SERVICE MANUAL

COOKING

FOR INTERNAL AND PARTNERS USE ONLY

© ELECTROLUX HOME PRODUCTS
Consumer Service - EMEA
Quality & Continuous Improvement - Technical Support

OVEN

PUX

Premium User Experience

EN

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1 PURPOSE OF THIS MANUAL

The purpose of this Service Manual is to provide Service Engineers who are already familiar with the repair procedures with information regarding:
Smart Ovens with the Connected User Interface Premium User Experience (PUX)

Document Revisions

Rev.	Date	Description	Author
00	03/2021	Document creation	BSP

Check for Reference Links to E – Lucid

- Use your E – Lucid credientials to check the videos

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.

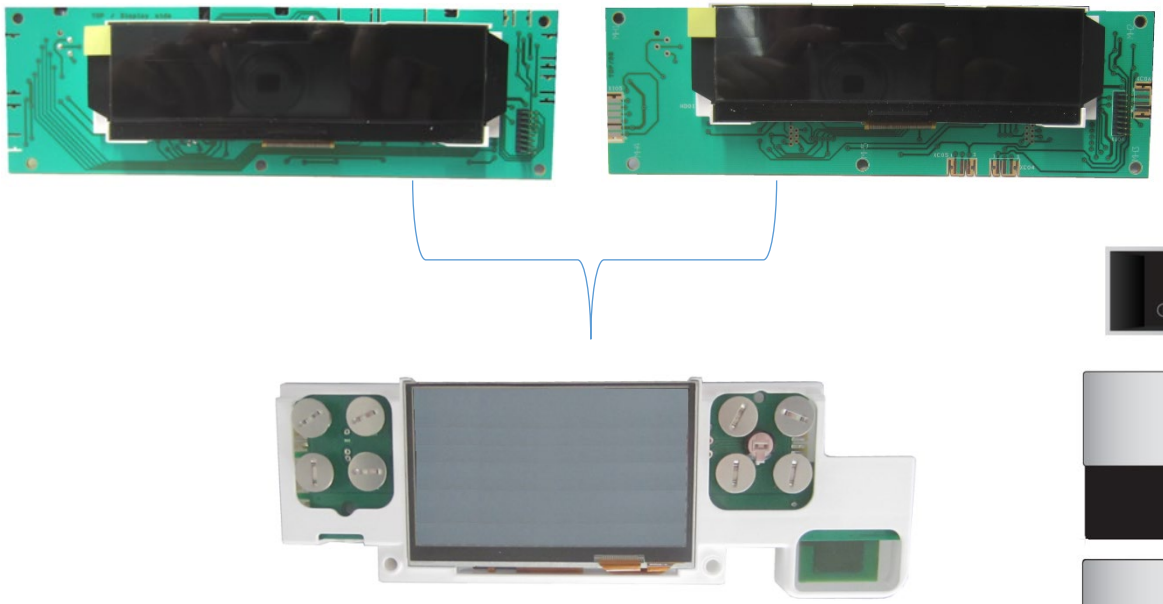
3 PUX

3.1 PUX Evolution

3.1.1 AEG PUX 2.0 (2019)

VCU , VCU+

Omega, Omega+



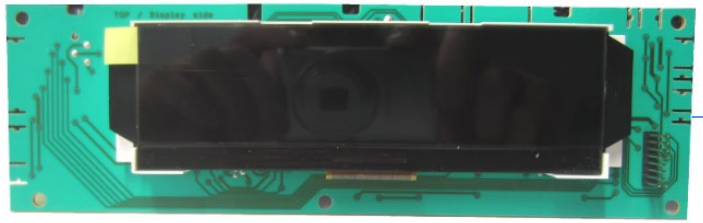
2 variants of PUX

Position of TFT-display 5mm offset upwards for “Full glass” variant against “Metal glass” variant.

