

# Hold-o-mat<sup>®</sup>

Bedienungsanleitung – Instructions de service – Operating instructions

323, 311, 411, 711





Vor Inbetriebnahme lesen! A lire avant la mise en service! Please read before use!

### Deutsch: Seite 3

Bitte studieren Sie diese Bedienungsanleitung vor Inbetriebnahme des Gerätes und beachten Sie die Sicherheitshinweise.

### Français: Page 23

Veuillez étudier ces instructions de service avant la mise en marche de l'appareil, et observez les indications relatives à la sécurité.

### English: Page 43

Please study these instructions before using the unit and observe the safety notes.





### Congratulations!

By choosing the Hold-o-mat, you now own the warming oven which has been developed from years of practical experience for professionals. Congratulations!

Enjoy the unique advantages that only the Hold-o-mat can offer, such as precision temperature control of +/- 1°C, and efficient dehumidification. Great emphasis has been put on simple operation, so that you can put the unit into operation quickly and efficiently. However, if there are any unclear points, please contact your nearest specialist supplier. We hope you will enjoy using your product.

These instructions contain the information needed for the unit to be used correctly, operated safely, and maintained properly. As with all electrical appliances special care must be taken to avoid injuries, burns or damage to the unit. People who have not read the operating instructions should not use the unit.

Reto Hugentobler Owner Hugentobler Swiss Cooking Systems AG

www.holdomat.com/videos



www.hugentobler.com/downloads

### Introduction

These operating instructions can not take account of all possible applications. For further information, or if problems arise that are not sufficiently covered in these instructions, please consult your local specialist supplier or contact us directly. We will be pleased to help you.

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# Safety Precautions

General safety instruction	Anyone who is involved in the setting up, use and maintenance of the Hold-o-mat warm holding cabinet must have read and understood all the operating instructions, especially the "Safety precautions" section. This warm holding cabinet has been manufactured and tested in ac- cordance with the applicable standards. When using electrical equip- ment, a number of basic safety precautions must be taken in order to avoid possible injuries and damage. Please read these instructions carefully and store them in a safe place.
	We accept no liability for accidents and damage arising from failure to observe these operating instructions.
Warning triangle	All the safety notes in these operating instructions give users advance warning about possible dangers. These particular points of interest for users are indicated by a warning triangle. Such notes must be read and acted on by the user.
Warning: magnetic field	Do not bring magnetic data carriers such as diskettes, credit cards, cheque cards, ID cards with magnetic stripes, pacemakers or watches into contact with the magnets on the door opening.
Connect was and	<b>T</b>
Correct use and application	The Hold-o-mat warm holding cabinet is designed solely for food prepa- ration. Never use the unit to heat chemicals or other materials. This could lead to the buildup of poisonous or explosive gases. Never use the unit for drying textiles, paper or similar materials. There is a danger of melting or burning. Do not use the unit for storing crockery or cook books, either in or on the unit. The unit is designed for use in large kitchens such as in restaurants or hotels, as well as commercial premises such as bakeries and butchers. The unit is not designed for domestic use; it is not for use in areas where exceptional circumstances prevail such as corrosive or explosive atmospheres (dust, steam, gas); it is not for industrial use or for the mass production of food.

