

REMOVAL/INSTALL OF AIR SUSPENSION COMPRESSOR (949-300) Jeep Grand Cherokee Altitude, Overland 2015–11

General Tech Tips:

- **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:** Support the vehicle by supplemental means before performing any work on the air suspension system to prevent the vehicle from changing height. Before any given component is to be serviced it must be deflated. Servicing the air suspension system without supplemental support, or with pressure in the specific component, can cause possible serious or fatal injury.
- **NOTE:** If the filter has any sign of water, or the suction hose to the back of the compressor has a leak, the valve block must also be replaced.

**PLEASE WEAR
SAFETY GLASSES!**

Tools required for removal and installation of suspension compressor:

- OEM air suspension refill tool
- Diagnostic scan tool
- Drill
- 13mm wrench
- Nitrogen tank

Removal Instructions

STEP 1: Using the OEM air suspension refill tool, deflate the system by bleeding the entire system at the reservoir by installing fitting and valve and turning clockwise.

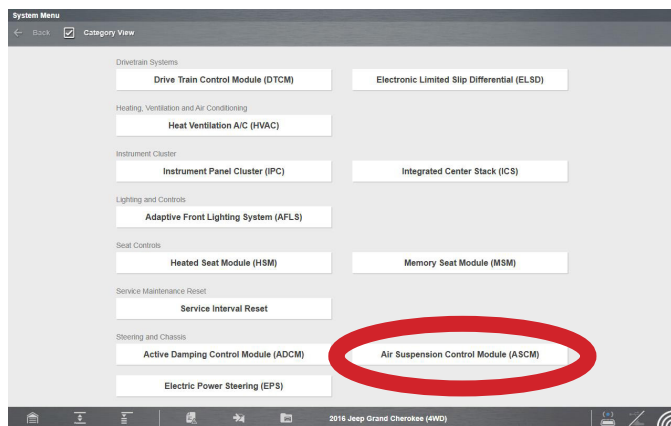


STEP 2: Safely raise the vehicle off the ground, and suitably support the vehicle.
NOTE: CONSULT THE VEHICLE'S OWNER'S MANUAL OR SHOP MANUAL TO DETERMINE THE PROPER WAY OF RAISING AND LOWERING YOUR VEHICLE.

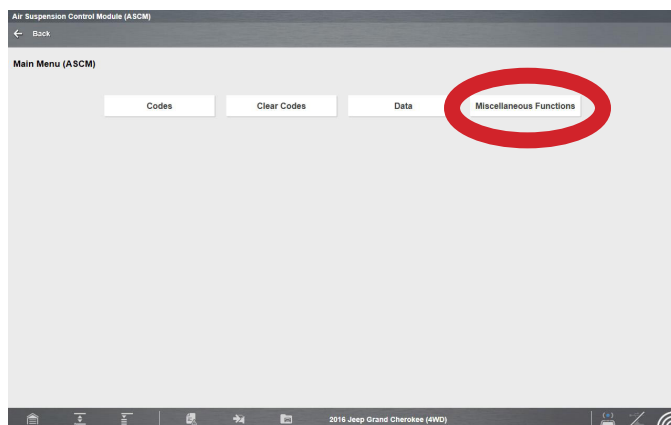


STEP 3: Using a diagnostic scan tool, do a complete system deflate to the atmosphere.
NOTE: Some scan tools may use different terminology than what is indicated here.

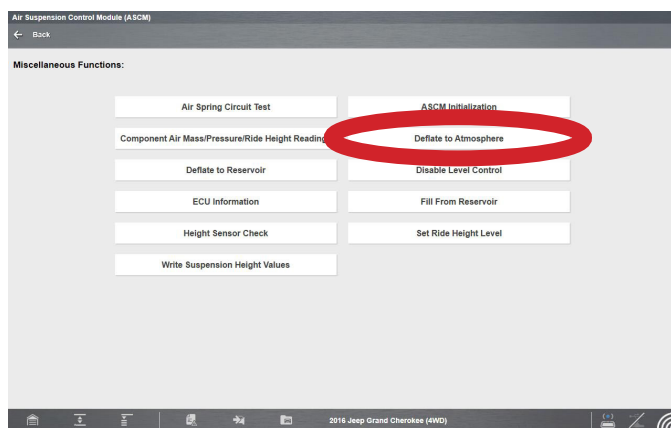
STEP 3a: On the diagnostic scan tool monitor, select “Air Suspension Control Module (ASCM)”.



STEP 3b: Select “Miscellaneous Functions”.



STEP 3c: Select “Deflate to Atmosphere”.



STEP 3d: Select "All Springs and Reservoir".

STEP 3e: Select "Complete Deflate".

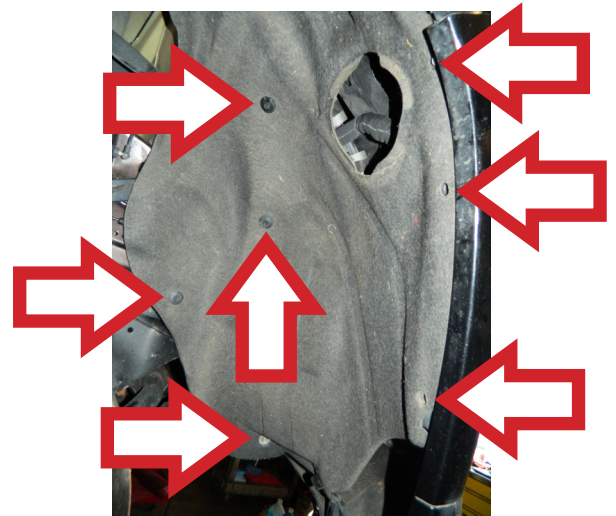
STEP 4: Disconnect the negative battery cable. **NOTE:** The battery is located under the front passenger seat.



STEP 5: Remove the right front tire and wheel.



STEP 6: Using a drill, drill out and remove the plastic rivets that secure the right front wheel splash shield in place.



