Installation Manual

C-2609 ARNOTT COIL SPRING CONVERSION KIT MERCEDES-BENZ S550 (W221)



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 <u>800-251-8993</u> during normal business hours or email <u>techassistance@arnottinc.com</u>. (In the EU please call +31 (0)73 7850 580 or email <u>info@arnotteurope.com</u>)

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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 <u>www.arnottinc.com.</u>

- 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.

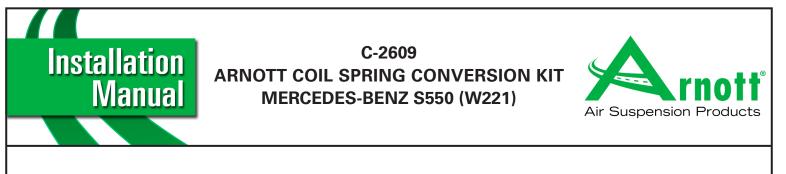
2. REMOVE APPLICABLE FRONT WHEEL. (FIGURES 1, 2)



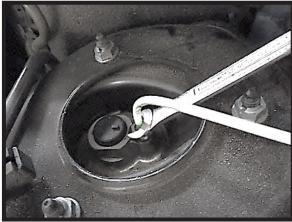
FIGURE 1



FIGURE 2



3. REMOVE AIRLINE AND THREE (3) UPPER MOUNT NUTS. (FIGURES 3, 4)





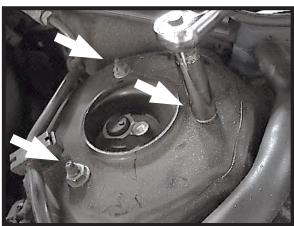


FIGURE 4

4. LOCATE THE AIR STRUT'S ELECTRICAL CONNECTOR AND REMOVE RETAINING CLIP. (FIGURE 5)

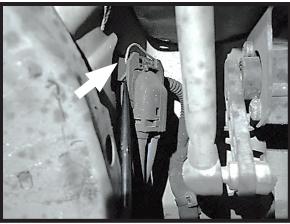


FIGURE 5

5. DISCONNECT AND SEPARATE THE TWO (2) ELECTRICAL CONNECTORS. (FIGURES 6, 7)

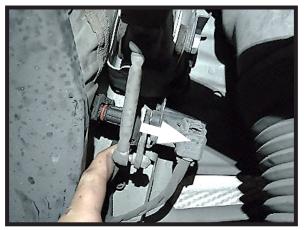


FIGURE 6

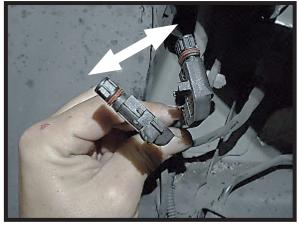


FIGURE 7



6.

CUT CABLE TIES AND REMOVE BRAKE LINE BRACKET AND BOTTOM CLIP. (FIGURES 8, 9, 10, 11)

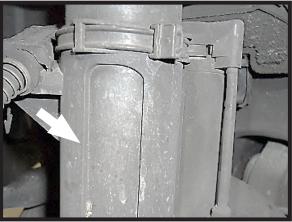






FIGURE 10

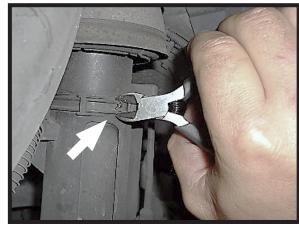


FIGURE 9

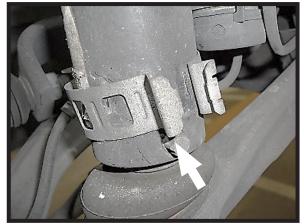


FIGURE 11

7. LOCATE AND LOOSEN LOWER MOUNT SET SCREWS. (FIGURE 12)

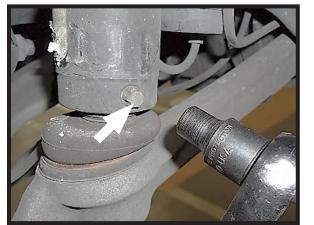
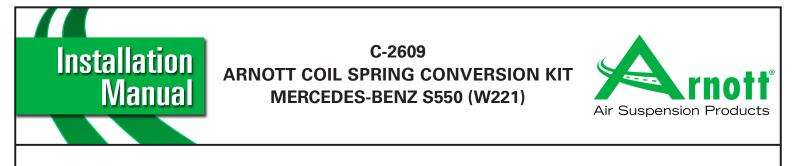


