

# CONVERSION KIT INSTRUCTION SHEET – ENGLISH ONLY

## Conversion Kit for Front Air Strut and Rear Air Spring on: 2011-2015 Jeep Grand Cherokee w/ Quadra Lift Suspension

- Read this instruction sheet and any instructions printed on the parts package carefully **PRIOR** to removing the components from the vehicle.
- Part number on shock or spring may differ from part number on carton, the contents are correct for the vehicle.
- For questions or concerns, contact the Gurus On Call at 1-800-325-8886.

### WARNING!

- If the shocks supplied are nitrogen gas pressurized, do not heat or open.
- Always wear safety glasses for eye protection.
- Use safety stands whenever a procedure requires you to be under a vehicle.
- Before servicing any electrical component ensure the ignition is off, the key is out of the ignition, and the negative lead is disconnected from the battery. Refer to the owner's manual for the correct procedure.

### CONVERSION KIT INFORMATION:

This kit replaces the front air strut assemblies, rear shock absorbers and rear air springs on the vehicles listed above. Replacing them with front passive strut assemblies, conventional shock absorbers and coil springs.

### KIT CONTAINS:

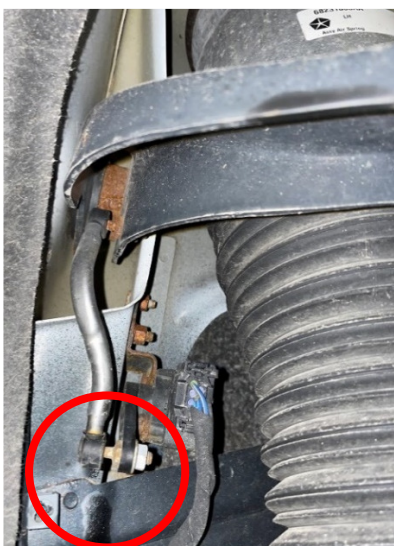
- Two front strut assemblies
- Two rear coil springs
- Two rear shock absorbers
- Two rear upper coil spring isolators
- Two rear lower coil spring isolators
- Two rear lower coil spring centering pucks & hardware
- Instruction sheet

### FRONT AIR STRUT ASSEMBLY REMOVAL PROCEDURE:

1. Remove appropriate fuse based on year model of vehicle listed below. Reference fuse box panel for locations of fuses and relay.
  - 2011-2013 Remove the following:
    - J1 fuse: Air Suspension
  - 2014-2015 Remove the following:
    - F50 fuse: Air Suspension Control Module
    - F5 fuse: Compressor for Air Suspension (if equipped)
    - K3 relay: Air Suspension Relay
2. Using a 12mm wrench, **SLOWLY** loosen airline fitting from the top of the strut assembly letting air bleed from the air line and air spring. Repeat for opposite side See photo below.



3. Disconnect airline from the air suspension strut assembly. Find a safe place to zip tie airline out of the way.
4. Repeat steps 2-3 for opposite side.
5. Raise vehicle by frame at proper lift points and make sure the vehicle is properly supported. Refer to owner's manual for the correct lifting procedure.
6. Remove wheels.
7. Disconnect lower end of ride height sensor link. See photo below.



8. Remove half shaft. **NOTE:** For details of half shaft removal, refer to OE service manual. There are many steps for removal.
9. Carefully remove the three upper mounting nuts of the strut assembly.
10. Remove strut assembly from vehicle.
11. Repeat steps 5-10 for opposite side of vehicle.

### FRONT STRUT ASSEMBLY INSTALLATION PROCEDURE:

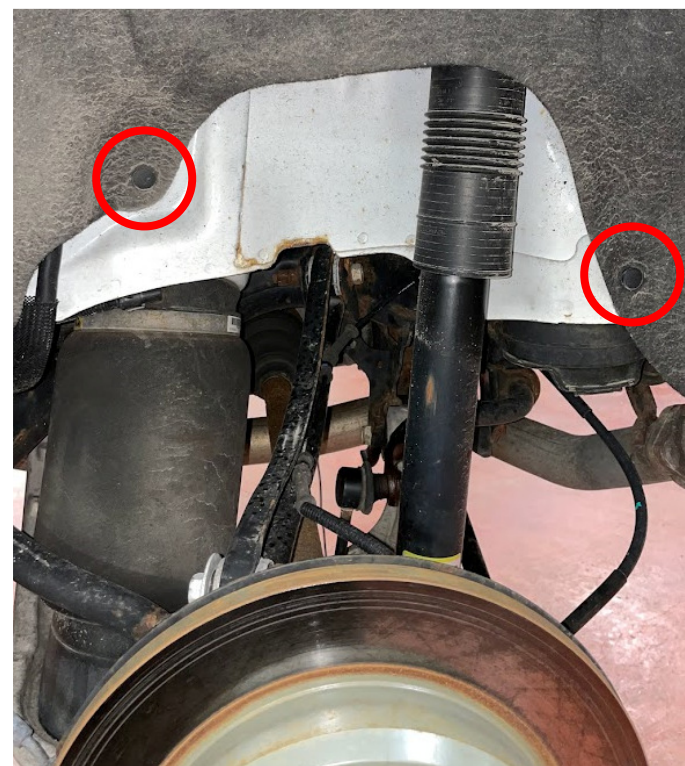
12. Position the strut assembly to the vehicle aligning the upper mounting studs into the body.
13. Loosely install the upper mounting nuts. These will need to be torqued properly at a later step.
14. Install the half shaft.
15. Install strut assembly lower clevis on lower control arm. Install bolt and nut. Tighten to 173 lb-ft (235 N·m).
16. Install upper ball joint into knuckle. Install upper ball joint retaining nut. Tighten to 70 lb-ft (95 N·m).
17. Install tie rod end on knuckle. Tighten nut to 70 lb-ft (95 N·m).
18. Install stabilizer link on lower control arm. Tighten stabilizer link upper nut to 85 lb-ft (115 N·m).
19. Reinstall brake caliper.
20. Install wheel speed sensor. Tighten bolt to 95 lb-in (10.7 N·m).
21. Per Chrysler recommendations, install a **NEW** half shaft hub/bearing nut. Tighten to 229 lb-ft (310 N·m).
22. Reconnect ride height sensor.
23. Repeat steps 12-22 for opposite side of vehicle.

