

## MESSAGE CENTER

The message center is located at the bottom of the instrument cluster. The message center comprises an LCD, which has two, 20 character text displays. The majority of messages are generated by the LCM which monitors system status via the bus systems and displays system information messages as requested by the controlling module. Other system control modules are also capable of generating messages to display system status. Some messages are accompanied by a chime, which is requested by the control module generating the message and generated by the instrument cluster via the sounder.

A check control button is located between the tachometer and the engine coolant temperature (ECT) gauge. This button allows the driver to view system status messages which are current in the instrument cluster RAM. Pressing and releasing the check control button, displays current messages in priority order or, if no messages are present, the message center displays 'CHECK CONTROL OK'.

The messages are assigned priorities, depending on the effect on driving safety and driving ability of the vehicle. New messages are displayed and accompanied by a chime from the sounder. Messages are divided into priority groups P1, P2 and P3. The priority groups are as follows:

**Priority Group P1** - This group includes messages which have a direct affect on the driving ability and safety of the vehicle, 'STOP! ENGINE OIL PRESS' for example. This message requires an urgent and immediate reaction from the driver in response to the message. P1 messages are also accompanied by appropriate flashing warning indicator symbols adjacent to the message center. If more than one P1 message is present, each message is displayed in turn at 3 second intervals.

**Priority Group P2** - This group includes messages which do not directly affect driving ability or safety of the vehicle, 'CHECK NUMPLATE LIGHT' for example. This message must be noted by the driver and the cause rectified as soon as possible. Each message is indicated once for a maximum of 23 seconds. They can be recalled by pressing the check control, right-hand (RH), button on the instrument cluster.

**Priority Group P3** - This group displays messages which relate to fluid levels, 'LOW SCREEN WASH' for example. Depending on the message, some messages are only displayed at the end of a journey, to avoid irritation to the driver.

Two other groups are defined as 'End of Journey Messages' and 'Special Messages S and S1', as follows:

**End of Journey Messages** - Messages categorized as 'P1' and 'P2' error messages, are displayed again at the end of the journey. Error messages do not include messages such as 'DOOR OPEN'. Messages in the 'P3' group are displayed after the 'P1' and 'P2' messages. New messages, which only occur at the end of a journey, 'LIGHTS ON' for example, are displayed according to their priority.

**Special Messages S and S1** - These messages have the highest priority and cannot be overridden by messages in groups 'P1', 'P2' and 'P3'. They immediately overwrite any currently displayed messages. If more than one special message is present, the message with the highest priority has priority, after the current displayed message has been shown for at least 1 second. S and S1 messages are not displayed between any symbols.

Most messages, especially S, S1 and P messages are accompanied by a chime from the sounder to alert the driver to their presence. At the end of a journey, a single chime precedes all end of journey messages.

For 3 minutes after the ignition is switched off, messages can be displayed using the check control RH button on the instrument cluster. If more than one message is present, the button must be pressed again to display the next message. If no messages are present, 'CHECK CONTROL OK' will be displayed for as long as the button is pressed.

The messages are displayed in a language applicable to the vehicle market configuration and can be changed using the Land Rover approved diagnostic system. The following list shows the possible messages which can be displayed.

Message	Message Priority	Other Warnings	Reason	Action
FASTEN SEATBELTS (Functionality dependent on market)	S	Seat belt indicator illuminated. Intermittent chime emitted	Seat belts not fastened.	Fasten seat belts.

