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# 4331 EUCALYPTUS AVE. CHINO, CA. 91710 PHONE 909-597-7800 FAX 909-597-7185 2000-2001 DODGE RAM 1500 4 WHEEL DRIVE 1994-2002 DODGE RAM 2500 4 WHEEL DRIVE FTS3420 5 1/2" LIFT BOX KIT

	FTS3420BK	1994-99 DODGE RAM 4WD
Qua.	Part #	Description
1 EA	FT3400-106DBK	RR LINK BAR BRKT DRVR
1 EA	FT3400-106PBK	RR LINK BAR BRKT PASS
2 EA	FT3400-107BK	FRT DIFF LINK BAR BRKT
2 EA	FT3400-108BK	UPR LINK BAR
2 EA	FT3400-109BK	LWR LINK BAR
2 EA	FT3400-110	WELD PLATE
2 EA	FT3400-111	DODGE BUMPSTOP FRONT
1 EA	FT3400-112D	SWAY BAR MNT DRVR
1 EA	FT3400-112P	SWAY BAR MNT PASS
1 EA	FT3410	PITMAN ARM DODGE RAM
1 EA	FT3500-104	DODGE PANHARD BRACKET
1 EA	FT44219	HARDWARE KIT
1 EA	FT44125	HDWR SUB-ASSEMBLY

	FT44125	Hdwr Sub-Assembly Kit
Qua.	Part #	Description
4 EA	FT1002	BUSHING UCA HALF
4 EA	FT1007	BUSHING S 10 L.T. LOWER
2 EA	FT77	SLEEVE 1 X .185 X 2.620
2 EA	FT3400-101	SLEEVE .75 X .095 X 2.35
2 EA	FT3400-102	SLEEVE .75 X 120 X 2.35
2 EA	FT3420i	INSTRUCTIONS FTS3420
2 EA	FT97150-6-101	3/4" X 2.6" SLEEVES
1 EA	FTAS12	STICKER
1 EA	FTAS16	DRIVER WARNING DECAL
4 EA	FTLUBE	URETHANE LUBE 1 PACKET
1 EA	FTREGCARD	REGISTRATION CARD
8 EA	FTS1001	A-ARM BUSHING

	FT44219	Hdwr Sub-Assembly Kit
Qua.	Part #	Description
2 EA	12002007000	COTTER PINS 1/8" x 2"
2 EA	14200003052	14MM - 2.0 NYLOCK NUTS
2 EA	14201001010	14MM -2.0 X 100MM BOLTS
4 EA	25000005052	1/4" SAE FLAT WASHERS
2 EA	25200003052	1/4" - 20 NYLOCK NUTS
2 EA	25201001081	1/4" - 20 X 1" BOLTS
8 EA	43000005052	7/16" SAE FLAT WASHERS
4 EA	41340003052	7/16" - 14 NYLOCK NUTS
4 EA	43141501081	7/16" - 14 X 1 1/2" BOLTS
48 EA	50000005052	1/2" SAE FLAT WASHERS
30 EA	50130003052	1/2" - 13 NYLOCK NUTS
14 EA	50131501081	1/2" - 13 X 1 1/2" BOLTS
6 EA	50133501081	1/2" - 13 X 3 1/2" BOLTS
2 EA	50134001081	1/2" - 13 X 4" BOLTS
2 EA	50134501081	1/2" - 13 X 4 1/2" BOLTS
1 EA	75100004152	3/4" - 10 C-LOCK NUT
1 EA	75102501081	3/4" - 10 X 2 1/2" BOLT
8 EA	FT84	GREASE FITTING 1/4" - 28

## READ THIS SECTION BEFORE BEGINNING THE INSTALLATION OF THIS KIT

TOOL LIST: (NOT INCLUDED)

