Electrolux
Distriparts

SERVICE MANUAL

Hobs

with

„FALCON"
„SPARROW"

Input electronic

Table of contents

1. ESD=electrostatic discharge

As the single electronic interfaces are not protected internally against statical electricity and are partially open, you must pay attention to that, in case of a repair, there will be a potential compensation via the housing of the appliance (touch it) in order to neutralize a possible charging and to prevent a damaging of the affected electronic interface.

You also have to be careful with those electronics delivered as spare parts, which have to be put out of the ESD protective package only after a potential compensation (discharge of possible statical electricity).

If a potential compensation with an existing static electricity is not executed, it does not mean that the electronic is demaged directly. Consequential damages may result due to the damaging of internal structures which arise only in case of load through temperature and current.

Endangered are all assembly groups which are provided with control entries, wire paths lying open and free-accessible processors.

2. Software specifications, functions
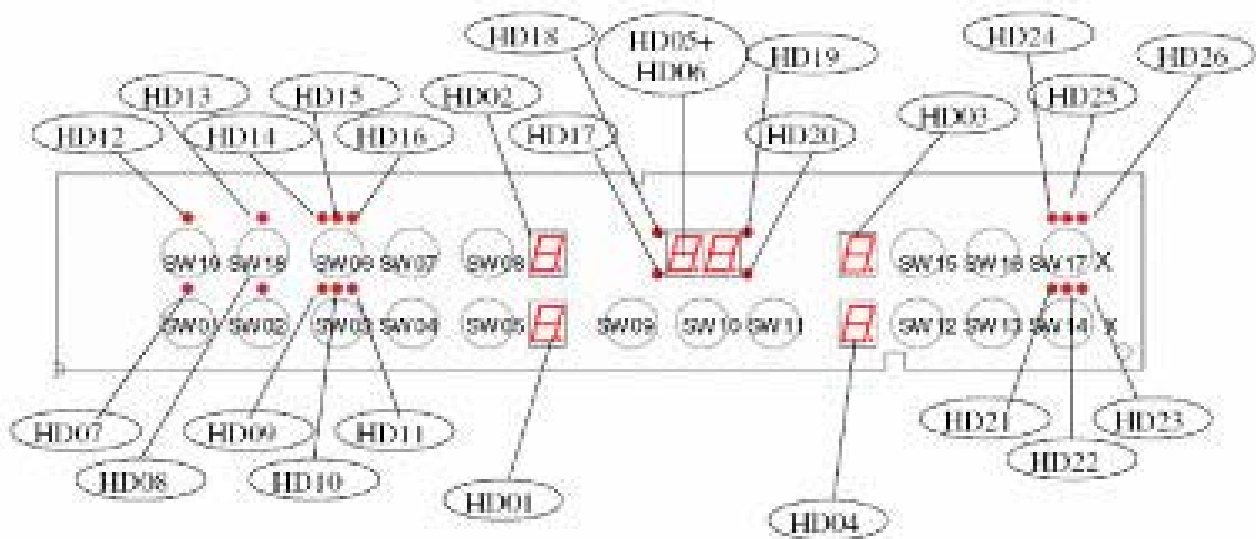
2.1 Electronic variants

„FALCON"

„SPARROW"

2.2 Button / and display layouts

2.2.1 „FALCON"

SW01	On/Off with display
SW02	„Stop and Go"or locking
SW03	Connection of induction multizone: power button
SW04	Cooking stage selection front left "-"
SW05	Cooking stage selection front left "+"
SW06	Connection of induction multizone: power button
SW07	Cooking stage selection back left "-"
SW08	Cooking stage selection back left "+"
HD 05-06	Timer display „FALCON"
HD 17-20	LED cooking zone display
SW09	)
SW10	)Timer operation „FALCON"
SW11	)
SW12	Cooking stage selection back right "-"
SW13	Cooking stage selection back right "+"
SW14	Connection of induction multizone: power button
SW15	Cooking stage selection front left "-"
SW16	Cooking stage selection front left "+"
SW17	Connection of induction multizone: power button
SW18	Optional locking
HD 01-04	Cooking zone status display
HD 07-16, 21-26	LED function displays

2.3   Main features of operation

2.3.1   Appliance On and Off connection

Switch on: -Touch "ON" sensor panel for 2 second.
Switch off: -Touch "OFF" sensor panel for 1 second.

