



Installation manual
4.5" Suspension system
1994 — 2001 Dodge Ram 1500
Old part # D51B
New part # 35910
SJ052206rev.03

Old part # D51B
New part # 35910
Dodge Ram 1500 4.5" Suspension system
Parts list:

Part #	Description	Qty.
D51-001	4.5" Upper coil spring spacer	2
D31-002	Upper control arm	2
D31-003	Lower control arm	2
D51-004	Front driver side track bar bracket	1
DODDSSWAY-01	Driver side sway bar drop bracket	1
DODPSSWAY-01	Passenger side sway bar drop bracket	1
D51-010	Track bar kicker support bracket	1
5U-9295S	9/16" x 2 3/4" x 14 5/8" square u-bolt	4
916NW	Hardware bag	1
35910NB	Hardware Bag	1
79055	Box kit	1
81250	Box kit	1
35910NB1	Hardware bag	1
D31PL	Poly bushing bag	1
D31SL	Sleeve bag	1
D51SL	Sleeve bag	1
35910INST	Instruction sheet (customer copy)	1
35910INST	Instruction sheet (installer copy)	1
MIRRORHANGER	Rear view mirror hanger	1
WARNINGDECAL	Warning decal	1
DECAL	Window sticker	1

Important customer information

Tuff Country EZ-Ride Suspension highly recommends that a qualified or a certified mechanic performs this installation.

If you desire to return your vehicle to stock, it is the customers responsibility to save all stock hardware.

It is the responsibility of the customer or the mechanic to wear safety glasses at all times when performing this installation.

It is the customers/installers responsibility to read and understand all steps before installation begins. OEM manual should be used as a reference guide.

This vehicles reaction and handling characteristics may differ from standard cars and/or trucks. Modifications to improve and/or enhance off road performance may raise the intended center of gravity. Extreme caution must be utilized when encountering driving conditions which may cause vehicle imbalance or loss of control. **DRIVE SAFELY!** Avoid abrupt maneuvers: such as sudden sharp turns which could cause a roll over, resulting in serious injury or death.

It is the customers responsibility to make sure that a re-torque is performed on all hardware associated with this suspension system after the first 100 miles of installation. It is also the customers responsibility to do a complete re-torque after every 3000 miles or after every off road use.

After the original installation, Tuff Country EZ-Ride Suspension also recommends having the alignment checked every 6 months to ensure proper tracking, proper wear on tires and front end components. Tuff Country EZ-Ride Suspension takes no responsibility for abuse, improper installation or improper suspension maintenance.

Congratulations on your selection to purchase a Tuff Country EZ-Ride Suspension System. We at Tuff Country EZ-Ride Suspension are proud to offer a high quality product at the industries most competitive pricing. Thank you for your confidence in us and our product.

For a list of all parts, please refer to the Parts Description Page, at the end of the Installation Manual.

Make sure to use thread locker or locktite on all new and stock hardware associated with the installation of this suspension system.

It is the responsibility of the installers to make sure that the rear view mirror hanger is hung from the rear view mirror. The rear view mirror hanger has instructions on proper post installation procedure.

The Tuff Country EZ-Ride Suspension product safety label that is included in your kit box must be installed inside the cab in plain view of all occupants.

LIMITED LIFETIME WARRANTY

Notice to all Tuff Country EZ-Ride Suspension customers: It is your responsibility to keep your original sales receipt! If failure should occur on any Tuff Country EZ-Ride Suspension component, your original sales receipt must accompany the warranted unit to receive warranty. Warranty will be void if the customer can not provide the original sales receipt. Do not install a body lift in conjunction with a suspension system. If a body lift is used in conjunction with any Tuff Country EZ-Ride Suspension product, your Tuff Country EZ-Ride Suspension **WARRANTY WILL BE VOID**. Tuff Country Inc. ("Tuff Country") suspension products are warranted to be free from defects in material and workmanship for life if purchased, installed and maintained on a non-commercial vehicle; otherwise, for a period of twelve (12) months, from the date of purchase and installation on a commercial vehicle, or twelve thousand (12,000) miles (which ever occurs first). Tuff Country does not warrant or make any representations concerning Tuff Country Products when not installed and used strictly in accordance with the manufacturer's instructions for such installation and operation and accordance with good installation and maintenance practices of the automotive industry. This warranty does not apply to the cosmetic finish of Tuff Country products nor to Tuff Country products which have been altered, improperly installed, maintained, used or repaired, or damaged by accident, negligence, misuse or racing. ("Racing is used in its broadest sense, and, for example, without regards to formalities in relation to prizes, competition, etc.) This warranty is void if the product is removed from the original vehicle and re-installed on that or any other vehicle. This warranty is exclusive and is in lieu of any implied warranty of merchantability, fitness for a particular purpose or other warranty of quality, whether express or implied, except the warranty of title. All implied warranties are limited to the duration of this warranty. The remedies set forth in this warranty are exclusive. This warranty excludes all labor charges or other incidental or consequential damages. Any part or product returned for warranty claim must be returned through the dealer of the distributor from whom it was purchased. Tuff Country reserves the right to examine all parts returned to it for warranty claim to determine whether or not any such part has failed because of defect in material or workmanship. The obligation of Tuff Country under this warranty shall be limited to repairing, replacing or crediting, at its option, any part or product found to be so defective. Regardless of whether any part is repaired, replaced or credited under this warranty, shipping and/or transportation charges on the return of such product must be prepaid by the customer under this warranty.

Important information that needs to be read before installation begins:

If the vehicle that you are working on was manufactured between November of 1993 and February 1994 this suspension system will not work. Unfortunately, Tuff Country EZ-Ride suspension does not offer a suspension system that will fit on vehicles manufactured between these dates. If the vehicle that you are working on was manufactured between these dates, STOP and return this box kit to the company that you purchased it from (with a receipt) for a full refund.

Special note: Dodge comes with two different size pitman arms. Part # 70500 will work on the 1/2 ton and 3/4 ton vehicles that were manufactured from 1994—2000. Also, part # 70500 will work on the 1/2 ton that was manufactured in 2001. Part # 70501 will work on the 3/4 ton that was manufactured in 2001 and all 3/4 vehicles that were manufactured in 2002. The pitman arm is not included with this suspension system and needs to be ordered as a separate part number. If you have not already done so, please contact Tuff Country or your local Tuff Country dealer and order the proper pitman arm. Also, the new pitman arm looks identical to the stock pitman arm. The new pitman arm has a reverse taper where the stock tie rod connects to it.

On some Dodge Ram 1500's, the rear axle perch has a special cut out. If this is the case on the vehicle that you are working on, the block that is included with this box kit will not work properly. A new block needs to be ordered, please contact Tuff Country or one of your local Tuff Country dealers and order part # 79058.

If the vehicle that you are working on has a stock steering stabilizer, the stock steering stabilizer is not going to be re-installed once the 5" suspension system has been installed.

Before installation begins, Tuff Country EZ-Ride Suspension highly recommends that the installer performs a test drive on the vehicle. During the test drive, check to see if there are any uncommon sounds or vibrations. If uncommon sounds or vibrations occur on the test drive, uncommon sounds or vibrations will be enhanced once the suspension system has been installed. Tuff Country EZ-Ride Suspension highly recommends notifying the customer prior to installation to inform the customer of these issues if they exist.

After the installation of this suspension system, Tuff Country highly recommends taking the vehicle directly to an alignment shop for a proper front end alignment.

