



# AIR DITCHER

AIR TO COIL CONVERSION KIT

Lincoln Continental 1988-1994



This product is intended to modify your vehicle and replace the existing air controlled suspension components with a passive coil and shock system. The system has been designed and extensively tested to provide the same ride quality and height as the O.E.M. system.



**This conversion kit requires the removal of the stock coil spring, which may be under compression. Proper procedure must be followed to minimize risk of personal injury and product damage.**

## General Precautions

**When servicing any vehicle be sure to follow all safety procedures.**

First, make sure that when lifting the vehicle that you are using the appropriate jack for the weight of the vehicle.

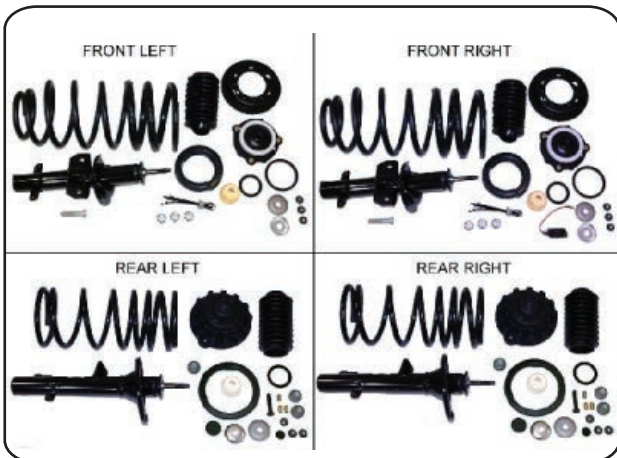
Make sure before going underneath any vehicle that it is properly supported with sturdy jack stands and on level ground so that the vehicle doesn't fall or slide off of the jack and onto you.

As with any automotive repair, make sure you have the appropriate tools to do the job so you don't damage any parts on the vehicle. There is a list of tools needed included in these instructions.

Safety glasses and mechanic gloves should also be worn for your protection.

Be sure to follow the instructions in the order that they are given. The instructions are in a certain order for a reason and improper installation could lead to damage to your vehicle or the parts. Keep in mind that if you damage the parts during installation you will be responsible for the replacement parts.

## Included In This Conversion Kit



## Minimum Tools Needed For This Installation



Metric Hand Tools (Sockets/Wrenches)



Jack and Jackstands



Torsion Spring Remover T88P-53 10-A



## WARNING

Our complete strut assemblies are completely assembled from the factory. These units contain a coil spring under compression. **DO NOT** ever loosen the top mount main bolt for prevention of both physical harm and vehicle damage.

## CAUTION

The new conversion kit strut assemblies **MUST** be aligned using the old strut assemblies alignment. Failure to align new strut to the old strut will result in failure aligning the vehicle after installation

