

# **INSTALLATION MANUAL**

## SK-4023 Arnott New Front Air Strut Land Rover Velar (L560 Chassis)



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### CONGRATULATIONS ON YOUR PURCHASE OF AN ARNOTT<sup>®</sup> 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 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.

### **STRUT REMOVAL**

- 1. Raise the vehicle.
- 2. Remove the applicable wheel. (Figure 1)



FIGURE 1

3. Disconnect the upper control arm from the spindle. (Figure 2)



FIGURE 2

4. Disconnect the sway bar link from the strut mount. Un-route the wires from the bracket on the strut mount. (Figure 3)



FIGURE 3

5. Remove the bolt clamping the strut mount to the strut. (Figure 4)



FIGURE 4

6. Remove the bolt connecting the lower strut mount to the lower control arm. (Figure 5)



**FIGURE 5** 

- 7. Use an appropriate tool to spread the lower strut mount clamp to remove from the strut.
- 8. Disconnect the electrical connector from the top of the strut. Remove the three top nuts. Remove the strut from the vehicle. (Figures 6, 7, 8)



FIGURE 6



FIGURE 7



FIGURE 8

9. Removal complete.

### STRUT ASSEMBLY

1. Use an appropriate spring compressor to disassemble the OEM strut. (Figure 9)



FIGURE 9

- 2. The following components will be reused: (Figure 10)
  - a. Spring
  - b. Lower spring perch
  - c. Bump-stop
  - d. Shock rod spacer
  - e. Upper spring mount assembly



FIGURE 10

- 3. The remaining components will not be reused. (Figure 11)
  - a. Shock cap
  - b. Perch ring
  - c. Top nut



FIGURE 11

4. Place the new included perch ring over the Arnott shock. Observe the correct orientation. (Figures 12, 13, 14)



FIGURE 12



FIGURE 13



FIGURE 14

5. Place the lower spring perch, bump-stop, and shock rod spacer onto the new Arnott shock. (Figure 15)



**FIGURE 15** 

6. Use an appropriate spring compressor to assemble the new Arnott strut using the provided nut. (Figure 16)



FIGURE 16

7. Ensure that the ends of the coil are correctly aligned to the step in the rubber isolators on the perches. (Figures 17, 18)



FIGURE 17



FIGURE 18

8. Assembly complete.

### STRUT INSTALLATION



WARNING:

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

1. Install the assembled Arnott strut into the vehicle. Loosely thread the top nuts on to hold the strut. (Figure 19)



**FIGURE 19** 

2. Install the bypass coil bracket onto the top mount stud towards the front of the vehicle. Connect the electrical connector to the bypass coil. (Figure 20)



FIGURE 20

3. Seat the strut into the lower mount using an appropriate tool to spread the clevis. Do not install the bolt at this time. (Figure 21)



FIGURE 21

4. Install the lower mount bolt. Do not fully tighten at this time. (Figure 22)



FIGURE 22

5. Reconnect the spindle to the upper control arm. (Figure 23)



FIGURE 23

6. Ensure the steering is set straight ahead. Use a jack to lift the wheel hub to nominal trim height. Spread the clevis to relieve any torsion in the strut. Tighten the bolt clamping the lower mount to the strut body. Tighten the lower mount bolt to lower control arm. (Figures 24, 25)



FIGURE 24



**FIGURE 25** 

7. Reconnect the sway bar link. Re-route the wires into the bracket. (Figure 26)



**FIGURE 26** 

- 8. Tighten all hardware to manufacture's specifications.
- 9. Reinstall the wheel.
- 10. Installation complete.



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