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Vehicle Dynamic Suspension

Principle of Operation

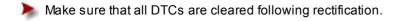
For information on the operation of the system, refer to relevant section 204-05 - Vehicle Dynamic Suspension of the workshop manual.

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, Refer to the relevant section of the workshop manual.
- 3. Visually inspect for obvious mechanical or electrical faults.

| Mechanical | Electrical |
|--|---|
| Air leakage Air springs Reservoir Compressor Compressor air filter Pipework and unions Sensor installation Valve block(s) | 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.



Symptom Chart

| Symptom | Possible message | Possible other warnings | Possible causes | Action |
|-----------------------|--------------------|---|--|---|
| Vehicle on bump stops | • Suspension fault | Two chimes repeated regularly Red indicator permanently illuminated | Water ingress to wiring harness or connectors Air leak(s) Vehicle in transportation mode System not calibrated or calibration corrupt Implausible articulation symptoms detected | 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 |

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|-------------------------------|---|---|---|--|
| | | | Failure of multiple height sensors Air suspension control module failure | by an un-calibrated height sensor. Check for height sensor DTCs and refer to the DTC index. Refer to the warranty policy and procedures manual if a module is suspect. |
| Vehicle does not sit level | • Suspension fault | Two chimes repeated regularly Red indicator permanently illuminated | 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 | and refer to the DTC inde |
| Vehicle sits too low | Suspension fault Hill descent control (HDC) fault, system not available Dynamic stability control (DSC) | Two chimes, amber indicator permanently illuminated One chime DSC amber indicator permanently illuminated ABS indicator permanently illuminated Illuminated | 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 | diagnostic system. For Ai suspension control module lost communication with ABS module, refer to the lost |
| Vehicle sits | Suspension foult | • Two chimes, amber indicator | closed | For reservoir valve and exhaust valve tests refer the guided diagnostic routine on the approved diagnostic system. Chec |

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|--|---|----------------------------|---|--|
| too high | iauit | permanently illuminated | open • Air suspension control module failure | 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 when lowering | • - | • - | Crossed gallery and air spring pipes Incorrect valve block installed to front or rear Damage or blockage in air harness | Refer to the guided diagnostic routine on the approved diagnostic system. |
| Vehicle leans/tilts after being left over-night or for some days | • - | • - | 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 | Suspension vehicle raising slowly | • - | 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 | Data does not match that expected for VIN range/Air suspension incorrectly configured | Configure the car configuration file (CCF) using the approved diagnostic system. Clear the DTC and test for normal operation. |
| C112201 | Steering Isolation Valve | Servotronic steering valve disconnected Servotronic steering valve circuit(s) high resistance or short circuit to ground Servotronic steering | Refer to the guided diagnostic routine for this code on the approved diagnostic system. |

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| | | varve lauit | |
| C11231C | Steering Is olation Valve Supply Circuit | 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 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 Air spring leak Air harness leak Exhaust valve stuck open Corner valve leak to gallery | Visually inspect the system for air leakage. Refer to the guided diagnostic routine for this code on the approved diagnostic system. |
| C11307A | Air Spring Sir Supply | Unable to lift vehicle 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 Spring Air Supply | Unable to pressurize gallery Insufficient pressure from compressor Detached air pipe Loose or burst air pipe Reservoir valve block pipes incorrectly installed (unions reversed) Pressure sensor fault | Visually inspect the system for air leakage. Check the reservoir valve block pipes for correct routing and installation. |
| C1A001C | Control Module | A momentary low voltage event occurred Low battery voltage One or more control valve supplies | Check the battery charge, condition and circuit. Refer to the guided diagnostic routine for this code on the approved diagnostic system. |

| 08/06/2010 | | http://www.landrove intermittent short circuit to ground | rtechinfo.com/ex |
|------------|----------------|--|--|
| C1A001D | Control Module | Isolation switch current monitor 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 | Control Module | 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. |
| C1A0053 | Control Module | This is not a fault, 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 | Control Module | Air suspension control module not calibrated Air suspension control module has been set into manufacturing, calibration or tight tolerance mode | If the problem is found during pre-delivery inspection, check that the air suspension control module (RLM) is NOT in manufacturing mode, calibration mode or tight tolerance mode using the approved diagnostic system. Configure the RLM to customer mode if necessary (tight tolerance mode and manufacturing mode can be set/cleared by starting then ending the suspension geometry set process from IDS menu. Refer to the relevant Technical Service Bulletin). Clear the DTC and test for normal operation. Only if the DTC re-occurs, should the system be calibrated using the approved diagnostic system. Clear the DTC and test for normal operation. |
| C1A0119 | LED | Switch pack 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. |
| | | Left-hand front height sensor signal voltage out of range Water ingress to wiring harness or connectors Height sensor linkage disconnected Height sensor linkage damaged/bent Height sensor disconnected | Visually inspect the wiring harness and connectors for |

