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### Built-in Hobs

**INDUCTION HOB  
of 3 and 4 ZONES with  
PUMA Induction and  
Kingfisher Interface boards**



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# 1 - INTRODUCTION

## 1.1 - PURPOSE OF THIS MANUAL

The purpose of this Manual is to provide information of new Induction Built-in Hobs 6 zones with 3 bridges and with the addition of information from the Service Manual for 599729030 to perform troubleshooting.

## 1.2 - WARNINGS



- All work with open appliances must be done with the mains supply disconnected.
- Work on electrical equipment should only be carried out by qualified personnel.
- Before working on a device, check the efficiency of the system casing using appropriate equipment. As an example, refer to the indications described / illustrated in the portal Electrolux Learning Gateway (<http://electrolux.edvantage.net>).

After the work, carry out electrical safety tests and ensure that the all safety devices are working properly.

- In the case of manipulation / replacement of the PCB, use the ESD kit (Code 405 50 63-95/4) to prevent electrostatic discharge damage the circuit board see SB No. 599 72 08-09

## 2 - PRODUCT DESCRIPTION

### 2.1 – LAYOUT

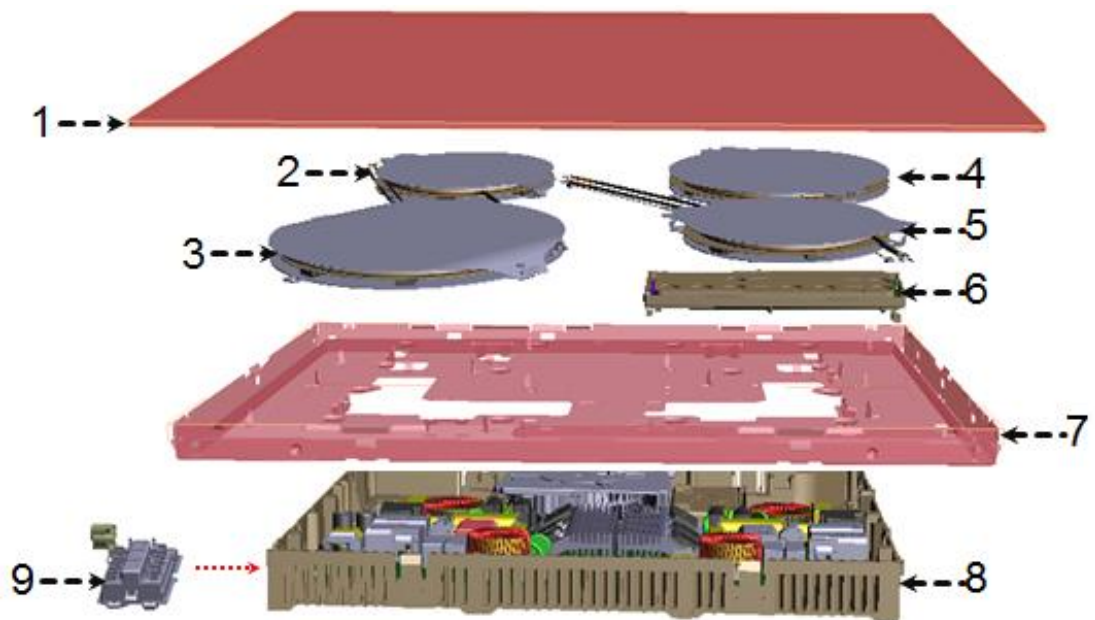


Fig. 1

1. GLASS CERAMIC
2. INDUCTION COIL REAR LEFT
3. INDUCTION COIL FRONT LEFT
4. INDUCTION COIL REAR RIGHT
5. INDUCTION COIL FRONT RIGHT
6. KINGFISHER USER INTERFACE
7. CARRIER, ZINC COATED STEEL
8. PUMA INDUCTION BOARD
9. MAIN TERMINAL

## 2.2 - TECHNICAL DETAILS

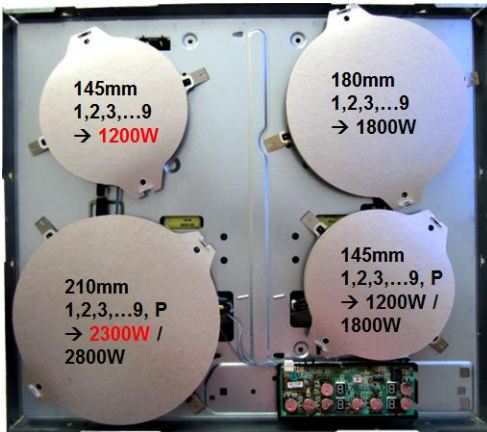


Fig. 2

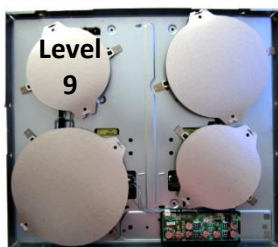
4 Zone	Rear Left	Rear Right	Front Right	Front Left
<b>Coil</b>	145mm	180mm	145mm	210mm
<b>Power Level</b>	1,2,3,...9 → 1200W	1,2,3,...9 → 1800W	1,2,3,...9 → 1200W P = 1800W	1,2,3,...9 → 2300W P = 2800W

