

**To fit:** Mini R55, R56, R57, R58, R59, R60, R61

**Engine:** N12 B16A, N14 B16A, N14 B16C, N16 B16A, N18 B16A, N18 B16C



EN

## Thermostat with Housing, Seal, and Temperature Switch

### Problem

The engine is difficult to start or will not start at all, is unable to reach operating temperature, and there is a lack of heating in the passenger compartment.

Illumination of the coolant temperature warning lamp, engine coolant discharging from the expansion bottle (with it showing a reduced level), and the presence of coolant under the vehicle.

Engine cooling fan continues to run for an extended time after the engine has been switched off and the engine warning lamp is illuminated - related to the symptoms listed above.

These fault codes may be stored in the engine control unit:

2936 / 2943 Coolant temperature sensor  
3392 / 3393 Internal combustion engine: Downtime  
348E / 348F Map-controlled cooling thermostat

P0115 Coolant temperature sensor malfunction  
P0116 Coolant temperature outside specified range  
P0597 Electric thermostat heater implausible  
P0598 Electric thermostat signal low  
P0599 Electric thermostat signal high

### Cause

The vehicles listed above can suffer from several issues related to the engine cooling system, the thermostat, or the housing. These include the following: the thermostat incorporated into the coolant outlet housing becomes stuck in the 'open' position resulting in the engine failing to reach operating temperature, the thermostat becomes stuck in the 'closed' position causing the engine to overheat, or coolant leaks; the latter caused by the original polyamide material of the housing aging under the influence of constant engine heating and cooling cycles and vibration, eventually leading it to distort and crack.

### Solution

Due to the issues and symptoms listed above, the vehicle manufacturer has modified the design of the thermostat housing. The updated design benefits from an electronically controlled thermostat, a reinforced structure, and a new configuration of the sensors - which may require an additional 2 x 2-way connector (O.E. 12 51 8 611 289 for vehicles built up to 30/06/2012 or 12 51 8 614 952 for vehicles built 01/07/2012 > 31/01/2013), subject to original vehicle equipment.

Diagnose and identify any fault codes which are causing the warning lamps to illuminate. Replace the faulty coolant thermostat housing, fill the cooling system with fresh coolant, and bleed the air from the system. Note: when replacing the thermostat housing check all other coolant pipes for their condition and replace as necessary.

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