



5/25/04

**INSTALLATION INSTRUCTIONS**

**'97-'06 4WD JEEP WRANGLER TJ**  
**3" SUSPENSION SYSTEM**  
**P/N 10-45397**

***NOTE:*** Each lift kit, and options to lift kits, are packaged separately. Therefore installation procedures are covered in separate instructions. Familiarize yourself with each specific set of instructions before beginning.

**PART LIST**

<b><u>ITEM</u></b>	<b><u>DESCRIPTION</u></b>	<b><u>QTY.</u></b>	<b><u>ILLUS.</u></b>
<b>Box 1 of 4</b>			
20-55497-2	Front Bumpstop Pad	2	2
20-55497-4	Rear Track-Bar Bracket	1	11, 12
20-55497-7	Rear Bumpstop Extension	2	10
20-70060	Hardware Pack: (T-Case Shifter Bracket)		
13-22171	Bolt, 6mm x 20mm	4	6
13-30590-Z	Flat Washer, 6mm	8	6
13-10735-Z	Nyloc Nut, 6mm	4	6
20-55497-3	Shifter Drop Bracket	2	6
20-70073	Hardware Pack: (R.Track-Bar, F&R Bumpstops)		
13-21703-Z	Bolt, 1/2"-13 x 3" Gr.8	1	11
13-22990-Z	Bolt, 12mm x 80mm Gr 10.9	1	12
13-22158-Z	Bolt, 10mm x 65mm	2	10
13-22145-Z	Self Tapping Bolt, 3/8"-16 x 2"	2	2
13-21534-Z	Bolt, 3/8"-16 x 1" Gr.8	1	11
13-23341-Z	Bolt, 5/16"-18 x 1" Gr.8	3	11
13-30382-Z	Flat Washer, 1/2" HRDN	2	11
13-30546-Z	Flat Washer, 12mm	2	12
13-30408-Z	Flat Washer, 3/8" HRDN	4	2
13-30421-Z	Flat Washer, 5/16" HRDN	6	11
13-30577-Z	Lock Washer, 10mm Split	2	10
13-10514-Z	TopLoc Nut, 1/2"-13	1	11
13-10696-Z	TopLoc Nut, 12mm	1	12
13-10553-Z	TopLoc Nut, 3/8"-16	1	11
13-10566-Z	TopLoc Nut, 5/16"-18	3	11
11-13932	Sleeve, 7/8" x .188 x 1.60"	1	11
20-70086	Hardware Pack: (T-Case Drop)		
13-21703-Z	Bolt, 1/2"-13 x 3" Gr.8	6	4,5
13-21027-Z	Bolt, 12mm x 70mm	6	4,5
13-30382-Z	Flat Washer, 1/2" HRDN	6	5
13-30028-Z	Lock Washer, 1/2" Split	6	5
20-832348	Transfer Case Spacer, (Manual Old Style)	6	4
20-833908	Transfer Case Spacer, (Manual New Style)	6	4
20-833791	Transfer Case Spacer, (Auto Old Style)	6	4
20-833804	Transfer Case Spacer, (Auto New Style)	6	4
20-831893	Conical Spacer, 1/2" ID	6	5

**PART LIST**

<b><u>ITEM</u></b>	<b><u>DESCRIPTION</u></b>	<b><u>QTY.</u></b>	<b><u>ILLUS.</u></b>
20-70112	Hardware Pack Containing: (Front Sway Bar Link)		
13-21482-Z	Bolt, 3/8" x 2-1/2" Gr.8	2	8
13-23471-Z	Bolt, 3/8" x 1-1/2" Gr.8	2	8
13-30408-Z	Flat Washer, 3/8" hrdn.	8	8
13-10553-Z	TopLoc Nut, 3/8"	4	8
20-55397-1	Front Sway Bar Link	2	7, 8
20-55397-3	Sway Bar Mount Bracket	2	8
20-831451	Sleeve, 5/8"OD x 12mm ID. X 1.48"	2	7
20-831399	Sleeve, 5/8"OD x 3/8"ID x 1.48"	2	7
15-11083	Bushing, Hour Glass	4	7
20-70008	Hardware Pack Containing: (Rear Sway Bar Link)		
20-55497-6	Rear Sway Bar Link	2	13
20-832374	Sleeve, 5/8" x .036 x 1.47"	4	
15-11083	Bushing, Hour Glass	4	13
20-68305	Hardware Pack Containing: (Brakeline Hose Support)		
13-20447-Z	Unslot Hex, #10 x 1/2"	4	
15-10966	Clamp, 3/8" x 3/8" x .203"	4	
15-11395	Wire Tie, 6"	4	
15-11447	Wire Tie, 8"	2	
15-11460	Wire Tie, 11"	2	
<b>Box 2 of 4</b>			
20-20374-1	3" TJ Front Lift Coil	2	2, 3
<b>Box 3 of 4</b>			
20-20387-1	3" TJ Rear Lift Coil	2	
<b>Box 4 of 4</b>			
50-BE5-2731-H5	Shock, TJ 3" Front	2	3
50-BE5-2732-H5	Shock, TJ 3" Rear	2	