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|------------|-----------------------------|---|---|
| C1A031C | Left Front Height Sensor | Height sensor linkage toggled (now operating in reverse direction) 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 or high resistance Height sensor failure Incorrect height calibration Air suspension control module failure | 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 installation 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 Front Height Sensor | Left-hand front height sensor signal voltage stuck whilst vehicle is driven Water ingress to wiring harness or connectors Height sensor linkage disconnected Height sensor harness wiring short circuit to ground, short circuit to power or high resistance Height sensor failure Air suspension control module failure | infodule is suspeci. |
| C1A0329 | Left Front Height Sensor | Left-hand front height sensor signal invalid 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 or high resistance Height sensor 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 installation 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. |

| 8/06/2010 | | http://www.landrove Incorrect height calibration process | rtechinfo.com/ex |
|-----------|------------------------------|--|--|
| C1A0392 | Left Front Height Sensor | Blocked/damaged air harness Blocked/damaged gallery pipe Corner valve stuck closed Front or rear valve block pipes | Check that the vehicle is free of obstructions. Check the height sensor for correct installation 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. |
| C1A041C | Right Front Height Sensor | bracket damaged/bent Height sensor incorrectly installed Height sensor installed on wrong side of vehicle Height sensor harness wiring short | 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 installation 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. |

| 8/06/2010 | | http://www.landrove circuit to ground, short circuit to power or high resistance • Height sensor failure • Incorrect height calibration • Air suspension control module failure | rtechinfo.com/ex |
|-----------|------------------------------|--|---|
| C1A0426 | Right Front Height Sensor | Right-hand front height sensor signal voltage stuck whilst vehicle is driven Water ingress to wiring harness or connectors Height sensor linkage disconnected Height sensor harness wiring short circuit to ground, short circuit to power or 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 Front Height Sensor | Right-hand front height sensor signal invalid: 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 or 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 installation 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. |
| | | Right-hand front height sensor height changing slower than expected Suspension prevented from moving Height sensor incorrectly installed Air spring leak Air harness leak | Check that the vehicle is free of obstructions. Check the height sensor for correct installation and torque of |

| 08/06/2010 | Right Front Height Sensor | http://www.landrove blocked/damaged air harness Blocked/damaged gallery pipe Corner valve stuck closed Front or rear valve block pipes incorrectly installed (unions reversed) Reservoir valve block pipes incorrectly installed (unions reversed) Reservoir valve stuck open Exhaust valve stuck closed Corner valve air leak Pressure sensor fault Height sensor failure | 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. |
|----------------|------------------------------|--|---|
| C1A051C | Left Rear Height Sensor | Left-hand rear height sensor signal voltage out of range Water ingress to wiring harness or connectors Height sensor linkage disconnected Height sensor linkage damaged/bent Height sensor disconnected Height sensor linkage toggled (now operating in reverse direction) Height sensor bracket damaged/bent Height sensor incorrectly installed Height sensor incorrectly installed Height sensor installed on wrong side of vehicle Height sensor harness wiring short circuit to ground, short circuit to power or high resistance Height sensor failure Incorrect height calibration Air suspension control module failure Left-hand rear height | 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 installation 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. |
| | | sensor signal voltage stuck whilst vehicle is driven | |

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| C1A0526 | Left Rear Height Sensor | Water ingress to wiring harness or connectors Height sensor linkage disconnected Height sensor harness wiring short circuit to ground, short circuit to power or 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 Rear Height Sensor | Left-hand rear height sensor signal invalid 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 or 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 installation 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 Rear Height Sensor | Left-hand rear height sensor height changing slower than expected 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 installed (unions reversed) Reservoir valve block pipes incorrectly installed (unions reversed) Reservoir valve stuck open | Check that the vehicle is free of obstructions. Check the height sensor for correct installation 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. |

