

HOUNÖ

USER MANUAL English

BPE, CPE & KPE Visual Cooking® & CombiSlim® models
(Gas & electric)

IMPORTANT SAFETY INFORMATION	4
Maintenance and repair	5
Weight in kilograms (kg):	5
Maximum food load in kilograms (kg):	5
INTRODUCTION	6
MANUAL MODES	7
MAIN MENU	8
Main buttons	8
USING THE SMARTTOUCH DISPLAY	9
Setting the probe temperature	11
HOT AIR	12
COMBISMART	13
STEAMING	14
COOK & REGEN	15
Setting the oven and core temperature	15
CLIMAOPTIMA	16
Setting ClimaOptima® temperature and humidity level	16
ADVANCED	17
PreHeat	17
Proving	18
SMARTCHEF	19
Using SmartChef	19
RECIPES	21
FAVOURITES	24

USB FUNCTION	25
Recipe download	25
RECIPE UPLOAD	26
HACCP FUNCTION	27
TIMER START	28
COMBIWASH	29
ENERGY & WATER METERS	30
Energy meter	30
Water meter	30
Water filter	31
CHEMICALS	32
ROLL-IN SYSTEM	33
OVEN MAINTENANCE	34
Cleaning the oven exterior	34
Cleaning the oven interior	34
Cleaning the jet heads	36
Cleaning the air filter	37
Cleaning the front air intake	38
GUIDELINES	40
User guidelines	40
Core temperature guidelines for meat (beef, veal, pork, and lamb)	40
Core temperature guidelines for fish	41
Core temperature guidelines for Delta-T	41
TROUBLESHOOTING	42
RECIPES	50
ACCESSORIES	51

IMPORTANT SAFETY INFORMATION

When the oven is correctly installed, read this manual carefully before using the oven.

Keep this manual available to all 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.

Never spray cold water into an oven that is above 100°C

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.

Gas units only

If your oven is installed under an extraction hood (recommended), the extraction hood should be switched on when the oven is running.

If your oven is connected to a chimney, the flue must be cleaned in compliance with local standards and regulations. Make sure the oven exhausts are not covered or hindered in any way.

Do not block the exhaust pipes or the area around the oven.

If you smell gas...

- Turn off the gas supply immediately.
- Do not use the control panel.
- Make sure there is ample ventilation near the oven.
- Avoid open fire and sparks.
- Call the gas supplier, using an external phone.

Maintenance and repair

Maintenance and repair should only be carried out by trained technicians.

Only use HOUNÖ PROTECT cleaning detergents, they are specially developed to clean and protect your HOUNÖ combi oven.

HOUNÖ PROTECT products are recommended and are available from www.houno.com.

Note: Ensure the oven drain is clear and free running at all times.

Weight in kilograms (kg):

	Electric ovens							GAS ovens						
	1.06	1.10	1.16	1.20	2.06	2.10	2.20	1.06	1.10	1.16	1.20	2.06	2.10	2.20
Weight KG	150	190	240	270	190	230	370	155	195	N/A	275	190	235	375

Maximum food load in kilograms (kg):

	Electric ovens							GAS ovens						
	1.06	1.10	1.16	1.20	2.06	2.10	2.20	1.06	1.10	1.16	1.20	2.06	2.10	2.20
Weight KG	40	50	90	100	75	90	180	40	50	N/A	100	75	90	180

INTRODUCTION

Dear customer,

Thank you for choosing a HOUNÖ combi oven.

This manual contains the information you need to use and maintain your oven. We recommend that you read the manual and familiarize yourself with the functions and features of the oven. This will ensure optimal cooking results and safety. Please make the manual available to all users of the product and retain it for future reference. The latest version of the manual can be downloaded from www.houno.com.

Note that this document is subject to change without notice.

BASIC OVEN OPERATION

To turn the oven on press .

The door has a built-in two-step safety system. To open first turn the handle clockwise then anticlockwise whilst gently pulling the door toward you.

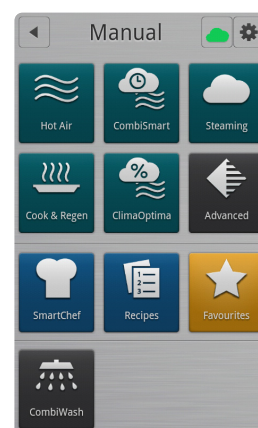
On 1.16, 1.20 and 2.20 models turn the handle 90° anticlockwise and pull toward you.



MANUAL MODES

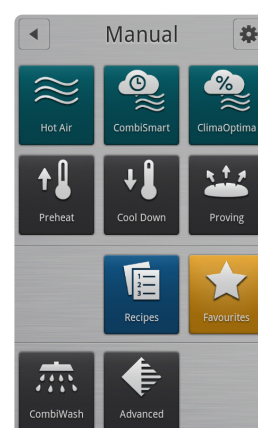
The Visual Cooking® CPE & KPE models have five different cooking modes.

- Hot Air (page 12)
- CombiSmart® (page 13)
- Steaming (page 14)
- Cook & Regen (page 15)
- ClimaOptima® (page 16)



The Visual Cooking® BPE model has three different cooking modes.

- Hot Air (page 12)
- CombiSmart® (page 13)
- ClimaOptima® (page 16)



The CombiSlim® model has four different cooking modes.

- Hot Air (page 12)
- CombiSmart® (page 13)
- Steaming (page 14)
- Cook & Regen (page 15)

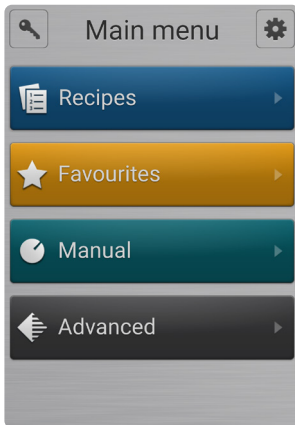


MAIN MENU


You operate the Visual Cooking® Smart Edition oven from the main menu.


Main buttons

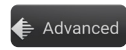
There are four buttons on the main menu.





 **Recipes** Gives you access to all recipes and enables you to add new recipes.

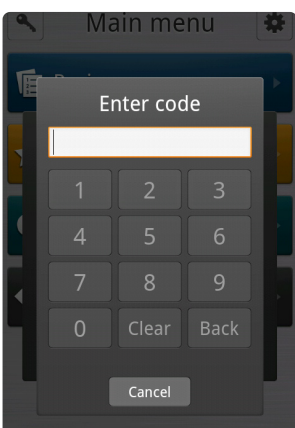
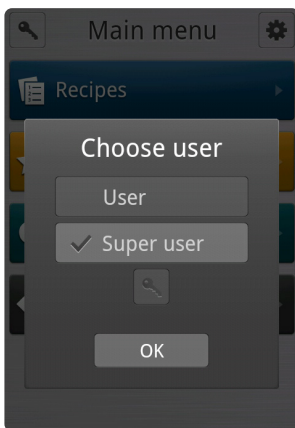
 **Favourites** Gives you quick access to recipes chosen as favourites. You can add both standard and your own recipes to favourites.

 **Manual** Gives you access to all the cooking functions of the SmartTouch oven including Hot Air, CombiSmart®, Steaming, Cook & Regen and ClimaOptima® as well as SmartChef, Recipes, Favourites and CombiWash®.

 **Advanced** Gives you access to the CoolDown, PreHeat and Proving functions as well as USB, HACCP and Timer Start. Optional extra functions once activated will also be available under Advanced.

The gear wheel icon  takes you to the service menu. For more information about the service menu, see the service manual.

The key icon  allows you to change type of user: user, super user or technician by entering a code. The super user code is 87 64 12.



USING THE SMARTTOUCH DISPLAY

The SmartTouch display provides a friendly and easy way for you to operate and interact with the HOUNÖ oven. You simply use the pads of your fingertips to perform the operations.

Basic operations

When in a cooking mode, simply touch the display.



Setting the temperature

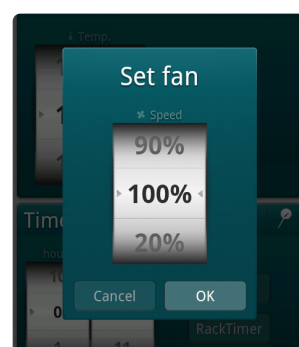
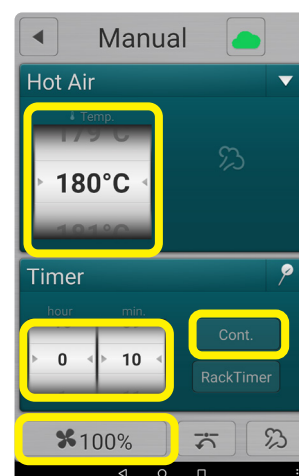
- In the Temperature list, drag you finger up or down to select the desired temperature.

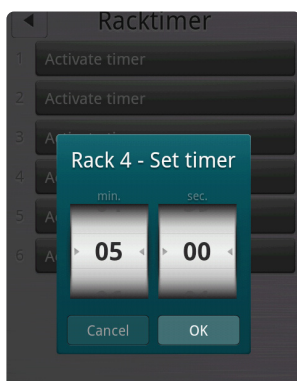
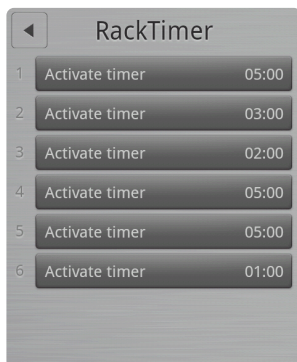
Setting the time

- In the hour and min. lists, drag your finger up or down to set the time.
- Touch the Cont. button if you want the oven to operate continuously.