## **INTRODUCTION**

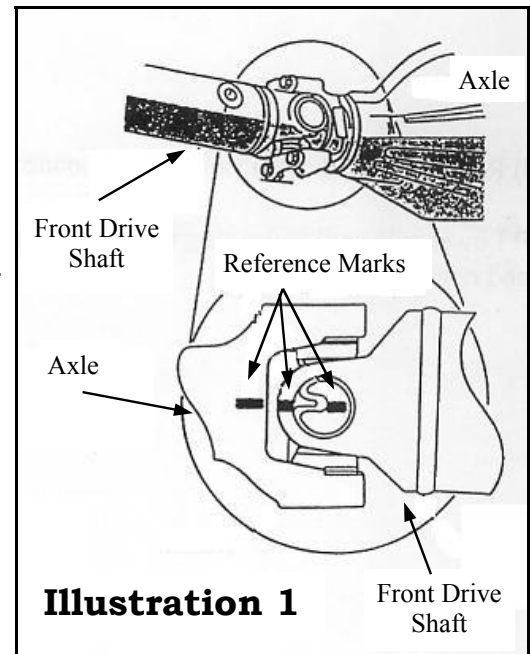
- Installation by a professional mechanic is recommended. Use of the appropriate tools, a Jeep service manual, and a shop hoist can greatly reduce installation time.
- Prior to installation, carefully inspect the vehicle's steering and drive train systems, paying close attention to the tie-rod ends, pitman, ball joints and wheel bearing pre-load. Also check steering-to-frame and suspension-to-frame attachment points for stress cracks. The overall vehicle must be in excellent working condition; repair or replace worn parts.
- Read instructions carefully and study illustrations before attempting installation. *RCD Suspension* is not responsible for damage, failure or injury resulting from improper installation or parts substitution of this kit.
- Check parts and hardware against the parts list to assure that your kit is complete. The parts and hardware supplied are of high-grade material and must not be replaced by inferior parts or failure may result.
- Separate parts according to the areas they will be used. Placing the hardware with brackets before you begin will save installation time.
- All components in this kit come with a protective coating. Do not plate (i.e. chrome, cadmium, zinc etc.) or otherwise alter the finish in any way. This could weaken the structural strength of the components.
- Secure and properly block vehicle prior to beginning installation.
- Always wear safety glasses when using power tools.
- Foot-Pound torque readings are listed on the Torque Specifications chart at the end of the instructions unless specifically stated in an instruction. **DO NOT USE AN IMPACT WRENCH TO TIGHTEN ANY OF THE BOLTS.**

## **PLEASE NOTE**

- ❑ **WARNING:** DO NOT USE WHEEL SPACERS
- ❑ Front end realignment is necessary.
- ❑ Speedometer recalibration is necessary if larger tires (10% more than stock diameter) are installed.
- ❑ System is designed to accommodate up to a 31" x 10.50" tire on stock wheel.

