

# HOUNÖ

## SERVICE MANUAL – English

CombiSlim C Models

<b>INTRODUCTION</b>	<b>5</b>
<b>UTILITY CONNECTIONS</b>	<b>6</b>
<b>STANDARDS AND CODES</b>	<b>7</b>
<b>IMPORTANT SAFETY INFORMATION</b>	<b>8</b>
<b>SAFETY INSTRUCTIONS</b>	<b>9</b>
Ready for use	9
<b>LOCATING THE SERIAL NUMBER OF THE OVEN</b>	<b>10</b>
<b>OPERATION PANEL</b>	<b>11</b>
<b>SETTINGS</b>	<b>12</b>
Setting of temperature	12
Setting of time	12
Setting of core temperature (optional extra)	12
Programmes	13
Entering and changing text	14
Entering and changing data in steps	15
<b>DESCRIPTION OF FUNCTIONS</b>	<b>16</b>
Hot Air	16
Preheating	16
CombiSmart	17
Cook & Regen	17
Proving	17
Manual humidity pulsing	18
Steaming in a C model	18
General recommendations for steaming	18
Damper	18

	Fan speed	19
	Hours, date and setting of timer	19
	Semi-automatic cleaning	20
	<b>MENU TABEL</b>	<b>21</b>
	<b>USER MENU</b>	<b>22</b>
	<b>SETUP MENU</b>	<b>25</b>
	<b>TEST MENU</b>	<b>26</b>
	<b>CLEANING OVEN EXTERIOR</b>	<b>32</b>
	Cleaning Behind the Filter Housing	32
	<b>CLEANING THE FILTER</b>	<b>33</b>
	<b>WATER LAYOUT</b>	<b>34</b>
	<b>I/O BOARD LED</b>	<b>36</b>
	<b>FREQUENCY INVERTER</b>	<b>37</b>
	<b>ERROR CODES</b>	<b>38</b>
	<b>TROUBLESHOOTING ERROR CODES</b>	<b>39</b>
	<b>SERVICE AND REPAIR</b>	<b>47</b>
	<b>SAFETY</b>	<b>47</b>
	<b>WARRANTY</b>	<b>48</b>



# INTRODUCTION

Dear customer,

Thank you for choosing a CombiSlim oven from HOUNÖ.

This manual contains the information you need to service and maintain your oven. We recommend that you read the manual and familiarize yourself with the service settings and functions of the oven. This will ensure optimal cooking results and safety.

Please make the manual available to all who service and maintain the oven and retain it for future reference.

The latest version of the manual can be downloaded from [www.houno.com](http://www.houno.com).

Note that this document is subject to change without notice.

**IMPORTANT**

**WARNING:** Improper installation, adjustment, alternation, service or maintenance can cause property damage, injury or death. Read the installation, operation and maintenance instructions thoroughly before installing or servicing this equipment.

The information contained in this manual is important for the proper installation, use, and maintenance of this oven. Adherence to these procedures and instructions will result in satisfactory cooking and baking results and long, trouble free service. Please read this manual carefully and retain it for future reference.

**ERRORS:** Descriptive, typographic or pictorial errors are subject to correction. Specifications are subject to change without notice.

# UTILITY CONNECTIONS

THE SERVICE INSTRUCTIONS CONTAINED HEREIN ARE FOR THE USE OF QUALIFIED INSTALLATION AND SERVICE PERSONNEL ONLY. INSTALLATION OR SERVICE BY OTHER THAN QUALIFIED PERSONNEL MAY RESULT IN DAMAGE TO THE OVEN AND/OR INJURY TO THE OPERATOR.

Qualified service/installation personnel are individuals, a firm, a corporation, or a company which either in person or through a representative are engaged in, and responsible for:

- the service/installation or replacement of gas piping and the connection, installation, repair or servicing of equipment.
- the installation, repair or service of electrical wiring from the electric meter, main control box or service outlet to the electric appliance.
- Qualified installation/service personnel must be experienced in such work, familiar with all precautions required, and have complied with all requirements of state or local authorities having jurisdiction.



# STANDARDS AND CODES

## U.S. and Canadian installations

The installation must conform with local codes, or in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1/NFPA 54, or the Natural Gas and Propane Installation/service Code, CSA B149.1, as applicable.

Installation/service must conform with local codes, or in the absence of local codes, with the National Electrical Code, ANSI/NFPA 70-Latest Edition and/or Canadian National Electric Code C22.1 as applicable.

Appliance is to be installed with backflow prevention in accordance with applicable federal, province and local codes.

## Australia and general export installations

Installation must conform with Local and National installation standards. Local installation codes and/or requirements may vary. If you have any questions regarding the proper installation, service, repair and/or operation of your HOUNÖ oven, please contact your local distributor. If you do not have a local distributor, please call the HOUNÖ Oven Company at +45 87 11 47 11.



# IMPORTANT SAFETY INFORMATION

The following icons are used throughout this manual to draw special attention to safety related information.



The service personnel should observe and/or act according to the information in order to obtain the best possible function of the oven.



The service personnel must observe and/or act according to the information in order to avoid any personal injury or damage to the oven.



The service personnel must observe and/or act according to the information in order to avoid any fatal injury. The symbol indicates a hazard arising from dangerous voltage.



# SAFETY INSTRUCTIONS

## Ready for use

When the oven is correctly installed, read this manual carefully before the oven comes into service.

This manual should be kept handy to persons using the oven.

Always place trays filled with hot liquid in the bottom runners of the oven chamber to avoid spilling the hot liquid on yourself when you take the tray out of the oven chamber.

Some areas on the outside of the oven may get as hot as 60°C or more, therefore, you should only touch the front of the oven.

Do not open the oven during the automatic cleaning process.

Do not store flammable materials around or under the unit.

When using the roll-in or trolley system, be aware of hot racks sliding out of the oven. Use the parking brakes on the wheels to prevent trolleys from rolling away on uneven floors.

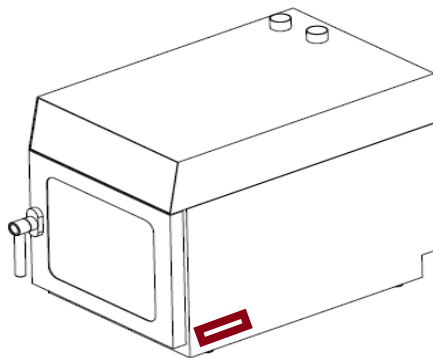


Failure to comply with the above instructions may increase the risk of fire!

