



# SERVICE MANUAL COOKING

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Consumer Service - EMEA  
Quality & Continuous Improvement - Technical Support

## Radiant HoB NANDA DEVI POB & User Interfaces



EN

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# 1 PURPOSE OF THIS SERVICE MANUAL

The purpose of this Service Manual (SM) is to provide Service Engineers who are already familiar with the repair procedures of Radiant Hob's

This SM will provide information on:

- Radiant Hob Powerboard & User Interfaces
- Accessesbility
- Technical and functional characteristics
- Trouble shooter

## Document Revisions

Rev.		Date	Description	Author
00		07/2018	Document creation	BSP

## 2 SAFETY



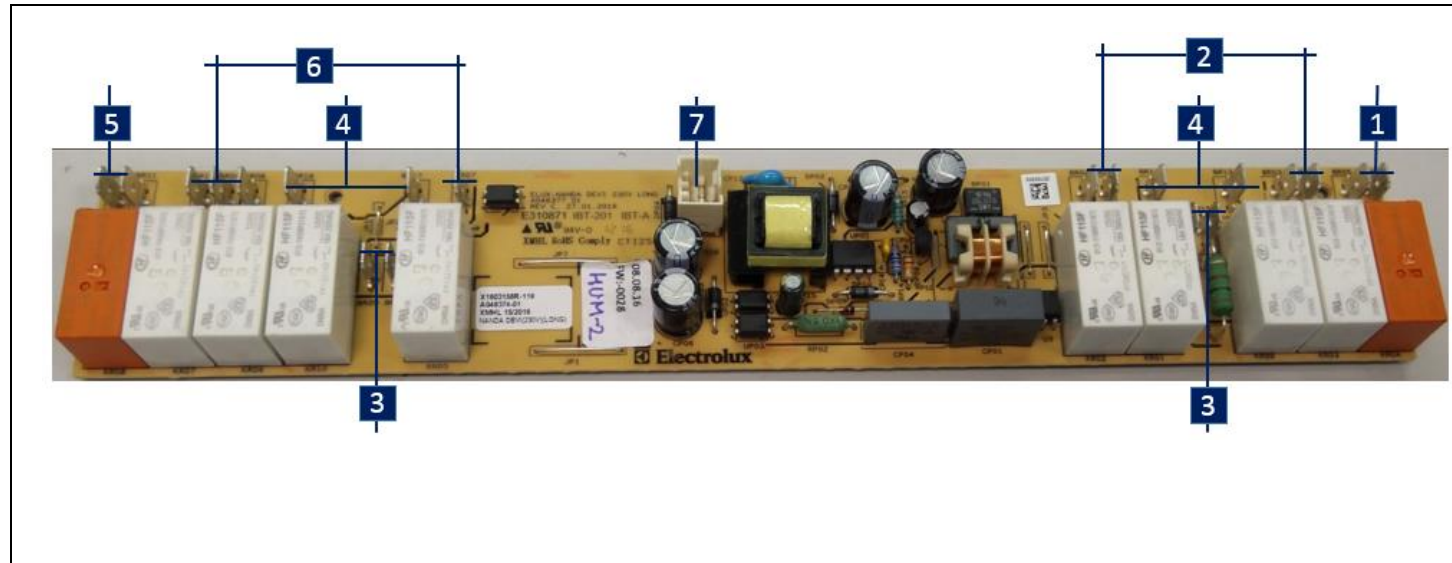
- All the work to be performed inside the appliance requires specific skills and knowledge and may only be carried out by qualified and authorised Service Engineers
- Before you access internal components, take the plug out of the socket to disconnect the power supply.
- Some of the components in the mechanical part could cause injuries, so wear suitable protection and proceed with caution.

### 3 NANDA DEVI POWERBOARD

It's the Power Board for Radiant Hobs replacing Everest Power Board.

