

# 72012



## 8" 2009-2013 FORD F150 4WD

### 75011-4 COMPONENT BOX 1

- 1) FRONT X MEMBER
- 1) REAR X MEMBER
- 1) LEFT COMPRESSION STRUT
- 1) RIGHT COMPRESSION STRUT
- 2) 2 SWAY BAR DROP BRACKET
- 2) TIE RODS # T538
- 2) U BRACKETS
- 1) REAR DRIVER DIFF DROP
- 1) REAR CENTER DIFF DROP
- 2) FRONT DIFF DROPS

### HARDWARE BAG 1

- 2) 18MM X 150MM BOLTS
- 2) 18MM X 160MM BOLTS
- 4) 18MM NYLOCK NUTS
- 8) 18MM WASHERS
- 8) 7/16 X 1 1/4" BOLTS
- 14) 7/16 NYLOCK NUTS
- 22) 7/16 WASHERS
- 2) 9/16 X 4" BOLTS
- 2) 9/16 NYLOCK NUTS
- 4) 9/16 WASHERS

### HARDWARE BAG 2

- 1) 7/16 X 2 1/4" BOLTS
- 1) 7/16 NYLOCK NUTS
- 2) 7/16 WASHERS
- 2) 1/2 X 1 1/2 BOLTS
- 2) 1/2 X 4" BOLTS
- 4) 1/2 NYLOCK NUTS
- 8) 1/2" WASHERS
- 4) BUSHINGS
- 2) .510 X .625 X 2.70 SLEEVES

### HARDWARE BAG 3

- 3) 5/16 X 3/4 BOLTS
- 3) 5/16 NYLOCKS
- 6) 5/16 WASHERS
- 1) LEFT FRONT BRAKE LINE BRACKET
- 1) RIGHT FRONT BRAKE LINE BRACKET
- 1) REAR BRAKE LINE BRACKET

### 75001-2 LEFT KNUCKLE/ RIGHT KNUCKLE

- 1) LEFT SPINDLE
- 1) RIGHT SPINDLE

### 71001-3 5" REAR BLOCK KIT

- 2) 5" REAR BLOCKS
- 4) 9/16-18 X 3.25 SQ X 15" U B OLTS
- 8) 9/16-18 NYLOCK NUTS
- 8) 9/16 WASHERS
- 1) E BRAKE BRACKET
- 1) 7/16 X 1 1/4" BOLTS
- 1) 7/16 NYLOCK NUTS
- 2) 7/16 WASHERS

### 75001-7 Coilovers

- 2) 2.5 Emulsion Coilovers
- 2) Upper Coilover Brackets

### 28420 Upper Control Arms

- 1) Left Upper A Arm
- 1) Right Upper A Arm

### FRONT SUSPENSION INSTRUCTIONS:

1. Disconnect the negative terminal on the battery. With the vehicle on level ground, set the emergency brake and block the rear tires. Jack up the front end of the truck and support the frame rails with jack stands Remove the front tires.

**NEVER WORK UNDER AN UNSUPPORTED VEHICLE!**

2. Remove and discard the factory splash guard under the differential.

3. Locate the sway bar end links and disconnect from the factory lower control arms, save the hardware. Locate the sway bar frame mounts and disconnect them from the frame, remove the sway bar from the truck. Save the hardware and sway bar.

4. Working from the driver side of the vehicle, disconnect the tie rod ends from the steering knuckle by striking the knuckle to dislodge the tie rod end.

5. Remove factory Tie Rod end and discard.

6. Remove the brake caliper and place it next to the frame. Do not overstretch the brake hose when doing so. Retain the hardware for reinstallation. Remove the brake rotor and save. Disconnect the vacuum lines attached to the rear of the hub assembly. Allow the vacuum lines to hang freely. Remove the electronic stability control (ESC) sensor from the top of the hub. Cover the sensor to keep it free from dirt and debris.