3.1.2 ELUX PUX (2021)

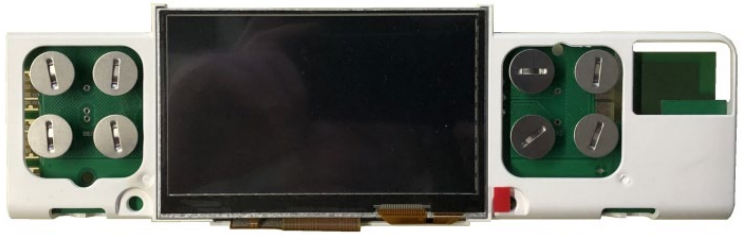
VCU

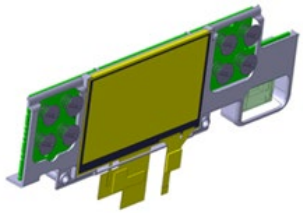
Omega

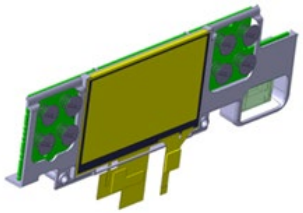


Upper Version

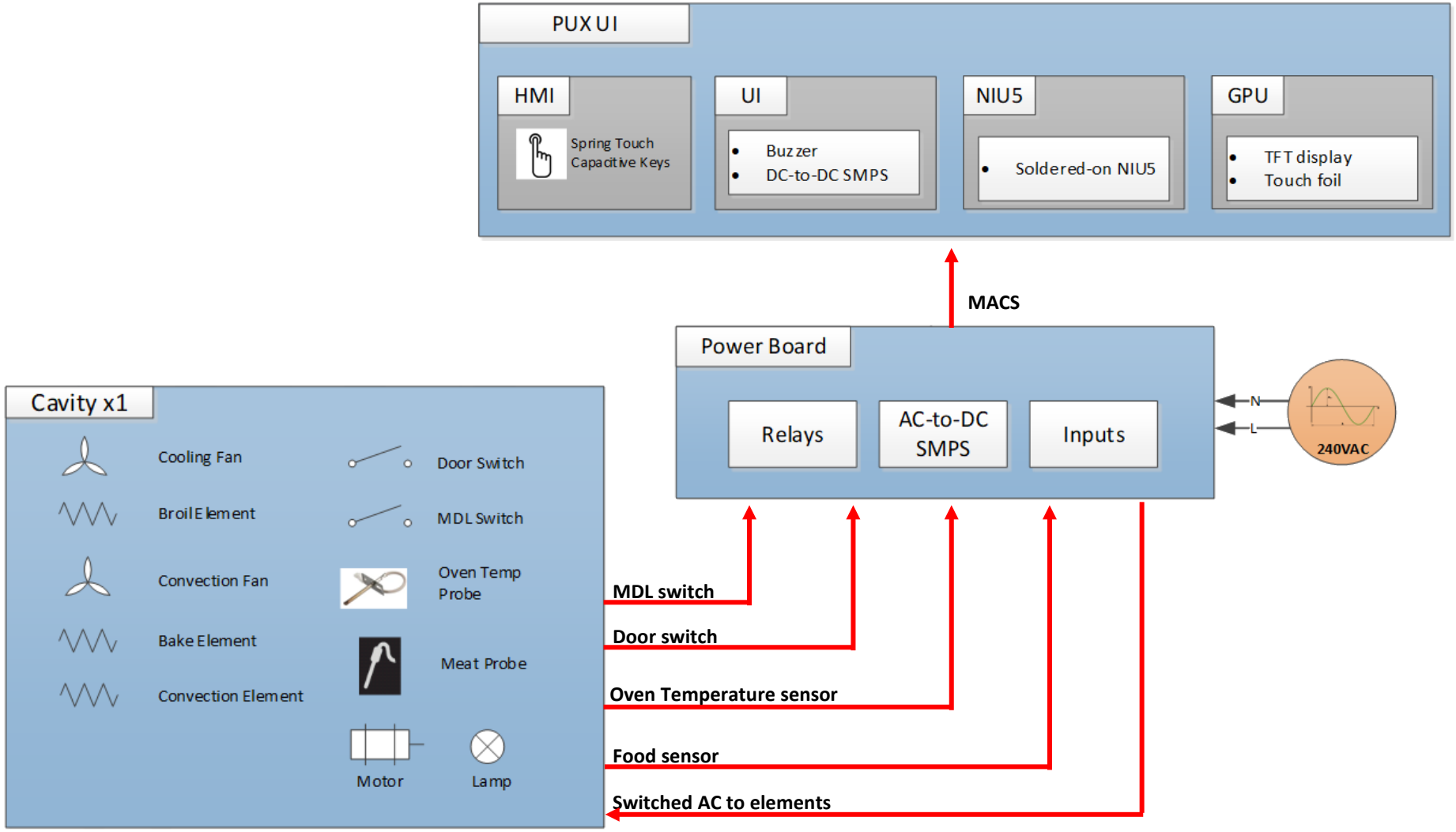
Centre Version



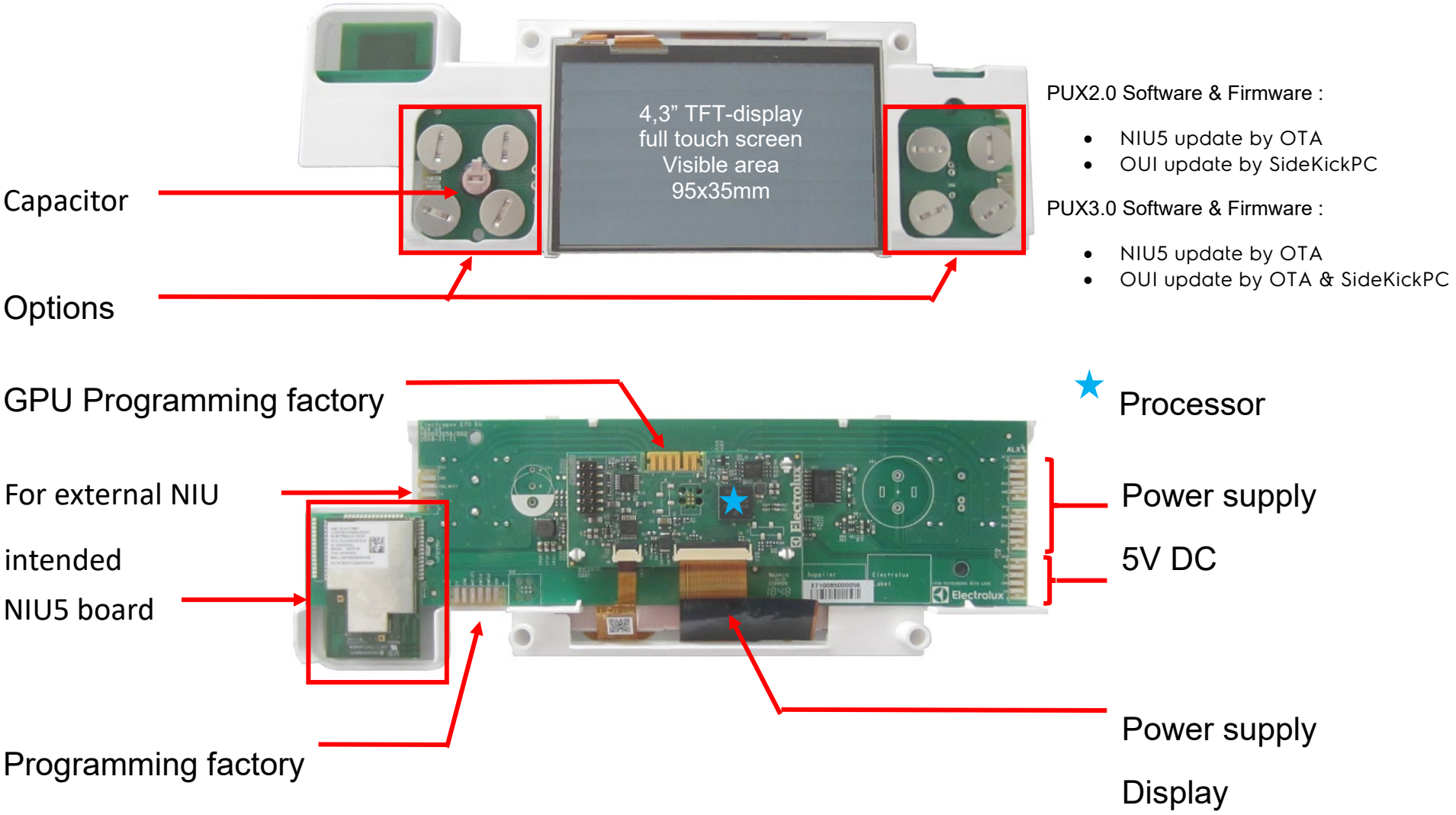




3.2 Block diagram PUX



3.3 User interface PUX



PUX2.0 Software & Firmware :

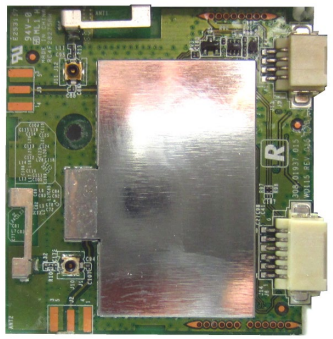
- NIU5 update by OTA
- OUI update by SideKickPC

PUX3.0 Software & Firmware :

- NIU5 update by OTA
- OUI update by OTA & SideKickPC

3.4 NIU5 board (Network Interface Unit)

NIUX board



Market launch

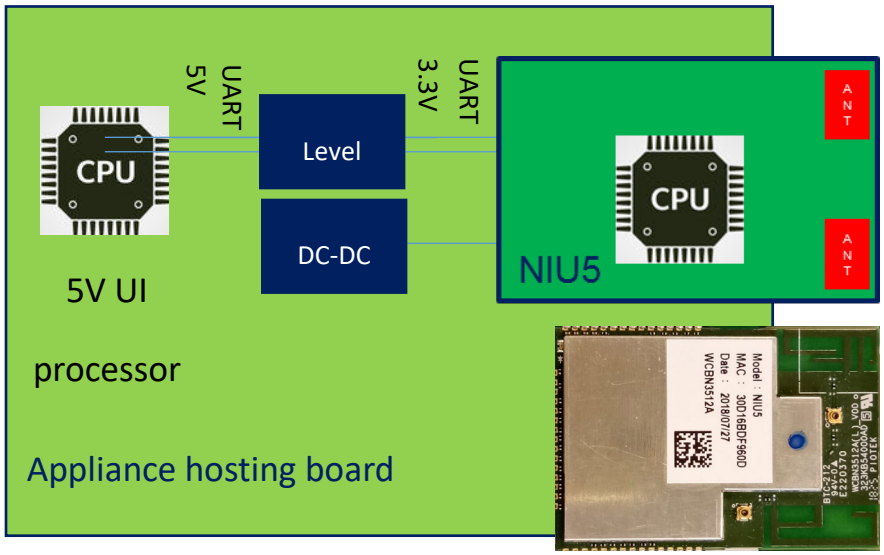
Jan. 2020

Module requirements

- Wi-Fi 802.11bgn 2.4 / 5GHz, Station, Access Point, WEP, WPA, WPA2, WPS
- BLE 5.0
- TX Power > 16.5dBm (CCK), RX sensitivity < -87dBm@11Mbps
- Operating range: -20 ÷ 85°C
- Small dimensions (40 x 30 x 5 mm)
- Power supply: 3.3V for stamp, 5V for standalone version
- Low standby power: (active listening) < 0.2W (DTIM=1)
- One dual band antenna for Wi-Fi and one antenna for BLE
- Flash for code 4MByte (or larger)
- I/O interfaces (3.3V): high speed UART, module reset input, 3xGPIOs, Debug UART, SPI, Host I/F (2 GPIO for SPI additional functions), USB (for module flash programming only), I2S, I2C and JTAG
- Apple MFi chip security element are only BOM option not to be mounted
- Worldwide radio and safety certifiable