## Front Instructions

1. Remove hub nut and loosen the upper strut attaching nuts, then raise and support vehicle.

**NOTE: Do not lift vehicle from lower control arm.**

2. Disconnect air suspension electrical wiring and all related parts that will interfere with strut removal.

3. Remove wheel and tire assembly.

4. Remove brake caliper **(1)** and support with suitable wire, then disconnect tie rod end. **(2)**

5. Remove stabilizer bar link nut, then remove link from strut.

6. Remove lower control arm to steering knuckle pinch nut and bolt

7. Using a suitable hub installation/removal tool, press axle from hub/rotor assembly. **(3)**

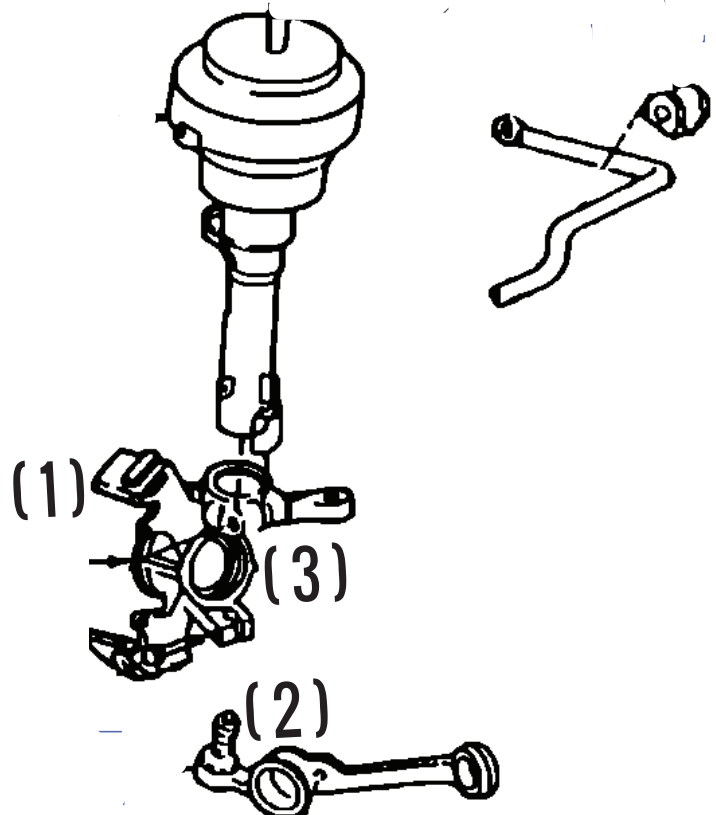
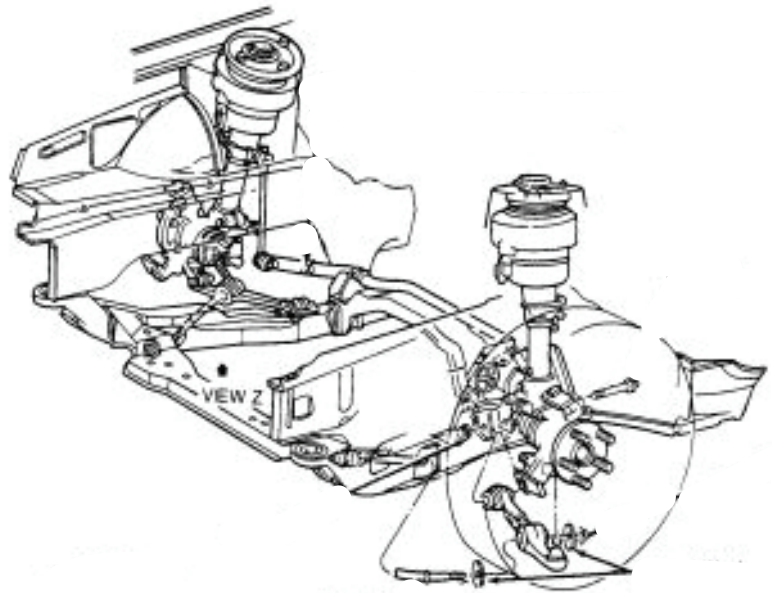
**NOTE: Wire axle shaft as necessary to maintain level position.**

**CAUTION: Do not permit axle shaft to move outward during disengagement from hub, since damage to CV joints could result.**

8. Remove strut to steering knuckle pinch bolt

9. Remove strut upper attaching nuts, then remove strut from vehicle.

**Reverse procedure to install.**

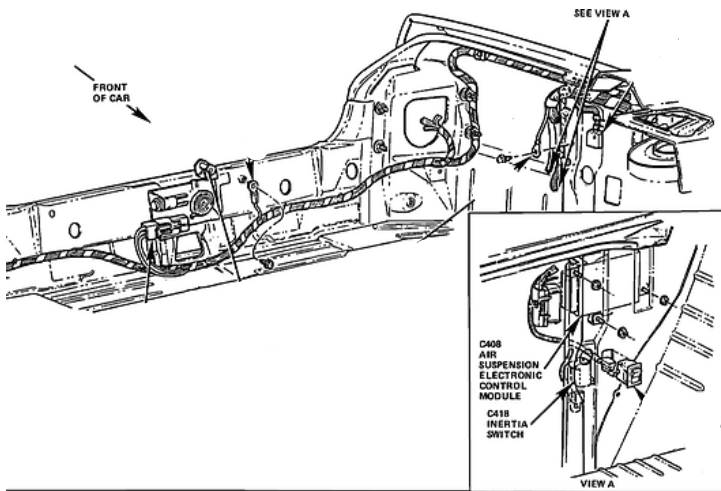


# Rear Removal Instructions

## **WARNING**

You **MUST** use a Torsion Spring Removal Tool O.E. Part # t88p-53 10-A or equivalent for this procedure. Failure to use the proper tools may result in personal injury or damage to the vehicle.

