



09/29/05

**'00-'06 TOYOTA TUNDRA 2WD & 4WD  
6" SUSPENSION SYSTEMS  
10-47400  
&  
10-47404**

**NOTE:** Kit # 10-47400 will fit trucks with a manufacture date of 8/03 and older. Kit # 10-47404 will fit trucks with a manufacture date of 9/03 and newer. Call RCD for details.

**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 7</b>			
20-57400-1	Front Crossmember	1	13, 14
20-57400-2	Rear Crossmember	1	12
<b>Box 2 of 7 (10-47400)</b>			
20-57400-5D	Spindle/Steering Knuckle (Drvr)	1	20, 21
20-57400-6P	Spindle/Steering Knuckle (Pass)	1	20, 21
<b>Box 2 of 7 (10-47404)</b>			
20-57404-5D	Spindle/Steering Knuckle (Drvr)	1	20, 21
20-57404-6P	Spindle/Steering Knuckle (Pass)	1	20, 21
<b>Box 3 of 7</b>			
20-57400-7	Compression Strut Bracket	2	24
20-57400-9	Compression Strut	2	24
20-69878	Hardware Pack Containing: Compression Strut		
13-22262-Z	Hex Bolt, 1/2" x 4" Gr. 8	4	24
13-21664-Z	Hex Bolt, 1/2" x 1-1/4" Gr. 8	2	24
13-30382-Z	Washer, 1/2" HRDN	12	24
13-10514-Z	Nut, 1/2" Top Lock	6	24
15-11148	Bushing, Red	8	
20-830918	Sleeve, 3/4" x .095 x 2-3/4"	4	
<b>Box 4 of 7</b>			
20-57400-3	Sway Bar Drop Bracket (Drvr)	1	23
20-57400-4	Sway Bar Drop Bracket (Pass)	1	23
20-57400-10	Rear Brake Line Bracket	1	
20-57400-11	Rear Brake Proportioning Valve Bracket	1	27
20-830658	4" Tapered Rear Block	2	25
13-90646	11-7/16" U-Bolt	4	25
20-68188	Hardware Pack Containing: 9/16 U-Bolt		
13-30330	Washer, 9/16" HRDN	8	25
13-10423	Nut, 9/16"	8	25
20-57400-13	Steering Yoke Extension	1	17
20-69826	Hardware Pack Containing: Front Crossmember		
13-23263-Z	Hex Bolt, 3/4" x 5-1/2" Gr.8	2	13
13-23276-Z	Hex Bolt, 14mm x 80mm Gr. 10.9	2	14
13-30160-Z	Washer, 14mm HRDN	4	14
13-30642-Z	Washer, 10mm HRDN	2	14
13-10644-Z	Nut, 3/4" Top Lock	2	13

13-10852-Z	Nut, 14mm Top Lock	2	14
13-10865-Z	Nut, 10mm Top Lock	2	14
20-832283	Alignment Block Out Plate/ Locating Washers	4	13
20-69839	Hardware Pack Containing: Rear Crossmember		
13-23289-Z	Hex Bolt, 3/4" x 4-1/2" Gr. 8	2	12
13-23302-Z	Hex Bolt, 5/8" x 8-1/2" Gr. 8	1	18
13-23029-Z	Hex Bolt, 5/8" x 3" Gr. 8	2	18
13-22184-Z	Hex Bolt, 9/16" x 2-3/4" Gr. 8	1	18
13-30369-Z	Washer, 5/8" HRDN.	5	18
13-30395-Z	Washer, 9/16" HRDN	1	18
13-30642-Z	Washer, 10mm HRDN.	2	12
13-10644-Z	Nut, 3/4" Top Lock	2	12
13-10345-Z	Nut, 5/8" Top Lock	3	18
13-10397-Z	Nut, 9/16" Top Lock	1	18
13-10865-Z	Nut, 10mm Top Lock	2	12
20-832283	Alignment Block Out Plate	4	12
20-69852	Hardware Pack Containing: Sway Bar & Steering		
13-22938-Z	Hex Bolt, 3/8" x 1-1/4" Gr. 8	4	23
13-23341-Z	Hex Bolt, 5/16" x 1" Gr. 8	1	17
13-30408-Z	Washer, 3/8" HRDN	8	23
13-30525-Z	Washer, 5/16" Split	1	17
13-10553-Z	Nut, 3/8" Top Lock	4	23
13-90620	Cotter Pin, 5/32" x 1-1/2"	2	
13-90724	Cotter Pin, 7/64" x 1-1/2"	6	
20-69891	Hardware Pack Containing: Driveshaft Mount		
13-23367-Z	Hex Bolt, 10mm x 60mm Gr. 10.9	2	28
13-30629-Z	Washer, 10mm HRDN	2	28
13-30577-Z	Washer, 10mm Split	2	28
20-833479	Spacer, 1"OD x .5"ID x 1"	2	28
20-69904	Hardware Pack Containing: Brake Line		
50-5700-1	Tundra Extended Brake Line	2	22
50-5700-2	Brake Line Clip	2	
50-5700-3	Banjo Bolt	2	22
50-5700-4	Crush Washer	4	22
20-68305	Hardware Pack Containing: Misc.		
13-20447-Z	Screws for Brake Line Clamps	4	
15-10966	Brake Line Clamps	4	
15-11395	Zip Tie, 6"	4	
15-11447	Zip Tie, 8"	2	
15-11460	Zip Tie, 11"	2	
16-68305	General Brake Line Instructions	1	
20-70343	Hardware Pack Containing: Power Steering Line Bracket		
20-57400-14	Power Steering Line Support Bracket	1	18
13-21872-Z	Hex Bolt, 8mm x 20mm Gr. 10.9	1	18
13-10319-Z	Nut, 8mm Nyloc	1	18
13-30850-Z	Washer, 8mm HRDN	1	18

## Box 5 of 7

20-57400-12	Tundra Sway Bar	1	23
-------------	-----------------	---	----

**Box 6 of 7**

50-BE5-B109-T5	Front Shock (w/hardware)	2	20
50-BE5-B110-T5	Rear Shock (w/hardware)	2	26

**Box 7 of 7**

20-57400-8	Crossmember Skidplate	1	
20-69865	Hardware Pack Containing: Skidplate & R. Brake		
13-20497-Z	Hex Bolt, 1/2" x 1"	1	
13-22938-Z	Hex Bolt, 3/8" x 1-1/4" Gr. 8	5	
13-23159-Z	Hex Bolt, 5/16 x 1-1/2" Gr. 8	1	27
13-30382-Z	Washer, 1/2" HRDN	2	
13-30408-Z	Washer, 3/8" HRDN	5	
13-30151-Z	Washer, 3/8" Split	5	
13-30421-Z	Washer, 5/16" HRDN	2	27
13-10038-Z	Nut, 1/2" Nyloc	1	
13-10566-Z	Nut, 5/16" Top Lock	1	27

## **INTRODUCTION**

- Installation by a professional mechanic is recommended. Use of the appropriate tools, a Toyota 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, rack & pinion unit, ball joints and wheel bearing preload. 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. Report any shortages to RCD Suspension at (1-619-588-4723). The parts and hardware supplied are of high-grade material and must not be replaced by inferior parts or failure may result. Do not begin installation if parts are missing.
- Separate parts according to the areas they will be used. Placing the hardware with brackets before you begin will save installation time.
- This kit is supplied as a bolt-on assembly. Do not weld anything to the components and do not weld the components to the vehicle.
- 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**