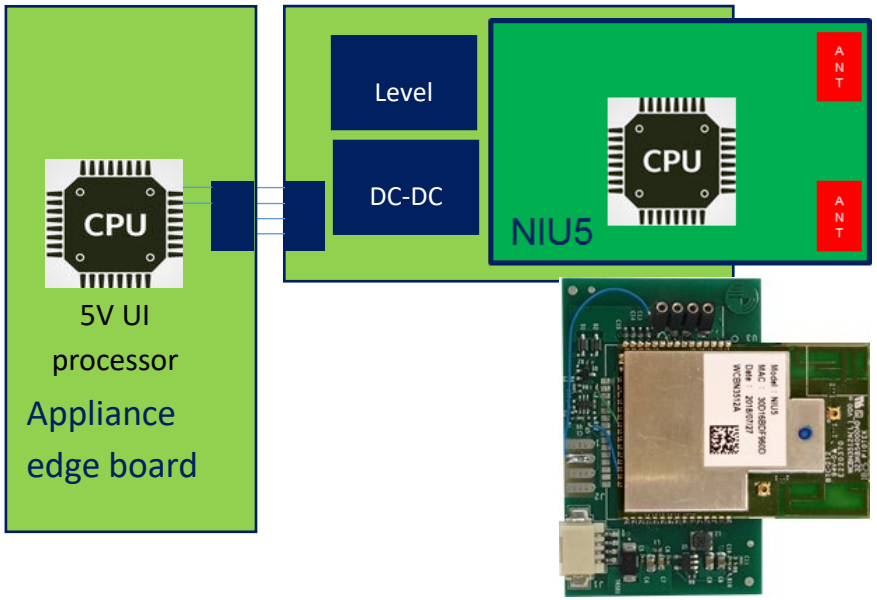
3.5 NIU5 board Modules (Network Interface Unit)

Stamp Module Application



- NIU5 soldered on appliance hosting board.
- 3,3V power supply (switchable, under processor control) coming from the hosting board.
- Buffered UART to connect with the user interface processor (3,3V signals, need level shifter for 5V processor).

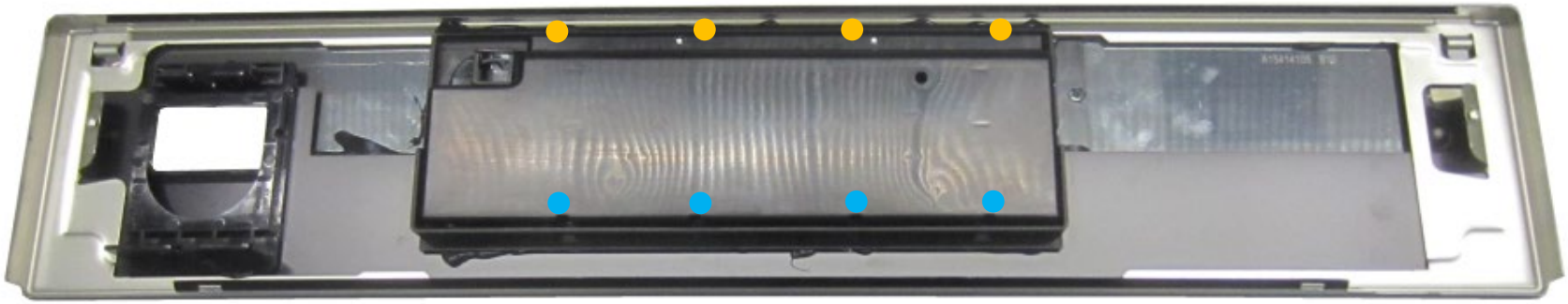
Standalone Module Application



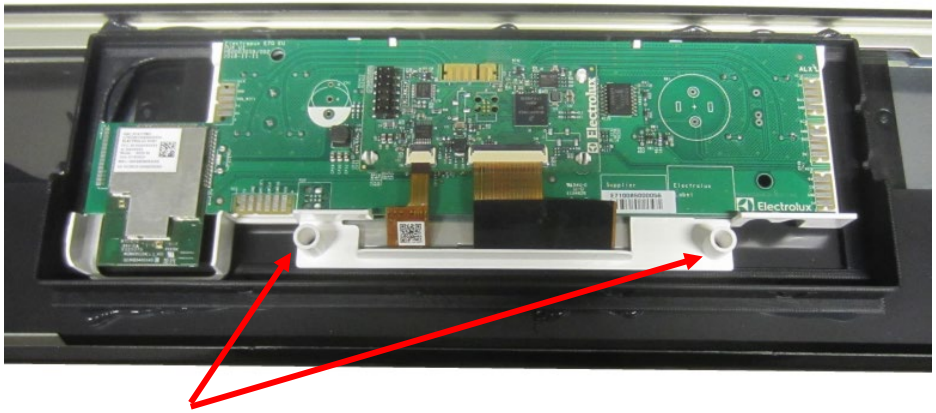
- NIU5 as a standalone board.
- 5V power supply (switchable, under processor control) coming from the appliance board.
- Buffered UART to connect with the appliance board processor (3,3V open drain, 5V tolerant), electrically compatible with NIUX.
- EDGE/RAST or TE292227 (NIUX) connector.

3.6 User interface PUX exchange

Disassemble the panel from the oven ! (remove left and right screws, unplug the user interface)



- Four fixations !
- Open four clips !



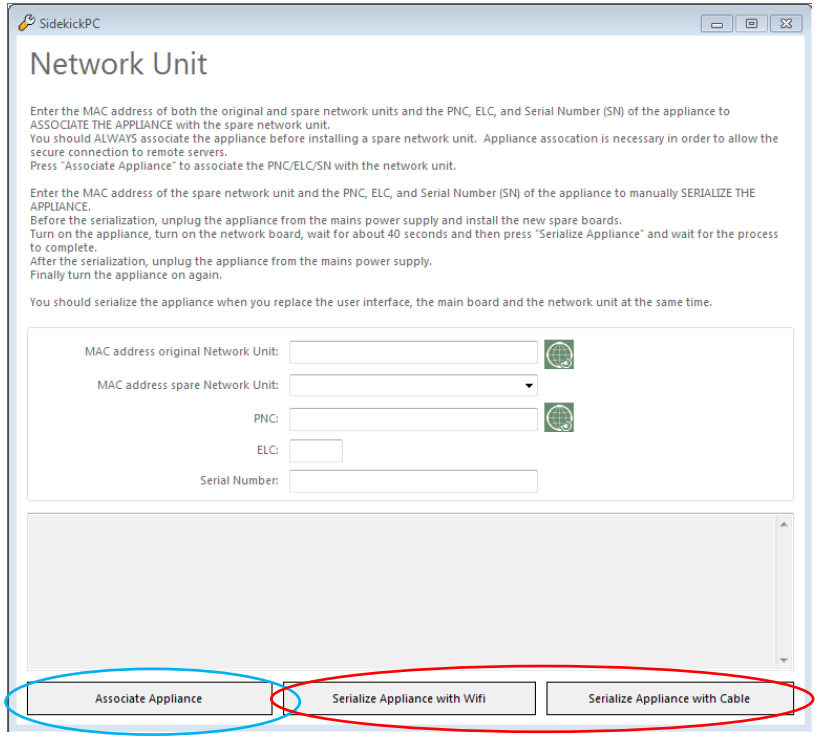
Attention:

The user interface is **held only** at two points, on the panel support !

Attention:

The NIU5 board is soldered to the user interface !

Complete spare part!



On the user interface are all data stored!

- PNC
- ELC
- Serial no#
- MACS

Attention:

After user interface exchange

The user interface needs to associate and serialize!

After user interface exchange, carry out an association and serialization process!

After connecting to the main power supply, the user interface starts with the **service mode!**

1.step

Service mode

Very important! To be able to end the service mode!

Touch SKIP

2.step

Setup settings

Language
Display Brightness
Key Tones
Buzzer
Time of Day

3.step

SidekickPC

Create an association and serialization

4.step

App

Appliance onboarding

Oven Pyro UI PUX2019 "Exchange user interface"

Video | Electrolux Europe |
Exchange of an user interface **PUX2019** followed by an association- and serialization- process on SidekickPC.

