

# Silversteam 5230D - 5110D - 7110D - 10110D



117623 - 117625 - 117627 - 117630

Bartscher GmbH Franz-Kleine-Str. 28

D-33154 Salzkotten

Germany

Phone: +49 5258 971-0 Fax: +49 5258 971-120

Technical Support Hotline: +49 5258 971-197

www.bartscher.com



Version: 1.0

Date of preparation: 2021-02-03



# Original instruction manual

1	Sa	atety	2
	1.1	Explanation of Signal Words	2
	1.2	Safety instructions	3
	1.3	Intended Use	6
	1.4	Unintended Use	6
2	G	eneral information	7
	2.1	Liability and Warranty	7
	2.2	Copyright Protection	7
	2.3	Declaration of Conformity	7
3	Tr	ransport, Packaging and Storage	8
	3.1	Delivery Check	8
	3.2	Packaging	8
	3.3	Storage	8
4	Technical Data		9
	4.1	Technical Specifications	10
	4.2	Functions of the Appliance	14
	4.3	List of Components of the Appliance	15
5	Installation Instructions		16
	5.1	Installation	16
	5.2	Inspections and Commissioning Test	21
6	Operating Instruction		23
	6.1	Operation	26
	6.2	Thermal processing	30
	6.3	Functions menu	56
7	Cleaning and Maintenance		59
	7.1	Safety Instructions for Cleaning	59
	7.2	Cleaning	60
	7.3	Maintenance	62
8	Po	ossible Malfunctions	63
9	Di	isposal	64





# Read this instruction manual before using and keep it available at all times!

This instruction manual contains information about installation, operation and maintenance of the appliance and constitutes an important source of information and reference guide. The knowledge of all operational and safety instructions included in this manual is a prerequisite for safe and proper handling of the appliance. Additionally, accident prevention, occupational health and safety, and legal regulations in force in the area the appliance is used apply.

Before you start using the appliance, especially before turning it on, read this instruction manual in order to avoid personal injuries and property damages. Improper use may cause damage.

This instruction manual forms and integral part of the product and must be stored in an immediate vicinity of the appliance and be available at all times. The instruction manual should be transferred together with the appliance.

# 1 Safety

ΕN

This appliance has been manufactured in accordance with technical standards currently in force. However, the appliance may be a source of hazards if used improperly or contrary to its intended purpose. All persons using the appliance must consider information included in this instruction manual and observe safety instructions.

# 1.1 Explanation of Signal Words

Important safety instructions and warning information are indicated in this instruction manual with appropriate signal words. You must strictly follow the instructions, to prevent accidents, personal injuries and property damages.



The signal word **DANGER** warns against hazards that lead to severe injuries or death if the hazards are not avoided.





# **WARNING!**

The signal word **WARNING** warns against hazards that may lead to moderate or severe injuries or death if the hazards are not avoided.



# **CAUTION!**

The signal word **CAUTION** warns against hazards that may lead to light or moderate injuries if the hazards are not avoided.

#### **IMPORTANT**

The signal word **IMPORTANT** indicates possible property damages, which may occur if safety instructions are not observed.

#### NOTE!

The symbol **NOTE** indicates subsequent information and guidelines for the user on usage of the appliance.

# 1.2 Safety instructions

#### **Electrical Current**

- Too high a mains voltage or incorrect installation may cause electric shock.
- The appliance may be connected only if data on the rating plate correspond with the mains voltage.
- To avoid short-circuit, the appliance should be kept dry.
- If there are malfunctions during operation, disconnect the appliance from the power supply.
- Do not touch the appliance's plug with wet hands.
- Never take hold of the appliance if it has fallen into water. Immediately disconnect the appliance from the power supply.
- Any repairs or housing opening may be carried out by professionals and relevant workshops only.
- Do not transport the appliance, holding it by the power cord.
- Do not allow the power cord to come into contact with heat sources or sharp edges.
- Do not bend, pinch nor knot the power cord.

117623 3 / 66



- · Always completely unwind the power cord.
- Never place the appliance or other objects on the power cord.
- Always take hold of the plug to disconnect the appliance from the power supply.
- Check the power cord regularly for damage. Do not use the appliance if the power cord is damaged. If this cable is damaged, it must be replaced by customer service or a qualified electrician in order to avoid dangers.

#### Flammable Materials

- Never subject the appliance to contact with high temperature sources, e.g.: oven, furnace, open flame, heat generating devices, etc.
- To avoid fire hazard, clean the appliance regularly.
- Do not cover the appliance with, e.g., aluminium foil or cloths.
- Use the appliance only with materials designated to this end and with correct temperature settings. Materials, groceries and left-overs remaining in the appliance may catch fire.
- Never use the appliance near flammable or inflammable materials, e.g.: petrol, spirit, alcohol, etc. High temperature triggers evaporation of these materials, and, as a result of contact with sources of ignition, an explosion may occur.
- In case of fire, disconnect the appliance from the power supply before attempting suitable fire-extinguishing actions.
- Never attempt to extinguish fire with water if the appliance is connected to the power supply. Following extinction of fire, ensure sufficient fresh air inflow.

#### **Hot Surfaces**

- Surfaces of the appliance become hot during operation. Burning hazard! High temperature remains for some time after switching the appliance off.
- Do not touch any hot surfaces of the appliance. Use the provided handling elements and holders.
- You may transport and clean the appliance after it cools down entirely.
- It is prohibited to sprinkle hot surfaces with cold water or flammable liquids.

#### **Operating Personnel**

- The appliance may only be operated by qualified personnel and trained specialist personnel.
- This appliance may not be operated by persons (including children) with limited physical, sensory or mental capabilities, nor by persons with limited experience and/or limited knowledge.

#### Safety



 Children should be supervised to ensure that they are not playing with or switching on the appliance.

#### Supervised Usage only

- · Only supervised appliance may be used.
- Always remain in an immediate vicinity of the appliance.

#### **Improper Use**

- Unintended or prohibited use may cause damage to the appliance.
- The appliance may only be used when its technical condition is flawless and allows for safe operation.
- The appliance may only be used when all connections are executed according to rules of law in force.
- The appliance may only be used when it is clean.
- Use only original spare parts. Never attempt to repair the appliance on your own.
- Do not introduce any changes in the appliance nor modify it.

117623 5 / 66



#### 1.3 Intended Use

As described below, every use of the appliance for a purpose differing and/or diverging from its intended standard use, is prohibited and considered to be an unintended use.

The following is an intended use:

- Preparation of suitable food.

#### 1.4 Unintended Use

An unintended use may lead to personal injuries or property damages caused by hazardous voltage, fire or high temperature. The appliance may only be used to perform tasks described in this instruction manual.



#### 2 General information

# 2.1 Liability and Warranty

All information and instructions in this instruction manual account for legal regulations in force, current level of technical engineering knowledge as well as our expertise and experience, developed over the years. If special models or additional options are ordered, or state-of-the-art technical solutions were implemented, the actual scope of delivery of the appliance may, in some circumstances, differ from descriptions and numerous drawings in this instruction manual.

The manufacturer is not liable for any damages nor faults stemming from:

- failure to observe instructions.
- unintended use.
- technical alterations introduced by the user,
- usage of unapproved spare parts.

We reserve the right to introduce technical modifications to the product, intended for improvement of the appliance and its performance.

# 2.2 Copyright Protection

This instruction manual, and texts, drawings and images included in it, as well as its other components are copyright protected. It is prohibited to reproduce this instruction manual (including its excerpts), in any form and by any means, and to use and/or transfer its content to third parties without manufacturer's written permission. Violation of the above results in obligation to pay compensation. We reserve the right to claim further damages.

# 2.3 Declaration of Conformity

The appliance meets the currently applicable standards and guidelines of the European Union. We confirm the above in the EC Declaration of Conformity. We may provide relevant Declaration of Conformity upon request.

117623 7 / 66



# 3 Transport, Packaging and Storage

# 3.1 Delivery Check

Immediately upon reception, check the delivery for completeness and possible shipping damage. In the case of visible transport damage refuse to accept the appliance or accept it conditionally. Mark and note the scope of damage in shipping documents/consignment list of the shipping company and lodge a complaint. Concealed damage must be reported immediately upon its discovery, as compensation claims may only be filed within applicable time limits.

If you find that parts or accessories missing, please contact our Customer Service Department.

# 3.2 Packaging

Do not dispose of the appliance cardboard box. It may be used to store the appliance when relocating or when shipping the appliance to our service point in the case of any damages.

The packaging and its elements are made of recyclable materials. Particularly, these are: plastic films and bags, cardboard box.

When disposing of the packaging, observe applicable domestic regulations. Recyclable packaging materials should be recycled.

# 3.3 Storage

Leave the packaging closed until installation of the appliance; observe external indications concerning method of placing and storage. Store the packaging in the following conditions only:

- in closed rooms;
- in dry and dust-free surrounding;
- away from aggressive agents;
- in a location protected against sunlight;
- in a location protected against mechanical shocks.