1. Turn off air suspension switch (located in luggage compartment).



2. From inside luggage compartment, disconnect electrical connector for shock absorber electronic actuator.

3. Loosen, but do not remove, three nuts and washers retaining upper rear spring and shock absorber to body.

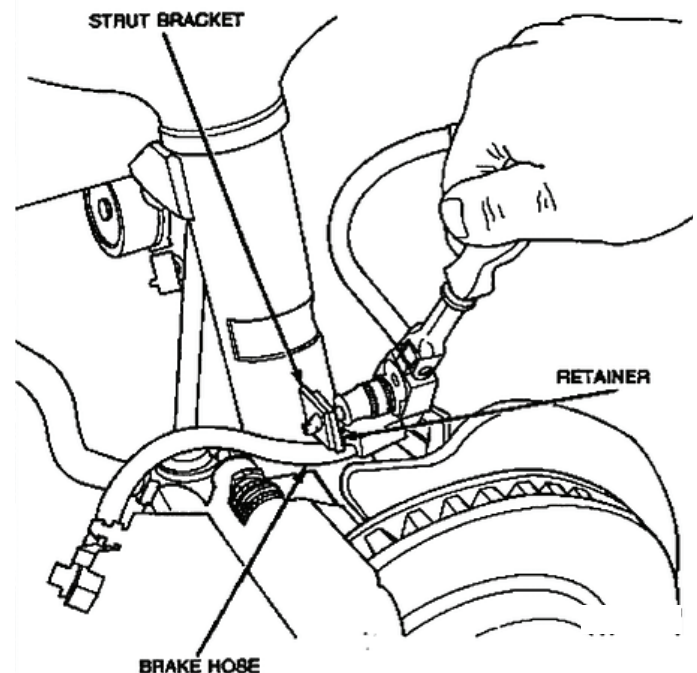
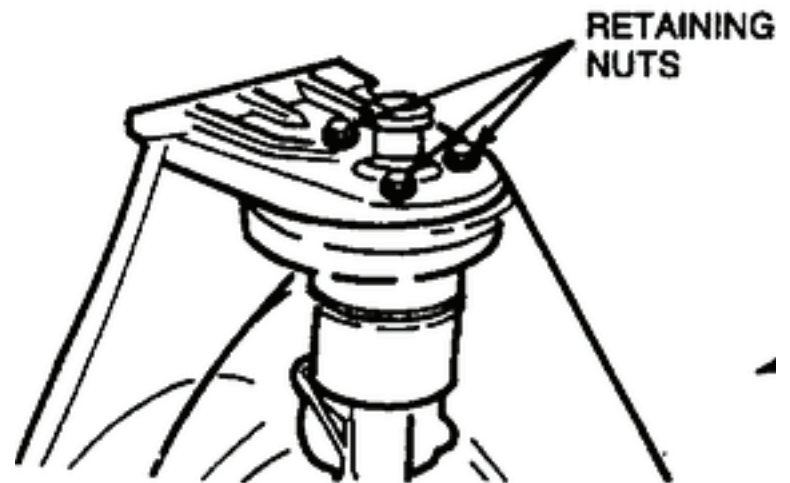
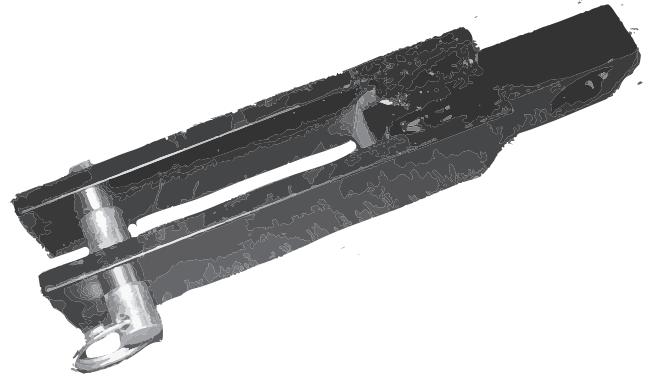
**CAUTION:** Do not raise vehicle by rear suspension tension strut. Damage to strut may result.

4. Raise vehicle. Remove wheel and tire assembly.

5. Disconnect air line from solenoid valve.

6. Disconnect electrical connector from solenoid valve.

7. Remove rear wheel brake hose (2A442) retainer at rear spring and shock absorber bracket.



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8. Disconnect parking brake cable from brake rear disc brake caliper (2552).