3 Zone	Rear Left	Front Right	Front left
<b>Coil</b>	145mm	210mm	180mm
<b>Power Level</b>	1,2,3,...9 → 1200W	1,2,3,...9 → 2300W P = 2800W	1,2,3,...9 → 1800W

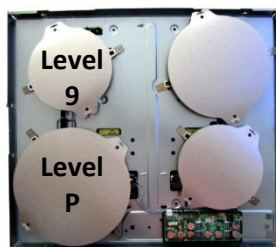
### Power distribution for pair of cooking zones left and right

- Each pair of cooking zone could be supplied with max. of 3300W total power.
- The power distribution is geared to the highest setting power level.
- If both cooking zones are activated and the amount of total power is higher than 3300W.  
Power level: e.g. 9 – 9, 9 – P, 8 – P
- The power level of the last activated cooking zone is placed and the first activated cooking zone, the power level is adjusted to the total power.  
e.g. 9(8) – 9, 9(6) – P, 8(6) – P

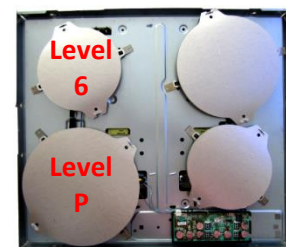
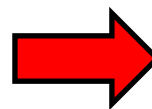
An example:



The customer switches on the left rear coil with power level 9  
After that...



... the customer switches on the left front coil with power level P



The power management calculates the adjusted power levels with the total power of 3300W and resembles the power of the first cooking zone setting to Level 6.

## 2.3 - DISMOUNT APPLIANCES

### 2.3.1- REMOVE THE CERAN GLASS

Remove the 6x screws in all the corners and unlock all hooks to remove the Ceran glass

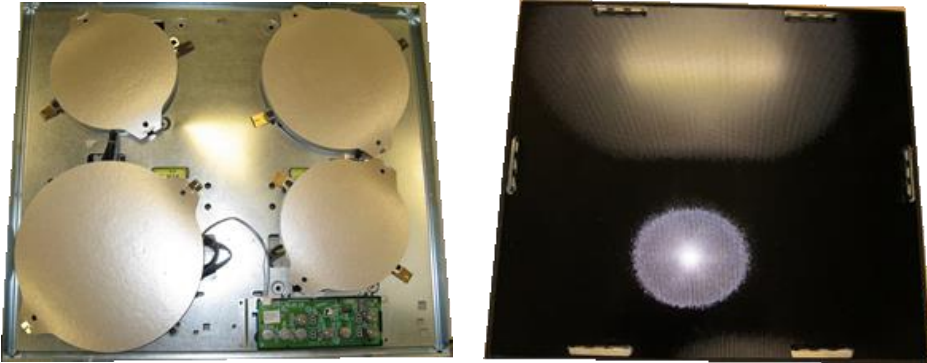
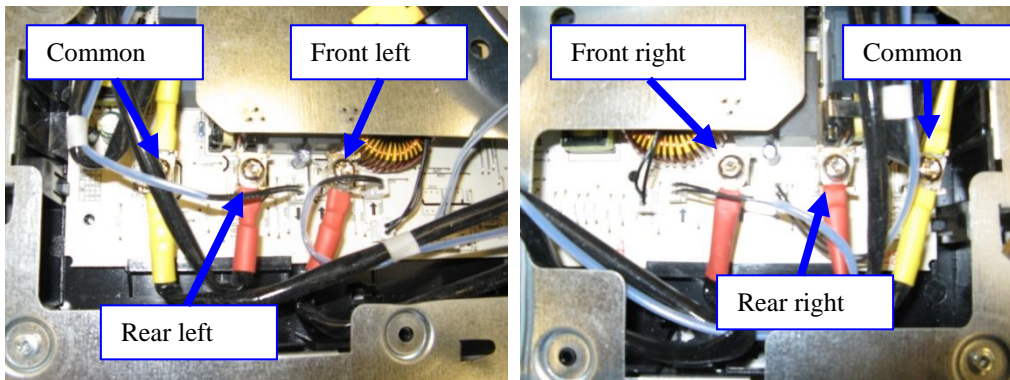


