

<p>© Electrolux Distriparts Muggenhofer Straße 135 D-90429 Nürnberg Germany</p> <p>Fax +49 (0)911 323 1022</p> <p>DGS-TDS-N Version: 06.05</p>	<p>Publ.-Nr. 599 523 336 685 EN</p>	<p>Frontline Platform Assembly and Service</p>
--	--	---

Appliances concept

The Frontline Future Generation which is produced in Denmark is to be replaced by the Frontline Platform series of appliances. The following components will be replaced in this design:

- Electronics CHEC → HOC 2000
- Induction G3 → G4
- Pot recognition CHEC → POT 2000
- Interface supplier BAG → supplier Sagem (full SMD)
- Trough height 45 → 34mm

Design concept for the heating element

36cm appliance series

POT 2000 Module



Left connection:

Macs Bus 6-pin Connector for connection to HIC and HOC.

Centre connection:

10-pin connecting zone for the heating element sensors.

Right connection:

2-pin connection (concealed by the transformer here) for the power supply.

Fig. 1

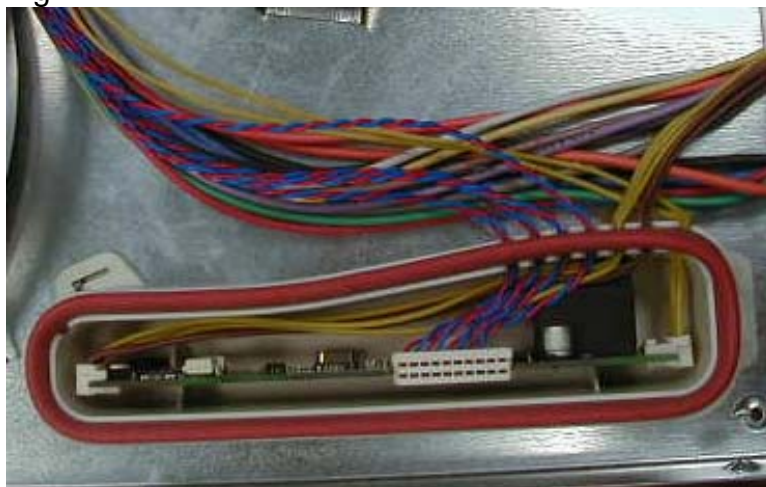
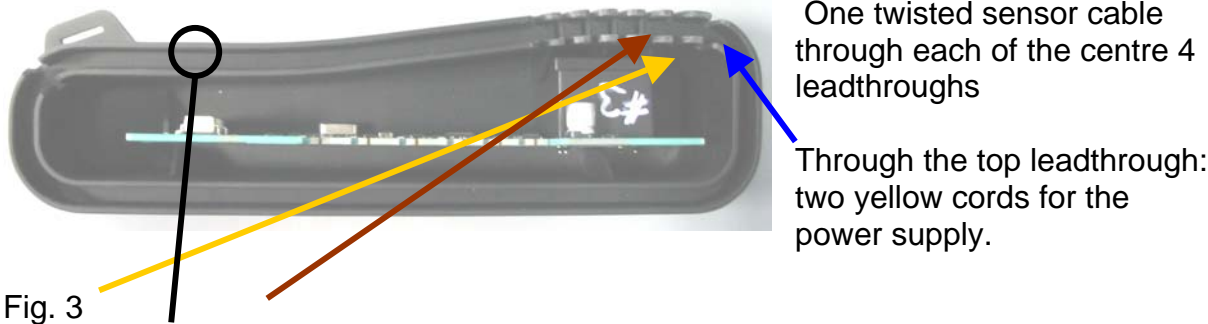


Fig. 2

Module vertically fitted into the housing.
The cables at the side can only be connected after the electronics has been removed from the housing (no latching system exists). The top-most connector (10-pin) is inserted last of all.

Cable insertion into the housing



Feed the yellow cord and brown cord of the 6-pin bus connector through.
The seal joint is to be so positioned that it is in the centre of the long, slightly bent side.

Power componentry

Frontline with heating element

The power components comprise between 2 and 4 heating elements and power electronics.

Heating element

Ceramaspeed 145mm	1200W	230V
Ceramaspeed 120/180mm	700/1700W	230V
Ceramaspeed 140/210mm	1000/2200W	230V
EGO 145mm pot recognition	1200W	230V
EGO 120/180mm pot recognition	700/1700W	230V
EGO 120/170/210mm pot recognition		
750/1600/2300W	230V	

