
Information, Gauge and Warning (13.00)

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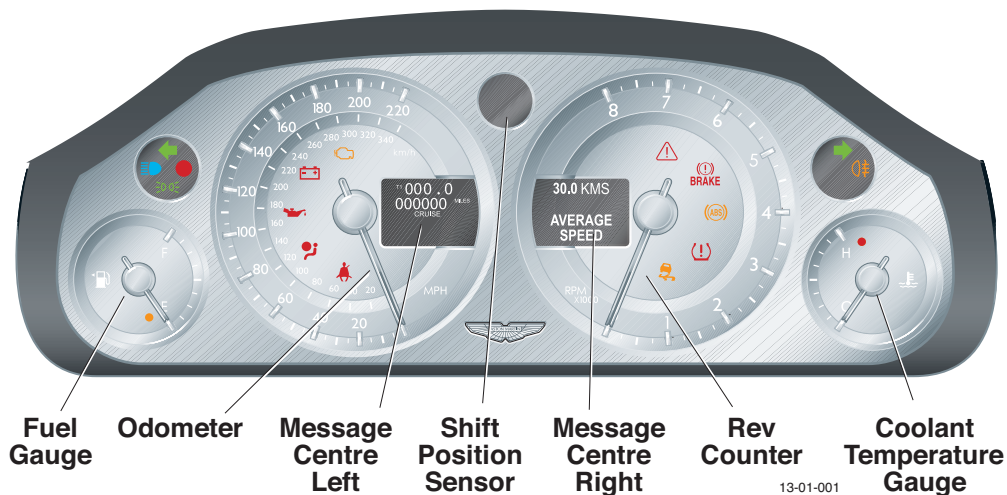
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Information, Gauge and Warning (13.00)

Instrument Cluster (13.01)

Description



The Driver Information module contains the necessary electronic control units and memories to control, process and present all necessary vehicle information to the driver.

1. Information on vehicle performance is presented in visible form using the instruments and gauges. These devices present such information as Vehicle Speed, Engine Speed, Fuel Level and Coolant Temperature.
2. Information on vehicle status is presented by an array of warning lights.
 - Red - indicate immediate danger warnings
 - Amber - indicate conditions which are serious but not immediately dangerous
 - Green and Blue - indicate normal actuation of items such as turn signals or fog lamps

The message centres and the shift position Sensor display are used to present information on the distance recorders (trip meters), current gear mode and current gear engaged.

3. The right message centre is used to display any warning/information message text. These text messages may be reinforced in some cases by illumination of the appropriate warning lamps.

The following table defines all information and warning lamps and their significance:

Information and Warning Lamps

Name / Function	Description	Symbol	Input Signal	Power On Check
General Warning – Amber/Red	Controlled internally by the DIM. It is used in conjunction with several text messages to indicate information to the driver.		Internal	
SRS (Airbag)	Controlled externally by the SRS module and indicates a fault in the SRS module.		CAN	Yes (5 Seconds)
High Engine Coolant Temp.	This tell tale is controlled internally by the DIM. Activated when the engine coolant temperature signal from the CAN bus reaches a pre defined value. (The actual symbol is not lit, only the red LED.)		CAN	
DSC	Controlled externally by the ABS/DSC module. Indicates when the system is in operation or when it is turned off. The tell tale is triggered by a CAN signal.		CAN	Yes (5 Seconds)
ABS	Controlled externally by the ABS/DSC module. Indicates a fault in the ABS system. The tell tale is triggered by a CAN signal.		CAN	Yes (5 Seconds)
Rear Fog Lights	Controlled externally by the SRS module. Indicates that the rear fog lights are turned on. The tell tale is triggered by a CAN signal.		CAN	Yes (5 Seconds)
Seat Belts	Controlled externally by the CEM. Indicates that the seat belts are not fastened properly. The tell tale is triggered by a CAN signal.		CAN	Yes (5 Seconds)
Brake (General)	Controlled externally by either the CEM or the ABS / DSC module. It indicates low brake fluid level, brake fault and park brake. The tell tale is triggered by two low side inputs or a CAN signal.		Low side x 2 and CAN	Yes (5 Seconds)
Side Lights	Controlled externally by the CEM. Indicates that the side lights are on.		High side	
Oil Pressure	Controlled externally by the PCM. Indicates low oil pressure. The tell tale is triggered by a CAN signal.		CAN	Yes (5 Seconds)
Battery Charge	Controlled externally by the CEM. Indicates that the alternator is no longer charging the battery properly. The tell tale is triggered by a CAN signal.		CAN	Yes (5 Seconds)
Fuel Level Low	Controlled internally by the DIM. Activated when the fuel level drops below a pre defined value. The fuel information is provided from the CAN bus. The symbol is not lit, only the amber LED.		CAN	
Turn Left/Right	Controlled externally by the CEM. The tell tale is triggered by a CAN signal.		CAN	
High Beam	Controlled externally by the CEM. Indicates that the high beam is switched on. The tell tale is triggered by a CAN signal.		CAN	
Check Engine	Controlled externally by the PCM. Indicates a fault in the engine management system. The tell tale is not connected to the microprocessor.		Low side	
Tyre Pressure	Controlled by the DIM. Indicates a low or rapid change in the tyre pressure or a tyre pressure monitoring system fault.		Low side	Yes (5 Seconds)
Not Used				
PATS	Controlled externally by the PCM. Indicates key acceptance status.		Low side	



