



# INSTALLATION MANUAL

## C-3420 Arnott New Coil Spring Conversion Kit 2013-2018 Ram 1500 (DS)



**Engineered to Ride, Built to Last®**

# CONGRATULATIONS ON YOUR PURCHASE OF AN ARNOTT® AIR 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.

This vehicle contains 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

**NOTE:** Refer to the vehicle service manual for proper air system deflation procedures.

1. Raise vehicle and remove the front wheels. (Figure 1)



FIGURE 1

2. Remove the tie rod end nut and disconnect the tie rod. (Figure 2)

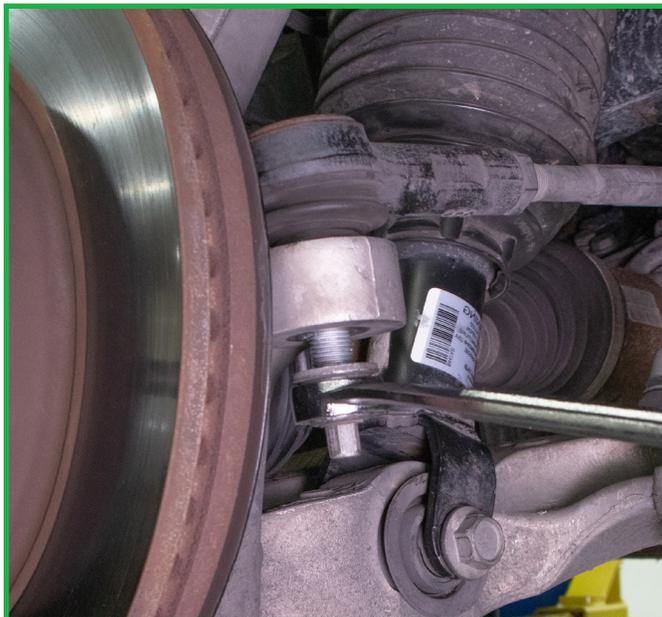


FIGURE 2

3. Remove the lower sway bar end link nut and disconnect the lower sway bar end link. (Figure 3)



FIGURE 3

4. Remove the upper control arm nut and disconnect the upper control arm from the spindle assembly. (Figure 4)



FIGURE 4

5. Remove the lower strut mount bolt and nut. (Figure 5)

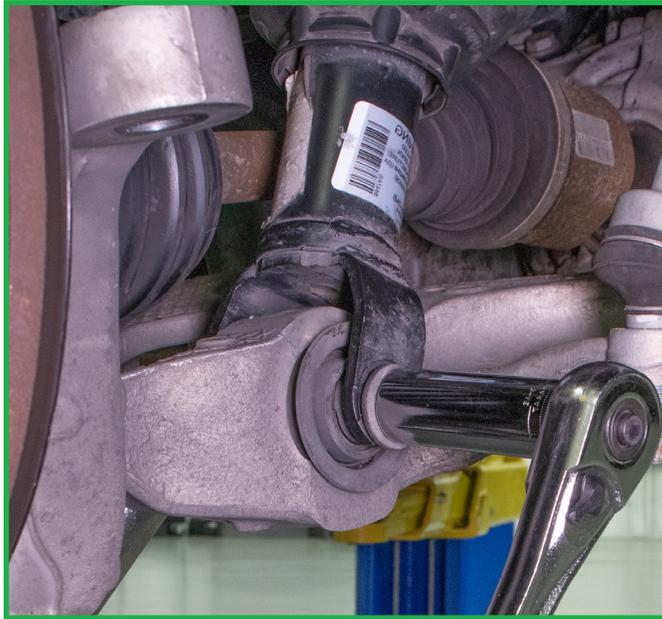


FIGURE 5

6. Disconnect the air line from the strut by loosening and removing the air fitting. (Figure 6)