3.8 Network Units NIU-NIU5

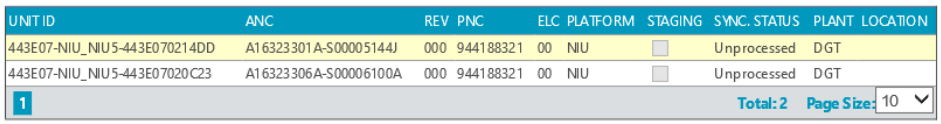
, NETWORK UNITS

Unit ID: | Mac Address:
Serial Number: | Platform:
Appliance PNC/ELC/SN: 944188321 | 00 | 00528842 | Appliance Type:
Configuration ANC/REV: | Is Staging: | Location: | Plant:
Black List State: | Sync Status: | Last Contact Time:
Apply | Reset

UNIT ID	ANC	REV	PNC	ELC	PLATFORM	STAGING	SYNC. STATUS	PLANT	LOCATION
443E07-NIU_NIU5-443E070214DD	A16323301A-S00005144J	000	944188321	00	NIU		Unprocessed	DGT	
443E07-NIU_NIU5-443E07020C23	A16323306A-S00006100A	000	944188321	00	NIU		Unprocessed	DGT	

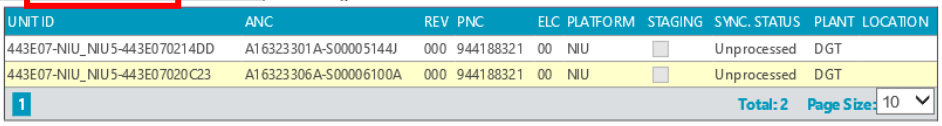
Attention:

The SYNC.STATUS folder is for NIU5-boards not relevant, only for NIUX-board!



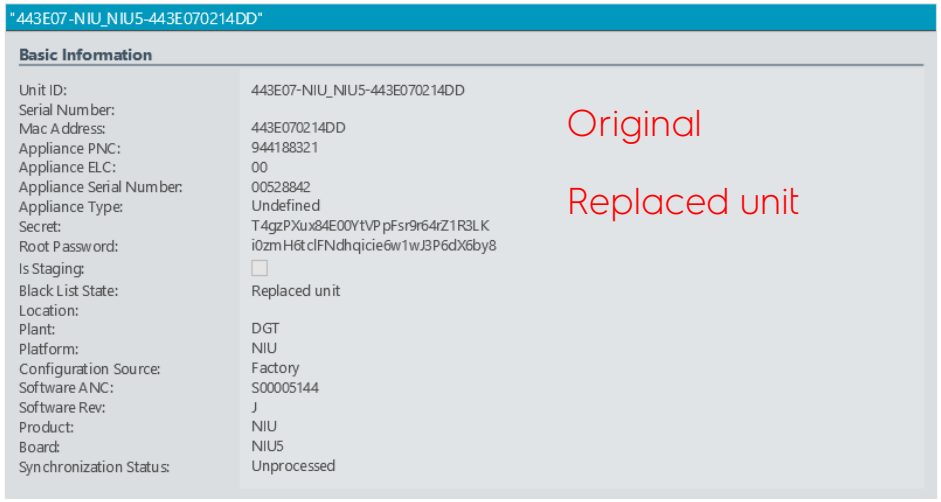
UNIT ID	ANC	REV	PNC	ELC	PLATFORM	STAGING	SYNC. STATUS	PLANT	LOCATION
443E07-NIU_NIU5-443E070214DD	A16323301A-S00005144J	000	944188321	00	NIU		Unprocessed	DGT	
443E07-NIU_NIU5-443E07020C23	A16323306A-S00006100A	000	944188321	00	NIU		Unprocessed	DGT	

1 Total: 2 Page Size: 10



UNIT ID	ANC	REV	PNC	ELC	PLATFORM	STAGING	SYNC. STATUS	PLANT	LOCATION
443E07-NIU_NIU5-443E070214DD	A16323301A-S00005144J	000	944188321	00	NIU		Unprocessed	DGT	
443E07-NIU_NIU5-443E07020C23	A16323306A-S00006100A	000	944188321	00	NIU		Unprocessed	DGT	

1 Total: 2 Page Size: 10



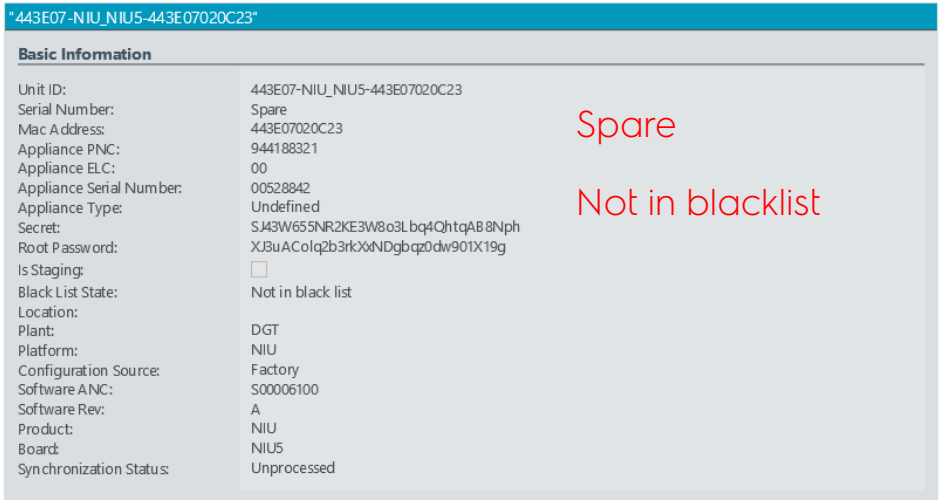
"443E07-NIU_NIU5-443E070214DD"

Basic Information

Unit ID:	443E07-NIU_NIU5-443E070214DD
Serial Number:	
Mac Address:	443E070214DD
Appliance PNC:	944188321
Appliance ELC:	00
Appliance Serial Number:	00528842
Appliance Type:	Undefined
Secret:	T4gzPXux84E00YtVPpFsr9r64rZ1R3LK
Root Password:	i0zmH6tclFNdhqicie6w1wJ3P6dX6by8
Is Staging:	
Black List State:	Replaced unit
Location:	
Plant:	DGT
Platform:	NIU
Configuration Source:	Factory
Software ANC:	S00005144
Software Rev:	J
Product:	NIU
Board:	NIU5
Synchronization Status:	Unprocessed

Original

Replaced unit



"443E07-NIU_NIU5-443E07020C23"

Basic Information

Unit ID:	443E07-NIU_NIU5-443E07020C23
Serial Number:	Spare
Mac Address:	443E07020C23
Appliance PNC:	944188321
Appliance ELC:	00
Appliance Serial Number:	00528842
Appliance Type:	Undefined
Secret:	SJ43W655NR2KE3W8o3Lbq4QhtqAB8Nph
Root Password:	XJ3uAColq2b3rkXxNDgbqz0dw901X19g
Is Staging:	
Black List State:	Not in black list
Location:	
Plant:	DGT
Platform:	NIU
Configuration Source:	Factory
Software ANC:	S00006100
Software Rev:	A
Product:	NIU
Board:	NIU5
Synchronization Status:	Unprocessed

Spare

Not in blacklist

Oven Pyro UI PUX2019 "Onboarding with Apple iPhone 8"

Video I Electrolux Europe I

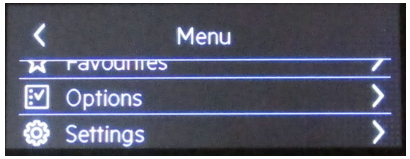
Onboarding the Oven Pyro (user interface **PUX2019**) to the "My AEG Kitchen" App via an Apple iPhone 8.