Hardware Bag 916NW includes:

<u>Description</u>	<u>Quantity</u>
9/16" u-bolt high nuts	8
9/16" u-bolt harden washers	8

Poly bushing bag D3IPL includes:

<u>Description</u>	<u>Quantity</u>
PB2408 (poly bushings)	16

Sleeve bag D3ISL includes:

<u>Description</u>	<u>Quantity</u>
S10029 (.875" X .500" X 2.250")	4
S10030 (.875" X .560" X 2.625")	4

Sleeve bag D5ISL includes:

<u>Description</u>	<u>Quantity</u>
S10042 (.875" X .563" X 2.250")	4
S10043 (.875" X .693" X 2.760")	4

Hardware bag 35910NB includes:

<u>Description</u>	<u>Quantity</u>
1/4" x 1" bolts	2
1/4" flat washers	4
1/4" unitorque nuts	2
3/8" x 1" bolts	2
3/8" x 1 1/2" bolts	4
5/16" USS flat washers	14
3/8" nylon insert nuts	8
7/16" x 1 1/2" bolts	4
3/8" USS flat washers	8
7/16" unitorque nuts	4
1/2" x 2 1/2" bolt	1
7/16" USS flat washers	2
1/2" unitorque nut	1
18 mm x 75 mm bolt	1
18 mm castle nut	1
3/4" USS flat washer	2
Cotter pin — 3/32" x 1 1/4"	1
Cotter pin — 1/8" x 1 3/4"	1
Sert fittings	8

Hardware bag 35910NB1 includes:

<u>Description</u>	<u>Quantity</u>
S10078 (track bar sleeve)	1
916WAMD (9/16" modified washer	1
LUBE (poly lube pack)	2
PB8297 (Front upper shock bushings)	4
S10107 (Front upper shock washers)	4

Special note: Before installation begins, it is the customers/installers responsibility to make sure that all parts are on hand. If any parts are missing, please feel free to call one of our customer service representatives @ (801) 280-2777.

Please follow instructions carefully:

Before installation begins, measure from the center of the hub, to the bottom of the fender well, and record measurements below.

Pre-Installation measurements:

Driver Side Front: _____
 Passenger Side Front: _____
 Driver Side Rear: _____
 Passenger Side Rear: _____

At the end of the installation, take the same measurements and compare to the pre-installation measurements.

Post-Installation measurements:

Driver Side Front: _____
 Passenger Side Front: _____
 Driver Side Rear: _____
 Passenger Side Rear: _____

Front end installation:

1. To begin installation, block the rear tires of the vehicle so that the vehicle is stable and can't roll backwards. Safely lift the front of the vehicle, and support the frame with a pair of jack stands. Place a jack stand on both the driver and passenger side. Next, remove the tires and wheels from both sides.

2. Position a pair of hydraulic floor jacks under the front axle. Place one jack stand on the driver side and one on the passenger side. Carefully raise up on both hydraulic floor jacks at the same time until they make contact with the front axle.

3. Working on the driver side, un-bolt the stock sway bar at the frame location and save the stock hardware for later re-installation. Repeat procedure on passenger side.
Let the stock sway bar hang.

4. Working on the driver side lower control arm axle mount, scribe a mark on the stock alignment cams and reinforcement bracket. This mark will be used as a reference when installing the new front lower control arms. Repeat procedure on the passenger side.

Illustration # 1

5. Working on the driver side, remove the stock castle nut and cotter pin from the stock track bar at the stock track bar location. Save the stock castle nut for later re-

installation. The stock cotter pin may be discarded, a new cotter pin is provided.

Illustration # 2

6. If the vehicle that you are working on is equipped with a stock steering stabilizer, remove the stock steering stabilizer from the stock location and discard the stock steering stabilizer and the stock hardware. If the vehicle that you are working on is not equipped with a stock steering stabilizer, please discard step # 6.

7. Working on the driver side, remove the stock castle nut and cotter pin from the stock tie rod end that connects to the stock pitman arm. Save the stock castle nut and stock cotter pin for later re-installation. **Special note: The new pitman arm looks identical to the stock pitman arm but the new pitman arm has a reverse taper on it where the stock tie rod connects to it.** At this point, rotate the stock tie rod 180 degrees.

8. Working on the stock steering box, remove the stock nut and the stock lock washer from the sector shaft on the stock steering box. Save the stock nut and the stock lock washer for later re-installation. Using a pitman arm puller, carefully remove the stock pitman arm from the stock location. The stock pitman arm may be discarded.

9. Working on the driver side, scribe a mark on the stock coil spring and another directly across on the stock lower coil spring pocket. **Special note: scribe the mark on the bottom of the stock coil spring and one directly across on the lower coil spring pocket. This will allow you to re-install the stock coil spring back into the stock location at a later step.** Repeat procedure on passenger side.

10. Working on the driver side, locate the top of the stock shock absorber stud in the engine compartment. Remove the stock nut, retainer washer and grommet. The stock upper shock nut, retainer washer and grommets may be discarded. Repeat procedure on passenger side.

Illustration # 3

11. Working on the driver side, remove the stock (3) nuts from the stock upper shock tower and discard the stock nuts. Set the stock upper shock tower a side for later re-installation. Repeat procedure on the passenger side.

Illustration # 4

12. Working on the driver side, remove the stock lower shock bolt that connects the stock shock to the stock lower mounting location. Save the stock hardware for later re-installation. Remove the stock shock by lifting the stock shock up through the engine compartment. The stock shock may be discard. **Special note: New longer front shocks are needed once this suspension system has been installed and the front shocks need to be ordered as a separate part #. If you have not already ordered your new front shocks, please feel free to contact Tuff Country or your local Tuff**

Country dealer and order your new front shocks. Tuff Country recommends installing a 30" fully extended nitrogen gas shock in the front. Repeat procedure on the passenger side.

13. Working on the driver side, remove the stock upper control arm from the stock frame location and the stock axle location. Save the stock hardware. The stock upper control arm may be discarded. Repeat procedure on the passenger side.

14. Working on the driver side, remove the stock lower control arm from the stock frame location and the stock axle location. Save the stock hardware. The stock lower control arm may be discarded. Repeat procedure on the passenger side.

15. Working on the driver side, remove the stock brake line bracket that is located between the stock upper and lower control arm mounting point that is located on the stock front axle. The stock hardware may be discarded. Let the stock brake line bracket hang. Repeat procedure on the passenger side.

16. Carefully lower down on both hydraulic floor jacks at the same time approximately 6". Working on the driver side, remove the stock coil spring from the stock location and set aside for later re-installation. Next, remove the stock rubber isolation pad and stock shock ring from the stock upper shock pocket. Set the stock rubber isolation pad aside for later re-installation. The stock shock ring may be discarded. Repeat procedure on passenger side. **Special note: Before removal of the stock coil spring, make sure that you scribed a mark on the stock coil spring and the stock coil spring pocket in step # 9.**

17. Locate (2) 1/4" x 1" bolts, (4) 1/4" flat washers and (2) 1/4" unitorque nuts from hardware bag 35910NB. Working on the driver side, move the stock brake line bracket to the top of the stock upper control arm axle mount bracket and secure using the new 1/4" x 1" bolt and hardware. **Make sure to use thread locker or lock tite.** Torque to **12 ft lbs.** Repeat procedure on the passenger side. **Special note: If the stock upper control arm axle mount bracket does not have a hole, carefully drill a 1/4" hole into the top of the stock upper control arm axle mount bracket.**

Special note: If the vehicle that you are working on was manufactured before 09/01/01 please follow steps # 18 — 26.

Special note: If the vehicle that you are working on was manufactured after 09/01/01 please follow steps # 27 — 31.

18. Locate the new lower control arms that are included in this suspension system. **Special note: The new lower control arms are the longer arms that are included in this suspension system.** Also, locate (8) PB2408 poly

bushings from poly bag D3IPL. Insert the new poly bushings into each end of the new lower control arms. **Special note: Make sure to use a lithium or moly base grease prior to inserting the new bushings into the new lower control arms. This will increase the life of the bushing as well as prevent squeaking.**

19. Locate (4) new S10030 crush sleeves from sleeve bag D3ISL. Insert the new S10030 crush sleeves into the previously installed poly bushings in the new lower control arms.

20. Locate (4) sert fitting from hardware bag 35910NB. Carefully install the sert fittings into each end of the new lower control arms. **Special note: Take special care not to damage the sert fittings during installation.**

21. Locate the stock lower control mounting hardware that was removed in step # 14. Working on the driver side, install the new lower control arm into the stock frame mount location and secure using the stock hardware. **Make sure to use thread locker or lock tite. Do not fully tighten at this point.** On the stock front bolt that connects the new lower control arm to the stock front bracket, refer to the reference marks that were made in step # 4 and re-install into the same location. **Make sure to use thread locker or lock tite. Do not fully tighten at this point. Special note: Raising the axle to ride height and moving the axle up and down will help make installation of the new lower control arm a little easier. Slight prying of the stock control arm bracket also may be needed to make installation easier.** Repeat procedure on passenger side.

