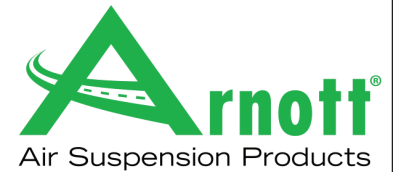


# Installation Manual

A-2862  
ARNOTT FRONT LEFT AIR SPRING  
BMW X5 (E53)



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.*

## GENERAL INFORMATION:

- 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. SET STEERING TO STRAIGHT AHEAD.
2. RAISE VEHICLE.
3. REMOVE FRONT WHEEL.
4. REMOVE THE BRAKE HOSE FROM THE RETENTION BRACKET ON THE STRUT. (FIGURE A)



FIGURE A

5. DISCONNECT THE SWAY BAR LINK BY REMOVING THE NUT HOLDING THE BALL JOINT TO THE STRUT. YOU MAY NEED TO HOLD THE BALL JOINT FROM SPINNING BY PLACING A WRENCH ON THE TWO FLATS OF THE BALL JOINT ON THE BACK SIDE OF THE BRACKET. (FIGURE B)



FIGURE B

6. OPEN THE HOOD AND REMOVE THE THREE (3) UPPER MOUNT NUTS. (FIGURE C)



FIGURE C

7. REMOVE THE TWO LARGE BOLTS THAT HOLD THE STRUT TO THE SPINDLE ASSEMBLY. (FIGURE D) WITH THE NUTS AND BOLTS REMOVED FROM THE SPINDLE ASSEMBLY, PULL THE SPINDLE OUTWARD WHILE PUSHING THE STRUT. (FIGURE D & E)

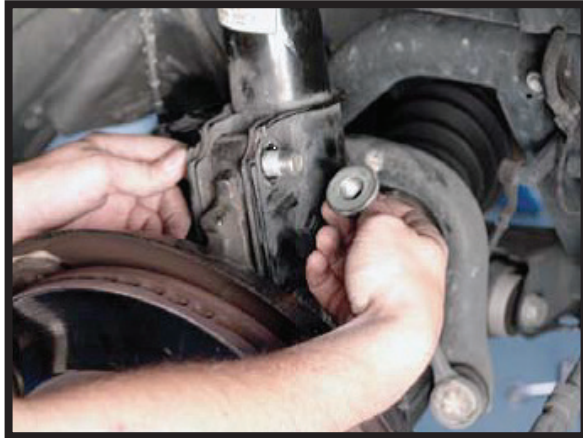


FIGURE D



FIGURE E

8. WITH THE AIR STRUT REMOVED YOU CAN NOW GAIN ACCESS TO ITS HOSE CONNECTION, SLOWLY REMOVE THE FITTING TO DEFLATE AND FREE THE ASSEMBLY. REMOVE THE AIR LINE FITTING FROM THE AIR HOSE AND DISCARD. (FIGURE F)

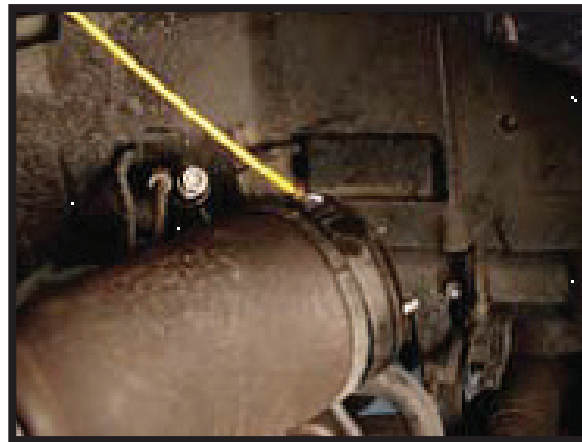


FIGURE F

## AIR SPRING DISASSEMBLY/ASSEMBLY

1. REMOVE THE M14X1.5MM LOCK-NUT, TOP WASHER AND TOP SEALING WASHER FROM THE TOP OF THE SHOCK, DISCARD ALL OLD HARDWARE. (FIGURE G)