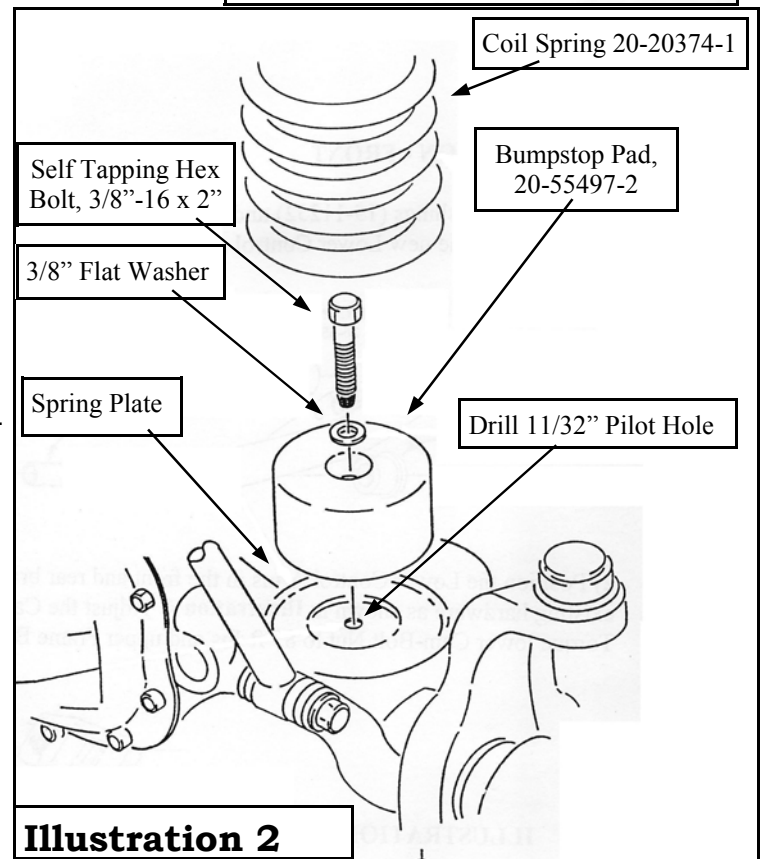
## **FRONT INSTALLATION**

- 1) Raise and support vehicle with jackstands on frame located behind front lower control arms and in front of rear lower control arms. Support axle with a floorjack. Remove wheels and tires.
- 2) Place reference marks on the front drive shaft and axle. Disconnect the front drive shaft from axle. **(Illustration 1)**
- 3) Remove front shock absorbers. Disconnect and remove Sway Bar Links from both sides of vehicle..



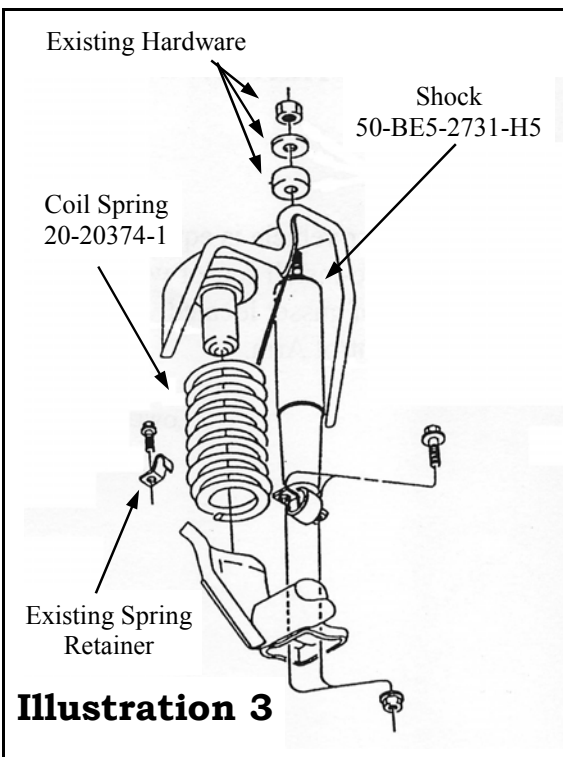
- 4) Lower axle until coil spring is free from upper mount. Remove coil spring retainer bolt and remove the coil spring.

- 5) Install new Bumpstop Pad (20-55497-2) as shown in **Illustration 2**. Mark center of lower coil spring pad. Using an 11/32" diameter drill bit, drill a pilot hole in the previously marked area. Install using 3/8" self-tapping hardware provided. Torque to 30 ft. lbs.



- 6) Position new front coil spring (20-20374-1) on axle pad. Re-install coil spring retainer and bolt. Torque to 16 ft. lbs.

