


## 4.7 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>P000100</b> (071) <b>P000101</b> (072) <b>P000102</b> (073)	Overheating/air outlet sensor <ul style="list-style-type: none"> <li>– Interruption</li> <li>– Short circuit</li> <li>– Short circuit to battery (+)</li> </ul>	<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 GN (chamber 2).</li> <li>– Measured values see page 27, in case of deviating values → renew lead harness of heater.</li> </ul>
<b>P000110</b> (087) <b>P000111</b> (088) <b>P000112</b> (089)	Air inlet error <ul style="list-style-type: none"> <li>– Interruption</li> <li>– Short circuit</li> <li>– Short circuit to battery (+)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Check the Air inlet sensor.</li> </ul> Check cables for continuity, short circuit and damage. <ul style="list-style-type: none"> <li>– Unplug connector -XB2, measure resistance between cable BU (chamber 1) and cable GN (chamber 2).</li> <li>– Measured values see page 27, in case of deviating values → renew lead harness of heater.</li> </ul>
<b>P00010A</b> (051)	Cold blowing <ul style="list-style-type: none"> <li>– Timeout</li> </ul>	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 not → check flame sensor, see <a href="#">Fault code P000120 (064)</a> and <a href="#">Fault code P000121 (065)</a>.</li> </ul>
<b>P000114</b> (014)	Possible risk of overheating (implausible signal) <p><b>i Note!</b>            Fault code P000114 (014) is displayed only if</p> <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.               <ul style="list-style-type: none"> <li>– Unplug connector -XB4, measure resistance between cable BU (chamber 5) and cable BU (chamber 6).</li> <li>– Measured values see page 27, in case of deviating values → renew lead harness of heater.</li> </ul> </li> </ul>
<b>P000115</b> (012)	Overheating <ul style="list-style-type: none"> <li>– Software threshold exceeded</li> </ul>	Temperature at overheating sensor >125 °C <ul style="list-style-type: none"> <li>▪ Check air throughput</li> <li>▪ Check overheating 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 see page 27, in case of deviating values → renew lead harness of heater.</li> </ul> </li> </ul>
<b>P000116</b> (017)	Overheating <ul style="list-style-type: none"> <li>– Hardware threshold exceeded</li> </ul>	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.               <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 see page 27, in case of deviating values → renew lead harness of heater.</li> </ul> </li> </ul>
<b>P00011A</b> (015)	Operating lock-out <ul style="list-style-type: none"> <li>– Too many overheating events detected</li> </ul>	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> ). <ul style="list-style-type: none"> <li>▪ For remedial action see <a href="#">Fault code P000114 (014)</a>, <a href="#">Fault code P000115 (012)</a>.</li> <li>▪ Unlock control box, see <a href="#">Chapter 4.3, p. 13</a>.</li> </ul>

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<b>P000120</b> (064) <b>P000121</b> (065) <b>P000122</b>	Flame sensor <ul style="list-style-type: none"> <li>– Interruption</li> <li>– Short circuit</li> <li>– Short circuit to battery (+)</li> </ul>	<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 -XB2, measure resistance between cable BU (chamber 1) and cable GN (chamber 2).                   <ul style="list-style-type: none"> <li>– Measured values see page 27, in case of deviating values → renew lead harness of heater.</li> </ul> </li> </ul> </li> <li>▪ Further 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. 23</a>.</li> </ul>
<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>i 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, see <a href="#">Chapter 5.6, p. 34</a>.</li> <li>▪ Check flame sensor, see <a href="#">Fault code P000120 (064)</a> and <a href="#">Fault code P000121 (065)</a>.</li> </ul>
<b>P00012A</b> (052)	Unsuccessful start procedure	<ul style="list-style-type: none"> <li>▪ Check exhaust and combustion air system.</li> <li>▪ Check fuel quantity and fuel supply, see <a href="#">Chapter 5.6, p. 34</a>.</li> <li>▪ Renew the fuel filter.</li> <li>▪ Clean the fuel filter in the connection socket of the metering pump.</li> </ul>
<b>P00012B</b> (050)	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, see <a href="#">Chapter 4.3, p. 13</a>.</li> <li>▪ Check fuel quantity and fuel supply, see <a href="#">Chapter 5.6, p. 34</a>.</li> </ul>
<b>P000130</b> (060)	External air inlet temperature sensor (LEF2) <ul style="list-style-type: none"> <li>– Interruption</li> </ul>	<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 see page 13,               <ul style="list-style-type: none"> <li>– if temperature sensor is ok, re-connect the GYRD / BNWH plug-in connection.</li> </ul> </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 &gt; 7175 Ω / &gt; 3 kΩ.</li> <li>▪ If resistance value is ok → replace control box.</li> </ul>

