



INSTALLATION MANUAL

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



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.

A 4-WHEEL ALIGNMENT IS RECOMMENDED AFTER INSTALLATION

FRONT AIR STRUT REMOVAL

1. Set the steering to straight ahead.
2. Safely lift the vehicle according to the manufacturer's instructions.
3. Deflate and disable the air suspension system according to the manufacturer's instructions.
4. Remove the front wheels. (Figure 1)



FIGURE 1

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



FIGURE 2

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



FIGURE 3

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



FIGURE 4

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



FIGURE 5

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



FIGURE 6

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

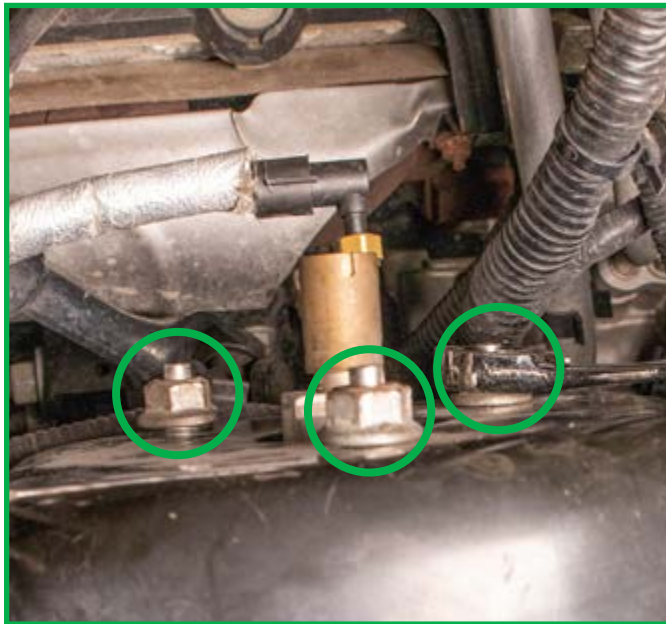


FIGURE 7

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



FIGURE 8

12. Removal complete.

FRONT COILOVER STRUT INSTALLATION



WARNING:

Tighten all nuts and bolts to the 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 onto the vehicle. (Figure 11)



FIGURE 11

3. Install the three (3) provided top mount nuts. (Figures 12, 13)



FIGURE 12



FIGURE 13

4. Reinstall the bottom shock mount bolt and nut. (Figures 14, 15)



FIGURE 14



FIGURE 15

5. Connect the upper control arm to the spindle assembly and reinstall the nut. (Figures 16, 17)



FIGURE 16



FIGURE 17

6. Connect the tie rod and reinstall the tie rod end nut. (Figures 18, 19)



FIGURE 18



FIGURE 19

7. Connect the sway bar end link and reinstall the nut. (Figures 20, 21)



FIGURE 20



FIGURE 21

8. Front coilover strut installation complete.

REAR AIR SPRING AND SHOCK REMOVAL

1. Ensure the vehicle is properly lifted according to the manufacturer's instructions.
2. Ensure the air suspension is deflated and deactivated according to the manufacturer's instructions.
3. Remove the rear wheels.
4. Disconnect the air line from the air spring by loosening and removing the air fitting. (Figure 22)



