

INSTALLATION INSTRUCTIONS

30840 TJ 4" LIFT KIT

Warrior recommends installation of this kit by a certified technician. In addition to these instructions, professional knowledge of disassemble/re-assembly procedures, as well as post installation checks must be known. Attempts to install this system without this knowledge and expertise may jeopardize the integrity and/or operating safety of the vehicle.

Please read instructions before beginning installation. Check the kit hardware against the parts list. Be sure you have all needed parts and know where they go.

With the installation of all lift kits and larger tires it is important to check the condition of your steering stabilizer. If the stabilizer is worn or is leaking it should be replaced. A multiple stabilizer kit is recommended for vehicles equipped with a snow plow, winch, or larger tires.

Please read instructions before beginning installation. Check the kit hardware against the parts layout and list found on the last page of these instructions. Be sure you have all needed parts and know where they go.

With the installation of all lift kits and larger tires it is important to check the condition of your steering stabilizer. If the stabilizer is worn or is leaking it should be replaced. Steering stabilizers are designed to restrain "bump steering" and front end vibration, giving added life to tires, ball joints, and other steering components. A multiple stabilizer kit is recommended for vehicles equipped with a winch or larger tires

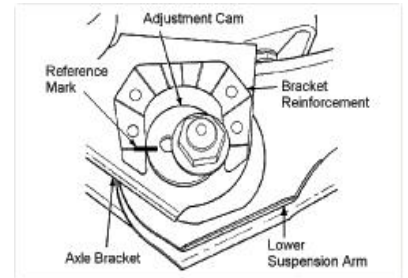


Figure 1

PRODUCT USE INFORMATION

1. As a general rule, the taller a vehicle is, the easier it will roll. Offset, as much as possible, what is lost in rollover resistance by increasing tire track width. In other words, go "wide" as you go "tall". Many sportsmen remove their mud tires after hunting season and install ones more appropriate for street driving; always use as wide a tire and wheel combination as possible to enhance vehicle stability.
2. We strongly recommend, because of rollover possibility, that the vehicle be equipped with a functional roll-bar and cage system. Seat belts and shoulder harnesses should be worn at all times. Avoid situations where a side rollover may occur.
3. Generally, braking performance and capability are decreased when significantly larger/heavier tires and wheels are used. Take this into consideration while driving.
4. Do not add, alter, or fabricate any factory or after-market parts to increase vehicle height over the intended height of the Warrior product purchased. Mixing component brands is not recommended.
5. Warrior makes no claims regarding lifting devices and excludes any and all implied claims. We will not be responsible for any product that is altered.
6. The required installation time for this system is approximately 8 hours.
7. This suspension system was developed using a 33 x 12.50R – 15 tire, on a 8" wheel. Before installing other combinations, please consult your local tire and wheel specialist.
8. The following tools and supplies are recommended for proper installation of this kit.

<ol style="list-style-type: none"> a. Spring Compressor c. Silicone Spray e. Drill Assortment (1/8" to 1/2") g. Hammer i. Combination Wrenches k. Torq Key Socket m. File o. Hydraulic Floor Jacks q. Wheel Chocks (Wooden Blocks) s. Safety Glasses – Wear safety glasses at all times 	<ol style="list-style-type: none"> b. Pitman Arm Puller d. Drill Motor f. Torque Wrench (250 ft lbs. Capacity) h. 1/2" Drive Ratchet and Sockets j. Allen Wrenches l. Hacksaw n. Large "C" Clamps and/or Bench Vise p. Heavy Duty Jack Stands r. Molybdenum Grease or Anti Seize Compound
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If question exist we will be happy to answer any questions concerning the design, function, and correct use of our products.

