Arnott®
Suspension Products

INSTALLATION MANUAL

C-3185
Arnott New Coil Spring Conversion Kit
Various Long Wheelbase GM SUVs



Engineered to Ride, Built to Last®

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.arnottsuspension.com and 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 COILOVER STRUT REMOVAL

1. Raise the vehicle and remove the front wheels to expose the front coil struts. (Figures 1, 2)



FIGURE 1



FIGURE 2

2. Lift the hood to expose the top of the coil struts. Locate and disconnect the electrical connectors. Secure the harness in a way not to interfere with any moving parts or components with excessive heat. (Figures 3, 4)



FIGURE 3



FIGURE 4

3. Remove the wire clips and top mounting nuts. (Figures 5, 6, 7)



FIGURE 5



FIGURE 6



FIGURE 7

4. Remove the lower mounting bolts. (Figures 8, 9)



FIGURE 8



FIGURE 9

5. Loosen, do not remove, the sway bar end link hardware. (Figure 10)



FIGURE 10

6. Carefully remove the coil struts from the vehicle. (Figure 11)



FIGURE 11

7. Removal complete.

COIL STRUT DISASSEMBLY

WARNING:

Use a spring compressor tool for the following removal steps.

1. Release clip and remove the top electrical connector and shock rod stem. (Figures 12, 13, 14, 15)



FIGURE 12



FIGURE 13



FIGURE 14



FIGURE 15

2. Compress the coil spring and remove the top shock rod nut. (Figures 16, 17)



FIGURE 16

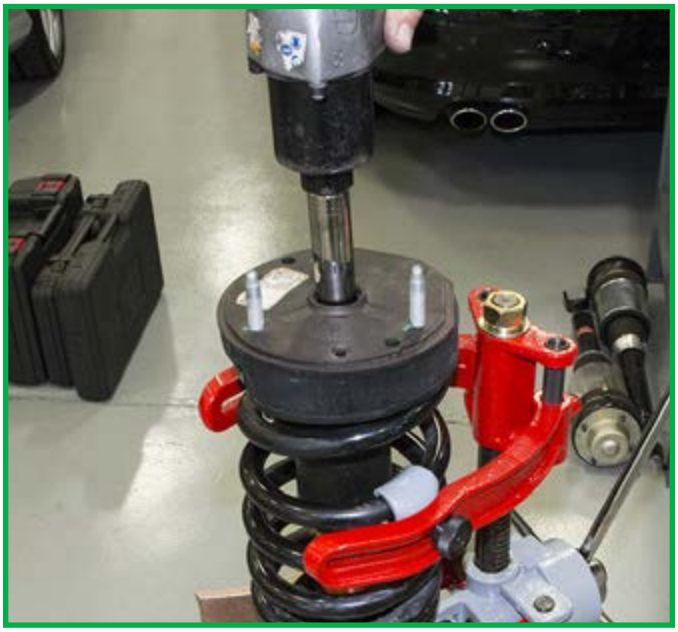


FIGURE 17

3. Remove top mount plate, offset plate, and rubber isolator. (Figures 18, 19)



FIGURE 18



FIGURE 19

4. Carefully release spring pressure and remove the coil spring, spacer washer, bump stop, bump stop cap, and spring seat. (Figures 20, 21, 22)



FIGURE 20



FIGURE 21



FIGURE 22

5. Carefully remove the bottom mount clips from the strut and save them for reassembly. (Figures 23, 24)



FIGURE 23



FIGURE 24

6. Disassembly complete.

COIL STRUT REASSEMBLY

WARNING:

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

NOTE: This assembly will utilize the saved hardware taken from previous strut.

1. Remove the upper mount hardware from the shock shaft (as shipped). (Figure 25)



FIGURE 25

2. Carefully install the spring seat onto the new shock (Figure 26). Make sure the flanged end of the spring seat is down (Figure 27).