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<b>P000131</b> (061) <b>P000132</b>	External air inlet temperature sensor (LEF2) <ul style="list-style-type: none"> <li>– Short circuit</li> <li>– Short circuit to battery (+)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Test external air inlet sensor</li> <li>▪ Disconnect the GYRD / BNWH plug-in connection of the external temperature sensor and measure the resistance value, diagram and table of values see <a href="#">page 13</a>,               <ul style="list-style-type: none"> <li>– if ok, re-connect the GYRD / BNWH plug-in connection.</li> </ul> </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 &lt; 486 Ω / &lt; 800 Ω.</li> <li>▪ If the error P000131 (061) continues to be displayed → replace control box.</li> </ul>
<b>P000143</b> (006)	Air pressure sensor <ul style="list-style-type: none"> <li>– Implausible signal</li> </ul>	<ul style="list-style-type: none"> <li>▪ Delete error and try again.</li> <li>▪ If error occurs again, replace control box.</li> </ul>
<b>P000200</b> (048) <b>P000201</b> (047)	Metering pump <ul style="list-style-type: none"> <li>– Interruption</li> <li>– Short circuit</li> </ul>	<ul style="list-style-type: none"> <li>▪ Check metering pump lead harness for continuity, short circuit and damage.               <ul style="list-style-type: none"> <li>– Lead harness ok → renew the metering pump.</li> </ul> </li> </ul>
<b>P000202</b> (049)	Metering pump <ul style="list-style-type: none"> <li>– Short circuit to battery (+) or transistor error</li> </ul>	<ul style="list-style-type: none"> <li>▪ Check cables for continuity, short circuit and damage.               <ul style="list-style-type: none"> <li>– Unplug the connector at the metering pump.</li> </ul> </li> <li>▪ Display <a href="#">Fault code P000200 (048)</a> metering pump defective → replace metering pump.</li> </ul>
<b>P000210</b> (020) <b>P000211</b> (021) <b>P000212</b> (022)	Glow plug <ul style="list-style-type: none"> <li>– Interruption</li> <li>– Short circuit</li> <li>– Short circuit to battery (+) or transistor error</li> </ul> <p><b>⚠ Caution!</b>  <b>Damage to unit in case of overvoltage</b>            Voltage &gt; 9.5 V irreparably damages the glow plug.            → Test function with max. 9.5 V.</p> <p><b>i Note</b>            Note the short-circuit withstand capability of the power pack.</p>	<ul style="list-style-type: none"> <li>▪ Check glow plug.               <ul style="list-style-type: none"> <li>– Check cables for continuity, short circuit and damage.</li> <li>– Unplug connector -XB4, unclip cable WH (chamber 3) and cable WH (chamber 4).</li> <li>– Apply 9.5 V ±0.1 V voltage to the glow plug and after 25 sec measure the current intensity.                   <ul style="list-style-type: none"> <li>– Measured value 9.5 A (+1/-1.5) the glow plug is ok</li> <li>– In case of deviating values → replace glow plug.</li> </ul> </li> </ul> </li> </ul>
<b>P000213</b> (019)	Glow plug <ul style="list-style-type: none"> <li>– Ignition energy too low</li> </ul>	Glow plug energy input is too low. <ul style="list-style-type: none"> <li>▪ Check cables for continuity, short circuit and damage.</li> <li>▪ Test glow plug, see <a href="#">Fault code P000210 (020)</a> to <a href="#">Fault code P000212 (022)</a>.</li> </ul>
<b>P000220</b> (031) <b>P000221</b> (032) <b>P000222</b> (034)	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>

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<b>P000223</b> (033) <b>P000224</b> (035)	Burner motor – Blocking – Current input too high	Impeller blocked (frozen, soiled, sluggish, ...). <ul style="list-style-type: none"> <li>▪ Remove blockage.</li> <li>– Check electric motor for smooth and easy running by turning the impeller manually.</li> </ul> <p><b>i 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.</p> <ul style="list-style-type: none"> <li>▪ Delete faults using EasyScan and acknowledge in the control unit on occurrence.</li> </ul> <p>Further display <a href="#">Fault code P000300 (074)</a>  <ul style="list-style-type: none"> <li>▪ Renew fan, see <a href="#">Chapter 5.4.10, p. 28</a>.</li> </ul> </p>
<b>P000260</b> <b>P000261</b> <b>P000262</b>	Universal output – Interruption – Short circuit – Short circuit to battery (+) or transistor error	Test universal output. <ul style="list-style-type: none"> <li>▪ Test WHRD conductor for continuity, short circuit and damage.</li> <li>▪ If cable ok → replace control box.</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.</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).  – Measured values see page 27,  in case of deviating values → renew lead harness of heater.</li> <li>▪ Further 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. 13.</a></li> </ul>
<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. 23</a></li> </ul>
<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. 23</a></li> </ul>
<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. 23</a></li> </ul>
<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. 23</a></li> </ul>
<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. 23</a></li> </ul>
<b>P000307</b> (081)	CAN communication error in control unit	
<b>P00030A</b>	CAN communication error	Delete error. Heater remains ready for operation.
<b>P000310</b> (010) <b>P000311</b> (010)	Control box cutout due to overvoltage Heater cutout due to overvoltage <p><b>i Note!</b>  Heater is not functioning.</p>	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).  – Airtronic 12 volt – voltage &gt; 16 V → check generator controller  – Airtronic 24 volt – voltage &gt; 32 V → check generator controller  – Check the battery.</li> </ul>

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<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 posi-                    tive terminal post at the battery for voltage drop (corrosion).</li> </ul> </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. 23</a></li> </ul>
<b>P000331</b> (093)	RAM error	<ul style="list-style-type: none"> <li>▪ Replace control box, see <a href="#">Chapter 5.4.2, p. 23</a></li> </ul>
<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. 23</a></li> </ul>
<b>P000342</b>	Invalid configuration	Check ADR coding.
<b>P000394</b>	ADR button – Short circuit	<ul style="list-style-type: none"> <li>▪ Test ADR button.               <ul style="list-style-type: none"> <li>– Check the cables at GYRD / BNWH for continuity, short-circuit and damage.</li> <li>– If cables ok → replace control box.</li> </ul> </li> </ul>
<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 → replace control unit.</li> </ul>