

# ERROR CODES AND DISPLAYS

## AIRTRONIC 2

## HYDRONIC S3



The error code list is valid for the following engine-independent air and water heaters:

### Air heaters for diesel fuel

Airtronic S2, D2L, 12 V  
 Airtronic S2, D2L, 24 V  
 Airtronic M2, D4L, 12 V  
 Airtronic M2, D4L, 24 V  
 Airtronic M2, D4R, 12 V

### Order No.

25.2721.05.0000  
 25.2726.05.0000  
 25.2720.05.0000  
 25.2729.05.0000  
 25.2746.05.0000

### Order No. incl. EasyStart Pro

25.2753.05.0000  
 25.2754.05.0000  
 25.2755.05.0000  
 25.2756.05.0000  
 25.2757.05.0000

### Air heaters for petrol

Airtronic M2, B4L, 12 V

### Order No.

20.1987.05.0000

### Order No. incl. EasyStart Pro

20.2032.05.0000

### Water heaters for petrol

B 4 E – 12 V CS  
 B 5 E – 12 V CS

### Order No.

20.2007.05.0000  
 20.2008.05.0000

### Water heaters for diesel

D 4 E – 12 V CS  
 D 5 E – 12 V CS  
 D 6 E – 12 V CS

25.2933.05.0000  
 25.2934.05.0000  
 25.2761.05.0000

### Water heaters for diesel

with inlet pressure resistant metering pump

D 4 E – 12 V CS VDP  
 D 5 E – 12 V CS VDP

25.2943.05.0000  
 25.2942.05.0000

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 **Note**

- All information relates to the current repair instructions of the respective heaters.
- In case of cross-references and page references (e.g. to individual repair steps or measured values), the underlying repair instructions of the respective heater must therefore always be used.
- The current repair instructions are available in the Eberspächer Partner Portal, under the following link:  
<https://partner.eberspaecher.com/de>

# 1 Airtronic 2

## 1.1 Flashing code display

### 1.1.1 Function display and error output via flashing code

Output of the operating display (combustion mode or output control):

→ LED lights up permanently


In case of error:


→ Output of the current error as a flashing code (see table)

	2s	4s	6s	8s	No.	Error
██████████	██████████	██████████	██████████	██████████	0	No fault / normal operation
██	██	██████████	██████████	██████████	1	Locking due to overheating
██████████	██	██			2	Overvoltage cut-off
██████████	██				3	Undervoltage cut-off
██	██	██			4	Glow plug is defective
██████████					5	Burner motor is defective
██	██████████	██			6	Invalid configuration
██████████	██	██	██		7	Safety time exceeded
██	██	██	██	██	8	Overheating
██	██	██████████	██		9	Metering pump is defective
██	██	██████████			10	Ext. Temperature sensor / setpoint transmitter is defective
██	██	██████████	██		11	Combination sensor is defective
██	██				12	Flame cutout
██	██	██			13	Too many exceedances of "safety time 1" <sup>1)</sup>
██████████	██████████	██			14	Control box defective
██	██████████	██	██		15	Other errors: EasyScan diagnosis necessary




1) Exceeding of the allowable number of starts



## 1.2 Fault code table

<b>Fault code</b> <b>P000...</b> for EasyScan and TP 7.1 (if con- nected via CAN) (...) for TP 7 (LIN)	<b>Error description</b>	<b>Cause</b> <ul style="list-style-type: none"> <li>▪ Remedial action</li> </ul>	<b>Error class</b> for control ele- ments TP7.1: <ul style="list-style-type: none"> <li>▪ EasyStart Web</li> <li>▪ EasyStart Pro</li> </ul>
<b>P000100</b> (071) <b>P000101</b> (072) <b>P000102</b> (073)	Overheating/air outlet sensor – Interruption – Short circuit – Short circuit to battery (+)	<ul style="list-style-type: none"> <li>▪ Check overheating sensor.</li> <li>– Check cables for continuity, short circuit and damage.</li> <li>– Unplug connector -XB2, measure resistance between cable BU (chamber 1) and cable BNWH (chamber 2).</li> <li>– Measured values see repair instructions, in case of deviating values → renew lead harness of heater.</li> </ul>	<b>1:</b> Service
<b>P000110</b> (087) <b>P000111</b> (088) <b>P000112</b> (089)	Air inlet error – Interruption – Short circuit – Short circuit to battery (+)	<ul style="list-style-type: none"> <li>▪ Check the air inlet sensor.</li> <li>– In case of visible damage → replace control box.</li> <li>▪ Delete fault memory.</li> <li>– If the error continues to be displayed → replace control box.</li> </ul>	<b>1:</b> Service
<b>P00010A</b> (051)	Cold blowing – Timeout	The combustion chamber has not cooled sufficiently for a restart. <ul style="list-style-type: none"> <li>▪ Check whether hot combustion air is drawn in. If no → check flame sensor, see <a href="#">Fault code P000120 (064)</a> and <a href="#">Fault code P000121 (065)</a>.</li> </ul>	<b>1:</b> Service
<b>P000114</b> (014)	Possible risk of overheating (implausible signal)  <b>Note!</b> Fault code P000114 (014) is displayed only if <ul style="list-style-type: none"> <li>▪ the heater is in operation</li> <li>▪ Temperature reached at overheating sensor at least 80 °C.</li> </ul>	Temperature difference between the flame and overheating sensor is too large. <ul style="list-style-type: none"> <li>▪ For remedial action, see <a href="#">Fault code P000115 (012)</a>.</li> <li>▪ Check flame sensor.</li> <li>– Unplug connector XB4, measure resistance between cable BNWH (chamber 2) and cable GN (chamber 3).</li> <li>– Measured values see repair instructions, in case of deviating values → renew lead harness of heater.</li> </ul>	<b>1:</b> Service
<b>P000115</b> (012)	Overheating – Software threshold exceeded	Temperature at overheating sensor >125 °C <ul style="list-style-type: none"> <li>▪ Check air throughput</li> <li>▪ Check overheating sensor</li> <li>– Check cables for continuity, short circuit and damage.</li> <li>– Unplug connector -XB2, measure resistance between cable BU (chamber 1) and cable BNWH (chamber 2).</li> <li>– Measured values see repair instructions, in case of deviating values → renew lead harness of heater.</li> </ul>	<b>5:</b> Air Ducting or Outlet
<b>P000116</b> (017)	Overheating – Hardware threshold exceeded	Temperature at overheating sensor >130 °C <ul style="list-style-type: none"> <li>▪ For remedial action, see <a href="#">Fault code P000115 (012)</a>.</li> <li>▪ Check overheating sensor.</li> <li>– Check cables for continuity, short circuit and damage.</li> <li>– Unplug connector -XB2, measure resistance between cable BU (chamber 1) and cable BNWH (chamber 2).</li> <li>– Measured values see repair instructions, in case of deviating values → renew lead harness of heater.</li> </ul>	<b>5:</b> Air Ducting or Outlet

