

Installation Manual

**C-3698
ARNOTT
NEW COIL SPRING CONVERSION KIT
2003-2009 MERCEDES-BENZ E-CLASS (W211)
4MATIC, SEDAN w/ADS**



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 protective 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. (In the EU please call +31 (0)73 7850 580 or email info@arnotteurope.com)

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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 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.

FRONT AIR STRUT REMOVAL

1. SET STEERING TO STRAIGHT AHEAD.
2. RAISE THE VEHICLE.
3. REMOVE THE APPLICABLE WHEEL. (FIGURE 1)

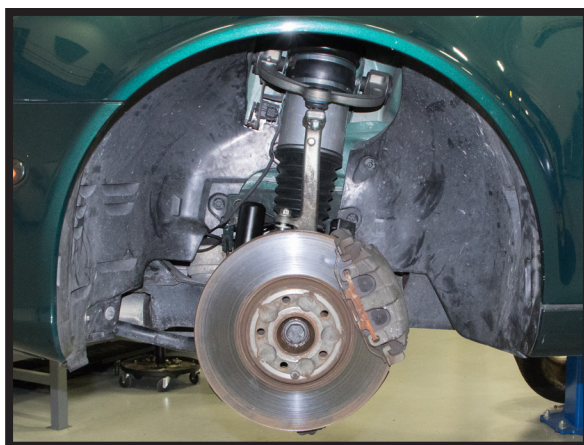


FIGURE 1

4. REMOVE THE AIR LINE. (FIGURE 2)

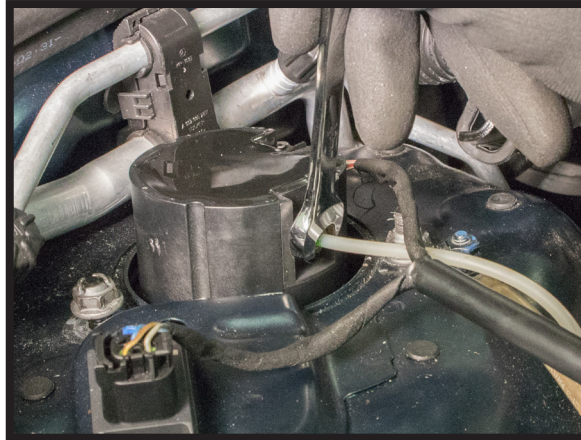


FIGURE 2

5. DISCONNECT THE ELECTRICAL CONNECTION. (FIGURE 3)



FIGURE 3

6. REMOVE THE THREE TOP MOUNTING NUTS FROM THE STRUT. (FIGURE 4)

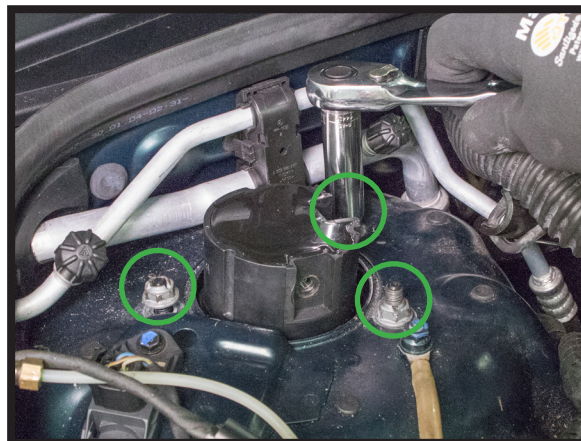


FIGURE 4

7. REMOVE THE WIRES FROM THE WIRE CLIP ON THE SWAY BAR END LINK. (FIGURES 5, 6)

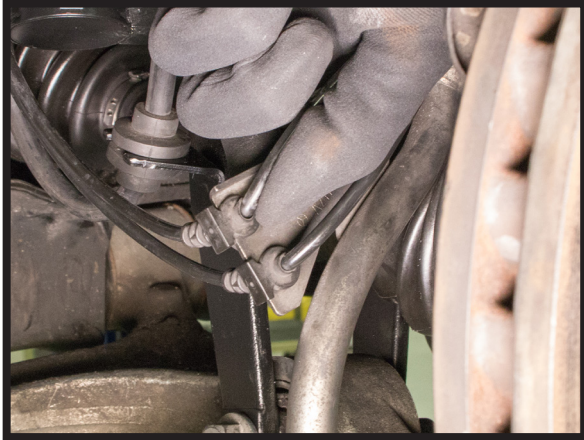


