Electrolux

SERVICE MANUAL

COOKING



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Customer Care - EMEA		Built-in Ovens	
Training and Operations Support			
Technical Support		"TFT TOUCH PC III"	
		USER INTERFACE	
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1. INTRODUCTION

1.1 PURPOSE OF THIS MANUAL

The purpose of this Manual is to provide information on "Oven User Interface - PCIII"

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. ABBREVIATIONS, ACRONYMS, DEFINITIONS

Abbreviations	Meaning	
ABO	Automatically back to OFF_STATE from STAND_BY_STATE	
AC	Assisted Cooking	
BS	Basic Settings	
СОТ	Current Oven Temperature (= actual temp. in cavity)	
Customer Action	Press any key, open the door (if door switch for light), plug in /out food probe	
DE	Language = German	
DUR	Duration	
FC	Food Category	
FCT	Food Probe Current Temperature	
FPE	Food Probe Extended	
FST	Food Set Temperature	
H+H	HEAT+HOLD	
KEY_U/D	Key for up/down-selection	
LTC	Low Temperature Cooking	
MAN	Manuel in Assisted Cooking	
MEM	My Programs menu	
MM	Minute Minder	
FP	Food probe	
OCT	Oven current temperature	
OFF	Off-State	
OFF_STATE	Oven is Off, ToD indication	
ON	On-State	
ON_STATE	Oven is running	
OST	Oven Set Temperature	
OUI	Oven User Interface	
OVF	Oven Function	
REC	Recipe	
RTC	Real Time Clock	
S+G	SET+GO	
STAND_BY_STATE	Oven is in standby with standard menu	
STB	Stand-By-State	
ToD	Time of Day	
W	Window	
tbd	to be defined	

3. PRODUCT DECRIPTION OVERVIEW

The user interface PC III (*Oberhausen*) is derived from the previous PC I, with the introduction of Touch Screen Technology.



Fig. 1

The PCIII carries a 4.2" full graphic TFT display and with a Key layout of Main Key, Quick Start Favourite Key, Minute minder Key, Assisted Cooking Key.

TOUCH SCREEN TECHNOLOGY

With the user interface PC III (*Oberhausen*) is also introduced the "touch screen" technology in the ovens.







TOUCH SCREEN TECHNOLOGY PC III USER INTERFACE



Fig. 4





3.1 GENERAL BLOCK DIAGRAM

The system is composed of a number of components and can be depicted schematically as shown in Fig. $6\,$

The control logic (hardware and software) for the system is incorporated into the control unit.

This unit consists of a circuit board with touch sensors or keys for system control, a display, and a buzzer.

The power board directly controls all electrical loads for the oven through a series of relays.

The sensors (*oven sensors and meat temperature sensor if used*) send information about the various temperatures to the system, which uses the information to control the appliance in the best way possible.

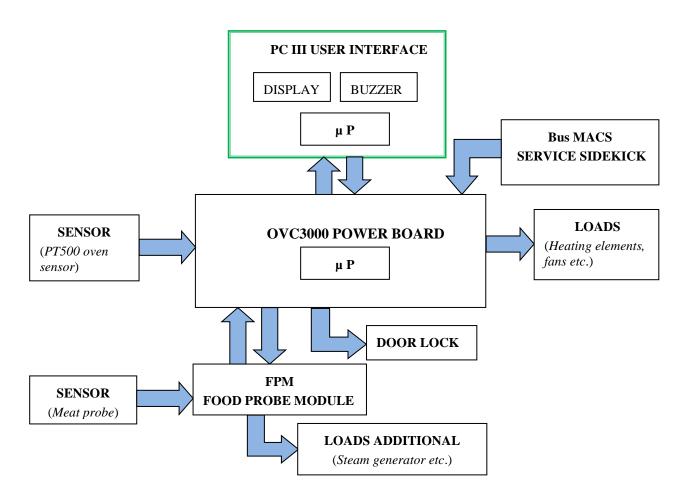
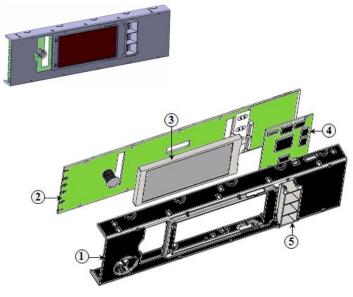


Fig. 6

NOTE: For more information on the power board OVC3000 see specific Service Manual 599730998.

3.2 LAYOUT

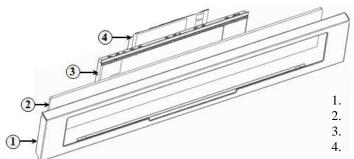
3.2.1 ASSEMBLY "PCIII" ELECTRONICS



- 1. FRAME TFT
- 2. ELECTRONICS PCB TFT (BRIDGE)
- 3. DISPLAY TFT
- 4. ELECTRONICS PCB TFT (CORE)
- 5. HOUSING REFLECT

Fig. 7

3.2.2 ASSEMBLY CONTROL PANEL



- . PANEL METAL
- 2. GLASS PANEL RAW
- 3. FRAME MAIN TFT
- 4. SENSOR TOUCH FOIL

Fig. 8

3.3 ELECTRONIC USER INTERFACE

The PCIII User Interface is a combination of Panel Assembly (*Panel + Glass + PCIII Plastic Frame + Touch Foil*) and PCIII Electronics Assembly (PCB *Bridge Board + Core Board + PCIII Display*). The Touch Foil and PCIII Plastic Frame are glued to the Panel Glass which is available as one spare part

