

Published: Mar 14, 2006

Vehicle Dynamic Suspension

Overview

For information on the operation of the system,
[Vehicle Dynamic Suspension](#)

Inspection and Verification

- 1 . Verify the customer concern.
- 2 . Confirm which, if any, warning lights and/or messages were displayed on the instrument cluster. For a list of messages, [Information and Message Center](#)
- 3 . Visually inspect for obvious mechanical or electrical faults.

Mechanical	Electrical
<ul style="list-style-type: none"> • Air leakage • Air springs • Reservoir • Compressor • Compressor air filter • Pipework and unions • Sensor fitment • Valve block(s) 	<ul style="list-style-type: none"> • Battery • Fuse(s) • Wiring harness physical damage or water ingress • Loose or corroded electrical connectors • Air suspension control switch • Controller area network (CAN) circuits • Sensors • Valve block(s) • Air suspension control module

4 . If an obvious cause for an observed or reported concern is found, correct the cause (if possible) before proceeding to the next step.

5 . Use the approved diagnostic system or a scan tool to retrieve any diagnostic trouble codes (DTCs) before moving onto the symptom chart or DTC index.



Make sure that all DTCs are cleared following rectification.

Symptom Chart

Symptom	Possible message	Possible other warnings	Possible causes	Action
Vehicle on bump stops	<ul style="list-style-type: none"> • Suspension fault 	<ul style="list-style-type: none"> • Two chimes repeated regularly. Red indicator permanently illuminated 	<ul style="list-style-type: none"> • Water ingress to wiring harness or connectors • Air leak(s) • Vehicle in transportation mode • System not calibrated or calibration corrupt • Implausible articulation symptoms detected • Failure of multiple height sensors 	Visually inspect the wiring harness and connectors for water ingress. Visually inspect the system for air leakage. Check the system mode and calibration using the approved diagnostic system. Check for implausible articulation symptoms, i.e. height sensor or linkage fault, deflated air spring, under inflated tire etc. Note implausible articulation symptoms may be caused by an un-calibrated height sensor. Check for height sensor DTCs and refer to the DTC index. Refer to the warranty

			<ul style="list-style-type: none"> Air suspension control module failure 	policy and procedures manual if a module is suspect.
Vehicle does not sit level	<ul style="list-style-type: none"> Suspension fault 	<ul style="list-style-type: none"> Two chimes repeated regularly. Red indicator permanently illuminated 	<ul style="list-style-type: none"> Water ingress to wiring harness or connectors Air leak(s) Calibration corrupt cross-link valve fault Height sensor fault Reservoir valve stuck open Exhaust valve stuck closed Corner valves stuck open Air suspension control module failure 	Visually inspect the wiring harness and connectors for water ingress. Visually inspect the system for air leakage and refer to the guided diagnostic routine on the approved diagnostic system. Check the system calibration using the approved diagnostic system. For front and rear cross link valve tests refer to the guided diagnostic routine on the approved diagnostic system. Check for height sensor DTCs and refer to the DTC index. For reservoir and exhaust valve tests refer to the guided diagnostic routine on the approved diagnostic system. Check for corner valve DTCs and refer to the DTC index. Refer to the warranty policy and procedures manual if a module is suspect.
Vehicle sits too low	<ul style="list-style-type: none"> Suspension fault HDC (hill descent control) fault DSC (Dynamic stability control) 	<ul style="list-style-type: none"> Two chimes, amber indicator permanently illuminated One chime DSC amber indicator permanently illuminated ABS indicator permanently illuminated 	<ul style="list-style-type: none"> Water ingress to wiring harness or connectors Air leak(s) Air suspension compressor temperature sensor fault Inlet air filter blockage/restriction Air suspension compressor fault Exhaust valve stuck/sticking Air suspension control module lost communication with ABS module ABS fault Air suspension control module failure 	Visually inspect the wiring harness and connectors for water ingress. Visually inspect the system for air leakage. For air compressor temperature sensor, inlet air filter, exhaust valve and air compressor tests refer to the guided diagnostic routine on the approved diagnostic system. For air suspension control module lost communication with ABS module, refer to the lost communication codes statement at the end of this table. Check for ABS DTCs, Anti-Lock Control - Traction Control Anti-Lock Control - Stability Assist Refer to the warranty policy and procedures manual if a module is suspect.
Vehicle sits too high	<ul style="list-style-type: none"> Suspension fault 	<ul style="list-style-type: none"> Two chimes, amber indicator permanently illuminated 	<ul style="list-style-type: none"> Reservoir valve stuck open Exhaust valve stuck closed Corner valves stuck open Air suspension control module failure 	For reservoir valve and exhaust valve tests refer to the guided diagnostic routine on the approved diagnostic system. Check for corner valve DTCs and refer to the DTC index. Refer to the warranty policy and procedures manual if a module is suspect.
System detects extended mode unnecessarily	<ul style="list-style-type: none"> - 	<ul style="list-style-type: none"> - 	<ul style="list-style-type: none"> Crossed gallery and air spring pipes Incorrect valve block fitted to front or rear Damage or 	Refer to the guided diagnostic routine on the approved diagnostic system.

when lowering			blockage in air harness	
Vehicle leans/tilts after being left over-night or for some days	• -	• -	<ul style="list-style-type: none"> Leaking air spring(s) Leak from corner valve to gallery Exhaust valve stuck open 	Refer to the guided diagnostic routine on the approved diagnostic system.
After vehicle left over-night or for some days system regularly indicates "Suspension vehicle raising slowly" when first driving off	<ul style="list-style-type: none"> Suspension vehicle raising slowly 	• -	<ul style="list-style-type: none"> Leaking air spring(s) Leaking reservoir 	Refer to the guided diagnostic routine on the approved diagnostic system.

DTC index

NOTE:

Generic scan tools may not read the codes listed, or may read only 5-digit codes. Match the 5 digits from the scan tool to the first 5 digits of the 7-digit code listed to identify the fault (the last 2 digits give extra information read by the manufacturer-approved diagnostic system).