FIGURE 12



8. LOOSEN UPPER CONTROL ARM NUT. (FIGURE 13)

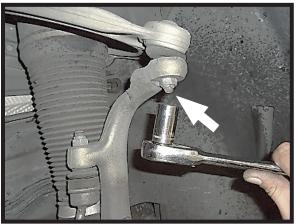


FIGURE 13

9. SEPARATE THE UPPER CONTROL ARM FROM THE SPINDLE ASSEMBLY. (FIGURES 14, 15)

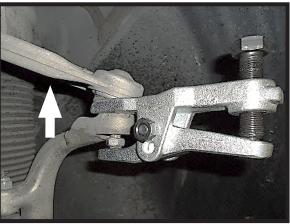






FIGURE 15

10. PULL DOWN ON THE SPINDLE ASSEMBLY, AND REMOVE THE AIR STRUT FROM THE VEHICLE. (FIGURES 16, 17)

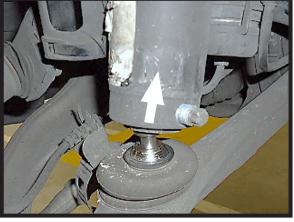
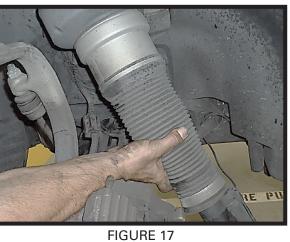


FIGURE 16



REV 2

02/28/2017





20. REMOVAL COMPLETE.

FRONT COIL STRUT INSTALLATION



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

1. INSTALL FRONT COIL STRUT ONTO VEHICLE. (FIGURE 18)



FIGURE 18

2. SEATTHE COIL STRUT ONTO THE LOWER BALL JOINT AND TIGHTEN THE LOWER SET SCREWS. (FIGURES 19, 20)







FIGURE 20





3. REINSTALL THE UPPER CONTROL ARM NUT AND TIGHTEN TO MANUFACTURER SPECIFICATIONS. (FIGURES 21, 22)





FIGURE 21 FIGURE 22 REINSTALLTHE BRAKE LINE HOLDER AND SECURE IT WITHTHE SUPPLIED HARDWARE. (FIGURES 23, 24, 25, 26)



FIGURE 23



FIGURE 24



FIGURE 26

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FIGURE 25

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4.



5.

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INSTALLTHE UPPER MOUNTING NUTS. (FIGURES 27, 28)



FIGURE 27



FIGURE 28

REAR AIR STRUT REMOVAL

- 1. SET STEERING TO STRAIGHT AHEAD.
- 2. LIFT VEHICLE AND REMOVE THE REAR WHEELS. (FIGURE 1)



FIGURE 29





3. REMOVE THE BRAKE CALIPER RETAINING CLIP. (FIGURE 30)



FIGURE 30

4. DISCONNECT AND REMOVE THE BRAKE PAD WEAR SENSOR. REMOVE THE TWO (2) BOLTS HOLDING THE BRAKE CALIPER. REMOVE THE BRAKE CALIPER AND SUSPEND TO PREVENT DAMAGE TO BRAKE LINES. (FIGURE 31, 32)







FIGURE 32

REMOVE THE FASTENERS AND INNER WHEEL LINER TO EXPOSE THE REAR AIR STRUT'S WIRING BLOCK. (FIGURE 33, 34)



FIGURE 33



FIGURE 34

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5.