FIGURE 26

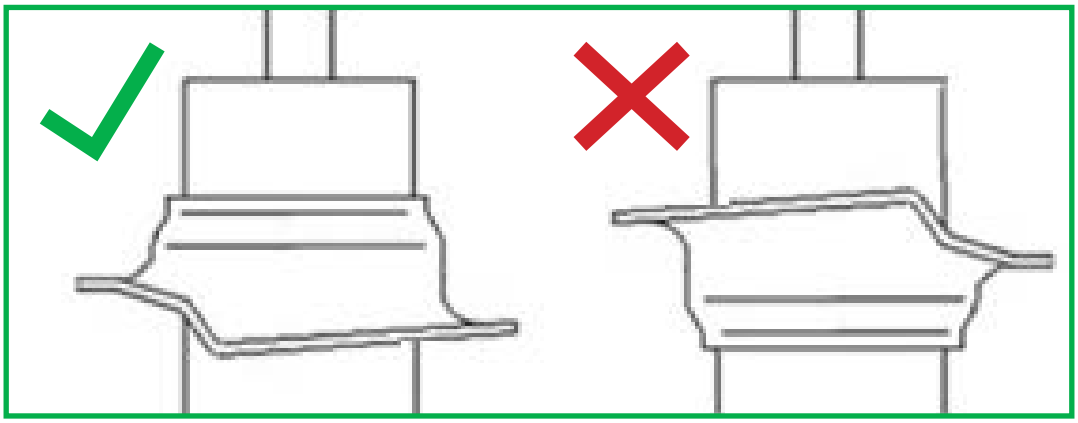


FIGURE 27

3. Install the bump stop followed by the lower mount spacer in the orientation shown below. (Figures 28, 29)



FIGURE 28



FIGURE 29

4. Install the coil spring onto the strut and carefully compress the coil spring. (Figures 30, 31)



FIGURE 30



FIGURE 31

5. Install rubber isolator, offset plate, and top mount plate. (Figures 32, 33)



FIGURE 32



FIGURE 33

6. Install the spacer washer and top shock rod nut and tighten to the manufacturer's specifications. (Figures 34, 35)



FIGURE 34



FIGURE 35

7. Properly align the strut before installing in on the vehicle, making sure the bolt mounts are facing downward as shown below. (Figures 36, 37)

