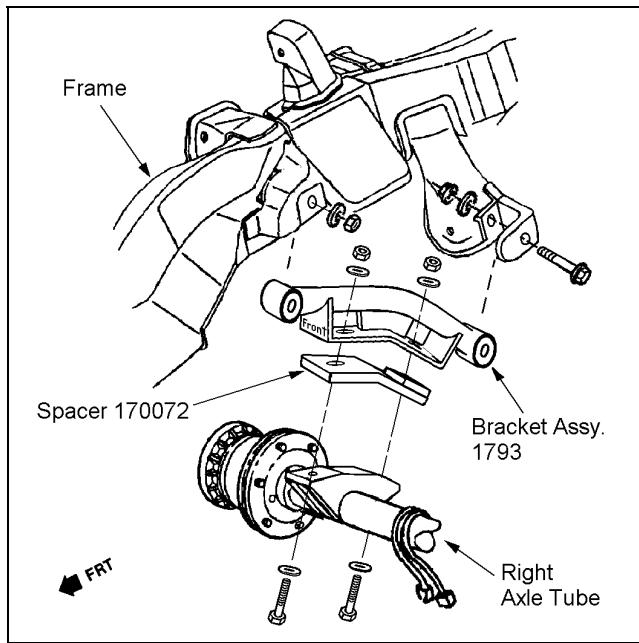


Figure #9

12. □ Insert differential drop bracket 170073 into the control arm pocket as shown in figure #10. Loosely attach the bracket to the pocket with hardware from kit 8592. Use a 3/8" bolt in the uppermost hole and a 7/16" bolt in the next hole down.

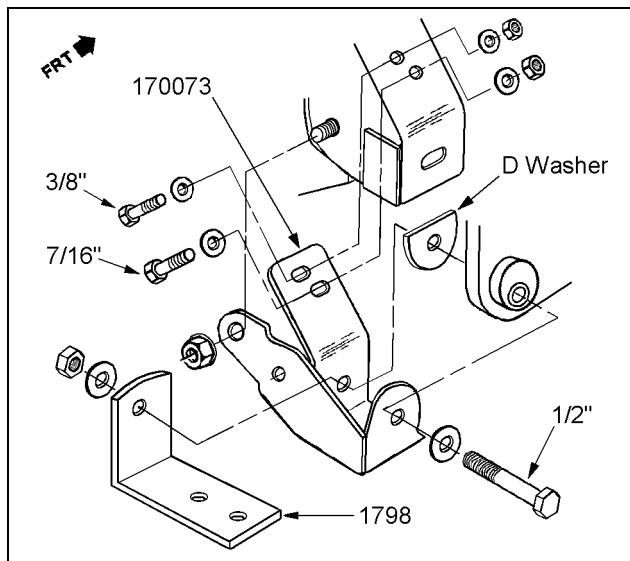


Figure #10

13. □ Push the lower control arm bolt back through the pocket and drop bracket. Install the attaching nut, but do not tighten.

14. □ Rotate the eccentric bushings and use the floor jack (if necessary) to align the differential rear mount with drop bracket 170073. Position the D washer on the left side of the bushing assembly and insert the 1/2" bolt from kit 8592. Install the skid plate bracket (1798) and the attaching nut. See figure #10.

15. □ Tighten the right axle tube nuts and bolts to 75 FT-LBS. Tighten the drop bracket to lower control arm pocket bolts to 30 & 55 FT-LBS.

16. □ Using bracket 170073 as a template, drill a 3/8" hole through the back of the lower control arm pocket. Install the 3/8" hardware from kit 8592 and tighten to 30 FT-LBS.

17. □ Reconnect the vacuum hose and the electrical connectors.

18. □ Clean the U-Joint surfaces and reinstall the front propeller shaft. Install retainers and tighten the four bolts to 15 FT-LBS.