9. Remove all wire retainers and parking brake cable retainers from rear suspension arm and bushing.

10. Disconnect height sensor link from ball stud pin on rear suspension arm and bushing.

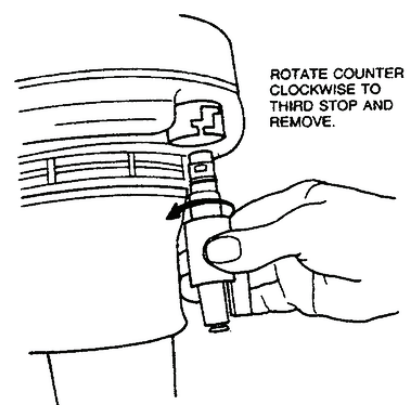
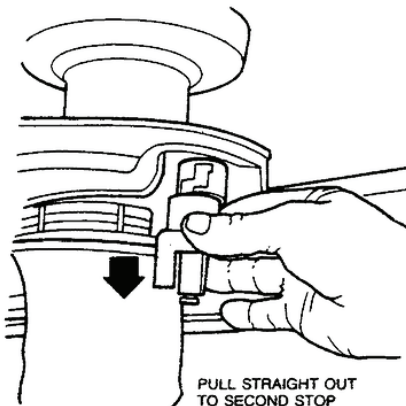
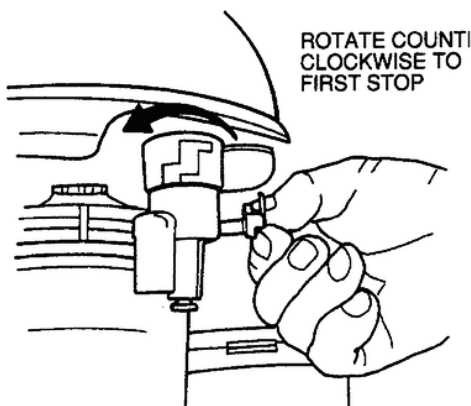
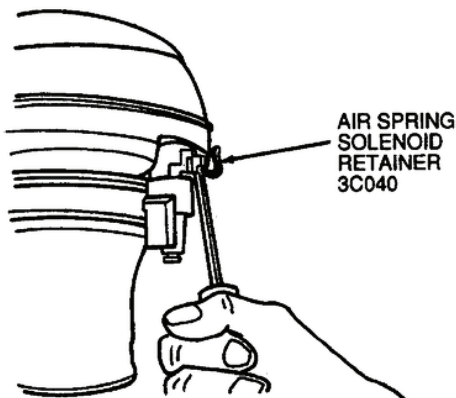
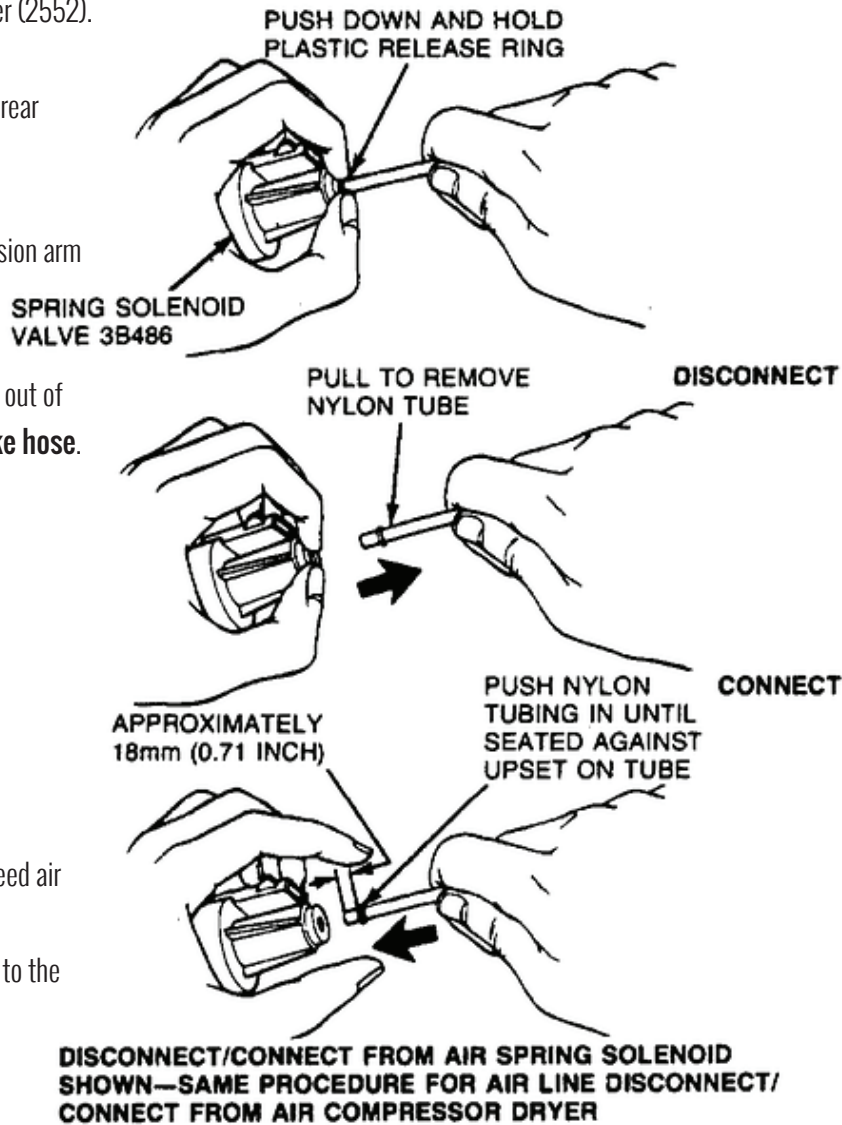
11. Remove rear disc brake caliper from rear wheel spindle and hang out of way with a piece of wire. **Do not kink or put a load on rear brake hose.**

**WARNING: DO NOT FULLY RELEASE SOLENOID UNTIL AIR IS COMPLETELY BLED FROM THE AIR SPRING.**

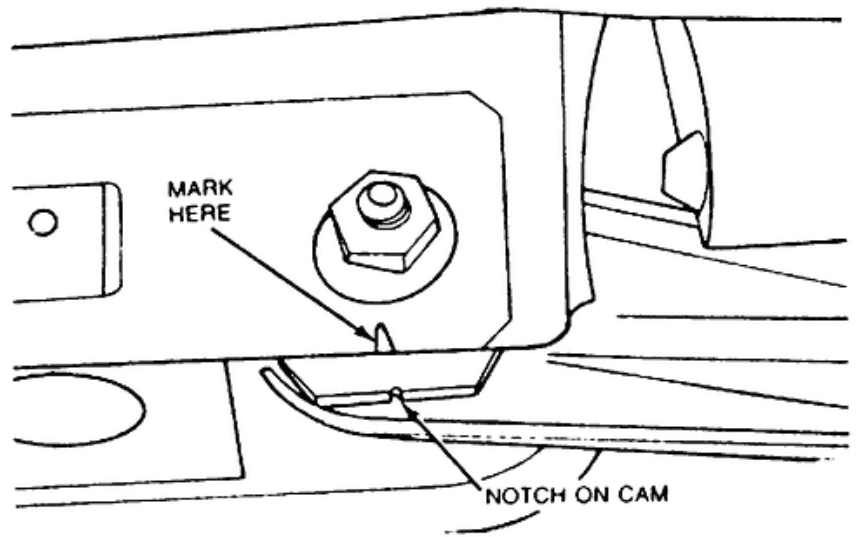
12. Bleed rear spring and shock absorber as follows:

Remove air spring solenoid retainer (5308).

