RCD RACE CAR DYNAMICS

SUSPENSION SYSTEMS

3/14/02

'97-'00 FORD 4WD EXPEDITION
5.4L with E4OD Transmission
5" SUSPENSION SYSTEM
(coil spring rear suspension only)
P/N. 10-42131

INSTALLATION INSTRUCTIONS

NOTE: Each Lift Kit, and options to Lift Kits, are packaged separately. Therefore installation procedures are covered in separate instructions. Familiarize yourself with each set of instructions before beginning.

Part List

Item	*Description*	*Qty*	*Illus.*
Box 1 of 5			
20-52097-1	Front Crossmember	1	21,23,26
20-52097-2	Rear Crossmember	1	21,22,25
20-52097-3	Crossmember Support Brkt. (Drvr.)	1	25
20-52097-4	Crossmember Support Brkt. (Pass.)	1	25
20-52097-5	Differential Drop Bracket	2	19,20,23
20-67174	Hardware Pack Containing: (Vent Hose)		
20-832335-1	Vent Hose Connector	1	24
20-832335-2	Vent Hose 3" Extension	1	24
20-67408	Hardware Pack Containing: (Front Bumpstop)		
20-52097-17	Bracket, Bumpstop	2	29
13-20081-Z	Hex Bolt, 3/8"-16 x 1-1/4" Lg.	2	29
13-30012-Z	Flat Washer, 3/8" SAE	4	29
13-10022-Z	Nyloc Nut, 3/8"-16	2	29
20-66524	Hardware Pack Containing: (Front & Rear Crossmember)		
13-21950-Z	Hex Bolt, 5/8"-11 x 5-1/2" Lg. Gr.8	4	
13-20625-Z	Hex Bolt, 1/2"-13 x 6" Lg.	1	26
13-30369-Z	Flat Washer, 5/8" Hrnd.	8	
13-30034-Z	Flat Washer, 1/2" SAE	2	26
13-10345-Z	Top Lock Nut, 5/8"-11	4	
13-10038-Z	Nyloc Nut, 1/2"-13	1	26
11-13737	Crossmember Spacer, (3-3/8")	1	26
20-830502	Load Washer	1	26
13-90490	Loctite Compound	2	
20-66901	Hardware Pack Containing: (Compression Support Bracket)		
13-20142-Z	Hex Bolt, 7/16"-14 x 1-1/4" Lg.	4	25
13-30117-Z	Flat Washer, 7/16" SAE	8	25
13-10133-Z	Nyloc Nut, 7/16"-14	4	25
20-67057	Hardware Pack Containing: (Differential Drop)		
13-21976-Z	Hex Bolt, 1/2"-13 x 3-3/4" Lg. Gr. 8	1	19
13-21963-Z	Hex Bolt, 12mm-1.75 x 100mm Lg. Gr.10.9	1	20,23
13-30382-Z	Flat Washer, 1/2" Hrnd	2	19
13-30546-Z	Flat Washer, 12mm Hrnd.	2	20,23
13-10514-Z	Top Lock Nut, 1/2"-13 Gr. C	1	19
13-10696-Z	Top Lock Nut, 12mm-1.75 Gr. 10.9	1	20,23

20-68032	Hardware Pack Containing: (Front Sway Bar Link)		
20-832803	Sway Bar Link Spacer (6-1/2" Lg.)	2	28
13-22743-Z	Button Head, 1/2"-13 x 3" Lg.	4	28
15-11382	Bushing, Sway Bar Link	8	28
13-30668-Z	Washer, Retainer	4	28
20-67148	Hardware Pack Containing: (Brake Line Extension)		
20-832595	Brake Line Extension Bracket	2	34
13-21157-Z	Hex Bolt, 5/16"-18 x 3/4" Lg.	2	34
13-30187-Z	Flat Washer, 5/16" SAE	4	34
13-10155-Z	Nyloc Nut, 5/16"-18	2	34

Box 2 of 5

20-52097-19D	Front Spindle (Drvr.)	1	27
20-52097-20P	Front Spindle (Pass.)	1	27
20-68370	Hardware Pack Containing: (Cotter Pins)		
13-90607	Cotter Pins 1/8" x 1-1/2"	8	

Box 3 of 5

20-52131-16	Trans Crossmember	1	31,32
20-52131-17	Trans Crossmember Mount (Drvr.)	1	32
20-52131-18	Trans Crossmember Mount (Pass.)	1	32
20-52131-19	Trans Crossmember Brace (Drvr.)	1	32
20-52131-20	Trans Crossmember Brace (Pass.)	1	32
20-52131-29	Compression Strut—Stainless	2	33
20-42131-24	Spacer, Torsion Bar Drop	2	30
20-67109	Hardware Pack Containing: (Trans Crossmember to Brace)		
13-21534-Z	Hex Bolt, 3/8"-16 x 1" Lg. Gr. 8	4	32
13-30408-Z	Flat Washer, 3/8" Hrnd.	8	32
13-10553-Z	Top Lock Nut, 3/8"-16	4	32
20-66940	Hardware Pack Containing: (Trans Crossmember Exhaust Shield)		
13-20425-Z	Hex Bolt, 5/16"-18 x 1-1/4" Lg.	1	31
13-22327-Z	Hex Bolt, 5/16"-18 x 1/2" Lg.	1	31
13-30187-Z	Flat Washer, 5/16" SAE	2	31
13-30525-Z	Lock Washer, 5/16"	1	31
13-10155-Z	Nyloc Nut, 5/16"-18	1	31
20-66953	Hardware Pack Containing: (Trans Crossmember Mount)		
13-21963-Z	Hex Bolt, 12mm-1.75 x 100mm Lg. Gr. 10.9	6	32
13-30546-Z	Flat Washer, 12mm Hrnd.	12	32
13-10696-Z	Top Lock Nut, 12mm-1.75 Gr. 10.9	6	32

20-66979	Hardware Pack Containing: (Compression Strut)		
15-11148	Bushing, (Red)	8	33
20-830918	Sleeve, 3/4" x 2-3/4" Lg.	4	33
13-20069-Z	Hex Bolt, 1/2"-13 x 4" Lg.	4	33
13-30034-Z	Flat Washer, 1/2" SAE	8	33
13-10038-Z	Nyloc Nut, 1/2"-13	4	33
20-67044	Hardware Pack Containing: (Trans Crossmember to Mount)		
13-21118-Z	Hex Bolt, 7/16"-14 x 1-1/4" Lg. Gr. 8	8	32
13-30304-Z	Flat Washer, 7/16" Hrnd.	16	32
13-10384-Z	Top Lock Nut, 7/16"-14 Gr. C	8	32
20-66914	Hardware Pack Containing: (Torsion Bar Drop)		
13-23120-Z	Hex Bolt, 7/16"-14 x 3-1/2" Lg. Gr. 8	2	30
13-22132-Z	Hex Bolt, 1/2"-13 x 2-1/4" Lg. Gr. 8	4	30
13-30304-Z	Flat Washer, 7/16" Hrnd.	4	30
13-30382-Z	Flat Washer, 1/2" Hrnd.	8	30
13-10384-Z	Top Lock Nut, 7/16"-14	2	30
13-10514-Z	Top Lock Nut, 1/2"-13	4	30
20-830502	Load Washer, 1-1/2" x 1/2" x 7 Ga.	2	30
20-831009	Spacer, .62" x 1-1/4" Lg.	2	30

Box 4 of 5

20-52131-24	Bumpstop Rear, Spacer	2	38
20-52131-25	Control Rod Mount, Rear (Drvr.)	1	35
20-52131-26	Control Rod Mount, Rear (Pass.)	1	35
20-52131-27	"Z" Bar Mount Bracket	1	36
20-52131-28	Sway Bar Link	2	39
20-52131-1	Spring Spacer, Rear	2	37
20-67018	Hardware Pack Containing: (Rear Sway Bar Link & Rear Bumpstop)		
15-11083	Hour Glass Bushing	4	39
20-831451	Sleeve, 5/8" x 12mm x 1.47" Lg.	4	39
13-21027-Z	Hex Bolt, 12mm x 1.75 x 70mm	2	39
13-30546-Z	Flat Washer, 12mm Hrnd.	4	39
13-10696-Z	Top Lock Nut, 12mm-1.75	2	39
13-22899-Z	Hex Bolt, 10mm-1.5 x 90mm Lg.	2	38
13-30577-Z	Split Lock Washer, 10mm	2	38
20-67031	Hardware Pack Containing: (Spring Spacer, Rear)		
13-22288-Z	Hex Bolt, 1/2"-13 x 2-3/4" Lg.	2	37
13-30034-Z	Flat Washer, 1/2" SAE	4	37
13-10038-Z	Nyloc Nut, 1/2"-13	2	37
20-832309	Cap, Spring Spacer	2	37

20-67005	Hardware Pack Containing: ("Z" Bar Mount)		
13-23029-Z	Hex Bolt, 5/8"-11 x 3" Lg. Gr. 8	1	36
13-21118-Z	Hex Bolt, 7/16"-14 x 1-1/4" Lg. Gr. 8	2	36
13-30369-Z	Flat Washer, 5/8" Hrnd.	3	36
13-30304-Z	Flat Washer, 7/16" Hrnd.	4	36
13-10345-Z	Top Lock Nut, 5/8"-11 Gr. C	1	36
13-10384-Z	Top Lock Nut, 7/16"-14 Gr. C	2	36
20-66966	Hardware Pack Containing: (Rear Control Rod Mount)		
13-22223-Z	Hex Bolt, 9/16"-12 x 3-3/4" Lg. Gr. 8	2	35
13-21144-Z	Hex Bolt, 9/16"-12 x 3-1/2" Lg. Gr. 8	2	35
13-22262-Z	Hex Bolt, 1/2"-13 x 4" Lg. Gr. 8	2	35
13-21664-Z	Hex Bolt, 1/2"-13 x 1-1/4" Lg. Gr. 8	2	35
13-30395-Z	Flat Washer, 9/16" Hrnd.	8	35
13-30382-Z	Flat Washer, 1/2" Hrnd.	8	35
13-10397-Z	Top Lock Nut, 9/16"-12 Gr. C	4	35
13-10514-Z	Top Lock Nut, 1/2"-13 Gr. C	4	35
20-830710	Sleeve, 3/4" x 2-1/2" Lg.	2	35

Box 5 of 5

BE5-6138	Shock Absorber (Front)	2
BE5-6244	Shock Absorber (Rear)	2

- Always use **new** cotter pins (supplied) when replacing them.

