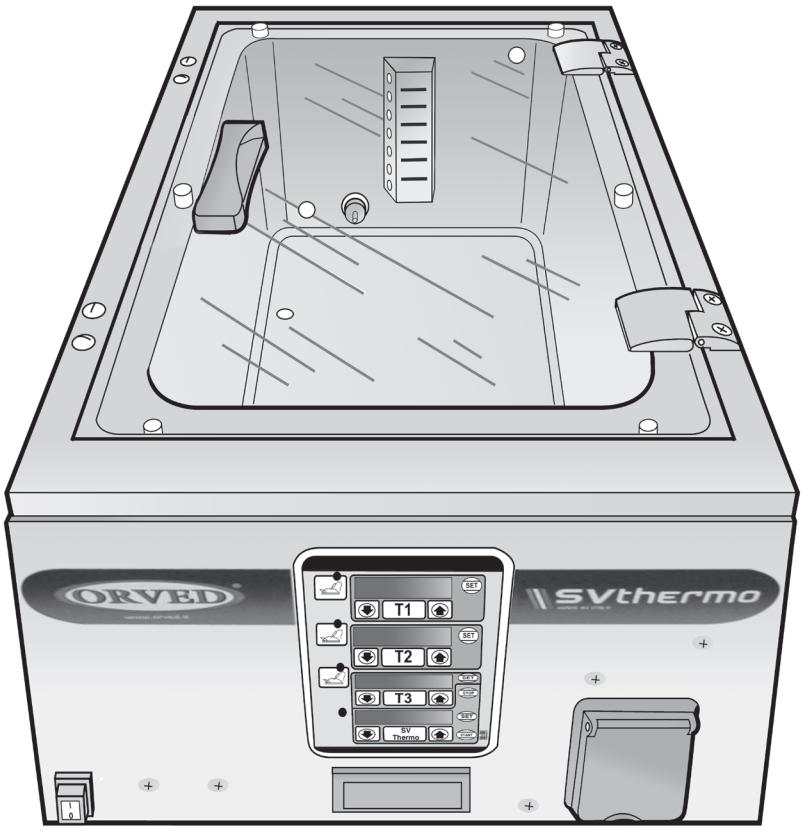


SVthermo top

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FOREWORD

- Thank you for your purchase. **Orved S.p.A.** is pleased to consider you part of its loyal Customers and is confident that this machine shall provide complete satisfaction.
- This User Manual is used as a reference guide for correct and rapid identification of all the machine parts in any version.
- The diagrams, tables and all that contained in this User Manual are confidential and therefore, no information is to be reproduced in whole or in part or communicated to third parties, without the approval of **Orved S.p.A.**, who is the sole proprietor.
- In accordance with the Company's policy aimed at continuous quality improvement, **Orved S.p.A.** reserves the right to make any changes deemed necessary, at any time and without prior notice.

CE DECLARATION OF CONFORMITY

We, ***ORVED S.p.A. (sole proprietorship), located in via dell'Artigianato 30, 30024 Musile di Piave (VE) – Italy,***
declare under our own responsibility that the products:

SV-THERMO

which this declaration refers to, are manufactured in compliance with:

ELECTRICAL SAFETY

Europe and IEC-compliant States:

Safety of household and similar electrical appliances, **EN 60335-1 (2002) +A11 (2004) +A1 (2004) +A12 (2006) +A2 (2006) +A1/EC (2007) +A13 (2008) + EC (2009) + EC (2010) + A14 (2010)**

EN 60335-2-50 (2003) + A1 (2008)

IEC 60335-2-50 (2002) + A1 (2008)

IEC 60335-1 (2001) +Ec1 (2002) +A1 (2004) +A2 (2006) +A2/Ec1 (2006)

EN 62233 (2008)

EN 55014-1 (2006) +A1 (2009)

EN 61000-3-2 (2006) + A1 (2009) + A2 (2009)

EN 61000-3-3 (2008)

EN 55014-2 (1997) +A1 (2001) +A2 (2008)

North America:

ETL-Intertek. UL 197 - Issue:2010/03/17 Ed:10 UL Standard for Safety Commercial Electric Cooking Appliances

SUITABILITY REQUISITES FOR CONTACT WITH FOOD:

Europe:

Regulation **EC 1935/2004; EHEDG** guidelines (European Hygienic Engineering and Design Group):

EN 1672-2:2005 Food processing machinery – Basic concepts – Part 2: Hygienic Requirements

(**EN 1672-2:2005** Macchine alimentari – Concetti base – parte 2: requisiti igienici)

EN ISO 14159:2008 (E) Safety of machinery – Hygiene requirements for the design of machinery

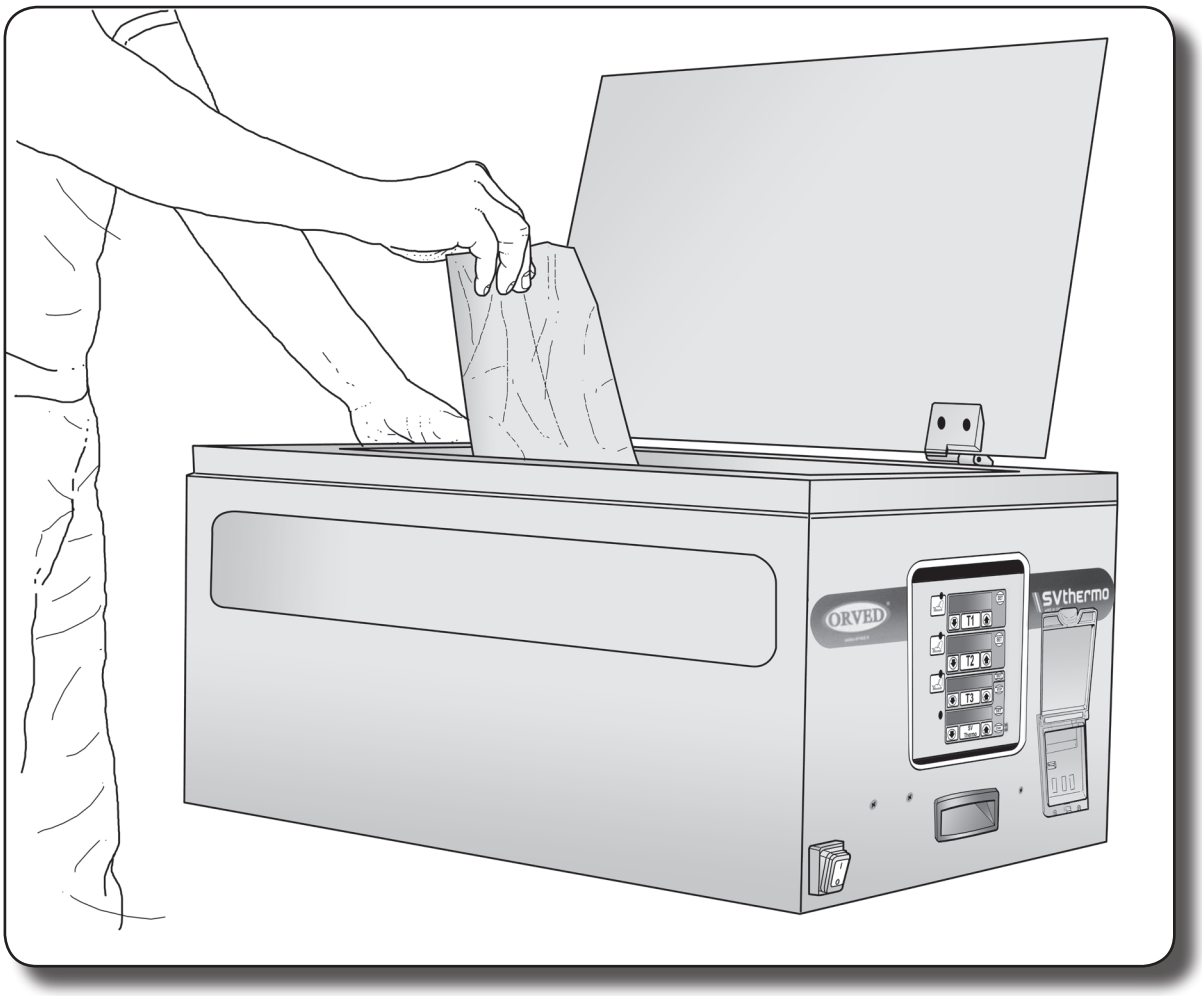
(EN ISO 14159:2008 (E) Sicurezza della macchina – Requisiti igienici per il design della macchina)

North America:

Partial application of the **NSF 4 Standard Issue:2009/04/22** Commercial Cooking, Rethermalization and Powered Hot Food Holding and Transport Equipment

Sileo Vendraminetto
General Manager Orved SpA

Musile di Piave, December 2011



user

1. GENERAL INFORMATION

1.1 THE MANUAL

- This User Manual is used as a reference guide for correct and rapid identification of all the machine parts in any version.
- The diagrams, tables and all that contained in this Operating and Service Manual are confidential and therefore, it is prohibited to pass on any information in whole or in part to third parties, without the approval of **ORVED S.p.A.**
- In accordance with the Company's policy aimed at continuous quality improvement, the Manufacturing Company reserves the right to make any changes deemed necessary, at any time and without prior notice. The descriptions and images contained herein are not binding.
- This manual is to be considered an integral part of the appliance, therefore it must be conserved and kept throughout its duration and use. If the appliance is transferred to third parties, this document must be passed on to the new owner.
- The buyer is obliged to ensure that all personnel assigned to use and service this appliance read this manual carefully, allowing them to consult it freely whenever necessary.
- The manufacturer declines all liability for damage caused to persons, objects or animals deriving from non-compliance with the requirements stipulated in this manual, safety warnings, alterations to the appliance without prior authorisation, tampering with and non-original spare parts being used.

DIAGRAMS

- The diagrams in this manual clearly represent the operating principle of the models referred to on the cover page.

1.2 STORING THE MANUAL

- The contents must not be ruined when this document is used. After using the manual, place it in a safe and protected place, which is easily accessible by all operators who use and/or service the appliance. A copy of this manual can be requested, should it be lost, stolen or damaged, by sending a purchase order to **ORVED S.p.A.**, specifying the version, edition, revision and name of the appliance. This information can be found on each page of this document.
- Date of publication of this Operating and Service Manual: **08.2011**.
- Copyright: **ORVED S.p.A. (SOLE PROPRIETORSHIP)** - Musile di Piave (VE)

1.3 IDENTIFICATION OF THE MANUFACTURER

Registered and Administrative Office: **ORVED S.p.A. (SOLE PROPRIETORSHIP)**

Via dell'Artigianato, 30 - 30024 MUSILE DI PIAVE (VE) ITALY

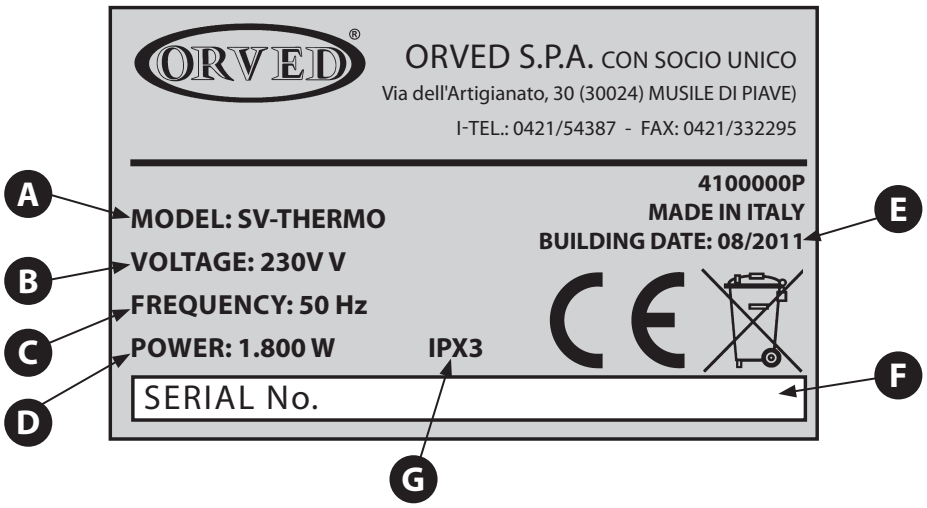
Tel.: ++39 0421 54387 / Telefax: ++39 0421 333100

E-mail: orved.ve@tin.it - Internet: www.orved.it

1.4 IDENTIFICATION OF THE APPLIANCE

The appliance is identified from a plate on the rear side that bears the following information:

- **A** Model.
- **B** Voltage and number of phases (Volt).
- **C** Frequency (Hertz).
- **D** Maximum power consumption (Watt).
- **E** Year of manufacture.
- **F** Serial number.
- **G** Degree of protection against moisture IPX3.



In order to facilitate legibility, the serial number of the machine is also applied inside the USB support on the front part. Lift the lid as shown below (**Fig. 1**).

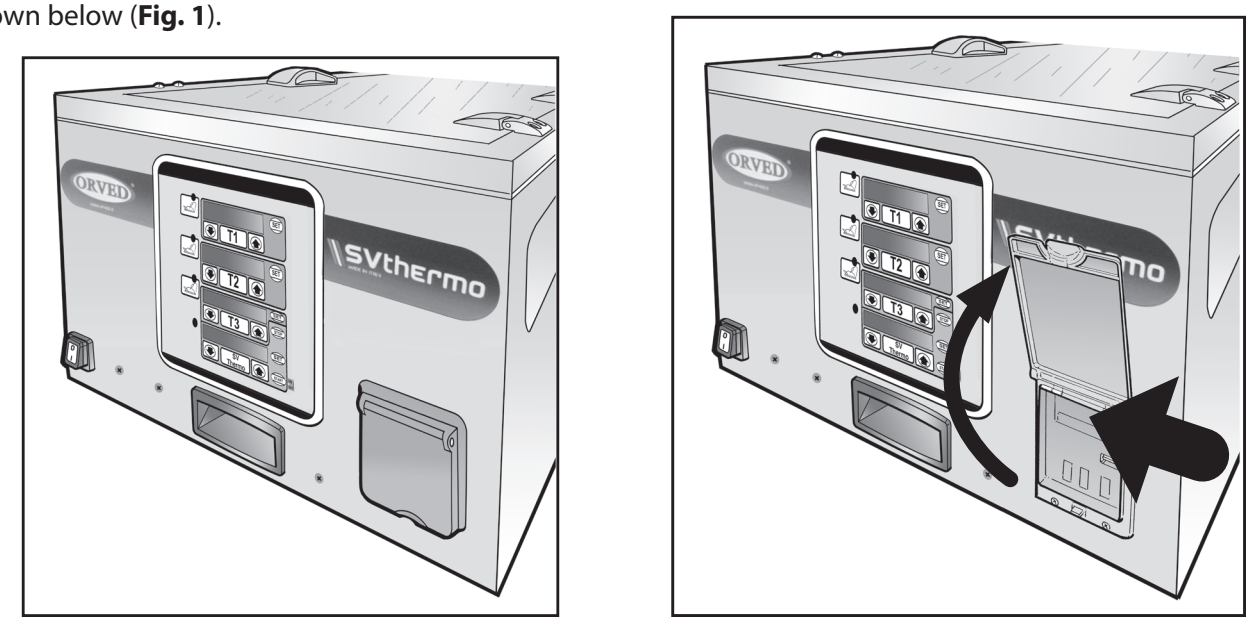
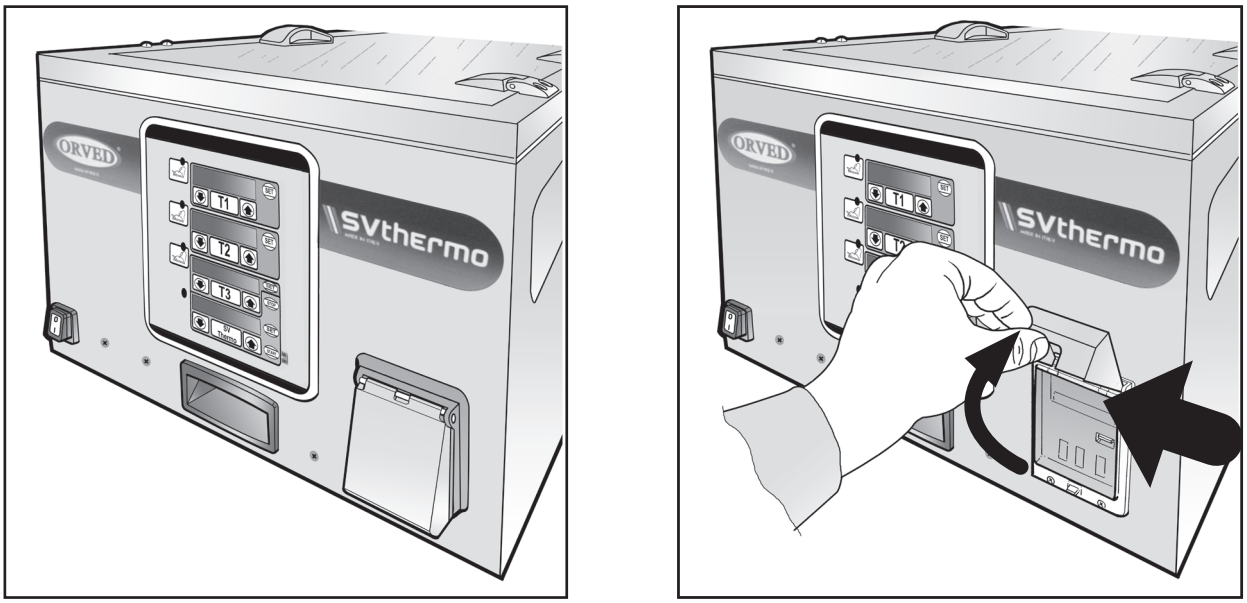


Fig. 1



1.5 WARRANTY

All **ORVED** products are normally subjected to severe qualitative and functional controls before being installed in order to safeguard and protect the Customers.

COVERAGE

ORVED guarantees its products from all manufacturing and processing defects and agrees to replace any parts that may be found to be defective by the manufacturer, free of charge.

DURATION

ORVED guarantees its professional use products for 12 (twelve) months from the date of sale shown on the purchase document.

GENERAL CONDITIONS

The ORVED warranty:

a) Entitles the user to free replacement of defective components acknowledged by **ORVED** or an authorised representative.

b) **ORVED**'s liability is limited to defective parts being replaced; under no circumstances shall **ORVED** acknowledge compensation claims for anything different.

c) The parts in question must be returned to **ORVED** and all transport expenses for the parts to be delivered are entirely borne by the Customer.

d) Normal wear and tear of the components is excluded from the warranty.

e) The warranty period is not extended if any repairs are performed.

TERMINATION

Besides normal expiry of the period of cover, the warranty is immediately rendered null and void in the following cases:

a) The identification plate of the appliance being tampered with, altered in any way or removed without **ORVED S.p.A.** having been promptly notified.

b) Altering the appliance or its parts without prior written authorisation from **ORVED S.p.A.** Tampering with the appliance or its parts relieves **ORVED S.p.A.** from any damage caused to persons, animals or objects, besides rendering the warranty null and void.

c) Failure to comply with the instructions provided in this manual.

d) Using the appliance for purposes other than those indicated in this manual.

e) Damage or accidents caused to the appliance due to external factors.

f) Unskilled personnel using, repairing and/or servicing the appliance.

1.6 REPORTING DEFECTS OR ANOMALIES

Please report any defects or anomalies that go beyond the contents of this manual to the dealer in your area or directly to **ORVED S.p.A.**, who will gladly help resolve the problem.

Have the following readily available:

- Name of model
- Serial number

1.7 REQUEST FOR PARTS

Please request spare parts from the dealer in your area or directly from ORVED S.p.A., specifying:

- Name of model
- Serial number
- Part code

2. GENERAL SAFETY STANDARDS AND ACCIDENT PREVENTION

ORVED has analysed the basic operations regarding use and maintenance while designing and creating the appliance. The methods of intervention have been studied and included in this manual for them to be performed safely. Failure to comply with these Standards can be extremely hazardous for the safety of the appliance as well as that of the personnel. The manufacturer declines all liability for damage caused to persons, objects or animals deriving from non-compliance with the requirements stipulated in this manual, safety warnings, alterations to the appliance without prior authorisation, tampering with and non-original spare parts being used.

2.1 SYMBOLS ON THE MACHINES

Symbols and warnings are found on the machines, which are an integral part of the safety devices of the machine and highlight potentially hazardous situations for the safety of the appliance and/or the operator.



Risk of electric shock; electrical hazard.

DISCONNECT THE POWER PLUG BEFORE REMOVING THE PANEL (OR OPENING THE MACHINE)

Maintenance: disconnect the power plug before removing the rear panel of the machine.



Indicates the risk of burns if contact is made with very hot surfaces.

2.2 SYMBOLS IN THE MANUAL

This manual contains symbols to highlight hazardous situations for the safety of the appliance and/or the operator, particularly important Standards, recommendations, warnings and precautions to be complied with when using or servicing the machine. These symbols must be understood by the personnel using and servicing the appliance before commencing any operation.



ELECTRICAL HAZARD
Risk of electric shock.



DANGER
Indicates a potential hazard to life and health.
Failure to comply with these warnings can cause damage to persons, the appliance or the environment.



RISK OF BURNS
Indicates the risk of burns if contact is made with very hot surfaces.



NOTE
Indicates recommendations for use and other useful information.

2.3 COMPLIANT USE OF THE MACHINE

The **SV-THERMO** thermostatic bath has been designed and constructed for vacuum cooking ("Sous vide cooking"), which consists of cooking and regenerating vacuum packed food inside special bags, by immersing them in water heated to a specific temperature, which is set by the user.

It is prohibited to use the appliance in a manner or for a purpose other than those indicated by **ORVED S.p.A.** in this manual. Proper use of the appliance also includes compliance and awareness of the instructions and warnings contained in this instruction manual, as well as the timely implementation of all inspections, servicing and cleaning of the appliance.

ORVED S.p.A. declines all liability for damage caused to persons, animals or objects deriving from non-compliant use of the appliance.

2.4 WARNINGS AND HAZARDS DERIVING FROM MACHINE USE

2.4.1 HAZARDS DERIVING FROM MACHINE USE

DANGER!

- **The machines are designed and manufactured according to the latest technology available and are compliant with applicable safety Standards. Nevertheless, they may be a source of danger if the safety requirements contained in this manual are not complied with or in the event of improper use.**

Strictly comply with the following safety guidelines:

- Before use, make sure the machine is intact and bears no signs of damage.
- If the machine is not used for a long period of time, it must be switched off from the main switch.
- Place the appliance on a stable horizontal plane.
- The bath must only be filled with drinking water and solely from the local water mains connection.
- Prevent unauthorised persons from accessing the work area.
- Use suitable work clothes and protection gloves.
- Never use the machine in potentially explosive environments, or in the presence of flammable vapours and gas.
- Make sure there is sufficient ventilation in the workplace.
- Immediately remove all obstacles and interference that can compromise safety.
- Empty the thermostatic bath completely before moving the unit and grasp it from the handles.
- Whether using core probes (optional) or without the use of them, the front protective door must remain closed. When using core probes, pull out the cables in the bottom of the protective door, as shown in **Fig. 1**.

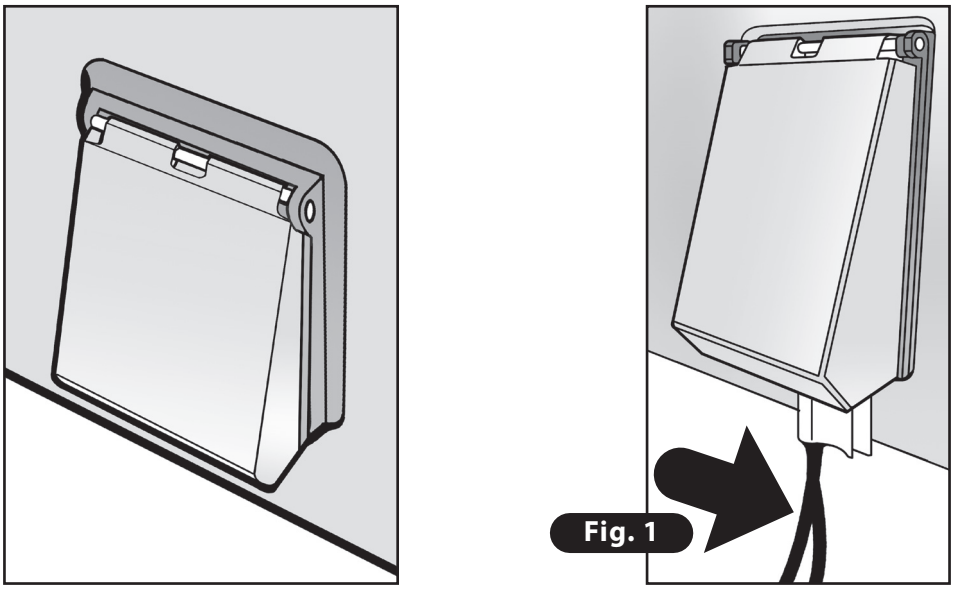


Fig. 1

2.4.2 WARNINGS RELATIVE TO THE WATER AND DRAINS CONNECTIONS.

ATTENTION!

- **The connection to water and drains must be undertaken by a qualified technician.**

- To Connect the cold and hot water mains, use only hoses suitable for drinking water, resistant to at least 600 kPa (6 bar). Internal diameter Ø 12-14 mm.
- Make sure the drain pipes of the mains, which the appliance is connected to, are resistant to temperatures up to 90°C.
- The drain hose provided with the machine, must drain unconstrained into a waste pipe of at least Ø 63 mm (2"), resistant to temperatures up to 90°C. Do not extended or replace the tube with a longer drain pipe: the drain would not work.
- Do not use damaged or leaking water connections.
- Make sure the mains pressure does not exceed 300 kPa (3 bar) and fasten the pipes with suitable metal hose clamps The warm water at the incoming must not exceed 60°C.
- When moving the appliance elsewhere, use a new kit of movable joints (gaskets).
- Only pipes that are suitable for drinking water are to be used for the connections to the machine.

2.4.3 PERSONNEL ASSIGNED TO USE THE MACHINE

DANGER!

- **Only trained personnel can use the machine. Such personnel must be aware of the safety Standards and User Instructions contained in this manual.**
- **This appliance is not suitable for use by persons (including children) with reduced physical, sensory and mental capacities, or unskilled persons, unless they are supervised and trained regarding use of the appliance by a person responsible for their safety. Make sure that children do not play with the appliance.**

2.4.4 PROTECTION AND SAFETY DEVICES

DANGER!

- **Before every appliance start-up, check that all the protection and safety devices are present, efficient and functional.**

2.4.5 ELECTRICAL RISKS

ELECTRICAL HAZARD

- The electrical safety of the appliance is only guaranteed when it is connected correctly to an efficient earthing system in accordance with the law.
- Only qualified personnel can operate on the power supply system and access live parts. Disassembly of the rear panel is permitted only to qualified personnel.
- Perform regular inspections of the electrical system of the machine (these are only to be performed by qualified personnel).
- Remove and/or immediately replace loose connections or burnt wires (only qualified personnel must replace these parts).
- If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a similarly qualified person in order to avoid any risks.
- Certain parts of the machine lid can become very hot during continuous operation.
- Use only suitable plugs and sockets that comply with the electrical specifications stipulated on the identification plate of the machine.
- Do not insert objects in the vents of the machine: risk of electric shock!
- It is strictly prohibited to use running water, water jets and/or vapour in the machine installation area: risk of electric shock!
- The condensation drawn from the appliance can reduce operating safety in the surrounding equipment.

2.4.6 MACHINE MAINTENANCE, SERVICE AND REPAIRS

DANGER!

- The Machine maintenance, service and repairs must be undertaken by a qualified technician.
- Remove the plug from the socket before each intervention.
- Perform all machine maintenance and servicing as scheduled.
- Any damage must only be repaired by qualified personnel.

2.4.7 MODIFYING THE APPLIANCE

DANGER!

- Do not alter the machine in any way without approval from **ORVED S.p.A.**
- Immediately replace all deteriorated, worn or damaged parts (qualified personnel must replace these parts).
- Only original spare parts are to be used.

2.4.8 FIRE PREVENTION

DANGER!

- Keep the vents free from obstacles (at least 10 cm away from any surrounding obstacle).
- Do not place the machine close to flammable products

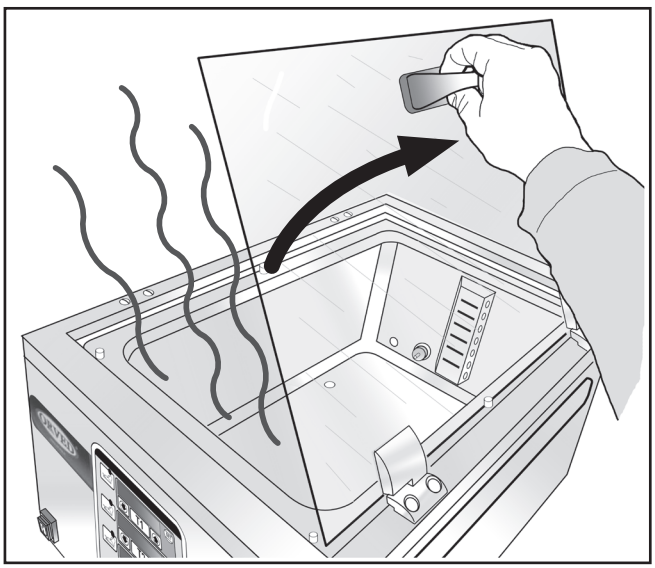
DANGER!

- Risk of burns: ventilate the environment if alcohol-based or flammable disinfectants are used. Keep open flames away from the machine! Do not smoke!

2.4.9 HAZARDS DERIVING FROM THE PRESENCE OF HOT WATER AND STEAM GENERATED BY THE MACHINE

DANGER!

- Risk of burns: do not touch the glass lid and / or the steel frame during the cooking cycles: they can become very hot!
- Open the lid by placing yourself on the side of the hinges and grasping the handle, so that any steam let out from the bath does not reach you **(Fig.1)**.
- Remove the bags using special cooking tongs. Do not remove the bags with your bare hands! Do not ever Take them out without adequate protective clothing such as gloves resistant to high temperatures.



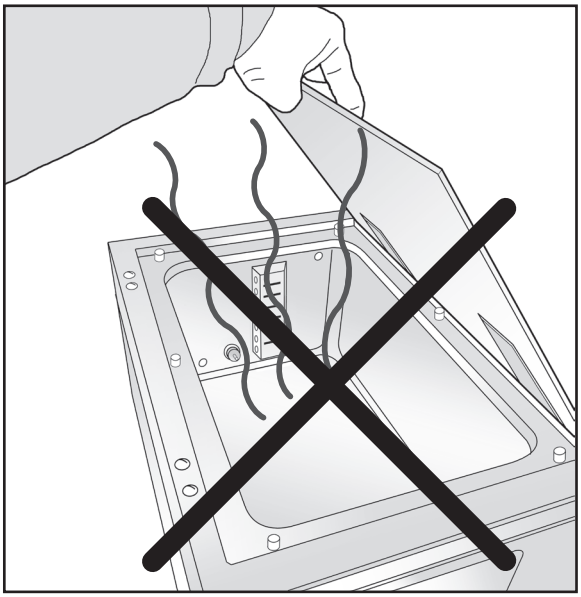


Fig. 1

2.4.10 CLEANING AND DISPOSING OF THE MACHINE

ATTENTION!

- Clean the machine regularly, following the instructions in this manual.
- Use and handle detergents according to the manufacturer's instructions.
- Demolish and dispose of the machine, its components and detergents used to clean the appliance, in compliance with applicable Standards.

2.5 SAFETY DEVICES ON THE MACHINE

2.5.1 NOTES ON SAFETY DEVICES

- Before every appliance start-up, check that all the protection and safety devices are present, efficient and functional. The machine must not be used if one or more safety device is missing or damaged.
- Only qualified and trained personnel must perform maintenance and/or repairs or replace safety devices.
- The safety devices must not be excluded or disabled.

The machine comes standard with the following safety devices:

- A safety device that prevents the heating resistance from overheating.
- A main switch.
- A silicone gasket for the upper stainless steel frame to be insulated thermically.
- Transport handles.
- Degree of protection against moisture IPX3.

2.5.2 SAFETY DEVICE THAT PREVENTS THE RESISTANCE FROM OVERHEATING

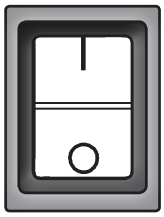
SV-THERMO is equipped with a safety system, which eliminates the risk of overheating and potential fire hazard resulting from a defect or malfunction in the power supply of the resistance, by means of a device inside the resistance.

The safety device is fully automatic according to the temperature of the resistance.

After the protection has been triggered, the heating function can be restored after a cooling period.

2.5.3 MAIN SWITCH

The power supply of the appliance can be disconnected from the main switch, which can also be used as an emergency switch.



2.5.4 PROTECTIVE CASING OF THE WIRING AND PCB

The wiring as well as the main electronic board and electric components, which control all the machine functions, are entirely enclosed in a fireproof stainless steel casing.

2.5.5 SILICONE GASKET

A silicone gasket isolates the bath from the upper frame so as to insulate it from the heat produced by the bath.

2.5.6 TRANSPORT HANDLES

Two transport handles, at the front and rear, allow the user to handle the appliance safely.

2.6 HYGIENE

The machine is constructed in compliance with **Directive EN1672-2** (hygiene requirements for food processing machines), **Regulation EC 1935/2004 and the EHEDG guidelines** (European Hygienic Engineering and Design Group). Materials, surfaces and shapes have been studied and selected so as to minimise or eliminate the risk of exposure and infection between food and the machine user and vice versa, and to minimise or eliminate the risk of food contamination via the operator and the machine itself.

That said, in the case of vacuum food packing, always comply with the following guidelines:

- Clean the machine thoroughly before and after use. Clean and disinfect the internal surface of the heating bath with particular attention and remove lime scale with vinegar or other suitable products.
- Work in a hygienic manner, avoiding direct contact between the food and the machine.
- Keep the control panels and the handling elements clean and free from grease and oils.
- Close the lid when the machine is not used: thereby preventing dust and dirt from entering the bath.

2.7 MAINTENANCE AND TECHNICAL SUPPORT

This User Manual describes, in a clear and distinct manner, the maintenance, repairs and service operations to be performed by the machine operators and those that require qualified and trained technicians from an authorised after-sales and service centre.

Always comply with the following guidelines when performing maintenance, service or repairs:

- Switch the machine off via the main switch and remove the plug from the socket. Disconnect the water connections.
- Comply with the scheduled maintenance and intervals stipulated in this manual. Delays or lack of maintenance can lead to costly repairs.
- Only use original **ORVED S.p.A.** spare parts, oils and lubricants.
- Use tools that are in good condition; do not leave tools inside the machine after use.
- Never intervene when the operations to be performed require a qualified technician from an authorised after-sales centre.
- The operations must only be performed by Technical Support Centres authorised by **ORVED S.p.A.**.
- Any safety devices that are temporarily disabled or removed by a qualified technician for maintenance to be performed, must be restored once the intervention is complete and their efficiency and functionality must be verified.

3. RECOMMENDATIONS TO PROTECT THE ENVIRONMENT

PACKAGING

- The packaging material is 100% recyclable and is marked with the recycling symbol.
- Comply with local Standards for disposal.
- Do not dispose of the material in the environment. The packaging material (plastic bags, polystyrene, etc.) must be kept out of the reach of children as they are a potential source of danger.

SCRAPPING/DISPOSAL

- The appliance has been constructed with recyclable material. This appliance is marked in compliance with European Directive 2002/96/EC - Waste Electrical and Electronic Equipment (WEEE).
- By ensuring that this appliance is scrapped correctly, you shall help prevent potential negative consequences for the environment and health.
- The symbol  on the appliance or on the accompanying documentation, indicates that this product must not be treated as domestic waste but must be taken to a suitable recycling collection point for electric and electronic equipment.
- Before scrapping, make the appliance unusable by cutting the power cable and removing the lid so that children cannot access the inner part of the appliance.
- Scrap the appliance in compliance with local Standards regarding waste disposal and take it to an appropriate collection point. Do not leave it unattended for even just a few days as it is a source of danger for children.
- For further information regarding treatment, recovery and recycling of this appliance, contact the relative local department, the waste collection service or the dealer where the appliance was purchased.

