

## FAULT ERROR CODES

### AIRTRONIC S3 COMMERCIAL

### AIRTRONIC M3 COMMERCIAL / AIRTRONIC M3 RECREATIONAL

### AIRTRONIC L3 RECREATIONAL / AIRTRONIC XL3 COMMERCIAL



The repair instructions are valid for the following engine-independent air heaters:

#### Air heaters for diesel fuel

	Order No.
Airtronic S3 D2L 12 V	25.2953.05.0000
Airtronic S3 D2L 12 V*	25.3066.05.0000**
Airtronic S3 D2L 12 V VDP	25.3034.05.0000**
Airtronic S3 D2L 24 V	25.2954.05.0000
Airtronic S3 D2L 24 V ADR	25.3038.05.0000**
Airtronic M3 D4L 12 V	25.2955.05.0000
Airtronic M3 D4L 12 V VDP	25.3035.05.0000**
Airtronic M3 D4L 24 V	25.2956.05.0000
Airtronic M3 D4L 24 V ADR	25.3039.05.0000**
Airtronic M3 D4R 12 V	25.2957.05.0000
Airtronic M3 D4R 12 V VDP	25.3036.05.0000**
Airtronic M3 D4R 12 V CI-Bus	25.3051.05.0000**
Airtronic M3 D4R 24 V	25.2958.05.0000
Airtronic L3 D6L 12 V	25.2959.05.0000
Airtronic L3 D6L 12 V VDP	25.3037.05.0000**
Airtronic L3 D6L 24 V	25.2960.05.0000
Airtronic XL3 D8L 24 V	25.3020.05.0000

\*) Cable outlet, left

\*\*\*) Not available for North America

#### Air heaters for petrol

	Order No.
Airtronic S3 B2L 12 V	20.2029.05.0000
Airtronic M3 B4L 12 V	20.2030.05.0000
Airtronic M3 B4R 12 V	20.2031.05.0000

A WORLD OF COMFORT



Eberspächer

## 4 Troubleshooting

### 4.1 What to check first in case of faults

- Check
  - Fuel in the tank?
  - Fuel lines leaking? (Visual check)
  - Summer diesel in the fuel line?
  - Combustion air system or exhaust system damaged or blocked?
  - Hot air system blocked?
- Electrical components
  - Cables, connections damaged?
  - Contacts corroded?
  - Fuses defective?
  - Incorrect wiring? (short circuits, interrupted / broken)
- Measure battery voltage
  - Battery voltage < 10.5 volt: the undervoltage protection of the 12 volt heater has triggered.
  - Battery voltage < 21.5 volt: the undervoltage protection of the 24 volt heater has triggered.
- Measure voltage supply (Terminal 30)
  - Disconnect the 10-pin connector XS10 / XB10 and measure the applied voltage in connector XB10 between chamber 2 (br) and chamber 4 (rd).
  - If it differs from the battery voltage, check the fuses, the supply cables, the negative connection and the positive support point on the battery for voltage drop (corrosion / interruption).

### 4.2 Control box is locked

The control box is locked if the following faults occur:

- Unsuccessful start attempts
  - After 10 consecutive failed start attempts.
- Overheating
  - After 10-times shutdown on overheating.

### 4.3 Unlocking the control box

In case of locking due to too many overheating events, the control box can be unlocked by removing the heater fuse:

- Switch on heater.
- Remove heater fuse within 20 seconds.
- Re-insert the heater fuse after around 5 seconds.

#### Note

The control box can also be unlocked using a diagnostic unit / control unit. For the procedure and description for diagnostic units and control units, see "Installation Instructions Plus – EasyStart/Altitude Kit / Special Functions and Diagnosis".