Illustration # 5

22. Locate the new upper control arms that are included in this suspension system. **Special note: The new upper control arms are the shorter arms that are included in this suspension system.** Also, locate (8) PB2408 poly bushings from poly bag D3IPL. Insert the new poly bushings into each end of the new upper control arms. **Special Note: Make sure to use a lithium or moly base grease prior to inserting the new bushings into the new upper control arms. This will increase the life of the bushing as well as prevent squeaking.**

23. Locate (4) new S10029 crush sleeves from sleeve bag D3ISL. Insert the new S10029 crush sleeves into the previously installed poly bushings in the new upper control arms.

24. Locate (4) sert fitting from hardware bag 35910NB. Carefully install the sert fittings into each end of the new lower control arms. **Special note: Take special care not to damage the sert fittings during installation.**

25. Locate the stock upper control mounting hardware that was removed in step # 13. Working on the driver side, install the new upper control arm into the stock

frame mount location and the axle mount location and secure using the stock hardware. **Make sure to use thread locker or lock tite. Do not fully tighten at this point. Special note: Raising the axle to ride height and moving the axle up and down will help make installation of the new upper control arm a little easier. Slight prying of the stock control arm bracket also may be needed to make installation easier.** Repeat procedure on passenger side.

Illustration # 6

26. Move back to the stock upper and lower control arm hardware and torque to **85 ft lbs. Special note: On the stock axle mount hardware on the new lower control arms make sure that the alignment marks that were made in step # 4 are still lined up.**

If the vehicle that you are working on was manufactured before 09/01/99 skip to step # 36

If the vehicle that you are working on was manufactured after 09/01/099 follow step # 27 — 35

27. Locate the new lower control arms that are included in this suspension system. **Special note: The new lower control arms are the longer arms that are included in this suspension system.** Also, locate (8) PB2408 poly bushings from poly bag D3IPL. Insert the new poly bushings into each end of the new lower control arms. **Special note: Make sure to use a lithium or moly base grease prior to inserting the new bushings into the new lower control arms. This will increase the life of the bushing as well as prevent squeaking.**

28. Locate (4) new S10043 crush sleeves from sleeve bag D5ISL. Insert the new S10043 crush sleeves into the previously installed poly bushings in the new lower control arms.

29. Locate (4) sert fitting from hardware bag 35910NB. Carefully install the sert fittings into each end of the new lower control arms. **Special note: Take special care not to damage the sert fittings during installation.**

30. Locate the stock lower control mounting hardware that was removed in step # 14. Working on the driver side, install the new lower control arm into the stock frame mount location and secure using the stock hardware. **Make sure to use thread locker or lock tite. Do not fully tighten at this point.** On the stock front bolt that connects the new lower control arm to the stock front bracket, refer to the reference mark that were made in step # 4 and re-install into the same location. **Make sure to use thread locker or lock tite. Do not fully tighten at this point. Special note: Raising the axle to ride height and moving the axle up and down will help make installation of the new lower control arm a little easier. Slight prying of the stock control arm bracket also may be needed to make installation easier.** Repeat procedure on passenger side.

Illustration # 5

31. Locate the new upper control arms that are included in this suspension system. **Special note: The new upper control arms are the shorter arms that are included in this suspension system.** Also, locate (8) PB2408 poly bushings from poly bag D3IPL. Insert the new poly bushings into each end of the new upper control arms. **Special Note: Make sure to use a lithium or moly base grease prior to inserting the new bushings into the new upper control arms. This will increase the life of the bushing as well as prevent squeaking.**

32. Locate (4) new S10042 crush sleeves from sleeve bag D5ISL. Insert the new S10042 crush sleeves into the previously installed poly bushings in the new upper control arms.

33. Locate (4) sert fitting from hardware bag 35910NB. Carefully install the sert fittings into each end of the new lower control arms. **Special note: Take special care not to damage the sert fittings during installation.**

34. Locate the stock upper control mounting hardware that was removed in step # 13. Working on the driver side, install the new upper control arm into the stock frame mount location and the axle mount location and secure using the stock hardware. **Make sure to use thread locker or lock tite. Do not fully tighten at this point. Special note: Raising the axle to ride height and moving the axle up and down will help make installation of the new upper control arm a little easier. Slight prying of the stock control arm bracket also may be needed to make installation easier.** Repeat procedure on passenger side.

Illustration # 6

35. Move back to the stock upper and lower control arm hardware and torque to **85 ft lbs.** **Special note: On the stock axle mount hardware on the new lower control arms make sure that the alignment marks that were made in step # 4 are still lined up.**

36. Locate the new upper coil spring spacers and the stock rubber isolator pads that were removed in step # 16. Insert the stock rubber isolator pads inside the recess in the new upper coil spring spacer.

37. Working on the driver side, place the new upper coil spring spacer on the top of the stock coil spring and insert the stock coil spring into the stock lower location. **Special note: Make sure that the marks that were scribed in step # 9 line up with each other.** Repeat procedure on the passenger side. Carefully raise up on both hydraulic floor jacks at the same time until the driver side and passenger side new upper coil spring spacers and stock coil springs seat properly into the stock upper location. **Special note: There is (1) 3/8" x 1 1/2" bolt that is welded to the new upper coil spring spacer, this bolt needs to be line up with the back side stock hole. This will make installation easier to tighten the**

new nut down.

38. Locate the new front shocks. **Special note: New longer front shocks are needed once this suspension system has been installed and the front shocks need to be ordered as a separate part #. If you have not already ordered your new front shocks, please feel free to contact Tuff Country or your local Tuff Country dealer and order your new front shocks. Tuff Country recommends installing a 30" fully extended nitrogen gas shock in the front end of your vehicle.** Locate (2) new S10107 upper shock washers and (2) PB8297 front upper shock bushings from hardware bag 35910NB1. Install the new bushings and proper sleeves into each end of the new shocks. **Special note: The new bushings and sleeves are supplied with your new shocks. Also, make sure to use a lithium or moly base grease prior to inserting the new bushings and sleeves into the new shocks. This will increase the life of the bushings and will help prevent squeaking.** Install the new shock boots onto the new shocks. **Special note: The new shock boots are not included with this suspension system and the new shock boots need to be ordered as a separate part #. If you have not already ordered your new shock boots, please feel free to contact Tuff Country or your local Tuff Country dealer and order your new shock boots.** Once the new shock boots have been installed, working on the driver side, install the new shock into the stock coil spring by inserting it through the engine compartment. Install the upper shock washer and the new front upper shock bushing onto the stud of the new shock. Repeat procedure on the passenger side.

39. Locate the stock lower shock mounting hardware that was removed in step # 12. Working on the driver side, secure the newly installed front shock into the stock lower location and secure using the stock hardware. **Make sure to use thread locker or lock tite.** Do not tighten at this point. Repeat procedure on the passenger side.

40. Locate the stock upper shock tower brackets that were removed in step # 11. Locate (2) new S10107 upper shock washers and (2) PB8297 front upper shock bushings from hardware bag 35910NB1. Also, locate the new upper shock nut that was included with your new front shocks. Working on the driver side, install the stock upper shock tower to the new stud on top of the newly installed front shock. Now install the new front upper shock bushing and new upper shock washer and secure the newly installed front shock to the stock upper shock bracket using the upper shock hardware. **Do not tighten at this point.** Repeat procedure on the passenger side.

41. Locate (4) 3/8" x 1 1/2" bolts, (10) 3/8" flat washers and (6) 3/8" nylon insert nuts from hardware bag 35910NB. Working on the driver side, secure the new upper coil spring spacer to the stock upper coil spring tower and the stock upper shock tower using the new 3/8" hardware. **Make sure to use thread locker or lock**

tite. Torque the new 3/8" hardware to **28 ft lbs.** Repeat procedure on the passenger side.

Illustration # 7

42. Working on the driver side, torque the stock lower shock bolt to **80 ft lbs** and the new upper shock nut to **22 ft lbs.** Repeat procedure on passenger side.

