



3/8/10

**2007-2010 JEEP WRANGLER
4" SUSPENSION SYSTEM
P/N: 10-45407**

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 specific set of instructions before beginning.

PART LIST

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>QTY.</u>	<u>ILLUS.</u>
Box 1 of 4			
20-55407-1	Front Trac Bar	1	9, 10
20-55407-4	Rear Trac Bar Bracket	1	16
20-55407-5	Rear Bump Stop Extension	2	15
20-71487	Hardware Pack (Front Trac Bar)		
20-55407-1-2	Front Trac Bar Adjuster	1	9
15-12071	Trac Bar Bushing	4	9
20-835078	Sleeve, 1" x .219w x 1.6"	2	9
13-11021	Jam Nut, 3/4"-16	1	9
20-71500	Hardware Pack (Sway Bar Links)		
20-55407-2	Sway Bar Link	4	11
15-11083	Hour Glass Bushing	8	11
20-831451	Sleeve, 5/8" x 12MM x 1.48"	8	11
13-21027-Z	Hex Bolt, 12MM-1.75 x 70MM	8	12, 17
13-10696-Z	Nut, 12MM-1.75 Top Lock	8	12, 17
13-30117-Z	Washer, 12MM Flat	16	12, 17
20-71513	Hardware Pack (Front Brake Line Drops)		
20-55407-3	Front Brake Line Drop	2	13
13-21157-Z	Hex Bolt, 5/16"-18 x 3/4"	2	13
13-10155-Z	Nut, 5/16"-18 Nylon Insert Lock	2	13
13-30187-Z	Washer, 5/16" Flat	4	13
20-71526	Hardware Pack (Front Bump Stops)		
15-12045	Jeep JK Front Bump Stop	2	7
20-71539	Hardware Pack (Front Bump Stop Ext.)		
20-55497-2	Front Bump Stop Pad	2	5
13-22145-Z	Hex Bolt, 3/8"-16 x 2" Self Tapping	2	5

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>QTY.</u>	<u>ILLUS.</u>
20-71552	Hardware Pack (Rear Trac Bar Bracket)		
20-835065	Spacer, 1" x .188w x 1.6"	1	16
13-21534-Z	Hex Bolt, 3/8"-16 x 1"	2	16
13-21443-Z	Hex Bolt, 7/16"-14 x 1"	1	16
13-21664-Z	Hex Bolt, 1/2"-13 x 1-1/4"	1	16
13-21144-Z	Hex Bolt, 9/16"-12 x 3-1/2"	1	16
13-30408-Z	Washer, 3/8" Flat Hardened	4	16
13-30304-Z	Washer, 7/16" Flat Hardened	2	16
13-30382-Z	Washer, 1/2" Flat Hardened	2	16
13-30395-Z	Washer, 9/16" Flat Hardened	2	16
13-10553-Z	Nut, 3/8"-16 Top Lock	2	16
13-10384-Z	Nut, 7/16"-14 Top Lock	1	16
13-10514-Z	Nut, 1/2"-13 Top Lock	1	16
13-10397-Z	Nut, 9/16"-12 Top Lock	1	16
20-71565	Hardware Pack (R. Brake Line Drop)		
20-55407-6	Rear Brake Line Drop	2	18
13-21157-Z	Hex Bolt, 5/16"-18 x 3/4"	2	18
13-10155-Z	Nut, 5/16"-18 Nylon Insert Lock	2	18
13-30187-Z	Washer, 5/16" Flat	4	18
20-71578	Hardware Pack (R. Bump Stop Extensions)		
13-21534-Z	Hex Bolt, 3/8"-16 x 1"	4	15
13-10553-Z	Nut, 3/8"-16 Top Lock	4	15
13-30408-Z	Washer, 3/8" Flat Hardened	4	15
20-71591	Hardware Pack (45407) Vent Hose Ext.		
20-832335-1	Vent Hose Extension, Connector	2	
20-832335-2	Vent Hose Extension, Hose 3-1/2"	2	
20-71604	Hardware Pack (Front Caster Washers)		
20-835117	Front Caster Washer, Jeep JK	4	8

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>QTY.</u>	<u>ILLUS.</u>
20-68305	Hardware Pack (Universal)		
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	
Box 2 of 4			
20-20569-1	Front Coil Spring, Jeep JK 4"	2	
Box 3 of 4			
20-20582-1	Rear Coil Spring, Jeep JK 4"	2	
Box 4 of 4			
F4-BE5-E174-H0	Front Shock	2	
F4-BE5-E175-H0	Rear Shock	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, 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. 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 decrease 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 35" x 12.50" tire on a wheel size of 17" x 9" with a maximum of 4.5" backspacing.