4. HANDLING AND UNPACKING

WARNING!

- **Pay particular attention to staples, nails, rivets, sharp edges or anything else that could be a potential hazard on the packaging. Upon receiving the package, the Customer must verify its integrity, duly reporting any anomalies, missing items or evident damage to the carrier or transport personnel. In any case, this report must be made before any other handling or unpacking operation is implemented.**
- **Any damage on the packaging could result in the appliance or its components being damaged. If in doubt about the actual integrity of the appliance following transport, before any other operation, ask your dealer or ORVED S.p.A. for information.**
- **The packed appliance must be stored in a protected place, which is dry, covered and not exposed to weathering. The area in question must have a temperature range of 5°C to 40°C and a relative humidity value that does not exceed 80%. Water and water vapour must be kept at a distance from the installation or storage area.**

4.1 UNPACKING

- After having removed the packaging, check the integrity of the appliance. If in doubt, do not use the machine and contact the dealer immediately.
- Remove the adhesive tape that blocks the lid during transport and handling.
- Remove the Velcro strap that supports the power cable on the rear panel and store it for future transport purposes.
- It is recommended to store the packaging intact for any future handling or storage operations.
- Comply with that described in Chapter 3 for disposal and safety of the packaging material.

4.2 HANDLING AND STORING

WARNING!

- **If the appliance is stored, the area must be protected, dry, ventilated, covered and not exposed to weathering.**
- **The area in question must have a temperature range of 5°C to 40°C and a relative humidity value that does not exceed 80%**
- **Water and water vapour must be kept at a distance from the installation or storage area.**

5. DESCRIPTION OF THE MACHINE AND ITS FUNCTIONS

5.1 DESCRIPTION OF THE APPLIANCE

The **SV-THERMO** is a thermostatic bath, mainly designed and constructed for vacuum cooking ("Sous vide cooking"), which consists of cooking vacuum packed food inside special bags made of OPA/PP at temperatures that normally range between 50 and 70°C (reaching a peak of 100°C when vegetable sauces are cooked). For this purpose, the drinking water of the mains, supplied via solenoid valve/s in a bath with a capacity of approximately 30 litres, is heated by an electric resistance.

VERSIONS

a) Basic:

Filled by means of a single solenoid valve; drained manually via a ball valve.

Two cooking programs.

Works with two fixed, pre-set water levels, positioned at 100 (Level 1) and 140 mm (Level 2) from the bottom; the water level is maintained automatically (replenished by evaporation, drain, etc.).

b) "Top":

Filled by means of two solenoid valves for hot and cold water; drained automatically via a solenoid valve.

Five cooking programs and nine pre-set programs.

Works with six fixed, pre-set water levels, positioned at 50 mm (Level 1), 74 mm (Level 2) , 98 mm (Level 3), 122 mm (Level 4), 146 mm (Level 5) and 170 mm (Level 6) from the bottom; the water level is maintained automatically (replenished by evaporation, drain, etc.).

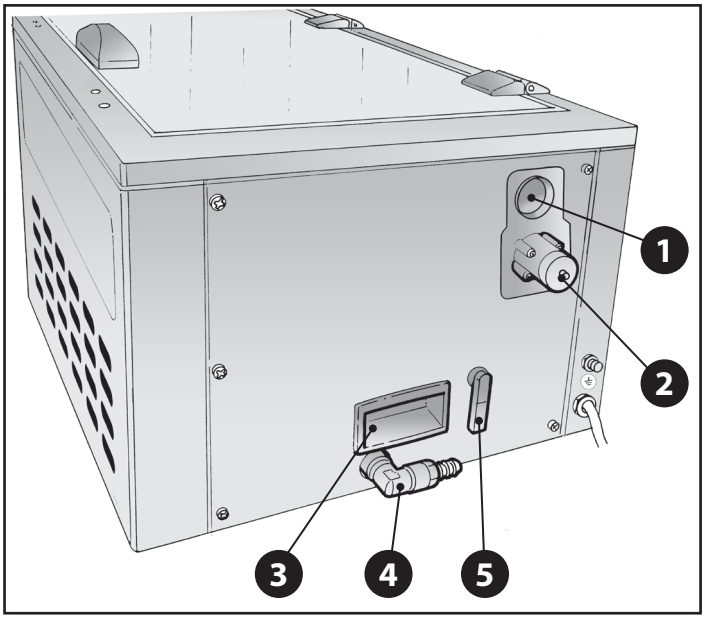
This six levels allow the user to optimise the amount of water to be heated.

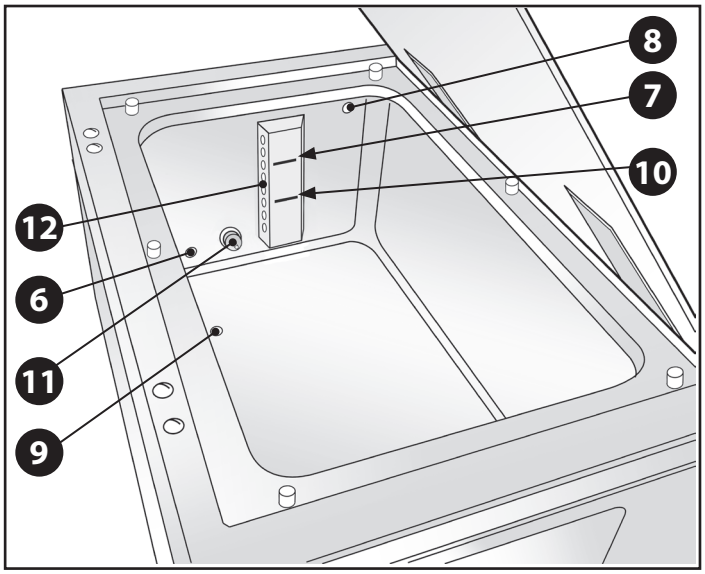
WATER CONNECTION

- The water can be filled either manually or automatically.
- In the case of automatic loading, the water is loaded up to the programmed level.
- The water is drained via a solenoid valve in the Top version and manually in the Basic version.
- The drain is protected by a special drain strainer, which must always be placed on the bottom.
- The Top version can be filled with hot or cold water from the drinking water mains. That way, the pre-heating times are minimised, while maintaining the possibility of cooling the water rapidly in the relative cooking cycles.
- The control interface, equipped with four displays, allows the user to set cooking cycles as follows: manually, time-set, manual with delayed start-up, time-set with delayed start-up, with the core probe and lastly with the core probe and delayed start-up.
- A container (bag-holder basket) is supplied as an optional. This is made entirely of stainless steel, has removable partition walls and allows seven packages to be immersed into the water, in an upright and neat layout.

5.1.1 SV-THERMO "BASIC"

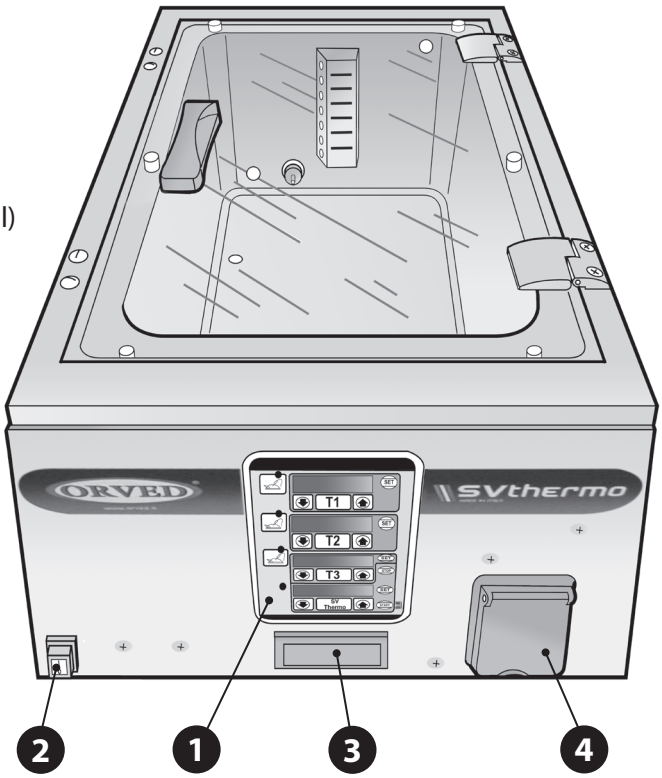
1. ½" BSP female connection fittings for water fill-up.
2. Impurity filter that can be inspected
3. Transport handle
4. Rubber holder fitting Ø16 for water drain
5. Manual drain valve
6. Water fill-up
7. L2 level sensor
8. Overflow drain
9. Bottom drain
10. L1 level sensor
11. Bath water PT1000 temperature sensor
12. Removable level indicator



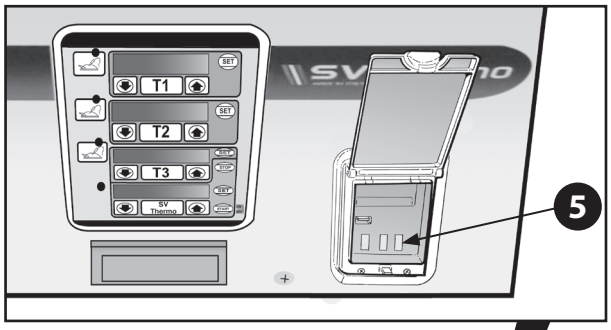


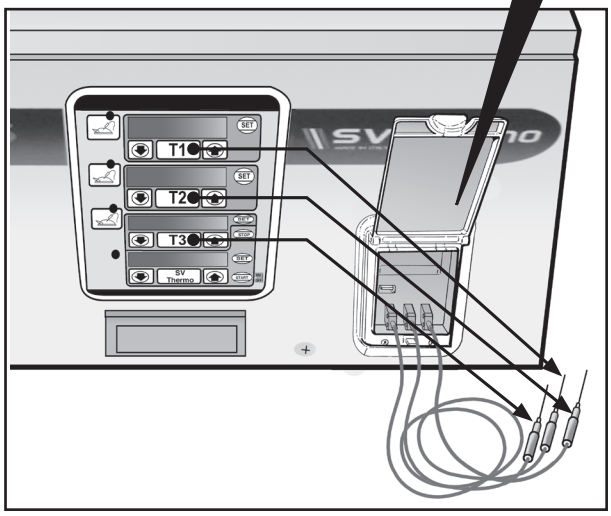
5.1.2 SV-THERMO "TOP"

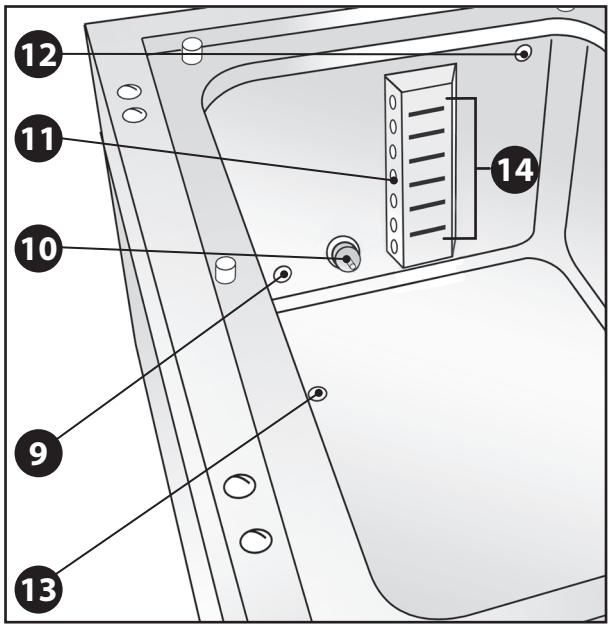
1. Control panel with four displays
2. Main switch
3. Transport handle
4. Protective door for fitted sensor holders and USB port (optional)

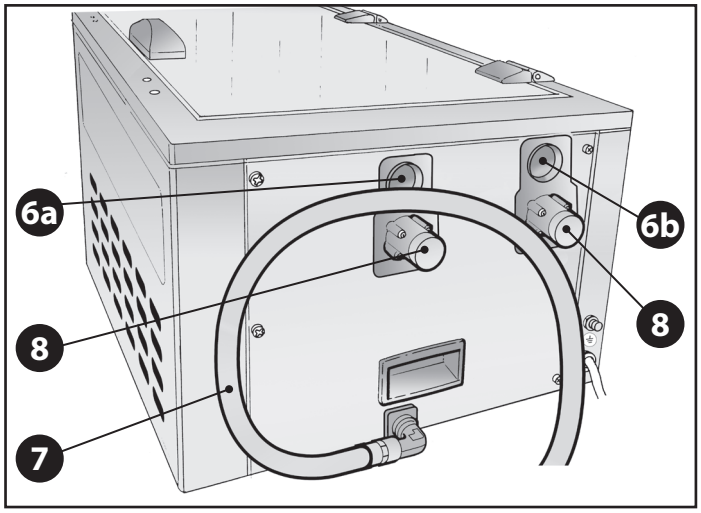


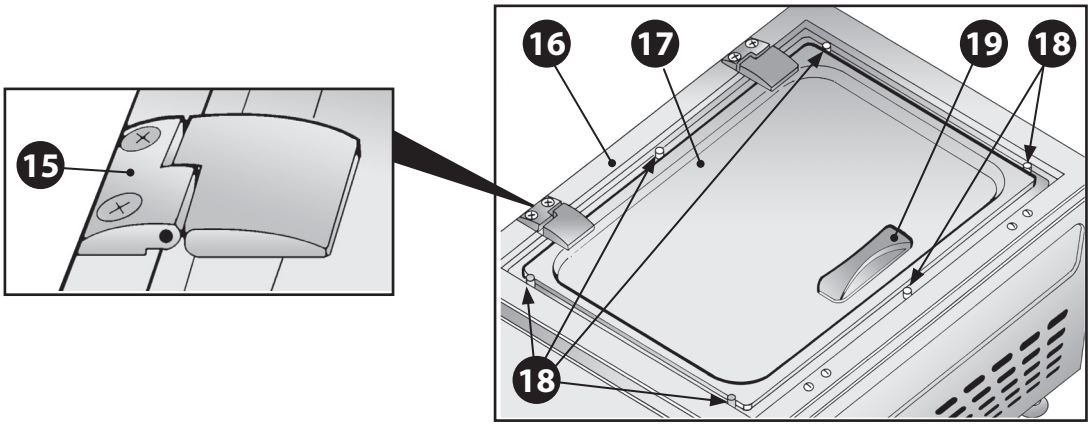
5. Fitted core probe sockets (optional); fitted core probes (optional) with red, yellow and black markings that correspond to the three displays T1/T2/T3 for the core parameters to be displayed
6. ½" BSP female connection fittings for hot **(6a)** and cold **(6b)** water fill-up
7. Ø19 Drain hose
8. Impurity filters that can be inspected
9. Water fill-up
10. Bath water PT1000 temperature sensor
11. Removable level indicator
12. Overflow drain
13. Bottom drain
14. Level 1 - 6
15. Nickel-plated zinc alloy lid hinge
16. Stainless steel frame, shaped to allow a Gastronorm GN 1/1 (EN 631) container to be entered
17. Gastronorm GN 1/1 (EN 631) container inserted in the frame
18. 6 Teflon supports on which the lid rests when closed
19. Lid handle





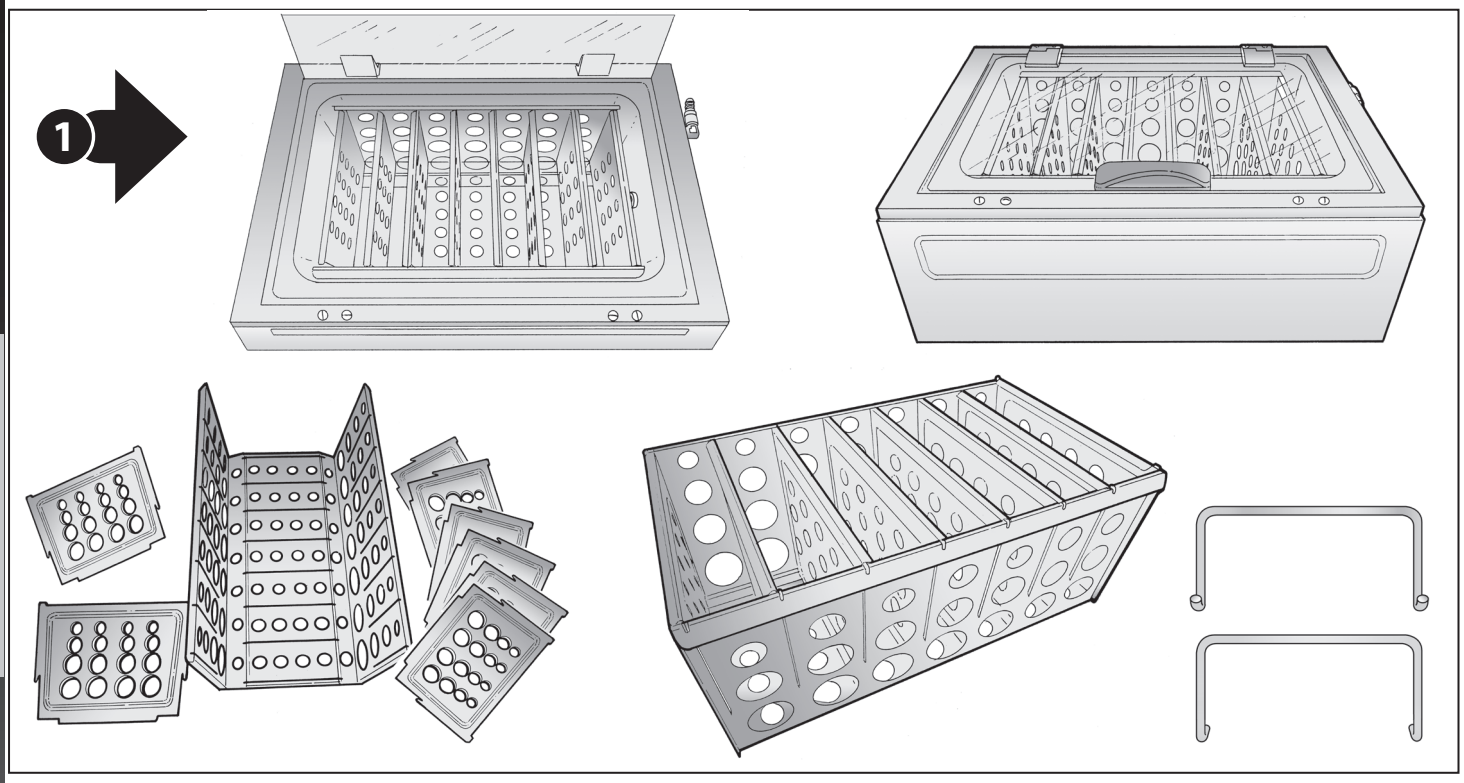


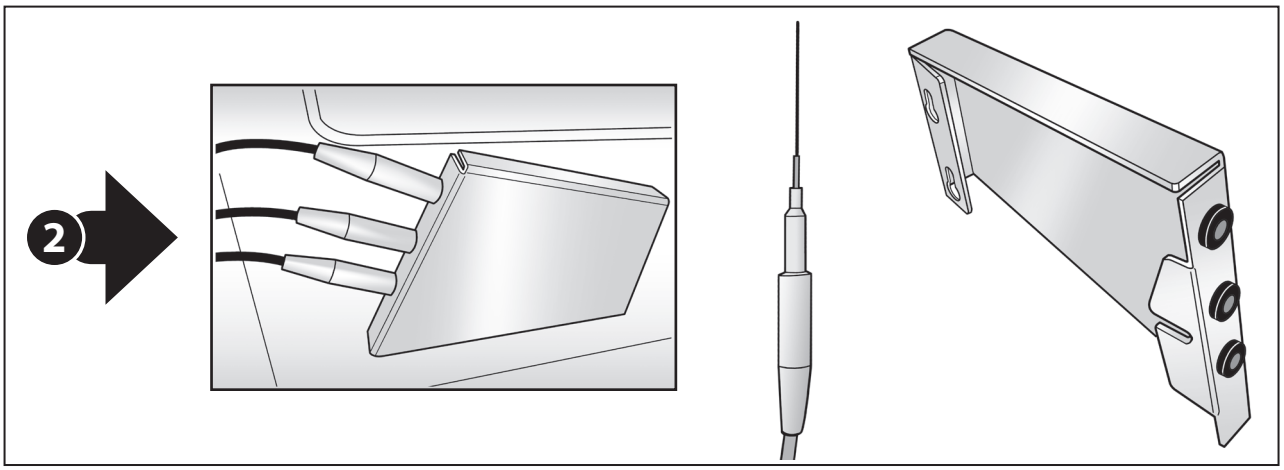


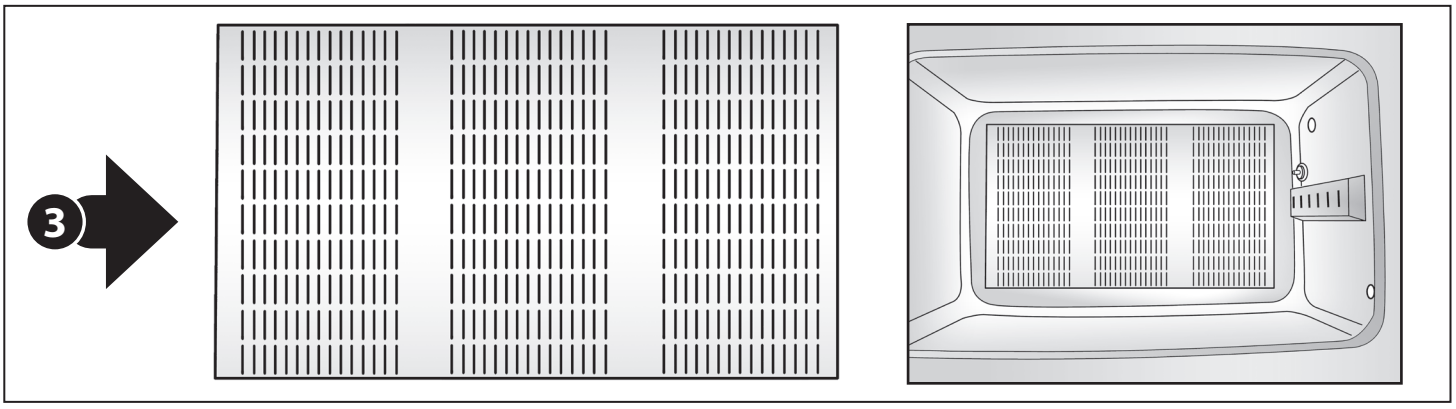


5.1.3 ACCESSORIES

1. 7-section bag-holder basket, consisting of a basket, 8 partitions and 2 handles
2. PT1000 core probes (optional); with needle 80 mm Ø 1,50, stainless steel core probe holder (optional).
3. Drain Strainer.







5.2 CORE PROBES

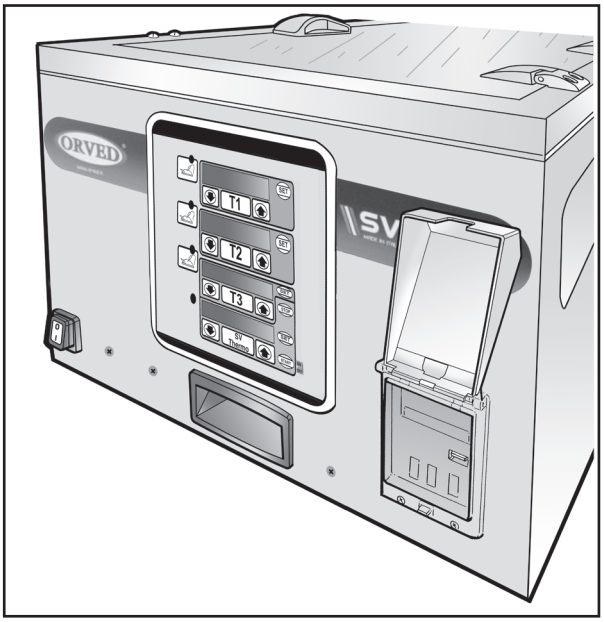
Fitted sensors are available as optional, each matched with a display, for the core temperature of the product to be read and the cooking times to be started according to the set core temperature being reached.

- The probes (PT1000 Class A - optional) are connected to the three holders inserted in the specific front support, which is accessed by lifting the lid on the right side of the control panel.

A set of three probes is available as optional, which are identified by their coloured sheaths and correspond to the colours on the three T1, T2 and T3 displays of the control panel. Below is the configuration of the colours to correspond with the probe connectors.

COLOUR	CONNECTOR	DISPLAY
RED	RIGHT	T1
YELLOW	CENTRE	T2
BLACK	LEFT	T3





5.3 COOKING MODES

The Top version has four cooking modes and the Basic version has three. They are structured so as to meet the basic requirements of vacuum cooking.

They differ in the use of the core probe, the sequence of the cooling phases or maintenance of the selected water temperature.

All allow the cooking cycle start-up to be delayed and to use the core probes.

As an alternative to the programmable cycles divided into the five modes listed below, a pre-set cooking program can be selected from the nine factory-set programs available.

5.3.1 COOKING MODES (PROGRAMMABLE)

- **COOK-OFF:** Timed-cooking with the resistance switching off at the end of the cycle (Basic and Top)
- **COOK-CHILL:** Timed-cooking with cooling at the end of the cycle (Top)
- **COOK-HOLD:** Timed-cooking with the temperature maintained at minimum in accordance with the HACCP Standard (Top)
- **CATERING:** use of the thermostatic bath in locations without the availability of connections to the water mains: automatic drain, fill-up and level regulation are switched off (Basic and Top).

A) COOK-OFF: TIMED-COOKING WITH THE RESISTANCE SWITCHING OFF AT THE END OF THE CYCLE (BASIC AND TOP)

Operation:

1) The bath water reaches the set temperature.

2) The product is entered into the bath.

3) Once the cooking time elapses, the resistance is switched off and the hot water remains in the bath.

4) The cooked product is removed.

B) COOK-CHILL: TIMED-COOKING WITH COOLING AT THE END OF THE CYCLE (TOP)

Operation:

1) The bath water reaches the set temperature.

2) The product is entered into the bath.

3) Once the cooking time elapses, the resistance is switched off, the hot water is drained and cold water is filled up to the pre-set level.

C) COOK-HOLD: TIMED-COOKING WITH THE TEMPERATURE MAINTAINED (TOP)

Operation:

1) The bath water reaches the set temperature.

2) The product is entered into the bath.

3) Once the cooking time elapses, the water is adjusted according to the value set on the user parameter menu (factory programmed at 65°C) and the indefinite cooking time is started.

D) CATERING: USE OF THE THERMOSTATIC BATH IN LOCATIONS WITHOUT THE AVAILABILITY OF CONNECTIONS TO THE WATER MAINS. (BASIC AND TOP).

In this mode, the device works according to the COOK-OFF program. The automatic level management as well as the cooking modes B and C are deactivated.

COOKING WITH 1 OR MORE CORE PROBES (BASIC AND TOP)

Operation: TOP VERSION

1) The bath water reaches the set temperature.

2) One or more products (of the same type) are entered with one or more probes in the bath.

3) The core of the product reaches the temperature set on displays T1, T2 and T3.

Once the desired core temperature is reached, the work cycle continues according to one of the three options A-B-C above.

Operation: BASIC VERSION

1) The bath water reaches the set temperature.

2) One or more products (of the same type) are entered with one or more probes in the bath.

3) The core of the product reaches the temperature set on displays T1, T2 and T3.

Once the desired core temperature is reached, the work cycle continues if the a maintenance time of core temperature has been programmed.

5.3.2 FACTORY-SET COOKING PROGRAMS (NOT-PROGRAMMABLE)

1) Low pasteurisation

2) High pasteurisation

3) Medium pasteurisation

4) Cooking rare red meat (overnight cooking of large pieces, e.g. Roast beef)

5) Cooking boiled meat (not boiled)

6) Cooking crisp vegetables

7) Cooking vegetable sauces or vegetables in general

8) Cooking potato sauces

9) Cooking alternative meats

5.4 DELAYED START-UP WITH ICE FUNCTION

The appliance allows cooking and regeneration with delayed start-up with a positive effect on the planned work and energy consumption.

For this reason, the mode of greater interest allowed by the SV- Thermo-Top version is the cooking and regeneration of overnight product, with product temperature maintained at 3°C until the cycle start-up. For this purpose, simply pour the granular ice into the tank until the product is covered, the tank temperature of 3°C is maintained for as long as necessary until the start of the cycle, this can be performed out of hours. In this manner, it is assumed that the operator is not present: therefore the use of added timers or core probes is obviously excluded.

The appliance allows the choice between two delayed start-up modes:

5.4.1 DELAYED START-UP FOR FROZEN PRODUCTS (ICE FUNCTION OFF)

Setting the user parameter ICE on OFF, the start-up of the set cooking cycle will simply be moved to the programmed time with the DELAY parameter on the MAIN display. The cycle start-up depends on the parameters and the mode set. It is used primarily when using frozen products to be defrosted/regenerated, if the process is not supervised by an operator, or to delay the cooking start-up when the operator is present.

5.4.2 DELAYED START-UP FOR PRODUCTS STORED AT 3°C USING GRANULAR ICE INSIDE THE TANK (ICE FUNCTION ON)

By setting the user parameter to ICE ON, when the programmed time is reached with the DELAY parameter on the MAIN display, the appliance automatically carries out a series of alternating drainage with hot water fill-up, allowing the granular ice to melt quickly. Upon completion, the set cycle automatically starts-up.

6. BEFORE USING THE MACHINE: NOTIONS REGARDING VACUUM PACKING,VACUUM COOKING AND USEFUL RECOMMENDATIONS ON PREPARING THE PRODUCTS

6.1 NOTIONS REGARDING THE VACUUM COOKING BAGS MADE OF OPA/PP

The cooking bags (made of OPA/PP) differ from the preservation bags (PA/PE) due to the sealing layer, which is made of polypropylene (PP), whereas the barrier layer is made of Polyamide (PA), just like the preservation bags.

They are smooth and shiny and normally have a thickness of 75-85 micron.

They are suitable for preservation and above all for vacuum cooking.

Besides guaranteeing suitability of contact made with food, in accordance with applicable Standards, **ORVED S.p.A.** guarantees the suitability of bags made of OPA/PP to withstand cooking temperatures up to 100°C for four hours and 120°C for one hour, after having performed regular laboratory tests.

6.2 NOTIONS REGARDING PRESERVATION OF VACUUM PACKED FOOD

- Food that is kept for too long at room temperature or that has just been prepared or cooked, loses humidity and initial quality (colour, smell, taste, etc.) and is more prone to bacterial contamination. **It is recommended to vacuum pack products that have been cooled to 3 °C in a refrigerator or a blast chiller.**
- Food (raw or cooked) must be distributed evenly inside the bag for the air to escape more easily. Do not fill them excessively so as not to compromise the sealing of the bag and the hermetic tightness. It is good practice to fill the bags up to 3/4 of their volume.
- Vegetables and fruit must be thoroughly dried after having washed them in order to prevent fluid stagnation, which could make them limp.
- To preserve meat for a reasonably long time, remember to cool it in the fridge for at least 2 hours in order to slow down bacterial growth. Dry the meat before vacuum packing it to obtain a good percentage of air absence. If the meat is on the bone (spare ribs, pork chops, etc), cover it with aluminium foil to prevent the bag from being torn.

6.3 NOTIONS REGARDING VACUUM PACKED PRODUCTS AND PRODUCT PREPARATION

Vacuum cooking consists of the physical principle of reducing the boiling temperature of water by reducing the atmospheric pressure. On the basis of this principle, the cooking temperature in vacuum cooking is lower than 100°C and therefore, much lower than traditional cooking, with the advantage of preserving the most sensitive organoleptic properties, colours and taste of food.
The product is vacuum packed inside bags made of OPA/PP and cooked using the thermostatic bath. It is important for the air to be drawn from the bag as well as the core of the product (as much as possible), for there to be perfect heat transmission from outside the bag to the core of the product.
This is achieved by adding an additional vacuum time with respect to that set for preservation cycles, according to the food in question.
If the deaeration option is not present, the vacuum cycle should be repeated several times without activating the bag sealer, with particular regard to gravy, sauce and liquid products in general, which naturally incorporate greater quantities of air.

6.3.1 PREPARING THE PRODUCT FOR VACUUM COOKING

- Remember that the products to be entered into the package must be cooled to a temperature that does not exceed 3°C (e.g. products that have been kept in the refrigerator or products that have been through a complete and correct chilling process).
- Weigh the products and always add the right amount of seasoning.
- Do not exceed 50 g of oil per kilogram of product.
- When balanced salt is used, do not exceed 20 g per kilogram of product.

- Fill the bags up to a maximum of ¾ of their volume.
- Distribute the product in the bag evenly and in one layer.
- Pay attention to the sealing of the bag: it must be uniform and well marked to prevent air, cooking liquid or cooling liquid from entering.
- Do not roll, crease or strain the bag mechanically or thermically before vacuum packing the product in order to prevent compromising the vacuum tightness.
- Do not dirty the sealing area of the bag with grease or solid materials that could compromise it.
- Remember to pre-heat the water before each cooking cycle to a temperature that exceeds the cooking temperature, in proportion with the volume: the initial temperature must be increased by 8% for 1 kg of cold product from the refrigerator. Set a pre-heating program: a signal will be emitted when the bath is ready for cooking.
- When using the core probe, remember to place it at the centre of the product using the special probe cooking kit.

6.4 NOTIONS REGARDING VACUUM COOKING

6.4.1 THE THERMOSTATIC BATH

The thermostatic bath has become a widely used instrument in kitchens worldwide and a great help for all chefs who use the vacuum regeneration and cooking system, thanks to its precision in temperature, low consumption and simplicity, which make it a versatile and complete appliance.

A few important rules to be followed when using an ORVED thermostatic bath:

- Once the bath is filled, add white wine vinegar to prevent residue and limescale deposits.
- Unless the water is changed before every cooking cycle (recommended), do so at least once a week or when it appears to be dirty. Wear gloves to clean the bath with non-acidic or aggressive detergent at the end of the work cycle (white wine vinegar lends itself well). No particular precaution is required as the shape of the bath has no sharp edges.
- Always keep the lid of the machine closed so as to reduce water evaporation and to maintain a constant temperature.

6.4.2 VACUUM COOKING

Vacuum is a physical condition that is obtained mechanically in two steps: suction and hermetic sealing.

Vacuum packed food is not contaminated in any way and oxidation (caused by oxygen) is greatly reduced. This leads to a healthy, fresh product with less weight loss and all the organoleptic properties are preserved for longer with respect to traditional preservation methods.

Direct or indirect vacuum cooking:

DIRECT	INDIRECT
Cooking is achieved by being vacuum-forced: Direct cooking of the product being 99% vacuum-forced, in the steam oven or immersed in a thermostatic bath Temperature cooled to +3°C Preserved at +3°C	**Cooking begins with traditional methods:** Temperature cooled Completed by means of vacuum cooking Temperature cooled to +3°C Preserved at +3°C **OR** Temperature cooled vacuum conditioned Pasteurised at a high or low temperature Temperature cooled to +3°C Preserved at +3°C

6.4.3 PRESERVATION TIMES

Several factors affect the quality and perishability of food.
Below are useful tips for maximum preservation results.

HANDLING:

- Only touch the food with your hands when absolutely necessary, or preferably using latex gloves.
- If possible, use tools such as tongs and ladles and replace them each time you change the product or clean them often.
- Avoid contact between cooked and raw food.