FLOOR JACK
JACK STANDS
ASSORTED METRIC AND S.A.E SOCKETS, & ALLEN WRENCHES
DIE GRINDER WITH CUTOFF WHEEL OR SAWZALL
HAND GRINDER
DRILL WITH 3/8", ½", ¾" BITS
MIG WELDER
PITMAN ARM PULLER

### \*THIS KIT WILL NOT WORK ON VEHICILES WITH REAR AXLE PROPORTIONING VALVE.

CHECK ALL PARTS INCLUDED IN THIS KIT TO THE PARTS LIST ABOVE BEFORE BEGINNING INSTALLATION OF THE KIT. IF ANY PIECES ARE MISSING, CONTACT FABTECH AT 909-597-7800

THE INSTALLATION OF THIS KIT REQUIRES WELDING THAT MUST BE PERFORMED BY A CERTIFIED WELDER.

VEHICLES THAT WILL RECEIVE OVERSIZED TIRES SHOULD CHECK BALL JOINTS, TIE RODS ENDS AND IDLER ARM EVERY 2500-5000 MILES FOR WEAR AND REPLACE AS NEEDED.

READ ALL INSTRUCTIONS THOROUGHLY FROM START TO FINISH BEFORE BEGINNING INSTALLATION!

THIS KIT MUST BE INSTALLED WITH A FABTECH 5" LIFT COIL SPRING KIT (FTS3400-3 or FTS3500-3), FRONT SHOCKS, REAR SHOCKS AND REAR LIFT.

OEM WHEELS AND TIRES CAN BE USED AFTER THE INSTALLATION OF THIS KIT. WE RECOMMEND AFTER MARKET WHEELS WITH A MAXIMUM BACKSPACING OF 4 5/8".

THE FRONT DRIVESHAFT MUST BE MODIFIED DURING THE INSTALLATION OF THIS KIT. THERE ARE PICTURES INCLUDING IN THIS INSTRUCTION SHEET THAT SHOW THE MODIFICATIONS THAT MUST BE PERFORMED. THE MODIFICATIONS SHOULD BE PERFORMED BY AN EXPERIENCED DRIVETRAIN SHOP.

IF THE TRUCK IS EQUIPPED WITH A FACTORY STEERING STABILIZER IT WILL NEED TO BE REMOVED AND DISCARDED

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CHECK THE SUPPLIED PITMAN ARM TO THE ORIGINAL PITMAN ARM ON YOUR TRUCK BEFORE BEGINNING THE INSTALLATION OF THIS KIT.

1994-2001 DODGE TRUCKS CAME WITH TWO DIFFERENT PITMAN ARMS, FABTECH HAS SUPPLIED THE MOST COMMON ONE WITH THIS KIT. IF YOUR PITMAN ARM IS DIFFERENT THAN ONE SUPPLIED, PLEASE CONTACT PLACE OF PURCHASE TO OBTAIN THE CORRECT PITMAN ARM. SEE DRAWING ON LAST PAGE.

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### **INSTRUCTIONS:**

- Disconnect the negative terminal on the battery. Jack up the front end of the truck and support the frame rails with jack stands. <u>NEVER WORK UNDER AN</u> UNSUPPORTED VEHICLE! Remove the front tires.
- 2. Support the front axle with 2 floor jacks. Remove the bolts attaching the brake line tabs to the front axle. Remove the bolt securing the brake line tab to the front axle. Remove the front sway bar end links and set them aside. Remove the bolts securing the sway bar mounts to the frame and set the sway bar aside.
- 3. Remove the castle nut attaching the drag link to the pitman arm and separate the tie rod end from the pitman arm. Remove the castle nut securing the top of the track bar to the frame bracket and separate. Remove the front driveshaft and set aside. Wrap tape around the bearing caps to prevent them from falling off. Disconnect the vent line from the frame and separate the vacuum lines from the 4wd disconnect on the front axle.
- 4. Remove the top nuts on the front shocks and the lower bolts securing the shock to the axle. Remove the three nuts securing the upper shock mount cage to the coil spring mount. Remove the front shocks from the truck. Loosen the bolts securing the link arms to the frame and front axle, DO NOT REMOVE THE BOLTS. Lower the jacks supporting the front axle and remove the coil springs. Save the upper rubber insulator.
- 5. Remove the bolts attaching the link arms to the front axle and frame and set the arms aside. The bolts will be reused later.
- 6. Using a die grinder, cut through the welds attaching the top cap onto the top of the link arm mount on the front axle. DO NOT CUT INTO THE MOUNT. Using a chisel, separate the cap from the mount. Grind down any remaining welds and paint any exposed metal. Repeat this on the opposite side. On the inside of the link arm mount is a welded nut that needs to be removed with a chisel. SEE PHOTOS BELOW & IN NEXT COLUMN.









