

REMOVAL AND INSTALLATION

AIR SUSPENSION COMPRESSOR ASSEMBLY

REMOVAL

WARNING:

All pressurized air suspension components contain high pressure air (up to 220 psig). Use extreme caution when inspecting for leaks. Wear safety goggles and adequate protective clothing when inspecting or servicing the air suspension system. A sudden release of air under this amount of pressure can cause possible serious or fatal injury.

WARNING:

Before performing any service on the air suspension system, the system must be disabled to prevent the system from changing ride height. Before any given component is to be serviced it must be deflated. Servicing the air suspension system without the system disabled, or with pressure in any specific component, can cause possible serious or fatal injury.

CAUTION:

When removing an air line from a component and the air line is to be reused, do not remove the 90° fitting or the brass fitting from the air line. If either is removed, the air line must be replaced. Do not remove protective caps or plugs from air lines or components until ready to install the air line to prevent moisture or dirt intrusion. All air line fittings must be hand started to avoid cross threading.

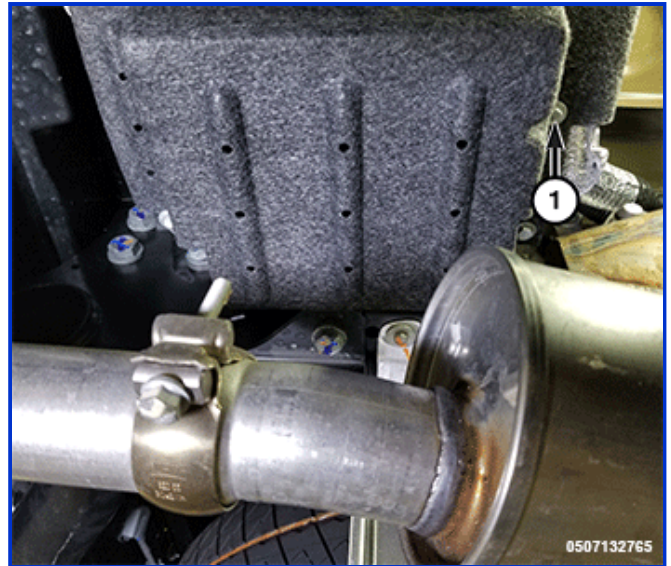
NOTE:

The air suspension system can be disabled and enabled by using the Display Screen Module (DSM) in the vehicle under tire jack mode, which is the preferred method. If the disable level control routine in the scan tool is used it will only disable the level control (automatic and manual) for that ignition cycle. The air suspension system can also be enabled by driving the vehicle above 8 km/h (5 mph). The air suspension should be disabled prior to lifting the vehicle or performing any work.

NOTE:

Air Suspension Control Module (ASCM) replacement is almost NEVER the issue. Work hard to diagnose the root cause using ANY methods possible. Typically all ASCM related issues are bent pins.

1. Disable the air suspension system.
2. Perform the manual reservoir deflate standard procedure ([Refer to 02 - Front Suspension/Air Suspension - Standard Procedure](#)).
3. Disconnect and isolate the negative battery cable(s) ([Refer to 08 - Electrical/Battery System/Standard Procedure](#)).
4. Raise and support the vehicle ([Refer to 04 - Vehicle Quick Reference/Hoisting/Standard Procedure](#)).
5. Remove the right rear tire and wheel ([Refer to 22 - Tires and Wheels/Removal and Installation](#)).
6. Remove the two air compressor stone shield bolts and the push pin fastener, then remove the air compressor stone shield.