Setting the fan speed


- The fan has nine speeds from 20% to 100 %
- You can adjust the fan speed before you start a new process or during a running process.
- For delicate cooking of products such as puff pastry, cakes and smaller products, we recommend using a fan speed between 20-50 %. The same recommendation applies when you use Delta-T or Cook & Hold.
- When the fan speed is low, add 1-2 minutes extra cooking time for each 1/2 hour.
- You can set the fan function manually when the oven operates in hot-air, steaming, CombiSmart®, Cook & Regen and proving modes. In all other modes, the fan function is set automatically.
- Above 200°C only 50% to 100% fan speeds are available

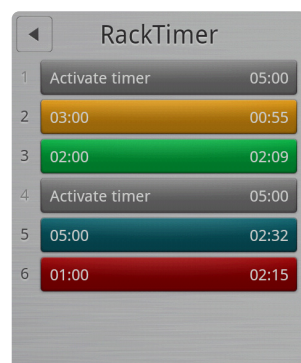




Setting the Advanced RackTimer

The Advanced RackTimer function enables you to set one or two timers for each individual rack. This way you can cook different products on the same rack or on different racks in the same cooking mode. Advanced RackTimer can be used in the following cooking modes: Hot Air, CombiSmart®, ClimaOptima®, Cook & Regen and Steaming.

1. In **each** mode, touch the **Timer** display, and then touch the **Advanced RackTimer** button.
2. In the **Rack setup** list, drag you finger up or down to select the number of racks you want to associate with the timer. You can choose between 1-10 racks.
3. In the **Timers per rack** list drag you finger up or down to select one or two timers per rack.
4. Push the arrow button  in the upper right corner to continue.
5. Touch the desired rack, drag you finger up and down the min and sec wheels. Each rack is set to 05:00 as default. Each rack will remember the previously set time
6. A running timer will be blue.
7. For the final minute of the timer it will turn yellow.
8. An alarm will sound when the timer reaches 00:00 and will then flash green.
9. If the timer is not stopped after one minute of the alarm sounding, it will then start to flash red.
10. To cancel or reset a timer, touch the timer then touch finish or set a new time.



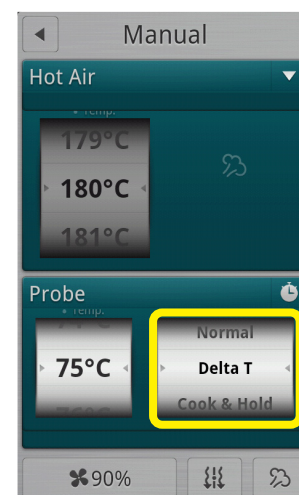
Setting the probe temperature

When you have chosen the oven function settings, you can set the probe temperature.

1. To activate the probe, touch the screen then touch the temperature probe icon that appears in the right corner of the timer. Drag your finger up and down to select the desired core temperature.
2. In the **Status** list, drag your finger up or down to select the probe function. You can choose between Normal, Delta-T, and Cook & Hold.
3. The oven sounds an alarm and stops cooking when the specified core temperature has been reached.

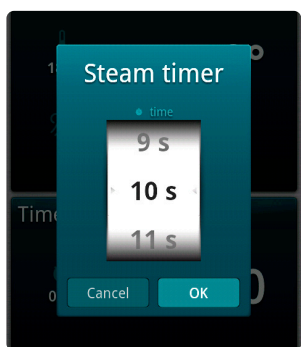






Core temperature cooking mode	Description
Normal	Use Normal when you want to use the core temperature to determine when the product is finished.
Delta-T	Use Delta-T to cook to a specific core temperature slowly with low gentle heat. When you use Delta-T, the oven maintains a constant difference in temperature between the core temperature and the oven temperature. The temperature of the oven rises slowly as the core temperature rises. The delta default is set at 20°C. This can be altered in Super user settings under Adjustments.
Cook & Hold	Use Cook & Hold when you want to reach a specific core temperature, keep the food hot once it is done and tenderize the meat. It is also useful for overnight cooking



HOT AIR

Setting the hot air temperature and manual steam



1. On the Main Menu, touch **Manual**, and then touch **Hot Air**. 
2. Touch the **Hot Air** display. You can now set the temperature and the timer. (See page 9.)
3. Touch the **Fan** button to set the fan speed. (See page 9.)
4. For Advanced RackTimer use. (See page 10.)
5. Touch the **Steam** button  to inject humidity into the cabinet.
6. Drag your finger up or down to set the steaming time in seconds. You can set the time range from 0 to 99 seconds. Touch **OK** to set the steam timer.
7. Touch and hold the **steam** button for continuous humidity.
8. Touch the **Exhaust** button to set the exhaust. The exhaust can be either open  or closed. .

When you are baking bread and pastry, roasting pieces of meat or want to achieve a grill effect, we recommend that you set the exhaust to open.

You can only set the exhaust function manually when the oven is operating in hot-air mode. In all other modes, the exhaust is set automatically.

Recommended hot air settings


Product	Exhaust	Recommended temperature
Grilling	Open	200-250°C
Cakes and Biscuits	Closed	145-175°C
Baking	Open	165-185°C

COMBISMART®

The CombiSmart® function allows you to set an oven temperature and select a humidity level. CombiSmart® is recommended for braised products and poultry. When you use CombiSmart®, you minimize shrinkage and improve the appearance and flavour of the products. You can choose between ten different humidity levels.

The preferred humidity level is reached after 1-5 minutes depending on the amount of product in the oven. To ensure that the oven has reached the correct humidity level, preheat the oven for 5 minutes.

Setting CombiSmart® temperature and humidity level

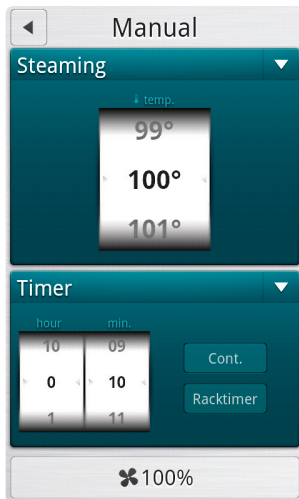
1. On the **Main Menu**, touch **Manual** and then touch **CombiSmart®**. 
2. Touch the **CombiSmart®** display. You can now set the oven temperature and timer. (See page 9.)
3. Touch the **Fan** button to set the fan speed. (See page 9.)
4. In the **Steam** list, drag you finger up or down to select the desired humidity level.



Recommended humidity levels

Product	Humidity level	Recommended temperature
Roasting	30-40	170-190°C
Gravy production during braising of meat	70-80	145-165°C
Poaching fish, poultry, and crispy vegetables	90-100	70-120°C
Steaming potatoes, rice, pasta, meat, and more.	100	100°C or steaming mode

STEAMING




(Not available on BPE models)

If the oven has been used prior to starting the steaming process, cool down the oven chamber to 20°C below the desired cooking temperature. For CoolDown function, see page 18. To achieve best results do not load products until the oven has reached the set temperature.

Note: In KPE models, the temperature of the water in the steam generator is checked automatically. If the water temperature is below 65°C, the tank is emptied and refilled for sanitary reasons. The water is then heated.

Setting the steaming temperature and timer

1. On the Main Menu, touch **Manual** then touch **Steaming**. 
2. Touch the **Steaming** display. You can now set the temperature and the timer. (See page 9.)
3. Touch the **Fan** button to set the fan speed. (See page 9.)
4. For Advanced RackTimer use, see page 10.

Recommended steaming settings

Temperature level	Recommended steaming temperature	Products
Low temperature steaming	65-90°C	Fish and small vegetables. Steam small vegetables at 80°C for 5-10 minutes to keep their colour and crispness.
Traditional steaming	98-100°C	Meat, pasta, potatoes, rice and root vegetables.
Forced steaming	120°C	Vegetables that require further processing and for faster processing of hard root and frozen vegetables, pasta and rice. Exercise caution when you use this function.

Note: Water treatment filters specifically designed for HOUNÖ ovens can be purchased directly at www.houno.com.

COOK & REGEN

(Not available on BPE models)

Cook & Regen allows you to gently regenerate previously prepared products. The program uses low fan speed as default and during operation a carefully calculated amount of humidity is added. This process helps maintain the appearance and flavour of the products.

Recommendations

- For faster regeneration, leave the product uncovered during the regeneration process.
- To reach the perfect end temperature, use the core temperature probe.
- For regeneration of sous-vide products or similar, follow the supplier's recommendations for regeneration.

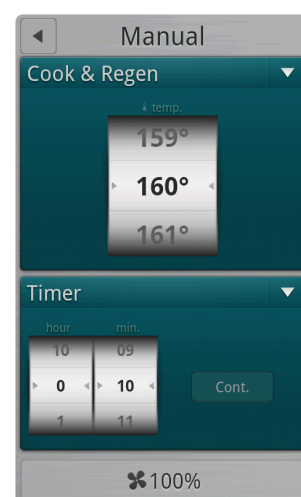
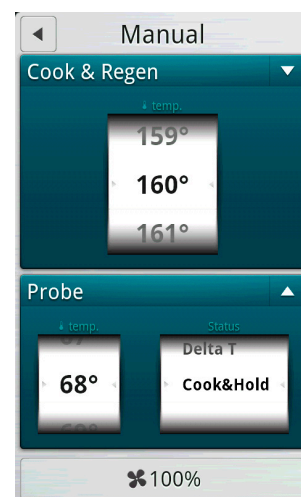
Setting the oven and core temperature

1. On the **Main Menu**, touch **Manual**, and then touch **Cook & Regen**.
2. You can now set the temperature and the timer. (See page 9.)
3. Touch the **Fan** button to set the fan speed. (See page 9.)



Recommended Cook & Regen settings

Products	Temperature Level	Minutes
Rice, meat, and vegetables on a plate	140°C	8-12 minutes
Whole roasts, stews, and sauces	120-140°C	40-60 minutes
Pasta, rice, and similar	120°C	20-30 minutes



CLIMAOPTIMA®



(Not available on BPE or CombiSlim® models)


ClimaOptima® allows you to set an oven temperature and add a specific humidity percentage. The ClimaOptima® function will automatically regulate the set percentage of humidity throughout the whole cooking process regardless of type or amount of product being cooked.

When you use ClimaOptima®, you minimize shrinkage and improve the appearance and flavour of the products.

The preferred humidity level is reached after 1–5 minutes depending on the amount of products in the oven. To ensure that the oven has reached the correct humidity level run the ClimaOptima® function for 5 minutes before loading.

To achieve best results do not load products until oven has reached set temperature.

Setting ClimaOptima® temperature and humidity level


1. On the **Main Menu**, touch **Manual**, and then touch **ClimaOptima®**. 
2. Touch the ClimaOptima® display. You can now set the temperature and the timer. (See page 9.)
3. For Advanced RackTimer use, see page 10.
4. In the **Humidity** list, drag you finger up or down to select the desired humidity percentage. You can lset the humidity in increments of 5 %.

