2004 Mercedes-Benz E55

2003-2007 ENGINE PERFORMANCE Mixture Formation - Self-Diagnostic System - 211 Chassis

ME secondary air injection malfunction (causal chain) - fault code description - AD07.61-P-4000-15V

		Air injection malfunction (causal chain)
1	Fault code (USA) Readout on generic scan tool)	0810 Air flow to low on right cylinder bank (<u>P0410</u>) 0814 Air flow to low on left cylinder bank (<u>P0410</u>) 0817 Air pump changeover valve (<u>P0412</u>)
2	Fault storage Actuation of engine diagnosis indicator lamp (EURO4) or CHECK ENGINE (MIL) malfunction indicator lamp	After expiry of test duration and fault Following two successive driving cycles with faults
3	Checking frequency	Once per driving cycle
4	Checked signal or status	Oxygen sensor signals upstream of the TWC
5	Checking duration	During air injection the O ₂ sensors measure the lean mixture upstream of the TWC. This allows calculation of the additional air mass through the air injection and comparison with a stored performance map. fault if the air flow is too low. The function of the air pump switchover valve (Y32) is checked during the air injection. This involves shortly interrupting its actuation and monitoring whether the mixture is enriched by this.
6	Check prerequisites	 Engine idling Vehicle stationary Air pump activated at least once after engine start Lambda control enabled Coolant temperature -10°C to 110°C Intake air temperature -13°C to 80°C Air mass (HFM sequential multiport fuel

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		injection/ignition system) for checking the function of the air injection: 7 to 160 kg/h o Air mass (HFM sequential multiport fuel injection/ignition system) during calculation of the additional air mass from
		Air injection: 10 to 70 kg/hour and constant (lower partial load)
		 Self-adaptation of the mixture formation not at limit
		o Air pressure more than approx. 750 hPa (i.e. no test is performed above a height of approx. 2500 meters)
		o The air conditioning must not be switched on or off during the test
		o No misfiring
		 No fault in O₂ sensor
		upstream of TWC
		 No fault in voltage supply for purge switchover valve or air pump switchover valve
		 No fault in regeneration, throttle valve actuator, CAN data bus, coolant temperature sensor, pressure sensor for ambient pressure.
7	Check procedure	On starting the causal chain, all functions for self-regulation of mixture adjustment are locked, the switchover valve for regeneration is closed and the current lambda value recorded. This is followed by air injection. The mixture must be made leaner.
8	i	If a prerequisite changes during the test, the test is interrupted and started again later.