In the case of extended storage (over three months), make sure you check the condition of the packaging and the parts regularly. If needed, replace the packaging with a new one.



#### 4 Technical Data

# Version / Characteristics of Combi Steamers 117623, 117625, 117627, 117630

- Series: Silversteam
- · Operating mode: electric
- Appliance connection: ready to plug in (117623) / 3NAC (117625, 117627, 117630)
- Functions:
  - convection
  - steaming
  - combi steaming
  - low temperature thermal processing
  - reversing motor direction (fan wheels)
  - steam production by means of direct injection
- Rack Control function
- · Temperature control: stepless
- · Type of guide rails: crosswise
- Continuous operation
- Thermal core probe connection: side
- USB port
- Fume extractor
- Internal lighting
- LED display:
  - steam injection
  - Delta-T thermal processing
  - thermal processing phases
  - core temperature
  - fan speed
  - program
  - temperature
  - time
- Control: touch
- Features:
  - Rounded baking chamber
  - Removable guide rails

117623 9 / 66



- Double door glazing, easy opening of internal door for cleaning
- LED lighting in door
- Socket (500 W) for connection of an extractor hood (except 117623)
- Important Indication: For water hardness exceeding 5° dH we expressly recommend using a suitable upstream water softener and keeping water pressure to maximum 3 bar.

# 4.1 Technical Specifications

Name:	Combi steamer Silversteam 5230D
Art. No.:	117623
Material:	CNS 18/10
Thermal processing chamber material:	CNS 18/10
Number of guide rail pairs:	5
Rail format:	2/3 GN
Distance between guide rail pairs, in mm:	74
Temperature range, minmax., in °C:	50 - 300
Time setting, from-to, in min.:	0 - 599
Number of thermal processing programmes:	99
Number of thermal processing phases:	8
Number of motors:	1
Number of stages of fan speed:	3
Water connection:	3/4"
Connected load:	3,3 kW / 230 V / 50 Hz
Dimensions (W x D x H), in mm:	620 x 775 x 675
Weight, in kg:	58,6

We reserve the right to implement technical modifications.

#### The set includes:

- 1 grate 2/3 GN
- 1 tray 2/3 GN
- 1 PVC discharge tube

#### **Technical Data**



- 1 water supply tube

Name:	Combi steamer Silversteam 5110D
Art. No.:	117625
Material:	CNS 18/10
Thermal processing chamber material:	CNS 18/10
Number of guide rail pairs:	5
Rail format:	1/1 GN, 600 x 400
Distance between guide rail pairs, in mm:	74
Temperature range, minmax., in °C:	50 - 300
Time setting, from-to, in min.:	0 - 599
Number of thermal processing programmes:	99
Number of thermal processing phases:	8
Number of motors:	1
Number of stages of fan speed:	3
Water connection:	3/4"
Connected load:	6,3 kW / 400 V / 50 Hz
Dimensions (W x D x H), in mm:	885 x 835 x 675
Weight, in kg:	87,2

We reserve the right to implement technical modifications.

#### The set includes:

- 1 grate 1/1 GN
- 1 tray 1/1 GN
- 1 PVC discharge tube
- 1 water supply tube

11/62



Name:	Combi steamer Silversteam 7110D
Art. No.:	117627
Material:	CNS 18/10
Thermal processing chamber material:	CNS 18/10
Number of guide rail pairs:	7
Rail format:	1/1 GN, 600 x 400
Distance between guide rail pairs, in mm:	74
Temperature range, minmax., in °C:	50 - 300
Time setting, from-to, in min.:	0 - 599
Number of thermal processing programmes:	99
Number of thermal processing phases:	8
Number of motors:	2
Number of stages of fan speed:	3
Water connection:	3/4"
Connected load:	9,6 kW / 400 V / 50 Hz
Dimensions (W x D x H), in mm:	890 x 830 x 865 mm
Weight, in kg:	106,8

We reserve the right to implement technical modifications.

#### The set includes:

- 1 grate 1/1 GN
- 1 tray 1/1 GN
- 1 PVC discharge tube
- 1 water supply tube

#### **Technical Data**



Name:	Combi steamer Silversteam 10110D
Art. No.:	117630
Material:	CNS 18/10
Thermal processing chamber material:	CNS 18/10
Number of guide rail pairs:	10
Rail format:	1/1 GN, 600 x 400
Distance between guide rail pairs, in mm:	74
Temperature range, minmax., in °C:	50 - 300
Time setting, from-to, in min.:	0 - 599
Number of thermal processing programmes:	99
Number of thermal processing phases:	8
Number of motors:	2
Number of stages of fan speed:	3
Water connection:	3/4"
Connected load:	12,6 kW / 400 V / 50 Hz
Dimensions (W x D x H), in mm:	890 x 830 x 1.065
Weight, in kg:	120,2

We reserve the right to implement technical modifications.

### The set includes:

- 1 grate 1/1 GN
- 1 tray 1/1 GN
- 1 PVC discharge tube
- 1 water supply tube

117623 13 / 66



#### **Protective Measures**

The combi steamer is equipped with the following safety and protective mechanisms:

#### Protective thermostat in thermal processing chamber:

if temperature in the thermal processing chamber reaches 350°C, the thermostat interrupts the supply circuit of the appliance's heaters.

#### WARNING!

That protection must be reactivated by technical service personnel as its operation indicates that other elements must be inspected.

#### Appliance door contact switch:

interrupts the appliance operation after opening the door — either the heating system or the fan are switched off. When the appliance door is closed, the operation is resumed.

# 4.2 Functions of the Appliance

The Silversteam series combi steamer with electronic control is designed for preparation of food and keeping it warm with the use of suitable accessories. Thanks to the Rack Control function various dishes may be prepared irrespective of various preparation time.

ΕN



# 4.3 List of Components of the Appliance

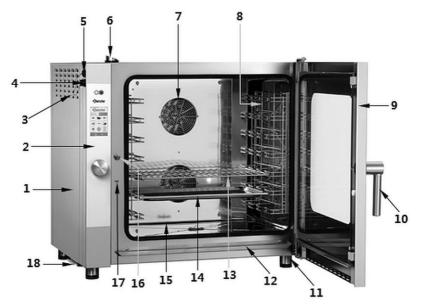


Fig. 1

- 1. Housing
- 3. Ventilation openings
- 5. USB connection
- 7. Fan (2 pcs)
- 9. Door
- 11. Height-adjustable feet (4 pcs)
- 13. Grate
- 15. Thermal processing chamber
- 17. Contact switch

- 2. Control panel
- 4. Thermal core probe connection
- 6. Fume extractor
- 8. Guide rails
- 10. Door handle
- 12. Drain tray
- 14. GN container
- 16. Door latch
- 18. Control panel ventilation filter

117623 15 / 66

# 5 Installation Instructions

#### 5.1 Installation



# CAUTION!

Incorrect installation, positioning, operation, maintenance or misuse of the appliance may lead to personal injury or property damage.

Positioning and installation, as well as repairs may be performed by authorised technical service only and in compliance with the applicable national law.

#### NOTE!

The manufacturer disclaims all liability and provides no warranty for damages, which may be attributed to non-observance of regulations or incorrect installation.

#### Place of Installation

ΕN

- The appliance is designed to operate in closed rooms and may not be used in open air nor subject to unfavourable atmospheric conditions.
- The appliance may be used in properly ventilated room in order to avoid excessive accumulation of harmful substances in the air.
- We recommend positioning the appliance under a fume extractor hood or to remove hot vapours and odours from the thermal processing chamber outside.
- The surface under the appliance must feature load-bearing capacity suitable for the appliance's weight with maximum load.
- Place the appliance on a stable, even, dry surface that features water resistance and high temperature resistance.
- The installation place must be easily accessible and sufficiently spacious to allow easy operation of the appliance.

#### Installation Instructions



- The appliance must be transported to the installation location in packaging, on its dedicated wooden pallet.
- Transportation must be executed with the use of pallet trolley, observing all
  safety precautions, in order to avoid the risk of tipping it over. Also, following the
  operation period, the oven must be transported on a pallet and manipulate with
  the highest caution, in order to avoid the risk of tipping it over.

#### **Unpacking / Positioning**

Remove the external packaging (wooden crate and/or carton box) and utilize it
according to regulations in force in the country of installation.

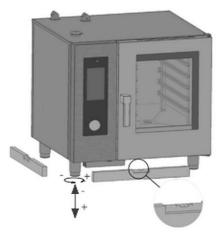


# **CAUTION!**

#### Choking hazard!

Prevent children from accessing packaging materials, for instance: plastic bags and EPS elements.

- Check if the appliance is undamaged.
- Before positioning the appliance, check the dimensions and exact positions of the electric, water, and extraction connections.



 Position the appliance vertically — to this end, the height of adjustable feet is set with a spirit level, as indicated in Fig. 2.

#### ATTENTION!

Differences in height or tilting may negatively influence the appliance's functionality.