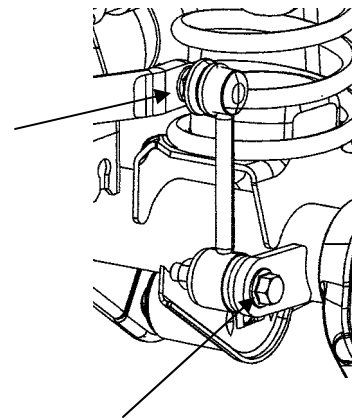
Special tools are required for safe removal and installation of the ball joints, tie-rods and torsion bars. These tools can be purchased from your Jeep Dealer.

Recalibration of the ESC system will need to be performed. See the vehicle owners manual.

Front Installation Instructions

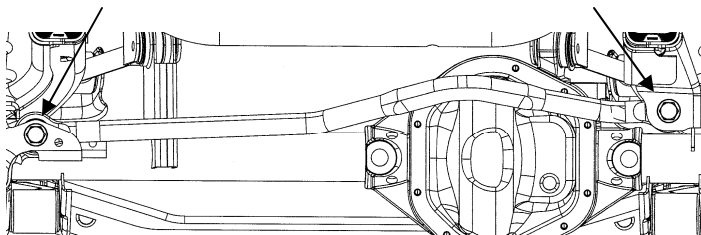
1. Raise the front of the vehicle. If working without a shop hoist, support vehicle with suitable safety jack stands. Put vehicle in gear, set emergency brake and block rear wheels, both in front and behind tires. Loosen front wheel lug nuts. Place floor jack under the front axle and raise vehicle. Place safety jack stands under frame rails, just behind lower control arm mounts, and lower the frame onto the stands. Remove wheels.

Illustration 1



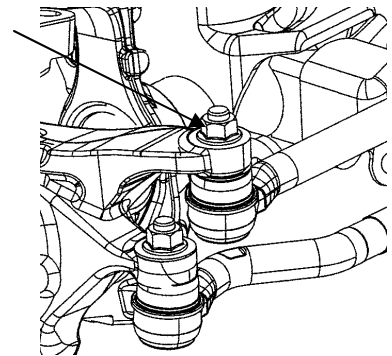
2. Using a suitable floor jack, raise the jack just enough to support the front axle's weight. Remove the sway bar end links. (Illustration 1)
3. Disconnect and remove Front Track Bar from Frame and Front Axle. (Illustration 2)

Illustration 2



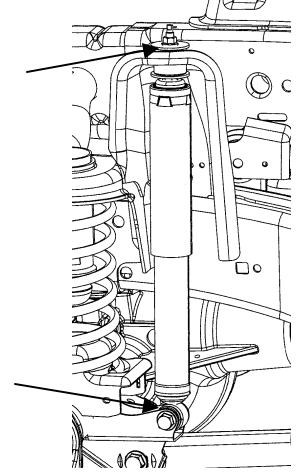
4. Disconnect Drag Link from Right Knuckle. (Illustration 3)
5. Remove bolts attaching Brake Lines to frame. Disconnect ABS wires from Brake Lines. Disconnect axle vent hose from axle.
6. Remove the Skid Plate from under transmission. It may interfere with the driveshaft if not removed.

Illustration 3



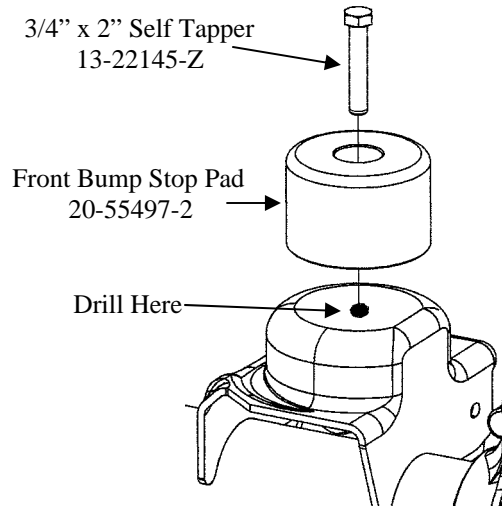
7. Remove Front Shocks and then lower Front Axle until Springs are free from upper mount. Remove Springs. (Illustration 4)

Illustration 4



8. Install new Bumpstop Pad (20-55497-2) as shown in (Illustration 5). Mark center of lower coil spring pad. Using an 11/32" diameter drill bit, drill a pilot hole in the previously marked area. Temporarily install using 3/8" self-tapping hardware provided then remove for spring installation.