The Bridge Board is connected to the Core Board. Display Cable and Touch Foil cables are plugged to the Bridge Board which is available as one spare part

3.3.1 TOUCH ELECTRONICS

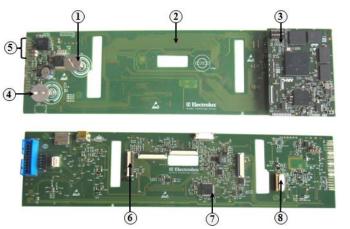


Fig. 9

3.3.2 TFT – TOUCH PCIII DISPLAY

TFT-Display is latched to Touch Electronics



Fig. 10

3.3.3 TOUCH SCREEN FOIL

Touch Screen Foil is glued on the Panel Glass



Fig. 11

Front View

- 1. ON / Off
- 2. PCB TFT Bridge board
- 3. PCB TFT Core board
- 4. Switches off the TFT (when vapour or humidity between the touch key and the glass.)
- 5. MACS Bus 5V 4-wires

Rear View

- 6. TFT Display connector
- 7. Processor
- 8. Touch Foil connector

Plugged

UnPlugged





Plugged







3.4 PANEL

Depending on the application project the panel layout/design, the pictures, the type of recipes and Quick start can change.

3.4.1 PANEL AESTHETICS



Fig. 12

3.4.2 CONTROL PANEL ASSEMBLY (NON STEAM)

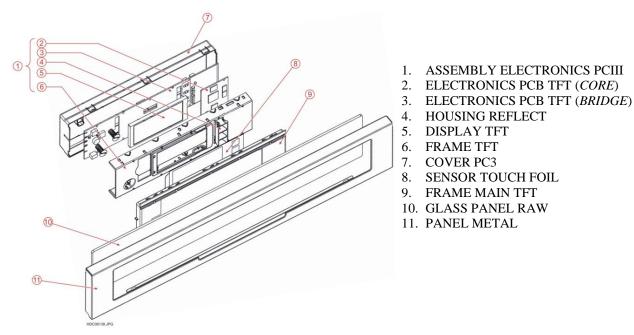
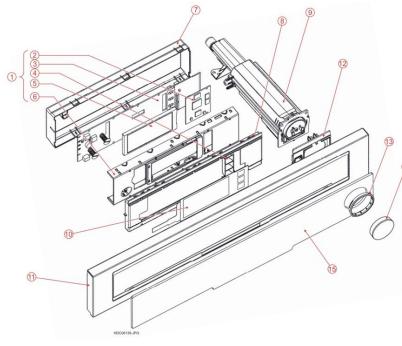


Fig. 13

3.4.3 CONTROL PANEL ASSEMBLY (STEAM)



- 1. ASSEMBLY ELECTRONICS PCIII
- 2. ELECTRONICS PCB TFT (CORE)
- 3. ELECTRONICS PCB TFT (BRIDGE)
- 4. HOUSING REFLECT
- 5. DISPLAY TFT
- 6. FRAME TFT
- 7. COVER PC3
- 🔞 8. FRAME MAIN TFT
 - 9. ASSEMBLY WATER DRAWER
- 10. SENSOR TOUCH FOIL
- 11. PANEL METAL
- 12. SUPPORT TANK STEAM
- 13. COVER STEAM HOLE RING
- 14. BUTTON CAP STEAM
- 15. GLASS PANEL RAW

Fig. 14

3.5 USER INTERFASE "TFT TOUCH PCIII "



1. ON / OFF (Not backlighted)

- 2. FAVOURITES (Backlighted)
- 3. MINUTE MINDER (Backlighted)
- 4. ASSISTED COOKING (Backlighted)
- 5. FULL TOUCH SCREEN AREA

Fig. 15

3.5.1 KEY LAYOUT

The key layout is fixed for all the variants: there are three external keys backlighted (white colour) on the right and one external key non-backlighted on the left. The display area is fully touch screen.



Main Key (*KEY_ON / OFF*)

- From OFF_STATE to STAND-BY_STATE and vice-versa
- Always with function ON/OFF
- If multi-key-action this key has master function (leads always to STAND-BY resp. OFF STATE)

Quick Start Favourite (KEY_FAVOURITE)

Running Screen

- Activate favourite menu with saved heating functions/recipes/quick starts selected
- A new favourite program can always be started, saved or renamed.

Minute Minder (*KEY_MM*)

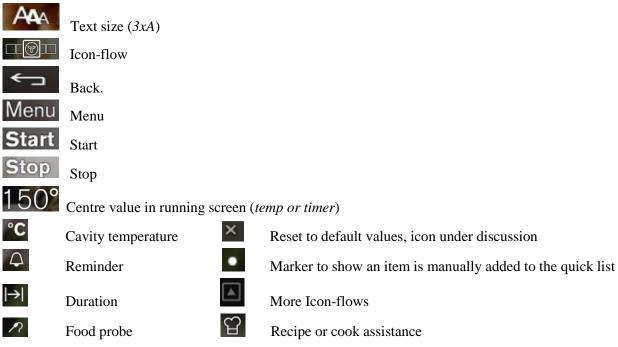
Switches to minute minder set state. Set values on touch screen area (TSA)



Assisted Cooking (KEY_AC)

Activate assisted cooking menu. The customer is able to choose then from TSA the subcategory • for Recipes/Quick Starts/Sous Vide recipes and Quick starts (depending on the configuration of the oven).

