

OBD and fuel supply

Finding and remedying faults



Pierburg products

- 01 Fuel delivery module (in-tank)
- 02 Fuel fluid-level sensor
- 03 Activated carbon filter shut-off valve
- 04 Activated carbon filter regeneration valve
- 05 Fuel pump (in-line)
- 06 Fuel filter (Kolbenschmidt)
- 07 Fuel check valve
- 08 Tandem pump fuel/vacuum
- 09 Fuel regulator

On-board diagnostics

- 10 Engine control unit
- 11 Malfunction indicator lamp (MIL)
- 12 Diagnostic plug
- 13 OBD data scan tool

From practical use



Scorching due to dry running Rusted pump inlet (water damage) Blocked sieve filter and new condition Contact corrosion

Code	P0005/P0006/P0007	P0087	P0172	P0441	P0462/P0463
Fault	<p>Fuel cut-off solenoid valve – open circuit; signal too high/too low</p> <ul style="list-style-type: none"> • Fuel cut-off solenoid valve defective • Plug-in connection defective, cable interrupted 	<p>Fuel rail/system pressure too low</p> <ul style="list-style-type: none"> • Fuel pump/fuel pressure regulator defective • Fuel supply line/fuel filter blocked • Filter on intake side of pump (in case of retrofitting/replacement) 	<p>Mixture too rich</p> <ul style="list-style-type: none"> • Activated carbon filter solenoid valve stuck (permanently open): Fuel-enriched air from the activated carbon filter is drawn into the intake air system • Diaphragm of the pneumatic fuel pressure regulator leaking: Fuel is drawn into the intake air system through the vacuum line • Stuck/carbonised EGR valve is always open 	<p>Fuel vapour collecting system – incorrect flow rate</p> <ul style="list-style-type: none"> • Leakage in activated carbon filter system (ACF system), e.g. hose connections leaking • ACF solenoid valve stuck (permanently open) 	<p>Fuel level sensor – input signal too low/too high</p> <ul style="list-style-type: none"> • Sender unit shows that fuel level is too low • Engine shuts off automatically or does not start
Next steps/ Possible remedies	<ul style="list-style-type: none"> • Measure power supply/wiring harness, replace if necessary • Check fuel cut-off solenoid valve, replace if necessary 	<ul style="list-style-type: none"> • Check fuel pump/fuel pressure regulator, replace if necessary • Check fuel supply line/fuel filter, replace if necessary • Remove filter that may be fitted on the intake side of the pump 	<ul style="list-style-type: none"> • Check ACF solenoid valve, replace if necessary • Check fuel pressure regulator, replace if necessary • Check EGR valve: <ul style="list-style-type: none"> - If the EGR valve is always open, exhaust gas is recirculated permanently - If the EGR valve is stuck, replace and find out the causes of the sticking 	<ul style="list-style-type: none"> • Examine ACF system for leakage, e.g. by checking hose connections, replace if necessary • Check ACF solenoid valve, replace if necessary 	<ul style="list-style-type: none"> • Check sender unit or module with sender unit, replace if necessary

Further details on this subject can be found in our brochure "Service Tips & Info – Emission control and OBD".
Further information can be obtained directly from your local Motorservice partner or at www.ms-motorservice.com

The Motorservice Group is the sales organisation for the worldwide aftermarket activities of Rheinmetall Automotive. It is a leading supplier of engine components for the independent aftermarket. With the premium brands Kolbenschmidt, Pierburg, TRW Engine Components and the BF brand, Motorservice offers its customers a wide and comprehensive range of top quality products from a single source.