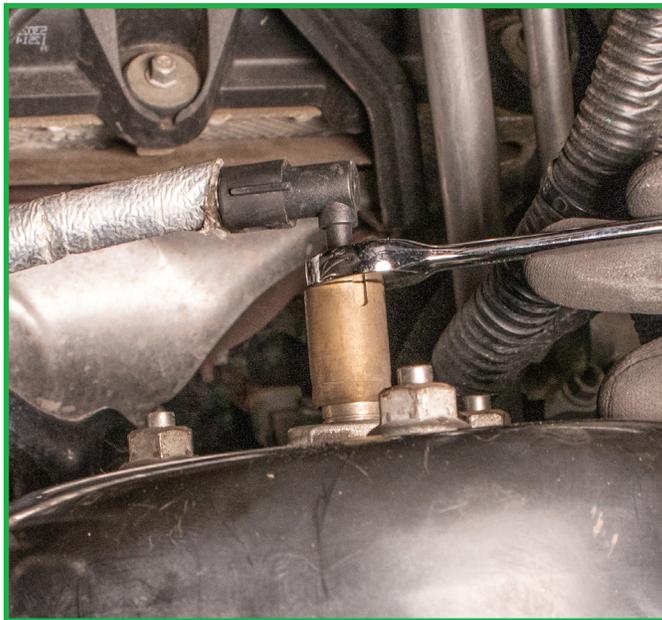


FIGURE 6

7. Remove the three (3) top mount nuts. (Figure 7)

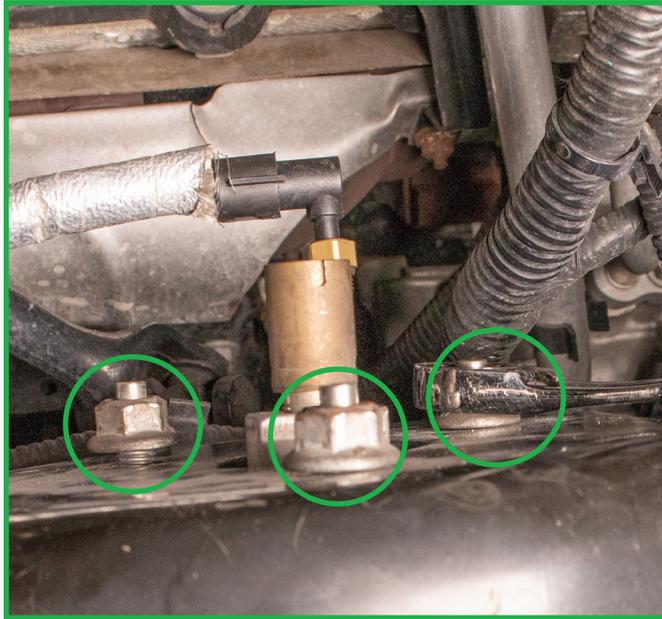


FIGURE 7

8. Remove the strut from the vehicle. (Figure 8)

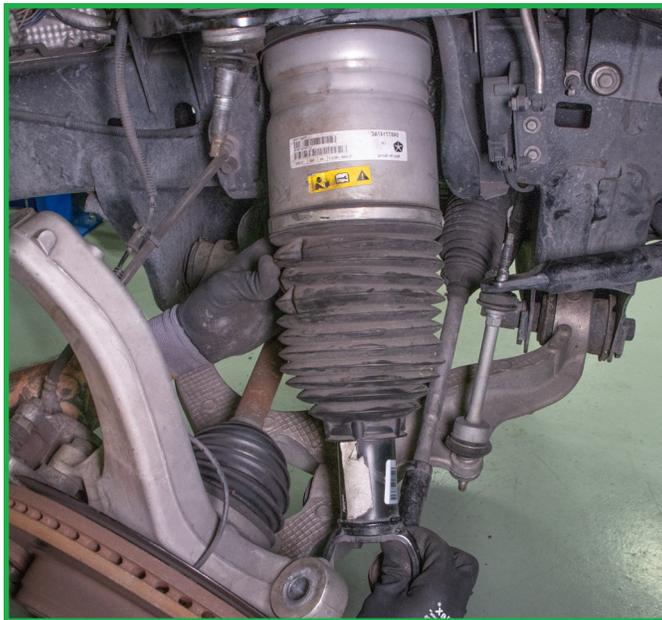


FIGURE 8

9. Removal complete.

# FRONT COILOVER STRUT INSTALLATION



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

1. Secure the unused air line away from sources of friction and heat. (Figures 9, 10)



FIGURE 9



FIGURE 10

2. Install the new Arnott coilover strut on the vehicle. (Figure 11)



FIGURE 11

3. Install the three (3) provided top mount nuts. Tighten to manufacturer's specifications. (Figures 12, 13)



FIGURE 12



FIGURE 13

4. Reinstall the bottom shock mount bolt and nut. Tighten to manufacturer's specifications. (Figures 14, 15)



FIGURE 14



FIGURE 15

5. Connect the upper control arm to the spindle assembly and reinstall the nut. Tighten to manufacturer's specifications. (Figures 16, 17)