### 4.4 Overview of the diagnostic units and control units suitable for diagnosis

The electronic control box can store up to 20 faults, which can be read out and displayed (10 active faults, 10 stored faults). The following diagnostic units and control units can be used to query the fault memory in the control box and if necessary, to delete the locking of the control box:

Diagnostic unit	Order No.:
▪ EasyScan	22.1550.89.0000

The following control units can also be used for the diagnosis:

Control units	Order No.:
▪ EasyStart Remote <sup>+</sup>	22.1000.34.1700*
▪ Easy Start Pro	22.1000.35.2200**
▪ EasyStart Web (up to 2018)	22.1000.34.5100*
▪ EasyStart Web (from 2019)	22.1000.34.7800*
▪ EasyStart Web (from 2021)	22.1000.35.3500**

\*) Not available for North America

\*\*\*) For North America, refer to the Product Catalogue

#### Note

- If the readout is made using a LIN control unit, only 1 active and 5 stored faults are displayed.
- Control units connected to the heater via the switch input S+ cannot be used for diagnosis.

### 4.5 Notes on heater diagnosis with control units

#### 4.5.1 Easy Start Pro

#### Note

For details of how to read out the heat faults, see Installation Instructions ES Pro

#### 4.5.2 EasyStart Web

#### Note

The heater faults are read out via the workshop access of the web application, see also Installation Instructions PLUS

#### 4.5.3 EasyStart Remote<sup>+</sup> \*\*\*

- Connection via LIN interface

If faults occur while the heater is running, they are displayed with "Err" after the mobile unit is activated.

The current fault is displayed. The stored faults "F1" to "F5" can be enquired.

To read out the heater error, see Installation Instructions Remote+ or Installation Instructions Plus.

\*\*\*) Not applicable for North America

## 4.6 Flashing code display

### 4.6.1 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



## 4.7 Fault code table

<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>Fault class</b> For TP7.1 control units: <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 the resistance between cable BN (chamber 3) and cable WH (chamber 6).</li> <li>– Measured values see page 34, in case of deviating values → replace temperature sensor.</li> </ul>	<b>1:</b> Service
<b>P000110</b> (087) <b>P000111</b> (088) <b>P000112</b> (089)	Air inlet sensor – Interruption – Short circuit – Short circuit to battery (+)	<ul style="list-style-type: none"> <li>▪ Check the air inlet sensor for damage              – in case of visible damage → replace the temperature sensor</li> <li>– Unplug connector XB2, measure the resistance between cable BK (chamber 1) and BK (chamber 4)</li> <li>– For measured values - see <a href="#">page 34</a></li> <li>▪ Delete fault memory.              – If the error continues to be displayed → replace the temperature sensor.</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.              – Unplug connector XB2, measure the resistance between cable BU (chamber 2) and cable BN (chamber 3).</li> <li>– Measured values see page 34, in case of deviating values → replace temperature sensor.</li> </ul>	<b>1:</b> Service
<b>P000115</b> (012)	Overheating – Software threshold exceeded	<ul style="list-style-type: none"> <li>▪ Check air throughput</li> <li>▪ Check overheating sensor              – Check cables for continuity, short circuit and damage.</li> <li>– Unplug connector XB2, measure the resistance between cable BN (chamber 3) and cable WH (chamber 6).</li> <li>– Measured values see page 34, in case of deviating values → replace temperature sensor.</li> </ul>	<b>5:</b> Air system or air outlet


