

AD07.61-P-4000-15M	ME-SFI secondary air injection malfunction (causal chain) - fault code description		
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		Air injection malfunction (causal chain)
1	Fault code (Fault code according to OBD)	P2003 (P0410) P2028 Right cylinder bank (P0410) P2029 Left cylinder bank (P0410)
2	Fault storage  Actuation of indicator lamp for engine diagnosis (EURO4) or CHECK ENGINE (MIL) 	After expiry of test duration and fault  Following two successive driving cycles with faults  P2028, P2029: No actuation for EURO4
3	Checking frequency	once per driving cycle
4	Checked signal or status	Lambda control
5	<b>Fault setting conditions</b> Checking duration	Increase of lambda regulation factor by at least +25% ("rich" stop) Approx. 10 seconds
6	Check prerequisites	<ul style="list-style-type: none"> <li>- Engine idling</li> <li>- Vehicle stationary</li> <li>- Air pump activated at least once after engine start</li> <li>- No fault on voltage supply to purge control valve, air pump switchover valve and electric air pump</li> <li>- No fault in purge system</li> <li>- No fault in throttle valve actuator</li> <li>- No misfiring</li> <li>- No fault in O2 sensor upstream of TWC, aging</li> <li>- No fault in CAN data bus</li> <li>- No fault in activated charcoal canister shut-off valve </li> <li>- Self-adaptation of the mixture formation not at limit</li> <li>- Air pressure over approx. 780 hPa (i.e. no test is performed above an altitude of approx. 2500 meters)</li> <li>- Coolant temperature higher than 50°C</li> <li>- Lambda control enabled</li> <li>- AC off.</li> </ul>
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 controlling factor recorded. This is followed by air injection. The mixture must be made leaner. The lambda control factor reacts in a corresponding manner with an increase of more than +25 %.
8		If a prerequisite changes during the test, the test is interrupted and started again later. A fault is also issued if actuation of the electric air pump is faulty.