<b>Fault code</b> P000... for EasyScan and TP 7.1 (if connected via CAN) (... ) for TP 7 (LIN)	<b>Error description</b>	<b>Cause</b> ▪ Remedial action	<b>Error class</b> for control elements TP7.1: ▪ EasyStart Web ▪ EasyStart Pro
<b>P00011A</b> (015)	Operating lock-out – too many overheating events detected	The control box is locked due to too frequent consecutive overheating ( <a href="#">Fault code P000114 (014)</a> , <a href="#">Fault code P000115 (012)</a> ). ▪ For remedial action, see <a href="#">Fault code P000114 (014)</a> , <a href="#">Fault code P000115 (012)</a> . ▪ Unlock control box, see <a href="#">Chapter 4.3, p. 5</a> .	<b>6:</b> Overheat. Heater locked
<b>P000120</b> (064) <b>P000121</b> (065) <b>P000122</b>	Flame sensor – Interruption – Short circuit – Short circuit to battery (+)	▪ Check flame sensor. – Check cable for continuity, short circuit and damage. – Unplug connector -XB2, measure resistance between cable BU (chamber 1) and cable GN (chamber 2) . – Measured values see repair instructions, in case of deviating values → renew lead harness of heater. ▪ Next display <a href="#">Fault code P000120 (064)</a> and <a href="#">Fault code P000121 (065)</a> → replace control box, see <a href="#">Chapter 5.4.2, p. 5</a> .	<b>1:</b> Service
<b>P000125</b> (057) <b>P000126</b> (053)  <b>P000127</b> (054)  <b>P000128</b> (055)  <b>P000129</b> (056)	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%   <b>Note!</b> 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 supply, see <a href="#">Chapter 5.6, p. 5</a> . ▪ Check flame sensor, see <a href="#">Fault code P000120 (064)</a> and <a href="#">Fault code P000121 (065)</a> .	<b>1:</b> Service
<b>P00012A</b> (052)	Safety time 1 – Exceedance	▪ Check exhaust and combustion air system. ▪ Check fuel quantity and supply, see <a href="#">Chapter 5.6, p. 5</a> . ▪ Clean the fuel filter, as the case may be renew the fuel filter.	<b>4:</b> Fuel Supply or Pump
<b>P00012B</b> (050)	Operating lock-out, too many safety timeouts	Following five unsuccessful start attempts the control box is locked. ▪ Unlock control box, see <a href="#">Chapter 4.3, p. 5</a> . ▪ Check fuel quantity and supply, see <a href="#">Chapter 5.6, p. 5</a> .	<b>1:</b> Service