STANDARD BOLT TORQUE SPECIFICATIONS						
INCH SYSTEM			METRIC SYSTEM			
Bolt Size	Grade 5	Grade 8	Bolt Size	Class 9.8	Class 10.9	Class 12.9
5/16	15 Ft – Lbs	20 Ft – Lbs	M 6	5 Ft – Lbs	9 Ft – Lbs	12 Ft – Lbs
3/8	30 Ft – Lbs	35 Ft – Lbs	M 8	18 Ft – Lbs	23 Ft – Lbs	27 Ft – Lbs
7/16	45 Ft – Lbs	60 Ft – Lbs	M10	32 Ft – Lbs	45 Ft – Lbs	50 Ft – Lbs
1/2	65 Ft – Lbs	90 Ft – Lbs	M12	55 Ft – Lbs	75 Ft – Lbs	90 Ft – Lbs

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9/16	95 Ft – Lbs	130 Ft – Lbs	M14	85 Ft – Lbs	120 Ft – Lbs	145 Ft – Lbs
5/8	135 Ft – Lbs	175 Ft – Lbs	M16	130 Ft – Lbs	165 Ft – Lbs	210 Ft – Lbs
3/4	185 Ft – Lbs	280 Ft – Lbs	M18	170 Ft – Lbs	240 Ft – Lbs	290 Ft – Lbs

NOTICE TO DEALER AND VEHICLE OWNER

Any vehicle equipped with any Warrior should have a “Warning to Driver” decal installed on the inside of the windshield or on the vehicle’s dash. The decal should act as a constant reminder for whoever is operating the vehicle of its unique handling characteristics.

INSTALLING DEALER - it is your responsibility to install the warning decal and forward these installation instructions on to the vehicle owner for review. These instructions should be kept in the vehicle for its service

INSTALLATION INSTRUCTIONS

1. Place the vehicle on a level surface. Set the parking brake. Center front wheels and chock rear wheels. From inside the engine compartment, remove the upper stud nut, retainer and grommet from both of the front shocks Jack up the vehicle and place jack stands on the frame rail behind the lower control arm mount on the frame. Installation is done one end at a
2. time. The front-end components are installed first.
3. Remove the front tires and wheels.
4. Place a floor jack underneath the axle for support and complete the removal of the front shock absorbers (**DO NOT REUSE THE ORIGINAL SHOCK ABSORBERS**).
5. Remove the track rod from the axle housing and secure out of the way. Save the bolt and flag nut they will be reused in a later step. Remove both of the front sway bar end links.
6. Remove the brake calipers and secure out of the way.
7. Mark the position of the lower control arm cam bolt and axle brackets for installation reference. (**See Figure #1**) If equipped with ABS brakes, Remove the sensor wires and clamps for the inside of the lower arms and save clamps for re-use.
8. Remove the coil spring clip located on the bottom coil seat on both sides of the vehicle. Lower the axle and remove the coil spring. A coil spring or strut compressor may be needed to remove the stock coil spring.
9. Remove the stock lower control arm by removing the nut, cam, and cam bolt from the axle bracket and then removing the nut and bolt from the frame bracket. Install the new bushings and sleeves in the Warrior, Inc control arm and install on the vehicle using factory hardware – do not tighten at this time. Note: The part of the arm with the slight bend in it will install on the axle mount.
10. If applicable, drill a 23/64” hole into each lower link and reinstall the ABS sensor wires. Use the original clamps.
11. Install the coil spring. **A coil spring or strut compressor will be needed for the new coil spring installation.** Compress the new coil spring to 16” in length. Install the new spring into the upper and lower spring pockets and carefully remove the compressor. Make sure the coil is seated properly in the coil seat by rotating the spring so the pig tail end fits in the spring pocket. Install the coil spring clamp and torque the spring clip bolt to 16ft.-lbs.
12. Repeat steps on other side.
13. Install the WARRIOR, INC. track rod extension bracket in the factory location as shown in **Figure #2**. Slide the bracket all the way up to the flange in the stock bracket. Install the stock bolt in the upper hole and tighten. Using the bracket as a guide, drill a 3/8” hole and install the new bolt, washers and lock nuts. Install the new 12mm x 65mm bolt, washers and nut in the track rod on the lower mount and tighten.
14. Assemble the boots on the front shock absorbers and install in the factory lower mounts. Install the upper stud bushings and tighten the upper mounting point. Tighten the bar pin on the bottom of the shock with the stock hardware. Repeat this on the opposite side of the vehicle. Install the tires, wheels and lug nuts. Lower the vehicle to the ground.
15. Install the sway bar hoop on the sway bar where the stock link was secured, using the supplied 3/8” x 1.75” bolt, washer and nylon lock nut. Install the bushings and 12mm sleeves provided in Bag # 2 on the bottom of the link at this time and use the factory hardware to install. The upper sway bar bushings are in Bag # 3. These are installed on the top of the sway

