

<b>Fault Code</b>	<b>Description of fault</b>	<b>Comment / Remedy</b>
000	no malfunction	---
004	Warning Output Short-circuit	Check connection of control unit, Compartment 1 to fresh air blower relay for ground short. If OK --> replace control unit.
005	Warning Output, anti-theft alarm system Short-circuit	Check connection of control unit, Compartment 2 to elec. Disconnecter relay or anti-theft alarm system for ground short. If OK -> replace control unit.
009	TRS shut-off	TRS disconnection by signal change from (+) to (-) at the control unit connection, compartment 10 (D+) or positive signal to control unit connection, compartment 12 (HA+).
010	Overvoltage shut-off	Voltage btw. Compartment 5 and 11 on control unit > 15.9 (15.2) volts or 31.8 (30.4) volts.
011	Undervoltage shut-off	Voltage btw. Compartment 5 and 11 on control unit < 10.5 (9.5) volts or 21 (19) volts. Values in brackets with glow plug switched on.
012	Overheating	Check connection from control unit to overheating sensor for continuity. For overheating values, see Graph on page 5. Check heating air ducts for obstruction; clear obstruction if necessary.
013	Heat exchanger overtemperature	Flame sensor signals temperature at heat exchanger > 340 °C. Resistance value at flame sensor > 2270 Ω Overheating sensor faulty. For flame sensor values, see Graph on page 5.
015	Heat exchanger overtemperature Excessive occurrence of overheating	Control unit lock out - shutdown due to fault. Excessive temperature at heat exchanger (fault code 013) Cause of overheating: heating air ducts obstructed; clear obstruction if necessary. Defeat control unit lock-out by clearing fault memory with the timerv, the diagnostic unit or PC
020	Open circuit or short circuit at glow plug	Check glow plug, replace if necessary. Setpoint value: approx. 0,6 or 2 Ω Check connection from control unit Compartment 6 and 9 to glow plug for continuity. If OK --> replace control unit. Check control unit Compartment 9 as far as glow plug. Check glow plug for short-circuit of filament, replace if necessary. If OK --> replace control unit.

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021	Glow plug overload	24 volt equipment only: A 12 volt glow plug is fitted. Test glow plug for short circuit or examine for carbon deposits on the element. Change if necessary.
025	Diagnostic output short-circuit	Check connection of control unit Compartment 4 to diagnostic connector plug for short-circuit to positive.
033	Burner motor or governor defective; RPM deviation	RPM deviation > ± 10 % of setpoint value for > 30 seconds. For check values, see page 5. <ul style="list-style-type: none"> <li>RPM too low: blower obstructed. Check blower free-running, if necessary remove foreign matter. RPM still too low --&gt; replace blower. Check motor supply lead (1 br/1 sw) and control unit output for short-circuit --&gt; replace blower or control unit.</li> <li>RPM too high: solenoid in blower impeller defective of absent --&gt; replace blower. RPM sensor in control unit defective -&gt; replace control unit.</li> </ul>
047	Metering pump short-circuit	Check connection of control unit Compartment 3 to metering pump for short-circuit --> check metering pump, replace if necessary.
048	Metering pump open circuit	Check connection of control unit Compartment 3 to metering pump for open circuit -> check metering pump, replace if necessary. Check negative supply of metering pump (1 br) to ground.
051	Flame present when switched on	After 15 minutes cold air blowing Resistance value at flame sensor > 57 °C (1220 Ω) For flame sensor values, see Graph page 5.
052	No start, safety time overshoot	No flame detected in start phase. Flame sensor value < 100 °C (1380 Ω). Check flame sensor, replace if necessary. For flame sensor values see Graph page 5. Check fuel supply, glow plug, exhaust gas and combustion air ducts.
053	Flame abort on Power setting / Start	Heater has fired (flame detected) and signals flame abort in a setting or during Start. Check fuel delivery and fuel supply. Check exhaust gas and combustion air ducts. If combustion OK --> check flame sensor, replace if necessary. For flame sensor values, see Graph page 5.
054	Flame abort on High setting	
055	Flame abort on Medium setting	
056	Flame abort on Low setting	

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060	External temperature control sensor open circuit	Temperature control sensor signals temperature value outside control range. Check connecting leads 0.5 gr and 0.5 br/ws. Resistance value between 8 and 13 > 2800 Ω (open circuit) Resistance value between 8 and 13 < 280 Ω (short-circuit) Temperature sensor values see Graph on page 5.
061	External temperature control sensor short-circuit	
062	Setpoint value pot. open circuit	Potentiometer of operating control signals setpoint value outside control range. Check connecting leads. Resistance value between 7 and 13 > 2800 Ω (open circuit) Resistance value between 7 and 13 < 280 Ω (short-circuit) Standard values: 1740 Ω - 2180 Ω (±80 Ω)
063	Setpoint value pot. short-circuit	
064	Flame sensor open circuit	Flame sensor signals temperature value outside measuring range. Check connecting leads. Resistance value > 3200 Ω (open circuit) Resistance value < 200 Ω (short-circuit) Flame sensor values, see Graph page 5.
065	Flame sensor short-circuit	
071	Overheating sensor open circuit	Overheating sensor signals temperature value outside measuring range. Check connecting lead. Resistance value > 3200 Ω (open circuit) Resistance value < 200 Ω (short-circuit) Overheating sensor values, see Graph page 5.
072	Overheating sensor short-circuit	
090	Watchdog - Reset (internal malfunction / Reset)	Internal malfunction in microprocessor/memory → replace control unit. Control unit malfunction due to interference voltages from vehicle electrical system. Possible causes: Flat battery, charger → eliminate interference voltages. Internal fault in microprocessor/memory detected → replace control unit.
091	External interference voltage (external malfunction / Reset)	
092	Control unit defect (ROM fault)	
093	Control unit defect (RAM fault)	
094	Control unit defect (EEPROM fault)	
096	Control unit defective internal temperature sensor defective	Replace control unit or use external temperature sensor.
097	Control unit defective Oscillator or undervoltage fault	Replace control unit.
099	Control unit defective internal glow plug transistor defect	Replace control unit.