

CIRCULATE TO:-	
SERVICE MGR.	X
RECEPTION	X
WORKSHOP	X
PARTS	X



MODEL New Range Rover		SUBJECT Electrical Grounds (Earth) - Loose		19/04/96 NRR/86/03/96/EN
		AFFECTED VEHICLES LP 300191 onward LH LJ LD		

DETAIL

A small number of reports have been received detailing loose or poor electrical grounds (Earth) points on New Range Rover. The connections that have been identified as loose are as follows :

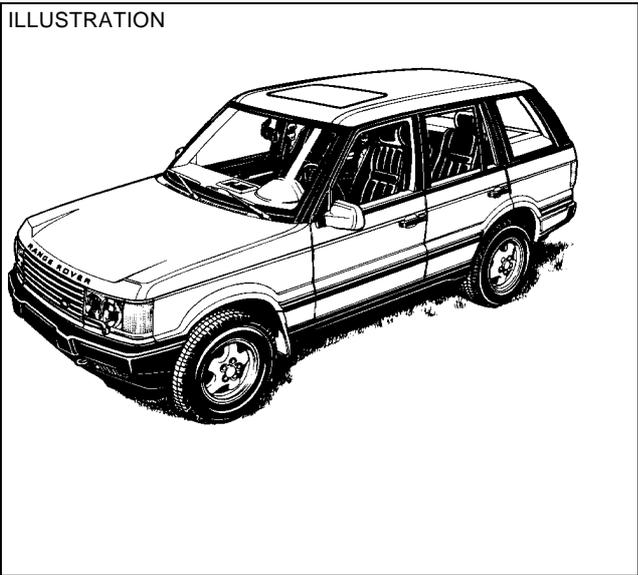
1. Engine ground.
2. BeCM.
3. Body and Engine harness.

These loose or poor connections may cause the temperature gauge to read high or flicker, and other electrical features to operate incorrectly resulting in the GEMS ECU storing numerous fault codes.

ACTION REQUIRED
Upon customer complaint of any of the above faults, follow the procedures detailed below.

PARTS INFORMATION

Not applicable



PROCEDURE

Note: If removing a ground cable(s) ensure the battery is disconnected first.

The Engine ground can be tested by following the procedure below.
Ensure the battery terminals are clean and secure, and that the ground leads to the chassis and the engine block are tight.
Start the engine and raise the idle speed to approximately 2000 rpm (to achieve maximum alternator output).
Switch on the heated screen(s), headlights, fog lights and maximum heater blower speed.
Measure the voltage (mV) between the negative battery terminal and the inlet manifold. If the voltage between the battery and engine is greater than 130mV.

Continue.....

WARRANTY
Normal warranty policy and procedures apply

COMP. CODE Refer to individual codes
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SRO
86.15.89/27 Engine earth and engine harness earth check/rectify 00.20 hour.
85.15.89/28 BeCM earth check/rectify 00.40 hour

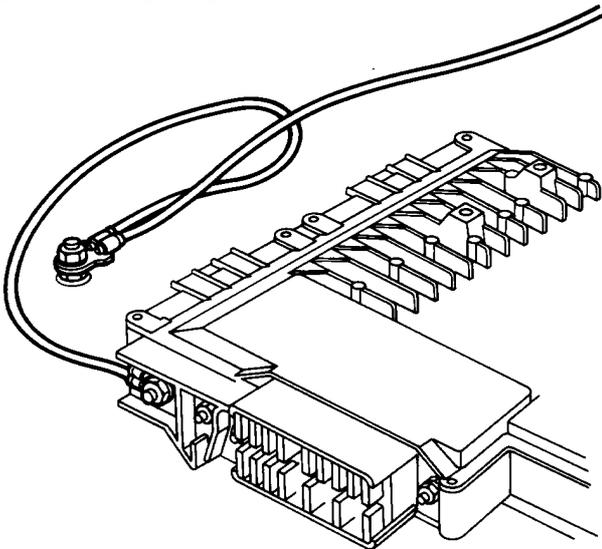


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Clean refit and tighten the eyelets and repeat the test to confirm that the voltage drop is now less than 130mV.

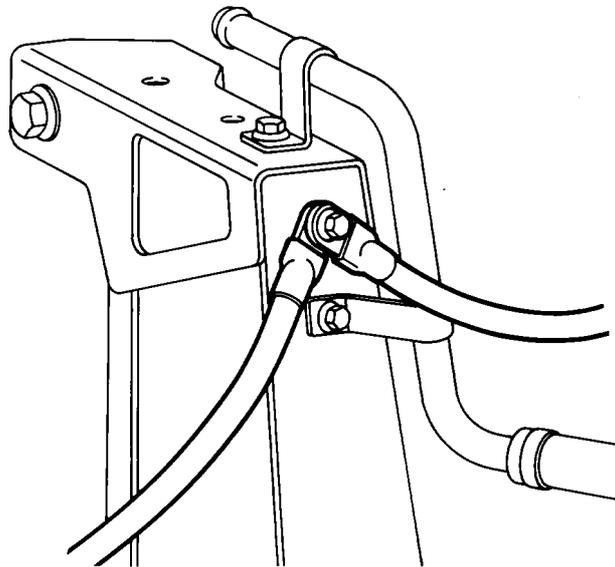
The BeCM ground (located behind the BeCM) and can be accessed by removing the passenger seat, and foot ventilation ducting from above the BeCM, then carefully fold back the carpet to expose the earth eyelet.

