



# INSTALLATION MANUAL

C-5038

Arnett New Coil Spring Conversion Kit  
Mercedes-Benz E-Class Wagon (S211 w/ADS,  
w/o 4MATIC & Avantgarde, Excl. AMG)



Engineered to Ride, Built to Last<sup>®</sup>

# 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.arnottinc.com](http://www.arnottinc.com) and [www.arnotteurope.com](http://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.

# FRONT AIR STRUT REMOVAL

1. Set the steering to straight ahead.
2. Raise the vehicle.
3. Remove the front wheels. (Figure 1, 2)



FIGURE 1



FIGURE 2

4. Locate and remove the upper control arm ball joint nut. (Figures 3, 4)



FIGURE 3



FIGURE 4

5. Separate the ball joint from the spindle assembly. (Figure 5)



FIGURE 5

6. Remove the sensor lines from brackets. (Figure 6)

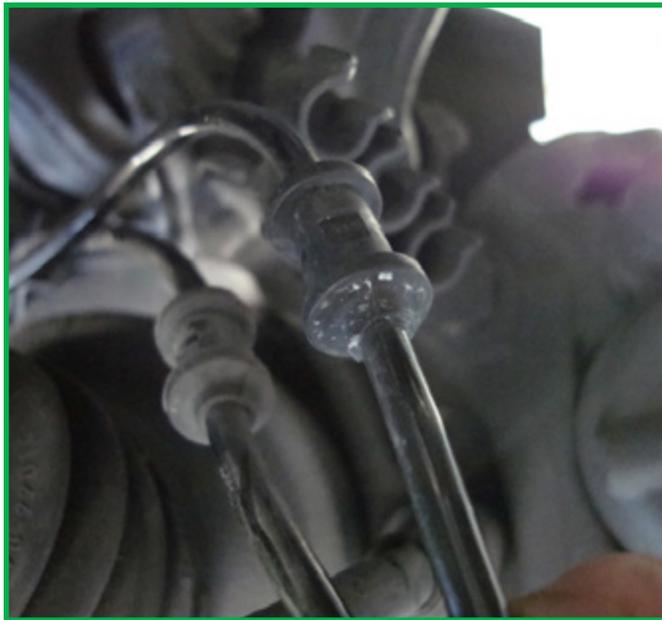


FIGURE 6

7. Remove the inner fender well screws. (Figures 7, 8)



FIGURE 7



FIGURE 8

8. Disconnect the strut's electrical plug located behind the inner fender well. (Figure 9)



FIGURE 9

9. Loosen but do not remove the lower strut mounting bolt. (Figure 10)

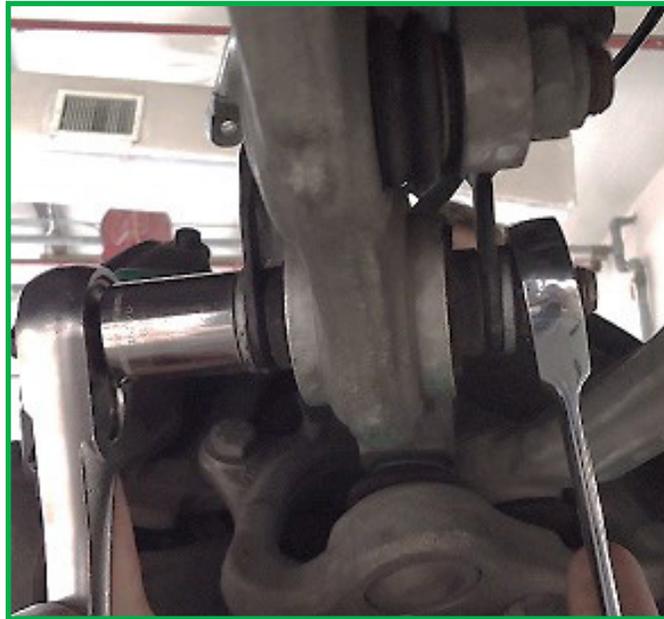


FIGURE 10

10. Remove the air line. (Figure 11)



FIGURE 11

11. Unplug the electrical connector. (Figure 12)



FIGURE 12

12. Remove the three top mounting bolts. (Figures 13, 14)



FIGURE 13



FIGURE 14

13. Remove the lower strut mounting bolt. (Figures 15, 16)



FIGURE 15



FIGURE 16