Electrical supply, power cable	Electricity can be lethal! Improper operation of the unit can cause fire. For your own safety and the safety of others, please follow the safety precautions precisely as outlined in these instructions. Never touch live components. This could cause an electric shock which can lead to serious injury or even death. Only connect the unit to alternating current of 230V (optional 110V) / 50/60Hz. The plug must have a minimum fuse rating of 10A. Never operate the unit with a defective power cable. Get a qualified electrician to replace damaged plugs and cables immediately. Do not run the power cable around corners or sharp edges and ensure that the power cable cannot be crushed. Never pull the unit by the power cable. Never pull the plug from the socket with wet hands. Protect the power cable from oil and never rest it on hot objects. The three-pin plug must not be replaced by a two-pin one.
Location	Install the unit on a sturdy surface and make sure that all the unit's openings are always freely accessible to ensure adequate air circulation.
Before use Suitable containers	Do not use if the unit is damaged or faulty. 1/1 (2/3) trays and grills made of chrome nickel steel (CNS) 65 mm 1/1 (2/3) Gastronorm containers in conformity with EN 631, made of CNS 100 mm 1/1 (2/3) Gastronorm containers in conformity with EN 631, made of CNS
Unsuitable containers Maintenance	<ul><li>Plastic, synthetic and other non-heat resistant containers.</li><li>Cleaning: Remove the plug and allow the unit to cool.</li><li>Repairs: If faulty or defective, remove the plug from the socket immediately. Never use a damaged unit.</li><li>Please note that the outside of the unit must not be sprayed with excessive amounts of water or other liquids. Repairs must only be carried out by authorised specialist electricians or by our repair service.</li></ul>

### Package contents

Content	The package contains: 1 unit, 2 side rails, 1 set of operating instruc- tions, 2 power cables (1 x EU/1 x CH). Optional: 1 Core temperature probe. Check the package contents. If parts are missing, return immedi- ately to your supplier. The product has been supplied to you in cardboard packaging. Dispose of the packaging properly or return it to your supplier.
Damage in transit	Check the unit for visible signs of damage. Do not use the unit if defective. Report the damage immediately to your supplier.

### Placement requirements

The Hold-o-mat can be used in many different parts of the kitchen, preferably in a central location, not in a remote corner. Thanks to its ease of installation (no water, drainage or air extraction connections), the unit can be placed anywhere. Ensure, however, that the power supply is 230 V (optional 110 V) / 50/60Hz. If the Hold-o-mat is built-in, sufficient cool air should be allowed to circulate. The Hold-o-mat does not have to be tied to one location. It can be used in a variety of places such as the kitchen, lounge, and for parties etc.

If the unit is permanently installed in one place and cannot be disconnected from the mains by a switch, the plug on the power cable must remain accessible.



- Place the unit on sturdy surface.
- Ambient temperature + 10 °C to + 40 °C. Do not place the unit next to or on top of hot surfaces (radiators or hot plates): there is a **danger of** melting, fire or short circuit!
- Never bring the unit into contact with water or other liquids as there is a danger of short-circuit!
- To ensure adequate air circulation, all sides of the unit must be kept a minimum of 10 mm from walls and other objects.

### Setting up

Customer service instructions

Warning: magnetic field



Rehinging the door

Do not bring magnetic data carriers such as diskettes, credit cards, cheque cards, ID cards with magnetic stripes, pacemakers or watches into contact with the magnets on the door opening.

Customer service staff with active body aids (such as pacemakers) may only use the device under special precautions. The operator must ensure that external persons with active body aids (such as pacemakers) do not come into contact with the magnets when the door is opened.

The door can be easily rehinged within 10 to 15 minutes. Because the unit casing has to be opened for this purpose, current-carrying parts will be exposed. The door may only be rehinged by specialist personnel (qualified electrician, service fitter, Hugentobler AG authorised sales person), and only in accordance with the customer service instruction provided for this purpose.

Withdraw the mains plug from the socket. Withdraw the plug from the equipment socket of the unit controller. Store the power cable where it is inaccessible to other persons for the duration of the customer service work. Remove the two lower hinge screws and unhinge the door. Remove the screws on the opposite side which hold the casing in place at the bottom front, remove 2 additional screws under casing. At the rear of the unit, remove all screws attaching the housing to the rear wall.

Slide the casing towards the rear and at the front of the unit press the main insulation slightly backwards in order to gain access to the two earth plates on which the four magnets are located. Dismantle the two earth plates and fit them on the opposite side. Slide the main insulation forwards again and slide the casing into the front panel.

Securely tighten all screws on the rear panel. Securely tighten the screws which hold the casing in position at the bottom front. Unscrew the upper hinge pins and fit them on the opposite side. On the side of the door on which the door hinge sleeves are fitted, remove the cover caps located on the inside of the door. Remove the cover caps on the narrow side of the door. Lever the door hinge sleeves out of the holes using a suitable slotted screwdriver and fit them on the opposite side.