19. □ Re-position the CV flange, rotating so the bolt holes line up. Install the Rancho supplied socket head bolts and small OD washers (hardware kit 8104) placing one drop of thread locking compound on each bolt as it is installed. Snug them up finger tight until all six are in place. Then torque each bolt to 59 FT-LBS using a star pattern. Repeat on the other side.

20. □ Attach the rear of the differential skid plate to bracket 1798 with the 3/8" hardware from kit 8519. Insert spacer 7873 and attach the front of the skid plate to the frame. Use the 10mm bolts (with washers) from kit 8519. See figure #11.

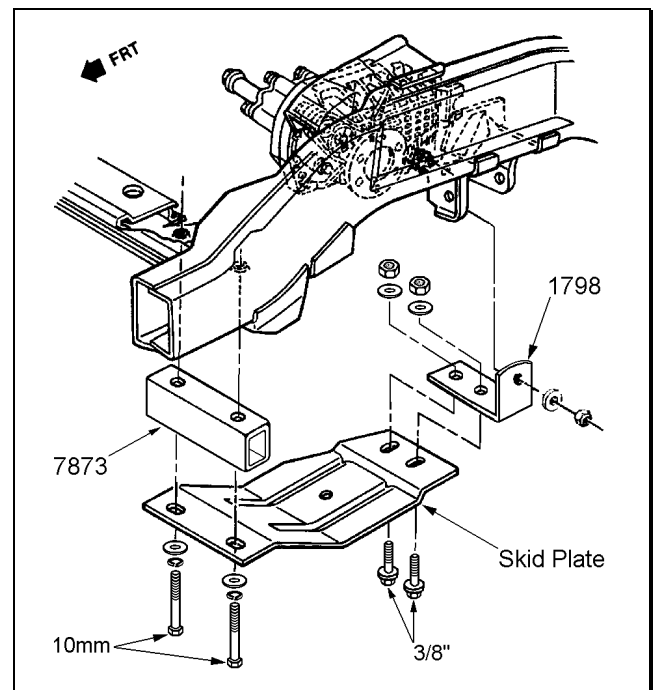


Figure #11

Upper Control Arm Replacement

1. ☐ If equipped, remove the ABS bracket from the left (driver side) upper ball joint and separate the ABS wire harness from the control arm. Remove the brake caliper and secure it up and out of the way.
2. ☐ Remove the cotter pin and castellated nut from the upper ball joint. Support the knuckle and spindle assembly by attaching a wire from a hub bolt to the upper shock mount.
3. ☐ Disconnect the upper ball joint from the knuckle with GM tool J-23742. Do not use a "pickle fork".
4. ☐ Make reference marks on the pivot bolt cam washers. Remove the pivot bolts and remove the Upper Control Arm. Discard the pivot bolt nuts.

5. ☐ If you are reusing the upper ball joint, remove it from the control arm as follows:

- Center punch each rivet head and drill a 1/8" diameter hole, 1/4" deep.
- Drill each rivet head away using a 1/2" drill.
- Drive the rivets out with a pin punch.

NOTE: If you replace old and/or worn ball joints at this time, the previous step would not be necessary.

6. ☐ Insert ball joint, from the top, into the new left upper control arm (1348). Install hardware from kit 8061. Tighten nuts and bolts to 17 FT-LBS.

7. ☐ Remove the knockouts from the upper control arm frame pockets. See figure #12. Use GM tool J 38794 or a small die grinder.