Message	Message Priority	Other Warnings	Reason	Action
KEY IN IGNITION LOCK	S	Intermittent chime emitted	Key left in ignition switch when driver's door opened.	Remove key from ignition switch or close door.
CAUTION! PARK BRAKE APPLIED	P1	Park brake red indicator illuminated	The park brake is applied while the vehicle is moving	Release parking brake
PARK BRAKE FAULT	P2	Park brake red indicator illuminated	System malfunction detected	Diagnose fault using the approved Land Rover diagnostic system.
PARK BRAKE FAULT SYSTEM UNAVAILABLE	P2	Park brake red indicator flashes	Possible motor fault when driver requested a switch application	Diagnose fault using the approved Land Rover diagnostic system.
PRESS FOOTBRAKE AND PARK BRAKE SWITCH	P3	None	Park brake system release is inhibited until footbrake is pressed	Follow message instruction
PARK BRAKE AUTO RELEASE UNAVAILABLE	P3	Park brake red indicator illuminated	Drive away release function is not operating	Use park brake switch and footbrake to release. Diagnose fault using the approved Land Rover diagnostic system.
PARK BRAKE BEDDING CYCLE ACTIVE	P2	Park brake red indicator flashes	The park brake bedding cycle has been initiated by the dealer technician	Follow bedding in procedure in Service Procedures section of workshop manual.
PARK BRAKE OFF LIFT SWITCH TO APPLY	P1	Park brake red indicator flashes	An emergency release operation has been detected	Pull park brake switch to re-engage emergency release.
CHECK BRAKE FLUID	P1	General brake warning indicator illuminated in red. Intermittent chime emitted	Brake fluid level has decreased beyond low level threshold.	Check brake system for leaks. Top-up brake fluid as required.
STOP! ENGINE OIL PRESS	P1	Low oil pressure warning indicator illuminated. Intermittent chime emitted	Instrument cluster has received low pressure signal from engine oil pressure switch. (Message not displayed until 10 second after minimum speed threshold reached).	Stop engine at first safe opportunity. Check engine oil level, investigate leaks or oil consumption and rectify faults. Top-up engine oil as required.
COOLANT TEMPERATURE	P1	ECT gage beyond red segment. Continuous chime emitted	ECT has risen above pre-determined limit. (Message not displayed until 10 second after minimum speed threshold reached).	Stop engine at first safe opportunity. When engine has cooled, check coolant level, investigate leaks and rectify faults. Top-up engine coolant as required.
ENGINE SYSTEM FAULT	P1	Double chime emitted. malfunction indicator lamp (MIL) illuminated	engine control module (ECM) has detected an engine management fault.	Diagnose fault using the approved Land Rover diagnostic system.
REDUCED ENGINE PERFORMANCE	P1	Double chime emitted	ECM has detected an engine management fault which will affect engine performance.	Diagnose fault using the approved Land Rover diagnostic system.
CRUISE CONTROL NOT PERMITTED	P2	None	ECM has detected a fault with the engine management system or vehicle speed is outside threshold for cruise control operation.	Bring vehicle into speed control operating speed or diagnose fault using the approved Land Rover diagnostic system.
FUEL TANK CAP LOOSE OR MISSING	P3	None	ECM has detected incorrect pressure measurement when running DMTL pump.	Ensure fuel tank cap is correctly installed in filler neck.
WATER IN FUEL	P2	Single chime	ECM has detected that the water	Unscrew water in fuel