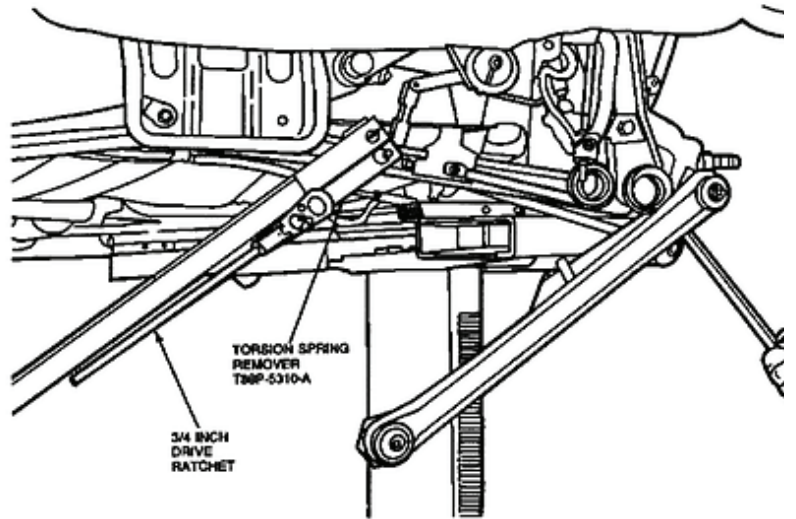
- Rotate solenoid valve counterclockwise to the first stop.
- Pull solenoid valve straight out slowly to the second stop to bleed air from the system.
- After air is fully bled from the system, rotate counterclockwise to the third stop and remove solenoid valve from the solenoid housing.



13. Mark position of notch on toe adjustment cam.
14. Remove rear suspension torsion spring clamp from rear wheel spindle-to-rear spring and shock absorber bolt.
15. Remove nut from inboard rear suspension arm and bushing.
16. Install Torsion Spring Remover T88P-53 10-A on arm. Pry up on tool and rear suspension arm using a 3/4-inch drive ratchet to relieve pressure on inner pivot bolt. An assistant may be required to pull outboard on the rear wheel spindle simultaneously to fully relieve tension on the bolt. Remove bolt and rear suspension arm and bushing.
17. Repeat Step 16 for forward rear suspension arm and bushing.

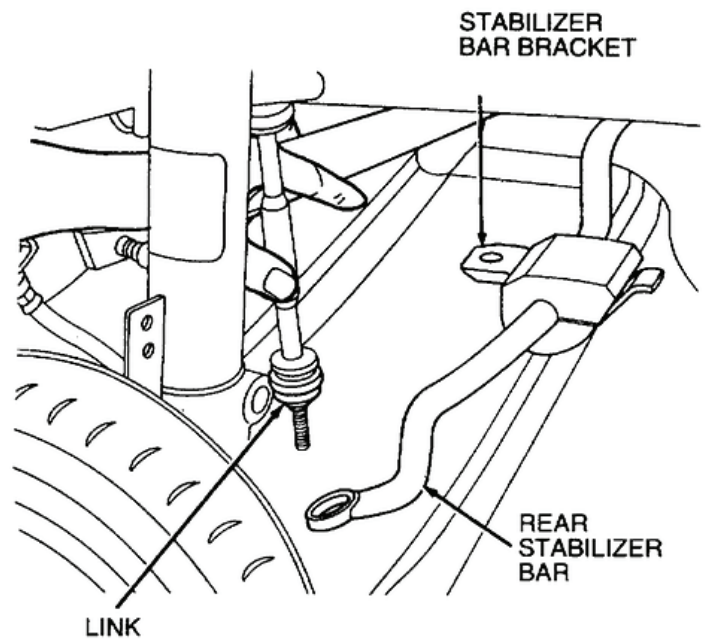
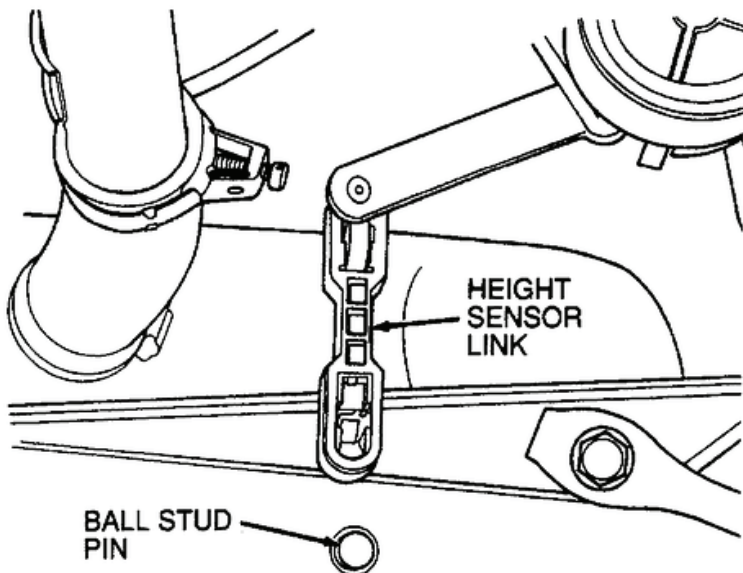