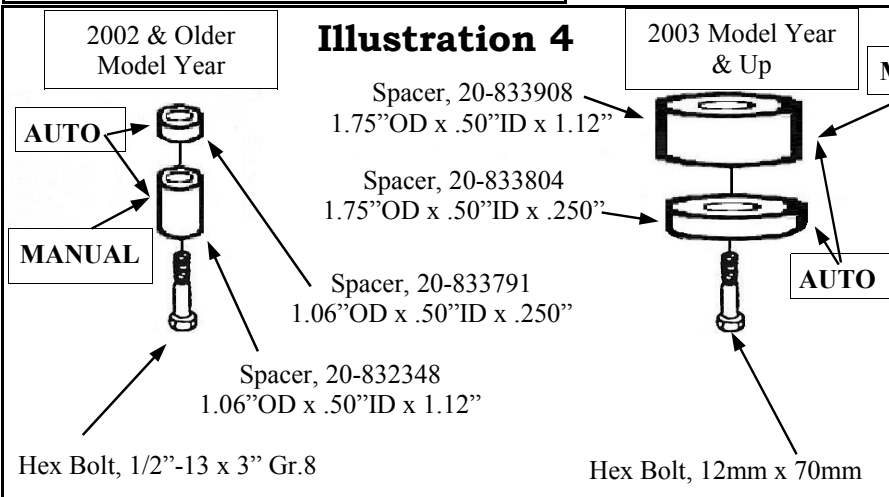
- 7) Repeat steps 5 & 6 on opposite side of vehicle



**Illustration 3**

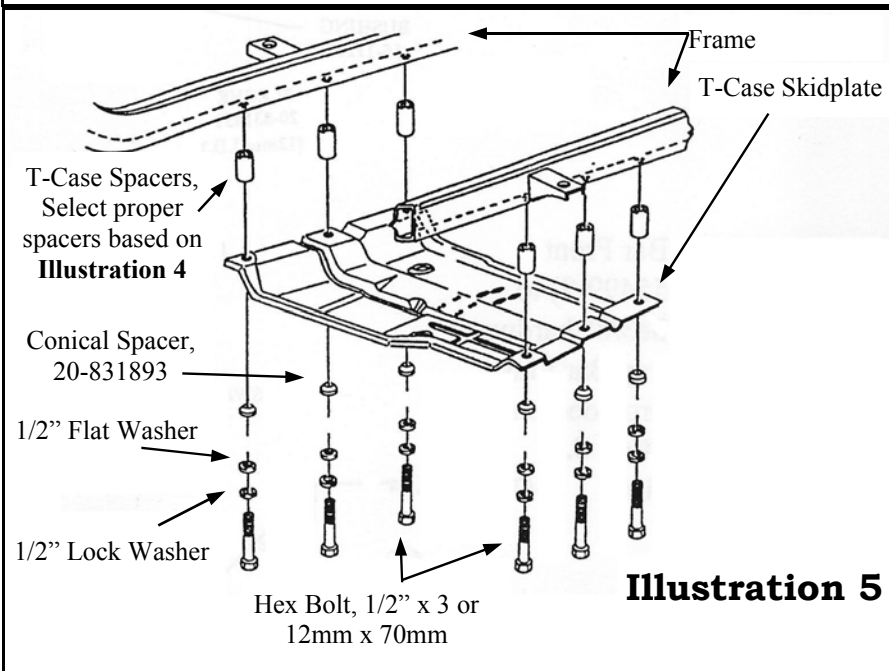
8) Raise axle into position making sure **BOTH** coil springs seat in upper mounts, then raise axle another 2". Install new longer shock absorbers (50-BE5-2731-H5) as shown in **Illustration 3**. Tighten upper shock nut till snug and rubber is properly compressed. Torque lower shock nut to 20 ft. lbs.

9) Support the transfer case skid plate. **The transfer case and transmission are supported by the skid plate. Before removing the skid plate ensure that the transmission is properly supported.** Remove the (6) bolts connecting the skid plate to the frame. Choose the correct Transfer Case Spacers and hardware depending on your year of vehicle and type of transmission (auto/manual) as shown in **Illustration 4** on the left. (*Jeeps up to 2002 model year with*



**Illustration 4**

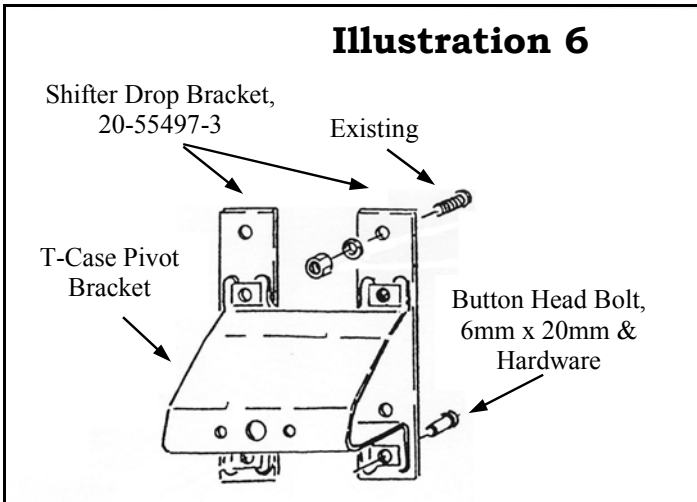
*manual transmission use spacer 20-832348, up to 2002 auto transmissions use spacers 20-832348 & 20-833791 and both use SAE hardware. Jeeps 2003 and newer with manual transmission use only spacer 20-833908, 2003 and newer Jeeps with auto transmissions use both spacers 20-833908 & 20-833804 and both use metric hardware.)*