ADVANCED

The Advanced Menu gives you access to the CoolDown, PreHeat and Proving functions.

PreHeat

Use PreHeat to ensure that the oven chamber is thoroughly heated before you start a cooking process. We recommend a 10-20% higher preheat temperature above cooking temperature.

1. On the **Main Menu**, touch **Advanced**, and then touch **PreHeat**. 
2. Touch the **PreHeat** display. You can now set the temperature and the timer. (see page 9)
3. When the desired temperature has been reached the timer starts to count down. If 00:00 has been chosen as time the alarm sounds when the set temperature has been reached.

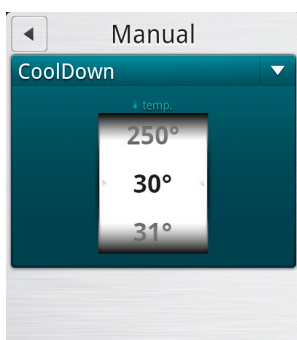
Note: Use the pre-heat function to ensure consistent end results. Pre-heating the oven compensates for heat lost during opening and closing the oven.




Products	Load	Temperature
Frozen products	Full load	40°C - 50°C
Frozen products	Half load	30°C - 40°C
Ambient products	Full load	20°C - 30°C
Ambient products	Half load	10°C - 20°C

CoolDown

Use CoolDown when you are changing from one cooking function to another and need to cool the oven chamber. You can also use CoolDown before cleaning the oven. For the best results, set the cool down temperature 20°C lower than the desired temperature of the next cooking function.

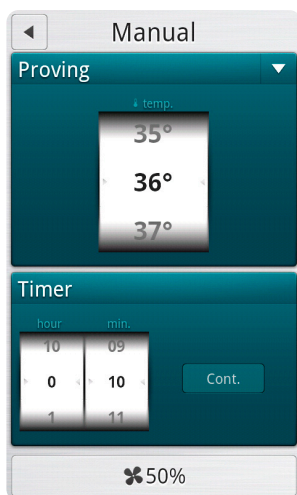



Setting the CoolDown temperature

1. On the Main Menu, touch **Advanced**, and then touch **CoolDown**. 
2. Touch the **CoolDown** display. You can now set the temperature and the timer. (See page 9.)
3. In the **temp.** list, drag your finger up or down to set the desired temperature.

Proving

Use the proving function for products that need proving before being baked.



1. On the Main Menu, **Advanced**, and then touch **Proving**. 
2. Touch the **Proving** display. You can now set the temperature and the timer. (See page 9.)
3. Touch the **Cont.** button if you want the oven to operate continuously.

Recommended proving times and oven temperatures

Products	Temperature level	Minutes	Fan speed
Loaves of 400-800 grams	Low temperature - 32°C	45 minutes	30-50%
Rolls and baguettes of 60-200 grams	High temperature- 36°C	25 minutes	30-50%

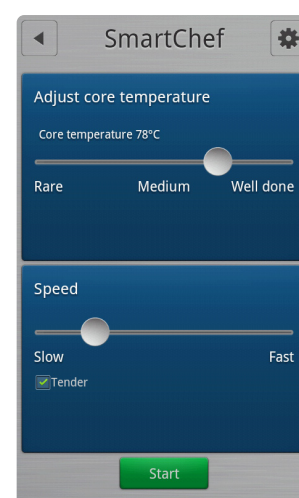
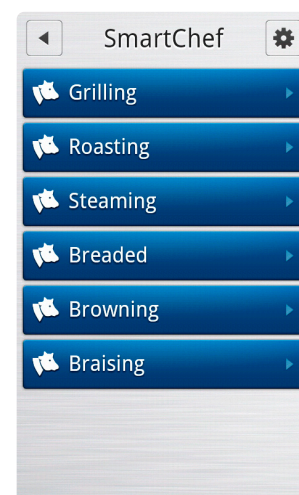
Note: Prebaked products do not need proving, whereas pre-proved products require defrosting and baking.

SMARTCHEF®

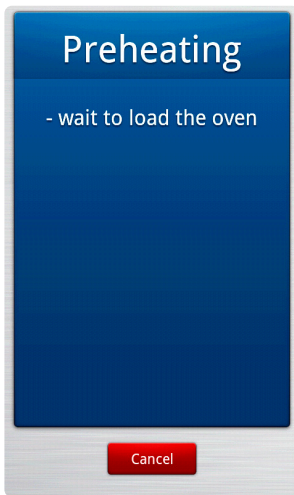
Use SmartChef for automatic cooking. The SmartChef function provides a number of preset cooking functions for a variety of products.

Using SmartChef

1. On the **Main Menu**, touch **Manual**, and then touch **SmartChef**.
2. Touch the type of product you are going to cook.
3. Touch the cooking mode you want to use.

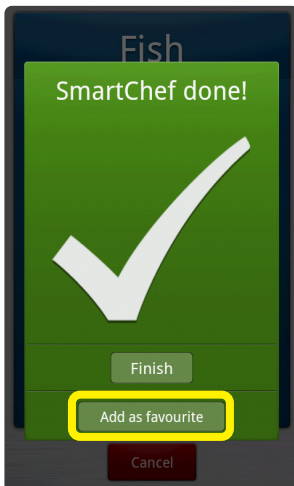


Product/ cooking mode	Grilling	Roasting	Steaming	Breaded	Browning	Braising	Crispy skin
Beef	x	x	x	x	x	x	
Pork	x	x	x	x	x	x	x
Poultry	x	x	x	x	x	x	
Lamb	x	x	x	x	x	x	
Venison	x	x	x	x	x	x	
Fish	x	x	x	x			



4. Adjust the cooking and surface results.

- **Grilling**
Slide the button to the left for rare meat and to the right for well-done meat. Slide the button to the left for a lighter result and to the right for a darker result.
- **Steaming**
Slide the button to the left for rare meat and to the right for well-done meat. Slide the button to the left for steaming at low temperature and to the right for forced steaming.
- **Braising**
Slide the button to the left for rare meat and to the right for well-done meat. Slide the button to the left for a slow result and to the right for a fast result.

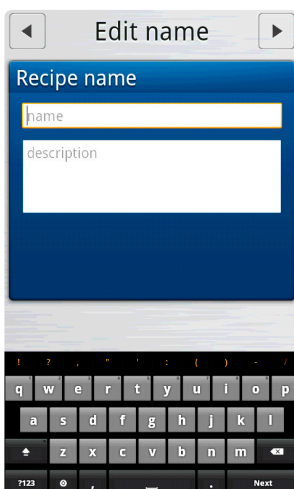


Note: Touch the **Tender** box if you want the oven to keep the core temperature for 2 hours.

- **Browning**
Slide the button to the left for shorter cooking time and to the right for longer cooking time. Slide the button to the left for a lighter result and to the right for a darker result.
- **Breaded**
Slide the button to the left for rare meat and to the right for well-done meat. Slide the button to the left for thick breaded products and to the right for thin breaded products.

5. Touch the **Start** button when you have adjusted the parameters. The oven begins the preheating process and sounds an alarm when ready. Remember to insert the probe and press Confirm after loading.




6. When SmartChef has finished your cooking, you will be prompted to save the recipe as a favourite. Then you will have the option to give the recipe a name and description. The recipe will then be accessible by the pressing the favourites button in SmartChef.

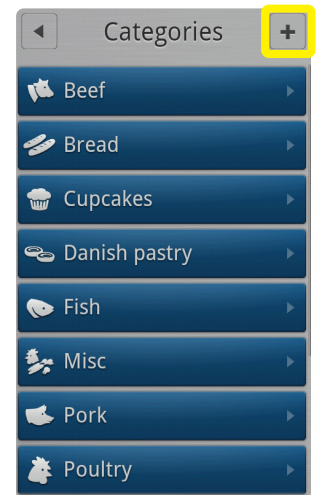


RECIPES

The SmartTouch oven can hold 500 recipes. Each recipe can hold up to 15 different steps. A set of preset recipes comes installed on the oven.


Using existing recipes

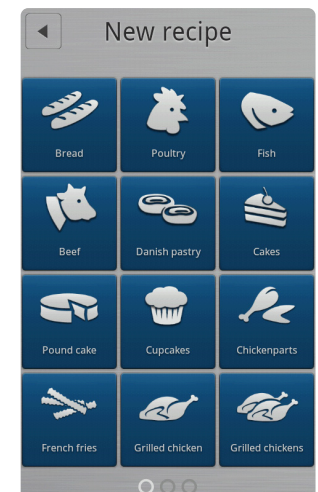
1. On the **Main Menu**, touch **Recipes**  and then touch the desired category.
2. Touch the desired recipe. The recipes are listed in alphabetical order. Recipes saved as favourites will always appear at the top of the recipe list.
3. Touch  .
4. If you want to adjust a recipe, touch the gear wheel icon  and follow the steps described in page 21 (see below.)

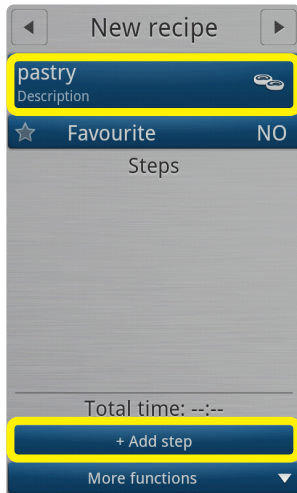




Adding new recipes

You can add and delete recipes in the existing library.

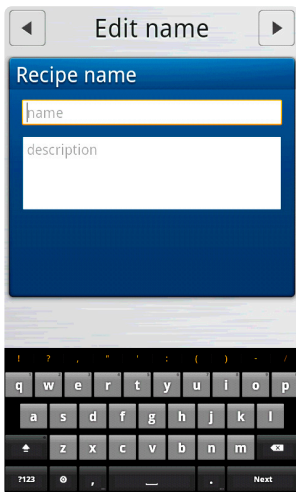
1. On the **Main Menu**, touch **Recipes**, and then touch  in the upper right corner.
2. In the **Category** list choose your desired category icon, swipe your finger to the side for more categories. You will then be presented with the New recipe screen.






