



INSTALLATION MANUAL

C-3937

Arnott New Coil Spring Conversion Kit
16-21 Jeep Grand Cherokee (WK2)



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. Disconnect the air line. (Figure 2)



FIGURE 2

6. Loosen, but do not remove, the nut connecting the upper control arm to the spindle. (Figure 3)



FIGURE 3

7. Remove the steering arm from the knuckle. (Figures 4, 5)



FIGURE 4



FIGURE 5

8. Disconnect the sway bar from the strut.
9. Disconnect the wheel speed sensor and un-route the wire from the spindle. (Figures 6, 7)



FIGURE 6

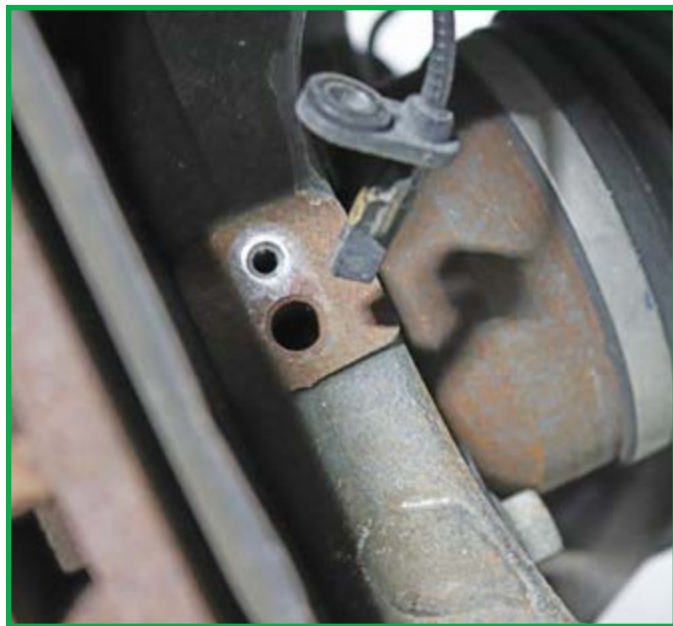


FIGURE 7

10. Remove the brake caliper from the hub. (Figure 8)



FIGURE 8

11. Remove the lower strut mount bolt. (Figures 9, 10)



FIGURE 9



FIGURE 10

12. Loosen, but do not remove, the upper strut mount nuts. (Figures 11, 12)



FIGURE 11



FIGURE 12

13. Disconnect the spindle from the upper control arm. Push down on the lower control arm to slide the strut lower mount over one side of the axle shaft. (Figures 13, 14)

NOTE: The driver's side axle shaft will need to be disconnected.



FIGURE 13



FIGURE 14

14. Remove the upper strut mount nuts and remove the strut from the vehicle. (Figures 15, 16)



FIGURE 15



FIGURE 16

15. Air strut removal complete.

FRONT COILOVER INSTALLATION



WARNING:

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

1. Install the new coilover strut into the vehicle. Loosely thread on the upper strut mount nuts to retain the strut. (Figures 17, 18)



FIGURE 17



FIGURE 18

2. Push down on the lower control arm to slide the lower strut mount over the axle shaft. (Figure 19)



FIGURE 19

3. Use a jack or other appropriate equipment to raise the lower control arm and reconnect the spindle to the upper control arm. Tighten hardware to manufacturer's specifications. (Figure 20)



FIGURE 20

4. Reinstall the lower strut mount bolt and nut. Tighten to manufacturer's specifications. (Figures 21, 22)



FIGURE 21



FIGURE 22

5. Reinstall the brake caliper. Tighten all hardware to manufacturer's specifications. (Figure 23)



FIGURE 23

6. Reinstall the wheel speed sensor. Tighten to manufacturer's specifications. (Figures 24, 25)

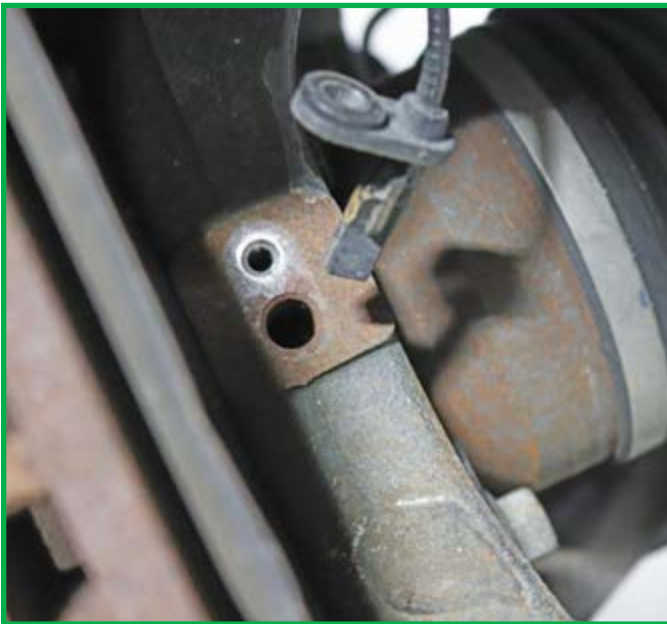


FIGURE 24



FIGURE 25

7. Reconnect the sway bar to the strut Tighten to manufacturer's specifications.
8. Reconnect the steering arm to the knuckle. Tighten to manufacturer's specifications. (Figures 26, 27)