# LOCATING THE SERIAL NUMBER OF THE OVEN

When you order parts or request service for your CombiSlim oven, you need the oven's Serial Number,

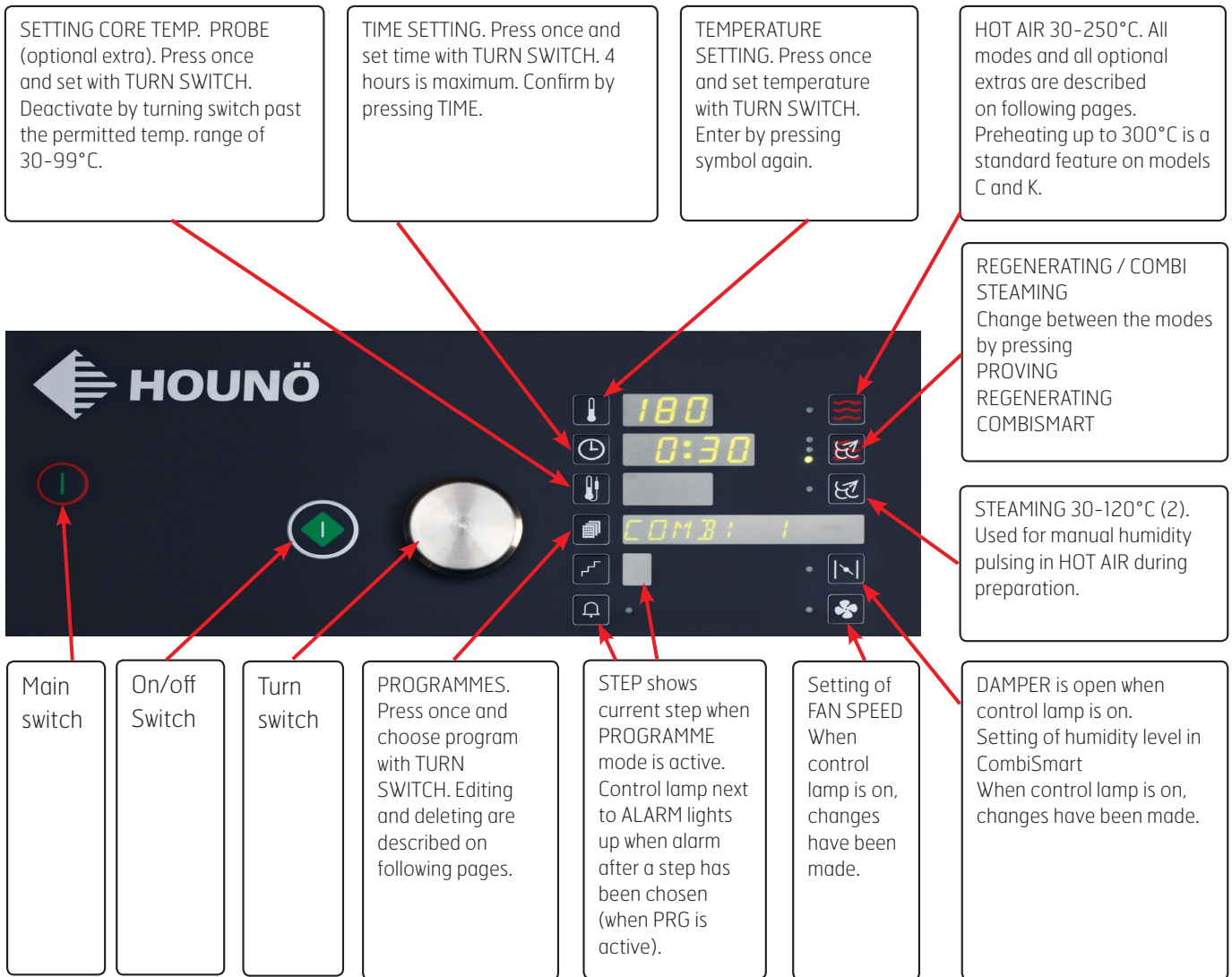
You can find the Serial Number and Type information on the right-hand corner post of the oven as shown in the illustration.



The serial number plate contains vital information about the oven.

- Production year and months.
- Model type and size.
- Voltage, power, phases and frequency.
- Power consumption.
- Wiring diagram number.
- Water inlet max/min pressure.
- Ipx grating.

# OPERATION PANEL



**SETTING CORE TEMP. PROBE** (optional extra). Press once and set with TURN SWITCH. Deactivate by turning switch past the permitted temp. range of 30-99°C.

**TIME SETTING.** Press once and set time with TURN SWITCH. 4 hours is maximum. Confirm by pressing TIME.

**TEMPERATURE SETTING.** Press once and set temperature with TURN SWITCH. Enter by pressing symbol again.

**HOT AIR 30-250°C.** All modes and all optional extras are described on following pages. Preheating up to 300°C is a standard feature on models C and K.

**REGENERATING / COMBI STEAMING**  
Change between the modes by pressing  
PROVING  
REGENERATING  
COMBISMART

**STEAMING 30-120°C (2).** Used for manual humidity pulsing in HOT AIR during preparation.

**Main switch**

**On/off Switch**


**Turn switch**

**PROGRAMMES.** Press once and choose program with TURN SWITCH. Editing and deleting are described on following pages.

**STEP** shows current step when PROGRAMME mode is active. Control lamp next to ALARM lights up when alarm after a step has been chosen (when PRG is active).

**Setting of FAN SPEED**  
When control lamp is on, changes have been made.

**DAMPER** is open when control lamp is on. Setting of humidity level in CombiSmart  
When control lamp is on, changes have been made.

(1) CombiSlim C models semi manually operated cleaning system can be activated by pressing the programmes key  and turning the turn knob until CLEANING appears in the display.

(2) The C model has no steam generator, but this mode makes it possible to steam in the oven anyway. At temperatures between 65 and 100°C, you can steam all kinds of vegetables, rice, pasta, meat and fish.

# SETTINGS

## Setting of temperature

1. Press TEMPERATURE key once and set temperature with turn knob.
2. Confirm by pressing TEMPERATURE key again.

## Setting of time

1. Press TIME key. Time flashes.
2. Choose desired time (hours and minutes) with turn knob.
3. If the knob is turned all the way down to 0, "--" (continuous operation) appears in the display.
4. Max. time setting is 4 hours.
5. Confirm by pressing TIME key again.

## Setting of core temperature (optional extra)

1. Press CORE TEMPERATURE key.
2. If the display is off, the core temperature appears as 75°C.
3. Set core temperature between 30 and 99°C with turn knob.
4. Core temperature is deactivated by turning knob past 30.
5. When core temperature is chosen, time changes to "--".
6. Confirm by pressing CORE TEMPERATURE key again.

The core temperature probe has 3 measuring points on its tip.

The computer calculates an average temperature thus ensuring that the core temperature is 100% correct.


If the probe is inserted incorrectly, the advanced technology notifies you at once.

The probe is inserted vertically in the thickest part of the product.

When preparing products of very different sizes, you get a uniform quality by inserting the sensor in the smallest product and then moving it to a larger product when the core temperature alarm sounds.





## Programmes

50 programmes holding 10 process steps each. It is possible to write 10 characters and entering alarm after steps 1 and 2.

1. Press the programmes key  and turn the knob.
2. Start the programme by pressing the ON/OFF key.
3. To leave PROGRAMME, turn the knob beyond "P 0".
4. To delete an entire programme, press core temperature key and alarm key simultaneously for 2 seconds.

When the keys or the turn knob is idle for 20 seconds, the oven returns to manual operation.

## Entering and changing text

1. To enter or change text, press the programmes key  for 3 seconds.
2. The first digit or the relevant letter/"/\_ " flashes alternately. Change the flashing character with the turn knob. You can choose between all the letters of the alphabet and the digits 0 – 9.
3. The space sign is next to the letter A.
4. Move on to the next digit by pressing  briefly.
5. Store text by pressing  until "SAVED" appears in the display.
6. To leave text editing without storing, press ALARM. The original text reappears.
7. To delete the entire text, press the programmes key  and ALARM simultaneously for 2 seconds.

When a key or the turn knob is idle for 20 seconds, the oven returns to **select programme**.

## Entering and changing data in steps

By pressing STEP when PROGRAMME is active, the step display is turned on and shows "1". The data of the first step can now be entered.

To move on to the next step (1-10) and read and change settings, press STEP again.

Choose and change temperature, time, core temperature, damper and fan as in manual operation.

Stop between steps: To turn the alarm between steps on and off, press ALARM. If the control lamp is on, the programme ends with the current step and a beep is heard. The oven does not proceed to the next step until the oven door is opened and closed or you press ALARM.