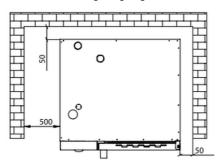
Fig. 2

 If the appliance is covered with a protective film, remove it. Remove the film slowly, so no glue residues are left. Remove any glue residues with the use of a suitable solvent.

117623 17 / 66



- Be careful not to damage the rating plate and warning labels affixed to the appliance.
- Remove all accessories, information materials, and plastic bags from the appliance.
- Check if ventilation openings and fume extractor are not covered nor obstructed in any way.
- Place the appliance in a way making the connections easily accessible, so that they may be quickly disconnected if such a need arises.
- Never place the appliance directly next to walls, low walls, division walls kitchen furniture, or other surfaces made of flammable materials. Unconditionally observe fire-fighting regulations in force.



- Maintain minimum clearance of at least 50 mm at the rear and sides between the appliance and walls or other objects (Fig. 3).
- Leave a clearance of 500 mm between the left side of the appliance and other objects for the purpose of facilitating installation and maintenance of the appliance.

Fig. 3

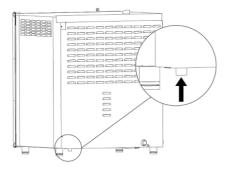
 When it is not possible to maintain the recommended clearance, employ appropriate protective measures (e.g. a foil made of a heat-resistant material) that will ensure keeping the wall temperature within the safe range (up to 60°C).

#### Installation Instructions



#### **Water Connection**

- Make sure that the potable water connection is located close to the appliance.
- In new installation is carried out, before the appliance is connected to water supply system, drain sufficient amount of water to prevent contamination of magnetic valves.



- Fix the included water supply hose to the appliance's connection element (3/4"). The connection is located under the appliance, to the right (Fig. 4).
- Connect the other end of the water pressure hose to cold water installation and install a closing valve and a filter between them.
- Make sure that the closing valve is installed in an easily accessible place for the user.

Fig. 4

#### ATTENTION!

#### Hydraulic water pressure should be max. 3 bar.

If the water pressure in the installation is higher, install pressure reducer upstream of the appliance.

The minimum water pressure should be exceeding 1.5 bar to assure correct operation of the appliance.

In order for the device to operate properly and to avoid limescale deposits in the thermal processing chamber, drinking water of hardness up to 5° d.H (according to German scale) must be available.

#### ATTENTION!

With water hardness exceeding 5° d.H (according to German scale) a suitable water softening device must be installed upstream of the appliance.

117623 19 / 66



#### **Drain Connection**

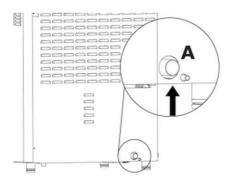


Fig. 5

To provide for liquid drainage from the thermal processing chamber, the appliance is equipped with water drain.

The connection (**A**, Fig. 5) is located at the bottom right side of the back of the appliance, and features 32 mm diameter.

Connect the enclosed PVC discharge tube to the **A** connection and connect it with suitable hose, which must be routed to a drainage system.

#### **Electrical Connection**

Before connecting the appliance to the power supply, make sure that voltage
and frequency values on the rating plate are conforming to the existing electric
installation. Connect the appliance only if the above mentioned parameters are
consistent with each other!

The allowable voltage deviation is  $\pm 10\%$ .

- In order to directly connect the appliance to electrical supply, install an
  automatic breaker between the appliance and the electrical installation, suitable
  for the power value. Follow installation indications, so that contacts of such an
  mechanism must feature suitable spacing, providing for full discharge with
  respect to conditions for overvoltage category III. The disconnecting mechanism
  should be installed so that it is available for the operating personnel all the time.
- The main switch, to which the plug of the mains power cord is connected, should be set to '0' (zero) position. Have a qualified personnel check if the cord's section is suitable for the power consumed by the appliance.
- The 117623 appliance is factory equipped with connection cord and mains plug (single-phase, 230 V).
- To connect the appliance to electric supply, it is enough to insert the plug in a single grounded socket.
- When placing the appliance, make sure the power plug is easily accessible to immediately unplug the appliance if necessary.
- The electric power circuit must be protected by at least 16 A fuse. Connect the appliance only directly to a wall grounded socket and do not use any power boards or multisockets.

#### WARNING!



The appliance is delivered with a certified power cord and plug: it is prohibited to manipulate them or modify them.

#### **Potential Equalising Connection**

- The potential equalising connection between various appliances should be executed at the connection clamp, marked with symbol.
- The connection clamp is found at the back of the appliance.
- This clamp renders it possible to connect a potential equalising cord with section of 4 mm<sup>2</sup> – 10 mm<sup>2</sup>.

## **Adjustment of Door Locking Pin**

After placing the appliance in the selected location, check the closing mechanism and position of door seals on the thermal processing chamber.

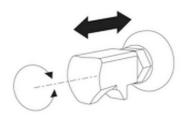


Fig. 6

It is possible to adjust the depth of the locking pin in order to assure that the chamber is properly locked during thermal processing.

It is possible to adjust the door pressure against the seal. Screw the pin in to increase the pressure or screw it out to reduce the pressure (Fig. 6).

After adjustment, re-tighten the bolt making sure that the lock anchor is pointed downwards.

# 5.2 Inspections and Commissioning Test

# **Inspections Prior to Start-up**

Before the first start-up, electric appliances must be thoroughly inspected in order to confirm the consistency of the appliance and its installation with regulations in force, technical data, and recommendations for safety.

The following conditions must be met:

- Temperature in the installation location must exceed +4°C.
- The thermal processing chamber must be empty.
- All packaging elements must be fully removed, including the protective film on external walls.
- Ventilation openings cannot be covered nor obstructed.

117623 21 / 66



- Parts disassembled during installation of the appliance must be reassembled.
- The main switch of the electric installation must be on, and water shut-off valve upstream of the appliance must be open.

#### First Start-up

The commissioning of the appliance is realized upon the basis of the test cycle allowing for checking the correctness of operation and revealing any damages or problems.

Switch the appliance on with ON/OFF key (1, Fig. 7).

Set the cooking/roasting cycle with the following parameters:

Time: 10 minutes
Temperature: 150°C
Steam injection: 5%

#### **Inspection During Commissioning**

When commissioning, the following conditions must be met:

- The internal lighting is switched on by pressing respective key (3, Fig. 7), and then switches off automatically after 45 seconds unless it is switched off earlier by pressing the same key again.
- The appliance switches off after opening the door and switches back on after closing it.
- In appliances with two fans, motors feature the same direction of rotation.
- Fan motors automatically change direction every 3 minutes (time depends on thermal processing duration).
- After setting the steam injection, water flows out of the water hose in the thermal processing chamber towards the fan.
- At the end of the cooking/roasting cycle, an acoustic signal sounds for approx. 15 seconds. It is off automatically after a couple of seconds.



# 6 Operating Instruction



#### Risk of burns!

During operation, the housing and appliance door become very hot and remain hot for a while after switching the appliance off.

Never touch the appliance during operation or immediately after it has been switched off.

Open and close the appliance door with a door handle only.

Use designated operating elements and handles only to operate.

#### When opening the appliance door, a hot steam may escape.

When opening the appliance door remain extremely cautious, and open the appliance door in two stages: leave them half-open (3-4 cm) for 4-5 seconds and only then do open them entirely.

During operation, the grate and food containers become very hot and remain hot for a while after finish of the cooking/roasting process.

To remove hot food containers use safety gloves or dish-washing cloths.

- Never install the appliance in the vicinity of heat sources, such as a grill or a deep-fryer.
- Never leave flammable materials near the appliance. Fire hazard!
- Do not put flammable materials nor food products containing alcohol in the combi steamer: it may cause self-ignition and fire that, in turn, may lead to an explosion.
- Avoid salting food inside the thermal processing chamber. If you cannot avoid this, clean the appliance as quickly as possible, otherwise the thermal processing chamber may be damaged.
- If glass elements (appliance door) get damaged or cracked, replace them immediately. To this end, contact the service company.
- If the appliance is not to be used (e.g. for 12 hours), leave the appliance door open.
- If the appliance is not to be used for a prolonged period of time (e.g., a number of days) close water supply and disconnect the appliance from mains power supply.
- When the combi steamer is to be placed on another combi steamer or appropriate base it is not recommended to use guides higher than the ones enabling the user to look into the container.

117623 23 / 66





Due to safety reasons, when the appliance is installed, it is mandatory to place a safety sticker at the height of 1600 mm from the floor, saying: 'Risk of burning! Hot liquid inside the container!', which is part of the delivery.

