

# Installation Manual

## A-2174 ARNOTT FRONT AIR SPRING FOR 1995-1996 LINCOLN CONTINENTAL



Congratulations on your purchase of an Arnott® air suspension product. We at Arnott Incorporated are proud to offer a high quality product at the industry's most competitive pricing. Thank you for your confidence in us and our product.

Proper installation is essential to experience and appreciate the benefits of this system. Please take a moment to review these installation instructions before you begin to install these components on your vehicle. The removal and installation of air suspension products should only be performed by a fully qualified, ASE Certified, professional.

It is equally important to be aware of all necessary safety measures while installing your new Air Suspension System. This includes proper lifting and immobilizing of the vehicle and isolation of any stored energy to prevent personal injury or property damage.

### "Engineered to Ride, Built to Last®"



**WARNING:** The air suspension system is under pressure (up to 10 bar, or 150 lbf/in). Verify pressure has been relieved and disconnect power to the air suspension system prior to disassembly. Do not allow dirt or grease to enter the system. Always wear standard hand, ear, and eye protection when servicing the air suspension system.

#### KIT CONTAINS:

#### PARTS LIST

P/N	QTY	DESCRIPTION
21-4165	1	ARNOTT FRONT AIR SPRING
21-4206	1	ACCESSORY KIT

Arnott® is committed to the quality of its products. If you have a question or problem with any Arnott product, please contact Arnott by calling **800-251-8993** during normal business hours or email [techassistance@arnottinc.com](mailto:techassistance@arnottinc.com).

## GENERAL INFORMATION:

Reading this manual signifies your agreement to the terms of the general release, waiver of liability, and hold harmless agreement, the full text of which is available at [www.arnottinc.com](http://www.arnottinc.com).

- Not to be stored below 5°F (-15°C) or above 122°F (50°C).
- Avoid damage to air lines and cables.
- Removal and installation is only to be performed by fully qualified personnel.
- Use car manufacturer's diagnostic software.

**CAUTION:** Damage to the vehicle and air suspension system can be incurred if work is carried out in a manner other than specified in the instructions or in a different sequence.



To avoid the possibility of short circuits while working with electric components consult your owner's manual on how to disconnect your battery.



Consult your vehicle owner's manual, service manual, or car dealer for the correct jacking points on your vehicle and for additional care, safety and maintenance instructions. Under no circumstances should any work be completed underneath the vehicle if it is not adequately supported, as serious injuries and death can occur.

## AIR STRUT REMOVAL

1. TURN THE AIR SUSPENSION SWITCH TO THE OFF POSITION. (SWITCH IS LOCATED ON THE DRIVER'S SIDE OF THE TRUNK.) (FIGURE 10-1)