To store a change made in the step mode, press the programmes key  for 2 seconds.

Leave STEP by choosing another programme with the turn knob.



Be careful not to use the turn knob when a value flashes. If you turn the knob while you are working in STEPS, the computer switches to the next programme and all changes are lost.

Delete current step by pressing STEP and ALARM simultaneously for 2 seconds.

When the programme has started, you can still change time, temperature, core temperature and the settings of fan and damper. These changes will then only be active in the current run. Note that the display shows the total time remaining after start and that it will show the time remaining in the current step when you press TIME.

# DESCRIPTION OF FUNCTIONS

## Hot Air

30-250°C

The hot air operating mode can be used for roasting, grilling, baking and gratinating. We recommend that you keep the damper open when roasting products at very high temperatures. It is possible to roast breaded products such as breaded fish and breaded pork chops. For maximum effect, use enamelled cast iron trays / silicone-coated baking sheets and one of the special browning fats available in the shops.

If you wish to cook at temperatures below 80°C, the fan speed should be reduced to below 50%

## Preheating

251-300°C

By setting the temperature higher than 250°C, you change to the preheating mode and PREHEAT is shown instead of HOT AIR. With this function, you preheat the empty oven. The time can be set to max. 15 minutes, and continuous operation (-:-- ) is not possible. The preheating mode has been changed so that the countdown does not start until the desired temperature has been reached. This is to ensure that the oven is always in the same condition when the oven is loaded, no matter the starting temperature.



It is recommended to always preheat the oven before use.



## CombiSmart

### 30-250°C

CombiSmart is a function for humidity control which allows you to adjust the humidity level in 10 steps (10-100). Press the damper key and adjust the level by turning the turn knob. Confirm the setting by pressing the damper key again. The control lamp next to the damper key will be on. In this function, the damper is usually closed, however, at the setting 0 the damper opens.

Settings 20-50 are recommended for the production of whole roasts. The humidity helps to seal the surface and keep the juice in the meat, which reduces shrinkage. These settings are also recommended for the preparation of root vegetables and the like.

Settings 60-90 are recommended for the production of braised roasts for which you want to use the juice in the container for gravy. The amount of liquid in the tray increases during production. These settings are often recommended for roasts that should be well-done, to keep some of the juice in the meat.

## Cook & Regen

### 30-180°C

COOK & REGEN is a very gentle process and therefore very suitable for reheating. Use a core temperature probe to reach the perfect end temperature. For the reheating of sous-vide products, etc., follow the recommendations of the producer as to reheating. The products should not be covered up as this impedes optimum and quick reheating.

## Proving

### 30-40°C

PROVING is a function for raising bread by adding humidity at temperatures between 30 and 40°C. These are optimum conditions for the yeast to expand.  
Fan Speed max 50%.

## Manual humidity pulsing

When you press the key for STEAMING in the HOT AIR mode, you add humidity to the oven chamber. Humidity is added for as long as the key is held down.

## Steaming in a C model

30-120°C

Can be used for steaming of all types of vegetables, pasta, rice, meat, eggs and the like. If the oven chamber is 100% loaded with frozen products, hard root vegetables or meat, it will take a little longer until the oven chamber is completely filled with humidity, and the preparation time will be longer than if the oven chamber is only half full.

## General recommendations for steaming

STEAMING at 100°C is recommended for all kinds of hard vegetables, rice and pasta.

LOW-TEMPERATURE STEAMING at 70-80°C is recommended for the steaming of fish.

FORCED STEAMING at 120°C is an aggressive and very rapid process, which should be used with care.

IT IS RECOMMENDED TO LET THE OVEN PRESTEAM FOR 8 MINUTES BEFORE LOADING IT.

## Damper

The damper is usually closed in all operating modes. When the control lamp is on, the damper is open.

**NOTE!** In CombiSmart, this key is used for adjusting the humidity level.

The damper is always closed in the steaming mode.

If you wish to reduce the amount of humidity in the oven chamber – when you brown, for instance – the damper should be open.

## Fan speed

Set the FAN speed by pressing the fan key and turn the knob.

A fan speed between 20 and 50% is recommended for the baking of puff pastry, Danish pastry, cakes and small products as well as in the Delta-T and Cook-and-Hold modes. You may add 1 – 2 minutes' preparation time for each hour when low fan speed is used.

**Fan speeds below 50% cannot be used at temperatures above 200°C.**


A fan speed between 50 and 100% are recommended if you want a particularly juicy end product and accept a longer cooking time.

## Hours, date and setting of timer

Shows the exact time and date when the oven is off. For setting of clock and timer, see USER MENU from page 25.

## Semi-automatic cleaning

This cleaning function can also be used on ovens with CombiWash. Simply deactivate CombiWash in the user menu.

1. Cool down oven chamber to 60°C.
2. Press the programmes key  and **cleaning** appears in the display. Press ON.
3. Press ON
4. When the alarm sounds (after 10 minutes) and **add soap** appears in the display, open oven door and spray detergent into oven chamber. Close oven door and the programme continues.
5. When the programme is over, **rinse oven** appears in the display (after another 10 minutes). Rinse oven chamber.

If the oven is very soiled, activate combi steaming 2 at 80°C for 30 minutes before starting cleaning programme.



**NOTE: Oven damage due to absence of a necessary HOUNÖ PROTECT HydroShield water filter may render the warranty void.**



**NOTE: Oven damage due to lack of regular cleaning with HOUNÖ PROTECT Detergent Intense and Rinse Aid may render the warranty void.**

# MENU TABEL

**USER MENU:** Entering the User menu hold the **BELL** button for 5 seconds and the core probe line of the display will show B 1.

**SET UP MENU:** Entering the **SET UP** menu hold the **HOT AIR** and **STEAM** buttons for 5 seconds and the core probe line of the display will show U 1

**TEST MENU:** Entering the test menu hold the **HOT AIR** and **COMBI STEAM** buttons for 5 seconds and the core probe line of the display will show U 1



	User menu	Setup menu	Test menu
0			Main Contactor
1	Save default		Heating
2	Timer start	Oven size	
3	Sound low	Combiwash	Fan right
4	Sound high	Temperatur 0=C 1=F	Fan left
5	Sound frequency		
6	Light		Injection steam function
7	Actual temperature		
8	Extraction		
9	Time/graf	Restart after power cut	Drain Cooling
10	Minut		Damper motor
11	Hour		Extraction
12	Date/weekday	Drain cooling	Cooling fan
13	Month	Timer start	Test sound
14	Year	Demo mode	Light
15		Initialise	Oven temperature
16			Core temperature
17			
18	Injection interval (reheat)		Drain temperature
19	Save all		
20	Restore		Door sensor
21	Restart time		
22	Screen saver		
23	Language		
24	Software update		
27			Detergent pump
28			Rinse pump
29			Combiwash valve
34			Water pressure
37			
38			
40			
44			Error log
45			Error statistic
46			Temp CPU
47			Temp I/O

# USER MENU

To enter the user menu, press BELL for 5 seconds while you are in the manual mode.



The display briefly shows "USER MENU". The core temperature display shows "**b**" and the **number** of the value to be set (see below).

You leave the user menu by turning the turn knob beyond "0".