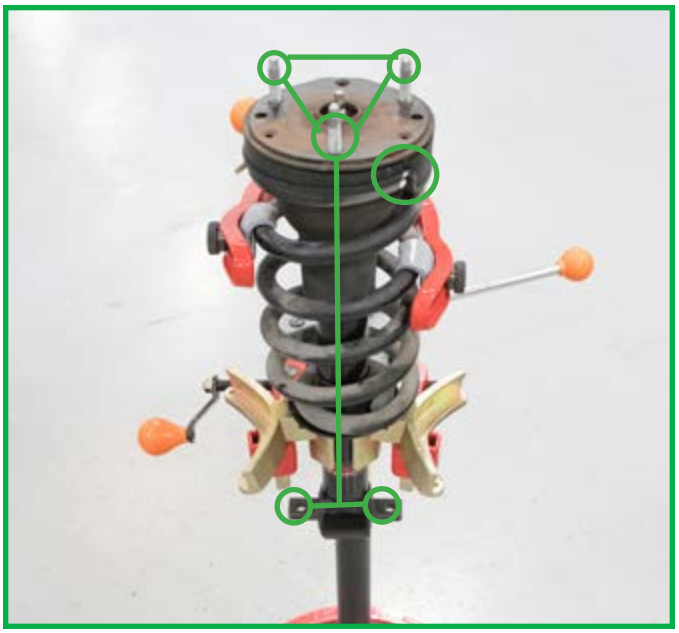


FIGURE 36

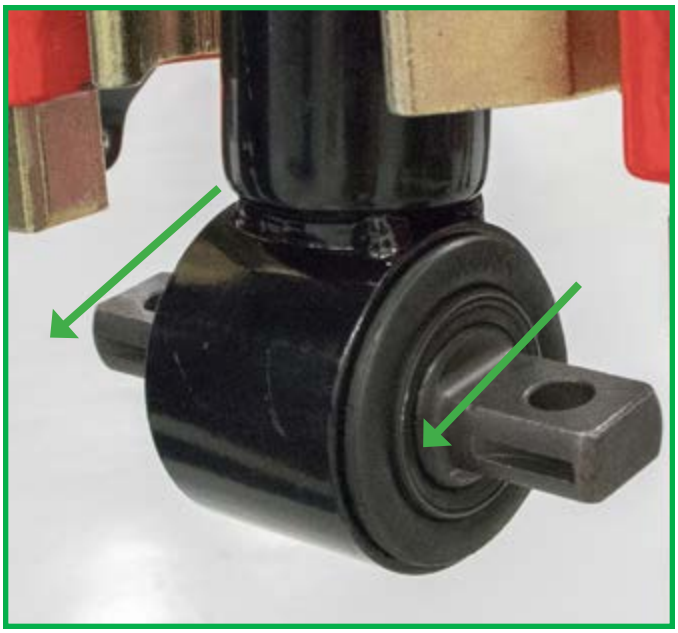


FIGURE 37

8. Install the saved bottom mount clips onto the strut. (Figures 38, 39)



FIGURE 38



FIGURE 39

9. Coil strut reassembly complete.

FRONT COILOVER STRUT INSTALLATION

WARNING:

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

1. Install the coil strut into the vehicle. (Figure 40)



FIGURE 40

2. Be sure to position the T-bar on top of the control arm to ensure proper mounting. (Figure 41)

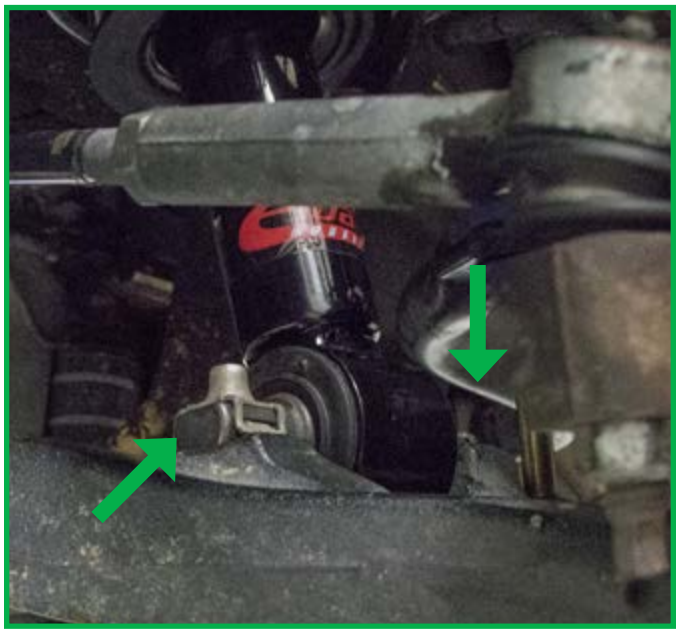


FIGURE 41

3. Reinstall the bottom mounting bolts and nuts. (Figures 42, 43)



FIGURE 42



FIGURE 43

4. Install the three top mounting nuts. (Figure 44)

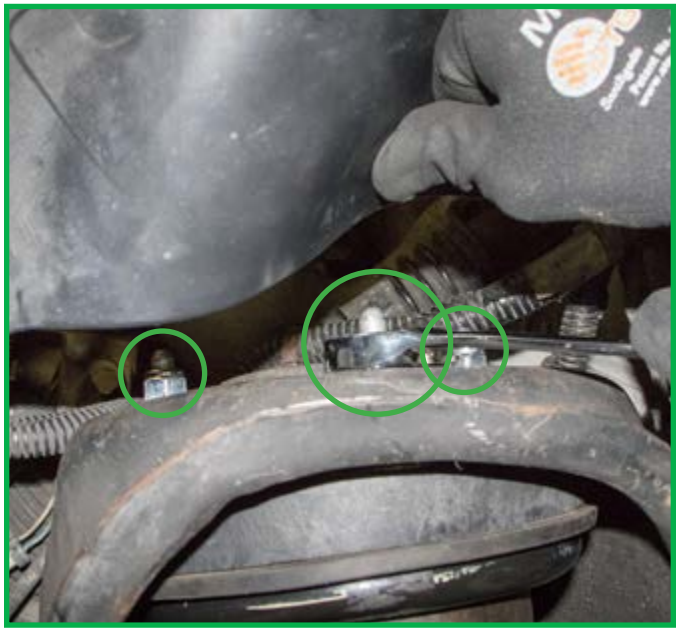


FIGURE 44

5. Tighten the sway bar end link hardware to the manufacturer's specifications. (Figure 45)



FIGURE 45

6. Reinstall the wire clips. Secure the unused electrical harness in a way not to interfere with any moving parts or components with excessive heat. (Figures 46, 47)



FIGURE 46



FIGURE 47

7. Coil strut installation complete.

REAR AIR SHOCK / COIL SPRING REMOVAL

1. Set the steering to straight ahead.
2. Raise the vehicle.
3. Remove the rear wheels. (Figure 48)



FIGURE 48

4. Locate and remove the air lines to fully deflate the air shocks. Turn the metal clip approximately 90° to remove the air line fitting from the air shock. (Figure 49)



FIGURE 49

5. Locate and remove the electrical connectors from the top of the air shocks. (Figure 50)



FIGURE 50

6. Loosen and remove the upper and lower shock mounting nuts. (Figures 51, 52)



FIGURE 51



FIGURE 52

7. Support the axle to relieve pressure from the air shock mounting points. Remove the upper and lower air shock mounting bolts. (Figure 53)



FIGURE 53

8. Remove the air shocks from the vehicle. (Figure 54)



FIGURE 54

9. Remove the bolts and ride height sensors from the upper control arms. (Figures 55, 56)



FIGURE 55



FIGURE 56

10. Remove the bolt and bracket holding the brake line to the rear differential. (Figures 57, 58)



FIGURE 57

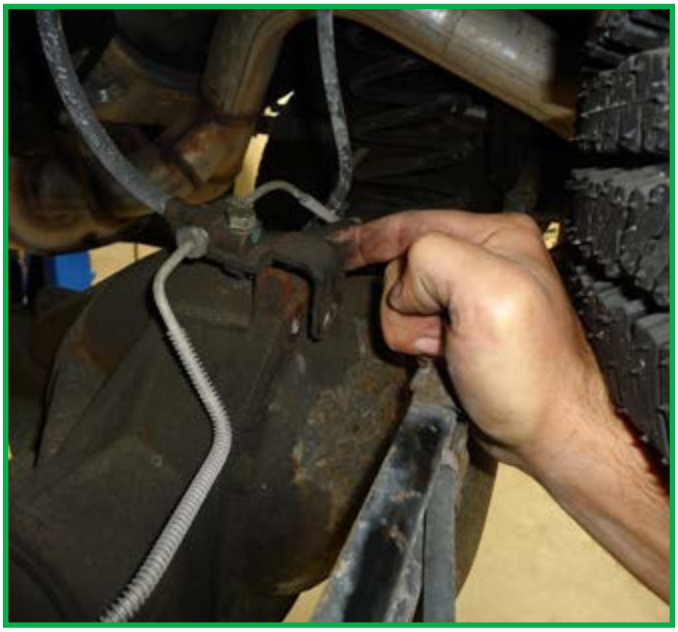


FIGURE 58

11. Remove the nuts on the upper sway bar end links. (Figure 59)



FIGURE 59

12. Using a jack or other suitable device, support the axle to release pressure from the sway bar end links. Remove the sway bar end link bolts. (Figures 60, 61)



FIGURE 60



FIGURE 61

13. Slowly lower the axle and remove the coil springs. (Figure 62)



FIGURE 62

14. Rear air shock and coil spring removal complete.

REAR SHOCK / COIL SPRING INSTALLATION

WARNING:

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

NOTE: Secure the air lines and electrical connectors in suitable locations as they are not used for this kit.