HOC 2000 power electronics



Fig. 4
Occupied with 72cm and a pot recognition

Interface electronics

Mounting the Interfaces

Placing the Electronics in the Carrier

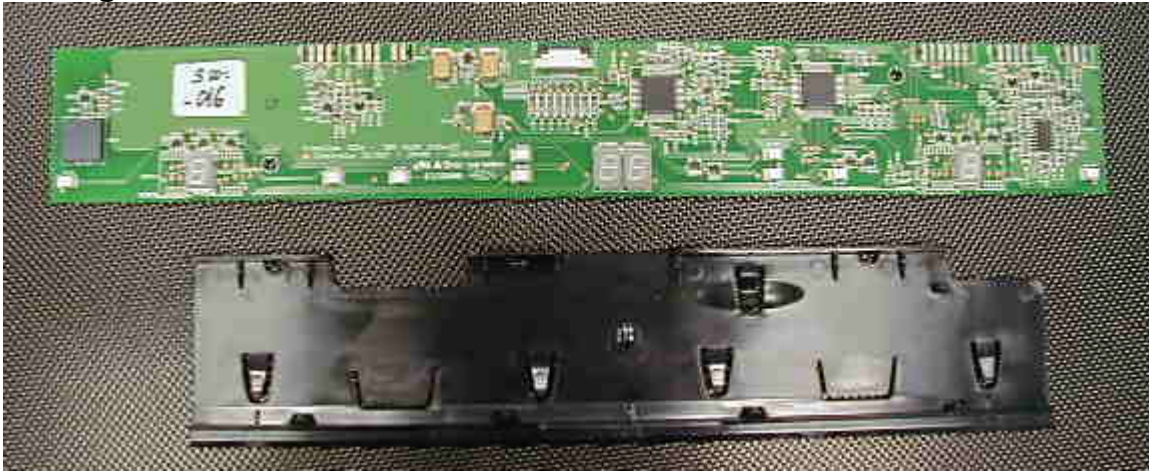


Fig. 5



Fig. 6

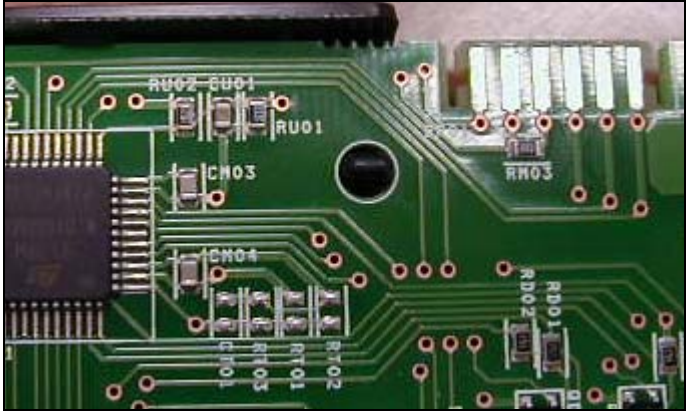


Fig. 7

Mounting the stripline

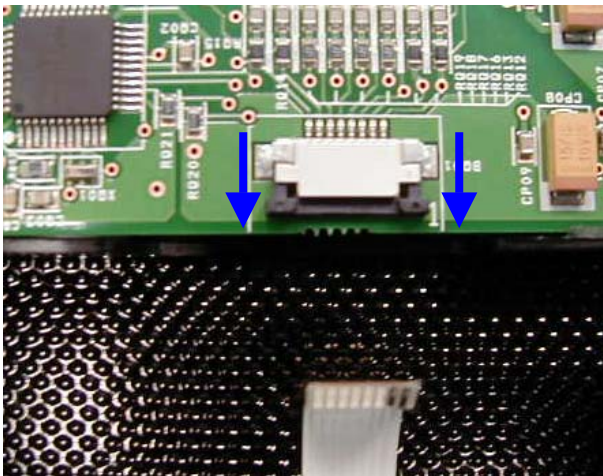


Fig. 8
Disengage latch (black crosspiece)

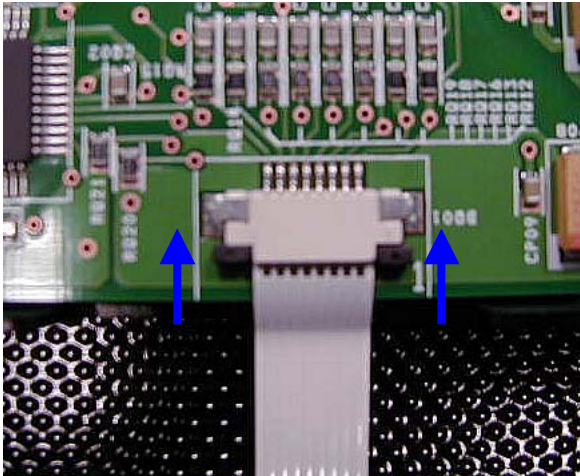


Fig. 9
Plug in stripline (silver contacts visible)
Release latch in the direction of the arrow



Fig. 10
Stripline plugged in and latched in position at the electronics and the keyboard

Mounting the display electronics at the frame



Fig. 11: Fold the electronics up with the display on the glass side

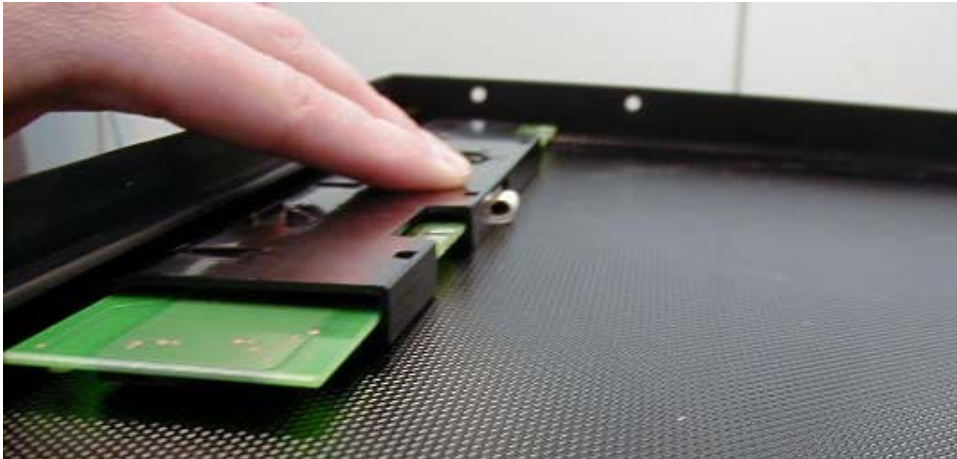


Fig. 12: Press the electronics with the carrier flat on the glass underside...



Fig. 13: ... and press it against the front of the frame so that the projection fits into the recess. It must audibly lock into place.

Connecting two electronics to the glass ceramic (58 and 72cm appliances)