- Foot pound torque readings are listed on Torque Specification Chart at the end of the instructions unless specifically stated in the instruction. Apply Loctite Retaining Compound on specified bolts during installation. DO NOT USE AN IMPACT WRENCH TO TIGHTEN ANY OF THE BOLTS.

- Read the instructions carefully and study the illustrations before attempting installation. *Race Car Dynamics* is not responsible for damage, failure or injury resulting from improper installation or parts substitution of this kit.

- Check all parts and hardware against the parts list to assure that your kit is complete. Report any shortages to *Race Car Dynamics* 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.

- 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.

PLEASE NOTE

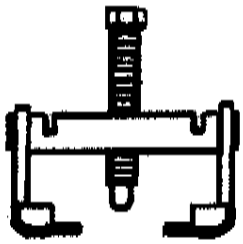
- ***WARNING***: Do not use wheel spacers.

- Front end alignment is necessary.

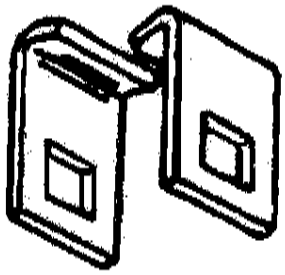
- Clears 35" x 12.50" tires on 16" x 8" wheels. Requires wheels with a maximum of 4 5/8" of back spacing.

- System will not work on vehicles equipped with front air ride system.
- Early 1997 models may be equipped with the short style 4R70W transmission, call for details on fitment.
- Full time 4WD models may require driveline modifications.
- Speedometer recalibration is necessary if bigger tires (10% more than stock diameter) are installed.

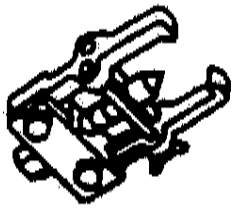
** The following special tools will be required for the proper removal and/or installation of this kit.** The tools can be purchased at a Ford dealer.



Torsion Bar Tool
 # T95T-5310-A



Torsion Bar Tool
Adapters
#T96T-5310-A



Pitman Arm Puller
 # T64P-3590-F

FRONT DISASSEMBLY

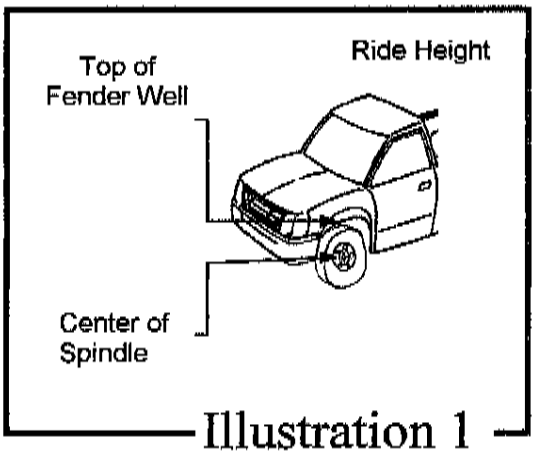


Illustration 1

1) GETTING STARTED: Measure ride height with vehicle supporting it's own weight. Ride height is the measured distance from center of spindle-to-top of fender well (**Illustration 1**). Raise vehicle. If working without a shop hoist, put vehicle in gear, set emergency brake and block rear wheels, in front and behind tires. Loosen Lug nuts. Place floor jack under lower control arm's front crossmember and raise vehicle. Place safety jack stands under frame rails, behind front wheel wells and lower frame onto stands. Remove front wheels and tires.

WARNING: **Be extremely careful when loading or unloading torsion bars. There is a tremendous amount of stored energy in the bars. Keep your hands and body clear of adjuster arm assembly and puller in case anything breaks.**

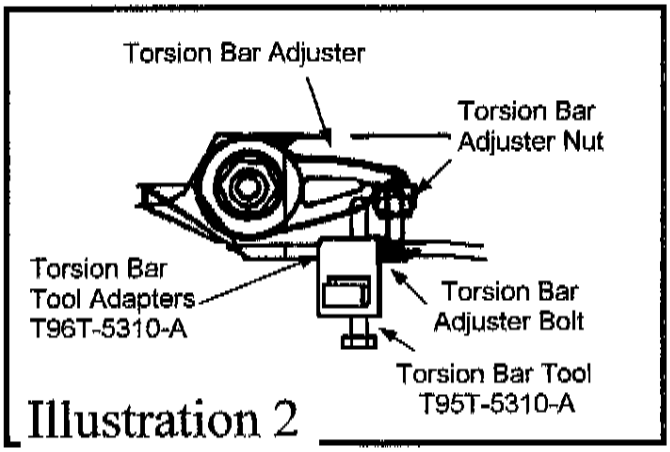


Illustration 2

2) Install Torsion Bar tool (T95T-5310-A) with Adapter Plates (T96T-5310-A) **(Illustration 2)**. Tighten torsion bar tool until it touches torsion bar adjuster. Measure the depth of the adjuster bolt for replacement of torsion bar adjusters. Remove torsion bar adjuster bolt and nut. Remove torsion bar adjuster and repeat on opposite side.

NOTE: If vehicle is equipped with 4-wheel anti-lock brake system, at this time disconnect the anti-lock sensor wire from brake line and reposition so not to damage ends.

3) Remove six bolts attaching torsion bar crossmember to frame **(Illustration 3)**. Move crossmember back, one side at a time, while removing torsion bar. Remove assembly and set it aside.

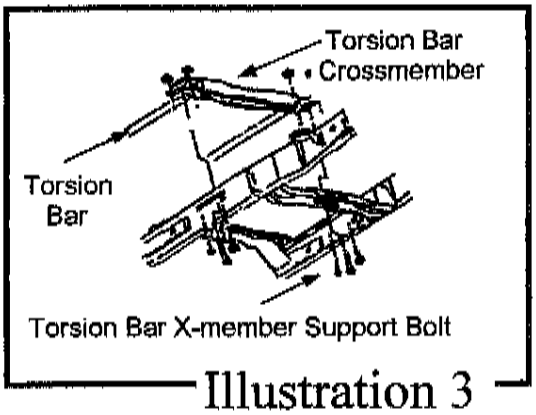


Illustration 3

4) Locate the (two) caliper bolts on front brake calipers **(Illustration 4)**. Remove bolts and lift disc brake caliper off disc brake rotor. Position brake calipers aside. Use wire or plastic tie to support caliper. Do not let caliper hang by the brake lines.

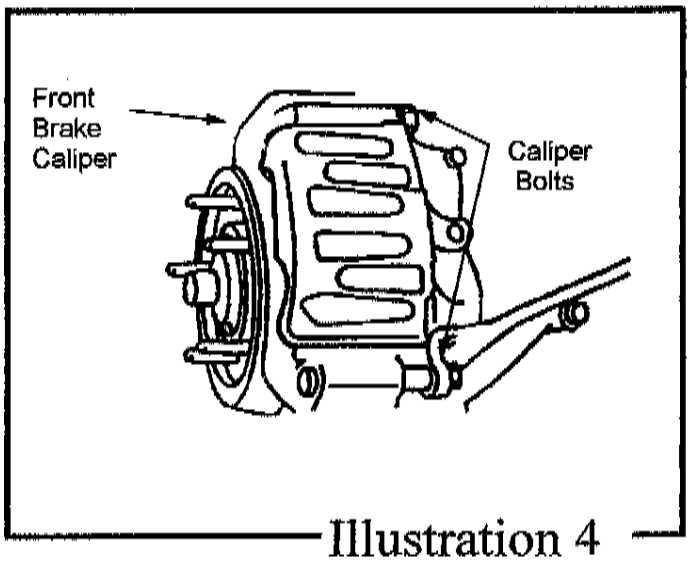


Illustration 4

5) See **Illustration 5** and loosen the three bearing assembly bolts located on back side of wheel hub. Remove cotter pin, retainer and hub nut from Front Rotor **(Illustration 6)**. Remove rotor and set aside. You will not be re-using the cotter pin. A new cotter pin will be needed for assembly. Remove front bearing assembly by removing the three bolts previously loosened.

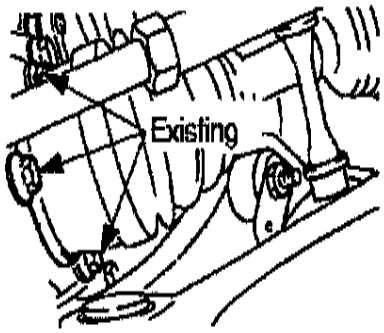


Illustration 5

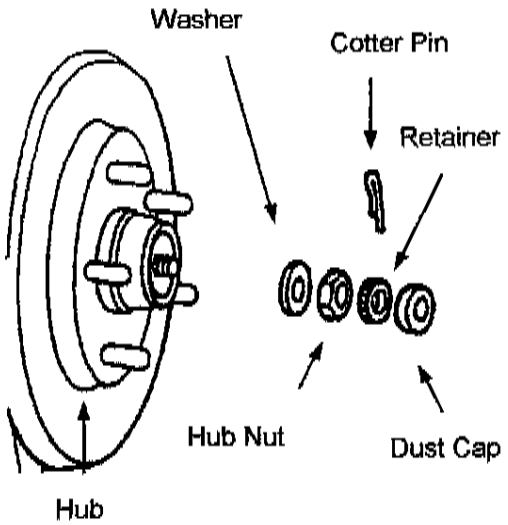


Illustration 6

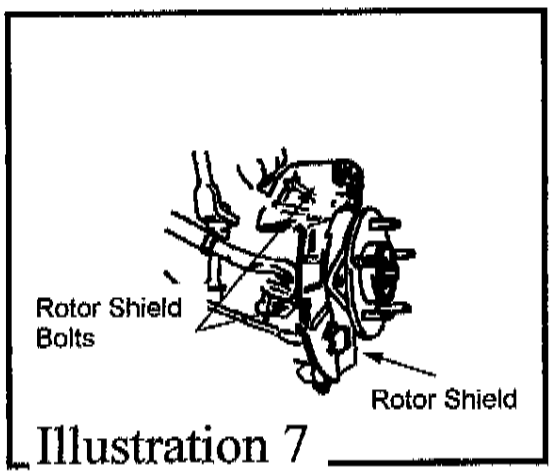


Illustration 7

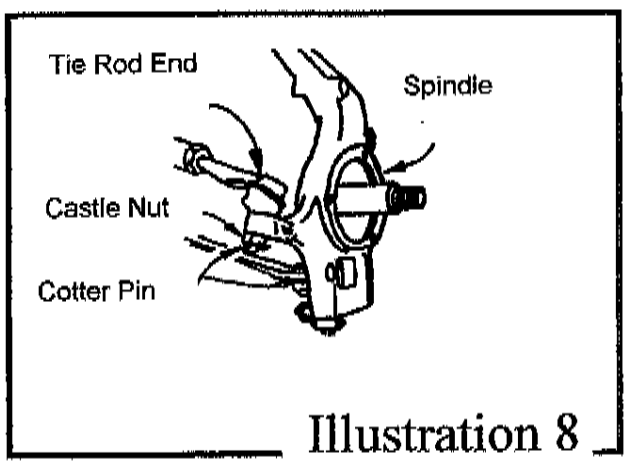


Illustration 8

NOTE: If your vehicle is equipped with the 4-wheel Anti-lock Brake system remove the Disc Brake Rotor Shield at this time **(Illustration 7)**. Disconnect anti-lock sensor wire from spindle and bearing assembly. Set aside so not to damage.