COOKING:

- Cook the food well at the correct temperature, at the core of the product as well as in the oven.
- Blast chill the food to +3°C immediately after cooking.
- Never fill the bags by touching the product with your bare hands.
- Prevent the packages from coming in contact with sharp products so as to avoid perforating the bags.

PRESERVATION

- Make sure the cold room temperature does not exceed 3°C.
- Clean the vacuum machine well at the end of each production cycle.
- Use the bags only once.
- Prevent any risk of perforating the bags.

6.4.4 VACUUM COOKING TEMPERATURES

WARNING!

The following temperatures are INDICATIVE ONLY!

PRODUCT	WATER TEMPERATURE	CORE TEMPERATURE
BEEF	from/to	from/to
Fillet	58°C	52°C/56°C
Roast Beef	54°/56°C	48°C/54°C
Roast	54°/68° C	54°C/60°C
Boiled	85°/92°C	82°C/90°C
VEAL		
Leg	75°C/80°C	75°C/78°C
Rump	75°C/80°C	75°C/78°C
Fricandeau	75°C/80°C	75°C/78°C
Shoulder	75°C/82°C	75°C/80°C
Rack	67°C/75°C	65°C/72°C
Saddle	67°C/74°C	66°C/72°C
PORK		
Leg	68°C/75°C	68°C/72°C
Rack	65°C/72°C	65°C/70°C
Loin	65°C/75°C	64°C/72°C
Shoulder	66°C/78°C	65°C/75°C
Shank	78°C/85°C	76°C/83°C
Cooked ham	66°C/75°C	65°C/70°C
Roast	68°C/75°C	66°C/73°C
LAMB		
Leg	78°C/85°C	78°C/83°C
Rack	68°C/78°C	65°C/75°C
POULTRY:		
Chicken	68°C/88°C	66°C/85°C
Turkey	68°C/86°C	66°C/83°C
Turkey breast	67°C/75°C	65°C/72°C
Duck	78°C/85°C	76°C/82°C
Duck breast (to be browned)	55°C/60°C	52°C/57°C
FISH:		
Salmon	55°C/63°C	48°C/62°C
Whole fish (even for a nice sight)	65°C/70°C	62°C/65°C
Fish fillets	65°C/72°C	60°C/65°C
SHELLFISH	68°C/82°C	67°C
MOLLUSCS	78°C/98°C	68°C
PÂTÉ AND TERRINES		
Pâté	68°C/75°C	65°C/73°C
Foie-Gras	45°C/58°C	43°C
Chicken terrine	64°C/68°C	62°C/65°C
Fish terrine	60°C/68°C	56°C/65°C

6.4.5 REGENERATING AND MAINTAINING VACUUM COOKED PRODUCTS

Regeneration is definitely essential for vacuum processing: correct regeneration does not compromise or nullify the work carried out and attention paid previously to prepare a dish or product.

Regeneration can be referred to as the process that brings a product back to its cooking temperature - very often completing the cooking cycle - conveying the same appearance as a "fresh" product that has just been cooked, with the added benefits of vacuum cooking.

SV-Thermo ORVED is the ideal instrument for the regeneration cycle, whereas the subsequent finishing steps can be carried out in several ways. In fact, any of the following can be used for the finishing step of a product:

- **SV-Thermo** thermostatic bath: for products that seem to have been finished in the previous processing cycle.
- Hot plate, grill or griddle.
- Convection steam oven or Salamander oven.
- Pan on fire or induction plate.
- Microwave.
- Hot cupboards.

The skill consists in identifying a type of regeneration that best suits the type and size of the product. As an example: the preparation of a sea bass fillet portion can be simply completed by applying a cold breadcrumb coating and browning it in the oven (or placing it under a salamander), since its small size allows the product to be browned - and regenerated at the same time - without oxidising and dehydrating it excessively. The previously enhanced bright and fresh appearance, obtained through vacuum cooking, remains unaltered.

Bain-marie regeneration with **Sv-Thermo** is useful for a larger product, which requires more time to reach the temperature, so as to obtain slow thermal penetration (+65°C is the recommended regeneration temperature for most of the products), which does not alter the original cooking process of the product. Once the product is hot, the cooking process can be completed by browning it in a pan or in the oven or au gratin, making sure the food is served entirely hot and not only on the outside.

The regeneration times are closely related to the size of the products, but remember that leaving a product exposed for a few hours at a temperature lower than 3-4°C than that used for cooking, allows it to be brought back to the right temperature without continuing the cooking cycle.

6.4.6 ADVANTAGES OF VACUUM COOKING

The advantages of the vacuum technique are wide and varied.

QUALITY:

- Prolonged product preservation with all the nutritional properties practically intact.
- Concentration of taste: the aromas are enclosed by the casing.
- Marked colours: no oxidation occurs due to no oxygen being present
- 40% less of seasoning and fats are used.
- No alteration of the fats that may be harmful to health.
- Standardisation of the quality of products offered.

SAVINGS:

- Planned purchases according to savings.
- Reduced dispersion deriving from the processing and preservation phases of the products.
- Increased product output due to the reduction in weight loss deriving from the loss of liquids.

- Prolonged shelf life of the cooked/raw products with more time to sell them.
- Reduced energy consumption due to lower cooking temperatures and the possibility of working at "full load".

MANAGEMENT:

- Better organisation of the production system.
- Planned production according to the prolonged preservation of the products.
- Transfer of production activity at different times from those of service activity.
- Enhancement of the production activity during downtime to improve and speed up the service with the same workforce.
- Rationalised use of the cold rooms with the possibility of reducing the quantity used.

SERVICE:

- More offers made to customers.
- Seasonal adjustment of the products with an increase during the offer period.
- Increased capacity and speed of service.
- Standardisation of the quality and quantity of products offered.
- Elimination of the reference to frozen products on the menu.

7. INSTALLATION

Proceed by carefully following the sequence of points 1 to 5:

1) Unpack the machine (refer to Chap. 4)

ATTENTION!

- **After having removed the packaging, check the integrity of the appliance. If in doubt, do not use the machine and contact the dealer immediately.**
- **Never tilt or turn the machine over: always move it in the upright position. This is to prevent accidental opening of the glass cover.**
- **Only use man power with utmost care to move the machine.**

2) Place the machine on a surface that is flat, stable and suitable for the load.

ATTENTION!

- **The appliance must be positioned so as to be accessible from all sides.**
- **Do not obstruct passage-ways, escape or service routes with the machine. Do not position the appliance in front of exits or emergency doors.**
- **Make sure the machine is ventilated properly, leaving a gap of about 10 cm around the entire appliance. The ventilation slots must remain free and unobstructed in order to maintain the temperature of the machine at a normal level.**
- **A connection to the water (cold and warm water for top version, cold water for the basic version) and drains must be set up near the installation area.**

3) Connect the machine to the mains and drains (refer to Chap. 10.9).

ATTENTION!

The connection must be made by a qualified technician.

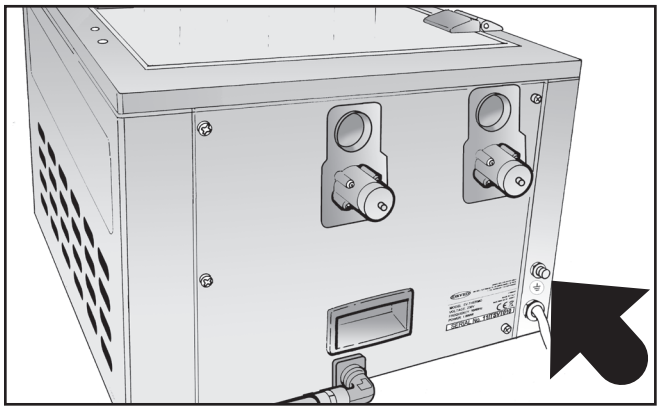
- **Connection to the cold and hot water mains:** use only hoses suitable for drinking water, resistant to at least 600 kPa (6 bar). Internal diameter Ø 12-14 mm. The junction on the back of the appliance is a ½" BSP female thread.
  - If the hot water connection is not available, stopper the hot water attack on the back with a plug ½ "BSP male thread. Program the user parameter HOT WATER to OFF (see § 8.3.3).
  - Make sure the duct pressure does not exceed 300 kPa (3 bar).
  - If the machine is used on the road in CATERING mode, it must be connected to the cold water attachment of the water network
- **Connection to the drains:** make sure the drain pipes of the mains, which the appliance is connected to, are resistant to temperatures up to 90°C.
  - The drain pipe provided with the machine, must drain unconstrained into a waste pipe of at least Ø 63 mm (2"), resistant to temperatures up to 90°C. **DO NOT EXTENDED OR REPLACE THE TUBE WITH A LONGER DRAIN PIPE: the drain would not work!**
  - Do not use damaged or leaking water connections.
  - When moving the appliance elsewhere, use a new kit of movable joints (gaskets).

4) Connect the machine to the mains.

ATTENTION!

- **Verify that the frequency and the voltage of the machine correspond with those of the mains by checking the plate on the rear of the machine.**
- **Insert the plug into a compatible socket: do not force it in if it is not compatible; use an adapter with suitable characteristics.**
- **Check the data on the plate to verify that the power available from the mains is sufficient to power the machine.**

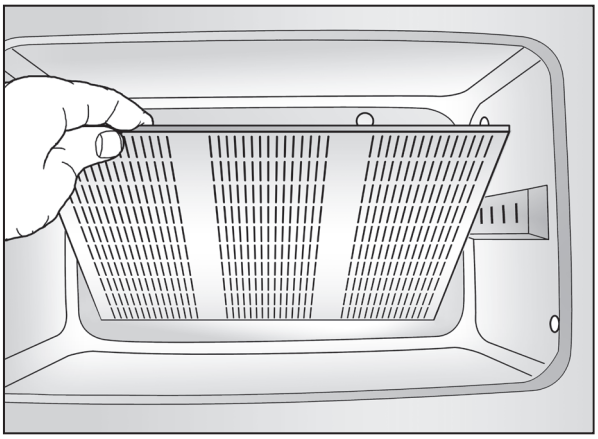
5) Connect the appliance to an equipotential earthing system by means of the specific screw placed at the back of the appliance.

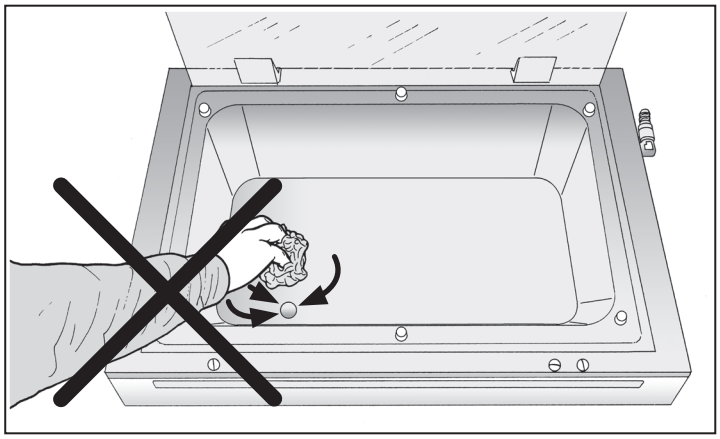


6) Perform the preliminary cleaning operations of the bath and the lid.

ATTENTION!

- **Before any cleaning, remove the drain strainer from the tank and plug the drain with a rag or plug.**
- **Do not rinse the detergent and residue through the bath drain: any impurities could compromise the drain solenoid valve!**

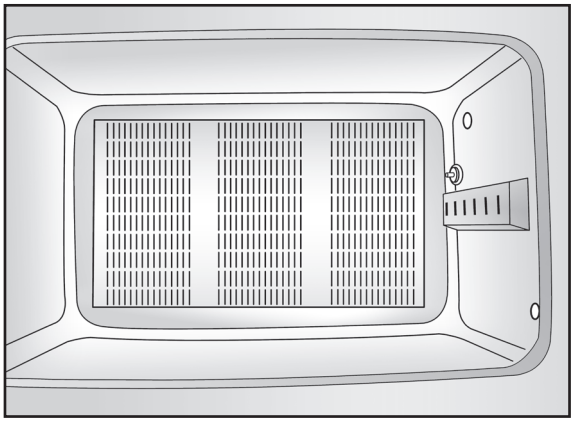




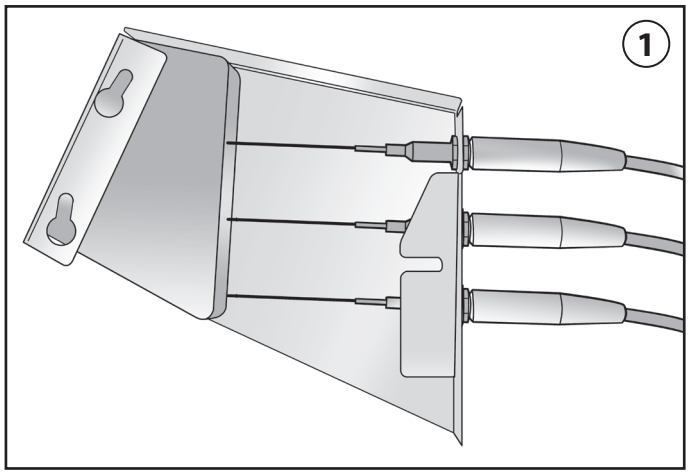
The machines have been thoroughly cleaned and disinfected before being shipped. However, we recommend them to be cleaned once again in order to remove possible contaminants deposited though accidental contact with sources of risk after the machine has been unpacked.
Clean the bath and lid with a soft cloth dampened with drinking water. It is recommended not to use aggressive detergents, steel wool, scrapers or abrasive, acidic or aggressive substances, which could irreparably damage the internal surfaces of the bath. Once cleaned, rinse thoroughly with drinking water. After cleaning make a thorough drying with a clean cloth.

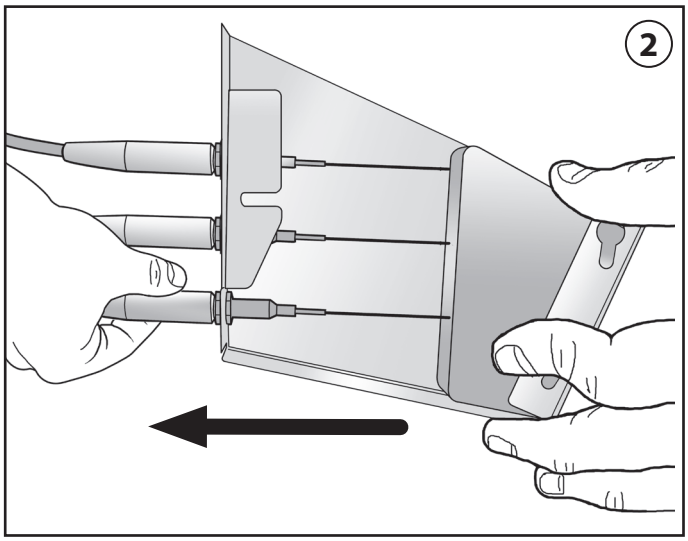
ATTENTION!

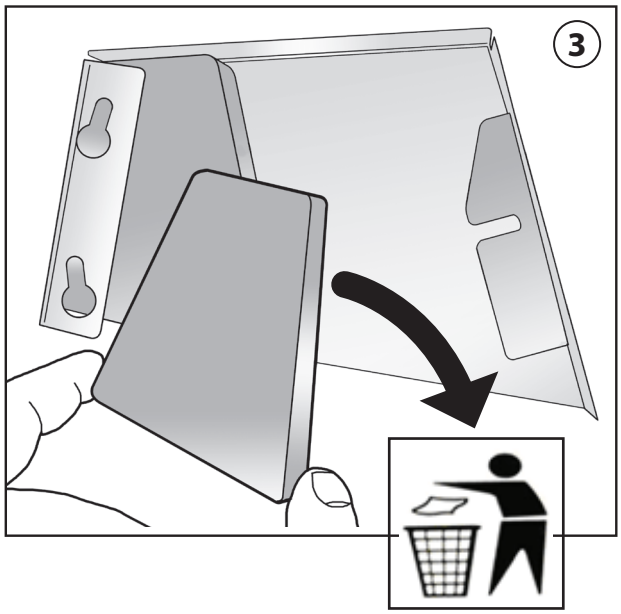
- **Before each cooking cycle, make sure that the strain is positioned in the tank filter to protect the drain.**

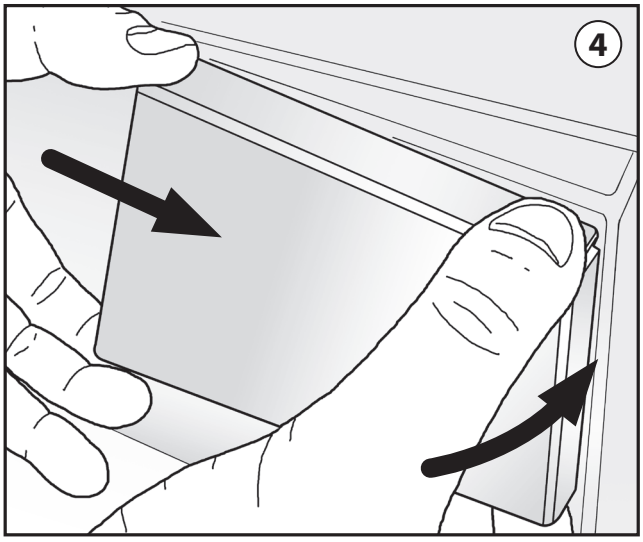


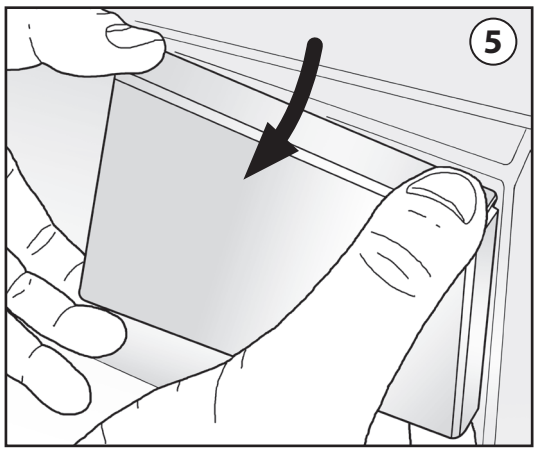
7) Assembly of the stainless steel probe holder (optional)

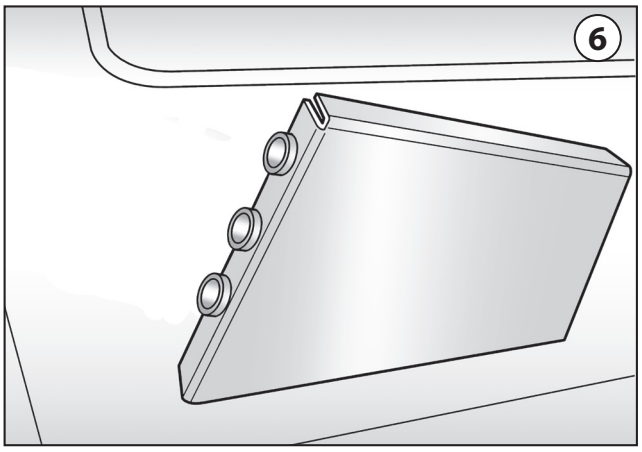


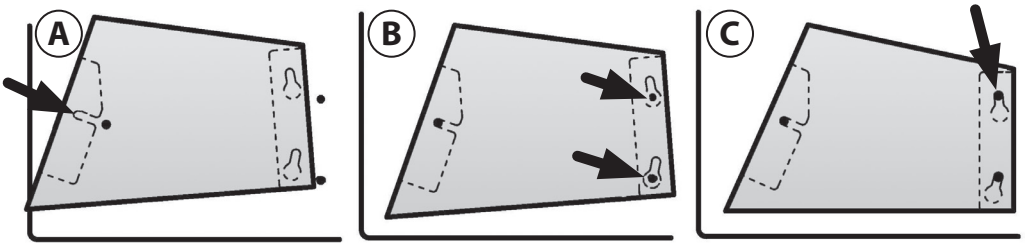












8. OPERATION

8.1 OPERATION (READ ALSO § 5.3)

8.1.1 GLOSSARY (REFERENCES RELATING TO CONTROL PANEL: SEE NEXT § 8.2)

COMPLETION	DESCRIPTION / MEANING
Main display (MAIN)	Control panel section, where the functions and parameters relative to the tank and the cooking programs are shown.
Display T1 / T2 / T3	Control panel sections, where the functions and parameters relative to the core probes (optional) and the initial settings (date/time/user menu/language menu/technical menu) are shown and set.
Core probes	Needle PT1000-type class A valves, suitable for piercing the vacuum packed product inside special bags with the use of "SYV" core probe valve. Show the internal (core) temperature of the product.
Timed-cooking mode COOKING-OFF	Timed-cooking with the resistance switching off at the end of the cycle (Basic and "Top"). Use with or without core probes.
Timed-cooking mode COOKING-CHILL	Timed-cooking with cooling at the end of the cycle ("Top"). With or without core probes.
Timed-cooking mode COOKING-HOLD	Timed-cooking with the minimum temperature maintenance ("Top"), usually at 65°C. With or without core probes.
Timed-cooking mode CATERING	Excluding automatic fill-up/drain for use in an environment without hydraulic connections.
Manual program	The values set remain active until the completion of the cycle; however they are reset pressing STOP once the cycle is complete.
1-99 saveable programs	The values set remain saved.
Tank temperature	Main cooking parameter. To be adjusted based on the type of product to be cooked. When using core probes, it should usually be above 2°C in respect to the set core temperature on T1, T2 and T3.
Core probe temperature	The temperature the product core must reach is measured from the probe to be fitted (optional). Once the core temperature reached is higher within those set on T1, T2 and T3, the final cycle phase is activated following the programmed cooking mode.
Cooking time set on the main display (tank)	If the three displays of the core probes have not been saved by the timers, the final phase of the cycle is determined by the elapsed tank timer, but saved on the Main display. If more than one cooking time is set simultaneously on T1, T2 and T3, once the longest time has lapsed, the cycle is completed following the programmed cooking mode. Once the shortest cooking times have lapsed, it is activated each time a visual-buzzer warning on the corresponding display.
Cooking time set on T1, T2 and T3	If more than one cooking time is set simultaneously on T1, T2 and T3, once the longest time has lapsed, the cycle is completed following the programmed cooking mode. Once the shortest times have lapsed, a visual-buzzer warning on the corresponding display is activated.
Level L1 / L2 (basic)	Settable water levels: L1 = 10 cm, L2 = 14 cm
Level L1 / L2 / L3 / L4 / L5 / Lmax (Top)	Settable water levels: L1 = 5 cm, L2 = 7 cm, L3 = 9 cm, L4 = 12 cm, L5 = 10 cm, L6 = 14 cm
ICE FUNCTION (OFF): Delayed start-up for frozen products.	**Delayed start-up for frozen products**. Setting the user parameter ICE on OFF, the start-up of the cycle will simply be moved to the programmed time with the DELAY parameter on the MAIN display. The cycle start-up depends on the parameters and the mode set. It is used primarily when using frozen products.
ICE FUNCTION (ON): Delayed start-up for products stored at 3°C using granular ice inside the tank.	**Delayed start-up for products stored at 3°C using granular ice inside the tank**. By setting the user parameter to ICE ON, at the programmed time with the DELAY parameter on the MAIN display, the appliance automatically carries out a series of alternating drainage with hot water fill-up, allowing the granular ice to melt quickly. Upon completion, the set cycle automatically starts-up.

8.1.2 OPERATION LOGIC

It is possible to program:

- **Tank temperature**
- **Core probes temperature**
- **Four individual timers (a tank timer and three core probes timers).**
- **Three cooking modes (corresponding to the equal number of end cycle modes).**
- **Delayed start-up for frozen products (ICE function off).**
- **Delayed start-up for products stored at 3°C using granular ice inside the tank (ICE function on).**

Tank heating

The tank is brought to the programmed water level **L1/L2 (basic)** or **L1/L2/L3/L4/L5/L6 (Top)** and heated to the programmed water temperature value.

Core probes T1, T2 and T3

The simultaneous control of the temperatures of all the active changeable core probes is present:
The corresponding T1, T2 and T3 timer is activated once each temperature has been reached.
If there are no programmed core probes temperatures, the tank timer will immediately be activated when the tank has reached the set temperature.

Buzzer and visual warnings and signals once the set time and temperature has been reached

Once a set temperature is reached or when the timer lapses, buzzer and visual signals will be activated (LED, icons and messages on the display) to allow the start-up cooking cycle, the insertion of the product, the extraction of the product and the conclusion of the cycle.

Changeable cooking modes based on the type of end cycle set

The time elapsed on the programmed timer (that can be the tank timer or one of the three core probes timers), determines the final cycle phase, which takes place in one of the three selectable modes:

- **COOKING-OFF (COOKING AND SWITCH OFF):** the heating is deactivated and the water remains in the tank. The cooked product must be extracted (Top and Basic versions).
- **COOKING-CHILL:** the heating is deactivated, the hot water drained and cold water refilled (Top version).
- **COOK-HOLD:** the tank temperature is automatically regulated to the "hold" temperature (maintenance) settable on the user menu (see § 8.3.3- Top version).

Delayed start-up for frozen products (ICE FUNCTION OFF)

Setting the user parameter ICE on OFF, the start-up of the cycle will simply be moved to the programmed time. It is primarily used with frozen products at -23/24°C, or simply for delayed start-up but with the supervision of the operator.

Delayed start-up for products stored at 3°C using granular ice inside the tank (ICE FUNCTION ON)

By setting the user parameter ICE ON, the appliance automatically carries out a series of alternating drainage with hot water fill-up, allowing the granular ice to melt. Allows the overnight start-up cooking of the products stored at 3°C.

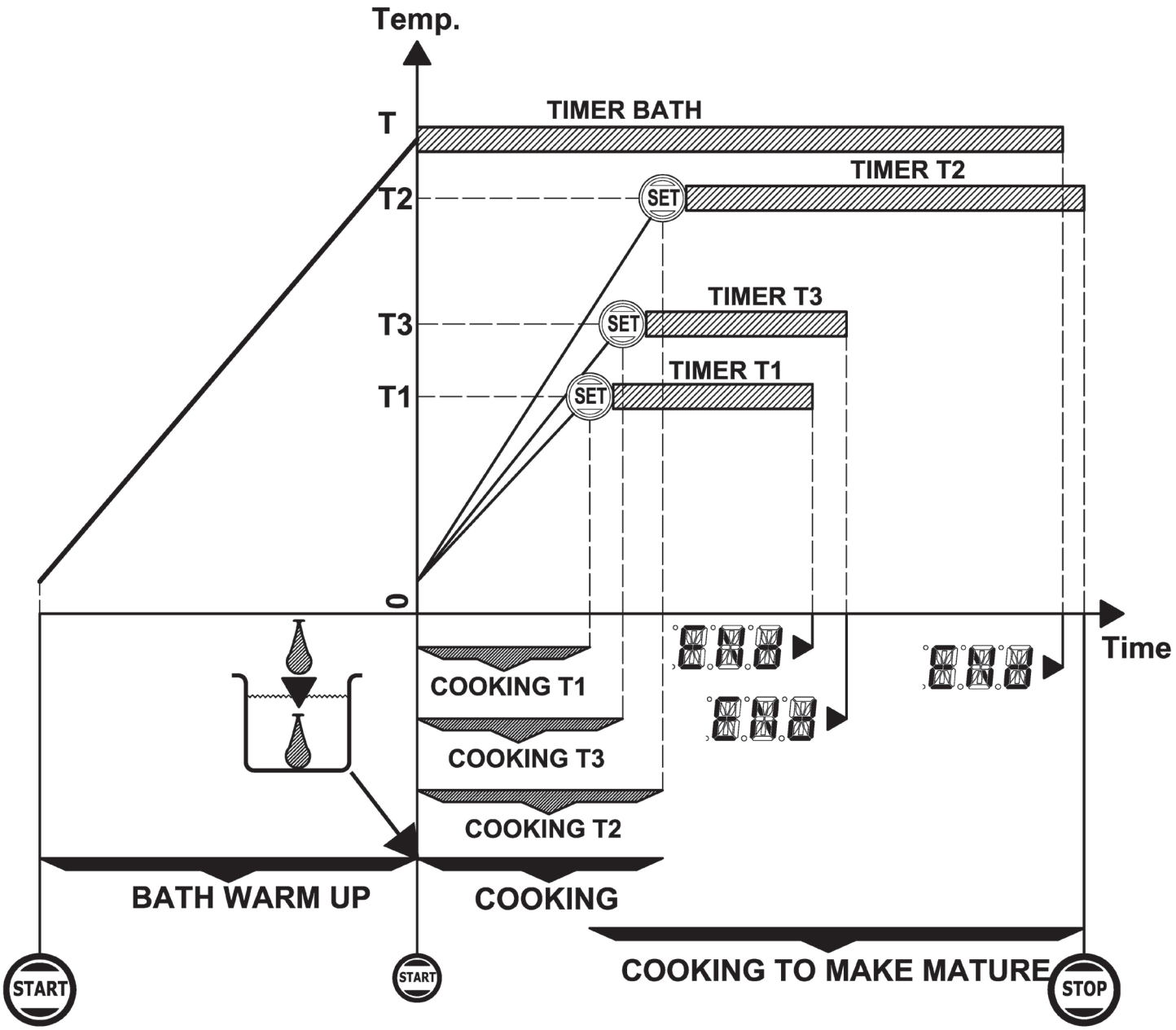
CATERING mode

In this mode the electrovalves and the levels are deactivated. The cycle is carried out according to the mode COOKING AND SWITCH OFF (COOKING-OFF). Filling and draining of water as well as the manual adjustment of the levels.
"Catering" is a specific program designed to use the appliance off-site in places without water connection.

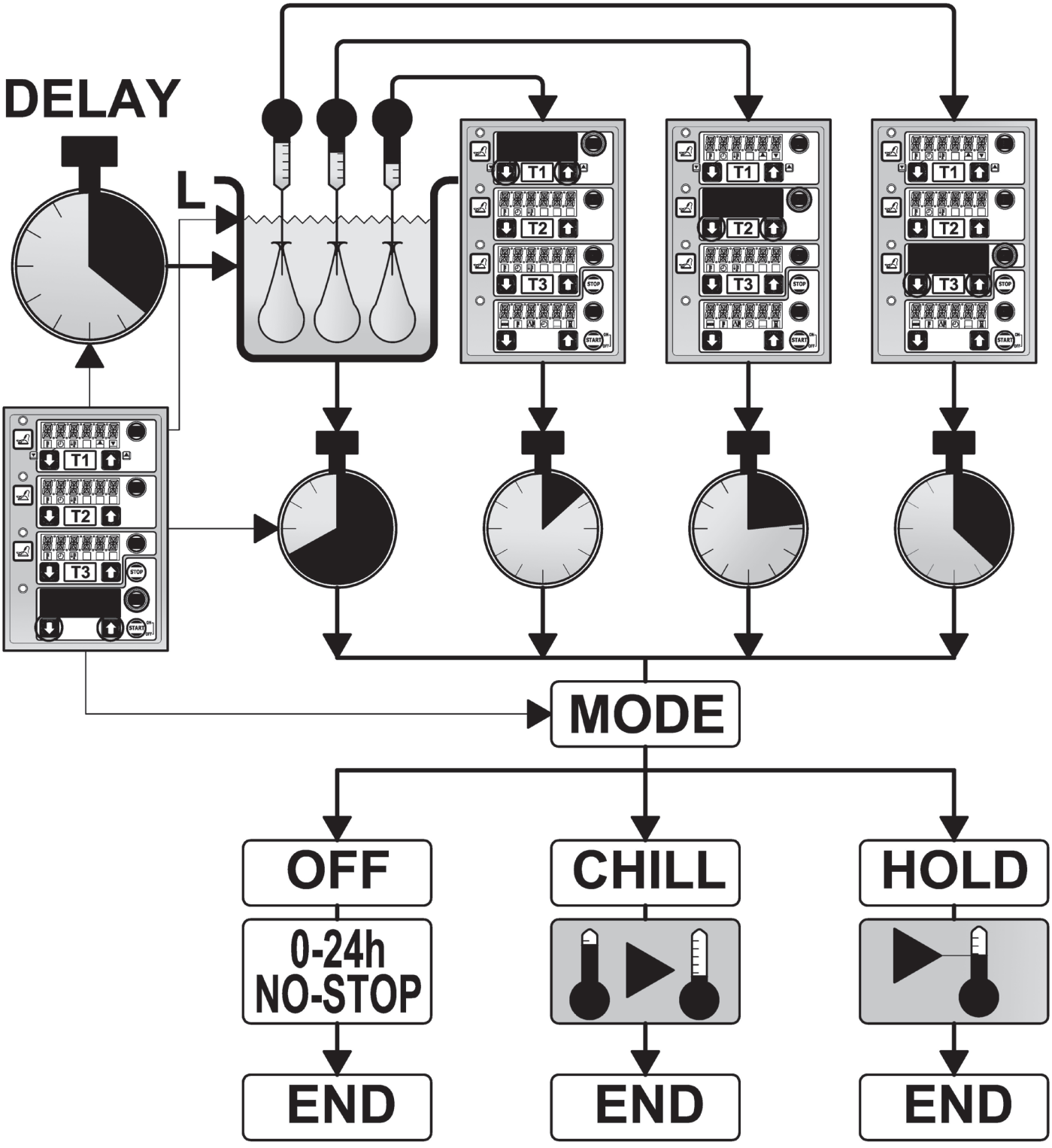
8.1.3 WORK CYCLE PHASES

1	2	3	4
START-UP DELAYED	**HEATING**	**COOKING**	**END OF CYCLE**
Programmable from 0 to 24 hours. ICE ON/OFF: Mode with or without the use of ice.	**The water is heated until the programmed tank temperature is reached.**	**It lasts for the time programmed on the tank timer and/or on the three core probes timers T1/T2/T3.**	**SWITCH-OFF (COOKING-OFF) COOLING (COOKING-CHILL) MAINTENANCE (COOKING-HOLD)**

8.1.4 TEMPERATURE – TIME DIAGRAM

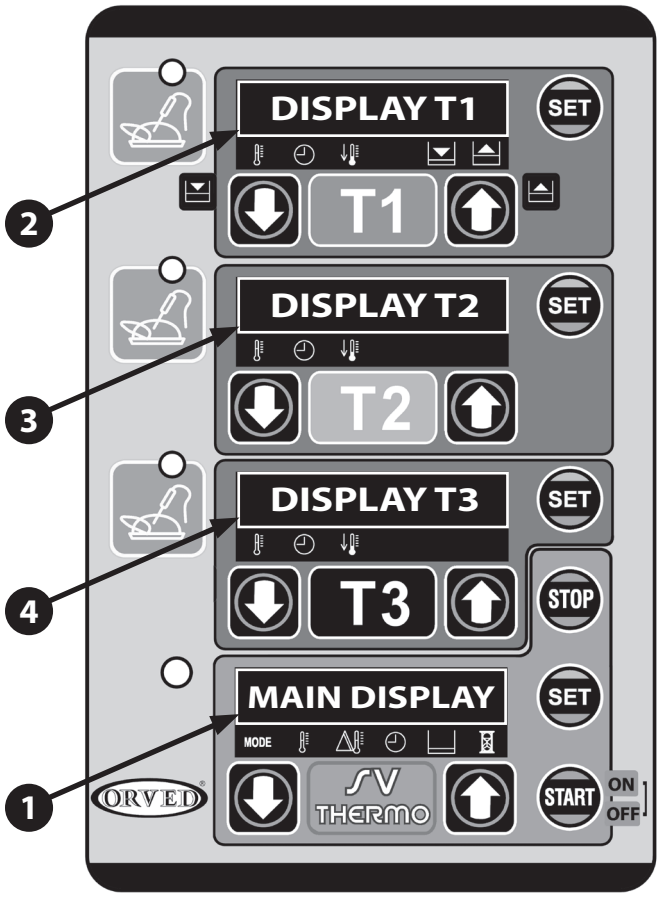


8.1.5 GENERAL FUNCTIONS DIAGRAM



8.2 CONTROLS

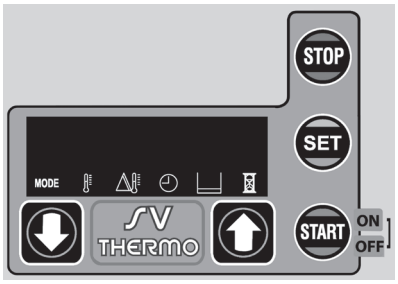
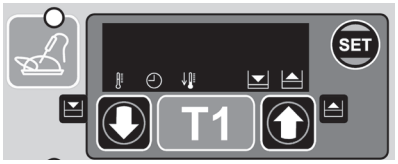
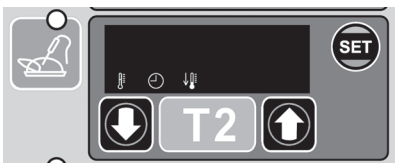
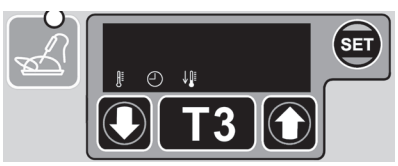
The appliance is equipped with digital controls, controlled by a state-of-the-art micro-processor, which allows multiple functions and programming options. There is also the possibility of activating or deactivating the buzzer signal that accompanies the messages displayed.

