Arnott®
Suspension Products

INSTALLATION MANUAL

A-2105
Arnott New Rear Air Spring
90-11 Lincoln Town Car, 92-11 Ford Crown Victoria, Mercury Grand Marquis



Engineered to Ride, Built to Last®

CONGRATULATIONS ON YOUR PURCHASE OF AN ARNOTT® SUSPENSION PRODUCT

WE AT ARNOTT LLC ARE PROUD TO OFFER A HIGH QUALITY PRODUCT WITH ALL THE TECHNICAL SUPPORT YOU NEED. 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 and certified automotive 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.

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.arnottsuspension.com and www.arnotteurope.com.



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.

- Not to be stored below 5°F (-15°C) and 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.

For vehicles with a "Closed Air Supply System," replacement of components requires proper adherence to procedures set forth within OE servicing literature. Failure to comply with the OE prescribed procedures can result in component damage and/or failure.

AIR SPRING REMOVAL

1. Locate the air suspension switch on the right side of the luggage compartment.
2. Turn the air suspension switch to the **OFF** position. (Figure 1)



FIGURE 1

3. Set the steering to straight ahead.
4. Raise the vehicle.
5. Remove the wheel.

6. Remove the clip that secures the top of the air spring to the chassis. (Figure 2)

NOTE: To access the clip, go under the wheel arch, between the body of the vehicle and the chassis.



FIGURE 2

7. Disconnect the electrical connector. (Figures 3, 4)



FIGURE 3



FIGURE 4

8. Use pliers or a suitable hooked tool to remove the air spring solenoid retaining clip. (Figures 5, 6)

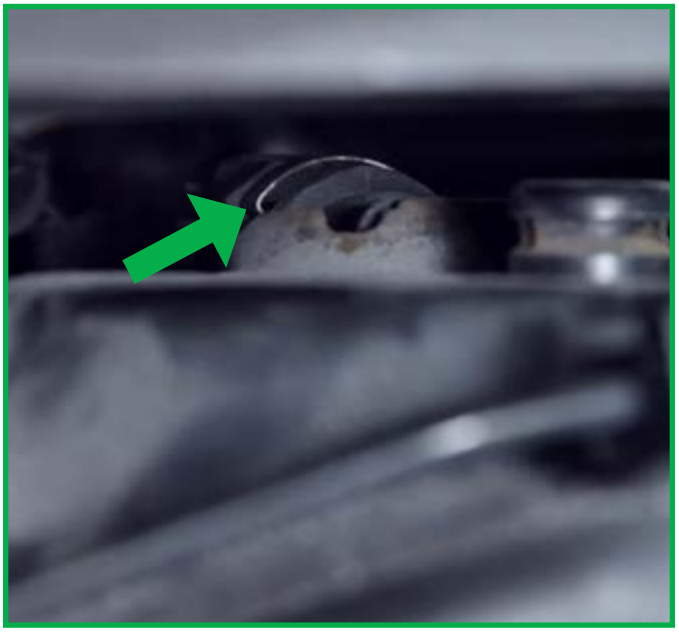


FIGURE 5



FIGURE 6

9. Rotate the solenoid counterclockwise to the first stop. (Figures 7, 8)

TIP: Slightly wiggle the solenoid as you rotate and pull it out.