Versions of Nanda Devi; 400 V & 200 V (Long & Short)

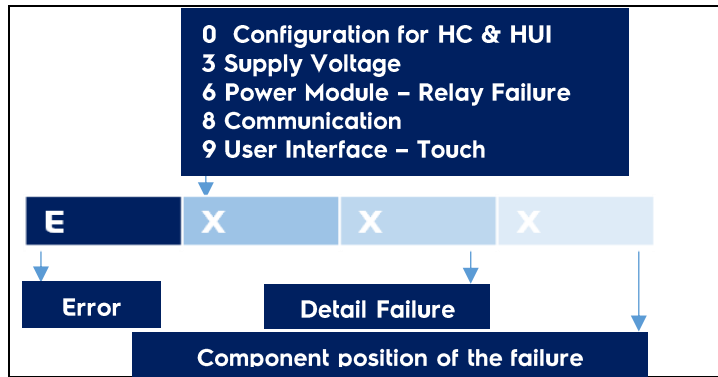
1. Phase L1 input
2. Phase L1 Output
3. Neutral Input
4. Neutral Output
5. Phase L2 input
6. Phase L2 Output
7. Macs Connector



#### 3.1 New features added in Nanda Devi

1. Safety Feature- Nanda Devi monitors the relay turned on properly or not, by measuring relay coil voltage. If relay is not properly turned on, than the system is taken into safe state by throwing an E6 error at display.
2. Safety Feature- Nanda Devi monitors the relay contacts to check relay glue or relay stuck condition. If relay is glued and not turned off or on, properly due to glued contacts than the system is taken into safe state by throwing an E6 error at display.

## 4 ERROR CODES GENERATED BY POWER BOARD



"2" Digit Error Code	"3" Digit Error Code	Possible Root Cause	Troubleshooting
E0	E011	Wrong configuration for Hob Control	Check the configuration and software version on HUI as per the PNC of Hob.  If the Software update didn't work then the Step 1. Change the UI Step 2. Change the POB
		SW error detected	
E1	E021	HUI configuration not compatible	➤ Disconnect the appliance from the mains for 30 sec 1) If alarm still occurs replace or reprogram left User interface. 2) If the user interface was replaced and then the alarm occurs, the user interface spare parts is wrong programmed or defect
	E031	Defect CRC of complete configuration block or missing configuration	
	E041	Defect CRC of HUI configuration block	
	E051	Defect CRC of project configuration block	