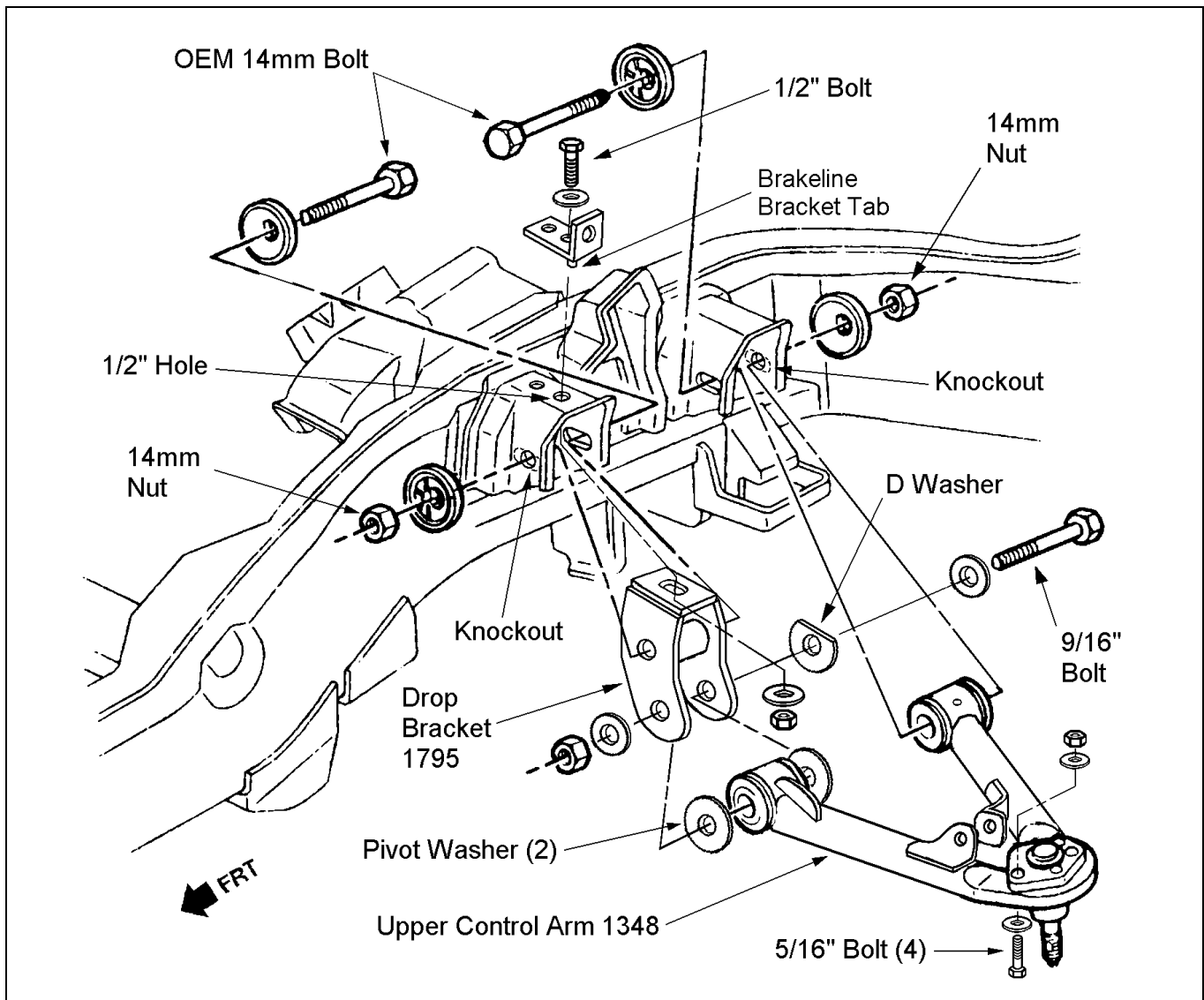


Figure #12

8. □ Remove the brake line bracket from the upper control arm forward pocket. Carefully remove the tab from the bottom of the bracket and enlarge the hole that the tab went into using a 1/2" drill.

9. □ Insert Pivot Relocation Bracket 1795 into the forward pivot pocket with the bracket ears slanted toward the rear. Attach the bracket to the pocket with the original pivot bolt and the NEW 14mm nut from hardware kit 8516 (Figure #12). Do not tighten at this time.

10. □ Reattach the brake line bracket to the frame pocket with the 1/2" hardware from kit 8515. See figure #12. Do not tighten.