7. Starting on the driver's side, slide the link arm bracket (FT3400-107D) into the front axle upper link arm mount. If you are installing the FTS3400-50 front double shock kit at the same time, slide the lower shock mount plate in position. Using a ½" x 3 ½" bolt, flat washers and nut, secure the new mount onto the axle through the original link arm pivot bolt hole. Align the 2 other small holes in the axle mount with those in the new bracket. Using a ½" drill, enlarge the holes in the front axle bracket. Place 2 more ½" x 3 ½" bolts, flat washers and nuts through the newly drilled holes and torque all 3 bolts to 65 ft/lbs. Repeat this on the opposite side of the truck. SEE PHOTOS ON NEXT PAGE.



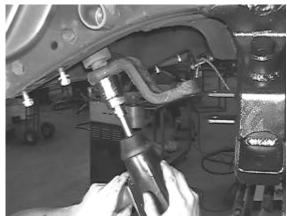




8. Using a ¾" bit, drill out the taper in the track bar frame bracket. Using the supplied ¾" bolt and nut, secure the track bar drop bracket (FT3500-104) to the frame mount and hand tighten the ¾" bolt. Line up the support tube to the frame and torque the ¾" bolt to 100 ft/lbs. Once bolted, completely weld the bracket to the frame as well as the support tube end to the crossmember as shown. After everything has fully cooled, paint all bare metal surfaces. SEE PHOTO IN NEXT COLUMN.



9. Remove the nut securing the pitman arm to the steering box. Using a pitman arm puller, remove the pitman arm from the steering box. NOTE: THERE ARE TWO POSSIBLE PITMAN ARMS AVALIBLE FOR THIS TRUCK. THE MOST COMMON ONE IS SUPPLIED WITH THIS KIT, SEE THE DRAWING ON THE LAST PAGE TO CHECK THAT THE SUPPLIED PITMAN ARM MATCHES FACTORY PITMAN ARM TAPPER. IF IT DOES NOT MATCH CONTACT FABTECH. Slide the new pitman arm onto the steering box shaft, making sure to line up the splines properly. Reinstall the original lock washer and nut and torque to 220 ft/lbs. SEE PHOTO BELOW.



10. Using a die grinder or sawzall, cut the original lower link arm bracket off of the frame as shown above. Using a sander, grind down any rough edges and remove any paint around the cut surface. Tack weld the supplied weld in plates (FT3400-110) over the cut link arm mount. Completely weld around the plate. After everything has cooled, paint all exposed metal surfaces. Repeat this on the opposite side. SEE PHOTOS ON NEXT PAGE.









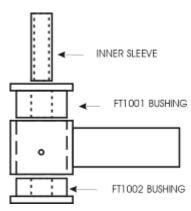
11. Starting on the driver's side, hold the rear link arm bracket (FT3400-106D) against the frame. Make sure the bracket sits flush onto the frame. Remove any high spots on the outside surface of the frame using a grinder, remove as little metal as necessary. The bracket will be centered between the two large holes in the side of the frame rail and on the cross member under the frame. Clamp the bracket in place and mark all seven hole positions using a center punch. Remove the bracket from the frame and drill all of the ½" holes. Start with a small (¼") drill bit and finish with a ½" bit. SEE PHOTO BELOW.