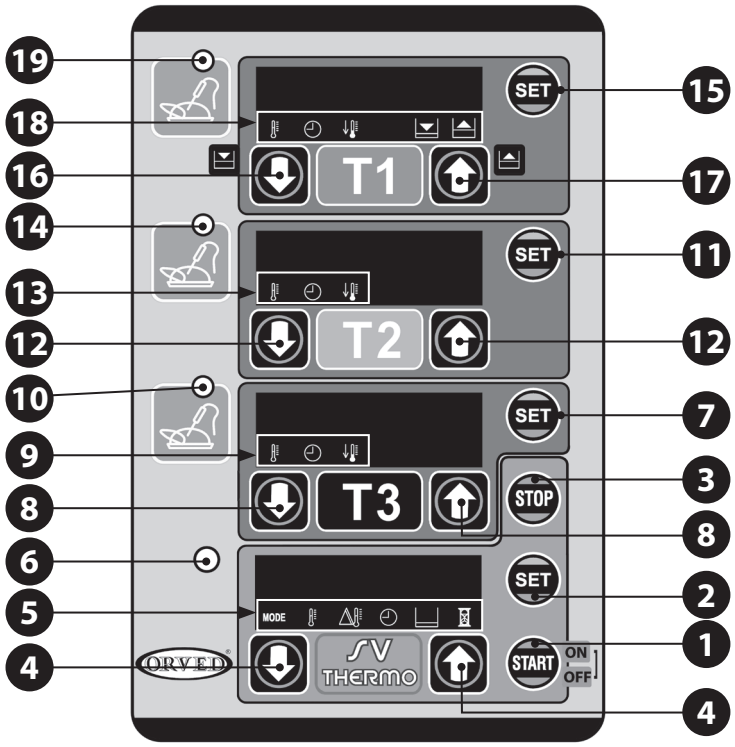


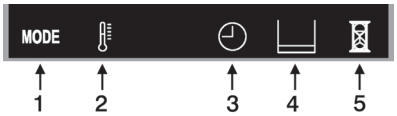
8.2.1 CONTROL PANELS

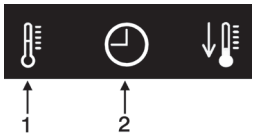
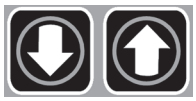
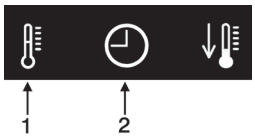
This is divided into four separate sections that correspond to four displays: T1, T2 and T3 are the sections matched with the three fitted sensors and the cooking programs that involve their use; the lower section displays the temperature of the tank and all the programmable parameters pertaining to the individual cooking modes.

8.2.2 KEY FUNCTIONS

POS.	DISPLAY	FUNCTION
1	**MAIN DISPLAY** 	• Cooking programs selection • Tank temperature, cooking time, water level and delayed start-up setting. • Cycle start-up, switch-off and pause. • Program display, tank temperature, tank timer, heating (WARM-UP), Chrono CHILL/HOLD.
2	**DISPLAY T1** 	• T1 core probe temperature and timer display and setting. • Manual water fill-up / drain activated. • Date / time, user parameters / language / technical display. • Changeable user parameters / language / technical.
3	**DISPLAY T2** 	• T2 core probe temperature and timer display and setting. • User menu / language / technical access. • User menu / language / technical functions display. • Status display (READY / INSERT PRODUCT / END-PRESS STOP).
4	**DISPLAY T3** 	• T3 core probe temperature and timer display and setting. • Key lock on/off.



POS.	BUTTONS/SIGNAL SYSTEMS	FUNCTION
1	**START and ON/OFF button** 	• Starts-up the cooking cycle. • Exits from the DATE/TIME, USER, LANGUAGE menus. • Exit the programming menu. • Switch-off appliance (stand-by / OFF mode).
2	**Selection key SET Main Display (MAIN)** 	• Confirm the set value. • Select the parameter to be programmed.
3	**STOP Key** 	• Press and hold: it interrupts the cycle in progress. • Press briefly: suspends the cycle (Pause). • In the MANUAL program, pressed at end cycle, resets the set values.
4	**Cursor keys Main Display (MAIN)** 	• Changes the values of the functions. • The programs scroll. • Pressed simultaneously, allows the DATE and TIME to be programmed. • UP: pressed, allows the display of the Chrono of the CHILL / HOLD phases.
5	**Bright Icons Main Display (MAIN)** 	**1** Cooking mode **2** Tank temperature: when switched-on: control in progress when flashing: value reached **3** Tank timer: when switched-on: control in progress when flashing: value reached **4** Water level **5** Delayed start-up
6	**Main Display LED (MAIN)** 	• Indicates (fixed on) the heating and cooking phases, until end cycle. • Indicates (flashing) the phase reached by the tank temperature or by the tank timer.
7	**Selection Key SET T3 Display** 	• Confirm the set value. • Select the parameter to be programmed.

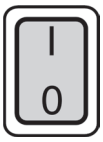
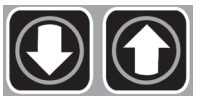
POS.	BUTTONS/SIGNAL SYSTEMS	FUNCTION
8	**Cursor keys T3 Display** 	• Changes the values of the temperature and T3 probe time functions. • If they are pressed together, they turn on the keyboard lock.
9	**Bright icons T3 Display** 	**1** T3 core probe temperature: when switched-on: control in progress when flashing: value reached **2** T3 core probe timer: when switched-on: timer active, when flashing: timer finished.
10	**LED T3 Display** 	• Switched-on when the T1 probe is connected.
11	**Selection Key SET T2 Display** 	• Confirm the set value. • Select the parameter to be programmed.
12	**Cursor keys T2 Display** 	• Changes the values of the temperature and T2 probe time functions. • Pressed simultaneously, allows entry to the USER, LANGUAGE or TECHNICAL menu. • Scroll the USER parameters.
13	**Bright icons T2 Display** 	**1** T2 core probe temperature: when switched-on: control in progress when flashing: value reached. **2** T2 core probe timer: when switched-on: timer active, when flashing: timer finished.
14	**Led Display T2** 	• Switched-on when the T1 probe is connected.
15	**Selection Key SET T1 Display** 	• Confirm the set value. • Select the parameter to be programmed.
16	**Cursor key down T1 Display** 	• Change the values of the temperature and T1 probe time functions. • Activates the manual drain. • Scroll the language, user and technical parameters.
17	**Cursor key up T1 Display** 	• Change the values of the temperature and T1 probe time functions • Activates the manual fill-up • Scroll the language, user and technical parameters.
18	**Bright icons T1 Display** 	**1** T1 core probe temperature: when switched-on: control in progress when flashing: value reached **2** T1 core probe timer: when switched-on: timer active, when flashing: timer finished **3** - Not active - **4** Water drain switched-on **5** Water fill-up switched-on
19	**LED T1 Display** 	• Switched-on when the T1 probe is connected.

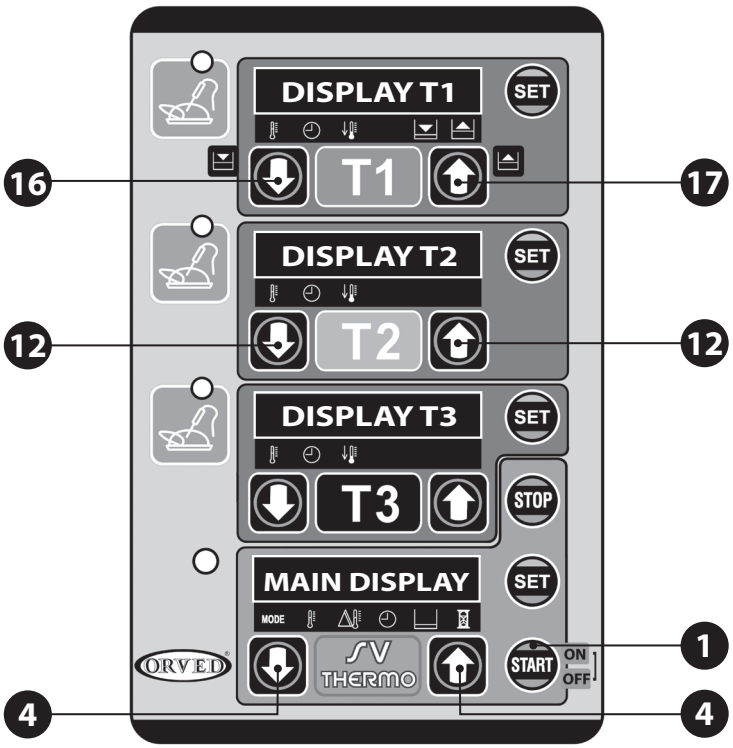
8.3 DATE/TIME AND USER PARAMETERS PROGRAMMING SETTINGS

At the first start-up, proceed to program the following parameters:

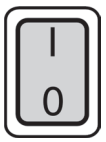
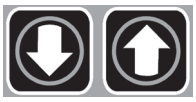
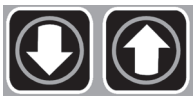
1) **Date and time saving (see § 8.3.1): dd/mm/yy– hh/mm**
2) **Language choice display (see § 8.3.2): Italian or English.**
3) **User parameters setting (see § 8.3.3)**
   - Hot water fill-up deactivation / activation (Top version).
   - Maintenance temperature setting: Maintenance temperature selection for the cooking mode COOKING AND MAINTENANCE. Of default equal to 65°C.
   - Display brightness: brightness intensity of icons and digits.
   - ICE function activation / deactivation for delayed start-up (see § 8.3.3 and 8.4.1).
   - Unit of measure: °C / °F

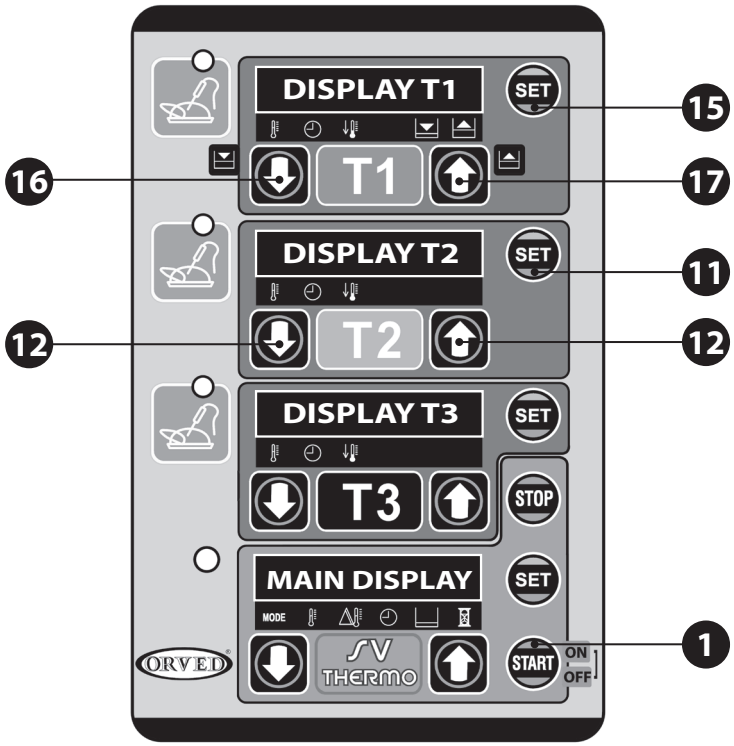
8.3.1 DATE AND TIME SAVING

PHASE	DESCRIPTION	KEY
1	Switch-on the machine using the **ON/OFF** main switch. The machine enters in stand-by mode: OFF is shown on the MAIN display and the hour set on the T1 display.	
2	Press the "**UP / DOWN**" **(4)** keys simultaneously on MAIN: on the T1 display appears the value (day/month/year/hours/minutes). On the T2 display appears the parameter description.	
3	Select the changeable parameter (day/month/year/hours/minutes) with the "**UP / DOWN**" **(12)** keys on T2.	
4	Change the selected parameter value with the "**UP / DOWN**" **(16-17)** keys on T1..	
5	Press "**START**" **(1)** to confirm the setting.	



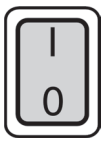
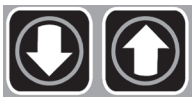
8.3.2 DISPLAY LANGUAGE CHOICE

PHASE	DESCRIPTION	KEY
1	Switch-on the machine using the **ON/OFF** main switch. The machine enters in stand-by mode: OFF is shown on the MAIN display and the hour set on the T1 display.	
2	Press the "**UP / DOWN**" **(12)** keys simultaneously on T2: the menu to be selected appears on the display: LANGUAGE / USER / TECHNICAL	
3	Select the LANGUAGE menu with the "**UP / DOWN**" **(12)** keys on T2.	
4	Confirm the LANGUAGE menu using the "**SET**" **(11)** key on T2.	
5	Select the display language with the "**UP / DOWN**" **(16-17)** keys on T1.	
6	Confirm using the "**SET**" **(15)** key on T1.	
7	To exit from programming: press "**START**" **(1)** on MAIN.	

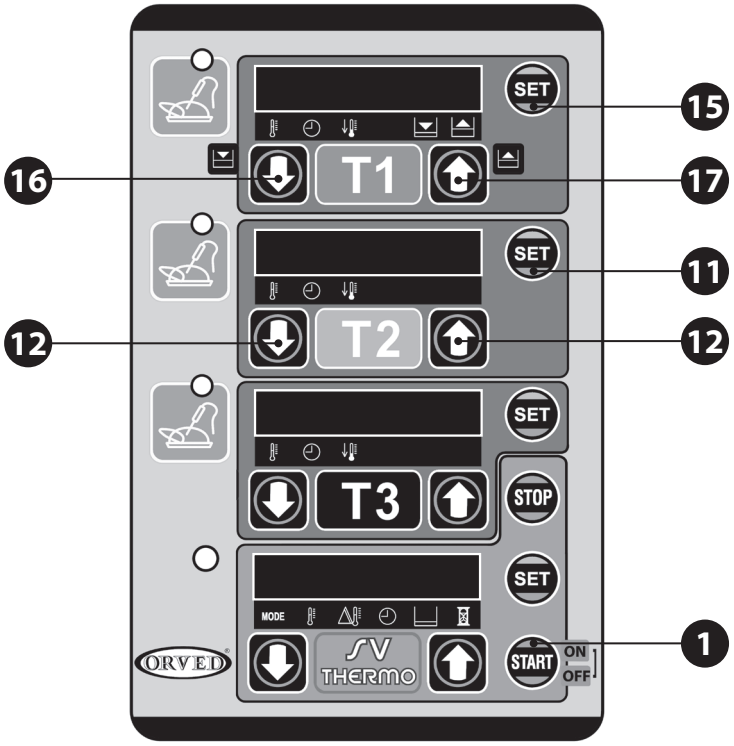


8.3.3 USER PARAMETERS SETTINGS

- **The user parameters MAINTENANCE TEMPERATURE / HOT H_2O FILL-UP / ICE are only present in the TOP version.**
- **The maintenance temperature for the COOKING AND MAINTENANCE mode (COOK AND HOLD) is set at the factory-set value at 65°C.**

PHASE	DESCRIPTION	KEY
1	Switch-on the machine using the **ON/OFF** main switch. The machine enters in stand-by mode: OFF is shown on the MAIN display and the hour set on the T1 display.	
2	Press the "**UP / DOWN**" **(12)** keys simultaneously on T2: the menu to be selected appears on the display: LANGUAGE / USER / TECHNICAL	
3	Select the USER menu with the "**UP / DOWN**" **(12)** keys on T2.	
4	Confirm the USER menu using the "**SET**" **(11)** key on T2.	
5	Select the program parameter (MAINTENANCE TEMPERATURE / HOT H_2O FILL-UP / DISPLAY BRIGHTNESS / (ICE) with the "**UP / DOWN**" **(12)** keys on T2.	
6	Change the MAINTENANCE TEMPERATURE parameter value using the "**UP / DOWN**" **(16-17)** keys on T1. temperature from 10 to 99°C (default 65°C).	
7	Confirm using the "**SET**" **(15)** key on T1.	
8	Change the HOT H_20 FILL-UP parameter value with the "**UP / DOWN**" **(16-17)** keys on T1. SWITCHED ON / OFF	
9	Confirm using the "**SET**" **(15)** key on T1..	
10	Change the DISPLAY BRIGHTNESS parameter value with the "**UP / DOWN**" **(16-17)** keys on T1 from 20 to 200.	
11	Confirm using the "**SET**" **(15)** key on T1.	
12	Change the ICE parameter value using the "**UP / DOWN**" **(16-17)** keys on T1. SWITCHED ON / OFF.	
13	Confirm using the "**SET**" **(15)** key on T1.	
14	Change the UNIT OF MEASURE (U.M.) using the "**UP / DOWN**" **(16-17)** keys on T1: °C / °F	
15	Confirm using the "**SET**" **(15)** key on T1.	

16	To exit from programming: press "**START**" **(1)** on MAIN.	



8.4 OPERATIONAL INSTRUCTIONS AND PROGRAMMING

8.4.1 GENERAL PROGRAMMING NOTES

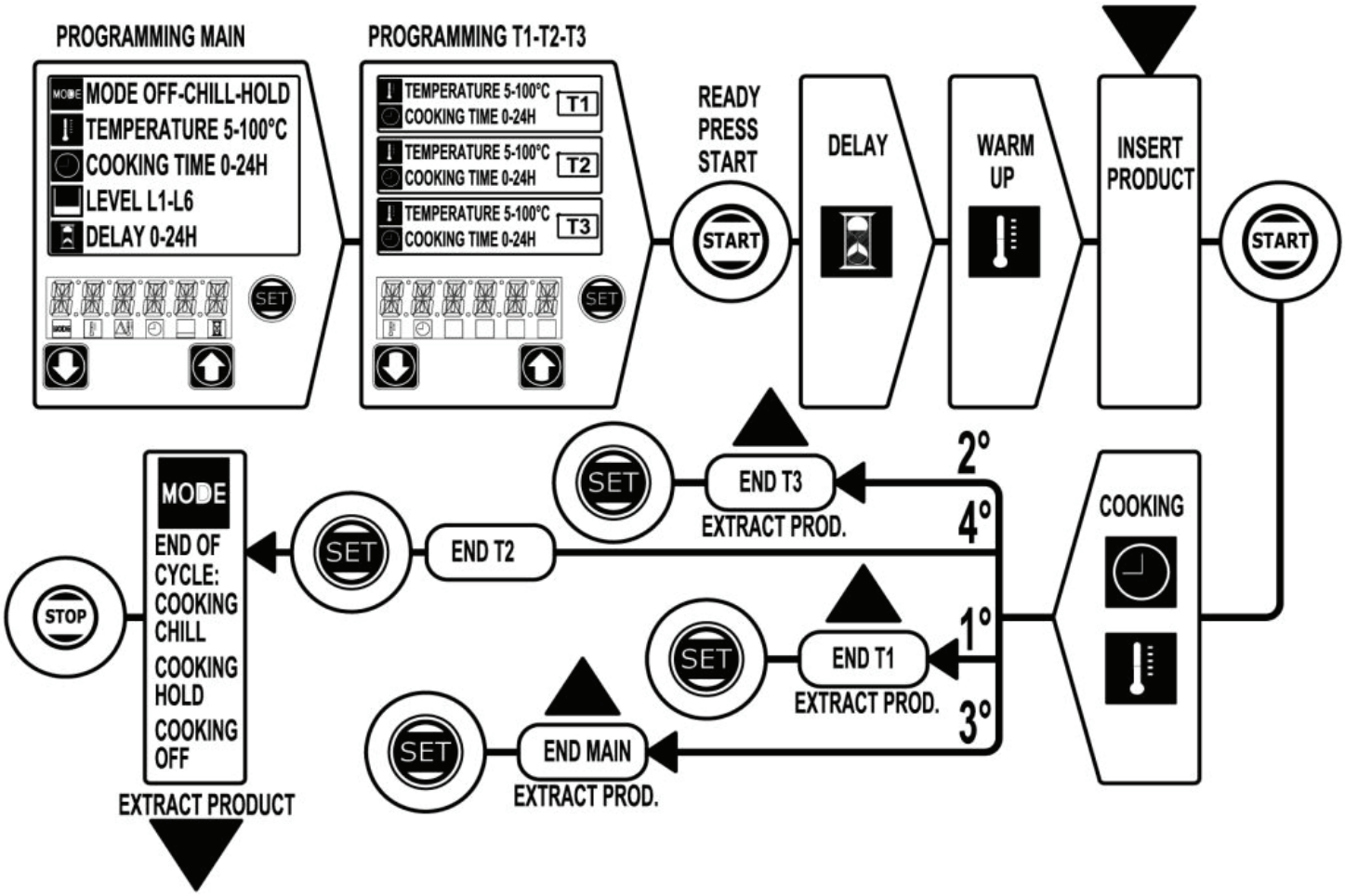
As the equipment allows the combination of numerous changes (cooking with/without probes, use of reading only probes, delayed start-up etc.), take advantage of the possibility to store up to 99 programs, using a different program for each mode. **It is advised to fill-in and keeps readily available the table inserted at the end of this manual.**

It is possible to use the manual program: remember that in this case, once the cooking program is ended with the STOP key, all values will be reset.

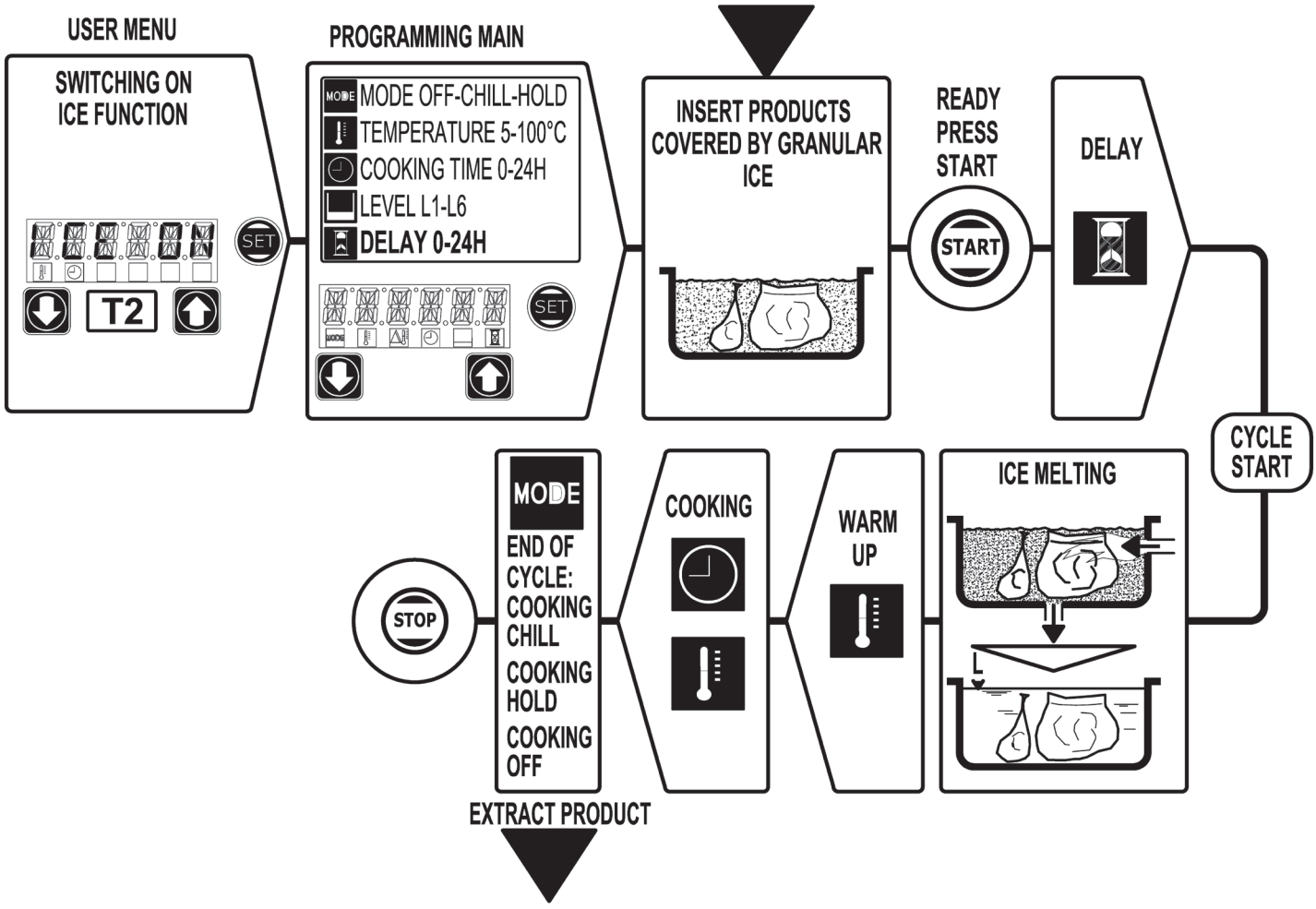
Following, are the instructions for the programming of the below listed cooking modes:

- **Cooking without the use of core probes (8.4.2)**
- **Cooking with the use of core probes (8.4.3)**
- **Cooking with the use of core reading only probes (8.4.4)**
- **Cooking with delayed start-up and ice switched off / on function (8.4.5)**
- **Cooking "Catering" modes (8.4.6)**

Programming and operations phases WITH IMMEDIATE START-UP



Programming and operations phases with DELAYED START-UP AND ICE FUNCTION SWITCHED-ON (ICE ON)

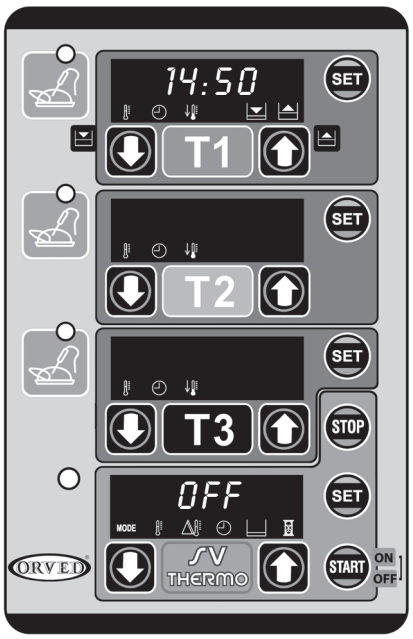


1) **When the cooking cycle and has been started (press START after the message "INSERT PRODUCT" has been shown), the appliance allows the set parameters to be changed (including the timer) on the MAIN display and on the T1/T2/T3 displays. These changes DO NOT remain saved.**
2) **With the use of core probes, the tank temperature must be higher than the probes temperature. The standard temperature of the tank is higher than +2°C.**
3) **When using the core probes, if a probe becomes inadvertently disconnected in the cooking phase (having reached the programmed core temperature), the reading of the temperature is interrupted and recovered when connection is reset. If instead the interruption occurs when the temperature at the core has already been reached and the timer has been started-up (maturation phase of the product), this last phase continues to work for the programmed time.**
4) **With the use of the core probes, the simplest manner to proceed is by using products of the same type, even if a different product. The appliance also allows the cooking of different products, or with core probes set on three different temperature levels and with four varied timers: in this case, the cooking cycle ends when the last core probe has reached the temperature and finished the cooking time (see graphic § 8.1.4). It is therefore necessary to have scheduled products extraction that end the cooking cycle.**
5) **Only the cooking mode (COOKING-OFF) allows the time setting for indefinite cooking (NOSTOP), therefore the COOKING-CHILL ends automatically with the draining of the tank and the fill-up of cold water, while COOKING-HOLD continues with the temperature maintenance of the tank at the set value (usually 65°C) non stop, that only ends when the operator presses the STOP key.**
6) **In CATERING mode the electrovalves and the levels are deactivated. The filling-up/draining of the water occurs manually by pressing keys 16 / 17. In Catering mode, the fill-up connections in the Top versions are ONLY carried out on the cold water connection. Moreover, in the CATERING mode the delayed start-up is disabled.**
7) **By setting the ICE ON function in the user menu, the appliance automatically carries out a series of alternating discharges with hot water fill-up, allowing the granular ice to melt. Therefore, ensure that hot water and the correct hydraulic connection on the rear side of the machine is available.**

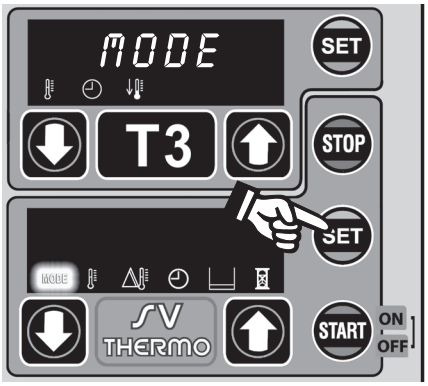
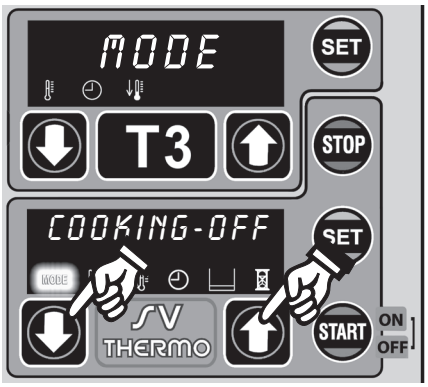
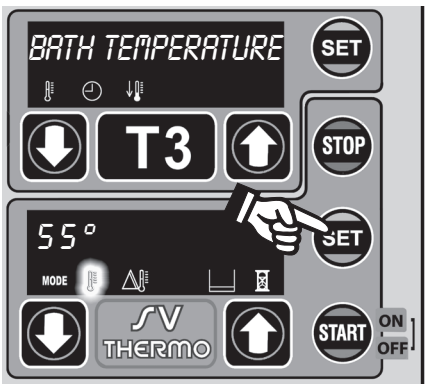
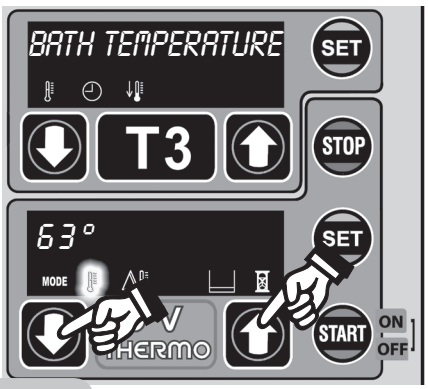
8.4.2 COOKING WITHOUT THE USE OF CORE PROBES

The presence of three displays T1, T2 and T3 for the control of temperature and time of the core probes allows to program up to three additional timers, which are added to the MAIN timer display, therefore allowing - equal cooking temperature - to control four processes simultaneously.

Follow the steps described below.