Illustration 5



9. Remove upper rubber bump stops. (Illustration 6)

10. Install new Upper Bump Stops (15-12045). Some lubrication will help them slide in easier. (Illustration 7)

Illustration 6

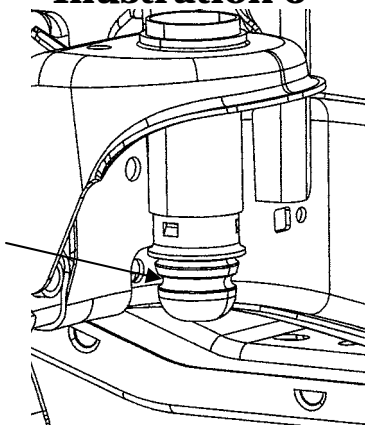


Illustration 7

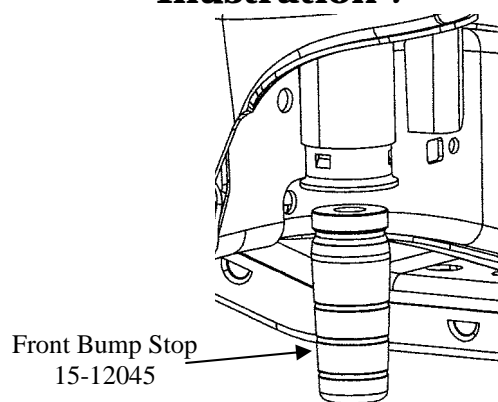
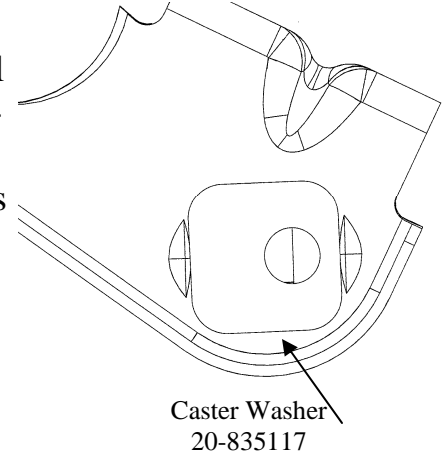


Illustration 8

11. Doing one side at a time, remove the lower control arm to axle bolt then remove the alignment knock-outs. There is a tool available for this, or use a die grinder. Re-install the bolt with the Caster Washers (20-835117) with hole toward the rear of the vehicle (Illustration 8). Repeat on opposite side. Once both sides are done rotate axle until washers seat between tabs. Snug bolts but do not tighten.



12. Install new Front Springs (20-20569-1) on axle pad while holding Bump Stop Pad inside spring. Tighten 3/8" bolt to 30 lb./ft. (Illustration 5)

13. Raise Axle and Install Front Shocks (F4-BE5-E174-H0). Torque lower bolt to 56 lb/ft. and upper stud until bushing just starts to compress.

Illustration 9

14. Install Bushings (15-12071) and Sleeves (20-835078) into Trac Bar (20-55407-1) and Trac Bar Adjuster (20-55407-1-2). (Illustration 8) Install Trac Bar Adjuster with jam nut into Front Track Bar (20-55407-1). Set initial length adjustment to 32-3/4" and install with Adjuster at Front Axle using original hardware. (Illustration 10) Torque bolts to 125 lb/ft.