<b>Fault code</b> <b>P000...</b> for EasyScan and TP 7.1 (if con- nected via CAN) (...) for TP 7 (LIN)	<b>Error description</b>	<b>Cause</b> <ul style="list-style-type: none"> <li>▪ Remedial action</li> </ul>	<b>Error class</b> for control ele- ments TP7.1: <ul style="list-style-type: none"> <li>▪ EasyStart Web</li> <li>▪ EasyStart Pro</li> </ul>
<b>P000130</b> (060)	External air temperature sensor (LEF2) – Interruption	<ul style="list-style-type: none"> <li>▪ Test external air inlet sensor</li> <li>▪ Disconnect the GYRD / BNWH plug-in connection of the external sensor and measure the resistance value, diagram and table of values,              – if temperature sensor is ok, re-connect the GYRD / BNWH plug-in connection.</li> <li>▪ Disconnect connector XS12/XB12 at the heater and measure the resistance value in connector housing XB12 between PIN 6 and PIN 12. If an interruption occurs, the ohmic value is <math>&gt; 7175 \Omega / &gt; 3 \text{ k}\Omega</math>.</li> <li>▪ If resistance value is ok → replace control box.</li> </ul>	<b>7: Restricted Operation</b>
<b>P000131</b> (061) <b>P000132</b>	External air temperature sensor (LEF2) – Short circuit – Short circuit to battery (+)	<ul style="list-style-type: none"> <li>▪ Test external air inlet sensor</li> <li>▪ Disconnect the GYRD / BNWH plug-in connection of the external sensor and measure the resistance value, diagram and table of values,              – if ok, re-connect the GYRD / BNWH plug-in connection.</li> <li>▪ Disconnect connector XS12/XB12 at the heater and measure the resistance value in connector housing XB12 between PIN 6 and PIN 12. In case of short circuit, the ohmic value is <math>&lt; 486 \Omega / &lt; 800 \Omega</math>.</li> <li>▪ If the error P000131 (061) continues to be displayed → replace control box.</li> </ul>	<b>7: Restricted Operation</b>
<b>P000143</b> (006)	Air pressure sensor – Implausible signal	<ul style="list-style-type: none"> <li>▪ Delete error and try again.</li> <li>▪ If error occurs again, replace control box.</li> </ul>	<b>7: Notlauf</b>
<b>P000200</b> (048) <b>P000201</b> (047)	Metering pump – Interruption – Short circuit	<ul style="list-style-type: none"> <li>▪ Check metering pump lead harness for continuity, short circuit and damage.              – Lead harness ok → renew the metering pump.</li> </ul>	<b>4: Fuel Supply or Pump</b>
<b>P000202</b> (049)	Metering pump – Short circuit to battery (+) or transistor error	<ul style="list-style-type: none"> <li>▪ Check cables for continuity, short circuit and damage.              – Unplug the connector at the metering pump.</li> <li>▪ Display <a href="#">Fault code P000200 (048)</a> metering pump defective → replace metering pump.</li> </ul>	<b>4: Fuel Supply or Pump</b>

<b>Fault code</b> P000... for EasyScan and TP 7.1 (if connected via CAN) (... ) for TP 7 (LIN)	<b>Error description</b>	<b>Cause</b> ▪ Remedial action	<b>Error class</b> for control elements TP7.1: ▪ EasyStart Web ▪ EasyStart Pro
P000210 (020) P000211 (021) P000212 (022)	Glow plug – Interruption – Short circuit – Short circuit to battery (+) or transistor error   <b>Caution!</b> <b>Damage to unit in case of overvoltage</b> Voltage > 9.5 V / 18 V irreparably damages the glow plug. → Test function with max. 9.5 V / 18 V.   <b>Note</b> Note the short-circuit withstand capability of the power pack.	▪ Check glow plug. – Check cables for continuity, short circuit and damage. – Unplug connector -XB4, unclip cable WH (chamber 3) and cable WH (chamber 4). – Apply max. 9.5 V / 18 V voltage to the glow plug and after 25 sec measure the current intensity. – Measured value 9.5 A / 4.75 A (+1/-1.5) the glow plug is ok. – In case of deviating values → replace glow plug.	<b>1: Service</b>
P000213 (019)	Glow plug – Ignition energy too low	Glow plug energy input is too low. ▪ Check cables for continuity, short circuit and damage. ▪ Check glow plug, see <a href="#">Fault code P000210 (020)</a> to <a href="#">Fault code P000212 (022)</a> .	<b>1: Service</b>
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.	<b>1: Service</b>
P000223 (033) P000224 (035)	Electric motor – blocking – current input too high	Impeller blocked (frozen, soiled, sluggish, ...). ▪ Remove blockage. – Check electric motor for smooth and easy running by turning the impeller manually.   <b>Note!</b> In the case of the <b>Airtronic D4L 24V</b> , during running heating mode and simultaneous motor start and undervoltage of the vehicle battery, in exceptional cases, error message P000223 (033) can occur, although no valid faults exist. ▪ Delete faults using EasyScan and acknowledge in the control unit on occurrence.	<b>1: Service</b>
P000260 P000261 P000262	Universal output – Interruption – Short circuit – Short circuit to battery (+) or transistor error	Test universal output. ▪ Test WHRD conductor for continuity, short circuit and damage. ▪ If cable ok → replace control box.	<b>1: Service</b>