FIGURE 10-1

2. SET STEERING TO STRAIGHT AHEAD.
3. RAISE VEHICLE.
4. REMOVE FRONT WHEEL.

5. TO REMOVE THE SOLENOID FROM THE SPRING, YOU MUST REMOVE THE SOLENOID CLIP. (FIGURE 10-2)

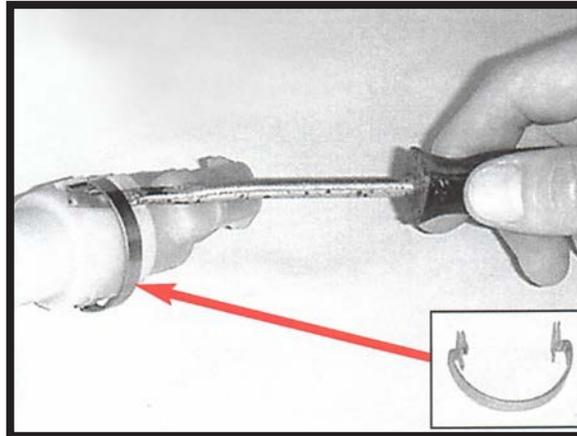


FIGURE 10-2

6. ROTATE THE VALVE COUNTERCLOCKWISE TO THE FIRST STOP. (FIGURE 10-3)

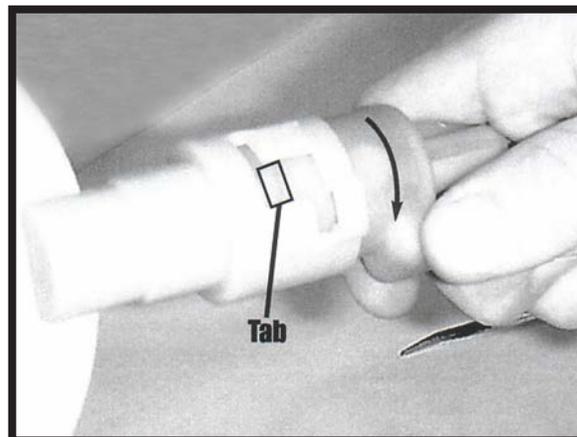


FIGURE 10-3

7. PULL SOLENOID STRAIGHT OUT SLOWLY UNTIL ALL THE AIR IS DEFLATED FROM THE AIR SPRING. (FIGURE 10-4)

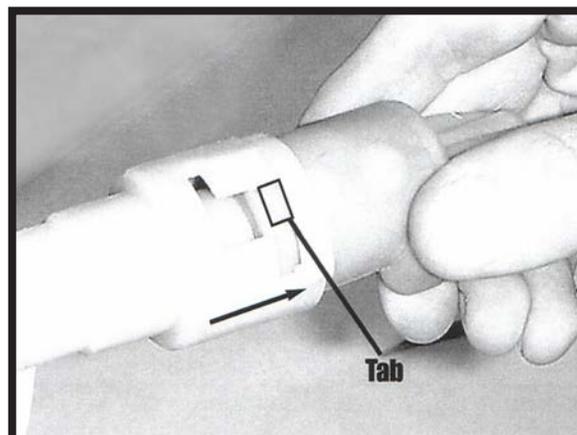


FIGURE 10-4

8. ONCE THE AIR SPRING IS FULLY DEFLATED, ROTATE COUNTERCLOCKWISE TO THE SECOND STOP. (FIGURE 10-5)

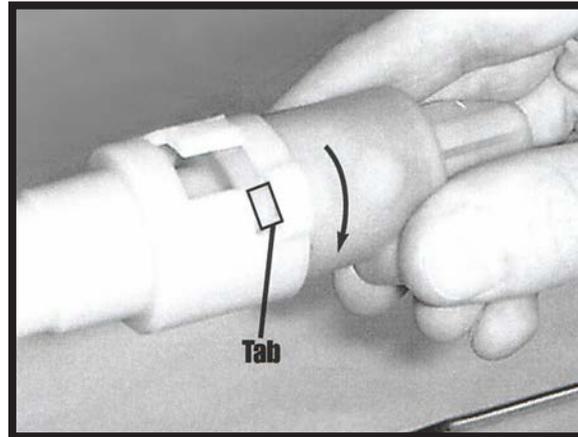


FIGURE 10-5

9. REMOVE SOLENOID FROM AIR SPRING. (FIGURE 10-6)



FIGURE 10-6

7. UNBOLT THE BRAKE LINE AND REMOVE FROM MOUNTING BRACKET. ALSO UNPLUG THE STRUT ELECTRICAL DAMPER SOLENOID.
8. REMOVE THE ABS SENSOR CABLE FROM THE STRUT.
9. UNHOOK THE HEIGHT SENSOR FROM ITS BOTTOM MOUNT.
10. REMOVE THE LOWER KNUCKLE PINCH BOLT AND NUT.
11. REMOVE STABILIZER BAR LINK NUT.
12. REMOVE STABILIZER BAR LINK FROM STRUT.
13. LOOSEN THE TOP THREE MOUNT TOP SHOCK NUTS. **DO NOT REMOVE THE LARGE CENTER NUT!**
14. CAREFULLY REMOVE THE OLD AIR SPRING/SHOCK ASSEMBLY FROM THE VEHICLE.