Fig. 3

### 2.3.2 - CONNECTION OF COILS

Remove the harness connections to remove the cooking zones



Coil Connections left side

Coil Connection right side

Fig. 4

### 2.3.3 - CONNECTION OF USER INTERFACE

Remove the harness connections to remove the User Interface



Fig. 5

### 2.3.3 - REMOVE COIL CARRIER

Remove Coil Carrier to access the PUMA Board



- ★ 4x screws
- ★ 8x clipped



Fig. 6

## 2.4 - GLASS DESIGN

### 2.4.1 – 4 ZONE AESTHETIC



Fig. 7

### 2.4.2 - 3 ZONE AESTHETIC



Fig. 8

### 2.4.3 – MENU MODE

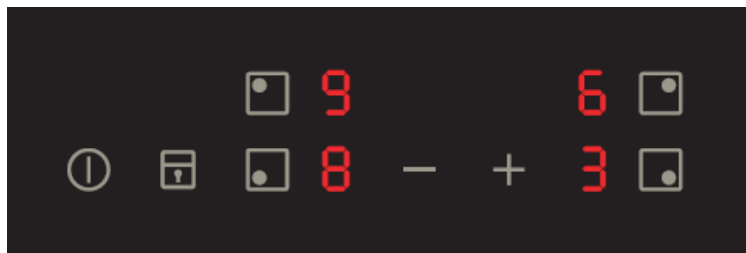


Fig. 9



## 2.5 - ELECTRONICS

### 2.5.1 - USER INTERFACE "KINGFISHER"

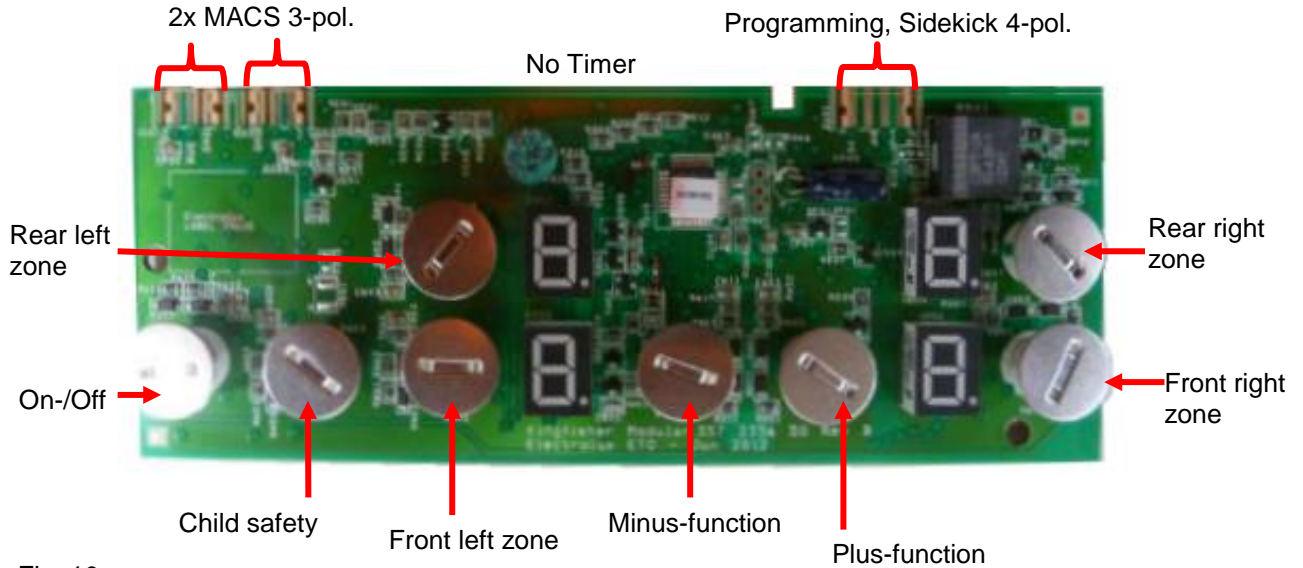


Fig. 10

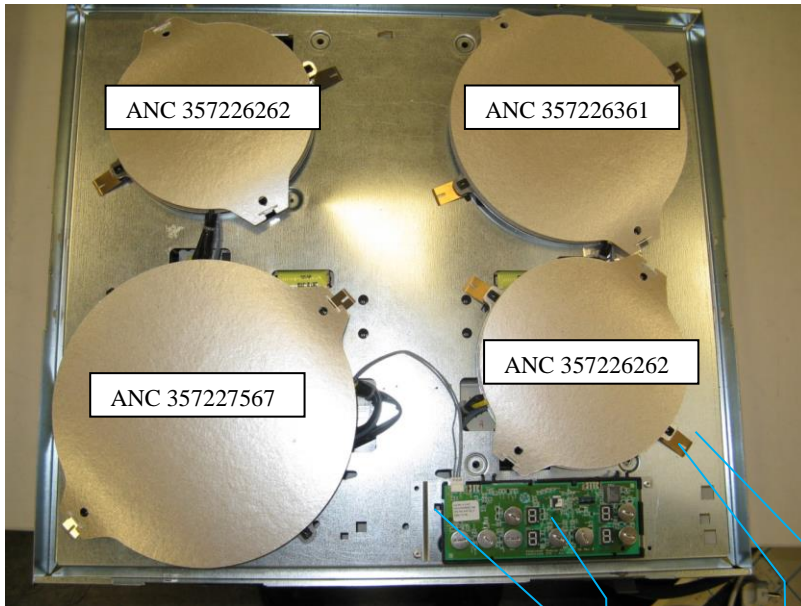


Fig. 11

- 1x 807099201
- 3x 561616800
- 561736400
- 807076401 (3-z)
- 807076501 (4-z)
- IF 561351750 not configured
- IF 561345714 3-zone config
- IF 561345715 4-zone confi
- IF 561345716 3kW config