6) Locate Tie-Rod end castellated nut **(Illustration 8)**. Remove the cotter pin and castellated nut. You will not be re-using the cotter pin. A new cotter pin will be needed for assembly. Using Pitman Arm Puller (T64P-3590-F) **(Illustration 9)** separate tie-rod end from front spindle.

7) Locate upper ball joint castellated nut **(Illustration 10).** Remove cotter pin and nut. You will not be re-using cotter pin. A new cotter pin will be needed

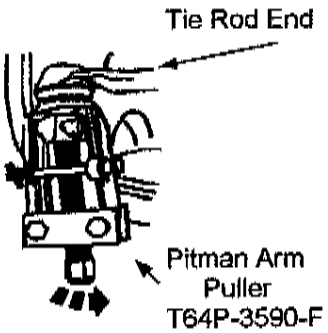


Illustration 9

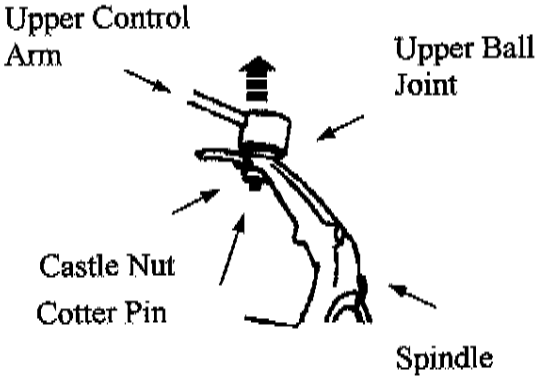


Illustration 10

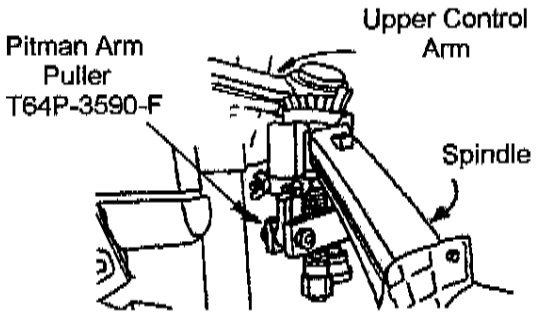


Illustration 11

for assembly. Attach Pitman Arm Puller (T64P-3590-F) as shown in **Illustration 11**. Separate the Front Spindle from upper suspension A-arm.

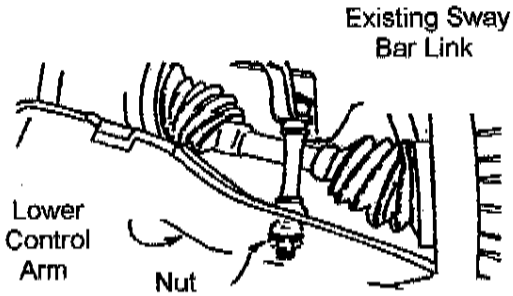


Illustration 12

8) Remove sway bar link nut from Lower A-Arm (**Illustration 12**).

9) Locate and remove front Shock Absorber lower mounting bolt and nut from lower A-arm.

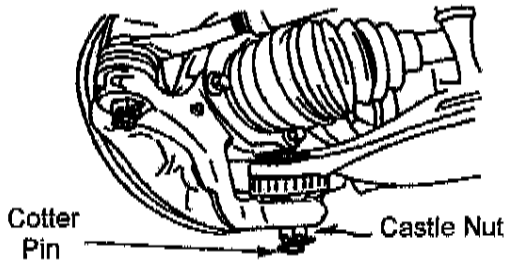


Illustration 13

10) Suspend front wheel drive shaft using a strap or wire, so not to bind.

11) Locate and remove lower ball joint cotter pin **(Illustration 13)**. Using Pitman Arm Puller (T64P-3590-F), separate the front spindle from the lower A-arm. Remove the front spindle **(Illustration 14)**.

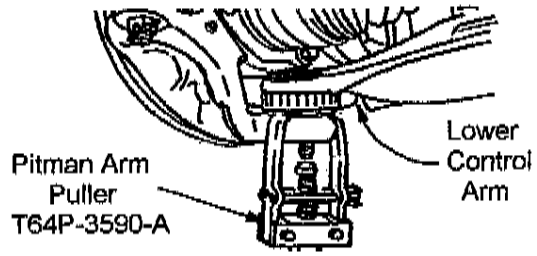


Illustration 14

Repeat steps 4 thru 11 on opposite side.

12) Locate and disconnect vacuum line and front axle vent tube from front differential **(Illustration 15)**. Use floor jack to support front drive axle.

13) Locate existing differential crossmember **(Illustration 16)**. Remove front bushing, hardware and four (4) differential crossmember bolts. Remove differential crossmember. You will not be re-using this item.

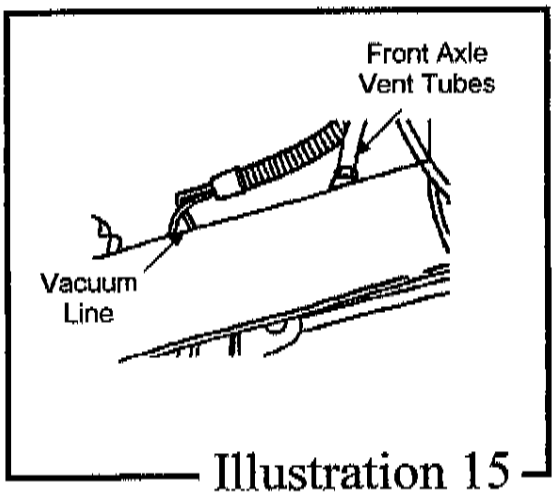


Illustration 15

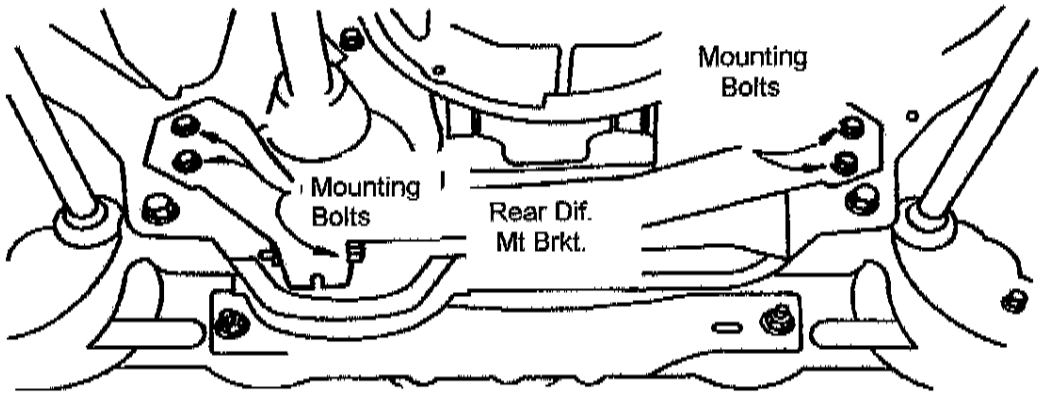


Illustration 16

14) Remove the sway bar link nut from lower A-arms **(Illustration 17)**.

15) Locate the two (2) lower A-arm mounting areas. Remove existing hardware and lower A-arm.

16) Repeat steps 14 and 15 on opposite side.

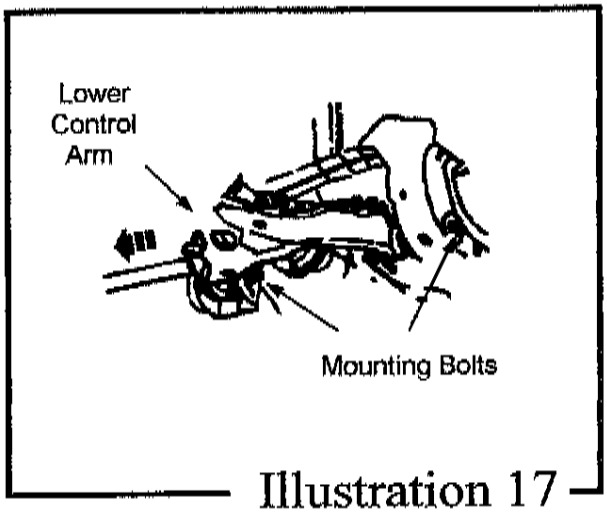


Illustration 17

FRONT ASSEMBLY

NOTE: If your vehicle is equipped with an O.E.M. skidplate, remove it at this time **(Illustration 18)**.