	Refit the cover caps on the narrow side and the inside of the door. The door must not be fitted upside down, as in this case the dehumidification vent would no longer be in the optimum position. Therefore, the door handle must also be repositioned. To do this, dismantle the door handle and fit it on the opposite side. Rehinge the door on the upper door hinge pin and secure it by firmly tightening the lower door hinge.
Power connection	Connect the power cable to a socket with a 230V (optional 110V) / 50/60Hz supply.
Cleaning	Before using for the first time, it is imperative that the white protective film be removed. In addition, we recommend that the unit be dusted inside and out, with a damp cloth.
Practical tips	
General use	$\rightarrow$ Thanks to very precise temperature control and the special dehumid- ification system, the Hold-o-mat can keep food warm, especially meat and bakery products, over long periods in prime condition while improv- ing quality. Vegetables and other side dishes can also be kept warm.

Meat

→ The optimal temperature for keeping meat warm over a period of hours is about 5–10 degrees above the desired core temperature (max. 5 hours). If different cuts of meat e.g. red and white, large sides and small off cuts are to be warmed together, set a temperature of between 68° to 72°C.

 $\rightarrow$  With every hour that the meat is kept warm in the Hold-o-mat it becomes more tender. Please note, however, that the meat should not be stored for too long, as this can adversely affect its taste. Best results are obtained by using relatively fresh meat kept warm for under five hours.

 $\rightarrow$  Ideally, meat should be inserted into the Hold-o-mat on grilles. Meat juices can be collected in a tray on the interior floor. This way, precise regular temperature is guaranteed and the meat does not lie in its own juices as on a tray. The dried-on residue on the tray is easier to remove than if a tray is used on every level.

#### 

Searing stage: Sear the meat on the grill, or in the pan.

**Initial cooking stage:** Cook the meat at 120 °C for at least 10 minutes in the pre-heated Hold-o-mat. Volumnious pieces of meat can be cooked 30 min. at 120 °C.

**Cooking stage:** Set the temperature 30 °C higher than the desired core temperature.

**Hold stage:** After reaching the desired core temperature, set the Holdo-mat 5 °C higher than the core temperature. The meat can now be kept for hours at the optimum holding temperature

 Dehumidifier
 → The humidity level inside the unit can be regulated precisely and visibly by means of the 3-stage dehumidifier on the door. Normally the dehumidifier is closed for vegetables and cooking au gratin, and completely open for bakery products, deep-fried and breaded foods (min. 80 °C). The half-open setting for other foods can be used as you see fit. Please direct all questions to your specialist.

*Temperature regulator* → Please note that opening the door frequently can lower the effective actual temperature, and thus the temperature of the food. (Due to the in-built time lag, the indicator does not react so quickly). If this reaction is noticed, increase the desired temperature by a few degrees.

 $\rightarrow$  If an over-warm product is put directly into the Hold-o-mat from a combisteamer, the actual temperature can rise dangerously depending on the product. (The actual temperature flashes, if the temperature is 5 °C too high.) Please correct this normal occurrence by leaving the door open slightly longer, or preferably leave the meat to stand for a while outside the unit and put it in when it reaches the right temperature.

 $\rightarrow$  Only load the unit with warm foods using grilles or trays on the rails supplied.

Cold or frozen food $\rightarrow$  Loading with cold or frozen food can trigger off the heat cut out.Interior floor $\rightarrow$  Using the interior floor as a work surface can lead to the food over-

heating (use the lowest level)

Temperature sensor $\rightarrow$  Allowing food to touch the temperature sensor (set into the roof of<br/>the interior) can lead to false air temperature readings.

### Controls



### Switching off

After use the U button is used to switch the Hold-o-mat off. Please do not forget to clean the unit after use as outlined in the section on "Maintenance, Cleaning", page 58.

