



## **INSTALLATION INSTRUCTIONS**



### **2010-14 FORD F150 SVT RAPTOR 4WD 0-4" UNIBALL UPPER CONTROL ARMS**

**FTS22163**

**Fabtech Motorsports** | 4331 Eucalyptus Ave. Chino, CA 91710

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**- PARTS LIST -**

	<b>FTS22163</b>	<b>UNIBALL UCA KIT</b>
1	FT30519BK	UCA (DRIVER)
1	FT30520BK	UCA (PASSENGER)
1	FT30524	HARDWARE SUBASSEMBLY

	<b>FT30524</b>	<b>HARDWARE SUBASSEMBLY</b>
1	FT30538	HARDWARE KIT
4	FT90125	MISALIGNMENT
4	FT95196	FK ALLOY TEFLN ROD END
8	FT600	RAPTOR ARM SPACER
2	FT94505	UNIBALL ADAPTER PIN
2	FT22163I	INSTRUCTIONS

	<b>FT30538 - HARDWARE KIT</b>
4	9/16-18 X 4 HEX BOLT G8
6	9/16" -18 C LOCK NUT
6	9/16 SAE WASHER G5 ZINC
2	3/4-16 C-LOCK NUT ZINC
4	JAM NUT 3/4-16
1	THREAD LOCKING COMPOUND 1 MIL
4	ZIP TIE 8" BLACK 40 LBS

**- TOOL LIST -**

**Required Tools (Not Included)**

- Basic Hand Tools
- Floor Jack
- Jack Stands
- Assorted Metric and S.A.E sockets, and Allen wrenches
- Torque Wrench

**- PRE-INSTALLATION NOTES -**

*For technical assistance call: 909-597-7800 or e-mail: [info@fabtechmotorsports.com](mailto:info@fabtechmotorsports.com)*

***Read this before you begin installation-***

- Check all parts to the parts list above before beginning installation. If any parts are missing contact Fabtech at 909-597-7800 and a replacement part will be sent to you immediately.
- Read all instructions thoroughly from start to finish before beginning the installation. If these instructions are not properly followed severe frame, driveline and / or suspension damage may occur.
- Check your local city and state laws prior to the installation of this system for legality. Do not install if not legal in your area.
- Prior to the installation of this suspension system perform a front end alignment and record. Do not install this system if the vehicle alignment is not within factory specifications. Check for frame and suspension damage prior to installation.
- The installation of this suspension system should be performed by two professional mechanics.
- Use the provided thread locking compound on all hardware.
- Vehicles that receive oversized tires should check ball joints, uniballs, tie rods ends, pitman arm and idler arm every 2500-5000 miles for wear and replace as needed.

**WARNING** - Installation of this system will alter the center of gravity of the vehicle and may increase roll over as compared to stock.

## - INSTRUCTIONS -

1. Disconnect the negative terminal on the battery. 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 drivers side remove the upper ball joint nut. Disconnect the upper ball joint from the knuckle by striking the knuckle with a large hammer next to the upper ball joint on the knuckle to dislodge the ball joints. Use care not to hit the ball joints when removing. **SEE FIGURE 1**



FIGURE 1 - STEP 2

3. Remove the upper control arm. **SEE FIGURE 2**

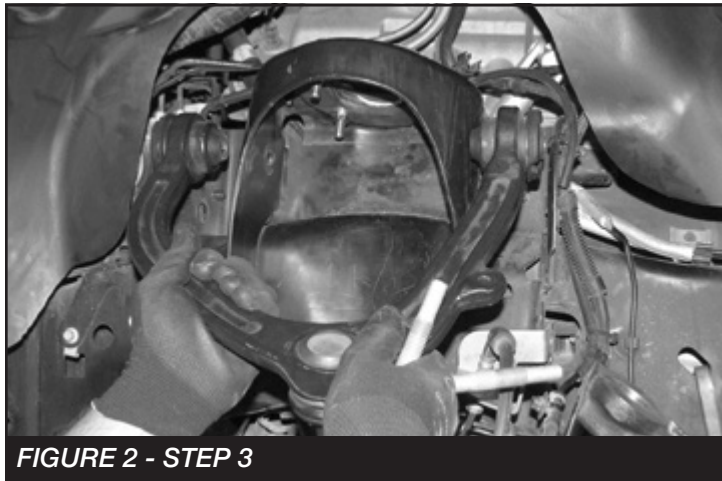


FIGURE 2 - STEP 3

4. Locate the Fabtech driver's side control arm FT30519BK, two FTS50 3/4"-16 Jam nuts and two FTS98003 3/4" Rod ends.

5. Install all these components in the control arm bungs using the diagram below. The starting point for the adjustment on the rod end should be a 1/2" from the jam nut. **SEE FIGURE 3**