FIGURE 7

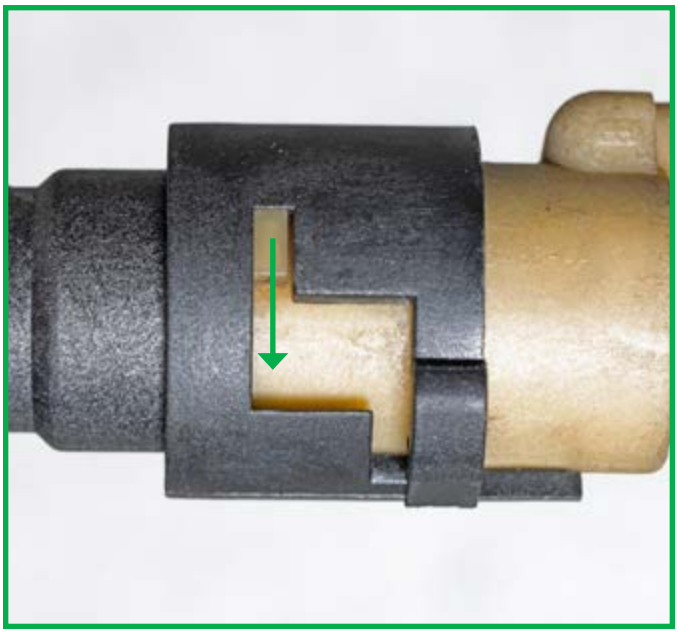


FIGURE 8

10. Carefully and slowly pull the solenoid straight out to vent the air pressure from the air spring. (Figures 9, 10)



FIGURE 9

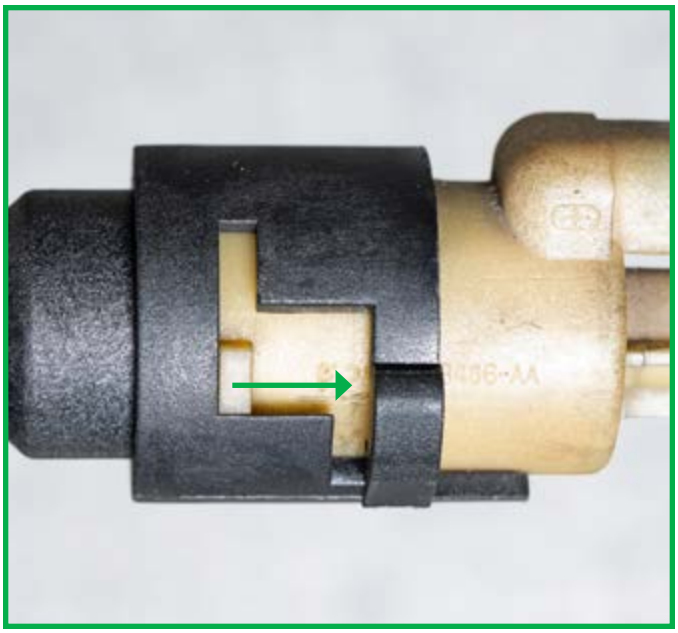


FIGURE 10

11. Once the air spring is fully deflated, slightly rotate counterclockwise again to align the tab with the opening and remove the solenoid from the air spring. (Figures 11, 12)

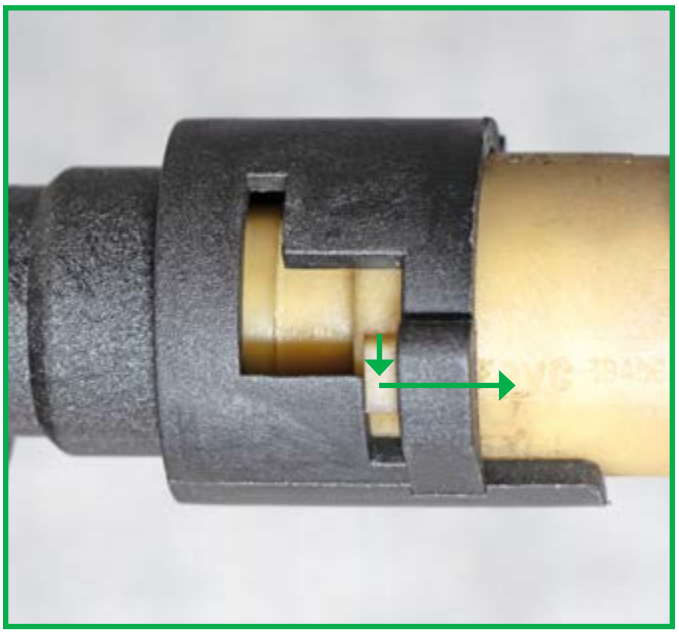


FIGURE 11



FIGURE 12

12. Remove the piston-to-axle spring seat clip. (Air spring is held in place with a round retainer clip under the piston cap. To unsnap the clip, gently pry between the piston and the axle. The clip will unsnap when pressure is applied). (Figure 13)



FIGURE 13

13. Remove the air spring from the vehicle.

SOLENOID O-RING REMOVAL

WARNING:

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 the air line: depress the orange collet top while pulling out on the air line.

1. Remove the orange collar. (Figure 14)



FIGURE 14

2. Grip the top of the brass collet and remove it from the solenoid. Be very careful not to bend or distort the collet. (Figure 15)



FIGURE 15

3. Remove the nylon washer and small O-ring. (Figures 16, 17)



FIGURE 16



FIGURE 17

4. Remove the two (2) O-rings from the O-ring groove by first pinching the o-ring forward to create a lip (Figure 18). One at a time, stretch the O-rings out of the groove and off of the solenoid. (Figures 19, 20). Then, remove the large O-ring (Figure 21).