<b>Fault code</b> P000... for EasyScan and TP 7.1 (if con- nected via CAN) (...) for TP 7 (LIN)	<b>Error description</b>	<b>Cause</b> <ul style="list-style-type: none"> <li>▪ Remedial action</li> </ul>	<b>Error class</b> for control ele- ments TP7.1: <ul style="list-style-type: none"> <li>▪ EasyStart Web</li> <li>▪ EasyStart Pro</li> </ul>
<b>P000300</b> (074)	Overheating detection Metering pump hardware or cutout circuit defective	<ul style="list-style-type: none"> <li>▪ Test air outlet sensor.               <ul style="list-style-type: none"> <li>– Check cables for continuity, short circuit and damage.</li> <li>– Unplug connector XB4, measure resistance between cable RD (chamber 9) and cable RD (chamber 10).                   <ul style="list-style-type: none"> <li>– Measured values see repair instructions, in case of deviating values → renew lead harness of heater.</li> </ul> </li> </ul> </li> <li>▪ Next display <a href="#">Fault code P000300 (074)</a> → replace lead harness of the heater.</li> <li>▪ Unlock control box, see <a href="#">Chapter 4.3, p. 7</a>.</li> </ul>	<b>1: Service</b>
<b>P000301</b> (090) <b>P000302</b> (090)	Watchdog reset Too many watchdog resets	<ul style="list-style-type: none"> <li>▪ Delete errors, the heater remains ready for operation.</li> <li>▪ Replace control box, see <a href="#">Chapter 5.4.2, p. 7</a></li> </ul>	<b>1: Service</b>
<b>P000303</b> (099)	Operating lockout: Too frequent output stage errors	<ul style="list-style-type: none"> <li>▪ Replace control box, see <a href="#">Chapter 5.4.2, p. 7</a></li> </ul>	<b>1: Service</b>
<b>P000304</b> (091)	Too many resets (loose contact)	<ul style="list-style-type: none"> <li>▪ Replace control box, see <a href="#">Chapter 5.4.2, p. 7</a></li> </ul>	<b>1: Service</b>
<b>P000305</b> (095)	Control box not calibrated	<ul style="list-style-type: none"> <li>▪ Replace control box, see <a href="#">Chapter 5.4.2, p. 7</a></li> </ul>	<b>1: Service</b>
<b>P000306</b> (098)	Second cutout circuit is defective	<ul style="list-style-type: none"> <li>▪ Replace control box, see <a href="#">Chapter 5.4.2, p. 7</a></li> </ul>	<b>1: Service</b>
<b>P000307</b> (081)	CAN communication error in control unit		<b>1: Service</b>
<b>P00030A</b>	CAN communication error	Delete error. Heater remains ready for operation.	<b>1: Service</b>
<b>P000310</b> (010)  <b>P000311</b> (010)	Control box cutout due to overvoltage Heater cutout due to overvoltage  <b>Note!</b> Heater is not functioning.	Overvoltage applied at the control box without interruption for at least 20 seconds. <ul style="list-style-type: none"> <li>▪ Unplug connector -XB1 at the heater.</li> <li>▪ Start the vehicle engine.</li> <li>▪ Measure voltage between cable RD (chamber 1) and cable BN (chamber 2).               <ul style="list-style-type: none"> <li>– Airtronic 12 volt – voltage &gt; 16 V → check generator controller</li> <li>– Airtronic 24 volt – voltage &gt; 32 V → check generator controller</li> <li>– Check the battery.</li> </ul> </li> </ul>	<b>3: Overvoltage</b>
<b>P000312</b> (011)  <b>P000313</b> (011)	Control box cutout due to undervoltage Heater cutout due to undervoltage  <b>Note!</b> Heater is not functioning.	Undervoltage applied at the control box without interruption for at least 20 seconds. <ul style="list-style-type: none"> <li>▪ Unplug connector -XB1 at the heater.</li> <li>▪ Start the vehicle engine.</li> <li>▪ Measure voltage between cable RD (chamber 1) and cable BN (chamber 2).               <ul style="list-style-type: none"> <li>– Airtronic 12 volt – voltage &lt; 10 V → check generator controller</li> <li>– Airtronic 24 volt – voltage &lt; 21 V → check generator controller</li> <li>– Check the fuses, the supply cables, the ground connections and the positive terminal post at the battery for voltage drop (corrosion).</li> </ul> </li> </ul>	<b>2: Undervoltage</b>






<b>Fault code</b> P000... for EasyScan and TP 7.1 (if con- nected via CAN) (...) for TP 7 (LIN)	<b>Error description</b>	<b>Cause</b> <ul style="list-style-type: none"> <li>▪ Remedial action</li> </ul>	<b>Error class</b> for control ele- ments TP7.1: <ul style="list-style-type: none"> <li>▪ EasyStart Web</li> <li>▪ EasyStart Pro</li> </ul>
<b>P000330</b> (092)	ROM error	<ul style="list-style-type: none"> <li>▪ Replace control box, see <a href="#">Chapter 5.4.2, p. 8</a></li> </ul>	<b>1:</b> Service
<b>P000331</b> (093)	RAM error	<ul style="list-style-type: none"> <li>▪ Replace control box, see <a href="#">Chapter 5.4.2, p. 8</a></li> </ul>	<b>1:</b> Service
<b>P000332</b> (094)	NVMEM error (EEPROM, DataFlash)	<ul style="list-style-type: none"> <li>▪ Replace control box, see <a href="#">Chapter 5.4.2, p. 8</a></li> </ul>	<b>1:</b> Service
<b>P000342</b>	Invalid configuration	Check ADR coding.	<b>1:</b> Service
<b>P000394</b>	ADR button – Short circuit	<ul style="list-style-type: none"> <li>▪ Test ADR button.</li> <li>– Check the cables at GYRD / BNWH for continuity,                      short-circuit and damage.</li> <li>– If cables ok -&gt; replace control box.</li> </ul>	<b>1:</b> Service
<b>P000440</b> (083)	Timeout, communication with control unit	<ul style="list-style-type: none"> <li>▪ Delete errors and disconnect heater from the power                      supply.</li> <li>▪ If error occurs again -&gt; replace control unit.</li> </ul>	<b>0:</b> No message