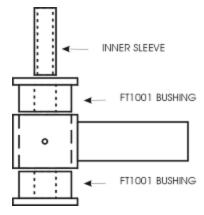
12. Attach the bracket back onto the frame using the supplied ½" x 1 ½" bolts, flat washers and nuts. Torque all hardware to 65 ft/lbs. Repeat this on the opposite side. SEE PHOTO BELOW.



13. Take the upper link arms (FT3400-108) and install a grease fitting in each barrel end. Note the offset position of the grease fitting. Lubricating all parts thoroughly with the supplied silicon lube, slide a FT1001 bushing into the barrel with a FT1002 in the opposite side. The offset of the bushings will allow grease to flow through the space between the two bushings. Press a FTS3400-102 sleeve (1/2" bore) into the bushings. On the opposite side of the arm press in the same bushings but use a FT3400-101 sleeve (9/16" bore). This side will be the front of the arm. SEE DIAGRAM ON NEXT PAGE.



14. Take the lower link arms (FT3400-109BK) and install a grease fitting in each barrel end. Lubricating all parts thoroughly with the supplied silicon lube, slide two FT1001 bushings into the barrel. Press a FTS97150-6-101 sleeve into the bushings. This side will be the rear of the arm. On the opposite side of the arm press in 2 FT1007 bushings and a FT77 sleeve (5/8" bore). This side will be the front of the arm. SEE DIAGRAM BELOW.



15. Remove the original rubber bumpstops from the frame and install the supplied urethane parts. SEE PHOTO BELOW.

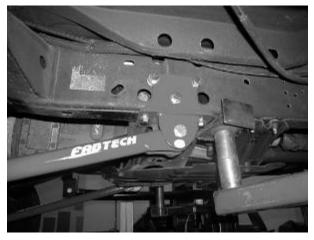


16. Slide one of the upper link arms into the new upper link arm mount on the front axle with the barrel gussets facing down and into the original upper mount on the frame with the barrel gussets facing up. Use the supplied ½" x 4 ½" bolt on the front axle end of the link arm and the ½" x 4" bolt on the frame side, with flat washers and nylock nuts. Hand tighten both bolts. Repeat this with the opposite link arm. SEE PHOTO BELOW.



17. Slide one of the lower link arms into the original lower mount, make sure to use the correct driver and passenger side, on the front axle, reusing the original cam bolt. The barrel gussets should be facing down on both ends of the link arms. Slide the other end of the link arm into the new rear frame mount using the supplied 14MM bolts, nut, and washers. SEE PHOTOS BELOW.





18. Take one of the new coil springs (not supplied with this kit) and locate the top of the coil spring (smaller diameter end). Place the original coil spring insulator on top of the coil spring and place the coil spring onto the front axle. Align the coil spring in the upper and lower pockets and raise the jacks supporting the front axle. Raise the axle just enough to compress the coil spring 1/4". DO NOT LIFT THE TRUCK OFF OF THE SUPPORT STANDS. SEE PHOTO BELOW.



19. Connect the track bar to the new drop bracket. Torque the original castle nut to 45 ft/lbs followed by the proper amount to line up a cotter pin hole. DO NOT LOOSEN THE NUT TO LINE UP THE COTTER PIN HOLE. Install one of the new supplied cotter pins. SEE PHOTO BELOW



20. Connect the drag link to the new drop pitman arm. Torque the original castle nut to 45 ft/lbs. followed by the proper amount to line up a cotter pin hole. DO NOT LOOSEN THE NUT TO LINE UP THE COTTER PIN HOLE. Install one of the new supplied cotter pins. SEE PHOTO BELOW.