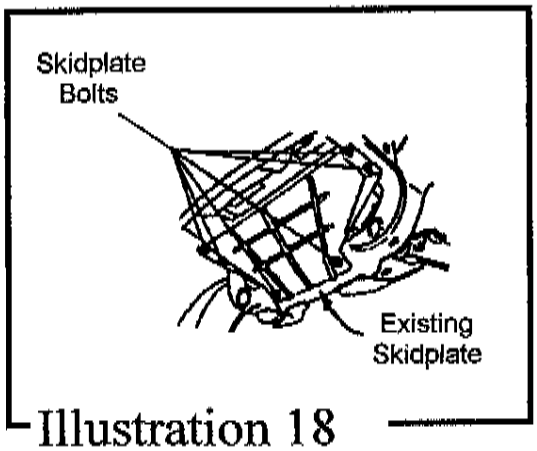
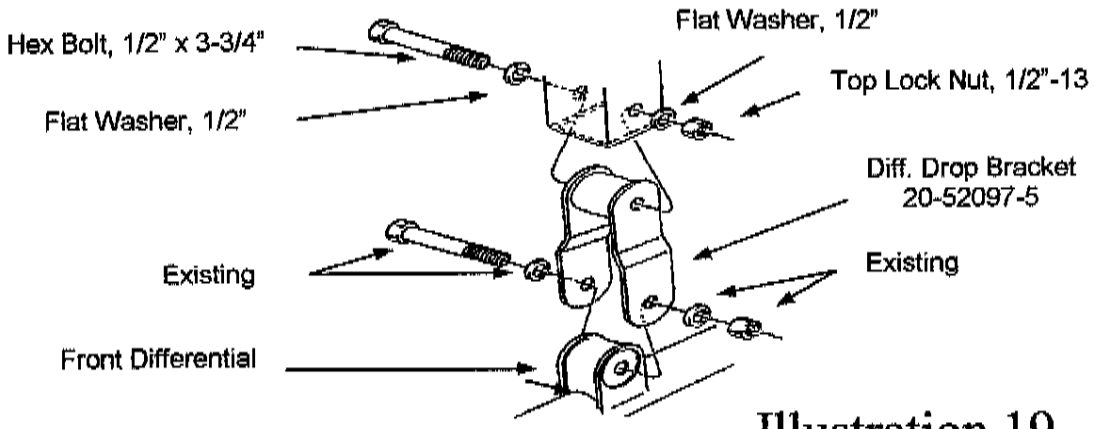


Illustration 18

1) Make sure Front Differential is well supported, then remove existing hardware from both passenger and driver side differential mounting areas. Carefully lower differential enough to install Differential Drop Bracket (20-52097-5) on passenger side using the 1/2" hardware provided **(Illustration 19)**. Install, but do not tighten.



Passenger's Side Shown

Illustration 19

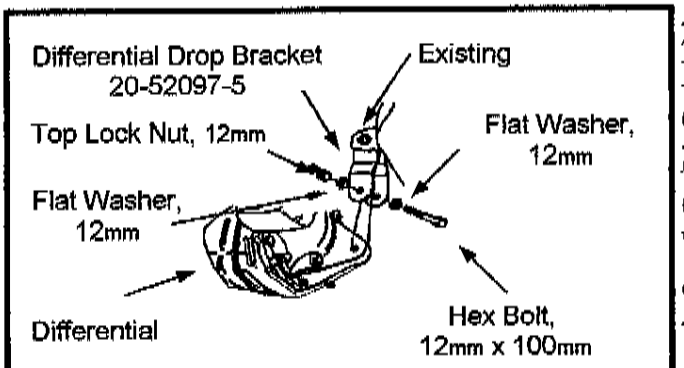


Illustration 20

2) Install Front Driver side Differential Drop Bracket (20-52097-5) using 12mm hardware provided **(Illustration 20)**. Make sure the bolt head is facing the passenger outboard side of vehicle. Do not tighten.

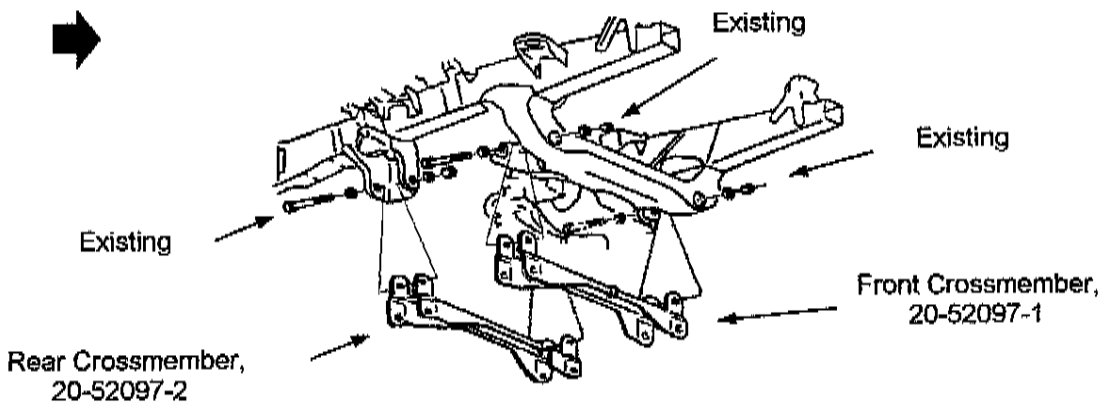


Illustration 21

3) Install Rear Crossmember (20-52097-2) into original A-arm rear mounting locations **(Illustration 21)**. Make sure differential mount fits inside mounting tabs on rear crossmember **(Illustration 22)**. Use existing hardware previously removed and make sure the bolt heads are facing towards rear of vehicle. Do not tighten.

4) Install Front Crossmember (20-52097-1) into original front A-arm mounting locations **(Illustration 21)**. Unfasten and slide driver side lower differential mounting hardware back enough to align differential mount bracket to support

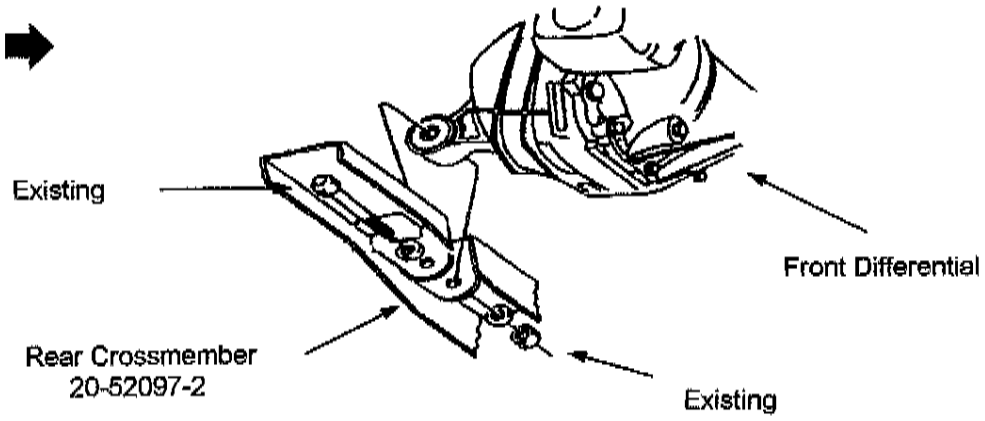


Illustration 22

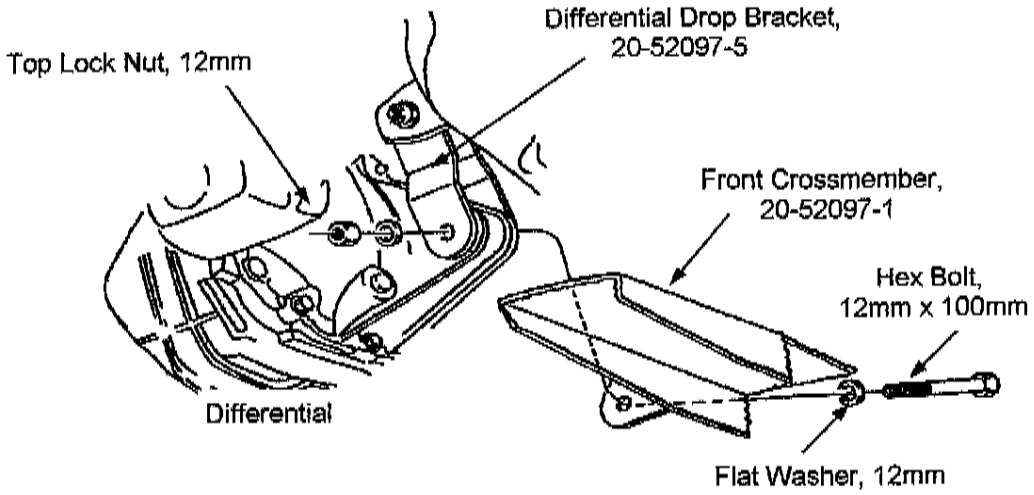


Illustration 23

tab on crossmember **(Illustration 23)**. Fasten front crossmember using existing hardware previously removed. Make sure bolt heads are facing to the front of vehicle. Do not tighten.

5) Install existing Lower A-arms into the new front and rear crossmember mounting locations using the 5/8" hardware provided.

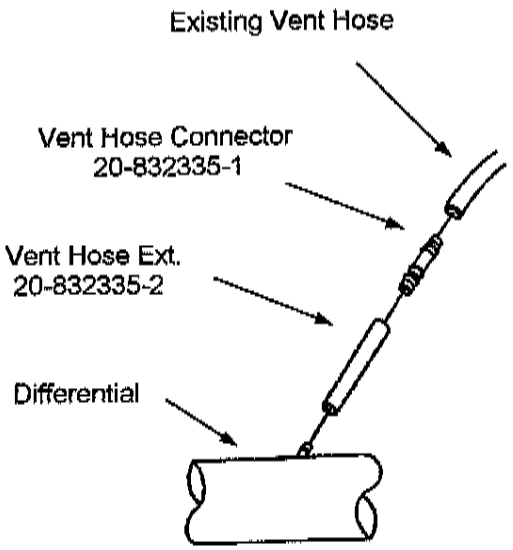


Illustration 24

6) Install new Vent Hose Connector (20-832335-1) into existing vent hose. Add Vent Hose Extension (20-832335-2) to Connector and install assembly to Axle tube **(Illustration 24)**.

7) Torque existing crossmember mounting nuts to 121-147 ft. lbs. Torque existing differential mounting nuts to 56-76 ft. lbs. Torque 12mm and 1/2" differential mount nut to 110 ft. lbs.