## 2.5.2 - INDUCTION MODULE PUMA

Standby: 2013 <0,5W

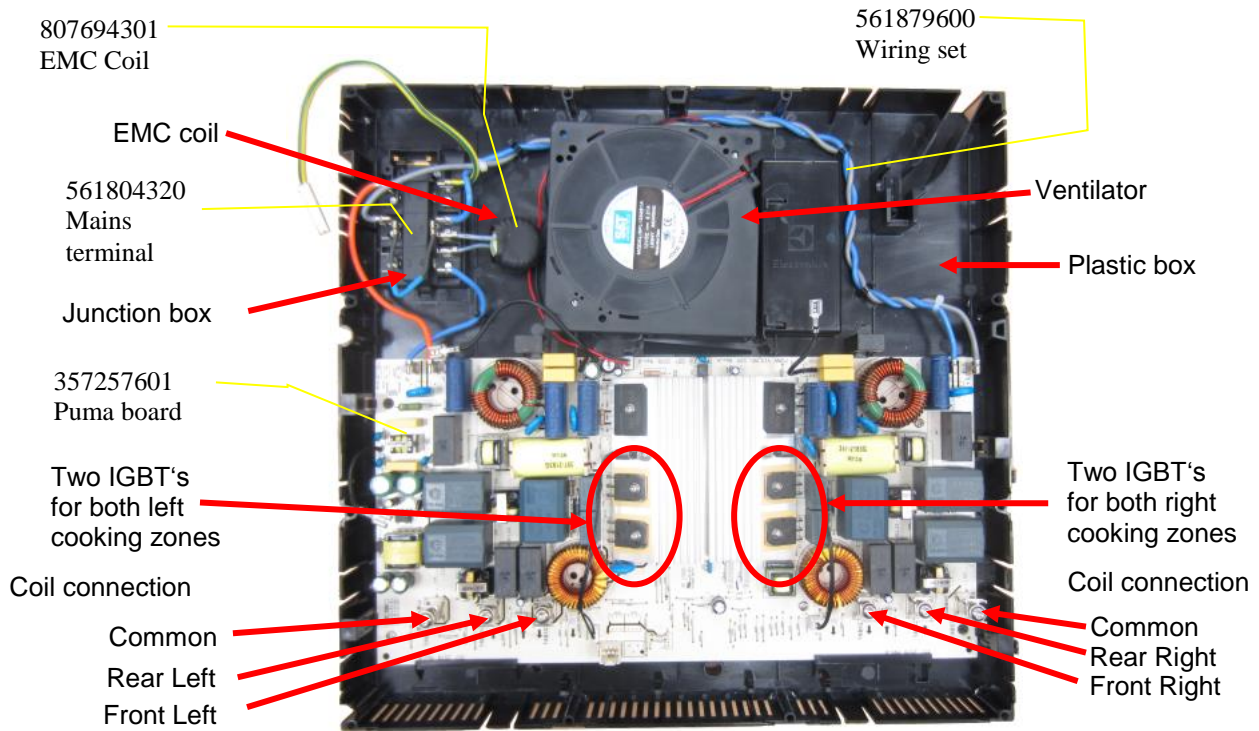


Fig. 12

### Ventilator

The size of the ventilator is larger than in the induction modules Cheetah and Tiger.

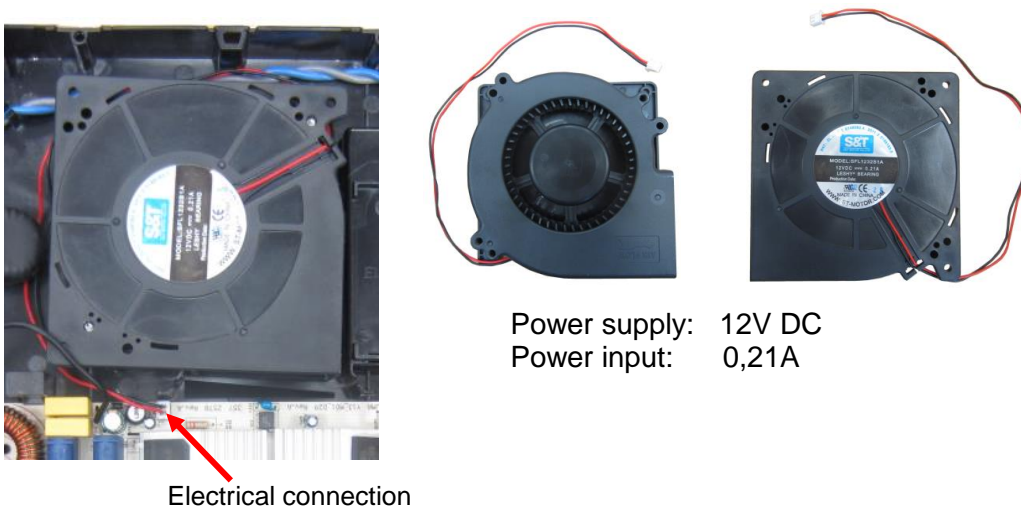
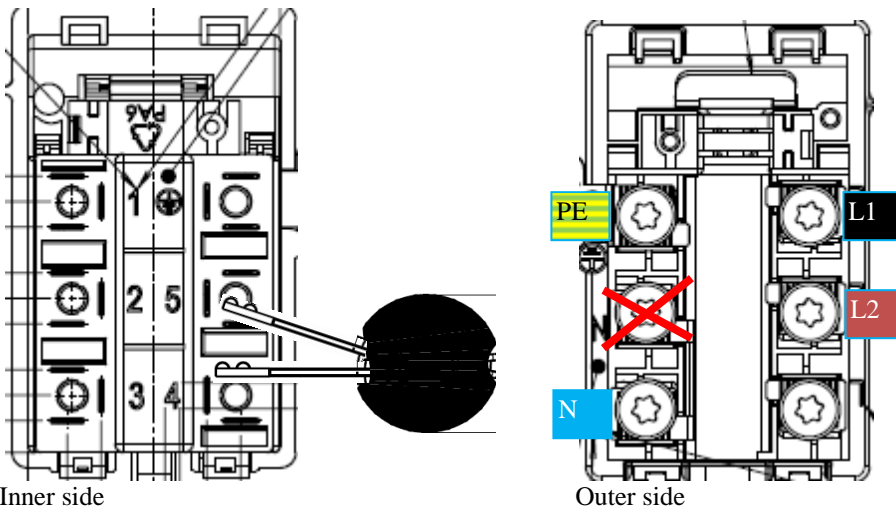


