Arnott®
Air Suspension Products

Working on Air Suspension - Considerations

Safety/preparation
For your safety it is strongly recommended to wear protective glasses, hand gloves and ear protection. The pressure in an air suspension system can be up to 18 bar! Verify that the pressure has been released and that the power supply to the compressor is disconnected before disassembling the air hoses and components.

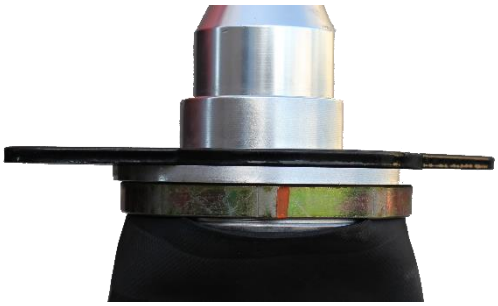
It is important to be aware of all necessary safety measures when installing a new air suspension component. This includes proper lifting and immobilizing of the vehicle (and of any stored energy) to prevent personal injury or damage.

Visual check
If a car drops more than 2,5 cm overnight there is a leak in the system. Leak detection often only requires a water and soap spray. If the car is lower in one corner, or the car is not levelled, this can also be cause by a defective valve block.

A burned compressor can be confirmed by the smell, and/or the color of the metal body. Brown- colored labels on the compressor unit are also easy-to-find indicators.

Depressurize the system
Depressurizing the system can be done either at the compressor or at the air bellow side. Never fully remove the air fitting at once, but slowly remove to relieve the pressure. Depending on the vehicle's make and model, a diagnostic tool is needed to activate the solenoids to depressurize the air bellows. You can recognize this by the presence of a connector on the air spring.

Jack mode
Check if the car features a special "jack mode". If present, use it to prevent the air being extracted from the bellow when jacking up the car. If not present, the car can be jacked without any precautionary measure. Some systems even automatically recognize that the car is jacked and retain the desired amount of pressure in the air springs.



Inflation issues
Never fully lower the car with the lifting device when the air suspension system is still depressurized. The air spring could unfold incorrectly and the crimp ring can come off. Besides, an aging compressor might not be able to produce enough pressure to raise the car from 0. The relay could get damaged, or in worst case the compressor could burn out in its attempt to pressurize the system to the operational level.

Secondly, the air springs should be mounted the way they came out of the box. Do not stretch them or pre-pressurize them to make the installation easier. During inflation it could fold out incorrectly and get damaged.

Tightening the VOSS connector
VOSS connectors usually do not need tightening. Ignoring this might damage the thread which can cause air leakage. Respect torque specifications from manufacturers at all times. Overtorque can result in damaged or broken thread.

Do not just replace, find the root cause.
Always replace the relay when mounting a new compressor. It is likely that the old relay has become “sticky”, causing the (new) compressor to continuously pump air. This will eventually lead to another burned out compressor.

Remind yourself that a compressor is usually not the actual cause of a non-functioning air suspension system, but rather the consequence of a large leakage in another part of the system. Therefore making the correct diagnosis is crucial. Check all lines, connections and air springs for leaks after the compressor is working again.

Struts and shocks
Critically inspect the air suspension strut or shock absorber on function and oil leakage when replacing a leaking air spring. Oil deteriorates the rubber of the air bellow and drastically lowers the lifespan of the part. Secondly, if the shock absorber is no longer performing its task properly, the air spring takes the hit and will get damaged quickly.

Diagnostic tools and software updates
After the test drive, make sure no fault codes are re-entered in the system. It is recommended to check the height sensor parameters with a diagnostic tool and adjust if necessary. This ensures the correct height at each corner enabling the system to respond correctly to inputs when driving. In addition, perform a wheel alignment when the shock absorber or strut is replaced.

ALWAYS perform a Dealer software update if this is written in the installation manual. Ignoring this, the compressor will not work as it should. As a result, it could lead to a bad-functioning or burned compressor.