3. Touch the **Name** button, and then use the keyboard to type a name and a description of the recipe. Touch the right arrow  to save and go back. The description box can contain any information relevant for the end user.
4. For example, type of tray to be used, amount of product or a reminder to insert temperature probe
5. Touch the **Favourite** button  if you want to add the recipe to your list of favourites. (See page 24.)
6. Touch the **Add step** button to add the first step of the cooking process.

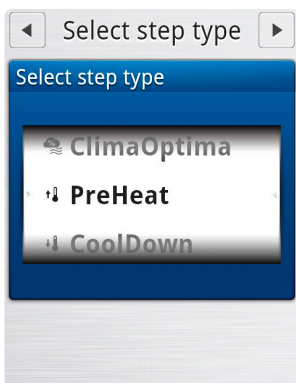
Note: To achieve consistent cooking results, we recommend **Preheat** as first step followed by a **Note** step to insert product



7. In the “**Select step**” list drag your finger up or down to select the desired cooking step.


All cooking functions are available to use as a step in a recipe including a **Note** step which acts as an alarm. A **Pause** step is also available. This can be used for resting a product during a cooking program, for example bread.

8. Choose the desired settings for the selected type of cooking, and then touch the arrow  in the upper right corner to save your settings.

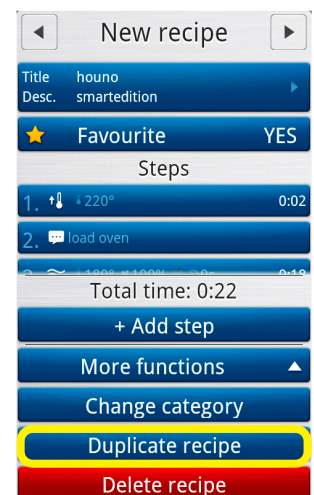
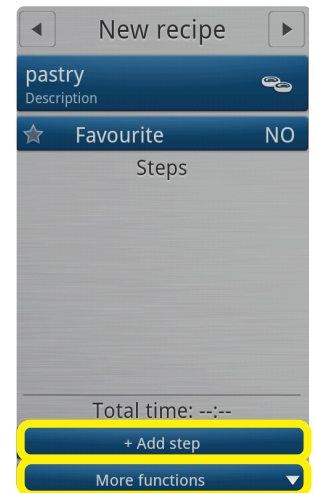


9. If you want to change the recipe category, touch **More functions**, and then touch **Change category**. You can then choose a different category.
10. To make a copy of the recipe, touch **More functions**, and then touch **Duplicate recipe**. The “Copying Recipe” message appears. You can then edit the copy.
11. To delete the recipe, touch **More functions**, and then touch **Delete recipe**. Touch **Yes** to confirm.
12. A particular step can be deleted or moved to a different position in the recipe by pressing and holding the step until it highlights. Then it can be moved at will.

Note: Use a note step at any stage in the recipe program to create an alarm or to convey information to the user. For example, use a note step after preheating to insert product.

13. Touch “add step”, scroll down to **Note** and press  in the upper right corner to confirm.
14. The Edit note screen will appear giving you the option to input text and choose an icon. This information will be presented with the alarm during the cooking process.

Note: After preheat, the oven will maintain the temperature for 10 minutes whilst waiting for products to be loaded.



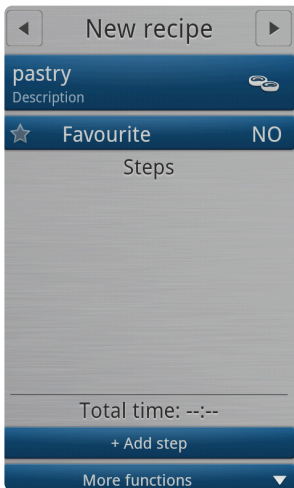
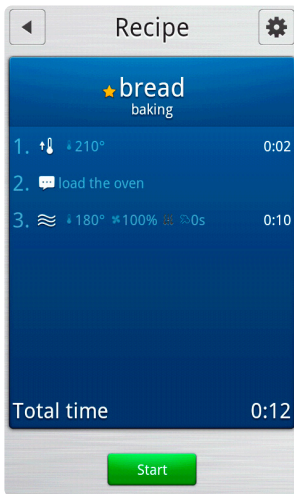
FAVOURITES

Add the recipes you use most often to the Favourites list for easy access.



Using Favourites

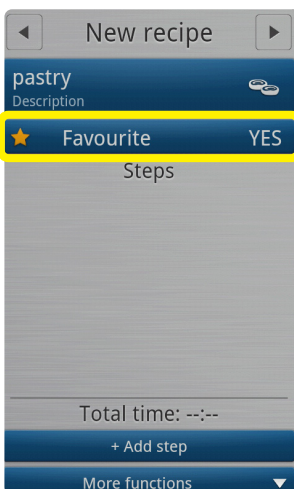


1. On the **Main Menu**, touch **Favourites**.
2. Touch the desired recipe. The recipes are listed in alphabetical order. All the steps of the recipe, and the total cooking time are displayed. Recipes can also be named with a number and listed in numerical order.
3. Touch the **Start** button to start the oven. The oven starts the preheating process, and displays the Note step information when the oven is preheated.



Adding a Recipe to Favourites



4. On the **Main Menu**, touch **Recipes**, choose the category
5. Then touch the desired recipe.
6. Touch the gear wheel icon  in the upper right corner.
7. Touch the **Favourite** button so that it changes to **YES**.
8. Touch the arrow  in the upper right corner to save your settings.



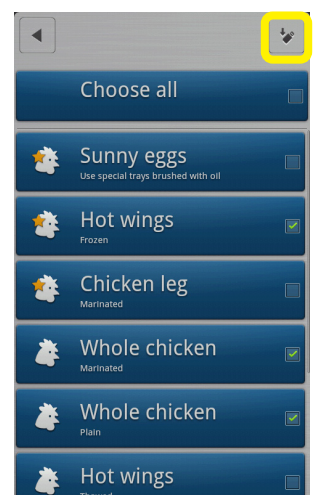
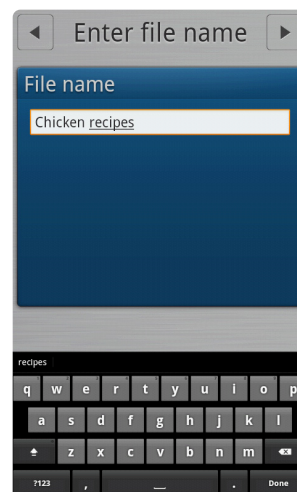
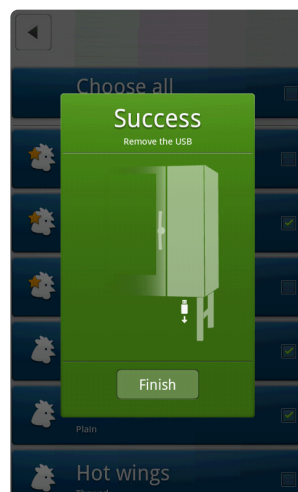
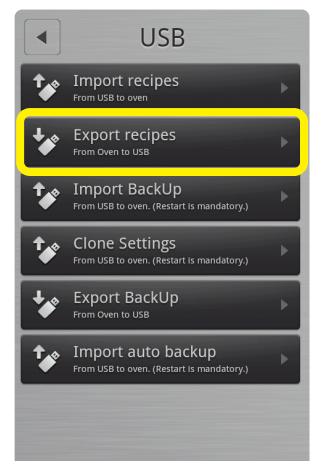
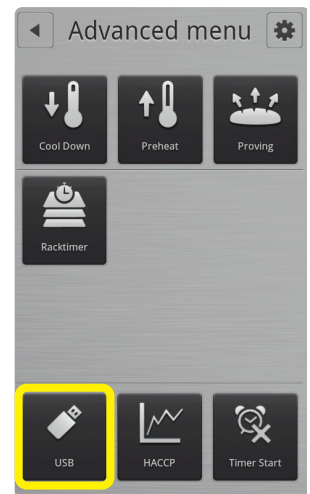
USB FUNCTION

The oven has a USB port on the underside of the user panel next to the air filter. All recipes and settings can be exported and imported via the USB port. These can then be transferred to other HOUNÖ SmartTouch ovens.

Recipe download


1. Remove the protective rubber plug from the USB port and insert a USB stick.
2. From the **Main** menu press the **Advanced** button.
3. Press **USB**.
4. Press **Export recipes**.
5. Choose all recipes or a specific category.
6. Press **Choose all** to highlight all recipes or scroll through the recipe list and highlight specific recipes you wish to download.
7. Press the download icon  you will then be prompted to give the file a name.
8. Press the  icon to download the chosen recipes to the USB stick.
9. Remove the USB stick and replace the protective rubber plug.

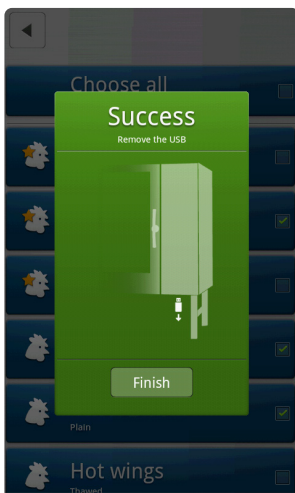
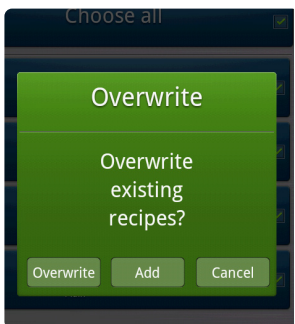
Note: The oven will automatically create a folder on the USB stick named 'recipes'. The downloaded recipe file will be stored in the folder as a .txt document. An oven can only upload recipe files from a USB stick if the .txt files are stored in a folder named 'recipes'.






Recipe upload

1. Remove the protective rubber plug from the USB port and insert a USB stick.
2. From the **Main** menu press the **Advanced** button.
3. Press **USB**.
4. Press **Import recipes**.
5. Choose from the .txt recipe files that are available from your USB stick.
6. Choose all recipes or a specific category.
7. Press **Choose all** to highlight all recipes or scroll through the recipe list and highlight specific recipes you wish to upload.
8. Press the upload icon .
9. You will be prompted with the option to **Overwrite**, **Add** or **Cancel**.
 - **Overwrite** will replace recipes currently on the oven with the new upload.
 - **Add** will add the upload to the current recipes on the oven.
 - **Cancel** will stop the upload completely.
10. You will be prompted with a **Success** screen when the recipes are uploaded. Press **Finish** then back out to the main screen to continue using the oven.
11. Remove the USB stick and replace protective rubber plug.