1. Place the rubber isolator onto the axle and install the coil spring into the vehicle. Be sure to keep the isolator properly aligned with the coil strut. (Figures 63, 64)



FIGURE 63



FIGURE 64

2. Using a jack or other suitable device, raise the axle until the sway bar end link is realigned with the bolt holes. Reinstall the sway bar end link bolts. (Figures 65, 66)



FIGURE 65



FIGURE 66

3. Install the shock into the vehicle. (Figures 67)

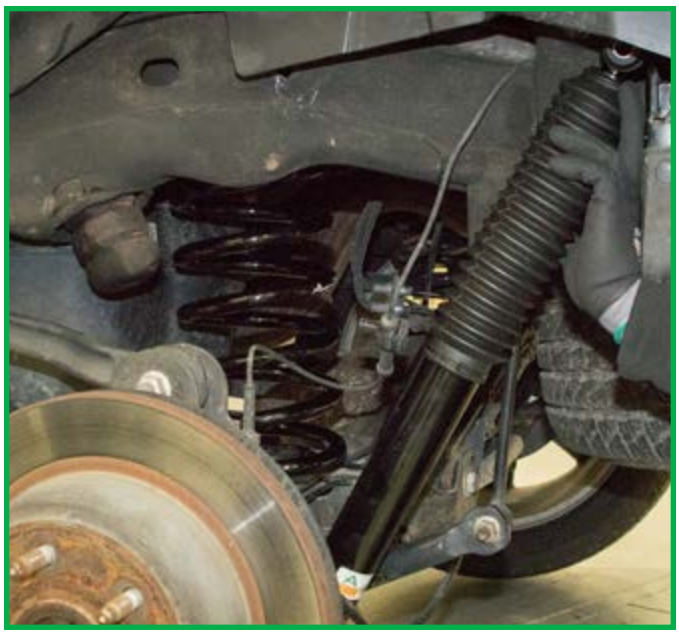


FIGURE 67

4. Install the upper and lower shock mounting hardware. (Figures 68, 69)



FIGURE 68



FIGURE 69

5. Reinstall the brake line bracket and ride height sensors. (Figures 70, 71, 72)



FIGURE 70

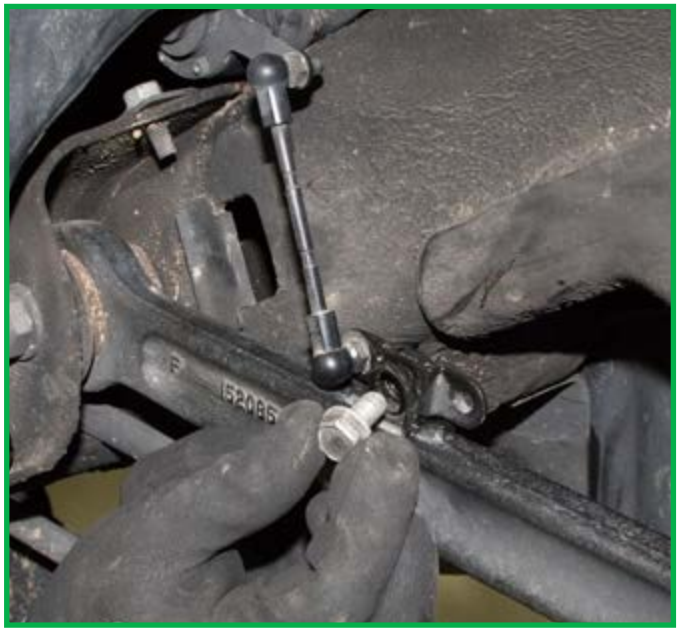


FIGURE 71



FIGURE 72

6. Reinstall the wheel.
7. Lower the vehicle.
8. Shock and coil spring installation complete.

ELECTRONIC BYPASS MODULE (EBM) INSTALLATION

WARNING:

To avoid the possibility of short circuits while working with electric components, consult your owner's manual on how to disconnect your battery.