14. Remove the strut assembly from the vehicle. (Figure 17)



FIGURE 17

15. Air strut removal complete.

# FRONT COIL-OVER STRUT INSTALLATION



**WARNING:**

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

1. Install the strut into the upper mount cavity. (Figure 18)



FIGURE 18

2. Position the bottom mount onto the control arm. (Figure 19)



FIGURE 19

3. Install the bottom mount nut and bolt. (Figures 20, 21)



FIGURE 20



FIGURE 21

4. Reconnect the ball joint to spindle assembly. (Figure 22)



FIGURE 22

5. Install the ball joint nut. (Figure 23)



FIGURE 23

6. Install the three top mounting nuts. (Figure 24)



FIGURE 24

7. Front coil-over strut installation complete.

# REAR SHOCK & AIR SPRING REMOVAL

1. Prior to raising vehicle, remove applicable rear side compartment trim to gain access to shock tower. (Figure 25)



FIGURE 25

2. Remove wheel. (Figure 26)

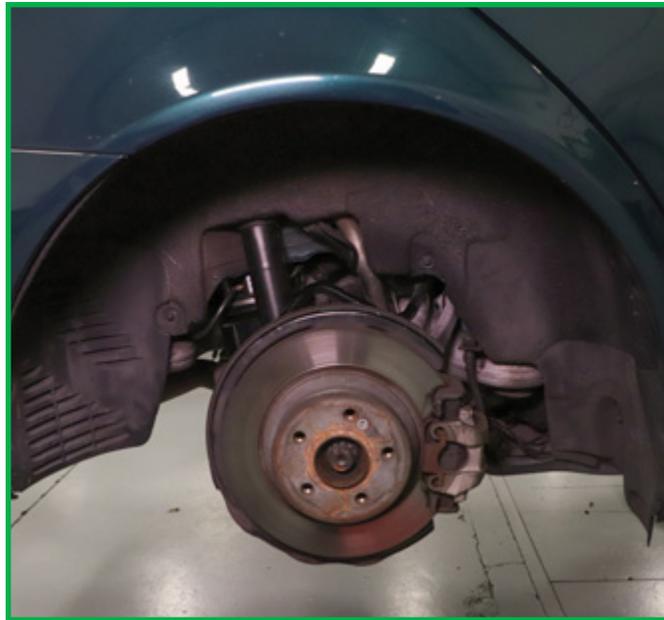


FIGURE 26

3. Deflate air spring using a system diagnostic tool.

4. If applicable, use OEM tool and remove the top nut of shock. (Figures 27, 28)



FIGURE 27



FIGURE 28

5. Remove bottom shock nut/bolt. (Figure 29)

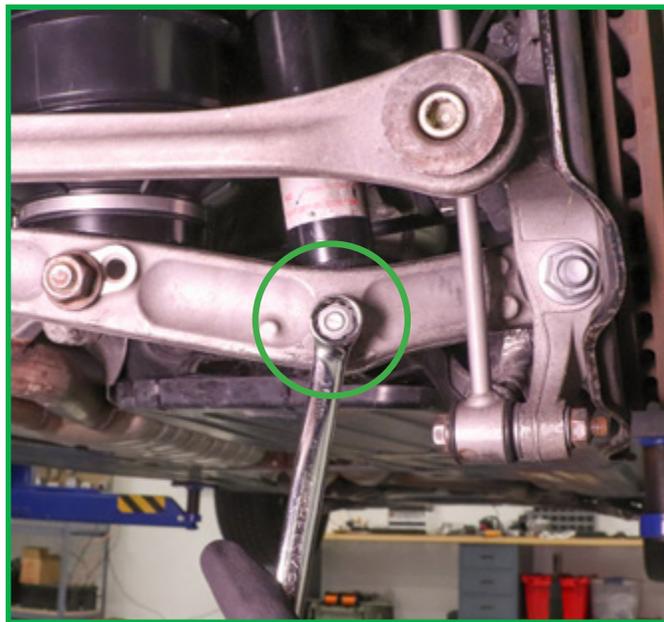


FIGURE 29

6. Compress shock and remove from vehicle. (Figures 30, 31)

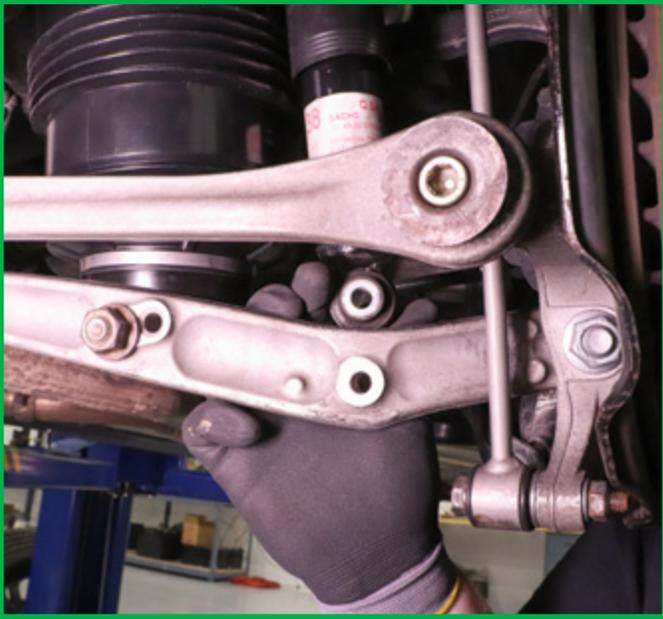


FIGURE 30



FIGURE 31

7. Locate and remove the electrical plug from the air springs top mount. (Figure 32)