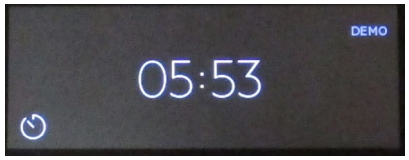
4 DEMO MODE PUX

Activate demo mode: The appliance is in off-state.

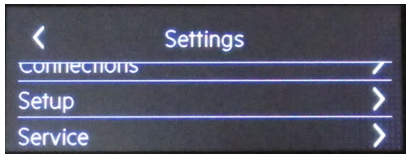
1. Switch on the appliance.

2. Select and touch **"Menu"**.
3. Select and touch **"Settings"**.

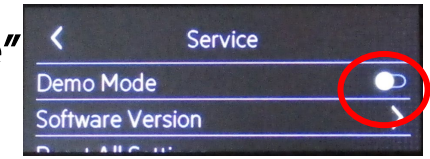




4. Select and touch **"Service"**.

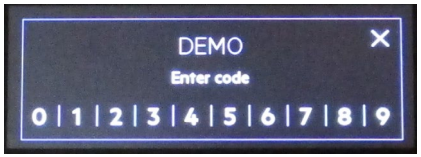


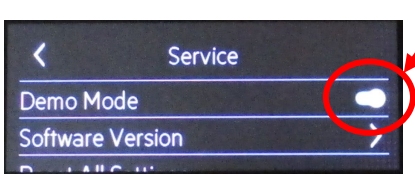
5. Select and touch **"Demo Mode"**



Demo mode "Off"

6. Insert the activation code: → **2 : 4 : 6 : 8**





Demo mode "On"

Deactivate demo mode: Same procedure.

Oven Pyro AEG-Vision "Demo Mode UI PUX"
Video I Electrolux Europe
Activate and deactivate the Demo mode on the user interface **PUX**.

5 SERVICE MODE PUX

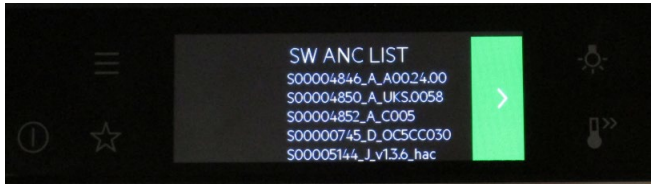
5.1.1 Service Mode PUX2.0 (2019)

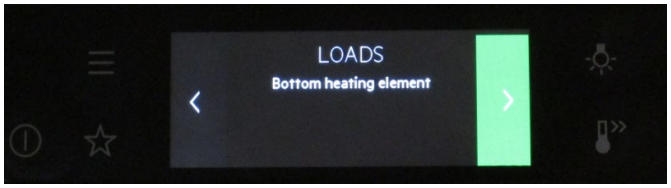
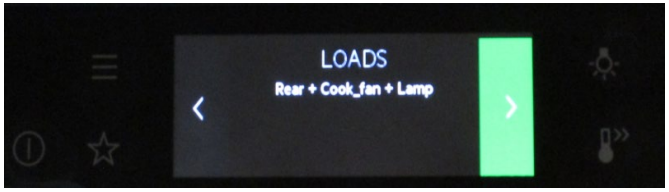
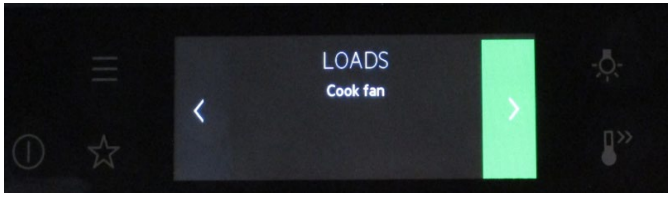
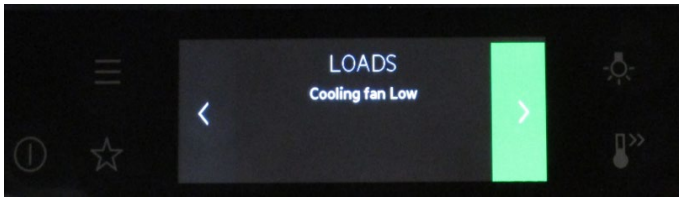
Oven Pyro AEG-Vision "Service Mode UI PUX"
Video I Electrolux Europe
Content and activate the Service mode on user interface **PUX**.

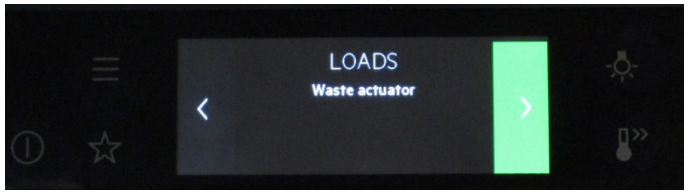
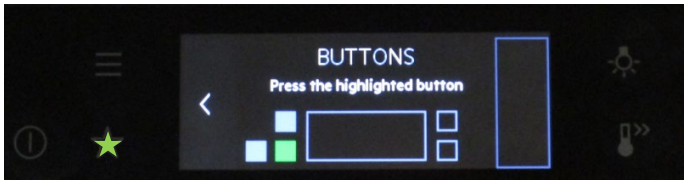
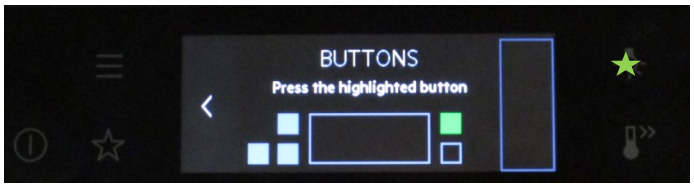
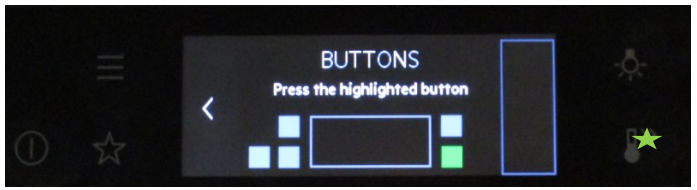
To activate the service mode after first installation again, unplug and re-plug the appliance from the power supply. Afterwards, touch the **"Menu"**-key and the **"Light"**-key simultaneously for 5 seconds.

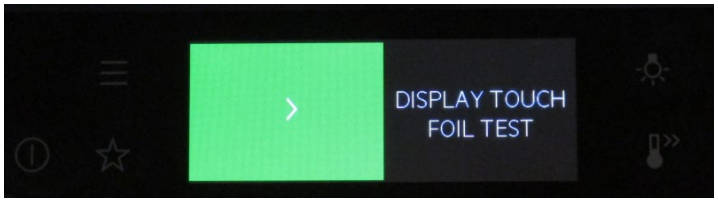
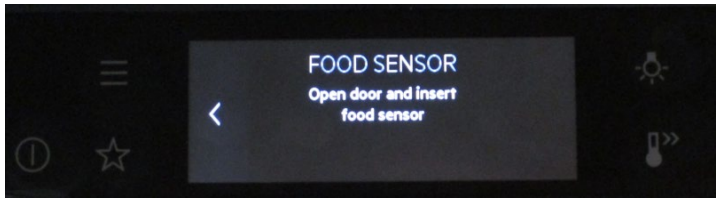
The user interface reboots.

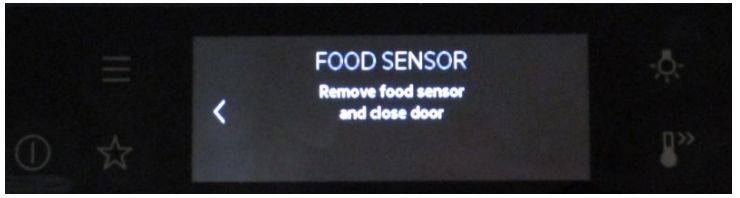
- Power board OVC-R5000
- Text file for all languages
- Hardware user interface

Step 1 **Software** → Touch **"green area"** to continue. • Bus communication & On/Off-switch • Firmware UI PUX • Configuration UI PUX • Firmware Linux operating system	
Step 2 **MAC address** → Touch **"green area"** to continue or touch **"SKIP"** to cancel the serialization check at the end of the service mode (Step22).	