STEP 7: Remove other push type fasteners & bolts that secure fender liner (splash shield).



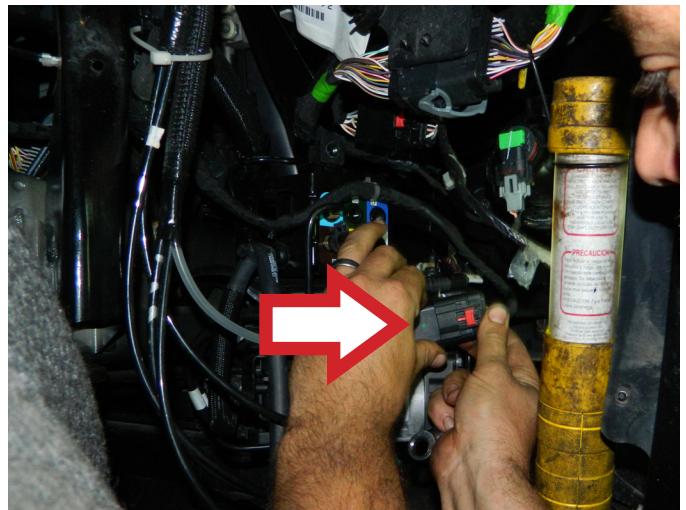
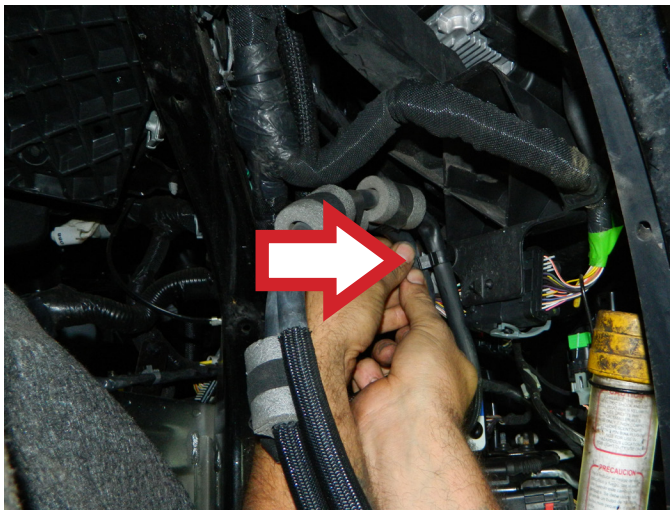
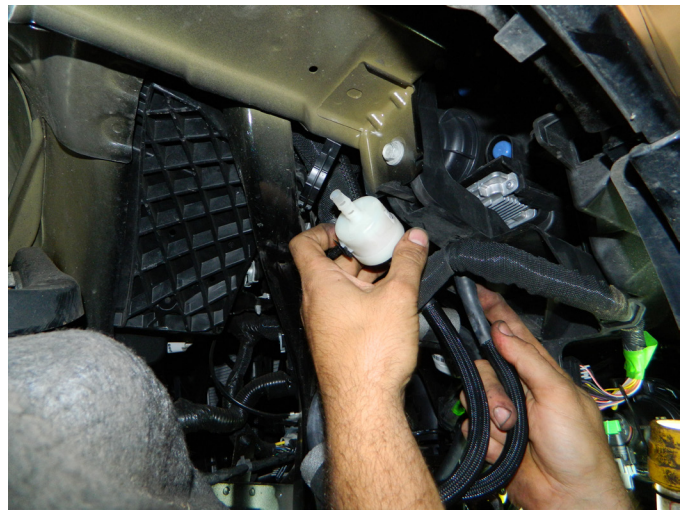
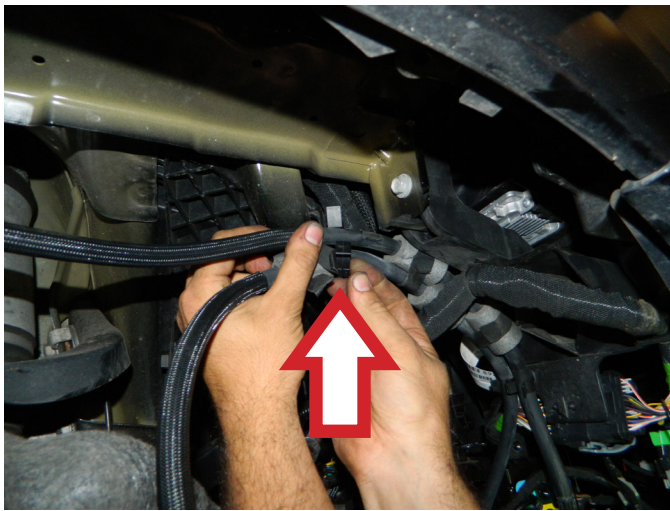
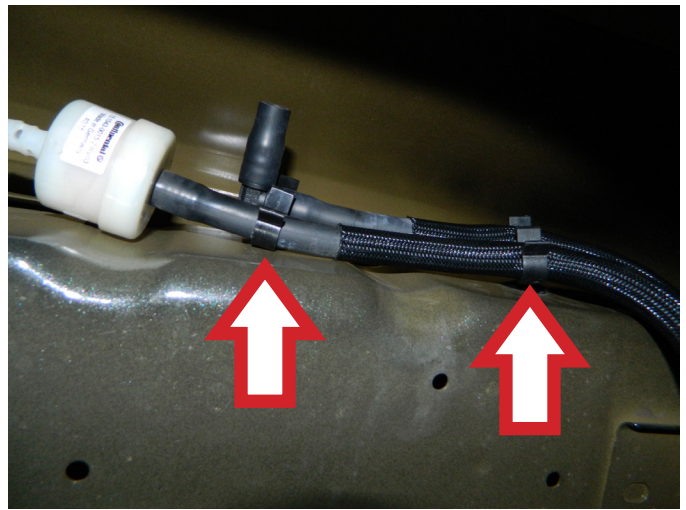
STEP 8: Remove the right front wheel splash shield.