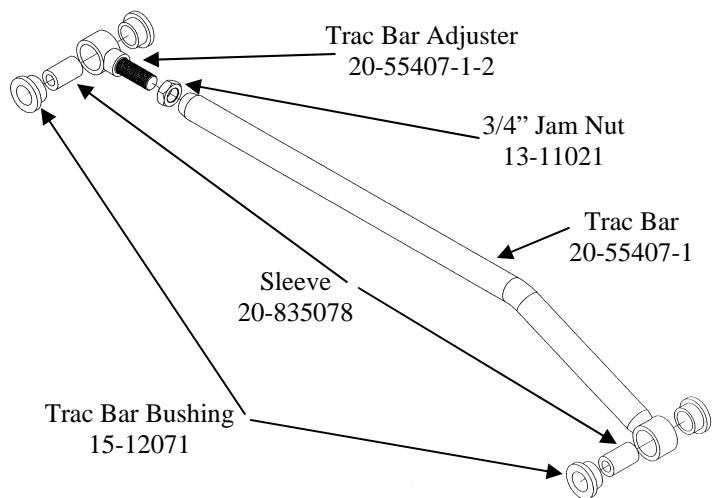
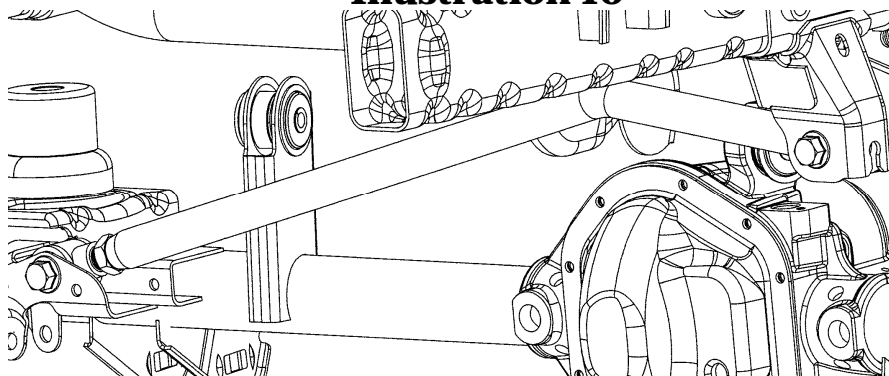


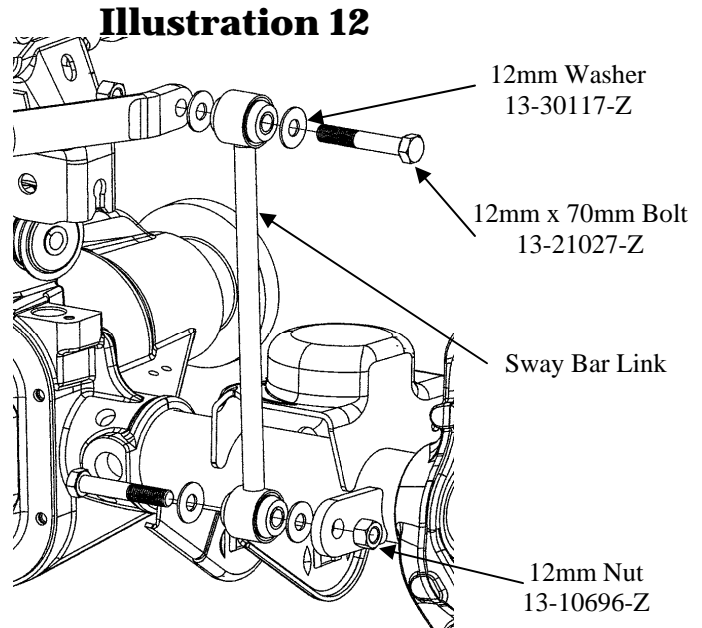
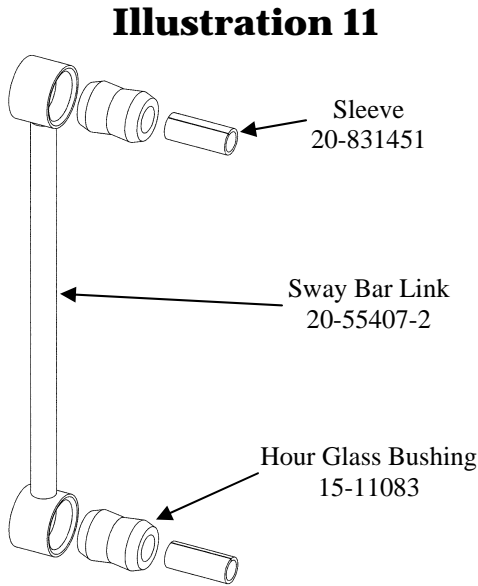
Illustration 10