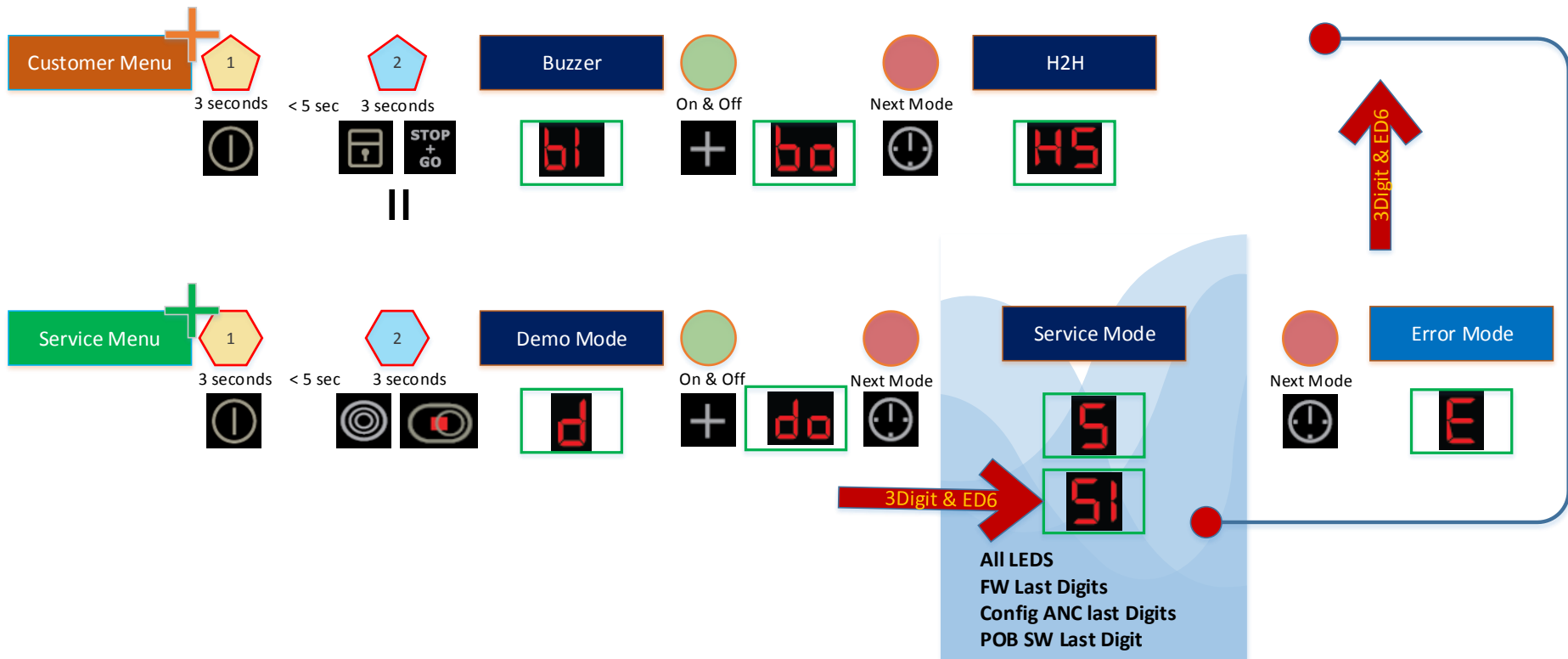
E3	E321	Alarm "50Hz signal missing"	<ul style="list-style-type: none"> <li>➤ Disconnect the power cable and connect it again.</li> <li>➤ Change the POB</li> </ul>
E6	E641	Relays - secondary side sensing failure	<ul style="list-style-type: none"> <li>➤ Disconnect the power cable and connect it again.</li> <li>➤ Check for wear and tear in relays, it is related mostly to relays.</li> <li>➤ Check for any broken component in PCB</li> <li>➤ Change the PCB.</li> <li>➤ Connect the appliance as per the circuit diagram</li> </ul>
		Miss alignment of Neutral and Phase	
	E601	Relays - primary sensing failure OR	
		13V are supplied, but without both ac signals (CYCLE 1 + CYCLE 2)	
	E6A1	Relays - supply voltage out of range (wiggler)	
	E621	HC internal safety software class failure detected	
Miss alignment of Neutral and Phase		Connect the appliance as per the circuit diagram	
E8	E811	Communication - HUI message for >10 sec missing	<ul style="list-style-type: none"> <li>➤ Reconnect the Macs wire again.</li> <li>➤ Check Macs Cable, if it is broken replace it.</li> <li>➤ Check the UI and replace</li> <li>➤ Check the POB and Replace</li> <li>➤ Check power connection</li> <li>➤ Change the induction module</li> </ul>
		Older power board version have 30 sec communication timeout	
	E821	Communication - HC message missing	
	E841/2	Budgie UI : HUI Communication timeout (for Hobs with several user interface)	

E9	E91x	Too low key reference value	Disconnect the appliance from the mains for 30 sec. If alarm still occurs after 1 min operation 1) See Charter <a href="#">- 5.1.1 User interface with Slider - installation tips + key operation</a> 2) Check Wiring 3) Exchange User interface.
	E92x	Too low key reference signal. (~ ¼ of normal value for Atmel processor)	
	E93x	Too high key reference value	
	E94x	Too high key reference signal	
	E96x	Communication with external key module	
	E951	Rotary Failure (CrisXcross only)	Change the Rotor
	E971	KiteC Key failure	Change the User interface
	E981		
	E991		
	E9A1		
	E9b1	UI Key Short	
	E9C1	UI Key Open	