18. Remove rear air suspension torsion spring from arm.
19. Remove stabilizer bar bracket (5486) from body.
20. Remove nut washer and stabilizer bar link insulator and separate rear stabilizer bar from link.



21. Remove nut, washer and insulator, retaining rear suspension tension strut to rear wheel spindle.

Move rear wheel spindle rearward enough to separate it from the rear suspension tension strut. Remove rear strut.



STABILIZER BAR BRACKET

# Rear Installation Instructions

2. Install rear spring and shock absorber, being sure to guide shock absorber actuator wire through opening. Install three new upper mount nuts.

3. Install spindle and arms to strut.

4. Install a new rear spring and shock absorber-to-rear wheel spindle pinch bolt.

**Do not tighten until control arms are attached to body and cams are centered.**

5. Position rear suspension tension strut to rear wheel spindle. Install insulator, washer and nut retaining rear suspension tension strut to rear wheel spindle.

6. Install rear stabilizer bar to link. Install insulator, washer and retaining nut.

7. Install stabilizer bar bracket to body.

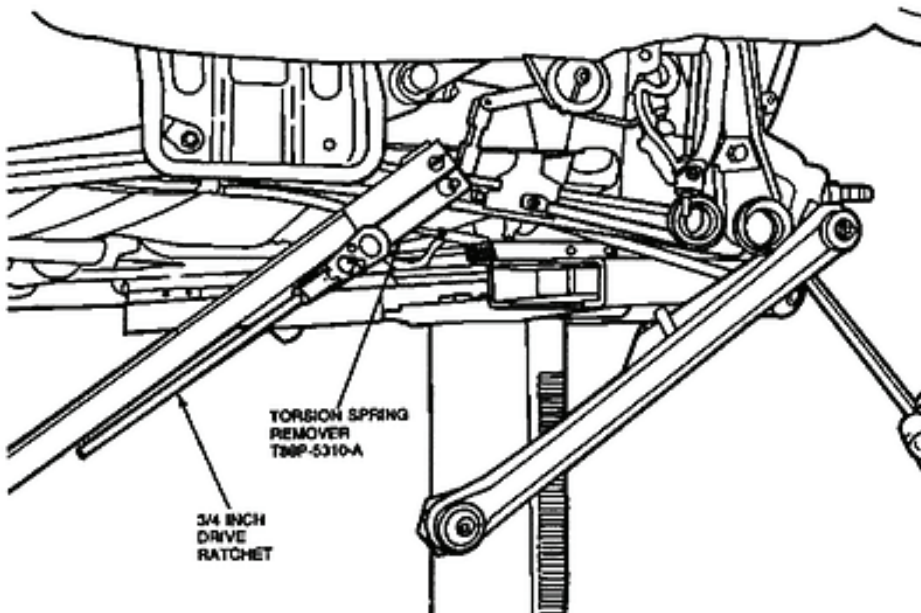
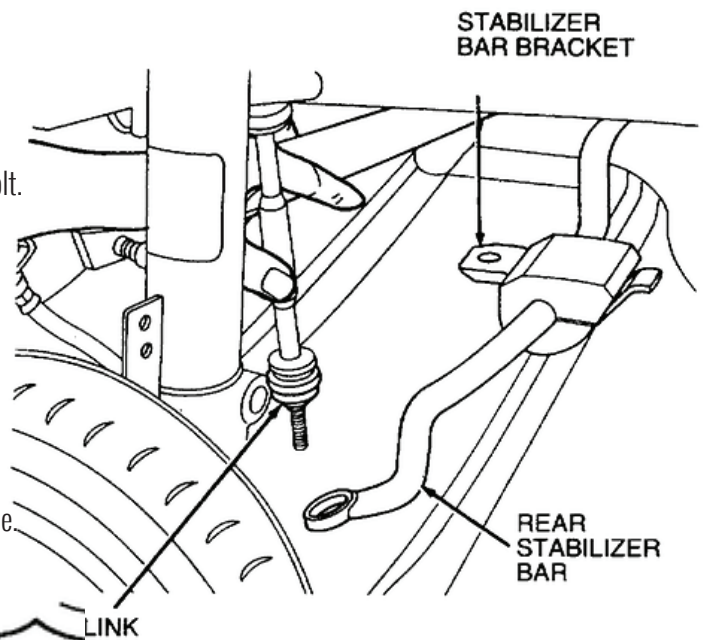
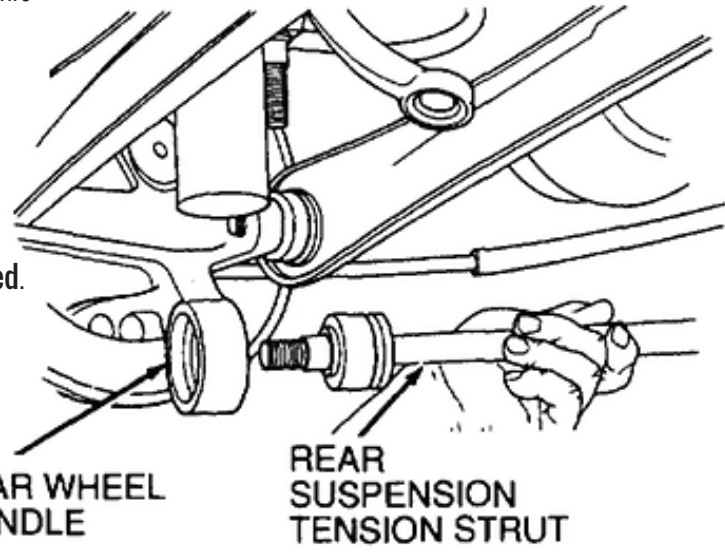
8. Install rear air suspension torsion spring to rear suspension arm and bushings.