## 2 Hydronic S3 CS

### 2.1 Fault code table

Fault code P000...	Error description	Cause ▪ Remedial action	Error class for control elements TP7.1: ▪ EasyStart Web ▪ EasyStart Pro
<b>P000100</b> <b>P000101</b> <b>P000102</b>	Water outlet sensor – Interruption – Short circuit – Short circuit after Ub+	<ul style="list-style-type: none"> <li>▪ Check the water outlet sensor.</li> <li>– Check cables for continuity, short circuit and damage.</li> <li>– Unplug connector XB4, measure resistance between cable RD (chamber 9) and cable RD (chamber 10).</li> <li>– Measured values <a href="#">see page 9</a>, deviating values → renew lead harness of heater.</li> </ul>	<b>1: Service</b>
<b>P00010A</b>	Cold air – timeout	The combustion chamber has not cooled sufficiently for a restart. <ul style="list-style-type: none"> <li>▪ Check whether hot combustion air is drawn in. If no → check flame sensor, see <a href="#">Fault code</a> and <a href="#">Fault code P000121</a>.</li> </ul>	<b>1: Service</b>
<b>P000110</b> <b>P000111</b> <b>P000112</b>	Water inlet sensor – Interruption – Short circuit – Short circuit after Ub+	<ul style="list-style-type: none"> <li>▪ Check the water inlet sensor.</li> <li>– Check cables for continuity, short circuit and damage.</li> <li>– Unplug connector XB4, measure resistance between cable BU (chamber 5) and cable BU (chamber 6).</li> <li>– Measured values <a href="#">see page 9</a>, deviating values → renew lead harness of heater.</li> </ul>	<b>1: Service</b>
<b>P000114</b>	Possible risk of overheating (implausible signal)  <b>Note!</b> Fault code P000114 is only displayed if <ul style="list-style-type: none"> <li>▪ the heater is in operation</li> <li>▪ Temperature reached at water outlet sensor at least 80 °C.</li> </ul>	Too large temperature difference between the water inlet and water outlet sensor. <ul style="list-style-type: none"> <li>▪ For remedial action, see <a href="#">Fault code P000115</a>.</li> <li>▪ Check the water inlet sensor.</li> <li>– Unplug connector XB4, measure resistance between cable BU (chamber 5) and cable BU (chamber 6).</li> <li>– Measured values <a href="#">see page 9</a>, deviating values → renew lead harness of heater.</li> </ul>	<b>1: Service</b>
<b>P000115</b>	Overheating – software threshold exceeded	Temperature at the water outlet sensor >125 °C. <ul style="list-style-type: none"> <li>▪ Check water circuit for leaks (heater controller in warm position)</li> <li>▪ If non-return valve / thermostat in the water circuit, check the flow direction.</li> <li>▪ Check water throughput rate.</li> <li>▪ Vent water circuit.</li> <li>▪ Check the water outlet sensor               <ul style="list-style-type: none"> <li>– Check cables for continuity, short circuit and damage.</li> <li>– Unplug connector XB4, measure resistance between cable RD (chamber 9) and cable RD (chamber 10).</li> <li>– Measured values <a href="#">see page 9</a>, deviating values → renew lead harness of heater.</li> </ul> </li> <li>▪ Check water pump → see <a href="#">Fault code P000253</a> to <a href="#">Fault code P000258</a>.</li> </ul>	<b>5: Water Circuit or Pump</b>