Remove and check that the earth eyelet is free from paint contamination, refit and ensure the ground fixing is tight (6 to 7 Nm).



BeCM earth post position

Remove and clean the main ground cable eyelets at the chassis post, making sure they are free from contamination, again check the ground is tight (6 to 7 Nm).



Chassis post earth position

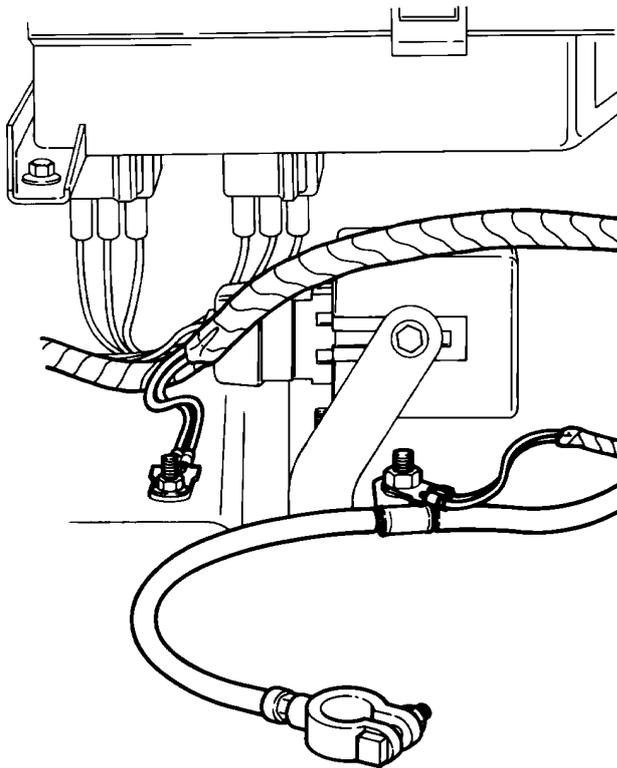


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The main body ground is via the engine ground cable, the fixing point of which is located below the under bonnet fuse box.

Remove and check that this point is free from paint contamination, check that this ground point is tight (6 to 7Nm).

The engine harness ground is located, under, the under bonnet fuse box. Remove and check that it is free from paint contamination. Again check the ground is tight (6 to 7Nm).

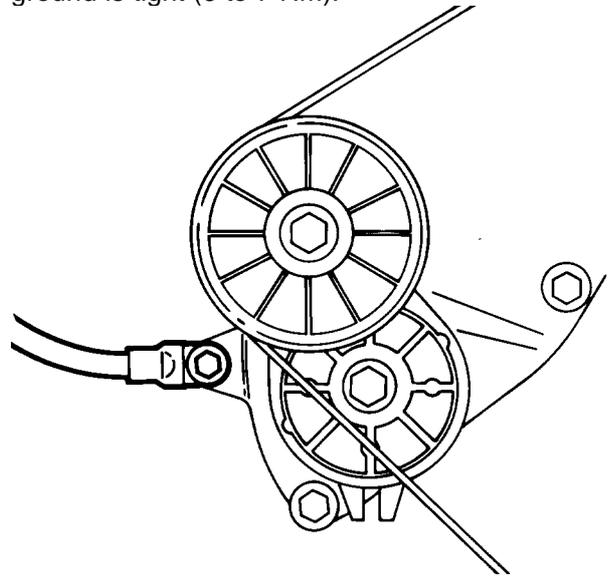


Engine harness, body harness earth position

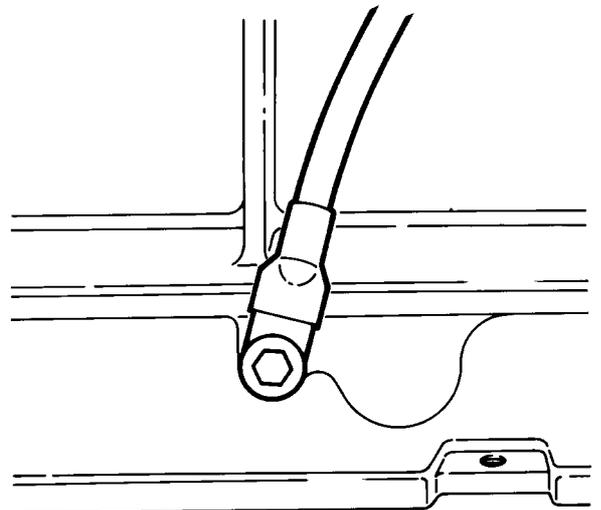
Remove and clean the main engine ground cable eyelets at the engine block.

Clean refit and tighten the eyelets and repeat the test to confirm that the voltage drop is now less than 130mV.

Both engine harnesses (Diesel and petrol) can be located under the bonnet. Remove and check that they are free from contamination. Again check the ground is tight (6 to 7 Nm).



Engine earth strap (petrol)



Engine earth strap (diesel)