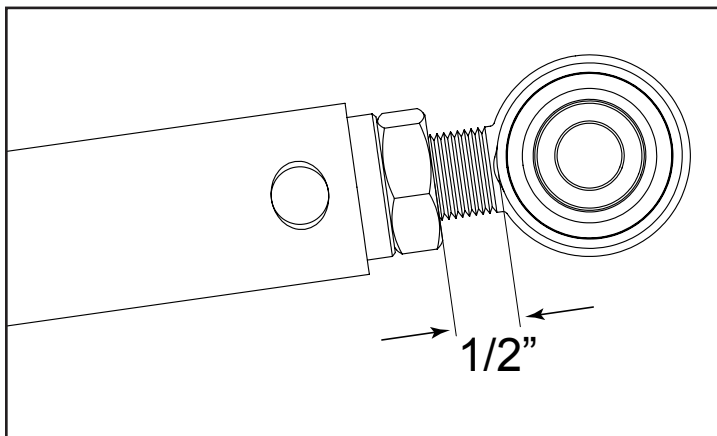


FIGURE 3 - STEP 5

6. Locate the four FT600 arm spacers and install into the Rod ends. Install into the factory pockets with two 9/16 - 18x4 1/2" bolts nuts and washers. Torque to a 127 ft-lbs. **SEE FIGURE 4-6**

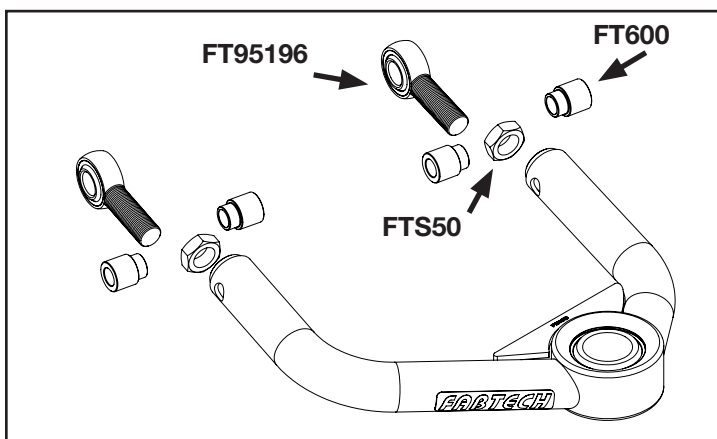


FIGURE 4 - STEP 5

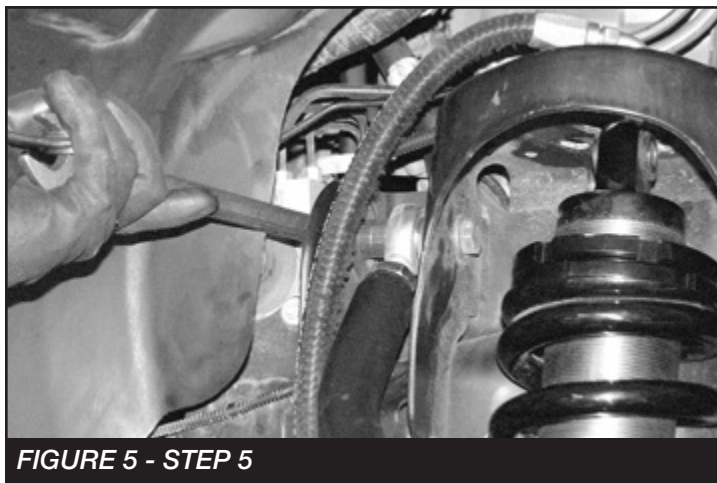
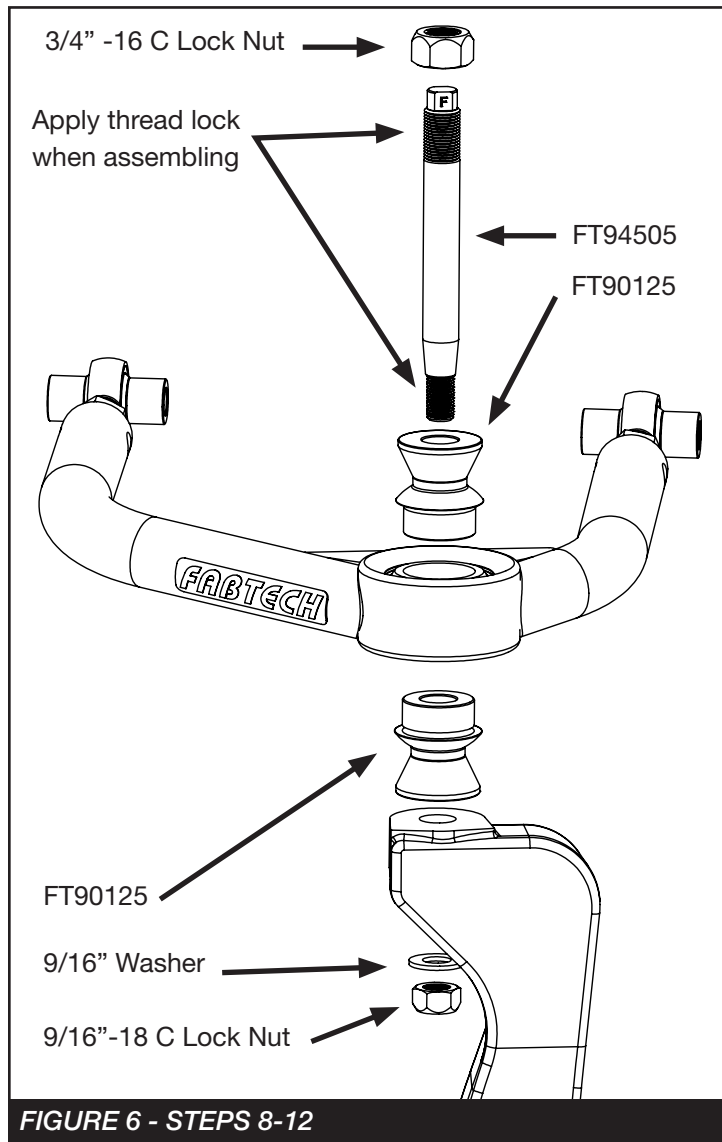