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|-----------|-----------------------------|---|--|
| C1A0629 | Right Rear Height Sensor | Right-hand rear height sensor signal invalid 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 or 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 installation 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. |
| C1A0692 | Right Rear Height Sensor | Right-hand rear height sensor height changing slower than expected 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 installed (unions reversed) Reservoir valve block pipes incorrectly installed (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 installation 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. |
| | | Cross articulation too large whilst vehicle is driven Water ingress to wiring harness or connectors Height sensor | |

| 06/2010 C1A0762 | Cross Articulation | http://www.landrove 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 or high resistance Height sensor removed and reinstalled without being recalibrated New height sensor installed without calibration Incorrect height calibration Height sensor failure | Follow the process detailed in the relevant special service message (SSM). Check the condition and security of the height sensor bracket(s). Check the height sensor for correct fitment and fixings torque. 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. |
|--------------------|---------------------------------------|--|--|
| C1A081C | Pressure Sensor Supply | Pressure sensor supply voltage out of range Pressure sensor harness wiring short circuit to ground, short circuit to power or 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 | Pressure sensor signal voltage out of range Pressure sensor disconnected Pressure sensor harness wiring short circuit to ground, short circuit to power or 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 System | Reservoir and air spring pipes incorrectly installed to front or rear valve block (unions reversed) Corner valve stuck open Pressure sensor harness wiring short | 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 |

| 06/2010 | Inactive | http://www.landrove circuit to ground, short circuit to power or high resistance • Pressure sensor failure • Air suspension control module failure | rtechinfo.com/ex system. Refer to the warranty policy and procedures manual if a module is suspect. |
|---------|--|---|--|
| C1A1164 | Pressure Fluctuates When System Inactive | Reservoir and air spring pipes incorrectly installed to front or rear valve block (unions reversed) Corner valve internal leak Reservoir valve internal leak Pressure sensor harness wiring short circuit to ground, short circuit to power or high resistance Pressure sensor failure | 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. |
| C1A1364 | Pressure Does Not Decrease When Venting Gallery | 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 installed (unions reversed) | Refer to the guided diagnostic routine for this code of 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 | Reservoir valve stuck closed Reservoir pipe blocked/damaged Reservoir port blocked/restricted Pressure sensor fault | Refer to the guided diagnostic routine for this code o the approved diagnostic system. |
| C1A2064 | Pressure Increase Too Slow When | Compressor fault Reservoir pipe air leak Reservoir air leak Gallery pipe air leak Intake filter blocked/restricted Intake pipe | Refer to the guided diagnostic routine for this code o the approved diagnostic system. Check the Air |

| 06/2010 | Filling Reservoir | http://www.landrove | rtechinfo.com/ex suspension intake pipe and silencer for blockage/restriction. |
|---------|---|--|--|
| C1A2464 | No Temperature Increase When Compressor Requested | Air compressor cylinder head temperature sensor disconnected Air compressor cylinder head temperature sensor detached from cylinder head Air compressor cylinder head temperature sensor fault 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. |
| C1A2467 | No Temperature Increase When Compressor Requested | Temperature takes too long to read after suitable compressor runtime Air compressor cylinder head temperature sensor disconnected Air compressor cylinder head temperature sensor fault Air compressor disconnected Air compressor disconnected 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 Circuit | Temperature sensor voltage out of range Air compressor cylinder head temperature sensor harness wiring short circuit to ground, short circuit to power or 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 Circuit | Compressor voltage present when compressor not requested Air compressor harness wiring short circuit to power Air compressor relay fault | 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. |

failure

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|---------|----------------------------|--|--|
| C1A3301 | Left Rear Corner Valve | 1 | 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 Rear Corner Valve | Right-hand rear corner valve, general electrical failure Rear valve block disconnected Rear valve block harness wiring short circuit to ground or 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 | | 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 | Exhaust valve, general electrical failure Exhaust valve disconnected Exhaust valve harness wiring short circuit to ground or 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. |
| | | Front cross-link valve general electrical failure Front valve block disconnected | |

Air suspension control module

failure

| 06/2010 C1A701C | Left Rear Height Sensor Supply | http://www.landrove Left-hand rear height sensor supply circuit voltage out of range Height sensor harness wiring short circuit to ground, short circuit to power or high resistance Height sensor failure Air suspension control module failure | |
|--------------------|--|---|--|
| C1A711C | Right Rear Height Sensor Supply | Right-hand rear height sensor supply circuit voltage out of range Height sensor harness wiring short circuit to ground, short circuit to power or 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. |
| C1A721C | Left Front Height Sensor Mechanism | Left-hand front height sensor signal voltage out of range (mechanical) Water ingress to wiring harness or connectors Height sensor linkage disconnected Height sensor linkage damaged/bent Height sensor linkage toggled (now operating in reverse direction) Height sensor bracket damaged/bent Height sensor linkage toggled (now operating in reverse direction) Height sensor bracket damaged/bent Height sensor incorrectly installed Incorrect height calibration Height sensor harness wiring short circuit to ground, short circuit to power or high resistance Height sensor failure Air suspension control module failure Right-hand front | 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 installation 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. |