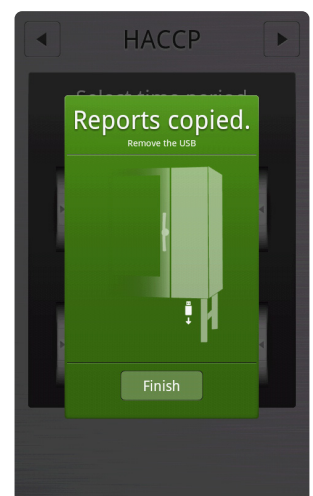
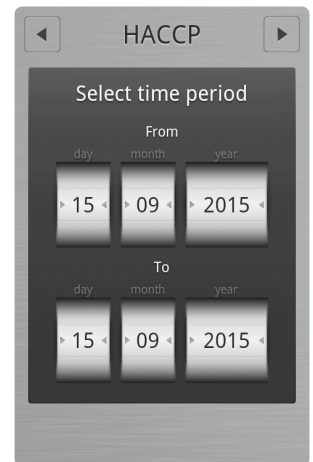
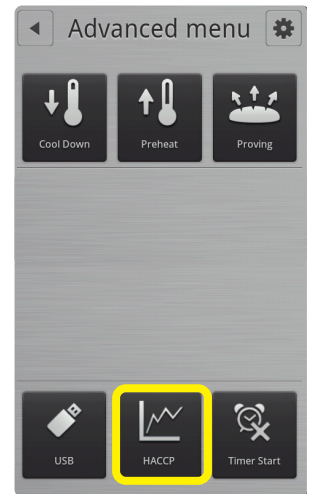
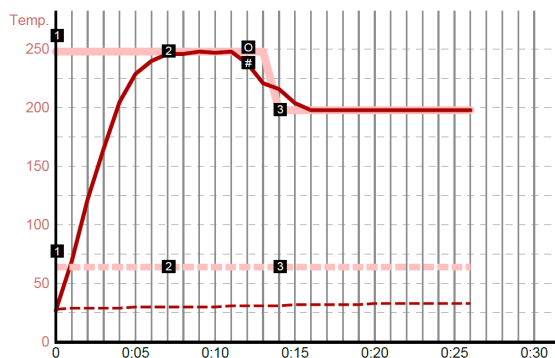
HACCP function

The oven automatically records HACCP files each time a Recipe, Smartchef or CombiWash® program is complete. These files are stored for a period of 60 days and are available to download directly in PDF format. No further software is needed to read the files.

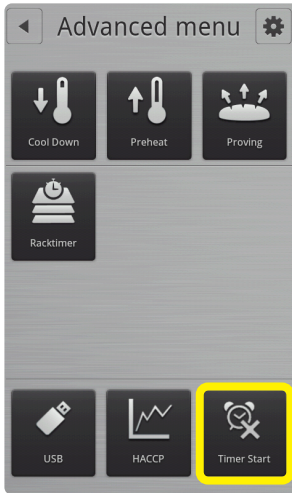
1. Remove the protective rubber plug from the USB port and insert a USB stick.
2. From the **Main** menu, press the **Advanced** button.
3. Press **HACCP**.
4. You will be prompted to choose a 'From' date and a 'To' date. Press  in the upper right corner to continue.
5. The oven will download all available HACCP files between the two chosen dates to the USB stick.
6. You will be prompted with a 'Reports copied' screen. You can remove the USB stick and continue with use of the oven.
7. Remove the USB stick and replace protective rubber plug.

Note: The oven will automatically create a folder on the USB stick named 'oven'. It will then create a folder named 'haccp' inside the oven folder. The downloaded HACCP files will be stored in the folder as PDF documents.

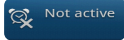

A graph will show set and actual temperature for the oven cabinet and core probe. Temperatures will be recorded every minute.

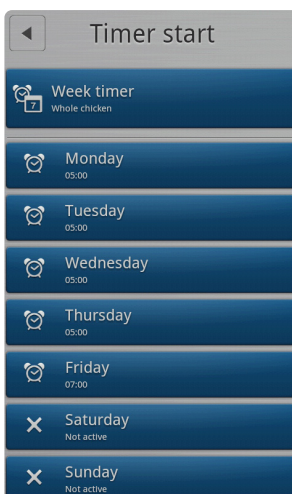
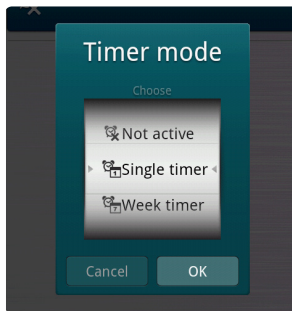


TIMER START



The Timer Start function automatically powers up and preheats the oven ready for a specific cooking program.

1. From the **Main** screen, press the **Advanced** button.
2. Press **Timer Start**. The default screen will read  Press **Not Active** button, turn to **Active** to activate the function.
3. Choose between **Single Timer** or **Week timer** and press **OK** to confirm.
4. If using **Single timer**, select time and date. If using **week timer** choose the desired start time, press **Active** then press **OK** to confirm.
5. Choose the relevant category then recipe for the **Timer Start** function.
6. If using the **Week timer** you can choose to set the **Timer Start** function to power up and preheat at different times daily over a one week period. This will run continuously from week to week until deactivated. The timer can also be deactivated on a particular day.
7. Press  in the upper left corner to back out to the **Main** menu.



Note: The oven must be powered off with the door closed for the **Timer Start** function to operate.

COMBIWASH®

We recommend that you clean the oven daily to maintain efficiency and to ensure a high level of sanitation. Located under the front panel is a spray hose you can use to clean the oven after it has cooled down.

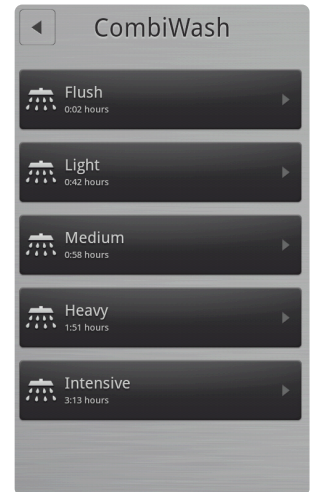


NOTE: Oven damage due to absence of a necessary HOUNÖ PROTECT HydroShield water filter may render the warranty void.




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

NOTE: Make sure that no trays are in the oven when using CombiWash®. It can cause corrosion as parts of the chemicals cannot be removed during flushing.



Cleaning the oven chamber

1. Check the level of detergent and rinse aid in the containers. The red tube is for detergent and the blue tube is for rinse aid.
2. On the **Main Menu**, touch **Manual**, and then touch **CombiWash®** .
3. Touch the desired cleaning mode. You can choose between the following cleaning cycles.
 - **Flush:** Use this before starting the other cleaning programmes.
 - **Light:** Use this after steaming and roasting at low temperatures.
 - **Medium:** Use this after steaming and roasting at medium temperatures.
 - **Heavy:** Use this after roasting at temperatures higher than 180°C.
 - **Intensive:** Use this after roasting very greasy products.
4. Touch **Start**.

Note: If the cleaning cycle is interrupted before it has been completed, for example because of a power outage, the oven automatically performs a safety flush to remove any detergent remnants.

NOTE: The CombiWash® function is specifically developed for HOUNÖ PROTECT chemicals. Using other chemicals can cause damage to oven and void warranty.

Visit www.houno.com to buy the HOUNÖ PROTECT cleaning agent.




ENERGY & WATER METERS

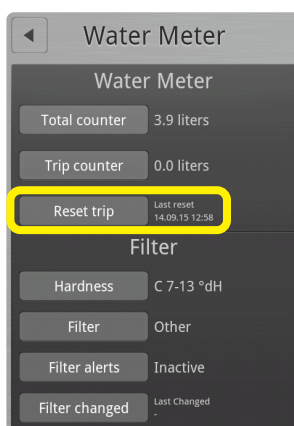
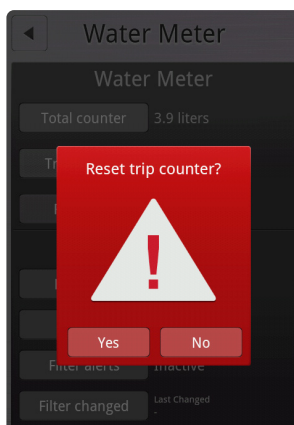
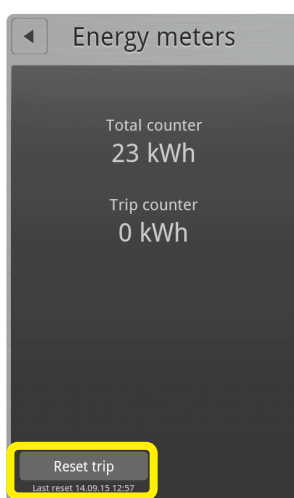
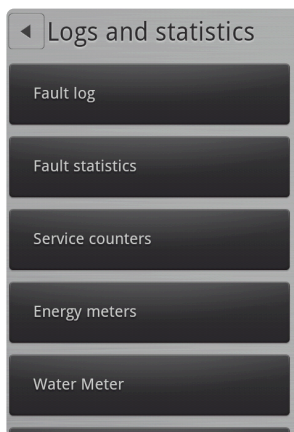
Energy meter

Energy usage is recorded in the oven. It is possible to set a counter to zero and record how much energy has been used in a certain time.

There is a total counter which will continuously record energy usage during the life span of the oven.

1. On the **Main** menu, touch  to enter the settings menu.
2. Touch the **Super user** button.
3. Scroll down and touch **Logs & statistics**.
4. Touch **Energy meters**.


- **Total counter** will read all energy usage of oven.
- **Trip counter** will read energy usage of oven since last reset. Information of previous reset will be shown under the **Reset trip** button.



Water meter

Water usage is recorded in the oven. It is possible to set a counter to zero and record how much water has been used since the last reset.

There is a total counter which will continuously record water usage during the life span of the oven.