21. Starting on the driver's side of the truck, attach the sway bar drop bracket (FT3400-112D) to the frame in the original sway bar mounting holes using the original bolts. Repeat this on the opposite side using the passenger's side bracket (FT3400-112P). Do not tighten the bolts. Mount the sway bar to the drop brackets in the same direction it was removed, use the supplied 7/16" bolts, washers and nuts. Attach the sway bar end links to the front axle using the factory hardware. Once the sway bar is centered, tighten all of the hardware. SEE PHOTO BELOW.

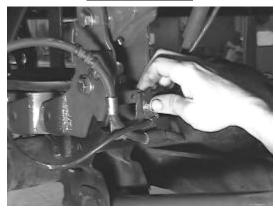
## **1500 MODELS**



### **2500 MODELS**

- Reinstall sway bar in factory location using factory hardware.
- 23. Attach the brake line tab onto the ¼" hole in the new upper link arm mount using the supplied ¼" hardware. Repeat this on the opposite side of the truck and torque all ¼" hardware to 5 ft/lbs. SEE PHOTO BELOW.

#### ALL MODELS



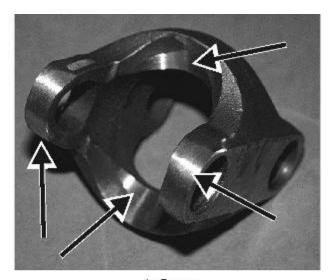
24. Modify the lower H yoke on the drive shaft as shown on the last page of these instructions. After complete reassembly of the front drive shaft, reinstall it using the original hardware and torque all fasteners to factory specs.

25. Reinstall the front tires and torque the lugs to factory specifications. The factory torque specifications can be found in your owners manual. Set the truck back onto the ground. WHILE TURNING THE STEERING WHEEL FULLY IN EACH DIRECTION, MAKE SURE

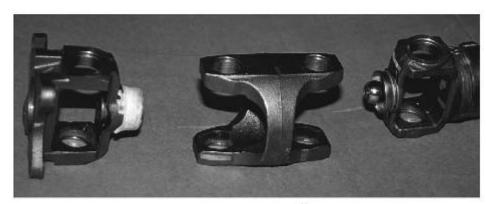
THERE IS AMPLE CLEARANCE BETWEEN THE WHEELS, TIRES, LINK ARMS, BRAKE LINES AND ABS WIRES. Drive the truck for 50 miles and have it aligned to factory specifications. Re-adjust headlights



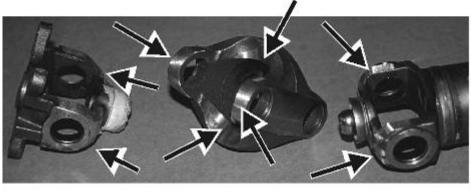
**Before** 



After
Both side of the H Yoke Must be clearenced.

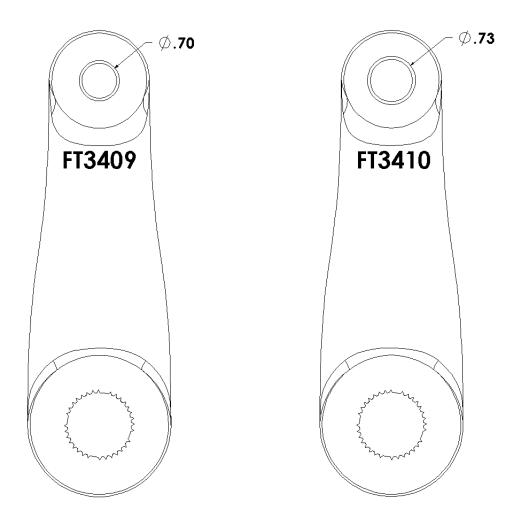


**Before** 



After

Remove material as shown in areas marked with arrows.