6. REMOVE THE METAL CLIP AND PLUG FOR THE REAR AIR STRUT'S DAMPENING COIL. (FIGURE 35, 36)



FIGURE 35



FIGURE 36

7. REMOVE THE LOWER SWAY BAR END LINK NUT AND SEPARATE. (FIGURE 37)



FIGURE 37 8. REMOVE THE LOWER AIR STRUT MOUNTING NUT. (FIGURE 38)



FIGURE 38

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9. REMOVE THE LOWER CONTROL ARM NUT. (FIGURE 39)



FIGURE 39

10. REMOVE THE REAR DASH COVER FROM INSIDE OF THE VEHICLE. (FIGURE 40)





11. PULL BACK THE FOAM INSULATION TO EXPOSE THE AIR STRUT TOP MOUNT. (FIGURE 41)



FIGURE 41

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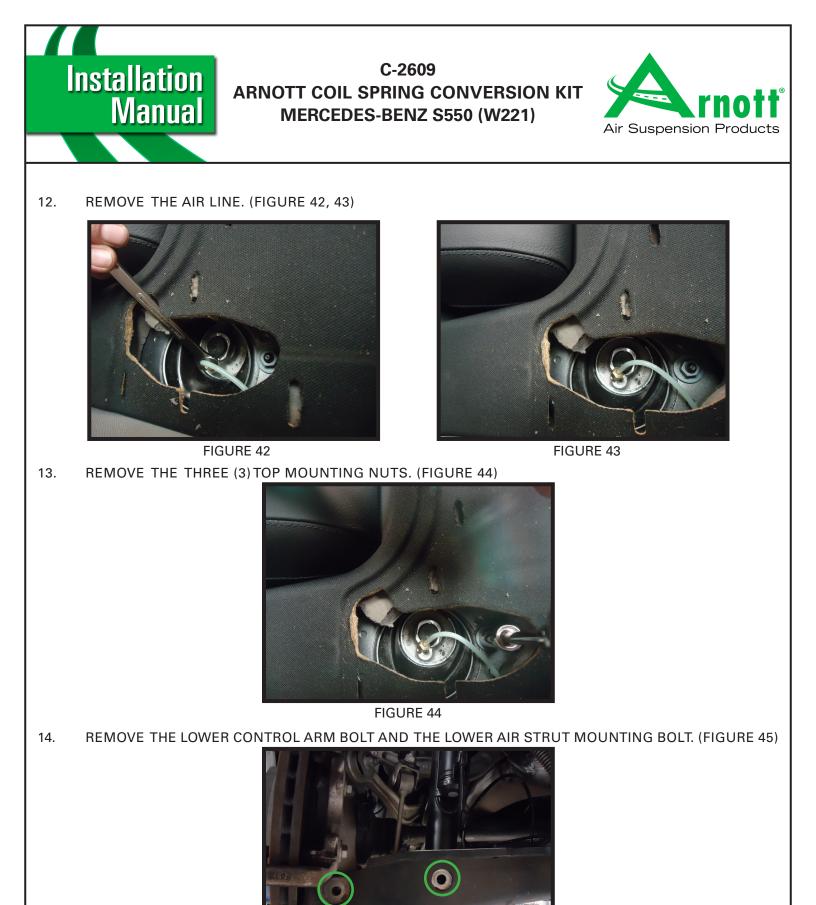


FIGURE 45



15. PULL DOWN ON THE LOWER CONTROL ARM AND REMOVE THE AIR STRUT FROM THE VEHICLE. (FIGURE 46)



FIGURE 46

16. REMOVAL COMPLETE.

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REAR COIL STRUT INSTALLATION



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

1. INSTALL COIL STRUT ONTO VEHICLE. (FIGURE 47)



FIGURE 47





2. REINSTALL THE LOWER STRUT MOUNTING NUT AND BOLT AND TIGHTEN TO MANUFACTURER SPECIFICATIONS. (FIGURE 48, 49)





FIGURE 48

FIGURE 49

3. RAISE THE LOWER CONTROL ARM AND REINSTALL THE MOUNTING NUT AND BOLT AND TIGHTEN TO MANUFACTURER SPECIFICATIONS. (FIGURE 50, 51)



FIGURE 50



FIGURE 51





4. REINSTALL THE SWAY BAR END-LINKS AND TIGHTEN TO MANUFACTURER SPECIFICATIONS. (FIG 52, 53)



FIGURE 52



FIGURE 53

5. REATTACH BRAKE CALIPER AND BOLT INTO PLACE. (FIGURE 54, 55, 56)

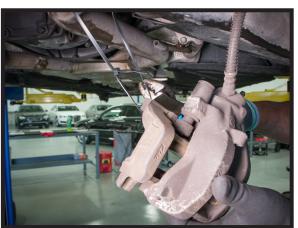


FIGURE 54



FIGURE 55



FIGURE 56





6.