11. □ Insert the new upper control arm assembly into the drop bracket and frame pocket as shown in figure #12. Attach the control arm to the frame pocket with the original pivot bolt and the NEW 14mm nut from kit 8516. Do not tighten.

12. □ Lubricate 2 pivot washers from kit 8515 and insert them into drop bracket 1795 (one on each side of the bushing assembly). Attach the control arm to the drop bracket using the 9/16" hardware and D-washer from kit 8515. See figure #12.

13. □ Align the marks on the pivot bolt cam washers. Tighten the two bolts holding drop bracket 1795 to the forward frame pocket to specifications. Tighten the two remaining pivot bolts when the vehicle is at normal ride height.

14. □ Cut a 1/2" section off the sway bar end link spacer. See figure #13. Save all parts for reuse.

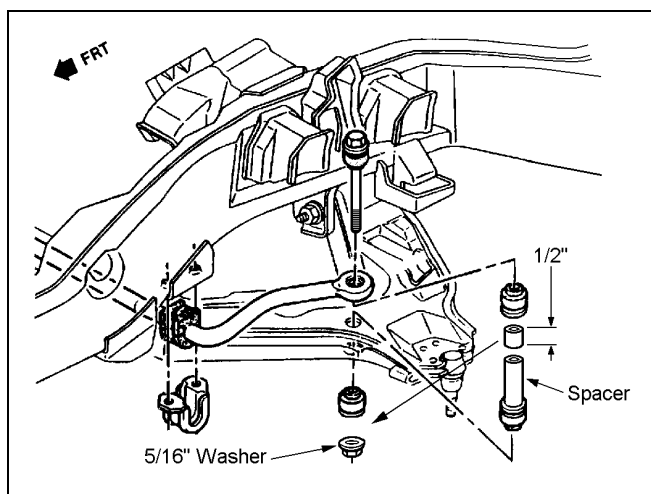


Figure #13

15. □ Reinstall the end link bolt assembly from the top, as shown in figure #13. Use the cutoff section of the spacer below the lower control arm along with a 5/16" washer from kit 8062. Tighten the end link nut to 12 FT-LBS.

16. □ Attach the upper ball joint to the knuckle. Tighten the castellated nut to 94 FT-LBS and insert a new cotter pin from hardware kit 8061. Remove the wire that was used to support the knuckle assembly.

17. □ Reinstall the brake caliper. Tighten bolts to 38 FT-LBS.

18. □ Repeat steps 1 through 17 for the right side (passenger side) using upper control arm 1349.

Brake Hose Replacement

1. □ Remove the clip from the brake line bracket at the upper control arm frame pocket. Separate the brake hose from the brake line and plug the line to prevent brake fluid leakage.

NOTE: To keep the brake bleeding process to just the front calipers, do not allow the brake fluid to drain completely from the master cylinder reservoir.

2. □ Remove the brake hose from the caliper.

3. □ Attach the new brake hose (170074) to the caliper with the original bolt and two NEW copper washers from kit 860086. Position the hose upward and tighten the bolt to 32 FT-LBS. See figure #14.

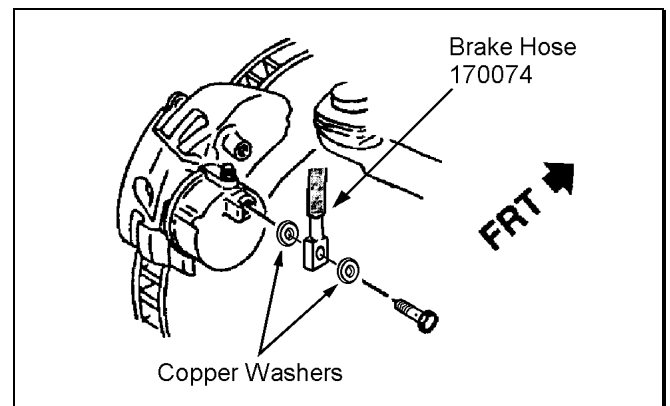


Figure #14

4. □ Route the hose over the upper control arm and insert it into the brake line bracket.. Attach the hose to the brake line and install the bracket clip. Tighten the fitting to 18 FT-LBS.