NOTE:

Intermittent faults may cause DTCs to be logged, however some DTCs may be cleared during an ignition off, ignition on cycle. Carry out a road test (if safe to do so), check the functionality of the system and retrieve any DTCs before turning the ignition off.

DTC	Description	Possible causes	Action
B1A8455	Car configuration data does not match that expected for VIN range	<ul style="list-style-type: none"> Air suspension incorrectly configured 	Configure the system using the approved diagnostic system. Clear the DTC and test for normal operation.
C112201	Servotronic steering valve, general electrical failure	<ul style="list-style-type: none"> Servotronic steering valve disconnected Servotronic steering valve circuit(s): high resistance, short circuit to ground Servotronic steering valve fault 	Refer to the guided diagnostic routine for this code on the approved diagnostic system.
C11231C	Servotronic steering valve, circuit voltage out of range	<ul style="list-style-type: none"> Servotronic steering valve supply circuit: high resistance Servotronic steering valve supply circuit: short circuit to ground Servotronic steering valve supply circuit: short circuit to power Servotronic steering valve fault 	Refer to the guided diagnostic routine for this code on the approved diagnostic system.

C112F72	Air spring valve, repeated or frequent level activity in the down direction	<ul style="list-style-type: none"> • Corner valve stuck open • Corner valve leak to gallery 	Refer to the approved diagnostic system for corner valve checks.
C113066	Air spring air supply, repeated or frequent level activity in the up direction	<ul style="list-style-type: none"> • Air spring leak • Air harness leak • Corner valve leak to gallery • Exhaust valve stuck open 	Visually inspect the system for air leakage. Refer to the guided diagnostic routine for this code on the approved diagnostic system.
C11307A	Air spring air supply, unable to lift	<ul style="list-style-type: none"> • Detached air pipe • Loose or burst air pipe • Excessive air spring leak • Height sensor stuck • Height sensor failure • Blockage in air harness 	Visually inspect the system for an excessive air leak. Check the height sensor linkage(s) for damage/restrictions. Visually inspect the air harness for evidence of melting, crushing, kinking or collapsing. Refer to the guided diagnostic routine for this code on the approved diagnostic system.
C113192	Air supply, unable to pressurize gallery	<ul style="list-style-type: none"> • Insufficient pressure from compressor • Detached air pipe • Loose or burst air pipe • Reservoir valve block pipes incorrectly fitted (unions reversed) • Pressure sensor fault 	Visually inspect the system for air leakage. Check the reservoir valve block pipes for correct routing and installation.
C1A001C	Battery voltage out of range (too low to operate air suspension)	<ul style="list-style-type: none"> • Low battery voltage • One or more valve supplies: intermittent short circuit to ground 	Check the battery charge and condition. Refer to the guided diagnostic routine for this code on the approved diagnostic system.
C1A001D	Isolation switch current monitor	<ul style="list-style-type: none"> • One or more valve supplies: short circuit to ground • Rear valve block disconnected • Air suspension control module failure 	Refer to the guided diagnostic routine for this code on the approved diagnostic system. Refer to the warranty policy and procedures manual if a module is suspect.
C1A0049	Air suspension control module failure	<ul style="list-style-type: none"> • Water ingress to valve wiring harness or connector(s) • Valve supply circuit(s): short circuit to power • Air suspension control module, internal electrical failure 	Visually inspect the wiring harness and connectors for water ingress. Refer to the guided diagnostic routine for this code on the approved diagnostic system. Refer to the warranty policy and procedures manual if a module is suspect.
		<ul style="list-style-type: none"> • This is not a fault, 	

C1A0053	System deflated	the system has been deflated using the diagnostic routine	Carry out air suspension deflation exit routine using the approved diagnostic system or the routine listed at the end of this section.
C1A0054	Air suspension control module, missing calibration	<ul style="list-style-type: none"> Air suspension control module not calibrated Air suspension control module has been set into manufacturing, calibration or tight tolerance mode 	Calibrate the system using the approved diagnostic system. Clear the DTC and test for normal operation.
C1A0119	Switch pack LED overcurrent (hardware protection)	<ul style="list-style-type: none"> LED circuit: short circuit to power One or more LEDs short circuit to each other 	Refer to the guided diagnostic routine for this code on the approved diagnostic system.
C1A031C	Left-hand front height sensor, signal voltage out of range	<ul style="list-style-type: none"> Water ingress to wiring harness or connectors Height sensor linkage disconnected Height sensor linkage damaged/bent Height sensor disconnected Height sensor linkage toggled Height sensor bracket damaged/bent Height sensor incorrectly installed Height sensor installed on wrong side of vehicle Height sensor harness wiring: short circuit to ground, short circuit to power, high resistance Height sensor failure Incorrect height calibration Air suspension control module failure 	Visually inspect the wiring harness and connectors for water ingress. For height sensor linkage, mounting and circuit tests refer to the guided diagnostic routine on the approved diagnostic system. Check the height sensor bracket condition and security. Check the height sensor for correct fitment and torque of fixings. If any height sensor fixings are slackened or found to be loose, or a height sensor has been changed, the vehicle ride height must be re-calibrated. Calibrate the system using the approved diagnostic system. Refer to the warranty policy and procedures manual if a module is suspect.
C1A0326	Left-hand front height sensor, signal voltage stuck whilst vehicle is	<ul style="list-style-type: none"> Water ingress to wiring harness or connectors Height sensor linkage disconnected Height sensor harness wiring: short circuit to ground, short circuit to 	Visually inspect the wiring harness and connectors for water ingress. Refer to the guided diagnostic routine for this code on the approved diagnostic system. Refer to the warranty policy and procedures manual if a module is suspect.