- When grilling or roasting food products on a grate, it is necessary to place a container for collecting grease or juices on a level below or at the bottom of the thermal processing chamber.
- To provide for perfect and uniform thermal processing of food, we recommend
  using trays with limited height, GN containers or baking forms, for a good and
  suitable air circulation is secured. A clearance of at least 2 cm must be
  maintained between the top tray and the food.
- Do not overfill the trays nor containers, and products for processing should be arranged uniformly, to obtain satisfactory results.
- Mind the correct usage of the thermal core probe: Introduce the thermal core
  probe at the thickest point of the food product, proceeding from top to bottom,
  until reaching the centre of the product by the tip of the thermal core probe.
- If there is the need to intervene with the prepared food during its thermal processing, open the appliance door for possibly the shortest period of time to prevent temperature drop in the chamber to an extent deteriorating the thermal processing results.
- To compensate the heat loss, we recommend pre-heating the appliance.

#### NOTE!

Before cooking/roasting, heat the appliance up to the temperature higher than the intended cooking/roasting temperature by 20-25%. After reaching the pre-heating temperature, the appliance may be loaded.

The temperature should then be reduced to the temperature provided for the preparation of the dish.

# Recommendations for cooking

#### Roasting

For more effective cooking, it is recommended to place the roasted foods on the steel rod grill in order to achieve more uniform cooking between the upper and lower part without having to turn the product during cooking. If you want to collect the juices, place a tray below the grill in the rails.

#### Grilling

To obtain the optimal effect during grilling in the oven chamber is necessary to use the grill (preferably aluminium).

### **Operating Instruction**



The oven is generally set in convection mode, with valve open and temperature between 230 °C and 270 °C according to the type of product and browning that is to be obtained, and ventilation between 4 and 6.

#### Frying

All breaded and pre-fried frozen foods can be fried in the device. In case of breaded products, spray a thin layer of oil in such way that it is absorbed by the bread.

Frozen pre-fried products can be fried without adding oil.

Use non-stick aluminium trays or special frying baskets. Set the oven to convection with the valve open, at temperature of 250°C and ventilation between 4 and 6.

#### Recommendations for cooking uniformity

The uniform cooking process may vary depending on type of prepared products. In such case it is recommended to lower temperature and change (increase or decrease) the fan rotation speed.

Using correct trays increases the general cooking uniformity of the oven. Always select the tray with the minimum depth possible for the product to be cooked. Aluminium trays offer more uniform cooking that steel trays.

#### Cooking in a vacuum bag

Product can be cooked directly inside a vacuum bag. This type of cooking allows for particularly soft and flavoured meat to be obtained and at the same time decreases spoilage of the product.

Pack the products into appropriate bags for vacuum cooking. Set the device to "Mixed cycle" at 100% humidity and ventilation between 3 and 4. The cooking chamber temperature must be maximum 3 °C-5 °C higher than the temperature which the core must reach. E.g. for an average fillet (60°C in the core) set the device temperature at 63 °C.

#### Pasteurisation in a container

In that process the product is considered pasteurised when the core temperature reaches a value between 83 °C and 85 °C.

Depending on the type of product, dimensions of the container and amount of product it contains, the time of reaching the core temperature may vary. We recommend to use the core probe on a sample container (perforating the lid to allow the probe to enter) in order to detect the temperature of the entire production batch.

At the end of cooking the product must be quickly cooled down to +3°C to end the pasteurisation process.

117623 25 / 66



# 6.1 Operation

#### **Preparation of the Appliance**

- 1. Before starting-up, clean the appliance inside and outside, as well as accessories, observing indications in section 6 'Cleaning'.
- 2. Thoroughly dry all cleaned surfaces and elements.
- 3. Before the first start-up, check the correctness of installation, stability, and levelling of the appliance, as well as execution of all connections.

#### **Appliance Start-up**

1. Switch the appliance on with ON/OFF key (1, Fig. 7) on the control panel.

After connecting the appliance to the power supply it is in standby mode.

The control panel is equipped with the rotary control knob (4, Fig. 7). Rotate the rotary control knob to set the required parameters and press it to confirm the set values.

To compensate the heat loss during door opening while putting food products inside, it is recommend to preheat the appliance (section 'Manual baking/setting of automatic preheating').



#### **Control Elements**

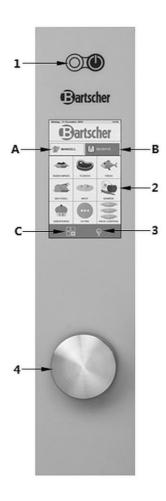


Fig. 7

- 1 ON/OFF switch
- A 'Manual' control field
- C Function keys control field
- 4 Rotary control knob

- B 'Recipes' control field
- 2 HOME screen
- 3 Lighting key

117623 27 / 66



#### Start screen

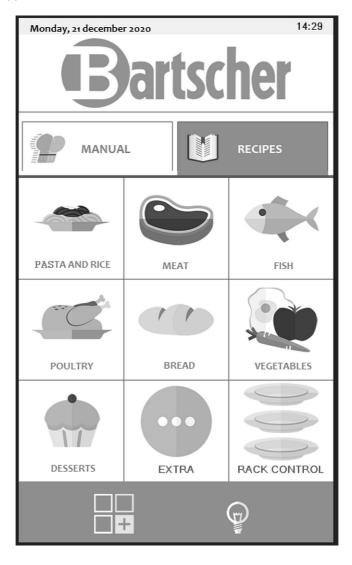


Fig. 8

#### **Operating Instruction**



#### **Manual Thermal Processing Screen Pictograms**



Thermal processing mode: convection



Discharge humidity valve closed



Thermal processing mode: combi steaming



Discharge humidity valve opened



Thermal processing mode: steaming



Relative humidity percentage



Temperature maintaining mode



Unlock key: allows a program to be changed



Automatic cooling (available only from the second thermal processing phase)



Indicator of a program changed by the user, or a new program



Message mode



Program SETTING may be controlled during thermal processing



Smoking mode



Manual humidifier key



Time / timer



Programmed start key



Thermal core probe mode



Home key: return to the start screen



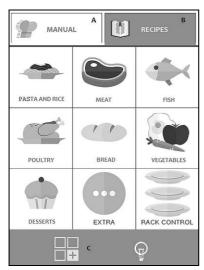
Delta-T mode

117623 29 / 66



#### **HOME** screen

1. Switch the appliance on with ON/OFF key (1, Fig. 7). The HOME screen will be shown in the display (2, Fig. 7).



 Select from amongst 'Manual' A (Fig. 9) or 'Recipes' B (Fig. 9).

The 'Recipes' **(B)** list covers thermal processing programs that are classified based on product types, e.g., meat, vegetables, desserts, etc.

By pressing the **C** control field (Fig. 9) you access the 'Functions' menu (e.g., creating, importing and exporting thermal processing programs, Rack Control function, EasyService, etc.) and the appliance system settings.

NOTE: Some of these functions are password-protected and reserved exclusively for service technicians.

Fig. 9

#### **Touch-Screen Interaction**

All operations may be selected by pressing the desired item or pictogram.

- Press the relevant field to change thermal processing parameters, e.g., temperature and rotate the rotary control knob (4, Fig. 7), until the required temperature setting is selected.
- 2. To confirm the change, press the parameter or rotary control knob (4, Fig. 7) again.

# 6.2 Thermal processing

# **Manual Thermal Processing**

From the HOME screen page, by pressing the 'Manual' control field (A, Fig. 7), you access the setting screen of thermal processing parameters.

In 'Manual' mode, the appliance can be set for individual thermal processing with one or more phases and/or a thermal processing program can be set and saved in the 'Recipes' list.

#### **Operating Instruction**





Fig. 10

#### **Setting Automatic Pre-Heating**

The pre-heating function heats the appliance to the desired temperature before dishes to be thermally processing are introduced.

If the appliance temperature is higher than the one indicated for pre-heating the appliance, it will automatically cool down to the correct temperature.

'Pre-heating' is set automatically, but this function can be modified after the 'Start' key has been pressed, by pressing the temperature displayed.

By pressing key 1 (Fig. 10) to the left or right, this function may be enabled or disabled.

NOTE: Automatic pre-heating must be executed with empty oven chamber.

# **Setting Thermal Processing Mode**

Key 2 (Fig. 10) is factory-set as default to **Convection** thermal processing mode. By pressing this key, the thermal processing mode may be changed to **Mixed** or **Steam**. Additionally, you may set the following thermal processing modes: **Hold, Message** or **Smoking** (Fig. 11).

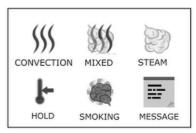


Fig. 11

# Thermal Processing Mode: Convection, Steam or Mixed

#### **Setting Thermal Processing Temperature**

By pressing key 3 (Fig. 10) you can set the oven chamber temperature. The temperature that can be set varies depending on the selected thermal processing method.

117623 31 / 66

# **B**artscher

#### Setting Timer / Thermal Core Probe / Delta-T

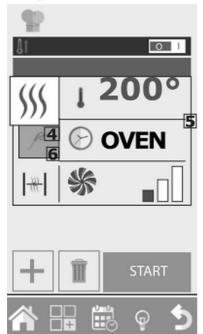


Fig. 12



Thermal processing

4a with thermal core
probe



4b ΔT thermal processing mode



6a Discharge valve closed



Discharge valve opened

Having selected the thermal processing mode, you can prepare food in 'timed' mode or using the thermal core probe.