FIGURE 5 - STEP 5

7. Locate FT94505 Uniball adapter pin, and two FT90125 uniball misalignment spacers.

**SEE FIGURE 6 FOR STEPS 8-12**

8. Insert the uniball pin into the factory knuckle upper ball joint taper. Install the 9/16"-18 lock nut with thread lock compound and flat washer onto the bottom side of the pin. This will lock the pin into the knuckle. Torque to 150 ft-lbs.
9. Install one FT90125 uniball misalignment spacer on to the pin.
10. Swing the control arm down, slide the pin into the uniball on the control arm seating the lower FT90125 spacer in the control arm.
11. Install the upper FT90125 uniball misalignment spacer onto the pin.
12. Install the 3/4" -16 lock nut on the top side of the pin with thread lock compound and torque to 150 ft-lbs.



13. Repeat 2-12 on the passenger side of the vehicle.
14. Install tires and wheels and torque lug nuts to wheel manufacturer's specifications. Turn front tires left to right and check for appropriate tire clearance. **Note - Some oversized tires may require trimming of the front bumper & valance.**
15. Check front end alignment and set to factory specifications. Readjust headlights.
16. Recheck all bolts for proper torque.
17. Recheck brake hoses, ABS wires and suspension parts for proper tire clearance while turning tires fully left to right.
18. Install Driver Warning Decal. Complete product registration card and mail to Fabtech in order to receive future safety and technical bulletins on this suspension.

**Vehicles that will receive oversized tires should check ball joints, uniballs and all steering components every 2500-5000 miles for wear and replace as required.**

**RE-TORQUE ALL NUTS, BOLTS AND LUGS AFTER 50 MILES AND PERIODICALLY THEREAFTER.**

For technical assistance call: 909-597-7800

## - 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 and driveshafts. 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.

Dirt Logic and Performance Coilover 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, powder coating, 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 on the website, but due to unknown auto manufacturer's production changes and/or inconsistencies 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 website 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 is not responsible for premature wear of factory components due to the installation of oversized tires and wheels.

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 on our website. 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.

Depending on the condition of the factory suspension components retained after the installation of a Fabtech suspension not all vehicles may have the same ride stance front to rear as described in the website. The blue color of suspension components shown in all Fabtech photographs are for display purposes only. Majority of all Fabtech components will be black specifically where noted with part numbers ending in BK.

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. Some state laws may prohibit modification of suspension to a vehicle in whole or in part. It is the responsibility of the installer and consumer to consult local laws prior to the installation of any Fabtech suspension product to comply with such written laws.

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 super cede, 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 website or price sheet. For the most recent Product Warranty and Warnings visit our website [www.fabtechmotorsports.com](http://www.fabtechmotorsports.com)