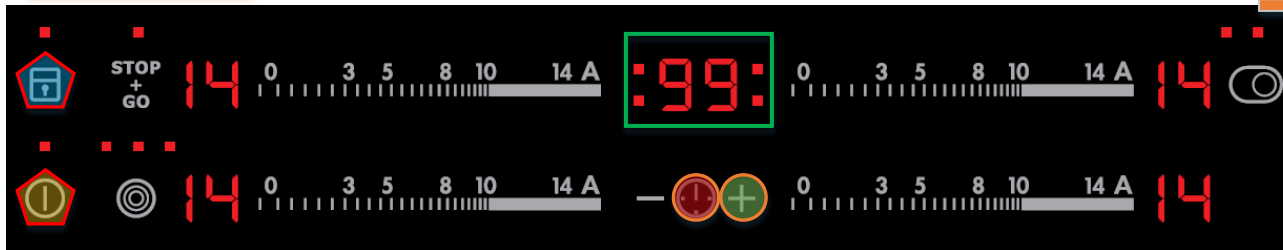
\*Customer Action: Wait for system to turn-off (maximum 10sec), after this try to use it again or disconnect the power cable and connect it again.



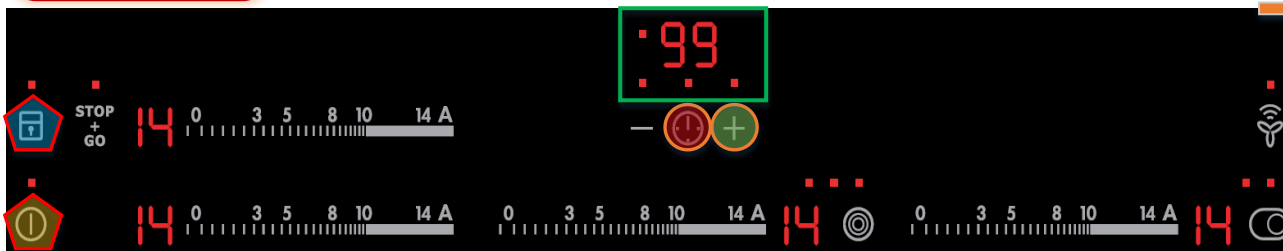
# 5 CUSTOMER MENU & SERVICE MENU



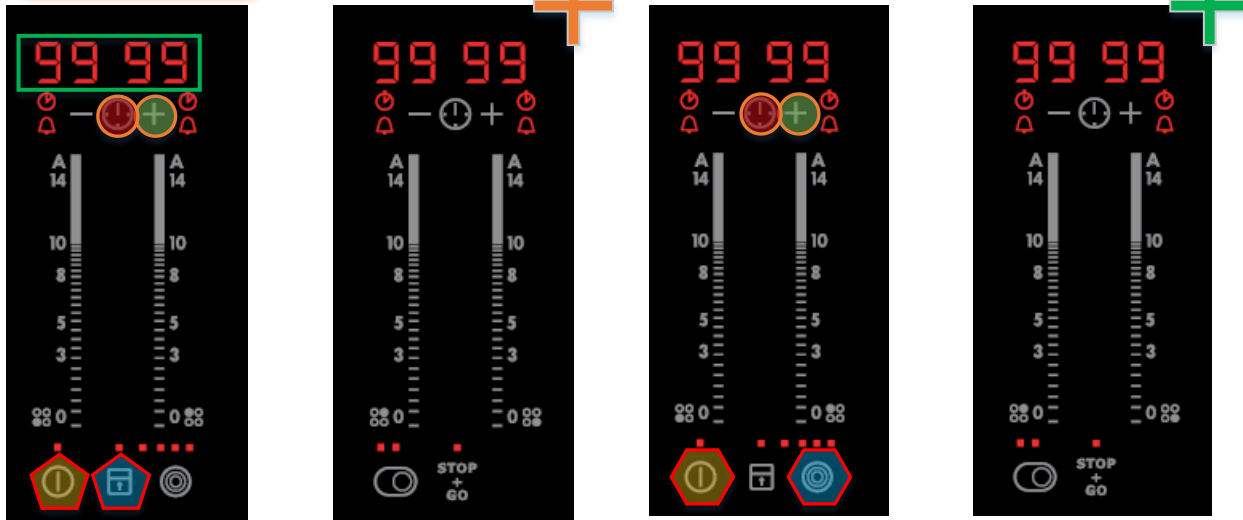
KITE C



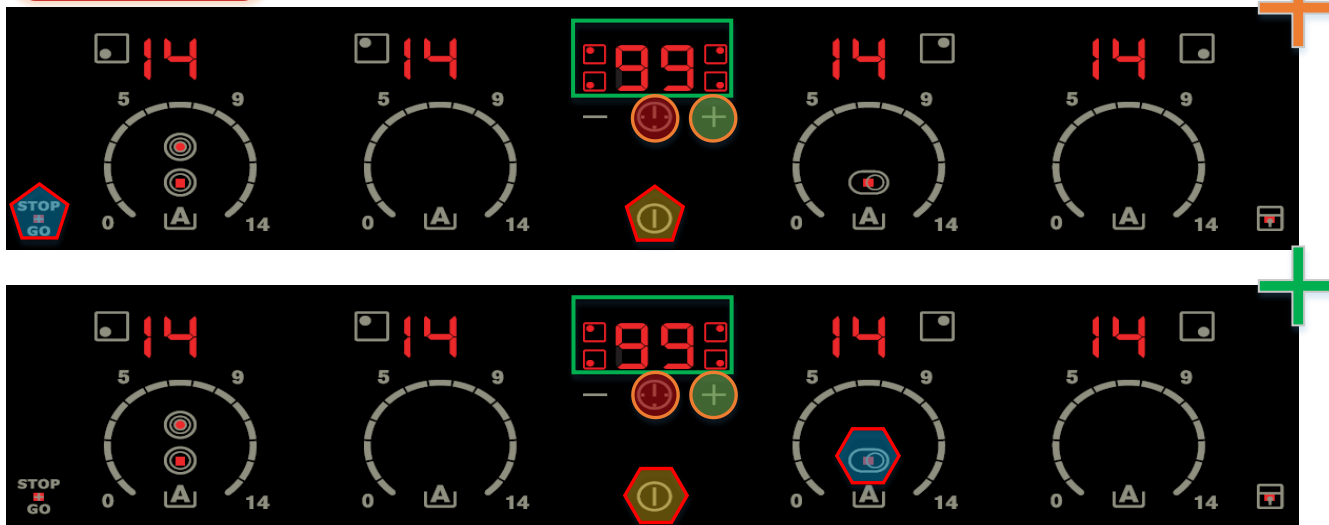
PELICAN



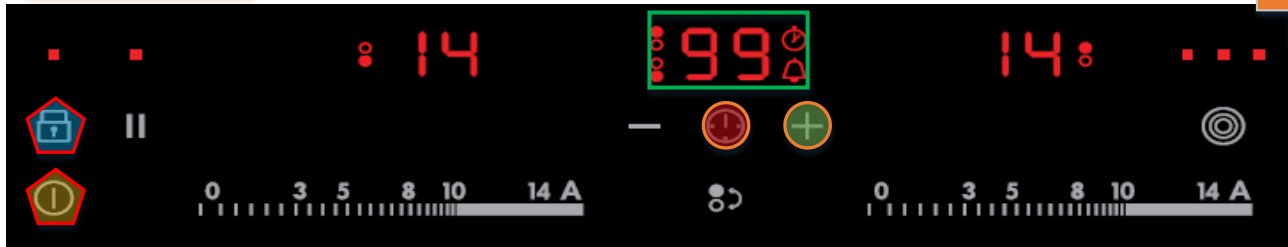
### BUDGIE



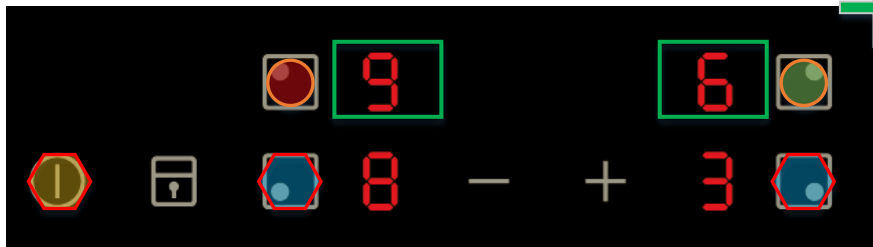
### RAVEN



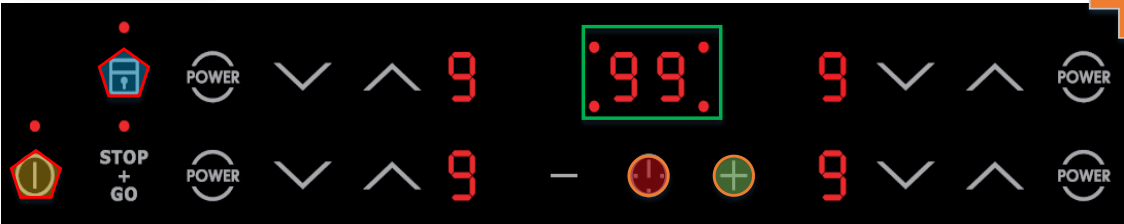
CRYSTAL/TOUCAN