15. Re-attach drag link to right knuckle. Torque nut to 65 lb/ft.

16. Assemble Front Sway Bar Links as shown. (Illustration 11)

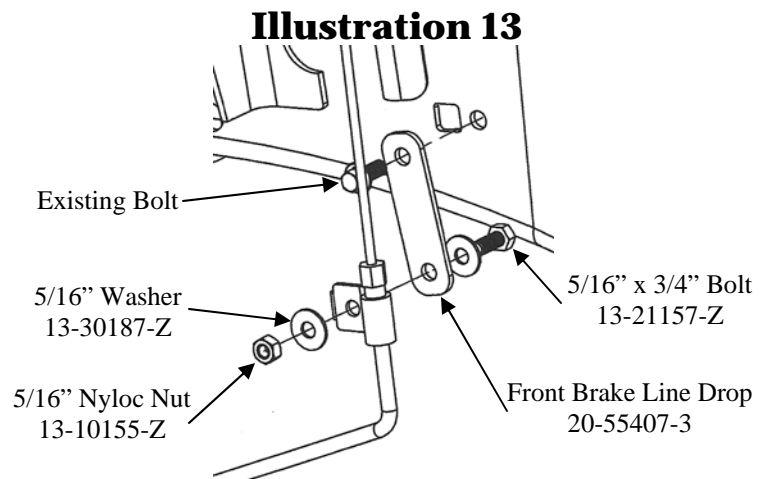
17. Install Sway Bar Links with hardware supplied. (Illustration 12) Torque bolts to 75 lb/ft.



18. Install Brake Line Drop Brackets as shown using hardware provided. (Illustration 13)

19. Install Vent Hose Extension (20-832335) between existing hose and axle.

20. Install the wheels and tires, and lower the vehicle to the ground. Torque lug nuts to 115 lb/ft.



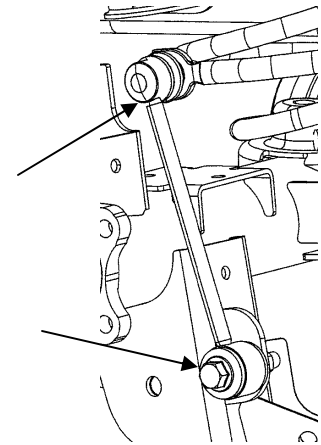
21. When vehicle is at ride height, torque the lower control arm bolts to 125 lb/ft.

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 safety jack stands under frame to support vehicle and lower vehicle onto safety stands. Remove rear tire/wheel assemblies.

Illustration 14

2. Using a suitable floor jack, raise the jack just enough to support the rear axle's weight. Remove the sway bar end links. (Illustration 14)



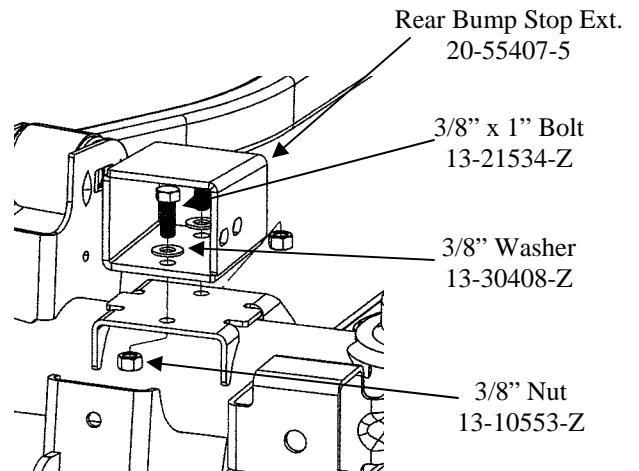
3. Remove bolts attaching Brake Lines to frame. Disconnect ABS wire clips. Disconnect axle vent hose from axle. Unbolt wire bracket securing parking brake cables to bottom of floor.