**Illustration 5**

Install correct Transfer Case Spacers & Conical Spacers (20-831893) using correct supplied hardware as shown in **Illustration 5**. Torque bolts to 55 ft. lbs.

### Illustration 6

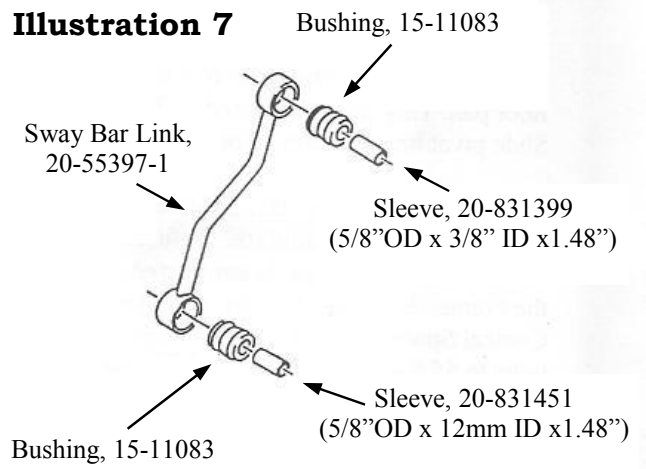


bracket using 6mm hardware provided. Install assembly into the existing mounting location using hardware previously removed. See **Illustration 6**.

**NOTE:** It is very important that the Shifter Pivot Rod protrudes through the self-aligning bearing on the pivot bracket approximately 3/8". By bending the opposite bracket on the Transfer Case, you can easily achieve this.

10) Remove the (4) 6mm bolts that fasten the transfer case pivot bracket to the floor pan. This can be accessed by lifting the carpet on the drivers side of the vehicle. Slide pivot bracket from pivot rod and set aside. Install Shifter Drop Bracket (20-55497-3) to pivot

### Illustration 7

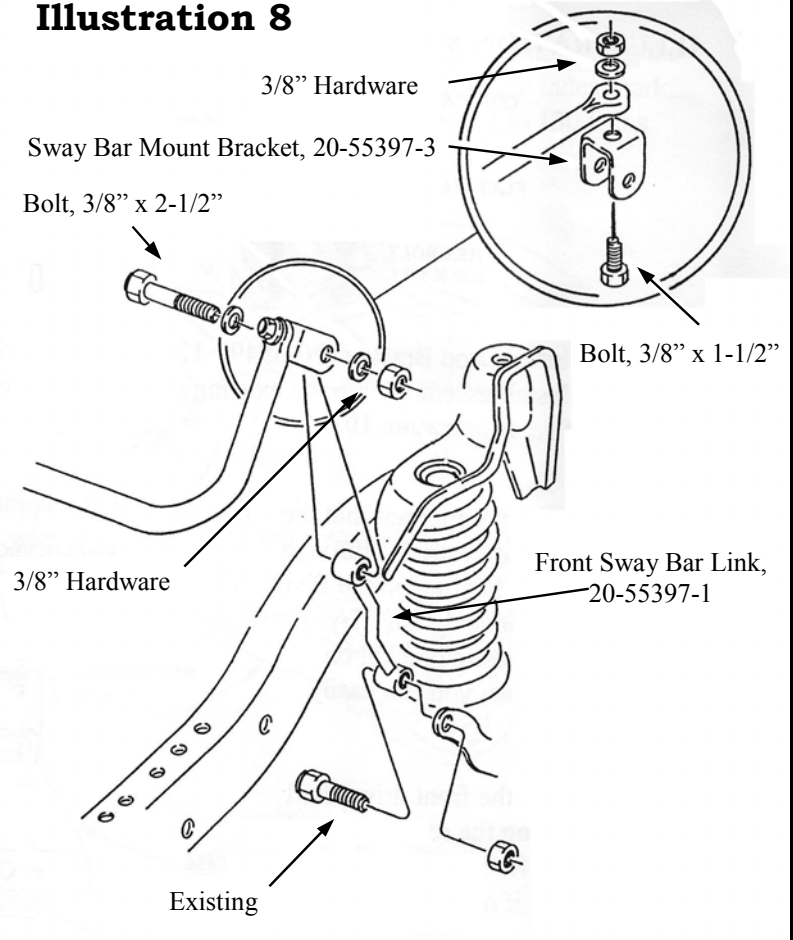


11) Re-connect the front drive shaft to the axle using the reference marks as guides. Refer back to **Illustration 1** if necessary.