Message	Message Priority	Other Warnings	Reason	Action
SEE HANDBOOK		emitted	in fuel level has reached 85 ml.	sensor to drain water from filter.
HIGH ENGINE SPEED FOR COOLING	P2	None	ECM has increased idle speed in response to request from automatic temperature control (ATC) module. This allows increased refrigerant flow from the air conditioning (A/C) compressor around the A/C system to reduce evaporator temperature.	None. Message is advisory to indicate reason for increased idle speed.
COOLING SYSTEM FAULT MONITOR GAUGE	P2	Single chime emitted	ECM has detected a fault with the ECT sensor output or other cooling related fault.	Diagnose fault using the approved Land Rover diagnostic system.
FOR MAX AC SELECT NEUTRAL	P3	None	Maximum air conditioning switch has been pressed when vehicle stationary. Engine speed increased to increase refrigerant flow from A/C compressor.	None.
HDC FAULT SYSTEM NOT AVAILABLE	P2	Single chime	Fault in the HDC system diagnosed by the ABS module.	Investigate cause of fault using the approved Land Rover diagnostic system.
HDC NOT AVAILABLE SYSTEM COOLING	P2	HDC indicator flashes	ABS module has determined brake usage has caused brake overheat.	Allow brakes to cool down. ABS module will remove message after predetermined time period of reduced brake usage.
HDC NOT AVAILABLE SPEED TOO HIGH	P2	Single chime	Speed too high for HDC operation.	Reduce vehicle speed.
HDC NOT AVAILABLE IN THIS GEAR	P1	Single chime	Incorrect gear selected for HDC operation.	Select correct gear.
HDC SWITCHED OFF	P2	Single chime	HDC has been de-selected by the driver.	Switch on HDC to re-activate.
LIGHTS ON	P1	Single chime	Lighting control switch in side lamps or headlamps position and driver's door open.	Close driver's door or move lighting control switch to off position.
SUSPENSION FAULT NORMAL HEIGHT ONLY	P1	Single chime	Air suspension control has detected fault in the system. Only on-road height is available.	Diagnose fault using the approved Land Rover diagnostic system.
SUSPENSION FAULT MAX SPEED 50KPH (30MPH)	P1	Two chimes repeated every 30 seconds if speed too high	Air suspension control module has detected a fault in the system and is unable to control the height correctly.	Diagnose fault using the approved Land Rover diagnostic system.
SLOW DOWN OR VEHICLE WILL RAISE	P2	Two chimes	Vehicle speed is between 19 to 22 mph (30 to 50 km/h). Vehicle will automatically raise to on-road height from crawl if speed increases to 25 mph (40 km/h).	Keep vehicle speed below 25 mph (40 km/h).
SLOW DOWN OR VEHICLE WILL LOWER	P2	Single chime	Vehicle speed is between 25 to 28 mph (40 to 45 km/h). Vehicle will automatically lower to on-road height if speed increases 31 mph (50 km/h).	Keep vehicle speed below 31 mph (50 km/h).
SUSPENSION WILL LIFT WHEN SYSTEM COOLED	P2	None	Air suspension air supply unit compressor or motor is cooling down.	Lifting will resume when air supply unit compressor or motor has cooled beyond pre-set threshold.
VEHICLE LIFTING SLOWLY	P2	None	Vehicle is lifting slowly using pressure from compressor only because reservoir is empty.	Message only displayed if lift time exceeds 12 seconds.
EXTENDED MODE	P2	Single chime	Vehicle body has become grounded on an obstacle and suspension. Suspension will raise	None.

Message	Message Priority	Other Warnings	Reason	Action
			to extended mode height.	
RESET HEIGHT IF CLEAR OF OBSTACLE	P2	None	Reminder message that vehicle is still in extended mode.	If extended mode is no longer required, press air suspension control switch downwards to return to off-road height.
SUSPENSION LOCKED AT ACCESS HEIGHT	P2	None	Air suspension control switch 'Hold' button has been pressed when vehicle was in access height.	Vehicle enters crawl mode until hold switch pressed again or vehicle speed exceeds pre-determined threshold.
CLOSE DOORS TO CHANGE HEIGHT	P2	Single chime	Door open when height change request was made.	Close all doors. Height change will be granted if doors closed within 90 seconds of request. If more than 90 seconds, repeated height change request.
SPEED TOO HIGH TO CHANGE HEIGHT	P2	Single chime	Vehicle speed too high for selected height change.	Reduce vehicle speed to within threshold for required height.
SUSPENSION FAULT	P1	Single chime	Air suspension control module has detected a system fault.	Diagnose fault using the approved Land Rover diagnostic system.
START ENGINE TO RAISE VEHICLE	P2	None	Vehicle cannot be raised with engine off.	Start engine to complete raise request.
SUSPENSION LOWERED	P1	None	Failure of another vehicle system has caused suspension system to lower to access height.	Diagnose fault using the approved Land Rover diagnostic system.
LOW RANGE SELECTED	P2	Low range indicator flashes when range change is taking place. Low range indicator permanently illuminated when in low range. Single chime when range change is complete.	Low range selected by driver.	None
HIGH RANGE SELECTED	P2	Low range indicator flashes when range change is taking place. Low range indicator extinguished when high range engaged. Single chime when range change is complete.	High range selected by driver.	None
SPEED TOO HIGH FOR RANGE CHANGE	P2	Single chime	Vehicle speed too high for range change to take place	Decrease vehicle speed to: 25 mph (40 km/h) for high to low range. 37 mph (60 km/h) for low to high range.
SELECT NEUTRAL FOR RANGE CHANGE	P2	Single chime	Transmission selector lever not in 'N' when driver requested a transfer box range change.	Move selector lever to position 'N'.
TRANSMISSION RANGE CHANGE NOT AVAILABLE	P1	Single chime	Transfer box control module has detected a fault preventing a range change or control module has detected a thermal overload.	Investigate and rectify fault or cause of overload.
TRANSMISSION OVERHEAT -	P2	Single chime	Transfer box center differential is approaching the overheat	Slow down or stop the vehicle to allow the transfer