FIGURE 5



FIGURE 6

8. FOLLOW THE WIRING FROM THE SHOCK AND DISCONNECT AT THE JUNCTION. (FIGURE 7)



FIGURE 7

9. REMOVE THE BRAKE LINE ISOLATOR. (FIGURE 8)



FIGURE 8

10. REMOVE THE SWAY BAR END LINK NUT. (FIGURE 9)



FIGURE 9

11. LOOSEN THE BOTTOM MOUNT BOLT. (FIGURE 10)



FIGURE 10

12. REMOVE THE BOTTOM MOUNT BOLT. (FIGURE 11)



FIGURE 11

13. REMOVE THE CONTROL ARM NUT. (FIGURE 12)



FIGURE 12

14. REMOVE THE AXLE BOLT. (FIGURES 13, 14)

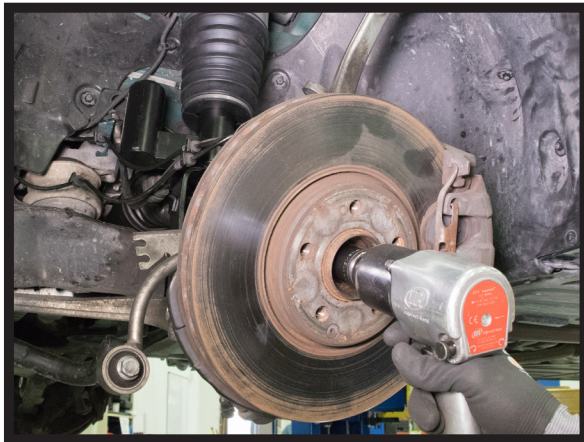


FIGURE 13



FIGURE 14

15. REMOVE THE AXLE. (FIGURES 15, 16)

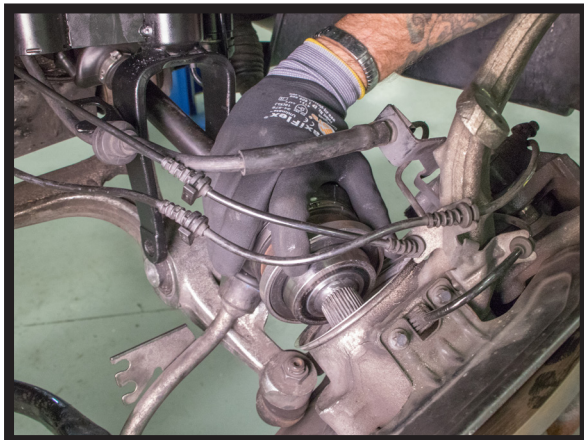


FIGURE 15



FIGURE 16

16. REMOVE THE STRUT FROM THE VEHICLE. (FIGURE 17)



FIGURE 17

17. REMOVAL COMPLETE.

FRONT COIL STRUT INSTALLATION



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

1. INSTALL THE STRUT INTO THE VEHICLE. (FIGURE 18)



FIGURE 18

2. REINSTALL THE AXLE. (FIGURES 19, 20)

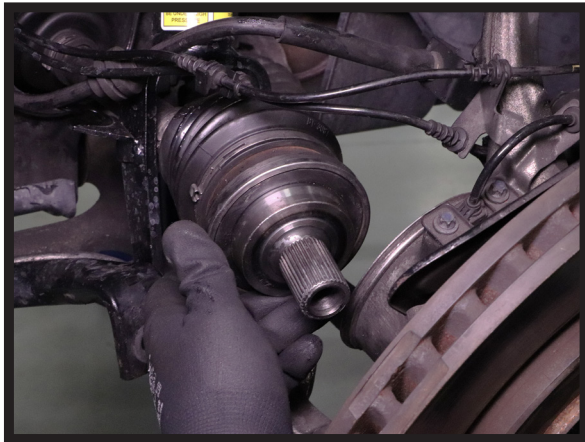


FIGURE 19



FIGURE 20

3. REATTACH THE CONTROL ARM TO THE SPINDLE ASSEMBLY AND TIGHTEN TO MANUFACTURER'S SPECIFICATIONS. (FIGURES 21, 22)



