

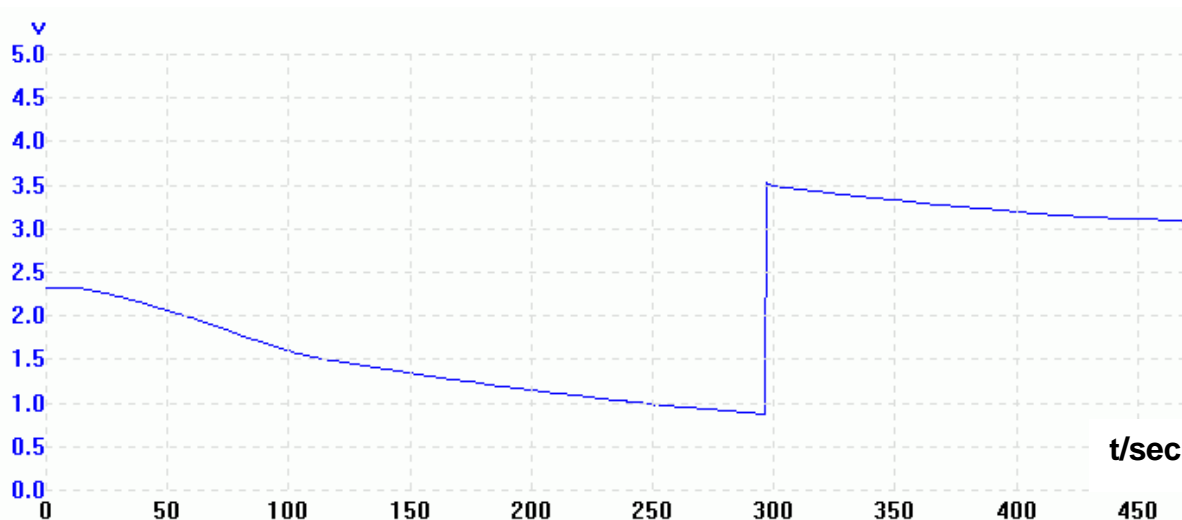
Vauxhall / Opel 1,6 Lt. with multec system

Checking the coolant temperature sensor (CTS).

If the CTS, in this system, is checked with an oscilloscope, a voltage pattern is shown that under circumstances can lead to a wrong diagnosis (see picture below). When the engine is started and cold, a signal voltage from 2,0 –2,5 V is shown.

This drops when the engine temperature increases (NTC). At an engine temperature from approximately 50°C the signal voltage suddenly rises. Normally this could be mean that the sensor is faulty. In this case it is the engine control module (ECM) increasing the supply voltage. The reason for the voltage change is that at higher operating temperature (50°C plus), the ECM is now able to offer finer control with the increased voltage. The signal voltage rises up to 3,5 V and drops as the engine temperature increases as before.

For detailed ECM voltage supply readings the manufacturer specific data is required.



Coolant temperature sensor Vauxhall Multec System

Bulletin