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**1000 BEACON STREET ~ BREA, CA 92821  
714-990-8850 FAX 714-990-8854  
1998-99 FORD RANGER TWO WHEEL DRIVE  
PART # FTS98100-6 UPPER CONTROL ARM KIT**

**PARTS LIST:**

- 1 EA. UPPER CONTROL ARM (UCA) PASSENGER FT98100-6P**
- 1 EA. UPPER CONTROL ARM (UCA) DRIVER FT98100-6D**
- 8 EA. UCA BUSHINGS FT1003**
- 4 EA. UCA SLEEVES FT7100-6-100**
- 4 EA. PACKAGE OF GREASE FITTINGS FT84**
- 1 EA. PKG OF SILICON LUBE FTLUBE**
- 2 EA. BALL JOINT SNAP RINGS N5000-200STPP**
- 1 EA. UPPER BUMPSTOP PLATE DRIVER FT98100-6BD**
- 1 EA. UPPER BUMPSTOP PLATE PASSENGER FT98100-6BP**
- 2 EA. UPPER BUMPSTOPS FTS88**
- 6 EA. 3/8" X 1" BOLTS**
- 8 EA. 3/8" NYLOCK NUTS**
- 14 EA. 3/8" SAE WASHERS**
- 2 EA. 1/4" X 1/2" BOLTS GRADE 8**
- 2 EA. 1/4" LOCK WASHERS**
- 2 EA. 2 3/4" BAR PINS FTSBP5**
- 4 EA. COTTER PINS**

**TOOL LIST: (NOT INCLUDED)**

- FLOOR JACK AND JACK STANDS**
- ASSORTED METRIC AND S.A.E SOCKETS, & ALLEN WRENCHES**
- CLAMPS**
- DRILL WITH 3/8" BIT**

**THIS KIT MUST BE INSTALLED WITH FTS98100-2 OR FTS98100-3 COIL SPRINGS AND FTS9119 FRONT SHOCKS, NOT SUPPLIED WITH THIS KIT.**

**TRUCKS THAT DO NOT HAVE ADJUSTABLE ALIGNMENT CAMS ON THE UPPER CONTROL ARM PIVOT BOLTS MUST USE A FTS290 ALIGNMENT CAM KIT FOR PROPER ALIGNMENT.**

**LARGER TIRES CANNOT BE INSTALLED ON OEM WHEELS. TO INSTALL LARGER TIRES YOU MUST USE AFTERMARKET WHEELS WITH A MAXIMUM 4" BACKSPACING.**

**READ ALL INSTRUCTIONS THOROUGHLY FROM START TO FINISH BEFORE BEGINNING INSTALLATION! IF THESE INSTRUCTIONS ARE NOT PROPERLY FOLLOWED, SEVERE FRAME, SUSPENSION AND TIRE DAMAGE MAY RESULT TO THE VEHICLE. WARNING: FABTECH RECOMMENDS THAT YOU EXERCISE EXTREME CAUTION WHEN WORKING WITH COIL SPRINGS TO AVOID ANY POSSIBILITY OF INJURY.**