12) Press Hour Glass Bushings (15-11083) into sway bar. Press Sleeve 20-831399 (5/8"OD x 3/8"ID x 1.48") in top bushing and Sleeve 20-831451 (5/8"OD x 12mm ID x 1.48") into lower bushing as shown in **Illustration 7**.

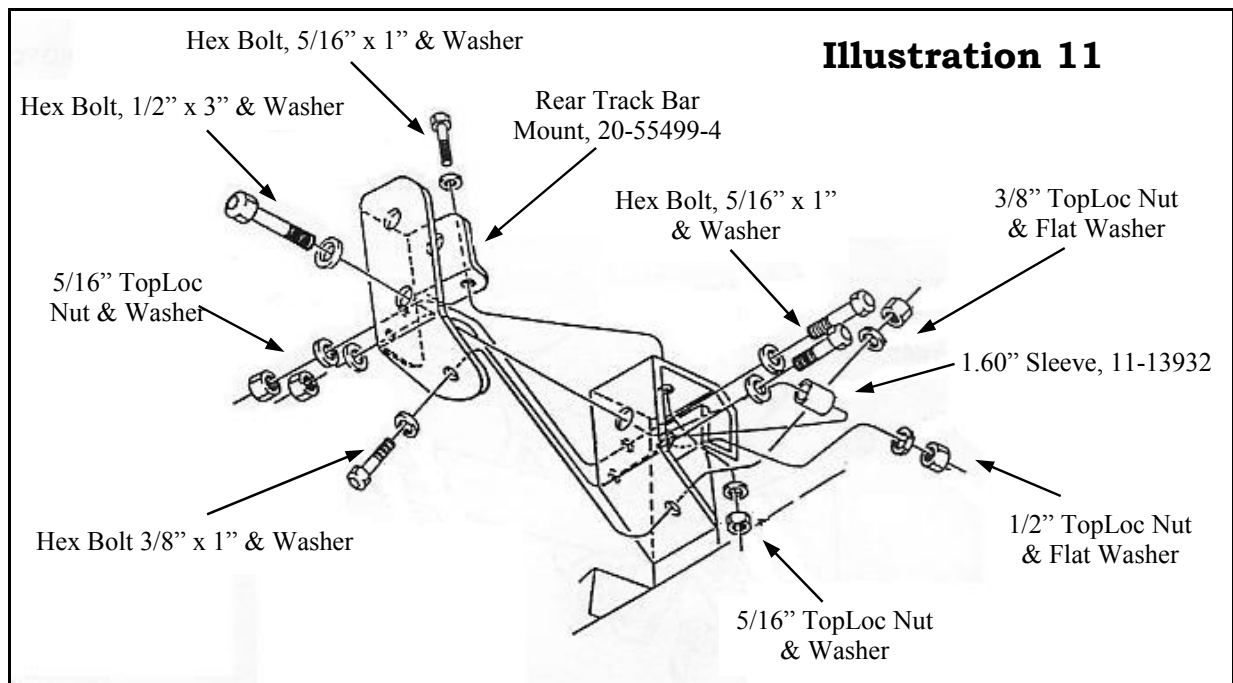
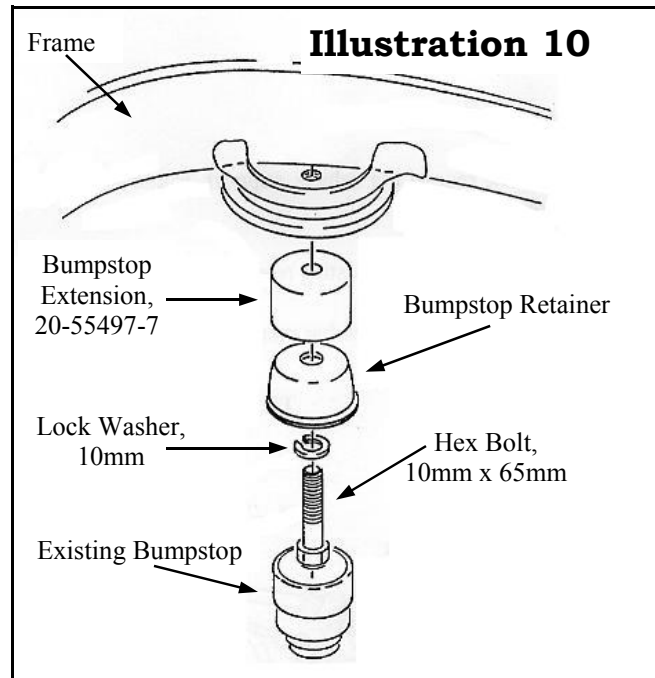
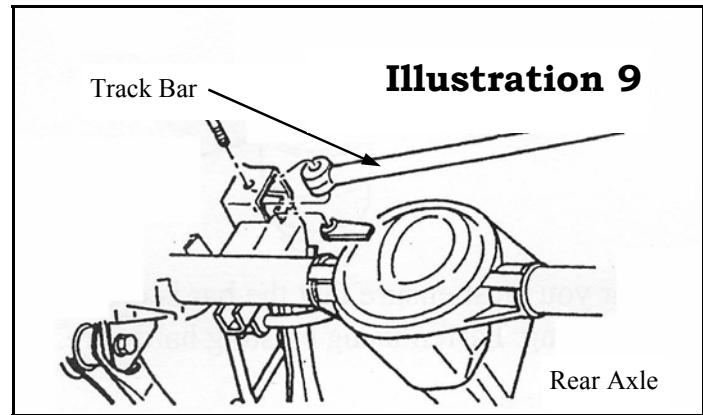
13) Mount Sway Bar Mount Bracket (20-55397-3) to sway bar using 3/8" x 1-1/2" Bolt and hardware provided. Attach Front Sway Bar Link (20-55397-1) using provided hardware as shown in **Illustration 8**. Torque nuts to 30 ft/lbs.