5. On the **Main** menu, touch  to enter the settings menu.
6. Touch the **Super user** button.
7. Scroll down and touch **Logs & statistics**.
8. Touch **Water meter**.
9. **Total counter** will read all water usage of oven.
10. **Trip counter** will read water usage of oven since the last reset.

- **Reset trip** will reset the trip counter to zero. The date of the previous reset will be displayed beside the **Reset trip** button.

Water filter

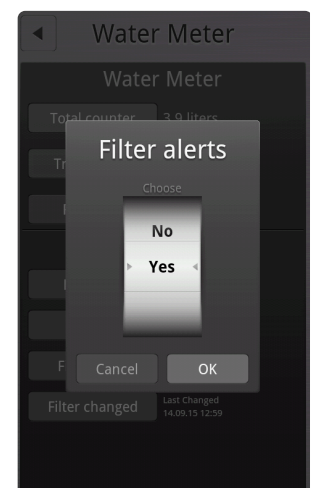
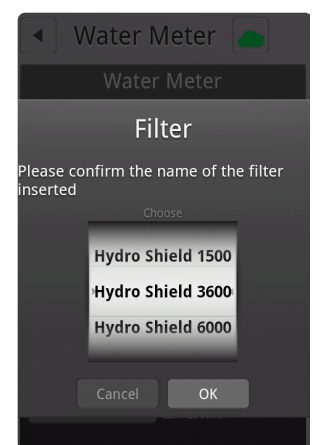
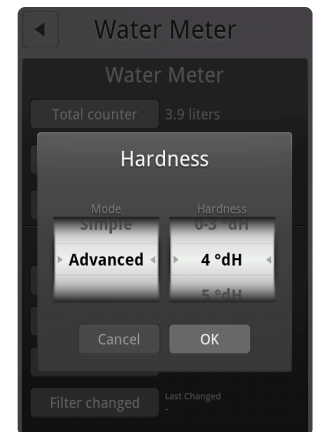
The filter function will record the usage of the water filter and alert the oven user when the filter needs replacing. First you need to measure the total hardness of the water input to the oven. Water hardness tests can be purchased from www.houno.com.

To activate do the following;

In the **Water Meter** menu

11. Touch the **Hardness** button.
12. Choose the water hardness settings based on the results of the water hardness test.
 - Use **Simple** mode if using water test strips delivered with the oven.
 - Use **Advanced** mode if using a water drop test purchased from www.houno.com.
13. Touch the **Filter** button. Choose the corresponding HOUNÖ Hydro Shield size just installed on your oven. A confirmation screen will appear informing you if the **Filter alerts** status are **Active** or **Inactive**.
14. Touch **Filter alerts** button. Choose if you wish filter alerts to be active or inactive. Press **OK** to confirm.
15. Touch the **Filter changed** button to reset the counter so the filter alerts will be accurate in alerting you when a new filter needed.


Note: The filter alert function is only compatible with HOUNÖ PROTECT Hydro Shield water filters, which can be purchased directly at www.houno.com.



CHEMICALS

The chemicals function will record the usage of the cleaning detergent and rinse aid levels. The oven will alert the user when the chemical containers need replacing. Chemicals and accessories can be purchased from www.houno.com.

To activate do the following:


1. On the **Main Menu**, touch  to enter the settings menu.
2. Touch the **Super user** button.
3. Scroll down and touch **Logs & statistics**.
4. Touch the **Chemicals** button.

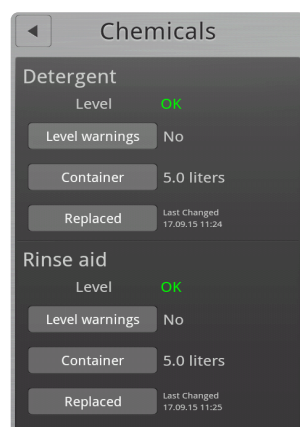
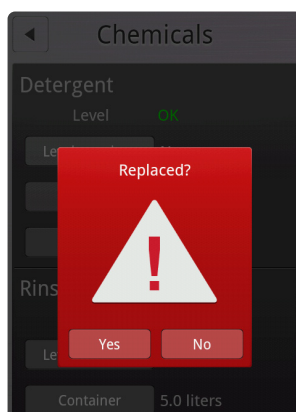
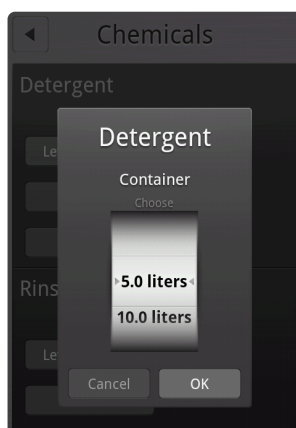
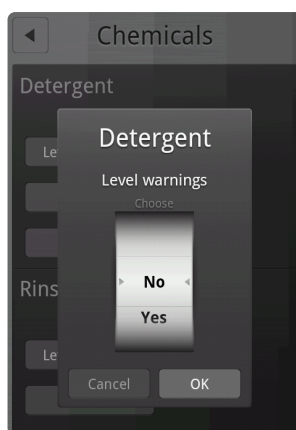
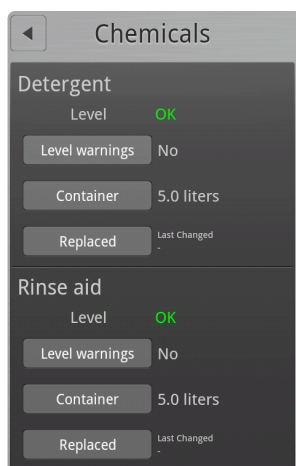
To activate do the following:

5. Touch the **Level Warnings** button.
6. Scroll to **Yes** and touch **OK** to confirm.
7. Touch the **Container** button. Here you can choose between 5 and 10 liter containers. Choose which size of containers you have and press **OK** to confirm.

Once the level warnings are activated and new chemicals have been added, the counter needs to be reset.

8. Touch the **Replaced** button. This will start the counter fresh so the usage of chemicals can be measured accurately to ensure of timely chemical replacement.

Next to the **Replaced** button will be shown the date of previous chemical replacement. Use the same process for the rinse aid. The level will show  if chemicals are still available.



ROLL-IN SYSTEM

The roll-in system comes as standard on all 1.16, 1.20 and 2.20 models. The trolley can be removed completely from the oven cabinet and replaced at will. This allows the oven to be preheated whilst the trolley is being loaded.

Removing and replacing a roll-in trolley

Open the oven door by turning the handle 90° anticlockwise. The door must be open minimum 100° to remove the trolley from the oven.

Insert the removable trolley handle bar into the holes near the base. Release the locks on the wheels and carefully pull the trolley out of the oven cabinet.

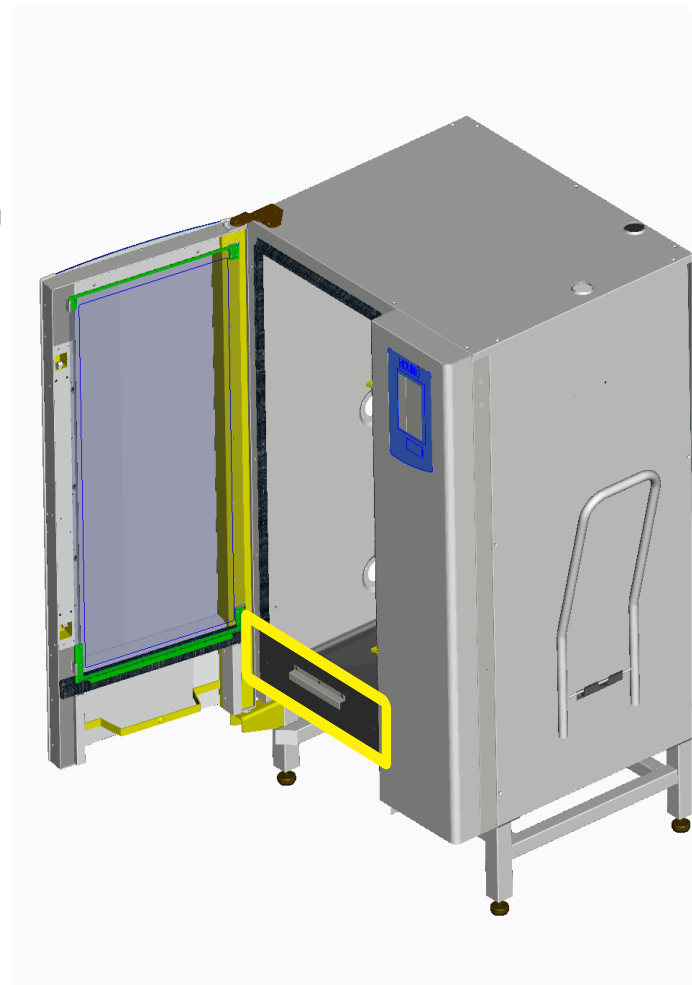
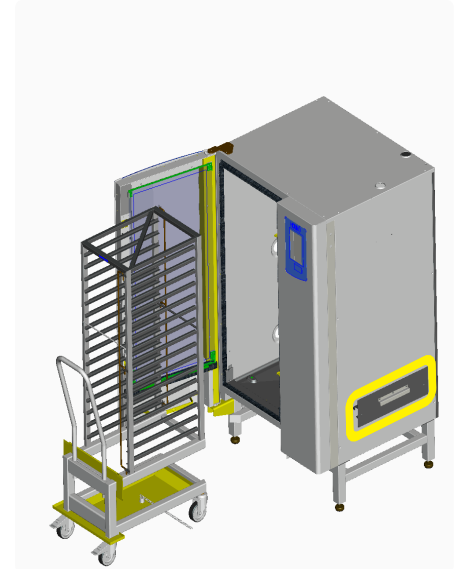
Place the preheat bridge into place at the bottom of the oven cabinet before closing the oven door. The preheat bridge creates a seal in the space the trolley has left open so no energy is lost during preheat.

The removable handle for the trolley can also be used to remove the preheat bridge after heating. The preheat bridge can be hung on the side of the oven.

The trolley can be replaced in the same way as removed.

Note: The roll-in system oven must be installed on a level flat floor.

To protect the gasket of the oven door please ensure that the wheels are locked once the oven trolley is in place.