	Vehicle is driven	<ul style="list-style-type: none"> power, high resistance Height sensor failure Air suspension control module failure 	procedures manual if a module is suspect.
C1A0329	Left-hand front height sensor, signal invalid	<ul style="list-style-type: none"> Water ingress to wiring harness or connectors Height sensor linkage damaged/bent Height sensor bracket damaged/bent Height sensor incorrectly installed Height sensor harness wiring: short circuit to ground, short circuit to power, high resistance Height sensor failure Incorrect height calibration process 	Visually inspect the wiring harness and connectors for water ingress. Refer to the guided diagnostic routine for this code on the approved diagnostic system. Check the height sensor bracket condition and security. Check the height sensor for correct fitment and torque of fixings. If any height sensor fixings are slackened or found to be loose, or a height sensor has been changed, the vehicle ride height must be re-calibrated. Calibrate the system using the approved diagnostic system.
C1A0392	Left-hand front height sensor, height changing slower than expected	<ul style="list-style-type: none"> Suspension prevented from moving Height sensor incorrectly installed Air spring leak Air harness leak Blocked/damaged air harness Blocked/damaged gallery pipe Corner valve stuck closed Front or rear valve block pipes incorrectly fitted (unions reversed) Reservoir valve block pipes incorrectly fitted (unions reversed) Reservoir valve stuck open Exhaust valve stuck closed Corner valve air leak Pressure sensor fault Height sensor failure 	Check that the vehicle is free of obstructions. Check the height sensor for correct fitment and torque of fixings. If any height sensor fixings are slackened or found to be loose, or a height sensor has been changed, the vehicle ride height must be re-calibrated. Calibrate the system using the approved diagnostic system. Refer to the guided diagnostic routine for this code on the approved diagnostic system. Check for an air spring leak. Check the air harness for evidence of melting, crushing, kinking or collapsing. Check the front and rear valve block pipes for correct routing and installation. Check the reservoir valve block pipes for correct routing and installation. Refer to the approved diagnostic system for corner, reservoir and exhaust valve checks. Check the corner valve for leaks.
		<ul style="list-style-type: none"> Water ingress to wiring harness or connectors Height sensor linkage disconnected 	

C1A041C	Right-hand front height sensor, signal voltage out of range	<ul style="list-style-type: none"> • Height sensor linkage damaged/bent • Height sensor disconnected • Height sensor linkage toggled • Height sensor bracket damaged/bent • Height sensor incorrectly installed • Height sensor installed on wrong side of vehicle • Height sensor harness wiring: short circuit to ground, short circuit to power, high resistance • Height sensor failure • Incorrect height calibration • Air suspension control module failure 	Visually inspect the wiring harness and connectors for water ingress. Refer to the guided diagnostic routine for this code on the approved diagnostic system. Check the height sensor bracket condition and security. Check the height sensor for correct fitment and torque of fixings. If any height sensor fixings are slackened or found to be loose, or a height sensor has been changed, the vehicle ride height must be re-calibrated. Calibrate the system using the approved diagnostic system. Refer to the warranty policy and procedures manual if a module is suspect.
C1A0426	Right-hand front height sensor, signal voltage stuck whilst vehicle is driven	<ul style="list-style-type: none"> • Water ingress to wiring harness or connectors • Height sensor linkage disconnected • Height sensor harness wiring: short circuit to ground, short circuit to power, high resistance • Height sensor failure • Air suspension control module failure 	Visually inspect the wiring harness and connectors for water ingress. Refer to the guided diagnostic routine for this code on the approved diagnostic system. Refer to the warranty policy and procedures manual if a module is suspect.
C1A0429	Right-hand front height sensor, signal invalid	<ul style="list-style-type: none"> • Water ingress to wiring harness or connectors • Height sensor linkage damaged/bent • Height sensor bracket damaged/bent • Height sensor incorrectly installed • Height sensor harness wiring: short circuit to ground, short circuit to power, high resistance • Height sensor failure • Incorrect height calibration process 	Visually inspect the wiring harness and connectors for water ingress. Refer to the guided diagnostic routine for this code on the approved diagnostic system. Check the height sensor bracket condition and security. Check the height sensor for correct fitment and torque of fixings. If any height sensor fixings are slackened or found to be loose, or a height sensor has been changed, the vehicle ride height must be re-calibrated. Calibrate the system using the approved diagnostic system.

C1A0492	Right-hand front height sensor, height changing slower than expected	<ul style="list-style-type: none"> • Suspension prevented from moving • Height sensor incorrectly installed • Air spring leak • Air harness leak • Blocked/damaged air harness • Blocked/damaged gallery pipe • Corner valve stuck closed • Front or rear valve block pipes incorrectly fitted (unions reversed) • Reservoir valve block pipes incorrectly fitted (unions reversed) • Reservoir valve stuck open • Exhaust valve stuck closed • Corner valve air leak • Pressure sensor fault • Height sensor failure 	<p>Check that the vehicle is free of obstructions. Check the height sensor for correct fitment and torque of fixings. If any height sensor fixings are slackened or found to be loose, or a height sensor has been changed, the vehicle ride height must be re-calibrated. Calibrate the system using the approved diagnostic system. Refer to the guided diagnostic routine for this code on the approved diagnostic system. Check for an air spring leak. Check the air harness for evidence of melting, crushing, kinking or collapsing. Check the front and rear valve block pipes for correct routing and installation. Check the reservoir valve block pipes for correct routing and installation. Refer to the approved diagnostic system for corner, reservoir and exhaust valve checks. Check the corner valve for leaks.</p>
C1A051C	Left-hand rear height sensor, signal voltage out of range	<ul style="list-style-type: none"> • Water ingress to wiring harness or connectors • Height sensor linkage disconnected • Height sensor linkage damaged/bent • Height sensor disconnected • Height sensor linkage toggled • Height sensor bracket damaged/bent • Height sensor incorrectly installed • Height sensor installed on wrong side of vehicle • Height sensor harness wiring: short circuit to ground, short circuit to power, high resistance • Height sensor failure • Incorrect height calibration • Air suspension control module failure 	<p>Visually inspect the wiring harness and connectors for water ingress. Refer to the guided diagnostic routine for this code on the approved diagnostic system. Check the height sensor bracket condition and security. Check the height sensor for correct fitment and torque of fixings. If any height sensor fixings are slackened or found to be loose, or a height sensor has been changed, the vehicle ride height must be re-calibrated. Calibrate the system using the approved diagnostic system. Refer to the warranty policy and procedures manual if a module is suspect.</p>