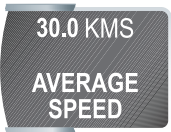
DIM Display layout

The DIM contains two message centres, which are used to inform the driver about the vehicles status.



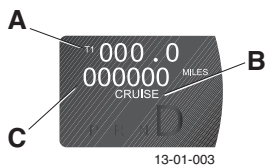
Message Centre Right

The Message Centre Right is used to display the trip function information and warning/information messages.



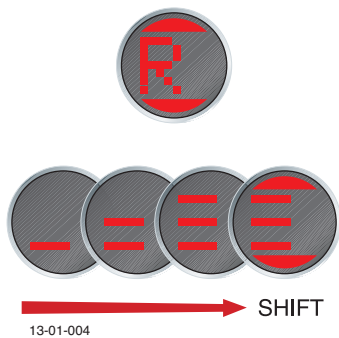
Message Centres

The left Message Centre is used to display the odometer (C), the Cruise control status (C) and the T1 or T2 trip distance (A).



Shift Position Sensor

The Shift Position Sensor display indicates when the shift lights are activated. The display is dual colour.



Green - normal operation
Red - defined situations.

Maintenance

Driver Information Module-Renew

Repair Operation Time (ROT)	
Item	Code
Driver Information Module-Renew	13.01.AA

Removal

1. Remove instrument cluster bezel panel (see Workshop Manual procedure 01.12.AT Panel - Bezel - Cluster - Renew).
2. Remove driver's information module (x4 screws and x1 multiplug).

Installation

1. Install driver's information module (x1 multiplug and x4 screws).
2. Install instrument cluster bezel panel (see Workshop Manual procedure 01.12.AT Panel - Bezel - Cluster - Renew).



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Horn Subsystem (13.06)

Maintenance

Horn-Renew

Repair Operation Time (ROT)	
Item	Code
Horn-Renew	13.06.A B

Removal

1. Remove slam panel (screws x12).
2. Remove horn and bracket assembly (bolts x2) and disconnect multiplug.

Installation

1. Install horns and bracket (bolts x2) (torque), connect multiplug.
2. Install slam panel (screws x12)



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Parking/Reversing Aids (13.13)

Maintenance

Rear Centre Parking Aid Sensor-Renew

Repair Operation Time (ROT)	
Item	Code
Rear Centre Parking Aid Sensor-Renew	13.13.A B

Removal

1. Remove rear bumper (see Workshop Manual procedure 01.19.BA Cover Assembly - Rear Bumper - Renew).
2. Remove Allen bolts (x4) diffuser to bumper armature and remove diffuser.
3. Remove screws (x3) mesh to bumper armature.
4. Disconnect multiplug to PDC sensor.
5. Remove screws (x3) PDC bracket to armature and remove bracket
6. Remove PDC sensor from bracket.

Installation

1. Install PDC sensor to bracket.
2. Position bracket to armature and install screws (x3).
3. Connect multiplug to PDC sensor.
4. Install screws (x3) mesh to bumper armature.
5. Install diffuser (Allen bolts X4).
6. Install rear bumper (see Workshop Manual procedure 01.19.BA Cover Assembly - Rear Bumper - Renew).

Parking Aid Module-Renew

Repair Operation Time (ROT)	
Item	Code
Parking Aid Module-Renew	13.13.B F

Removal

1. Remove sub woofer assembly
2. Remove nuts (x2) parking distance control unit to body.
3. Disconnect multiplugs (x2) and remove PDC control unit.

Installation

1. Connect multiplug to PDC module.
2. Install nuts (x2) PDC module to body.

Parking Aid Speaker-Renew

Repair Operation Time (ROT)	
Item	Code
Parking Aid Speaker-Renew	13.13.B D

Removal

1. Drill out pop-rivets (x2).
2. Disconnect multiplug

Installation

1. Install speaker and fit pop-rivets (x2).
2. Connect multiplug.