Figure 2

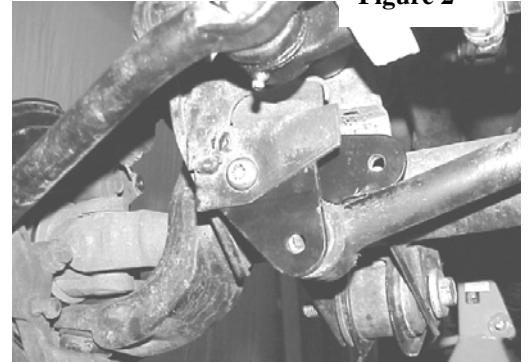


Figure 3



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bar link with the 12mm sleeves. These bushings are a little thicker than the lower sway bar bushings. Install the upper part of the new link in the hoop bracket with the 12mm bolts & hardware **See Figure #3.**

16. Tighten the lower suspension arm to frame bracket nut and bolt to 130 ft. lbs. (both sides).
17. Align the reference marks on the adjustment cams and lower arm axle brackets and tighten to 85 ft. lbs.

Note: Longer brake lines are not required in the front with this kit unless the sway bar is disconnected. If disconnects are used, longer brake lines are required.

18. Chock the front wheels. Jack up the **rear of the vehicle** and remove the tires and wheels. Place jack stands on the frame rail to support the vehicle. Place a floor jack under the differential. Remove the stock shock absorbers and sway bar links. Retain the factory shock hardware it will be reused.
19. On the rear of the vehicle unbolt the track rod from the axle and secure out of the way.
20. Carefully lower the axle with the floor jack and remove the coil springs.

NOTE: It may be necessary to use a coil spring or strut compressor to remove the stock coil springs. Be careful not to overextend the vent tube on the axle. It may be necessary to disconnect the hose during installation and reroute the hose after installation.

21. Disconnect the track bar from the axle bracket and install the new track bar relocation bracket in the stock location. **See Figure #4 and 5.** Secure to the stock location using the 2-5/16" x 1" long bolts, washers and nuts as shown in the picture. **NOTE: It may be necessary to enlarge the holes at these locations. If this is the case drill these holes to accommodate the 5/16" bolts.** Install the 1/2" x 1 1/2" bolt washers and nut in the stock track rod bolt location and tighten. Refer to the pictures to the right. **Do not** install the track rod in the new bracket at this time.

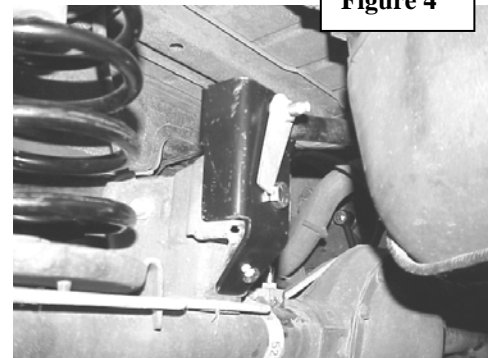


Figure 4

22. Remove and replace one suspension arm at a time. Remove the lower arm axle and frame mount bolts. Remove the lower arm. Install new lower arm to the frame and axle brackets. Use the original hardware but do not tighten at this time. Then repeat these steps on the other side. Note: The part of the arm with the slight bend in it will install on the axle mount