## AIR SPRING REMOVAL

1. REMOVE THE LARGE FLANGED HEX NUT LOCATED AT THE TOP OF THE STRUT ASSEMBLY.
2. REMOVE THE REBOUND CUP AND BEARING WASHER.
3. REMOVE THE UPPER MOUNT ASSEMBLY.
4. REMOVE THE BLACK TOP WASHER.
5. REMOVE THE RUBBER WASHER AND DISCARD. (THIS WILL NOT BE USED WITH THE NEW ASSEMBLY.)
6. PRESS OUT ON THE TWO PLASTIC RETAINING CLIPS. (FIGURE 20-1)

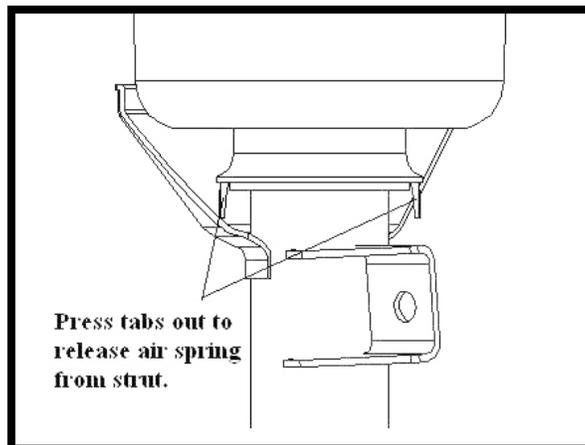


FIGURE 20-1

7. GENTLY PRY THE AIR SPRING PISTON APART FROM THE STRUT USING A FLAT HEAD SCREWDRIVER ON THE PISTON BOTTOM. (FIGURE 20-2)

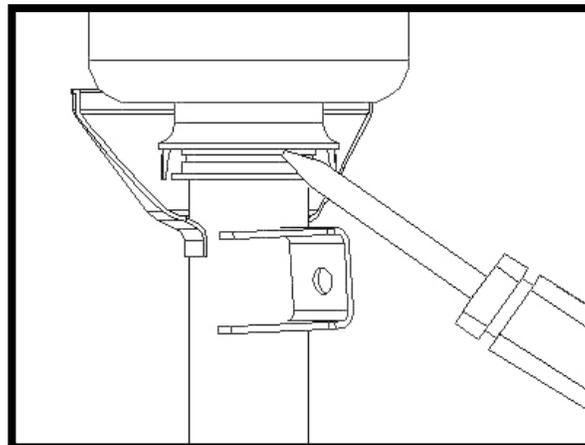


FIGURE 20-2

8. REMOVE THE AIR SPRING FROM THE STRUT.
9. REMOVE AND DISCARD THE 2 LARGE O-RINGS LOCATED ON THE STRUT. **(FAILURE TO CHANGE O-RINGS WILL CAUSE STRUT TO LEAK!)**

## NOTICE

### O-RINGS ON THE SOLENOID MUST BE CHANGED

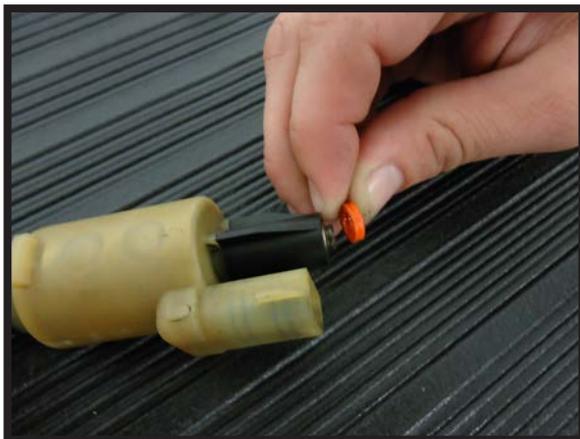


Failure to change o-rings on the solenoid can cause the air spring to leak, damage the compressor, and/or void the warranty.