4. Disconnect Trac Bar from axle only.

5. Remove Rear Shocks and then lower Rear Axle until Springs are free from upper mount. Remove Springs.

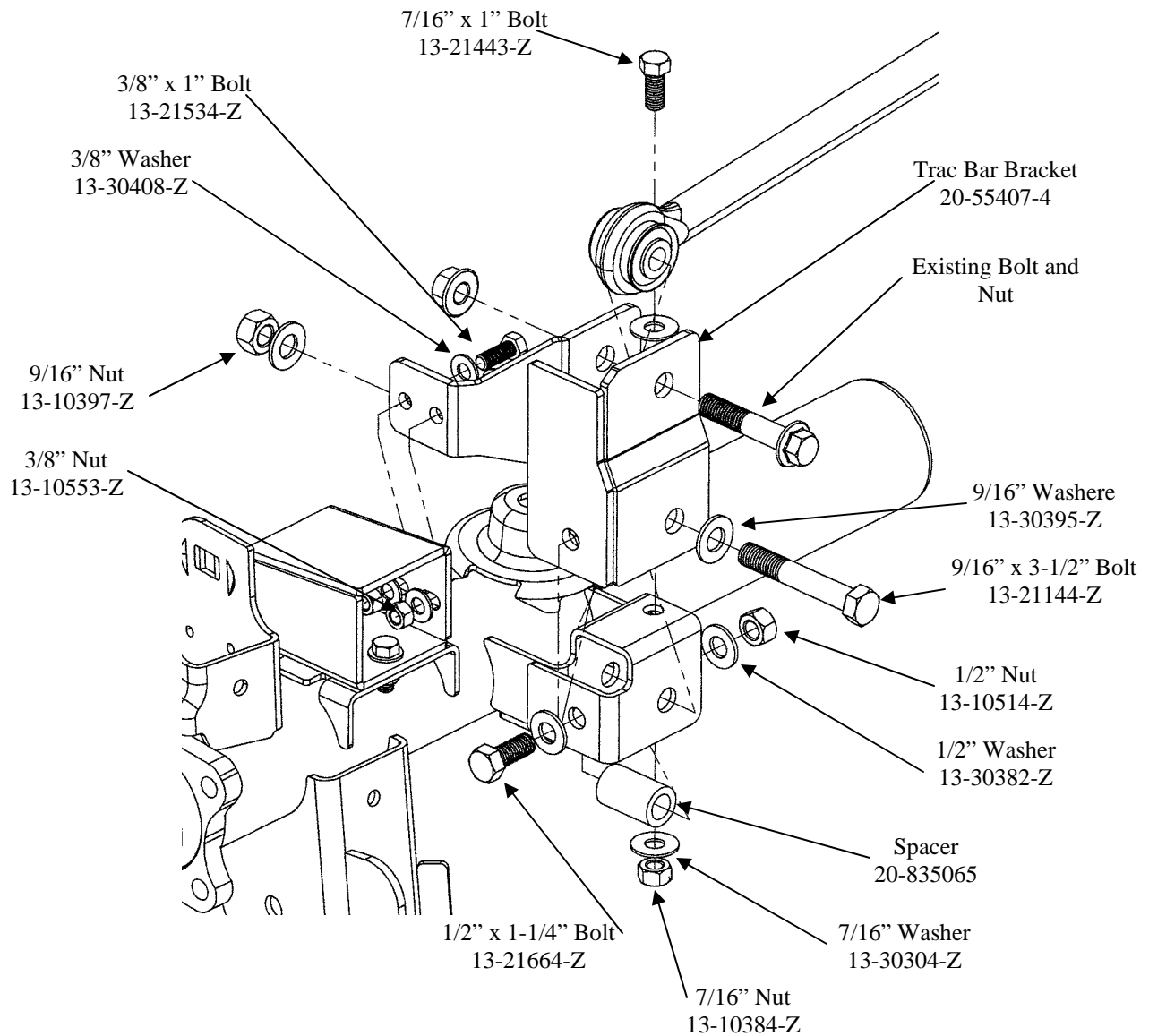
Illustration 15

6. Install Rear Bump Stop Extension Brackets (20-55407-5) on existing Bump Stop Pads on axle. There are existing holes that will line up with the new bracket. Attach with hardware provided. (Illustration 15)



7. Temporarily set Rear Trac Bar Bracket on axle and mark the 1/2" and 7/16" holes to be drilled. Remove bracket and drill holes previously marked.
8. Mount Trac Bar Bracket to axle using hardware provided. Do not install Trac Bar Bolt at this time. (Illustration 16) Torque 3/8" bolts to 35 lb/ft. 7/16" bolt to 60 lb/ft. 1/2" bolt to 90 lb/ft. and 9/16" bolt to 160 lb/ft.