Model 323, 311, 411: "Hold with informative core temperature" function

The optional (also retrofit) core temperature measuring sensor (CT) is simply connected to the corresponding magnetic connector (on the inside, front right) with the magnetic contact switch. The cable must point downwards and the magnets align the connector automatically.

A third signal "CT" for core temperature then appears in the display.



Model 323, 311, 411: "Cook & Hold with fully automatic cooking phases" function

Press and hold (2 sec.) button <sup>1</sup>/<sub>4</sub> to show the programs in the display.

	Delta T
>	Program 0
	Program 1

Use the buttons  $\checkmark$  or  $\checkmark$  to change between the programs 0–8 or the Delta-T program. The larger display in the middle is always active.

- Program 0 and Delta-T are not protected and can be reprogrammed daily depending on the day's offer.
- Programs 1-8 are protected against random changes since recurring processes are usually saved.
- If you wish to make a deliberate change you can also press the Up + Down buttons simultaneously to authorize a change.



Press button **briefly** to start the active program.



The "Play icon" in the top right shows that the program is running. You can also see that you are in phase 1 of 3.

When the program is running, you can press and hold button 4 (Program/Enter) to change to the next phase. No changes can be entered when the program is running.

The following selections are possible:

- Press button + to find out the current core temperature during phase 1 (with time).
- Press button to find out the overall programing when the program is running.

Important: programs only function with the connected core temperature measuring sensor (CT), unless it is a simple time program with only phase 1. "Error messages" appear without this sensor; these are described later on.

Press **and hold** button to start the programming mode in larger program in the middle.



 The value to be changed "flashes" and can be changed with the Up or Down button. Press button 4 (Program/Enter) briefly to change to the next value.

You can also deactivate phases by setting a value in the phase to below the minimum value. Deactivated phases have a white background.

Program 1				
Phase 1	Phase	2	Phase	e 3
Time Temp	CT	Temp	СТ	Temp
00:10 110	53	80	50	68

If phase 2 has been deactivated, phase 3 is also automatically deactivated and only phase 1 (with time) is activated. This would be now only a simple time program which would also work without a CT sensor.

### Settings

Start the parameter mode = With the unit switched off, press or +, keep this button pressed and simultaneously press the main switch. The following then appears in the display:



Scroll through the various parameters with  $\checkmark$  and + Press button 4 (Program/Enter) briefly to select the larger parameter in the middle (flashes) and you can now change the value on the right with Up + Down. This altered value is saved by pressing button 4 again.

Possible parameters and their explanation:

Language	(default = German) Select the desired language
Volume	(default = 3) Volume of audio signal (0 – 5)
Powerfail	<ul> <li>(default = 5)</li> <li>Highest value (in degrees Celsius), which the unit may lose in the event of a power failure to restart automatically – when power is restored – and continue with the program.</li> <li>If the power is interrupted for longer and the unit loses more than 5 °C, for example, we have an HACCP quality problem. The unit does not switch back on and the error message "Power failure" appears.</li> </ul>
Autostart	(default = off) If the unit is to switch on automatically (by means of a timer between the socket and Hold-o-mat) this parameter has to be switched over to "On". Disadvantage: In the event of a power failure overnight, the unit switch- es back on when the power is restored.
P. Red.	(default = on) Switches the second temperature sensor (heat sensor) off if this is faulty but you wish to continue using the Hold-o-mat until the service engineer can change the sensor.

