EBERSPACHER HYDRONIC S3 ERROR FAULT CODES MANUAL

These Fault codes are valid for the following engine-independent water heaters:

Heaters for petrol	Order No.	→ 05/2020	05/2020 →	09/2020 →
B4E – 12 V CS		20.2007.05.0000	20.2050.05.0000	
B5E – 12 V CS		20.2008.05.0000	20.2051.05.0000	
Heaters for diesel				
D4E – 12 V CS		25.2933.05.0000	25.2992.05.0000	
D5E – 12 V CS		25.2934.05.0000	25.2993.05.0000	
D5L – 24 V CS		25.2696.05.0000		25.3009.05.0000
D6L – 24 V CS		25.2745.05.0000		25.2672.05.0000
D6L – 24 V CS ADR		25.2977.05.0000		25.3004.05.0000
Heaters for diesel				
with inlet pressure resistant metering pump				
D4E – 12 V CS VDP		25.2943.05.0000	25.2995.05.0000	
D5E – 12 V CS VDP		25.2942.05.0000	25.2994.05.0000	

Official Eberspacher technical documentation for the Hydronic S3. Includes a comprehensive list of diagnostic trouble codes (P-Codes), fault interpretation definitions, and lockout clearing procedures for the water heater.

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2.5 Fault code table

Fault code P000…	Error description	Cause ▪ Remedial action	Error class for control elements TP7.1: ▪ EasyStart Web ▪ EasyStart Pro
P000100 P000101 P000102	Water outlet sensor – Interruption – Short circuit – Short circuit after Ub+	▪ Check the water outlet sensor. – Check cables for continuity, short circuit and damage. – Unplug connector XB4, measure resistance between cable RD (chamber 9) and cable RD (chamber 10). – Measured values see page 18, deviating values –> renew lead harness of heater.	**1**: Service
P00010A	Cold air – timeout	The combustion chamber has not cooled sufficiently for a restart. ▪ Check whether hot combustion air is drawn in. If not –> check flame sensor, see Fault code P000120 and Fault code P000121.	**1**: Service
P000110 P000111 P000112	Water inlet sensor – Interruption – Short circuit – Short circuit after Ub+	▪ Check the water inlet sensor. – Check cables for continuity, short circuit and damage. – Unplug connector XB4, measure resistance between cable BU (chamber 5) and cable BU (chamber 6). – Measured values see page 18, deviating values –> renew lead harness of heater.	**1**: Service
P000114	Possible risk of overheating (implausible signal) ℹ **Note!** Fault code P000114 is only displayed if ▪ the heater is in operation ▪ Temperature reached at water outlet sensor at least 80 °C.	Too large temperature difference between the water inlet and water outlet sensor. ▪ For remedial action, see Fault code P000115. ▪ Check the water inlet sensor. – Unplug connector XB4, measure resistance between cable BU (chamber 5) and cable BU (chamber 6). – Measured values see page 18, deviating values –> renew lead harness of heater.	**1**: Service
P000115	Overheating – software threshold exceeded	Temperature at the water outlet sensor >125 °C. ▪ Check water circuit for leaks (heater controller in warm position) ▪ If non-return valve / thermostat in the water circuit, check the flow direction. ▪ Check water throughput rate. ▪ Vent water circuit. ▪ Check the water outlet sensor – Check cables for continuity, short circuit and damage. – Unplug connector XB4, measure resistance between cable RD (chamber 9) and cable RD (chamber 10). – Measured values see page 18, deviating values –> renew lead harness of heater. ▪ Check water pump, see Fault code P000253 to Fault code P000258.	**5**: Water Circuit or Pump

Fault code P000…	Error description	Cause ▪ Remedial action	Error class for control elements TP7.1: ▪ EasyStart Web ▪ EasyStart Pro

P000116	Overheating – hardware threshold exceeded	Temperature at the water outlet sensor >130 °C.
		▪ For remedial action, see Fault code P000115.
		▪ Check the water outlet sensor.
		  – Check cables for continuity, short circuit and damage.
		  – Unplug connector XB4, measure resistance between cable RD (chamber 9) and cable RD (chamber 10).
		    – Measured values see page 18, deviating values –> renew lead harness of heater.
			5: Water Circuit or Pump

P00011A	Operating lock-out – too many overheating events detected	The control box is locked due to too frequent consecutive overheating (Fault code P000114, Fault code P000115). ▪ For remedial action, see Fault code P000114, Fault code P000115. ▪ Unlock control box, see page 7.	6: Overheat. Heater locked

P000120
P000121
P000122
	Flame sensor
	  – Interruption
	  – Short circuit
	  – Short-circuit to Ub+
		▪ Check flame sensor.
		  – Check cable for continuity, short circuit and damage.
		  – Unplug connector XB4, measure resistance between cable BN (chamber 7) and cable BN (chamber 8).
		    – Measured values see page 18, deviating values –> renew lead harness of heater.
		▪ Next display Fault code P000120, Fault code P000121 –> Renew control box, see repair step 1, see page 15.
			1: Service