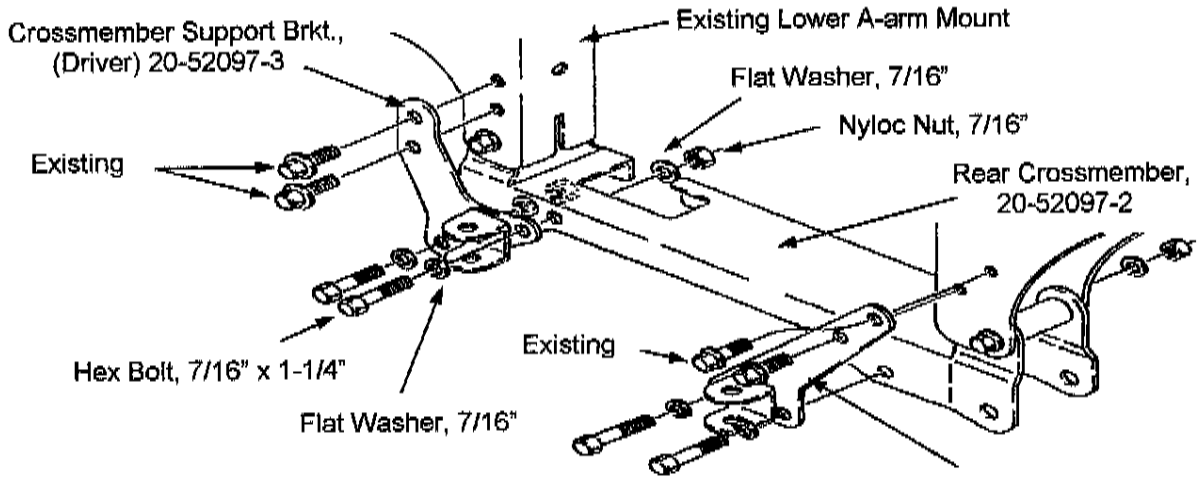


Illustration 25

8) Referring to **Illustration 25,** install Crossmember Support Brackets (20-52097-3 Drvr.) and (20-52097-4 Pass.). Fasten upper mounts of bracket to existing rear crossmember mounting locations using hardware previously removed. Fasten lower mounts to rear crossmember using 7/16" hardware provided. Do not tighten at this time.

9) Install Front Crossmember Spacer (11-13737) using 1/2" hardware and Load Washer (20-830502) **(Illustration 26)**. Make sure bolt head is on bottom. Torque nut to 76 ft. lbs.

10) Refer to **Illustration 27**. Remove seals from old spindles and install in new spindles. Support Lower A-arms.

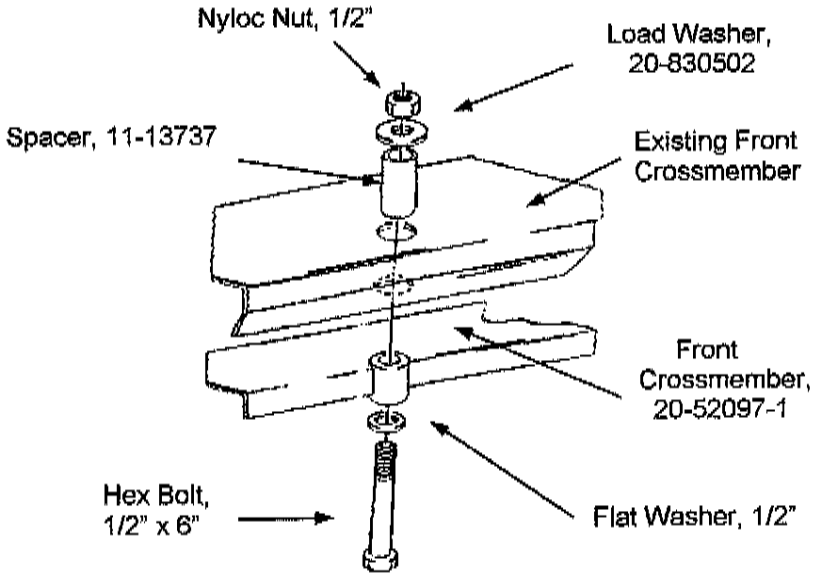


Illustration 26

Position and attach new front spindle (20-52097-19D Drvr) and (20-52097-20P Pass.) to upper ball joint. Torque nut to 55-77 ft. lbs. Attach ball joint on lower A-arm to Front Spindle. Torque to 83-112 ft. lbs. Apply new cotter pins at these locations. Install axle bearing assembly, apply Loctite and torque the three bolts to 110-148 ft. lbs. Do not tighten hub nut at this time.

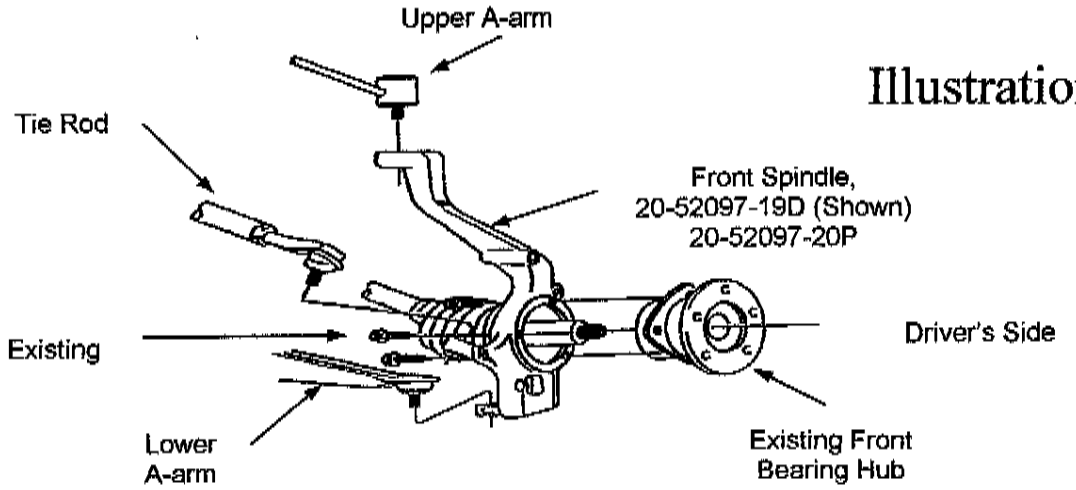


Illustration 27

11) Attach Tie-Rods to Front Spindle, making sure tapers are seated. Torque existing nuts to 57-77 ft. lbs. Install new cotter pins at these locations.

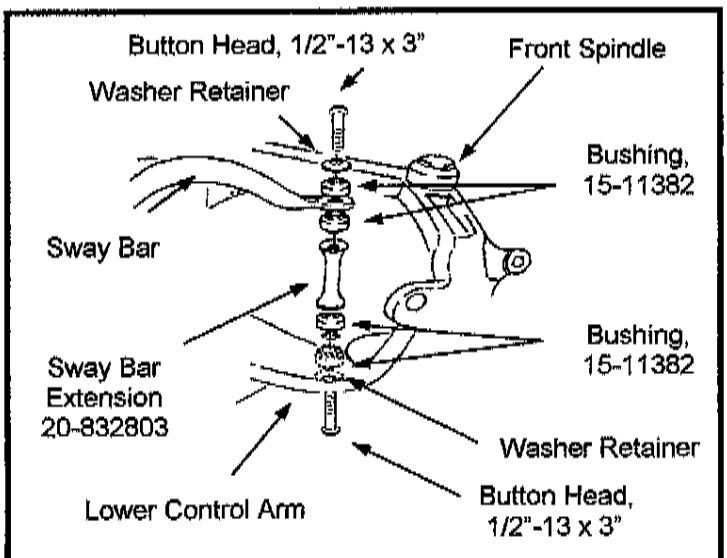


Illustration 28

12) Loosely install Sway Bar using Sway Bar Extension (20-832803) and hardware provided (**Illustration 28**). Do not torque bolts at this time.

13) Locate and remove existing bumpstops on Lower A-arm. Fasten the existing bumpstops to Bumpstop Brackets (20-52097-17) as shown in

Illustration 29, using existing hardware previously removed. Install bumpstop assembly into original bumpstop locations using 3/8" hardware provided. Torque nuts to 32 ft. lbs.

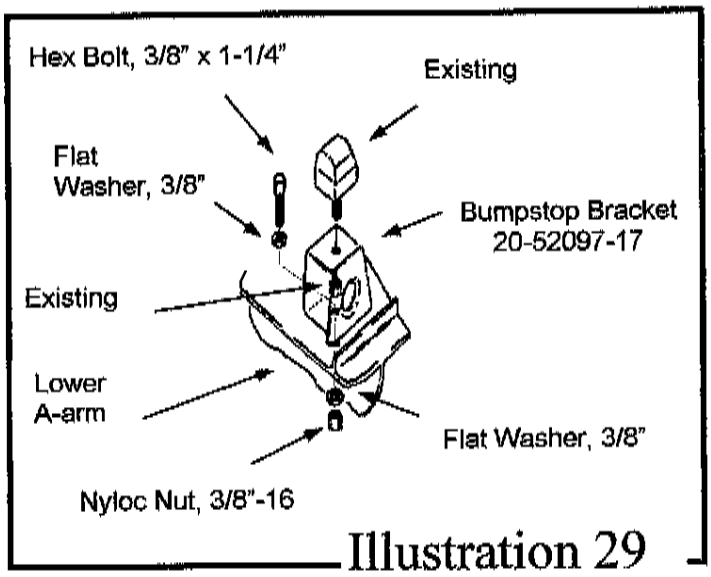


Illustration 29

14) Locate existing torsion bar crossmember mount bracket. Remove nut clip and rubber mounting bushing. Drill out center mounting hole on bracket to 1/2" diameter. Be sure to turn the mounting bracket over before installing. Slide the bracket onto torsion bar crossmember, then insert Torsion Bar Spacer (20-831009) **(Illustration 30).** Loosely fasten using Torsion Bar Drop Spacer (20-42131-24) and hardware provided as shown in **Illustration 30.** Insert existing Torsion Bars, then torque hardware to specification chart on back page. Set the torsion bar adjuster screw to depth previously measured in **Front Disassembly Instruction 2.**

15) Support Transmission using floor jack. Locate and remove existing rear transmission crossmember (you will not be re-using this item). Loosely install new Trans Crossmember (20-52131-16) as shown in **Illustration 31**, using existing hardware previously removed. Next, loosely assemble the Trans Crossmember Mount (20-52131-17 Drvr), (20-52131-18 Pass.) to trans crossmember and vehicle