# Interesting additional information

Lateral rails	Some of the lateral rails are adjustable. Tools are needed for this adjust- ment. The idea is not to change this before each service but to adjust it once for the most commonly used size of container.
Heating indicator	The heating indicator appears between times in the display. This is normally filled out completely. If the heating indicator appears as a circle, this means "Power reduction" because the heating wire has become too hot. This reduction is usually corrected automatically without the safety thermostat being triggered.
Delta-T program (Model 323, 311, 411)	Delta-T cooking takes place in phase 2 where you can determine the Delta-T and the core temperature. The Hold-o-mat now tries to always reach or hold the Delta-T depending on the weight and starting temperature.
	You can use or deactivate phase 1. For example, as a time phase for pre-heating or to bring large amounts of food up to a base temperature. Phase 3 can be used or deactivated and conceived for subsequently keeping food warm. Warning: if the Delta-T is quite high, the core temperature may follow suit and has to be corrected by a prompt switchover.
	We leave it up to you and your expertise to use the Delta-T program. The Hold-o-mat 411 is the only unit in the world that allows this. Hugentobler master chefs recommend low-temperature cooking (Cook&Hold) with the programs 1–8.
Temperature indication (Model 323, 311, 411)	If the meat is very cold and the CT sensor measures below 0 °C, the Hold-o-mat will work, but the core temperature will only be shown correctly above 1 °C. The unit also works correctly between $-20$ °C and $+160$ °C at room temperature, though the temperature is only shown in the display between 0 °C and 160 °C.
Sensor not in use (Model 323, 311, 411)	If the CT sensor is not in use store elsewhere (e.g. in the original pack- aging) so that you can find it again when needed or put it away in the dehumidification unit in the door as shown in the photo.



### Troubleshooting

A few tips if the product does not turn out as desired:

Problem	Cause	Possible solution
The product over-cooks and becomes dry.	Desired temperature too high above core temperature.	Set correct desired temperature or allow meat that is too hot to cool outside the oven first.
Although the product is good, it is not warm enough.	Desired temperature too low below core temperature.	Set the correct desired temper- ature or, if the door is opened frequently, deliberately adjust the desired temperature upwards.
The product is too dry or too damp.	The moisture content in the cham- ber is not correct.	Use the dehumidifier on the door to adjust the humidity to suit the product.
The taste, consistency or general quality of the product is not satisfac- tory.	Basic problem in preparation or incorrect conception of finished product after warming up.	Contact your nearest specialist and look for possible answers.

### In case of technical problems

Problem	Possible solution
The unit does not switch on, or the indicator does not light.	The power supply has been cut off. Please check the building's fusing, the fusing on the unit (within the controls) and both plugs on the power cable.
The actual temperature keeps falling, although it should rise.	A fault has occurred due to a power fluctuation and the control system is no longer sending signals to generate heat. Isolate the unit from the power supply for a few minutes and then switch on again. If after switching on again the heating indicator is not visible after one minute, repeat the whole procedure.

Problem	Possible solution
The heating indicator lights but the actual tem-	The overheating cut out has been triggered (the unit has been loaded with cold or frozen food or the control system is defective).
perature decreases or the unit remains cold.	1. Switch off the unit using the button and disconnect from the power supply.
	2. The overheat protection is mounted beneath the unit and can easily be reset with a wooden toothpick (break and use the flat end).

If none of these possible solutions has produced an improvement, consult your local service centre, electrician or specialist retailer!

# List of faults

Error message	Situation	Possible solutionCall for service: check and change sensor or reconnect contact (connector).Connect CT sensor to the magnetic contact with magnetic connector or replace faulty CT sensor.Call for service: Connect or replace magnetic contact.	
Sensor fail	Temperature sensor (interior) defective or not connected to the control system. No further work possible.		
No core probe	CT sensor not connected to mag- netic contact or magnetic contact not connected to control system. Variant: CT sensor is defective. Work still possible, but without CT sensor.		
Heatsensor fail Second sensor to check the heat- ing temperature is defective or not connected to the control system. Continued work possible by acknowledging with button 4 (Program/Enter). Parameter is automatically deactivated, error message no longer appears – "P.Red" is deactivated.		Acknowledge the fault with P/	

Error message	Situation	Possible solution	
Powerfail	Power failure for longer than de- fined in the "Powerfail" parameter. HACCP safety no longer guaran- teed, thus the unit does not switch back on and the food has to be disposed of.	Not a fault, simply information. If this occurs frequently, have your house installations checked by an electrician.	
No heating	The unit does not heat up despite the heating indicator in the display. heating wire broken, safety ther- mostat has triggered or electronics are faulty.	Reset safety thermostat (beneath unit) with a toothpick. Call for service: Replace heating or control elec- tronics.	
No program	No program saved when it should be started.	First program a program or select a different program number.	
Set core probe	You have forgotten to insert the CT sensor into the meat when starting a program with core temperature.		