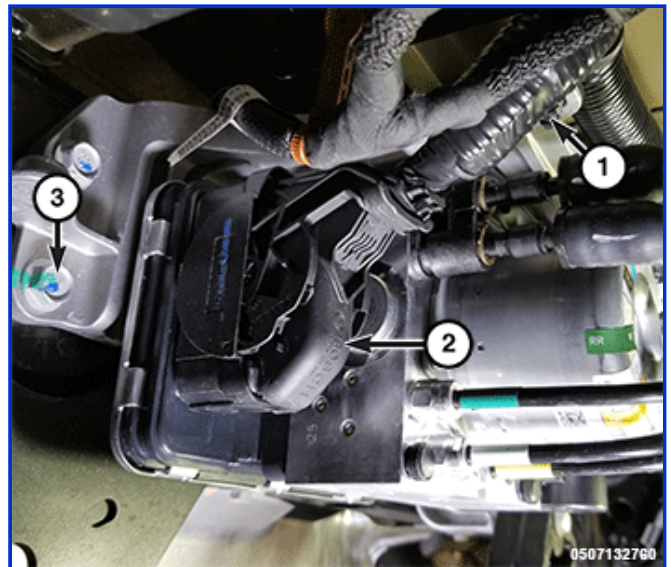
1 - Air Compressor Stone Shield Bolts

7. Disconnect the Air Suspension Control Module (ASCM) wire harness connector and disengage the wire harness routing clip.

NOTE:

Do not remove the fittings from the air lines. Original fittings must be used when using the original air lines.

8. Disconnect the inlet and outlet hose assembly from the air compressor ([Refer to 02 - Front Suspension/Air Suspension/HOSE ASSEMBLY, Air Suspension/Removal and Installation](#)).
9. Disconnect the two front air spring lines and the two rear air spring lines from the air compressor ([Refer to 02 - Front Suspension/Air Suspension/AIR LINE/Removal and Installation](#)).
10. Disconnect the reservoir air line from the air compressor ([Refer to 02 - Front Suspension/Air Suspension/AIR LINE/Removal and Installation](#)).
11. Remove the four air compressor bracket bolts.
12. Remove the air compressor.



- 1 - Wire Harness Routing Clip
 2 - ASCM Wire Harness Connector
 3 - Air Compressor Bracket Bolts

INSTALLATION

Follow the removal procedure in reverse for general reassembly of the components on the vehicle. The steps listed below are calling out specific procedures that should be followed during installation.

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- Perform the complete system fill standard procedure ([Refer to 02 - Front Suspension/Air Suspension - Standard Procedure](#)).
- Using a scan tool in Air Suspension Control Module (ASCM) perform the following:
 - Perform the Write Suspension Height Values routine and input measurements recorded as prompted by scan tool.
 - Command the vehicle to Normal Ride Height (NRH).
 - Run the Air Mass Calculation routine on the air suspension system.
 - Run the Height Sensor Check routine on the air suspension system.
 - Enable Level Control.
- Perform the ASCM Verification Test ([Refer to 28 - DTC-Based Diagnostics/MODULE, Air Suspension Control \(ASCM\) - Standard Procedure](#)).