By pressing key 5 (Fig. 12) you can set the timer (Countdown). The time is indicated in minutes format (1h 30' = 90 minutes). When the time elapses, an acoustic signal sounds and thermal processing stops.

If the time has not been set, thermal processing will take place in 'infinity' mode (INF); the appliance will continue to process until the operator intervenes manually to stop thermal processing.

Instead, in the case of thermal processing with the thermal core probe, it is possible to choose between the thermal probe (4a) and  $\Delta T$  thermal processing (4b). Switching between these modes allows the product to be prepared more accurately.

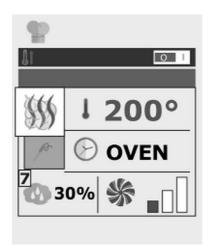
More information is provided in section 'Thermal Core Probe and ΔT Thermal Processing Mode'.

# **Setting Humidity Discharge Valve**

Only in Convection thermal processing mode, it is possible to manually open (6b) or close (6a) the humidity discharge valve. When it is opened, the humidity present in the oven chamber is evacuated, thus allowing the oven chamber, and therefore the product, to dry.

Press key 6 (Fig. 12) to open or close the discharge valve.





#### **Setting Relative Vapour Percentage**

Only in 'Mixed' thermal processing mode is it possible to set the percentage of humidity that the appliance will maintain during thermal processing.

1. To set the desired level of humidity, press key 7 (Fig. 13) and set the value.

#### Fig. 13

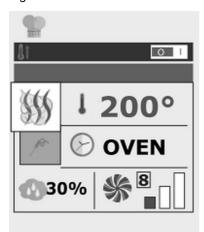


Fig. 14

#### **Setting Fan Speed**

In 'Mixed' and 'Convection' thermal processing modes you may change fan speed parameters.

In 'Steam' thermal processing mode this setting is automatic.

Fan motors are designed for uniform heat distribution in the oven chamber in order to obtain the uniform thermal processing intensity and browning of products on various levels.

1. To set the fan speed, press key 8 (Fig. 14) and select the desired setting.

117623 33 / 66



#### **Temperature Maintaining Mode (HOLD)**

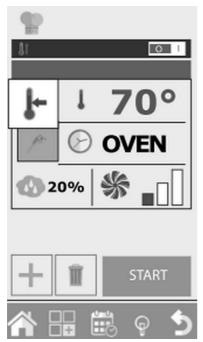


Fig. 15

The 'Hold' mode is purposed for maintaining the products at a hygienically safe temperature(> 65°C) without product core thermal processing point changing.

This mode is usually used at the end of night time thermal processing to maintain the prepared products in the right temperature until the user returns.

In 'Hold' mode, by default, humidity is factory-set at 20% and the fan speed — at 1.

For effective temperature maintenance, it is recommended not to modify fan speed in this mode.

- In the case of roasted products, the humidity setting is recommended to be set between 20% and 35%, and in the case of brazing or stewing — between 90% and 100%.
- To modify the phase in the 'Hold' mode, press the thermal processing mode key (2, Fig. 10) and select HOLD symbol (Fig. 15).



#### **Smoking Mode**



Fig. 16

The 'Smoker' accessory is required to perform smoking in the oven chamber (it is not included in the delivered set). It must be inserted into the oven chamber on one of the trays, at the beginning of the thermal processing.

If the thermal processing program includes a subsequent thermal processing phase after the smoking phase, the 'Smoker' accessory must be removed from the oven. NOTE: Refer to the accessory manual for further information regarding the connection and use of the smoking accessory.

Once thermal processing has been started by pressing **START** key (Fig. 16) the appliance will request for the smoking accessory to be introduced before the smoking phase begins. At the end of the smoking phase the appliance will request for the smoking accessory to be removed. Both processes must be confirmed by the user. Only following the confirmation, the appliances switches to the subsequent phase.

In 'Smoking' mode, it is possible to set temperature, time, ventilation, and humidity drain valve. However, it is recommended to keep the valve closed so the smoke does not escape from the oven chamber.

Smoking may be executed both in hot and cold mode, depending on the type of product and the desired result.

In the first case, set temperature between 10°C and 30°C. The minimum temperature in the oven chamber will be similar to room temperature. The chamber may be cooled further by inserting ice in it.

For this type of operation, the maximum temperature that can be set is 200°C.

117623 35 / 66



#### Message Mode



Fig. 17

'Message' operation mode allows you to manage thermal processing phases through messages which act as notes for the user.

The setting may be used for every thermal processing program so that the user has the description of the entire thermal processing, which requires manual intervention.

Select 'Message' operation mode from thermal processing modes in a new phase.

In the menu displayed on-screen, enter your message (e.g., score the rind) and set the time required.

If you select INF time, the thermal processing cycle will continue until the user enters a new settings and confirms it.

If, however, you select a different process, the thermal processing phase for a given message lasts as long as it is required, and then the next thermal processing phase is commenced without requesting further confirmation.

When selecting 'Message' operation mode, you may select a message from a list of existing messages and add it, or compose a new message. The message is managed like a thermal processing phase.



#### **Starting and Stopping Thermal Processing**

1. After setting thermal processing parameters as desired, press START key (9, Fig. 18), to start thermal processing.

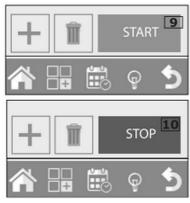


Fig. 18

The appliance will start operating in preheat mode if this has been previously selected. Otherwise, it moves directly to the thermal processing mode.

By pressing 'Advanced Customisation' key (Fig. 19), you may manually select a specific starting phase for thermal processing or exchange it with a thermal processing phase of another thermal processing mode, by selecting this thermal processing phase and confirming it with START key.

Thermal processing will last until the set time elapses or on reaching the product core temperature in the thermal processing mode with thermal core probe.

In INFINITE time is set, thermal processing must be stopped manually.

2. To this end, press STOP key (10, Fig. 18).

117623 37 / 66



## **Thermal Processing Programs**

# **Customised Thermal Processing Programs**

It is possible and easy to create customised programs that can have up to 9 different thermal processing phases plus pre-heating.

Every thermal processing phase is represented by a thermal processing mode (convection, mixed, steam, etc.) with specific time, humidity, ventilation parameters, etc.

Example: For a roast dish a program can be created that contains the following phases:

- quick frying
- roasting
- warm-keeping

The essential condition for creating a successive phase is that the previous phase has a defined time. If thermal processing phase 1 has the time set to infinity (INF), it will not be possible to create phase 2 because the first phase has no specific end.

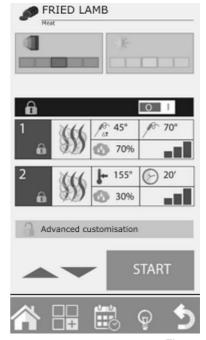


Fig. 19

The hold (temperature keeping) phase is an exception, which can be set to infinity (INF) and then there may be one or more thermal processing phases. Those phases must be, however, started manually, e.g. in the night time thermal processing of some of roast dish types, you may prefer to brown the dish when the user returns to the kitchen, therefore after the hold phase.

1. To go from one thermal processing phase to another, press and hold the number of the thermal processing phase you want to move to, or use arrows to select the desired thermal processing phase number and press START key.



There is a possibility of starting the program with the selected thermal processing phase (different from the first set):

- 2. After having selected the program, press the 'Advanced customisation' key and use the arrow to go to the desired thermal processing phase.
- 3. Press START key to start the thermal processing mode with this thermal processing phase.

If pre-heating is included in this program, it will not be executed. The program can be modified using the CookingTuner interface before pressing the 'Advanced customisation' key.

#### **Creating Thermal Processing Program**

A thermal processing program is made up of several phases, which the appliance performs in ascending order (thermal processing phase 1, phase 2, phase 3, etc.) moving from one to another automatically.

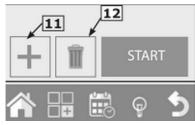


Fig. 20

- After setting the parameters for the initial phase (thermal processing phase 1), press '+' key (11, Fig. 20) to create a subsequent thermal processing phase.
- 2. Set the required parameters for thermal processing phase 2.
- When creating subsequent thermal processing phases, continue as described above.

You can also create and enter new thermal processing phases between previously created phases. The new thermal processing phase will be placed under the one selected when you press key 11.

- 4. At the end of programming, press START (Fig. 20) to start thermal processing.
- 5. To delete a thermal processing phase, press 'Remove phase' key (12, Fig. 20).

117623 39 / 66



## **Setting Cooling Phase Between Thermal Processing Phases**

The temperature inside the oven chamber may have to be reduced between thermal processing phases. For example, when roasting the temperature in the oven chamber needs to be reduced between the browning phase (at high temperature) and the roasting phase (at low temperature).