Fig. 13

## 2.6 - INTERNAL WIRING

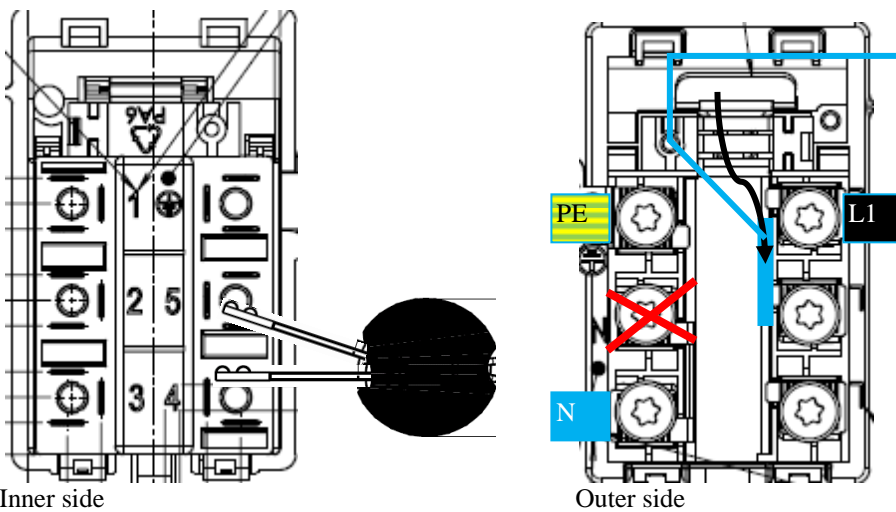
Connections on Mainsterminal

All variant in 2 Phase connection



Inner side  
Fig. 14

All variant in 1 Phase connection



Inner side  
Fig. 15

Remove Bridge and mount between connector 1 und 2

Connection diagram

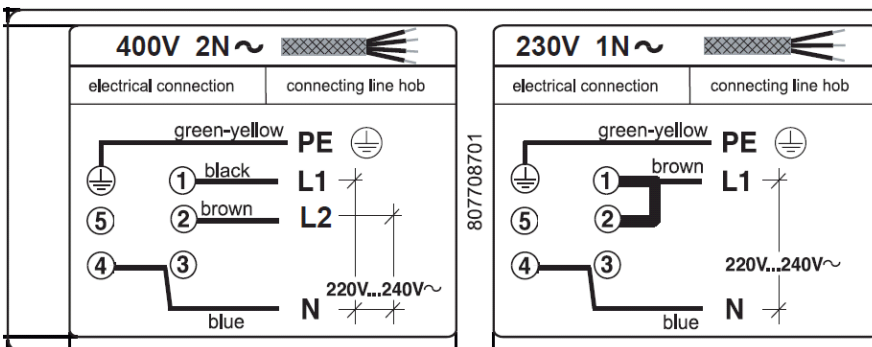


Fig. 16

## Variant in 1 Phase connection and Cable with plug

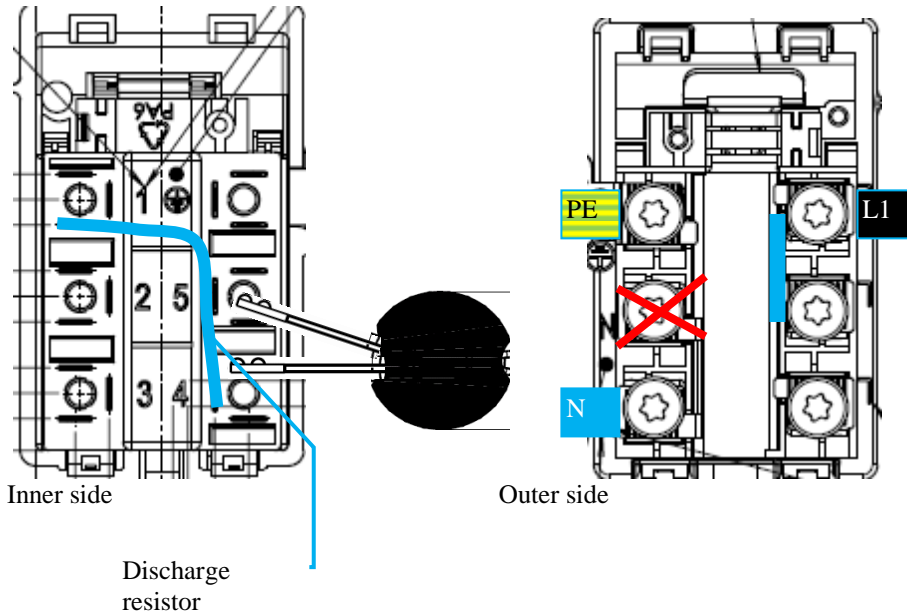


Fig. 17

## 3 - SERVICE MENU

### 3.1- MENU MODE

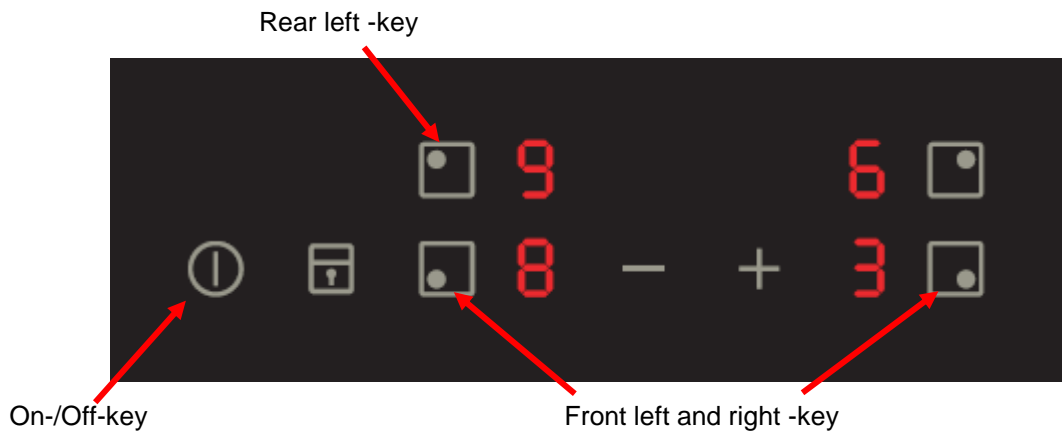


Fig. 18

#### **Menu mode activation:**

Touch the “On/Off–key” for approx. 3sec, the display switches on and off and the buzzer sounds.

Afterwards, touch the “Front left”-key and the “Front right”-key simultaneously until than “d” appears on the display (rear left).

Touch the “Rear left“-key to choose the menus “Demo mode, Service mode and Error mode“.