After activation, a cooking stage or a function must be set within 10 seconds or the appliance switches off automatically.

2.3.2   Child safety function

2.3.2.1   „FALCON"

The child safety lock prevents an undesirable use of the appliance.

Switching child safety function on

- Switch appliance on with the `ON´ safety switch (do not set a cooking stage).
- Press the child safety lock button for 4 seconds. Display "L". The child safety device is activated.

Bypassing the child safety lock

With this, the child safety lock can be deactivated for a single cooking process; it continues to remain active afterwards.

- Switch appliance on with the `ON´ safety switch (do not set a cooking stage).
- Press the child safety lock button for 4 seconds. Display "L".

It can be used one more time until the next deactivation of the appliance. After the child safety device has been bypassed a cooking stage or function must be set within approx. 10 seconds, otherwise the appliance switches off automatically.

Switching child safety function off

- Activate the appliance with the "ON" sensor button.
- Press the child safety lock button for 4 seconds. Display "L".
- Appliance switch off. The childproof lock is deactivated.

2.3.2.2   „SPARROW"

Switching child safety function on

- Switch appliance on (do not set a cooking stage).
- Simultaneously touch the "-" buttons for the two front cooking zones for 4 seconds.
- Appliance switch off. The childproof lock is deactivated.

Switching child safety function off

- Switch appliance on (do not set a cooking stage).
- Simultaneously touch the "-" buttons for the two front cooking zones for 4 seconds.
- Appliance switch off. The childproof lock is deactivated.

The childproof lock can only be activated and deactivated if a cooking stage has been set.

3. Automatic Shut-Off

Hob

- If you do not set a cooking level in a cook zone within approx. 10 seconds after switching on of the cook field, the cook field switches off automatically.
- If all cook zones are switched off, the cook field switches off automatically approximately 10 seconds later.

Control panel

- If one or more sensor panels in the operating panel should be covered for more than 10 second when the appliance is switched off, a buzzer sounds. The buzzer switches itself off automatically when the sensor panels are no longer covered.

Cooking zones

- If one of the cook zones is not switched off after a certain time or if the cook stage is not changed, the appropriate cook zone switches off automatically. „- "is displayed. Before renewed use the cook zone must be set to „0 "and be cooled down.
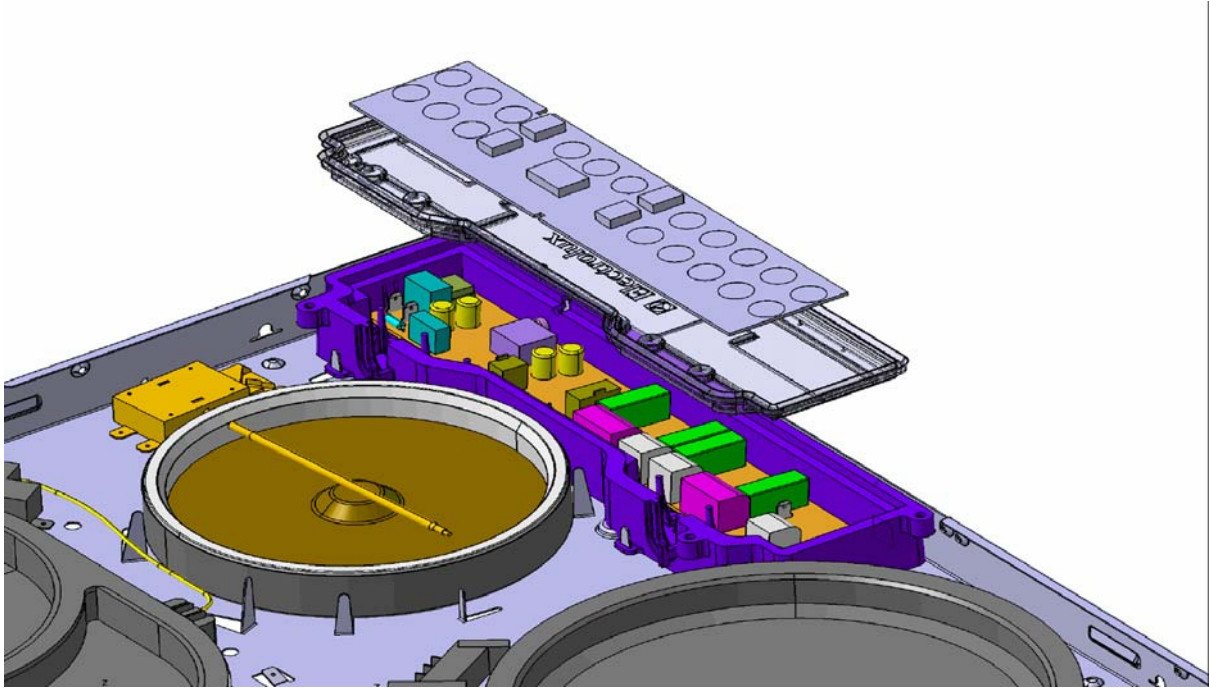
cooking level (differs depending on the make)		The cooking zones are disconnected with
1-3	1 - 2	6 Hours
4-6	3 - 4	5 Hours
7-8	5	4 Hours
9-14	6 - 9	1,5 Hours