WARNING:

Consult your vehicle owner's manual, service manual, or car deal 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.

1. Remove the side fuse box cover. (Figure 73)



FIGURE 73

2. Remove the lower dash hardware and remove the lower dash cover. (Figures 74, 75, 76, 77, 78)



FIGURE 74



FIGURE 75



FIGURE 76



FIGURE 77



FIGURE 78

3. Remove OBD mounting screw and drop the plug down. (Figures 79, 80)



FIGURE 79

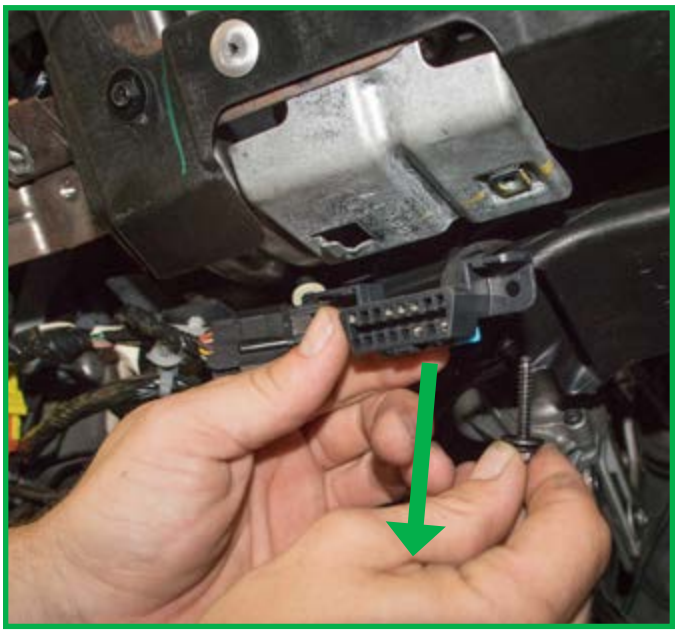


FIGURE 80

4. Remove the air conditioning duct. (Figure 81)



FIGURE 81

5. Trim back the plug harness sheath. (Figure 82)

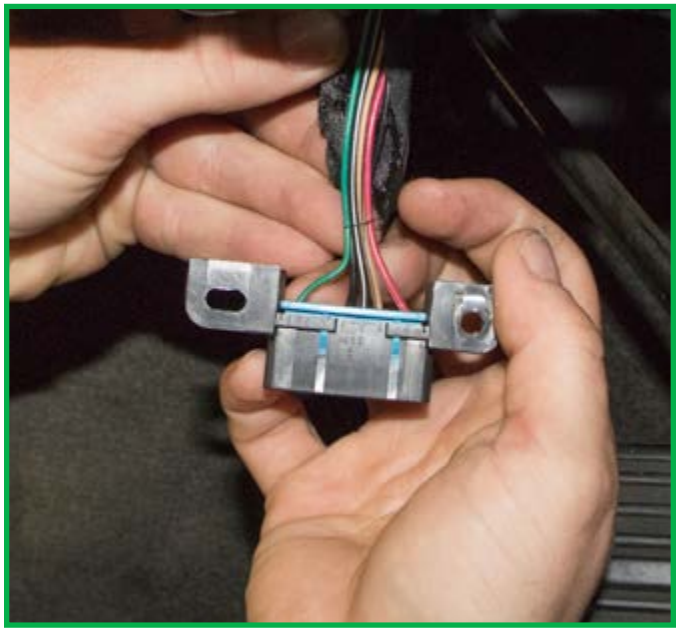


FIGURE 82

6. Using the wiring diagram, match and splice the EBM harness wires to **both the vehicle and connector sides** of the applicable vehicle harness wires using the heat-shrink butt connectors. (Figures 83, 84, 85)