#### **Menu mode deactivation:**

The menu mode is after 20sec. automatically deactivated, if no any touches the key.

### 3.2 - DEMO MODE

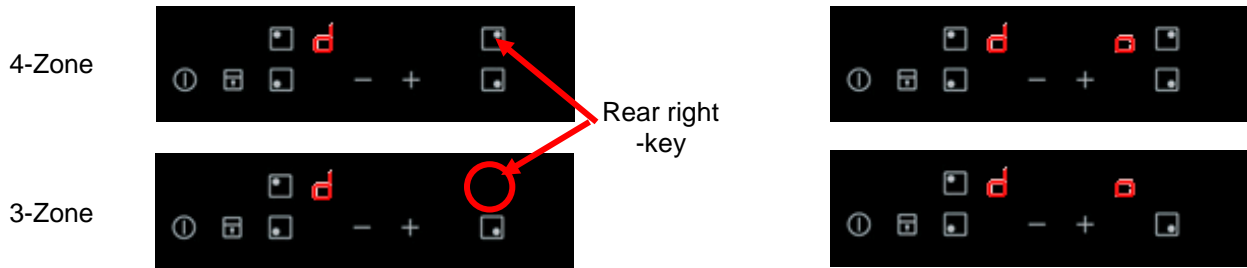


Fig. 19

#### Demo mode activation:

Activate the menu mode to see the display “d”.  
Touch the “Rear right“-key to switch on and off the demo mode.

Display “d” = demo mode not activate

Display “do” = demo mode activate

The demo mode is activated, if the cooking zone on (without pot) and no error “F” appears on the display.

Attention !

When the appliance is switched off or it is disconnected from the power supply, the demo mode is still activated when you switched on the appliance.

### 3.3 - SERVICE MODE

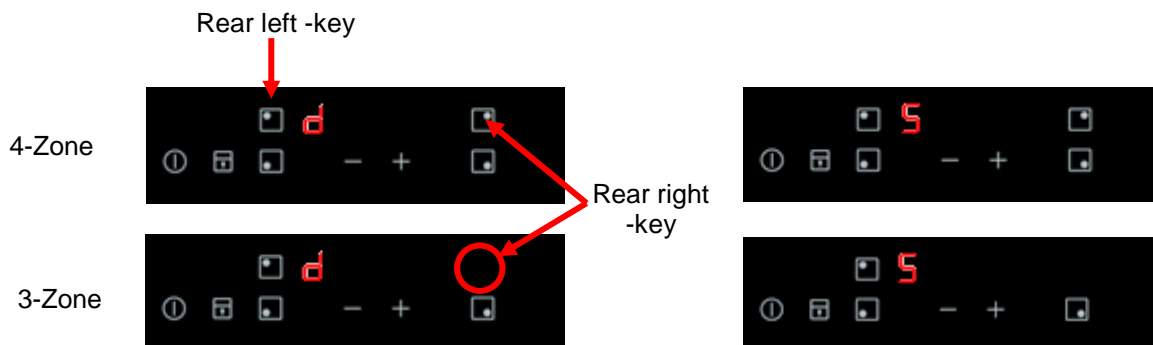


Fig. 20

#### Service mode activation:

Activate the menu mode to see the display “d”.

Touch the “Rear left“-key one time, all displays lights up. “S” appears on the display for the timer. Touch the “Rear right“-key to start the service mode.