4. Functional parts, Component data

4.1 Input electronic

Sample illustration „FALCON"

The `FALCON´ / `SPARROW´ input electronics comprises diverse semiconductor modules, numerous LED displays, capacitive sensor buttons and a microprocessor. It controls the HOC power electronics.

As far as the hardware is concerned, the input electronics mainly differ in that the "FALCON" input electronics is additionally equipped with a timer.

„FALCON"   Timer
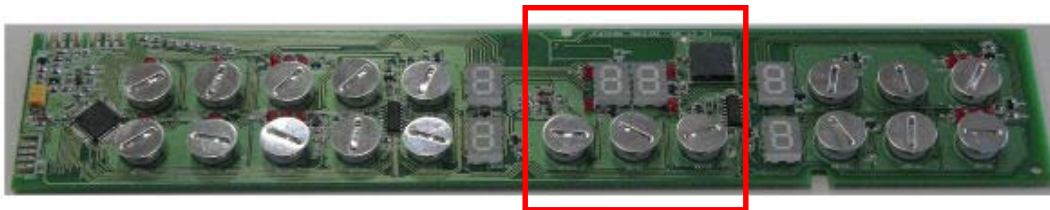
„SPARROW"

Assembly situation input electronic

The input electronics system can be accessed after the top glass/top trough frame connecting screws have been loosened and the top glass has been lifted off; it can now be easily removed together with the silicone sealing mat.

The silicone sealing mat is enclosed with the configured input electronics spare part. It is imperative that this also be replaced and carefully fitted in order to ensure the tightness of the electronics. The input electronics must be exactly fitted in the mat. Check that the cable sleeve is correctly positioned before closing the top.
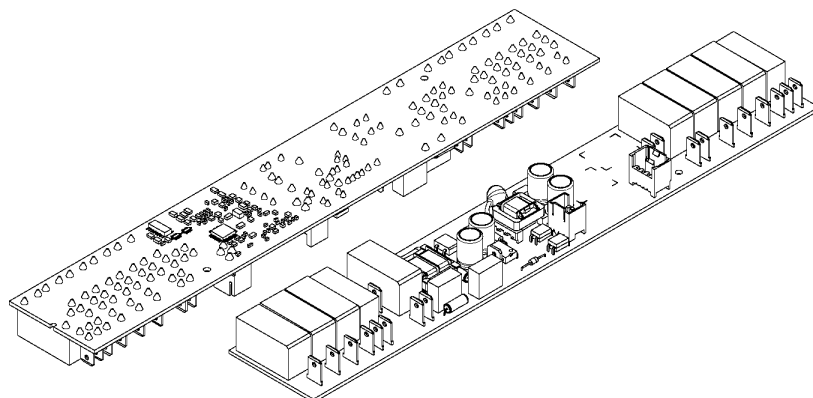
Sample illustration „FALCON"

The HOC power electronics can be accessed after the input electronics have been removed with the silicone frame.

