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Coolant Interface Module (063311)

Revision C - 22 March, 2016

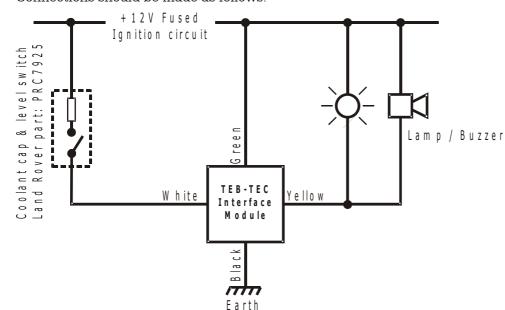
Background

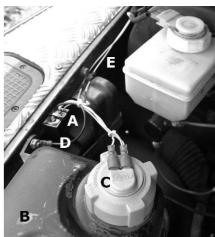
Land Rover's 300Tdi engine is vulnerable to damage through relatively small loss of coolant. The water pump sits very high on the engine and can easily be starved of coolant; when this happens fluid is no longer pumped around the engine and yet the temperature gauge reads normal.

The 'Coolant Interface Module' is designed to allow the use of a Range Rover coolant cap on alternative vehicles. The cap includes a float which operates a reed switch, opening the switch contact when the level is too low. A series resistor of 680ohm is built-in making direct interface with a relay difficult. The 'Coolant Interface Module' allows the cap switch to drive an external warning lamp and/or buzzer to signify loss of coolant.

Fitting

Connections should be made as follows:





- A: Coolant Interface Module
- B: Header tank
- C: Cap switch (PRC7925)
- D: Earth connection (black)
- E: +12V and alarm wires

The 'Coolant Interface Module' needs to connect to a+12V fused ignition point (green wire), and earth (black wire). These are available in the instrument binnacle, for example on the Defender both are available on the temperature gauge. The white wire goes to the coolant cap, along with another lead from the fused 12V. The indicator lamp / buzzer should be connected between the yellow lead and fused +12V. On the Defender there are often unused indicator lamps in the warning lamp cluster which could be used.

The module could be mounted close to the header tank so that the green LED on the interface module can be viewed, as shown in the photograph. The disadvantage of this location is that a break in either wire leading back to the cab will render the alarm non-functional.

Alternatively the module could be mounted behind the instrument panel and connections wires taken out towards cap switch (green and white). A break in either wire would set off the alarm making it 'fail safe'. However the green LED on the module itself may not be viewable in this location.

When connected as shown and with the ignition ON, the green LED on the interface module will illuminate when the coolant level is OK. If the coolant level drops (or the cap wires are broken) the LED will go out and the alarm will sound.

Land Rover Coolant Cap and level switch part number: PRC7925

Switching current capacity (lamp/buzzer): >5A

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