NOTE: Be very careful not to damage sealing surfaces and avoid using tools that could do so.



FIGURE 18



FIGURE 19



FIGURE 20



FIGURE 21

SOLENOID O-RING INSTALLATION

1. Place the new small O-ring into the solenoid (Figure 22). Use a solenoid installation tool or use extreme caution to avoid scratches or damage. Be sure that the O-ring is seated properly and lying flat inside the solenoid (Figure 23).



FIGURE 22

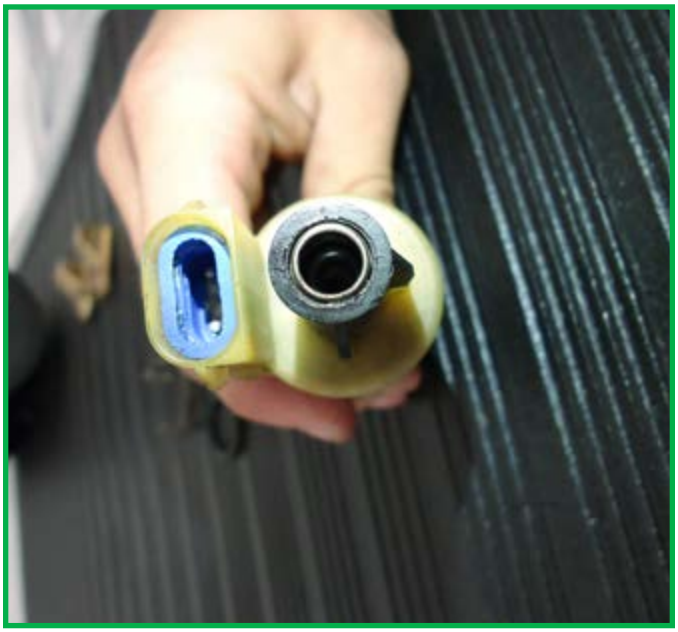


FIGURE 23

2. Reinstall the nylon washer. (Figure 24) Inspect for scratches and replace as needed.

NOTE: Before installation inpect the nylon washer for scratches and replace as needed.



FIGURE 24

3. 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.** (Figures 25, 26)



FIGURE 25



FIGURE 26

4. Once the collet is reinserted, press the orange collar top back over the top of the collet, making sure it snaps back into place. (Figure 27)



FIGURE 27

5. 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 place it into the second O-ring groove. (Figures 28, 29)

TIP: Apply an appropriate lubricant to O-rings to ease installation.



FIGURE 28



FIGURE 29

6. Place the large O-ring on the solenoid. (Figure 30)



FIGURE 30

7. O-ring installation complete. (Figure 31)



FIGURE 31

SOLENOID INSTALLATION

1. After installing new O-rings, generously apply a non-petroleum lubricant such as silicone, lithium, or dielectric grease to the tip of the solenoid. (Figure 32)



FIGURE 32

2. Put the air spring on a table on its side or between your feet while sitting in a chair for better leverage as you install the solenoid. (Figure 33)



FIGURE 33

3. Align the appropriate solenoid tab at the opening. Push inward and clockwise to the first stop, and then to the second stop. Push in with force. (Figures 34, 35)