Both rear displays are shown in the software:

1. All LEDs and displays on.
2. Firmware for the user interface → e.g. 02 rear left 0 and rear right 2
3. Firmware for the induction module → e.g. 31 rear left 3 and rear right 1
4. Off-status

### 3.4 - ERROR MODE

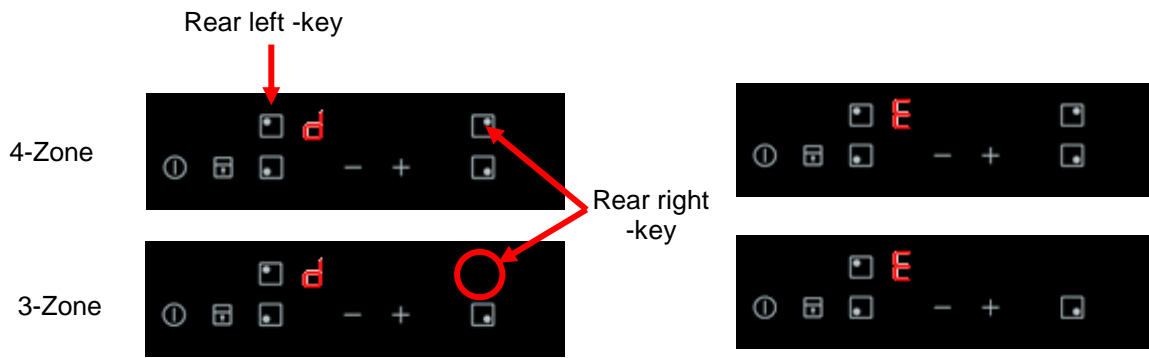


Fig. 21

#### Error mode activation:

Activate the menu mode to see the display "d".  
Touch the "Rear left"-key twice, "E" appears on the display.  
Touch the "Rear right"-key to activate the error mode.

In 5 seconds, the last **three alarms** (eldest alarm first) are shown on the displays.  
The alarm appears on the display for the concerned cooking zone.  
When the displays are shown "E" only, no alarm is in the error memory.

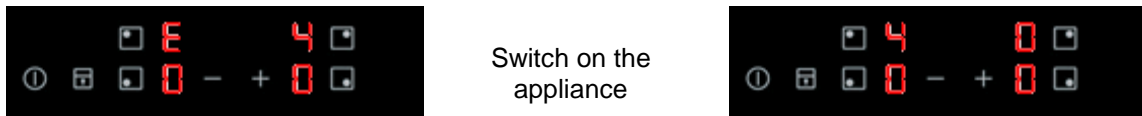


Fig. 22

## 4 - ERROR CODES

Error Display	Possible Failure	Action to solve
E0		
E1	Configuration Error	Re-program Interface Exchange interface
E2	-	-
E3	Voltage out of range - lower than 150 V - higher than 280V	Check connection of Neutral. When neutral is missing the voltage can rise up to 400V !! 400 V only on right hand side (Contact 2 – 4) will destroy the module after turn on
E4	1.Overheating of zone	Cool down zone and try again
	2.Sensor of coil is defect or not connected.	Switch appliance on again and the defect zone will be shown. 1. Check the connection 2. Exchange coil
	3.Power board is defect	When the exchange of Coil showing still an defect of the zone, exchange the Power board
E5		
E6	Power board is not working	1. Do a mains reset, if this do not solves the problem 2.Check connection of Phases. When the supply voltage for the right module is broken. Check EMC coil at Mainsterminal. Check internal wiring
	Power board is defect	3. Exchange Power board
E7	Fan of Power board is blocked	Check if there is something in the grid that blocks the fan
	Fan is not connected	Check if connector of fan is in Place
	Fan cannot start	Exchange Fan/ Exchange power board
E8	Bus communication error	Check the connection to the interface 1. Exchange bus wiring 2. Check interface 3. Exchange power board
E9	Interface error	Exchange interface + Interface carrier

**NOTE:** For complete troubleshooting see the Service Manual 599729030.

## 5 - WRONG MAINS CONNECTION

L1	L2	L3	N	PE	FAILURE CODE	FUNCTION, DISPLAY
✗	✓	✓	✓	✓	E8 / E5	Start-up phase: left + right interface, middle interface keeps dark. Middle interface no function. No "F" display in not appearing when pot is placed, no power.
✓	✗	✓	✓	✓	E1	Start-up phase: no display on all interfaces. No function, no display on left and right display. Middle interface showing E1 continuously.
✓	✓	✗	✓	✓	E8 / E5	Start-up phase: left + middle interface, right interface keeps dark.
✓	✓	✓	✗	✓	E3	Start-up phase: all displays normal. Full function, It can happen that the displays for short time are higher illuminated.
N	✓	✓	L1	✓	E3	Continuously beep.
✓	N	✓	L2	✓	E3	Continuously beep.
✓	✓	N	L3	✓	E3	Continuously beep.