Message	Message Priority	Other Warnings	Reason	Action
SLOW DOWN			threshold temperature.	box to cool down.
TRANSMISSION FAULT TRACTION REDUCED	P2	Single chime	Transfer box center differential has failed and is now operating as an 'open' differential or transfer box control module has stopped transmitting on the CAN bus and defaults to 'open' center differential.	Investigate cause of fault. Replace transfer box or control module.
TRANSMISSION FAILURE	P2	Single chime	Transfer box control module has detected a transmission fault.	Do not drive vehicle. Investigate and rectify fault.
TRANSMISSION FAULT LIMITED GEARS ONLY	P2	Single chime	transmission control module (TCM) has detected fault with control module or transmission and only limp home gears available.	Diagnose fault using the approved Land Rover diagnostic system.
REVERSE GEAR SELECTED (Japan only)	P2	Intermittent chime	Reverse gear has been selected by the driver.	None.
TRANSMISSION OVERHEAT - SLOW DOWN	P2	Single chime	TCM has detected overheat condition in the transmission.	Reduce speed or stop until transmission has cooled.
TRANSMISSION FAULT	P2	Single chime	TCM has detected a minor fault with the transmission.	Diagnose fault using the approved Land Rover diagnostic system.
TRANSMISSION FAULT AND OVERHEAT	P2	Single chime	TCM has detected a transmission fault and overheat condition simultaneously.	Diagnose fault using the approved Land Rover diagnostic system.
HEADLIGHT DELAY	P1	Single chime	Headlamp delay function activated by driver.	None.
EXTERNAL TEMP X°C/F	P3	Single chime	External temperature has fallen below 4°C (39.2°F).	None.
EEPROM LCMC	S	None	Coding error within LCM.	Diagnose fault using the approved Land Rover diagnostic system.
DSC SWITCHED OFF	P2	DSC indicator illuminated	DSC has been deselected by the driver.	Press DSC switch to activate DSC.
DOOR OPEN	P2	Single chime	A door is open.	Close door.
TAILGATE OPEN	P2	Single chime	The tailgate is open.	Close tailgate.
CHECK BRAKE LIGHT	P2	Single chime	A single stop lamp bulb has failed.	Replace failed stop lamp bulb.
CHECK FRONT LIGHTS	P2	Single chime	More than one front lamp bulb has failed.	Replace failed bulbs.
CHECK REAR LIGHTS	P2	Single chime	More than one rear lamp bulb has failed.	Replace failed bulbs.
CHECK DIP BEAM LIGHT	P2	Single chime	A single headlamp bulb has failed.	Replace failed headlamp bulb.
CHECK SIDELIGHT	P2	Single chime	A single side lamp bulb has failed.	Replace failed side lamp bulb.
CHECK TAIL LIGHTS	P2	Single chime	A single tail lamp bulb has failed.	Replace failed tail lamp bulb.
CHECK FRONT FOGLIGHT	P2	Single chime	A single front fog lamp bulb has failed.	Replace failed front fog lamp bulb.
CHECK REAR FOGLIGHT	P2	Single chime	A single rear fog lamp bulb has failed.	Replace failed rear fog lamp bulb.
CHECK NUMPLATE LIGHT	P2	Single chime	A single rear licence plate lamp bulb has failed.	Replace failed rear license plate lamp bulb.
CHECK TRAILER LIGHT	P2	Single chime	When a trailer is connected, one or more of the trailer lamp bulbs has failed.	Replace failed trailer lamp bulb(s).
CHECK MAINBEAM LIGHT	P2	Single chime	A single high beam (fill-in) lamp bulb has failed.	Replace failed high beam lamp bulb.
CHECK BRAKE PADS	P2	None	Instrument cluster has received a signal from the brake pads indicating a worn pad.	Replace worn brake pads as necessary.

