

# Installation Manual

## A-2647 ARNOTT REAR AIR SPRING LINCOLN NAVIGATOR/FORD EXPEDITION (U354/U418)



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.

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). (In the EU please call +31 (0)73 7850 580 or email [info@arnotteurope.com](mailto:info@arnotteurope.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.*

**NOTE:** *In the information center, locate and turn off the air suspension.*

## REAR AIR STRUT REMOVAL

1. RAISE THE VEHICLE.
2. REMOVE THE REAR WHEELS. (FIGURE 10-1)



FIGURE 10-1

3. UNPLUG THE ELECTRICAL CONNECTOR FROM THE AIR SPRING'S SOLENOID. (FIGURE 10-2)



FIGURE 10-2

4. REMOVE THE AIR LINE FROM THE AIR SPRING'S SOLENOID. PUSH THE COLLAR IN TO RELEASE AND PULL THE AIR LINE OUT. (FIGURE 10-3)



FIGURE 10-3

5. REMOVE THE RETAINING CLIP, ROTATE SOLENOID QUARTER TURN AND PULL DOWN TO RELEASE (FIGURES 10-4)



FIGURES 10-4



6. DISCONNECT THE RIDE HEIGHT SENSOR. (FIGURE 10-5)

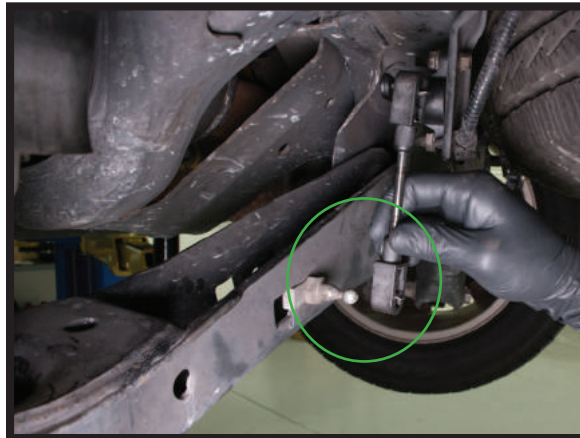


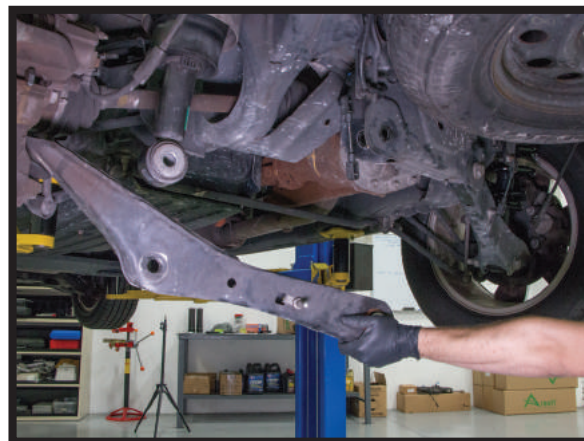
FIGURE 10-5

7. REMOVE THE LOWER SHOCK MOUNTING NUT AND BOLT. (FIGURE 10-6)



FIGURE 10-6

8. REMOVE THE INNER LOWER CONTROL ARM NUT AND BOLT. (FIGURES 10-7)



FIGURES 10-7

9. LOOSEN AND REMOVE THE TOP THREE (3) MOUNTING NUTS. (FIGURE 10-8)



FIGURE 10-8

10. REMOVE THE AIR STRUT FROM VEHICLE. (FIGURE 10-9)



FIGURE 10-9

11. REMOVAL COMPLETE.

## AIR SPRING PREPARATION



*Note the alignment of the air spring and shock before disassembling.*



1. LOOSEN AND REMOVE THE SHOCK ROD END NUT AND WASHER. (FIGURES 20-1)



FIGURES 20-1

2. TURN THE ASSEMBLY UPSIDE DOWN AND USING A FLAT HEAD SCREWDRIVER DEPRESS THE SECURING TABS TO DISLODGE THE PISTON FROM ITS POSITION. REMOVE THE AIR SPRING FROM THE SHOCK. (FIGURES 20-2)