C1A0526	Left-hand rear height sensor, signal voltage stuck whilst vehicle is driven	<ul style="list-style-type: none"> • Water ingress to wiring harness or connectors • Height sensor linkage disconnected • Height sensor harness wiring: short circuit to ground, short circuit to power, high resistance • Height sensor failure • Air suspension control module failure 	Visually inspect the wiring harness and connectors for water ingress. Refer to the guided diagnostic routine for this code on the approved diagnostic system. Refer to the warranty policy and procedures manual if a module is suspect.
C1A0529	Left-hand rear height sensor, signal invalid	<ul style="list-style-type: none"> • Water ingress to wiring harness or connectors • Height sensor linkage damaged/bent • Height sensor bracket damaged/bent • Height sensor incorrectly installed • Height sensor harness wiring: short circuit to ground, short circuit to power, high resistance • Height sensor failure • Incorrect height calibration process 	Visually inspect the wiring harness and connectors for water ingress. Refer to the guided diagnostic routine for this code on the approved diagnostic system. Check the height sensor bracket condition and security. Check the height sensor for correct fitment and torque of fixings. If any height sensor fixings are slackened or found to be loose, or a height sensor has been changed, the vehicle ride height must be re-calibrated. Calibrate the system using the approved diagnostic system.
C1A0592	Left-hand rear height sensor, height changing slower than expected	<ul style="list-style-type: none"> • Suspension prevented from moving • Height sensor incorrectly installed • Air spring leak • Air harness leak • Blocked/damaged air harness • Blocked/damaged gallery pipe • Corner valve stuck closed • Front or rear valve block pipes incorrectly fitted (unions reversed) • Reservoir valve block pipes incorrectly fitted (unions reversed) • Reservoir valve stuck open • Exhaust valve stuck closed • Corner valve air leak 	Check that the vehicle is free of obstructions. Check the height sensor for correct fitment and torque of fixings. If any height sensor fixings are slackened or found to be loose, or a height sensor has been changed, the vehicle ride height must be re-calibrated. Calibrate the system using the approved diagnostic system. Refer to the guided diagnostic routine for this code on the approved diagnostic system. Check for an air spring leak. Check the air harness for evidence of melting, crushing, kinking or collapsing. Check the front and rear valve block pipes for correct routing and installation. Check the reservoir valve block pipes for correct routing and installation. Refer to the approved diagnostic system for corner, reservoir and exhaust valve checks. Check the corner valve for leaks.

		<ul style="list-style-type: none"> • Pressure sensor fault • Height sensor failure 	
C1A061C	Right-hand rear height sensor, signal voltage out of range	<ul style="list-style-type: none"> • Water ingress to wiring harness or connectors • Height sensor linkage disconnected • Height sensor linkage damaged/bent • Height sensor disconnected • Height sensor linkage toggled • Height sensor bracket damaged/bent • Height sensor incorrectly installed • Height sensor installed on wrong side of vehicle • Height sensor harness wiring: short circuit to ground, short circuit to power, high resistance • Height sensor failure • Incorrect height calibration • Air suspension control module failure 	Visually inspect the wiring harness and connectors for water ingress. Refer to the guided diagnostic routine for this code on the approved diagnostic system. Check the height sensor bracket condition and security. Check the height sensor for correct fitment and torque of fixings. If any height sensor fixings are slackened or found to be loose, or a height sensor has been changed, the vehicle ride height must be re-calibrated. Calibrate the system using the approved diagnostic system. Refer to the warranty policy and procedures manual if a module is suspect.
C1A0626	Right-hand rear height sensor, signal voltage stuck whilst vehicle is driven	<ul style="list-style-type: none"> • Water ingress to wiring harness or connectors • Height sensor linkage disconnected • Height sensor harness wiring: short circuit to ground, short circuit to power, high resistance • Height sensor failure • Air suspension control module failure 	Visually inspect the wiring harness and connectors for water ingress. Refer to the guided diagnostic routine for this code on the approved diagnostic system. Refer to the warranty policy and procedures manual if a module is suspect.
	Right-hand	<ul style="list-style-type: none"> • Water ingress to wiring harness or connectors • Height sensor linkage damaged/bent • Height sensor bracket damaged/bent 	Visually inspect the wiring harness and connectors for water ingress. Refer to the guided diagnostic routine for this code on the approved diagnostic system. Check the height sensor