<b>Fault code</b> <b>P000...</b> for EasyScan and TP 7.1 (if con- nected via CAN) <b>(...)</b> for TP 7 (LIN)	<b>Error description</b>	<b>Cause</b> <ul style="list-style-type: none"> <li>▪ Remedial action</li> </ul>	<b>Fault class</b> For TP7.1 control units: <ul style="list-style-type: none"> <li>▪ EasyStart Web</li> <li>▪ EasyStart Pro</li> </ul>
<b>P000116</b> (017)	Overheating – Hardware threshold exceeded	Temperature at overheating sensor >150 °C <ul style="list-style-type: none"> <li>▪ For remedial action, see <a href="#">Fault code P000115 (012)</a>.</li> <li>▪ Check overheating sensor.  – Check cables for continuity, short circuit and damage.  – Unplug connector XB2, measure the resistance  between cable BN (chamber 3) and cable WH  (chamber 6).  – Measured values see page 34, in case of deviat-  ing values -&gt; replace temperature sensor.</li> </ul>	<b>5:</b> Air system or air outlet
<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> ). <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. 18</a>.</li> </ul>	<b>6:</b> Overheating, heater is blocked
<b>P000120</b> (064) <b>P000121</b> (065) <b>P000122</b>	Flame sensor – Interruption – Short circuit – Short circuit to battery (+)	<ul style="list-style-type: none"> <li>▪ Check flame sensor.  – Check cable for continuity, short circuit and damage.  – Unplug connector XB2, measure the resistance  between cable BU (chamber 2) and cable BN  (chamber 3).  – Measured values see page 34,  in case of deviating values -&gt; replace the tempera-  ture sensor.</li> <li>▪ Further display <a href="#">Fault code P000120 (064)</a> and <a href="#">Fault code  P000121 (065)</a>  -&gt; replace the control box, see <a href="#">Chapter 5.4.2, p. 30</a>.</li> </ul>	<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.	<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.  42</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>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>Fault class</b> For TP7.1 control units: <ul style="list-style-type: none"> <li>▪ EasyStart Web</li> <li>▪ EasyStart Pro</li> </ul>
<b>P00012A</b> (052)	Unsuccessful starting process	<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. 42.</a></li> <li>▪ Check the fuel filter or fuel strainer in the metering pump, renew if necessary.</li> </ul>	<b>4:</b> Fuel supply or fuel pump
<b>P00012B</b> (050)	Operating lockout, too many unsuccessful starting processes	Following 10 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. 18.</a></li> <li>▪ Check fuel quantity and fuel supply, see <a href="#">Chapter 5.6, p. 42.</a></li> </ul>	<b>1:</b> Service
<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 temperature sensor and measure the resistance value, diagram and table of values see <a href="#">page 17</a>,              – if temperature sensor is ok, re-connect the GYRD / BNWH plug-in connection.</li> <li>▪ Disconnect connector XS10/XB10 at the heater and measure the resistance value between PIN 5 GRRD and PIN 6 BNWH in connector housing XB10.              – In the event of interruption/damage, the ohmic resistance value is outside the characteristic (for table, see on page 17).</li> <li>▪ If the error continues to be displayed, test the connection to connector XS12/XB12.</li> <li>▪ If resistance value is ok → replace control box.</li> </ul>	<b>7:</b> Emergency running
<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 temperature sensor and measure the resistance value, diagram and table of values see <a href="#">page 17</a>,              – if ok, re-connect the GYRD / BNWH plug-in connection.</li> <li>▪ Disconnect connector XS10/XB10 at the heater and measure the resistance value between PIN 5 GRRD and PIN 6 BNWH in connector housing XB10.              – In the event of interruption/damage, the ohmic resistance value is outside the characteristic (for table, see on page 17).</li> <li>▪ If the error continues to be displayed, test the connection to connector XS12/XB12.</li> <li>▪ If the error P000131 (061) continues to be displayed → replace control box.</li> </ul>	<b>7:</b> Emergency running
<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:</b> Emergency running