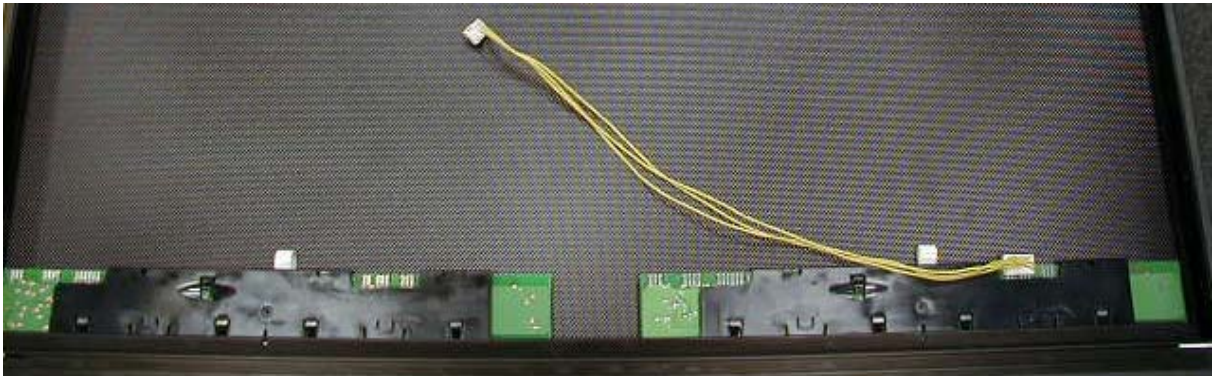


Fig. 14: Connect the 6-pin connector to the connection of the right electronics

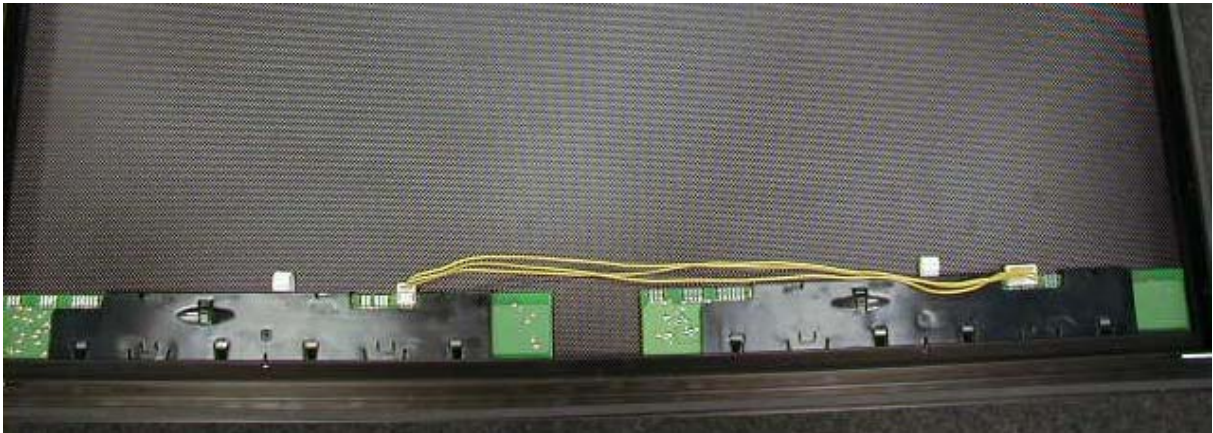


Fig. 15: Connect the 3-pin connector to the left electronics.

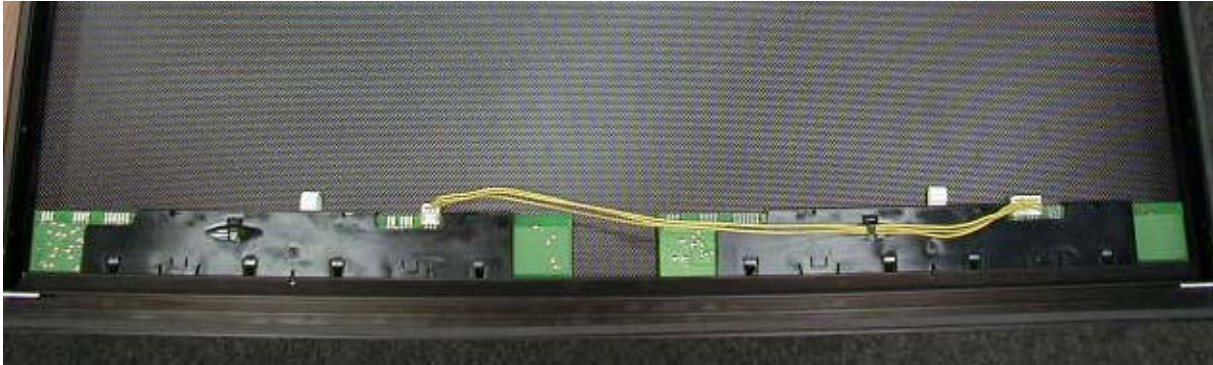


Fig. 16: Clamp the cords into the retaining clamp of the right carrier.

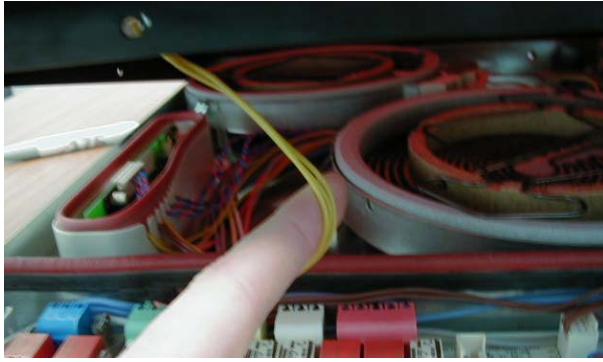


Fig. 17

Connect the 3-pin connector of the power electronics next to the 6-pin connector of the left electronics. To do so, the glass is positioned at the rear underneath the substructure and the lead is plugged into the electronics. It is imperative that the lead be pretensioned to the right with the finger in such a way as to ensure that the lead is not jammed above the red seal or between the frame and the base of the trough.