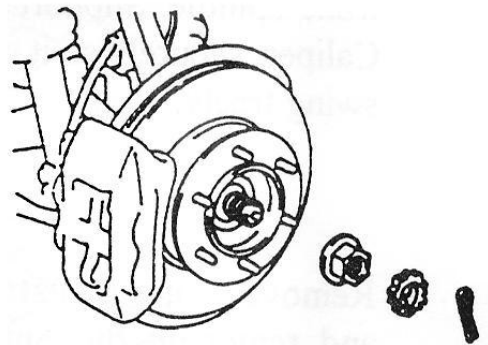
- ❑ **WARNING:** DO NOT USE WHEEL SPACERS
- ❑ Front end realignment is necessary.
- ❑ Speedometer recalibration is necessary if larger tires (10% more than stock diameter) are installed.
- ❑ Brake system will need to be bled by a professional brake technician.
- ❑ System is designed to accommodate up to a 35" x 12.50" tire on a wheel size of 16.5" x 8" with a maximum of 4" backspacing.
- ❑ A hydraulic press (20 ton) will need to be used to remove and replace the front hubs in the wheel bearings.
- ❑ Special tools are required for safe removal and installation of the ball joints, tie-rods, and coil springs. These tools can be purchased from your local Toyota Dealer.

**Tie Rod Puller (Toyota P/N 09610-20012)**  
**Ball Joint Puller (Toyota P/N 09628-62011)**  
**External Coil Compressor (Toyota P/N 09727-30021)**

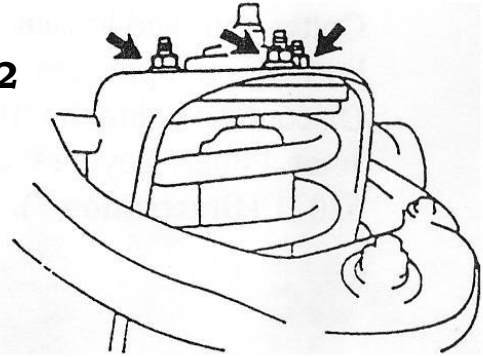
## **Illustration 1**

### **FRONT INSTALLATION INSTRUCTIONS**

1. On 4WD models only, remove grease cap, cotter pin and locking cap. (**Illustration 1**) While applying the brakes, loosen both Driver side and Passenger front axle nuts but do not remove.
2. Raise the vehicle. If working without a shop hoist, support vehicle with suitable safety jack stands. Put vehicle in gear, set emergency brake and block rear wheels, both in front and behind tires. Loosen front wheel lug nuts. Place floor jack under the lower control arm's front crossmember and raise vehicle. Place safety jack stands under frame rails, behind front wheel wells, and lower the frame onto the stands. Once securely on jack stands remove floor jack. Remove front wheels.

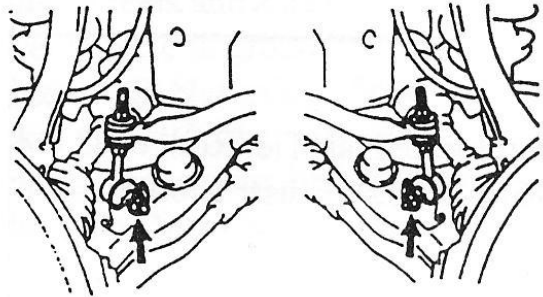


**Illustration 2**



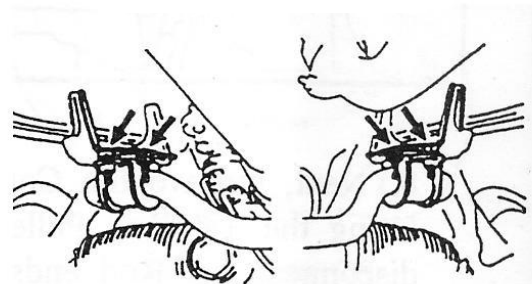
3. Place a jack under front lower a-arm. Remove lower nut from front shock mount. Next, locate the three nuts at the top of the front shock. **(Illustration 2)** Remove these nuts, lower the a-arm and remove front shock. Repeat on opposite side of vehicle.

**Illustration 3**

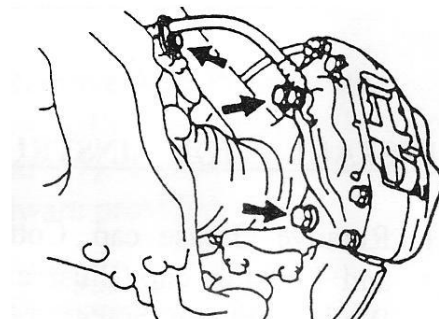


4. Locate and remove the nut, retainer collar and cushion that attaches the Sway Bar end to the lower a-arms. **(Illustration 3)** Remove the two brackets that attach the Sway Bar to the frame. **(Illustration 4)** Stock Sway Bar can be discarded but **make sure to keep original mounting brackets.**

**Illustration 4**



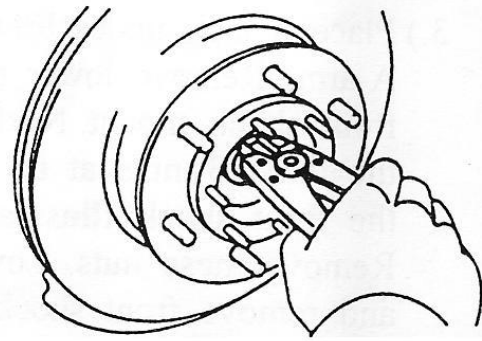
**Illustration 5**



5. Detach bolt and brake line hose clamp from the front spindle. **(Illustration 5)** Next, remove the two bolts that attach the brake caliper to the front spindle. Remove the brake caliper and tie it up with safety wire. **DO NOT LET IT HANG BY THE BRAKE LINE.**

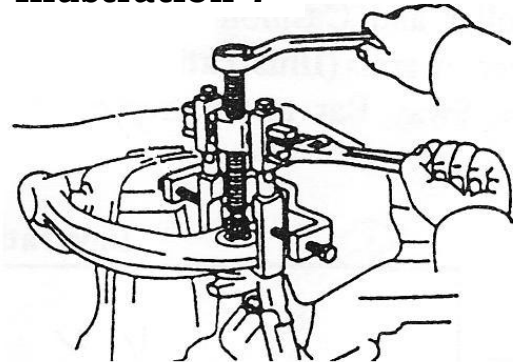
6. Remove rotor using snap ring pliers to remove inner snap ring. **(Illustration 6)** (Some models may not have snap ring and rotor can just be removed at this point)

**Illustration 6**



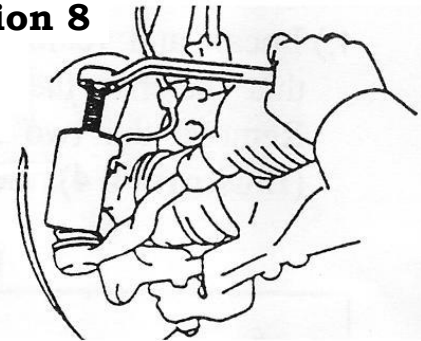
7. Remove Cotter pin and loosen nut located on upper front ball joint. **(Illustration 7)** (on 4WD models use a strap to support the Front Drive Axle and keep it from resting at full bind) Using Ball joint puller, remove upper control arm from spindle.