FIGURE 21



FIGURE 22

4. REINSTALL THE UPPER SWAY BAR END LINK TO THE SPINDLE AND TIGHTEN TO MANUFACTURER'S SPECIFICATIONS. (FIGURES 23, 24)

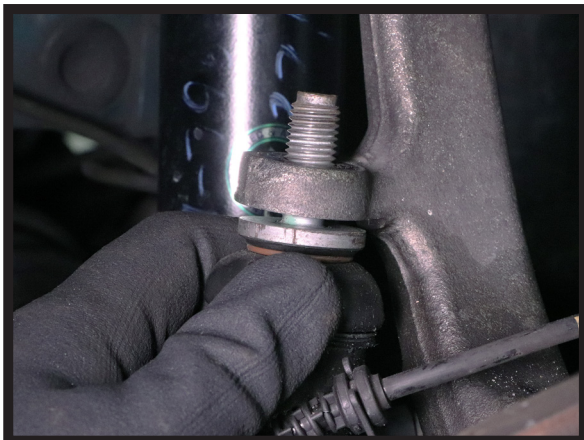


FIGURE 23

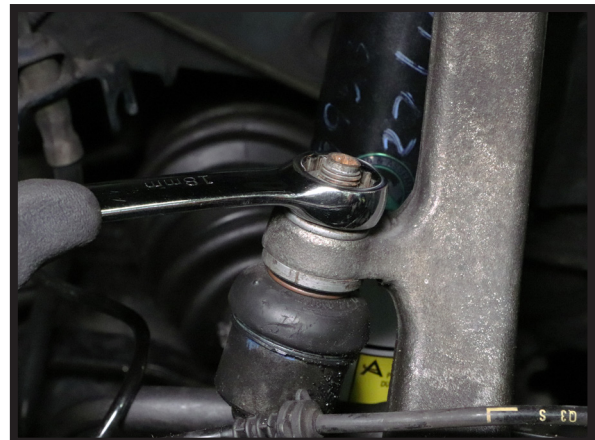


FIGURE 24

5. REINSTALL THE AXLE BOLT AND TIGHTEN TO MANUFACTURER'S SPECIFICATIONS. (FIGURE 25)



FIGURE 25

6. REINSTALL THE BOTTOM MOUNT BOLT AND TIGHTEN TO MANUFACTURER'S SPECIFICATIONS. (FIGURE 26)



FIGURE 26

7. REINSTALL THE BRAKE LINE ISOLATOR. (FIGURE 27)

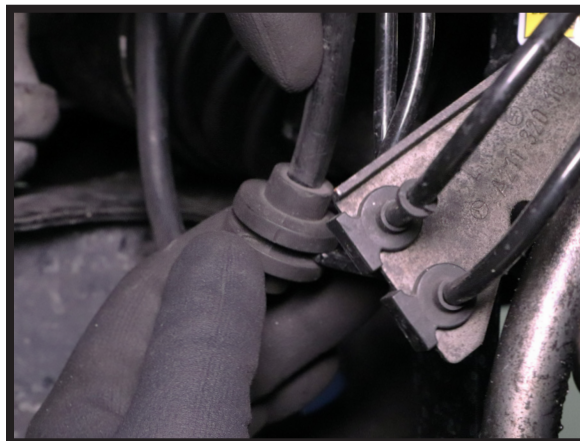


FIGURE 27

8. REATTACH THE WIRES TO THE WIRE CLIP ON THE SWAY BAR END LINK. (FIGURE 28, 29)



FIGURE 28



FIGURE 29

9. INSTALL THE THREE TOP MOUNTING NUTS TO THE TOP OF THE STRUT AND TIGHTEN TO MANUFACTURER'S SPECIFICATIONS. (FIGURE 30)

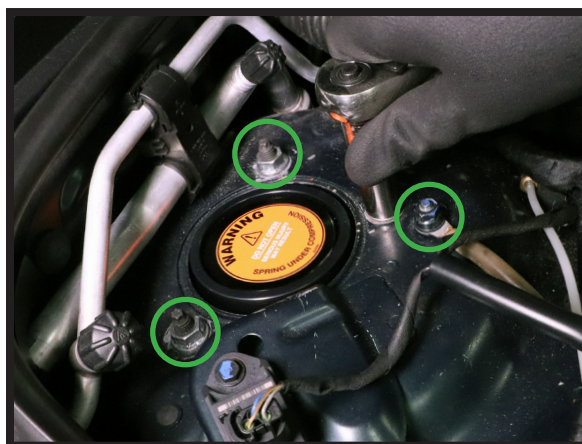


FIGURE 30

10. REINSTALL THE WHEEL. (FIGURE 31)



FIGURE 31

11. INSTALLATION COMPLETE.

REAR SHOCK AND AIR SPRING REMOVAL