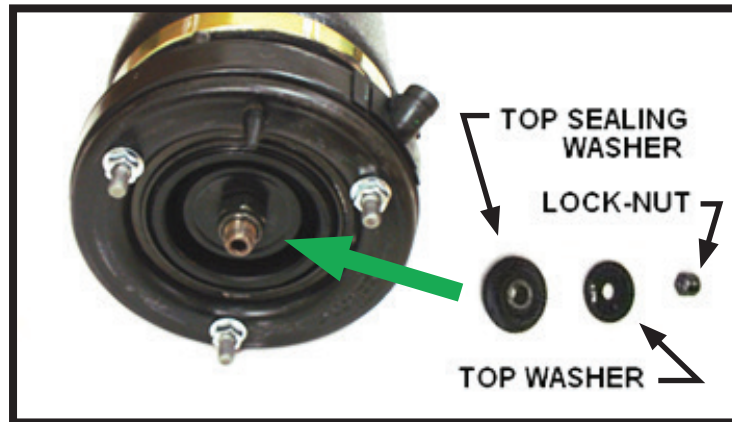


FIGURE G

2. REMOVE THE PLASTIC RETAINING PIN AT THE BOTTOM OF THE AIR SLEEVE ASSEMBLY AND DISCARD. (FIGURE H)

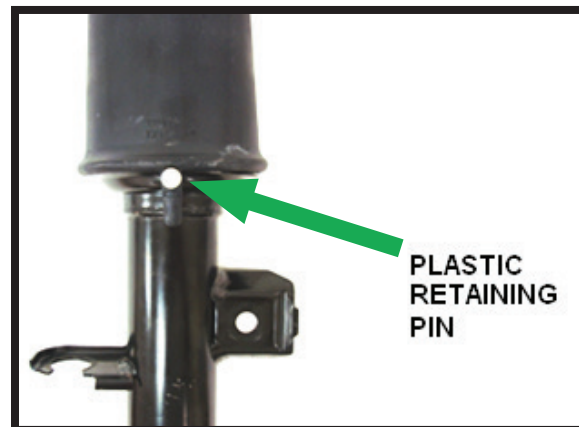


FIGURE H

3. REMOVE THE AIR SLEEVE ASSEMBLY FROM THE TOP OF THE SHOCK SHAFT AND DISCARD. NOTE THE ORIENTATION OF THE ALIGNMENT PIN TO THE SHOCK BEFORE REMOVAL. (FIGURE I)

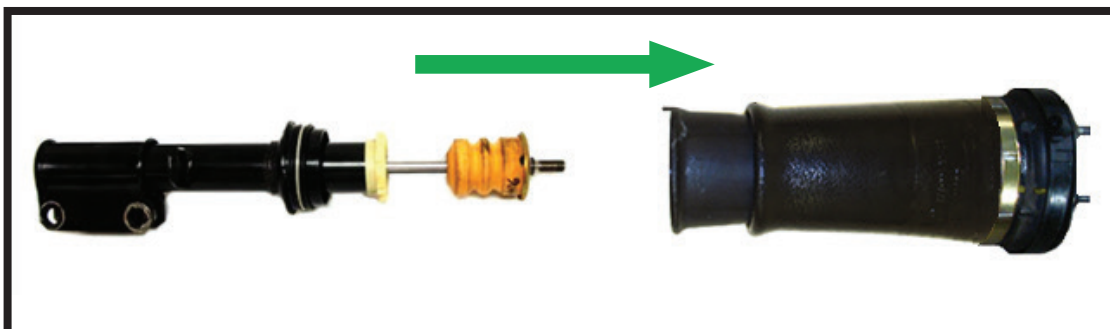


FIGURE I



4. REMOVE THE TWO (2) O-RINGS, TWO (2) BACK-UP RINGS, LARGE GOLD WASHER, AND BUMP STOP FROM THE TOP OF THE SHOCK SHAFT AND DISCARD. (FIGURE J)