✓ = connected, voltage in range; ✗ = not connected, voltage out of range

## 6 - WIRING DIAGRAM AND CIRCUIT DIAGRAM

### Wiring diagram

Power supply

Wiring mains terminal  
Article number code 561 879 600

(separate delivery)

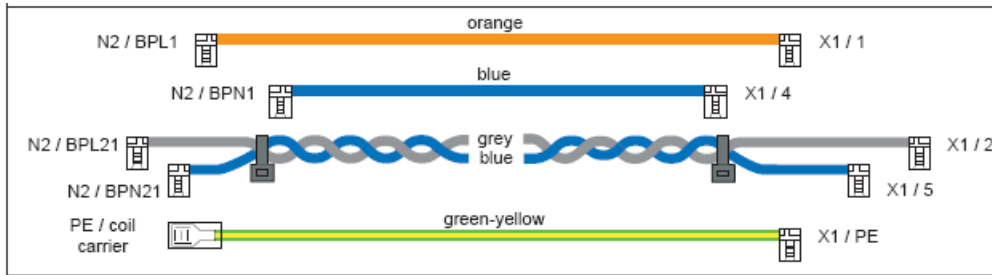


Fig. 23

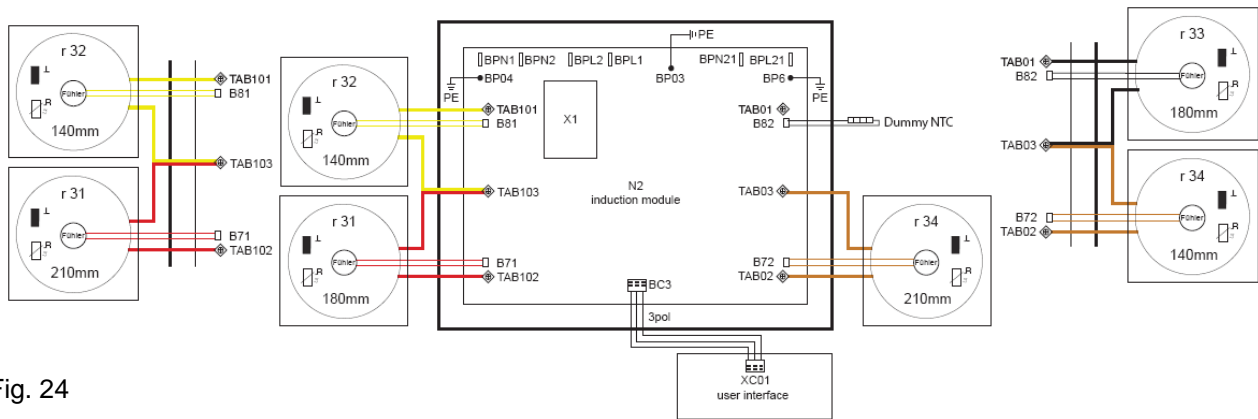


Fig. 24

### Circuit diagram

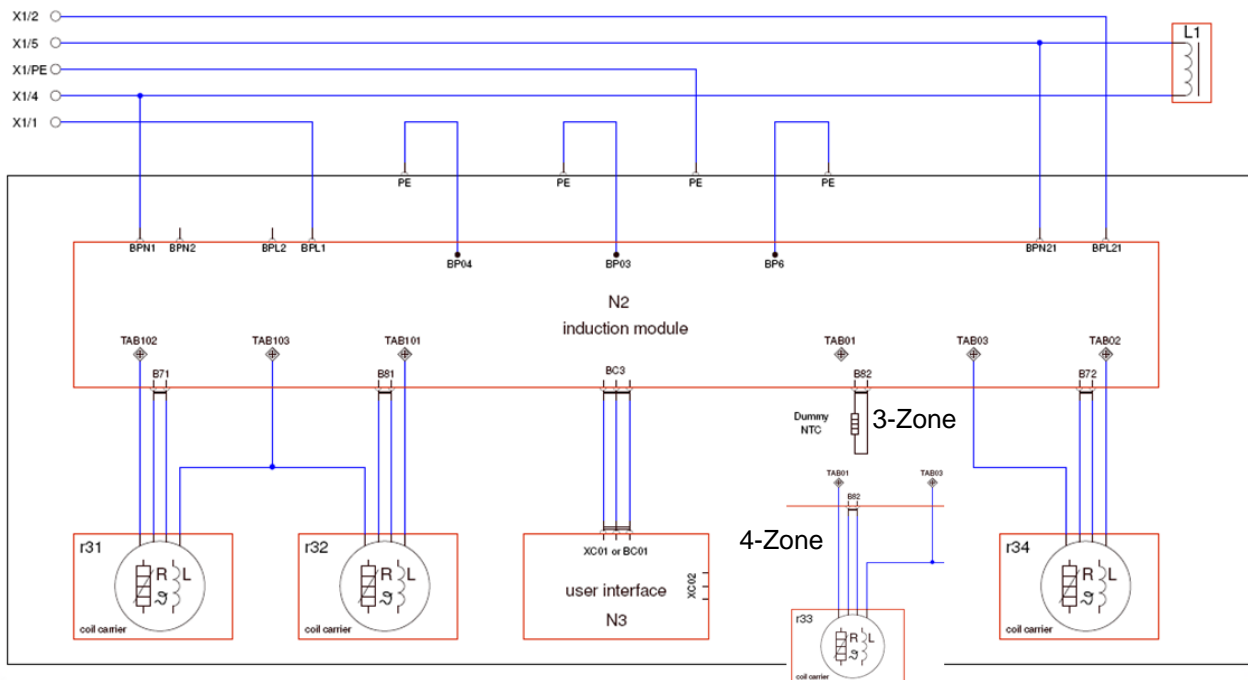


Fig. 25



**7 - REVISIONS:**

<b>Revision</b>	<b>Date</b>	<b>Description</b>	<b>Author</b>	<b>Approved by - on</b>
00	10/2014	Document Creation	BSP	