1. PRIOR TO RAISING VEHICLE, REMOVE APPLICABLE SIDE REAR CARGO AREA TRIM TO GAIN ACCESS TO SHOCK TOWER. (FIGURE 32)



FIGURE 32

2. REMOVE WHEEL. (FIGURE 33)



FIGURE 33

3. DEFLATE AIR SPRING USING A SYSTEM DIAGNOSTIC TOOL.

4. REMOVE BUSHING AND WASHER WITH TOP NUT. (FIGURES 34, 35, 36)



FIGURE 34



FIGURE 35



FIGURE 36

5. REMOVE BOTTOM SHOCK NUT/BOLT. (FIGURE 37)

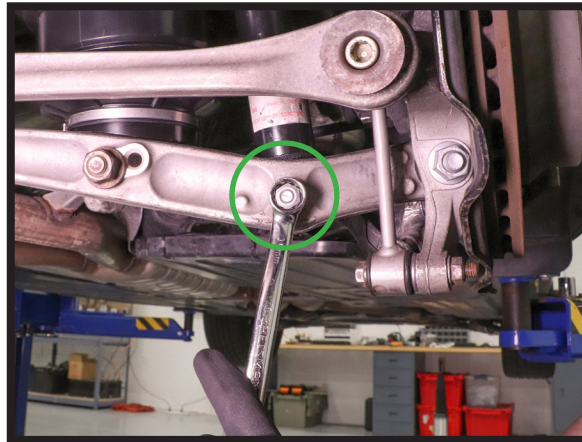


FIGURE 37

6. COMPRESS SHOCK AND REMOVE FROM VEHICLE. (FIGURES 38, 39)

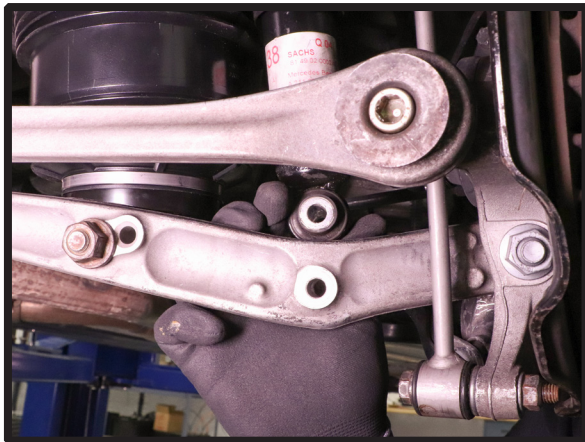


FIGURE 38



FIGURE 39

7. LOCATE AND REMOVE THE ELECTRICAL PLUG FROM THE AIR SPRINGS TOP MOUNT. (FIGURE 40)



FIGURE 40

8. LOCATE AND REMOVE THE AIR LINE FROM THE AIR SPRINGS TOP MOUNT. (FIGURES 41, 42)



FIGURE 41



FIGURE 42

9. LOOSEN AND REMOVE THE REAR CONTROL ARM NUT AND BOLT. (FIGURE 43)



FIGURE 43

10. DISLOCATE THE AIR SPRING'S TOP MOUNT FROM THE VEHICLE. (FIGURE 44)



FIGURE 44

11. LOOSEN AND REMOVE THE AIR SPRING'S LOWER MOUNTING NUT AND BOLT. (FIGURE 45)



FIGURE 45

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 46)