### REAR AIR SPRING REMOVAL PROCEDURE:

24. Using a 12mm wrench, **SLOWLY** loosen airline fitting from the top of the air spring letting air bleed from the air line and air spring. Repeat for opposite side.
25. Disconnect airline from air spring. Find a safe place to zip tie airline out of the way.
26. Disconnect lower end of ride height sensor link. Refer to photo from step 7.
27. To remove air spring, push down to compress, tilt the top out and lift the air spring from the lower control arm.
28. Repeat steps 24-27 for opposite side of vehicle.

### REAR SHOCK ABSORBER REMOVAL PROCEDURE:

29. Remove two wheel well push pins. See photo below.



30. Remove upper shock bolt. Retain for reuse with new shock.
31. Remove lower shock bolt and nut. Retain for reuse with new shock.
32. Remove shock from vehicle.

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## REAR COIL SPRING AND REAR SHOCK ABSORBER INSTALLATION PROCEDURE:

33. To install coil springs the following procedures may need to be completed to allow adequate space to install the coil spring. Refer to Chrysler service manual for more information and images if needed.

- 33a. Remove brake caliper.
- 33b. While supporting the outer end of the lower control arm, remove the tension link to knuckle nut and bolt.
- 33c. Remove the wheel speed sensor bolt and remove sensor.
- 33d. Remove the camber link to knuckle bolt/nut.
- 33e. Remove the stabilizer link to lower control arm nut.
- 33f. Remove the toe link to knuckle nut and bolt.
- 33g. Remove the half shaft from the hub.

34. Install the coil spring centering puck, lower spring isolator and hardware that is provided in this kit. The bolt, coil spring isolator and centering puck should be installed on the top of the lower control arm. The large washer and nut will be installed underneath the lower control arm. See photo below for layout.



- 35. Place upper spring isolator provided in kit on spring.
- 36. Position the spring on the centering puck in the lower control arm.
- 37. While holding the spring in position, carefully raise the lower control arm with a support fixture to normal ride height.
- 38. If previously removed, install the axle through the hub/bearing. Per Chrysler recommendations, install a **NEW** half shaft nut and tighten to 229 lb-ft (310 N·m).
- 39. Reinstall ride height sensor. Position ride height sensor linkage to ball stud and press together to seat.
- 40. If previously removed, position the tension link and install the nut. Tighten to 79 lb-ft (108 N·m).
- 41. If previously removed, position the toe link and install the nut. Tighten to 79 lb-ft (108 N·m).
- 42. Position the new shock so that the upper shock bolts can be installed. Install upper shock bolts. Tighten to 48 lb-ft (65 N·m).
- 43. Install the shock lower bolt and nut. Tighten to 173 lb-ft (235 N·m).
- 44. If previously removed, install the stabilizer link to lower control arm nut. Tighten to 81 lb-ft (110 N·m).
- 45. If previously removed, install the camber link to knuckle bolt. Tighten to 81 lb-ft (110 N·m).
- 46. Install wheel speed sensor and retaining bolt. Tighten to 95 lb-in (10.7 N·m).
- 47. Reinstall brake caliper.

## REINSTALLING WHEELS AND PROPERLY TORQUING FRONT STRUT ASSEMBLIES AND REAR SHOCKS

- 48. If previously removed, reinstall all wheel well splash shields.
- 49. Reinstall wheels and hand tighten the lug nuts. Safely lower the vehicle to the ground and torque the lug nuts to 130 lb-ft (176 N·m).
- 50. Torque three upper front strut assembly mounting nuts to 21 lb-ft (28 N·m). Do this for both front strut assemblies.

**NOTE:** If a "Service Suspension" message appears on the instrument cluster when starting the vehicle, a scan tool will be needed to clear the message. Once cleared, the service message should not reappear.