FIGURE 22

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

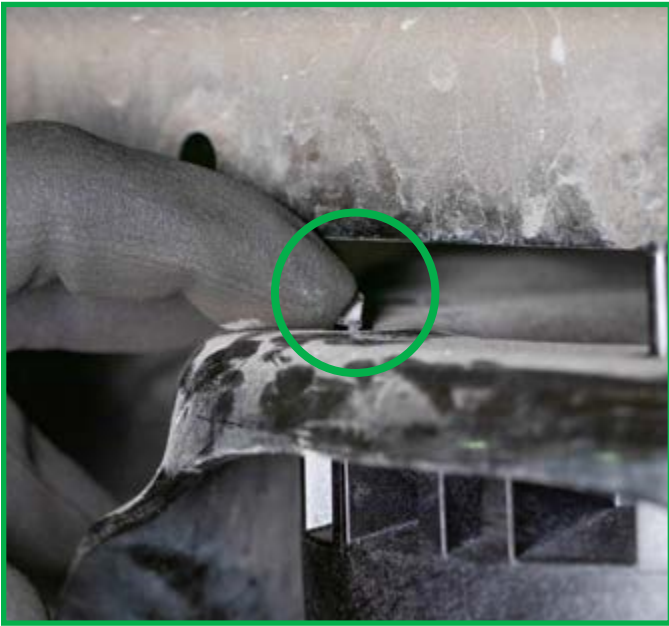


FIGURE 23

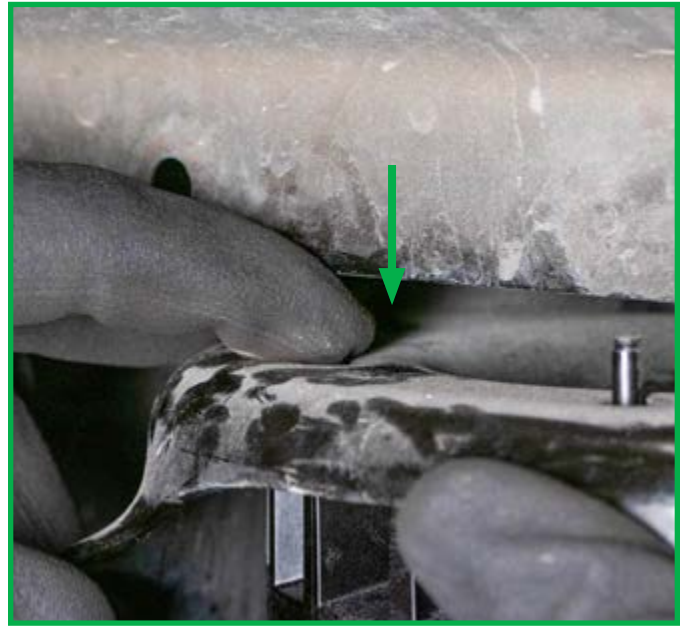


FIGURE 24

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



FIGURE 25

7. Air spring removal complete.

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

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



FIGURE 26

9. Remove the nut and bolt from the upper shock mount. (Figures 27, 28)



FIGURE 27



FIGURE 28

10. Remove the nut and bolt from the lower shock mount. (Figure 29)



FIGURE 29

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



FIGURE 30

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



FIGURE 31



FIGURE 32

13. Shock removal complete.

REAR COIL SPRING AND SHOCK INSTALLATION



WARNING:

Tighten all nuts and bolts to the 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 is suggested for the removal and installation of the rear shocks and coil springs.

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



WARNING:

Ensure the spring is securely seated.



FIGURE 39



FIGURE 40

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



FIGURE 41

6. Install the upper shock mount nut and bolt. (Figures 42, 43)



FIGURE 42



FIGURE 43

7. Install the lower shock mount nut and bolt. (Figures 44, 45)



FIGURE 44



FIGURE 45

8. Coil spring and shock installation complete.

ELECTRONIC BYPASS MODULE (EBM) 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. According to the table below, splice the EBM harness wires to the applicable control module harness wires using the four (4) supplied heat-shrink butt connectors. (Figures 48, 49)

	FROM	TO	PIN #	HARNESS CONNECTOR
ELECTRONIC BYPASS MODULE	Black	Black	21	C2
	Red	Pink / Lt. Green	14	
	Blue	Yellow/Gray	2	C1
	Green	Yellow	1	

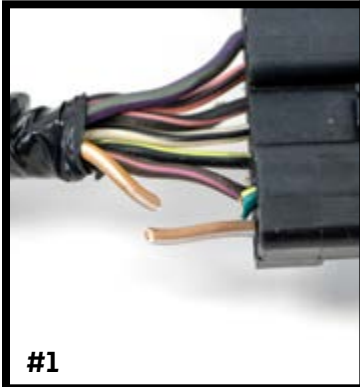
FIGURE 48

HEAT-SHRINK BUTT CONNECTOR INSTALLATION



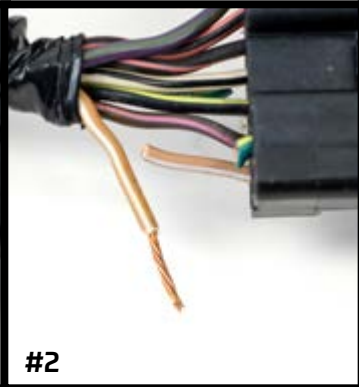
BEFORE CUTTING
Verify you are working with the correct wires. Check the manufacturer’s wiring diagram for your specific vehicle.

NOTE: Make all new connections to the **HARNESS SIDE**, not the connector side.




#1

IDENTIFY AND CUT THE APPLICABLE WIRE TO THE CONTROL MODULE.




#2

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



#3

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



#4

USE AN APPROPRIATE TOOL TO HEAT SHRINK.

FIGURE 49

3. Connect the EBM to the EBM harness. (Figures 50, 51)



FIGURE 50



FIGURE 51

4. Place the EBM in a suitable location, away from friction or pinch points.

NOTE: Do not plug the suspension control modules back in. They remain unplugged. There should be no suspension error lights present in the instrument cluster.

5. Installation complete.

**A 4-WHEEL ALIGNMENT
IS RECOMMENDED AFTER INSTALLATION**

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HOW HELPFUL WAS THIS MANUAL?

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<https://bit.ly/40o4023>

NEED IMMEDIATE SUPPORT?

We're happy to help! Reach out using the contact information above.