<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> <ul style="list-style-type: none"> <li>▪ Remedial action</li> </ul>	<b>Fault class</b> For TP7.1 control units: <ul style="list-style-type: none"> <li>▪ EasyStart Web</li> <li>▪ EasyStart Pro</li> </ul>
<b>P000150</b> <b>P000151</b> <b>P000152</b>	Circuit board temperature sensor in the control box – defective (voltage too high) – defective (voltage too low) – Overtemperature detected	<ul style="list-style-type: none"> <li>▪ Delete error and try again.</li> <li>▪ Replace control box, see <a href="#">Chapter 5.4.2, p. 30</a></li> </ul>	<b>1: Service</b>
<b>P000160</b> <b>P000161</b> <b>P000162</b>	Setpoint transmitter (e.g. mini controller) – Interruption – Short circuit – Short circuit to battery (+)	<ul style="list-style-type: none"> <li>▪ Check the setpoint transmitter (e.g. mini controller)</li> <li>▪ Disconnect plug-in connection GYRD / BNWH of the setpoint transmitter (e.g. mini controller). The mini controller must be supplied with voltage and the heating switched on to enable a resistance to be measured. Therefore:                          – Disconnect the plug-in connection GYRD / BNWH to the mini controller, switch on mini controller “Heat” and measure the resistance value,                          – 12V: 1,7 kohm (cold) up to 2.2 kohm (warm) --&gt; equals the nominal value</li> <li>▪ Disconnect plug-in connection XS10 / XB10 and measure the continuity of the GYRD / BNWH cable between connector XB10 and plug-in connection to the mini controller.                          – In the event of cable harness interruption/damage, replace or repair.</li> <li>▪ If the error continues to be displayed, test the connection to connector XS10/XB10.</li> <li>▪ If resistance value is ok -&gt; replace control box.</li> </ul>	<b>7: Emergency running</b>
<b>P000200 (048)</b> <b>P000201 (047)</b>	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 -&gt; renew the metering pump.</li> </ul>	<b>4: Fuel supply or fuel pump</b>
<b>P000202 (049)</b>	Metering pump – Short circuit to battery (+) or transistor error	<ul style="list-style-type: none"> <li>▪ Check cables for continuity, short circuit and damage.</li> <li><b>i Note</b>                          Disconnect the connector at the metering pump for the cable test</li> <li>▪ With metering pump disconnected, check whether error P00202 continues to occur.                          If yes -&gt; replace the cable harness.                          If not -&gt; replace the metering pump.</li> <li>▪ Display <a href="#">Fault code P000200 (048)</a> metering pump defective -&gt; replace metering pump.</li> </ul>	<b>4: Fuel supply or fuel pump</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>Fault class</b> For TP7.1 control units: <ul style="list-style-type: none"> <li>▪ EasyStart Web</li> <li>▪ EasyStart Pro</li> </ul>
<b>P000210</b> (020) <b>P000211</b> (021) <b>P000212</b> (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> A voltage > 9.5 V (19 V for 24 V) irreparably damages the glow plug. → Test the function with max. 9.5 V (19 V for 24 V).   <b>Note</b> Note the short-circuit withstand capability of the power pack.	<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 -XB13, unclip cable WH (chamber 1) and cable BN (chamber 3).</li> <li>– For 12 V heater: Apply 9.5 V ±0.1 volt voltage to the glow plug and measure the current intensity after 25 seconds.                   <ul style="list-style-type: none"> <li>– If measured value is 9.5 A (+1 / –1.5) the glow plug is ok.</li> <li>– In case of deviating values → replace the glow plug.</li> </ul> </li> <li>– For 24 V heater: Apply 19 V ±0.1 volt voltage to the glow plug and measure the current intensity after 25 seconds.                   <ul style="list-style-type: none"> <li>– If measured value is 5.1 A (+1 / –1.5) the glow plug is ok.</li> <li>– In case of deviating values → replace the glow plug.</li> </ul> </li> </ul> </li> </ul>	<b>1: Service</b>
<b>P000213</b> (019)	Glow plug – Ignition energy too low	Glow plug energy input is too low. <ul style="list-style-type: none"> <li>▪ Check cables for continuity, short circuit and damage.</li> <li>▪ Check glow plug, see <a href="#">Fault code P000210 (020)</a> to <a href="#">Fault code P000212 (022)</a>.</li> </ul>	<b>1: Service</b>
<b>P000220</b> <b>P000221</b> <b>P000222</b>	Burner motor – Interruption – Short circuit – Short circuit downstream of +Ub or transistor fault	<ul style="list-style-type: none"> <li>▪ Visual inspection of electric motor / control box (contacting).</li> <li>▪ Check the electric motor for dirt / corrosion, clean if necessary.</li> <li>▪ Check the impeller for blockage, remove the blockage if necessary.</li> <li>▪ Renew the burner motor if necessary.</li> </ul>	<b>1: Service</b>
<b>P000223</b> (033) <b>P000224</b> (035)	Burner motor – Blocking – Power input too high	Impeller blocked (frozen, soiled, sluggish, ...). <ul style="list-style-type: none"> <li>▪ Remove blockage.               <ul style="list-style-type: none"> <li>– Check the burner motor for smooth and easy running by turning the impeller manually.</li> </ul> </li> </ul> Further display <a href="#">Fault code P000222</a> <ul style="list-style-type: none"> <li>▪ Renew fan, see <a href="#">Chapter 5.4.10, p. 35</a>.</li> </ul>	<b>1: Service</b>
<b>P000260</b> <b>P000261</b> <b>P000262</b>	Switch output – Interruption – Short circuit – Short circuit to battery (+) or transistor error	Test the switch 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> <li>▪ Option: Delete errors and switch on the heater. If the error occurs again → replace the control box</li> </ul>	<b>1: Service</b>