PHASE	DESCRIPTION	VALUE / PARAMETER / DISPLAY	DISPLAY
		A - SWITCH-ON **Switch from Stand-by mode to operating mode**	
1	Switch the machine on using the main switch.	**If the current time is shown on the T1 display and the word "OFF" is shown on the MAIN display the machine is in Stand-by.**	
2	Switch to the operating mode, keeping the green "START" button pressed for 4 seconds. Repeat the same step to return to Stand-by mode.	**On the T2 display appears "READY – PRESS START OR SET."** **The saveable program number appears on the MAIN display.**	

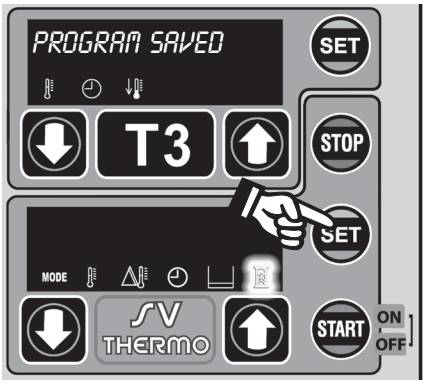
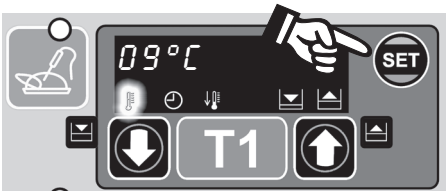
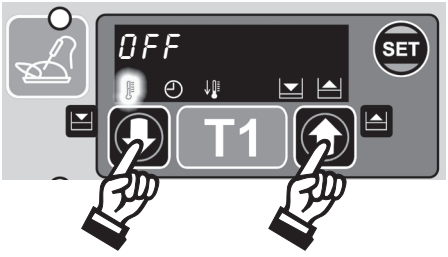
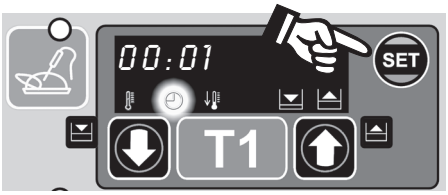
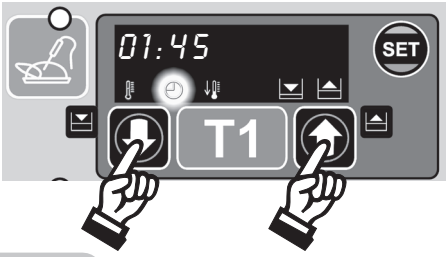
COOKING WITHOUT THE USE OF CORE PROBES

PHASE	DESCRIPTION	VALUE / PARAMETER / DISPLAY	DISPLAY
B - BASIC FUNCTIONS PROGRAMMING ON MAIN Set the main parameters: tank temperature, level, timer, cooking mode.			
3	Choose a PROGRAM with the UP / DOWN keys on MAIN.	• **MANUAL: if the values set are not to be saved.;** • **1 – 99: if the values set are to be saved.** • **C1-C9: preset.**	
4	Press SET on MAIN to select the parameter to be programmed.	**COOKING MODE** 	
5	Choose the COOKING MODE (MODE) wanted with the UP / DOWN keys on MAIN.	• **SWITCH-OFF COOKING (COOKING-OFF)** • **COOKING AND COOLING (COOKING-CHILL)** • **COOKING AND MAINTENANCE (COOK AND HOLD)** • **CATERING**	
6	Confirm using the SET key on MAIN. Ensuring access to the next parameter to be programmed.	**TANK TEMPERATURE (BATH TEMPERATURE)** 	
7	Set the TANK TEMPERATURE (BATH TEMPERATURE) with the UP / DOWN keys on MAIN.	**5 – 100°C**	

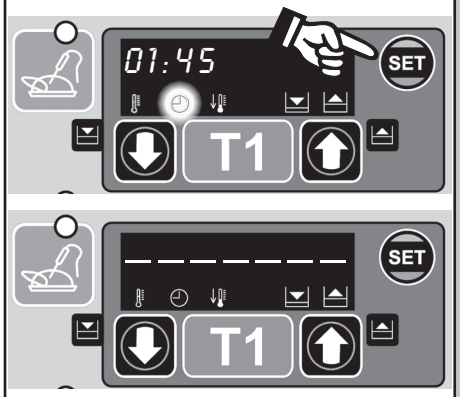
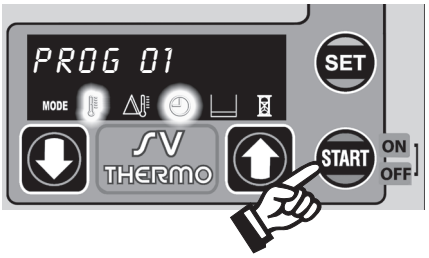
COOKING WITHOUT THE USE OF CORE PROBES

PHASE	DESCRIPTION	VALUE / PARAMETER / DISPLAY	DISPLAY
8	Confirm using the SET key on MAIN. Ensuring access to the next parameter to be programmed.	**TANK TIMER (COOKING TIME)** 	
9	Set the TANK TIMER (BATH TEMPERATURE) with the UP / DOWN keys on MAIN.	• **In all cooking modes: included between 0 – 24h (hh:mm)** • **Only in COOKING AND SWITCH-OFF mode (COOKING-OFF): NOSTOP (indefinite)** • **If the timer is not set: OFF**	
10	Confirm using the SET key on MAIN. Ensuring access to the next parameter to be programmed.	**TANK LEVEL (WATER LEVEL)** 	
11	Set the TANK LEVEL (WATER LEVEL) with the UP / DOWN keys on MAIN.	**Basic version:** **L1 / L2** **Top Version:** **L1 - L6 (=LMAX)**	

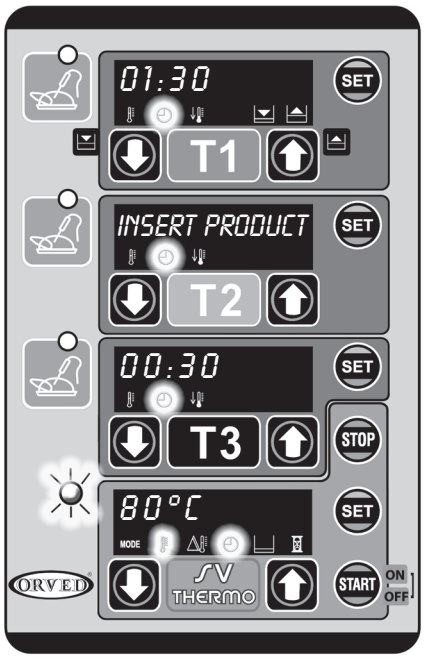
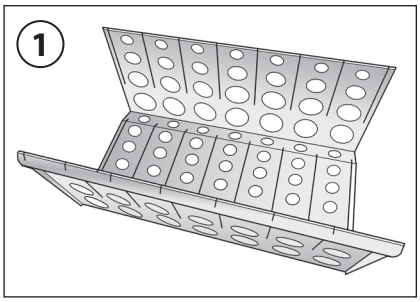
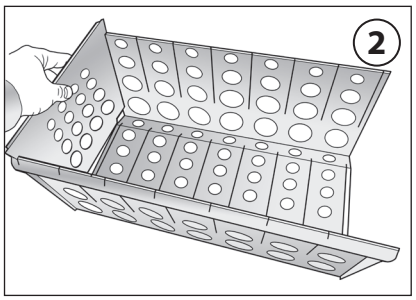
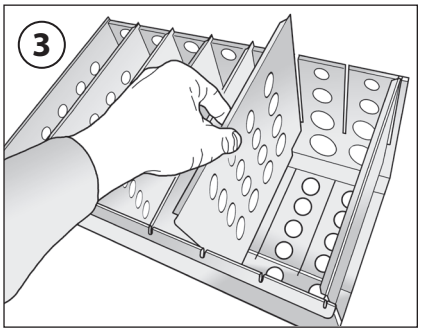
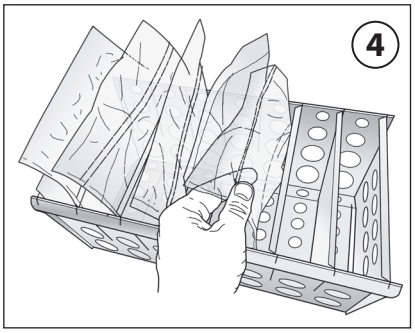
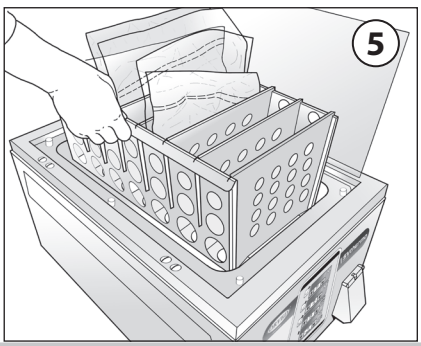
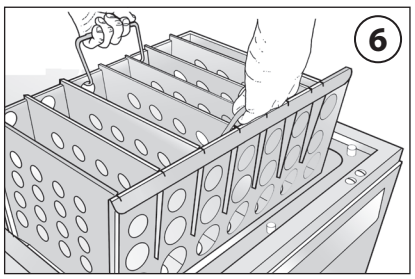
COOKING WITHOUT THE USE OF CORE PROBES

PHASE	DESCRIPTION	VALUE / PARAMETER / DISPLAY	DISPLAY
12	Confirm using the SET key on MAIN.	**On T3 appears PROGRAM SAVED.**	
		On T2 appears the message READY – PRESS START OR SET.	
	C - PROGRAM T1/T2/T3 **Program up to three additional timers on T1, T2 and T3.** **Deactivation of the temperature reading when core probes not present on T1, T2 and T3.** **Complete deactivation of T1, T2 and T3 (probes temperature and timer on OFF).**		
13	Press the SET key on T1 and select the parameter T1 TEMPERATURE PROBE.	**T1 TEMPERATURE PROBE** 	
14	Deactivate the T1 PROBE TEMPERATURE with the UP / DOWN keys on T1, selecting OFF.	**OFF**	
15	Confirm with SET key on T1. Confirming access to programming of T1 PROBE TIMER.	**T1 TIMER** 	
16	Set the T1 PROBE TIMER with the UP / DOWN keys on T1.	**0 – 24h (hh:mm)** **or: NOSTOP** **or: OFF**	

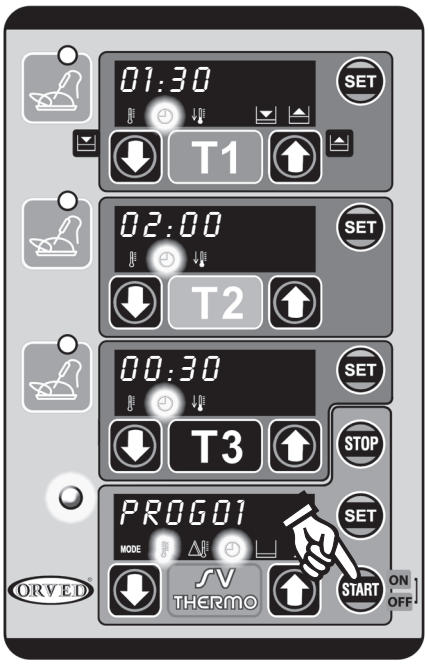
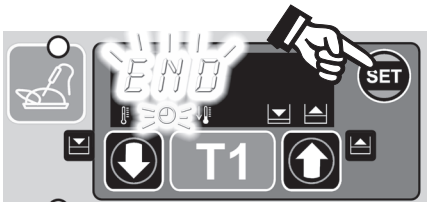
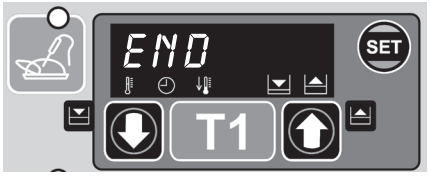
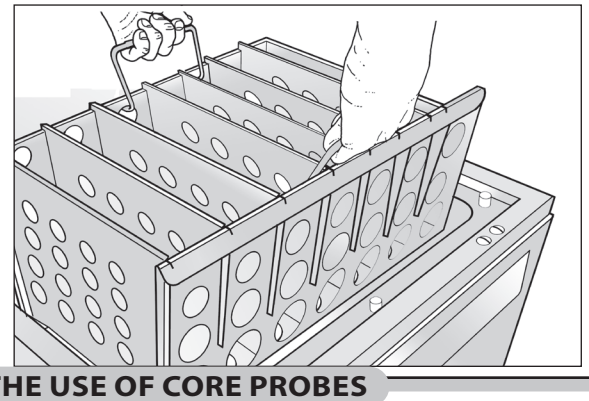
COOKING WITHOUT THE USE OF CORE PROBES

PHASE	DESCRIPTION	VALUE / PARAMETER / DISPLAY	DISPLAY
17	Confirm with SET key on T1.	**If a different value to OFF has been set, the TIMER ICON remains switched-on and on the T1 DISPLAY appears the set timer value** **SIf the T1 PROBE TIMER is set on OFF, the TIMER ICON will appear switched-off and the T1 DISPLAY is in complete OFF mode (dashes).**	
18	**Repeat 13-17 on displays T2 and T3.**		
	D - PROGRAM START-UP **Starting-up the program will activate the heating phase (WARM-UP).**		
19	Press START on MAIN.		
		On T1, T2 and T3 appears the TIMER value (if set). **The TIMER ICONS on T1, T2 and T3 are switched-on (if set).**	
		On MAIN appears the message HEATING (WARM UP) alternating with the PROGRAM and the tank temperature. **The MAIN LED switches-on.**	

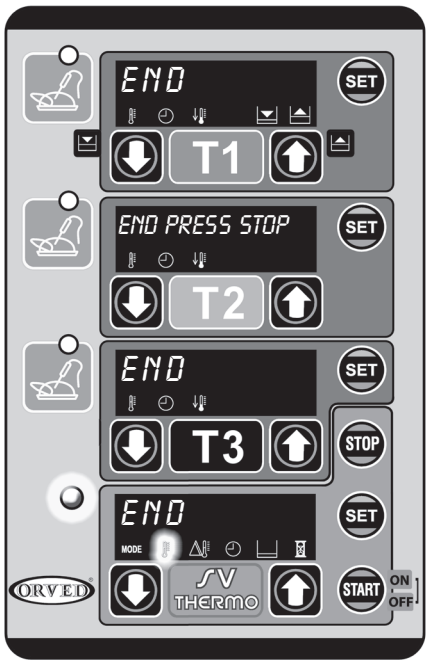
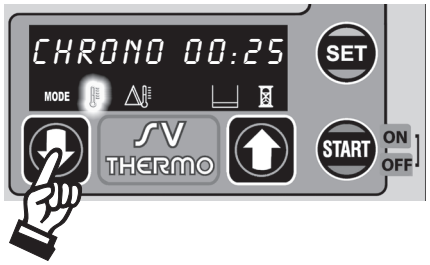
COOKING WITHOUT THE USE OF CORE PROBES

PHASE	DESCRIPTION	VALUE / PARAMETER / DISPLAY	DISPLAY
E – REACHING TANK TEMPERATURE AND PRODUCT INSERTION **Buzzer and visual warning: immerse the product in the tank.**			
		The T2 display appears the message INSERT PRODUCT AND PRESS START. **The MAIN display shows the program number alternating to the tank temperature.** **The MAIN LED flashes.** **On the T1, T2 and T3 display appears the TIMER value (if set).** **The TIMER icons are switched-on (if set).**	
20	Immerge the vacuum packed product in the tank using a tongs, or by using the optional bag-holder basket. In this case, use the included handles		     

COOKING WITHOUT THE USE OF CORE PROBES

PHASE	DESCRIPTION	VALUE / PARAMETER / DISPLAY	DISPLAY
21	Press START on Z MAIN.	**On the T1, T2 and T3 display appears the TIMER value (if set). The TIMER icons are switched-on.** **The MAIN display shows the program number alternating to the tank temperature.** **The MAIN LED the TEMP. ICON TANK and TANK TIMER is switched-on**.	
	F - END OF SET TIMERS AND END OF CYCLE **Each timer that ends sounds a buzzer signal, from the flashing of the TIMER icon and from the flashing message END on the respective displays T1, T2 and T3. When the last set TIMER expires, the cycle ends depending on the programmed COOKING MODE (COOKING-OFF / COOKING-CHILL / COOKING-HOLD).**		
	The first Timer ends (on T1, T2, T3 or MAIN.	**Buzzer warning.** **The TIMER ICON flashes on the corresponding display and the word END flashes.**	
22	To silence the signal, press the SET key on the display that shows the end TIMER.	**On the corresponding Display T1, T2, T3 or MAIN appears the message END.** **The TIMER ICON switches-off.**	 
23	Extract the corresponding product from the tank. Repeat the operation each time the timer ends		

COOKING WITHOUT THE USE OF CORE PROBES

PHASE	DESCRIPTION	VALUE / PARAMETER / DISPLAY	DISPLAY
24	The last timer that ends determines the end cycle that is completed depending on the programmed cooking mode.	**On T2 appears END – PRESS STOP** **On all the displays appears the message END.** **All the TIMER ICONS displays are switched-off.**	
	Cooking mode COOKING-COOLING AND COOKING-MAINTENANCE: press DOWN on MAIN to display the time elapsed.	**The MAIN display shows the message CHRONO alternate to the elapsed time of the maintenance or cooling phase.**	
25	Press STOP.	**On T2 appears READY – PRESS START OR SET** **The remaining displays return to idle mode.** **The chronometer of the maintenance and cooling phases on the MAIN display is reset.**	

COOKING WITHOUT THE USE OF CORE PROBES

8.4.3 COOKING WITH THE USE OF CORE PROBES

The programming differs from § 8.4.1 because of the added programming of the core temperature probe on displays T1, T2 and T3.

1) Remember to set the tank temperature value at 2°C higher than the highest set core temperature (unless other processes are indicated).

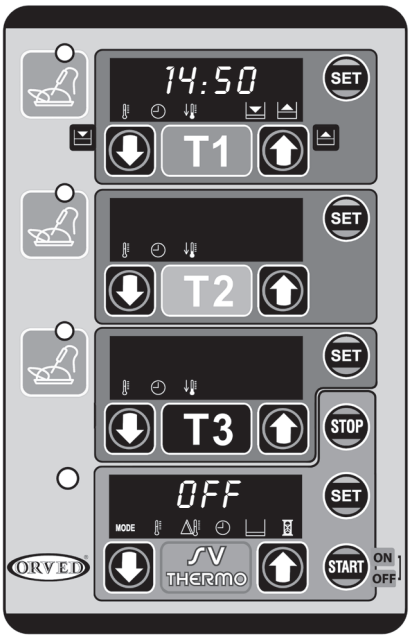
2) It is recommended to manage the cooking of the same products or use only one core probe of the product to be checked.

3) In the case of products with different simultaneous readings of the core temperature, remember to promptly remove, at the end of the corresponding cooking time of T1, T2 and / or T3, the product that has finished the cycle, especially when the difference between tank temperature and temperature of the lower core probe is high. Example: Tank temperature 65°C, T1 temperature 63°C, T3 temperature 59°C and T2 temperature 50°C. T2 will have a brief or no maturation phase (with T2 Timer programmed for a few minutes or on OFF), as the permanence in the tank at 65°C risks over-cooking the T2 checked product. The risk is consequently minor with the checked product from T3 and with the checked product from the T1 probe.

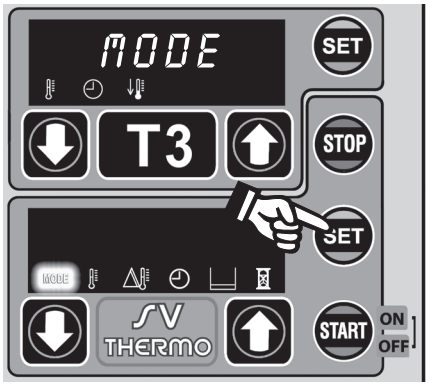
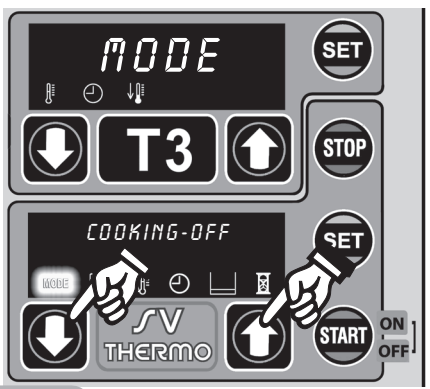
4) Carefully clean the needle probe with a disinfectant or suitable cleaning agent, before piercing the probe into the product.

5) Carefully clean the bag in the area in which the adhesive strip is to be applied, in order to guarantee maximum adhesion.

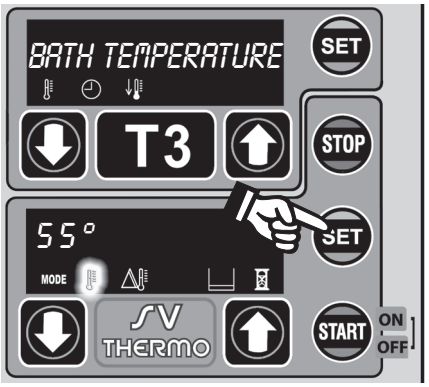
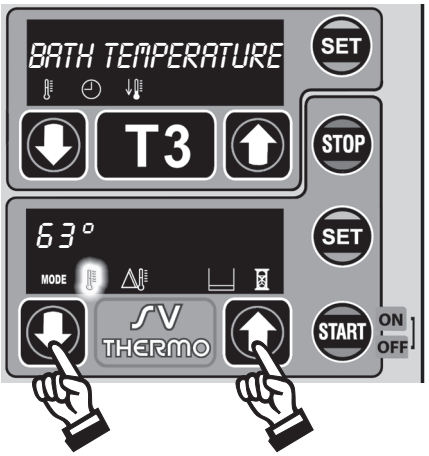
Follow the steps described below:

PHASE	DESCRIPTION	VALUE / PARAMETER / DISPLAY	DISPLAY
		A- SWITCH-ON	
		Switch from Stand-by mode to operating mode	
1	Switch the machine on using the main switch.	**If the current time is shown on the T1 display and the word "OFF" is shown on the MAIN display means the machine is in Stand-by.**	

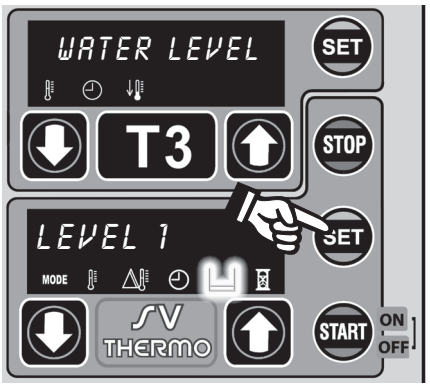
COOKING WITHOUT THE USE OF CORE PROBES

PHASE	DESCRIPTION	VALUE / PARAMETER / DISPLAY	DISPLAY
A- SWITCH-ON **Switch from Stand-by mode to operating mode**			
2	Switch to operating mode, keeping the green "START" button pressed for 4 seconds. Repeat the same step to return to Stand-by mode.	**On the T2 display appears "READY – PRESS START OR SET".** **The saveable program number appears on the MAIN display.**	
B - BASIC FUNCTIONS PROGRAMMING ON MAIN **Set the main parameters: tank temperature, level, timer, cooking mode**			
3	Choose a PROGRAM with the UP / DOWN keys on MAIN.	• **MANUAL: if the values set are not to be saved;** • **1 – 99: if the values set are to be saved.** • **C1-C9: preset.**	
4	Press SET on MAIN to select the parameter to be programmed.	**COOKING MODE** 	
5	Choose the COOKING MODE (MODE) wanted with the UP / DOWN keys on MAIN.	• **SWITCH-OFF COOKING (COOKING-OFF)** • **COOKING AND COOLING (COOKING-CHILL)** • **COOKING AND MAINTENANCE (COOK AND HOLD)** • **CATERING**	

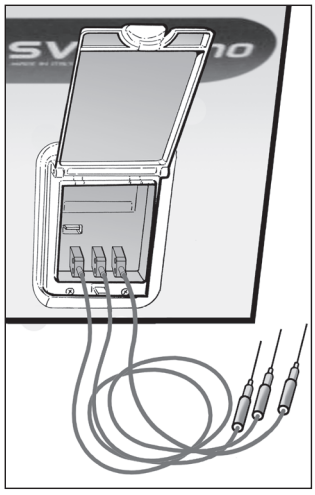
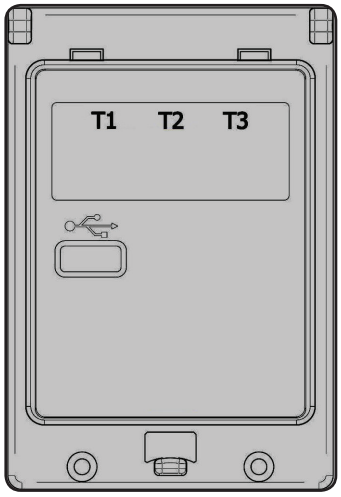
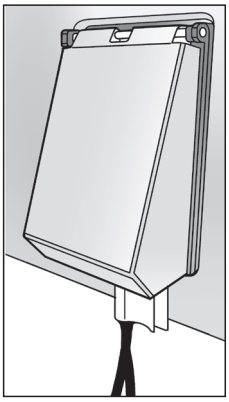
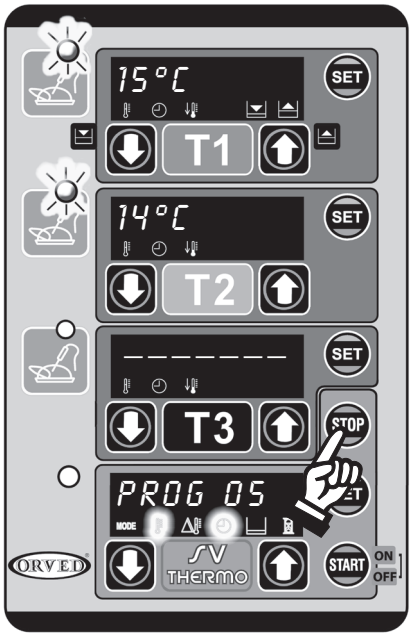
COOKING WITHOUT THE USE OF CORE PROBES

PHASE	DESCRIPTION	VALUE / PARAMETER / DISPLAY	DISPLAY
6	Confirm using the SET key on MAIN. Ensuring access to the next parameter to be programmed.	**TANK TEMPERATURE (BATH TEMPERATURE)** 	
7	Set the TANK TEMPERATURE (BATH TEMPERATURE) with the UP / DOWN keys on MAIN.	**5 – 100°C**	
8	Confirm using the SET key on MAIN. Ensuring access to the next parameter to be programmed .	**TANK TIMER (COOKING TIME)** 	
9	Set the TANK TIMER (BATH TEMPERATURE) with the UP / DOWN keys on MAIN.	• **In all cooking modes: included between 0 – 24h (hh:mm)** • **Only in COOKING AND SWITCH-OFF mode (COOKING-OFF): NOSTOP (indefinite)** • **If the timer is not set: OFF**	

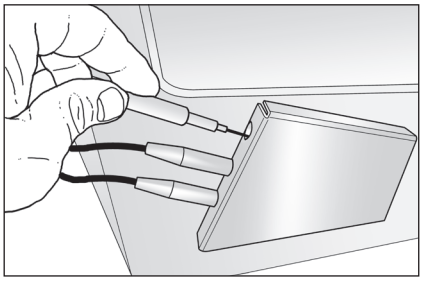
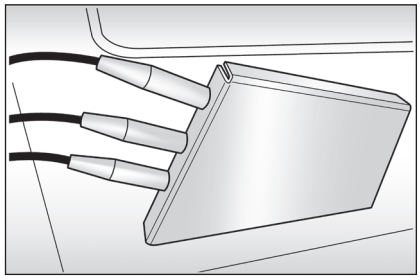
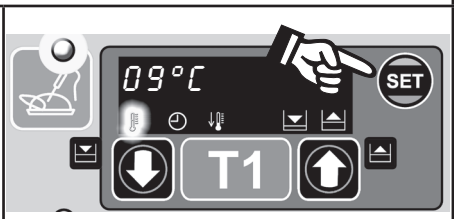
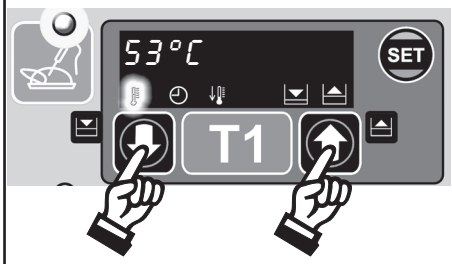
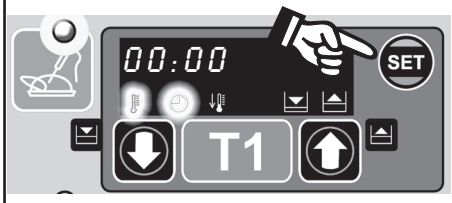
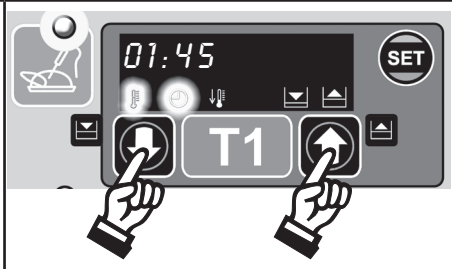
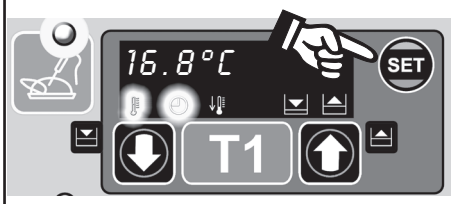
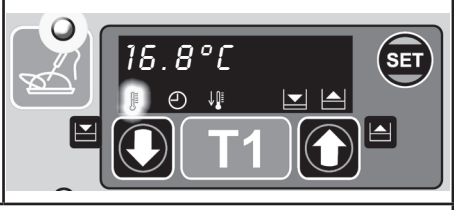
COOKING WITHOUT THE USE OF CORE PROBES

PHASE	DESCRIPTION	VALUE / PARAMETER / DISPLAY	DISPLAY
10	Confirm using the SET key on MAIN. Ensuring access to the next parameter to be programmed.	**TANK LEVEL (WATER LEVEL)** 	
11	Set the TANK LEVEL (WATER LEVEL) with the UP / DOWN keys on MAIN.	**Basic version:** **L1 / L2** **Top Version:** **L1 - L6 (=LMAX)**	
12	Confirm using the SET key on MAIN.	**On T3 appears PROGRAM SAVED.** **On T2 appears the message READY – PRESS START OR SET.** 	 

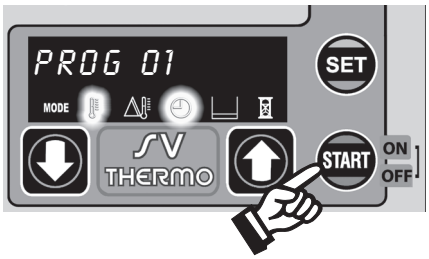
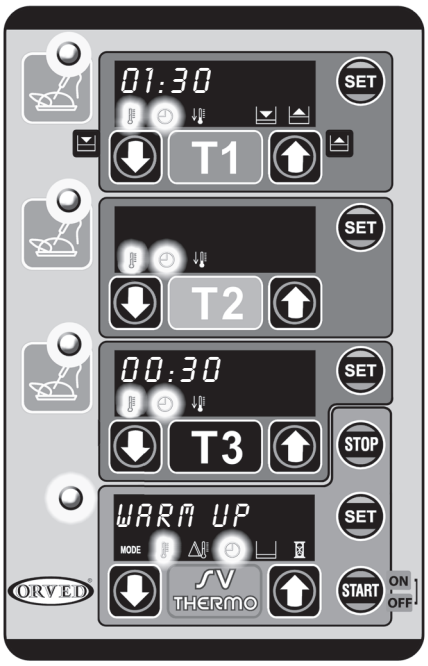
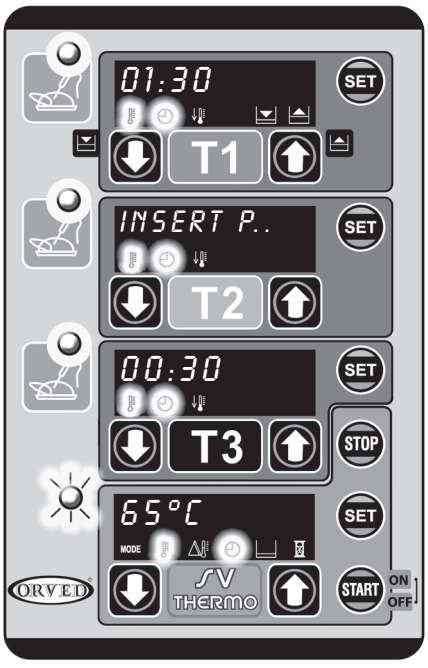
COOKING WITHOUT THE USE OF CORE PROBES

PHASE	DESCRIPTION	VALUE / PARAMETER / DISPLAY	DISPLAY
C - CORE PROBES PROGRAMMING T1/T2/T3 **Set the core probes temperature on T1, T2 and T3.** **Set the core probes timer on T1, T2 and T3.**			
13	Lift the front door and insert one or more probes into the corresponding connectors T1, T2 and T3, by running the wires through the plastic tab.	**Probes colour = display colour** **T1 = YELLOW T2 = RED T3 = BLACK**	 
14	Lower the front door so to cover the connectors and protect them from any liquids.		
		With the probe connected, the corresponding LED T1, T2 AND T3 are switched-on. **The display with inserted probe indicates the instantaneous temperature shown by the probe.**	

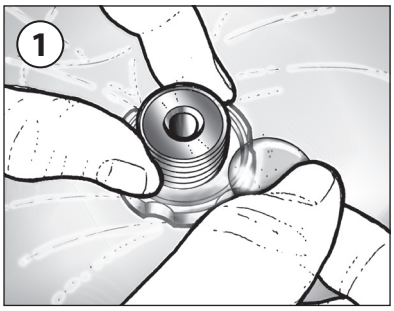
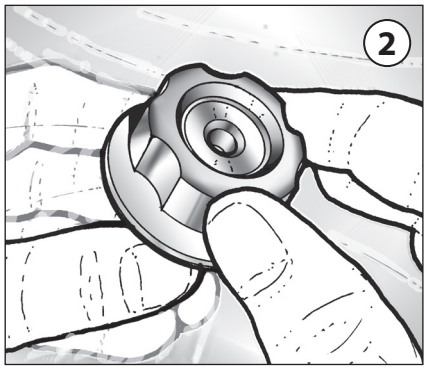
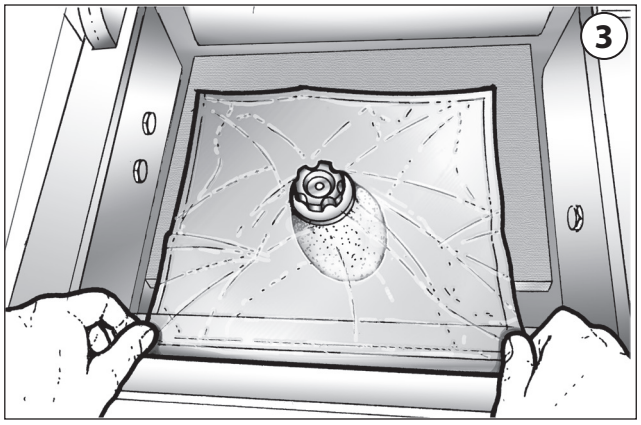
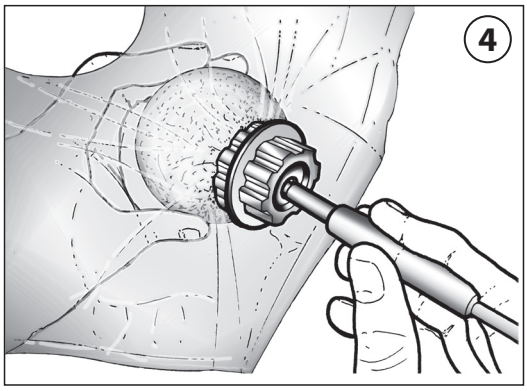
COOKING WITHOUT THE USE OF CORE PROBES

PHASE	DESCRIPTION	VALUE / PARAMETER / DISPLAY	DISPLAY
15	Insert the probes in the specific probes holder on the side of the appliance.		
16	Press the SET key on T1 and select the parameter T1 TEMPERATURE PROBE.	**T1 TEMPERATURE PROBE** 	
17	Set the T1 PROBE TEMPERATURE with the UP / DOWN keys on T1.	**5 – 100°C.** **(NOTE: the temperature must be lower than the tank temperature).** **the TEMPERATURE ICON remains switched-on and on the T1 DISPLAY appears the set temperature value.**	
18	Confirm with SET key on T1. Confirming access to programming of T1 PROBE TIMER.	**T1 TIMER** 	
19	Set the T1 PROBE TIMER with the UP / DOWN keys on T1.	**0 – 24h (hh:mm)** **or: NOSTOP** **or: OFF**	
20	Confirm with SET key on T1.	**If a different value to OFF has been set, the TIMER ICON remains switched-on and on the T1 DISPLAY appears the T1 probe temperature value.** **If the T1 PROBE TIMER is set on OFF, the TIMER ICON will appear switched-off and the T1 DISPLAY will show the T1 probe temperature.**	 
21	**Repeat 13-20 on displays T2 and T3.**		

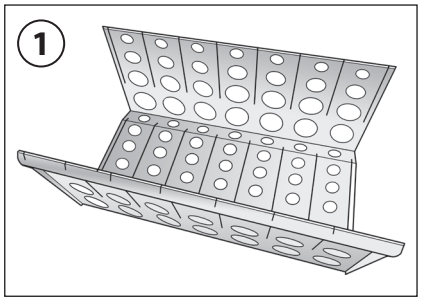
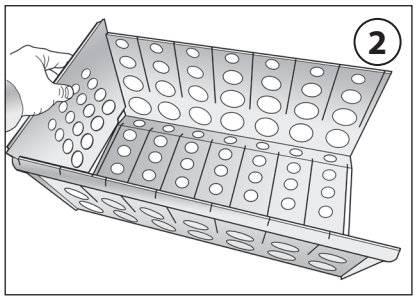
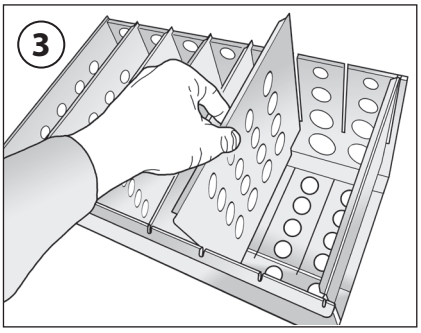
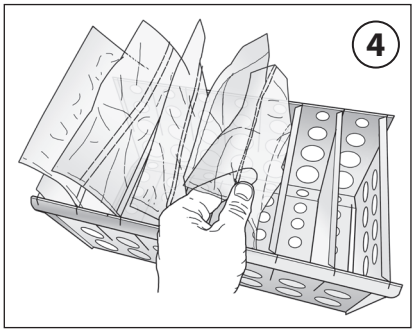
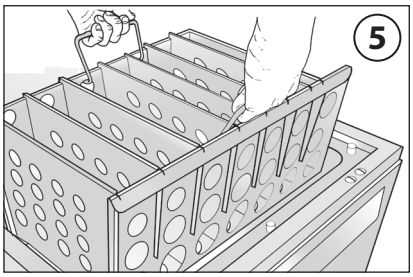
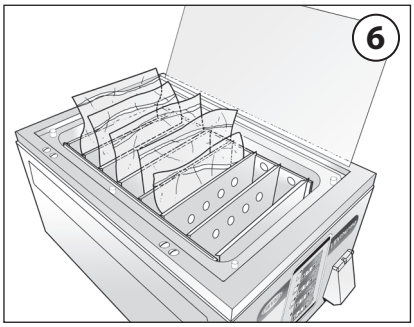
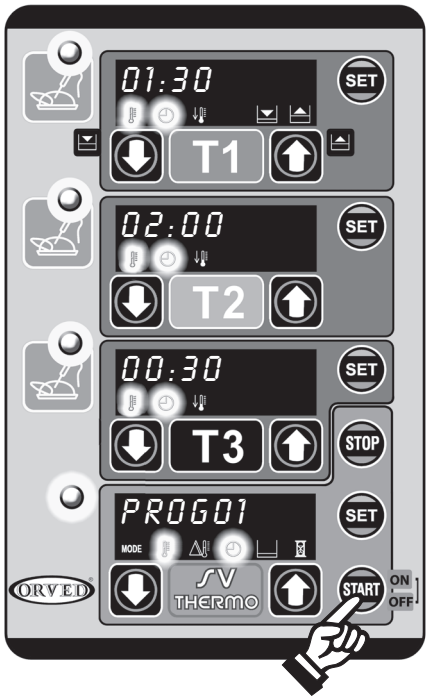
COOKING WITHOUT THE USE OF CORE PROBES

PHASE	DESCRIPTION	VALUE / PARAMETER / DISPLAY	DISPLAY
D - PROGRAM START-UP **Starting-up the program will activate the heating phase (WARM-UP).**			
22	Press START on MAIN.		
		On the T1, T2 and T3 display appears the TIMER and TEMPERATURE value. **The TIMER ICONS, TEMPERATURE and the LED on T1, T2 and T3 are switched-on.** **On MAIN appears the message HEATING (WARM UP) alternating with the PROGRAM (PROG…) and the tank temperature.** **The MAIN LED switches-on.**	
23		**On the T1, T2 and T3 display appears the TIMER and TEMPERATURE value.** **The TIMER ICONS, TEMPERATURE and the LED on T1, T2 and T3 are switched-on.** **The T2 display appears the message INSERT PRODUCT – PRESS START.** **The MAIN display show the PROGRAM (PROG…) alternating with the TEMPERATURE and TIMER of the tank.** **The MAIN LED flashes**	

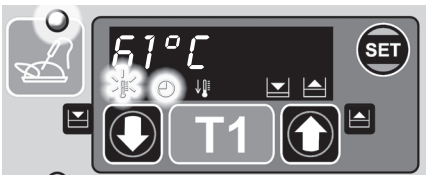
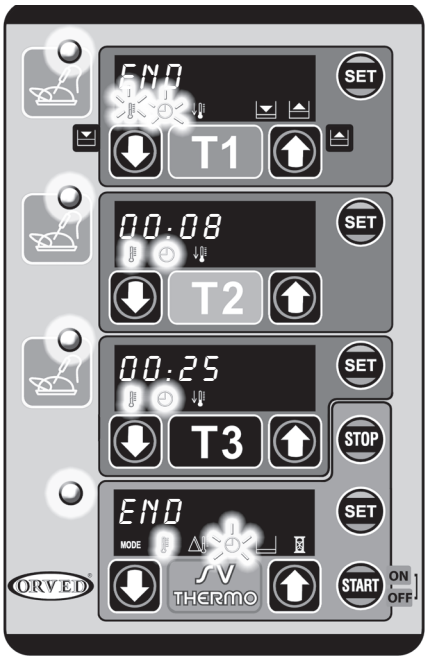
COOKING WITHOUT THE USE OF CORE PROBES

PHASE	DESCRIPTION	VALUE / PARAMETER / DISPLAY	DISPLAY
E – REACHING TANK TEMPERATURE AND PRODUCT INSERTION **Buzzer and visual warning: insertion of the probe in the product and immersion in the tank.**			
24	Apply the probe valve to the core ORVED SYV on the bag to be vacuum-packed.	 	
	Insert the product in the bag, centring it respect to the valve and carry out the vacuum with a chamber vacuum packing system.		
	Carefully clean the needle of the probe with a suitable cleaning agent. Pierce the probe into the product until the core is reached, via the SYV valve. Check that the bag remains vacuumed.		