Message	Message Priority	Other Warnings	Reason	Action
LOW SCREEN WASH	P2	Single chime	Washer fluid level has decreased beyond low level threshold.	Add screen wash to reservoir as required.
CHECK ALL TYRE PRESSURES	P2	No chime. TPMS warning indicator permanently illuminated	One or more 'running' tire pressures low.	Check tire pressures and inflate to recommended values shown in owners handbook.
TYRE PRESSURES LOW FOR SPEED (Not applicable for NAS vehicles)	P2	No chime. TPMS warning indicator illuminated when vehicle is with warning speed threshold	TPMS control module has detected vehicle speed has been at or above 100 mph (160 km/h) for more than 150 seconds or more and tire pressures are below recommendation for continued high speed driving. Warning will be removed and warning indicator will go off if speed is reduced to below 90 mph (145 km/h).	Reduce speed to below 90 mph (145 km/h). If speeds are to be maintained above 100 mph (160 km/h) for more than 150 seconds, then tire pressures must be increased to those specified in the owners handbook for high speed driving.
TYRE MONITORING SYSTEM FAULT	P2	Single chime	TPMS control module has detected a major fault with the system	Diagnose fault using the approved Land Rover diagnostic system.
CHECK SPARE TYRE PRESSURE	P3	None. TPMS warning indicator illuminated for 20 seconds, and again for 20 seconds at each ignition cycle	TPMS control module has detected that spare tire pressure is below 2.9 bar (42 lbf/in <sup>2</sup> ).	Increase spare tire pressure to the high speed driving pressure.
FRONT LEFT TYRE NOT MONITORED	P2	Single chime. TPMS warning indicator permanently illuminated	TPMS control module has not received a signal from front left wheel sensor for more than 15 minutes.	Warning may be caused by: Space saver spare wheel being fitted as a 'running' wheel Wheel sensor damaged or battery voltage in sensor low. Diagnose fault using the approved Land Rover diagnostic system.
FRONT RIGHT TYRE NOT MONITORED	P2	Single chime. TPMS warning indicator permanently illuminated	TPMS control module has not received a signal from front right wheel sensor for more than 15 minutes.	Warning may be caused by: Space saver spare wheel being fitted as a 'running' wheel Wheel sensor damaged or battery voltage in sensor low. Diagnose fault using the approved Land Rover diagnostic system.
REAR LEFT TYRE NOT MONITORED	P2	Single chime. TPMS warning indicator permanently illuminated	TPMS control module has not received a signal from rear left wheel sensor for more than 15 minutes.	Warning may be caused by: Space saver spare wheel being fitted as a 'running' wheel Wheel sensor damaged or battery voltage in sensor low. Diagnose fault using the approved Land Rover diagnostic system.
REAR RIGHT TYRE NOT MONITORED	P2	Single chime. TPMS warning indicator permanently illuminated	TPMS control module has not received a signal from rear right wheel sensor for more than 15 minutes.	Warning may be caused by: Space saver spare wheel being fitted as a 'running' wheel Wheel sensor damaged or battery voltage in sensor low. Diagnose fault using the