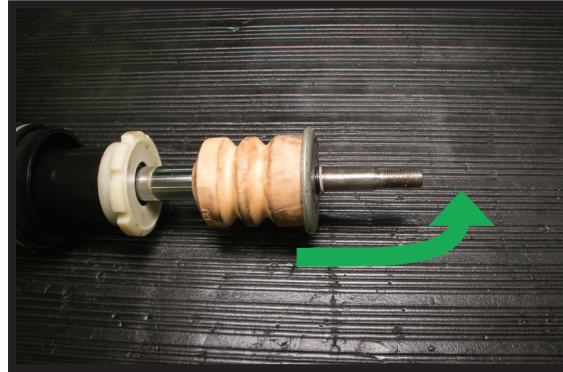


FIGURE J

5. INSTALL THE NEW BUMP STOP AND BLACK WASHER FROM THE BAG LABELLED "INSIDE" WITH THE RECESSED SIDE FACING THE BUMP STOP. (FIGURE K)

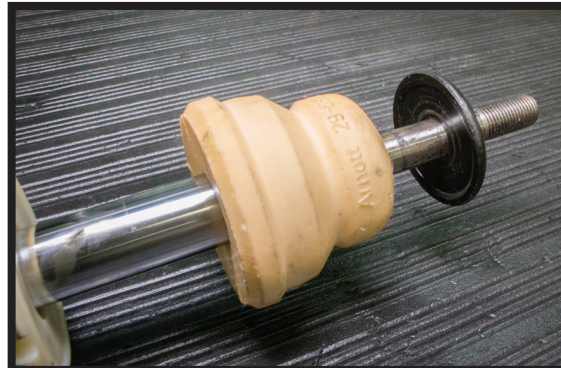


FIGURE K

6. INSTALL THE NEW ARNOTT<sup>®</sup> AIR SLEEVE ASSEMBLY ONTO SHOCK WITH THE ALIGNMENT PIN IN THE SAME ORIENTATION AS THE OLD AIR SPRING. APPLY A SILICONE BASE LUBRICANT ON THE LOWER O-RINGS PRIOR TO INSTALLING AIR SLEEVE ASSEMBLY. (FIGURE L)

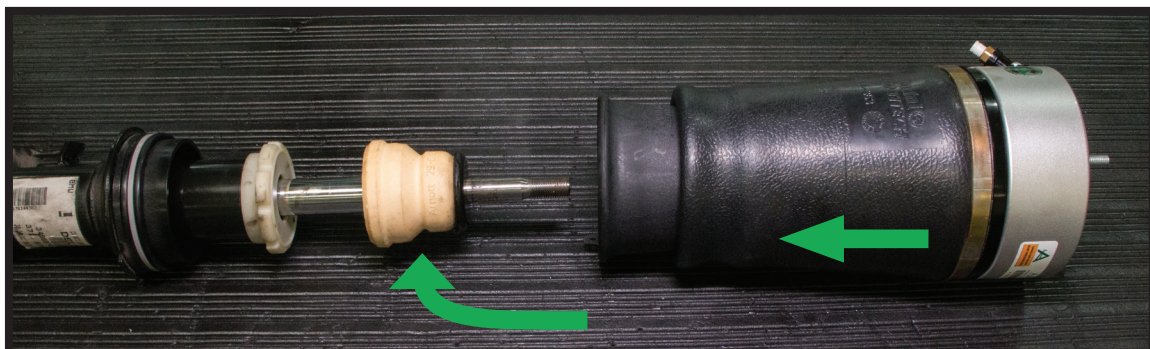


FIGURE L

7. SLIDE AIR SLEEVE ASSEMBLY ONTO THE SHOCK UNTIL LOWER PISTON SEATS ONTO THE 2 (TWO) LOWER O-RINGS. ALIGN THE HOLE IN THE ALIGNMENT TAB ON THE PISTON WITH THE HOLE ON THE SHOCK, INSTALL THE PLASTIC RETAINING PIN PROVIDED IN THE KIT. FAILURE TO DO SO MAY CAUSE THE AIR SLEEVE ASSEMBLY TO NOT SEAL OR INFLATE. (FIGURE M)