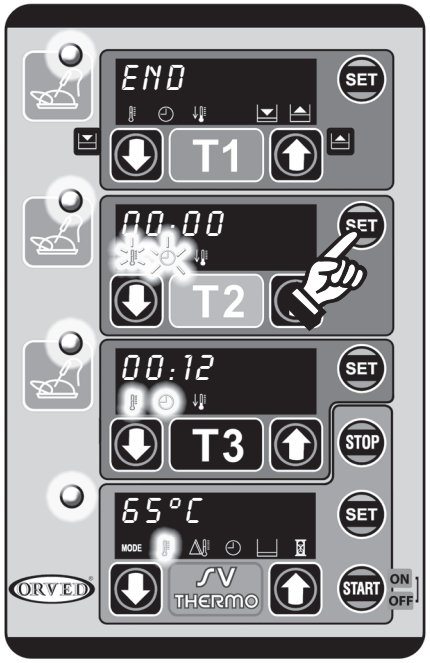
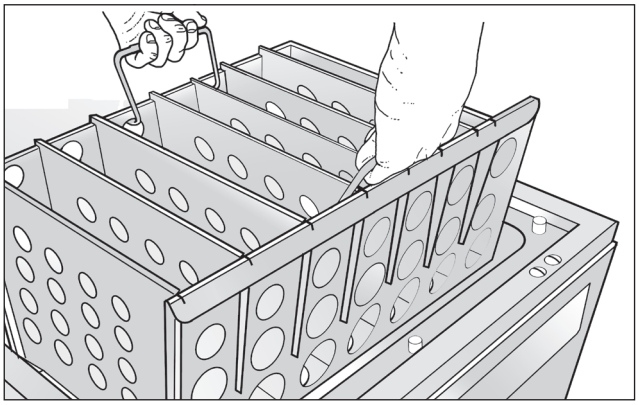
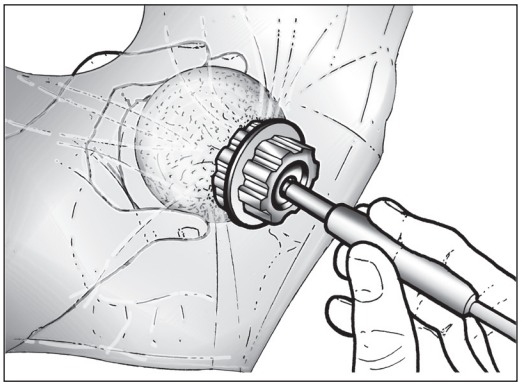
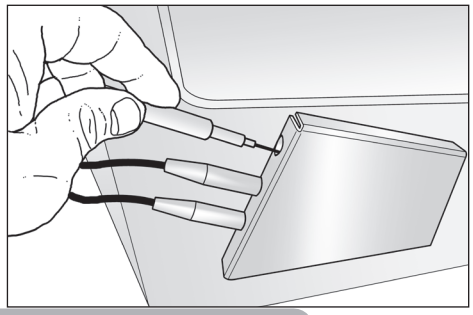
COOKING WITHOUT THE USE OF CORE PROBES

PHASE	DESCRIPTION	VALUE / PARAMETER / DISPLAY	DISPLAY
25	Immerge the vacuum packed products with the probe inserted, in the tank using tongs, or by using the optional bag-holder basket (1-6).	     	
26	Press START on MAIN	**On the T1, T2 and T3 display appears the TIMER and TEMPERATURE value.** **The TIMER ICONS, TEMPERATURE and the LED on T1, T2 and T3 are switched-on.** **The MAIN display show the PROGRAM (PROG…) alternating with the TEMPERATURE and TIMER of the tank.** **The MAIN LED the ICON TEMPERATURE AND TANK TIMER is switched-on.**	

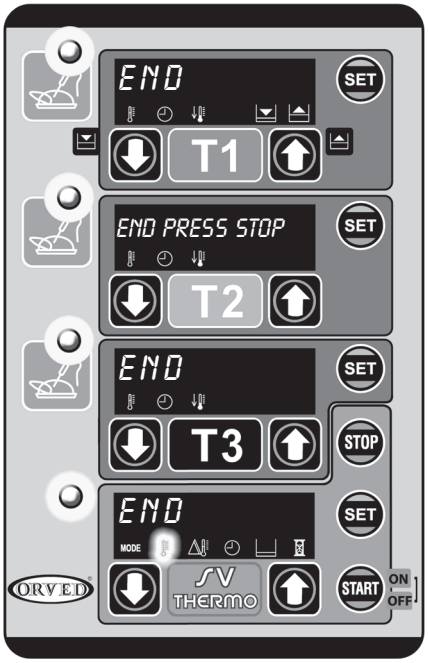
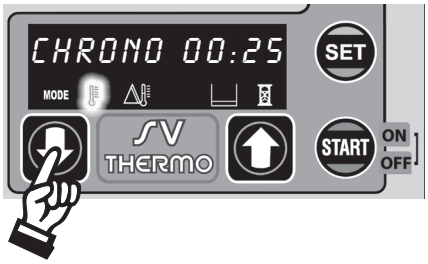
COOKING WITHOUT THE USE OF CORE PROBES

PHASE	DESCRIPTION	VALUE / PARAMETER / DISPLAY	DISPLAY
F - END OF TIMERS T1/T2/T3 AND END OF CYCLE			
Once the probe temperatures T1, T2 and T3 have been reached, the corresponding icon TEMPERATURE will flash. The timers T1, T2 and T3 are automatically activated once the corresponding programmed core probes temperatures are reached.			
Each timer that ends sounds a buzzer signal, from the flashing TIMER icon and from the flashing message END on the respective displays T1, T2 and T3.			
On MAIN the icon TIMER flashes. When the last set TIMER expires, the cycle ends depending on the programmed COOKING MODE (COOKING-OFF / COOKING-CHILL / COOKING-HOLD).			
	Reaching the PROBE TEMPERATURE T1, T2 or T3: if set, automatically start the corresponding PROBE TIMER.	**Buzzer warning.** **The T1, T2 and T3 displays shows the TIMER value alternating with the PROBE TEMPERATURE.** **The TEMPERATURE ICON flashes on the corresponding display.** **The TIMER ICON of the corresponding display is switched-on.**	
	The first TIMER ends (on T1, T2, T3 or MAIN).	**Buzzer warning.** **Display T1 / T2 / T3:** **On the corresponding T1, T2 or T3 display the TIMER ICON flashes in addition to the TEMPERATURE ICON and the word END appears flashing.** **MAIN: Display** **the TIMER ICON flashes and the word END appears flashing.**	

COOKING WITHOUT THE USE OF CORE PROBES

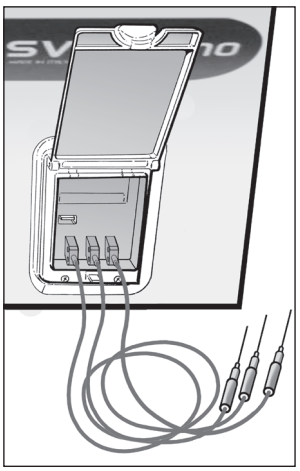
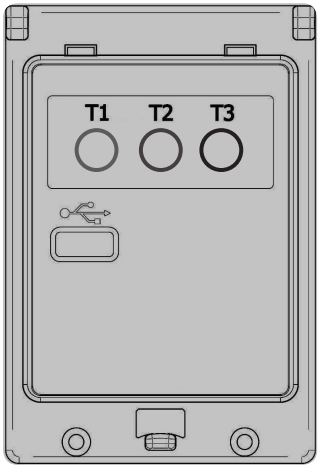
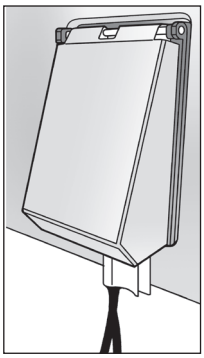
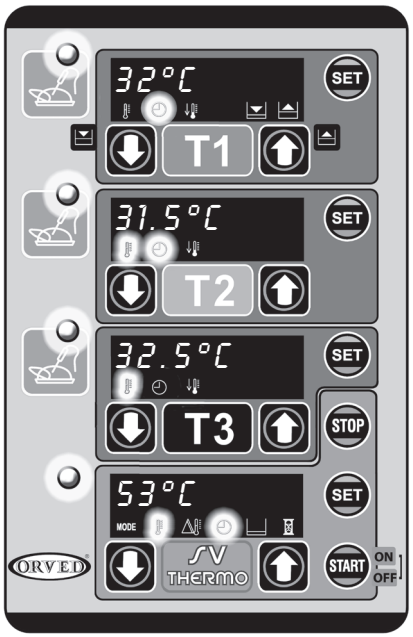
PHASE	DESCRIPTION	VALUE / PARAMETER / DISPLAY	DISPLAY
27	To silence the signal, press the SET key on the display that shows the TIMER end.	**On the corresponding Display T1, T2, T3 or MAIN appears the message END.** **The corresponding TIMER ICON switches-off.**	
28	Extract the corresponding product from the tank. Remove the core probe from the product and place in the probe holder. Repeat the operation each time the TIMER ends.		  

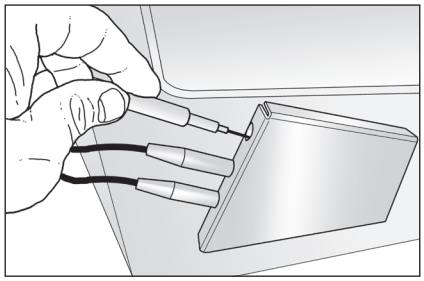
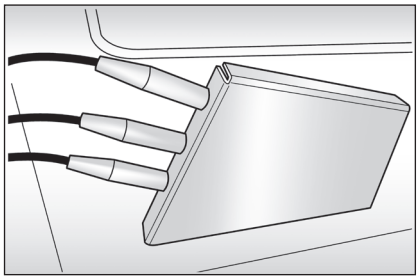
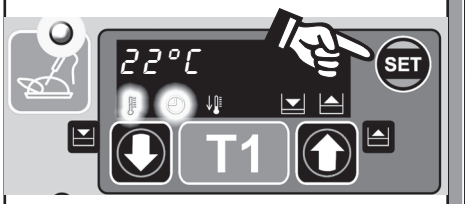
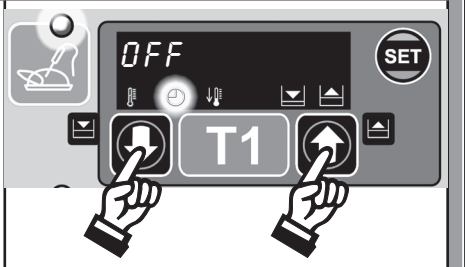
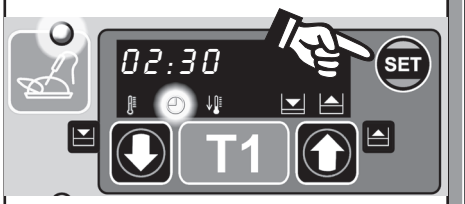
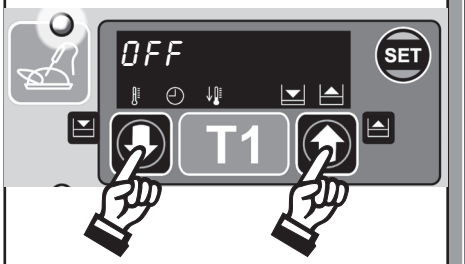
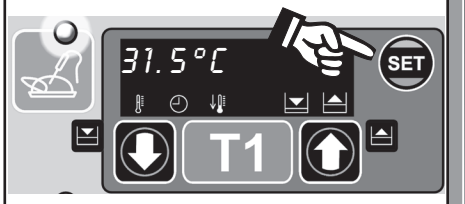
COOKING WITHOUT THE USE OF CORE PROBES

PHASE	DESCRIPTION	VALUE / PARAMETER / DISPLAY	DISPLAY
	The last timer that ends determines the end cycle that is completed depending on the programmed cooking mode.	**On T2 appears END – PRESS STOP.** **On all the displays appears the message END.** **All the TIMER ICONS are switched-off.**	
	Cooking mode COOKING-COOLING AND COOKING-MAINTENANCE: press DOWN on MAIN to display the time elapsed.	**The MAIN display shows the message CHRONO alternate to the elapsed time of the maintenance or cooling phase.**	
29	Press STOP	**On T2 appears READY – PRESS START OR SET** **The remaining displays return to idle mode.** **The TEMPERATURE ICON on the MAIN display switches-off.**	

COOKING WITHOUT THE USE OF CORE PROBES

8.4.4 COOKING WITH THE USE OF CORE PROBE WITH READING FUNCTION ONLY

PHASE	DESCRIPTION	VALUE / PARAMETER / DISPLAY	DISPLAY
A- SWITCH-ON: FOLLOW PT.1-2 § 8.4.2 B - BASIC FUNCTIONS PROGRAMMING ON MAIN: FOLLOW PT.1-2 § 8.4.2 C - CORE PROBES PROGRAMMING T1/T2/T3 FOR READING ONLY			
1	Lift the front door and insert one or more probes into the corresponding connectors T1, T2 and T3, by running the wires through the plastic tab.	**Probes colour = display colour** **T1 = YELLOW T2 = RED T3 = BLACK**  	
2	Lower the front door so to cover the connectors and protect them from any liquids.		
		With the probe connected, the corresponding LED T1, T2 AND T3 are switched-on. **The display with inserted probe indicates the instantaneous temperature shown by the probe.**	

PHASE	DESCRIPTION	VALUE / PARAMETER / DISPLAY	DISPLAY
3	Insert the probes in the specific probes holder on the side of the appliance..		
4	Press the SET key on T1 and select the parameter T1 TEMPERATURE PROBE.	**T1 TEMPERATURE PROBE** 	
5	Set the T1 PROBE TEMPERATURE with the UP / DOWN keys on T1 on OFF	**Display: OFF** **T1 TEMPERATURE ICON: switched-off.**	
6	Confirm with SET key on T1. Ensure access to programming of the T1 PROBE TIMER.	**T1 TIMER** 	
7	Set the T1 PROBE TIMER with the UP / DOWN keys on T1 on OFF	**Display: OFF** **T1 TIMER ICON: switched-off.**	
8	Confirm with SET key on T1.	**THE T1 TIMER AND TEMPERATURE ICONS are switched-off and the T1 DISPLAY shows the relative temperature of the T1 probe.**	
9	**Repeat 13-20 on displays T2 and T3.**		

COOKING WITH THE USE OF CORE PROBE WITH READING FUNCTION ONLY

PHASE	DESCRIPTION	VALUE / PARAMETER / DISPLAY	DISPLAY
D - PROGRAM START-UP: FOLLOW PT.22 § 8.4.2			
E – REACHING TANK TEMPERATURE AND PRODUCT INSERTION: follow pt.23-26 § 8.4.2			
F - END OF CYCLE. Each timer that ends sounds a buzzer signal, from the flashing TIMER icon and from the flashing message END on the respective displays T1, T2 and T3. On MAIN the icon TIMER flashes. The cycle ends depending on the programmed COOKING MODE (COOKING-OFF / COOKING-CHILL / COOKING-HOLD). Extract the product from the tank as described in § 8.4.2.			

COOKING WITHOUT THE USE OF CORE PROBES

8.4.5 COOKING WITH DELAYED START-UP WITH ICE OFF / ICE ACTIVATED

A) Delayed start-up with Ice function switched-off (ICE OFF). If the ICE FUNCTION is programmed on OFF in the user parameters menu setting (read carefully § 5.4 / 8.1.2 / 8.3.3 / 8.4.1), the delayed start-up function allows the start-up of the cooking cycle at the desired time, independently from the temperature and tank water level, that the apparatus indicates at start-up. This type of delayed start-up is suitable for the defrosting / regeneration of frozen products.



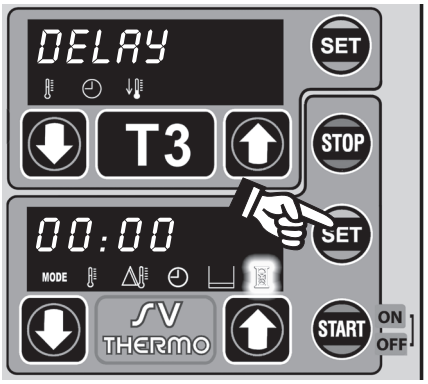
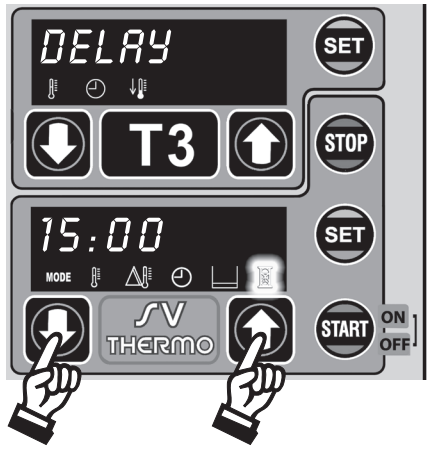
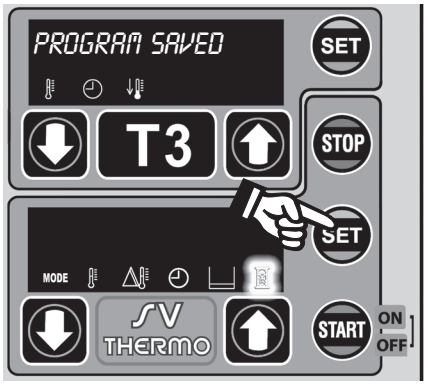
1) **For cooking frozen products, before setting the DELAYED START-UP time on the MAIN display, carefully evaluate the product defrosting time according to its weight: at the end of health-hygiene, during the permanence period in the tank before the start-up of the cooking cycle, the product must not exceed 3°C.**
2) **The delayed start-up time remains saved until a new programming is saved. Remember therefore to reprogram it when necessary.**

B) Delayed start-up with Ice function activated (ICE ON). The mode of greater interest allowed by the SV- Thermo Top version, is the cooking or regeneration of overnight product, with product temperature maintained at 3°C until the cycle start-up (ICE FUNCTION – read carefully § 5.4 / 8.1.2 / 8.3.3 / 8.4.1). By simply pouring the granular ice covering the product placed in the tank. The user menu parameters ICE FUNCTION must be SWITCHED-ON (ON) (see § 8.3.3 / 8.4.1)

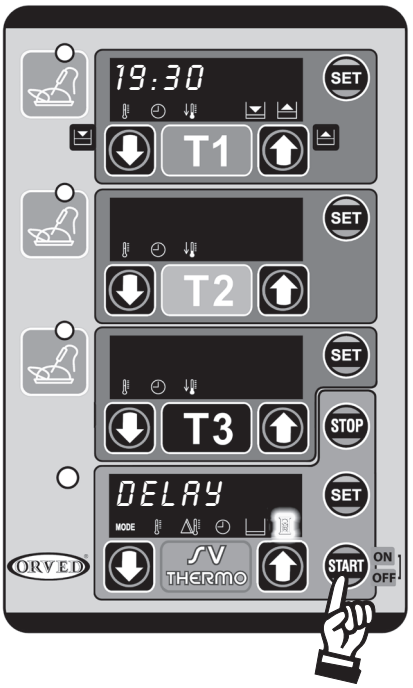


1) **By setting in the user menu the ICE ACTIVATED function (see §8.3.3), the appliance automatically carries out a series of alternating drainages with hot water fill-up, allowing the granular ice to melt. Therefore, ensure that hot water and the correct connection to the hot water pipe on the corresponding attachment on the rear side of the machine is available.**
2) **ICE FUNCTION setting on the user parameters menu: see § 8.3.3**
3) **The absence of the operator excludes the use of added timers or core probes.**

A - DELAYED START-UP WITH ICE FUNCTION SWITCHED-OFF (ICE OFF)

PHASE	DESCRIPTION	VALUE / PARAMETER / DISPLAY	DISPLAY
A- SWITCH-ON: follow pt.1-2 § 8.4.2 **B- USER PARAMETER SETTING – ICE FUNCTION: follow pt.1-12 § 8.3.3** **C - BASIC FUNCTIONS PROGRAMMING ON MAIN:** **Follow pt.1-2 § 8.4.2 (cooking mode, tank temperature, tank and level timer programming with addition of DELAYED START-UP (DELAY) parameter:**			
1	Select with SET key on MAIN the parameter DELAYED START-UP (DELAY).	**DELAYED START-UP (DELAY)** 	
2	Set the CYCLE START TIME with the UP / DOWN keys on MAIN.	**TIME: 0 – 24** **Example: time 15.00**	
3	Confirm using the SET key on MAIN.	**On T3 appears PROGRAM SAVED.** **On T2 appears the message READY – PRESS START OR SET.**	 

A - DELAYED START-UP WITH ICE FUNCTION SWITCHED-OFF

PHASE	DESCRIPTION	VALUE / PARAMETER / DISPLAY	DISPLAY
4	Insert the product (possibly frozen) in the tank. Press START on MAIN for 4 seconds.	**On MAIN appears the message DELAYED START-UP (DELAY).** **The appliance enters in SWITCHED-OFF mode (off), indicating the time on the T1 display.**	

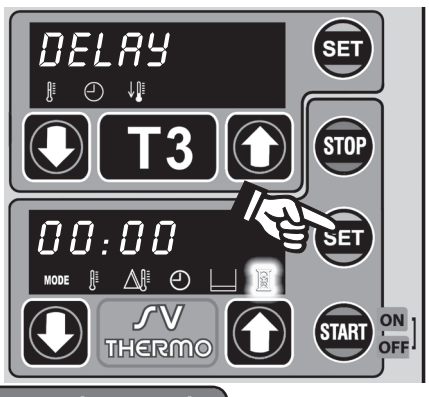
F - END OF CYCLE

The cycle proceeds and ends automatically according to the programmed settings

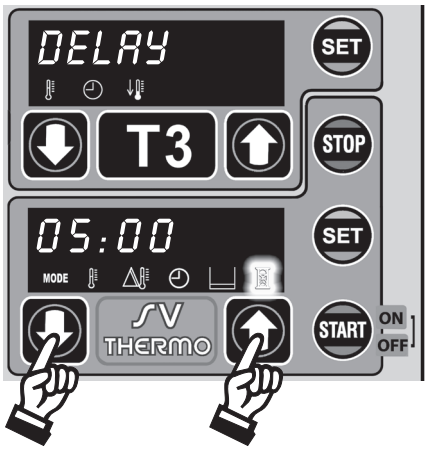
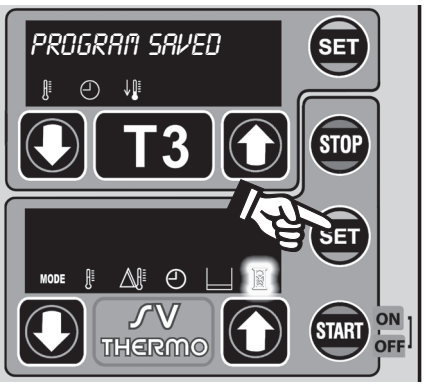
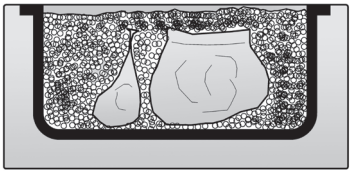
Extract the product from the tank as described in § 8.4.2.

A - DELAYED START-UP WITH ICE FUNCTION SWITCHED-OFF

B - DELAYED START-UP WITH ICE FUNCTION ACTIVATED (ICE ON)

PHASE	DESCRIPTION	VALUE / PARAMETER / DISPLAY	DISPLAY
A- SWITCH-ON: follow pt.1-2 § 8.4.2 **B- USER PARAMETER SETTING – ICE FUNCTION: follow pt.1-12 § 8.3.3** **C - BASIC FUNCTIONS PROGRAMMING ON MAIN:** **Follow pt.1-2 § 8.4.2 (cooking mode, tank temperature, tank and level timer programming with addition of DELAYED START-UP (DELAY) parameter:**			
1	Select with SET key on MAIN the parameter DELAYED START-UP (DELAY)	**DELAYED START-UP (DELAY)** 	

B - DELAYED START-UP WITH ICE FUNCTION ACTIVATED (ICE ON)

PHASE	DESCRIPTION	VALUE / PARAMETER / DISPLAY	DISPLAY
2	Set the CYCLE START TIME with the UP / DOWN keys on MAIN.	**TIME: 0 – 24** **Example: time 5.00 am**	
3	Confirm using the SET key on MAIN.	**On T3 appears PROGRAM SAVED.** **On T2 appears the message READY – PRESS START OR SET**	 
4	Insert the product in the tank covering it with granular ice.		
5	Press START on MAIN for 4 seconds.	**On MAIN appears the message DELAYED START-UP (DELAY).** **The appliance enters in SWITCHED-OFF mode (off), indicating the time on the T1 display.**	

F - END OF CYCLE. The cycle proceeds and ends automatically according to the programmed settings

Extract the product from the tank as described in § 8.4.2

B - DELAYED START-UP WITH ICE FUNCTION ACTIVATED (ICE ON)

8.4.6 MODE OF USE "CATERING"

Is a mode that allows the use of the appliance in off-site places (Outdoor catering, Fairs etc.), where often hot and cold water hydraulic connections are not present.

In "Catering" mode automatic management of the filling-up and draining electrovalves are consequently excluded. Presuming that hot and cold water connections are not present, however it is still possible to activate the manual filling-up and draining of cold water. (see § 8.4.8). For the same reason the automatic levels check is also excluded

For the same reason the automatic levels check is also excluded.

Consequently, cooking with timer and core probes is possible, but without the cooling or temperature maintenance at the end of the cycle (CHILL / HOLD)

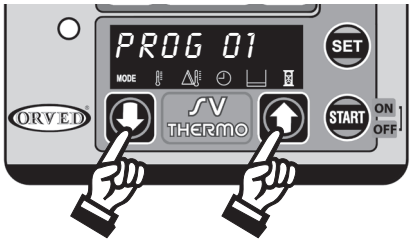
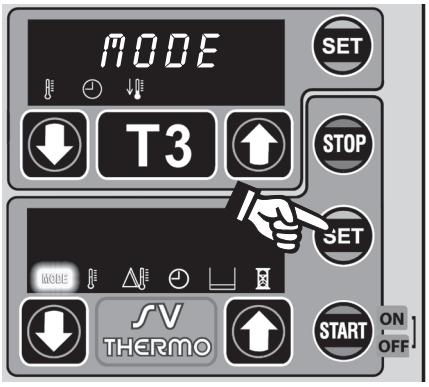
ATTENTION!

- **Read carefully the safety warnings in chap.2 and installation in chap.7: in the case of regular off-site use installation, the environmental safety features of the electrical system in which it is to be operated, must comply with all current safety regulations. In particular, ensure beforehand that the electrical network is as standard, adequate to the electrical features of the appliance and that an efficient earthing system is present.**

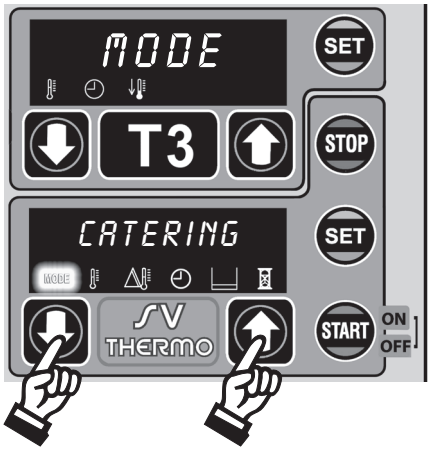
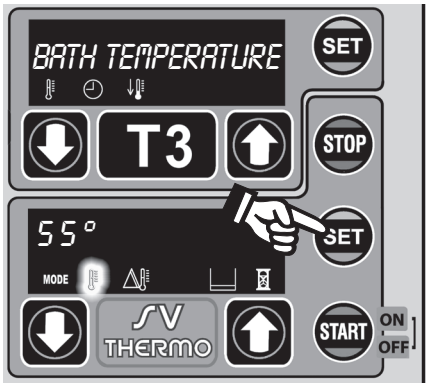
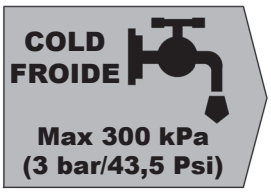
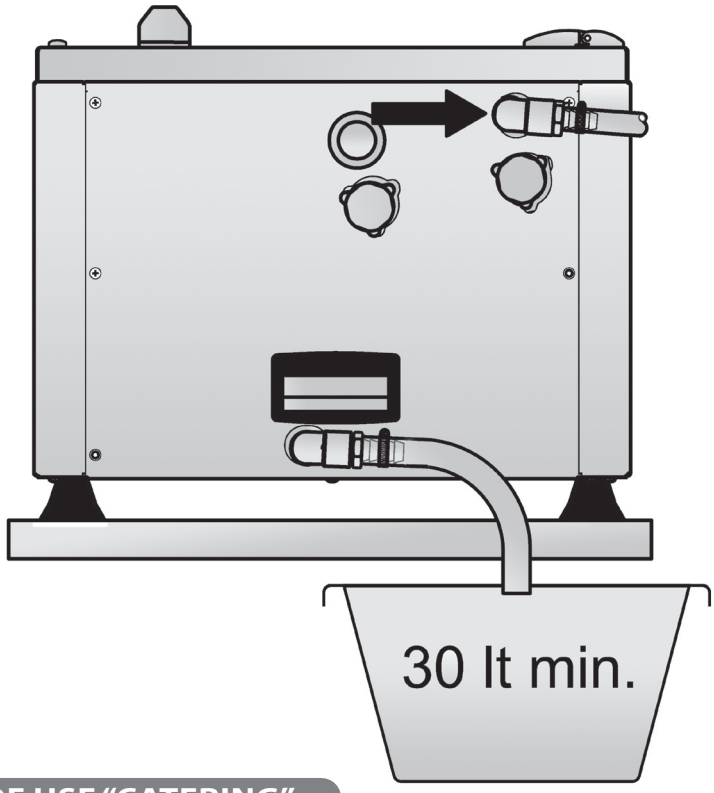
- **Check that drinking water is available in the place of installation.**
- **When transferring the appliance to another place, it is necessary to use a new mobile joints kit (gaskets).**
- **Drain: in the absence of sewage drains, use a 30 litre container resistant to temperatures up to 100°C.**

RISK OF BURNS!