C1A0629	rear height sensor, signal invalid	<p>height sensor incorrectly installed</p> <ul style="list-style-type: none"> Height sensor harness wiring: short circuit to ground, short circuit to power, high resistance Height sensor failure Incorrect height calibration process 	<p>bracket condition and security. Check the height sensor for correct fitment and torque of fixings. If any height sensor fixings are slackened or found to be loose, or a height sensor has been changed, the vehicle ride height must be re-calibrated. Calibrate the system using the approved diagnostic system.</p>
C1A0692	Right-hand rear height sensor, height changing slower than expected	<ul style="list-style-type: none"> Suspension prevented from moving Height sensor incorrectly installed Air spring leak Air harness leak Blocked/damaged air harness Blocked/damaged gallery pipe Corner valve stuck closed Front or rear valve block pipes incorrectly fitted (unions reversed) Reservoir valve block pipes incorrectly fitted (unions reversed) Reservoir valve stuck open Exhaust valve stuck closed Corner valve air leak Pressure sensor fault Height sensor failure 	<p>Check that the vehicle is free of obstructions. Check the height sensor for correct fitment and torque of fixings. If any height sensor fixings are slackened or found to be loose, or a height sensor has been changed, the vehicle ride height must be re-calibrated. Calibrate the system using the approved diagnostic system. Refer to the guided diagnostic routine for this code on the approved diagnostic system. Check for an air spring leak. Check the air harness for evidence of melting, crushing, kinking or collapsing. Check the front and rear valve block pipes for correct routing and installation. Check the reservoir valve block pipes for correct routing and installation. Refer to the approved diagnostic system for corner, reservoir and exhaust valve checks. Check the corner valve for leaks.</p>
C1A0762	Cross articulation, too large whilst vehicle is driven	<ul style="list-style-type: none"> Water ingress to wiring harness or connectors Height sensor linkage damaged/bent Height sensor linkage loose/disconnected Height sensor bracket damaged/bent Height sensor harness wiring: short circuit to ground, short circuit to power, high resistance Height sensor removed and reinstalled without being recalibrated New height sensor 	<p>Visually inspect the wiring harness and connectors for water ingress. Refer to the guided diagnostic routine for this code on the approved diagnostic system. Check the condition and security of the height sensor bracket(s). Check the height sensor for correct fitment and torque of fixings. If any height sensor fixings are slackened or found to be loose, or a height sensor has been changed, the vehicle ride height must be re-calibrated. Calibrate the system using the approved diagnostic system.</p>

		installed without calibration <ul style="list-style-type: none"> • Incorrect height calibration • Height sensor failure 	
C1A081C	Pressure sensor supply voltage out of range	<ul style="list-style-type: none"> • Pressure sensor harness wiring: short circuit to ground, short circuit to power, high resistance • Pressure sensor failure • Air suspension control module failure 	Refer to the guided diagnostic routine for this code on the approved diagnostic system. Refer to the warranty policy and procedures manual if a module is suspect.
C1A091C	Pressure sensor signal voltage out of range	<ul style="list-style-type: none"> • Pressure sensor disconnected • Pressure sensor harness wiring: short circuit to ground, short circuit to power, high resistance • Pressure sensor failure • Air suspension control module failure 	Refer to the guided diagnostic routine for this code on the approved diagnostic system. Refer to the warranty policy and procedures manual if a module is suspect.
C1A1064	Pressure fluctuates when the system is inactive	<ul style="list-style-type: none"> • Reservoir and air spring pipes incorrectly fitted to front or rear valve block (unions reversed) • Corner valve stuck open • Pressure sensor harness wiring: short circuit to ground, short circuit to power, high resistance • Pressure sensor failure • Air suspension control module failure 	Check the reservoir and air spring pipes for correct routing and installation. Refer to the guided diagnostic routine for this code on the approved diagnostic system. Refer to the warranty policy and procedures manual if a module is suspect.
C1A1164	Pressure increases when the system is inactive	<ul style="list-style-type: none"> • Reservoir and air spring pipes incorrectly fitted to front or rear valve block (unions reversed) • Corner valve internal leak • Reservoir valve internal leak • Pressure sensor harness wiring: short 	Check the reservoir and air spring pipes for correct routing and installation. For corner valve, reservoir valve, pressure sensor and circuit tests refer to the guided diagnostic routine for this code on the approved diagnostic system.

		circuit to ground, short circuit to power, high resistance <ul style="list-style-type: none"> Pressure sensor failure 	
C1A1364	Pressure does not decrease when venting the gallery	<ul style="list-style-type: none"> Exhaust valve stuck closed Exhaust valve does not hold minimum retention pressure Gallery pipe blocked/damaged Pressure sensor fault Air suspension exhaust silencer blocked/restricted Air suspension exhaust pipe blocked/damaged Reservoir valve block pipes incorrectly fitted (unions reversed) 	Refer to the guided diagnostic routine for this code on the approved diagnostic system. Check the air suspension exhaust pipe and silencer for blockage/restriction. Check the reservoir valve block pipes for correct routing and installation.
C1A1864	Pressure increase too rapid when filling reservoir	<ul style="list-style-type: none"> Reservoir valve stuck closed Reservoir pipe blocked/damaged Reservoir port blocked/restricted Pressure sensor fault 	Refer to the guided diagnostic routine for this code on the approved diagnostic system.
C1A2064	Pressure increase too slow when filling reservoir	<ul style="list-style-type: none"> Compressor fault Reservoir pipe air leak Reservoir air leak Gallery pipe air leak Intake filter blocked/restricted Intake pipe blocked/restricted Air suspension intake silencer blocked/restricted Corner valve stuck open Pressure sensor fault 	Refer to the guided diagnostic routine for this code on the approved diagnostic system. Check the air suspension intake pipe and silencer for blockage/restriction.
C1A2464	No temperature increase when compressor requested	<ul style="list-style-type: none"> Air compressor: cylinder head temperature sensor disconnected Air compressor: cylinder head temperature sensor detached from cylinder head Air compressor: cylinder head 	Check the security of the compressor cylinder head temperature sensor and electrical connection. Refer to the guided diagnostic routine for this code on the approved diagnostic system.