FIGURE 46

13. REMOVAL COMPLETE.

REAR COIL AND SHOCK INSTALLATION



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

1. REINSTALL PREVIOUSLY REMOVED BUSHING AND WASHER ONTO THE TOP OF THE DAMPER TENNON. (FIGURES 47, 48)



FIGURE 47



FIGURE 48

2. REINSTALL THE PROVIDED TOP NUT ONTO THE DAMPER AND TIGHTEN TO MANUFACTURER'S SPECIFICATIONS. (FIGURE 49)



FIGURE 49

3. REMOVE OLD TOP MOUNT CLIPS AND REPLACE WITH THE ONES PROVIDED IN THE KIT. (FIGURES 50, 51)



FIGURE 50



FIGURE 51

4. INSTALL THE UPPER SPRING SEATS ONTO THE NEW CLIPS. (FIGURES 52, 53)



FIGURE 52



FIGURE 53

5. INSTALL THE LOWER SPRING PERCHES INTO THE LOWER CONTROL ARMS, AND SECURE. (FIGURES 54, 55)

NOTE: PAY SPECIAL ATTENTION TO THE "FACING WHEEL" LABEL ON THE PERCHES TO ORIENT THEM PROPERLY WITHIN THE LOWER CONTROL ARMS.



FIGURE 54



FIGURE 55

6. LOOSEN AND REMOVE THE LOWER SWAY BAR END LINK BOLT. (FIGURES 56, 57)



FIGURE 56

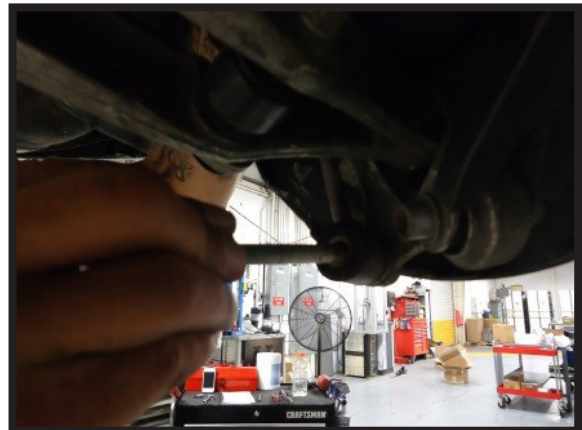


FIGURE 57

7. LOOSEN AND REMOVE REAR TRAILING ARM BOLT. (FIGURES 58, 59)

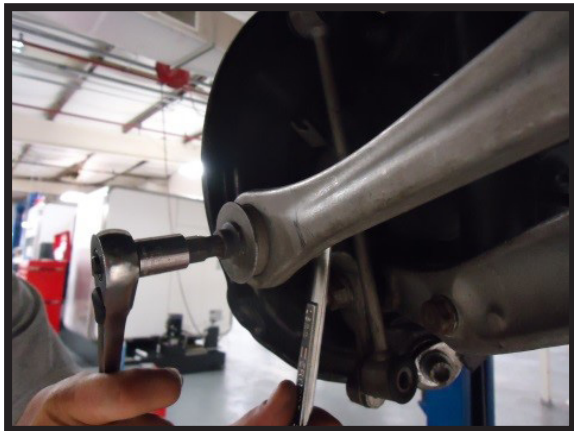


FIGURE 58



FIGURE 59

8. LOOSEN AND REMOVE THE FRONT TRAILING ARM BOLT. (FIGURES 60, 61)



FIGURE 60



FIGURE 61

9. LOOSEN AND REMOVE THE UPPER CONTROL ARM BOLT FROM THE SPINDLE ASSEMBLY. (FIGURE 62)



FIGURE 62

10. LOOSEN AND REMOVE LOWER CONTROL ARM BOLT. (FIGURES 63, 64)



FIGURE 63



FIGURE 64

11. PULL DOWN ON LOWER CONTROL ARM AND INSTALL THE SPRING INTO THE TOP SPRING SEAT. (FIGURE 65)



FIGURE 65

12. SLIDE THE SPRING OVER THE HUMP OF THE LOWER SPRING PERCH. (FIGURE 66)



FIGURE 66

13. 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 67, 68)