**Illustration 7**



8. Next, remove the cotter pin and nut located at the Tie Rod End on the Spindle. Using the Tie Rod Puller, disconnect the Tie Rod from the Spindle. **(Illustration 8)**

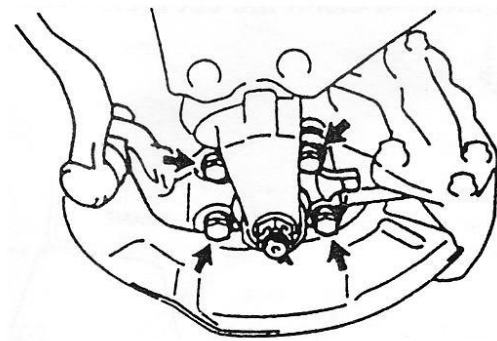
**Illustration 8**



9. On 4WD models remove the axle nut. On ABS equipped vehicles, detach the ABS speed sensor from stock spindles.

**Illustration 9**

10. Locate the four bolts attaching the Lower Ball Joint on the a-arm to the front spindle. **(Illustration 9)** Remove the bolts and take spindle off of vehicle.

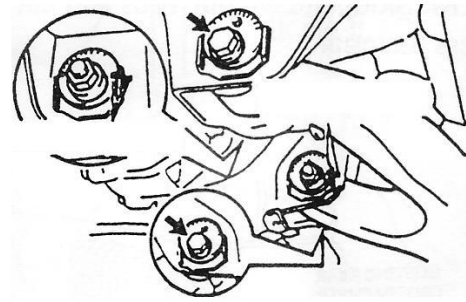


11. **Repeat steps 5 through 10 on opposite side of vehicle.**



## Illustration 10

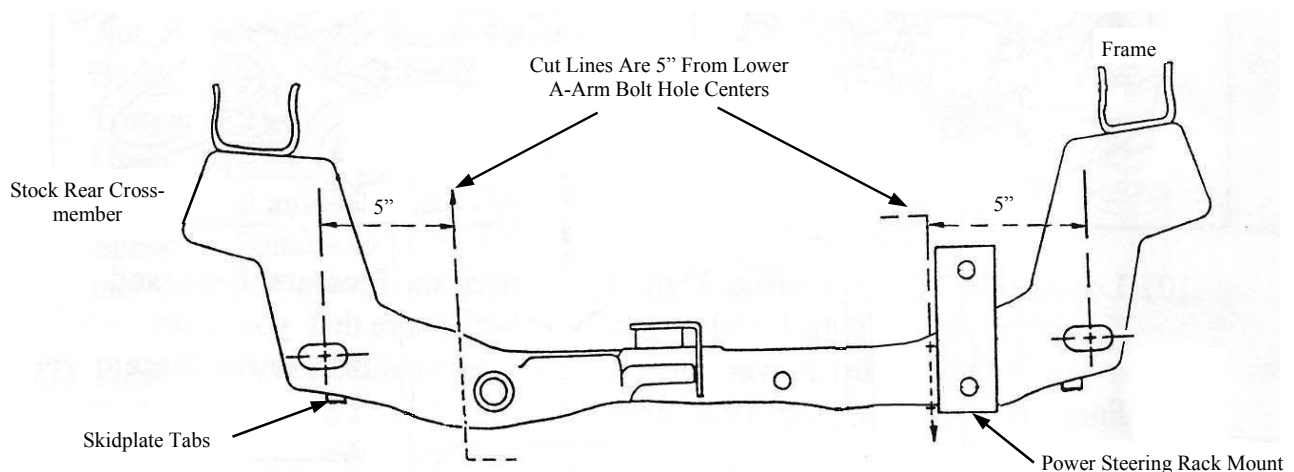
12. Locate the Power Steering Rack bolted to the back of the rear OEM crossmember. Place index mark where steering shaft mates to the Steering rack and unbolt Shaft from Rack. Unbolt complete Rack from frame of vehicle. Pay close attention to all hydraulic lines making sure not to kink or over extend/flex them. Use safety wire to hang rack from vehicle while installing system to prevent damage to any hoses.



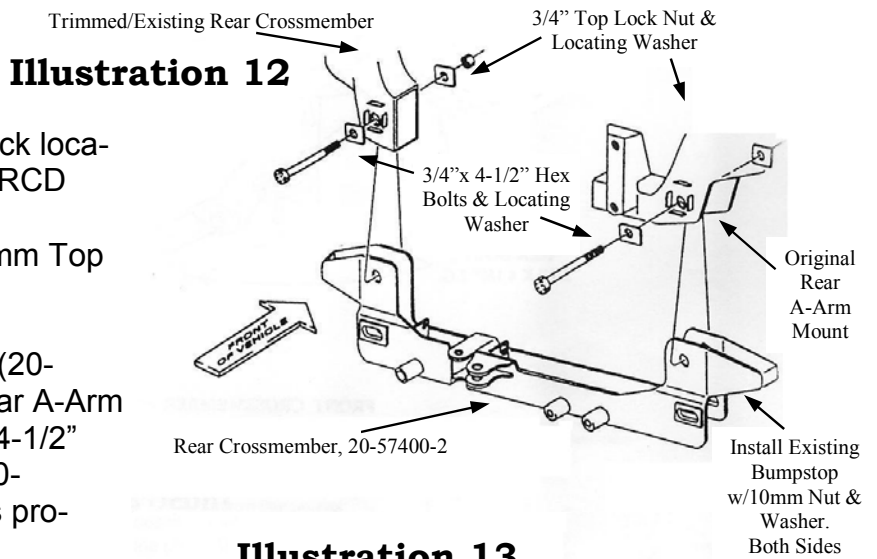
13. Place an index mark on the front and the rear of both adjusting Cam-Bolts. **(Illustration 10)** Remove nuts, Adjusting Cam-Bolts and Lower A-Arms on both sides of vehicle.

• **\*\*\* 2WD VEHICLE INSTALLS SKIP AHEAD TO STEP # 16 \*\*\***

14. Place jack under Front Differential U-Joint. Remove mounting bolt on Rear Crossmember along with the ones on the front differential mounting cushions. Raise differential up off of rear crossmember so that the crossmember can be removed.
15. Carefully study **Illustration 11** and mark "Cut Lines" on original Rear Crossmember. This section is removed to provide clearance for where the front differential will be positioned once complete lift system is installed. **Check to make sure no vacuum lines, hydraulic steering lines, wires, etc. are in the way before cutting.** Using a reciprocating saw, cut on the lines. **Be careful not to damage or cut anything besides the crossmember.** Locate the O.E.M. Skidplate Mounting Tabs (if applicable) and cut them off also. Grind and clean the cut areas of excess material. Paint freshly cut and grinded areas to prevent future rust.