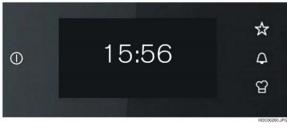
3.5.2 ON SCREEN ELEMENTS



3.5.3 STRUCTURAL WALKTHROUGH

Touch Screen Area (TSA) and TFT display

The display area is full touch screen. The customer can press on text/icons on the display and he will move through a submenu or will be able to activate/deactivate a function.



Off State

Fig. 16

In OFF state, the time of the day is displayed. The backlight is set to the lowest value in order to avoid dissipating stand by consumption.

In this state only the ON/OFF key is active, KEY_FAVOURITE, KEY_AC and KEY_MM are not backlighted and are deactivated. The TSA is not active.

The display has several different views in ON state:

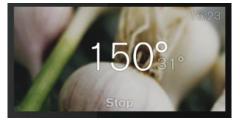
This is the common screen shown both before and while the oven is active



Running screen

Fig. 17

When the oven is started the screen information is minimised so the user can focus on the chosen feature.



Minimal running screen (or away screen) Fig. 18

The Icon-flow is used to choose from a number of cooking modes or recipes using a visual (*picture and icon*) rather than a text list.



Coverflow recipes/quickstarts/cooking functions Fig. 19

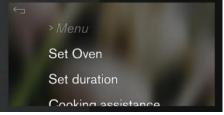
The scroll list is meant to offer the user a quick and direct access to a number of items greater than fit on one screen. There can be single selection lists (like the minute minder) and multiple selection lists *(like the picture displayed below)*



Timers and scroll lists

Fig. 20

This type of list is used for navigation, in the general hierarchical structure.



Menu/multiple selections

Fig. 21

This multiple scroll list menu appears when the minute minder key is pressed.



Minute minder

Fig. 22

3.6 PCIII EQUIPMENT COMPONENTS IN OVEN

Ventilator for hot air



Fig. 23

Micro-switch pyrolytic



Fig. 27

Food probe



Fig. 24

Fig. 28

Power electronic OVC3000EOS





Temperature sensor PT500



Fig. 25

Electronic food probe



Fig. 29

Air channel



Fig. 26

Ventilator for cooling



Fig. 30

Technical Support - BSP

599 76 80-45 Rev. 00

3.7 TECHENICAL FEATURES

PCIII System:

- TFT screen
- Touch foil
- Core board
- Bridge board
- Plastic and connectors

Features and descriptions:

- Assisted cooking (recipe book with pictures)
- Help function
- Advanced graphics (blurring, drop shadow, cross fading, cover flow)
- Single and Double key touch
- Slide function (*iPhone similar*)
- 26 languages

Service Functions:

- Diagnostic (*via Sidekick*)
- USB interface for service

Buzzer Sounds:

Tones:

The Interface has Different Sounds to signal different states, like end of cooking, minute minder ready.

Buzzer Sounds	Total Time
Tone_1a: (Buzzer_B)	80 ms
Tone_1b: (Buzzer_C)	2 ms
Tone_2: (Buzzer_BB)	240 ms
Tone_3: (<i>Buzzer_BB_BBBB_BB</i>))	3,72 sec
Tone_4: (BBBBBBBBBBBB_BUZZER))	3,8 sec
Tone_5: $(B_B_B_x_BUZZER_IX)$	5,48 sec

Volumes:

The buzzer volumes can be adjusted by the user in 4 different levels. The Volume is adjusted via regulation of the duty cycle of the buzzer signal.

The following table shows the duty cycles % to create the different sound levels.

Sound level	Duty cycle	
OFF	0%	
1	7%	
2	15%	
3	25%	
4	50%	

4. **OPERATING MODE**

4.1 START-UP PROCEDURE

The start-up procedure of the appliance is divided in 2 parts. If a factory test was done, and passed, the appliance reacts after plug-in as described for first connection with mains.

4.1.1 BASIC AND DEFAULT SETTINGS

At the very first power up (*and after choosing Restore factory settings*), the basic settings routine is initialized. The list of selections gives the possibility to the user to define the language, time of day and other different initial settings.

First Time Settings	DEFAULT	Possible
Language	eng	all
Time	12:00	all
12/24 hour Format	24 hours	hours 12
Date	01.01.2013	01.01.2013-31.12.2062
FastHeatUp	Off	On/Off
SmellFilter	Off	On/Off

All other Settings	DEFAULT	Possible
Heat and Hold	Off	On/Off
Cleaning Reminder	On	On/Off
Clock Style	Aligned	Aligned/Neutral
Key Sound Type	Click	Click/Beep/Off
Key Sound Volume	3	1-4
Display Brightness	3	1-4
Child Lock	Off	On/Off
Demo Mode	Off	On/Off
SetAndGo	Off	On/Off
Elapsed Time Visible	Off	On/Off
Background Images	Off	On/Off
Extra Time	Off	On/Off

4.1.2 FIRST CONNECTION WITH THE MAINS

After the first connection with the mains (*represents after connection with mains after factory test*) the following sequence starts (*basic settings*):

- 1. Set language in the same way as in basic settings menu. The selected language will be stored in flash memory. The user has to do later changes in the menu "basic settings".
- 2. Set of ToD, same way as is described in chapter "basic settings" item "set time of day". This setting synchronizes the RTC. Then the RTC delivers a ToD value even a short time after power failure. All later changer of ToD can be done in menu "basic settings".
- 3. Set format of the ToD: 24 hours (*hh:mm format*) or 12 hours (*AM/PM*). All later changer of ToD can be done in menu "basic settings".
- 4. Set year. All later changer of ToD can be done in menu "basic settings".
- 5. Set month. All later changer of ToD can be done in menu "basic settings".
- 6. Set day. All later changer of ToD can be done in menu "basic settings".
- 7. Set fast heat-up: to choose if the fast heat up needs to start for all cooking functions or not.