Fault code P000...	Error description	Cause <ul style="list-style-type: none"> <li>▪ Remedial action</li> </ul>	Error class for control elements TP7.1: <ul style="list-style-type: none"> <li>▪ EasyStart Web</li> <li>▪ EasyStart Pro</li> </ul>
P000116	Overheating – hardware threshold exceeded	Temperature at the water outlet sensor >130 °C. <ul style="list-style-type: none"> <li>▪ For remedial action, see <a href="#">Fault code P000115</a>.</li> <li>▪ Check the water outlet sensor.                             <ul style="list-style-type: none"> <li>– Check cables for continuity, short circuit and damage.</li> <li>– Unplug connector XB4, measure resistance between cable RD (chamber 9) and cable RD (chamber 10).</li> <li>– Measured values <a href="#">see page 10</a>, deviating values → renew lead harness of heater.</li> </ul> </li> </ul>	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 ( <a href="#">Fault code P000114</a> , <a href="#">Fault code P000115</a> ). <ul style="list-style-type: none"> <li>▪ For remedial action, see <a href="#">Fault code P000114</a>, <a href="#">Fault code P000115</a>.</li> <li>▪ Unlock control box, <a href="#">see page 10</a>.</li> </ul>	6: Overheat. Heater locked
P000120 P000121 P000122	Flame sensor – Interruption – Short circuit – Short-circuit to Ub+	<ul style="list-style-type: none"> <li>▪ Check flame sensor.                             <ul style="list-style-type: none"> <li>– Check cable for continuity, short circuit and damage.</li> <li>– Unplug connector XB4, measure resistance between cable BN (chamber 7) and cable BN (chamber 8).</li> <li>– Measured values <a href="#">see page 10</a>, deviating values → renew lead harness of heater.</li> </ul> </li> <li>▪ Next display <a href="#">Fault code</a>, <a href="#">Fault code P000121</a> → Renew control box, see repair step 1, <a href="#">see page 10</a>.</li> </ul>	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%  <b>Note!</b> 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.	<ul style="list-style-type: none"> <li>▪ Check exhaust and combustion air system.</li> <li>▪ Check fuel quantity and fuel supply, <a href="#">see page 10</a>.</li> <li>▪ Check flame sensor, see <a href="#">Fault code</a> and <a href="#">Fault code P000121</a>.</li> </ul>	1: Service
P00012A	Unsuccessful start procedure	<ul style="list-style-type: none"> <li>▪ Check exhaust and combustion air system.</li> <li>▪ Check fuel quantity and fuel supply, <a href="#">see page 10</a>.</li> <li>▪ Clean the fuel filter, as the case may be renew the fuel filter.</li> </ul>	4: Fuel Supply or Pump
P00012B	Operation inhibit, too many unsuccessful start procedures	Following five unsuccessful start attempts the control box is locked. <ul style="list-style-type: none"> <li>▪ Unlock control box, <a href="#">see page 10</a>.</li> <li>▪ Check fuel quantity and fuel supply, <a href="#">see page 10</a>.</li> </ul>	1: Service

Fault code P000...	Error description	Cause ▪ Remedial action	Error class for control elements TP7.1: ▪ EasyStart Web ▪ EasyStart Pro
P000143	Air pressure sensor – implausible signal	Heater in emergency mode. The air pressure is outside the characteristic curve for the altitude adjustment ( $P < 598$ hPa or $P > 1106$ hPa). ▪ 12V: Check connection to the CAN BE. Delete error. ▪ 24V: Delete error. If the fault persists, replace the control box	7: Restricted Operation
P000150 P000151 P000152	Circuit board temperature sensor – defective (voltage too high) – defective (voltage too low) – Overtemperature detected	▪ Replace control box, see repair step 1, <a href="#">page 12</a>	1: Service
P000200 P000201	Metering pump interruption Metering pump – short circuit	▪ Check metering pump lead harness for continuity, short circuit and damage. – Lead harness ok → renew the metering pump.	4: Fuel Supply or Pump
P000202	Metering pump – short circuit downstream of +Ub or transistor error	▪ Check cables for continuity, short circuit and damage. – Unplug the connector at the metering pump. ▪ Display <a href="#">Fault code P000200</a> metering pump defective → renew metering pump.	4: Fuel Supply or Pump
P0002a1	Water pump – Control / Diagnosis pin interruption	▪ Check lead harness of the water pump: – Unplug connector -XB3 at the heater – Unplug connector -XB8/2 at the water pump – Check water pump lead harness for continuity, short circuit and damage – If water pump lead harness ok → renew the water pump	5: Water Circuit or Pump
P000210 P000211 P000212	Glow plug – interruption Glow plug – short circuit Glow plug – short circuit downstream of +Ub or transistor error  <b>Caution!</b> <b>Damage to unit in case of overvoltage</b> Voltage $> 9.5$ V / 18 V irreparably damages the glow plug. → Test function with max. 9.5 V / 18 V.   <b>Note</b> Note the short-circuit withstand capability of the power pack.	▪ Check glow plug. – Check cables for continuity, short circuit and damage. – Unplug connector -XB4, unclip cable WH (chamber 3) and cable WH (chamber 4). – Apply max. 9.5 V / 18 V voltage to the glow plug and after 25 sec measure the current intensity. – Measured value 9.5 A / 4.75 A (+1 / -1.5) the glow plug is ok. – Deviating values → renew the glow plug.	1: Service
P000213	Glow plug – ignition energy too low	Glow plug energy input is too low. ▪ Check cables for continuity, short circuit and damage. ▪ Check glow plug, see <a href="#">Fault code P000210</a> to <a href="#">Fault code P000212</a> .	1: Service