7. Carefully remove the dust cap covering the hub assembly nut. Remove the C.V. bearing nut and save the nut and dust cap.
8. Remove the upper and lower ball joint nuts. Disconnect the upper and lower ball joints from the steering knuckle by striking the knuckle with a large hammer next to each ball joint on the knuckle to dislodge the ball joints. Use care not to hit the ball joints when removing. Retain hardware and remove the knuckle with the dust shield and the hub. Use extra care not to over extend the C.V. axle shaft when removing the knuckle.
9. Remove the four large bolts and three small bolts on the back side of the knuckle. Remove the hub and the actuator from the knuckle. Save hardware for install in the FTS knuckle.
10. Remove the bolts on the front side holding the dust shield. Remove the dust shield and discard the factory knuckle.
11. Remove the lower shock mount bolt and Save the hardware. Remove the three upper nuts and Save the hardware. Remove the shock assembly from the vehicle and mark "Driver" for assembly to install later with upper shock extensions.
12. Remove the lower control arm bolts from the frame pivots and remove the lower control arm from the truck. Save hardware and lower control arm.
13. Repeat steps four through twelve on the passenger side of the truck.
14. Remove the factory rear cross member from the vehicle and discard the cross member and hardware.
15. Remove the front drive shaft bolts where they attach to the front differential. Support the end of the drive shaft before removing the front differential.
16. Remove the driver side rear differential mount hardware and discard. While supporting the differential, remove the two upper differential mount bolts and remove the differential and axles from the vehicle. Save the hardware.
17. Locate rear differential mount closest to the pinion shaft. Mark the mount behind the bushing. Using a die grinder remove the mount and discard.
18. Use a sander and remove all sharp edges and burs after the cut.
19. Locate the driver side rear lower control arm pocket. Mark the frame 1-3/8" from the control arm pivot hole and 90 degrees to the bottom of the pocket where the cross member was mounted. Using a die grinder, cut all the way around the pocket. Discard removed portion of the pocket.
20. Still working on the driver side rear lower control arm pocket, locate the tab on the pocket closest to the front of the vehicle. You will need to sand a radius in the front side of the pocket in order to clear the differential housing.
21. Locate the two upper differential mounts these upper differential mounts will be placed into the factory upper differential mounts using the factory upper differential mount hardware. Leave the hardware loose in preparation for the differential installation.
22. Install the factory front differential and install into the FTS upper differential mounts using two 1/2"-13 x 4" hex cap bolts, washer and lock nuts. Leave all hardware loose in preparation of the installation of the remaining differential mounts.
23. Install the FTS rear cross member in the factory rear lower control arm pockets. With the open portion to the front of the vehicle. Mount the cross member using the factory control arm pivot hardware. Leave all hardware loose.
24. Remove the center differential housing bolts on the back side of the differential.
25. Using the center differential bracket. Install two of the FTS bushings and one sleeve into the barrel on the differential bracket. Mount the differential bracket to the center of the differential and reinstall the factory bolts. Torque the factory hardware to 35 ft-lbs. The barrel and the bushing section of the bracket will install in to the two tabs on the top of the cross member with a 1/2"-13 x 3-1/2" bolt washers and lock nut. Leave loose.
26. Reinstall the front drive shaft with the factory hardware and torque to 35 ft-lbs.
27. Locate the rear diff mount. Install two of the FTS bushings and one sleeve into the barrel on the differential bracket. Install the diff mount into the U BKT on the rear cross member tabs in line with the driver side impact tube. Leave all hardware loose.

29. Rotate the rear diff mount up against the housing. Using the diff mount as a drill guide drill the housing to 7/16". NOTE – DEPENDING ON THE BUILD TIME OF THE VEHICLE THE HOUSING MAY HAVE A MACHINED SURFACE AND A THREADED HOLE ON THE SECTION OF THE HOUSING YOU ARE WORKING WITH. THE REAR DIFF MOUNT WILL WORK WITH EITHER VERSION.

30. Locate the supplied 7/16 - 14 x 2 1/2" and install in to the Rear Diff Mount passing all the way through the diff housing. Torque to the specs.

31. Reinstall the factory vent hose back on to the differential.

32. Install the FTS front cross member into the factory front control arm pockets using the factory hardware. Leave the hardware loose at this time.

33. Install the FTS upper strut spacer to the factory strut using all factory hardware.

34. Using 7/16 x 1 1/4 bolts supplied install the strut assembly back in factory location. Leave all hardware loose.

35. Install the factory lower control arms into the FTS crossmembers using 18mm x 160 bolts supplied.

36. Install the FTS impact tubes using the 7/16 x 1 1/4 bolts supplied

37. Install the FTS driver side spindle and install the factory hub. Torque the four 14mm bolts to 160 ft- lbs.

38. Install the factory 4WD actuator and install into the spindle. Torque the factory 8mm bolts to 17 ft-lbs.

39. Install the spindle onto the upper and lower control arms. Torque the upper ball joint to 85 ft-lbs and the lower ball joint to 110 ft-lbs.