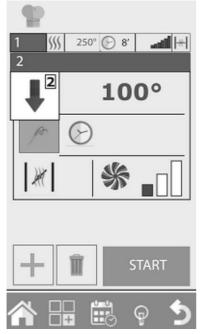


Fig. 21

This operation can be performed automatically by the appliance if an automatic cooling phase has been set.

The automatic cooling phase can only be set from thermal processing phase 2 onwards.

After having set a high temperature thermal processing phase, create a new phase and select automatic cooling from the thermal processing modes field (2, Fig. 7).

Once this mode has been selected, the appliance will suggest factory-set default temperature, ventilation and humidity drain valve values. Set required cooling temperature (min. 100°C, Fig. 21).

In order to make cooling as fast as possible, it is recommended, with few exceptions, not to modify the ventilation and humidity drain valve values.



#### **Saving Thermal Processing Program**

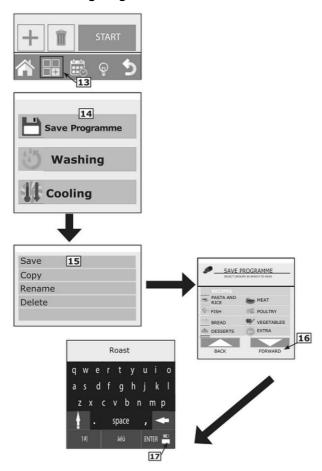


Fig. 22

The newly created thermal processing program may be saved for subsequent use in the 'Product type' group in the classic 'Recipes' cook book (meat, fish, poultry, etc.). Proceed the following way:

- after having created a thermal processing program, press Functions key (13, Fig. 22), to access Program functions screen;
- select 'Save Program' function (key 14, Fig. 22);
- in the following screen page press 'Save' key (15, Fig. 22);
- from the list, select the group for saving the thermal processing program;

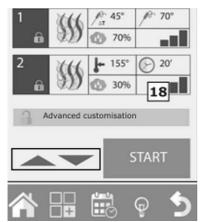
117623 41 / 66



- finally, press 'Next' key (16, Fig. 22);
- then, with the keyboard, introduce the thermal processing program name:
- press Enter key (key 17, Fig. 22), to save the thermal processing program.

#### **Modifying Thermal Processing Program**

On delivery the appliance will already contain some thermal processing programs. Both the pre-loaded thermal processing programs and the newly created ones can be customised.



To modify a thermal processing program, first select the desired thermal processing program from 'Recipes' cook book.

Once selected, a summary of phases of the selected program is displayed. This mode is write-protected and it is not possible to modify the thermal processing program parameters.

 If one or more thermal processing parameters are to be changed or automatic pre-heating is to be activated/deactivated, press "Advanced customisation" (key 18, Fig. 23).

Fig. 23



Fig. 24

The program is unlocked and the required changes may be introduced.

2. Turn the rotary control knob (19, Fig. 24) to display the thermal processing phase to be changed.

After making the change you can start thermal processing directly. In this case, the changes will only apply to current thermal processing and will not be saved.

You can also create a copy of the program with a different name which includes the changes made.



#### Copying, Moving, Renaming, and Removing Thermal Processing Program

Each available thermal processing program may be copied, moved, renamed, or removed fully or partly.

# **Copying Thermal Processing Program**

If a new program is to be created on the basis of an already existing program (because the old and new program share some thermal processing aspects), it may be copied.

- 1. Select the group, in which the thermal processing program is to be saved, and then enter the name.
- 2. Press Enter, to confirm.



Fig. 25

- Select the base thermal processing program, open it and make changes by pressing 'Advanced customisation' (key 18, Fig. 23).
- 4. Execute the requested change.
- 5. In 'Functions' menu (20, Fig. 25), select 'Save', and then 'Copy'.
- Select the group in which the thermal processing program is to be saved, enter its name and press Enter, to confirm.

117623 43 / 66



## **Moving Thermal Processing Program**

- If you want to move a thermal processing program from one group to another, open the selected thermal processing program and press 'Functions' key (20, Fig. 25).
- 2. Then select 'Save' and 'Move' (Fig. 27).
- Select the new group, in which to move the thermal processing program and confirm with 'Next' key (16, Fig. 22).

#### **Renaming Thermal Processing Program**

Open the thermal processing program and press 'Functions' key (20, Fig. 25), select 'Save' and then 'Rename' (Fig. 27). Type in the new name and press Enter.

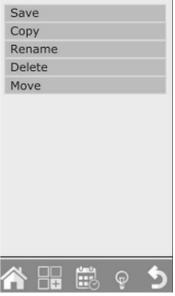


Fig. 26

# **Removing Thermal Processing Program**

- 1. Open the thermal processing program for removing and press 'Functions' key (20, Fig. 25), select 'Save' and then 'Remove' (Fig. 26).
- 2. Confirm selection by pressing **YES** in the screen pop-up window.



#### **Selecting Thermal Processing Program from Menu**

The appliance is supplied with a series of thermal processing programs preloaded in the memory. They are organised by product categories (meat, fish, vegetables, etc.). They may be displayed out of 'Recipes' list (**B**, Fig. 27)

By pressing 'Recipes' control field (**B**, Fig. 27) the thermal processing programs are organised by product categories, e.g., meat, fish, vegetables, etc.

By selecting the desired product category, a list of all thermal processing programs will open for the selected category.

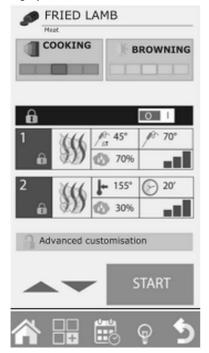


Fig. 28

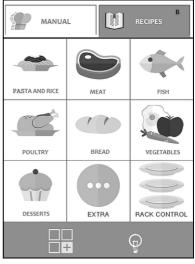


Fig. 27

Select the desired thermal processing program from the list by clicking the program.

#### RecipeTuner Interface

Once a thermal processing program has been opened, it can be modified simply by using RecipeTuner interfaces.

Depending on the type of thermal processing selected, the thermal processing — e.g., browning, humidity, degree of rising, etc. — of a product can be easily modified.

The RecipeTuner function is available for factory-set thermal processing programs and newly created programs.

117623 45 / 66



#### **Function of Interfaces**

**Roasting**: allows modification of thermal processing of a product. It is assumed that the thermal processing is executed, on average, at 60°C in the core. The following settings are available (starting from the left): 'rare', 'medium-rare', 'medium', 'medium-well done', and 'well done'.

Browning: Product browning can be modified on 5 different levels from the lightest (on the left), to the most intense (on the right).

Humidity: When brazing dishes, it refers to the residual humidity of the product at the end of thermal processing.

Dough rising: It is possible to add various degrees of dough rising (20 minute phases) and then perform automatic 'Dough rising' and 'Roasting' program.

Thermal processing method	User interface	
Steaming	Roasting	
Grilling	Roasting	Browning
Roasting	Roasting	Browning
Frying	Roasting	Browning
Braising	Humidity	
Au gratin	Browning	
Bakery products	Dough rising	Browning
Low temperature	Roasting	
Smoking		
Eggs	Roasting	



#### **Rack Control Function**

The Rack Control function allows for separate control of up to 10 different levels during thermal processing. This function manages a unique 'Thermal Processing Mode' setting, temperature, humidity, etc. However, each level may have a thermal processing time or core temperature independent from the others.

Once the Rack Control icon (21, Fig. 29) has been pressed, you access the list of pre-set thermal processing programs, such as: Breakfast, Lunch–Dinner, Multibaker, Steam Mix. Each of these programs will contain a series of corresponding dishes.



Fig. 29

Fig. 27: the Lunch–Dinner program features the following dishes: grilled steak, breaded cutlet, stir-fried vegetables or lasagne.

It is also possible to create and add other programs and sub-programs (dishes).

## **Using the Rack Control Function**

# **Selecting Thermal Processing Program**

By selecting one of the thermal processing programs from the list — e.g., 'Lunch–Dinner' — a screen will open with this thermal processing program's general settings listed to the left: Pre-Heat, Thermal Processing Mode, Temperature, Fan Speed, Drain Valve (Humidity or SteamTuner if Mix or Steam mode has been set).

And 5 empty levels will be seen to the right.

# **Starting Thermal Processing Program**

By default, all Rack Control programs work basically with infinite time.

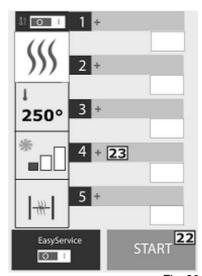


Fig. 30

Regardless of whether the program includes pre-heating or not, the first thing to do is start the program by pressing START key (22, Fig. 30).

117623 47 / 66



## Adding Dishes to Thermal Processing Program Levels

After starting the program and at the end of pre-heating (if present), press the '+' symbol key (23, Fig. 30) for each of the right hand fields to add the name of the dish to be enter for the selected level.

The digital display will show the list of subprograms (dishes) already set. Select one by pressing it. It will be automatically added to the previously selected field.