Fault code P000...	Error description	Cause <ul style="list-style-type: none"> <li>▪ Remedial action</li> </ul>	Error class for control elements TP7.1: <ul style="list-style-type: none"> <li>▪ EasyStart Web</li> <li>▪ EasyStart Pro</li> </ul>
<b>P000220</b> <b>P000221</b> <b>P000222</b>	Electric motor – interruption Electric motor – short circuit Electric motor – short circuit downstream of +Ub or transistor error	<ul style="list-style-type: none"> <li>▪ Visual inspection of electric motor / control unit (contacting).</li> <li>▪ Check electric motor for dirt / corrosion, clean if necessary.</li> <li>▪ Check blower wheel for blockage, remove blockage if necessary.</li> <li>▪ Replace electric motor if necessary.</li> </ul>	<b>1: Service</b>
<b>P000223</b> <b>P000224</b>	Electric motor – blocking Electric motor – current input too high	Impeller blocked (frozen, soiled, sluggish, ...). <ul style="list-style-type: none"> <li>▪ Remove blockage.                              – Check electric motor for smooth and easy running by turning the impeller manually.</li> <li>▪ Next display <a href="#">Fault code P000223 / Fault code P000224</a>                              → renew the blower, see repair step 7, <a href="#">page 11</a>.</li> </ul>	<b>1: Service</b>
<b>P000250</b> <b>P000251</b>	Water pump – interruption Water pump – short circuit	<ul style="list-style-type: none"> <li>▪ 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.</li> </ul>	<b>5: Water Circuit or Pump</b>
<b>P000252</b>	Water pump - short circuit downstream of +Ub or transistor error	<ul style="list-style-type: none"> <li>▪ Unplug connector -XB8/2 at the water pump.                              – Display <a href="#">Fault code P000250</a> Water pump defective → renew water pump.</li> </ul>	<b>5: Water Circuit or Pump</b>
<b>P000253</b>	Water pump – blocking	<ul style="list-style-type: none"> <li>▪ Water hoses laid free from kinks?</li> </ul>	<b>5: Water Circuit or Pump</b>
<b>P000254</b>	Water pump – overcurrent cutout	<ul style="list-style-type: none"> <li>▪ Water pump / water circuit dirty?</li> </ul>	<b>5: Water Circuit or Pump</b>
<b>P000255</b>	Water pump – speed below minimum	<ul style="list-style-type: none"> <li>▪ Water pump / water circuit dirty?</li> </ul>	<b>5: Water Circuit or Pump</b>
<b>P000256</b>	Water pump – dry running	<ul style="list-style-type: none"> <li>▪ Check the coolant liquid level in the water circuit.</li> <li>▪ Vent the water pump / water circuit.</li> </ul>	<b>5: Water Circuit or Pump</b>
<b>P000257</b>	Water pump – overheating	Water pump ambient temperature too high. <ul style="list-style-type: none"> <li>▪ Position the water pump at an adequate distance from hot vehicle parts.</li> </ul>	<b>5: Water Circuit or Pump</b>
<b>P000258</b>	ADR water pump – Undervoltage / Overvoltage	<ul style="list-style-type: none"> <li>▪ 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.</li> </ul>	<b>5: Water Circuit or Pump</b>
<b>P000259</b>	ADR water pump / vehicle blower – Short circuit	<ul style="list-style-type: none"> <li>▪ Check the cables to the water pump and to the vehicle blower for continuity, short circuit and damage.</li> <li>▪ Check the coolant circuit.</li> <li>▪ Check blower relay.</li> </ul>	<b>5: Water Circuit or Pump</b>
<b>P000260</b>	Universal output Interruption	<ul style="list-style-type: none"> <li>▪ Check cable for continuity and damage.</li> <li>▪ If necessary, check coding for universal outlet.</li> </ul>	<b>1: Service</b>
<b>P000261</b>	Vehicle blower – short circuit	<ul style="list-style-type: none"> <li>▪ Check electric motor cover for damage and correct fit.                              – Electric motor cover ok → renew blower relay -K1.</li> </ul>	<b>1: Service</b>