STEP 9: Disconnect the bottom of the front bumper by removing the four push type fasteners.

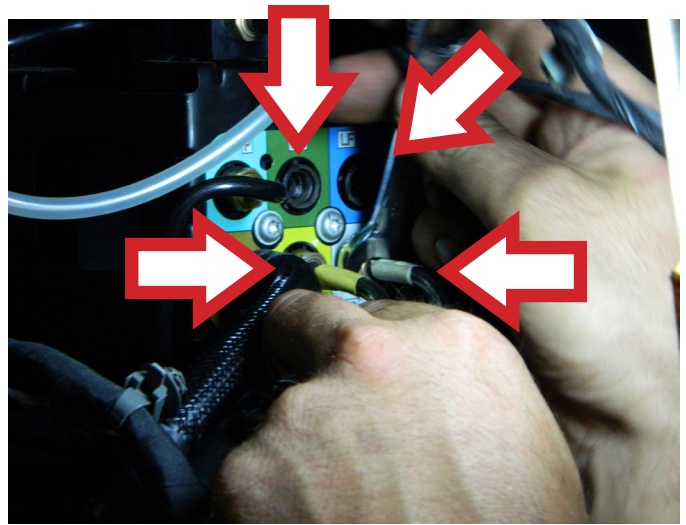


STEP 10: Disconnect the filter retaining clip from the body, and the hoses from the routing clips. Feed the filter retaining clip through the hoses as you're disconnecting the rerouting clips. Finally, disconnect the two compressor wiring harness connectors. **NOTE:** Pay particular attention to the routing of the hoses. There can be no twisting or kinking of the hoses when reassembled.

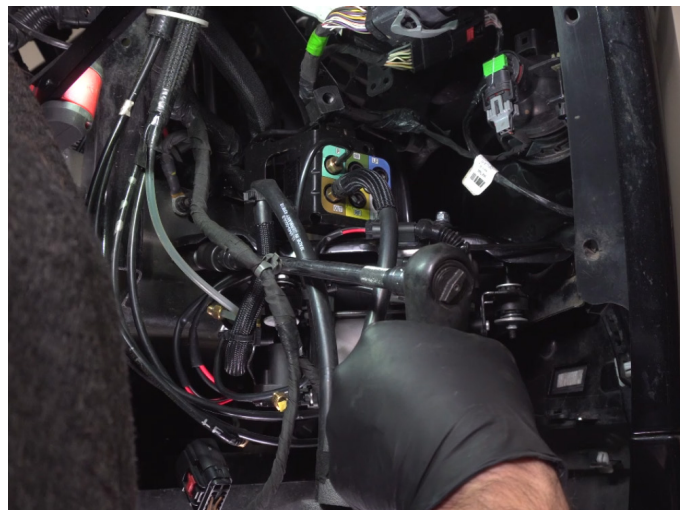


STEP 11: Using a 13mm wrench, disconnect the four air spring lines. **NOTE:** Mark the lines with their corresponding port before removal, to aid with install.

CAUTION: When removing the air lines from the valve block and the air line is to be reused, do not remove the brass fitting from the air line. If either is removed, the air line must be replaced.

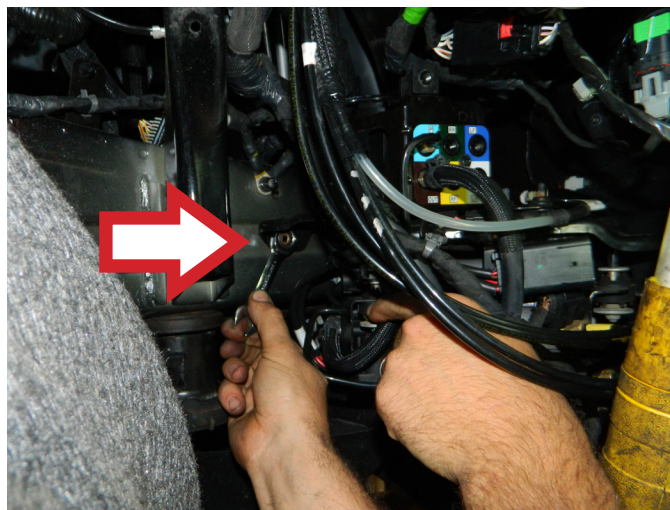


STEP 12: Remove the three nuts that secure the compressor to the body, then remove the compressor/valve block assembly.



Installation Instructions

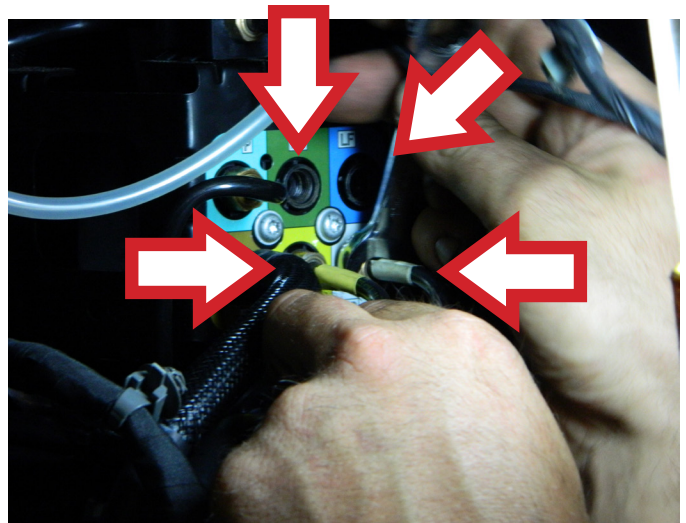
STEP 1: Position the air suspension compressor assembly, install the compressor to the frame nuts and tighten to 24 N·m (18 ft. lbs.). **CAUTION:** When removing an air line from a component and the air line is to be reused, do not remove the 90° fitting or the brass fitting from the air line. If either is removed, the air line must be replaced. New components have air line fittings attached; however if the original air line is used the original fitting must also be used. 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. **CAUTION:** When handling the air suspension compressor assembly, keep upright and carry only by the compressor itself or the primary bracket (bolts the assembly to the vehicle).