Step 3 Grill Heater →		
Step 4 Bottom Heater →		
Step 5 Ring Heater + Cook Fan + Lamp →		
Step 6 Cook Fan →		
Step 7 Cooling Fan low speed →		
Step 8 Cooling Fan high speed →		

Step 9 Waste Actuator →	
Step 10 Button test → "On/Off"-key	
Step 11 Button test → "Menu"-key	
Step 12 Button test → "Favourite"-key	
Step 13 Button test → "Lamp"-key	
Step 14 Button test → "Oven function"-key	

Step 15 Button test → Touch "green area" to continue.	
Step 16 Display test → Touch "green area" to continue.	
Step 17 Display test → Touch "green area" to continue.	
Step 18 Buzzer test → Touch "green area" to continue.	
Step 19 Door lock test → Pull on the door. Touch "green area" to continue.	
Step 20 Food Sensor test → Place the food sensor	

Step 21 Food Sensor test → Remove the food sensor.	
Step 22 Check, the appliance is serialized.	
Step 23 Service mode is done → Unplug and re-plug the appliance from the power supply	

5.1.2 Service Mode PUX2.0 (2021)

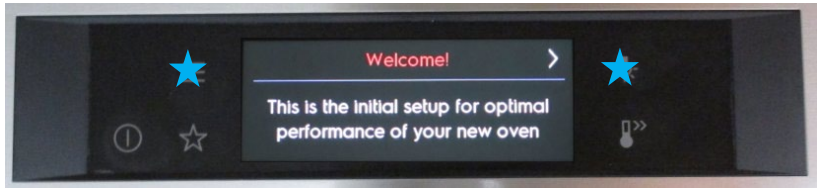
There are two possibilities to activate the Service Mode

1. During first installation or oven is in off-state: Unplug and re-plug the oven from the main power supply
2. The oven is in off-state: Via the menu

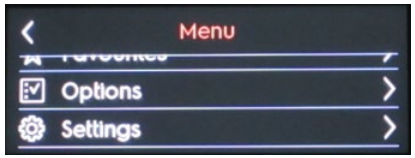
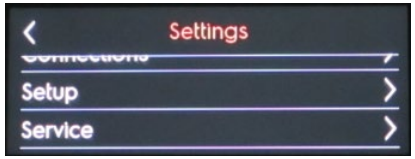
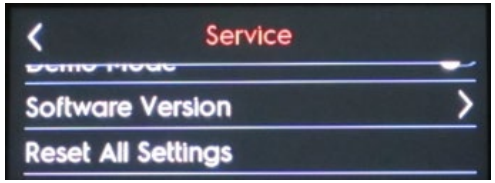
Attention:

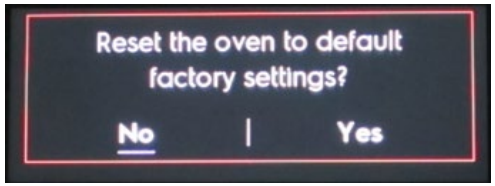
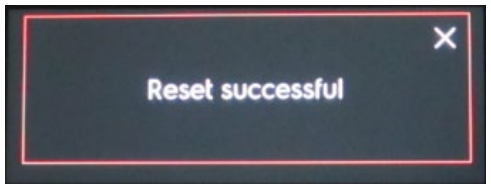
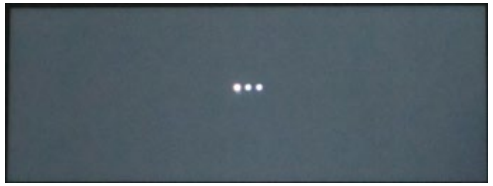
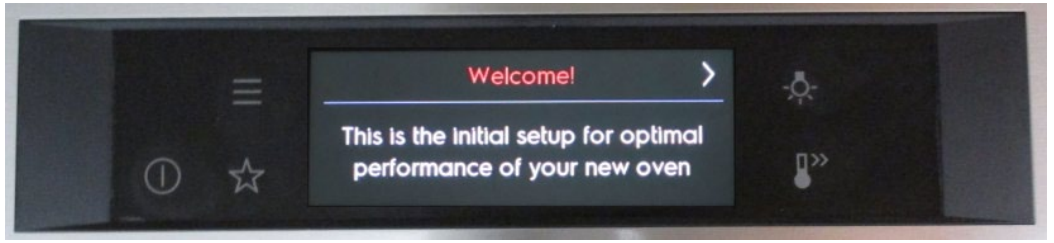
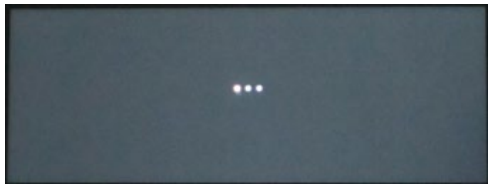
1. The water tank must be empty!
2. The Service Mode can be cancelled in any steps (unplug and re-plug the appliance), except after exchanging the user interface!

1. Activate the Service Mode: During first installation or oven is in off-state

Unplug and re-plug the oven from the main power supply	
Appliance will reboot.	
Afterwards, touch the **"Menu"**-key and the **"Light"**-key simultaneously for 5 seconds.	
The user interface will reboot.	

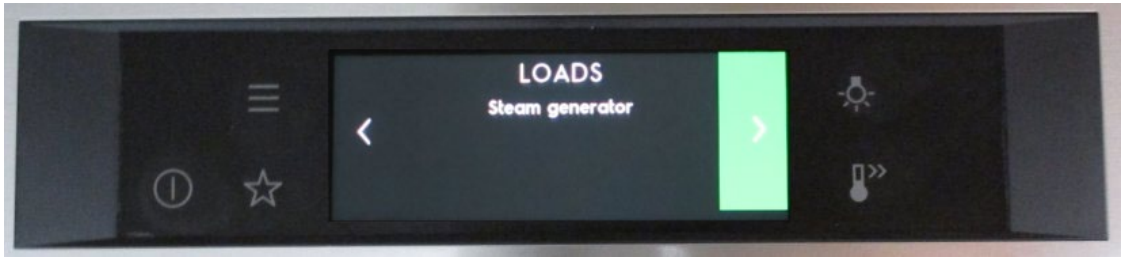
2. Activate the Service Mode: The oven is in off-state

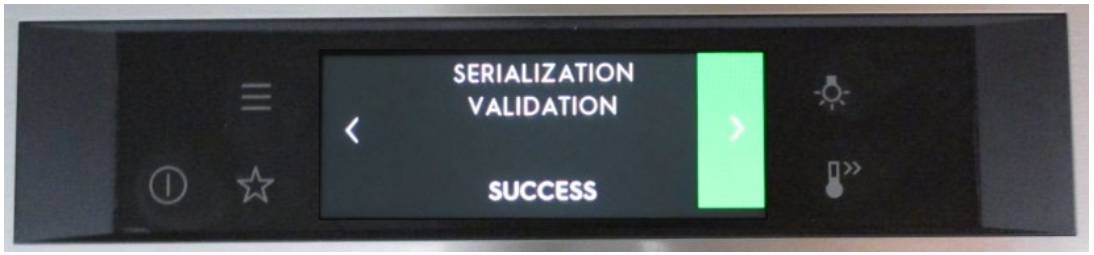
Switch on the appliance.	
Select and touch **"Menu"**.	
Select and touch **"Settings"**.	
Select and touch **"Service"**.	
Select and touch **"Reset All Settings"**.	

Select and touch **"Yes"**.	
Select and touch **"X"**.	
Appliance will reboot.	
Afterwards, touch the **"Menu"**-key and the **"Light"**-key simultaneously for 5 seconds. The user interface will reboot.	 