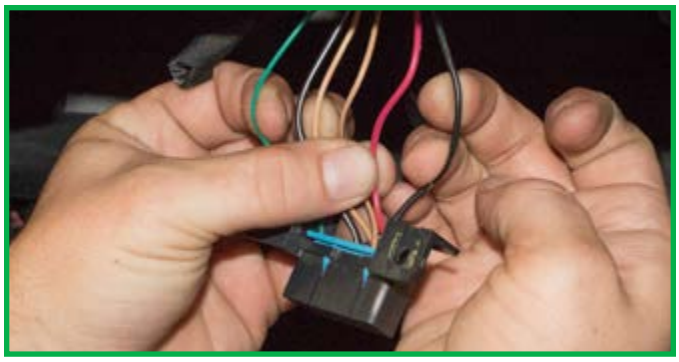


FIGURE 83

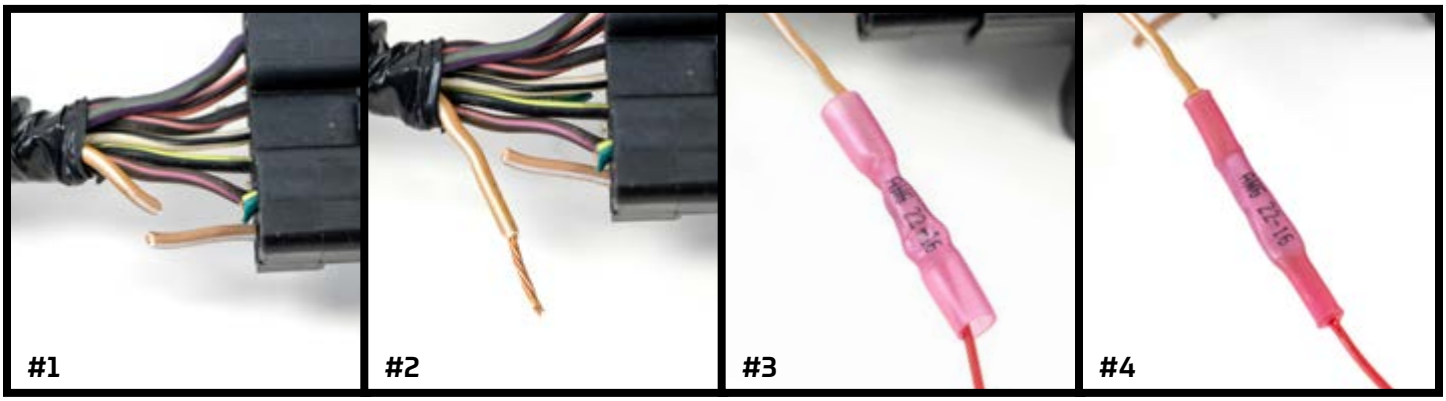
ELECTRONIC BYPASS MODULE	From	Pin#	Wire/Color	VEHICLE'S WIRING HARNESS
	Blue	6	Tan/Black	
	Red	16	Red/White	
	Green	14	Tan	
	Black	4	Black	

FIGURE 84

HEAT-SHRINK BUTT CONNECTOR INSTALLATION

BEFORE CUTTING
Verify you are working with the correct wires. Check the manufacturer's wiring diagram for your specific vehicle.

NOTE: Connect both the vehicle and connector sides of the vehicle harness to the EBM harness. Images below only demonstrate connection to vehicle side.



IDENTIFY AND CUT THE APPLICABLE WIRE TO THE CONTROL MODULE.