**NOTE:** TO REMOVE AIR LINE: DEPRESS THE ORANGE COLLAR TOP WHILE PULLING OUT ON THE AIR LINE.

#### O-RING REMOVAL:

1. Remove the orange collar.



2. Grip the top of the brass collet and remove from the solenoid. **Be very careful not to bend or distort the collet.**



3. Remove the nylon washer and small o-ring.



4. Stretch the o-rings out of the o-ring groove and off of the solenoid. **Be very careful not to damage sealing surfaces.**



**NOTE:** DISCARD THE NYLON WASHER AS IT WILL NOT BE REPLACED OR RE-USED.

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## O-RING INSTALLATION:

1. Place the new o-ring into the solenoid. Be sure that the o-ring is seated properly and laying flat inside of the solenoid.



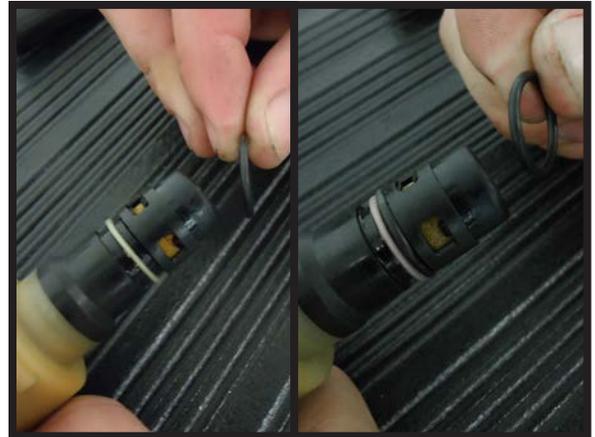
2. Insert the brass collet back into the solenoid. You will need to compress the bottom of the collet while you press it back into the opening. **Be very careful not to bend or distort the collet.**



3. Once the collet is reinserted, press the orange collar top back over top of the collet making sure it snaps back into place.



4. Roll the first o-ring over the tip of the solenoid and into the first o-ring groove. Do the same for the second o-ring stretching over the first o-ring already seated, and placing it into the second o-ring groove.



5. Place the large o-ring on the solenoid.



6. Apply a thin layer of o-ring lubricant and install the solenoid into the air spring in the reverse order of removal.



**NOTE:** REFER TO FIGURE 30-2 FOR THE PLACEMENT AND DESCRIPTION OF ALL OF THE FOLLOWING PROCEDURES AND COMPONENTS.

## AIR SPRING INSTALLATION

1. INSTALL (2) 141 - O-RINGS ONTO THE STRUT BODY WHERE PREVIOUSLY REMOVED O-RINGS WERE.
2. INSTALL THE GOLD WASHER (CHAMFERED SIDE UP) ONTO THE STRUT TENNON.
3. INSTALL (1) 114 - O-RING ATOP THE GOLD WASHER TO NEST INSIDE OF THE CHAMFER.
4. PLACE THE NEW AIR SPRING ONTO THE STRUT.
5. INSTALL THE O-RING (#114) ON THE STRUT SHAFT.
6. REPLACE THE TOP WASHER WITH THE CHAMFERED SIDE FACING DOWN TOWARD THE O-RING.
7. REPLACE THE UPPER MOUNT ASSEMBLY.
8. REPLACE THE REBOUND CUP AND BEARING WASHER.
9. TIGHTEN THE FLANGED CENTER NUT. (63-71 LB-FT.)
10. ASSEMBLED STRUT SHOULD APPEAR AS FIGURE 30-1.