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|---|--|--|
| Left Front Height Sensor Mechanism | height sensor voltage out of range (mechanical) Water ingress to wiring harness or connectors Height sensor linkage disconnected Height sensor linkage damaged/bent Height sensor linkage toggled (now operating in reverse direction) Height sensor bracket damaged/bent Height sensor linkage toggled (now operating in reverse direction) Height sensor bracket damaged/bent Height sensor incorrectly installed Incorrect height calibration Height sensor harness wiring short circuit to ground, short circuit to power or 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 installation 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. |
| Left Rear C1A741C Height Sensor Mechanism | Left-hand rear height sensor signal voltage out of range (mechanical) Water ingress to wiring harness or connectors Height sensor linkage disconnected Height sensor linkage damaged/bent Height sensor disconnected Height sensor linkage toggled (now operating in reverse direction) Height sensor bracket damaged/bent Height sensor incorrectly installed Incorrect height calibration Height sensor harness wiring short circuit to ground, short circuit to power | 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 installation 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. |

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| | | or high resistance Height sensor failure Air suspension control module failure | |
| C1A751C | Right Rear Height Sensor Mechanism | Right-hand rear height sensor signal voltage out of range (mechanical) Water ingress to wiring harness or connectors Height sensor linkage disconnected Height sensor linkage damaged/bent Height sensor disconnected Height sensor linkage toggled (now operating in reverse direction) Height sensor bracket damaged/bent Height sensor incorrectly installed Incorrect height calibration Height sensor harness wiring short circuit to ground, short circuit to power or 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 installation and torque of fixings. If any height sensor fixings are slackened or found to be loose, or a heigh 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 | Supply Voltage X-Ref Check | Inconsistent battery voltages received by Air suspension control module Air suspension control module supply circuit(s) short circuit to ground Air suspension control module supply circuit(s) high resistance Air suspension control module failure | Refer to the guided diagnostic routine for this code of the approved diagnostic system. |
| | | Door status signal, pulse width modulated failures Incorrect software loaded to Air | |

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|---------|---|--|--|--|
| C1B1903 | Door Status Signal | suspension control module Central junction box to Air suspension module harness wiring short circuit to ground, short circuit to power or 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 | Compressor brush card temperature sensor circuit, voltage out of range Compressor brush card temperature sensor harness wiring short circuit to ground, short circuit to power or 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 | Control Module Communication Bus 'A' Off | CAN bus connections short circuit to each other | Refer to the Network Communications section of the workshop manual. | |
| U010087 | Lost Communication With ECMPCM "A" | CAN bus fault ECM disconnected ECM not configured ECM failure | Refer to the Network Communications section of the workshop manual. | |
| U010187 | Lost Communication With Transmission Control Module | CAN bus fault Transmission control module (TCM) disconnected TCM not configured TCM failure | Refer to the Network Communications section of the workshop manual. | |
| U010287 | Lost Communication With Transfer Box Control Module | CAN bus fault Transfer box control module disconnected Transfer box control module not configured Transfer box control module failure | Refer to the Network Communications section of the workshop manual. | |
| U012287 | Lost Communication With Vehicle Dynamics Control Module | CAN bus fault ABS module disconnected ABS module not configured ABS module failure | Refer to the Network Communications section of the workshop manual. | |

Messages: Warning - Two Chimes Displayed message - SLOW DOWN OR

card temperature sensor harness

||Motor

11200067

Refer to the guided diagnostic routine for this code on

| /06/2010 | Temperature | http://www.landrove wiring short circuit to ground, short circuit to power or high resistance Compressor brush card temperature sensor failure Compressor fault | rtechinfo.com/ex the approved diagnostic system. |
|----------|-------------|--|---|
| U200701 | Valve(s) | Valve circuit short circuit to ground Water ingress to wiring harness or connectors Valve harness wiring short circuit to ground or high resistance Air suspension control module failure | DTC C1A001D will be set first. Visually inspect the wiring harness and connectors between the Air suspension control module and the control valves for water ingress. Refer to the guided diagnostic routine for this code on the approved diagnostic system. |
| U200711 | Valve(s) | Valve circuit short circuit to ground when system is inactive Water ingress to wiring harness or connectors Valve harness wiring short circuit to ground or high resistance Air suspension control module failure | Visually inspect the wiring harness and connectors between the Air suspension control module and the control valves for water ingress. Refer to the guided diagnostic routine for this code on the approved diagnostic system. |
| U200719 | Valve(s) | Valve circuit current above threshold Valve supply circuit(s) intermittent short circuit to ground or 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(s) | Valve signal incorrect after event Water ingress to wiring harness or connectors Valve supply circuit(s) short circuit to ground, short circuit to power or high resistance Air suspension control module failure | Visually inspect the wiring harness and connectors between the Air suspension control module and the control valves 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.