## Illustration 11

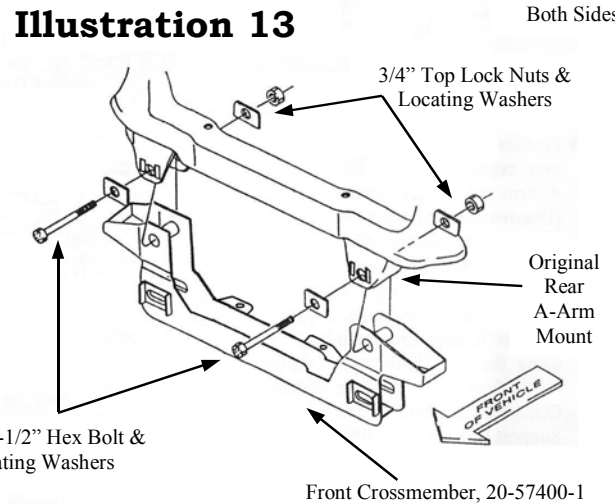


16. Unscrew all bumpstops from stock location. Install in hole on both New RCD Front and Rear Crossmembers (**Illustrations 12 & 14**). Use 10mm Top Lock Nut and washer provided.

17. Install New Rear Crossmember (20-57400-2) into existing Lower Rear A-Arm mounting locations using 3/4" x 4-1/2" Hex Bolts, Locating Washers (20-832283) and 3/4" Top Lock Nuts provided, do not torque at this time (**Illustration 12**).

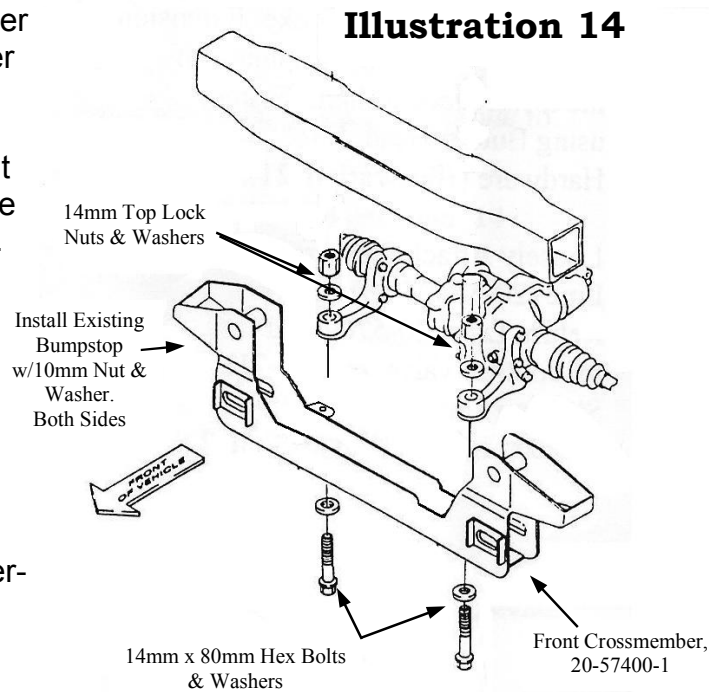
18. Install New Front Crossmember (20-57400-1) into existing Lower Front A-Arm Mounting locations using 3/4" x 5-1/2" Hex Bolts, Locating Washers (20-832283) and 3/4" Top Lock Nuts provided, do not torque at this time (**Illustration 13**).

• **\*\*\* 2WD VEHICLES SKIP AHEAD TO INSTRUCTION # 21 \*\*\***

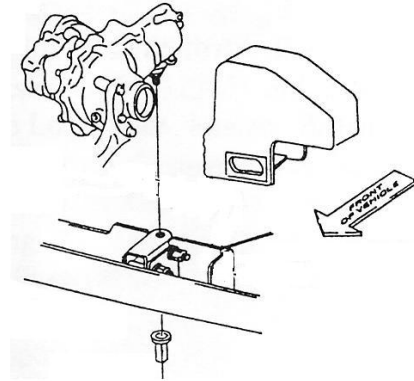


19. On 4WD vehicles lower the Differential slowly onto the New Front Crossmember Mounting Pads and Rear Crossmember Mount. Make sure to check clearances around Differential and the area where the Rear Crossmember section was cut away. Also, check to make sure that the electrical wiring and tubing do not bind.

20. Secure Differential to new Front and Rear Crossmembers using existing and provided hardware. Use 14mm x 80mm Hex Bolts along with 14mm Washers and Top Lock Nuts provided to mount to new Front Crossmember (**Illustration 14**). Existing hardware removed on the rearward side of the differential is reused to secure it to the new Rear Crossmember (**Illustration 15**).

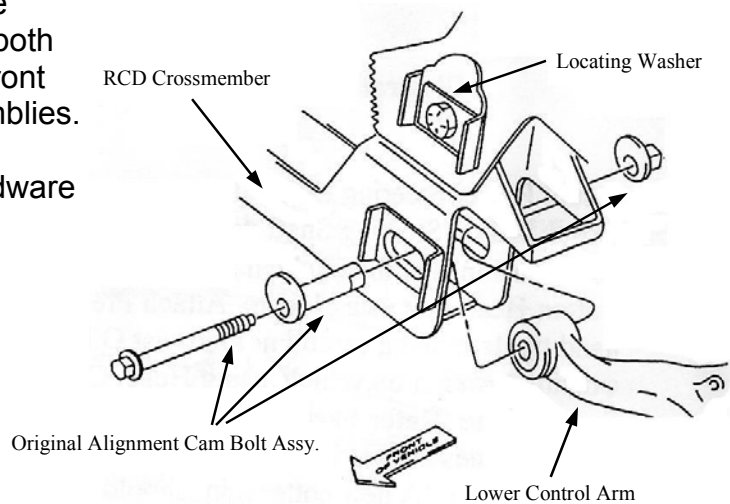


### Illustration 15



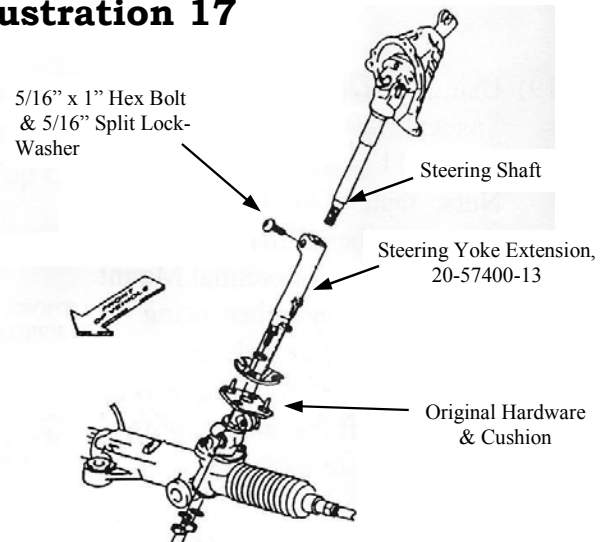
### Illustration 16

21. Install existing Lower A-Arm into the Front and Rear Crossmembers on both sides of vehicle using the existing front and rear Adjusting Cam-Bolt Assemblies. **(Illustration 16)** Refer to the index marks on the Cam-Bolts. Snug hardware but do not torque at this time.