40. Install the dust shield and torque to 14 ft-lbs. Install CV shaft nut and torque to 35 ft-lbs. Install the factory dust cover.

41. Install the ABS wheel speed sensor. Make sure the end of the sensor is clean.

42. Carefully pull some slack from the frame side and reconnect the vacuum line to the hub assembly. Install the frame brake line bracket. Using the factory hardware, mount factory brake line bracket to the side of the knuckle. After installing the factory brake line bracket, check to insure full movement by steering the knuckle back and forth, and make sure none of the ABS lines, brake lines, or vacuum lines are inhibited during full test movement of the knuckle.

43. Reinstall the original brake rotor, followed by the brake caliper. Use a small amount of thread locking compound on the caliper bolts and torque to 145 ft-lbs.

44. Locate the factory tie rod. Trim 3/4" off the end.

45. Install the new FTS tie rod end.

46. Reconnect the tie rod end to the steering knuckle and torque to 60 ft.-lb

47. Install the factory sway bar using the FTS driver and pass brackets

#### REAR SUSPENSION INSTRUCTIONS:

1. Jack up the rear end of the vehicle and support the frame rails with jack stands. Release the parking brake at this time. Supporting the rear differential, remove the rear shocks, U-bolts, blocks and lower axle down. Use care not to over extend the brake hose.

2. Locate the factory brake line mount on the driver side of the frame. Using the Supplied brake line bracket and attach the bracket between the factory frame mount and the factory brake line.

3. Install the rear lift blocks. Using the provided U-bolts, nuts and washers, align the axle, lift blocks, and springs and torque U-bolts to 90 ft-lbs.

4. Install the rear shocks. Install the shocks using the factory hardware and torque upper and lower bolts to 45 ft-lbs.

5. Recheck all bolts for proper torque. Recheck the front and rear brake hoses and ABS lines for proper clearances.

6. 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 bumper and valance.