FIGURE 67

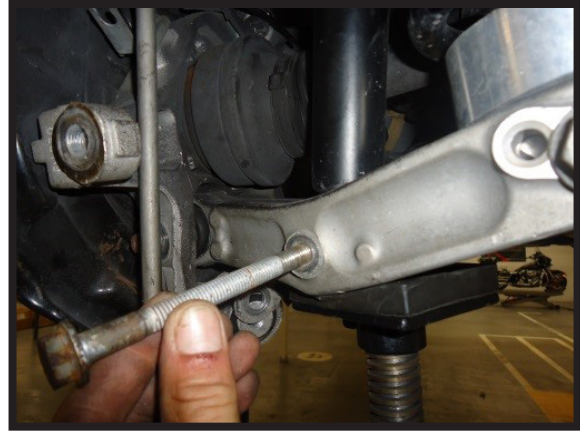


FIGURE 68

NOTE: THE LOWER CONTROL ARM BOLT SLEEVE MAY NEED TO BE ADJUSTED WHEN REINSTALLING THE LOWER CONTROL ARM.



14. REINSTALL AND TIGHTEN THE LOWER CONTROL ARM BOLT. (FIGURES 69, 70)



FIGURE 69



FIGURE 70

15. REINSTALL AND TIGHTEN THE UPPER CONTROL ARM BOLT FROM THE SPINDLE ASSEMBLY. (FIGURE 71)



FIGURE 71

16. REINSTALL AND TIGHTEN THE FRONT TRAILING ARM BOLT. (FIGURES 72, 73)

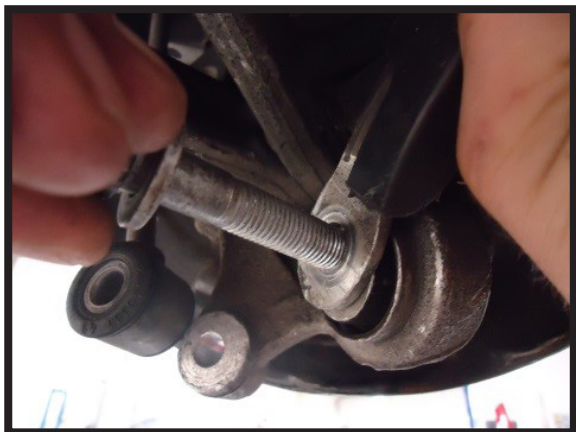


FIGURE 72



FIGURE 73

17. REINSTALL AND TIGHTEN THE REAR TRAILING ARM BOLT. (FIGURES 74, 75)



FIGURE 74



FIGURE 75

18. REINSTALL AND TIGHTEN THE LOWER SWAY BAR END LINK BOLT. (FIGURES 76, 77)

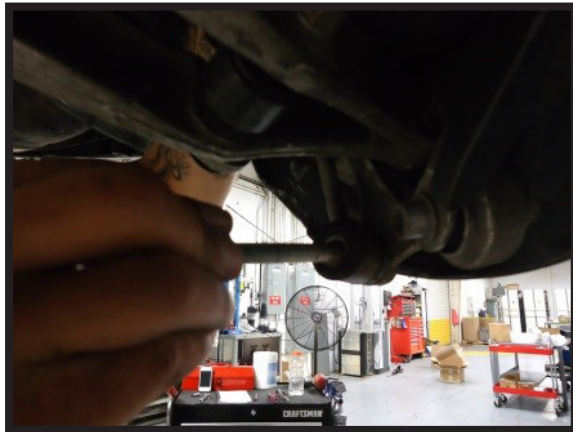


FIGURE 76

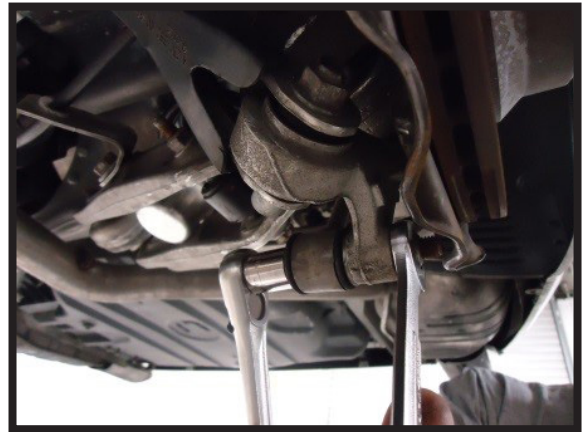


FIGURE 77

19. INSTALLATION OF REAR SPRINGS AND SHOCKS COMPLETE.