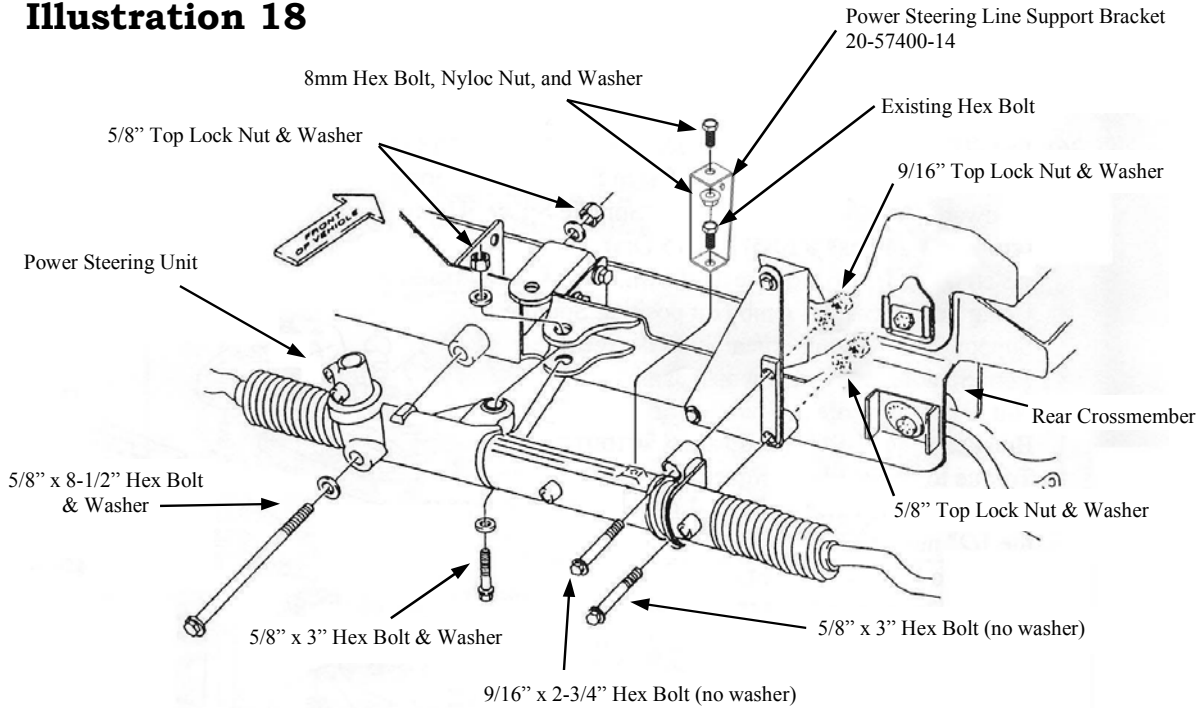
### Illustration 17

22. Install the New Steering Yoke Extension (20-57400-13) on to the splines of the steering shaft. Reference the alignment marks made on the original and align new part to match. Fasten Steering Yoke Extension using 5/16" x 1" Hex Bolt provided **(Illustration 17)**. **Do not bolt Yoke Extension to Power Steering Unit at this time.**



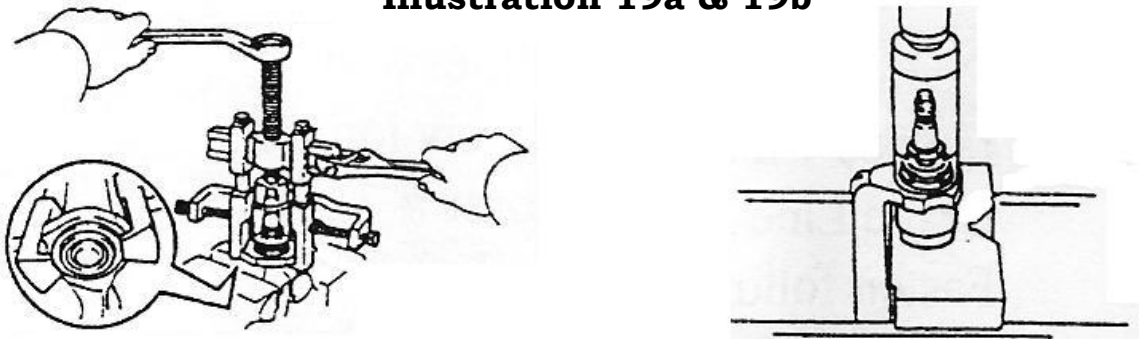
23. Remove bolt holding High Pressure Power Steering Lines to bracket on the passenger side of Power Steering Unit. Install Power Steering Line Support Bracket (20-57400-14) using the existing bolt. For correct alignment of the fluid lines, the Bracket should be installed with the small reference hole facing forward, and at the top of the part. Install 8mm hex bolt, washer and Nyloc nut provided to clamp steering lines to Support Bracket. Install Power Steering Unit using Hardware Provided (**Illustration 18**). Bolt Steering Yoke Extension to Power Steering Unit.

**Illustration 18**



24. Press Upper Ball Joint out of the Original Spindle using the Ball Joint Puller. Be sure to remove the rubber dust boot and snap retaining ring off the Ball Joint. Repeat on opposite Spindle. (**Illustration 19a & 19b**)