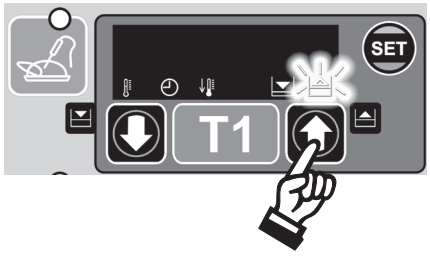
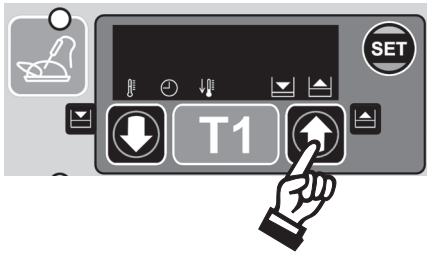
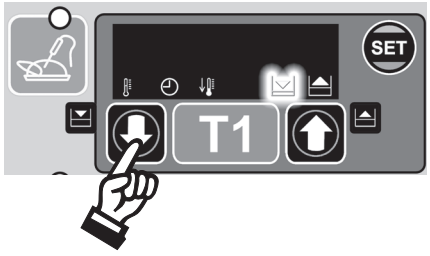
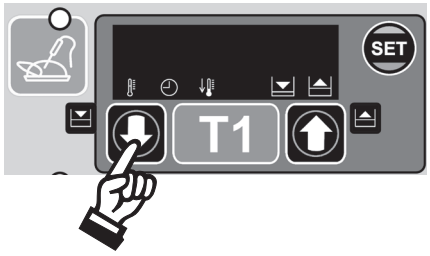
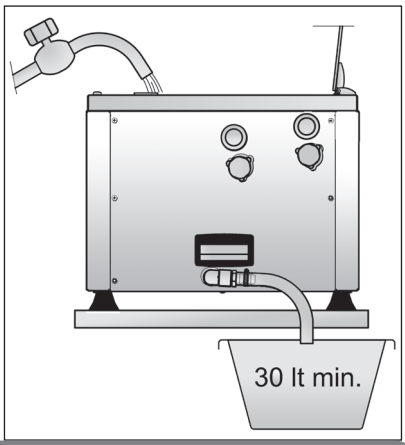
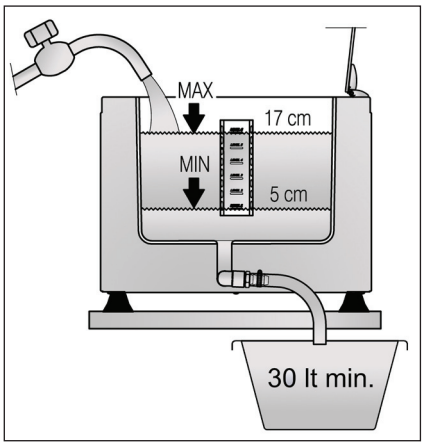
- **Use protective clothing to handle the containers when draining hot water!**
- **Trolley, tables and/or supports on which the appliance is to be placed on, must guarantee the stability and prevent accidental overturning!**

PHASE	DESCRIPTION	VALUE / PARAMETER / DISPLAY	DISPLAY
A- SWITCH-ON: follow pt.1-2 § 8.4.2 B - BASIC FUNCTIONS PROGRAMMING ON MAIN: follow pt.1-2 § 8.4.2 setting the "CATERING" mode			
1	Choose a PROGRAM with the UP / DOWN keys on MAIN:	• **MANUAL: if the values set are not to be saved;** • **1 – 99: if the values set are to be saved.** • **C1-C9: preset**	
2	Press SET on MAIN to select the parameter to be programmed.	**COOKING MODE (MODE)** 	

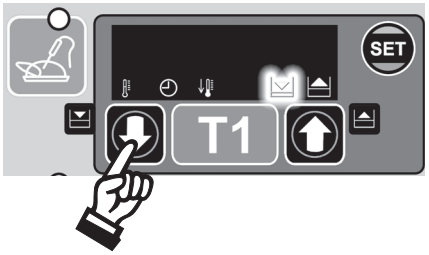
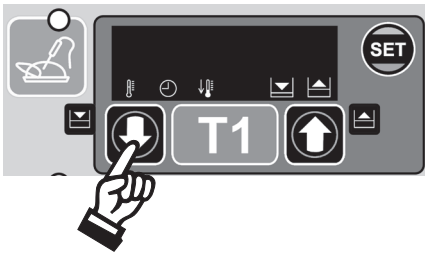
MODE OF USE "CATERING"

PHASE	DESCRIPTION	VALUE / PARAMETER / DISPLAY	DISPLAY
3	Choose the COOKING MODE (MODE) wanted with the UP / DOWN keys on MAIN.	**CATERING**	
4	Confirm using the SET key on MAIN. Ensuring access to the next parameters to be programmed.	**TANK TEMPERATURE: 5-100°C (BATH TEMPERATURE)** **TANK TIMER (COOKING TIME): 0-24h** **TANK LEVEL (WATER LEVEL): NOT ACTIVATED** 	
C - PROGRAM T1/T2/T3: follow 8.4.2 D – ADJUSTABLE WATER LEVEL: with cold water and drain connectedi			
5	Attach the DRINKABLE cold water connection on the rear side of the machine (on the right hand side, with the blue mark)  Position a container of at least 30 litres at the drain.		

MODE OF USE "CATERING"

PHASE	DESCRIPTION	VALUE / PARAMETER / DISPLAY	DISPLAY
6	Cold water fill-up activated:	**T1 DISPLAY: The WATER FILL-UP ICON flashes.** 	
	Cold water fill-up deactivated: press the UP key for 3 seconds on the T1 display again.	**T1 DISPLAY: The WATER FILL-UP Icon is switched-off.** 	
	Drain activated: press the DOWN key for 3 seconds on the T1 display.	**T1 DISPLAY: The WATER DRAIN Icon is switched-on.** 	
	Drain deactivated: press the DOWN key for 3 seconds on the T1 display again.	**T1 DISPLAY: The WATER DRAIN Icon is switched-off.** 	
E – ADJUSTABLE WATER LEVEL: without cold water and drain			
5	Manually fill-up the tank until the desired level is reached (within the minimum limit of 5 cm – maximum limit of 17 cm) with DRINKABLE WATER. Position a container of at least 30 litres at the drain.		

MODE OF USE "CATERING"

PHASE	DESCRIPTION	VALUE / PARAMETER / DISPLAY	DISPLAY
6	Drain activated: press the DOWN key for 3 seconds on the T1 display.	**T1 DISPLAY: The WATER DRAIN Icon is switched-on.** 	
	Drain deactivated: press the DOWN key for 3 seconds on the T1 display again.	**T1 DISPLAY: The WATER DRAIN ICON is switched-off.** 	

F - PROGRAM START-UP: follow 8.4.2

G – REACHING TANK TEMPERATURE AND PRODUCT INSERTION: follow 8.4.2

H - END OF SET TIMERS AND END CYCLE: follow 8.4.2

MODE OF USE "CATERING"

8.4.7 SUSPENSION OR INTERRUPTION OF THE PROGRAM

The program can be suspended at any time (PAUSE: the Tank temperature is maintained, the timer/s are suspended) or permanently stopped.

In this case, the appliance will return to READY – PRESS START OR SET mode.

PHASE	DESCRIPTION	VALUE / PARAMETER / DISPLAY	DISPLAY
1	BRIEFLY press STOP suspend the cycle.	**PAUSE appears on the T2 display**	
2	BRIEFLY press STOP to reactivate the cycle.	**Resumes the displays active status.**	
3	BRIEFLY press STOP for 4 seconds INTERRUPTS the cycle.	**STOP appears on the T2 display**	

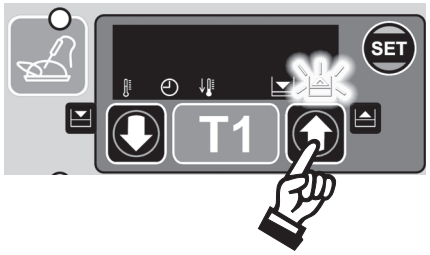
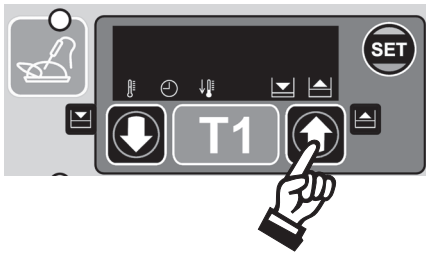
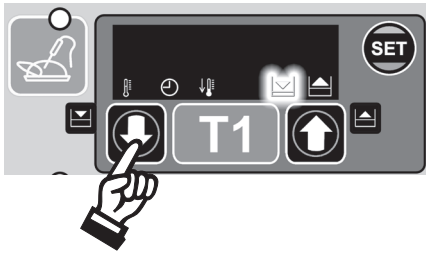
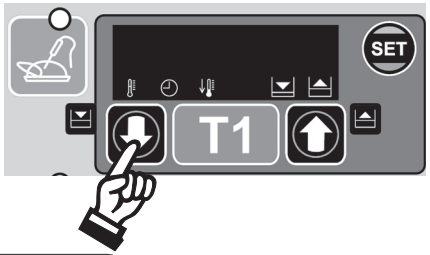
SUSPENSION OR INTERRUPTION OF THE PROGRAM

8.4.8 ACTIVATION OF MANUAL WATER FILL-UP / DRAIN

The manual activation of the water supply and discharge is enabled in:

- **COOKING-COOLING programs and COOKING-MAINTENANCE programs, not in operation.**
- **CATERING program in operation.**

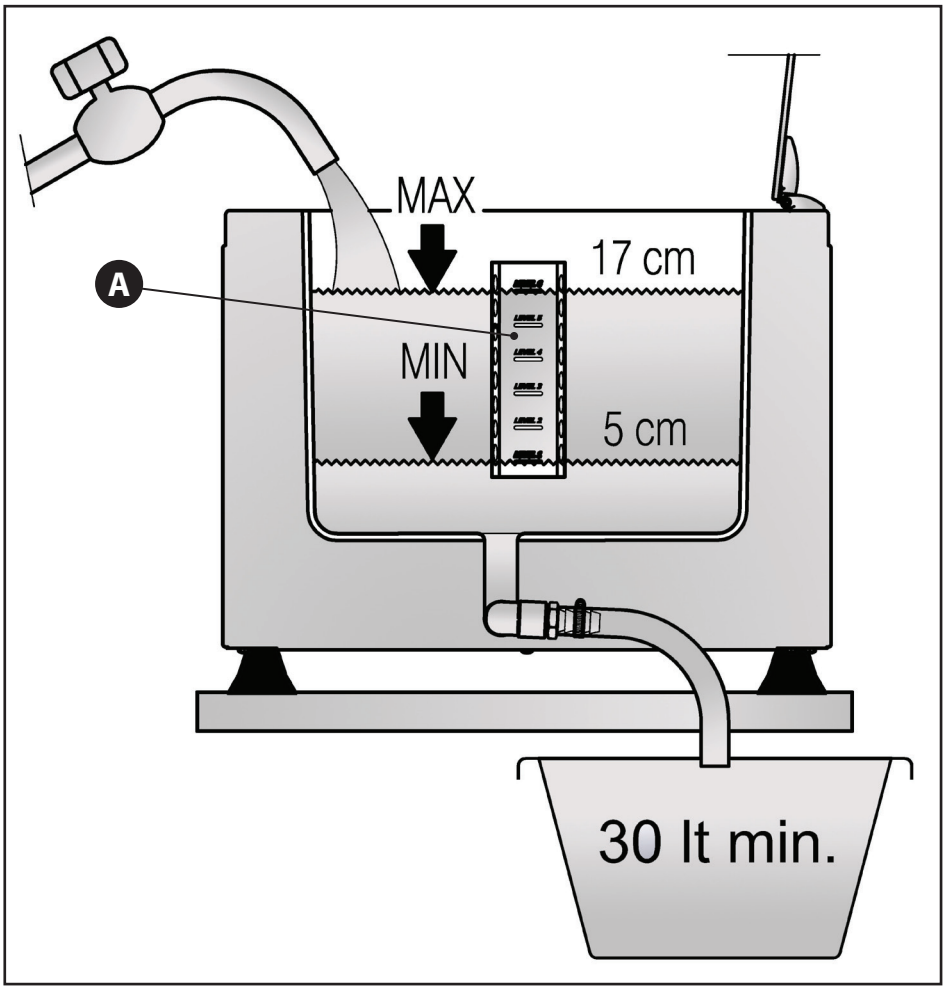
COLD WATER is put in fill-up mode with manual activation.

PHASE	DESCRIPTION	VALUE / PARAMETER / DISPLAY	DISPLAY
A- MANUAL FILL-UP ACTIVATEDE			
1	Activated: press the UP key for 3 seconds on the T1 display.	**T1 DISPLAY: The WATER FILL-UP ICON flashes.** 	
2	Deactivated: press the UP key for 3 seconds on the T1 display again.	**T1 DISPLAY: The WATER FILL-UP ICON is switched-off.** 	
B- MANUAL DRAIN ACTIVATED			
1	Activated: press the DOWN key for 3 seconds on the T1 display.	**T1 DISPLAY: The WATER DRAIN ICON is switched-on.** 	
2	Deactivated: press the DOWN key for 3 seconds on the T1 display again.	**T1 DISPLAY: The WATER DRAIN ICON is switched-off.** 	

ACTIVATION OF MANUAL WATER FILL-UP / DRAIN

In the case of manual filling from the outside:

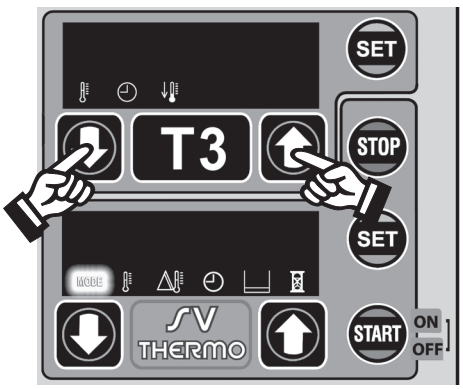
- **The water level must be between the minimum (5 cm) and the maximum (17 cm), referring to the level indicator inside the tank A.**
- **The filling should be done under supervision.**
- **The maximum flow rate must not exceed the limit of 0.25 l/sec. (15 l/min.)**



8.4.9 KEY LOCK

The keys can be locked at any time when the machine is on.

PHASE	DESCRIPTION	DISPLAY
1	How to turn it on: press the UP / DOWN keys on the T3 display together.	
2	How to turn it off: press the UP / DOWN keys on the T3 display together.	



KEY LOCK

9. ROUTINE MAINTENANCE

The information and instructions provided in this chapter are intended for all personnel operating on the machine: the user and the **maintenance technician**.

9.1 ELEMENTARY SAFETY STANDARDS

To carry out cleaning and routine maintenance operations safely, follow the regulations provided below:

- Always disconnect the machine from the mains, without pulling the power supply cable, when maintenance is to be performed.
- Do not touch the machine with bare, damp or wet hands or feet.
- Do not insert screwdrivers, kitchen instruments or anything similar between the guards, openings and moving parts of the machine.



DANGER!
It is strictly prohibited to remove the guards and safety devices to perform routine maintenance. ORVED S.p.A. declines all liability for accidents due to non-compliance with the above-mentioned obligation.



DANGER!
Do not use solvents, thinners or other products classified as toxic, to clean the surfaces.



DANGER!
Ventilate the environment if alcohol-based or flammable disinfectants are used.



ATTENTION!
Always use suitable preventive measures and protective devices (gloves, etc.) for any maintenance, handling, installation and cleaning operations.



ATTENTION!
Do not scrape the surfaces with pointed or abrasive objects.



ATTENTION!
Before proceeding with maintenance and cleaning, wait until the surfaces are cool and make sure that the tank is empty.



ATTENTION!
If you need to disconnect the water mains, when reconnecting the warm and cold water junctions, use a new kit movable joints (gaskets).

9.2 CLEANING EXTERNAL SURFACES

9.2.1 BODYWORK AND LID MADE OF TEMPERED GLASS

The stainless steel external surfaces of the SV-THERMO and the glass lid must be cleaned with a soft cloth or sponge and neutral detergent, following the direction of the satin finish.

Rinse with a cloth dampened with drinking water.

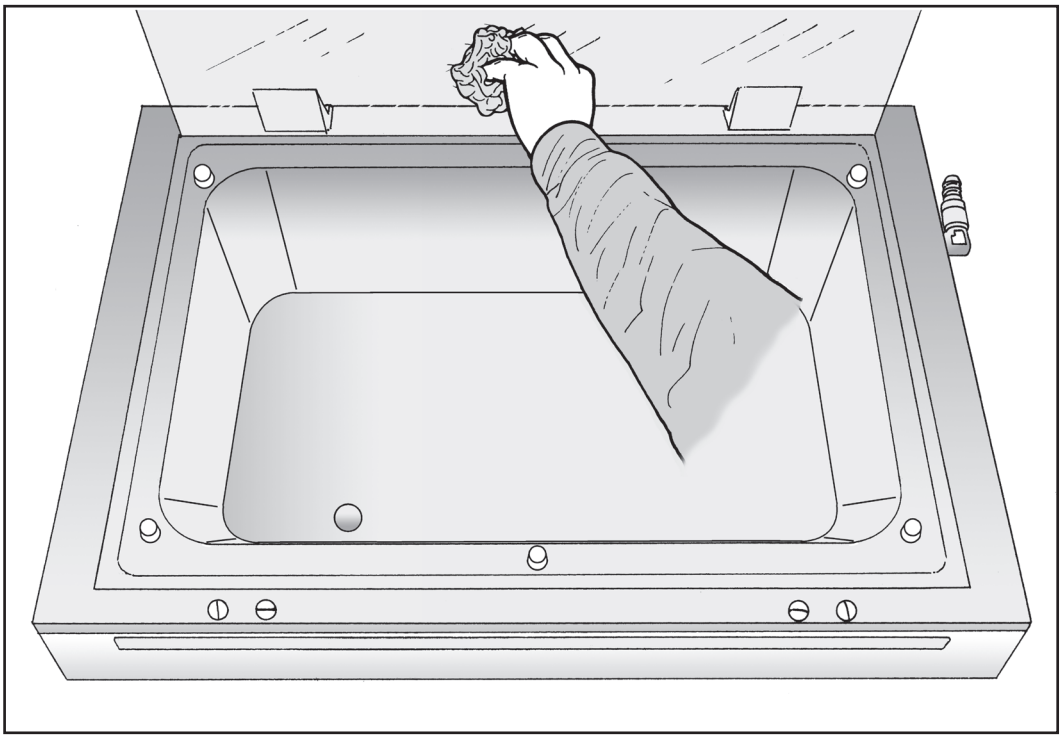
It is recommended not to use steel wool, scrapers or abrasive, acidic or aggressive substances, which could irreparably damage the steel surfaces.

After cleaning, it is recommended to protect the external surfaces with specific oil-based products for stainless steel.

ATTENTION!
Before proceeding with cleaning, wait until the surfaces are cool and make sure that the tank is empty.

ATTENTION!
Do not remove the serial number plates during cleaning. These provide important information regarding the appliance for any technical support.

ATTENTION!
Do not use water jets or vapour to rinse or clean the machine; avoid using water jets and vapour near the appliance.



9.2.2 CONTROL PANEL

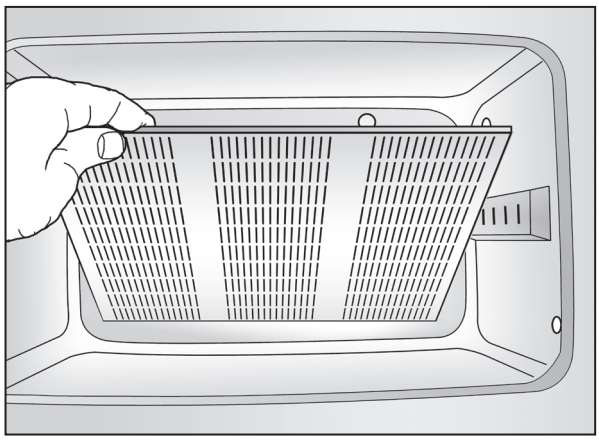
It is recommend to use a soft cloth with little detergent and to dry it thoroughly. Do not use solvents or alcohol

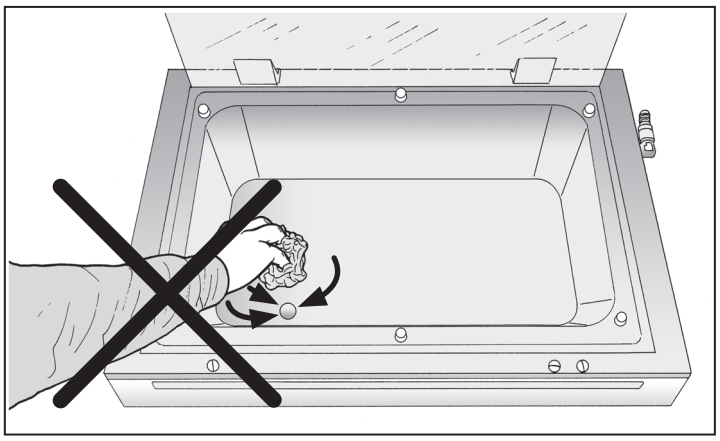
9.2.3 CLEANING THE BATH

To reduce the formation of limestone, add white vinegar to the cooking water.

ATTENTION!

Before any cleaning, remove the drain strainer from the tank and plug the drain with a rag or plug. Do not rinse the detergent and residue through the bath drain: any impurities could compromise the drain solenoid valve!





It is recommended to clean the bath after each use with white vinegar, or a neutral detergent, or alcohol-based disinfectant. The shape of the chamber facilitates cleaning. It is recommended to use a soft cloth or non-abrasive sponge. Wipe the internal surface with the cloth soaked in detergent and/or disinfectant, remove the residue using a cloth soaked in drinking water and then dry with a soft cloth.

Before proceeding with cleaning, remove the level indicator:

- Level indicator of Basic version **(Fig. 1)**.
- Level indicator of Top version **(Fig. 2)**.

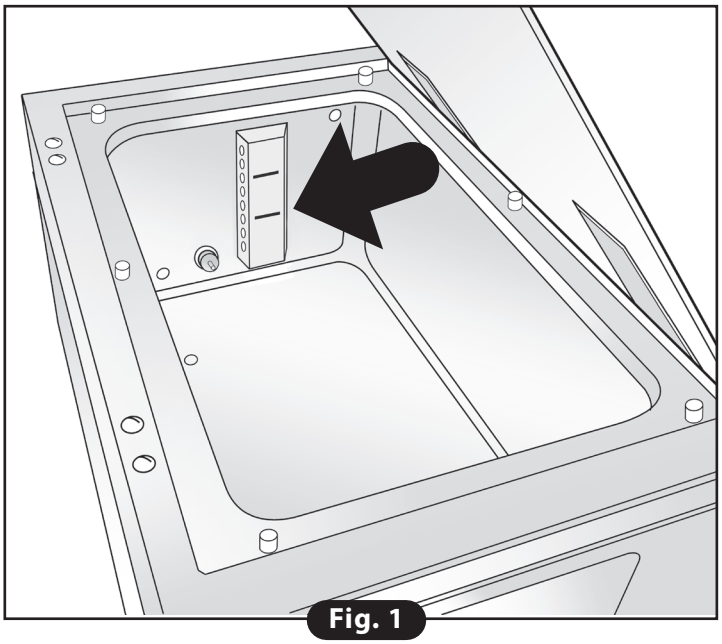


Fig. 1

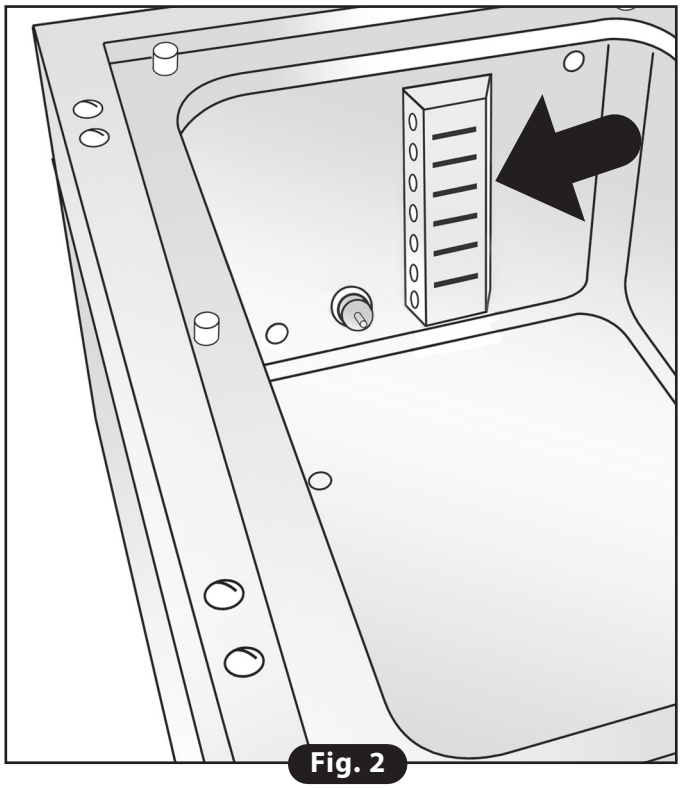


Fig. 2

- Rise the level indicator up and out of the bath **(Fig. 3)**.
- Perform a thorough cleaning of level sensors **A** and temperature sensor **B**.

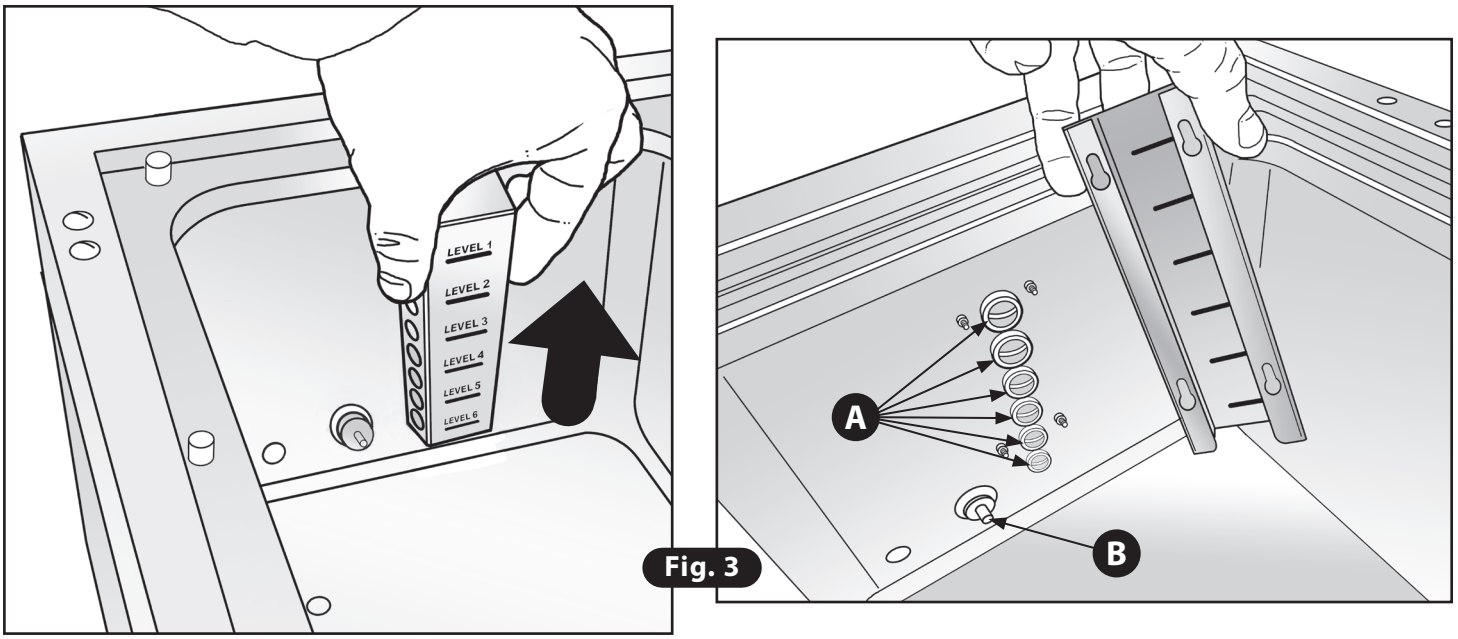


Fig. 3

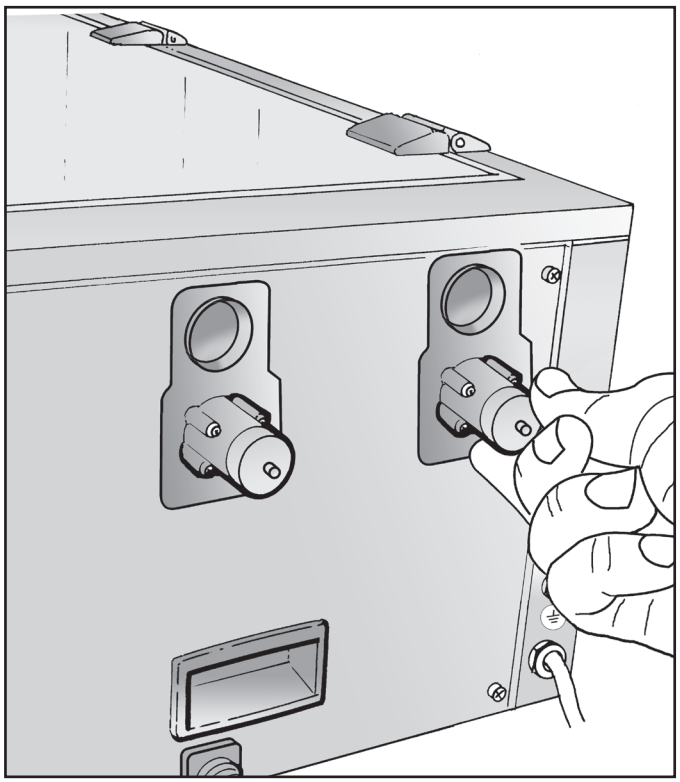
9.2.4 CLEANING THE WATER FILTERS AND DRAIN STRAINER

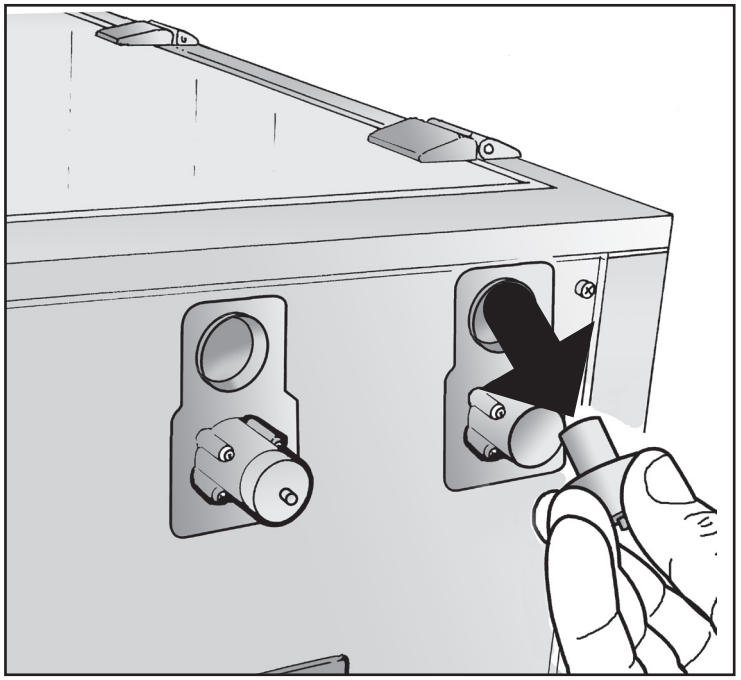
Periodically clean the water fill-up filters and the drain strainer.

1) Loosen the filter cap (Basic version) or the two filters (Top version) on the rear.

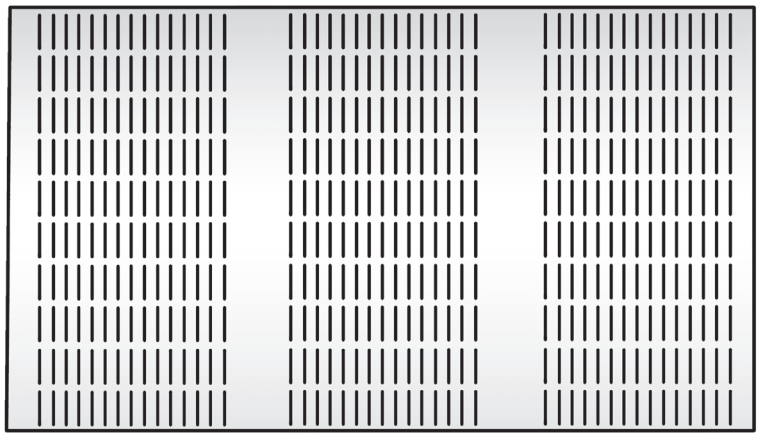
2) Remove the cartridge from its seat and clean it well. If there are any lime scale deposits, remove them by leaving the cartridge immersed in vinegar for 24 hours.

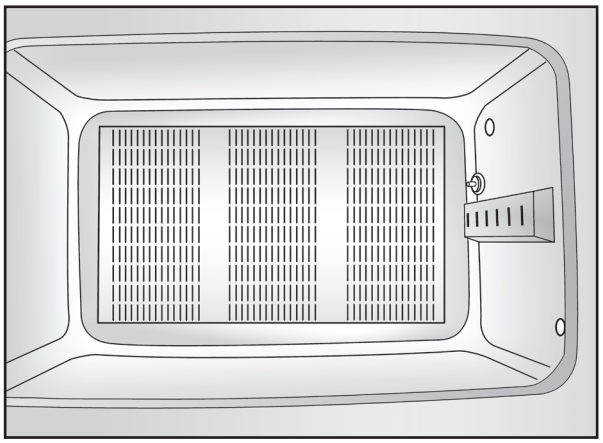
3) Insert the cap once again and tighten it well.





4) Rise the drain strainer up and out of the bath and clean it well. If there are any lime scale deposits, remove them by leaving the strainer immersed in vinegar for 24 hours.





9.2.5 CLEANING THE PROBE HOLDER

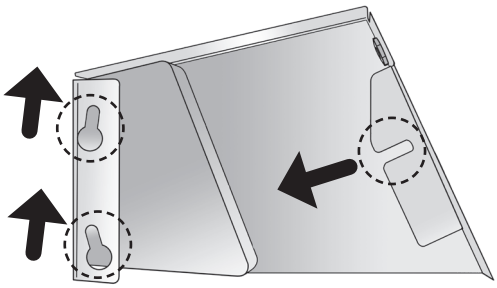
Do regular cleaning of the probe holder (optional).

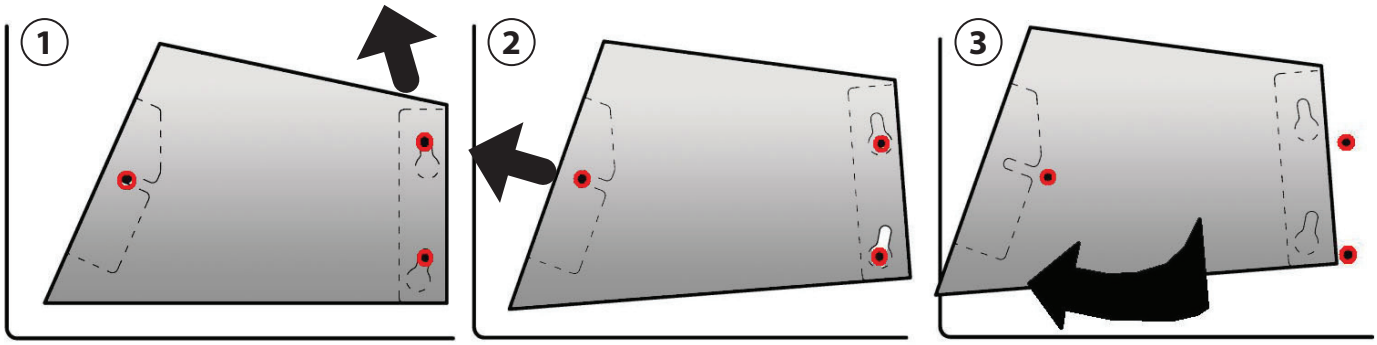
1) Remove the probes and store them in a safe place.