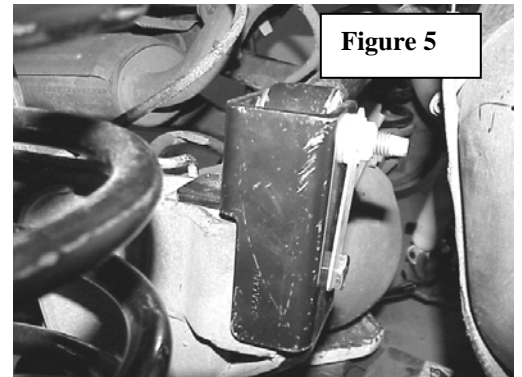


Figure 5

23. Install the new Warrior, Inc coil springs making sure that the rubber damper is positioned in the upper mount. It will be necessary to use a coil spring or strut compressor to install the new coil springs. Jack up the axle to compress the coil spring and to align the track rod with the new mounting point and install the stock mounting hardware. **See Figure 4 & 5 above.**

24. Assemble shock with the shock bushings and sleeves in the shock bag on the larger barrel end. Install the shocks on the vehicle with the factory hardware.

25. Reinstall the wheels, tires. Lower the vehicle to the ground and tighten the lug nuts to the factory torque specifications (80-110 ft-lbs.)

26. On the rear, assemble the sway bar bushings and 10mm sleeves in the new rear extended sway bar links. Secure the links to the stock location using the 10mm x 60mm bolts, washers and nuts supplied. Tighten to 40 ft. lbs. **See Figure 6**

27. Tighten lower arm pivot bolts to 130 ft. lbs and the track bar mounting bolts to 74 ft. lbs.

28. A brake line bracket is supplied with this kit for the rear of the vehicle. Remove the brake line at the frame mount. Do not remove the rubber line from the steel line. This will cause the brakes not to function properly unless the lines are bled. Mount the bracket to the factory location with the supplied hardware and tighten. Place the factory line at the other end of the bracket in the slotted hole.

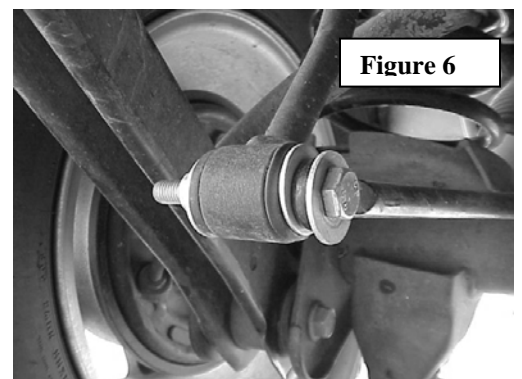
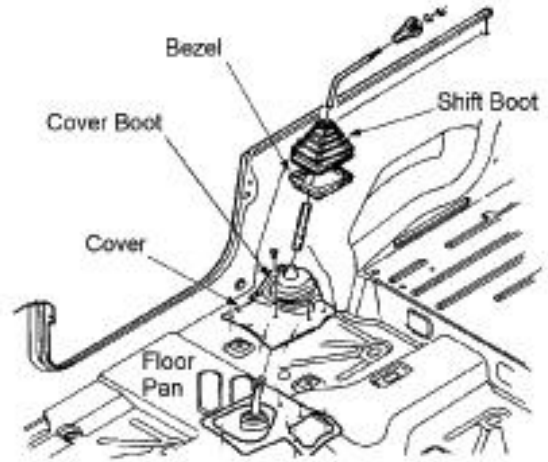


Figure 6

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TRANSFER CASE INSTRUCTIONS

1. Place the transmission in neutral and place floor jack under the tran
2. Using a floor jack, support the skid plate.
3. Slightly loosen the bolts on the transfer case skid plate on both sides to allow for some movement. Do not remove the bolts.
4. Proceed to other side. **NOTE: Do not attempt to take out the bolts on both sides simultaneously. Installation is done one side at a time.** Remove the three bolts holding the transfer case skid plate to the frame rail. **On some models an additional skid plate is mounted just forward of the transfer case skid plate. If equipped with this plate, use the same spacers, supplied with the kit to lower.**
5. Using the floor jack, slightly lower the skid plate and insert the transfer case lowering spacers as shown below. **Please note the spacers should have the metal sleeve installed in the bushing to prevent crushing.** Secure with the 12 mm bolts and washers supplied with the kit and slightly tighten. Do not fully tighten to allow for some movement for the opposite side.
6. Proceed to the opposite side of the vehicle and install the brackets as instructed above. After installing both sides, tighten bolts to 45ft lbs.