<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>Fault class</b> For TP7.1 control units: <ul style="list-style-type: none"> <li>▪ EasyStart Web</li> <li>▪ EasyStart Pro</li> </ul>
<b>P000280</b> <b>P000281</b> <b>P000282</b>	Switch output (e.g. in configura- tion as fresh air damper) <ul style="list-style-type: none"> <li>– Interruption</li> <li>– Short circuit to ground</li> <li>– Short circuit to battery (+) or transistor error</li> </ul>	Test the switch 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> <li>▪ Option: Delete errors and switch on the heater. If the error occurs again → replace the control box</li> </ul>	<b>1: Service</b>
<b>P000300</b> (074)	Overheating detection Metering pump hardware or cutout circuit defective	<ul style="list-style-type: none"> <li>▪ Test air outlet sensor. – Check cables for continuity, short circuit and damage.</li> <li>– Unplug connector XB2, measure the resistance between cable WH (chamber 6) and cable BN (chamber 3). – Measured values see page 34, in case of deviating values → renew combination sensor.</li> <li>▪ Further display <a href="#">Fault code P000300 (074)</a> → replace the control box.</li> <li>▪ Unlock control box, see <a href="#">Chapter 4.3, p. 18.</a></li> </ul>	<b>1: Service</b>
<b>P000301</b> (090)  <b>P000302</b> (090)	Watchdog reset Internal error on initialising the control box Too many watchdog resets	<ul style="list-style-type: none"> <li>▪ Delete errors, the heater remains ready for operation.</li> <li>▪ Test the power supply (voltage drops &lt; 5 V and longer than 10 ms or &lt; 8 V and longer than 10 ms, battery isolating switch, battery management system)</li> <li>▪ Replace control box, see <a href="#">Chapter 5.4.2, p. 30</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. 30</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. 30</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. 30</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. 30</a></li> </ul>	<b>1: Service</b>
<b>P000307</b> (081)	CAN communication error in control unit	<ul style="list-style-type: none"> <li>▪ Delete errors and disconnect heater from the power supply.</li> <li>▪ In the event of renewed occurrence of the error → Test the control unit, test the cables to the control unit.</li> </ul>	<b>1: Service</b>
<b>P00030A</b>	CAN communication error	Delete error. Heater remains ready for operation.	<b>1: Service</b>
<b>P000310/1</b> (010)	Control box cutout due to overvoltage  <b>Note!</b> Heater is not functioning.	Overvoltage applied at the control box without interruption for at least 20 seconds (factory setting). <ul style="list-style-type: none"> <li>▪ Unplug connector -XB10 at the heater.</li> <li>▪ Start the vehicle engine.</li> <li>▪ Measure voltage between cable RD (chamber 4) and cable BN (chamber 2). – Airtronic 12 volt voltage &gt; 16 V (factory setting) → test the generator controller – Airtronic 24 volt voltage &gt; 32 V (factory setting) → test the generator controller – Check the battery.</li> </ul>	<b>3: Overvoltage</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>Fault class</b> For TP7.1 control units: <ul style="list-style-type: none"> <li>▪ EasyStart Web</li> <li>▪ EasyStart Pro</li> </ul>