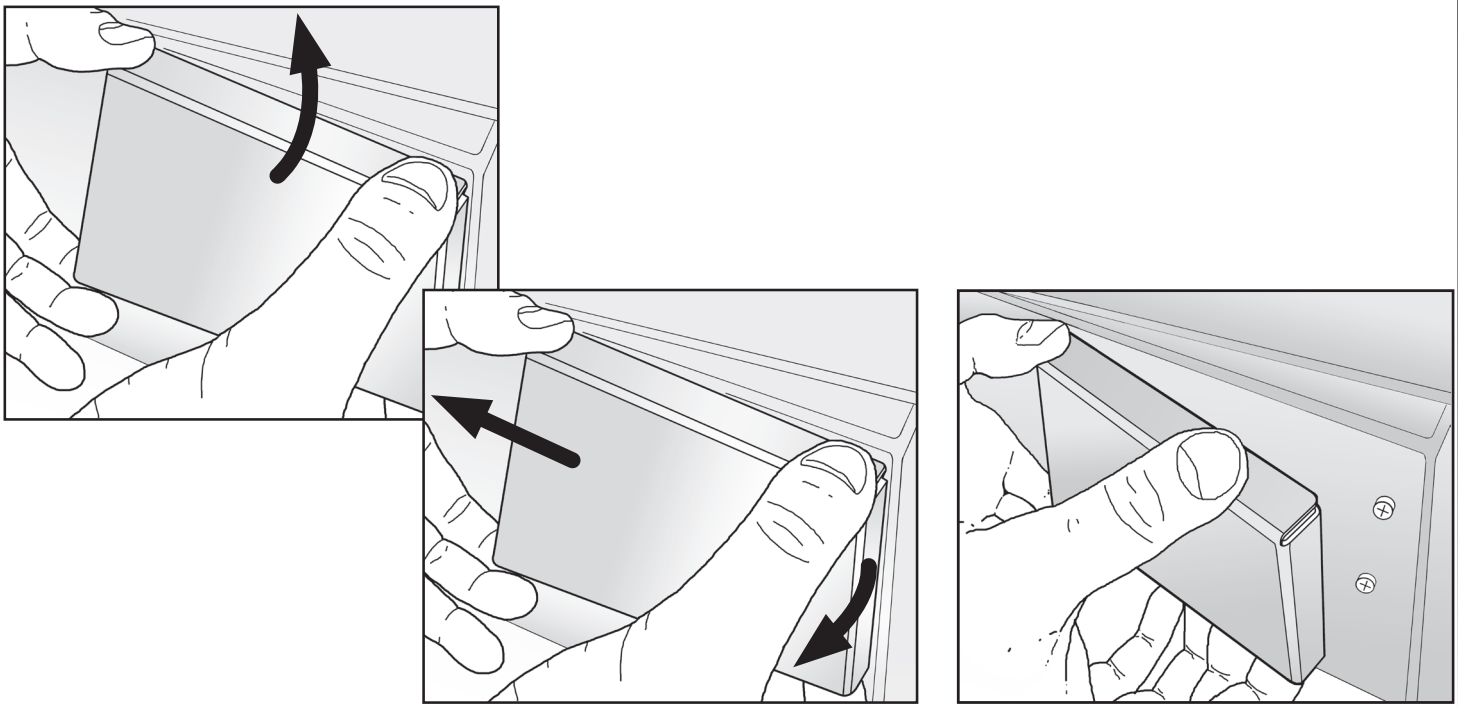
2) Raise the probe holder upward.

3) Proceed to the cleaning of the probe holder.

4) Hang up the probe holder on the three pins.



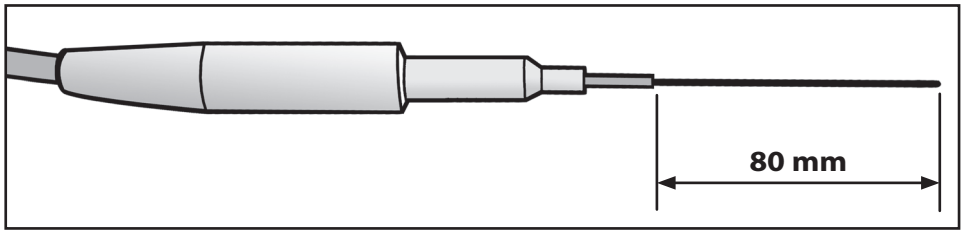




9.2.6 CLEANING THE PROBES (OPTIONAL)

ATTENTION!
Clean the probes before and after each use: the probe needle penetrates the food to the heart, which could otherwise lead to bacterial contamination!

See image below of the probe and its needle, 80mm long, which must be thoroughly cleaned and made suitable for contact with food before each use.



9.2.7 IDLE PERIODS

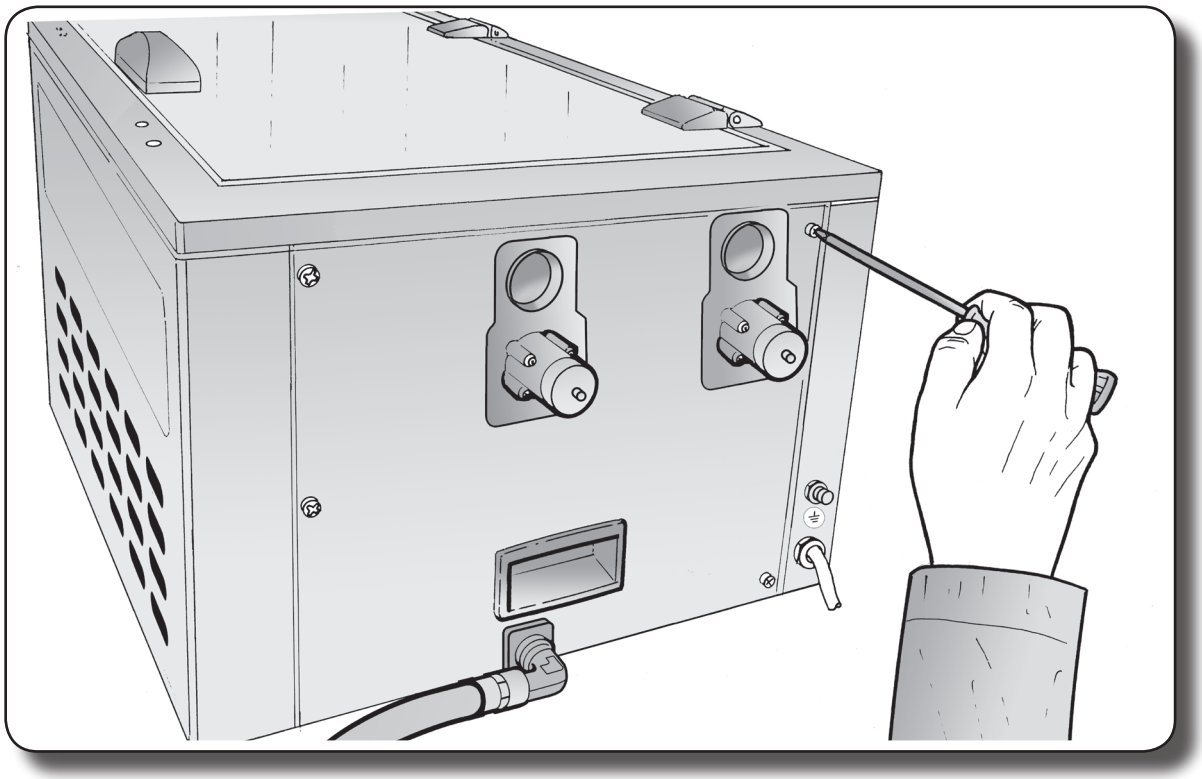
If the appliance is not to be used for a long time, clean it well from the inside and outside and protect the external surfaces with specific oil-based products for stainless steel.

ATTENTION!
Disconnect the plug until further use.
Before using it once again, check the integrity of the appliance and clean it well.

9.3 FAULTS

ATTENTION!
In the case of a fault, before contacting the Dealer to request after-sales assistance, verify whether the power supply cable has been inserted correctly and make sure there is no power failure.

Do not try to repair or modify any part of the appliance: besides rendering the warranty null and void, it could also be dangerous. Entrust specialised technicians only.



installer

10. INSTALLATION STANDARDS

10.1 WARNINGS FOR THE INSTALLER

This manual is an integral part of the product and provides all the necessary guidelines for correct installation and maintenance of the machine.



It is mandatory for the user and installer to read this manual carefully and always refer to it. Moreover, it must be kept in a place that is known and accessible to all authorised operators (installer, user, maintenance technician, etc).

The appliance is only intended for the use it was designed for, i.e. for bain-marie cooking vacuum packed food.

Any other use must be considered improper and potentially dangerous.

The manufacturer declines all liability and warranty obligations if damage is caused to the equipment, persons and objects, deriving from:

- Incorrect installation and/or non-compliant with applicable laws,
- Alterations or interventions that do not pertain to the model,
- Use of non-original spare parts or others that are not specific for the model,
- Failure to comply, even partially, with the instructions in this manual,
- Failure to comply with Accident-prevention Standards and applicable laws during installation.

FOREWORD



The installation must be carried out exclusively by authorised and specialised personnel, in compliance with the instructions and the requirements in this manual.

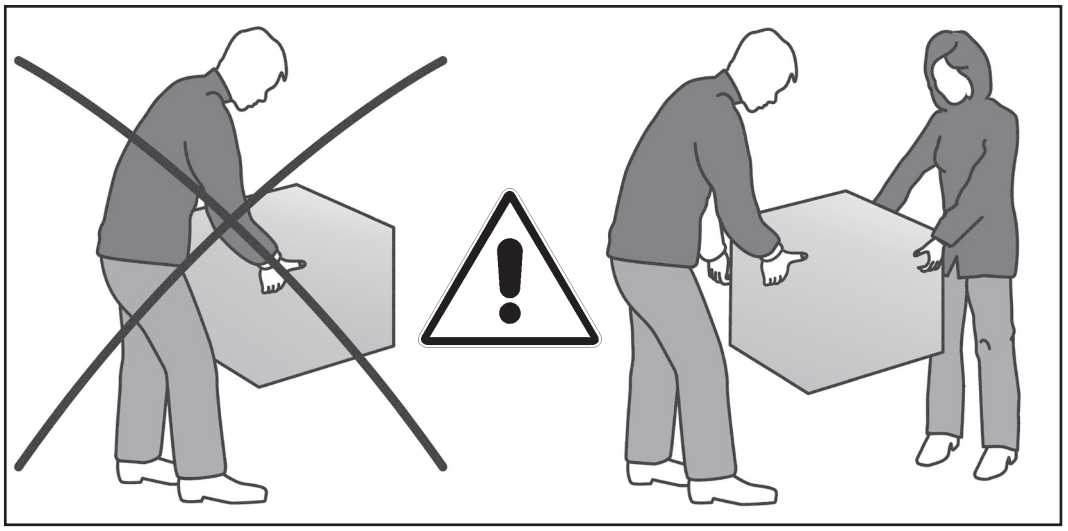
- Before installing the appliance, make sure that any pre-existing electric systems comply with the law and are suitable for the data on the plate of the appliance to be installed (V, kW, Hz, N° of phases and power available).
- The installer must also check any relative requirements pertaining to fire-prevention.
- The Manufacturer declares compliance with applicable European Standards.

10.2 TRANSPORT AND HANDLING

The appliance can be loaded and unloaded from the transport vehicle using suitable means or by two persons.



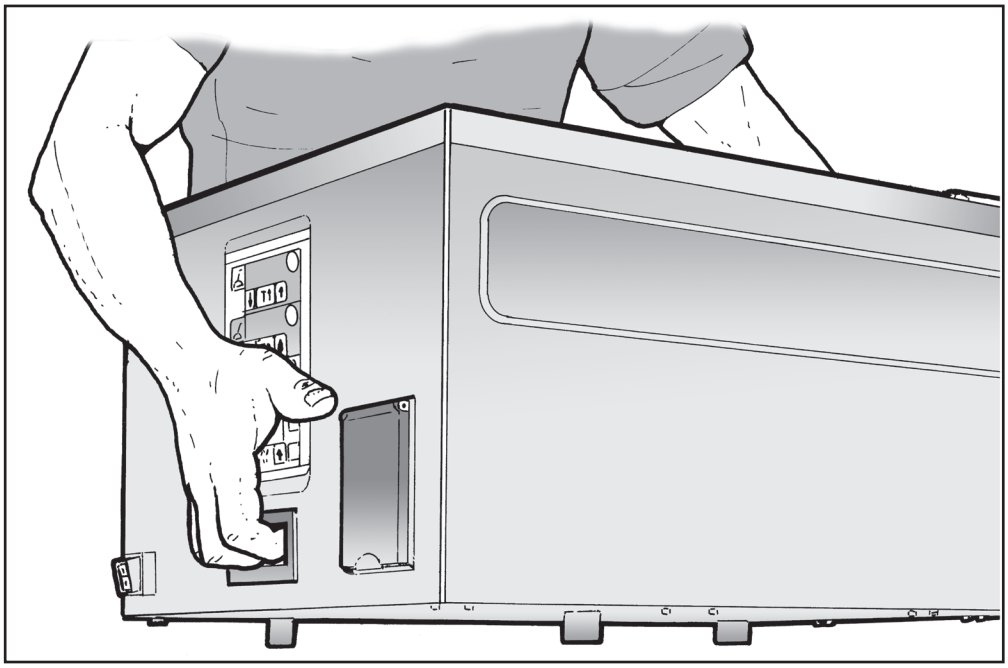
ATTENTION!
All necessary precautions must be adopted when handling the appliance so as not to damage it or cause damage to persons or objects, complying with the guidelines indicated on the packaging.



10.3 UNPACKING

ATTENTION!

The two handles on the front and rear of the machine must be used to handle it.



After having removed the packaging, check the integrity of the appliance. If faults are noted

DO NOT operate the appliance and contact the Manufacturer.

ECOLOGICAL NOTES:
all the various packaging components must be disposed of according to the applicable Standards in the Country where the appliance is used. In any case, nothing must be disposed of in the environment.

ATTENTION!

The packaging components can be potentially dangerous for children and animals. Make sure they do not play with them!

10.4 ELEMENTARY SAFETY STANDARDS

The user is responsible for the operations performed on the machine and compliance with the guidelines provided in this manual.

The main Safety Standards regarding installation are provided below:

- Do not touch the machine with damp, wet or unprotected hands/feet (suitable gloves and shoes);
- Do not insert screwdrivers, kitchen instruments or anything similar between the guards.
- Operate after having disconnected the machine (do not pull the power supply cable).
- Always use suitable preventive and protective measures (gloves, etc.) for any maintenance, handling, installation and cleaning operations.

The machines must be installed and tested in full compliance with the Accident-prevention Standards, the traditional legislation and applicable Standards

10.5 PLATE DATA

How to read the data plate

The plate data is positioned on:

- External cardboard packaging: 1 label **(Fig. 1)**.
- Appliance: 1 plate positioned at the back of the appliance and another at the front, on the door for the core probes to be connected **(Fig. 2)**.

ATTENTION!
It is recommended not to remove, damage or change the serial number plates applied to the appliance.

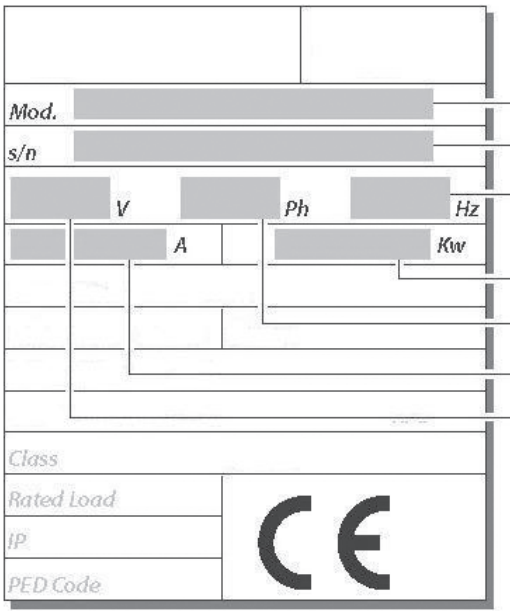
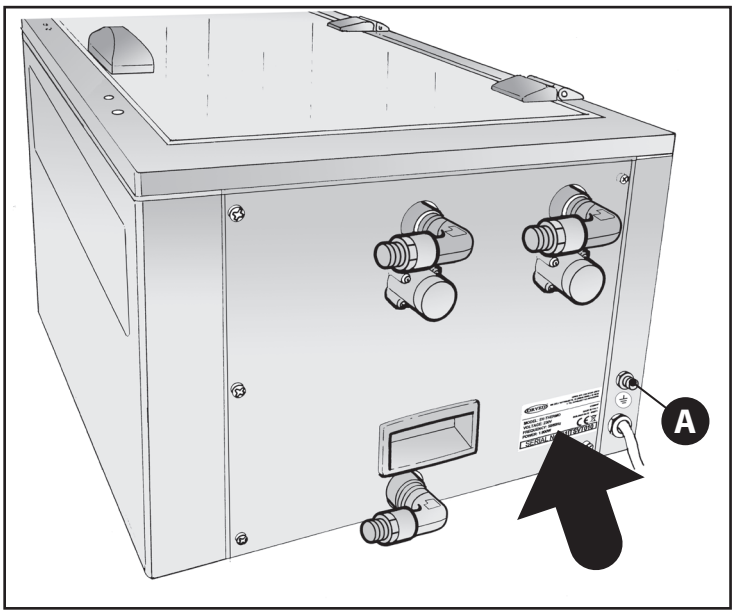


Fig. 1



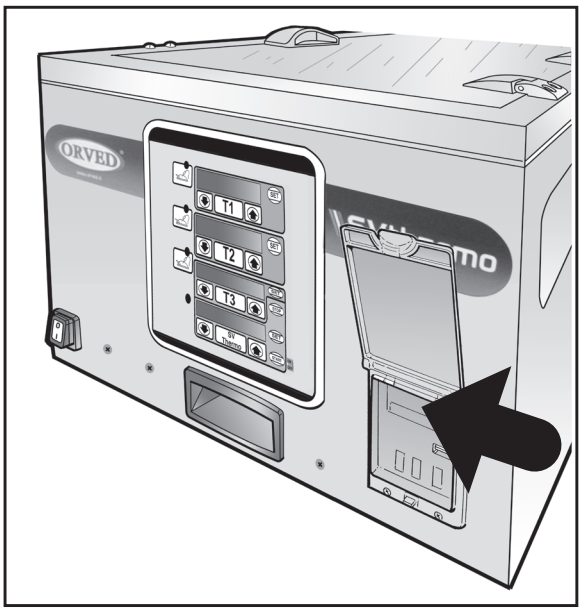


Fig. 2

10.6 ELECTRICAL CONNECTION

Before installing the appliance, make sure that any pre-existing electric systems comply with the law and are suitable for the data on the plate of the appliance to be installed (V, kW, Hz, and power available).

ATTENTION!

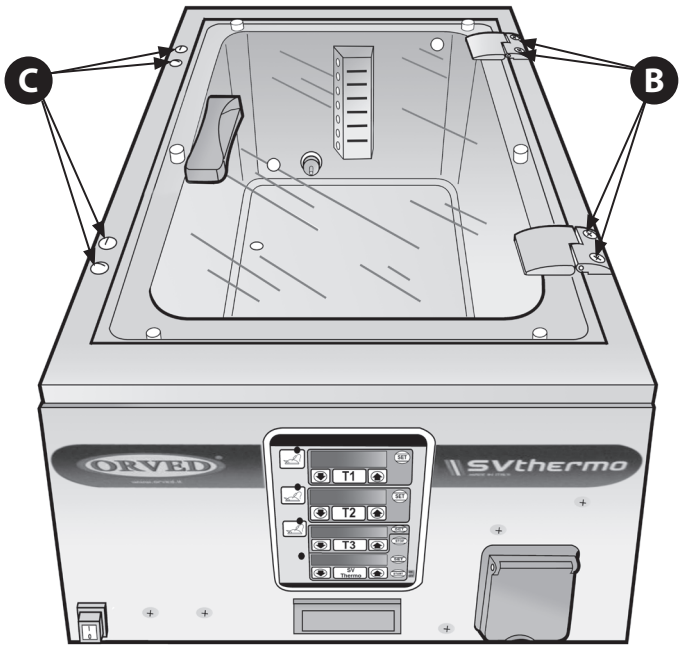
- **Make sure the plug will be accessible even after the unit has been installed!**
- **If the appliance plug is not easily accessible, the mains must be equipped with devices for omnipolar disconnection with an opening distance of the contacts that allows complete disconnection in over-voltage category III conditions.**
- **If the entire length of the cable is not used, DO NOT roll it up but leave it free and make sure it does not obstruct or endanger the passage of persons. Also make sure it is not crushed or bent.**
- **Make sure the power supply cable does not come into contact with any type of liquid, sharp or hot objects and corrosive substances.**
- **Do not allow children or animals to play with the power supply cable.**
- **Connect the appliance to an equipotential earthing system by means of the specific screw A placed at the back of the appliance.**
- **The power supply cable is 300 cm long and due to problems related to overheating, it is not possible to use extensions or leads to extend it. Consider the position of the sockets when setting up the appliance.**

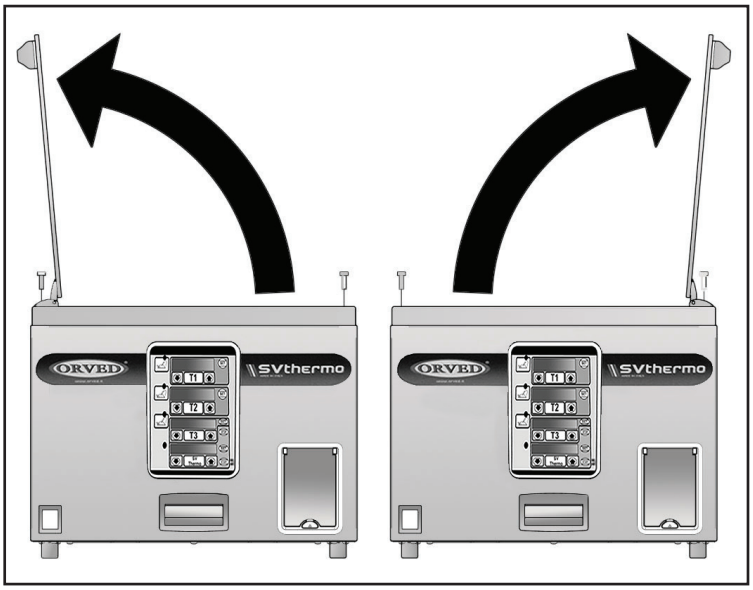
10.7 TEMPERATURE AND AIR CIRCULATION

- It is recommended to avoid positioning the appliance in closed places with high temperatures and little air circulation, in direct sunlight or atmospheric agents or near heat sources.
- The air temperature in the operating environment must not exceed 25°C. The performance declared is not guaranteed above this temperature.

10.8 MOUNTING THE LID

- SV-Thermo has double connections for the hinges to be fastened on either side of the appliance so as to facilitate the opening direction according to the space and clearance available in the place of installation.
- Select the most suitable opening direction according to the positioning of the appliance on a surface, and remove the relative hinges by loosening the four screws **B**.
- Use the screws **C** to tighten the threaded slots that are not used. The screws should be sealed with a liquid Teflon or anaerobic sealant.





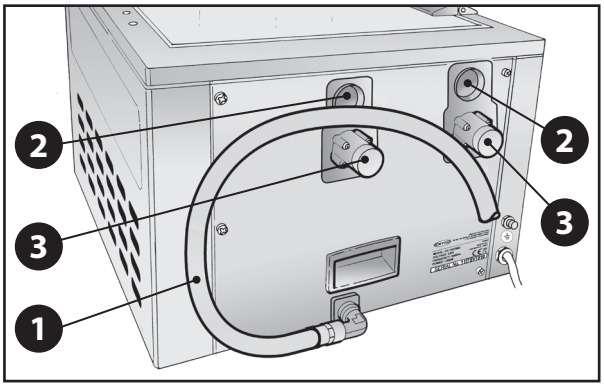
10.9 WATER CONNECTION

ATTENTION!

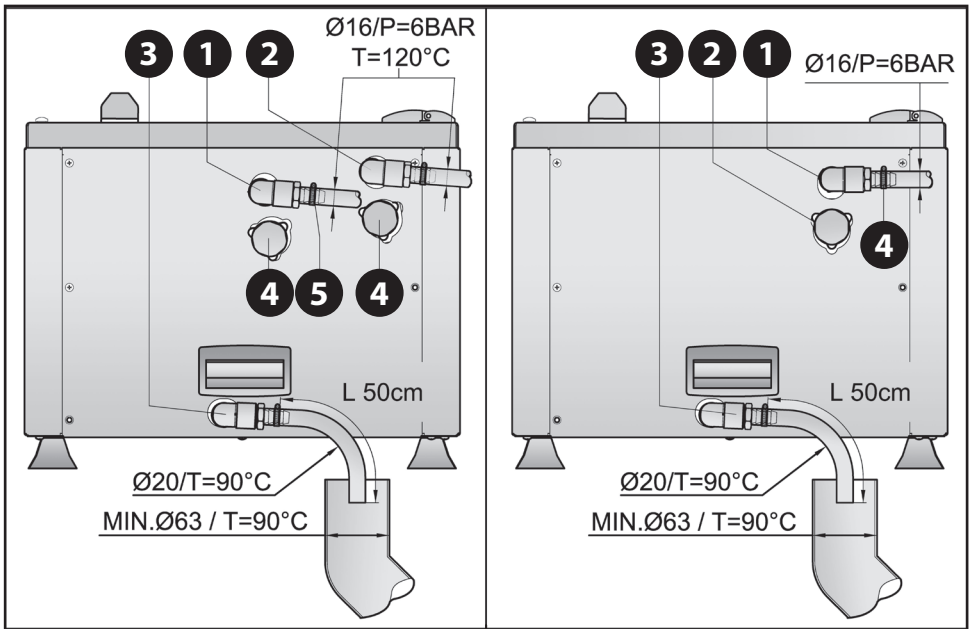
The connection must be made by a qualified technician.

- **Connection to the cold and hot water mains:** use only hoses suitable for drinking water, resistant to at least 600 kPa (6 bar). Internal diameter Ø 12-14 mm. The junction on the back of the appliance is a ½" BSP female thread.
  - Make sure the duct pressure does not exceed 300 kPa (3 bar). The warm water at the incoming must not exceed 60°C.
  - If the hot water connection is not available, stopper the hot water attack on the back with a plug ½ "BSP male thread. Program the user parameter HOT WATER to OFF (see § 8.3.3).
  - If the machine is used offsite, using the CATERING cooking mode, the water connection must be carried out the cold water junction. Stopper the hot water junction with a ½ "BSP male thread plug.
- When moving the appliance elsewhere, use a new kit of movable joints (gaskets).

- **Connection to the drains:** make sure the drain pipes of the mains, which the appliance is connected to, are resistant to temperatures up to 90°C.
  - The drain pipe provided with the machine, must drain unconstrained into a waste pipe of at least Ø 63 mm (2"), resistant to temperatures up to 90°C. **DO NOT EXTENDED OR REPLACE THE HOSE WITH A LONGER DRAIN PIPE**: the drain would not work!
  - Do not use damaged or leaking water connections.
  - The level of the drain piping must be lower than that of the drain attachment.
  - Before starting the appliance, check the connections to make sure there is no leakage.



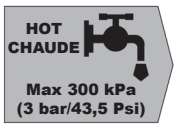
1. Drain hose
2. ½" BSP female connection fittings for hot water fill-up
3. Impurity filters that can be inspected
4. ½" BSP female connection fittings for cold water fill-up



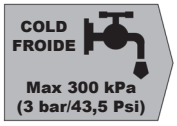


TOP

1. Hot water fill-up connection / ½" BSP female (fittings not included).



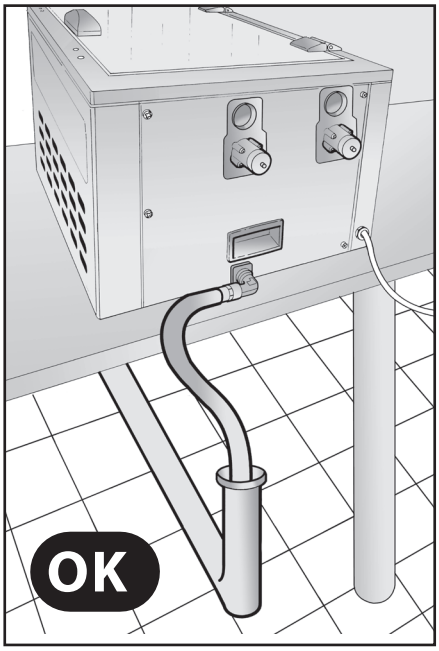
2. Cold water fill-up connection / ½" BSP female (fittings not included).



3. Drain with flexible hose mt 0,5 Ø20
4. Water fill-up filter.
5. Hose clamp (not included).

BASE

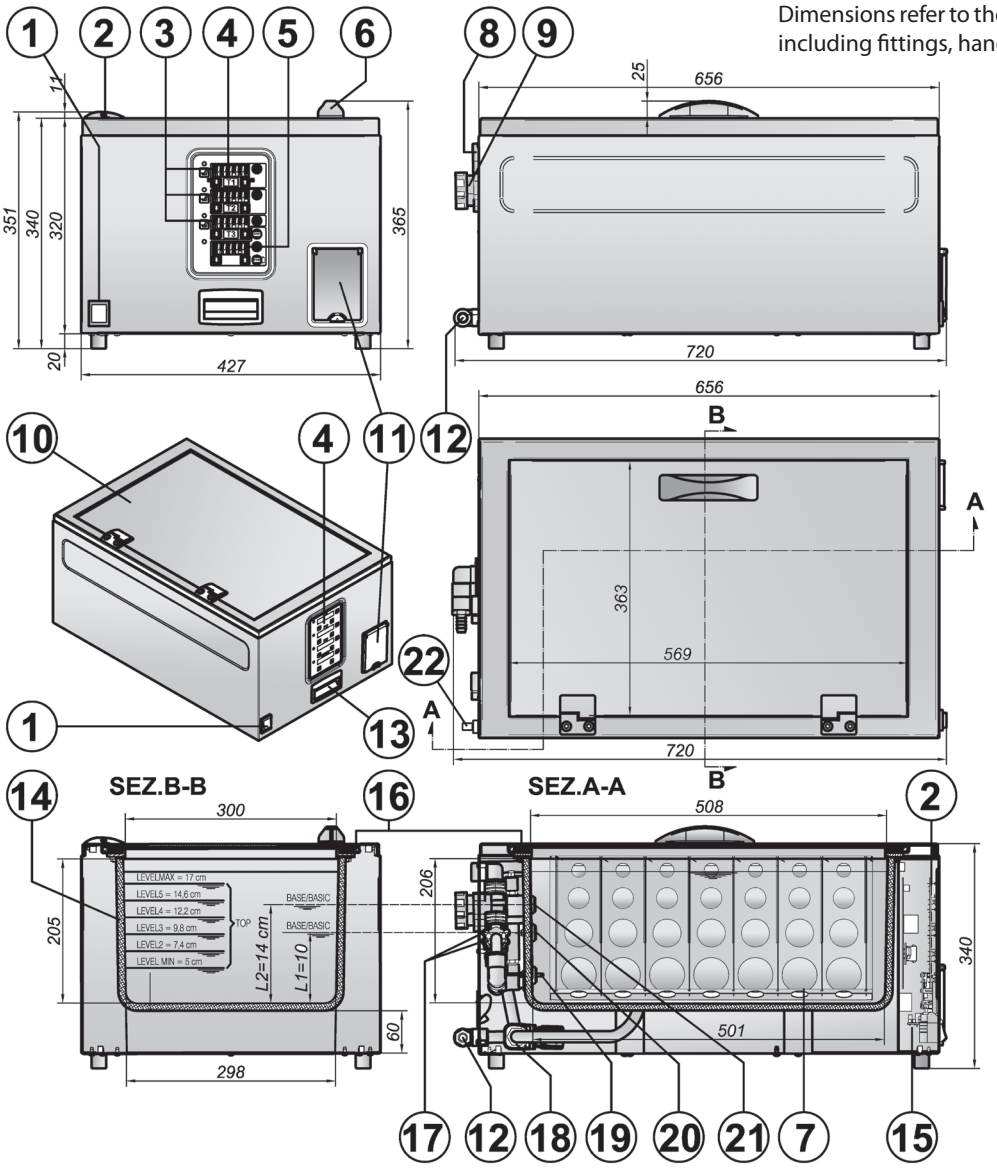
1. Water fill-up connection / ½" BSP female (fittings not included).
2. Water fill-up filter.
3. Drain flexible hose mt 0,5.
4. Hose clamp (not included).



11. TECHNICAL DATA

11.1 DIMENSIONS, WEIGHTS AND CLEARANCE

Dimensions refer to the maximum clearance including fittings, handle, etc.



KEY

1. Main switch
2. Nickel-plated die-cast zinc alloy hinge
3. Displays T1, T2 and T3 for the core temperature of the products to be viewed (optional)
4. Control panel
5. Main display
6. Lid handle
7. Bag-holder basket with partitions
8. Hot and cold water fill-up connections / ½" BSP female (fittings not included)
9. Filters (can be inspected) for tap water filtering
10. 4 mm tempered glass lid
11. Protective door for three core temperature probe holders and USB port (optional)
12. Fitting Ø19 with hose for water drain
13. Front transport handle
14. Insulation
15. IElectric plant including power board, command board, automatic level management and SSR relay
16. Insulation and sealing gasket made of silicone suitable for contact with food
17. Hot and cold water fill-up solenoid valve
18. Water drain solenoid valve (Top version)
19. Water temperature sensor
20. L1 level sensor (Basic version)
21. L2 level sensor (Basic version)
22. Screw for equipotential earthing system

APPLIANCE:

- Width:.....mm 427
- Length:..... mm 675 (720 mm fittings included)
- Height: .....mm 365

BATH:

- Width:.....mm 300
- Length:.....mm 508
- Depth: ..... mm 206 ((useful, up to the overflow: 187 mm)
- Useful volume:.....28,4 l (overflow level)

WATER LEVELS:

- Basic version:.....L1 = 100 mm (equal to 15 litres); L2 = 140 mm (equal to 21.10 litres)
- Top Version:.....50 mm (Level 1 – min.), 74 mm (Level 2), 98 mm (Level 3), 122 mm (Level 4), 146 mm (Level 5), 170 mm (Level 6 – max.)

- **WEIGHT:**
- Weight when empty:..... kg 23.0
- Weight of bag-holder basket: ..... kg 6.82
- Weight of packed product with plastic pallet:.....kg 32,5 (without accessories) - kg 40,5 (with accessories)

- **DIMENSIONS OF PACKED BOX, WITHOUT PALLET**: ..... mm 795×520×H435

11.2 THERMAL SPECIFICATIONS

PRE-HEATING TIMES

- Readings taken at room temperature equal to 21 °C.
- Final temperature: 100°C

Level	INITIAL TEMPERATURE °C	TIME TO REACH 50°C	TIME TO REACH 70°C	TIME TO REACH 100°C
L1 (15 l)	24,8	17 min.	33 min.	1h 15 min.
L2 (21,10 l)	24,7	26 min.	50 min.	1h 40 min.

TEMPERATURE MAINTENANCE TEST WITH ICE IN BATH

The test consists of reading the temperature variation after a pre-set time, with the bath filled with granular ice and the lid closed. The test verifies the thermal insulation degree of the bath, which has proven to be fully satisfactory with this appliance, allowing the bath to be used in delayed start-up mode with the product maintained at an acceptable temperature for food safety.

Amount of granular ice in the bath	INITIAL CHAMBER T °C	TIME	FINAL CHAMBER T °C	TEMPERATURE INCREASE
kg 5	-0,5 °C	8h	+0,5°C	1°C after 8h
kg 6	-0,5 °C	40h	+7°C	7,5°C after 40h

11.3 ELECTRICAL SPECIFICATIONS

The following standard voltages are required:

- EU: ..... 230V 50 Hz
- USA-CANADA: 110-130V 60Hz
- Non-European markets (Brazil, Taiwan, Thailand): ..... 230V 60 Hz

- Power consumption: 1800W
- Maximal absorbed current: 8,2
- Resistance protection: ..... 180°C
- Bath temperature sensor: ..... type PT1000
  Fault tolerance: ..... ±0,5°C
  Resolution: ..... 0,1°C

- PT1000 Class A core probe
  Fault tolerance: ..... ±0,3°C
  Resolution: ..... 0,1°C

12. USEFUL NOTES

Date of purchase: _____

Dealer Data:

Name: _____

Address: _____

Telephone: _____

Fax: _____

MANUFACTURER DATA: ORVED S.p.A. with MEMBERS ONLY

Tel.: 0039 0421 54387 • Fax: 0039 0421 333100 • E-mail: orved.ve@tin.it • http: www.orved.it

Nearest recommended After-sales Centre:

Name: _____

Address: _____

Telephone: _____

Fax: _____

13. PROGRAMS RECIPE COMPILATION TABLE

		DISPLAY MAIN				DISPLAY T1		DISPLAY T2		DISPLAY T2		
PROG.	PRODUCT	MODE										
1												
2												
3												
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DISPLAY MAIN						DISPLAY T1		DISPLAY T2		DISPLAY T2		
PROG.	PRODUCT	MODE										
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