Any further connection with the mains affects the following sequence:

ToD setting – only if a ToD value is not available anymore (*from RTC, means the oven was disconnected for more than one week*).

Interface in OFF_STATE with ToD indicated resp. also residual heat indication Valid

Valid for both connections:

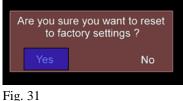
As long as the customer doesn't do any settings (*example: change language*), it is possible to enter the Service Mode. The workflow of the factory test is described in chapter Service mode.

4.2 SERVICE MODE

The service mode is equivalent to the factory test mode.

Three opportunities for a service engineer to get on PCIII Service Mode:

- > Case1. The engineer installs a new appliance into the customer kitchen.
 - The service mode is activated automatically when the oven is plugged to mains for the first time.
 - Follow the Work Flow Chapter 4.2.1
- > Case2. The engineer needs to re-activate service mode for testing, when the PCIII is functional.
 - The service engineer wants to re-activate the service mode then, Unplug the Oven for 5 seconds
 - Plugging in, he needs to select MENU → Basic
 Settings → Service → Reset all settings
 - Cancel the settings from the customer touch "Yes "
 - The User Interface will restart from the boot screen



- Follow the Work Flow Chapter 4.2.1
- **Case3**. The engineer changed the user interface PCIII and appliance is functional.
 - Follow the Work Flow

4.2.1 WORK FLOW

The User has to follow this Workflow step by step.

1. TFT-Display will restart from boot screen and appliance starts loading

Loading Loading Loading Loading Loading

Fig 25

2. After the loading process the initial settings procedure will start (Language settings and so on ...)



Fig 26

3. When the screen of language selection appears touch the following key combination within 10 seconds "KEY_FAVOURITE + KEY_MM + KEY_AC + KEY_MM "until the buzzer sounds (*Tone_1*) Service Mode is activated



Fig 27

After activation of the Service Mode the display starts with the first activated loads of main cavity.

4. Displaying software version names

After the electronics get into the Service Mode the following screen is displayed:

F	Press I/O butto	on		
Target	ANC	Version		
PC3-CB-FW	561915200	0.2.2	First line	: Firmware from core board (ANC + Version name
PC3-BB-FW:	561915200	BBPBA028	Second line	: Firmware from bridge board (ANC + Version nat
PC3-CFG:	561794404		Third line	: Configuration from core board (ANC)
OVC-FW:	561537501	OC3EB025	Fourth line	: Firmware from power board (ANC + Version na

Fig 28

Software Versions Names		Concerned Appliances and Ranges	
1.2.6	Project Oberhausen	Electrolux oven 2D and 3D-design with Apollo cavity	
2.0.1	AEG, Electrolux,	Standard oven and wet-steamer with Apollo-Cavity	
2.0.2	Millenium	Standard oven and wet-steamer with Ariane-Cavity	
2.8.0	Project Etna	Profi steam step1 with Apollo-Cavity	
2.8.0	Millenium 15	Standard oven with Apollo-Cavity	

5. Key and peripherals test

By pressing On/Off-button (*KEY_MAIN*) - buzzer sounds (*Tone_2: Buzzer_BB*). The following screen is displayed:

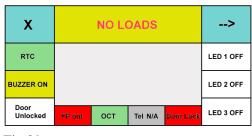
Green boxes are items that passed the test

Yellow boxes are items that are running.

Red boxes are items that didn't pass the test

In this screen the operator needs to activate step by step, the boxes highlighted in yellow.

There is no special sequence to follow the operator can





Active boxes	Active	ACTION
RTC		Checks that the messages coming from the RTC sub-module are received.
BUZZER ON	Х	Checks that the buzzer is working (TONE_2). The operator needs to verify that the buzzer is beeping. Press: stops the buzzer.
Door unlocked	Х	Press: activates the door lock motor. Press 2nd time: the door unlocks (only for pyro)
FP out/in		FP out: food probe not inserted/temperature message not received. FP in: food probe inserted and temperature message received.
OCT		If green, the message with PT500 value has been received from the power board (oven cavity temperature)
Tel out		Telescopic runners: no longer implemented.
Door Lock		Turns to green if door lock feedback has been received (only for pyro).
LED 10FF/ON		LED1 OFF/ON: Key_favourite is not active/not_active and key backlight is off/on. Press key to turn it to green.
LED 2 OFF/ON		LED2 OFF/ON: Key_MM is not active/not_active and key backlight is off/on. Press key to turn it to green.
LED 3 OFF/ON		LED3 OFF/ON: Key_CA is not active/not_active and key backlight is off/on. Press key to turn it to green.
>	Х	Proceed with next step of Load test
Х	Х	Reset factory test

6. To go through the test, follow the yellow boxes. Touch "BUZZER ON" - Box

x	NO LOADS			>	
RTC					LED 1 OFF
BUZZER ON					LED 2 OFF
Door Unlocked	FP out	ост	Tel N/A	Door Lock	LED 3 OFF