9. Position inboard bushing using Torsion Spring Remover T88P-5310-A and install bolt.

**An assistant may be required to pull outboard on the rear wheel spindle to align bushing so the bolt may be inserted.**

10. Repeat Step 9 for opposite rear suspension arm and bushing.

11. Install nuts to inboard rear suspension arm and bushings. Do not tighten at this time.



12. Tighten rear wheel spindle-to-rear spring and shock absorber bolt to 68-92 N.m (50-68 lb-ft).

13. Set toe adjustment cam to alignment mark.

14. Remove wire from rear disc brake caliper and install rear disc brake caliper to rear wheel spindle.

15. Connect height sensor link to ball stud pin on rear suspension arm and bushing.

16. Install rear air suspension torsion spring clamp and secure.

17. Install all wire retainers and parking brake cable retainers to rear suspension arm and bushing.

18. Connect parking brake cable to rear disc brake caliper.

19. Install rear wheel brake hose retainer at rear spring and shock absorber bracket.

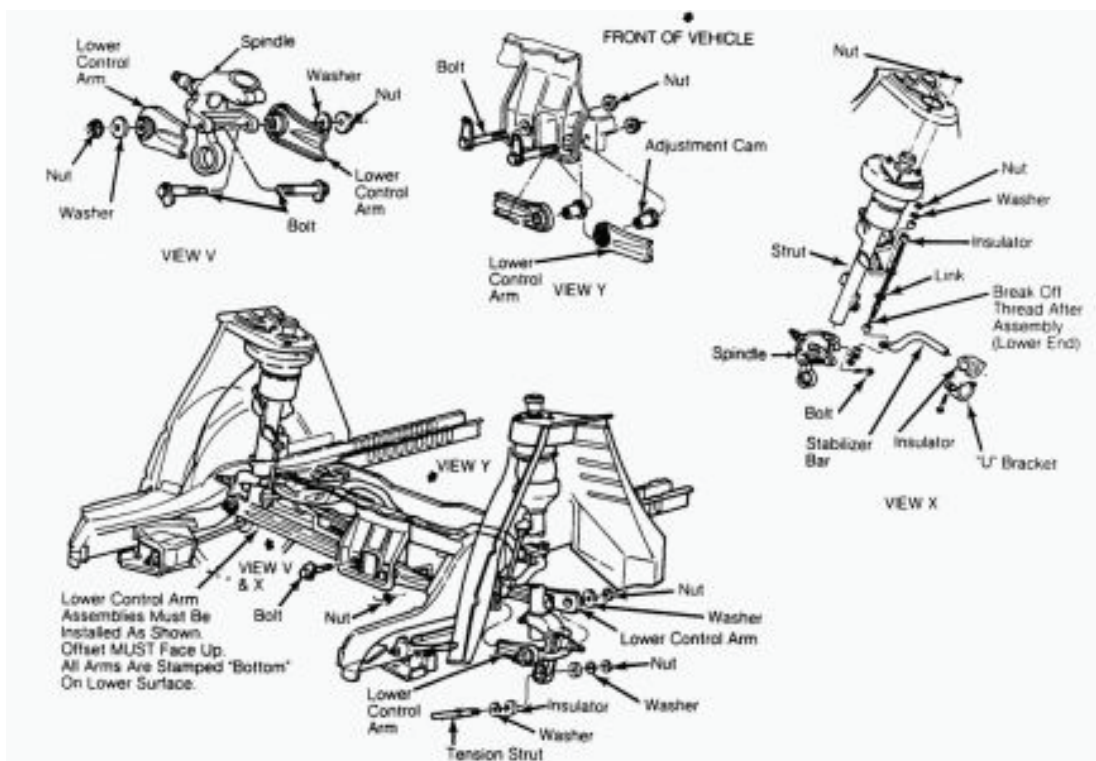
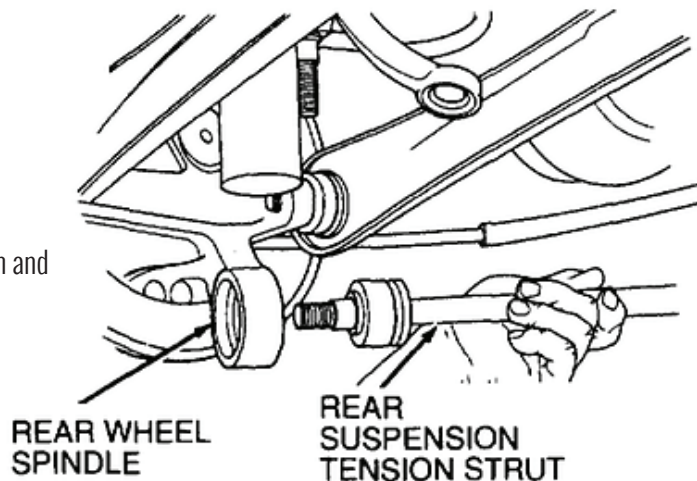
20. Install wheel and tire assembly and lower vehicle partially. Block wheels and tighten wheel hub bolt nuts (1012) to 115-142 N.m (85-105 lb-ft).