<b>P000312/3</b> (011)	Control box cutout due to undervoltage <b>i Note!</b> Heater is not functioning.	Undervoltage applied at the control box without interruption for at least 20 seconds (factory setting). <ul style="list-style-type: none"> <li>▪ Unplug connector -XB10 at the heater.</li> <li>▪ Measure voltage between cable RD (chamber 4) and              cable BN (chamber 2).              – Airtronic 12 volt voltage &lt; 10 V (factory setting) →              test the generator controller              – Airtronic 24 volt voltage &lt; 21 V (factory setting) →              test the generator controller              – Check the fuses, the supply cables, the ground con-              nections and the positive terminal post at the battery              for voltage drop (corrosion).</li> </ul>	<b>2:</b> Undervoltage
<b>P000330</b> (092)	ROM error	<ul style="list-style-type: none"> <li>▪ Replace control box, see <a href="#">Chapter 5.4.2, p. 30</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. 30</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. 30</a></li> </ul>	<b>1:</b> Service
<b>P000333</b>	AD converter error	<ul style="list-style-type: none"> <li>▪ Replace control box, see <a href="#">Chapter 5.4.2, p. 30</a></li> </ul>	<b>1:</b> Service
<b>P000342</b>	Invalid configuration	<ul style="list-style-type: none"> <li>▪ Impermissible combination of the Eberspächer products              in the CAN system              – too many CAN heaters (more than 2)              – too many CAN control units (more than 2)              – only 1 heater and 1 control unit allowed for ADR</li> <li>▪ In the ADR case, check the ADR coding in the EasyStart              Pro via EasyScan</li> <li>▪ If necessary, check the connection to the control element.</li> <li>▪ If the error only appears in the error memory (passive),              it can be ignored and deleted as it does not restrict the              function of the heater.</li> </ul>	<b>1:</b> Service
<b>P000343</b>	Parameter dataset is incompatible	<ul style="list-style-type: none"> <li>▪ Replace control box, see <a href="#">Chapter 5.4.2, p. 30</a></li> </ul>	<b>1:</b> Service
<b>P000394</b>	ADR button – Short circuit	<ul style="list-style-type: none"> <li>▪ Test ADR button.              – Check the cables at GYRD / BNWH for continuity,              short-circuit and damage.              – Check the button for continuity, short circuit and              damage.              – If cables ok → 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>▪ In the event of renewed occurrence of the error → Test              the control unit, test the cables to the control unit.</li> <li>▪ If error occurs again → replace control unit.</li> </ul>	<b>0:</b> No message
<b>P000441</b>	Timeout during communication with LIN control unit (only CI-bus communication)	<ul style="list-style-type: none"> <li>▪ Delete errors and disconnect heater from the power              supply.</li> <li>▪ In the event of renewed occurrence of the error → Test              the control unit, test the cables to the control unit.</li> </ul>	<b>0:</b> No message
<b>P000450</b>	LIN communication error (only CI-bus communication)	<ul style="list-style-type: none"> <li>▪ Delete errors and disconnect heater from the power              supply.</li> <li>▪ In the event of renewed occurrence of the error → Test              the control unit, test the cables to the control unit.</li> </ul>	<b>0:</b> No message