

Heater resistor failure due to a damaged blower motor

The Valeo Service warranty department receive a high number of heater resistors being returned for the Vauxhall Vectra and Saab 9-3 with customers stating that the heater controls will only work on setting four.

When the part has been visually inspected there is evidence of blueing (thermal damage) on the pins of the electrical connector. This indicates that the resistor has been subjected to over current.



Blueing on the resistors pins

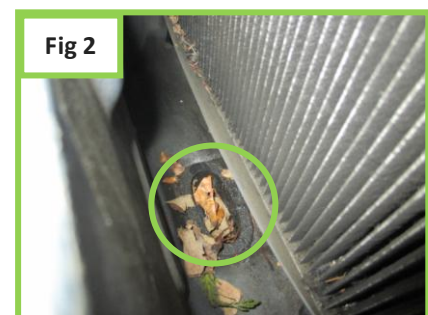
Water damage to the blower motor

If the heater does not work or only works on the highest setting it is important to ensure no water is leaking onto the blower motor and causing it to fail **before** attempting to fit another heater resistor. This is the most common cause of failure associated with this heater resistor.

Firstly, check that the wind screen drains are clear of debris (leaves) and ensure the plastics are correctly fitted and the rubbers make a good seal (Fig 1).



Next check the scuttle panel paying specific attention to the drains around the pollen filter. If filled with debris it can become blocked causing water to enter the pollen filter, rise up and spill over into the blower motor (Fig 2).



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Before changing the resistor please perform the following checks:

- Ensure the pollen filter isn't blocked (Fig 3) as this will cause the blower motor to overload causing excess current.
- Ensure the blower motor has no rust on it (Fig 4). This means the blower motor has been subjected to water contamination.
- Switch off the engine and all electrics and then by hand rotate the fan to check for free movement, any resistance in the bearings is a good indication of internal rust damage and would most defiantly cause premature failure of the resistor.



If any of the above has occurred it is advised to replace both blower motor and pollen filter. If a new heater resistor is fitted to a vehicle displaying the above then it will be very likely the thermal fuse on the resistor will blow due to the additional strain put on the resistor by either the blower motor or pollen filter.