ON THE RIGHT REAR, REATTACH BRAKE SENSOR AND PLUG IN. (FIGURE 57, 58, 59, 60)



FIGURE 57



FIGURE 59



FIGURE 58

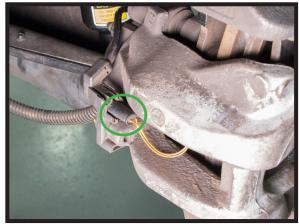


FIGURE 60



7.

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REINSTALL THE INNER WHEEL WELL LINER. (FIGURE 61)



FIGURE 61

8. REINSTALL THE BRAKE CALIPER RETAINING CLIP. (FIGURE 62)



FIGURE 62 SECURE THE THREE (3) TOP MOUNTING NUTS. (FIGURE 63)



FIGURE 63

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9.





10. REPACK FOAM AIR LINE REMAINS DISCONNECTED. (FIGURE 64)



FIGURE 64

11. REPLACE REAR DECK LID. (FIGURE 65)



FIGURE 65

EBM INSTALLATION

1. REMOVE PASSENGER SIDE FLOOR MAT TO ACCESS THE KICK PLATE. (FIGURES 66, 67)



FIGURE 66



FIGURE 67

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LOOSEN AND REMOVE THE (3) FASTENERS, THEN LAY THE KICK PLATE DOWN ON THE FLOOR BOARD TO EXPOSE THE VEHICLES AIR SUSPENSION CONTROL MODULE. (FIGURE 61, 62)



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2.

3.

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FIGURE 61



FIGURE 62

UNPLUG THE MODULE FROM THE VEHICLE AND INSTALL THE EBM USING THE SUPPLIED HARDWARE AND WIRING DIAGRAM. (FIGURES 63, 64)



FIGURE 63



FIGURE 64





4. SPLICE WIRES USING WIRING DIAGRAM IN STEP 5. (FIGURES 65, 66, 67)



FIGURE 65

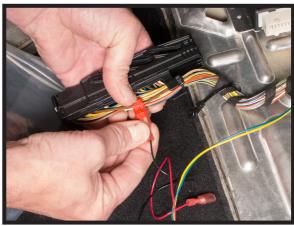


FIGURE 66

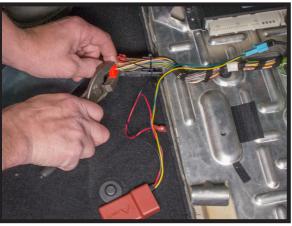


FIGURE 67

5. WIRING DIAGRAM. (FIGURE 68)

ELECTRONIC BYPASS MODULE	FROM	то	VEHICLE'S WIRING HARNESS
	YELLOW	TWO PIN CONNECTOR (Pin 24)	
	BLUE	TWO PIN CONNECTOR (Pin 25)	
	RED	RED/WHITE (Pin 47)	
	BLACK	BROWN (Pin 21)	

FIGURE 68

NOTE: Leave air suspension control module disconnected.

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6.

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INSIDE THE ENGINE COMPARTMENT, OPEN THE FUSE BOX AND REPLACE THE BELOW INDICATED FUSE (#46) WITH THE INCLUDED FUSE. (FIGURES 69, 70, 71, 72)



FIGURE 69



FIGURE 70

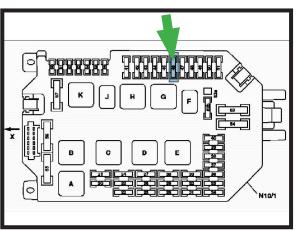


FIGURE 71

7. EBM INSTALLATION COMPLETE.



FIGURE 72