FIGURE 32

8. Locate and remove the air line from the air springs top mount. (Figures 33, 34)



FIGURE 33



FIGURE 34

9. Loosen and remove the rear control arm nut and bolt. (Figure 35)



FIGURE 35

10. Dislocate the air spring's top mount from the vehicle. (Figure 36)



FIGURE 36

11. Loosen and remove the air spring's lower mounting nut and bolt. (Figure 37)

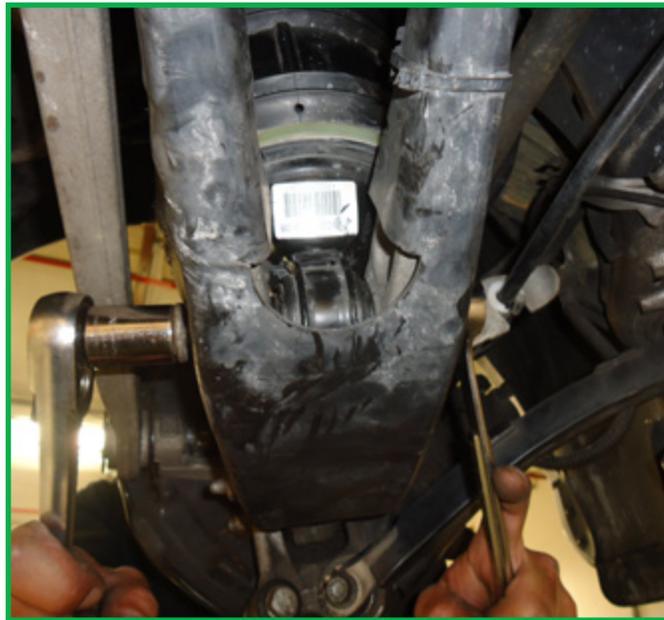


FIGURE 37

12. Remove factory air spring from the vehicle by disconnecting the factory rubber hose leading from the air spring to the air spring's reservoir. Secure the hose in a suitable location away from any moving parts or components with excessive heat. (Figure 38)



FIGURE 38

13. Rear shock and air spring removal complete.

# REAR COIL & SHOCK INSTALLATION



**WARNING:**

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

1. Install the new shocks into the top mounts and secure. (Figure 39)



FIGURE 39

2. Remove old top mount clips and replace with the ones provided in the kit. (Figures 40, 41)



FIGURE 40



FIGURE 41

3. Install the upper spring seats onto the new clips. (Figures 42, 43)



FIGURE 42



FIGURE 43

4. Install the lower spring perches into the lower control arms, and secure. (Figures 44, 45)



FIGURE 44



FIGURE 45

**NOTE:** Pay special attention to the “facing wheel” label on the perches to orient them properly within the lower control arms.