Design of the variants

Frontline 36 cm heating element



Fig. 18:DEK2210; QHC9520

Fig. 19: FM 4513

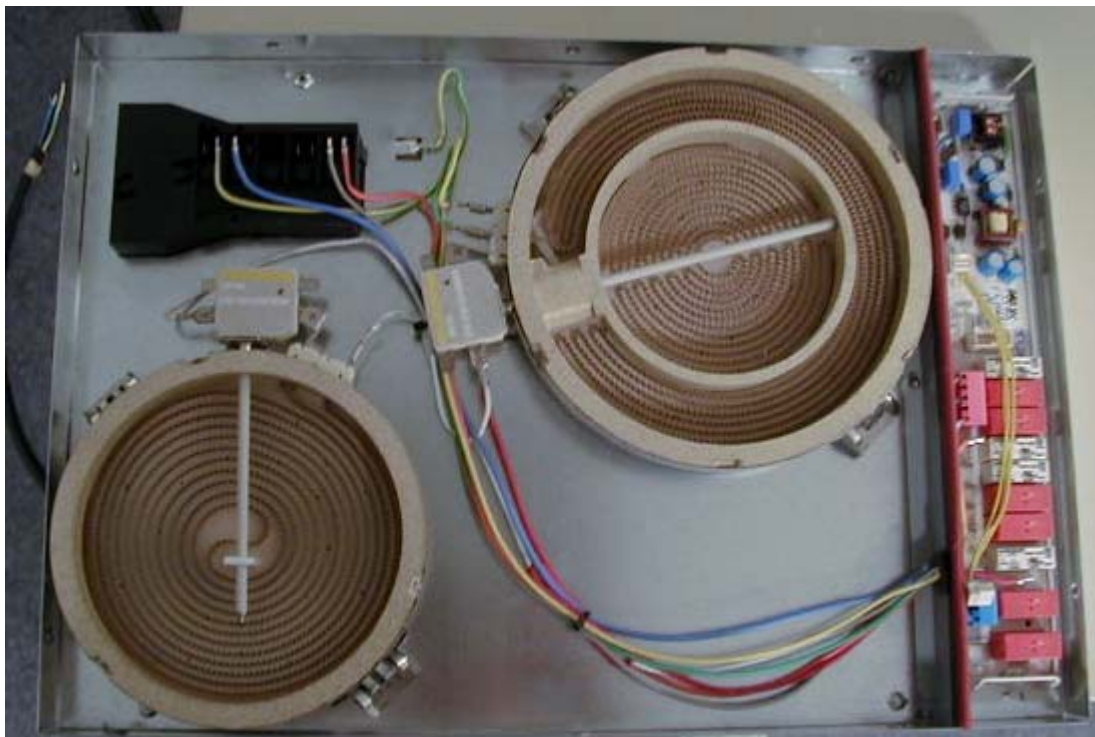


Fig. 20: Design of the 36 cm Frontline model with heating element

72cm model with heating element and pot recognition

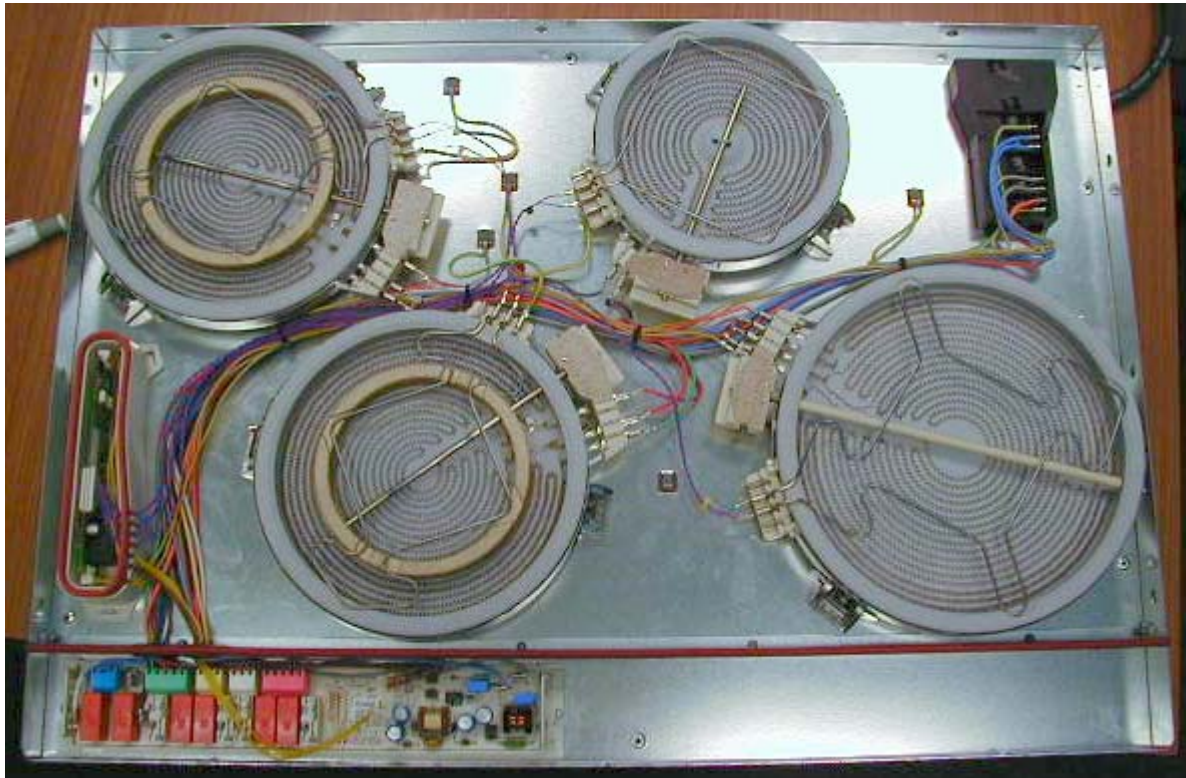


Fig. 21: Frontline 72 with pot recognition

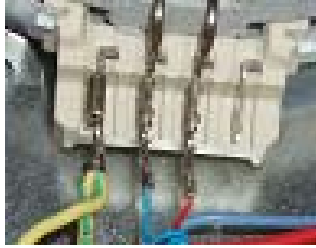


Top fig.:

Complete design of the Frontline 72cm with pot recognition. The twisted sensor (blue / red) is connected to the 4-pin terminal of the heating element. The short earthed conductor cord is connected to the base of the trough at the outer terminal contact, next to the blue sensor wire. A non-connection of this lead results in an incorrect function → switch on values are incorrect and cannot be calibrated.

Fig. 22: Wiring with pot recognition electronics

Connecting the sensor lines with pot recognition



The heating elements are expanded with a connecting module. These have four plug-in flags, from which both of the left and the right one are bridged with each other. The sensor cords (twisted, red and blue) are connected to the two middle ones.

An additional earth cord is plugged in with the outer plug-in flag in such a way that **this is always plugged in next to the**

blue sensor line.

Caution: If plugged in next to a red one → no pot recognition function!!!!!!!!!!!!!!

The allocation of the twisted cords is ensured by coloured cable fasteners. These colours are the same as the load lines in the internal circuits. If they should be incorrectly plugged in, the wrong cooking zone is recognised.

Versions without pot recognition

As an expansion of the segment, a 72 cm cooking field has been created without pot recognition. The only difference in the design is a "single" bus line (as with 36cm) and the lack of a pot recognition including the sensor harness. The load cable harness remains the same.