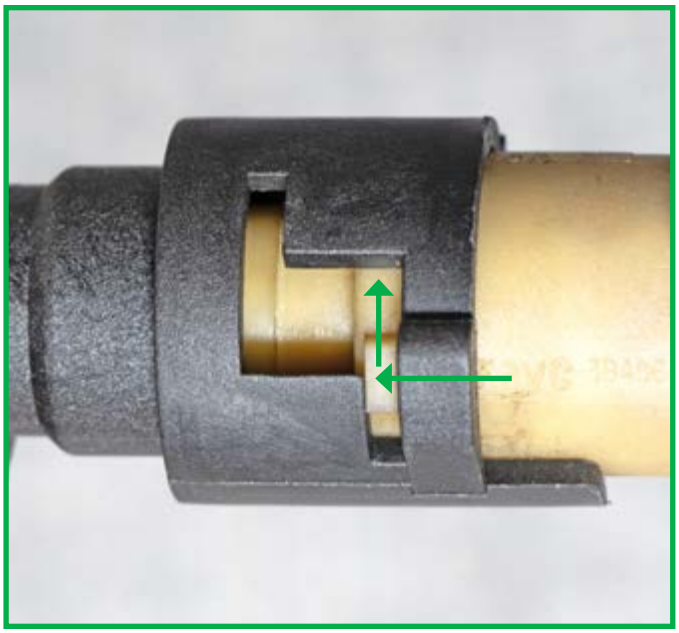


FIGURE 34

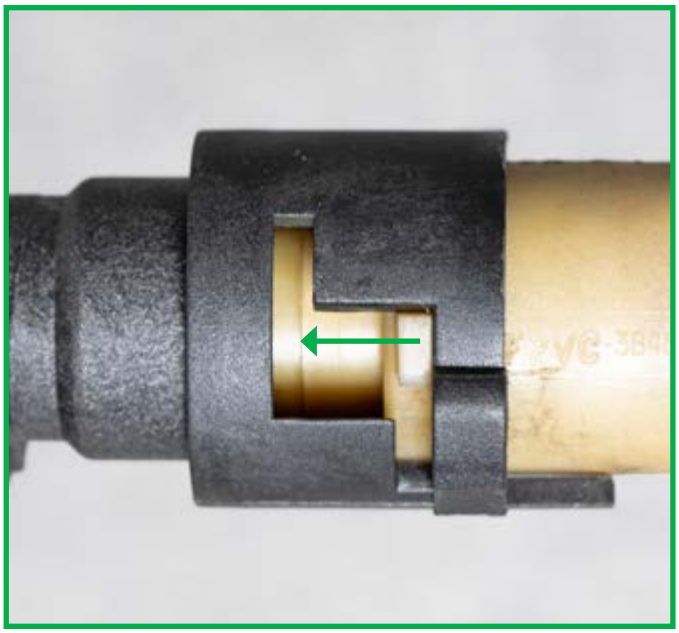


FIGURE 35

4. Ensure the solenoid is fully locked in place before beginning installation of the air spring onto the vehicle. (Figure 36)

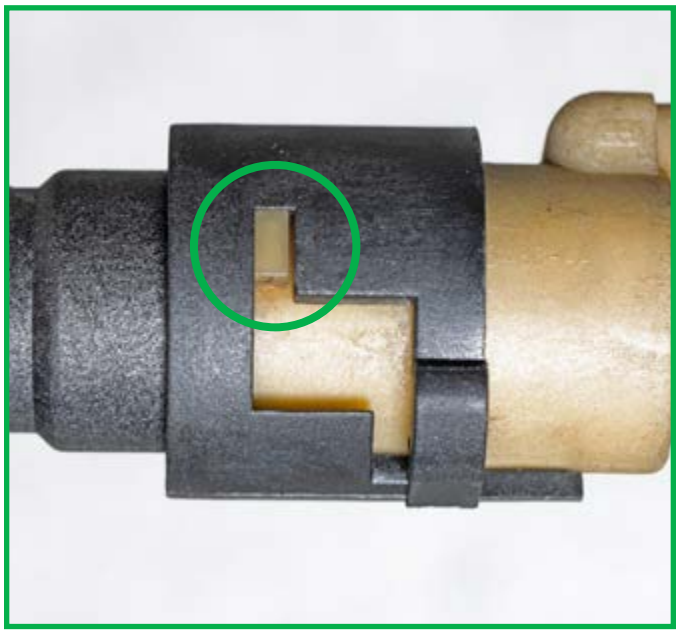


FIGURE 36

5. Reinstall the solenoid retaining clip. (Figure 37)



FIGURE 37

AIR SPRING INSTALLATION

WARNING:

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

1. Once the O-rings are replaced and the solenoid and solenoid retaining clip are installed, position the air spring into the vehicle. (Figure 38)