Fault code P000...	Error description	Cause <ul style="list-style-type: none"> <li>▪ Remedial action</li> </ul>	Error class for control elements TP7.1: <ul style="list-style-type: none"> <li>▪ EasyStart Web</li> <li>▪ EasyStart Pro</li> </ul>
P000262	Universal output Short circuit downstream of Ub+ or transistor fault	<ul style="list-style-type: none"> <li>▪ Check cable for continuity, short circuit and damage.</li> </ul>	1: Service
P000300	Overheating detection Metering pump hardware or cutout circuit defective	<ul style="list-style-type: none"> <li>▪ Check the water outlet sensor.               <ul style="list-style-type: none"> <li>– Check cables for continuity, short circuit and damage.</li> <li>– Unplug connector XB4, measure resistance between cable RD (chamber 9) and cable RD (chamber 10).                   <ul style="list-style-type: none"> <li>– Measured values <a href="#">see page 12</a>, deviating values → renew lead harness of heater.</li> </ul> </li> </ul> </li> <li>▪ Next display <a href="#">Fault code P000300</a> → renew lead harness of the heater.</li> <li>▪ Unlock control box, <a href="#">see page 12</a>.</li> </ul>	1: Service
P000301 P000302	<ul style="list-style-type: none"> <li>▪ Watchdog reset</li> <li>▪ Too many watchdog resets</li> </ul>	<ul style="list-style-type: none"> <li>▪ Delete errors, the heater remains ready for operation.</li> <li>▪ Replace control box, see repair step 1, <a href="#">page 12</a></li> </ul>	1: Service
P000303	Operating lockout: Too frequent output stage errors	<ul style="list-style-type: none"> <li>▪ Replace control box, see repair step 1, <a href="#">page 12</a></li> </ul>	1: Service
P000304	Too many resets (loose contact)	<ul style="list-style-type: none"> <li>▪ Replace control box, see repair step 1, <a href="#">page 12</a></li> </ul>	1: Service
P000305	Control box not calibrated	<ul style="list-style-type: none"> <li>▪ Replace control box, see repair step 1, <a href="#">page 12</a></li> </ul>	1: Service
P000306	Second cutout circuit is defective	<ul style="list-style-type: none"> <li>▪ Replace control box, see repair step 1, <a href="#">page 12</a></li> </ul>	1: Service
P000307	CAN communication error control unit	<ul style="list-style-type: none"> <li>▪ Delete error, if it occurs repeatedly check the CAN connection between heater and control unit</li> </ul>	1: Service
P00030A	CAN communication error	<ul style="list-style-type: none"> <li>▪ Delete error, if it occurs repeatedly check the CAN connection between heater and control unit</li> </ul>	1: Service
P000310 P000311	Control box cutout due to overvoltage Heater cutout due to overvoltage <b>i Note!</b> Heater is not functioning.	Overvoltage applied at the control box without interruption for at least 20 seconds. <ul style="list-style-type: none"> <li>▪ Unplug connector -XB1 at the heater.</li> <li>▪ Start the vehicle engine.</li> <li>▪ Measure voltage between cable RD (chamber 1) and cable BN (chamber 2).               <ul style="list-style-type: none"> <li>– Voltage &gt;15 volt</li> <li>– Check alternator controller</li> <li>– Check the battery.</li> </ul> </li> </ul>	3: Overvoltage
P000312	Control box cutout due to undervoltage	Undervoltage applied at the control box without interruption for at least	2: Undervoltage
P000313	Heater cutout due to undervoltage <b>i Note!</b> Heater is not functioning.	20 seconds. <ul style="list-style-type: none"> <li>▪ Unplug connector -XB1 at the heater.</li> <li>▪ Start the vehicle engine.</li> <li>▪ Measure voltage between cable RD (chamber 1) and cable BN (chamber 2).               <ul style="list-style-type: none"> <li>– Voltage &lt; 10 volt</li> <li>– Check the fuses, the supply cables, the ground connections and the positive terminal post at the battery for voltage drop (corrosion).</li> </ul> </li> </ul>	

Fault code P000...	Error description	Cause <ul style="list-style-type: none"> <li>▪ Remedial action</li> </ul>	Error class for control elements TP7.1: <ul style="list-style-type: none"> <li>▪ EasyStart Web</li> <li>▪ EasyStart Pro</li> </ul>
<b>P000315</b>	Implausible air pressure information	<ul style="list-style-type: none"> <li>▪ Check connection to the control unit. If fault persists, use EasyScan to test the control unit.</li> </ul>	<b>1:</b> Service
<b>P000316</b>	Insufficient heat dissipation via the coolant	<ul style="list-style-type: none"> <li>Too many consecutive short heating mode operations.</li> <li>▪ Check coolant circuit</li> </ul>	<b>5:</b> Water Circuit or Pump
<b>P000330</b>	Control box defective	<ul style="list-style-type: none"> <li>▪ Replace control box, see repair step 1, <a href="#">page 13</a></li> </ul>	<b>1:</b> Service
<b>P000331</b>	Control box defective	<ul style="list-style-type: none"> <li>▪ Replace control box, see repair step 1, <a href="#">page 13</a></li> </ul>	<b>1:</b> Service
<b>P000332</b>	Control box defective	<ul style="list-style-type: none"> <li>▪ Replace control box, see repair step 1, <a href="#">page 13</a></li> </ul>	<b>1:</b> Service
<b>P000342</b>	Invalid configuration	<ul style="list-style-type: none"> <li>▪ 12V / 24V: Too many CAN components connected. Check the configuration.</li> <li>▪ 24V ADR: Use one CAN control unit only, check the connection to the control unit if necessary.</li> </ul>	<b>1:</b> Service
<b>P000394</b>	ADR button – Short circuit	<ul style="list-style-type: none"> <li>▪ Check the cable and button for continuity, short circuit, damage. Replace if necessary.</li> </ul>	<b>1:</b> Service
<b>P000500</b>	Fault memory entry ErrorState_GSC. Fault response: Heating or ventilation mode is continued.	<ul style="list-style-type: none"> <li>▪ Withdrawal of the active request (fault remains active as long as heating or diagnosis request still exists).</li> <li>▪ Delete fault memory.</li> </ul>	<b>0:</b> No message
<b>P000A00</b>	Communication is ended by the heater. EasyFan does not respond to the coded number of messages.	<ul style="list-style-type: none"> <li>▪ Reset the fault by withdrawing the active request (fault remains active as long as heating or diagnosis request exists).</li> <li>▪ Delete fault memory.</li> </ul>	<b>0:</b> No message
<b>P000E01</b>	Runtime limit exceeded	<ul style="list-style-type: none"> <li>▪ Coded runtime end reached.</li> </ul>	<b>1:</b> Service

Eberspächer Climate Control Systems  
GmbH & Co. KG  
Eberspächerstraße 24  
73730 Esslingen  
Germany  
info@eberspaecher.com  
www.eberspaecher.com