5. Loosen and remove the lower sway bar end link bolt. (Figures 46, 47)



FIGURE 46



FIGURE 47

6. Loosen and remove rear trailing arm bolt. (Figures 48, 49)



FIGURE 48

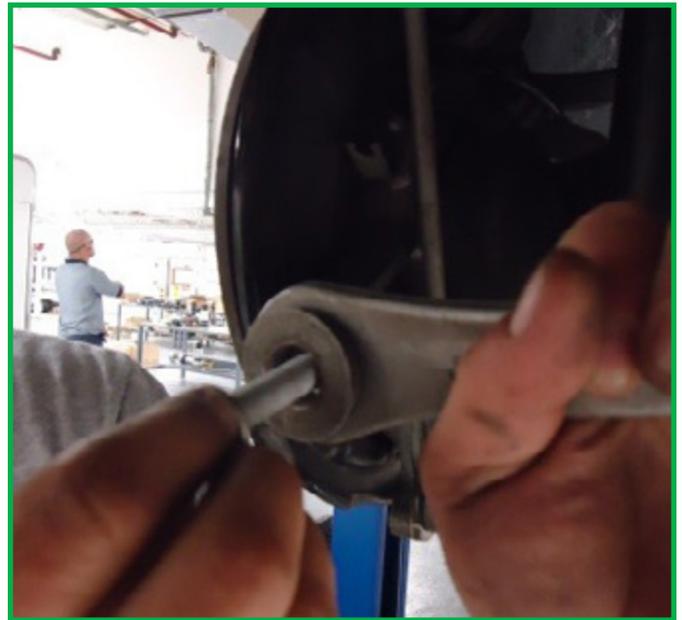


FIGURE 49

7. Loosen and remove the front trailing arm bolt. (Figures 50, 51)



FIGURE 50

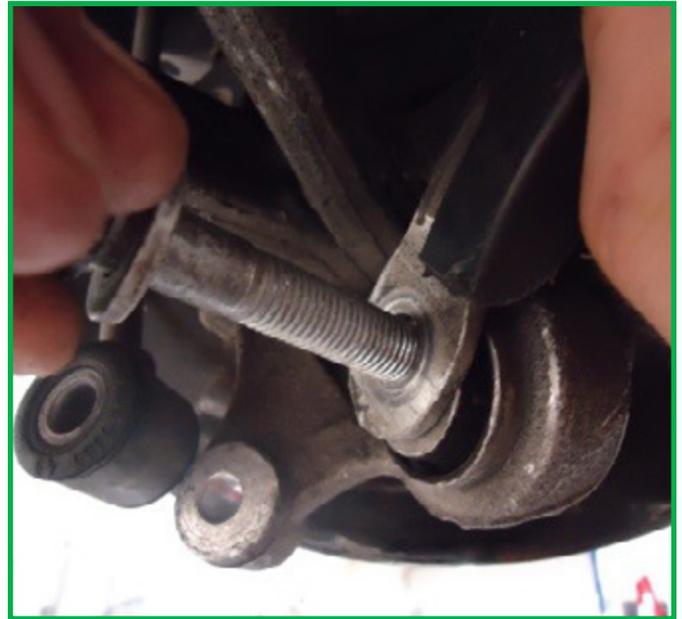


FIGURE 51

8. Loosen and remove the upper control arm bolt from the spindle assembly. (Figure 52)



FIGURE 52

9. Loosen and remove lower control arm bolt. (Figures 53, 54)



FIGURE 53



FIGURE 54

10. Pull down on lower control arm and install the spring into the top spring seat. (Figure 55)



FIGURE 55

11. Slide the spring over the hump of the lower spring perch. (Figure 56)

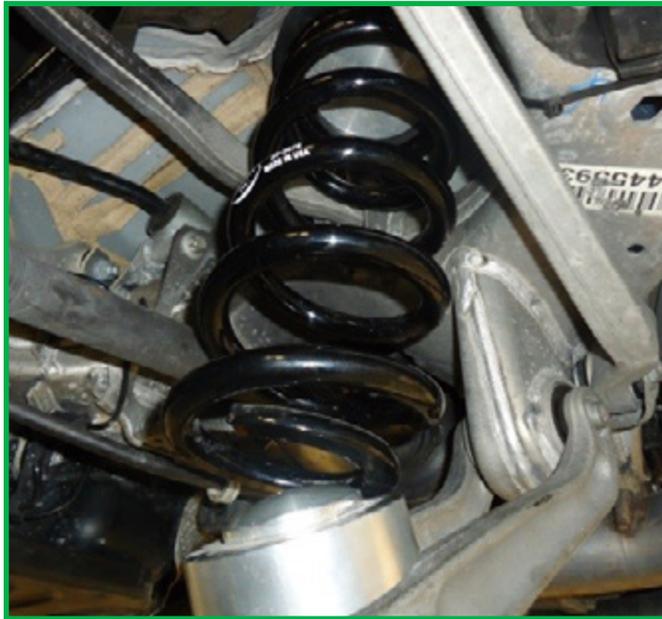


FIGURE 56

12. Using a stand or jack, raise the lower control arm to compress the spring and install the lower shock bolt to hold in place. (Figures 57, 58)