### Maintenance

Cleaning	1. Switch off the unit with the button and disconnect from the power supply.		
	2. Take the trays, grilles and dishes out of the Hold-o-mat and clean separately.		
	3. Also tilt the side rails downwards into the centre of the cooking area and pull out towards the front.		
	4. Clean the whole interior and exterior with a mild fat dissolver and leave to dry. Do not use irritating, abrasive or poisonous cleaning materials.		
	5. If required, clean the air inlet. If dirty, the dehumidifier built into the door can be removed by pulling it forwards (angle of 45°), and washed separately. If necessary, the door seal can also be removed, cleaned and reattached. (Important: <b>Never</b> use the unit without the door seals.)		

6. After every thorough clean-up, heat the unit quickly to 120 °C. This 120 °C setting allows the unit to be sterilised and any micro-organisms are killed off. Please ensure that the dehumidifier on the door is closed, as high humidity makes the sterilisation more effective.

7. Please note that the exterior of the unit must not be sprayed with water or other liquids. High-pressure cleaners or steam-cleaners may not be used.

Maintenance

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The Hold-o-mat has no special regular service requirements. However, please ensure that it is functioning properly and contact the service centre promptly if any changes are noticed.

### Overhaul and repair

The technical side is problem-free, allowing any authorised electrician using original spare parts to carry out all repairs. Of course the specialist service centre is at your service. However, in some cases it may be more economical to have repairs carried out locally.

### Guarantee

We guarantee the Hold-o-mat for one year.

We do not accept responsibility for damage caused by:

- incorrect operation
- using the product for the wrong purposes
- improper repairs
- or if spare parts or accessories not supplied by the manufacturer are used or built in

In all these cases, the guarantee is void.

The guarantee is only valid if original spare parts are used.

### Unit information

Model	Hold-o-mat 323	Hold-o-mat 311	Hold-o-mat 411	Hold-o-mat 711	
Product no.	323 CT sensor: KT-MAG	311 CT sensor: KT-MAG	411 CT sensor: KT-MAG	711	
Capacity	3 x 2/3-65 mm or 2 x 2/3-100 mm	3 x 1/1-65 mm or 2 x 1/1-100 mm	4 x 1/1-65 mm or 2 x 1/1-100 mm	7 x 1/1-65 mm or 4 x 1/1-100 mm	
Size W x D x H (mm)	410 x 506 x 346	416 x 667 x 346	416 x 667 x 423	416 x 667 x 646	
Weight	21 kg	24 kg	27.5 kg	38 kg	
Power supply	1050 W	1050 W	1500 W	1800 W	
Voltage, Fuse	230 V   50/60 Hz, 10 A (Option against surcharge: 110 V, except 711)				
Storage temperature	0°C to + 50°C				
Ambient temperature	+10°C to + 40°C				
Temperature range	+20 °C to +120 °C				
Average power consumption per hour	approx. 300 W	approx. 300 W	approx. 300 W	approx. 500 W	
Splash protection	IPX3				
Equivalent noise level	< 70 dB(A)				
Safety gap	from walls and other equipment at least 10 mm				
Sensitive heat emission	0,5 kW	0,5 kW	0,6 kW	0,8 kW	
Latent heat emission	0,2 kW	0,2 kW	0,3 kW	0,35 kW	
Applications	Cooking, warming	Cooking, warming	Cooking, warming	Warming	

Keep these instructions safely. Please make sure that other users also receive the instructions.

### Disposal

At the end of its life the unit should be disposed of in accordance with national legislation. It is recommended that a specialist disposal company be contacted.

### Anhang – Annexe – Annex







*Effizienter kochen, besser essen. Plus d'efficacité en cuisine. Plus de saveurs dans l'assiette. Cook more efficiently, eat better.* 

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