43. Working on the driver side, carefully clean the excess slag from the bottom side of the stock track bar location, use a grinder and safely clean the bottom surface. **Special note: If this step is not performed properly, the new track bar relocation bracket will not seat flush to the stock track bar location. Thus, allowing the new track bar bracket to work itself loose, which may cause the new M18 bolt to come loose causing damage to the new track bar bracket and/or vehicle.**

44. Locate the new driver side track bar relocation bracket. Locate (1) 1/2" x 2 1/2" bolt, (1) 1/2" unitorque nut, (2) 7/16" USS flat washers, (1) M18 x 75 mm bolt, (2) 3/4" USS flat washers and (1) M18 castle nut from hardware bag 35910NB. Locate the new S10078, tapered crush sleeve and the new 9/16" modified washer from hardware bag 35910NB1. Working on the driver side, install the new tapered sleeve into the stock location where the stock track bar was located. Next, install the new track bar relocation bracket to the stock location and secure using the new M18 x 75 mm bolt and hardware. **Do not tighten at this point.** Hold the leg on the new track bar relocation bracket on the back side of the stock cross member. Using the hole in the new track bar relocation bracket as a guide, carefully drill a 1/2" hole in the stock cross member. **Special note: there is a seam that goes right down the middle of the stock cross member, the new hole that is drilled should pass through this seam.** Secure the new track bar relocation bracket to the back side of the stock cross member using the new 1/2" x 2 1/2" bolt, 1/2" hardware and the new 9/16" modified washer. **Refer to the illustration on how to install the new 9/16" modified washer between the new 1/2" washer and the stock cross member. Do not tighten at this point.**

Illustration # 8

45. Locate the new track bar kicker support bracket. Locate (2) 3/8" x 1" bolts, (4) 5/16" USS flat washers, (2) 3/8" unitorque nuts from hardware bag 35910NB. Working on the driver side, locate the steering box that is secured to the inside of the stock frame rail. Remove the rear bolt that connects the steering box to the stock frame rail. Secure the new track bar kicker support bracket to the rear hole of the steering box using the stock bolt. **Special note: Make sure to use locktite when re-installing the stock steering box bolt. Do not tighten at this point.** Secure the other end of the new kicker support bracket to the new track bar relocation bracket that was installed in step # 44 using the new 3/8" x 1" bolt and hardware. **Make sure to use thread locker or lock tite. Do not tighten at this point.**

Illustration # 9

46. Locate the new 1/8" x 1 3/4" cotter pin from hardware bag 35910NB. Working on the driver side, torque the new M18 x 75 mm bolt to **135 ft. lbs.** Install the new cotter pin into the newly tighten M18 x 75 mm bolt. **Special note: Once the new 18 mm castle nut has been torqued, install the new cotter pin. If the new cotter pin can not be installed because the hole in the new M18 x 75 mm bolt does not line up with the new 18 mm castle nut, DO NOT loosen the new castle nut so that the cotter pin can fit, tighten the new castle nut some more so that the cotter pin can be installed.** Torque the 1/2" bolt that connects the new track bar relocation bracket to the stock cross member to **80 ft lbs.** Next, torque the stock rear bolt that connect the steering box to the stock frame rail to **125 ft. lbs.** Finally, tighten the 3/8" bolt and hardware that connect the new kicker support bracket to the newly installed track bar relocation bracket to **32 ft lbs.**

47. Locate the new 3/32" x 1 1/4" cotter pin from hardware bag 35910NB. Install the stock track bar into the newly installed track bar relocation bracket and secure using the stock castle nut that was removed from step # 5. Torque to **65 ft. lbs.** Install the new cotter pin into the stock track bar and castle nut. **Special note: Once the stock track bar castle nut has been torqued, install the new cotter pin. If the new cotter pin can not be installed because the hole in the stock track bar does not line up with the stock castle nut, DO NOT loosen the stock castle nut so that the cotter pin can fit, tighten the stock castle nut some more so that the cotter pin can be installed. Also, if you are not able to line up the hole in the new track bar relocation bracket and the stock track bar, the weight of the vehicle may need to be on the ground. If this is the case, perform this step at the end of the installation once the tires and wheels have been re-installed and the weight of the vehicle is on the ground.**

Illustration # 8

48. Locate the new driver and passenger side sway bar drop brackets. Also, locate the stock way bar mounting hardware that was removed in step # 3. Working on the driver side, install the new driver side sway bar drop bracket to the stock frame location and secure using the stock hardware. **Make sure to use thread locker or lock tite. Do not tighten at this point.** Repeat procedure on the passenger side. **Special note: The new driver and passenger side sway bar drop brackets are mirror images of each other. Once the new driver and passenger side sway bar drop bracket are installed the stock sway bar will be moved down and forward.**

49. Locate (4) 7/16" x 1 1/2" bolt, (8) 3/8" USS flat washers and (4) 7/16" unitorque nuts from hardware bag 35910NB. Working on the driver side, install the stock sway bar to the previously installed sway bar drop brackets and secure using the new 7/16" x 1 1/2" bolts

and hardware. **Make sure to use thread locker or lock tite. Do not tighten at this point.** Repeat procedure on the passenger side. **Special note: If you are not able to install the stock sway bar to the newly installed sway bar drop bracket, the weight of the vehicle may need to be on the ground. If this is the case perform this step at the end of the installation once the tires and wheels have been installed.** Once the stock sway bar is attached to the newly installed relocation brackets, torque the stock and new hardware on the driver and passenger side to **28 ft lbs.**

Illustration # 10

Special note: Dodge comes with two different size pitman arms. Part # 70500 will work on the 1/2 ton and 3/4 ton vehicle that were manufactured from 1994 — 2000. Also, part # 70500 will work on the 1/2 ton that was manufactured in 2001. Part # 70501 will work on the 3/4 ton that was manufactured in 2001 and all 3/4 vehicles that were manufactured in 2002. The pitman arm is not included with this suspension system and needs to be ordered as a separate part number. If you have not already done so, please contact Tuff Country or your local Tuff Country dealer and order the proper pitman arm.

50. Locate the stock sector shaft nut and lock washer that was removed in step # 8. Working on the driver side, install the new pitman arm into the stock location on the stock sector shaft and secure using the stock hardware. Torque stock nut to **180 ft lbs.** **Special note: If the stock lock washer is damaged, Tuff Country EZ-Ride suspension highly recommends replacing the stock lock washer.**

51. Locate the stock tie rod castle nut and cotter pin that was removed in step # 7. Re-install the stock tie rod end into the newly installed pitman arm and secure using the stock hardware. Torque to **65 ft lbs.** Install the stock cotter pin into the stock tie rod and castle nut. **Special note: Once the stock tie rod castle nut has been torqued, install the stock cotter pin. If the stock cotter pin can not be installed because the hole in the stock tie rod does not line up with the stock castle nut, DO NOT loosen the stock castle nut so that the cotter pin can fit, tighten the stock castle nut some more so that the cotter pin can be installed. Also, the new pitman arm looks identical to the stock pitman arm but the new pitman arm has a reverse taper were the stock tie rod connects to it. Before re-installation of the tie rod to the new pitman arm, the stock tie rod needs to be rotated 180 degrees.**

52. Carefully remove both hydraulic floor jacks from under the vehicle.

53. Check and double check to make sure that all steps were performed properly. Install the new tires and wheels on both the driver and passenger side and safely lower the vehicle to the ground.

54. If you were not able to install the stock track bar into the newly installed track bar relocation bracket in step # 47, perform step # 47 now that the weight of the vehicle is on the ground.

55. If you were not able to install the stock sway bar to the newly installed sway bar drop brackets in step # 49, perform step # 49 now that the weight of the vehicle is on the ground.

Front end installation complete

Rear end installation

56. To begin installation, block the front tires of the vehicle so that the vehicle is stable and can't roll forward. Safely lift the rear of the vehicle and support the frame with a pair of jack stands. Place a jack stand on both the driver and passenger side. Next, remove the wheels and tires from both sides.

57. Place a pair of hydraulic floor jacks under the driver and passenger side rear axle. Carefully raise up on both hydraulic floor jacks at the same time until they make contact with the rear axle.

58. Working on the driver side, remove the stock rear shock from the stock upper and lower location and save the stock hardware for later re-installation. The stock rear shock may be discarded. **Special note: New longer rear shocks are needed once this suspension system has been installed and the rear shocks need to be ordered as a separate part #. If you have not already ordered your new rear shocks, please feel free to contact Tuff Country or your local Tuff Country dealer and order your new rear shocks. Tuff Country recommends installing a 30" fully extended nitrogen gas shock in the rear.** Repeat procedure on the passenger side.

59. Working on the driver side, remove the stock rear u-bolts from the stock location. The stock rear u-bolts and hardware may be discarded. Set the stock upper and lower u-bolt plates aside for later re-installation. Repeat procedure on passenger side.