FIGURE 57

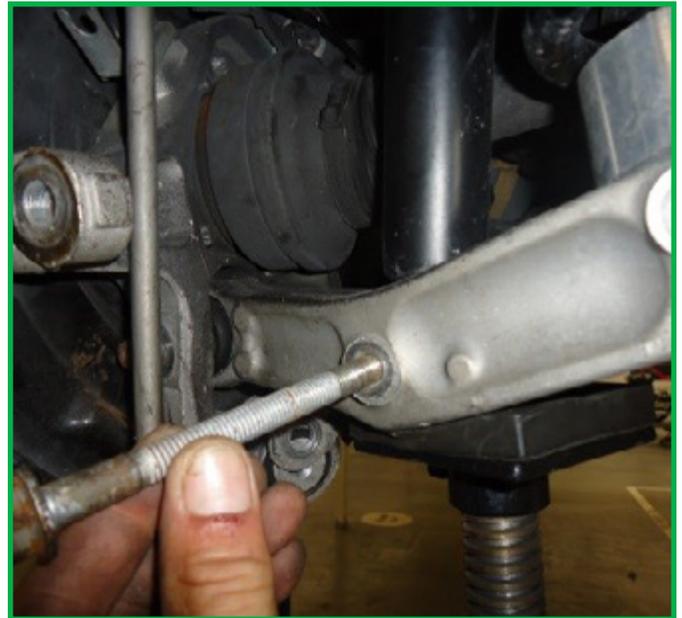


FIGURE 58

**NOTE:** The lower control arm bolt sleeve may need to be adjusted when reinstalling the lower control arm.



13. Reinstall and tighten the lower control arm bolt. (Figures 59, 60)



FIGURE 59



FIGURE 60

14. Reinstall and tighten the upper control arm bolt from the spindle assembly. (Figure 61)



FIGURE 61

15. Reinstall and tighten the front trailing arm bolt. (Figures 62, 63)

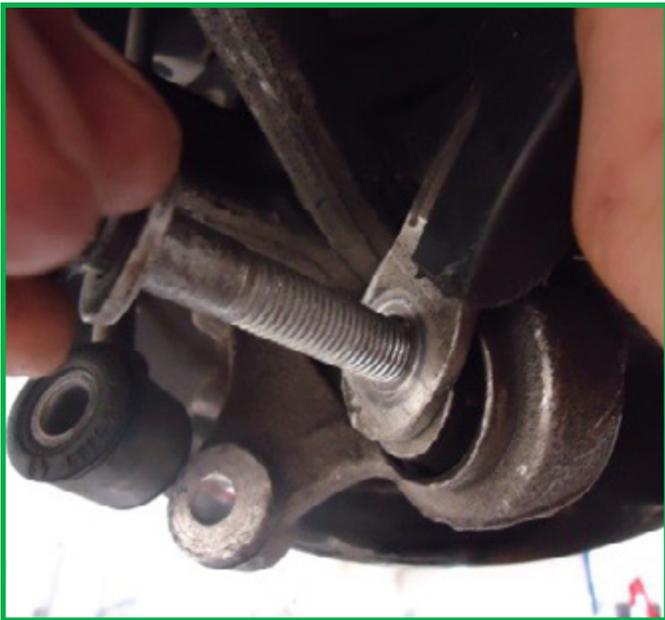


FIGURE 62



FIGURE 63

16. Reinstall and tighten the rear trailing arm bolt. (Figures 64, 65)

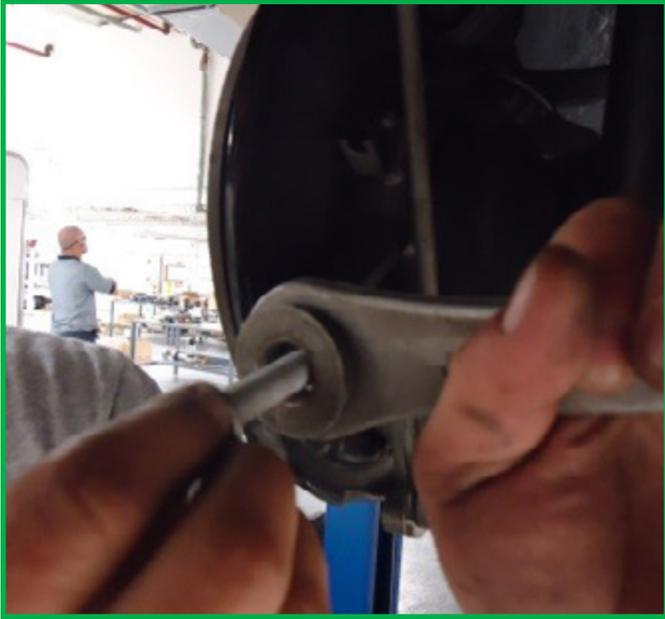


FIGURE 64



FIGURE 65

17. Reinstall and tighten the lower sway bar end link bolt. (Figures 66, 67)



FIGURE 66



FIGURE 67

18. Rear coil and shock installation complete.



**WARNING:**

It is necessary to have your vehicle aligned after installing this kit.