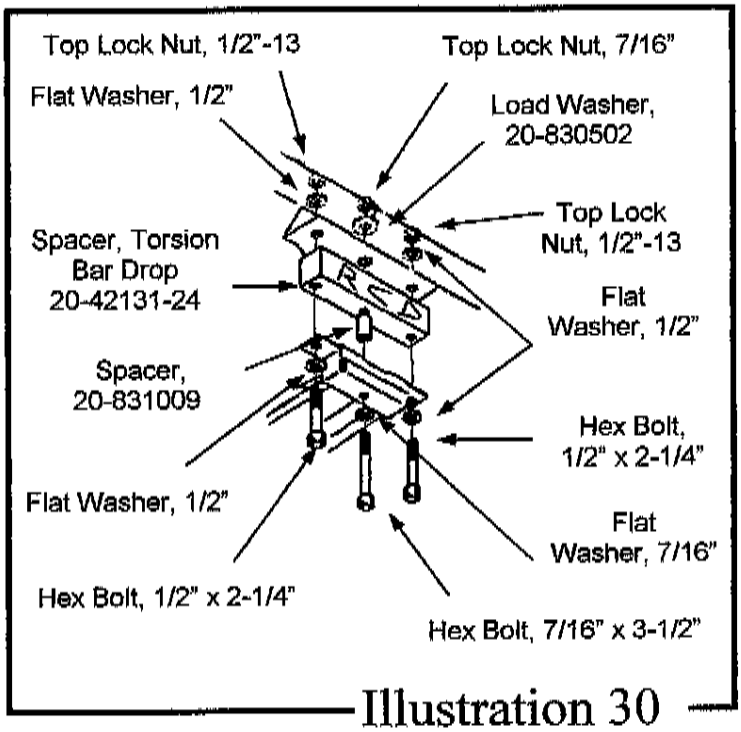


Illustration 30

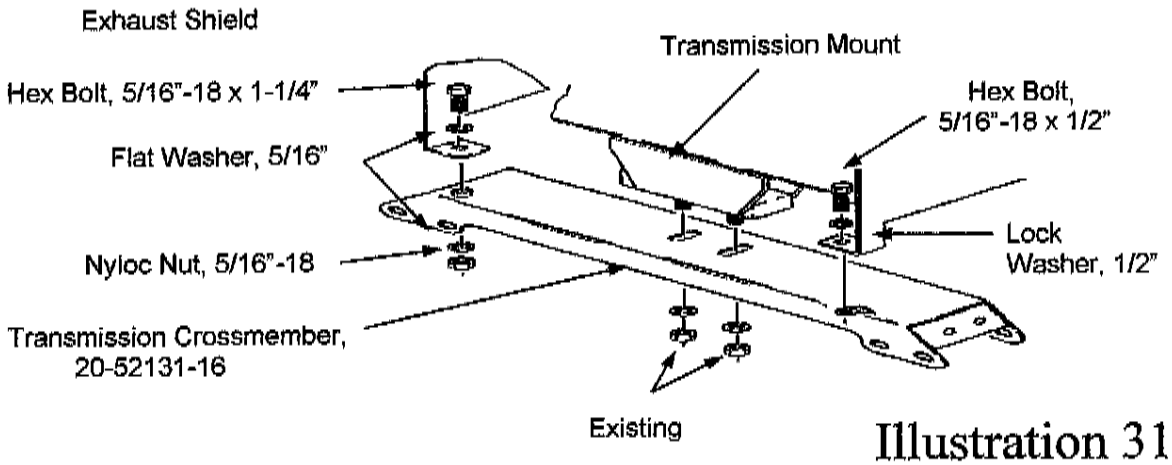


Illustration 31

frame as shown in **Illustration 32** using hardware provided. Do not tighten at this time. Position Trans Crossmember Brace (20-52131-19 Drvr.) (20-52131-20 Pass.) to mounting area on trans crossmember and trans crossmember mount. Torque hardware to specifications chart on last page.

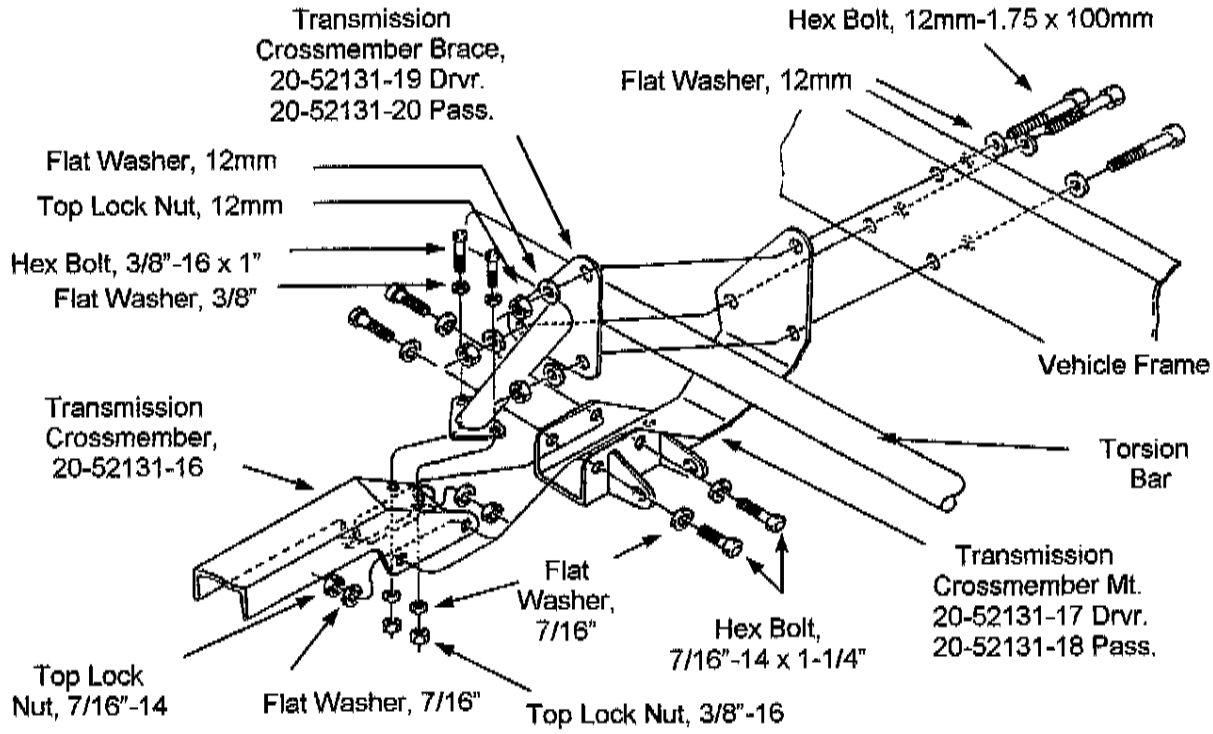


Illustration 32

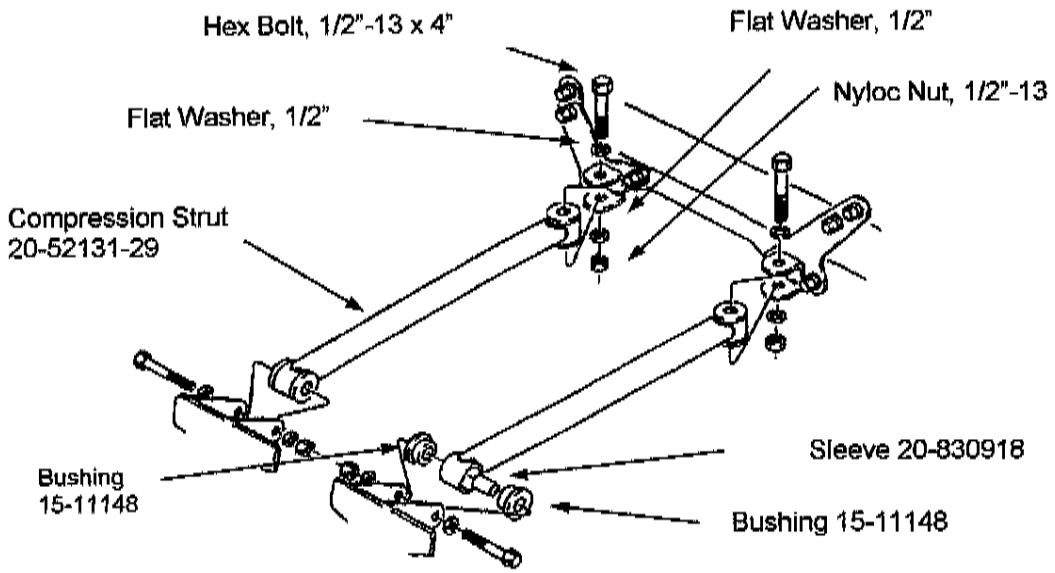


Illustration 33

16) Assemble Compression Struts (20-52131-29) using Bushings (15-11148) and Sleeves (20-830918). Position compression struts as shown in **Illustration 33**. Install using 1/2" hardware provided. Torque 1/2" nuts to 70 ft. lbs.

17) Install new longer Front Shock Absorbers (BE5-6138). Torque according to specification chart on last page.

18) Install Front Disc Brake Rotor using existing hardware. Do not over tighten.

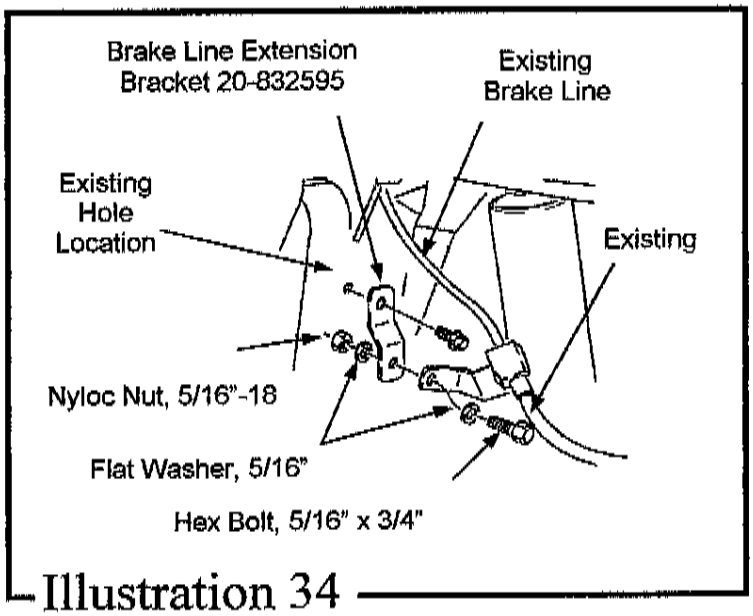


Illustration 34

19) Locate and remove brake line mounting bolt on vehicle frame, both driver and passenger side. Move the brake line away from frame and attach Brake Line Extension Bracket (20-832595) to the original mounting location using existing hardware (**Illustration 34**). Do not tighten at this time.