		temperature sensor fault <ul style="list-style-type: none"> Air compressor fault 	
C1A2467	Temperature takes too long to read after suitable compressor runtime	<ul style="list-style-type: none"> Air compressor: cylinder head temperature sensor disconnected Air compressor: cylinder head temperature sensor fault Air compressor disconnected Air compressor ground circuit: high resistance Air compressor fault 	Check the security of the compressor cylinder head temperature sensor and electrical connection. Refer to the guided diagnostic routine for this code on the approved diagnostic system.
C1A2616	Temperature sensor voltage out of range	<ul style="list-style-type: none"> Air compressor cylinder head temperature sensor harness wiring: short circuit to ground, short circuit to power, high resistance Air suspension control module failure 	Refer to the guided diagnostic routine for this code on the approved diagnostic system. Refer to the warranty policy and procedures manual if a module is suspect.
C1A2712	Compressor voltage present when compressor not requested	<ul style="list-style-type: none"> Air compressor harness wiring: short circuit to power Air compressor relay fault Air suspension control module failure 	Refer to the guided diagnostic routine for this code on the approved diagnostic system. Refer to the warranty policy and procedures manual if a module is suspect.
C1A2714	Compressor voltage not present when compressor requested	<ul style="list-style-type: none"> Battery junction box (BJB) Fuse 3E failed BJB Fuse 10E failed/not fitted Air compressor harness wiring: short circuit to ground, high resistance Air compressor relay failure Air suspension control module failure 	Check/replace fuses 3E and 10E as necessary. Refer to the guided diagnostic routine for this code on the approved diagnostic system. Refer to the warranty policy and procedures manual if a module is suspect.
C1A2729	Compressor relay control voltage, signal invalid	<ul style="list-style-type: none"> Air compressor harness wiring: short circuit to power Air compressor relay fault Air suspension control module failure 	C1A2712 will be set first. Refer to the guided diagnostic routine for this code on the approved diagnostic system. Refer to the warranty policy and procedures manual if a module is suspect.

C1A2864	Wrong number of LEDs illuminated on switch pack	<ul style="list-style-type: none"> • BJB Fuse 26E failed • Switch pack harness wiring: short circuit to ground, short circuit to power, high resistance • LED circuit: short circuit to power • One or more LEDs short circuit to each other • Switch pack failure • Air suspension control module failure 	Check/replace fuse 26E as necessary. Refer to the guided diagnostic routine for this code on the approved diagnostic system. Refer to the warranty policy and procedures manual if a module is suspect.
C1A2992	Ride height change switch activation too long	<ul style="list-style-type: none"> • Switch pressed for more than 255 seconds • Switch pack harness wiring: short circuit to ground, short circuit to power, high resistance • Switch pack failure • Air suspension control module failure 	Refer to the guided diagnostic routine for this code on the approved diagnostic system. Refer to the warranty policy and procedures manual if a module is suspect.
C1A3064	Raise and lower switches activated at same time	<ul style="list-style-type: none"> • BJB Fuse 26E failed • Switch pack harness wiring: short circuit to ground, short circuit to power, high resistance • Switch pack failure • Air suspension control module failure 	Check/replace fuse 26E as necessary. Refer to the guided diagnostic routine for this code on the approved diagnostic system. Refer to the warranty policy and procedures manual if a module is suspect.
C1A3101	Left-hand front corner valve, general electrical failure	<ul style="list-style-type: none"> • Front valve block disconnected • Front valve block harness wiring: short circuit to ground, high resistance • Left-hand front corner valve failure • Air suspension control module failure 	Refer to the guided diagnostic routine for this code on the approved diagnostic system. Refer to the warranty policy and procedures manual if a module is suspect.
C1A3201	Right-hand front corner valve, general electrical failure	<ul style="list-style-type: none"> • Front valve block disconnected • Front valve block harness wiring: short circuit to ground, high resistance • Right-hand front corner valve failure • Air suspension control module failure 	Refer to the guided diagnostic routine for this code on the approved diagnostic system. Refer to the warranty policy and procedures manual if a module is suspect.

C1A3301	Left-hand rear corner valve, general electrical failure	<ul style="list-style-type: none"> • Rear valve block disconnected • Rear valve block harness wiring: short circuit to ground, high resistance • Left-hand rear corner valve failure • Air suspension control module failure 	Refer to the guided diagnostic routine for this code on the approved diagnostic system. Refer to the warranty policy and procedures manual if a module is suspect.
C1A3401	Right-hand rear corner valve, general electrical failure	<ul style="list-style-type: none"> • Rear valve block disconnected • Rear valve block harness wiring: short circuit to ground, high resistance • Right-hand rear corner valve failure • Air suspension control module failure 	Refer to the guided diagnostic routine for this code on the approved diagnostic system. Refer to the warranty policy and procedures manual if a module is suspect.
C1A3501	Reservoir valve, general electrical failure	<ul style="list-style-type: none"> • Reservoir valve block disconnected • Reservoir valve block harness wiring: short circuit to ground, high resistance • Reservoir valve block failure • Air suspension control module failure 	Refer to the guided diagnostic routine for this code on the approved diagnostic system. Refer to the warranty policy and procedures manual if a module is suspect.
C1A3601	Exhaust valve, general electrical failure	<ul style="list-style-type: none"> • Exhaust valve disconnected • Exhaust valve harness wiring: short circuit to ground, high resistance • Exhaust valve failure • Air suspension control module failure 	Refer to the guided diagnostic routine for this code on the approved diagnostic system. Refer to the warranty policy and procedures manual if a module is suspect.
C1A3701	Front cross-link valve, general electrical failure	<ul style="list-style-type: none"> • Front valve block disconnected • Front valve block harness wiring: short circuit to ground, high resistance • Front cross-link valve failure • Air suspension control module failure 	Refer to the guided diagnostic routine for this code on the approved diagnostic system. Refer to the warranty policy and procedures manual if a module is suspect.
	Rear cross-	<ul style="list-style-type: none"> • Rear valve block disconnected • Rear valve block harness wiring: short 	

