



XJ range

DATE 03/05

XJ204-06

SERVICE

TECHNICAL BULLETIN

Air Suspension System – Diagnostics

MODEL 2004 MY-ON
XJ range

VIN G00001-ON

Issue:

This Technical Bulletin has been issued to aid in the diagnosis of air suspension system faults.

Action:

The following Service Instruction will assist in diagnosing faults with the air suspension system.

Air Leak Diagnosis

1. Park the vehicle on level ground, ensure the ignition is switched 'OFF', the steering is in the straight ahead position and the transmission selector lever is in park.
2. Carry out an ignition cycle; engine 'ON'/key 'OFF'/ignition 'ON'/ignition 'OFF', to clear the 'air suspension fault' message from the message centre.
3. Open the luggage compartment lid.
4. Remove the spare wheel/tool compartment cover.
5. Remove spare wheel.
6. Remove compressor and valve block cover.

Note: Ensure Worldwide Diagnostic System (WDS) is loaded with software release JTP 759/36 or later.

7. Connect PTU to the vehicle diagnostic connector.
8. Enter VIN and navigate to 'Content Model' screen.
9. Select 'Suspension System' and navigate to the DTC monitor screen.
10. Read and record the air suspension DTCs on the Repair order.
11. Navigate to the vehicle 'Set-up and Configuration' screen.
12. Select 'Set-up and Configuration'.
13. Select 'Air Suspension Transportation/Customer Mode'.
14. Set vehicle to 'Transportation Mode'.

NOTE: THE INFORMATION IN TECHNICAL BULLETINS IS INTENDED FOR USE BY TRAINED, PROFESSIONAL TECHNICIANS WITH THE KNOWLEDGE, TOOLS, AND EQUIPMENT TO DO THE JOB PROPERLY AND SAFELY. IT INFORMS THESE TECHNICIANS OF CONDITIONS THAT MAY OCCUR ON SOME VEHICLES, OR PROVIDES INFORMATION THAT COULD ASSIST IN PROPER VEHICLE SERVICE. THE PROCEDURES SHOULD NOT BE PERFORMED BY "DO-IT-YOURSELFERS." DO NOT ASSUME THAT A CONDITION DESCRIBED AFFECTS YOUR CAR. CONTACT A JAGUAR DEALER TO DETERMINE WHETHER THE BULLETIN APPLIES TO YOUR VEHICLE.

15. Switch 'OFF', disconnect and return WDS to docking station.

Note: Open driver window, do not enter the vehicle for the remainder of the procedure.

16. From outside the vehicle, start engine and allow to idle for two minutes to allow the suspension to level.
17. From outside the vehicle, switch 'OFF' the engine.

Note: Rectify any leaks identified. Work to be carried out as a separate Warranty Claim.

18. Using Gotec spray (C2C 22398 or suitable leak detection spray) check compressor pipes and valve block for leaks.
19. Close luggage compartment lid.
20. Leave car for two hours to allow car temperature to stabilize,
21. Record external ambient temperature as displayed in vehicle.
22. From outside the vehicle, start engine and allow to idle for two minutes.

Note: The vehicle needs to remain with doors, luggage compartment and hood closed for the remainder of the procedure.

23. From outside the vehicle, switch 'OFF' the engine and remove the ignition key.
24. Gently push down on each corner of the vehicle to settle the suspension.
25. Using special tool 204-484, measure suspension ride height at each wheel and record (on repair order) measurements.
26. Check and record (on repair order) suspension ride height at regular intervals. Record and compare readings over a twenty-four-hour period, or until a height change of 8 mm is noted at any corner of the vehicle.

Note: If a height difference is recorded above 8 mm on any one corner, replace the air spring/damper assembly at the affected corner (check all disturbed connectors using Gotec spray or suitable leak detection spray). Work to be carried out as a separate Warranty Claim.

27. On completion of step 26, the doors, luggage compartment and hood may now be opened.
28. At the end of twenty-four-hour test period, record (on repair order) external ambient temperature as displayed in vehicle.

Note: Ensure WDS is loaded with software release JTP 759/36 or later.

29. Connect PTU to the vehicle diagnostic connector.
30. Enter VIN and navigate to 'Content Model' screen.
31. Navigate to the vehicle 'Set-up and Configuration' screen.

32. Select 'Set-up and Configuration'.
33. Select 'Air Suspension Transportation/Customer Mode'.
34. Set vehicle to 'Customer Mode'.
35. Check that suspension ride heights are within specification.

Checking for Component Failure in the Air Suspension System Diagnosis

1. Select 'Set-up and Configuration'.
2. Select 'Air Suspension Deflate'.
3. From 'Air Suspension Deflate'; select 'Reservoir'.
4. Allow reservoir to deflate.
5. Select 'Air Suspension Inflate'.
6. From 'Air Suspension Inflate'; select 'Reservoir'.

Note: When the compressor is filling the reservoir, the compressor may temporarily stop (to cool down), this non-running time must not be included in the measured total running time.

7. Record (on Repair order) time taken for compressor to fill reservoir.

Note: If a leak is detected repair affected part, to be carried out as a separate Warranty Claim.

8. When the reservoir is filling, carry out a leak detection check on all valve block pipes and connectors using Gotec spray (or suitable leak detection spray).

Note: All checks and repairs carried out in step 9 are to be carried out as a separate Warranty Claim.

9. If the compressor does not run when the fill cycle is initiated, then carry out continuity checks on the compressor, including fuse, relay and associated connectors. Replace relay/fuse where required. Inspect earth points for security and cleanliness. If the circuit is functioning correctly but the compressor still does not run when energized, before replacing the compressor carry out a second check to confirm the relay is operating correctly.

If the total compressor running time for the compressor to fill the reservoir is more than approximately three minutes, the compressor may be faulty. An excessive reservoir fill time may also be accompanied by a poor sounding/rattling compressor, and unusual noises can indicate an internal compressor fault.

10. Install compressor and valve block cover.
11. Install spare wheel.
12. Install the spare wheel/tool compartment cover.
13. Close the luggage compartment lid.

Global Technical Reference (GTR) Workshop Manual Information:

Dealer access: <https://hub.franchise.jaguar.com>

Internet access: <http://www.jaguartechno.com>

Parts Information:

<u>DESCRIPTION</u>	<u>PART NUMBER</u>	<u>QTY</u>
N/A	-	-

Warranty Information:

Warranty claims should be submitted quoting the information found in the table below. This will result in payment of the stated time and, where applicable parts/miscellaneous expense codes as listed.

Description	SRO	Time	Causal Part Number
Air suspension diagnostic procedure	60.91.44	1.2 hrs.	Prior VIN G40756 - C2C22825 From VIN G40757 - C2C 27702