# ELECTRONIC BYPASS MODULE INSTALLATION

1. Begin by removing the front passenger side floor mat. (Figure 68)



FIGURE 68

2. Pull back the kick panel and remove the foam insulation beneath. (Figures 69, 70)



FIGURE 69



FIGURE 70

3. Locate and remove the three nuts holding the metal shield. (Figure 71)



FIGURE 71

4. Remove the metal shield and rest it on the floor to expose the vehicle's air suspension control module. (Figure 72)



FIGURE 72

5. Locate the vehicle's air suspension control module mounted on the metal shield. Disconnect all three (two large and one small) plugs connected to the side. (Figures 73, 74)

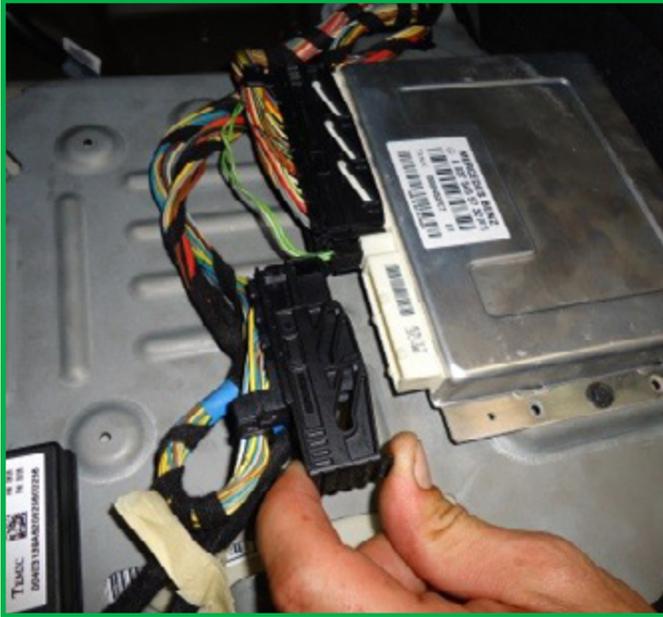


FIGURE 73



FIGURE 74

6. Locate a suitable ground and install the black wire from the electronic bypass modules wiring harness. (Figures 75, 76)