FIGURE 16

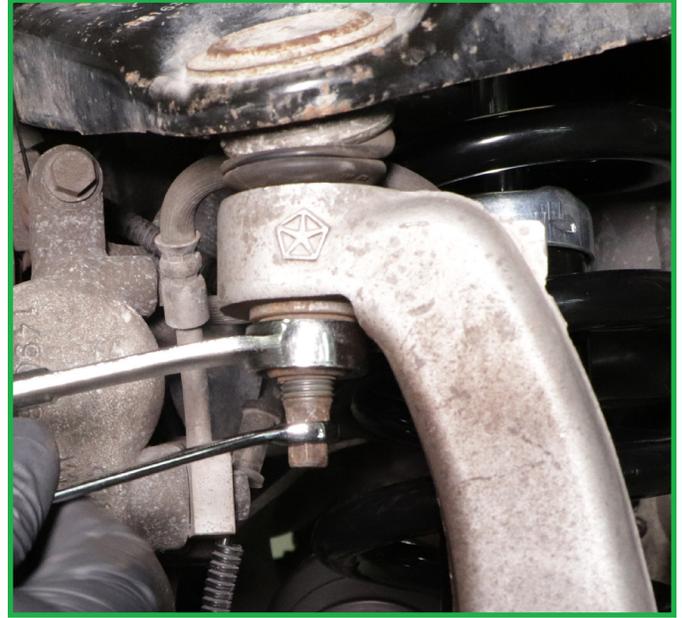


FIGURE 17

6. Connect the tie rod and reinstall the tie rod end nut. Tighten to manufacturer's specifications. (Figures 18, 19)



FIGURE 18



FIGURE 19

7. Connect the sway bar end link and reinstall the nut. Tighten to manufacturer's specifications. (Figures 20, 21)



FIGURE 20

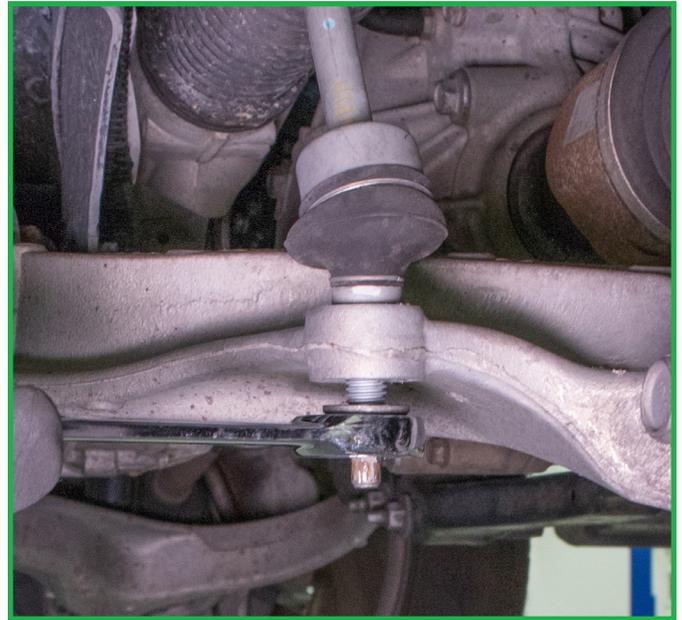


FIGURE 21

8. Front coilover strut installation complete.

## REAR AIR SPRING AND SHOCK REMOVAL

**NOTE:** Refer to the vehicle service manual for proper air system deflation procedures.

1. Raise vehicle and remove rear wheels.
2. Deflate the rear air springs per manufacturer's specifications.
3. Disconnect the air line from the air spring by loosening and removing the air fitting. (Figure 22)