FLP 36cm induction

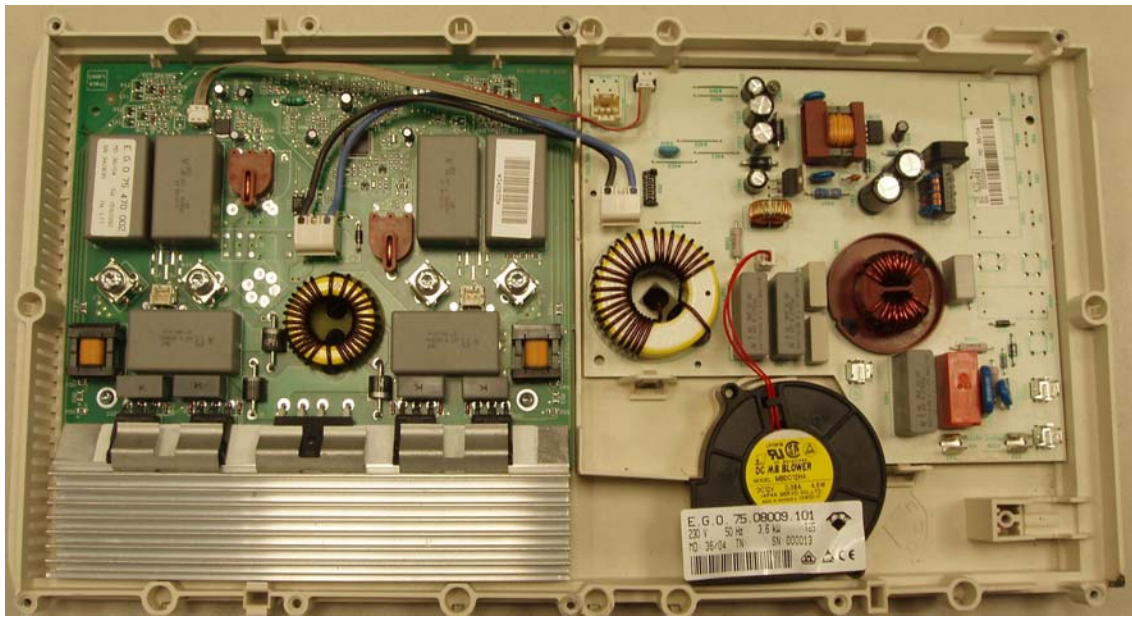


Fig. 23: Double EGO module

The module is pre-wired with the power connection line and the bus line

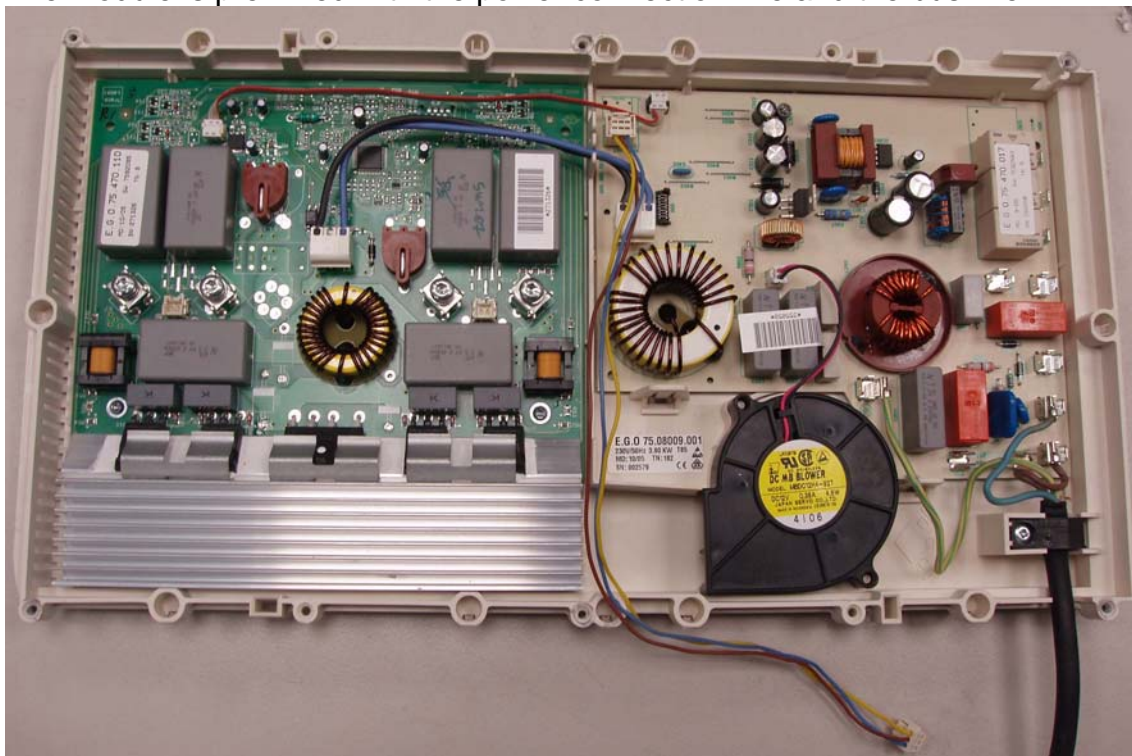


Fig. 24: Pre-wired module

An earthing rivet is mounted on the carrying plate as shown in the illustration and connected to the earth contact on the module via an earthing cord.