Step 1 **Software →** Touch **"green area"** to continue. • Power board OVC-R5000 • Text file for all languages • Hardware user interface • Bus communication & On/Off-switch • Firmware UI PUX • Configuration UI PUX • Firmware Linux operating system	
Step 2 **MAC address →** Touch **"green area"** to continue or touch **"SKIP"** to cancel the serialization check at the end of the service mode (Step14).	
Step 3 **Key test → "On/Off"-key** **Cook Fan →**	
Step 4 **Key test → "Menu"-key** **Cooling Fan low speed →**	

Step 5 Key test → "Favourite"-key	
Step 6 Key test → "Lamp"-key	
Step 7 Key test → "Oven function"-key	
Step 8 Bottom Heater + Cooling Fan low speed	

Step 9 Ring Heater + Cook Fan + Lamp Bottom Heater + (Cooling Fan high speed) →	
Step 10 Steamer Generator →	
Step 11 Food Sensor test → Place the food sensor	
Step 12 Food Sensor test → Remove the food sensor	

Step 13 Steam Tank test → Fill water into the water tank (approx. 1ltr.)	
Step 14 Check, the appliance is serialized →	
Step 15 Grill Heater → wait	
Step 16 Service mode is done → Unplug and re-plug the appliance from the power supply.	

Depending on the appliance versions, other components are tested too!

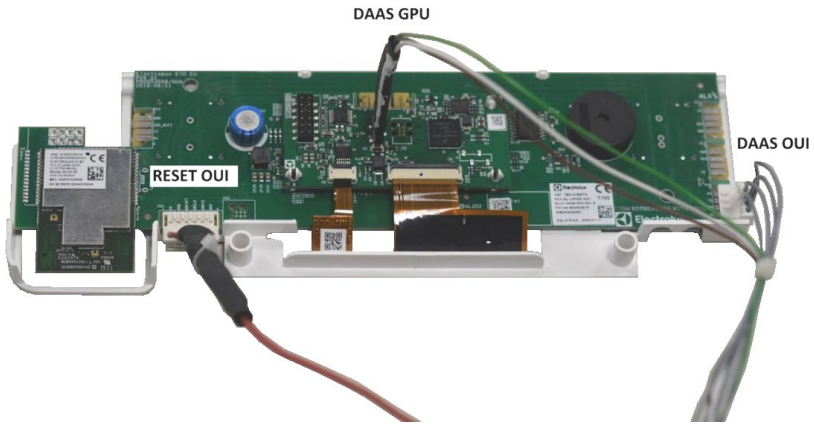
- Pyro- oven door lock function
- Turntable
- Turnspit
- Magnetron
- Evaporator
- Waster actuator
- Magnetron for leakage
- Inlet valve
- Outlet vale

5.2 SidekickPC PUX

The user interface PUX are ordered and delivered as a ready configured spare part!

A new Sidekick adapter (3 Plugs) will be created and will be available as a spare part!

This Sidekick adapter is only used for service engineers to clean up software bugs!



The Sidekick adapter is not included in the Sidekick-Kit (ref. 5029977900/4).

This is only available separately as a spare part (cost reason) !

It is planned, that the new Sidekick adapter can also be used for the

new user interface LUX in the future !

5.3 Project PUX2.0 (2019)

How does Uffenheim deliver the PUX to the service engineer!

1. Uffenheim receive from the supplier: → NIU5 is configured with FW.

→ PUX UI is pre-programmed with a pseudo FW. (Quality check)

2. Uffenheim: → With Configmat tool is configured the right oven data FW, CCF, MCF.

→ With Configmat tool is configured the Secrets on the NIU5 and the MAC address is declared as "Spare" and is registered on the Sidekick database.

3. Service engineer: → Associate and serialize with the SidekickPC tool.

→ Switch on the appliance..... ???

Service engineer carries out an update by SidekickPC tool.

1. Service engineer: → Configures the PUX UI with new data FW, CCF, MCF.

→ Serialization does not have to be carried out. The NIU5 module still includes the PNC, ELC, SN for serialization.

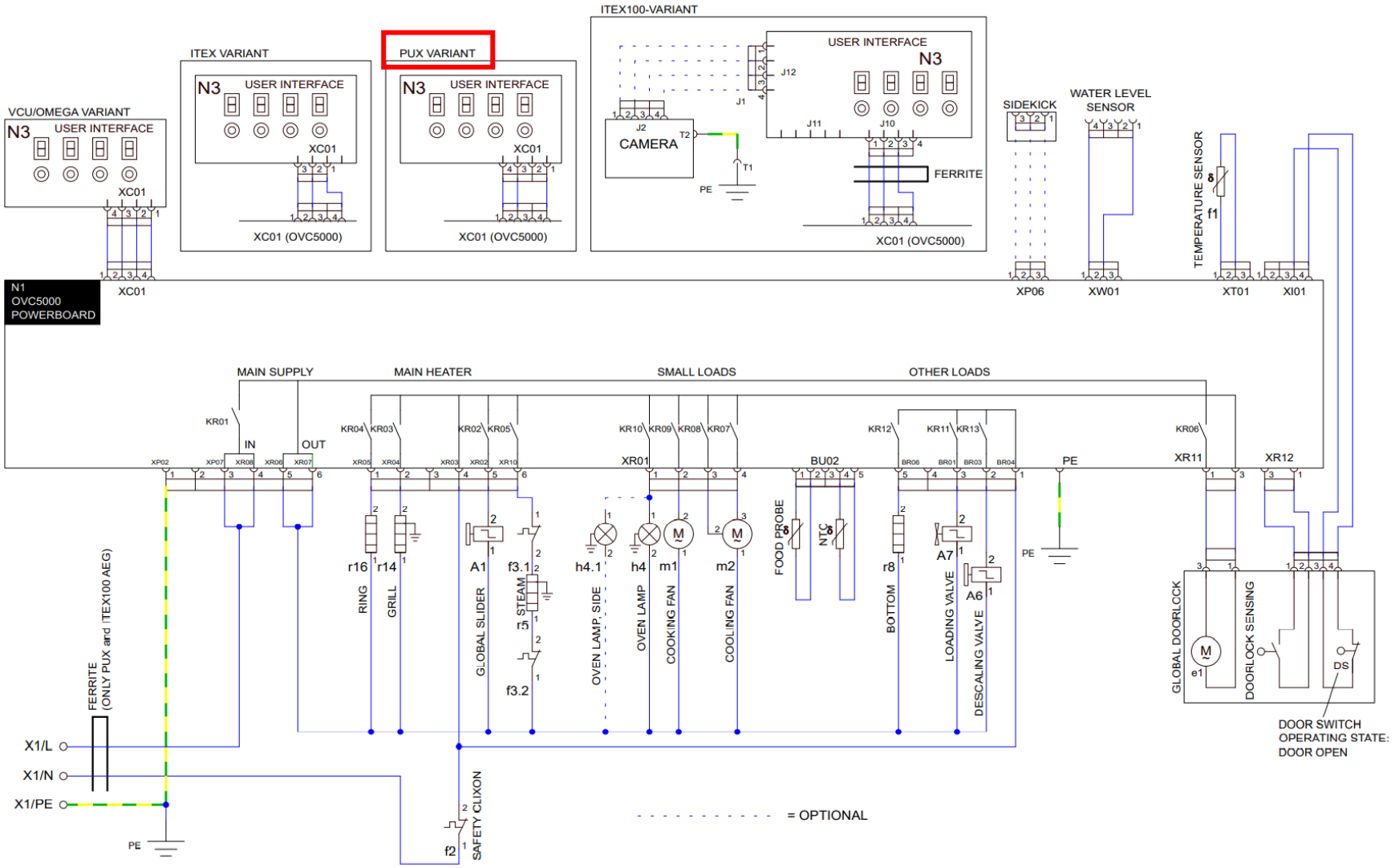
→ Switch on the appliance..... ???

→ PUX UI and NIU5 modules are works separately. When the → PUX UI is new configured, the serialization of PNC, ELC, SN is carried out by the NIU5 module. The serialization cannot be lost.