FIGURE 22

4. Push in the locking tabs on the top mount and push down to dislodge from the spring seat. (Figures 23, 24)

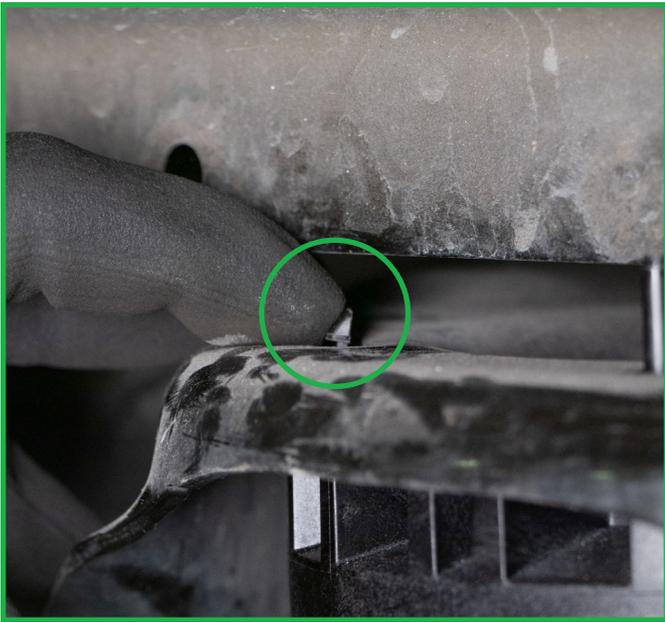


FIGURE 23

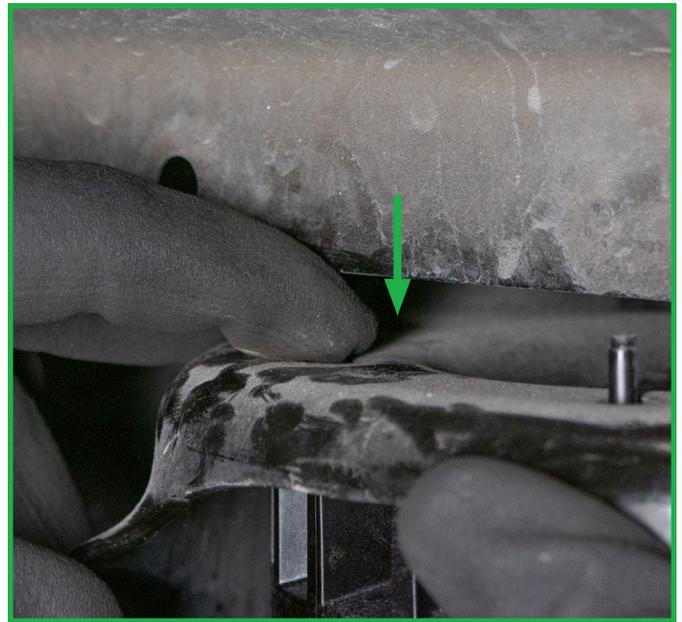


FIGURE 24

5. Compress and remove the air spring from the vehicle. (Figure 25)



FIGURE 25

6. Air spring removal complete.

**NOTE:** Use of a hydraulic floor jack or jack stands are suggested for removal and installation of the rear shocks and coil springs.

7. Use a hydraulic floor jack or adjustable jack stands to help support the rear axle for removal and installation. (Figure 26)