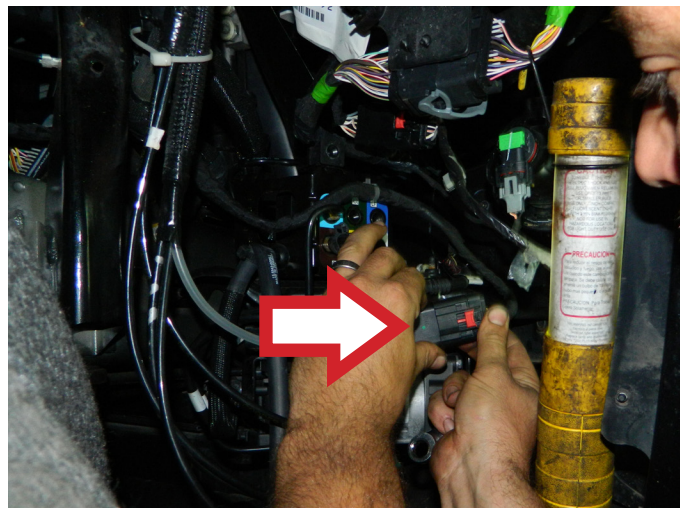
STEP 2: Reattach all air line fittings to the compressor assembly.

STEP 3: Install the reservoir line/fitting to the adapter (above the valve block) and tighten to 3.5 N·m (31 in. lbs.).

STEP 4: Using a 13mm wrench, install the four air spring line/fittings to the valve block and tighten to 3.5 N·m (31 in. lbs.).



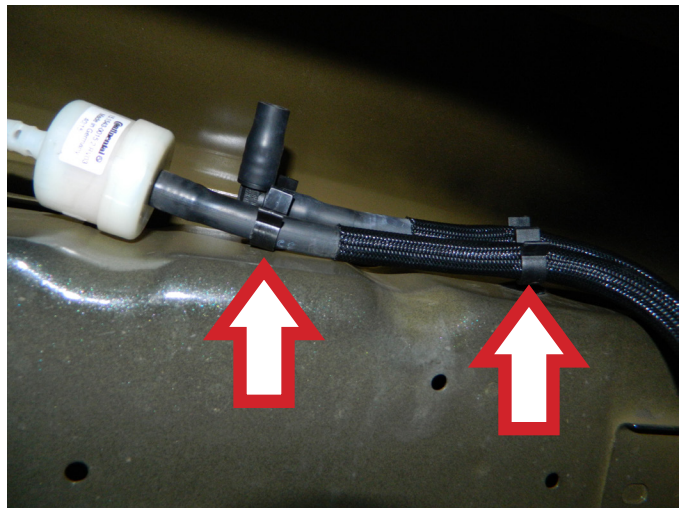
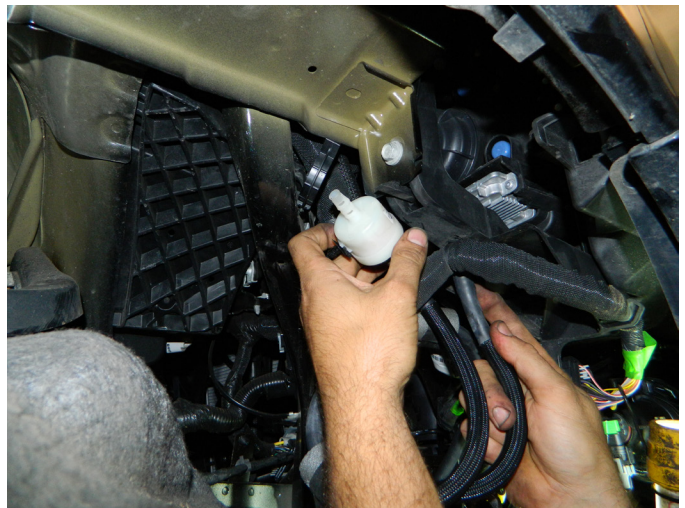
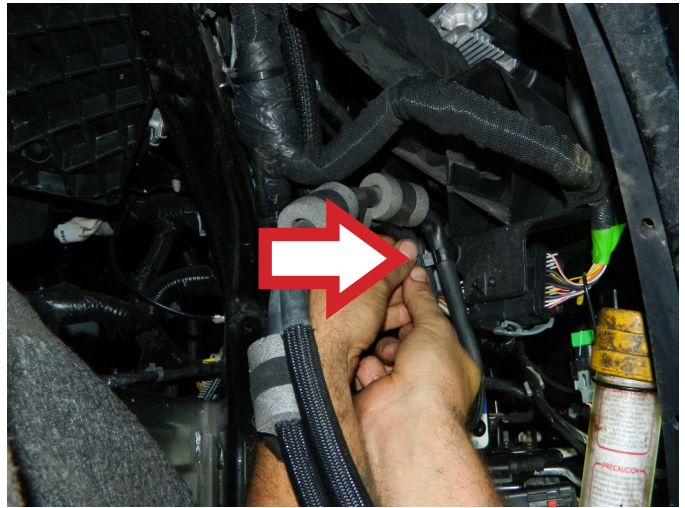
STEP 5: Connect the compressor wiring harness connector.