Illustration 16

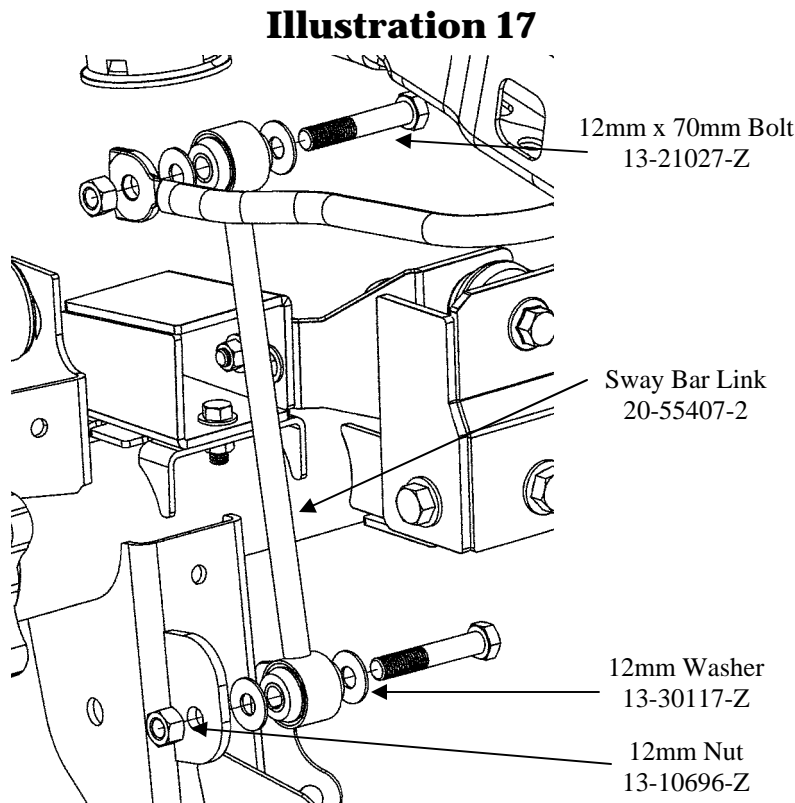


9. Install new Rear Springs (20-20582-1) and raise rear axle until the springs are seated.

10. Attach Trac Bar to Trac Bar Bracket. (Illustration 16) Do not tighten.

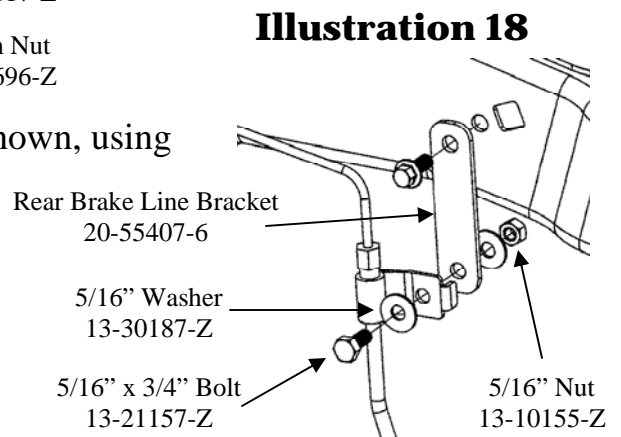
11. Install Rear Shocks (F4-BE5-E175-H0). Torque lower bolt to 56 lb/ft. and upper bolts to 37 lb/ft.

12. Install Sway Bar Links using remainder of 12mm hardware provided. (Illustration 17) Torque bolts to 75 lb/ft.



13. Install Rear Brake Line Drop Brackets as shown, using hardware provided. (Illustration 18)

14. Install Vent Hose Extension (20-832335) between existing hose and axle.



15. Install rear tire/wheel assemblies and lower vehicle. Torque lug nuts to 115 lb/ft.

16. When vehicle is at ride height, torque the trac bar bolt to 125 lb/ft.

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 Jeep 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

General Torque Specifications:

5/16"	20 ft. lbs.
3/8"	35 ft. lbs.
7/16"	60 ft. lbs.
1/2"	90 ft. lbs.
9/16"	160 ft. lbs.
5/8"	175 ft. lbs.
3/4"	250 ft. lbs.

M6	9 ft. lbs.
M8	23 ft. lbs.
M10	45 ft. lbs.
M12	75 ft. lbs.
M14	120 ft. lbs.
M16	165 ft. lbs.
M18	220 ft. lbs.