21. Tighten three nuts retaining rear spring and shock absorber to upper body to 26-35 N.m (19-26 lb-ft).

22. Lower vehicle all the way.

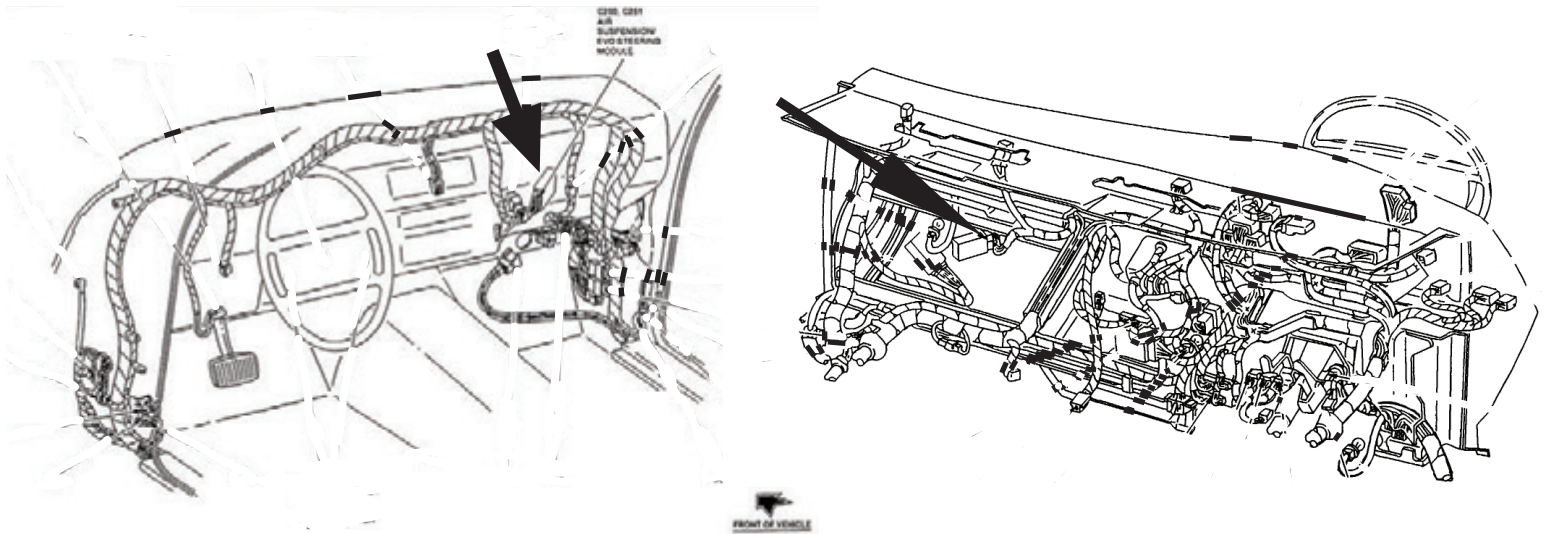
23. Check toe setting.

24. Tighten inner pivot nut and bolt to 68-92 N.m (50-68 lb-ft).



# Suspension Light Disable

1. Find the air suspension module located behind the glovebox on the right side of the vehicle.



2. Behind the glove box, mounted to the heater plenum is a connection with two plugs, one GRAY, one BLACK, or both GRAY, each about 2". On the BLACK or TOP connector, midway, is a DARK GREEN/LIGHT GREEN wire (this is pin #11). Cut this wire to disable the "Check Air Suspension" light. Cut as far from the plug as you can should it ever need to be reconnected/spliced. Reattach the glove box.