STRIP 10MM OF INSULATION WITH A SUITABLE TOOL. TWIST EXPOSED WIRE.

INSERT THE WIRE INTO THE BUTT CONNECTOR AND CRIMP ACCORDING TO THE TABLE ABOVE.

USE AN APPROPRIATE TOOL TO HEAT SHRINK.

FIGURE 85

7. Connect the EBM to the EBM harness (Figures 86, 87). Secure the EBM under the dash and away from any source of heat and/or any moving parts.



FIGURE 86



FIGURE 87

8. Reassemble the dash by reinstalling the air conditioning duct, lower dash cover, lower dash hardware, and side fuse box cover.
9. EBM installation complete.

10. Remove the cover from the fuse box in the engine compartment. (Figure 88)



FIGURE 88

11. Remove the 30-AMP fuse in location #2 labeled as “ESC/ALC EXH”. (Figures 89, 90)

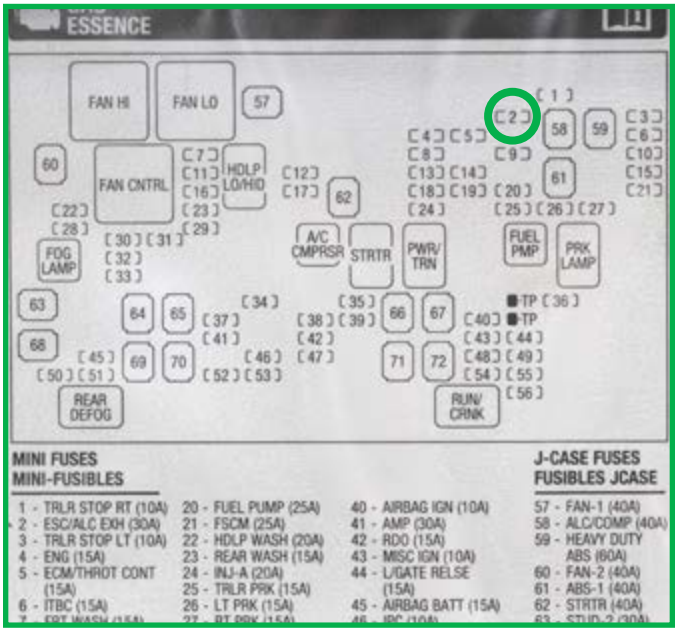


FIGURE 89



FIGURE 90

NOTE: If the fuse is not removed, a warning light will be displayed in the instrument cluster.

12. Reinstall the fuse box cover.
13. Installation complete.

A 4-WHEEL ALIGNMENT IS RECOMMENDED AFTER INSTALLATION

HOW HELPFUL WAS THIS MANUAL?

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https://bit.ly/4dClbnQ

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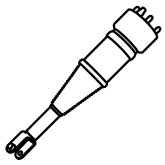
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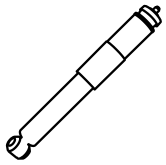
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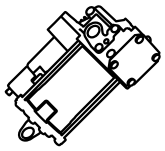
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5145 PD, Waalwijk (NL)

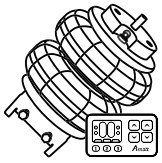
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Email: info@arnotteurope.com

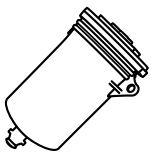

Air Springs

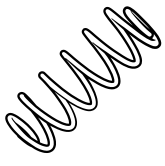

Struts

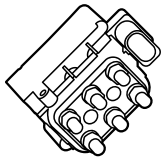

Shocks

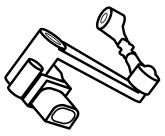

Compressors

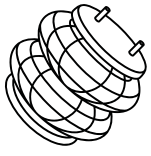

LCV Air Helper Spring Kits


Dryers


Coil Spring Conversion Kits


Valve Blocks


Ride Height Sensors


Pickup Truck Air Helper Springs