60. Carefully lower down on both hydraulic floor jacks at the same time allowing enough room for the new rear blocks and add-a-leaves to be installed. **Special note: Take special care not to kink or over extend the stock rear brake line.**

61. Working on the driver side, remove the stock rear block and discard. Repeat procedure on passenger side.

62. Working on the driver side, place a pair of "C" clamp vise grips on each side of the stock centering bolt. Carefully remove the stock centering bolt and nut and discard. Carefully remove the "C" clamp vise grips that

are holding the stock springs together. **Special note: Be very carefully when removing the "C" clamps, the stock springs are under tension and can be dangerous.** Repeat procedure on passenger side.

63. Locate the new rear add-a-leaves, new 3/8" x 6" centering bolts and the new 3/8" fine nut from box kit 81250. Working on the driver side, install the new rear add-a-leaf into the stock spring assembly. Secure the new rear add-a-leaf to the stock spring assembly using the new 3/8" center bolt and nut. Torque to **28 ft. lbs.** **Special note: If the new rear add-a-leaf has an offset center hole location, place the longest side of the new rear add-a-leaf towards the rear of the vehicle. Also the new add-a-leaf should be installed into the stock spring assembly in progression in order, from longest to shortest. The new add-a-leaf should be installed between the stock overload and the stock spring pack. The stock overload is usually the un-arched spring at the bottom of the stock leaf pack. Also, Tuff Country EZ-Ride Suspension highly recommends NOT using any air tools when installing the new rear add-a-leaves into the stock spring assembly. If air tools are used the centering bolt may strip, causing the stock spring assembly to come apart.** With a suitable cutting tool, cut off the extra thread from the new centering bolt. Repeat procedure on passenger side.

Illustration # 11

Special note: On some Dodge Ram 1500's, the rear axle perch has a special cut out. If this is the case on the vehicle that you are working on, the block that is included with this box kit will not work properly. A new block needs to be ordered, please contact Tuff Country or one of your local Tuff Country dealers and order part # 79058.

64. Locate the new 5.5" lifted blocks. Working on the driver side, install the new 5.5" lifted block into the stock location. **Special note: The new 5.5" lifted blocks have a taper to them, the small end of the block needs to be installed towards the front of the vehicle.** Repeat procedure on the passenger side.

65. Carefully raise up on both hydraulic floor jacks at the same time until the stock spring assembly sits flush with the newly installed 5.5" lifted blocks.

66. Locate the new rear 9/16" x 2 3/4" x 14 5/8" square u-bolts. Locate (8) new 9/16" u-bolt high nuts and (8) new u-bolt washers from hardware bag 916NW. Also, locate the stock upper and lower u-bolt plates that were removed in step # 59. Working on the driver side, install the new u-bolts into the stock location and secure using the new high nuts and washers. Torque to **120 ft lbs.** Repeat procedure on passenger side.

Illustration # 12

67. Locate the new rear shocks. **Special note: New longer rear shocks are needed once this suspension system has been installed and the rear shocks need to be ordered as a separate part #.** If you have not already ordered your new rear shocks, please feel free to contact Tuff Country or your local Tuff Country dealer and order your new rear shocks. **Tuff Country recommends installing a 30" fully extended nitrogen gas shock in the rear end of your vehicle.** Install the new bushings and proper sleeves into each end of the new shocks. **Special note: The new bushings and sleeves are supplied with your new shocks. Also, make sure to use a lithium or moly base grease prior to inserting the new bushings and sleeves into the new shocks. This will increase the life of the bushings and will help prevent squeaking.** Install the new shock boots onto the new shocks. **Special note: The new shock boots are not included with this suspension system and the new shock boots need to be ordered as a separate part #.** If you have not already ordered your new shock boots, please feel free to contact Tuff Country or your local Tuff Country dealer and order your new shock boots. Locate the stock rear shock hardware that was removed in step # 58. Working on the driver side, install the new shock into the stock upper and lower location. **Make sure to use thread locker or lock tite.** Torque the stock upper and lower hardware to **75 ft lbs.** Repeat procedure on the passenger side.

68. Carefully remove both hydraulic floor jacks from under the vehicle.

69. Check and double check to make sure that all steps were performed properly and check again. Install the new tires and wheels on both the driver and passenger side and safely lower the vehicle to the ground.

Congratulations installation complete

Take vehicle directly to an alignment shop for a proper front end alignment

Tuff Country EZ-Ride Suspension packages (2) sets of instruction sheets with this box kit. (1) is for the installer and (1) is for the customer. The (1) for the customer has some post installation procedure literature and it is the installers responsible to make sure that the customer receives a copy of the installation manual along with the literature.

Tuff Country EZ-Ride Suspension recommends that a complete re-torque is done on all bolts associated with this suspension system. It is the customers responsibility to make sure that a re-torque is performed on all hardware associated with this suspension system after the first 100 miles of installation. It is also the customers responsibility to do a complete re-torque after every 3000 miles or after every off road use. Neglect of following these steps could cause brackets to come loose and cause serious damage to the suspension system and to the vehicle.

If you have any questions during installation, please feel free to call our tech line. (801) 280—2777. Our business hours are Monday — Friday from 8:00 a.m. — 6:00 p.m. MST.

Torque Settings

5/16"	15—18 ft lbs.
3/8"	28—32 ft lbs.
7/16"	30—35 ft lbs.
1/2"	65—85 ft lbs.
9/16"	85—120 ft lbs.
5/8"	95—130 ft lbs.
3/4"	100—140 ft lbs.