P000125 P000126 P000127 P000128 P000129	Flame cutout from start process Flame cutout within the control range 0% – 25% Flame cutout within the control range 25% – 50% Flame cutout within the control range 50% – 75% Flame cutout within the control range 75% – 100% ℹ️ **Note!** In case of flame cutout during the start phase or in normal operation the heater is restarted (max. 5 times). If the restart was successful, the fault code display is deleted.	▪ Check exhaust and combustion air system. ▪ Check fuel quantity and fuel supply, see page 22. ▪ Check flame sensor, see Fault code P000120 and Fault code P000121.	1: Service
P00012A	Unsuccessful start procedure	▪ Check exhaust and combustion air system. ▪ Check fuel quantity and fuel supply, see page 22. ▪ Renew the fuel filter. ▪ Clean the fuel filter in the connection socket of the metering pump.	4: Fuel Supply or Pump
P00012B	Operation inhibit, too many unsuccessful start procedures	Following five unsuccessful start attempts the control box is locked. ▪ Unlock control box, see page 7. ▪ Check fuel quantity and fuel supply, see page 22.	1: Service

Fault code P000…	Error description	Cause ▪ Remedial action	Error class for control elements TP7.1: ▪ EasyStart Web ▪ EasyStart Pro
P000220 P000221 P000222	Electric motor – interruption Electric motor – short circuit Electric motor – short circuit downstream of +Ub or transistor error	▪ Visual inspection of electric motor / control unit (contacting). ▪ Check electric motor for dirt / corrosion, clean if necessary. ▪ Check blower wheel for blockage, remove blockage if necessary. ▪ Replace electric motor if necessary.	1: Service
P000223 P000224	Electric motor – blocking Electric motor – current input too high	Impeller blocked (frozen, soiled, sluggish, …). ▪ Remove blockage. – Check electric motor for smooth and easy running by turning the impeller manually. ▪ Next display Fault code P000223 / Fault code P000224 –> renew the blower, see repair step 7, Page 19.	1: Service

P000250
P000251
	Water pump – interruption
	Water pump – short circuit
		▪ Check lead harness of the water pump:
		   – Unplug connector -XB3 at the heater
		   – Unplug connector -XB8/2 at the water pump.
		   – Check cable for continuity, short circuit and damage.
		      – Lead harness of the water pump ok –> renew the water pump.
			5: Water Circuit or Pump

P000252	Water pump - short circuit downstream of +Ub or transistor error	▪ Unplug connector -XB8/2 at the water pump. – Display Fault code P000250 Water pump defective –> renew water pump.	5: Water Circuit or Pump
P000253	Water pump – blocking	▪ Water hoses laid free from kinks?	5: Water Circuit or Pump
P000254	Water pump – overcurrent cutout	▪ Water pump / water circuit dirty?	5: Water Circuit or Pump
P000255	Water pump – speed below minimum	▪ Water pump / water circuit dirty?	5: Water Circuit or Pump
P000256	Water pump – dry running	▪ Check the coolant liquid level in the water circuit. ▪ Vent the water pump / water circuit.	5: Water Circuit or Pump
P000257	Water pump – overheating	Water pump ambient temperature too high. ▪ Position the water pump at an adequate distance from hot vehicle parts.	5: Water Circuit or Pump

P000258	ADR water pump
	   – Undervoltage / Overvoltage
		▪ Check lead harness of the water pump:
		   – Unplug connector -XB3 at the heater
		   – Unplug connector -XB8/2 at the water pump.
		   – Check cable for continuity, short circuit and damage.
		      – Lead harness of the water pump ok –> renew the water pump.
			5: Water Circuit or Pump

P000259	ADR water pump / vehicle blower – Short circuit	▪ Check the cables to the water pump and to the vehicle blower for continuity, short circuit and damage. ▪ Check the coolant circuit. ▪ Check blower relay.	5: Water Circuit or Pump
P000260	Universal output Interruption	▪ Check cable for continuity and damage. ▪ If necessary, check coding for universal outlet.	1: Service
P000261	Vehicle blower – short circuit	▪ Check electric motor cover for damage and correct fit. – Electric motor cover ok –> renew blower relay -K1.	1: Service

Repair instructions | Hydronic S3 CS

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Fault code P000…	Error description	Cause ▪ Remedial action	Error class for control elements TP7.1: ▪ EasyStart Web ▪ EasyStart Pro
P000316	Insufficient heat dissipation via the coolant	Too many consecutive short heating mode operations. ▪ Check coolant circuit	**5**: Water Circuit or Pump
P000330	Control box defective	▪ Replace control box, see repair step 1, Page 15	**1**: Service
P000331	Control box defective	▪ Replace control box, see repair step 1, Page 15	**1**: Service
P000332	Control box defective	▪ Replace control box, see repair step 1, Page 15	**1**: Service
P000342	Invalid configuration	▪ 12V / 24V: Too many CAN components connected. Check the configuration. ▪ 24V ADR: Use one CAN control unit only, check the connection to the control unit if necessary.	**1**: Service
P000394	ADR button – Short circuit	▪ Check the cable and button for continuity, short circuit, damage. Replace if necessary.	**1**: Service
P000500	Fault memory entry ErrorState_GSC. Fault response: Heating or ventilation mode is continued.	▪ Withdrawal of the active request (fault remains active as long as heating or diagnosis request still exists). ▪ Delete fault memory.	**0**: No message
P000A00	Communication is ended by the heater. EasyFan does not respond to the coded number of messages.	▪ Reset the fault by withdrawing the active request (fault remains active as long as heating or diagnosis request exists). ▪ Delete fault memory.	**0**: No message
P000E01	Runtime limit exceeded	▪ Coded runtime end reached.	**1**: Service