FIGURE 75

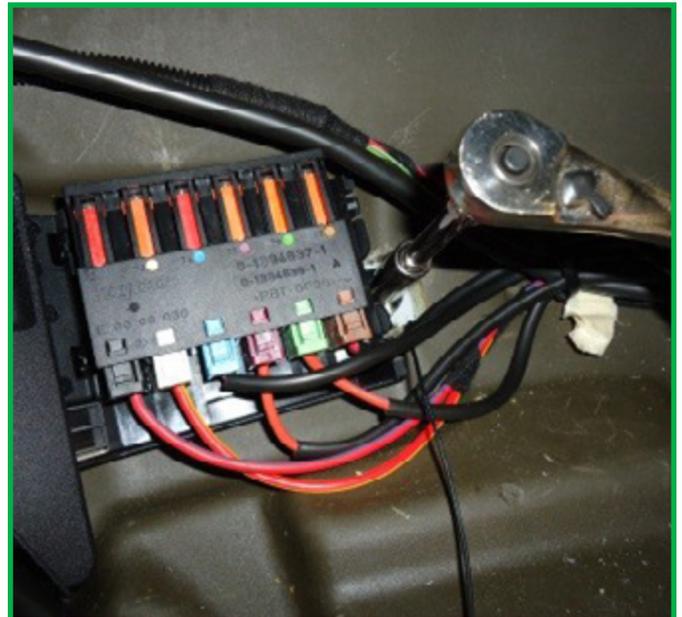


FIGURE 76

7. Locate the positive 12 volt power source and install the red wire from the electronic bypass modules wiring harness. (Figures 77, 78, 79)



FIGURE 77

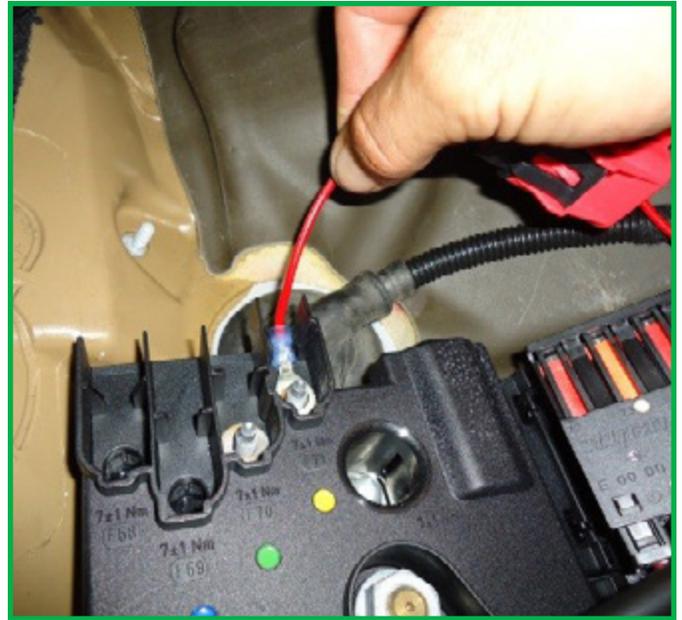


FIGURE 78



FIGURE 79

8. Locate the small, two wire plug from the vehicles wiring harness and plug it into the electronic bypass modules wiring harness. (Figure 80)