Carefully obtain enough excess steel line by straightening and bending until brake line can be attached to the Brake Line Extension Bracket previously installed. Secure using the 5/16" hardware provided.

NOTE: Non front ABS vehicles will have a pair of steel lines that must be relocated. Be very careful not to kink the steel lines during the procedure.

20) Install the brake calipers to the front spindles using existing hardware. Torque to 21-26 ft. lbs. Cycle steering lock-to-lock and check for adequate brake line clearance. Tighten Brake Line Extension hardware when clearance is obtained.

NOTE: If vehicle is equipped with 4-wheel anti-lock brake system reconnect the sensor at this time.

21) Install front wheels and torque axle hub nut to 187-254 ft. lbs.

22) Continue with rear installation. If not installing rear kit, lower vehicle and make sure to torque all fasteners to specifications before driving vehicle.

23) Once vehicle is supporting its own weight check ride height according to instructions in Getting Started during disassembly.

24) With vehicle supporting its own weight torque Sway Bar Extension Button Head bolts (**Illustration 28**) to 66 ft. lbs.

REAR INSTALLATION

1) Raise the vehicle. If working without a shop hoist, put vehicle in gear, block front wheels, both in front and behind tires. Raise rear of vehicle with suitable floor jack and place safety jack stands under frame to support vehicle. Remove rear wheel/tire assemblie.

2) With a floor jack, raise the rear axle enough to relieve tension on the shock absorbers and remove them.

3) Disconnect axle vent hose and electrical coupling from axle housing and differential.

4) Disconnect and remove sway bar link rods. Loosen the control arm bolts at chassis and axle locations but do not remove. Support fuel tank located on driver side rear. Loosen the (5) fuel tank support strap retainer bolts. Relocate fuel tank away from frame and lower control arm upper mounting area. Remove lower control arm to frame mounting bolt.

WARNING: Make sure to reinstall bolt in opposite direction so not to damage fuel tank.

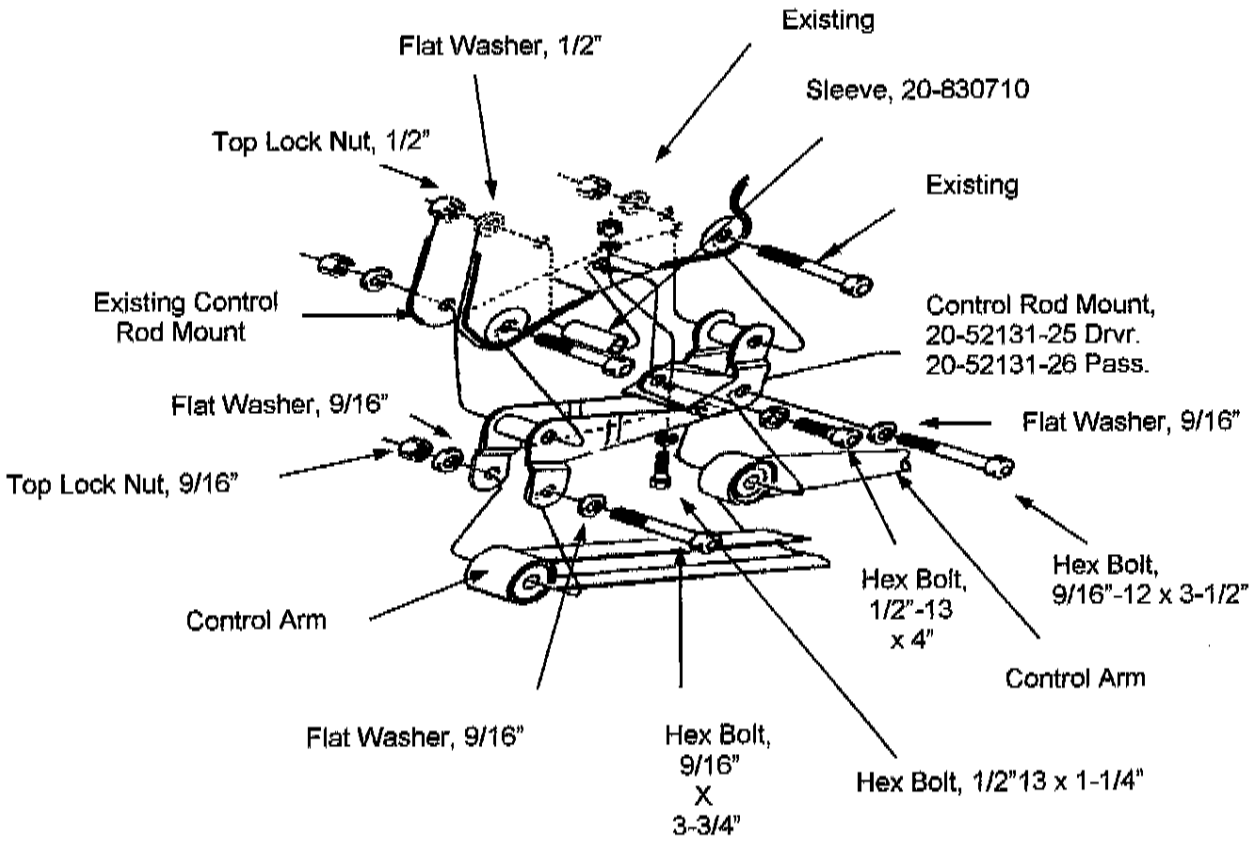


Illustration 35

5) Remove E-Brake Cable Retainer from chassis mount. Lower the rear axle until coil springs are loose and remove them.

WARNING: In the following instructions the rear axle may shift from side to side. Take precautions to properly support rear axle before proceeding.

6) Remove Z-Bar mounting bolt and lower rear axle approximately 2". Remove control arm bolts from the chassis locations.

7) Install Control Rod Mount Bracket (20-52131-25) Drvr. (20-52131-26) Pass. using the existing hardware previously removed and the supplied 1/2" hardware. Reconnect control arms in their new mounting position using 9/16" hardware as shown in **Illustration 35.** Do not tighten at this time.

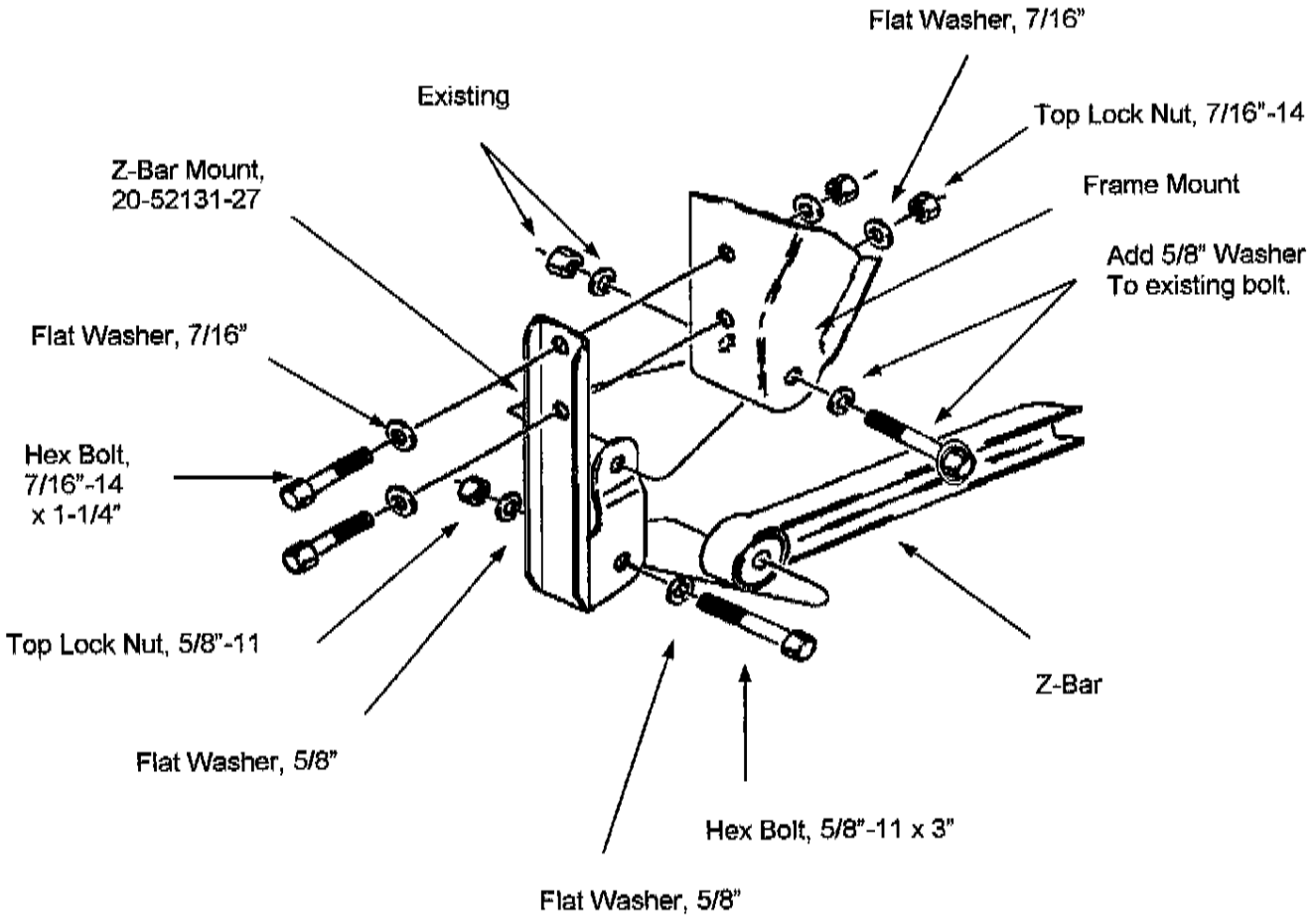


Illustration 36

8) Install Z-Bar Mount Bracket (20-52131-27) to vehicle frame using existing hardware and the supplied 7/16" hardware. Install 5/8" Washer to existing shoulder bolt to frame mount. Reinstall Z-Bar using 5/8" hardware supplied as shown in **Illustration 36.** Do not tighten at this time.

9) Locate Spring Spacer Cap (20-832309) into hole located on top of the Upper Spring Mount, as shown in **Illustration 37.** Using the 1/2" hardware provided fasten Spring Spacer (20-52131-1) to the existing spring mount and torque nut to 70 ft. lbs. Install Coil Springs using the existing rubber spacer. Raise the rear axle until coil springs are snug.