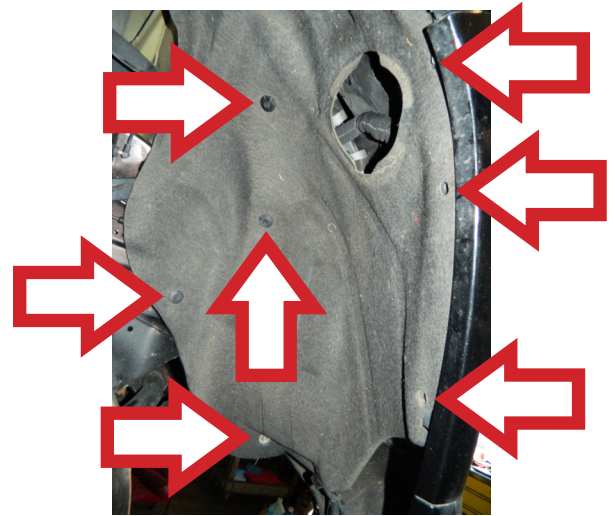
STEP 6: Connect the valve block wiring harness connector and the wiring harness retaining clip.

STEP 7: Install the compressor to bumper bracket nuts and tighten to 24 N·m (18 ft. lbs.).

STEP 8: Connect the filter retaining clip and the hoses to the routing clips.



STEP 9: Install the right front wheel splash shield. Attach the plastic rivets to hold the shield in place.



STEP 10: Install the right front tire and wheel.



STEP 11: Connect the negative battery cable.



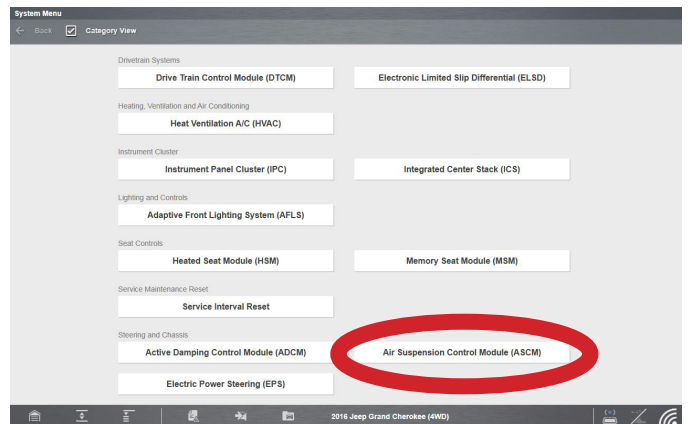
STEP 12: Using a nitrogen tank and suspension fill tool, refill the reservoir. Hook the suspension fill tool up to the fitting on the reservoir behind the rear driver's side seat. Set the tank regulator at 12 bar (175 psi).



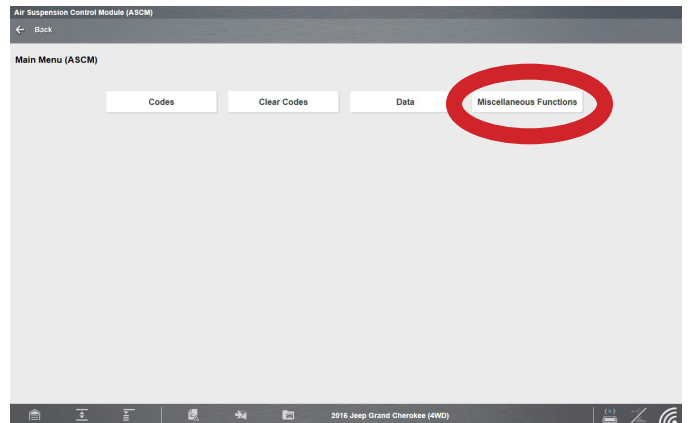
STEP 13: Verify that the air springs are seated.

STEP 14: Using a scan tool, perform the Complete System Fill procedure. **NOTE:** Some scan tools may use different terminology than what is indicated here.

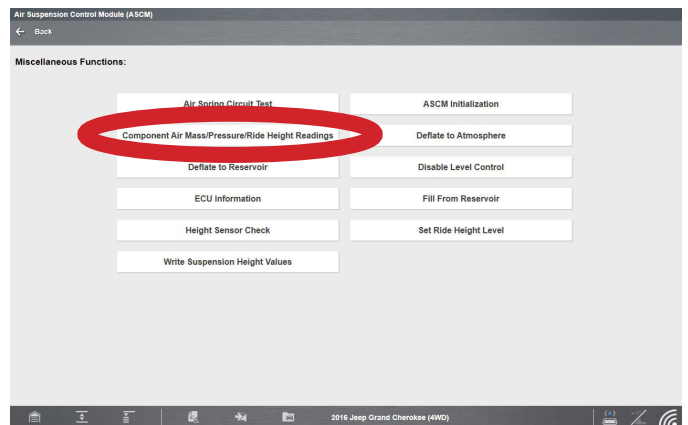
STEP 14a: On the diagnostic scan tool monitor, select “Air Suspension Control Module (ASCM)”.



STEP 14b: Select “Miscellaneous Functions”.

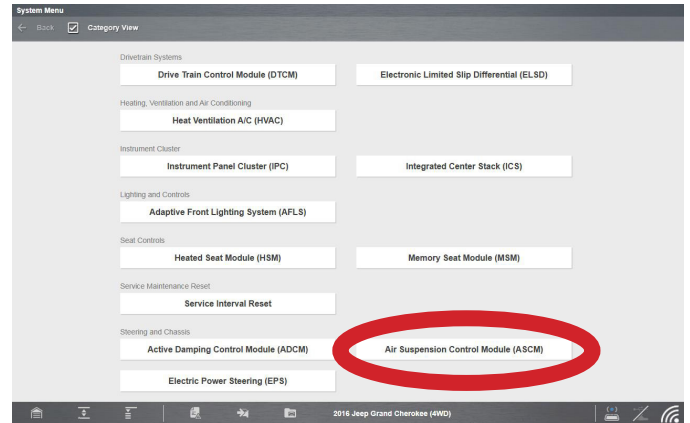


STEP 14c: Select “Component Air Mass/Pressure/Ride Height Readings”.

