



## 03-11 Ford Expedition 2WD/4WD 2.5" lift

**Thank you for choosing Rough Country for all your suspension needs.**

Rough Country recommends a certified technician install this system. In addition to these instructions, professional knowledge of disassemble/reassembly procedures as well as post installation checks must be known. Attempts to install this system without this knowledge and expertise may jeopardize the integrity and/or operating safety of the vehicle.

Please read instructions before beginning installation. Check the kit hardware against the parts list. Be sure you have all needed parts and know where they go. Also please review tools needed list and make sure you have needed tools.

### PRODUCT USE INFORMATION

As a general rule, the taller a vehicle is, the easier it will roll. Seat belts and shoulder harnesses should be worn at all times. Avoid situations where a side rollover may occur.

Generally, braking performance and capability are decreased when larger/heavier tires and wheels are used. Take this into consideration while driving. Do not add, alter, or fabricate any factory or after-market parts to increase vehicle height over the intended height of the Rough Country product purchased. Mixing component brands is not recommended.

Rough Country makes no claims regarding lifting devices and excludes any and all implied claims. We will not be responsible for any product that is altered.

If question exist we will be happy to answer any questions concerning the design, function, and correct use of our products. Please call us at 800-222-7023 with any questions you may have.

This suspension system was developed using a 305/65/17 tire on a 17" factory wheels. The kit is designed to level your Expedition raising the front of approximately 2.5" and the rear 1". If you desire a different configuration please contact your nearest Rough Country distributor.

### NOTICE TO DEALER AND VEHICLE OWNER

Any vehicle equipped with any Rough Country product should have a "Warning to Driver" decal installed on the inside of the windshield or on the vehicle's dash. The decal should act as a constant reminder for whoever is operating the vehicle of its unique handling characteristics.

**INSTALLING DEALER** - it is your responsibility to install the warning decal and forward these installation instructions on to the vehicle owner for review. These instructions should be kept in the vehicle for its service

#### Kit Contents:

2-Front Strut Extensions  
2-1/4" Thick rear Strut Spacers  
4-3/8" Thick rear Coil Spacers

#### 1-Kit Bag

6-3/8x2" Bolts  
6-3/8" Flange Lock Nuts

#### Tools Needed:

15mm Wrench  
15mm Socket  
29mm Socket  
1 1/16" Wrench  
21mm Wrench  
16 mm Wrench  
21 mm Wrench  
3/8" mm Wrench  
Hammer  
9/16" wrench



#### Torque Specs:

| Size  | Grade 5    | Grade 8    |
|-------|------------|------------|
| 3/8"  | 30 ft/lbs  | 35 ft/lbs  |
| 7/16" | 45 ft/lbs  | 60 ft/lbs  |
| 1/2"  | 65 ft/lbs  | 90 ft/lbs  |
| 9/16" | 95 ft/lbs  | 130 ft/lbs |
| 5/8"  | 135 ft/lbs | 175 ft/lbs |
| 3/4"  | 185 ft/lbs | 280 ft/lbs |
|       | Class 8.8  | Class 10.9 |
| 12MM  | 55ft/lbs   | 75ft/lbs   |
| 14MM  | 85ft/lbs   | 120ft/lbs  |
| 16MM  | 130ft/lbs  | 165ft/lbs  |
| 18MM  | 170ft/lbs  | 240ft/lbs  |



### FRONT INSTALLATION INSTRUCTIONS

1. Jack up the front of the vehicle and support the vehicle with jack stands, so that the front wheels are off the ground
2. Remove the front tires/wheels., using a 21mm deep well socket
3. Remove the cotter pin from the upper ball joint nut. Place jack stand under the knuckle for support. Remove nut, using a 21mm wrench. Using a hammer hit the knuckle as shown to allow the ball joint to separate from the upper control arm. **See Photo 1.** Do not allow the knuckle to pull out far enough that it pulls the shaft out of the differential.
4. Using a 21mm wrench remove the nut from the steering linkage. Using a hammer hit on the side of the knuckle as shown, where the steering linkage is connected and remove from knuckle. Push linkage forward to make room for installation. Retain factory hardware. **See Photo 2.**



Photo 1



Photo 2

5. Remove the sway bar nut and bushings using a 15mm wrench to allow the lower control arm to swing down. Retain factory hardware. **See Photo 3.**
6. Using a 15mm wrench, remove the strut nuts on the upper strut tower that holds the assembly in place. **See Photo 4.** One nut can be left on the upper bolts to hold the strut in place.

