

GF09.50-P-3001AM	Supercharger control function	25.11.05
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ENGINE 113.992 /995 in MODEL 230

### 50 Compressor

*B17/8 Charge air temperature sensor*

*B28 Pressure sensor (charge air)*

*B37 Accelerator pedal sensor*

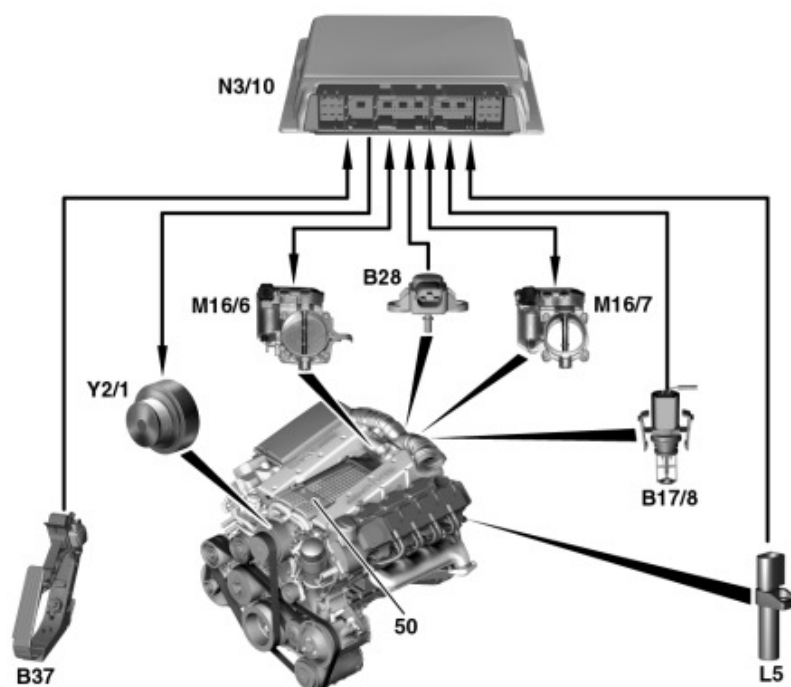
*L5 Crankshaft position sensor*

*M16/6 Throttle valve actuator*

*M16/7 Air recirculation flap actuator  
(for model 230 at first from 07/2002)*

*N3/10 ME control unit*

*Y2/1 Supercharger magnetic clutch*



P09.50-2071-06

The compressor is switched on and off by means of actuation of the supercharger magnetic clutch by the ME control unit .

Actuation of the magnetic clutch is undertaken by the ME-SFI [ME] control unit in accordance with the performance map according to the engine speed and engine load.

Here the Magnetic clutch is actuated by the ME-SFI [ME] control unit by means of a ground signal. The voltage supply to the magnetic clutch is via "terminal 15 secured".

The compressor is actuated between idling speed and an engine speed of about 3500 rpm when a high demand for torque (high engine loading) is present.

The compressor is always actuated for technical reasons from an engine speed of about 3500 rpm.

The compressor remains switched on during the thrust phase of the engine. This avoids any delay in actuation during the changeover from the thrust phase to the pulling phase.

The compressor is not actuated on a stationary vehicle, no matter what the engine speed is, to protect it.

The compressor is also not actuated when the battery voltage falls below 9 V or when an error is recognized in the charge air cooling system due to an implausible value from the temperature sensor.

The compressor is switched on shortly when starting at external temperatures below 0°C in order to free up the compressor from any icing which may have occurred (through the presence of condensate in the compressor).



Diagnosis of the magnetic clutch on the mechanical supercharger is possible using the menu "Actuations" for the ME 2.8.1 control unit in the STAR DIAGNOSIS equipment.

	Crankshaft position sensor, location/task/design/function		<a href="#">GF07.04-P-4116AM</a>
	Pressure sensor, location/task/design /function		<a href="#">GF07.04- P-5014AM</a>
	Charge air temperature sensor, location/task/design/function		<a href="#">GF07.04- P-5039AM</a>
	ME-SFI control unit, location/task /design/function		<a href="#">GF07.61- P-5000AM</a>
	Compressor Location/task/design/function		<a href="#">GF09.50- P-3102AM</a>
	Supercharger magnetic clutch, location/task/design/function		<a href="#">GF09.50- P-3103AM</a>
	Accelerator pedal sensor, location/task/design/function		<a href="#">GF30.20-P-4010HA</a>
	Throttle valve actuator, location/task /design/function		<a href="#">GF30.22- P-4101AM</a>