### **INSTRUCTIONS:**

1. Jack up the front end of the truck and support the frame rails with jack stands. **NEVER WORK UNDER AN UNSUPPORTED VEHICLE!** Remove the front tires.
2. Starting on the passenger side of the truck, support the lower control arm (LCA) with a jack. Remove the front shock and sway bar end link. Remove the front brake caliper and tie it up out of the way. **DO NOT LET THE CALIPER HANG BY THE BRAKE LINE!** Remove the nut securing the tie rod onto the spindle knuckle and separate the tie rod from the spindle. Remove the cotter pin and nut securing the lower ball joint to the spindle and separate the ball joint from the spindle. Set the spindle aside. Lower the jack supporting the lower control arm to release the coil spring. **USE EXTREME CAUTION, THE COIL SPRING IS UNDER HIGH LOAD.** Remove the coil spring, keeping the upper coil spring insulator, it will be reused later.
3. Remove the clinch bolt securing the upper ball joint to the top of the spindle. Separate the ball joint from the spindle. Remove the two nuts on the UCA alignment cams, attaching the UCA to the frame. Remove the two alignment bolts and set the stock UCA aside. Using a ball joint press remove the upper ball joint from the UCA, **DO NOT DAMAGE THE UPPER BALL JOINT, IT WILL BE REINSTALLED.**
4. Take the UCA marked passenger and install the supplied grease fittings onto the UCA bushing ends. Using the supplied lube, lubricating all parts, press two bushing into each UCA end, followed by one sleeve (four bushings and two sleeves per UCA) as shown in figure 1. On the ball joint cup of the new UCA you will see a 1/4" bolt threaded into the side of it. Unthread the bolt until there is an 1/8" of thread exposed on the inside of the upper ball joint cup. Take the original upper ball joint and place it in the ball joint cup of the new passenger side UCA, lining up one of the notches in the top of the ball joint with the exposed threads of the 1/4" bolt, as shown in figure 2. Keeping the ball joint aligned with the 1/4" bolt, use the ball joint press and press the ball joint into the UCA until fully seated. Unthread the 1/4" bolt until it is flush with the inside of the ball joint cup. Using snap ring pliers, install one of the supplied snap rings into the groove on the inside of the ball joint cup. Make sure the snap ring is fully seated into the groove. Tighten the 1/4" bolt in the side of the upper ball joint cup to 8 ft/lbs..
5. On the outer section of frame rail, below the front upper control arm mount, locate the two 1/4" slotted holes. Take the upper bumpstop mount marked passenger side and hold it against the outside of the frame. The top of the upper bumpstop mount, with the single hole, will wrap around the top of the frame. Center the two 3/8" holes in the upper bumpstop mount with the two 1/4" slotted holes in the frame and clamp the upper bumpstop mount in place. Make sure the top plate on the upper bumpstop mount is resting flush on the frame rail. Using a 3/8" drill bit, drill out the 1/4" slotted holes. Using

the supplied 3/8" bolts, washers and lock nuts, attach the upper bumpstop mount to the frame. Insert the bolts through the mount with a flat washer under the head of the bolt and place a washer and lock nut on the inside of the frame rail. Torque to 30 ft/lbs. The inside of the frame can be accessed through the coil spring opening. Remove the clamp securing the upper bumpstop mount to the frame. Using a 3/8" drill bit, drill the hole located in the top of the upper bumpstop mount. Install a supplied 3/8" bolt, washer and lock nut. Torque to 30 ft/lbs. Install one of the supplied low profile bumpstops into the upper bumpstop mount using a 3/8" flat washer and lock nut, do not overtighten the nut.

6. Slide the UCA into the mounts on the frame. Insert the alignment cam bolts through the mounts and the UCA bushings the same direction they were removed. **IF THE TRUCK DOES NOT HAVE ADJUSTABLE ALIGNMENT CAMS, YOU MUST INSTALL A FTS290 ALIGNMENT CAM KIT TO PERFORM ANY FORM OF ALIGNMENT AFTER THE INSTALLATION OF THIS KIT.** Center the alignment cams and torque to 60 ft/lbs.
7. Take one of the new coil springs and locate the top side, the logo and part number will be at the top of the coil spring. Secure the factory upper coil insulator onto the top of the coil spring using electric tape. Slide the top of the coil spring into the frame pocket and push the bottom of the coil spring onto the lower control arm, making sure the coil spring is timed properly with the pockets in the lower control arm. Support the lower control arm with a floor jack. Using prybars, pop the bottom of the coil spring into position and raise the jack to support the lower control arm, **DO NOT LIFT THE TRUCK OFF OF THE JACK STANDS.** Set the spindle back onto the lower ball joint and hand torque the castle nut. Attach the upper ball joint to the spindle and reinstall the clinch nut to secure the upper ball joint into the spindle. Torque the lower ball joint castle nut to 70 ft/lbs. and install a new cotter pin. Torque the clinch bolt to 30 ft/lbs. Reinstall the tie rod onto the spindle and torque the castle nut to 60 ft/lbs, install a new cotter pin. Reinstall the brake caliper onto the spindle. Install a new FTS9119 front shock, using the supplied lower bar pin, onto the truck.
8. Repeat steps 2-7 on the opposite side of the truck.
9. Reinstall the sway bar using the factory end links and the front wheels. Torque the lugs to factory specifications. Lower the truck onto the ground. **WHILE TURNING THE STEERING FULLY IN EACH DIRECTION, BE SURE THAT THERE IS NO INTERFERENCE BETWEEN ANY OF THE NEWLY INSTALLED PARTS.** Set the toe-in to approximate factory specs. We recommend driving the truck for approximately fifty miles and then have the truck aligned to factory specs.