### Illustration 8



## **REAR INSTALLATION**

- 1) Make sure frame is still securely supported by jackstands on frame right in front of rear lower control arm mounts. Support rear axle with jack and remove rear tires.
- 2) Disconnect lower track bar mount as shown in **Illustration 9**.
- 3) Locate and disconnect rear stabilizer bar end links and rear shock absorbers.
- 4) Lower rear axle until coil springs are free from upper seat. Remove coil springs.
- 5) Install new rear Bumpstop Extensions (20-55497-7) using the supplied 10mm hardware as shown in **Illustration 10**.
- 6) Refer to **Illustration 11** and install rear Track Bar Bracket (20-55497-4) using 1.60" Sleeve (11-13932) and supplied hardware. Torque existing track bar bracket bolt to 74 ft. lbs. Drill out the 3/8" hole at the three 5/16" hole locations using the bracket as a template.

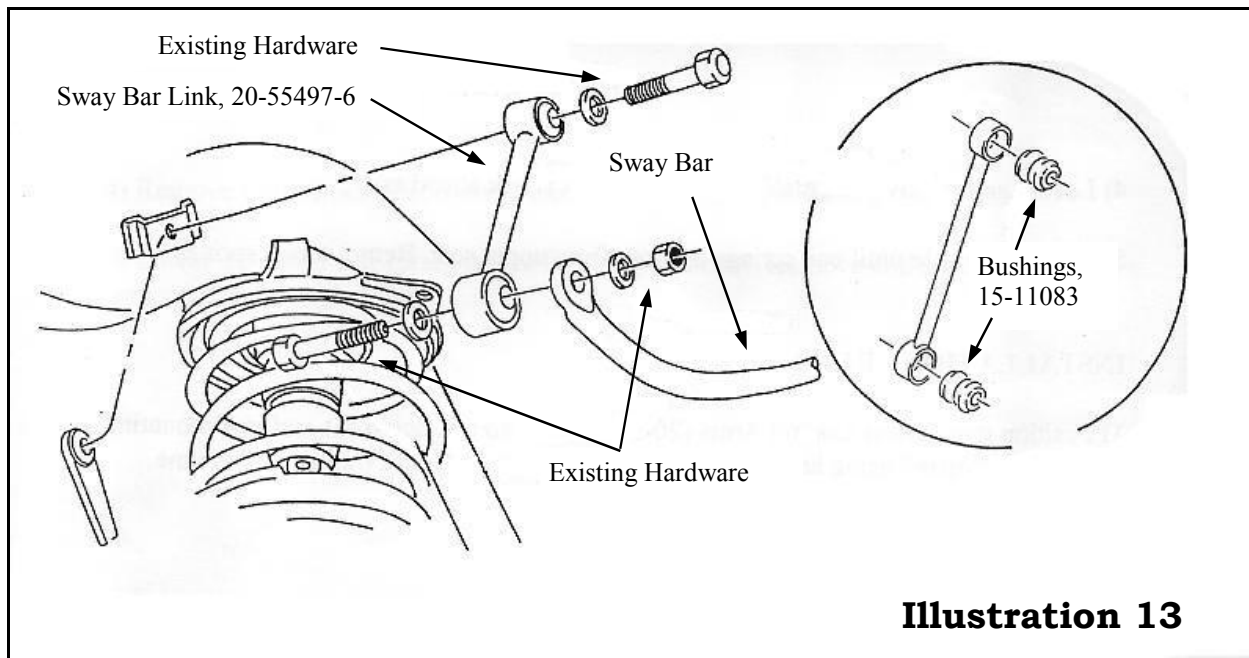
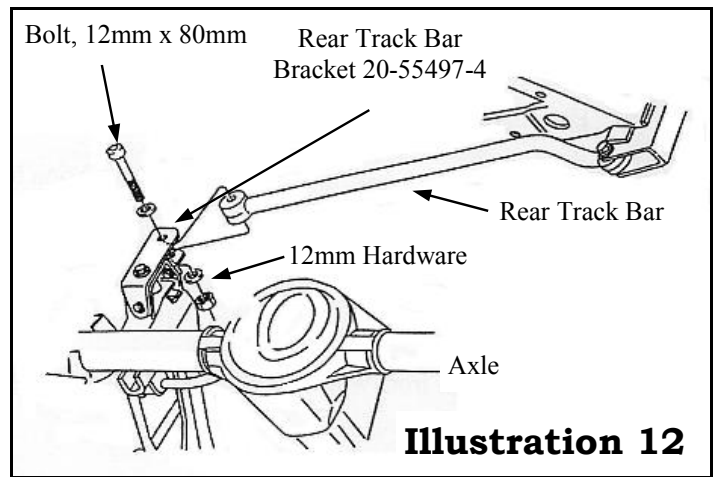




7) Install new rear Coil Springs (20-20387-1) and new longer shock absorbers (50-BE5-2732-H5).

8) Attach track bar into new Track Bar Mounting Bracket as shown in **Illustration 12** using hardware provided. Torque nut to 37 ft. lbs.

9) Install new Rear Sway Bar Links (20-55497-6) as shown in **Illustration 13** using Bushings (15-11083) and Sleeves (20-832374). When re-installing existing stabilizer bar you must ensure that the bar is centered, equally spaced, over both sides of differential housing. Fasten using existing hardware. Torque to 40 ft/lbs.