FIGURE 26

8. Remove the nut and bolt from the top shock mount. (Figures 27, 28)

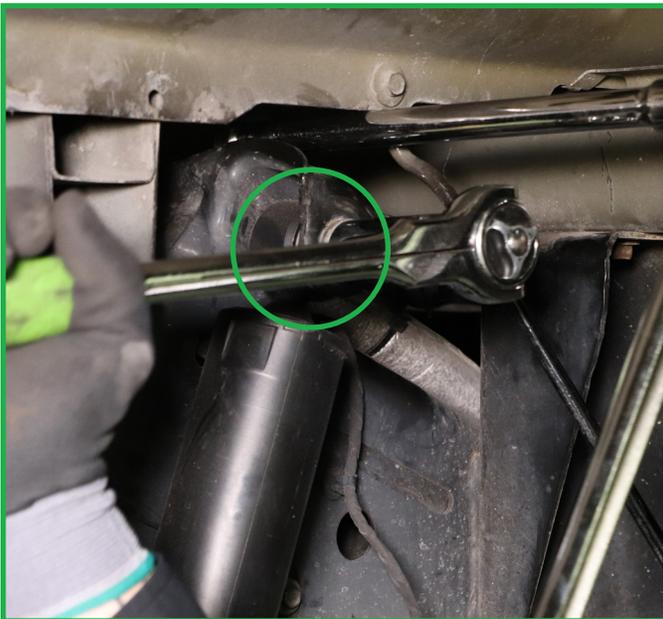


FIGURE 27



FIGURE 28

9. Remove the nut and bolt from the bottom shock mount. (Figure 29)



FIGURE 29

10. Remove the shock from the vehicle. (Figure 30)

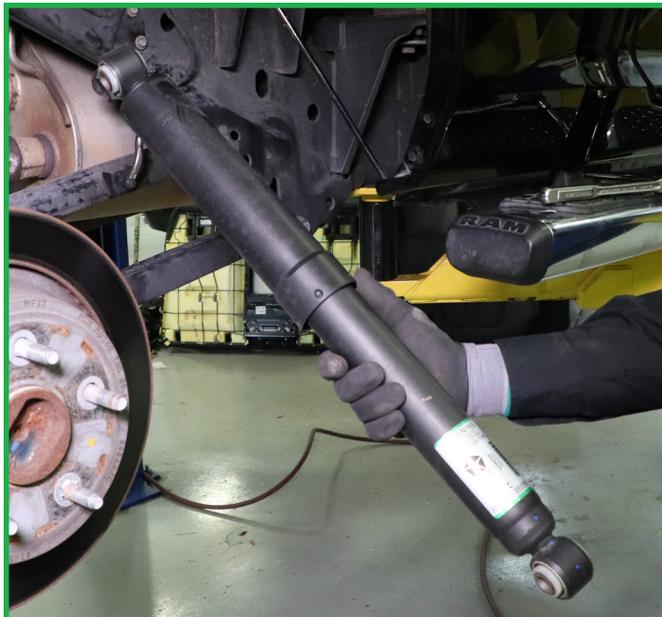


FIGURE 30

11. Remove the old bump stop and discard. (Figures 31, 32)



FIGURE 31



FIGURE 32

12. Removal complete.

## REAR COIL SPRING AND SHOCK INSTALLATION



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

1. Secure the unused air line away from sources of friction or heat. (Figures 33, 34)

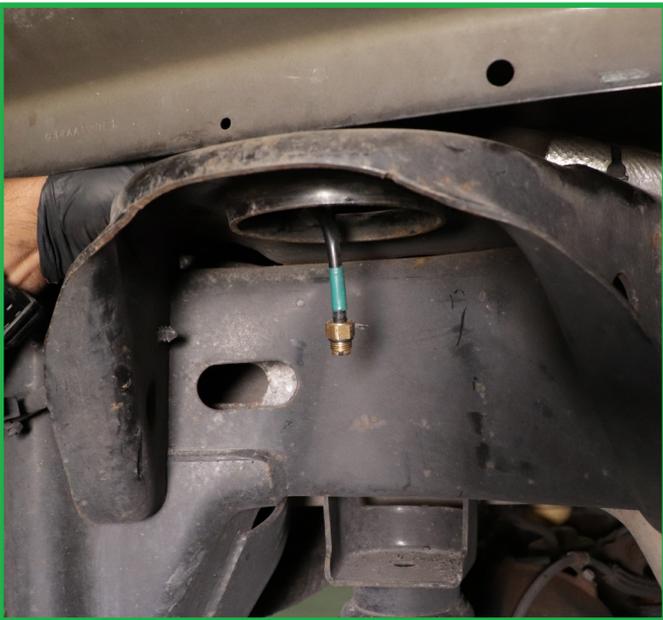


FIGURE 33



FIGURE 34

2. Install the provided bump stop. (Figures 35, 36)



FIGURE 35



FIGURE 36

3. Place the provided rubber spring seat on top of the Arnott coil spring. (Figures 37, 38)



FIGURE 37



FIGURE 38

**NOTE:** Use of a hydraulic floor jack or jack stands are suggested for removal and installation of the rear shocks and coil springs.