4.2 „HOC 2010" power electronics for radiation-heated hobs

The `HOC 2010´ power electronics comprises a row of relays, a transformer and other components which are required to supply power to the relays and the input electronics. It receives the electrical control signals which are transmitted by the input circuit board and supplies the corresponding radiator with power depending on the impulses.

Each of the connector lugs and relays are designated on the circuit board. These designations are also on the circuit diagrams.

Assembly situation
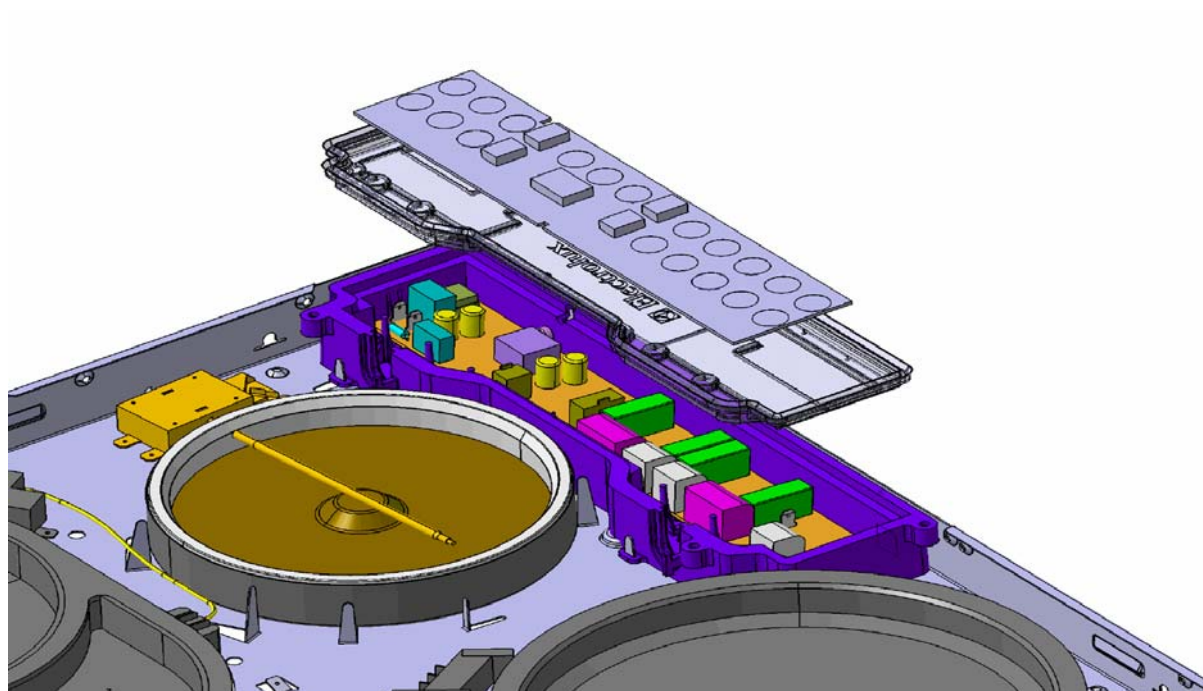
5. Fault diagnosis

5.1 What to do if ...?

Problem	Possible cause	Remedy
The cooking zone cannot be switched on or is not functioning	More than 10 seconds have passed since the appliance was switched on	Switch appliance back on
	The child safety lock is activated	Deactivate the child safety lock (see chapter "child safety lock")
	Numerous sensor panels were touched simultaneously	Only touch one sensor panel
	Automatic deactivation has been triggered	Remove any objects (pot, cloth, etc.) from the operating panel, switch appliance back on
	There is water on the operating panel or the operating panel is covered by fat splashes	Wipe over operating panel
	Stop + Go is active	Deactivate Stop + Go
	There is water on the operating panel or the operating panel is covered by fat splashes	Wipe over operating panel
The residual heat display does not display anything	The cooking zone has only been on for a short time and is therefore not hot yet	Contact customer service of the cooking zone is hot
The buzzer sounds and the appliance switches itself on and off again after 5 sec.; the buzzer sounds again after 5 sec.	The On/Off sensor panel has been covered up, e.g. by a cloth	Do not place any objects on the operating panel
"-" is illuminated	Automatic deactivation has been triggered	Switch cooking zone off, switch cooking zone back on again
"E" and a number are displayed	Electronics error	Disconnect the appliance from the mains for a few minutes (remove the fuse from the house fuse cabinet). if "E" isstill displayed after switching back on, contact customer service