C1A3801	Rear cross-link valve, general electrical failure	circuit to ground, high resistance <ul style="list-style-type: none"> • Rear cross-link valve failure • Air suspension control module failure 	Refer to the guided diagnostic routine for this code on the approved diagnostic system. Refer to the warranty policy and procedures manual if a module is suspect.
C1A5501	Ignition switch input circuit, ignition on while wake-up off or ignition off while engine running	<ul style="list-style-type: none"> • Ignition switch input circuit: short circuit to ground, short circuit to power, high resistance 	Refer to the guided diagnostic routine for this code on the approved diagnostic system.
C1A681C	Left-hand front height sensor supply, circuit voltage out of range	<ul style="list-style-type: none"> • Height sensor harness wiring: short circuit to ground, short circuit to power, high resistance • Height sensor failure • Air suspension control module failure 	Refer to the guided diagnostic routine for this code on the approved diagnostic system. Refer to the warranty policy and procedures manual if a module is suspect.
C1A691C	Right-hand front height sensor supply, circuit voltage out of range	<ul style="list-style-type: none"> • Height sensor harness wiring: short circuit to ground, short circuit to power, high resistance • Height sensor failure • Air suspension control module failure 	Refer to the guided diagnostic routine for this code on the approved diagnostic system. Refer to the warranty policy and procedures manual if a module is suspect.
C1A701C	Left-hand rear height sensor supply, circuit voltage out of range	<ul style="list-style-type: none"> • Height sensor harness wiring: short circuit to ground, short circuit to power, high resistance • Height sensor failure • Air suspension control module failure 	Refer to the guided diagnostic routine for this code on the approved diagnostic system. Refer to the warranty policy and procedures manual if a module is suspect.
C1A711C	Right-hand rear height sensor supply, circuit voltage out of range	<ul style="list-style-type: none"> • Height sensor harness wiring: short circuit to ground, short circuit to power, high resistance • Height sensor failure • Air suspension control module failure 	Refer to the guided diagnostic routine for this code on the approved diagnostic system. Refer to the warranty policy and procedures manual if a module is suspect.
		<ul style="list-style-type: none"> • Water ingress to wiring harness or connectors • Height sensor 	

C1A721C	Left-hand front height sensor signal voltage out of range (mechanical)	<ul style="list-style-type: none"> linkage disconnected Height sensor linkage damaged/bent Height sensor disconnected Height sensor linkage toggled Height sensor bracket damaged/bent Height sensor incorrectly installed Incorrect height calibration Height sensor harness wiring: short circuit to ground, short circuit to power, high resistance Height sensor failure Air suspension control module failure 	Visually inspect the wiring harness and connectors for water ingress. Refer to the guided diagnostic routine for this code on the approved diagnostic system. Check the height sensor bracket condition and security. Check the height sensor for correct fitment and torque of fixings. If any height sensor fixings are slackened or found to be loose, or a height sensor has been changed, the vehicle ride height must be re-calibrated. Calibrate the system using the approved diagnostic system. Refer to the warranty policy and procedures manual if a module is suspect.
C1A731C	Right-hand front height sensor signal voltage out of range (mechanical)	<ul style="list-style-type: none"> Water ingress to wiring harness or connectors Height sensor linkage disconnected Height sensor linkage damaged/bent Height sensor disconnected Height sensor linkage toggled Height sensor bracket damaged/bent Height sensor incorrectly installed Incorrect height calibration Height sensor harness wiring: short circuit to ground, short circuit to power, high resistance Height sensor failure Air suspension control module failure 	Visually inspect the wiring harness and connectors for water ingress. Refer to the guided diagnostic routine for this code on the approved diagnostic system. Check the height sensor bracket condition and security. Check the height sensor for correct fitment and torque of fixings. If any height sensor fixings are slackened or found to be loose, or a height sensor has been changed, the vehicle ride height must be re-calibrated. Calibrate the system using the approved diagnostic system. Refer to the warranty policy and procedures manual if a module is suspect.
		<ul style="list-style-type: none"> Water ingress to wiring harness or connectors Height sensor linkage disconnected Height sensor 	

C1A741C	Left-hand rear height sensor signal voltage out of range (mechanical)	linkage damaged/bent <ul style="list-style-type: none"> • Height sensor disconnected • Height sensor linkage toggled • Height sensor bracket damaged/bent • Height sensor incorrectly installed • Incorrect height calibration • Height sensor harness wiring: short circuit to ground, short circuit to power, high resistance • Height sensor failure • Air suspension control module failure 	Visually inspect the wiring harness and connectors for water ingress. Refer to the guided diagnostic routine for this code on the approved diagnostic system. Check the height sensor bracket condition and security. Check the height sensor for correct fitment and torque of fixings. If any height sensor fixings are slackened or found to be loose, or a height sensor has been changed, the vehicle ride height must be re-calibrated. Calibrate the system using the approved diagnostic system. Refer to the warranty policy and procedures manual if a module is suspect.
C1A751C	Right-hand rear height sensor signal voltage out of range (mechanical)	<ul style="list-style-type: none"> • Water ingress to wiring harness or connectors • Height sensor linkage disconnected • Height sensor linkage damaged/bent • Height sensor disconnected • Height sensor linkage toggled • Height sensor bracket damaged/bent • Height sensor incorrectly installed • Incorrect height calibration • Height sensor harness wiring: short circuit to ground, short circuit to power, high resistance • Height sensor failure • Air suspension control module failure 	Visually inspect the wiring harness and connectors for water ingress. Refer to the guided diagnostic routine for this code on the approved diagnostic system. Check the height sensor bracket condition and security. Check the height sensor for correct fitment and torque of fixings. If any height sensor fixings are slackened or found to be loose, or a height sensor has been changed, the vehicle ride height must be re-calibrated. Calibrate the system using the approved diagnostic system. Refer to the warranty policy and procedures manual if a module is suspect.
C1B1862	Inconsistent battery voltages received by air suspension control module	<ul style="list-style-type: none"> • Air suspension control module supply circuit(s): short circuit to ground • Air suspension control module supply circuit(s): high resistance • Air suspension 	Refer to the guided diagnostic routine for this code on the approved diagnostic system.