5. ☐ Attach the brake hose to the rear leg of the upper control arm with a tie wrap from kit 8062. See figure #15.

NOTE: For correct positioning, it may be necessary to adjust the position of the brake line bracket. Make sure the brake hose does not become twisted.

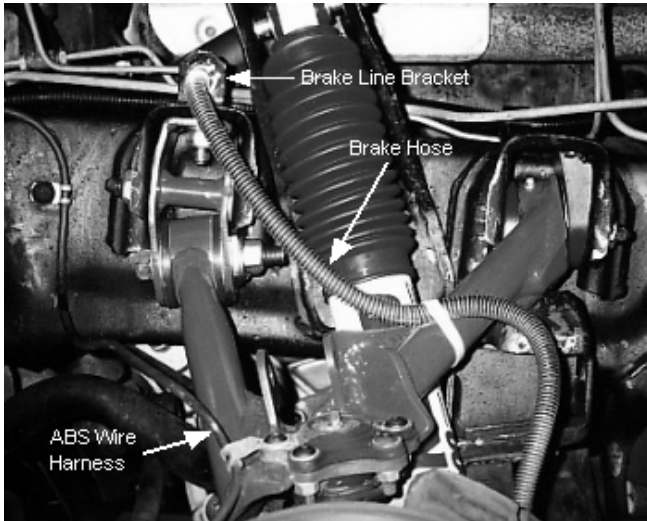


Figure #15

6. ☐ If applicable, reattach the ABS wire harness clamp to the upper ball joint.
7. ☐ Repeat steps 1 through 6 for the other side.
8. ☐ Refill the master cylinder with approved brake fluid. Bleed the front brakes as follows:

- Relieve the vacuum reserve from the booster by applying the brakes several times with the engine off.
- Attach a hose to the right front caliper bleeder valve and immerse the other end into a container of clean brake fluid.
- Have an assistant slowly apply the brake pedal one time and hold.
- Loosen the bleeder valve to purge the air from the caliper.
- Tighten the bleeder valve and slowly release the pedal.
- Wait 15 seconds and repeat the procedure until all air is purged from the caliper.
- Attach the hose and container to the left caliper and repeat the bleeding process.
- Check the pedal for "sponginess" and the brake warning lamp for an indication of pressure imbalance. Bleed the system again if either of these conditions is present.

NOTE: If the master cylinder reservoir was allowed to empty and air entered the system, follow the manufacturer's instructions for bleeding the entire brake hydraulic system.

Torsion Bar adjustment & Final assembly

1. ☐ Install the torsion bar unloading tool and increase the tension on the torsion bar. Reinstall the retaining plate and thread the adjusting bolt to its original position. Refer back to figure #2. Remove the unloading tool and repeat for other side.

NOTE: If you are installing NEW Rancho torsion bars follow the instructions (RS8776) in torsion bar kit RS640.

2. ☐ Install new Rancho front shocks. Trim the corner of the OEM bump stop to provide adequate shock clearance. See figure #16.