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 78)

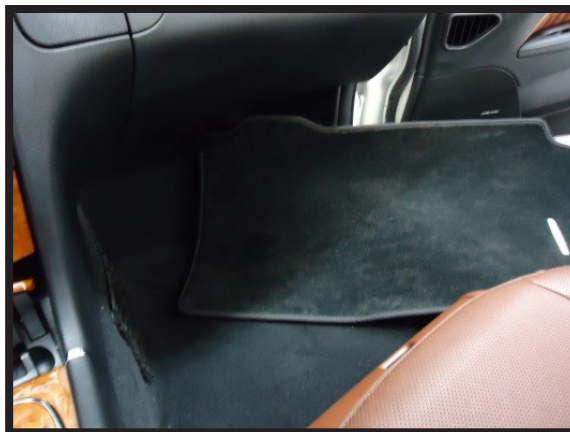


FIGURE 78

2. PULL BACK THE KICK PANNEL AND REMOVE THE FOAM INSULATION BENEATH. (FIGURES 79, 80)



FIGURE 79



FIGURE 80

3. LOCATE AND REMOVE THE THREE NUTS HOLDING THE METAL SHIELD. (FIGURE 81)

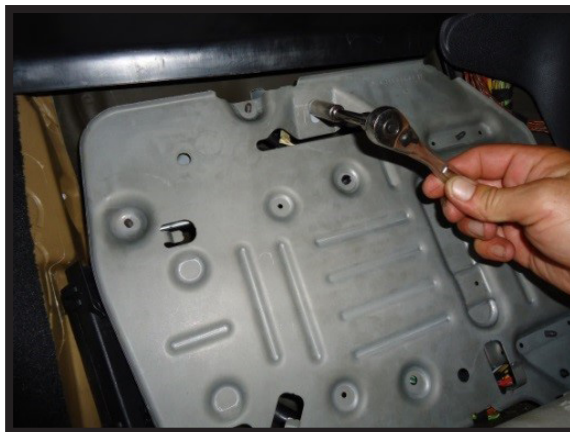


FIGURE 81

4. REMOVE THE METAL SHIELD AND REST IT ON THE FLOOR TO EXPOSE THE VEHICLES AIR SUSPENSION CONTROL MODULE. (FIGURE 82)



FIGURE 82

5. LOCATE THE VEHICLES AIR SUSPENSION CONTROL MODULE MOUNTED ON THE METAL SHIELD. DISCONNECT ALL THREE (TWO LARGE AND ONE SMALL) PLUGS CONNECTED TO THE SIDE. (FIGURES 83, 84)



FIGURE 83



FIGURE 84

6. LOCATE A SUITABLE GROUND AND INSTALL THE BLACK WIRE FROM THE ELECTRONIC BYPASS MODULES WIRING HARNESS. (FIGURES 85, 86)