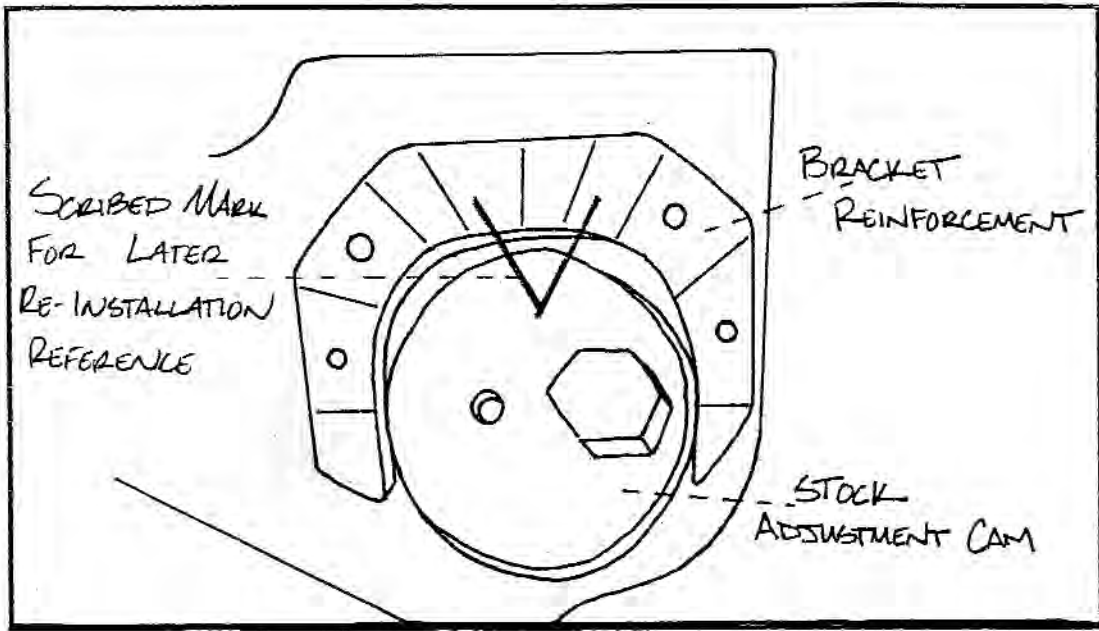


Illustration # 1

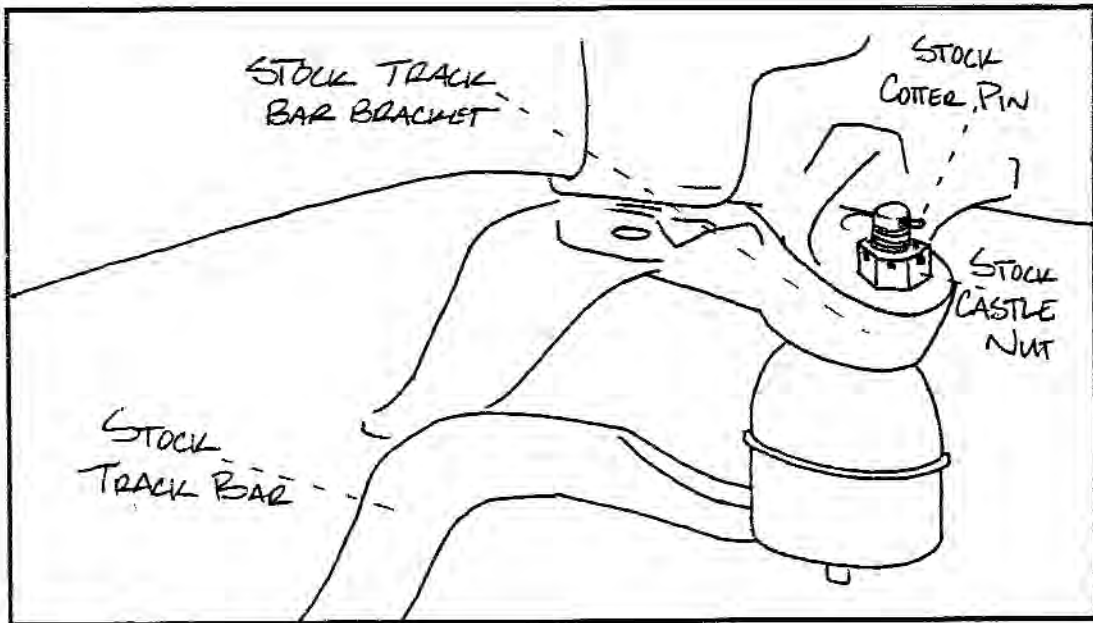


Illustration # 2

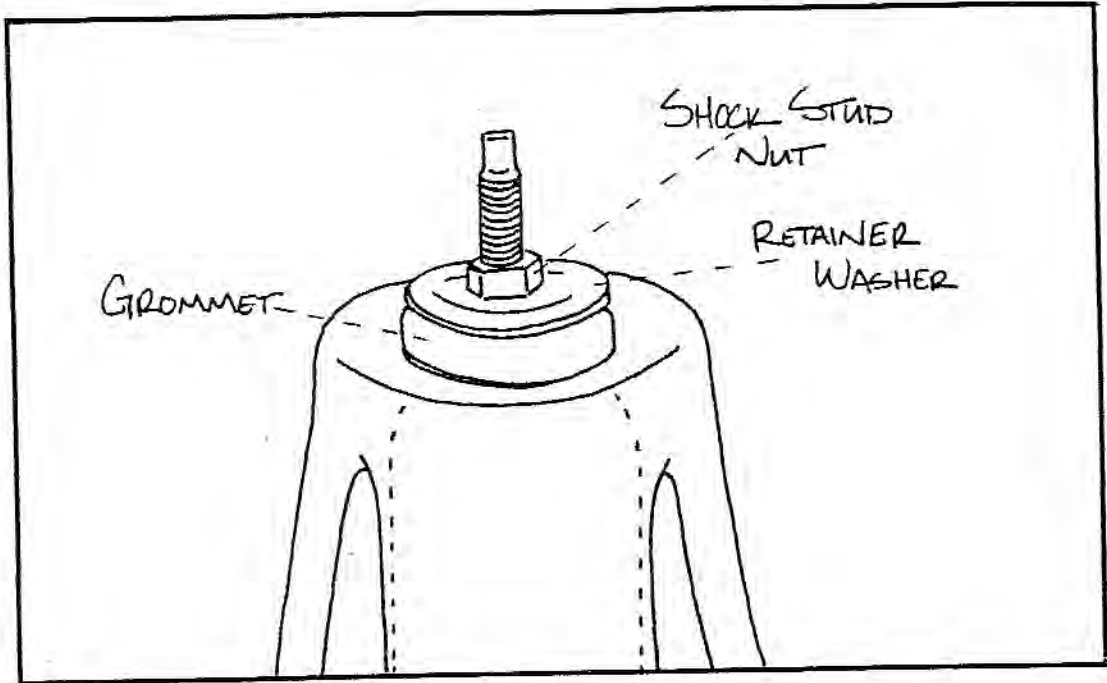


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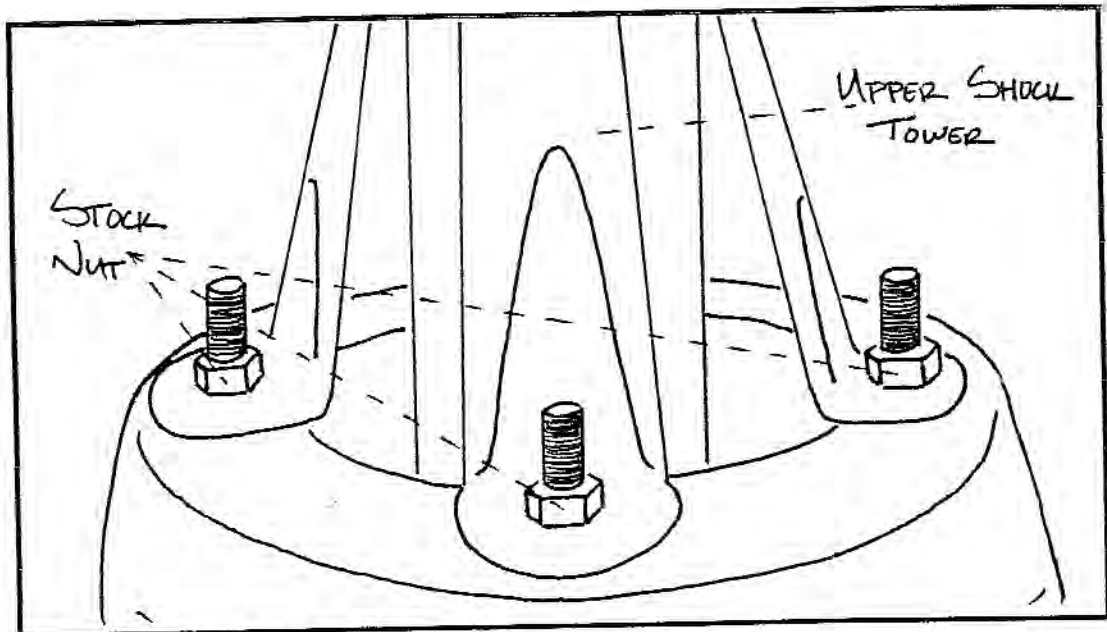


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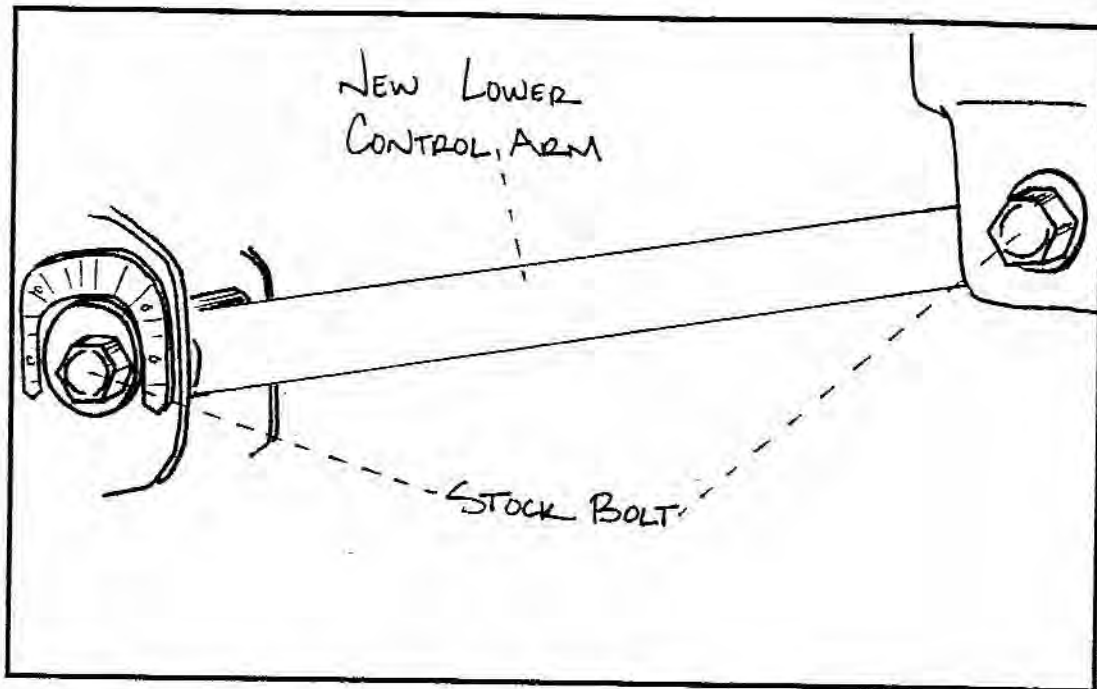