Before selecting a dish, it must be placed inside the oven chamber for thermal processing. Continue by adding the rest of dishes that are to be thermally processed. It is possible to add and manage up to a maximum of 5 levels at a time.

The time remaining until the end of thermal processing will be displayed next to the level name. When thermal processing with thermal core probe has been selected, the real product core temperature is displayed.





Fig. 31

# Creating New Names for Dishes Based on Levels

New dish names may be added both to programs created by users and to those pre-set.

- 1. Select an empty field in the list of dishes.
- 2. Press the '+' key (24, Fig. 31).
- 3. In the screen enter the name of the dish along with the thermal processing time or the core temperature.

**B**artscher

- 4. To end with, press 'Save' key (25, Fig. 32).
- Press the '+' key (24, Fig. 31) to continue and add further dish names.

#### Removing Dishes From the List

To remove a dish from the list press and hold its name for a few seconds. This operation is only possible if the thermal processing of this dish is NOT active.

#### **Direct or Programmed Use**

present).

Rack Control can be used in direct mode and in programmed mode.

**Direct** use mode has been described in the previous section 'Adding Dishes to Thermal Processing Program Levels'. Dishes are added after pressing START key (and at the end of pre-heating, if



Fig. 32

In the programmed use mode the dishes are added when the appliance is off (STOP key is pressed), i.e. when no thermal processing takes place.

In such a condition the selected levels are not activated. They may be activated only after pressing START key (and waiting until the end of pre-heating, if present), one by one, by clicking on the time indicator field to the right.

# Modifying Thermal Processing Time / Thermal Core Probe Setting

It is possible to change the thermal processing time or thermal core probe setting by prolonged pressing of their keys.

- 1. In order to introduce modifications, call up the list of dishes first.
- 2. Then, use a longer press to select the name of a dish to be changed.
- 3. Enter the new thermal processing time (or thermal core probe temperature).

The dish name may also be modified this way.

4. To change the thermal processing time for a given dish during its thermal processing, press the remaining time field and enter the new time or thermal core probe temperature.

117623 49 / 66



## End of Thermal Processing of a Dish

When the pre-set thermal processing time of a dish has elapsed (or when the core temperature has been reached), the appliance will emit an acoustic signal and the message 'END' (26, Fig. 33) will appear in the thermal processing time field.

 Carefully open the appliance door and remove the dish.

Opening and closing the door will automatically reset the level settings.

#### **Quick Entering of Dish**

During thermal processing and operation you may need to prepare a product that is not on the list.

It is possible to quickly enter a dish in the Rack Control list without having to save it with a specific name.

1. Press the empty level and select subprogram dubbed 'Tray' (27, Fig. 34).

This represents a sub-program for which a different time may be set every time.

There is a possibility of entering multiple dishes simultaneously to the Rack Control list by using the 'Tray' sub-program.

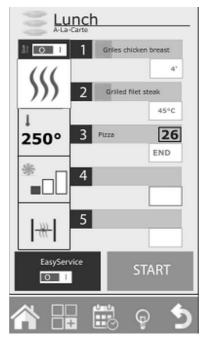


Fig. 33

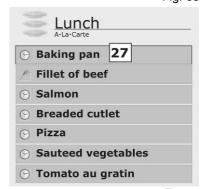


Fig. 34



#### **Modifying Rack Control Program**

 To change Rack Control program after opening it, press 28 key (Fig. 35) in the left column of the displayed settings.

In any given moment, it is possible to modify thermal processing time mode, temperature, fan speed (excluding steaming mode), and drain valve.

The entered change may be saved or the program may be copied, renamed, or removed.

 In such case press the Functions key (29, Fig. 35) and proceed with settings, as explained in section 'Copying, Moving, Renaming, and Removing Thermal Processing Programs'.

#### **Creating New Rack Control Program**

In addition to already existing Rack Control programs, customised programs may be created.

 Open the list of Rack Control programs, and in the HOME screen press the Rack Control symbol.

The first program shown at the top is 'Manual' (30, Fig. 36). It makes it possible to create a new program and also to work in Rack Control mode without saving the program.

In the latter case, on exiting the program, the thermal processing settings will be lost.

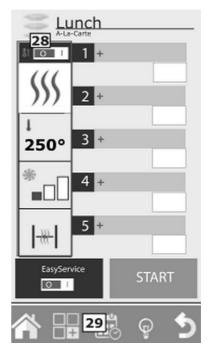






Fig. 36

- 2. To create a new program, in the Rack Control menu select 'Manual', and enter the desired thermal processing settings into the left column.
- 3. Then press the Functions key (29, Fig. 35) and continue saving the program as described and explained in section 'Saving Thermal Processing Program'.

117623 51 / 66



Only when the program has been saved, enter the list of dishes.

#### **Using Rack Control in 'Manual' Mode**

If you do not want to save the program, Rack Control may be used in manual mode. In this mode, specific dishes cannot be saved and the generic name 'Tray' will be displayed for all levels.

#### Using EasyService Function in Rack Control

Rack Control is designed to prepare different dishes separately on the individual levels. The dishes may be introduced concurrently or at various times, and as set times expire, the appliance informs which level has reached the end of thermal processing.

By activating the EasyService function it is possible to have all of the dishes ready at a similar time. This mode informs when it is necessary to insert dishes at various levels so that they are ready at the same time.

In this mode only levels with time parameter setting may be selected (not with the thermal core probe parameter).



#### **Activation of EasyService**

EasyService function must be activated before pressing the START key. It is available only with the appliance in STOP function.

 To activate EasyService, set the EasyService switch (31, Fig. 37) to 'I' position.

This action allows access to the list of dishes for Rack Control program.

- 2. Now, select dishes to be served at the same time (10 at maximum).
- 3. Press START key.

After pre-heating (if present) has ended the appliance requests dishes to be inserted with a longer thermal processing time. The cue is an acoustic signal and 'IN' message (Fig. 38) displayed in the right field. After opening and closing the door the acoustic signal is reset and the Countdown begins.

For remaining levels, the time left to placing dishes in the oven is displayed in green.

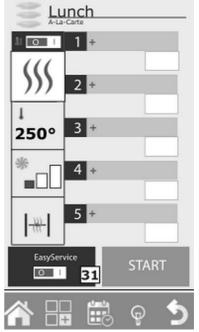


Fig. 37

In the same way the appliance signals when other dishes should be put into the oven. The acoustic signal is generated 15 seconds before the time elapses. It is recommended to wait until the timer reaches '0' and 'IN' message is displayed before placing dishes inside. This way all the dishes will be prepared exactly at the same time.

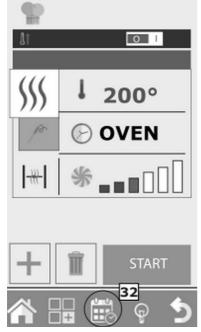
117623 53 / 66



#### Using Rack Control with EasyService

When using EasyService, other dishes may be added in Rack Control operation mode, which will be controlled independently from those selected for EasyService. Both functions may be used at the same time only when EasyService will be activated first and then other dishes will be added in Rack Control mode.

EasyService cannot be activated when Rack Control is already activated.



Fia. 39

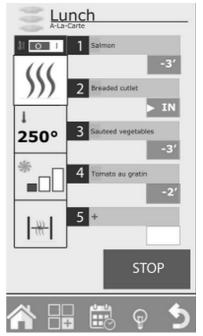


Fig. 38

## **Programmed Start**

A thermal processing start may be programmed beforehand by pressing key 32 (Fig. 39).

 Select year, month, day, hour, and minutes on the screen and save the setting.

Once the setting has been saved, the appliance may not be switched off and additional thermal processing programs may not be started.



# Thermal Core Probe and Thermal Processing in $\Delta T$ Mode

#### **Positioning the Probe**

Thermal core probe detects the temperature in a point located in proximity of the probe.

The probe should be inserted in a way making it possible to locate the probe in the product's centre, in its larger (thickest) part.

## Thermal Processing in $\Delta T$ (Delta-T) Mode

The  $\Delta T$  function is used mainly for slow, low temperature thermal processing.

In  $\Delta T$  mode, instead of setting the temperature in the oven chamber, you set the temperature that the appliance must maintain constant between the product core and the oven chamber.

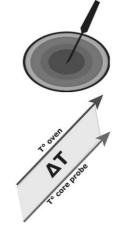


Fig. 40

As the core temperature rises, the temperature in the oven chamber will increase concurrently.

While using  $\Delta T$  function, it is necessary to use the thermal core probe.

Temperature recommended for  $\Delta T$  thermal processing is in the range of 15 °C to max. 30 °C.

## **Core Temperature**

Food product	Thermal processing process	Core temperature
Red meat	rare	50 °C
	medium rare	60 °C
	well done	70 °C
Veal, pork, white meat	well done	70 °C
Poultry	well done	80 °C – 90 °C
Boiled and braised meat	well done	80 °C – 90 °C
Fish	well done	80 °C – 90 °C

117623 55 / 66



#### 6.3 Functions menu

#### Cooling

This function allows the temperature inside the oven chamber to be reduced quickly, to pass from thermal processing at a high temperature to more delicate thermal processing, which requires lower temperatures (e.g. switching from roasting to steaming vegetables).