Value	Function	Description
B1	Save defaults	Time and temperature can be changed in HOT AIR, COMBI STEAMING and STEAMING and saved by pressing ALARM. The alarm control lamp flashes when data are ready to be saved. The desired changes should be made before entering the USER MENU.
B2	Timer start	Press STEP to change the various settings of the timer. 1) DATE. The date flashes in the temperature display. To set the date, turn knob. 0 means daily start. 2) HOUR. Set the hour. 3) MINUTE. Set the minute. 4) MODE. Choose a mode by pressing one of the four mode keys. 5) TEMPERATURE. Set the oven temperature. 6) TIME (duration of program) 0:00 - 4:00. Press ALARM to activate timer (ON appears in the temperature display and control lamp is on). Deactivate by pressing ALARM. The oven can now be turned off with the main switch or it can be left on standby. The oven starts automatically but only in the manual mode.
B3	Sound low	Press STEP and adjust the volume of the alarm during operation from 0 to 9.
B4	Sound high	Press STEP and adjust the volume of the alarm at the end of a program/mode from 1 to 9.
B5	Sound frequency	Press STEP and adjust from 1 to 9.

Value	Function	Description
B6	Interior light	Press STEP: 0 = continuously on / 5 = off after 5 min.
B7	Current temperature	0 = desired temperature / 1 = current temperature. Adjust by pressing STEP.
B8	Extraction	Applicable only if oven has condensing extraction hood. 0 = extraction hood running independently of oven / 1 = extraction hood stops 10 minutes after oven has stopped.
B9	Time graphics	Shown in text display during operation. Change by pressing STEP. 0 = Display shows mode chosen 1 = Display alternately shows mode chosen and time remaining.
B10	Minutes	Minutes are shown in temperature display. Change by pressing temperature key and turning knob. Store by pressing temperature key again.
B11	Hour	Hour is shown in temperature display. See 10.
B12	Day	Day of the month, 1-31. Day of the week, 1 – 7, in time display. See 10. In Europe, you can choose to have the computer switch to summer time automatically. 0 = No change, 1 = Change from/to summer time.
B13	Month	Month. See 10.
B14	Year	The year 2007 is indicated by "7". See 10.
U18	Injection interval reheat	Setting of humidity pulsing. Press temperature key and turn knob to change setting. The value indicates the number of seconds between each injection into the oven chamber. If the value is increased, less humidity is added to the oven chamber, if the value is reduced, more humidity is added (factory setting is every 8 seconds).
U19	Save all	Save all parameter settings and programs from the CPU in the memory of the I/O board.

Value	Function	Description		
U20	Restore	Retrieve all parameter settings and programs from the memory of I/O board		
U21	Restart time	Sets the amount of minutes the restart button will continue the last step the finished program.		
U22	Screen saver	Interval of seconds before screen saver becomes active. 0 = 0 sec. / 1 = 10 sec. / 2 = 30 sec. / 3 = 60 sec./ 4 = 180 sec. / 5 = 600 sec. Change by pressing STEP.		
U23	Language	Change language by pressing STEP button (1 – 9) A and B column is chosen when updating the software.		
			A	B
		1	Danish	English
		2	English	Croatian
		3	Swedish	Slovene
		4	Finnish	Estonian
		5	German	Hungarian
		6	Spanish	Russian
		7	French	Czech
		8	Italian	
9	Dutch			
U24	SW update	Updating of software. Special memory key required. Contact your local distributor. In this function, you update the computer software by means of a special memory key (not a USB key). 1. Insert memory key. 2. Press alarm key to view software version and language variants. 3. Press step key to select language variant. 4. Press alarm key again to start updating process. The software version of the oven in question is also shown in the start-up sequence when the oven is switched on.		



# SETUP MENU

To enter the user menu, press HOT AIR and STEAM for 5 seconds while you are in the manual mode.

The display briefly shows "SETUP MENU". The core temperature display shows "b" and the **number** of the value to be set (see below).

You leave the user menu by turning the turn knob beyond "0".



Value	Function	Description
U2	Oven size	Setting up the CPU to the right size of oven.
U3	Combiwash	Is the oven fitted with or without combiwash. 0 = Without Combiwash. 1 = With Combiwash
U4	Temperature C/F	0 = Celsius 1 = Fahrenheit
U9	Restart after power cut	Setup the amount of time the oven can be without power and continue when the power returns. (always follow local recalculations)
U11	Coreprobe	0 = Coreprobe inactive 1 = Coreprobe active
U12	Drain Cooling	0 = Drain cooling deactivated 1 = Drain cooling on in all water using functions. 2 = Drain cooling activ at all time.
U13	Timer Start	Activate or deactivated timer start
U14	Demo Mode	Deactivates the I/O board. Display will look like the oven is working. .
U15	Initialise	Reset the setting to default setting. (except B1 it will remain until changed and confirmed by pressing the bell).

# TEST MENU



To enter the Test Menu, press HOT AIR AND COMBI STEAM for 5 seconds while you are in the manual mode.



The display briefly shows "TEST MENU". The core temperature display shows "**D**" and the **number** of the value to be set (see below).

You leave the user menu by turning the turn knob beyond "0".

**SAFETY:** never leave a test menu activated oven. safety functions are disabled, if the unit is not monitored the oven will only stop when the over heating safety is triggered.

Value	Function	Description
D0	Main contactor	<p>This function activates contactor K1. You activate or deactivate the function by pressing the step key. The function can, however, only be activated when the fan is on.</p> <p>To pulse, press the alarm key.</p> <p>0= OFF, 1= ON.</p> <p>Status for the main alarms appear in the display as follows:</p> <ul style="list-style-type: none"> <li>Digit 1 fan</li> <li>Digit 2 oven</li> <li>Digit 3 generator</li> <li>Digit 4 Solid State Relay</li> </ul> <p>If ER28 appears, the IO board or wiring harness is defective.</p>
D1	Heating	<p>This function will star heating by activating the SSR. This function can only be activated when D0 main contactor and D3 main fan motor is active.</p>

Value	Function	Description
D3	Fan Right	<p>This function will start up the main fan motor/motors at maximum speed 1400RPM in right rotation direction. The main fan motor speed can be changed by pressing the clock and turn the knob until the display shows the desired RPM.</p> <p>This function can only be activated when D0 main contactor is active.</p>
D4	Fan Left	<p>This function will start up the main fan motor/motors at maximum speed 1400RPM in Left rotation direction. The main fan motor speed can be changed by pressing the clock and turn the knob until the display shows the desired RPM.</p> <p>This function can only be activated when D6 steam main contactor is active.</p>
D6	Injection steam	This will power up the coil for the injection steam valve
D9	Drain cooling	<p>This function activates solenoid valve MV3. You activate or deactivate the function by pressing the step key.</p> <p>To pulse, press the alarm key. 0= OFF, 1= ON.</p>
D10	Damper motor	<p>This function activates motor M3. In the display next to "Time", it is possible to read the status of the damper motor switch. OFF= damper open, ON= damper closed.</p> <p>You activate or deactivate the function by pressing the step key.</p> <p>To pulse, press the alarm key. 0= OFF, 1= ON.</p>
D11	Exhaust	<p>This function activates the outlet for controlling the external ventilation, terminals 4 and 5. In the display next to "Time", it is possible to read which outlet is active.</p> <p>OFOF= both outlets are off, ONOF= outlet 4 is active and outlet 5 is off.</p> <p>OFON= outlet 4 is off and outlet 5 is active. ONON= both outlets are active.</p> <p>You activate or deactivate the function by pressing the step key.</p> <p>0= OFOF, 1= OFON, 2= ONOF, 3= ONON.</p>

Value	Function	Description
D12	Cooling fan	This function activates motors M7. You activate or deactivate the function by pressing the step key.
D13	Test Sound	This function will activated the alarm sound.
D14	Interior light	This function activates H1. You activate or deactivate the function by pressing the step key. To pulse, press the alarm key. 0= OFF, 1= ON.
D15	Oven temperature	Here it is possible to read the current oven temperature, PT100 sensor P1. In the field next to "Temperature", the current temperature is shown. If ERR appears, the sensor circuit is defective. In the field next to "Time", an adjustment value between 80 and 120 (default 100) is shown. To adjust the temperature, press the time key until the digit in the display flashes. Then adjust upwards or downwards until the correct temperature is shown. Finally, press the time key again to save the setting. The temperature can be adjusted by +/- 10°C.