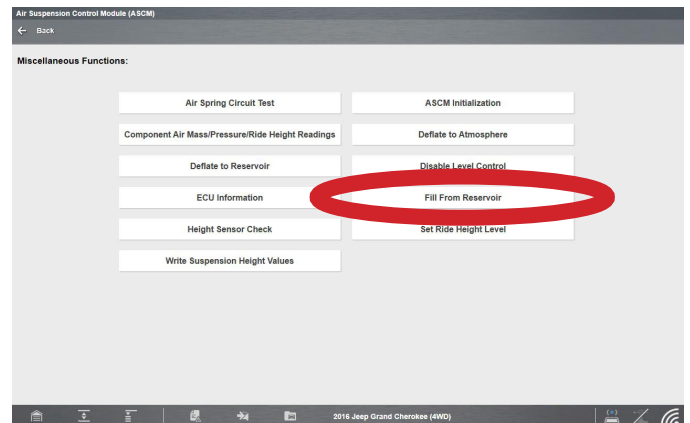


STEP 14d: "Continue" out of this section to return to menu.

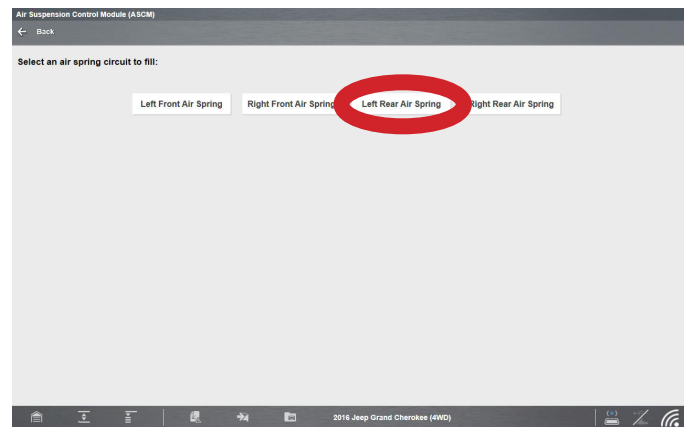
STEP 14e: Perform short fill on left rear tire. Select "Air Suspension Control Module (ASCM)".



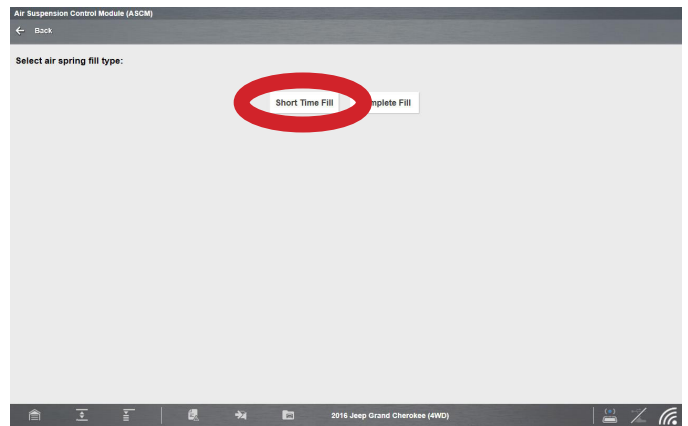
STEP 14f: Select "Fill From Reservoir".



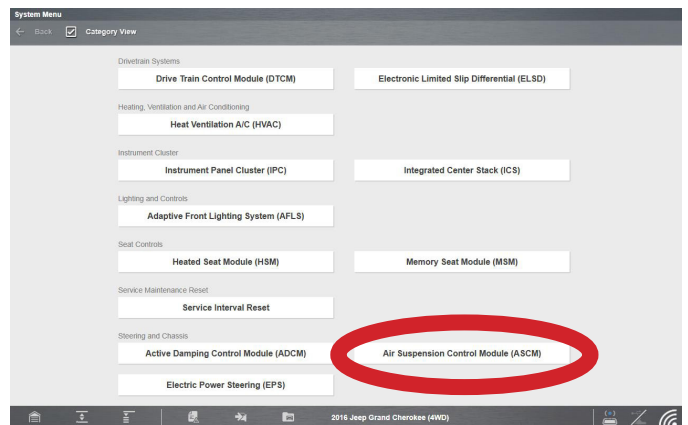
STEP 14g: Select "Left Rear Air Spring".



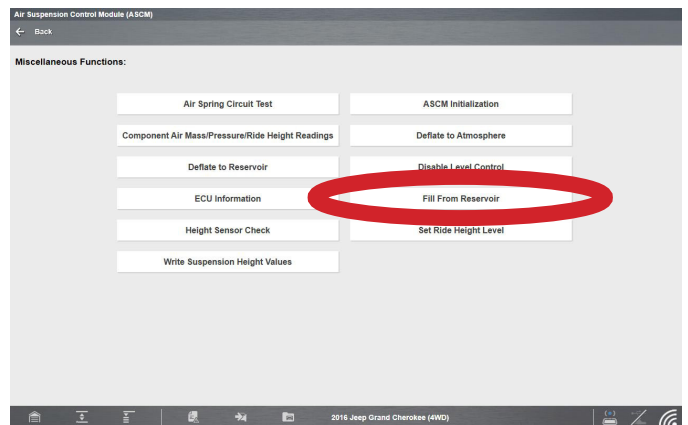
STEP 14h: Select "Short Time Fill".



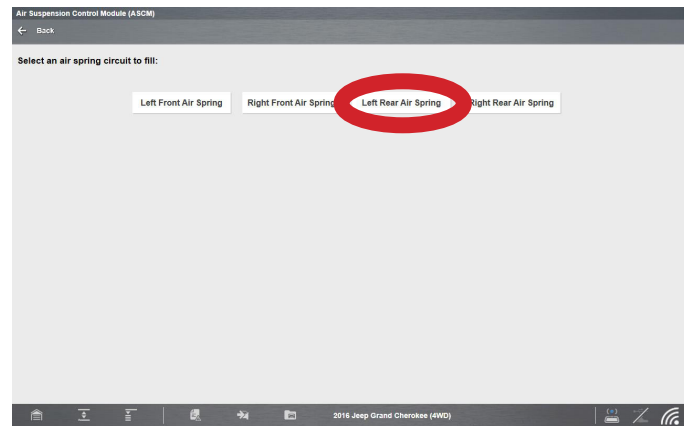
STEP 14i: Perform complete fill on left rear tire. Select "Air Suspension Control Module (ASCM)".