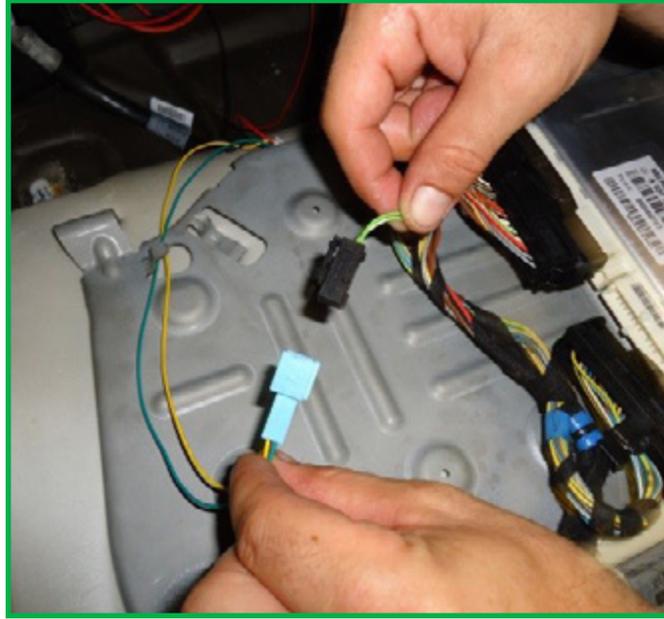


FIGURE 80

9. Plug the new wiring harness into the electronic bypass module. (Figure 81)

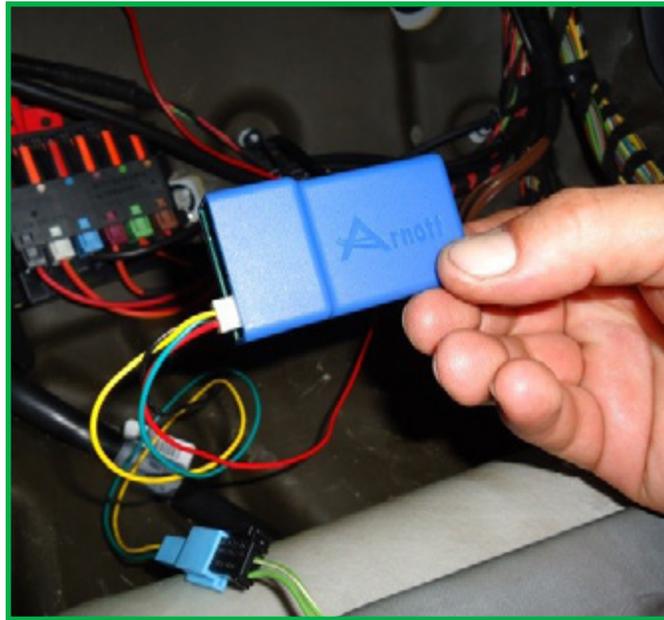


FIGURE 81

- Secure the electronic bypass module in a suitable location and reinstall all panels in reverse order of which they were disassembled. (Figure 82)

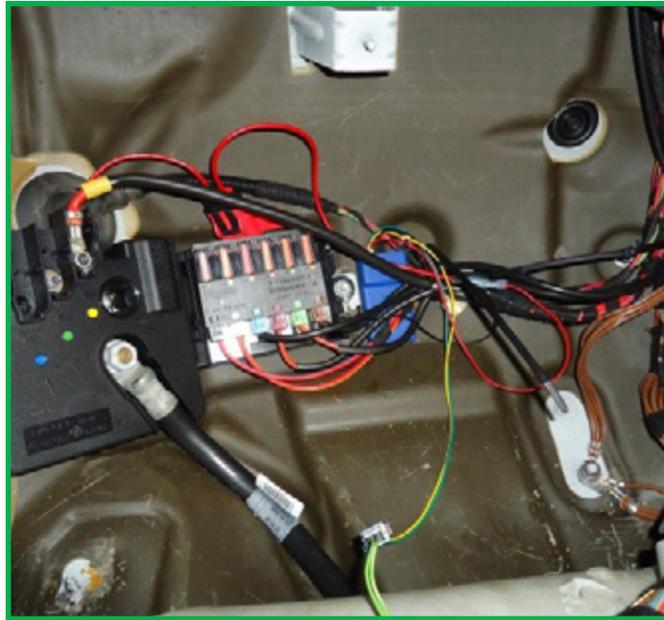


FIGURE 82

- Electronic bypass module installation complete.

**NOTE:** DO NOT plug the factory wiring harness back into the vehicle's air suspension control module.

# Arnott™

## Suspension Products

### Arnott US Business Office:

[www.arnottinc.com](http://www.arnottinc.com)

100 Sea Ray Drive  
Merritt Island, FL 32953

**Call:** 800.251.8993

321.868.3016

**Fax:** 321.868.3703

**Email:** [techassistance@arnottinc.com](mailto:techassistance@arnottinc.com)

### Arnott Europe Business Office:

[www.arnotteurope.com](http://www.arnotteurope.com)

Docterskampstraat 1E/1F, 3  
5222 AM 's-Hertogenbosch (NL)

**NL Phone:** +31 73 7850 580

**DE Phone:** +31 85 2087 438

**UK Phone:** +44 203 3186 124

**BE Phone:** +32 258 846 90

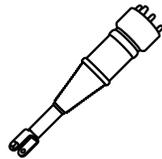
**ES Phone:** +34 91 901 10 56

**FR Phone:** +32 78 48 46 93

**Email:** [info@arnotteurope.com](mailto:info@arnotteurope.com)



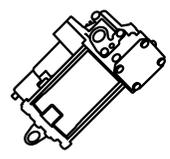
Air Springs



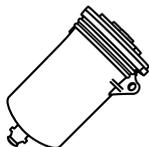
Struts



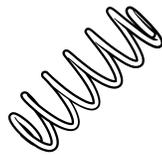
Shocks



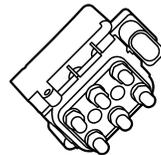
Compressors



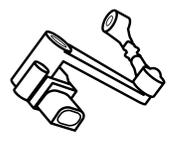
Dryers



Coil Spring  
Conversion Kits



Valve Blocks



Ride Height  
Sensors