Fig 30

Press "MINUTE MINDER"-key

x		NO LOADS				
RTC					LED 1 OFF	
BUZZER OFF					LED 2 ON	
Door Unlocked	FP out	ост	Tel N/A	Door Lock	LED 3 OFF	

Fig 32

Touch "Door Unlocked"- Box

	>			
				LED 1 OFF
				LED 2 OFF
FP out	ОСТ	Tel N/A	Door Lock	LED 3 OFF
	FP out		FPiece: OCT Tel N/A	

Fig 34

Is the door locked, "**Door Locked**" appears in the box. The box becomes yellow colour.

x		NO LO	DADS		<u>}</u>
RTC					LED 1 OFF
BUZZER OFF					LED 2 OFF
Door Locked	FP out	ост	Tel N/A	Door Lock	LED 3 OFF

Fig 36

Is the door unlocked, "**Door Unlocked**" appears in the box. The box becomes green colour. The box "**Door Lock**" becomes also green colour.

x		>			
RTC					LED 1 OFF
BUZZER OFF					LED 2 OFF
Door Unlocked	FP out	ост	Tel N/A	Door Lock	LED 3 OFF

Fig 38

Press "FAVORIT"-key

x		NO L	OADS		>	
RTC					LED 1 ON	
BUZZER OFF					LED 2 OFF]
Door Unlocked	FP out	ост	Tel N/A	Door Lock	LED 3 OFF	

Fig 31

Press "COOK ASIST"-key

X		NO LO	DADS		>	Z
RTC					LED 1 OFF	ſ
BUZZER OFF					LED 2 OFF	
Door Unlocked	FP out	ост	Tel N/A	Door Lock	LED 3 ON	Ę

Fig 33

During locking the door lock, the box becomes orange colour.

X		>			
RTC					LED 1 OFF
BUZZER OFF					LED 2 OFF
Locking	FP out	ост	Tel N/A	Door Lock	LED 3 OFF
Fig 35					

Fig 35

Touch "**Door Locked**"- Box again. The door lock unlocked and "Unlocked" appears in the box. The box becomes orange colour.

X		>			
RTC					LED 1 OFF
BUZZER OFF					LED 2 OFF
Unlocked	FP out	ост	Tel N/A	Door Lock	LED 3 OFF

Fig 37

7. Food Probe Sensor has to be plugged in to continue or leave the Service Mode. Even after disconnecting the appliance from mains the Service mode will restart if food probe is missing in the slot.

Sensor

Fig 40

Food Probe is out (FP out)

Х NO LOADS ---> RTC LED 1 OFF BUZZER OFF LED 2 OFF Door Unlocked LED 3 OFF ост Tel N/A

Fig 39

Slot for Food Probe

X		NO LOADS					
RTC					LED 1 OFF		
BUZZER OFF					LED 2 OFF		
Door Unlocked	FP in	ост	Tel N/A	Door Lock	LED 3 OFF		

Food Probe is in (FP in)



Remove the food probe sensor. The state changes from "in" to "out"

	x		>			
	RTC					LED 1 OFF
в	JZZER OFF					LED 2 OFF
	Door Unlocked	FP out	ост	Tel N/A	Door Lock	LED 3 OFF
Fi	ig 42					

8. To test the Loads :

The sequence of the loads depends on the configuration of the oven. The correct order of the loads is described in the configuration specification.

Touch the right arrow in the blue box to go one step front.

Touch the left arrow in the blue box to go one step back.

>	

The test of the heating elements starts automatically after pressing the key " \rightarrow " in the service mode start screen. The active components will be shown in the display (in the example below Rear Cooking Fan + Cooling Fan Low Speed).

<		>					
RTC		Rear Cooking Fan Cooling Fan Low					
BUZZER OFF							
Door Unlocked	FP out	ост	Tel N/A	Door Lock	LED 3 OFF		

Fig 43

Following sequence is only an example

- 1. grill + cooling fan low + lamp off
- 2. bottom + lamp on
- 3. rear + cooling fan low + cooking fan 1
- 4. smell filter + cooking fan + cooling fan low