10) Cycle steering lock to lock and inspect steering, suspension and driveline systems for proper operation, tightness and adequate clearance. Recheck brake hose/ fittings for leaks. Be sure all hoses are long enough.

10) Install the wheels and tires. Remove the jackstands and lower the vehicle.

## **SOME FINAL NOTES**

- Recheck all hardware for tightness after the first 100 miles.
- Steering stops can be adjusted by use of spacers behind welded jam nuts or by use of a secondary jam nut (not provided).
- Headlights should be adjusted to factory specifications.
- Rotate front and rear driveshafts with suspension hanging. Depending on engine, transmission and differential combinations, it may be necessary to increase the drop on the transfer case if U-joint-to-yoke interference is found. This can be accomplished with the use of 1/2" flat washers (not provided). 1/4" addition drop is usually sufficient.
- Alignment of front wheels will be required, use factory specifications.

## **TORQUE SPECIFICATIONS**

5/16" NUTS	20 FT. LBS.	M6	9 FT. LBS.
3/8" NUTS	35 FT. LBS.	M8	23 FT. LBS.
7/16" NUTS	60 FT. LBS.	M10	45 FT. LBS.
1/2" NUTS	90 FT. LBS.	M12	75 FT. LBS.
9/16" NUTS	160 FT. LBS.	M14	120 FT. LBS.
5/8" NUTS	175 FT. LBS.	M16	165 FT. LBS.