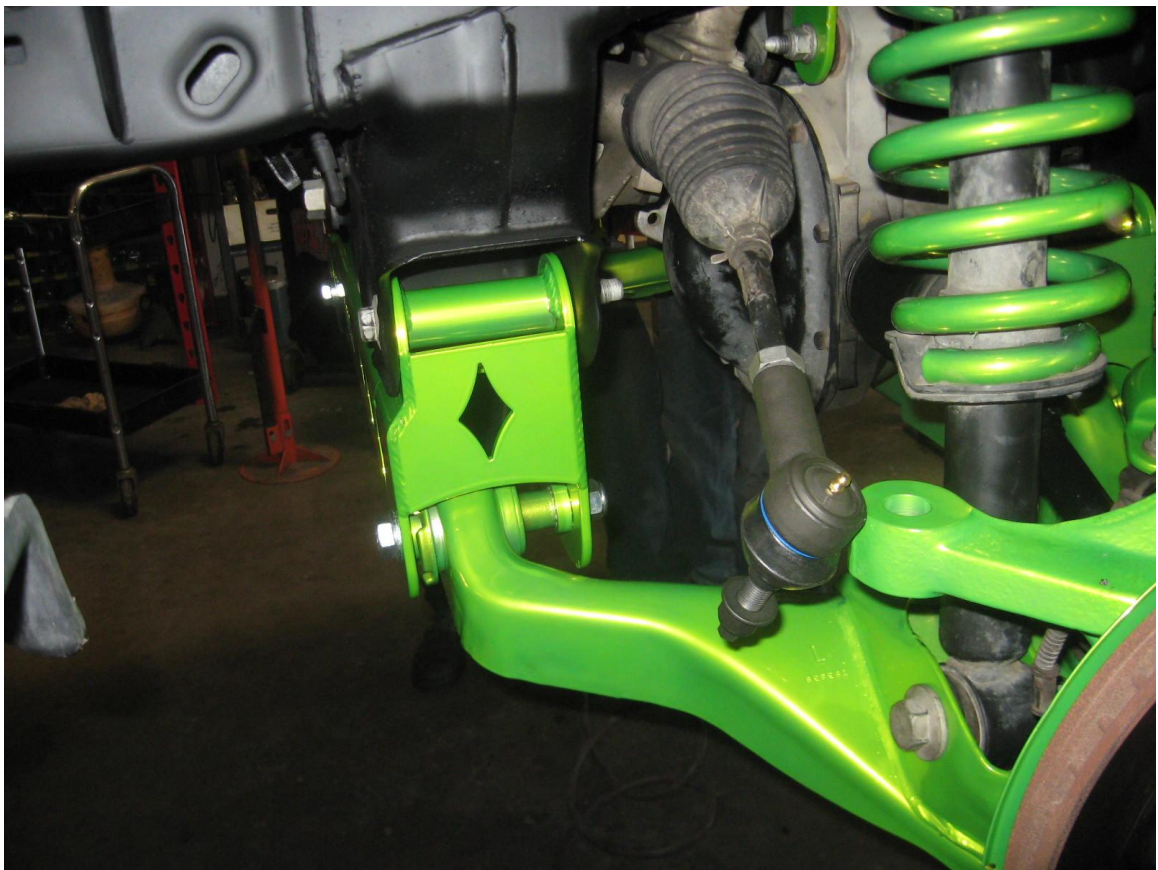
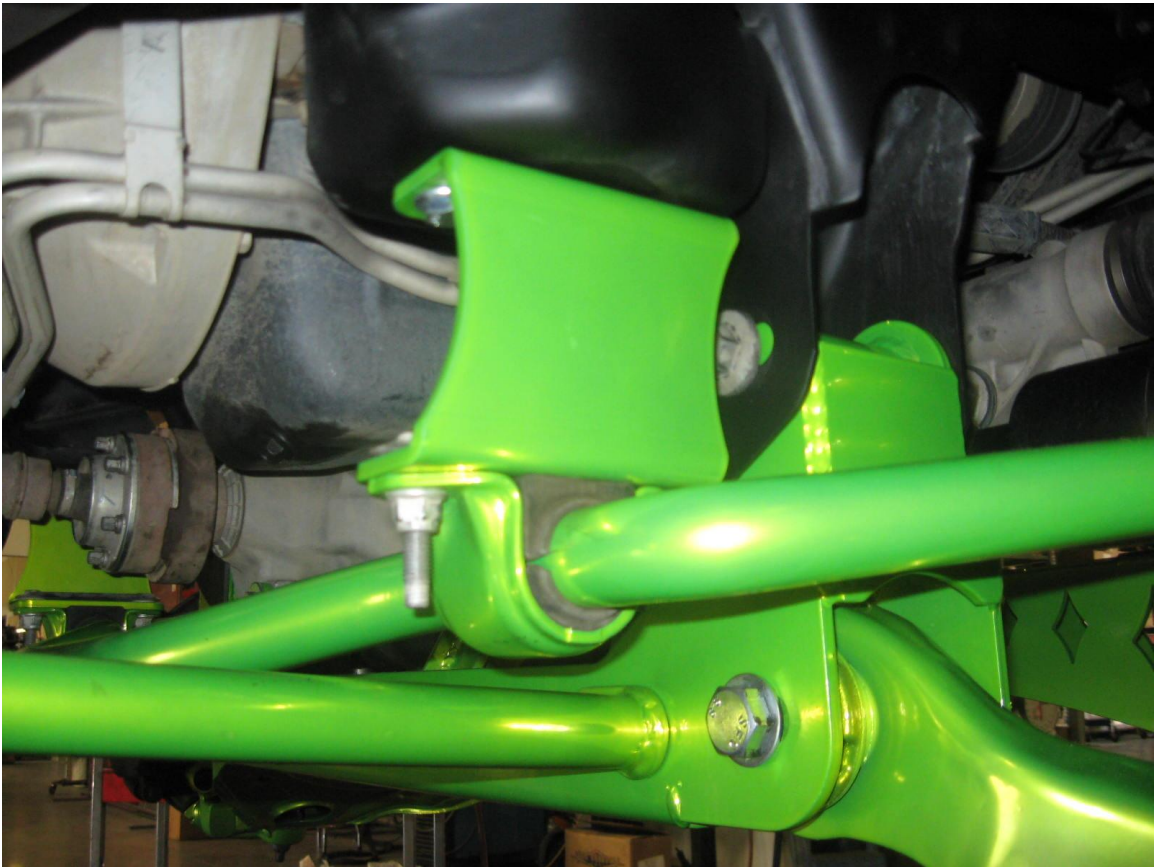
7. Check the front-end alignment and set to the factory specifications. Re-adjust vehicles headlights.