6 WIRING DIAGRAM

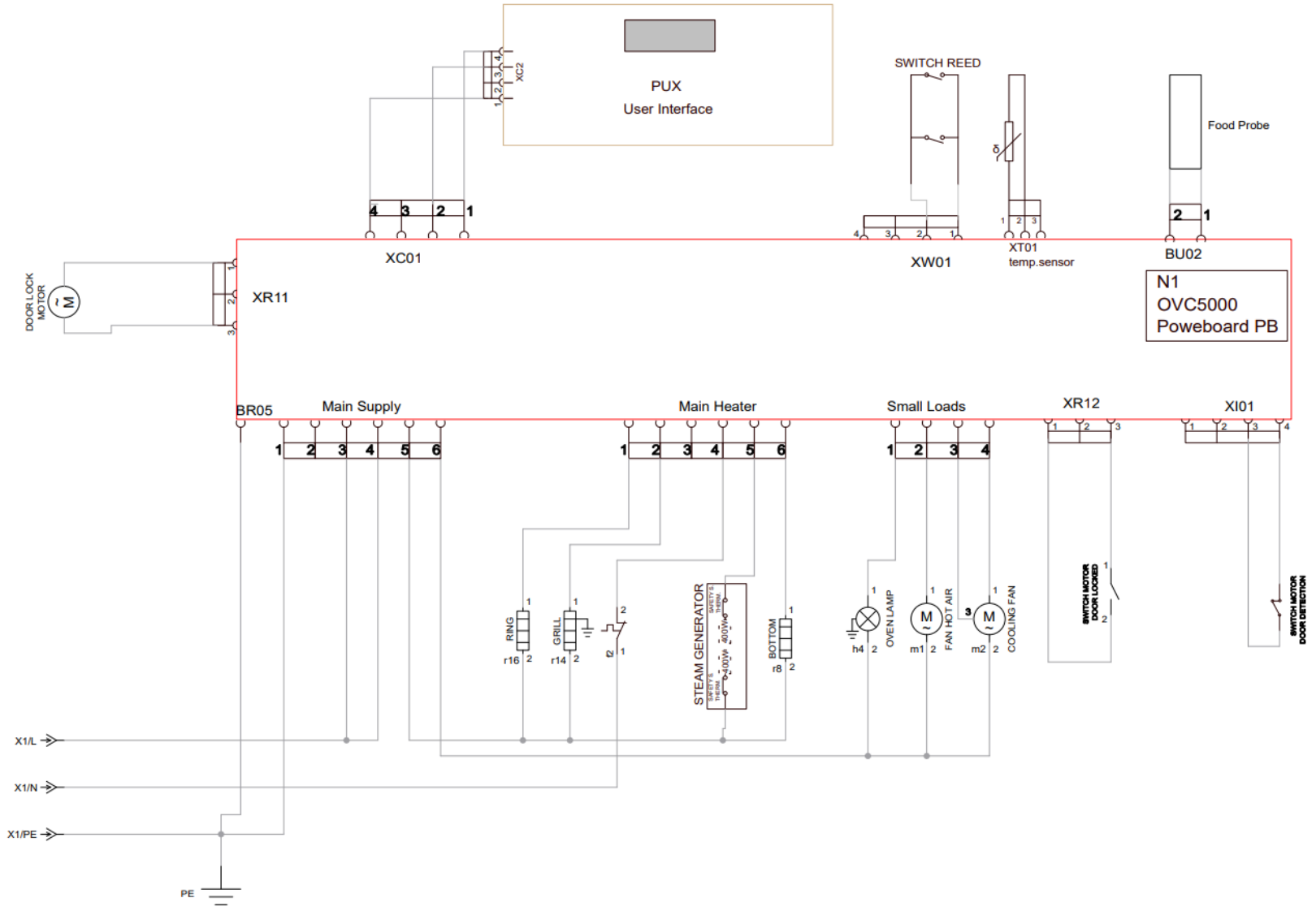
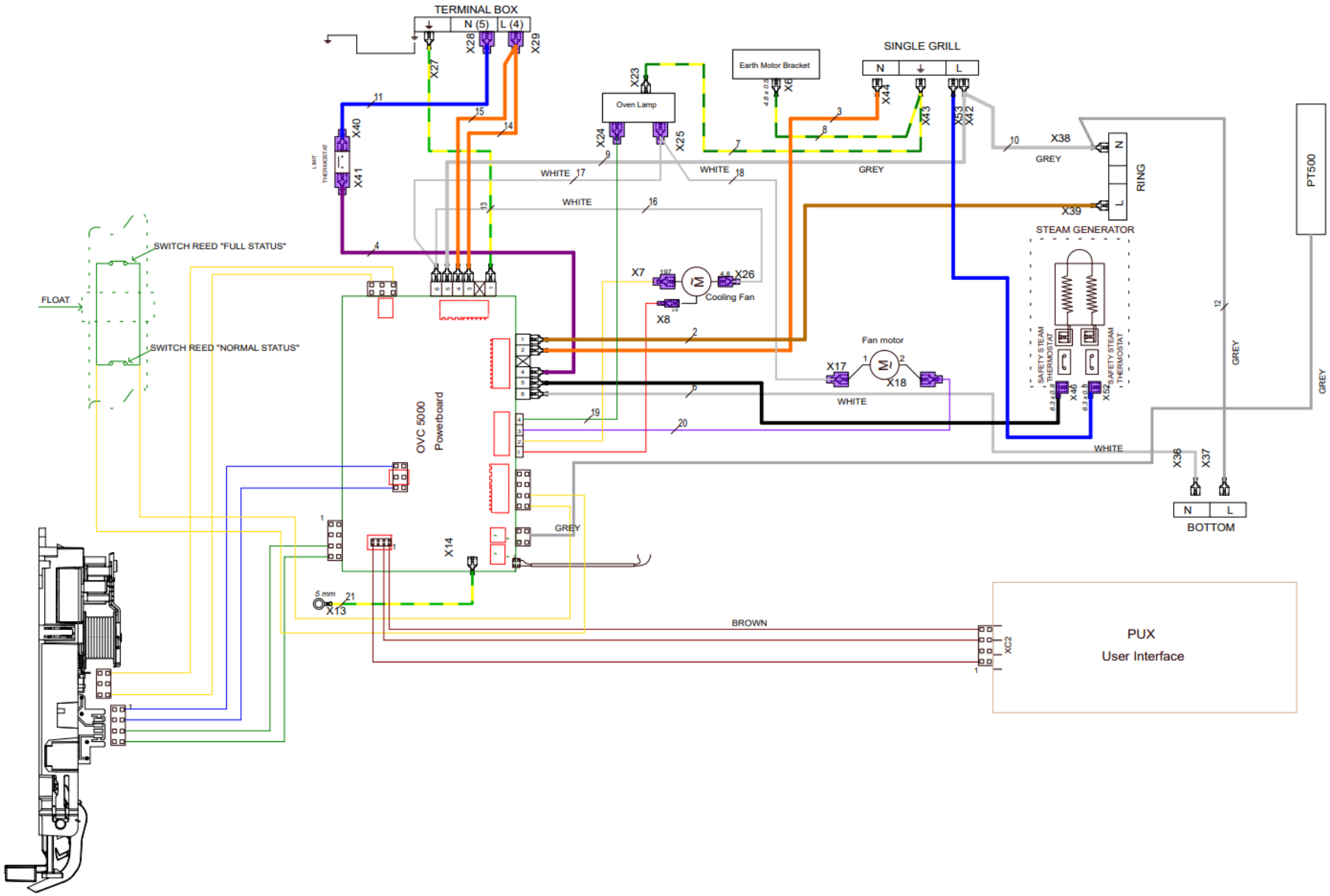
6.1 Apollo Wiring Diagram

Oven: PS3
Platform: Apollo
User interface: PUX
Power board: OVC-R5000



6.2 Sputnik Wiring Diagram

Oven: Direct Steamer
Platform: Sputnik
User interface: PUX
Power board: OVC-R5000



6.3 Sputnik Circuit Diagram