Value	Function	Description
D16	Core probe temperature	<p>CombiSlom C models can use only one core temperature probe, it is possible, however, to test core temperature probes 1 and 2.</p> <p>Here it is possible to read the current temperature of the core temperature sensor, P2 + P2A.</p> <p>In the field next to "Temperature", the current temperature is shown. If ERR appears, the sensor circuit is defective.</p> <p>In the field next to "Time", an adjustment value between 80 and 120 (default 100) is shown.</p> <p>To adjust the temperature, press the time key until the digit in the display flashes. Then adjust upwards or downwards until the correct temperature is shown. Finally, press the time key again to save the setting.</p> <p>The temperature can be adjusted by +- 10°C.</p> <p>You change between the various measuring points of the core temperature probe by pressing the step key.</p> <p>1= Core temp.probe 1, point 1, 2= Core temp.probe, point 2, 3= Core temp.probe 1, point 3. 4= Core temp.probe 2, point 1, 5= Core temp.probe, point 2, 6= Core temp.probe 2, point 3.</p>
D18	Drain temperature	<p>Here it is possible to read the current steam generator temperature, P4.</p> <p>In the field next to "Temperature", the current temperature is shown. If ERR appears, the sensor circuit is defective.</p> <p>In the field next to "Time", an adjustment value between 80 and 120 (default 100) is shown.</p> <p>To adjust the temperature, press the time key until the digit in the display flashes. Then adjust upwards or downwards until the correct temperature is shown. Finally, press the time key again to save the setting.</p> <p>The temperature can be adjusted by +- 10°C (approx. 0.5°C per step).</p>

Value	Function	Description
D20	Door sensor	<p>Here it is possible to read the status of and calibrate door sensor 1 = SE1 and 2 = SE1A.</p> <p>You change between door sensor 1 and 2 by pressing the step key.</p> <p>After some time, the text "DOOR SENSOR" changes to show the status of the sensor: &gt;CLOSE&lt;, &gt;OPEN&lt;, &gt;SENS ERROR&lt;. You start the calibration by pressing the exhaust key.</p> <p>How to calibrate:</p> <ol style="list-style-type: none"> <li>1. Press the damper key</li> <li>2. &gt;CLOSE&lt; flashes</li> <li>3. Close the door</li> <li>4. Press the damper key</li> <li>5. &gt;OPEN&lt; flashes</li> <li>6. Open door in the first step</li> <li>7. Press the damper key</li> <li>8. &gt;CALIB OK&lt; or &gt;CALIB ERR&lt; appears</li> <li>9. Press the damper key to confirm</li> </ol> <p>In the display next to the temperature key, it is possible to read the current value (0 – 120).</p> <p>In the display next to the time key, it is possible to read the set point.</p>

Value	Function	Description
D44	Error Log.	<p>Here it is possible to read which error codes have been reported. After 2 seconds, the error log will show you which error code was reported most recently and when.</p> <p>By turning the switch to the right, you will see older errors. The oven can save 30 errors after which it deletes the oldest one.</p> <p>LEAVE FUNCTION BY TURNING SWITCH TO THE LEFT.</p>
D45	Error statistics	<p>Here it is possible to read how many times each error code has occurred. After 2 seconds, the oven will show you when the error statistic was last reset and the total number of errors. By turning the switch to the right, you can scroll through all error codes and see how many times they have occurred.</p> <p>LEAVE FUNCTION BY TURNING SWITCH TO THE LEFT.</p>
D46	Temperature on CPU board	<p>Here it is possible to read the temperature of the CPU board.</p> <p>In the display next to "Temperature", the temperature of the CPU board is shown. Max 60°C.</p>
D47	Temperature on I/O board	<p>Here it is possible to read the temperatures of the IO board.</p> <p>In the display next to "Temperature", the temperature of the IO board is shown. Max 60°C.</p>

# CLEANING OVEN EXTERIOR

1. Use a soft, damp cloth and a liquid detergent to clean the oven cabinet on the outside,
2. Treat the surface with HOUNÖ STEEL OIL to protect it. The steel oil is available from Steel oil can be purchased at our online webshop,
3. Remove the door sealing to clean under and around the door.

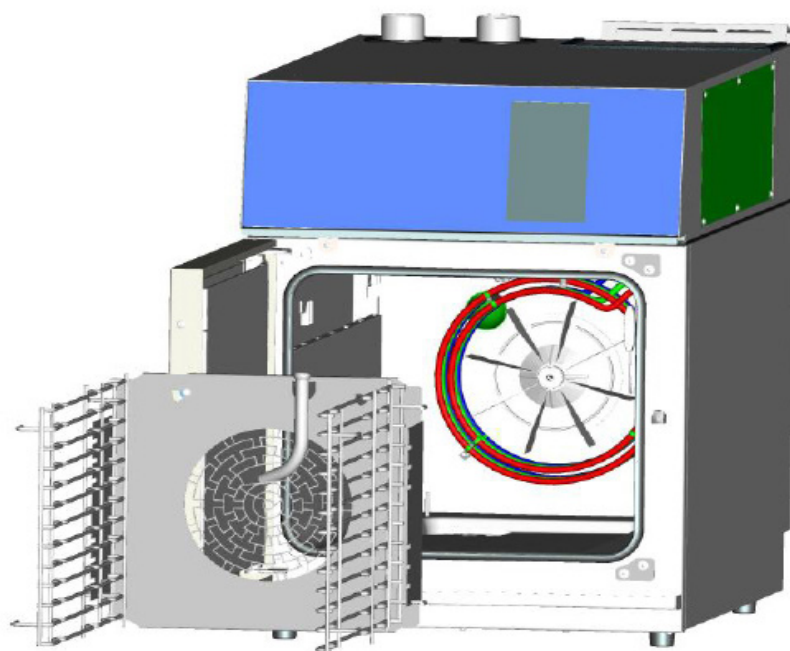
**Note:** do not use steel oil inside the cavity

**Note:** do not use a water hose or high-pressure cleaner to clean the oven exterior since it may damage parts of the oven including electronic components.

## Cleaning Behind the Filter Housing

You have to remove the filter housing to be able to clean around the fan and the heating elements.

1. Remove the racks.
2. Remove the baffle plates and the filter housing to gain access for clean behind the oven cavity behind the filter housing.