FIGURE 85

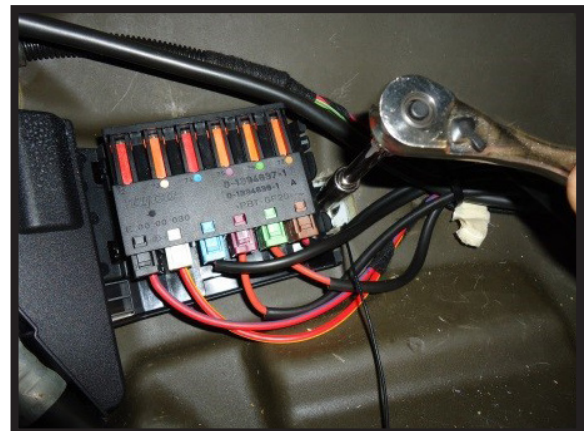


FIGURE 86

7. LOCATE THE POSITIVE 12 VOLT POWER SOURCE AND INSTALL THE RED WIRE FROM THE ELECTRONIC BYPASS MODULES WIRING HARNESS. (FIGURES 87, 88, 89)



FIGURE 87



FIGURE 88



FIGURE 89

8. LOCATE THE SMALL, TWO WIRE PLUG FROM THE VEHICLE'S WIRING HARNESS AND PLUG IT INTO THE ELECTRONIC BYPASS MODULES WIRING HARNESS. (FIGURE 90)

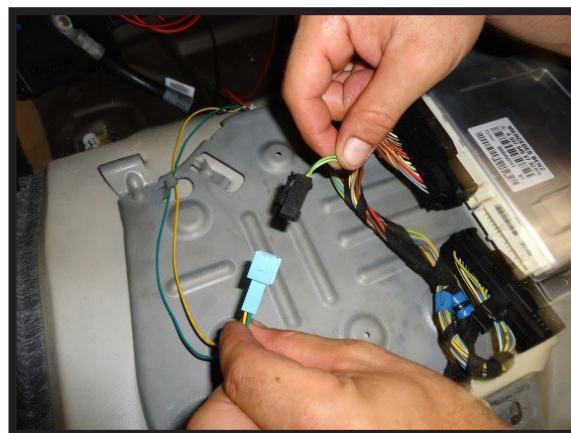


FIGURE 90

9. PLUG THE NEW WIRING HARNESS INTO THE ELECTRONIC BYPASS MODULE. (FIGURE 91)

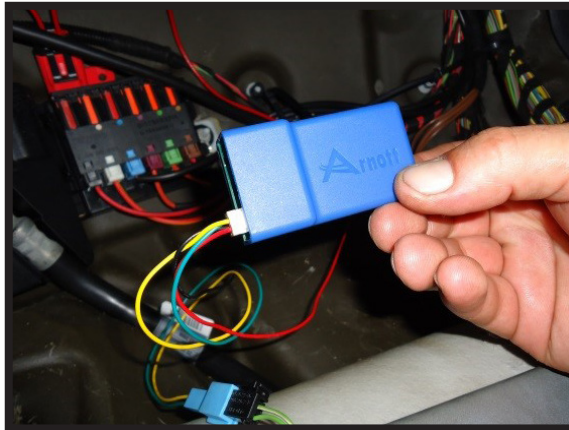


FIGURE 91

10. SECURE THE ELECTRONIC BYPASS MODULE IN A SUITABLE LOCATION AND REINSTALL ALL PANELS IN REVERSE ORDER OF WHICH THEY WERE DISASSEMBLED. (FIGURE 92)

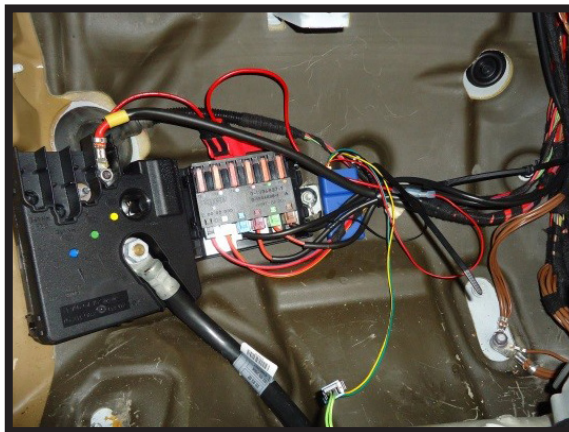


FIGURE 92

11. ELECTRONIC BYPASS MODULE INSTALLATION COMPLETE.

NOTE: DO NOT PLUG THE FACTORY WIRING HARNESS BACK INTO THE VEHICLE'S AIR SUSPENSION CONTROL MODULE.