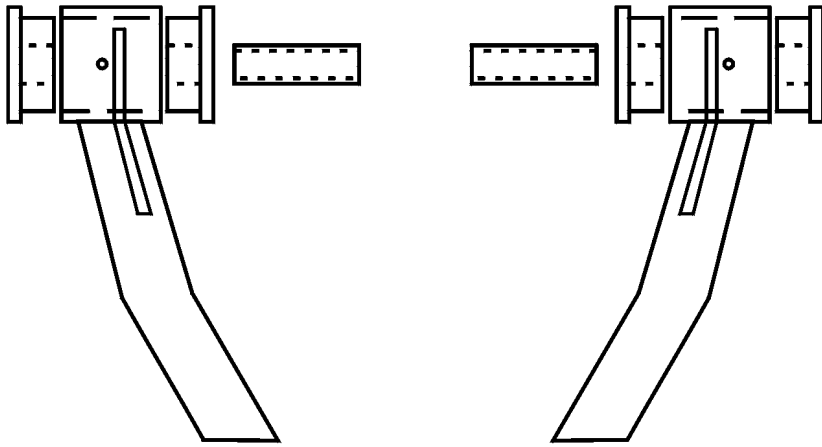


Figure 1

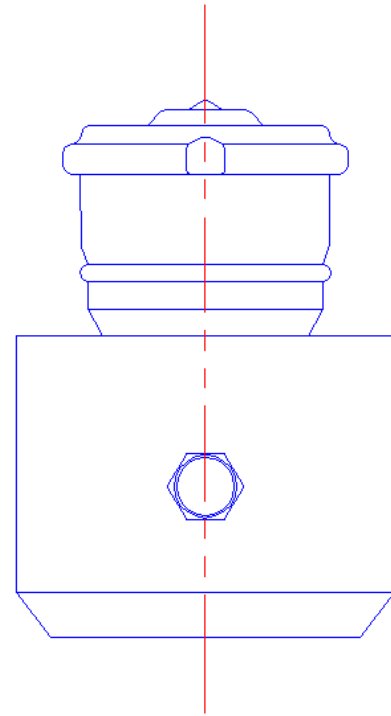


Figure 2

**RETORQUE ALL NUTS, BOLTS AND LUGS AFTER 50 MILES AND PERIODICALLY THEREAFTER.**

For technical assistance call: 714-990-8850

Fabtech Motorsports Suspension Products

Fabtech Motorsports warrants to the original retail purchaser who owns the vehicle on which the product was originally installed. Fabtech Motorsports does not warrant the product for finish, alterations, modifications and/or installation contrary to Fabtech Motorsports' instructions. Fabtech Motorsports suspension 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. Fabtech suspension products that increase the vehicle's ride height may greatly increase the risk of vehicle roll over. Vehicles should be operated in a safe manner at all times as not to cause a roll over or an accident resulting in injury or death. Fabtech Motorsports' obligation under this warranty is limited to the repair or replacement, at Fabtech Motorsports option of the defective product. Any and all costs of removal, installation or re-installation, freight charges, incidental or consequential damages are expressly excluded from this warranty. 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. Fabtech Motorsports does not warrant products not manufactured by Fabtech Motorsports. Please see Fabtech's Jobber Price Sheet for additional conditions and warnings.