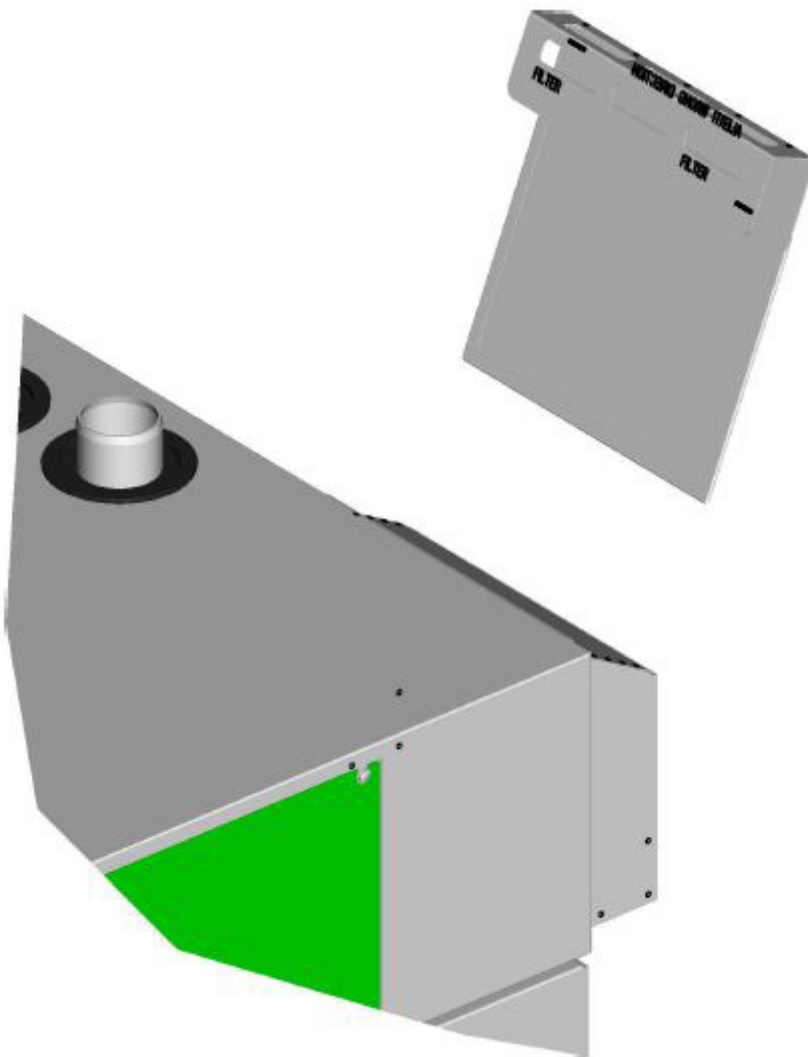


# CLEANING THE FILTER

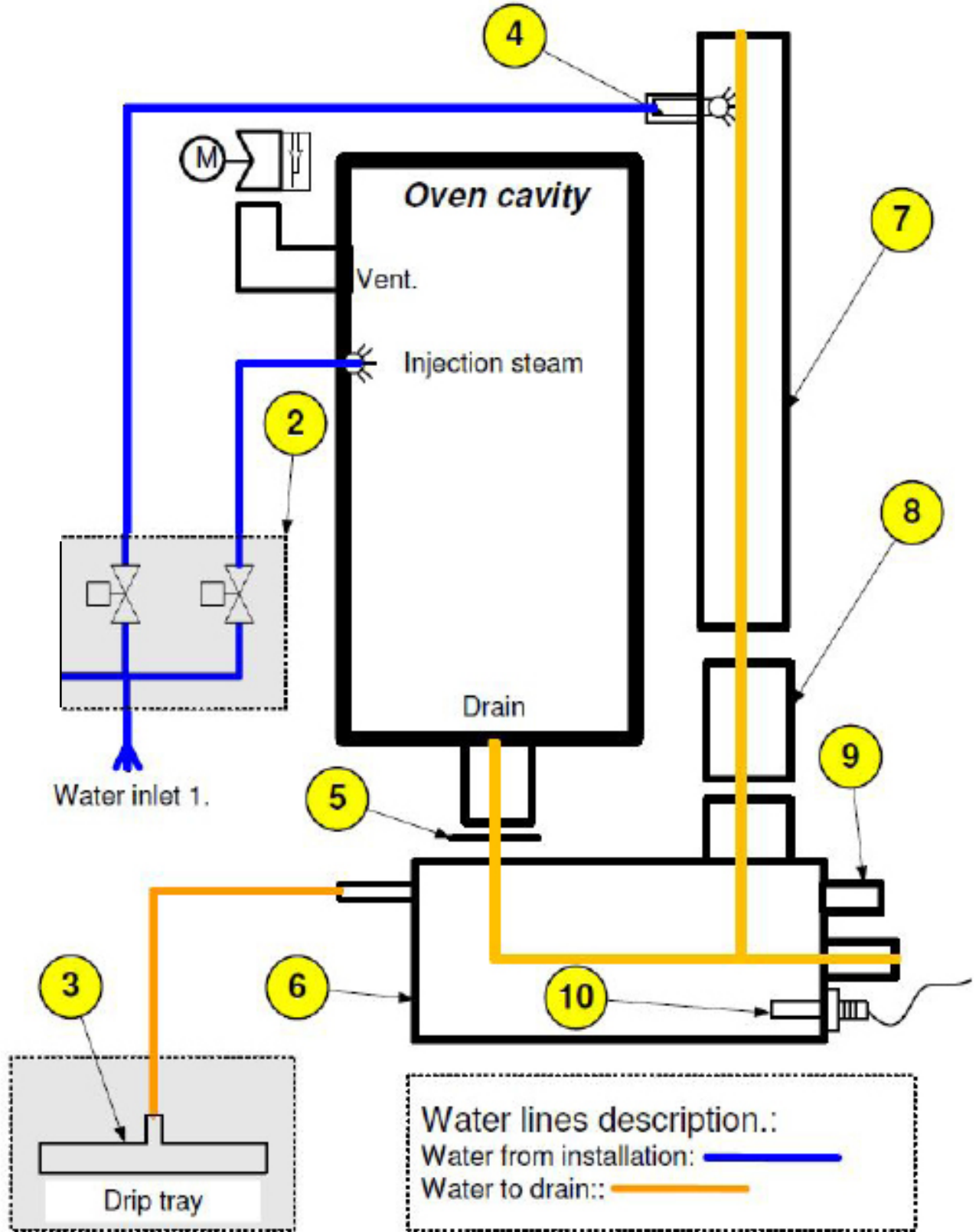
The filter is located in the filter housing at the back of the top panel, it is removed by lifting out of the slot where it sits

You have to clean the filter on a weekly basis. You can clean the filter manually or in a dishwasher.

**Important:** If the filter is not cleaned, the computer may overheat and the oven will fail. You must remount the filter after it has been cleaned.



# WATER LAYOUT



# WATER LAYOUT

Item	Description
2	Solenoid valve
3	Drip tray
4	Drain cooling nozzle
5	Seal between the oven cavity and the drain box
6	Drain box
7	Steam tube 50mm
8	Over flow
9	Rubber hose connecting drain box and steam tube
10	Drain temperature sensor



# I/O BOARD LED

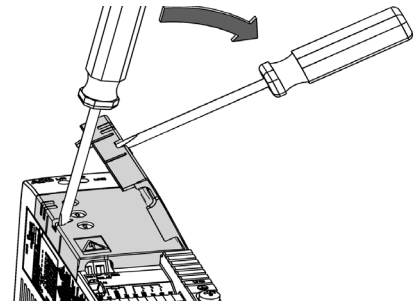
Description, connection of the different led on the I/O to help under stand the different functions of the I/O board