PITMAN ARM INSTALLATION

1. Remove the cotter pin and nut from the drag link at the pitman arm. Separate the drag link ball stud from the pitman arm with a puller tool. Do not use a pickle fork.
2. Center the steering wheel and mark the position of the original pitman arm. Remove the nut and washer from the steering gear box.
3. Remove the pitman arm from the steering gear with a pitman arm puller.
4. Align and install new pitman arm on the steering gear shaft. Install the washer and nut. Tighten to 185 ft. lbs.
5. Install the drag link ball stud to the pitman arm. Install the nut and tighten to 60 ft lbs. Install a new cotter pin.

FLOOR PAN MODIFICATION (Manual Transmission Only)

1. Move the seats to full rearward positions.
2. Pry up the shift boot and bezel from the floor console.
3. Remove the bolts attaching the console to the floor pan and lift the console upward and remove.
4. Remove the 4 screws attaching the cover boot to the cover and slide the boot upward to expose the opening in the floor pan.
5. Shift the transmission to 2nd and reverse verifying a minimum of 1/8" clearance between the shifter lever and the floor pan. If necessary, enlarge the opening in the floor pan with a round file.
6. Reposition the cover boot and install one screw on the left side.
7. Rotate the boot clock wise to match the increased floor pan opening. Mark and drill three new mounting holes.
8. Reinstall the cover boot, console, and shift boot.

POST INSTALLATION INSTRUCTIONS

1. Check all fasteners for proper torque. Check to ensure there is adequate clearance between all rotating, mobile, fixed and heated members. Check steering gear for interference and proper working order. Test brake system.
2. Readjust headlamps. Have the vehicle aligned to the following specifications:

Adjustment	Preferred	Range
Caster	7°	± 1°
Camber	- 0.25°	± .63°
Toe_In (each wheel)	0.15°	± .15°
Thrust Angle	0°	± .15°

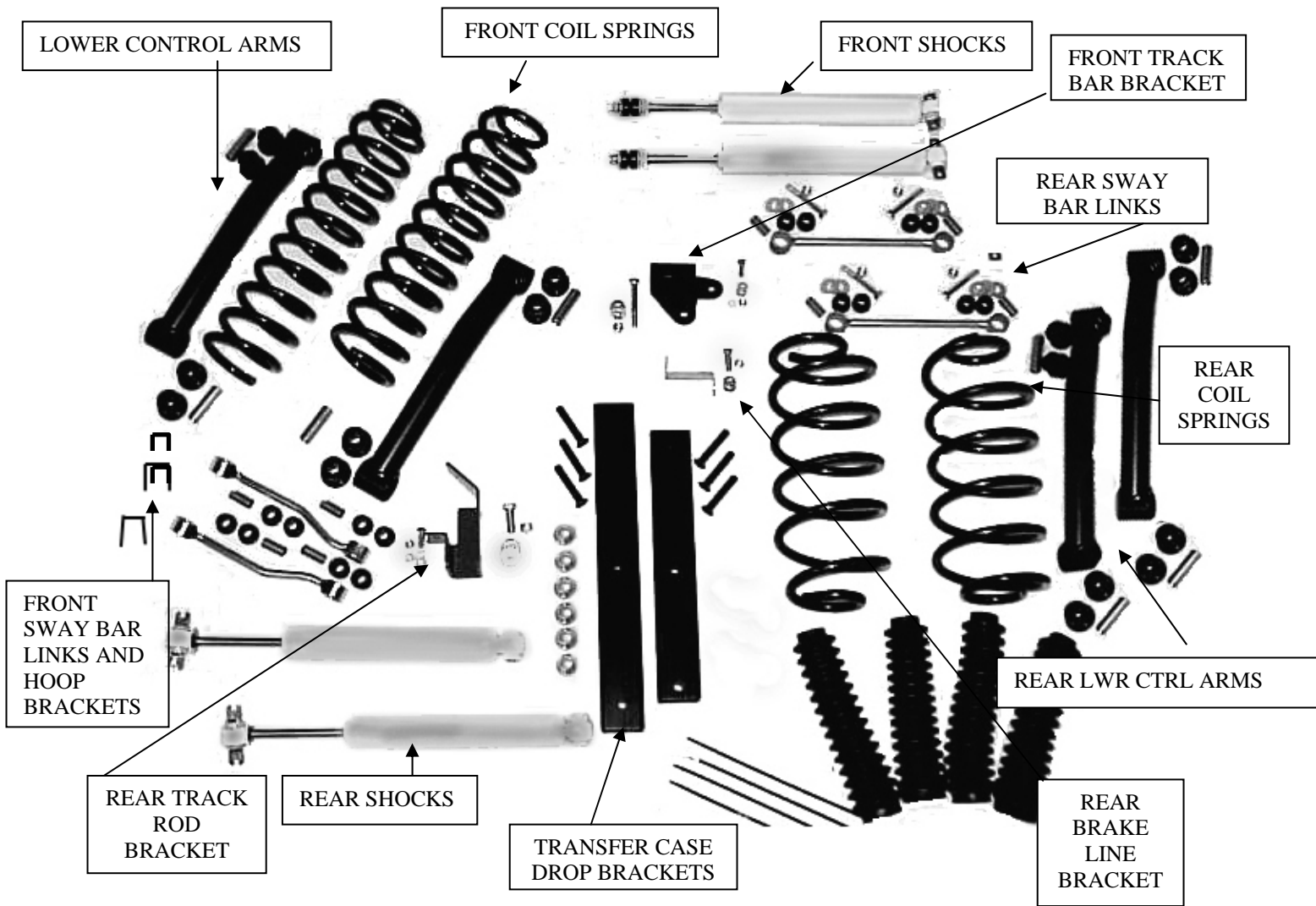
3. Perform steering sweep. Check to ensure brake hoses have sufficient slack and will not contact rotating, mobile, or fixed members, adjust lines/brackets to eliminate interference and maintain proper working order. Failure to perform inspections may result in component failure.
4. Re torque all fasteners after 500 miles. Visually inspect components and re torque fasteners during routine vehicle service.

