



SSA02239N  
DI.PA. SPORT FRONT AIR SPRING  
FOR 1999-2005  
AUDI ALLROAD



**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 protective hand, ear, and eye protection when servicing the air suspension system.*



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**GENERAL INFORMATION:**

- 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.*

**AIR STRUT REMOVAL**

1. SET STEERING TO STRAIGHT AHEAD.
2. LOOSEN AND REMOVE THE THREE (3) TOP BOLTS UNDER THE HOOD. (FIGURE A)

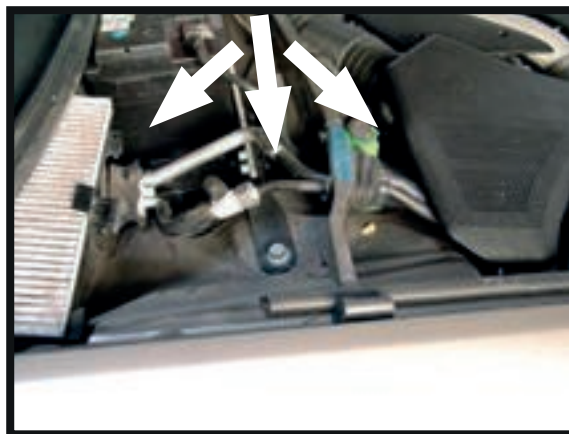


FIGURE A

3. RAISE THE VEHICLE.
4. REMOVE THE FRONT WHEEL.



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5. REMOVE THE PINCH BOLT FROM THE FRONT OF THE CONTROL ARMS. (FIGURE B)

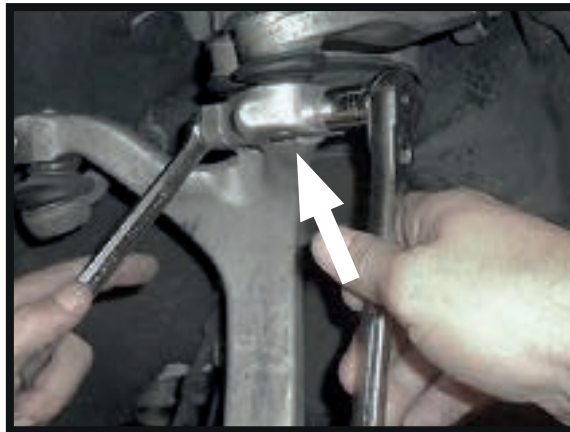


FIGURE B

6. REMOVE BOTH BALL JOINTS FROM THE FRONT SUSPENSION LINK. (FIGURE C)



FIGURE C

7. REMOVE THE REMAINING AIR PRESSURE FROM THE FRONT AIR SPRING. TO DEFLATE THE AIR SPRING, CAREFULLY REMOVE THE AIR FITTING FROM THE TOP OF THE AIR SPRING. REMOVE THE AIR LINE FITTING FROM THE AIR LINE AND DISCARD. (FIGURE D)



FIGURE D



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8. LOOSEN AND REMOVE THE LOWER SHOCK BOLT. (FIGURE E)

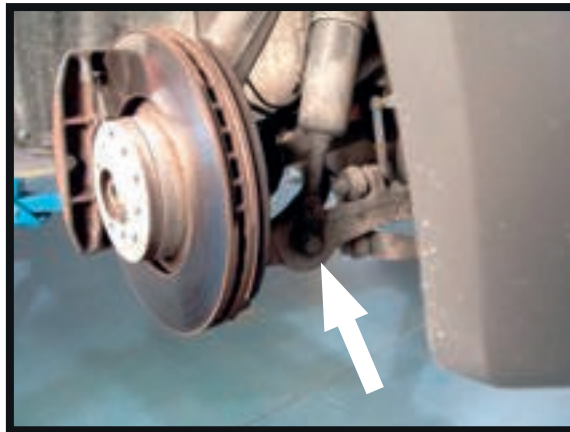


FIGURE E

9. CAREFULLY REMOVE THE SHOCK ASSEMBLY FROM THE VEHICLE. (FIGURE F)



FIGURE F

10. USING A 12 POINT TORX BIT, REMOVE THE 6 UPPER SHOCK MOUNTING BOLTS. REMOVE THE TOP CAST ALUMINUM SHOCK CAP. (FIGURE G)



FIGURE G



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11. REMOVE THE CENTER FLANGE NUT FROM THE TOP OF THE SHOCK. (FIGURE H)



FIGURE H

12. REMOVE THE RUBBER UPPER MOUNT AND WASHER. BOTH OF THESE WILL BE REUSED IN THE NEW ASSEMBLY. (FIGURE I)



FIGURE I

13. REMOVE THE OLD AIR SPRING FROM THE SHOCK. YOU MAY HAVE TO TAP DOWN ON THE AIR SPRING PISTON TO DISLodge IT FROM THE OLD SHOCK. (FIGURE J)



FIGURE J



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14. REMOVE AND DISCARD THE OLD O-RING USED TO SEAL THE AIR SPRING TO THE SHOCK. THIS O-RING WILL NOT BE REUSED IN THE NEW ASSEMBLY. (FIGURE K)



FIGURE K

**AIR SPRING INSTALLATION**



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



*Do not remove the air fitting from the air spring. Doing so may cause damage and/or void warranty. Remove the white shipping pin from the new air fitting and insert the air line until fully seated.*

1. LUBRICATE THE O-RING IN THE BOTTOM OF THE NEW AIR SPRING ASSEMBLY, AND SLIDE THE NEW AIR SPRING OVER THE SHOCK ABSORBER. (FIGURE L)



FIGURE L





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2. REMOVE THE NEW O-RING FROM BAG AND LUBRICATE. INSTALL NEW O-RING INTO THE FACE GROOVE LOCATED ON THE TOP SIDE OF THE AIR SPRING. REPLACE THE TOP WASHER, RUBBER MOUNT AND FLANGE NUT. (FIGURE M)



FIGURE M

3. REPLACE THE CAST ALUMINUM SHOCK CAP AND REPLACE THE SIX 12 POINT TORX BOLTS. (FIGURE N)



FIGURE N

## **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.