5.2 Alarmmanagement (Faultcodes)

5.2.1 Error codes for hobs with radiation-heated cooking zones

Error code	Error description	Error remedy
E0	Configuration alarm	Disconnect hob from the mains, wait 10 sec. and restore power. If the error is still displayed, replace the user interface
E1	Software error	Replace the input electronics
E8	Input electronics configuration error	Check the bus cable, clean the power electronic and input electronic bus cable contacts. replace power electronic if unsuccessful, replace input electronic if that is also unsuccessful
E9	Communication error	Replace the input electronics

6.   Demo Mode/ Service Mode/ Error Mode

These special functions are part of a single joint program, which is activated and deactivated by means of a special sequence of buttons.

The starting position is the deactivated hob.

The designations of the sensor buttons (SWxx) and the display/ LEDs (HDxx) refer to Chapter 2.2.

1.   Activate sensor button SW01 for 3 seconds until all of the displays are extinguished again.
2.   Simultaneous activation of the sensor buttons SW04, SW05, SW12 and SW13 for 3 seconds. An acoustic signal sounds 2x (2x beep).

3.   FALCON: -   Activation of sensor button SW10 once = Demo Mode.
             -    Display HD05 shows a "d" for Demo Mode.
      SPARROW: -   Activation of sensor button SW04 once = Demo Mode.
             -    Display HD02 shows a "d" for Demo Mode.

4.   FALCON: -   Activation of sensor button SW10 twice = Service Mode.
             -    Display HD05 shows a "S" for Service Mode.
      SPARROW: -   Activation of sensor button SW04 twice = Service Mode.
             -    Display HD02 shows an "S" für Service Mode.

5.   FALCON: -   Activation of sensor button SW10 three times = Error Mode.
             -    Display HD05 shows an "„E" for Error Mode.
      SPARROW: -   Activation of sensor button SW04 three times = Error Mode.
             -    Display HD02 shows an "E" for Error Mode.

If a sensor button is not activated in the meantime, the hob deactivates itself after the described deactivating times.

6.1 Demo Mode

1. The corresponding displays, HD05 in "FALCON" and HD02 in "„SPARROW" display a "d" for Demo Mode which is not activated however.

   Additional displays with an inactive Demo Mode:

   FALCON: -   Display HD06 shows „ "" " for a non-activated Demo Mode.
   SPARROW: -   Display HD03 shows „ "" " for a non-activated Demo Mode but only in 3-zone cooking hobs with SPARROW input electronics.

2. Activating/deactivating the Demo Mode: -   Activating the sensor button SW05.

   Additional displays when the Demo Mode is activated:

   FALCON: -   Display HD06 shows "o" for an activated Demo Mode.
   SPARROW: -   Display HD03 shows "o" for an activated Demo Mode but not with 3-zone cooking hobs with SPARROW input electronics.

   The cooking hob can be used normally but withou power consumption.

6.2 Service Mode

The corresponding displays HD05 with "FALCON" and HD02 with "SPARROW" show an "S" for Service Mode but this is not activated yet.

Activating the Service Modes: -   Activating the sensor button SW05.

Program flow: -   The function of all LEDs and displays is tested for 5 seconds.
              -      Display shows the power electronics software version.
              -      Display of the power electronics software version.

The Service Mode is automatically terminated at the end of the program flow.

6.3 Error Mode

The corresponding displays HD05 with "FALCON" and HD02 with "SPARROW" show an "E" for Error Mode which is not activated however.

Activating the Error Modes: -   Activating the sensor button SW05.

If they should exist, the last 5 alarms are displayed, commencing with the oldest one.

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