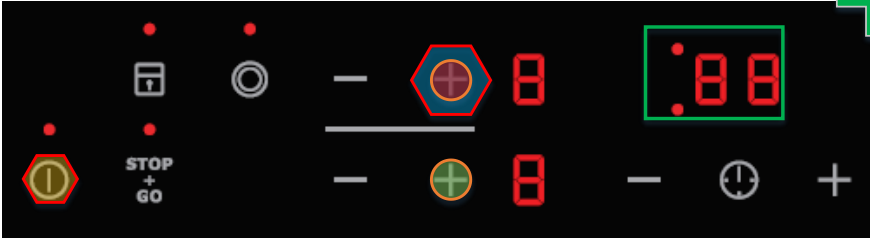
KINGFISHER



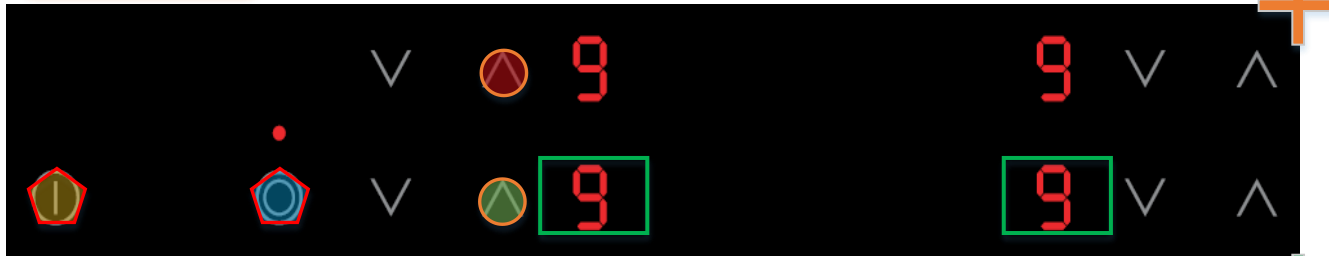
FALCON



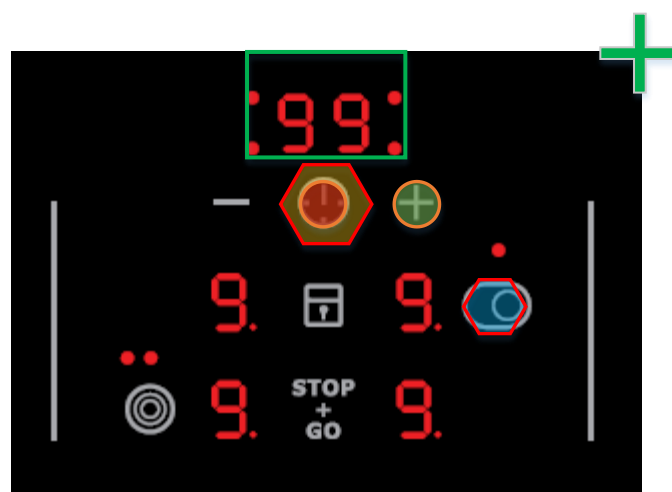
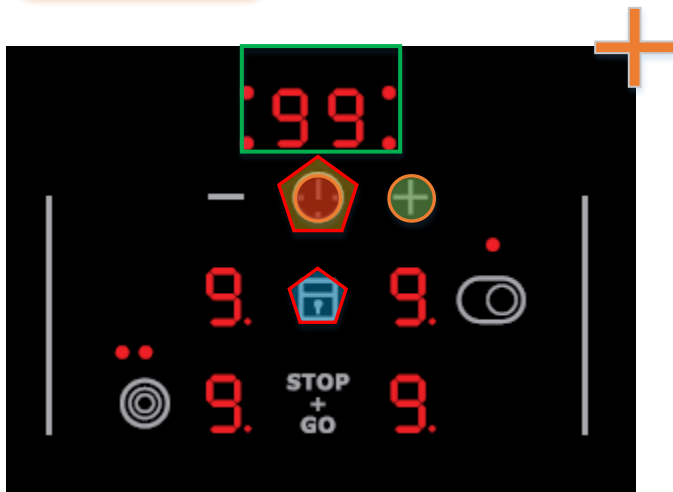
FALCON SHORT



SPARROW



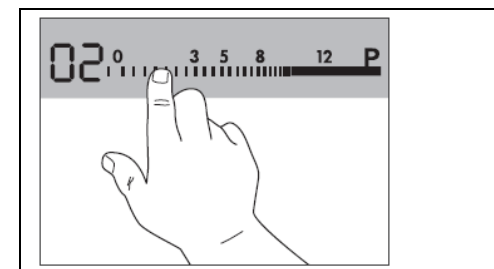
CRISSXCROSS



## 5.1 UI Module Check

### 5.1.1 User interface with Slider installation tips + key operation

- Direct access of the cooking levels
  - If the customer has difficulties directly hitting a cooking level recommend him to:
    - Touch the level; Check the display.
    - Correct the level if necessary by shifting (without lifting) the finger left or right.



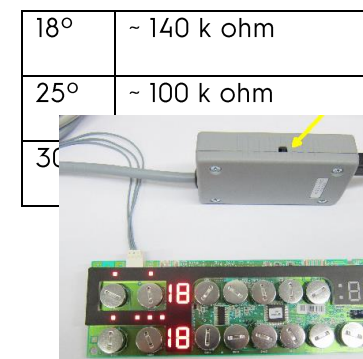
Problems besides the above tips:

- Check build in position of the user interface and correct if necessary.
- The LED should be central above the main switch.
- If some keys or cooking levels are difficult to operate or unstable.
  - Disconnect the appliance from the mains for 30 sec. and try again.
  - If the problem exists, probably the user interface is either pressed too less or not equal to the ceramic glass
    - Check if there is a cable between user interface and carrier
    - Check if the carrier of the user interface is correct positioned and all spring elements present
    - In addition, the coils have to be correctly assembled, so that the distance between the support plate and the ceramic is not increased.
  - Otherwise:
    - Appliances with carrier; exchange
    - Appliances with silicon element; put underneath the silicon element in the area of the keys that are unstable to operate e.g. a metal sheet with a thickness of 1-1.5mm.