FIGURE 26



FIGURE 27

9. Tighten the upper strut mount nuts to manufacturer's specifications. (Figure 28)



FIGURE 28

10. Seal off and secure the air line in a safe location.
11. Reinstall the wheel.
12. 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. (Figure 29)



FIGURE 29

4. Remove the air line from the air spring. Remove the air spring. (Figures 30, 31)



FIGURE 30



FIGURE 31

5. Remove the lower shock mount bolt. (Figures 32, 33)



FIGURE 32



FIGURE 33

6. Remove the wheel well liner. (Figure 34)



FIGURE 34

7. Remove the upper shock mount bolts and remove the shock. (Figures 35, 36)



FIGURE 35



FIGURE 36

8. Removal complete.

REAR SHOCK AND COIL SPRING INSTALLATION



WARNING:

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

1. Install the new shock into the vehicle. (Figure 37)



FIGURE 37

2. Install the upper shock mount bolts. Tighten to manufacturer's specification. (Figure 38)



FIGURE 38

3. Install the lower shock mount bolt. Tighten to manufacturer's specification. (Figures 39, 40)



FIGURE 39



FIGURE 40

4. Place the upper spring seat and isolator onto the top of the coil spring. Place the lower spring perch onto the bottom of the coil spring. (Figures 41, 42)



FIGURE 41



FIGURE 42

- Using an appropriate spring compressor, compress the spring and install the spring assembly into the spring pocket. Be sure to keep the isolator properly aligned with the coil spring. (Figures 43, 44)



FIGURE 43



FIGURE 44

- Seal off and secure the air line in a safe location.
- Reinstall the wheel well liner.
- Reinstall the wheel.

ELECTRONIC BYPASS MODULE (EBM) INSTALLATION

- Locate the air suspension control module under the driver side seat and disconnect the two (2) harnesses. **The harnesses will remain disconnected.** (Figures 45, 46)



FIGURE 45



FIGURE 46

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 47, 48)

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

FIGURE 47

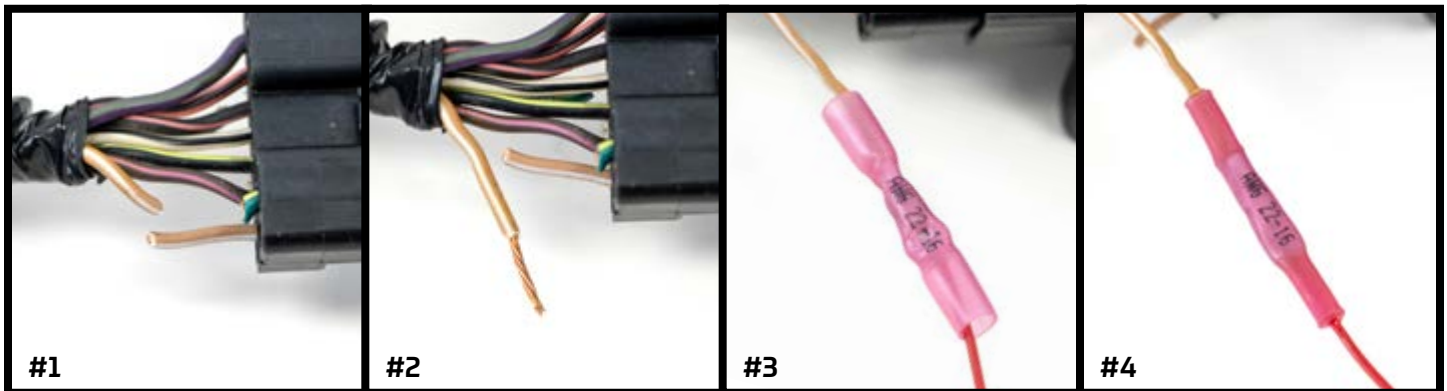
HEAT-SHRINK BUTT CONNECTOR INSTALLATION



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 48

3. Connect the EBM to the EBM harness. (Figures 49, 50)



FIGURE 49



FIGURE 50

4. Place the EBM in a suitable spot, 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?

Scan the QR code or click the link below to let us know.

<https://bit.ly/4syCZ86>

NEED IMMEDIATE SUPPORT?

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