OVEN MAINTENANCE

Cleaning the oven exterior

1. Use a soft, damp cloth and a liquid detergent to clean the oven cabinet on the outside.
2. Remove the door sealing to clean under and around the door.
3. Treat the surface with HOUNÖ STEEL OIL to protect it. The steel oil is available from your supplier. (Part number 045651.)

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 the electronic components.

Cleaning the oven interior

Visual Cooking® models

You have to remove the air baffle to be able to clean around the fan and the heating elements.

- Loosen screws (A) and (B).
- Swing the air baffle open and clean behind it. You can remove the air baffle by lifting it upwards until it is clear of the pin at the bottom and then tipping it.



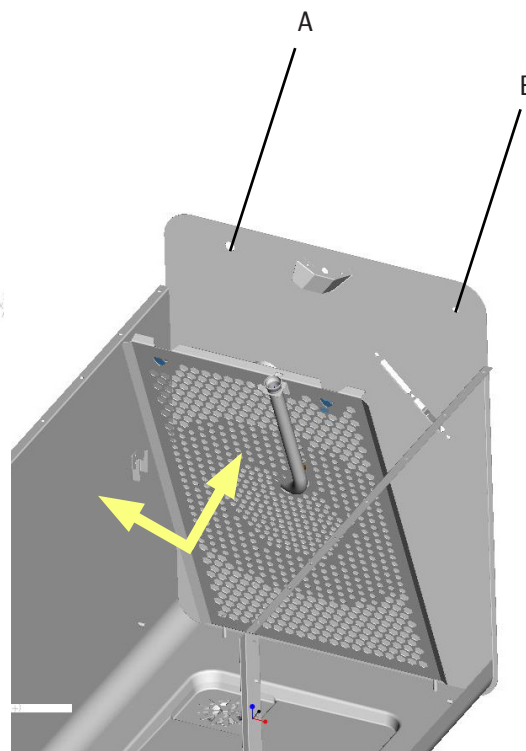
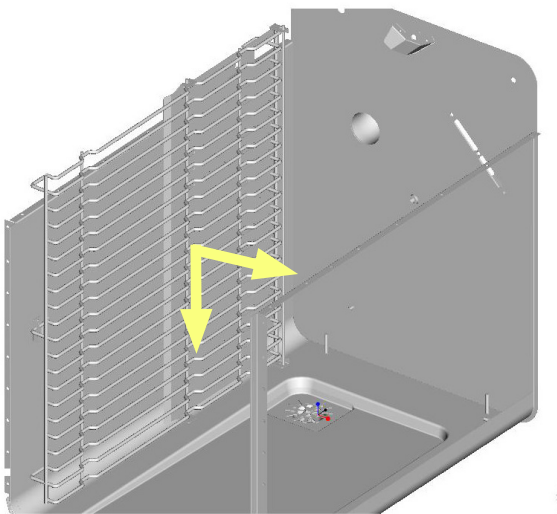
CombiSlim® models

You have to remove the racks on either side of the oven cabinet.

Pull the base of the rack a centimeter away from the side of the oven to release the bottom then pull upwards. The rack will come free and can be removed from the oven cabinet.

To remove the air baffle:

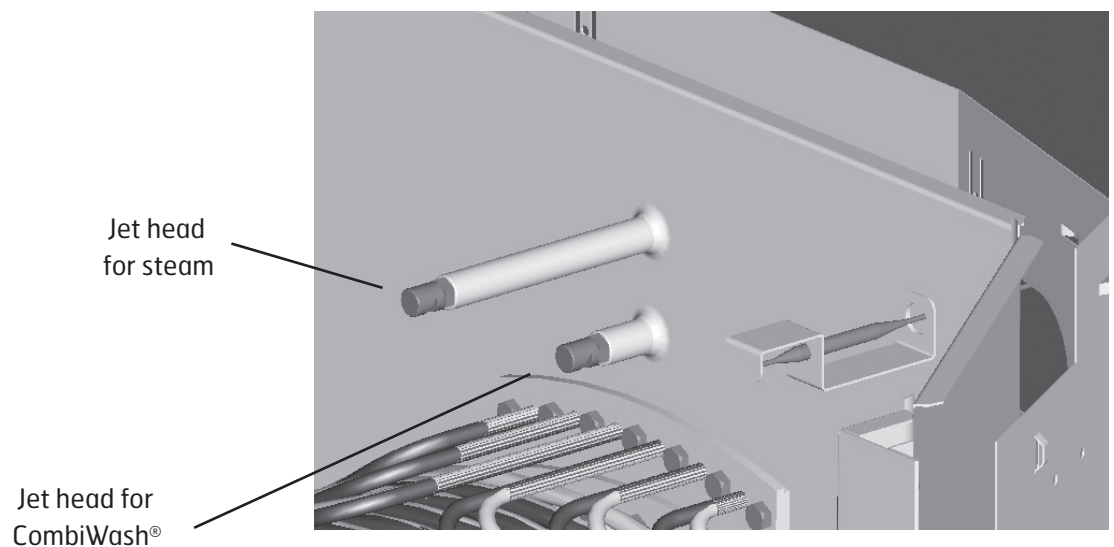
- Use a screw driver in the slots A and B. Turn 20° anticlockwise to release the catch.
- Pull the top of the air baffle toward you and up to release it from the pins it sits on at the base.
- When finished cleaning ensure all components are put back in place correctly.



Cleaning the jet heads

You have to clean the jet heads regularly, when you have used CombiSmart® and ClimaOptima®. This must also be cleaned regularly. The Visual Cooking® oven comes with two sets of jet heads. While you clean one set, you can replace them with the other.

1. Unlock the screws to dismount the jet heads.
2. Soak the jet heads in descaling solution overnight.
 - The jet head for steam (ClimaOptima® and CombiSmart®) has the notch facing downwards (long tube).
 - The jet head for CombiWash® is located to the right or above the other jet head. It has the notch facing upwards (short tube).



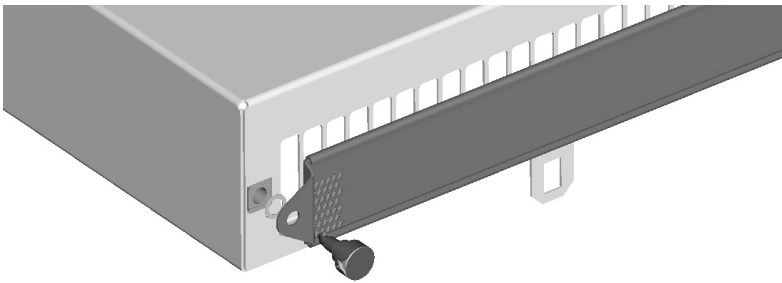
Cleaning the air filter

Visual Cooking® models

The air filter is located below the control panel in front of the spray hose.

To remove the filter twist the fingerscrew and pull down. The filter must be cleaned 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.

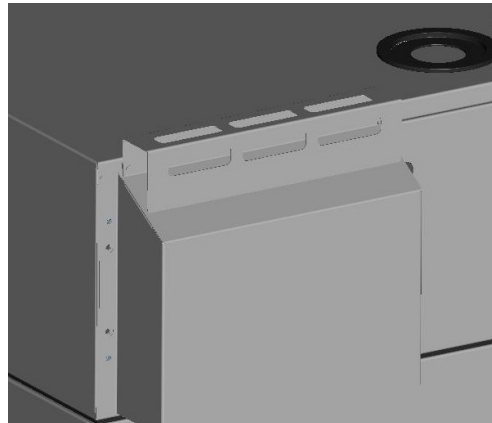
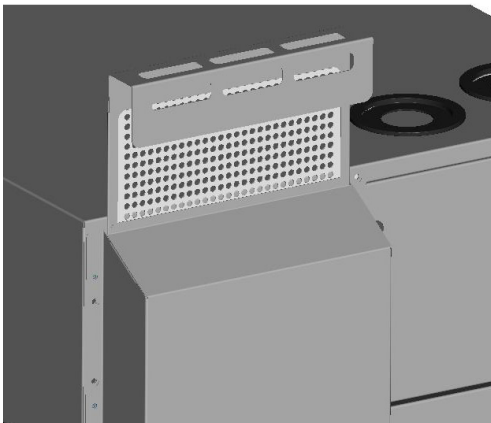


CombiSlim® models

The air filter is located at the rear of the oven.

To remove the filter, pull straight up out of the filter casing. The filter must be cleaned 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.



Cleaning the front air intake

CAUTION



Risk of cutting

Minor or moderate personal injury
Use gloves when cleaning the front air intake.

Make sure that the oven and Hoodini are both off before cleaning the front air intake. It may take up to 10 minutes for the Hoodini unit to shut down after the oven has been shut down.



1. Grip each side of the front grill on the upper overhang of the Hoodini.
2. Slide the panel up and pull out to remove it.
3. Wipe down each side to remove any grease and/or particulate.



4. Wipe down each of the grates over the three fans at the front of the Hoodini.
5. When cleaned, wipe with a dry towel.
6. Replace the front grill.



This page is intentionally left blank.

GUIDELINES

User guidelines

- The core probe has three temperature sensor points. When using the core probe be sure to insert the pin into the product at the thickest point. The oven will always operate from the coolest of the three sensors.

Note: When roasting whole chickens put the core probe into the thickest part of the breast.

- When cooking in the oven, always space the trays evenly in the oven cabinet to ensure a good airflow around products. If using one tray use the middle shelf.

Core temperature guidelines for meat (beef, veal, pork, and lamb)

Product	Temperature guidelines
Pieces of saddle, tenderloin, and ham – lean	60-65°C
Roast of saddle and ham	65°C
Pieces of meat that contain a larger amount of connective tissue (neck, brisket, and shoulder)	80°C
Paté	75°C
Terrine	60°C
Rare roast	56-59°C
Medium roast	59-64°C
Well-done roast	65-70°C

Tender meat

Tender meats such as sirloin steaks and trimmed fillets reach their maximum tenderness at a core temperature of 65°C. The meat becomes tougher when the core temperature reaches 75-80°C, and then increasingly tender again if the temperature continues to increase.

Meat with larger amounts of connective tissue

Meats that contain larger amounts of connective tissue, such as shoulder, brisket, and neck, must be slow cooked at low temperatures to make them tender. The holding time should, for example, be 30–90 minutes at a core temperature of 60–75°C. The more tissue, the more important the holding time becomes.