9. Loads on Pyro and Steamer Ovens :

Pyro		Steamer			
• Current consumption is measured	• Current consumption is measured.				
Cooling fan in low speed.Lamp is off.	• Cooling fan in low speed.				
Touch the right arrow " \rightarrow " to con	 Lamp is off. Touch the right arrow "→" to continue 				
< Load Test 1	>	<	Load Test 1	>	
RTC Grill	LED 1 OFF	RTC	Grill	LED 1 OFF	
Cooling Fan Low BUZZER OFF Lamp Off	LED 2 OFF	BUZZER OFF	Cooling Fan Low Lamp Off	LED 2 OFF	
Door Unlocked FP out OCT Tel N/A Door Lock	LED 3 OFF	Door Unlocked	FP out OCT Tel N/A Door Lock	LED 3 OFF	
Fig 44		Fig 45			
• Current consumption is measured	l.		t consumption is measure	d.	
• Cooling fan in high speed. Touch the right arrow "→" to cont	inua		g fan in high speed. Ie right arrow " \rightarrow " to cont	inua	
< Load Test 2	>	<	Load Test 2	>	
Bottom	LED 1 OFF	RTC		LED 1 OFF	
BUZZER OFF	LED 2 OFF	BUZZER OFF	Bottom	LED 2 OFF	
Door Unlocked FP out OCT Tel N/A Door Lock	LED 3 OFF	Door Unlocked	FP out OCT Tel N/A Door Lock	LED 3 OFF	
Fig 46		Fig 47			
• Current consumption is measured	l.	• Current consumption is measured.			
• Cooking fan in high speed.		Cooking fan in high speed.Cooling fan in low speed			
• Cooling fan in low speed Touch the right arrow " \rightarrow " to cont	inue		g fan in low speed ie right arrow "→"to cont	inue	
< Load Test 3	>	<	Load Test 3	>	
RTC	LED 1 OFF	RTC	Rear	LED 1 OFF	
Cooking Fan BUZZER OFF Cooling Fan Low	LED 2 OFF	BUZZER OFF	Cooking Fan Cooling Fan Low	LED 2 OFF	
Door Unlocked FP out OCT Tel N/A Door Lock	LED 3 OFF	Door Unlocked	FP out OCT Tel N/A Door Lock	LED 3 OFF	
Fig 48		Fig 49			
		• Current consumption is measured.			
		• Cooking fan in high speed.			
• Current consumption is measured	1	• Actuator checked			
 Food Probe Sensor should not be 	• Cooling fan in low speed				
Touch the right arrow " \rightarrow " to cont	• Lamp on Touch the right arrow " \rightarrow "to continue.				
< Load Test 4	>	<	Load Test 4	>	
RTC	LED 1 OFF	RTC	Steam	LED 1 OFF	
Smell Filter BUZZER OFF	LED 2 OFF	BUZZER OFF	Cooking Fan Waste Air	LED 2 OFF	
Door Unlocked FP out OCT Tel N/A Door Lock	LED 3 OFF	Door Unlocked	FP out OCT Tel N/A Door Loc	k LED 3 OFF	
Fig 48		Fig 49			

After load test step number 4, additional parameters are checked in Steam ovens for software 2.8.0

- NTC value (sensor placed in the water tank)
- Tank level (sensor placed in the water drawer)
- Tank micro switch (sensor placed on the back of the water drawer)

NTC check is done automatically by the software. If values are out of boundaries an error will be displayed.

- NTC is checked (on the steam generator)
- NTC "value", \rightarrow NTC is connected.
- NTC is "0", \rightarrow NTC isn't connected

x	Remove Drawer				
RTC	NTC	:	97		LED 1 OFF
BUZZER OFF	Tank Level:		0		LED 2 OFF
Door Unlocked	FP out OCT		Tel N/A	Door Lock	LED 3 OFF



Tank level: add water in the tank to let the test pass. If the water tank is empty a warning will be shown

- Tank level is checked (on the water drawer).
- Tank level "value", → Water drawer is filled.
- Tank level is "0", → Water drawer is empty.

x	Warnii				
RTC	NTC	:		97	LED 1 OFF
BUZZER OFF	Tan	k Level:		0	LED 2 OFF
Door Unlocked	FP out	ост	Tel N/A	Door Lock	LED 3 OFF
Fig 51					

Micro switch for water drawer is checked. Remove and insert the water drawer

Fig needed

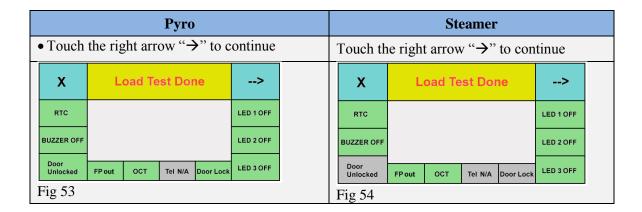


Fig 52

r water drawer is checked. Remov

10. Pressing again the"→" key at the end of the test sequence will lead through the display brightness test

Display Test (Brightness)

The display shows a yellow screen with full brightness.

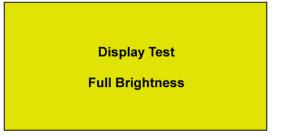


Fig. 55

Tapping on screen reduces the brightness of the display to stand-by value.



Fig. 56

Tapping again on screen leads to the confirmation screen of the Service test

11. In this screen there are two active boxes.

OK: the operator confirms that the Service test has been passed. If one or more automatic tests failed (all except buzzer and external keys), then the Service test cannot be confirmed and needs to be repeated (switching off the oven or pressing on cancel).

CANCEL: restarts the factory test.

CANCE	<- Test Finished ->				ОК
RTC					LED 1 OFF
BUZZER OFF	LED 2 OFF				
Door					LED 3 OFF
Unlocked	FP in	ост	Tel N/A	Door Lo	ck
Alaı	m:			Status	
OV	DVC:				
PC3-BB:					
PC3-					

Fig. 57

! The service mode cannot be completed, as long as a box is red. Check the example window below **Door Lock** \rightarrow repeat the door lock test.

Status F101 \rightarrow Electronic error. Touch "CANCEL" to interrupt the service test to repair the electronics.

CANCE	- Test Finished ->				ок	
RTC						LED 1 OFF
BUZZER OFF						LED 2 OFF
Door Unlocked	FP in	ОСТ	Tel N/A	Door Lo	ock	LED 3 OFF
Alar	Alarm:			Status		
000	/C: F101					
PC3-						
PC3-CB:						

Fig. 58

12. The screen gets a grey colour. Wait 2sec.



Fig 52

13. After the screen loading you can enter the ToD settings. The service mode is ready.

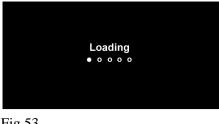


Fig 53

5. DEMO MODE

The Demo Mode is implemented for demonstrating the functionality of the appliance in show rooms or shops, on trade fairs etc. without energy consumption behind. The user can find out the complete functionality of the OUI but for security reason the loads (heating elements) stays off.