No	Colour	Volt	Plug. Pin	DESCRIPTION
7	Green	Main		Voltage to main contator ok.
8	Green	ER5	J14 Pin 5	Voltage fan alarm switch ok
9	Green	ER4	J14 Pin 4	Voltage oven overheating switch ok.
10	Green	ER3	J14 Pin 3	Voltage from steam generator switch ok.
11	Green	Er12	J14 Pin 2	.Voltage from SSR overheating switch
12	Yellow	24V F2	J10	Fuse F2 Power supply to I/O board
13	Yellow	24V F1	J2 Pin 1,3,5	Fuse F1 is ok
14	Yellow	24V F3	J8 Pin 3,6	Fuse F3 is ok
15	Red	Reset		The I/O board is in a reset mode (flash only at start)
16	Green	12V		The internal 12V is present
17	Green	5V		The internal 5V is present
18	Green	3,3V		The internal 3,3V is present
19	Green	5V out	J1 Pin 13	External 5volt for door sensor and RPM sensor.
20	Green	12V	J1 Pin 15	External 12V for the Clima optima sensor
21	Green	24V	J18 pin 1 J19 Pin 1 J20 Pin 1	External 24V voltage for the gas fan interface. This option is only present on I/O board P/N 30900015
22	Green	Com		Slow flashing when I/O communicates with the CPU
23	Green	Com RX		Fast flashing when data received from CPU
24	Green	Com TX		Fast flashing when data is send to the CPU
25	Red	Test 1		Lights when communication is not working
26	Red	Test 2		Lights shortly under start

# FREQUENCY INVERTER

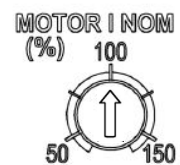
When replacing the frequency inverter.: Always check that the frequency inverter potentiometers and dip switches are set up correct.

To gain access to the potentiometer for adjustment the small transparent hatch with a small screwdriver. as shown in the drawing.



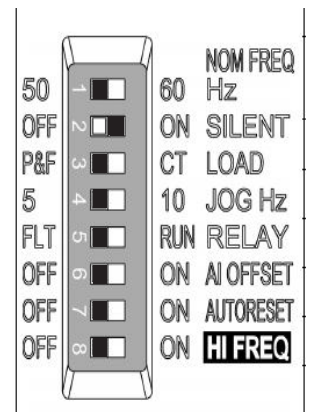
## ADJUSTMENT OF THE 3 POTENTIOMETERS OF THE FREQUENCY INVERTER

Motor i nom	This potentiometer controls the current output of the frequency inverter. This potentiometer must be set to 100%
ACC/DEC	This potentiometer controls is the acceleration and deceleration of the main fan motor in seconds. The potentiometer must be set a few degrees past 5. It is very important that the acceleration of the fan is 10 sec. +/-1 sec. <b>USE TEST MENU FAN</b> If the acceleration is to fast the inverter might be switching off to overload. To slow will result in error 14.
HI FREQ	This potentiometer controls the HZ output of teh frequency inverter. This potentiometer must be set to NOM



## SETTINGS OF THE DIP SWITCHES ON THE FREQUENCY INVERTER

HZ	Set to <b>50HZ</b>
SILENT	Set to <b>ON</b>
LOAD	Set to <b>P&amp;F</b>
JOG Hz	Set to <b>5</b>
RELAY	Set to <b>FLT</b>
AI offset	Set to <b>Off</b>
Autoreset	Set to <b>Off</b>
Hi freq	Set to <b>Off</b>



# ERROR CODES

The list contains the error codes that can appear on a Combislim C version.

If Visual Cooking specific error code appear, the settings of CPU might be wrong for a Combislim. And the CPU need to be setup correct.

ERROR CODE	DESCRIPTION
4	Oven too hot.
5	Fan too hot.
6	Drain too hot.
7	Oven sensor defective.
8	Core probe not connected.
10	Drain sensor defective.
16	I/O board to hot.
19	Internal error.
20	No communication.
21	Invalid recipe..
22	Program terminated.
23	Oven too hot.
24	Empty error.
28	Error in alarm.
29	Door sensor error.
37	Cooldown error.
39	Insufficient memory.
40	I/O board too hot.
41	Main Alarm.
44	Exhaust error.
45	Error with 24V.
71	Core probe warning.

# TROUBLESHOOTING ERROR CODES

Troubleshooting procedure step by step on error codes.

If the oven displays an error code, try the solutions below before contacting HOUNÖ technical service.

After each step is carried out, be sure to test if the oven is working again.

## Error Code 4

The overheating switch of the oven chamber is off because the oven chamber temperature has risen above 350°C/662°F. Press the Q1 button at the bottom of the oven to reset the switch. If the oven comes with two fan motors, there are 2 overheating switches.

Steps	Check list	Solution
1	Go to the test menu (main alarm) to see if the overheating thermo switch has tripped. Reset the switch.	
2	Test whether the fan is running and whether the solid state relay is working properly.	
3	Check the cable and the cable plugs.	
4	-	Change the overheating sensor.

**Error Code 5**

The fan motor is too hot (above 120°C/248°F). Let the motor cool off for about 20-30 minutes and then try turning it on again.

Steps	Check list	Solution
1	Go to the test menu (main alarm) to see which information is displayed.	
2	Check the cable and the cable plugs.	
3	Check the door sensor since 5VDC may affect the overheating circuit.	
4	Check the fan motor windings.	Change the fan motor.
5	-	Change the I/O board.

**Error Code 6**

The drain temperature has been above 75°C/167°F for more than 5 minutes. It is normally kept below 60°C/140°F.

Steps	Check list	Solution
1	Check that the water is turned on.	
2	Check that the water supply connected to the oven is cold and not hot.	
3	Check whether the temperature sensor is broken. (Measure the real temperature and compare it to the temperature measured by the test function.)	If broken, change the sensor.
4	Clean the jet and the solenoid valve at the drain, and then check the temperature again.	Change the I/O board



**Error Code 7**

The temperature sensor in the oven chamber is broken. The oven cannot be used until the error has been corrected.

Steps	Check list	Solution
1	Go to the test menu (oven) to see which temperature is displayed.	
2	Check the cable and the cable plugs and change the plug if necessary.	
3	Test the sensor using an ohmmeter, and check whether the value matches the value in the table and the current temperature.	If no, change the sensor.
4	-	Change the I/O board

**Error Code 8**

The probe is broken or is not connected properly. The program cannot be used until the error has been corrected.

Steps	Check list	Solution
1	Go to the test menu (miscellaneous) to see which information is displayed.	
2	Check the cable and the cable plugs and change the plug if necessary.	
3	Test the sensor using an ohmmeter, and check whether the value matches the value in the table and the current temperature.	If no, change the sensor.
4	-	Change the I/O board.

**Error Code 10**

The temperature sensor in the drain is broken. The oven can still be used, but the error has to be corrected as soon as possible.

Steps	Check list	Solution
1	Go to the test menu (oven) to see which temperature is displayed.	
2	Check the cable and the cable plugs and change the plug if necessary.	
3	Test the sensor using an ohmmeter, and check whether the value matches the value in the table and the current temperature.	If no, change the sensor.
4	-	Change the I/O board.

**Error Code 15**

The CPU board temperature has risen above 60°C/140°F.

Steps	Check list	Solution
1	Go to the test menu to see which information the computer displays.	
2	Check whether the ambient temperature is too high.	Move the oven if necessary, and clean the intake filter.
3	Check whether the test function temperature matches the current temperature.	Move the oven or the heat source.
5	Check the cooling fan	Change the computer.

**Error Code 16**

The IO board temperature has risen above 60°C/140°F.

Steps	Check list	Solution
1	Go to the test menu to see which information the computer displays.	
2	Check whether the ambient temperature is too high.	Move the oven if necessary, and clean the intake filter.
3	Check whether the test function temperature matches the current temperature.	Move the oven or the heat source.
5	Check the cooling fan	Change the I/O board.

**Error Code 19**

An internal error occurred. The oven server process is not responding. Oven server process failed.