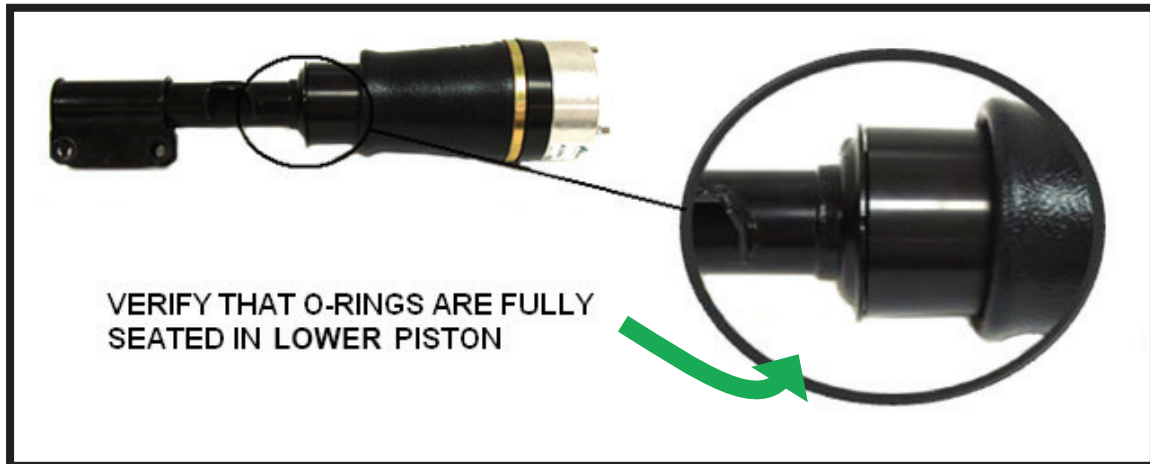



FIGURE M

 *When installing the top sealing washer make sure that the lip on the inside diameter (smaller) is facing out. Improper installation can cause damage to the shock assembly and void warranty*

8. INSTALL NEW TOP SEALING WASHER, TOP WASHER AND LOCK-NUT FROM THE HARDWARE KIT PROVIDED. TORQUE LOCK-NUT TO 130 NM. (FIGURE N)

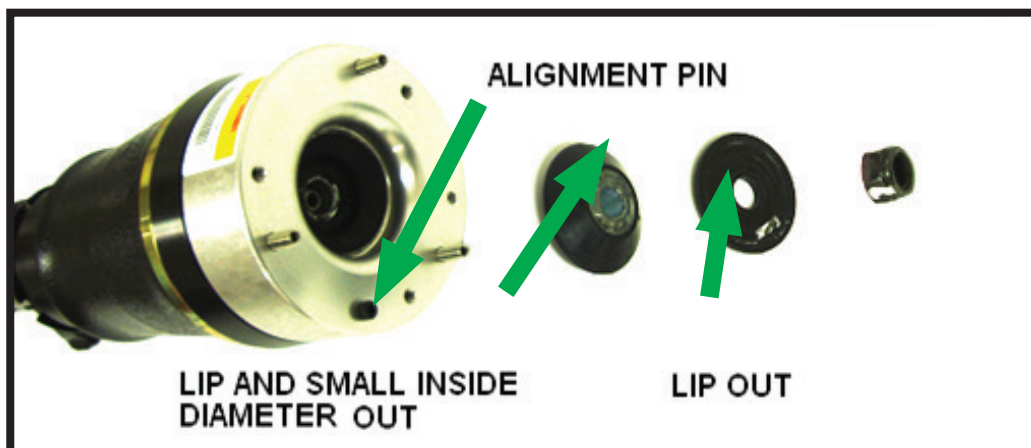
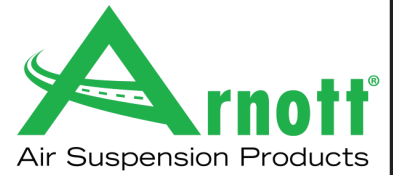


FIGURE N

9. DISASSEMBLY/ASSEMBLY COMPLETE.

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## AIR STRUT INSTALLATION



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

1. INSTALLATION IS IN REVERSE ORDER OF REMOVAL.