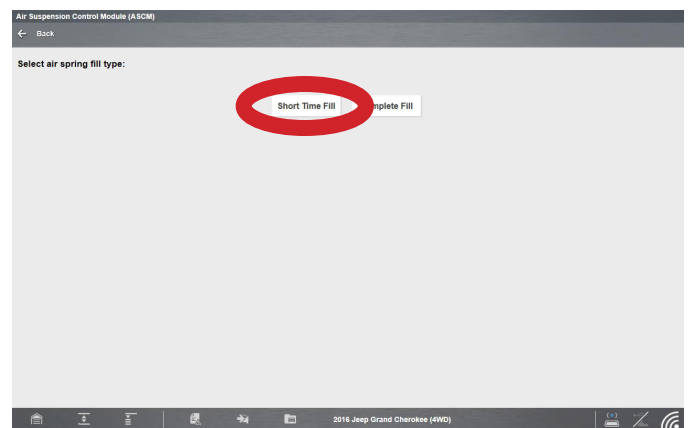
STEP 14j: Select "Fill From Reservoir".



STEP 14k: Select "Left Rear Air Spring".



STEP 14l: Select "Complete Fill".



STEP 14m: Perform short fill and complete fill on right rear tire. Repeat Steps 14e through 14l on Right Rear Air Spring.

STEP 15: After filling both rear air springs, refill reservoir. Ensure the tool is still set to 12 bar (175 psi). Open the valve on the suspension fill tool. Wait until hissing stops, then close valve.

STEP 16: Perform short fill and complete fill on left front and right front tires Air springs. Repeat Steps 14e through 14l for Left Front Air Spring and Right Front Air Spring.

STEP 17: Close line valve.

STEP 18: Close tank valve.

STEP 19: Disconnect valve from nitrogen tank.

STEP 20: Close the fitting at the reservoir.

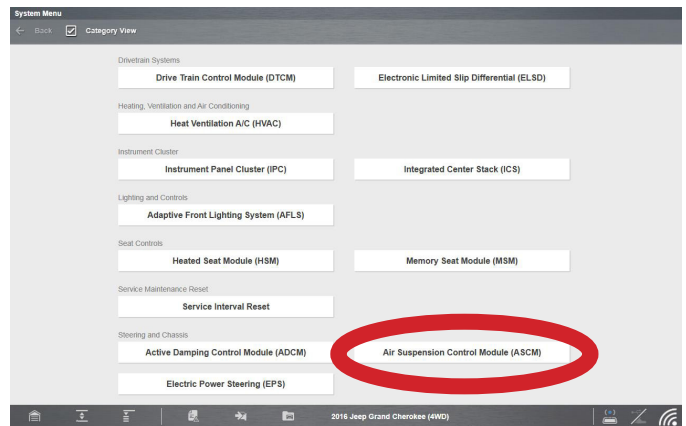
STEP 21: Disconnect quick connect.

STEP 22: Safely lower the vehicle to the ground. **NOTE:** CONSULT THE VEHICLE'S OWNER'S MANUAL OR SHOP MANUAL TO DETERMINE THE PROPER WAY OF RAISING AND LOWERING YOUR VEHICLE.

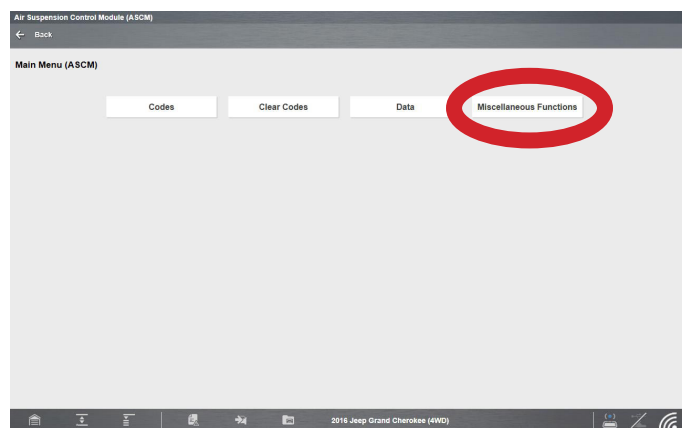


STEP 23: Using a scan tool, set ride height.

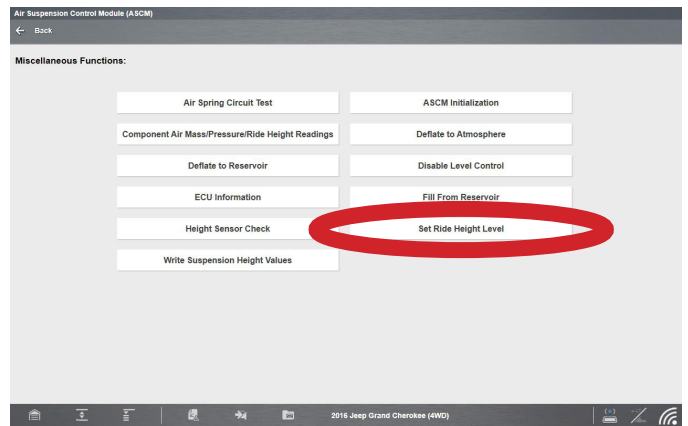
STEP 23a: Select "Air Suspension Control Module (ASCM)".



STEP 23b: Select "Miscellaneous Functions".