Thank You for choosing Full Throttle Suspension





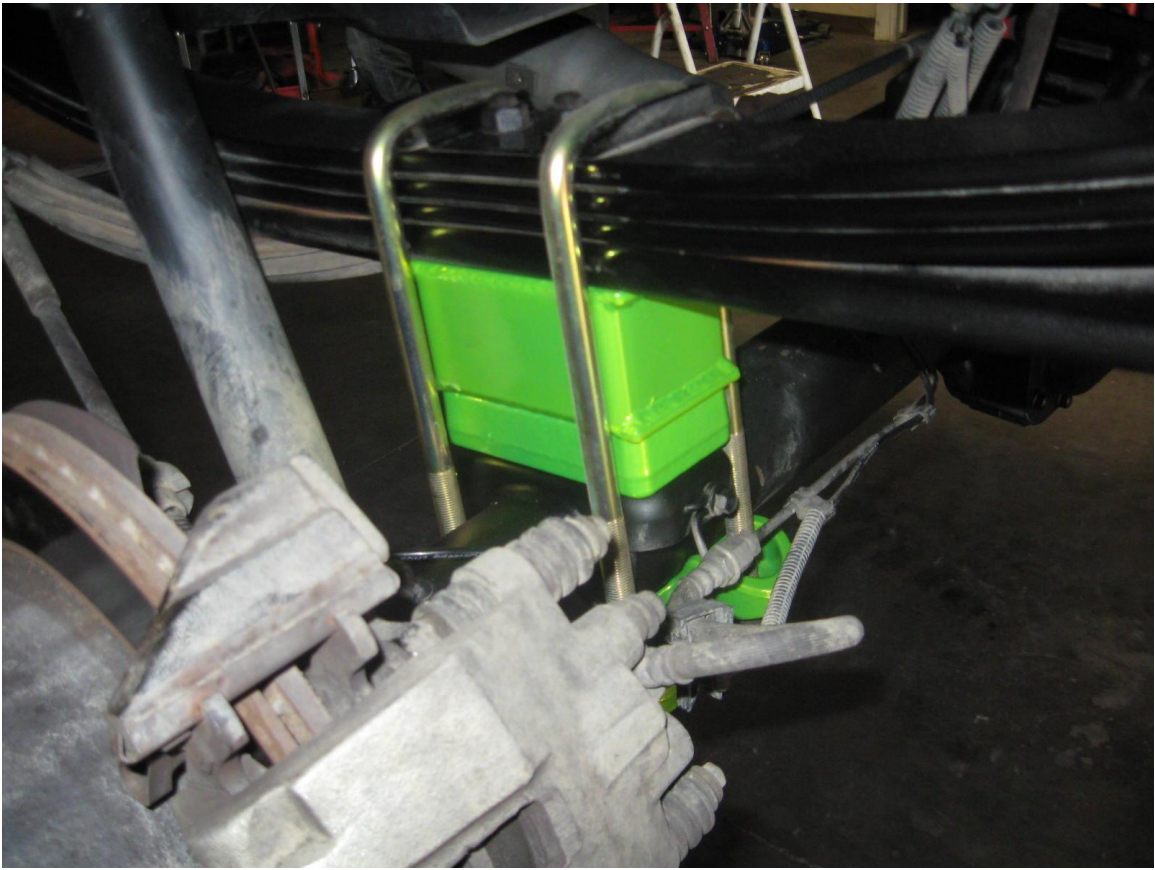






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## **Driver Side Upper Control Arm Installed**

### **Product Warranty and Warnings-**

FTS 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 FTS 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. Reservoir 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. FTS does not warrant any product for finish, alterations, modifications and/or installation contrary to FTS 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. FTS 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. FTS makes every effort to ensure suspension product compatibility with all vehicles listed in the catalog, but due to unknown auto manufacturer's production changes and/or inconsistencies by the auto manufacturer, FTS cannot be responsible for 100% compatibility, including the fitment of tire and wheel sizes listed. The Tire and Wheel sizes listed in FTS's catalog are only a guideline for street driving with noted fender trimming. FTS is not responsible for damages to the vehicle's body or tires. FTS's obligation under this warranty is limited to the repair or replacement, at FTS 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. FTS is not responsible for damages and/or warranty of other vehicle parts related or non-related to the installed FTS 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 FTS. FTS suspension components must be installed as a complete system including shocks as shown on our current website. All warranties will become void if FTS 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. FTS does not warrant products not manufactured by FTS. Installation of FTS 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 FTS products with the consumer prior to purchase. FTS reserves the right to supersede, discontinue, change the design, finish, part number and, or application of parts when deemed necessary without written notice. FTS is not responsible for misprints or typographical errors within the catalog or price sheet.

**Thank You for choosing Full Throttle Suspension**

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