		control module failure	
C1B1903	Door status signal, pulse width modulated failures	<ul style="list-style-type: none"> • Incorrect software loaded to air suspension control module • Central junction box to air suspension module harness wiring: short circuit to ground, short circuit to power, high resistance • Central junction box fault 	Refer to the guided diagnostic routine for this code on the approved diagnostic system.
C1B211C	Compressor brush card temperature sensor circuit, voltage out of range	<ul style="list-style-type: none"> • Compressor brush card temperature sensor harness wiring: short circuit to ground, short circuit to power, high resistance • Compressor brush card temperature sensor failure • Air suspension control module failure 	Refer to the guided diagnostic routine for this code on the approved diagnostic system. Refer to the warranty policy and procedures manual if a module is suspect.
U007388	CAN bus fault, bus off	<ul style="list-style-type: none"> • CAN bus connections short circuit to each other 	Communications Network
U010087	Lost communication with engine control module (ECM)	<ul style="list-style-type: none"> • CAN bus fault • ECM disconnected • ECM not configured • ECM failure 	Communications Network
U010187	Lost communication with transmission control module (TCM)	<ul style="list-style-type: none"> • CAN bus fault • TCM disconnected • TCM not configured • TCM failure 	Communications Network
U010287	Lost communication with transfer box control module	<ul style="list-style-type: none"> • CAN bus fault • Transfer box control module disconnected • Transfer box control module not configured • Transfer box control module failure 	Communications Network
U012287	Lost communication with ABS module	<ul style="list-style-type: none"> • CAN bus fault • ABS module disconnected • ABS module not configured • ABS module failure 	Communications Network

U012687	Lost communication with steering angle sensor (SAS) module	<ul style="list-style-type: none"> • CAN bus fault • SAS module disconnected • SAS module not configured/calibrated • SAS module failure 	Communications Network
U012887	Lost communication with parking brake module	<ul style="list-style-type: none"> • CAN bus fault • Parking brake module disconnected • Parking brake module not configured • Parking brake module failure 	Communications Network
U013387	Lost communication with active stabilization system	<ul style="list-style-type: none"> • CAN bus fault • Active stabilization system module disconnected • Active stabilization system module not configured • ABS module failure 	Communications Network
U013687	Lost communication with electronic rear differential control module	<ul style="list-style-type: none"> • CAN bus fault • Electronic rear differential control module disconnected • Electronic rear differential control module not configured • Electronic rear differential control module failure 	Communications Network
U015587	Lost communication with instrument cluster	<ul style="list-style-type: none"> • CAN bus fault • Instrument cluster disconnected • Instrument cluster not configured • Instrument cluster failure 	Communications Network
U030055	Internal control module software incompatibility, not configured	<ul style="list-style-type: none"> • Incorrect software loaded • CAN wiring to instrument cluster: high resistance • Incorrect instrument cluster CAN configuration 	Configure the air suspension control module and instrument cluster as necessary using the approved diagnostic system.
U040186	Invalid data received from engine control module (ECM)	<ul style="list-style-type: none"> • Engine management system (EMS) fault 	Communications Network
U041686	Invalid data received from ABS module	<ul style="list-style-type: none"> • ABS fault 	Communications Network

U041786	Invalid data received from parking brake module	<ul style="list-style-type: none"> • Parking brake fault 	Communications Network
U042886	Invalid data received from steering angle sensor (SAS) module	<ul style="list-style-type: none"> • SAS module not configured/calibrated • SAS fault 	<p>Check the security of the electrical connection. Configure/calibrate the SAS using the approved diagnostic system.</p> Communications Network
U043486	Invalid data received from active stabilization system module	<ul style="list-style-type: none"> • Active stabilization system fault 	Communications Network
U1A1387	Lost communication with terrain optimization switch	<ul style="list-style-type: none"> • CAN bus fault • Terrain optimization switch disconnected • Terrain response module not configured • Terrain response module failure 	Communications Network
U1A1449	CAN initialization failure	<ul style="list-style-type: none"> • Internal electronic failure 	Communications Network
U1A3562	VIN from instrument cluster does not match VIN at time of calibration	<ul style="list-style-type: none"> • Air suspension control module has been swapped with another vehicle • Instrument cluster not configured 	<p>Configure the instrument cluster using the approved diagnostic system.</p>
U200067	Temperature sensor voltage takes too long to read after suitable compressor runtime	<ul style="list-style-type: none"> • Compressor brush card temperature sensor harness wiring: short circuit to ground, short circuit to power, high resistance • Compressor brush card temperature sensor failure • Compressor fault 	<p>Refer to the guided diagnostic routine for this code on the approved diagnostic system.</p>
U200701	Valve circuit short circuit to ground	<ul style="list-style-type: none"> • Water ingress to wiring harness or connectors • Valve harness wiring: short circuit to ground, high resistance • Air suspension control module failure 	<p>C1A001D will be set first. Visually inspect the wiring harness and connectors for water ingress. Refer to the guided diagnostic routine for this code on the approved diagnostic system.</p>
	Valve circuit short circuit to	<ul style="list-style-type: none"> • Water ingress to wiring harness or connectors • Valve harness wiring: short circuit 	<p>Visually inspect the wiring harness and connectors for water</p>

U200711	ground when system is inactive	<ul style="list-style-type: none"> to ground, high resistance Air suspension control module failure 	ingress. Refer to the guided diagnostic routine for this code on the approved diagnostic system.
U200719	Valve circuit current above threshold	<ul style="list-style-type: none"> Valve supply circuit(s) intermittent: short circuit to ground, high resistance Valve failure Air suspension control module failure 	Refer to the guided diagnostic routine for this code on the approved diagnostic system.
U200767	Valve signal incorrect after event	<ul style="list-style-type: none"> Water ingress to wiring harness or connectors (in particular electrical connector(s) C2527 and C2528) Valve supply circuit(s): short circuit to ground, short circuit to power, high resistance Air suspension control module failure 	Visually inspect the wiring harness and connectors for water ingress. Refer to the guided diagnostic routine for this code on the approved diagnostic system. Refer to the warranty policy and procedures manual if a module is suspect.

Air suspension deflation exit routine

- 1 . Key on, engine off.
- 2 . Key off.
- 3 . Press and release raise switch.
- 4 . Press and release lower switch.
- 5 . Key on, engine off.
- 6 . Key on, engine running.
- 7 . Press and release raise switch twice.
- 8 . Press and release lower switch twice.
- 9 . Press and release raise switch.