5.1 WORKFLOW TO ACTIVATE / DEACTIVATE DEMO MODE:

From ON state of the appliance perform the following list of actions:

- Step 1: press MENU (Fig.50)
- Step 2: press Base settings
- Step 3: press DEMO mode
- Step 4: press DEMO mode activate/deactivate





• The following pop up will be shown



Fig 55

Insert the following key combination to activate/deactivate the demo mode:

For Software versions 1.2.6 / 2.0.1 /	2.0.2:01234
For Software versions 2.8.0	: 246

The buzzer sounds (1 x Tone_1) and the Demo Mode is activated. The string "DEMO" is shown on display for all the time the demo mode stays activated. Use the same procedure for deactivating the Demo Mode

6. DISASSEMBLE / ASSEMBLE THE PCIII ELECTRONICS

6.1 DISASSEMBLE THE PCIII FROM PANEL

- 1. Disconnect oven
- 2. Remove the Oven top
- 3. Remove the Oven panel
- 4. Make sure the service technician is grounded before he handles the electronics.
- 5. Disconnect UI cable from OVC3000 and Panel is removed from the oven





6. Release UI cover with screwdriver, there are 3 rings in the top area. Lift each ring and pull the cover to unlock the snaps one by one and remove the cover

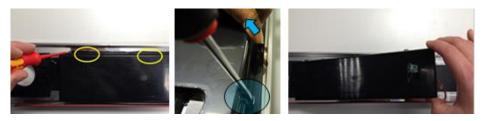


Fig. 57

7. Open cable holder of Touch Foil and Remove the foil from the holder

Handle with care, any damage would lead to complete replacement of the Panel Assembly

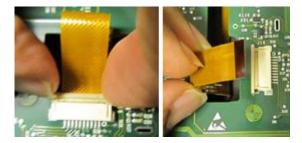


Fig. 57

8. Release UI frame from fixing frame with a screw driver. Lift the snaps at 5 locations

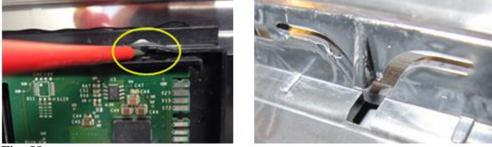


Fig. 58

9. Remove the MACS Bus from the PCB and take out the user interface electronics from the panel



Fig. 57

6.2 ASSEMBLE THE PCIII TO PANEL

- 1. Prepare subcomponents Panel, PCIII & Cover
 - Panel (Glass + Metal part + Fixing frame + Touch
 - PCIII Display (Frame TFT + Display TFT + Housing Reflect + PCB Bridge + PCB Core)
 - Cover PCIII
- 2. Peal the foils on the Touch foil



foil)



Fig. 58

Frame and

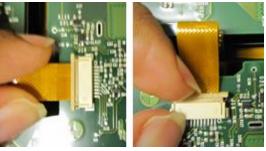
make sure the Touch Foil pass through the user interface electronics and snap the PCIII Electronics4. Connect the Touch foil and close the cable holder



Fig. 59

! Handle with care, any damage would lead to complete replacement of the Panel Assembly

3. Place the PCIII electronics on the Fixing





5. Connect the MACS Bus in the correct slot and make sure that the wiring goes through the PCIII Cover wiring slot and snap the PCIII Cover to the panel



Fig. 61

6. Panel can be reconnected with the Oven





7. ERROR CODES

To identify on which place a failure occurred the first value shows the failure place, described at following schematic:

FXXX

F = Failure

 $Cx \rightarrow for customer errors / failures$

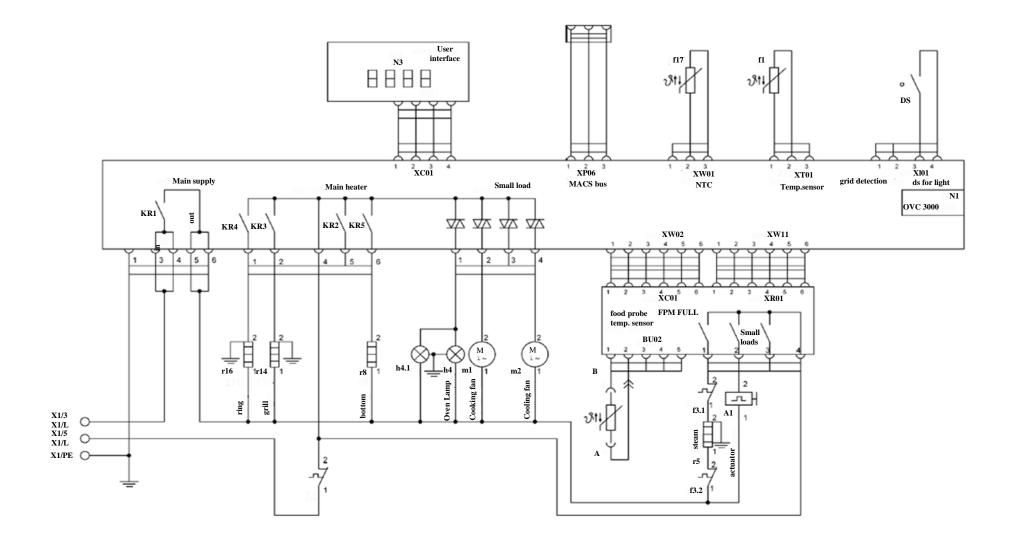
Error Display	Possible Failure	Action to solve
C1	Telescopic runner inside during pyrolyse	Remove side grids during pyrolyse
C2	Meat probe inside during pyrolyse	Remove Foodprobe during Pyrolyse
C3	Door open during pyrolyse	Close door during pyrolyse
F101	Doorlock sensor problem	Check wiring Check doorlock system Check powerboard
F102	Doorlock failure	Check wiring Check doorlock system Check powerboard
F104	Oven temperature sensor (PT500) out of range	Check wiring Check temperature sensor Check powerboard
F105	Oven temperature sensor (PT500) has too hightemperature	Check temperature sensor Check wiring
F106	Electronic temperature sensor out of range	Check Powerboard Check wiring
F109	Software of user interface and powerboard notfirt together	Check software version and compare with sparepart software
F111	Foodprobe sensor out of range	Check Foodprobe Check wiring Check Foodprobe module
F112	steam sensor out of range	Check Powerboard Check wiring