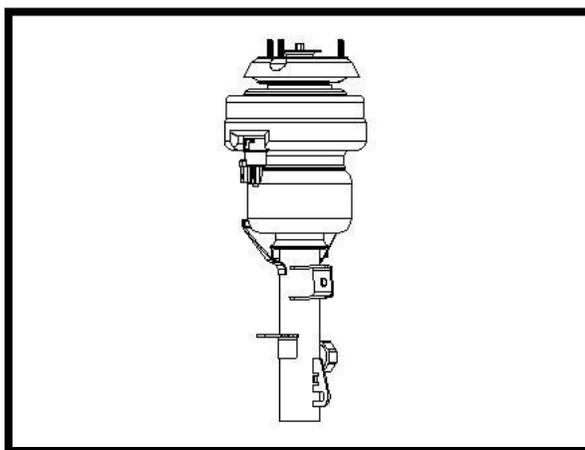


FIGURE 30-1

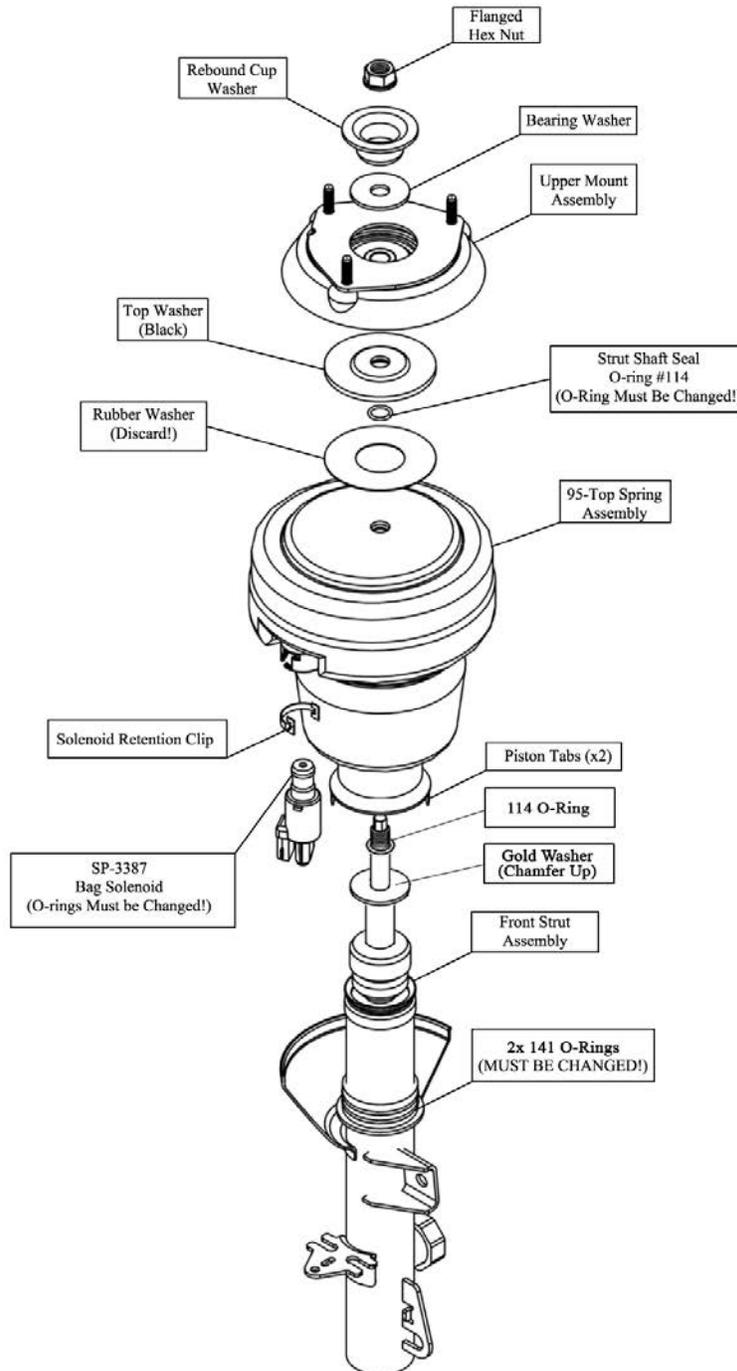


FIGURE 30-2

## AIR STRUT INSTALLATION



*Tighten all nuts and bolts to manufacturer's specifications during the installation process.*

1. INSTALLATION IS IN REVERSE ORDER OF AIR STRUT REMOVAL.