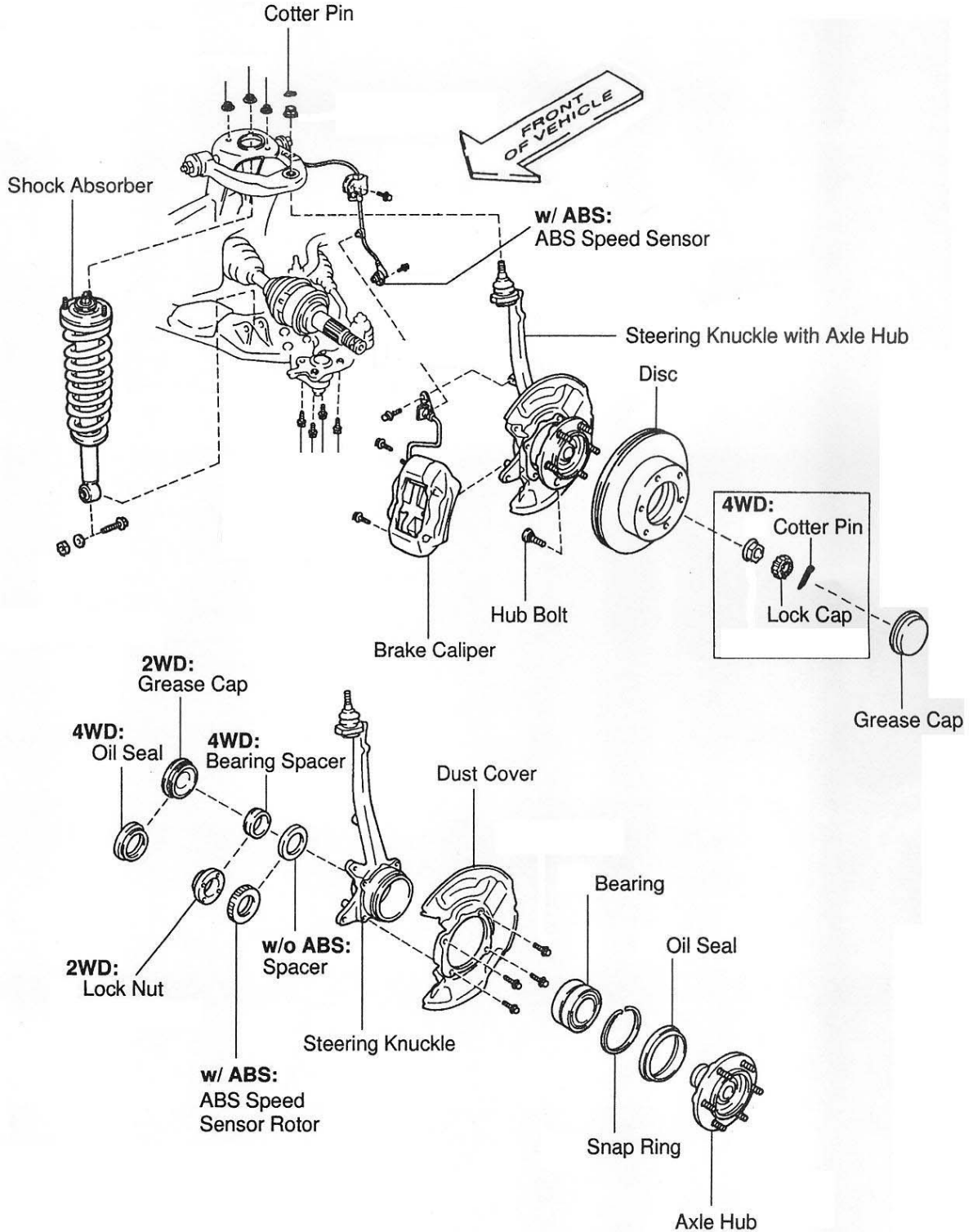
**Illustration 19a & 19b**



25. Press Original Upper Ball Joint into RCD Spindle. (20-57404-5D, 20-57404-6P)

- **\*\*\* SEE ILLUSTRATION BELOW FOR PARTS BREAKDOWN OF SPINDLE ASSEMBLY AND DISASSEMBLY, AS WELL AS GENERAL ASSEMBLY \*\*\***
- **\*\*\* 4WD Vehicles skip ahead to step # 28 \*\*\***

### Illustration 20



26. **On 2WD Vehicles only (Illustration 20)** carefully pry off grease cap from inner surface of the stock spindle. Using a punch and hammer loosen inner hub lock nut and remove. If vehicle is equipped with front ABS, remove Speed Sensor Rotor. If vehicle is NOT equipped with front ABS, remove the spacer behind the hub lock nut. Press the hub out of the bearing inside the spindle. **Carefully** remove oil seal on outer edge of spindle just behind the hub previously pressed out. **This will be re-used and if damaged or worn will need to be replaced with a Toyota Factory Seal.** Once the Oil Seal is removed pull out the inner snap ring and remove the four bolts securing the brake dust cover to the spindle.

27. Install all original parts just removed from the stock spindle into the new RCD Spindle provided with the kit. **Repeat Spindle disassembly and assembly of new spindle on opposite side. (Illustration 20)**

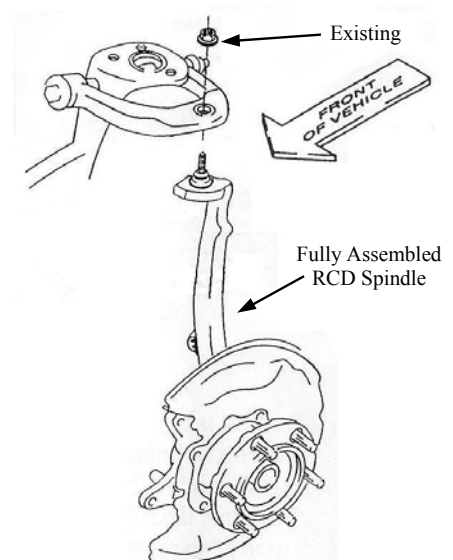
• **\*\*\* 2WD Vehicle Installation skip ahead to step #30 \*\*\***

28. **On 4WD Vehicles only (Illustration 20)** carefully pry off oil seal from inner side of original spindle. **This seal will be re-used and if damaged or worn will need to be replaced with a Toyota Factory Seal.** Remove the spacer behind the oil seal. If equipped with ABS, remove the Speed Sensor Rotor, or if NOT equipped with ABS, remove the spacer. Carefully press the hub out of bearing in the spindle. Carefully remove the oil seal found behind the hub previously pressed out. **This seal also will be re-used and if damaged or worn will need to be replaced with a Toyota Factory Seal.** Once the oil seal is removed pull out the inner snap ring and remove the four bolts securing the brake dust cover to the spindle.

29. Install all original parts just removed from the stock spindle into the new RCD Spindle provided with the kit. **Repeat Spindle disassembly and assembly of new spindle on opposite side.**

30. Slide upper ball joint of Newly Assembled RCD Spindle into upper control arm and fasten down using existing castle nut (**Illustration 21**). **Do not torque at this time.** Install Tie Rod End into RCD Spindle using existing castle nut. **Do not torque at this time.**

31. Place Rotor on Hub and reinstall existing snap ring if equipped. Attach Brake Caliper to RCD spindle using existing hardware. Torque to 90 ft. lbs.



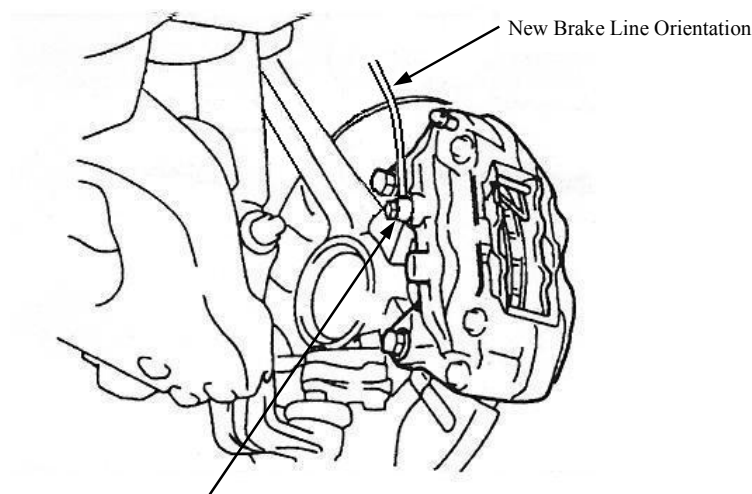
**Illustration 21**

32. Remove stock brake lines and replace with required new longer brake lines (50-5700-1) included. Attach upper part of new brake line to existing fitting, and use supplied clip (50-5700-2) to secure to mounting tab on vehicle.

- **\*\*\* Note that the new brake lines provided use a banjo bolt connection to the caliper, and is different than the stock fitting. \*\*\***

33. Install the banjo bolt (50-5700-3) through the open end of the new brake line with one bronze crush washer (50-5700-4) between the bolt and the brake line, and the other between the brake line and the caliper. Orient the brake line so it is in the vertical position (or angled slightly toward the rear of the vehicle) at the connection to the caliper. Torque Banjo Bolt to 15 ft. lbs. Make sure the brake lines are positioned so they do not make contact with any moving parts and secure them using the supplied plastic wire ties. **(Illustration 22)**

### Illustration 22



New Brake Line Banjo Bolt and Crush Washers

34. On ABS equipped vehicles, install the ABS speed sensors into the RCD spindles. Make sure to route the hoses so they do not make contact with any moving parts, and are not over-stretched when the suspension is cycled and the wheels are turned lock-to-lock. On non-ABS equipped vehicles, RCD recommends plugging the hole in the spindle where the sensor would go to prevent foreign objects from getting inside.