F113	OVC2000 Ozillator failure	Check Powerboard		
F130	Triac failure	Check motors Check Powerboard Check wiring		
F131	Temperature sensor of steam generator out ofrange	Check wiring Check temperature sensor Check powerboard		
F132	Software expecting oven with door lock,wrong software programmed	Check programming of UserInterface Contact quality department		
F133	The init or write or read process on the flash failed	Check Powerboard		
F134	Reference voltage of the analog digtial converter is out of range	Check Powerboard		
F135	Incorrect voltage at door lock relay at oventemperature over 380°C	Check Powerboard		
F136	Missing or damaged foodprobe module	Check software version and compare with sparepart software Check FP module Check wiring		
F137	Missing or incorrect communication between powerboard and Foodprobe module	Check wiring Check FP module Check powerboard		
F138	Oven temperature sensor is fixed on one resitor value	Check Powerboard Check temperature sensor		
F140	Wrong configured cooking fan	Check software version and compare with sparepart software		
F142	Water level sensor (NTC) in steamer out of range			
F143	Humidity sensor out of range			
F144				
F191	Humidity sensor out of range warning			
F192	Foodprobe tmeperature value too high	Check wiring Check foodprobe sensor and/or food probe connection box Check Foodprobe module		
F193	Humidity sensor out of range warning			
F194	Oven temperature sensor (PT500) out of range (Warning)	Check wiring Check temperature sensor Check powerboard		
F195	Electronic temperature value too high	Check Powerboard		
F196	Electronic temperature value out of range (warning)	Check Powerboard		
F197	Humidity sensor out of range warning			
F203	Programming not correct	Check software version and compare the sparepart softwareCheck User Interface		
F208				

F214	Configuration does not match to firmware of user interface	Check software version and compare with sparepart software		
F215	Unexpected content of configuration	Check software version and compare with sparepart software Contact quality department		
F233				
F239	No communication between user interface and touch electronic	Check User Interface Check touch eletronic		
F241	Function selector is not connected	Check wiring Check oven knob Check hexagon user interface		
F321	Oven temperatur is too high to start Smart function	Check wiring Check temperature sensor Check powerboard		
F322	Incorrect temperaturevalue between Powerboard and Smart electronic	Check wiring Check electronic "Smart" Check powerboard		
F323	Configuration failure of Smart electronic	Check software version and compare with sparepart software Check User Interface Check electronic "Smartboard"		
F324	Unknown state of Smart electronic	Check electronic "Smart"		
F325	Flash memory failure	Check electronic "Smart"		
F326	Calibration of Smart electronic not finished	Check electronic "Smart"		
F327	Error in microcontroller of Smart electronic	Check electronic "Smart"		
F329	Analog digital converter error of Smart electronic	Check electronic "Smart"		
F406	Electronic temperature sensor out of range	Check the Power board Check the Temperature sensor Check PCIII		
F408	Missing communication between powerboard and user interface	Check Wiring Check the Power board Check PCIII		
F439	No communication between user interface and touch electronic	Unplug and Replug the appliance Check the interface between UI and the Panel Glass Check PCIII		
F493	Alarm is triggered if there is a fault in the backlight driver module	Unplug and Replug the appliance Check PCIII		
F494	Alarm is triggered if there is a fault in the RTC	Unplug and Replug the appliance Check PCIII		
F495	Alarm is triggered when there is a powerfail in the wiring	Check the mains and power supply Check Wiring Check the Power board		
F497	Humidity sensor not working or out of range	Check Wiring Check the Humidity sensor		

F716	In oven function pyro the hob is in ON_State	Check software version and compare with sparepart software check wiring
F718	Missing communication between oven user interface and hob user interface	Check wiring
F908	Missing communication between powerboard and user interface	Check wiring Check User Interface Check powerboard
F908	Missing communication between user interface and powerboard	Check wiring Check User Interface Check powerboard
F917	Maximum power limitation problem betwen oven and hob	Check software version and compare with sparepart software Check wiring Contact quality department
F928	Missing communication between Smart electronic an d oven user interface	Check wiring Check electronic "Smart"

8. CIRCUIT DIAGRAM



9. **REVISIONS**

Revision	Date	Description	Author	Approved by - on
00	01/2015	Document Creation	BSP	