FIGURES 20-2

3. REMOVE THE RETAINING SCREWS HOLDING THE UPPER MOUNT TO THE AIR SPRING. (FIGURES 20-3)



FIGURES 20-3

4. REMOVE THE O-RINGS FROM THE TOP MOUNT AND THOROUGHLY CLEAN THE AREA. (FIGURES 20-4)



FIGURES 20-4

5. INSTALL THE NEW O-RINGS PROVIDED IN THE KIT AND APPLY AN APPROPRIATE LUBRICANT. (FIGURES 20-5)



FIGURES 20-5

6. INSTALL THE TOP MOUNT AND RETAINING SCREWS ONTO THE NEW AIR SPRING. (FIGURE 20-6)



FIGURES 20-6



## AIR SPRING INSTALLATION

1. REMOVE THE O-RINGS FROM THE SHOCK AND THOROUGHLY CLEAN THE AREA. (FIGURES 30-1)



FIGURES 30-1

2. INSTALL THE NEW O-RINGS PROVIDED IN THE KIT AND APPLY THE APPROPRIATE LUBRICANT. (FIGURE 30-2)



FIGURE 30-2

3. INSTALL THE BUMSTOP, SHOCK ROD SPACER AND O-RING FROM KIT BACK ONTO THE SHOCK. (FIGURES 30-3)



FIGURES 30-3



4. INSTALL THE NEW AIR SPRING ONTO THE SHOCK. (FIGURE 30-4)

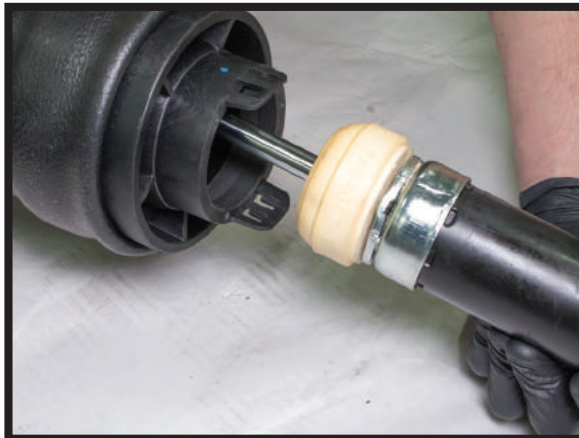


FIGURE 30-4

5. SECURE THE PISTON ONTO THE LOWER SEAL AND ENSURE THE LOCKING TABS ARE ENGAGED. (FIGURES 30-5)



FIGURES 30-5

6. INSTALL THE SECOND O-RING FROM THE KIT FOLLOWED BY THE UPPER WASHER AND SECURE THE TOP SHOCK ROD NUT. (FIGURE 30-6)

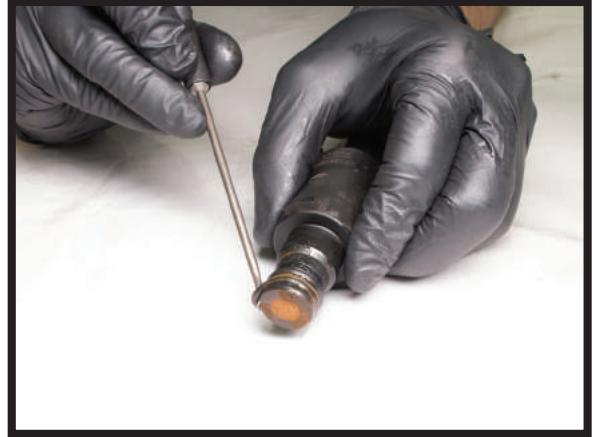


FIGURE 30-6

**NOTE:** *Tighten to manufacture's specification.*

## SOLENOID PREPARATION

1. REMOVE THE OUTER O-RINGS FROM THE SOLENOID. (FIGURE 40-1)



FIGURES 40-1

2. REMOVE THE ORANGE RING AND BRASS COLLET. (FIGURE 40-2)



FIGURES 40-2

3. REMOVE THE INTERNAL PLASTIC RING AND O-RING. (FIGURE 40-3)



FIGURES 40-3

## **SOLENOID ASSEMBLY**

1. ASSEMBLY IS IN THE REVERSE ORDER OF SOLENOID DISASSEMBLY.

## **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.



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