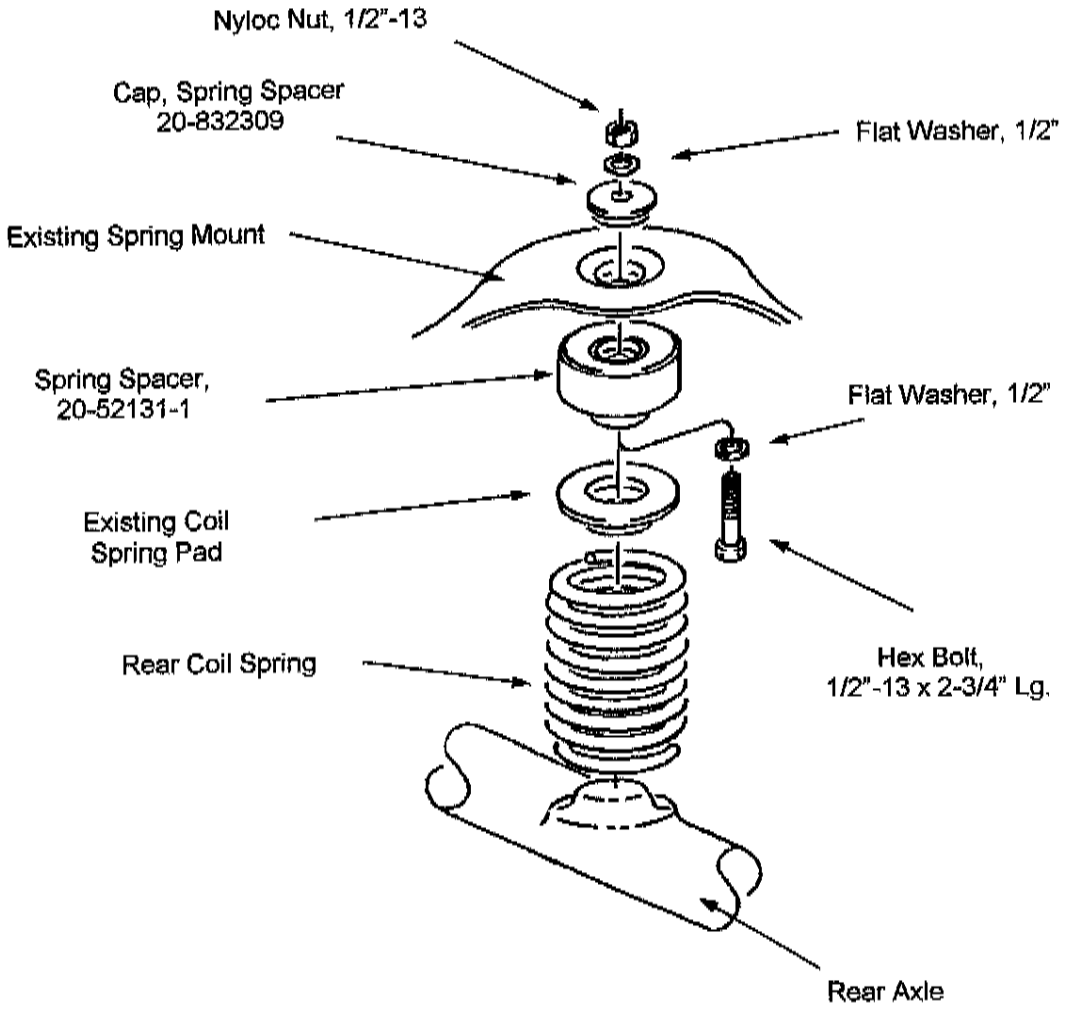


Illustration 37

10) Install vent hose to axle. Re-connect electric connector to differential housing.

11) Install new longer Shock Absorbers (BE5-6244) into the upper mount with the shaft end up. Raise rear axle to align lower shock mounts with shocks and fasten using existing hardware previously removed. Torque shock bolts to 48 ft. lbs.

12) Locate and remove the factory rear bumpstops and place the Bumpstop Spacer (20-52131-24) into the existing bumpstop location. Using the supplied hardware fasten existing bumpstop as shown in **Illustration 38.**

13) Raise rear axle 1" and tighten the control arm nuts, control arm mount nuts and Z-Bar hardware. Torque all hardware to the torque specification chart on last page of the instructions.

14) Install new Sway Bar Links (20-52131-28) using existing hardware previously removed on the top and supplied 12mm hardware on the bottom, as shown in **Illustration 39.** Torque 12 nut to 75 ft. lbs.

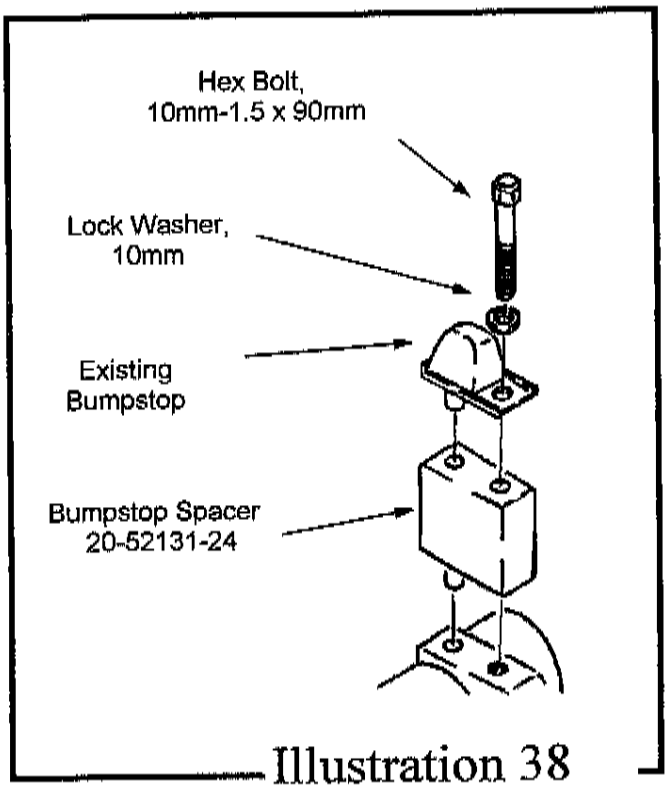


Illustration 38

15) Install wheels and tires. Lower vehicle and test drive.

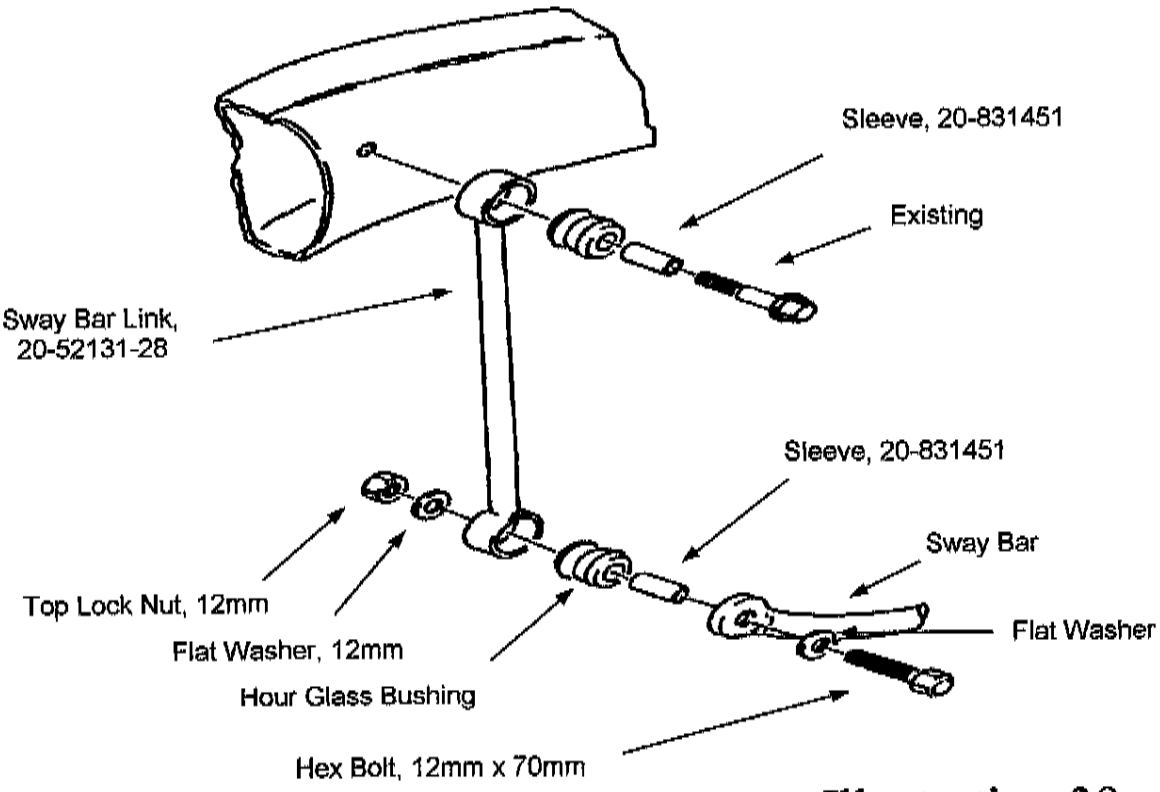


Illustration 39

SOME FINAL NOTES

- After completing installation, double check that all nuts and bolts are tight. Refer to torque specifications chart on last page.
- If new tires were installed that are more then 10% taller than original tires, the speedometer must be recalibrated. Contact an Authorized Ford dealer for details on recalibration.
- Once vehicle is on the floor, cycle 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 meet factory specifications.
- Have front end aligned to factory specifications. Be sure vehicle is at desired ride height prior to realignment.

TORQUE SPECIFICATIONS *(Grade 8 & Class 10.9)*

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.

Front

Lower Arm Nuts	121-148 ft. lbs.
Upper Arm Ball Joint Castellated Nut	57-77 ft. lbs.
Lower Arm Ball Joint Castellated Nut	83-112 ft. lbs.
Tie Rod End Castellated Nut	57-103 ft. lbs.
Front Axle Hub Nut 10mm	187-254 ft. lbs.

Rear

Rear "Z' Bar Nut	125-175 ft. lbs.
Rear Sway Bar Nuts	86-113 ft. lbs.
Rear Control Arm Nuts	94-127 ft. lbs.
Lug Nuts	83-113 ft. lbs.