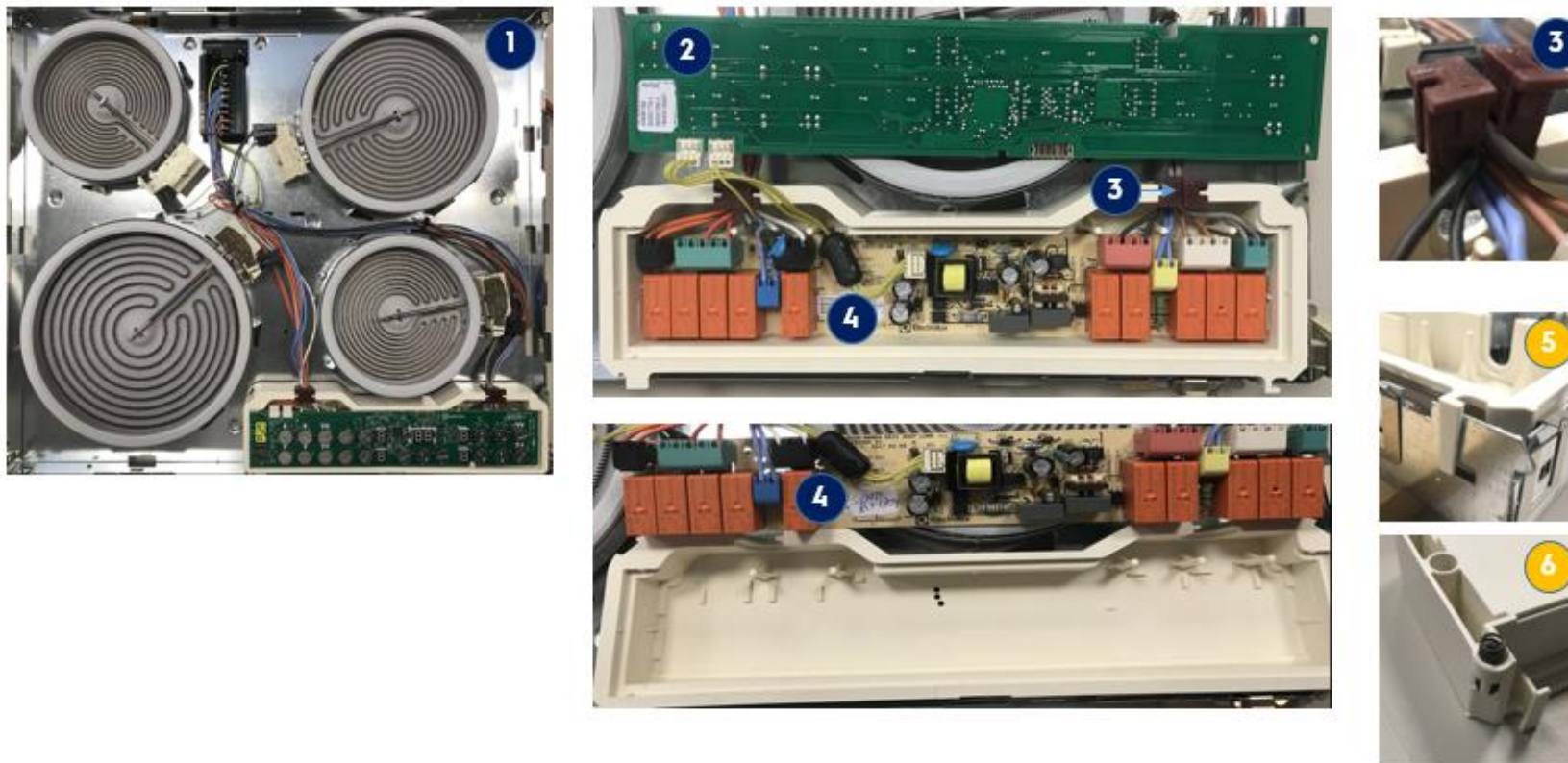
### 5.1.2 Hob is dark – How to check Userinterface

The UI is dark: missing 5V for the Userinterface, or defect UI

- Check the cables: the UI is supported on the PIN 1 & 3; the other port is inverted
- How to check Check Userinterface
  - use AMI gateway from Sidekick (Switch in the indicated position)
- During startup you can see the end number of the config in the timer display
- After approximately 10...15 sec a E9 will appear; this is due to missing glass



## 6 ACCESSING



1. Open the glass
  2. Flip the User Interface (disconnect the wires and replace the UI)
  3. Pull the Harness Rubber support to loosen the Wires
  4. Take out the Power Board (disconnect the wires and replace the POB)
- Note \* 5. Place the Controls Plastic support properly on the HOB Frame
6. Check the 4 springs under the Plastic support