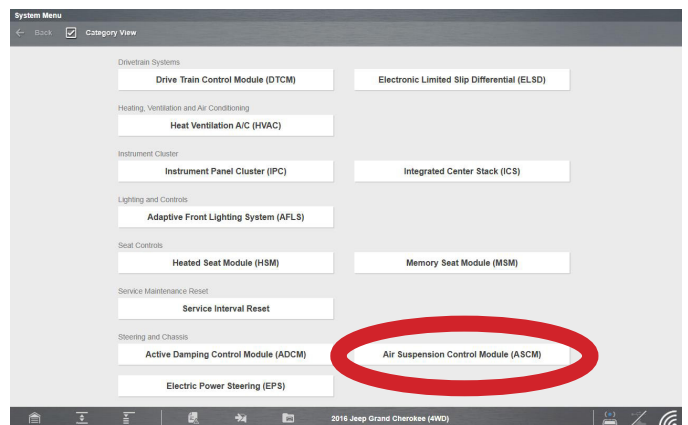


STEP 23c: Select "Set Ride Height Level".

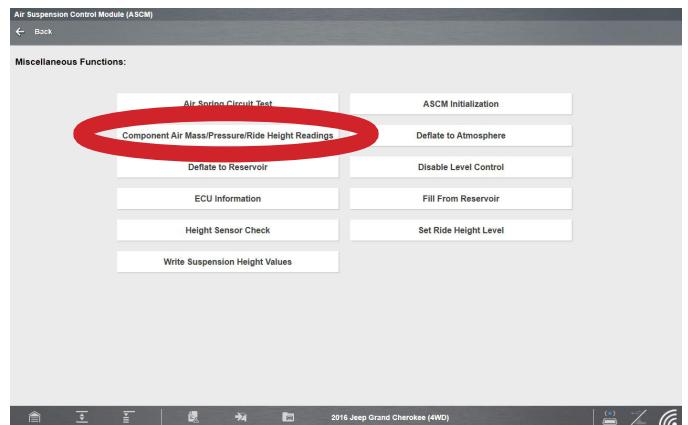


STEP 23d: Select "Normal Ride Height Level Set".

STEP 23e: When complete, select "Air Suspension Control Module (ASCM)".



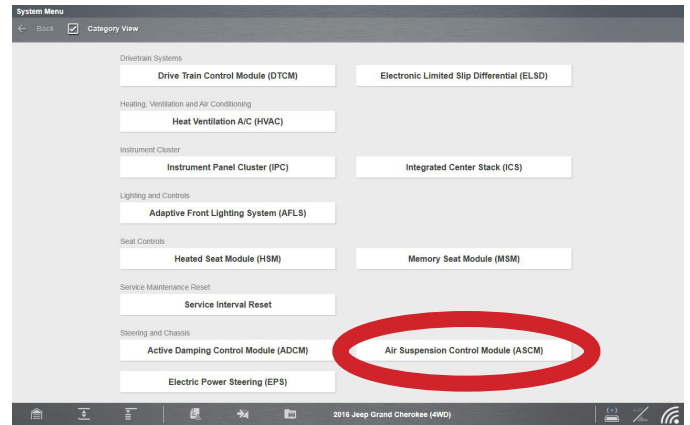
STEP 23f: Select "Component Air Mass/Pressure/Ride Height Readings".



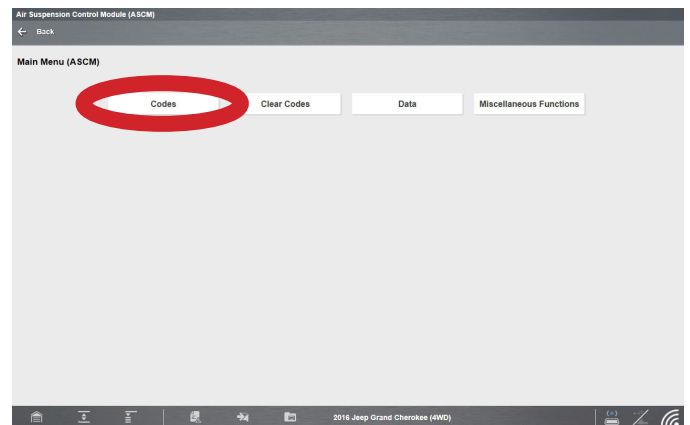
STEP 23g: "Continue" out of this section to return to menu.

STEP 24: Using a scan tool, clear diagnostic codes.

STEP 24a: Select "Air Suspension Control Module (ASCM)".

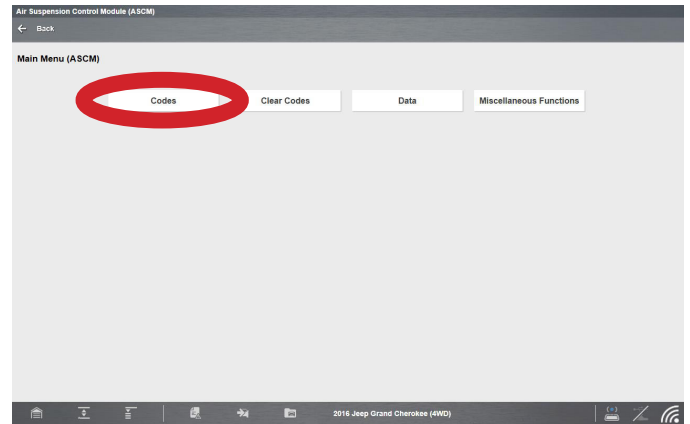


STEP 24b: Select "Codes". The diagnostic scan tool monitor will display codes. Select "Back".



REMOVAL/INSTALL INSTRUCTIONS: AIR SUSPENSION COMPRESSOR

ATTENTION: Refer to the appropriate shop manual for your vehicle to obtain specific service procedures for this part. If you do not have a service manual or lack the skill to install this part, it is recommended that you seek the services of a qualified technician. Pay special attention to all cautions and warnings included in the shop manual. Read and follow all instructions carefully.



STEP 24c: Select "Clear Codes".

STEP 25: Ensure that all driver ride height control settings are fully functional.