Buffets and displays

Meats prepared for a buffet or sales counter display should have a core temperature above 75°C. Remove the meat after no longer than 3 hours or when the core temperature falls below 65°C. For more details, consult the official guidelines of your country.

Core temperature guidelines for fish

Product	Temperature guidelines
Fish without bones	55°C
Fish with bones	60°C
Fish paté	65°C

Core temperature guidelines for Delta-T

Result	Temperature guidelines
Rare	52–57°C
Medium-rare	59–62°C
Well-done	72–87°C

You should always follow the guidelines from your national food safety board.

TROUBLESHOOTING

If you experience issues with your oven, try the following solutions.

Error Code	Problem	Possible solution
3	Generator too hot	The generator thermo switch has tripped. Press the button under the oven to reconnect.
4	Oven too hot	The oven chamber thermo switch has tripped. Press the button under the oven to reconnect.
5	Fan too hot	The thermo switch in the motor has tripped. Wait for 10 minutes and then retry.
6	Drain too hot	The drain temperature has been above 75°C for more than 5 minutes. Check that the water is turned on. Check that the jet in the drain is working properly.
7	Oven sensor defective	The temperature sensor in the oven is not working. Contact authorized service personnel.
8	Core temperature probe not connected	You have selected a program that uses the core temperature probe, but the probe has to be connected.
9	Generator sensor defective	The temperature sensor in the generator is not working properly. Contact authorized service personnel.
10	Drain sensor defective	The sensor in the drain is now working properly. You can still use the oven.
11	Water shortage	The steam generator was not filled with water within 2 minutes. Check that the water is turned on. Contact authorized service personnel.

Error Code	Problem	Possible solution
12	SSR too hot	The solid-state relay is too hot. Clean the inlet filter at the bottom of the panel. Contact authorized service personnel.
13	Generator too hot	The temperature of the steam generator is higher than 130°C. If the error recurs, contact authorized personnel to descale.
14	Fan running too slow	Check the inlet filter at the bottom of the panel. If the error recurs, contact authorized service personnel.
16	IO board too hot	Contact authorized service personnel.
19	Internal defect	An internal software error occurred. Restart the oven.
20	Internal defect	A communication failure occurred between the computer and the IO board. Contact authorized service personnel.
21	Invalid program	You have chosen a program that is not supported by the oven.
22	Programme interrupted	A program in progress was interrupted because of a power supply interruption. The power supply interruption lasted so long that the program cannot be restarted.
24	Draining failure	The steam generator could not be emptied during flushing. The level sensor reports high water level when the generator is emptied. Contact authorized service personnel.
25	ClimaOptima®	The ClimaOptima® function has not been calibrated. Go to the service menu to calibrate.

Error Code	Problem	Possible solution
26	ClimaOptima®	The ClimaOptima® sensor is defective. The pressure sensor does not generate the correct signal. Contact authorized service personnel.
28	Alarm defective	An invalid combination of the main alarms has been detected. The main alarms are not displayed correctly. Contact authorized service personnel.
29	Door sensor defective	The door sensor does not work properly. The oven does not stop operating when the door is opened. The oven can still be used. Try to calibrate the door sensor.
34	Water pressure too low	Check that the water is turned on.
36	No detergent.	The detergent or rinse aid container is empty. Refill detergent or rinse aid.
38	Detergent in oven	CombiWash® was interrupted while there was still detergent in the oven chamber. Run CombiWash® Flush before using the oven.
39	Memory insufficient	There is insufficient memory to run the selected operation. Contact authorized service personnel.
40	IO board hot	The internal temperature of the IO board has been too high. Clean the inlet filter at the bottom of the panel. Note that this is a warning. If the temperature continues to rise, the oven will stop and display error code 16.
41	Main alarm	The steam generator thermo switch has tripped during out-of-service time. The main contactor has been disconnected. Contact authorized service personnel.

Error Code	Problem	Possible solution
42	SW defect	A software defect has been detected during operation. The steam generator was activated by mistake. Contact HOUNÖ technical support.
45	24V failure	There is no 24V AC. The main contactor output is not working. Check fuse F1.
50 / 60*	Pressure switch active	The pressure switch or gas valve input is active when the fan is not running. Try to restart oven. Contact authorized service personnel.
51 / 61*	Pressure switch failure	The pressure switch is not active when the gas-air control unit is running. Try to restart oven. Contact authorized service personnel.
52 / 62*	Gas valve failure	The automatic gas burner control has failed to switch on the gas valve. Try to restart the oven. Contact authorized service personnel.
53 / 63*	Fan rpm	The gas-air control unit does not revolve while the pressure switch is active. Try to restart the oven. Contact authorized service personnel.
54 / 64*	Fan error	The gas-air control unit does not run at the correct rpm just before ignition. Try to restart the oven. Contact authorized service personnel.
55 / 65*	Ignition failure	Ignition failed. Try to restart the oven. Contact authorized service personnel.
56 / 66*	Gas failure	The flame has failed to occur after three attempts to ignite. Try to restart oven. Contact authorized service personnel.
57 / 67*	Stop during operation	There was a gas failure during operation. Try to restart the oven. Contact authorized service personnel.
68	Deliming is needed	Run the deliming program to descale the steam generator.

Error Code	Problem	Possible solution
69	Deliming is needed soon.	Prepare to run the deliming program to descale the steam generator.
70	Deliming flush is needed.	Run the flushing program for the steam generator.
71	Core probe warning	Contact authorized service personnel
80	Forced wash is soon needed	Wash the oven. Use one of the washing programs soon.
81	Forced wash is needed.	The oven must not be used again before the oven has run one of the CombiWash programs.
82	Filter change is soon needed.	Replace the filter soon before the capacity limit is reached.
83	Filter change is needed.	Replace the filter.
84	User ignored detergent warning.	Change the HOUNÖ PROTECT detergent. IMPORTANT! Neglecting to change the detergent will jeopardize the warranty.
85	User ignored rinse aid change.	Change the HOUNÖ PROTECT rinse aid. IMPORTANT! Neglecting to change the rinse aid will jeopardize the warranty.
86	User ignored filter change	Change the HOUNÖ PROTECT Hydro Shield water filter. IMPORTANT! Neglecting to change the water filter will jeopardize the warranty.
89	Gas box communication error	Contact authorized service personnel.
90	The fan is too slow	Contact authorized service personnel.
91	Frequency inverter error	Contact authorized service personnel.
95	Power failure, oven did not resume	Contact authorized service personnel.
96	Power failure, oven did not resume.	Contact authorized service personnel.

Error Code	Problem	Possible solution
100, 200, 300	Communication error between the CPU and the gas box.	Contact authorized service personnel.
101, 201, 301	No flame detected after three start attempts.	Contact authorized service personnel.
102, 202, 302	False flame.	Contact authorized service personnel.
103, 203, 303	High limit.	Contact authorized service personnel.
105, 205, 305	Gas fan speed error.	Contact authorized service personnel.
108, 208, 308	Flame circuit error.	Contact authorized service personnel.
109, 209, 309	Valve driver circuit error.	Contact authorized service personnel.
113, 213, 313	All gas box resets used up.	Contact authorized service personnel.
119, 219, 319	Flame lost while running.	Contact authorized service personnel.
121, 221, 321	ADC error.	Contact authorized service personnel.
125, 225, 325	CRC error.	Contact authorized service personnel.
126, 226, 326	Gas box reset know error	Contact authorized service personnel.
134, 234, 334	Low mains voltage.	Contact authorized service personnel.
199, 299, 399	Unknow gas fault.	Contact authorized service personnel.

*Error codes 60-67 relates to gas fan 2 for gas ovens 1.20 roll-in and 2.20 roll-in. Try to restart the oven. Contact authorized service personnel.

SERVICE AND REPAIR

- It is highly recommended the oven is inspected at least once a year by authorized installation and service personnel to ensure safe operation and preventative maintenance measures.
- All maintenance and repair must be carried out by 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.
- **WARNING:** During service and when replacing parts the oven must be disconnected from its power source. The service technician must at all times during maintenance and repair be able to see that the power plug is disconnected.
- 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 oven. Cleaning products specifically developed for HOUNÖ ovens are available for purchase on www.houno.com.

CONTACTING SUPPORT

You can reach HOUNÖ Technical Support at techsupport@houno.com.

WARRANTY TERMS

To see the complete list of warranty terms, please go to our webpage:

<http://www.houno.com/support/technical-support/4-year-warranty.aspx>.

This page is intentionally left empty.

RECIPES



Béarnaise sauce



Chocolate hot pots



Spareribs



Roast chicken



Grilled salmon



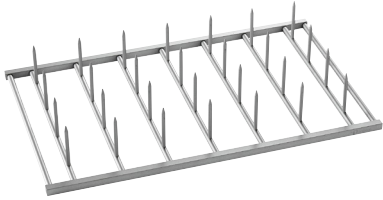
Tart tatin

Sign up for our recipe of the month.

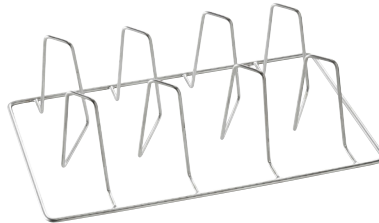
Receive our new recipes and gain access to the HOUNÖ recipe collection.

For more information visit www.houno.com.

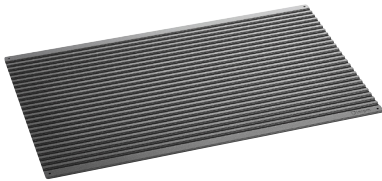
ACCESSORIES



Potato spike for baked potatoes



Chicken grid for whole roast chickens



Eterna coated multi-tray for pizzas



Eterna coated roasting trays of different depths



Grilling grid for grill marks

For more information visit www.houno.com.

Here you can see the whole range of HOUNÖ accessories and what they can do for your kitchen.

GET IN TOUCH

As your combi oven specialist, we always do our utmost to help our customers. Worldwide.



HOUNÖ A/S
ALSVEJ 1
DK-8940 RANDERS SV
DENMARK

T: +45 8711 4711
E: houno@houno.com

www.houno.com

PART OF
 **THE MIDDLEBY CORPORATION**