4. Install the new Arnott coil spring on the vehicle. (Figures 39, 40)

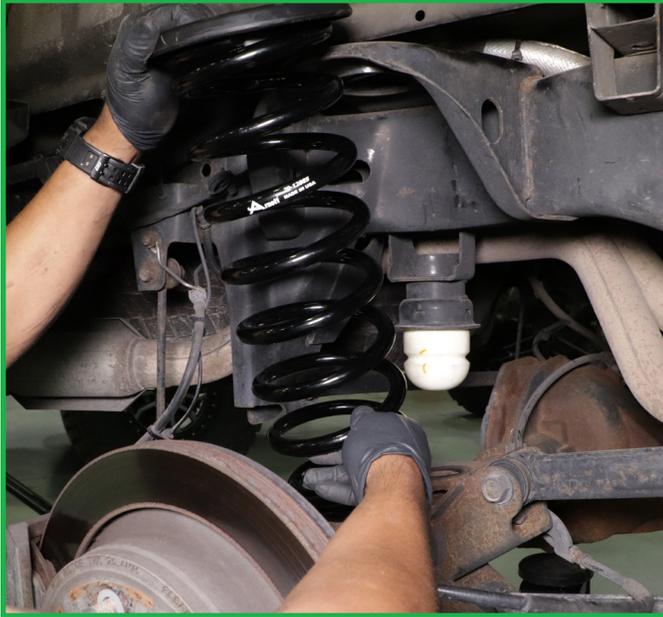


FIGURE 39



FIGURE 40

5. Install the new Arnott shock onto the vehicle. (Figure 41)



FIGURE 41

6. Install the shock top mount nut and bolt. Tighten to manufacturer's specifications. (Figures 42, 43)



FIGURE 42



FIGURE 43

7. Install the shock bottom mount nut and bolt. Tighten to manufacturer's specifications. (Figures 44, 45)



FIGURE 44



FIGURE 45

8. Coil spring and shock installation complete.

# ELECTRONIC BYPASS MODULE INSTALLATION

1. Locate the air suspension control module under the driver side seat and disconnect the two (2) harnesses. The harnesses will remain disconnected. (Figures 46, 47)



FIGURE 46

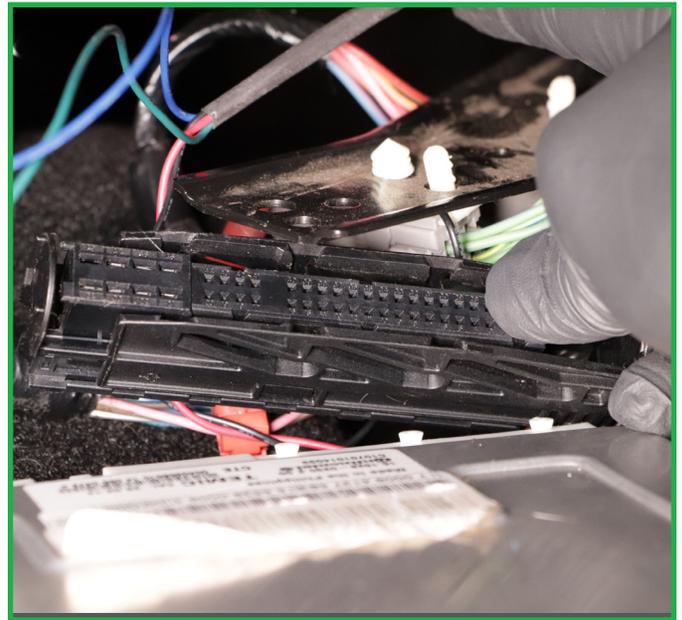


FIGURE 47

2. Using the photos and table below, match the wires from the EBM to the wiring harnesses and splice them together with the T-tap connectors. (Figures 48, 49, 50)



FIGURE 48



FIGURE 49

ELECTRONIC BYPASS MODULE	From color	To color	Pin #	Harness connector
	Black	Black	21	C2
	Red	Pink/Lt. Green	14	
	Blue	Yellow/Gray	2	C1
	Green	Yellow	1	

FIGURE 50

3. Plug in the Arnott electronic bypass module. (Figures 51, 52)



FIGURE 51



FIGURE 52

4. Place the EBM in a suitable spot free from friction or pinch points.
5. Installation complete.

# Arnott®

Air Suspension Products

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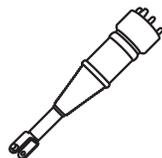
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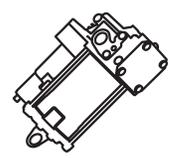
**Air Springs**



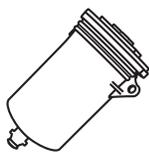
**Struts**



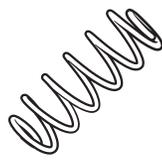
**Shocks**



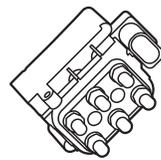
**Compressors**



**Dryers**



**Coil Spring  
Conversion Kits**



**Valve Blocks**



**Ride Height  
Sensors**