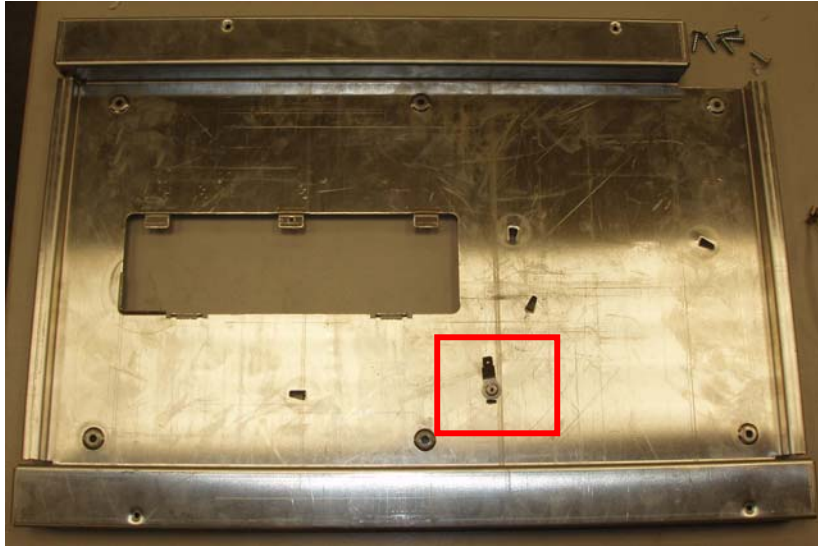


Fig. 25.1: Double carrying plate induction rivet

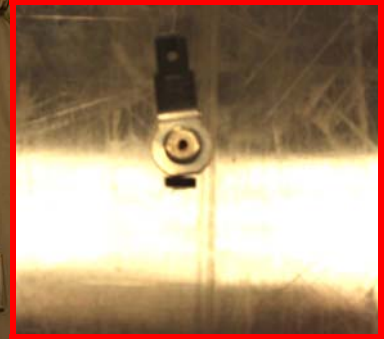


Fig. 25.2: Earthing

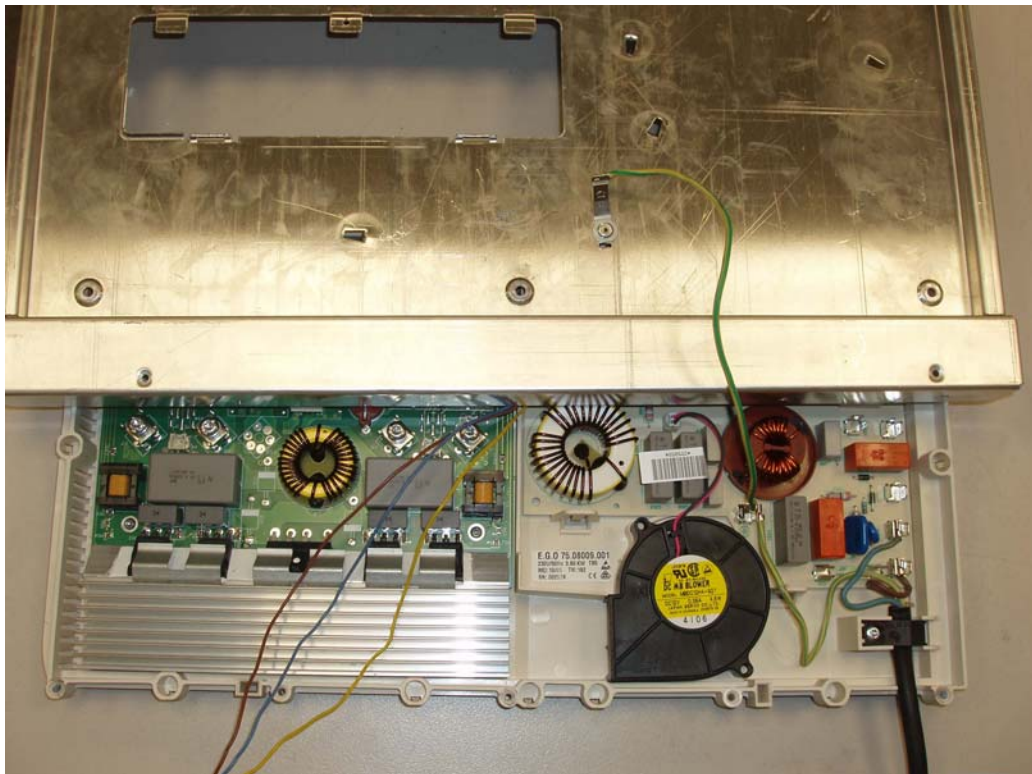


Fig. 26: Mounting and contacting the earthing

The carrying plate is now turned and screwed to the module. The large coil is connected to the rear (here: right) contacts first, whereby the longer (coloured) is connected to the first contact from the right. The lines are laid to the front (here: left).

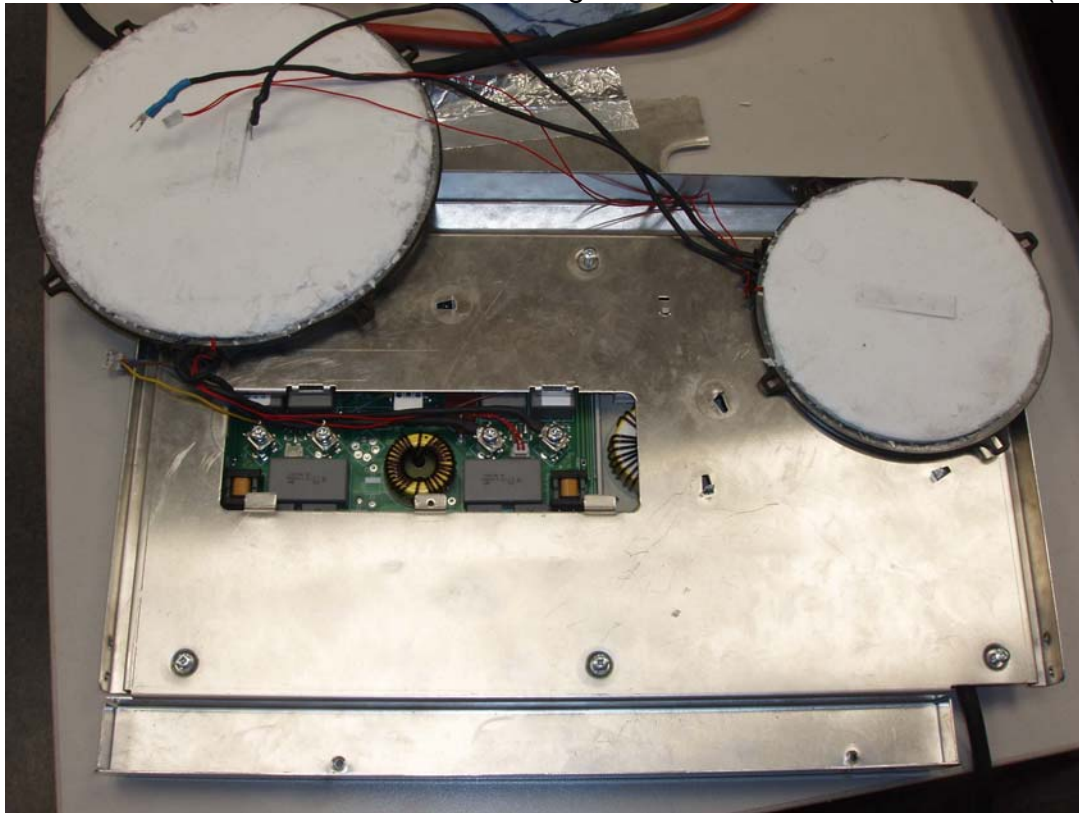


Fig. 27: Mounting the front coil

Now connect the rear cooking plate to the front contacts, place the cover over the opening and place the coils in position.