Steps	Check list	Solution
1	-	Restart the oven.
2	-	Change the I/O board.

**Error Code 20**

An internal error occurred. A communication failure occurred between the computer and the IO board. The IO board software is not responding. Wrong software version on the IO board.

Steps	Check list	Solution
1	Check the wire connection between the IO board and the CPU board.	Change the IO board or the CPU board if necessary.

**Error Code 21**

Invalid program. The program you have chosen is not supported by the oven.

Steps	Check list	Solution
1	-	Download the program combination that matches this oven type.

**Error Code 22**

Program interrupted. There was a power outage while the program was running. The power outage lasted for so long that the program cannot be restarted.

Steps	Check list	Solution
1	-	The oven can be set up to restart after a power outage. Contact service personnel.


**Error Code 28**

An invalid combination of the mains alarm has been detected. The mains alarm is not displayed correctly.

Steps	Check list	Solution
1	Go to the test menu (alarm test) to see which one of the over heat safety switches is not sending a feedback signal to the I/O board connector J14.	
2	Check the switch and cable and the cable plugs from that specific overheating sensor and the wire to J14.	Change the plug and repair the wire if necessary, and then test if the alarm have disappeared.
3	If the error persist, and the feedback signal to the I/O board is ok.	Replace the I/O board.

**Error Code 29**

The door sensor is not working properly. Note the oven does not stop working when the door is opened. The oven can be used.

Steps	Check list	Solution
1	Go to the test menu to see which information the computer displays.	
2	Check the cable and the cable plugs, and the test if the sensor is working.	
3	Check the magnet on the drip slide.	Change the drip slide.
4	-	If the magnet works, change the door sensor, and remember to calibrate the door afterwards.
 <b>WARNING</b> The oven does not stop working when the door is opened. The oven can still be used with caution		

**Error Code 40**

The IO board temperature has been too high. Note that this is a warning. If the temperature continues to rise, the oven will stop and display error code 16.

Steps	Check list	Solution
1	Clean the filter at the bottom of the panel and check that the cooling fan behind the front panel is running.	Clean the filter at the bottom of the panel.
2	Check that the cooling fan behind the front panel is running.	Replace cooling fan if necessary.

**Error Code 44**

Exhaust error. At every start up the CPU makes the valve run a reference round.

Steps	Check list	Solution
1	Use the technicians test menu, oven test. Test if the exhaust valve works and the switch send a signal back to the CPU.	
2	If the motor is rotating the valve but there is no on/off signal from the switch. Bridge the two wires on the exhaust motor switch.	If exhaust signal changes in the test menu, replace the complete exhaust valve.
3	If the motor is not running, check that there is a 24V power supply for motor.	24V is present, replace the motor.
4	If there is no 24V power supply for the motor. Measure the wires from the I/O board to the connector for the valve motor.	Repair the damaged wire.
5	Measure the 24V power supply directly on the I/O.	If the 24V is missing replace the I/O board.

**Error Code 45**

There is no 24VAC. Main contactor output is not working.

Steps	Check list	Solution
1	Check fuse F1.	Replace fuse F1.
2	Measure the 24V on I/O board connector J1 wire pin no 1-3-5)	If not, repair the wires.
2	Check the led F1 24V on the I/O board	

**Error 71**

Coreprobe warning

Steps	Check list	Solution
1	Go to technician test menu and check the feedback values from the three pt100 sensors in the core probe	If one is showing a different value then the rest, replace core probe.
2	Measure the wires from I/O board J1 to the connector for the core probe	Wire is disconnected, replace or repair disconnected wire.

# SERVICE AND REPAIR

- All maintenance and repair should be carried out by authorized installation and service personnel only. Installation or service by other than authorized personnel may result in damage to the oven and/or injury to the operator.
- When cleaning the oven, only use cleaning detergent that matches the specifications from the factory. Do not use corrosive cleaners not intended for oven cleaning on your CombiSlim oven.

# SAFETY

Please read the safety instructions carefully.

- Ensure that installation is carried out by authorized installation and service personnel only.
- Read, understand, and follow the instructions for use.
- Place trays filled with hot liquid at the bottom runners of the oven chamber and practice extreme caution when removing the tray from the oven chamber.
- Do not store petrol or other flammable vapours or liquids in the vicinity of this appliance.
- Do not touch hot surfaces. The temperature of some surfaces may exceed 60°C or more.
- Do not attempt to operate or open the oven during the automatic cleaning process.
- Use the parking brakes on the trolley wheels when the oven has been loaded to prevent trolleys from rolling on uneven floors.
- Contact authorized service personnel before you make changes to the set up of the oven. Incorrect changes may have serious effects on its reliability in service.

# WARRANTY

If you have registered your CombiSlim oven on our website, it is covered by a 48-month factory warranty. The warranty covers the oven cabinet and spare parts. There is a special 10-year warranty on the exterior door glass. The warranty takes effect from the date of production.

To view the full terms of the warranty and to register, go to <http://www.houno.com/warranty/>.

## HOUNÖ's general terms and conditions for 4-year warranty

The following parts warranty applies to HOUNÖ CombiSlim and Visual Cooking II SE ovens. Here in after referred to as the Unit. The warranty is subject to the conditions set forth below. The warranty covers any defect, which can be attributed to material or manufacturing defects during normal use of the Unit.

1. The warranty period runs for 48 months from the factory invoice date of the Unit.

The first 12 months is the general factory warranty.

The following 36 months covers all parts needed for covered repairs.

2. The warranty period can be postponed up to 6 months to start at the installation date. Register the oven at HOUNÖ's website [www.houno.com](http://www.houno.com) to validate the extended parts warranty. The unit must be registered within 8 weeks from the date of installation.

3. During the warranty term, the customer shall contact his supplier of the Unit and claim warranty.

4. During the warranty term, HOUNÖ has the right to either repair or replace the defective parts or to replace the Unit.

5. The warranty period will not be extended following the performance of warranty service nor does it trigger a new warranty period.

6. HOUNÖ does not cover transport costs or risks when shipping warranty parts.



7. The warranty does not cover incorrect installation<sup>1</sup>. This applies to defects and damage in connection with the use of soiled, aggressive water, sub-standard gas, or electricity with unsuitable voltage or current.

a. Water quality must be verified during installation and if required, appropriate filter must be applied and cartridge replaced as specified.

b. The installation checklist must be completed by an authorized service company and is mandatory to the extended warranty.

8. Furthermore, the warranty shall not apply to damage and malfunctions caused by the build-up of lime scale or calcium deposits in the Unit.

a. 'Combiwash' must be conducted regularly<sup>2</sup>. Oven Cleaner and Oven Rinse must be recognized products.

9. Warranty shall be excluded by incorrect use of the Unit<sup>3</sup>.

10. The warranty does not cover normal wear and tear of the Unit.

11. The warranty shall not apply if spare parts other than original HOUNÖ spare parts are used during the warranty period.

12. The warranty shall not apply if the Unit is installed or serviced by a person who is not authorized by HOUNÖ A/S, during the warranty period.

13. Lamps, seals and interior glass are not covered by the warranty.

In so far as the relations between the parties are not governed by the general terms and conditions for warranty above, the general rules of Danish law shall apply. Any disputes arising between the parties as to this warranty shall be settled by the court in Randers, Denmark or by the Western Division of the Danish High Court (Vestre Landsret), dependent on the value of the subject matter.

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<sup>1</sup> See the HOUNÖ Installation Manual for correct installation.

<sup>2</sup> See the HOUNÖ Installation and Service Manual for correct operation.

<sup>3</sup> See the HOUNÖ User Manual for correct use.



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