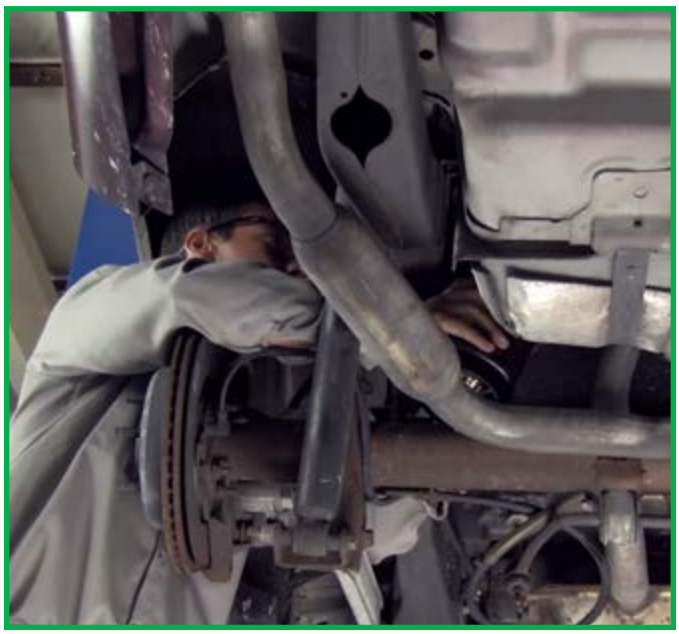


FIGURE 38

2. Reinstall the clip that secures the top of the air spring to the chassis. (Figure 39)



FIGURE 39

3. Clip the bottom of the air spring piston to the axle. (Figures 40, 41)

WARNING:

It is very important to make sure the piston is clipped in and secure before inflating or pressurizing the air spring.



FIGURE 40

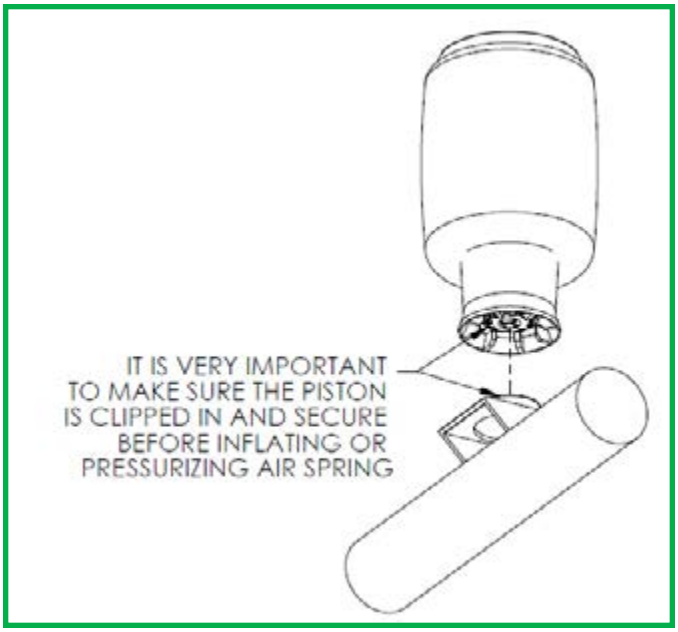


FIGURE 41

4. Reconnect the electrical connector.
5. Reinstall the air line by pushing it into the solenoid fitting until you feel it pass through the internal O-ring and hit the internal stop. Gently tug the air line (without pressing the release collar) to verify it is securely locked into place.

NOTE: Scratches and/or deep cuts in the air line may result in leaks. Inspect the air line before insertion. Replace the air line if damaged.

6. Reinstall the wheel.
7. Remove all safety stands and lower the vehicle.
8. Reconnect the battery.
9. Turn the air suspension switch back to the **ON** position, and start the vehicle. The vehicle should rise back to factory trim height.

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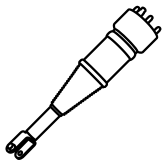
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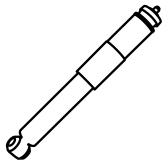
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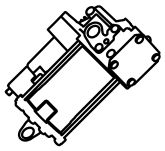
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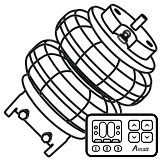
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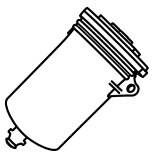

Air Springs

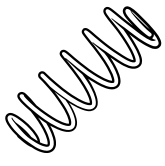

Struts

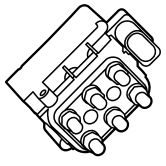

Shocks

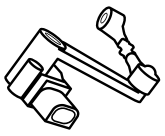

Compressors

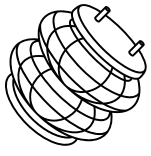

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