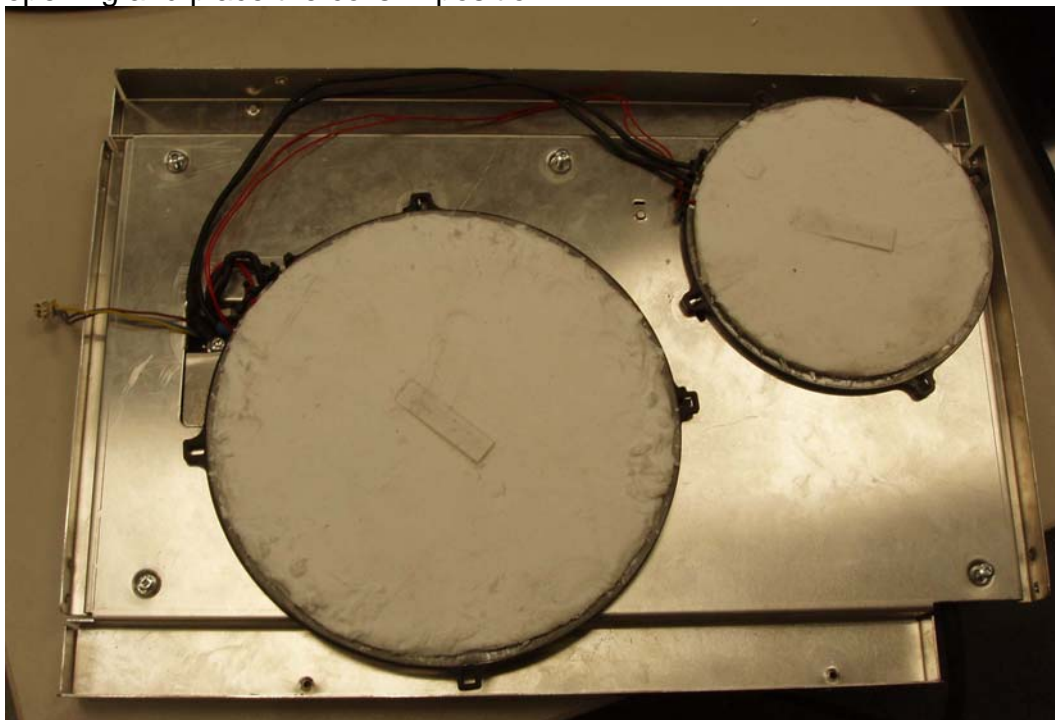


Fig. 28: Completely mounted double induction.

Dismantling in case of service:

1. Remove the appliance
 - Loosen the tension tabs
2. Open the appliance
 - Caution! Disconnect the connection line between the glass and power module before removing the glass.
- 3a. Replacing the display units
 - Loosen the plastic carrier by pressing and turning the plastic carrier using a coin
 - Push the plastic carrier back until the front edge is visible
 - Fold the plastic carrier on the underside
 - Loosen the locking crosspiece as shown in Fig. 8
 - Pull the stripline off.
 - Replace the electronics board
 - Reassemble in the same way. It is imperative that the stripline is correctly plugged in and locked into position.
- 3b. Replacing the coils
 - Turn both of the coils away from the position sideways
 - Lift the cover (fixed in position with the aluminium adhesive tape) up
 - Loosen the coil
 - Connect a new coil
 - If appropriate, only replace the temperature sensor
- 3c. Replacing the module, data line or power connection line
 - Loosen both of the coils (large coil rear contacts, small front contacts)
 - Loosen all of the screws in the aluminium carrier.
 - Careful! Remove the earthed lead from the underside of the aluminium carrier.
 - Replace the corresponding component. Caution! The filter board (without the heat sink) must have the correct configuration.
 - Reassemble the appliance in the reverse order.
- 4: Close the appliance
 - To replace the glass, initially position this in front of the substructure.
 - Plug the data line (three-pin) into the left plug-in module
 - Fold the glass so that it is horizontal. Ensure that no cords are trapped.
 - Screw the appliance together.

FLP 72cm induction

Mount the earthing as with the double induction and connect it to the module. Screw the module onto the carrier and plug the bus wiring in. Connect the coils with the module, whereby the large coil on one side is always connected to the rear contacts. The front screwed parts are always wired first, followed by the rear ones. The longer cords of a coil are mounted on the front screwed part of a pair of contacts. The sensors are plugged in after the load lines have been screwed in tightly.