MAINTENANCE INFORMATION

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It is the ultimate buyers responsibility to have all bolts/nuts checked for tightness after the first 100 miles and then every 1000 miles. Wheel alignment, steering system, suspension and driveline systems must be inspected by a qualified professional mechanic at least every 3000 miles.

PARTS LAYOUT AND KIT CONTENT



Front Track Bar Bracket
 Rear Track Bar Bracket
 Transfer Case Lowering Spacers (2P/D)
 Pinion Cam Bolts (2 sets)
 Front Sway Bar Links (2)
 Rear Sway Bar Links (2)
 Lower Control Arms (2)
 Shock Absorbers (4)
 Black Boots (4)
 Boot Ties (4)
 Brake Line Bracket
 Front Sway Bar Bracket.
 Pitman Arm

12 – 1.75 x 65 mm bolts(7)
 M12 – 1.75 Flange Lock Nuts
 3/8"-15x1.25 Bolt G8 (1)
 3/8" Washer (2)
 3/8" –16 Top lock nut (1)
 5/16"-18 Hex nut (2)
 5/16" –18x1" Bolt G8 (1)
 1/4" Washer (4)
 1/2" –13 x 1.5 Bolt G8
 1/2" Washer (2)
 1/2" – 13 Nut (1)
 5/16" Lock Washer (2)
 3/8" Flat washer (4)
 1/2" – 13 x 3.5" Bolt G8 (6)
 3/8" – 16 nylock nut (2)
 Conical Washers (6)

Cont Arm Bushing (16)
 3 /4x 5/8" 2.6" Sleeve(8)
 7/16" Washer (12)
 Sway Bar Bushing (12)
 ES17 Sleeve (4)
 ES83 Sleeve (2)

Stem Bushing (4)
 Cup Washers (4)
 3/8" Hex Nut (2)
 Pal Nut (2)
 ES24 Sleeve (2)
 Hourglass Bsh (2)
 ES83 Sleeve (2)
 3/8"x1.75 Bolt (2)
 3/8" 24 Nut (2)
 3/8" Washer (2)

Front Coil Springs

Rear Coil Springs