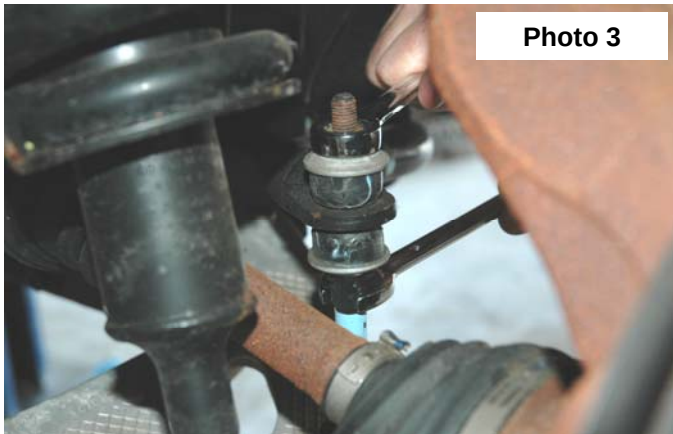


Photo 3

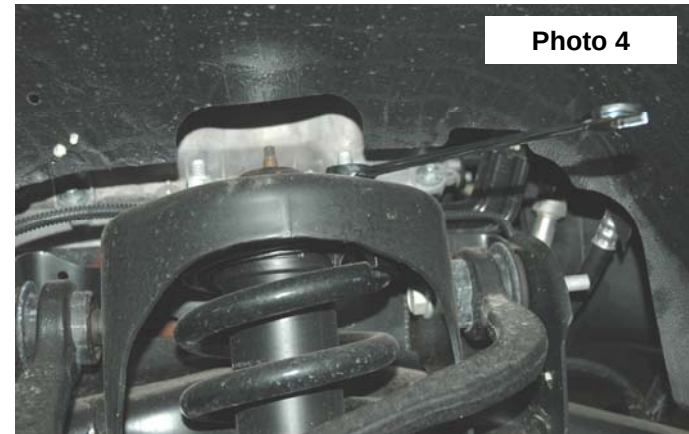


Photo 4

7. Using a 29mm socket, and 1 1/16", wrench, remove the strut bolt from the lower control arm and remove the strut assembly from the vehicle. Retain the factory lower bolt for reassembly. Note the direction of the bolt for reassembly. **See Photo 5.**
8. Locate the supplied 3/8"x2" bolts. Place into spacer as shown in **Photo 6.**



Photo 5



Photo 6

9. Install the new strut spacer on the strut with stock hardware using a 9/16" socket. Torque to 30 ft/lbs. **See Photo 7.**
10. Install the strut assembly into the strut tower and secure with the supplied 3/8" lock-washers & 3/8" nuts using a 9/16" wrench. **See Photo 8.**



11. Install the lower end of the strut in the factory location in the lower control arm with the factory hardware and using a 29mm socket and 1 1/16" wrench.
12. Reinstall the upper ball joint in the knuckle with the factory hardware and using a 21mm wrench. Reinstall the cotter pin in the upper ball joint.
13. Reinstall the tie rod end in the knuckle with the factory hardware and using a 21mm wrench.
14. Reinstall the sway bar link in the factory location on the lower control arm with factory hardware and using a 15mm wrench.
15. Reinstall the tires/wheels and remove the jack stands from the frame rails. Lower the vehicle to the ground.

## REAR INSTALLATION INSTRUCTIONS (04-06 Only)

1. Chock the front wheels and jack up the rear of the vehicle. Place jack stands under the frame rails and lower the vehicle onto the jack-stands.
2. Remove the tires and wheels.
3. Using a 15mm wrench as shown remove the upper strut nuts. **See Photo 1.** Retain the factory hardware.
4. Remove the tie rod end as shown in **Photo 2** with a 18mm wrench and remove the tie rod end by lightly striking the mount with a hammer as shown in **Photo 3** to dislodge the tie rod end. Save hardware for reuse.
5. Remove the lower strut bolt using a 30mm socket.
6. Lower the axle down and remove the strut from the vehicle.