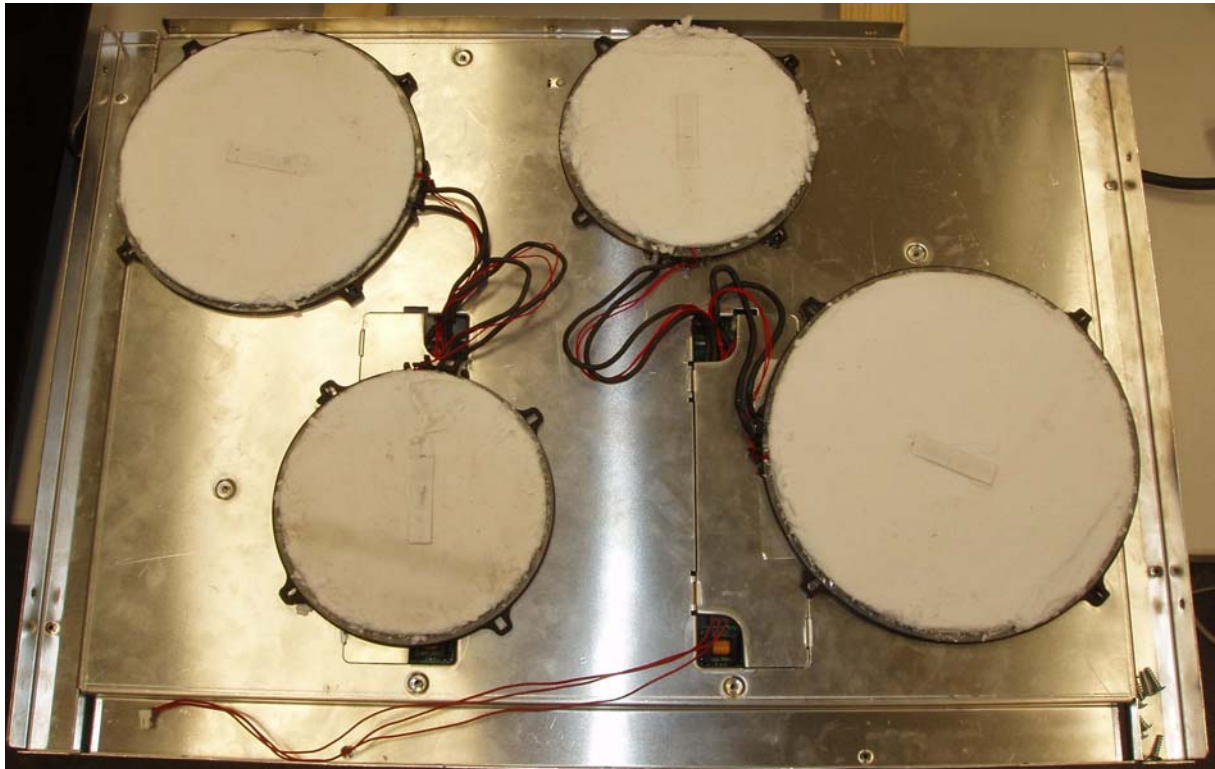


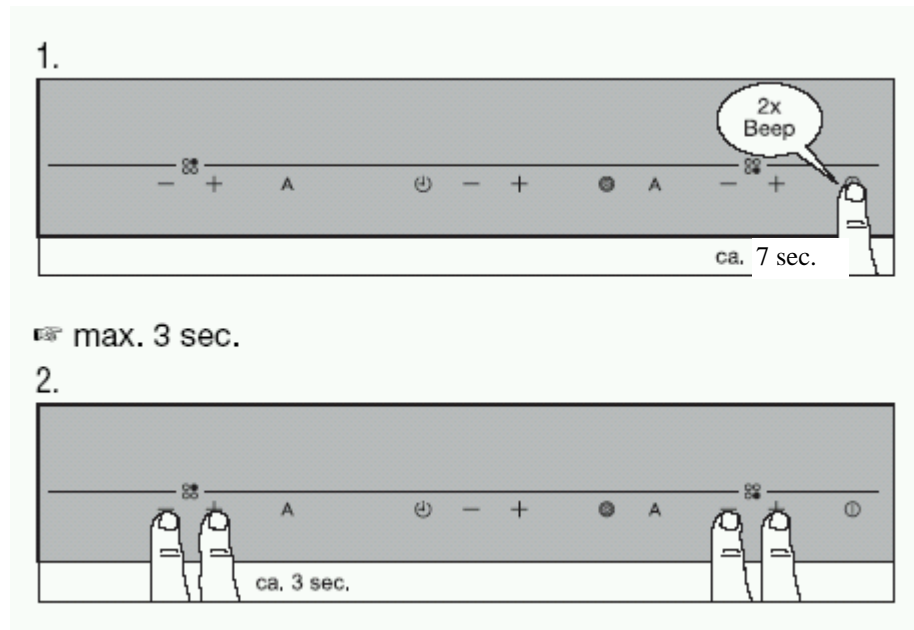
Fig.: Completely mounted quadruple induction

Dismantling in case of service:

1. Remove the appliance
 - ➔ Loosen the tension tabs
2. Open the appliance
 - ➔ Caution! Disconnect the connection line between the glass and power module before removing the glass.
- 3a. Replacing the display units
 - ➔ Loosen the plastic carrier by pressing and turning the plastic carrier using a coin
 - ➔ Push the plastic carrier back until the front edge is visible
 - ➔ Fold the plastic carrier on the underside
 - ➔ Loosen the locking crosspiece as shown in Fig. 8
 - ➔ Pull the stripline off.
 - ➔ Replace the electronics board
 - ➔ Reassemble in the same way. It is imperative that the stripline is correctly plugged in and locked into position.
- 3b. Replacing the coils / data line
 - ➔ Turn both of the coils away from the position sideways
 - ➔ Lift the cover (fixed in position with the aluminium adhesive tape) up
 - ➔ Loosen the coil or release the data line in the right opening and replace if necessary
 - ➔ Connect a new coil
 - ➔ If appropriate, only replace the temperature sensor
- 3c. Replacing the module / module subassembly
 - ➔ Loosen both of the coils (large coil rear contacts, small front contacts)
 - ➔ Loosen all of the screws in the aluminium carrier.
 - ➔ Careful! Remove the earthed lead from the underside of the aluminium carrier.
 - ➔ Replace the corresponding component. Caution! The filter board (without the heat sink) must have the correct configuration.
 - ➔ Reassemble the appliance in the reverse order.
- 4: Close the appliance
 - ➔ To replace the glass, initially position this in front of the substructure.
 - ➔ Plug the data line (three-pin) into the left plug-in module
 - ➔ Fold the glass so that it is horizontal. Ensure that no cords are trapped.
 - ➔ Screw the appliance together.

General test routines

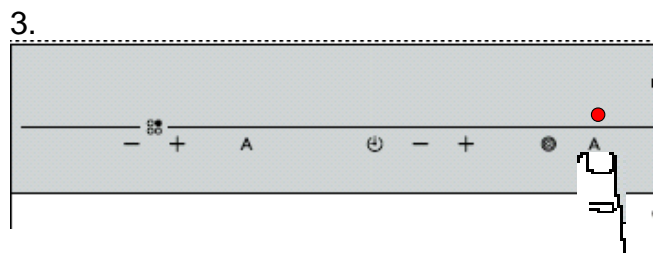
The following key combinations are to be used to check the software version:



The software version is shown in the cooking zone displays for approx. 10 sec..

Calibrating the top recognition

To calibrate the pot recognition, step 3 is carried out after steps 1 and 2.



The pot recognition system is calibrated by pressing "A" (4th button from the right). For functional safety reasons, the calibration should be carried out as above each time a part is replaced.

Troubleshooting:

Fault indication	Display	Cause	Remedy
Incorrect configuration	E0	Power circuit/ control PCB incorrectly configured or defect	Replace the power circuit/control PCB
TCM	E1		
Communication error with the pot recognition	E2	Bus line defect	Replace bus line, activate service mode for calibration
		Pot recognition defect	Replace pot recognition. Cooking zone must be empty when reactivating for the first time.
Bus voltage failure	E3	Voltage regulator on the power circuit not in tolerance	Inspect the bus line for damage, interface or power circuit possibly damaged
Coil temperature sensor defect	E4	Sensor damaged	Replace the sensor for the affected cooking zone.
Supply voltage interrupted	E5	A phase L1 or L2 does not exist on the induction module.	Check power supply installation, check cooking zone connection.
Communication error power PCB induction	E6	No 12V power supply, internal communication error	<ul style="list-style-type: none"> - Replace control PCB - Replace power PCB
Heat sink temperature sensor defect	E7	Sensor defect	Replace power PCB
Communication error	E8	Disturbed communication between interface and power circuit/control PCB	Replace interface or power circuit/control PCB
Configuration error	E9	Invalid interface configuration	Replace power circuit or interface
All displays illuminated		Incorrect configuration	Replace display unit
		No connection with the PCB of the keyboard	Check connection, replace membrane conductor,; keyboard defect, replace glass

Should certain functions be defect (e.g. heating circuit defect. "H"-display activated, short-circuit...), the faults are to be localised analogue to induction G4 or HIC respectively.