To start this function, press the START key and the fan will begin working. Open the appliance door to force escape of hot air and entry of cooler air. This allows the desired temperature to be reached in a short time and to proceed with more delicate thermal processing.

Due to the safety reasons the cooling must be activated with closed door. The door must be opened only after starting the program.

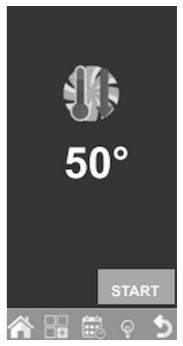


Fig. 41

For this function, the appliance is factory-set for cooling the oven chamber to 50°C. It is also possible for the user to set different required temperature, minimum of 30°C. After reaching that temperature the appliance interrupts cooling and emits an acoustic signal.

Once the cooling cycle has started, you can speed the process up manually by inputting water into the chamber. This function is started manually by pressing **'Manual humidifier'** key for as long as needed.



Fig. 42

#### WARNING!

#### Risk of burns!

When opening the appliance hot air and steam may escape.

Open the appliance door carefully. Use protective gloves during the operation.



#### Service

There are 4 functions available in this menu: Configuration, View LOG, Advanced Services, and Import/Export, allowing for adjustment and display of range of functions and starting the appliance maintenance procedures.



Fig. 43

# 1. Configuration

The following configuration of parameters may be executed in this menu:

#### **Date and Time**

This function allows for setting date and time parameters and updating them for the current use of the appliance.



Fig. 44

117623 57 / 66

#### System Info

This function allows you to view the version of software installed in the appliance and the serial number of the appliance.

#### Language

This function lets you select the language in which the commands and messages are displayed on the digital display.

#### Lighting

This function lets you set the brightness of the digital display. Select this function, set brightness, and press 'Save' key.

#### **Acoustic Signal Volume**

This function lets you adjust the acoustic signal volume.



Fig. 45

ΕN

#### 2. View LOG

This function includes the chronological list of ALARM LOG.

The list, ALARM LOG, displays all errors that have been detected and shown on the appliance digital display during its operation.

# 3. Advanced Operation Functions

This function is password-protected and allows for access to all configuration functions, settings, and technical trial, reserved for the qualified technical personnel.

## **Cleaning and Maintenance**



#### 4. Import/Export

If you insert a USB flash drive next to the control panel and access the 'Service' screen by pressing the 'Home' key, import and export is activated and available for some of the above-mentioned functions.

If a CLEAR USB flash drive is inserted, it is possible to EXPORT: RECIPE BOOK, HACCP LOG (this function, should it be executed, registers the thermal processing and all data connected with it: times, oven chamber temperature, thermal core probe temperature, start time and phase changes, etc.) and WASH LOG.

After inserting a USB flash drive with, for example, new recipes, new parameters, or new languages, it is possible to IMPORT these data into the appliance software.



Fig. 46

# 7 Cleaning and Maintenance

# 7.1 Safety Instructions for Cleaning

- Before cleaning, disconnect the appliance from the power supply.
- Leave the appliance to cool down completely.
- Make sure water does not enter the appliance. Do not immerse the appliance in water or other liquids during cleaning. Do not clean the appliance with a pressurized water jet.
- Do not use any sharp or pointed, nor metal implements (knife, fork, etc.). Sharp or pointed implements may damage the appliance, and when in contact with live parts, they may cause electric shock.
- For cleaning, do not use any scouring agents that contain solvents nor corrosive cleaning agents. They may damage the surface.

117623 59 / 66



# 7.2 Cleaning

# **User's Regular Cleaning**

 To secure correct operation, hygiene and efficiency, clean the appliance regularly at the end of each working day, and, if necessary, also in the meantime or when the appliance is not to be used for a longer time.

With regular cleaning you may avoid burning leftovers of baked goods and roasts.

- 2. Remove food from the appliance.
- 3. Provided the grate, trays and GN containers were used, remove them.
- 4. Clean the thermal processing chamber with lukewarm water with soap, a soft cloth or a sponge. Thoroughly rinse with fresh water, paying attention not to leave any cleaning agent residues. To end with, dry the thermal processing chamber thoroughly.
- 5. In the case of stubborn soiling, use special cleaning agents. Observe instructions of such a cleaning agent's manufacturer.
- Clean the appliance from the outside with a soft, damp cloth. Dry all cleaned surfaces thoroughly. If needed, use only special cleaning agent for stainless steel. Usage of inadequate cleaning agents may cause oxidation of the appliance.
- 7. Regularly clean the fume extractor.

#### **Guide Rails**



Fig. 47

- To facilitate the cleaning of the thermal processing chamber, remove guide rails from the appliance.
- To this end, loosen the knurled screws (left and right) and remove guide rails from the thermal processing chamber.
- 2. Clean guide rails with warm water, a soft cloth and a mild cleaning agent.
- 3. Thoroughly clean the guide rail with a soft cloth.
- 4. When the chamber and guide rails are clean, re-insert guide rails into the chamber and secure them with knurled screws.

60 / 66



#### **Appliance Door/Internal Glass Pane**



Fig. 48



Fig. 49

Double glazing facilitates cleaning. The internal glass pan may be opened and removed when required.

- To this end, rotate clockwise both latches (top and bottom) that hold the internal glass pane in place.
- 2. Tilt the internal glass pane.
- Clean both sides of internal glass pane and appliance door with the use of appropriate agents.

#### ATTENTION!

Do not use any aggressive and abrasive cleaning agents.

- 4. Thoroughly dry the internal glass pane from both sides.
- Again, close the internal glass pane or reinsert it correctly, and lock latches in their initial positions by turning them counterclockwise.

#### **Control Panel Ventilation Filter**

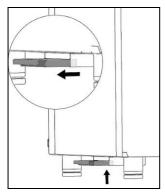


Fig. 50

Clean the control panel ventilation filter at least once a month.

- 1. Pull the ventilation filter from its holder by holding it with your fingers.
- Clean the ventilation filter manually with use of water and soap. Rinse with fresh water and then leave it to dry.

It is recommended to replace the ventilation filter at least once a year or even more frequently if the appliance is operated in environments featuring high concentration of flours or similar substances.

If the ventilation filter is damaged or worn, it must be replaced. It should be ordered as a spare part from the supplier.

117623 61 / 66



# 7.3 Maintenance

- Regularly (at least once a year), have an authorized and specialised personnel verify the appliance. To this end, contact the service company.
- Before attempting any maintenance works, disconnect the power supply, close water supply and completely dry the appliance.
- Before moving the appliance into a new location, disconnect power and water supply lines, as appropriate.
- If the appliance is part of a system equipped with rollers, check if the electrical wiring, piping installation and hose connections have not been damaged during moving.
- After moving the appliance into a new location, and prior to its start-up, make sure that all electrical and water connections have been executed following standard regulations in force.



# 8 Possible Malfunctions

The table below contains descriptions of possible causes and solutions to malfunctions or errors during operation of the appliance. When malfunction cannot be removed, contact the technical service.

At the temperature and time display on the control panel, the triggered alarms are shown. The following alarms may be shown:

Alarm/ Message	Description	Situation	Solution
E01- Oven chamber sensor	Oven chamber sensor error	Thermal processing interruption, automatic operation reactivation	Replace the oven chamber sensor
E17- Thermal core probe	Thermal core probe error	Manual operation restoration	Replace the thermal core probe
E05- Motor safety	Motor alarm	Thermal processing interruption, manual operation reactivation	Reactivate the operation manually (press the rotary control knob); if alarm persists, contact the service company
E11- Motor safety 2	Motor alarm	Thermal processing interruption, automatic operation reactivation	If alarm persists, contact the service company
E06- Oven chamber safety	Oven chamber thermal switch	Thermal processing interruption, automatic operation reactivation	If alarm persists, contact the service company

117623 63 / 66



Alarm/ Message	Description	Situation	Solution
E14- Hi temp	Too high a temperature of the switchboard	Thermal processing interruption, automatic operation reactivation	Check cleanness of the ventilation filter, ventilation slots, and correct operation of cooling fans
E21- No water	No water needed for steam generation	Thermal processing interruption	Check water network connection, make sure that the water valve is opened
E16- Communi- cation	PWM main control board communication error	Thermal processing interruption	Switching the voltage off and on; if alarm persists, contact the service company
E22- Electric power supply failure	Electric power outage	Thermal processing interruption	Check electric power supply.  Keep the rotary control knob 4 (Fig. 7) pressed for 1 second

# 9 Disposal

# **Electrical Appliance**



Electric appliances are marked with this symbol. Electrical appliances must be disposed of and recycled in a correct and environmentally friendly manner. You must not dispose of electric appliances with household waste. Disconnect the appliance from the power supply and remove power cord from the appliance.

Electrical appliances should be returned to designated collection points.