Photo 1

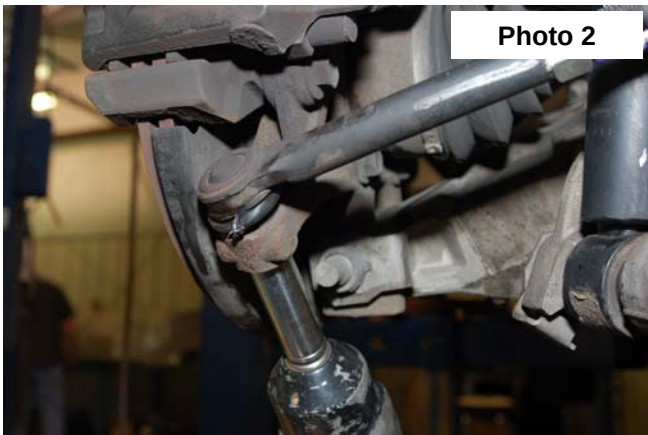


Photo 2

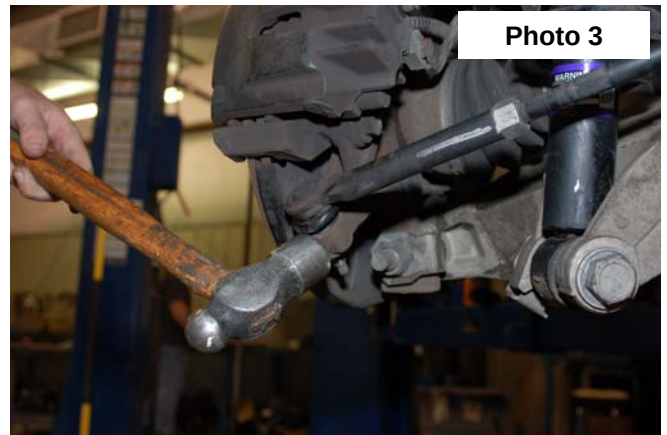


Photo 3

7. Using a strut compressor, compress the strut and remove the upper strut nut using a 15mm wrench as shown in **Photo 4.** A wall mounted stationary strut compressor is shown but a non-mounted strut compressor may be used.
8. Remove the coil from the strut cartridge and install the new 3/8" thick coil spacers as shown above the stock coil isolator. **See Photo 5. Two 3/8" spacers are required per strut.**



Photo 4



Photo 5

9. Install the coil on the strut cartridge and compress the coil if needed to install the upper strut nut using a 15mm wrench. **See Photo 6.**
10. Install the strut supplied spacer on the top of the strut assembly as shown in **Photo 7.**



11. Reinstall the strut on the upper frame mount with the factory hardware using a 15mm wrench. **See Photo 8.**
12. Reinstall the strut on the lower mount with the factory hardware using a 30mm socket. **See Photo 9.**



13. Reinstall the tie rod end that was removed in step 4 using a 18mm wrench. Tighten hardware.
14. Reinstall the tires and wheels.
15. Lower the vehicle to the floor.

## REAR INSTALLATION INSTRUCTIONS (07-08 Only)

1. Chock the front wheels and jack up the rear of the vehicle. Place jack stands under the frame rails and lower the vehicle onto the jack-stands.
2. Remove the tires and wheels.
3. Using a 17mm wrench as shown remove the upper strut nuts. **See Photo 1.** Retain the factory hardware.
4. Remove the rear brake line bracket from the strut mount using a 10MM wrench. **See Photo 2.**
5. Remove the lower strut from the axle using a 30mm socket and a 1 1/16" wrench. **See Photo 3.**