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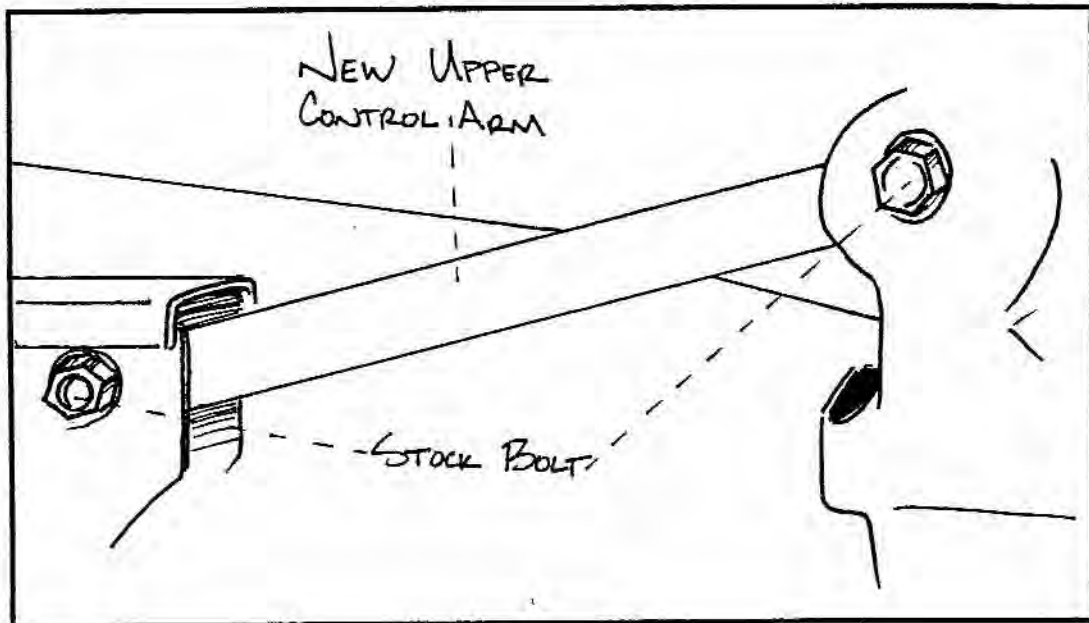


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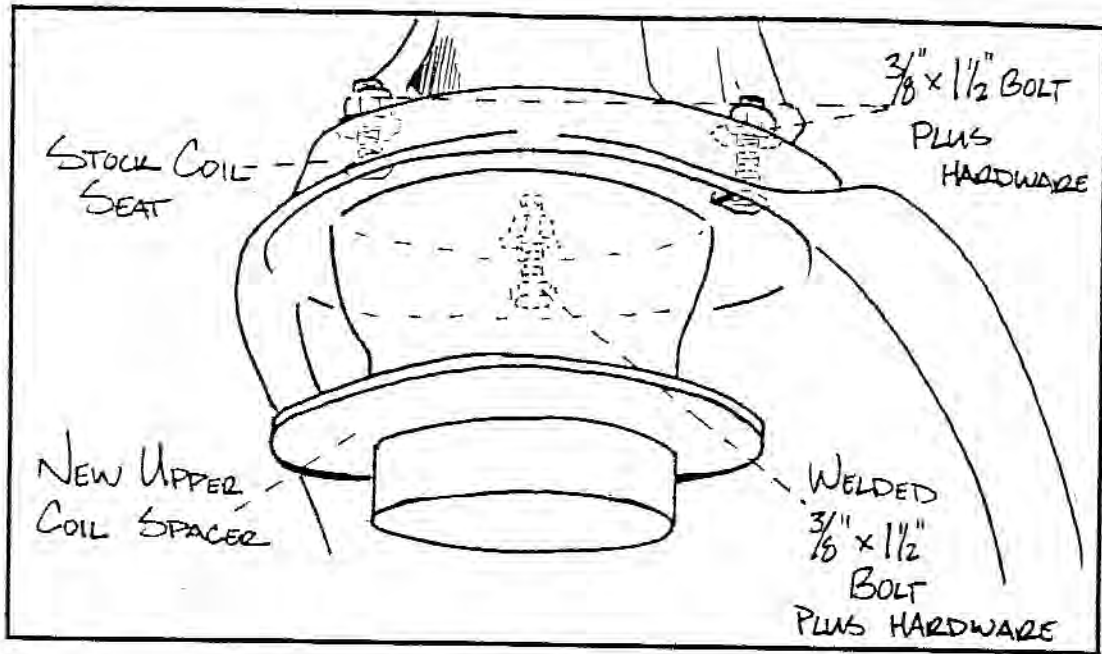


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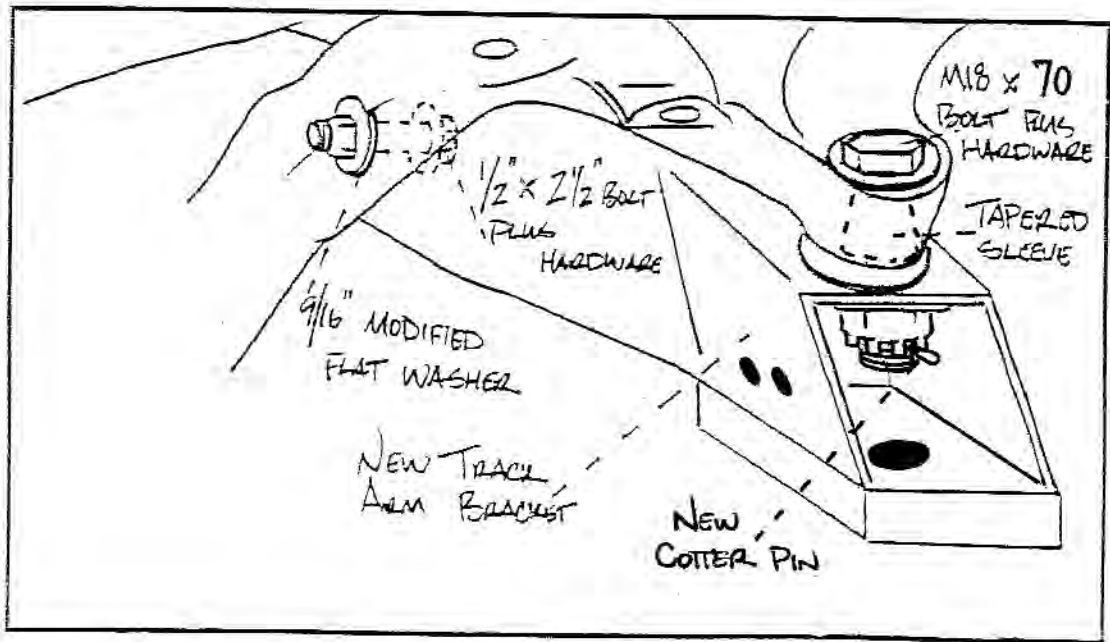