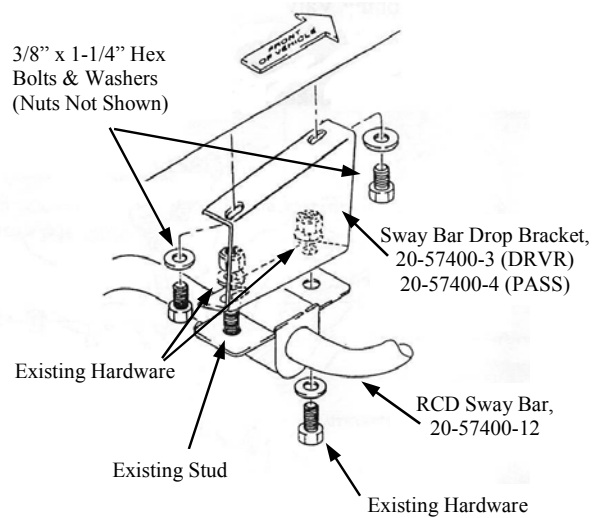
35. Using an external coil compressor, compress the coil on the stock shock. **The spring is under EXTREME PRESSURE, make sure you use a proper spring compressor and fully understand how to operate it. See page 6 for Toyota's external coil compressor part number.** Once tension is removed off end plate loosen and remove nut on end of shock shaft. Slowly release tension on coil compressor until the coil is completely free.

- **\*\*\* Note: The new Bilstein front shocks (50-BE5-B109-T5) have two snap ring grooves. Installing the snap ring in the groove closest to the bottom (eyelet end) will give 4 inches of lift height. Using the groove closest to the top (threaded stud end) will give 6 inches of lift height. Exact lift height may vary with different engine/drivetrain and body configurations. \*\*\***

36. Make sure coil seat is securely resting on snap ring of new front Bilstein Shock (50-BE5-B109-T5) provided and place original coil onto the new shock. The end of the coil should sit in a pocket shaped especially for it on the new coil seat. Use the coil compressor and compress the coil enough to put the existing top seat for the coil and new hardware on to shock shaft. Use the 12mm x 1.25 pitch Nyloc Nut provided with the new shock to secure all top hardware. Once tightened, slowly remove coil compressor.

37. Position new shock assembly back into original location. Make sure once the top three bolts are in position that the bottom eyelet is oriented so that it will fit into the lower control arm and the bolt will fit. Install existing nuts onto top studs on shock mount and torque to 47 ft. lbs. Raise lower control arm into position and install existing lower shock bolt. Torque to 101 ft. lbs.

38. **Repeat steps 30-37 on opposite side of vehicle.**

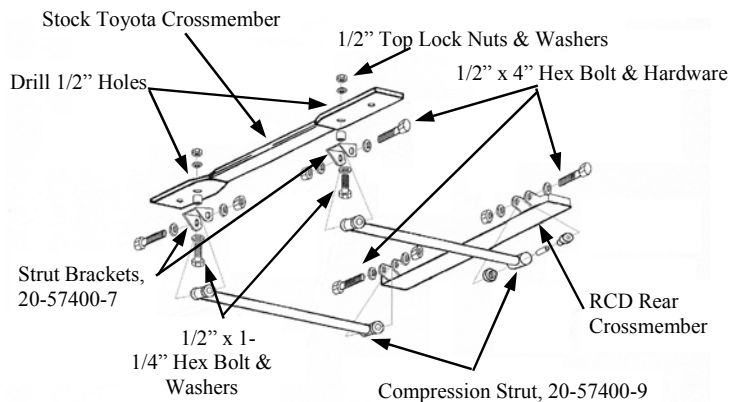


**Illustration 23**

39. Install Sway Bar Drop Brackets (20-57400-3, 20-57400-4) to existing Sway Bar Upper Mounting locations on the frame rails using existing hardware. Gussets face towards center of vehicle. **(Illustration 23)**

40. Install RCD Sway Bar (20-57400-12) to the mounting brackets and bushings removed previously from the factory sway bar. Attach to Sway Bar Drop Brackets with 3/8" x 1-1/4" Hex Bolts and Hardware provided. **(Illustration 23)**

41. Assemble bushings and sleeves from Hardware Pack 20-69878 into both ends of both Compression Struts (20-57400-9). Using 1/2" hardware, mount compression struts into brackets on the back of the RCD rear crossmember.



**Illustration 24**

42. Attach Compression Strut Mount Brackets (20-57400-7) to opposite end of Compression Strut using 1/2" x 4" Hex Bolts and Hardware and swing up towards frame. Mounts should intersect stock crossmember. Mark holes to be drilled to mount brackets. Lower and drill 1/2" holes as marked. Bolt Compression Strut Mounts to crossmember using 1/2" x 1-1/4" Hex Bolts and Hardware. **(Illustration 24)**



43. Recheck **ALL** hardware used to install complete suspension system at this time. ***Anything not tightened to specified torque needs to be tightened now.*** Refer to chart on the last page of these instructions for general and specified torque values. Replace original cotter pins removed from upper and lower ball joints with new ones supplied (13-90724).
44. Install RCD Skidplate (20-57400-8) to the bottom of the front and rear crossmembers using 3/8" x 1-1/4" Hex Bolts along with the 3/8" Flat and Lock Washers provided. Torque bolts to 35 ft. lbs.
45. Install Wheels and tires and lower vehicle to ground. **On 4WD vehicles** tighten the Axle Nut to 173 ft. lbs. Attach Locking Cap, New Cotter Pin (13-90620) and replace the Dust Cover.

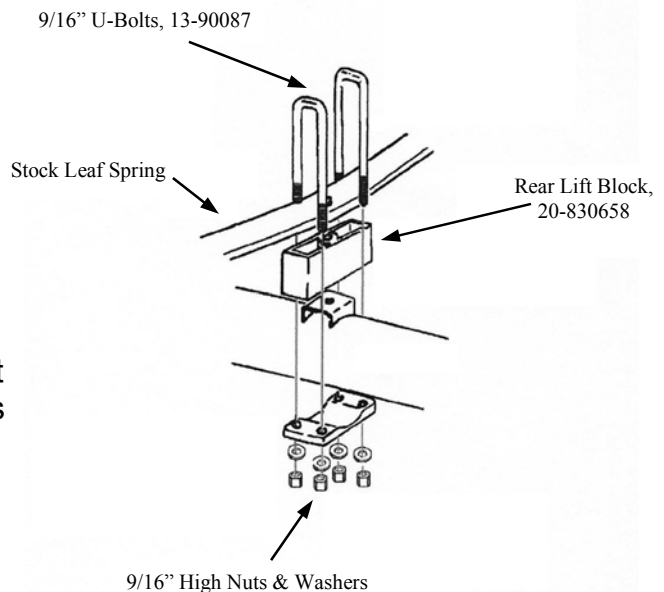
## **REAR INSTALLATION INSTRUCTIONS**

1. Raise the vehicle. If working without a shop hoist support vehicle with suitable safety stands. To do this put vehicle in gear, block front wheels, both in front and behind tires, then disengage emergency brake. Place floor jack underneath rear axle and raise vehicle. Place suitable safety stands under frame to support vehicle and lower vehicle onto safety stands.
2. With the floor jack, raise the rear axle enough to relieve tension on the shock absorbers and remove them.
3. Remove rear U-bolts attaching rear axle to driver side leaf spring. Carefully lower rear axle.