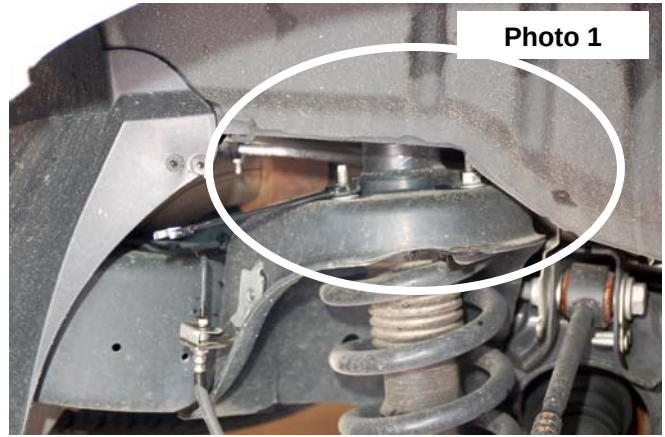


Photo 1

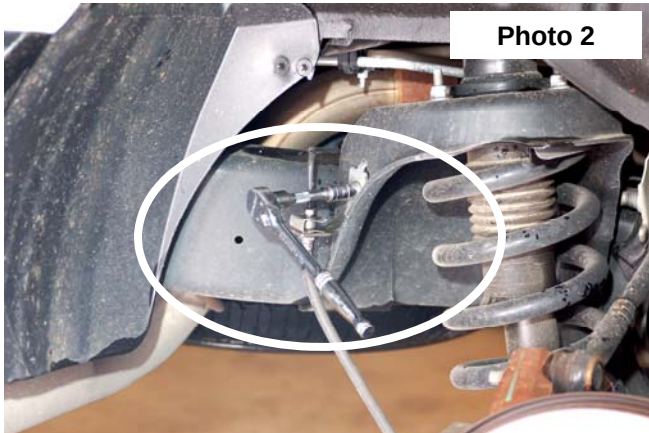


Photo 2

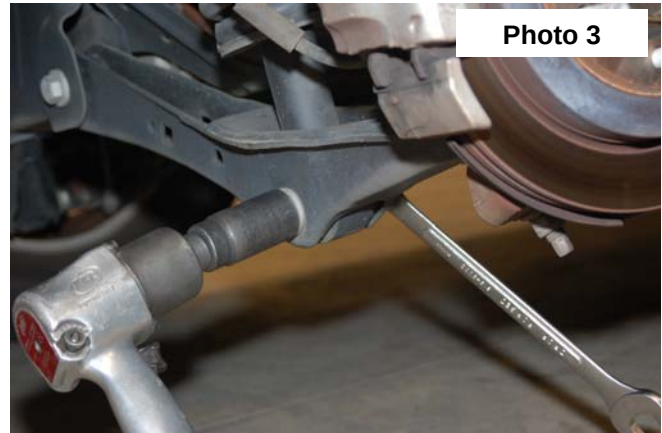


Photo 3

6. Using a strut compressor, compress the strut and remove the upper strut nut using a 15mm wrench as shown in **Photo 4.** A wall mounted stationary strut compressor is shown but a non-mounted strut compressor may be used.
7. Remove the coil from the strut cartridge and install the new coil spacer as shown above the stock coil isolator. **See Photo 5.**



Photo 4



Photo 5

8. Install the coil on the strut cartridge and compress the coil if needed to install the upper strut nut using a 15mm wrench. **See Photo 6.**
9. Install the strut supplied spacer on the top of the strut assembly as shown in **Photo 7.**



**Photo 6**



**Photo 7**

10. Reinstall the strut on the upper frame mount with the factory hardware using a 15mm wrench. **See Photo 8.**
11. Reinstall the tires and wheels.
12. Lower the vehicle to the floor.



**Photo 8**

### POST INSTALLATION

1. Check all fasteners for proper torque. Check to ensure there is adequate clearance between all rotating, mobile, fixed and heated members. Check steering for interference and proper working order. Test brake system.
2. Perform steering sweep. The distance between the tire sidewall and the brake hose must be checked closely. Cycle the steering from full turn to full turn to check for clearance. Failure to perform inspections may result in component failure.
3. Have a qualified alignment center realign front end of vehicle to factory specifications. You will note in driving to alignment that toe will be out and only minor adjustments, if any, will be needed to caster and camber.

|             |              |             |              |             |
|-------------|--------------|-------------|--------------|-------------|
| Caster Left | Caster Right | Camber Left | Camber Right | Toe-in Need |
| 3           | 3.5          | 0           | -1/4         | -1/32       |

4. Re torque all fasteners after 500 miles. Visually inspect components and re torque fasteners during routine vehicle service.
1. Readjust headlights to proper settings.

### MAINTENANCE INFORMATION

It is the ultimate buyers responsibility to have all bolts/nuts checked for tightness after the first 500 miles and then every 1000 miles. Wheel alignment steering system, suspension and driveline systems must be inspected by a qualified professional mechanic at least every 3000 miles



**Thank you for purchasing a Rough Country Suspension System.**