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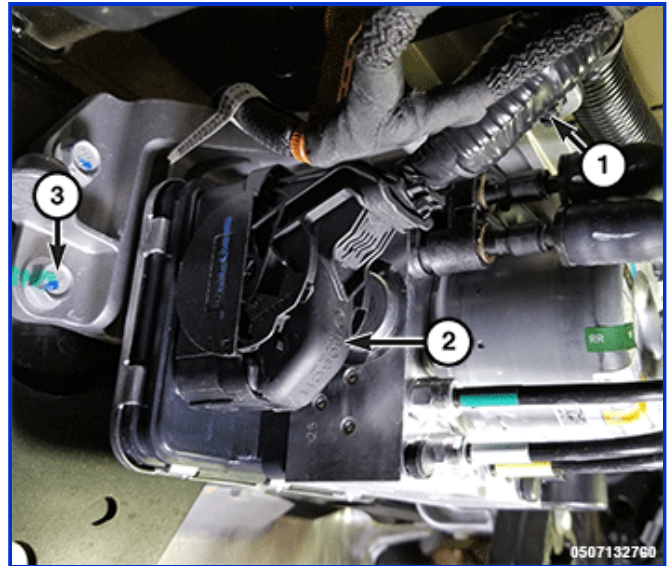
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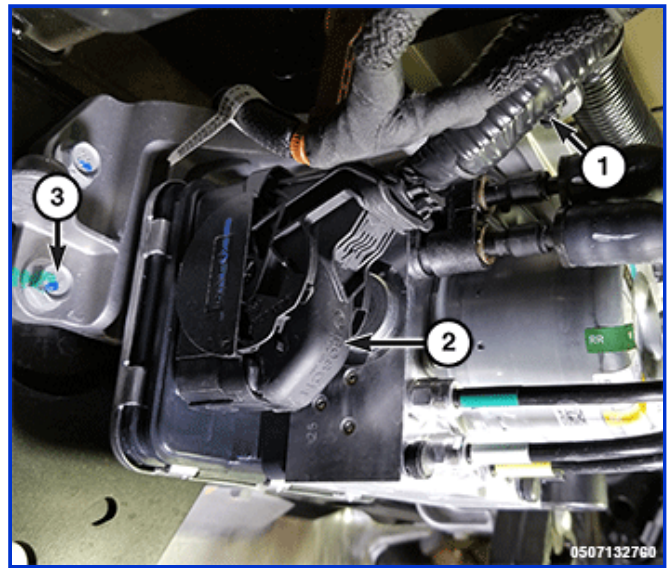
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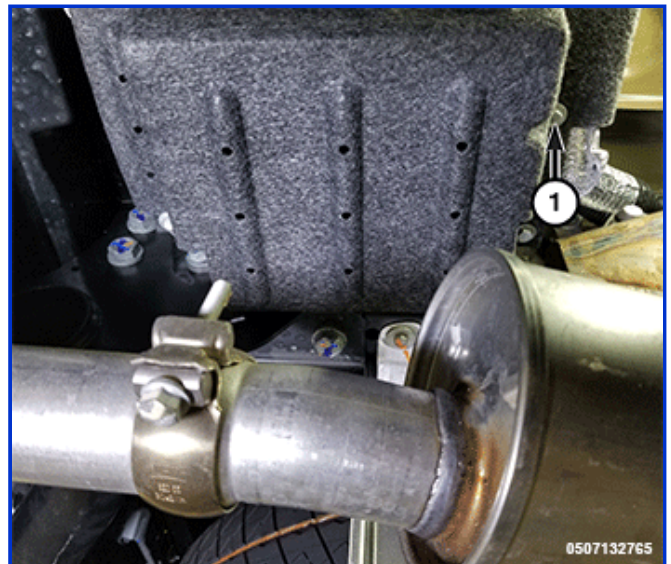
1. Position the air compressor bracket to the frame.
2. Install the four air compressor bracket bolts (3) and tighten to the proper ([Torque Specifications](#)).
3. Connect the reservoir air line to the air compressor ([Refer to 02 - Front Suspension/Air Suspension/AIR LINE/Removal and Installation](#)).
4. Connect the two front air spring lines and the two rear air spring lines to the air compressor ([Refer to 02 - Front Suspension/Air Suspension/AIR LINE/Removal and Installation](#)).
5. Connect the inlet and outlet hose assembly to the air compressor ([Refer to 02 - Front Suspension/Air Suspension/HOSE ASSEMBLY, Air Suspension/Removal and Installation](#)).



6. Secure the wire harness routing clip (1) and connect the Air Suspension Control Module (ASCM) wire harness connector (2).



7. Position the air compressor stone shield to the air compressor bracket and install the push pin fastener.
8. Install the two air compressor stone shield bolts (1) and tighten to the proper [Torque Specifications](#).
9. Install the right rear tire and wheel ([Refer to 22 - Tires and Wheels/Removal and Installation](#)).
10. Remove the support and lower the vehicle.
11. Connect the negative battery cable(s) ([Refer to 08 - Electrical/Battery System/Standard Procedure](#)).
12. Perform the complete system fill standard procedure ([Refer to 02 - Front Suspension/Air Suspension - Standard Procedure](#)).
13. Using a scan tool in Air Suspension Control Module (ASCM) perform the following:
 - Perform the Write Suspension Height Values routine and input measurements recorded as prompted by scan tool.
 - Command the vehicle to Normal Ride Height (NRH).
 - Run the Air Mass Calculation routine on the air suspension system.
 - Run the Height Sensor Check routine on the air suspension system.
 - Enable Level Control.



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manual) for that ignition cycle. The air suspension system can also be enabled by driving the vehicle above 8 km/h (5 mph). The air suspension should be disabled prior to lifting the vehicle or performing any work.

14. Perform the ASCM Verification Test ([Refer to 28 - DTC-Based Diagnostics/MODULE, Air Suspension Control \(ASCM\) - Standard Procedure](#)).