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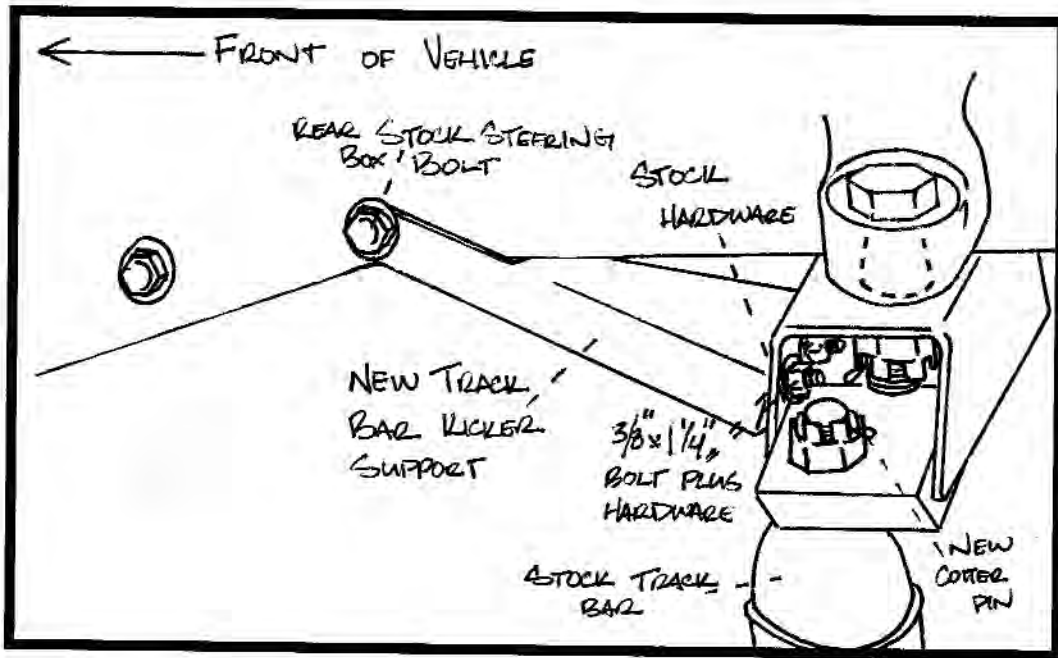


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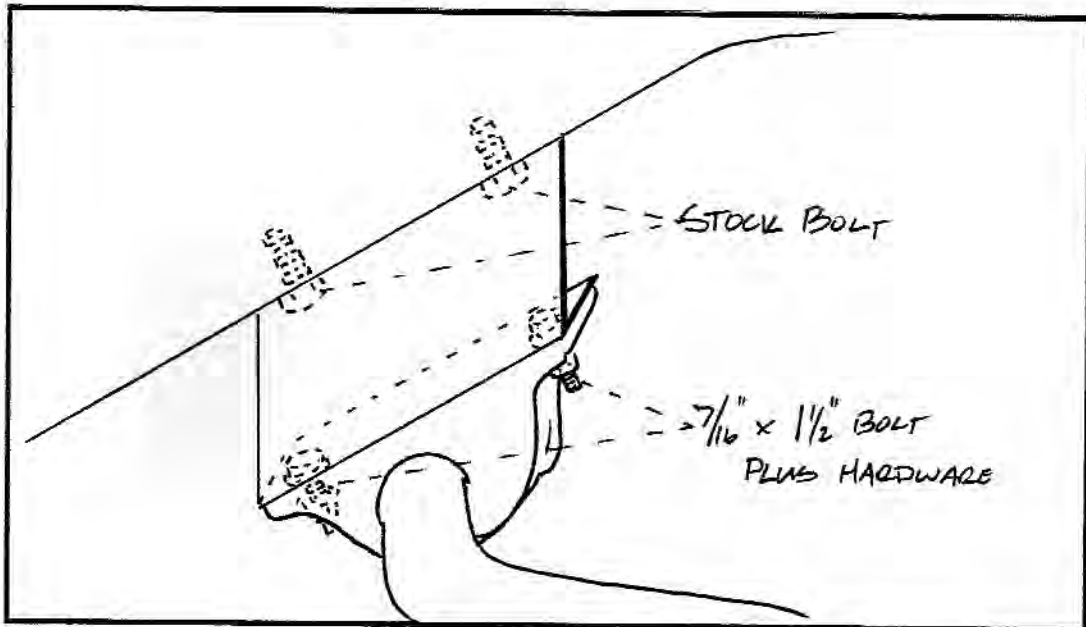


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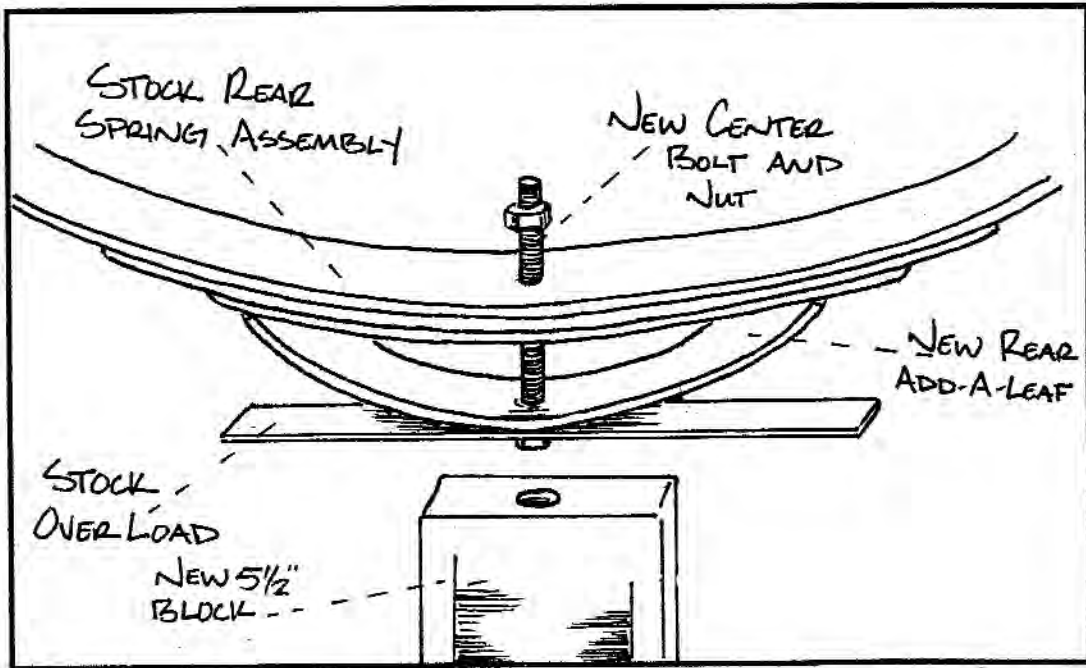


Illustration # 11

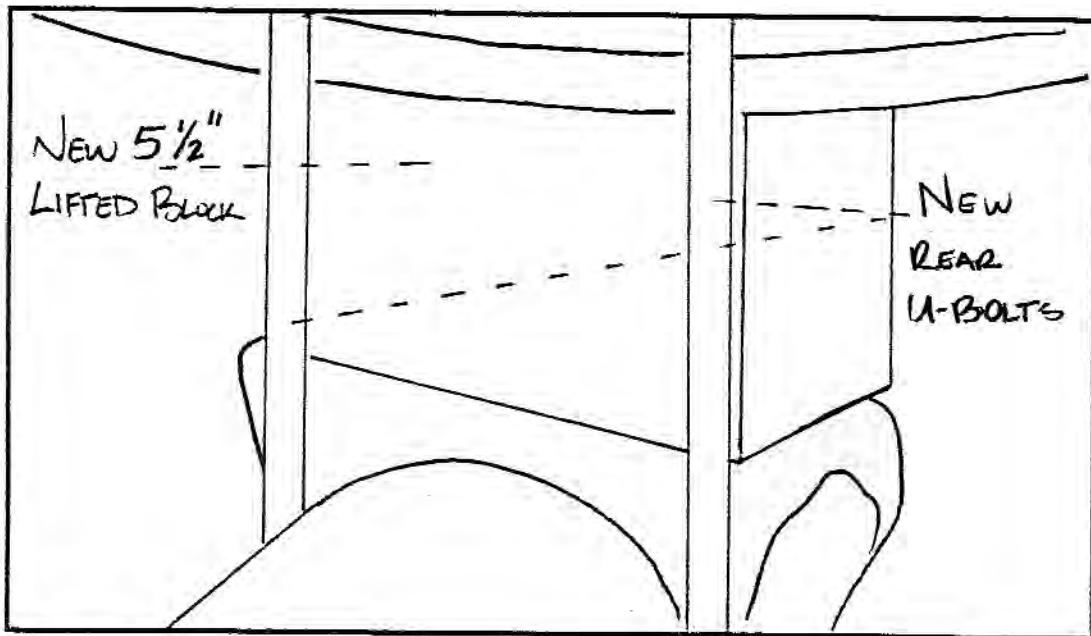


Illustration # 12