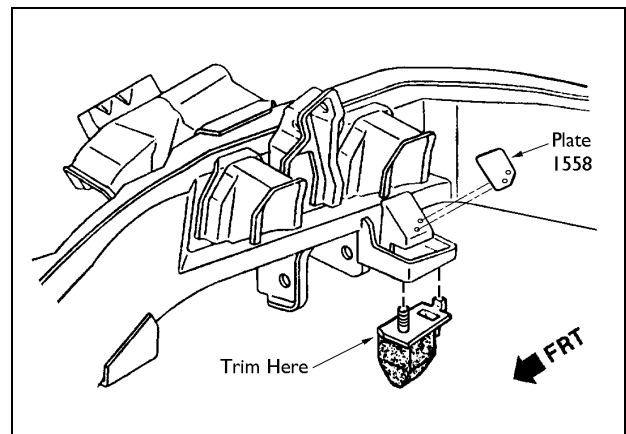


Figure #16

3. ☐ If applicable, reinstall the front skid plate.
4. ☐ Install the front wheels. Rotate and inspect the front axles for binding. If the axles rotate freely, lower the vehicle to the ground. If the axles bind, when rotated, install the droop stop adjustment plates (1558) from kit 8527 as follows:
- Raise the lower control arm with a floor jack to lift the upper control arm off the droop stop.
 - Place one adjustment plate on top of the droop stop with the chamfered corner facing the outside rear, and the inner edge next to the frame. See figure #16. Carefully lower the jack.
 - Rotate the axle and check for binding. Continue adding plates until the axle rotates freely. Do not exceed 3 plates.

- Using one plate as a template, mark and centerpunch the two mounting hole locations on the droop stop.
- Drill a 7/32" hole at each of the marked locations.
- Attach the plate(s) to the droop stop with hardware from kit 8527. Lower the vehicle to the ground.

5. ☐ Tighten the lug nuts to 120 FT-LBS and the upper control arm pivot bolts to 140 FT-LBS.

◀ REAR SUSPENSION ▶

Add-A-Leaf Installation

1. ☐ Chock front wheels, raise the rear of the vehicle and support the frame with jack stands. Remove the rear wheels.
2. ☐ To relieve tension on the leaf springs, support the rear axle with a hydraulic jack.

NOTE: The following rear spring modification is designed for a standard K1500 rear leaf pack comprised of three leaves and one helper spring. Other spring configurations may require assistance from your local 4X4/Off-Road outlet and/or the Rancho Tech Line to achieve similar results.

3. ☐ Remove the U-bolts, anchor plate, and spacer. See figure #17.

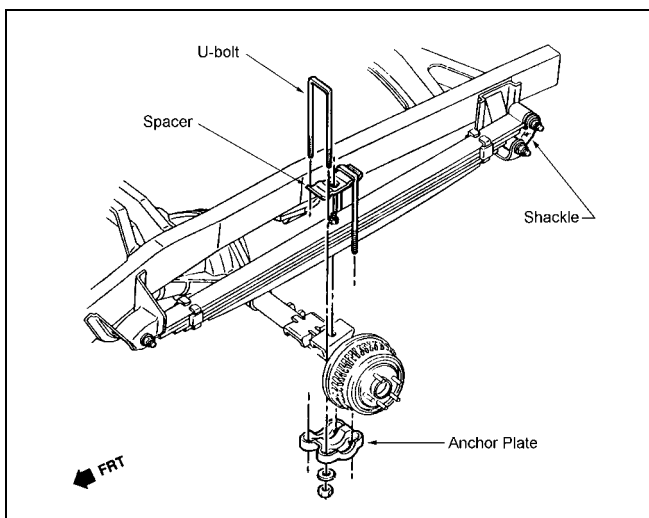


Figure #17

4. ☐ Loosen the nut on the bolt holding the shackle to the spring. Remove the shackle to rear bracket bolt and the spring to front bracket bolt. Remove the spring assembly from the vehicle.

5. ☐ Clamp the spring assembly securely together using C-clamps (Figure #18) or a large bench vise.