 $\underline{FT3410}$  IS SUPPLIED WITH THIS KIT;  $\underline{FT3409}$  IS THE OPTIONAL PITMAN ARM FOUND ON RARE MODELS. PLEASE CONTACT FABTECHS' TECHNICAL DEPARTMENT IF YOU HAVE QUESTIONS.

## **Product Warranty and Warnings-**

Fabtech provides a Limited Lifetime Warranty to the original retail purchaser who owns the vehicle, on which the product was originally installed, for defects in workmanship and materials.

The Limited Lifetime Warranty excludes the following Fabtech items; bushings, bump stops, ball joints, tie rod ends, limiting straps, cross shafts, heim joints. These parts are subject to wear and are not considered defective when worn. They are warranted for 60 days from the date of purchase for defects in workmanship.

Take apart shocks are considered a serviceable shock with a one year warranty on leakage only. Service seal kits are available separately for future maintenance. All other shocks are covered under our Limited Lifetime Warranty.

Fabtech does not warrant any product for finish, alterations, modifications and/or installation contrary to Fabtech's instructions. Alterations to the finish of the parts including but not limited to painting, powdercoating, plating and/or welding will void all warranties. Some finish damage may occur to parts during shipping which is considered normal and is not covered under warranty.

Fabtech products are not designed nor intended to be installed on vehicles used in race applications or for racing purposes or for similar activities. (A "RACE" is defined as any contest between two or more vehicles, or any contest of one or more vehicle against the clock, whether or not such contest is for a prize). This warranty does not include coverage for police or taxi vehicles, race vehicles, or vehicles used for government or commercial purposes. Also excluded from this warranty are sales outside of the United States of America.

Installation of most suspension products will raise the center of gravity of the vehicle and will cause the vehicle to handle differently than stock. It may increase the vehicle's susceptibility to a rollover, on road and off road, at all speeds. Extreme care should be taken to operate the vehicle safely at all times to prevent rollover or loss of control resulting in serious injury or death. Fabtech front end Desert Guards may impair the deployment or operation of vehicles equipped with supplemental restraining systems/air bag systems and should not be installed if the vehicle is equipped as so.

Fabtech makes every effort to ensure suspension product compatibility with all vehicles listed in the catalog, but due to unknown auto manufacturers production changes and/or inconstancies by the auto manufacturer, Fabtech cannot be responsible for 100% compatibility, including the fitment of tire and wheel sizes listed. The Tire and Wheel sizes listed in Fabtech's catalog are only a guideline for street driving with noted fender trimming. Fabtech is not responsible for damages to the vehicle's body or tires.

Fabtech's obligation under this warranty is limited to the repair or replacement, at Fabtech option, of the defective product only. All costs of removal, installation or re-installation, freight charges, incidental or consequential damages are expressly excluded from this warranty. Fabtech is not responsible for damages and/or warranty of other vehicle parts related or non related to the installed Fabtech product. This warranty is expressly in lieu of all other warranties expressed or implied. This warranty shall not apply to any product that has been subject to accident, negligence, alteration, abuse or misuse as determined by Fabtech.

Fabtech suspension components must be installed as a complete system including shocks as shown in our current catalog. All warranties will become void if Fabtech parts are combined and/or substituted with other aftermarket suspension products. Combination and/or substitution of other aftermarket suspension parts may cause premature wear and/or product failure resulting in an accident causing injury or death. Fabtech does not warrant products not manufactured by Fabtech.

Installation of Fabtech product may void the vehicles factory warranty; it is the consumer's responsibility to check with their local vehicle's dealer for warranty disposition before the installation of the product.

It is the responsibility of the distributor and/or the retailer to review all warranties and warnings of Fabtech products with the consumer prior to purchase.

Fabtech reserves the right to supercede, discontinue, change the design, finish, part number and, or application of parts when deemed necessary without written notice. Fabtech is not responsible for misprints or typographical errors within the catalog or price sheet.

Instruction Sheet Part #- FT3420i

7/7/14 AK