**WARNING: Do not allow axle to hang by any hoses or cables.**

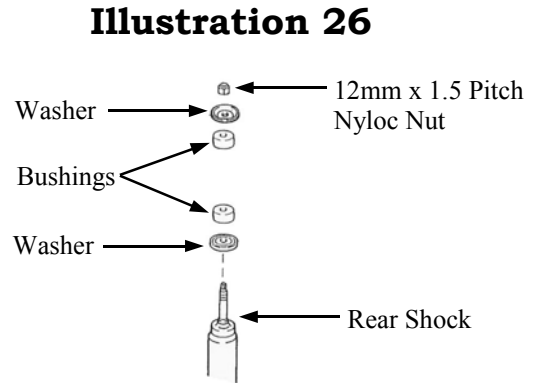
4. Insert new riser Block (20-830658) on axle pad. Make sure the block's pin indexes into the hole of the axle housing spring pad. The short end of the block faces the front of the vehicle. Carefully raise rear axle until block makes contact with leaf spring. Make sure center bolt is aligned with hole in block (**Illustration 25**).
5. Re-mount axle to spring using the new U-bolts (13-90087), 9/16" Washers, 9/16" Nuts and existing spring plates. Torque U-bolts nuts to 85-100 ft. lbs.

**Illustration 25**

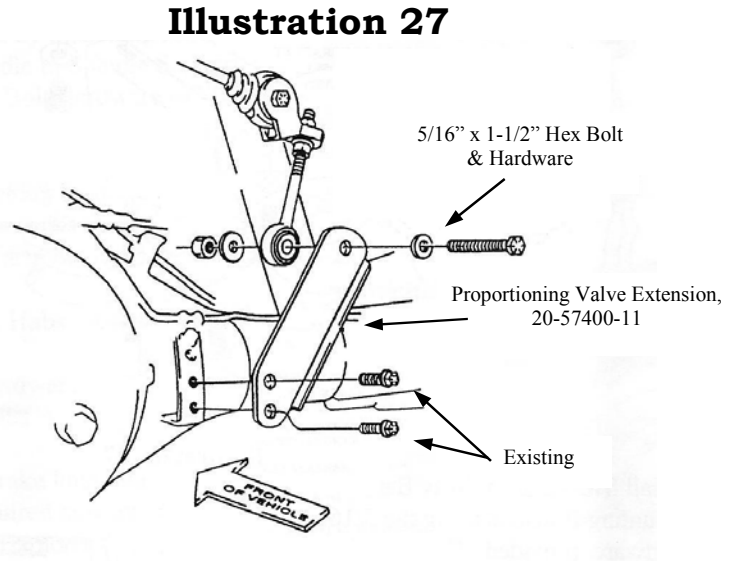


Repeat steps 3 through 5 on opposite side.

- Install new longer Shock Absorbers (50-BE5-B110-T5), using the existing lower hardware, and new upper 12mm x 1.5 pitch Nyloc nuts. Install the new upper shock bushings and washers provided, in the same order as the stock components were removed, with the nipples on the bushings facing each other. **Install the washers so the concave side faces away from the bushings (Illustration 26).** Attach the shock to lower axle mount and torque nuts to 64 ft. lbs. To tighten the upper nut, insert a 6mm Allen wrench into the shaft to hold from spinning, and tighten nut with a wrench to approximately 15 ft. lbs.



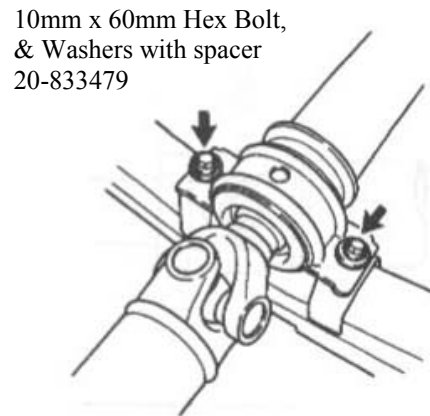
- Locate ABS Proportioning Valve on rear axle. Remove ABS Proportioning Valve Bracket from mount. Install the ABS Extension Bracket (20-57400-11) to the rear differential with the original bolts. Mount Valve to new bracket with 5/16" x 1-1/2" Hex Bolt and Hardware provided **(Illustration 27).**



- Disconnect brake line mount from tab on crossmember just forward & above rear differential. Use 1/2" x 1" Hex Bolt & Hardware to mount bracket. Mount brake line to new drop bracket (20-57400-10).

**Illustration 28**

- If vehicle is equipped with a 2 piece driveshaft using a carrier bearing in the center support drive shaft, remove two bolts clamping the carrier bearing to the crossmember **(Illustration 28)**. Place 1"OD x 1/2"ID x 1"LG round spacers (20-833479) between carrier bearing mount and crossmember and re-mount carrier bearing using 10mm x 60mm Hex Bolts with 10mm Flat and Lock Washers.



### **Some Final Notes**

After installation is complete, double check that all nuts and bolts are tight. Refer to the torque specifications chart on the last page.

If new tires are installed that are more than 10% taller than original tires, the speedometer must be recalibrated for the Anti-Lock Brake System to function properly. Contact an Authorized Toyota dealer for details on recalibration.

With vehicle on the floor, cycle the steering lock to lock and inspect steering, suspension and driveline systems for proper operation, tightness and adequate clearance. Recheck brake/hose fitting for leaks. Be sure all hoses are long enough.

Have headlights readjusted to proper setting.

Realign front end to factory specifications. Be sure vehicle is at desired ride height prior to realignment.

## **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.
3/4" NUTS	250 FT. LBS.	M18	220 FT. LBS.

## **EXISTING HARWARE TORQUE SPECIFICATIONS**

Rear Differential Mount	64 Ft Lbs
Adjustable Cam-Bolt Assembly	96 Ft Lbs
Steering Stem Clamp	26 Ft Lbs
Steering Stem "Universal Joint"	26 Ft Lbs
Front Upper Shock Mount Nuts (3 per side)	47 Ft Lbs
Front Shock Retainer Nuts	18 Ft Lbs
Front Lower Shock Mount Bolts	101 Ft Lbs
2WD Hub Lock Nut (using punch and hammer)	203 Ft Lbs
Dust Cover/ Break Backing Plate	13 Ft Lbs
4WD Axle Nuts	173 Ft Lbs
Brake Caliper Bolts	90 Ft Lbs
Lower Ball Joint Bolts	59 Ft Lbs
Upper Ball Joint Castle Nuts	77 Ft Lbs
Sway Bar Drop Bracket to Frame Bolts	25 Ft Lbs
Sway Bar End Link (Pin top through RCD Sway Bar)	14 Ft Lbs
Sway Bar End Link (Link to Lower Control Arm)	51 Ft Lbs
Rear Upper Shock Nuts	15 Ft Lbs
Rear Lower Shock Mounts	64 Ft Lbs
9/16 U-Bolts	85-100 Ft Lbs