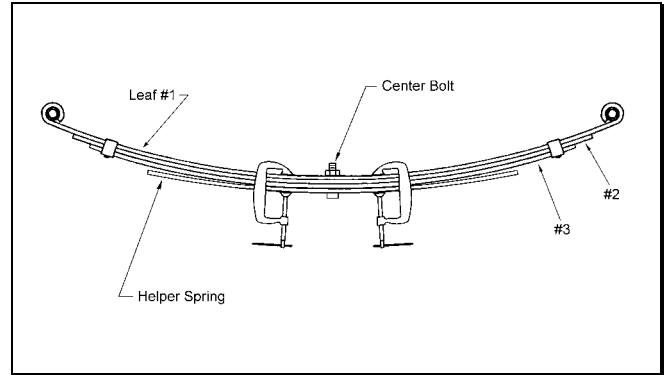


Figure #18

6. ☐ Loosen the nut and remove the center bolt. If necessary, hold the head of the center bolt with locking pliers. Do not remove the spring clips.
7. ☐ Carefully remove the C-clamps or loosen the vise. Set the helper spring aside.
8. ☐ To remove the #2 leaf from the spring pack, slide the #3 leaf toward one end and the #2 leaf toward the opposite end. Push the #2 leaf slightly sideways and then pull it from the spring pack.

NOTE: Removing and installing a leaf may require the use of a soft mallet, and lightly clamping sections of the spring pack to relieve binding.

9. ☐ Apply a small amount of lithium grease to the tip sliders of a NEW leaf. Insert the leaf into the spring pack replacing the original #2 leaf.

10. ☐ Center the leaves and align the center holes with a drift punch. Reposition the helper spring and install a NEW center bolt and nut.

NOTE: If you desire a softer ride and drive the truck unloaded most of the time, install the helper spring upside down.

11. ☐ Reinstall the C-clamps, or use a vise, to squeeze the spring pack. Tighten the center bolt to 20 FT-LBS.

12. ☐ Reinstall the spring assembly (shackle in the rear) and loosely attach it to the frame brackets with the original hardware. Align the center bolt with the hole in the axle pad.

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.

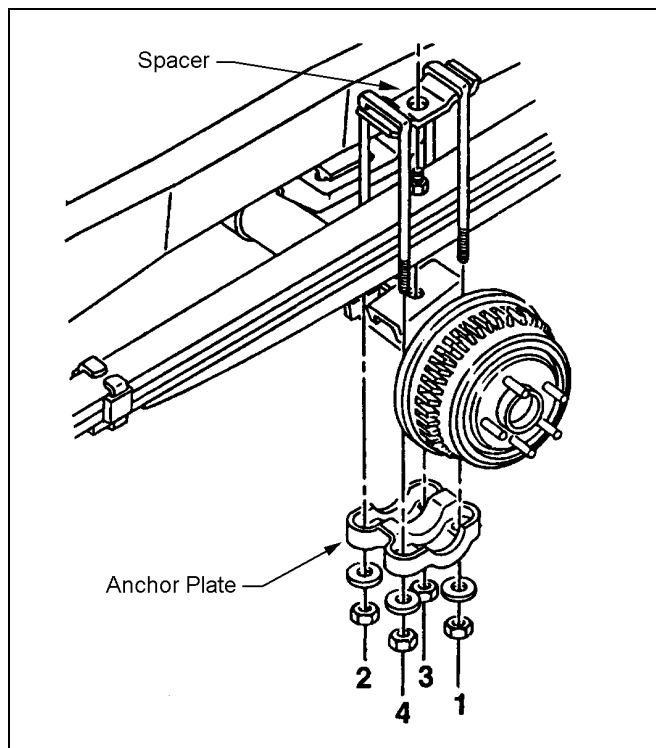


Figure #19—Bolt Tightening Sequence

15. ☐ Repeat steps 3 through 14 for the other side.
16. ☐ Replace the rear shocks with New Rancho shocks.
17. ☐ Reinstall the rear wheels and lower the vehicle to the ground. Tighten the lug nuts to 120 FT-LBS.
18. ☐ Tighten the leaf spring front and rear pivot bolts, and the shackle bolts to 80 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 23.5" 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.

Recommended Alignment Specifications

Caster (degrees): $4.0^{\circ} \pm 1.0^{\circ}$

Camber (degrees): $0^{\circ} - .5^{\circ}$

Sum Toe In (degrees): $.24^{\circ} \pm .2^{\circ}$

 Notes: