



Installation
and
Operation
Manual

Combi Oven Touch

MODELS

TCO6G
TCO6E
TCO7G
TCO7E

FOR YOUR SAFETY

Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.

WARNING

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

NOTICE

Instructions must be posted in a prominent location that will provide the user of this equipment with procedures, in the event he/she smells and/or detects gas. This information must be obtained by consulting the local gas utility.

WARNING

Electrical Grounding Instructions

This appliance is equipped with a three-prong (grounding) plug for your protection against shock hazard and should be plugged directly into a properly grounded three-prong receptacle. Do not cut or remove tie grounding prong from this plug.



WELCOME TO THE TOUCH WORLD

Congratulations on your new purchase! From now on you have in your kitchen a legitimate Combination Oven with BAKEMAX touch screen technology, one of the icons of the world-class food service industry. We brought together the best components with the highest technology combined to the construction made by hand individually by our team. We make no effort to present this equipment.

So that your device performs best, please read this manual carefully and follow the instructions correctly. If you have any doubts and/or suggestions, call Venâncio, qualified professionals will be at your disposal

Keep these instructions because it will be very helpful to answer questions and ensure the proper operation and maintenance of the equipment.

RECEIPT

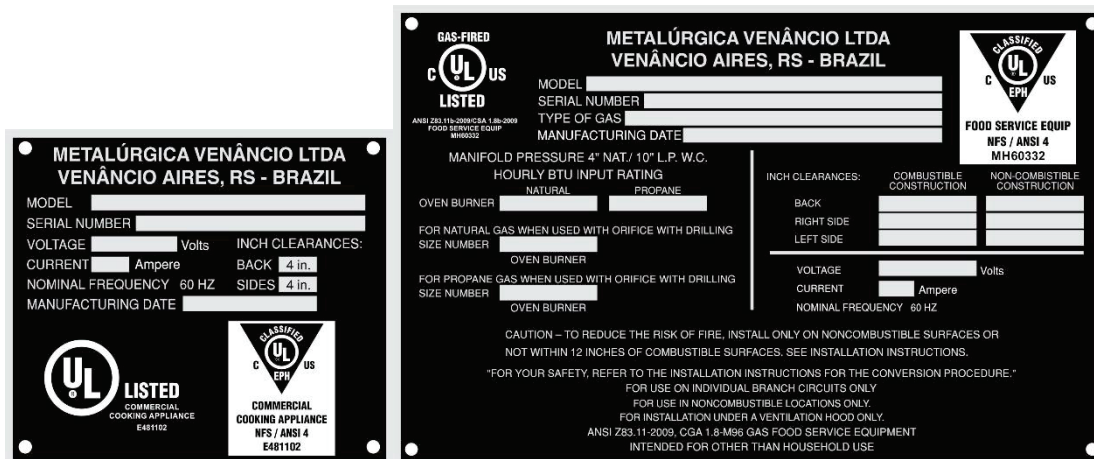
We recommend the care and inspection to detect any damage during transportation, such as:

- Breaking or kneading of parts;*
- Lack of parts;*
- Penetration of water or other liquids.*

*In the event of any damage during transportation, it must be noted to the carrier's notice, notifying the plant **immediately**.*

IDENTIFICATION OF EQUIPMENT

The equipment is identified by a nameplate on which the serial number is registered. This so that records of possible modifications made to the components can be kept, this is located on the left side of the equipment.



IMPORTANT: READ THIS BEFORE INSTALLING THE EQUIPMENT!

BAKEMAX cannot be held liable for any material or personal injury resulting from failure to comply with any instructions presented in this manual.

The power and other data required for installation are available in the tables in the "Technical Characteristics" section of this manual.

The equipment should only be installed in accordance with the standards set forth in this manual.

Before installation, make sure that the voltage, frequency, and power are in accordance with the points installed.

This equipment is a convertible voltage, DO NOT ATTEMPT TO CHANGE THE VOLTAGE as it may be severely damaged and is not covered under warranty. If necessary, contact the plant for advice to our nearest service station.

The equipment must be grounded electrically.

Do not install before solving any doubts regarding the correct construction of the installation points detailed in this manual.

GENERAL TECHNICAL DATA OF THE EQUIPMENT

Model	TCO6G/TCO7G	TCO6E/ TCO7E	TCO10G / TCO12G	TCO10E / TCO12E
No. of Meals	Approx. 350	Approx. 350	Approx. 500/600	Approx. 500/600
Gas	0,8	-	1,2	-
Three-phase voltage (V)	-	220/380/440	-	220/380/440
Single Phase Voltage (V)	110/220	-	110/220	-
Installed power (Kw)	0,3	10,5	0,3	18
Gas power / heating	9000kal	-	17200kal	-
Power consumption (kw / h)	0,1	5,3	0,1	6.5
Gas consumption (kg / h)	0,8	-	1,2	-
Water inlet (BSP)	3/4"	3/4"	3/4"	3/4"
Drain	Ø 1.1/2"	Ø 1.1/2"	Ø1.1/2"	Ø 1.1/2"
Height (mm)	900	900	1200	1200
Width (mm)	1025	1025	1025	1025
Depth (mm)	830	830	830	830
Net weight (kg)	140	126	180	160
Capacity (Gns prof.65mm)	6/7 GNs 1x1	6/7 GNs 1x1	10/12 GNs 1x1	10/12 GNs 1x1

POWER GRID

VOLTAGE OF THE EQUIPMENT: check if the voltage of the equipment is the same as the connection point.

The socket-outlet where the equipment is to be connected must be single-phase or three-phase, rated for the rated current of the protection circuit (thermoelectric circuit breaker), allowing full insertion of the plug pins, without any gaps, so that live parts are not accessible to touch.

TABLE OF BREAKERS ACCORDING TO TYPE OF EQUIPMENT

Circuit breaker: in the circuit in which the equipment will be connected, there must be a thermoelectric protection circuit breaker (see following table).

GAS TCO			ELECTRICAL TCO		
MODEL	CIRCUIT	BREAKER	MODEL	CIRCUIT	BREAKER
TCO 6G 240V	SINGLE PHASE	15A MONOPOLE	TCO 6E 240V	THREE PHASE 3~	35A THREE POLE
TCO 7G 240V	SINGLE PHASE	15A MONOPOLE	TCO 7E 240V	THREE PHASE 3~	35A THREE POLE
TCO 10G 240V	SINGLE PHASE	15A MONOPOLE	TCO 10E 240V	THREE PHASE 3~	50A THREE POLE
TCO 12G 240V	SINGLE PHASE	15A MONOPOLE	TCO 12E 240V	THREE PHASE 3~	50A THREE POLE

Grounding or ground wire: The ground wire of your equipment must be connected to an efficient ground cable, avoiding personal hazards. The connection of the ground wire is necessary at any voltage, and should not be connected to the neutral wire of the taps, hydraulic piping, electric, gas network, etc. For a correct grounding, observe the instructions in accordance with local codes.

THE CONNECTION OF THE GROUND WIRE IS INDISPENSABLE

Electrical extensions, T-pins, adaptors or the liker: do not use in any case, to connect other devices in the same socket-outlet. Doing so may cause overloading of the electrical installation and/or poor contact. Overloads can cause harmful heating to the insulation, connections, terminals or near the conductors, causing damages and even the burning of the installations and the product.

Voltage fluctuations: if the voltage of your establishment displays fluctuations that are not in accordance with the permitted fluctuations, ask the utility company for regularization, or in cases of impossibility, install an automatic stabilizer according to the maximum rated power.

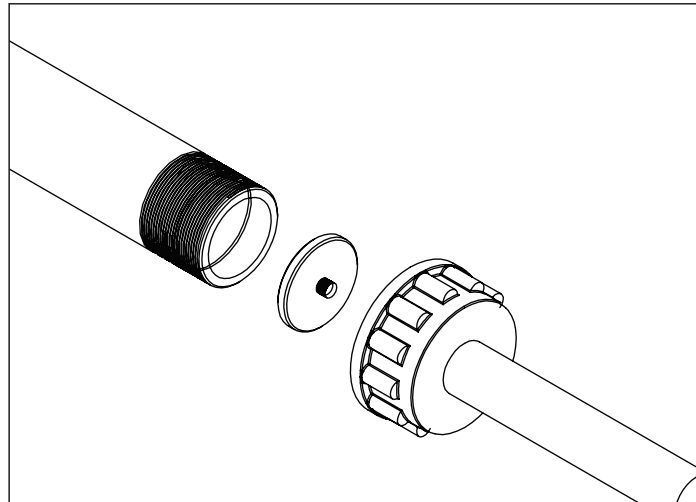
HYDRAULIC NETWORK

Water inlet: it is required a fixed water inlet point, preferably exclusive, which meets the technical pressure specifications which must be at least 0,8 kg/f maximum of 2 kg/f.

The hose connection that accompanies the Combi Oven TOUCH is a ¾" BSP threaded fitting.

Observe in the equipment installation if it has the water pressure specified in the technical data sheet of the product. If this does not occur, add a pressure reducer, as shown below.

NOTE: The pressure reducer is supplied with the equipment.



OVEN INSTALLATION

Location:

1 - Provide on the installation site:

* Box with circuit breaker and fuse; (see table of circuit-breakers according to the type of equipment);

* Electric power socket-outlet (see power grid);

* Socket-outlet (see power grid);

* Point for drainage of water (drain or sewage); (Refer to GENERAL EQUIPMENT DATA)

Note. DRAIN OR FLOW POINT IS OF EXTREME IMPORTANCE. PIPING FOR HOT OR METALLIC PIPING SHOULD BE PROVIDED WITH 1" ½" INPUT. We orientate the use of metallic tubes or weldable CPVC of the best brands of the market.

* Water supply point with valve.

THE EQUIPMENT MUST BE INSTALLED WITH ADEQUATE BACKFLOW PROTECTION TO COMPLY WITH APPLICABLE FEDERAL, STATE, AND LOCAL CODES.

INSTALLATION REQUIREMENTS

IMPORTANT

- Installation shall comply with local electrical, health and safety requirements.
- It is most important that this oven is installed correctly and that oven operation is correct before use.
- If you have any questions regarding the proper installation and / or operation of this oven, please contact your local distributor.

Qualified installation personnel are individuals, a firm or a company which either in person or through a representative are engaged in and responsible for the installation of electrical wiring from the electric meter, main control box or service outlet to the electric appliance.

Qualified installation personnel, licensed and bonded, must be experienced in such work, familiar with all precautions required and have complied with all requirements of state or local authorities having jurisdiction.

U.S. and Canadian Installations - All ovens, when installed, must be electrically grounded in accordance with local codes, or in the absence of codes, with the National Electrical Code ANSI/NFPA 70 - Latest Edition and/or Canadian National Electrical Code C22.2 as applicable.

The ventilation of these ovens should be in accordance with local codes. In absence of local codes, refer to the national ventilation code titled, Standard for the Installation of Equipment for the Removal of Smoke and Grease Laden Vapors from Commercial Cooking Equipment, NFPA-96-Latest Edition.

The appliance is to be installed with a check valve in accordance with applicable federal, province and local codes.

UNPACKING

1. Remove all packaging and transit protection including all protective plastic coating from the exterior stainless steel panels.
2. Check the oven and supplied parts for damage. Report any damage immediately to the carrier and distributor.
3. Check that the following parts have been supplied with your oven:-

FCT6/7G

1.1/2"-2" CLAMP
3/4"X1/2" REDUCTION
3/4"X1/2" REDUCTION IN PVC
WATER JET HOSE
FILTER
LGP ORIFICE HOOD
3/4" WATER HOSE
1.1/2" DRAIN HOSE
MANUAL
1/2"X1/2" PVC CONNECTOR
3/4"X3/4" PVC CONNECTOR
M5X16 SCREW
REGULATOR VALVE
T 3X3/4"

FCT6/7E

1.1/2"-2" CLAMP
3/4"X1/2" REDUCTION IN PVC
WATER JET HOSE
FILTER
3/4" WATER HOSE
1.1/2" DRAIN HOSE
MANUAL
1/2"X1/2" PVC CONNECTOR
3/4"X3/4" PVC CONNECTOR
M5X16 SCREW
T 3X3/4"

4. Report any deficiencies to the distributor who supplied your oven.
5. Check that the available electrical supply is correct to that shown on the Technical Data Plate located on the front right hand side panel.

LOCATION

1. Position the oven in its approximate working position.
2. The unit should be positioned so that the control panel and oven shelves are easily reachable for loading and unloading.

CLEARANCES

To ensure correct ventilation for the motor and controls, the following minimum installation clearances are to be adhered to:

Top	8". 200mm
Rear	300mm / 12".
Left-hand side	450mm / 18".
Right-hand side	900mm / 36".

GAS INSTALLATION INSTRUCTIONS

THIS APPLIANCE IS INTENDED FOR OTHER THAN HOUSEHOLD USE

All BAKEMAX commercial gas appliances are manufactured by skilled craftsmen using the finest quality materials.

PROPER installation by qualified personnel is essential for safe, efficient, and trouble-free operation of the unit. Any alteration and/or tampering, without proper knowledge, tools, and test equipment, is DANGEROUS and will void all warranties. The installation must conform with local codes, or in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1 - latest edition.

PRESSURE TESTING: FAILURE TO INSTALL PRESSURE REGULATOR WILL VOID WARRANTY.

(Most units have a convertible regulator.) The appliance and its individual shut-off valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressure in excess of 1/2 psig (3.45 kPa). The appliance must be isolated from the gas supply piping system by closing its individual manual shut-off valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psig (3.45 kPa).

NOTICE

The proper installation of this gas appliance is the total responsibility of the end user. It is the responsibility of the purchaser to determine that the installer is qualified in installation procedures. Conversion, connecting gas lines, calibrating thermostats, burners, lighters, setting gas pressure with manometer, and etc., is all part of normal installation and will not be paid for under warranty. If a warranty technician is called out and finds the unit improperly installed, the end user may be subject to billing.

FOR MAINTENANCE, SERVICE, REPAIRS, OR INSTALLATION - Contact your dealer or the factory, for your local Factory Authorized Service Agency.

The gas pressure regulator provided with the equipment must be installed when the appliance is connected to the gas supply.

The area around the appliance must be kept free and clear of combustibles such as solvents, cleaning liquids, brooms, rags, etc. Proper clearances must be provided at the front of the appliances for servicing and proper operation.

Provisions shall be incorporated in the design of the kitchen, to ensure an adequate supply of fresh air and adequate clearance for air openings into the combustion chamber, for proper combustion and ventilation.

For proper operation of the appliance, do not obstruct the flow of combustion and ventilation air.

The installation must conform with local codes, or in the absence of local codes, with the national fuel gas code, ANSI Z223.1 - 1988 (or latest addenda).

The gas supply line must be at least 3/4" NPT.

INSTALLATION - GAS STANDARDS AND CODES

IMPORTANT - The installation of this appliance must conform to local codes or, in the absence of local codes, with the National Fuel Gas Code ANSI Z223.1, Natural Gas Installation Code, CAN/CGA-B149-1, or the Propane Installation Code, CAN/CGA-B149-2 as applicable, including:

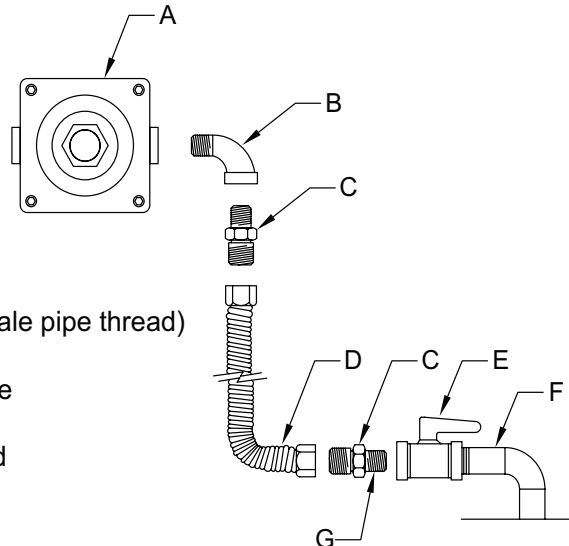
1. The appliance and its individual shut off valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressure in excess of 1/2 psi (3.45 kPa).
2. The appliance must be isolated from the gas supply piping system by closing the individual manual shut-off valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 PSI.

GAS CONNECTION- The gas inlet line size of this appliance is 3/4" NPT. For proper operation, the gas supply service line must be the same size or greater than the inlet line size of the appliance. The gas line size must not be reduced at any point along the supply line.

MANUAL SHUT - OFF VALVE- A gas pressure regulator and a contractor-supplied shut-off valve must be plumbed in the gas service line ahead of the appliance – in a physical location where it can be reached quickly in the event of an emergency.

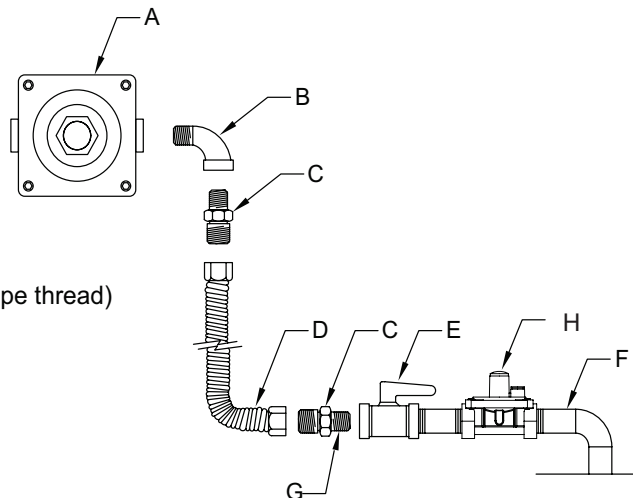
NATURAL GAS

- A. Gas pressure regulator
- B. 90° Street elbow
- C. Adapter (must be 3/4" male pipe thread)
- D. Flexible connector
- E. Manual gas shut-off valve
- F. 3/4" gas supply
- G. Use pipe-joint compound



LP GAS

- A. Gas pressure regulator
- B. 90° Street elbow
- C. Adapter (must be 3/4" male pipe thread)
- D. Flexible connector
- E. Manual gas shut-off valve
- F. 3/4" gas supply
- G. Use pipe-joint compound
- H. Step down regulator



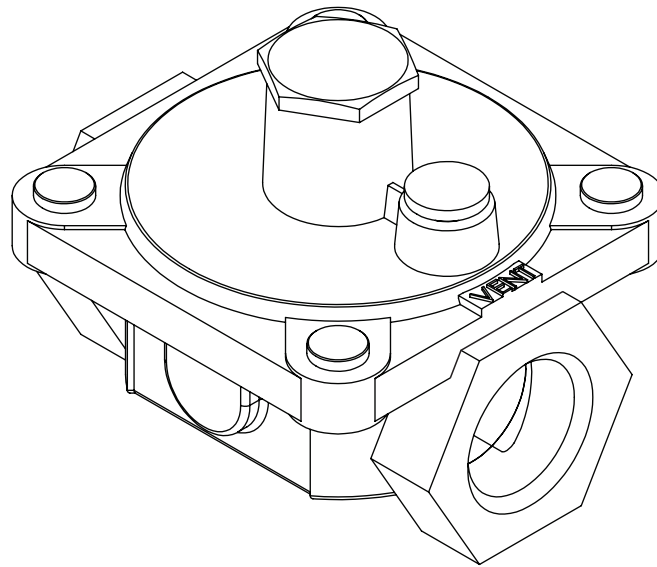
When installing the pressure regulator - remember it can only handle 1/2 PSI. In every LPG installation, you have high source pressures, ranging from 20 PSI to 100 PSI. If the high pressure gas line from the LPG tank is directly connected to the unit without the proper step-down regulator, it will rupture the diaphragm in the valve, rendering it useless.

Visually double check any installer-supplied intake pipes and/or blow them out using compressed air to clear any dirt or debris, threading chips, or other foreign matter – before installing a service line. Those particles will clog gas orifices when gas pressure is applied. Compounds used on threaded joints of this appliance piping must be resistant to the action of NG and LP gas and provide a gas tight seal to prevent leaks.

The gas pressure regulator must be installed in the gas line – failure to install a pressure regulator will void the equipment warranty. The regulators supplied with ranges have 3/4" NPT connections; the regulator is adjusted at the factory for 4" W.C. (water column) manifold gas pressure (natural gas) or 10" W.C. manifold gas pressure for propane gas operation.

Before connecting the regulator, check the incoming line pressure – as these regulators can only withstand a maximum inlet pressure of 14" W.C. (1/2 PSI); exceeding this pressure will damage them. If the gas supply line pressure is greater than this amount, a step-down regulator will be required.

A gas flow direction arrow is cast into the body of the regulator to minimize installation error – it should point downstream to the appliance. The blue air vent cap on the top of the regulator is part of the regulator and should not be removed.



Any adjustment to the regulator must be made only by qualified and licensed service personnel with the proper calibrated test equipment. Gas connections should be performed by a qualified licensed contractor.

WARNING

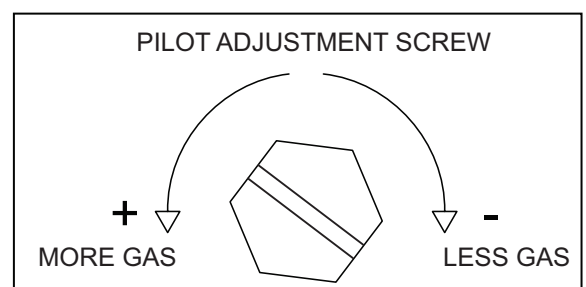
In the event of a power failure, no attempt should be made to operate the unit during power failure.

OPERATING INSTRUCTIONS

Before lighting, check all joints in the gas supply line for leaks. Do not use an open flame to check for leaks!

Use soap and water solution.

1. Turn pilot valves to OFF position by turning adjustment screws clockwise.
2. Turn ON the manual gas valve at the inlet side of the gas supply line.
3. Check for gas leaks at the flexible coupling or gas connector fitting using a solution of one part soap and three parts water.
4. Sparingly spray or brush the soapy solution at the gas fittings; active bubbling indicates location of gas leak.
5. If a gas leak is detected turn off the manual gas valve at the inlet side of the gas line. Call your certified and licensed service technician.
6. Turn pilot adjustment screw counter-clockwise, then light standing pilot and adjust flame 1/4" high.
7. Turn ON gas valve/thermostat to light main burners.
8. For complete shut down, shut off gas valves and turn pilot adjustment screw clockwise to shut off gas to the pilots.



PROPANE GAS CONVERSION INSTRUCTIONS

A griddle is equipped with fixed orifice hoods and shipped from the factory for use on natural gas.

To convert to propane gas, install the propane burner orifice hoods supplied as follows:

- 1 - Remove the griddle plate by lifting with two people and set a side.
- 2 - Slide the burners back off of the valve orifice hoods a couple of inches and let it rest.
- 3 - Remove the natural gas orifice hoods with a 1/2" wrench.
- 4 - Apply a very little bit of pipe dope on the threads of the valve.

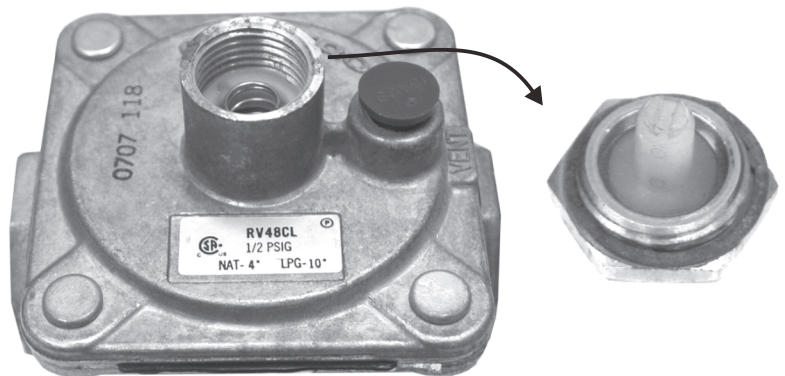
DO NOT APPLY PIPE DOPE INTO ORIFICE HOOD.

- 5 - Attach the supplied propane burner orifice hoods with a 1/2" wrench.
- 6 - Convert the pressure regulator from Natural to Propane gas by inverting the snap-in device beneath the cap on the regulator. This will require a fair amount of pressure. Do not remove the spring. When replacing the cap make sure the snap-in insert goes down on top of the middle of the spring.
- 7 - Test for proper pressure; 10" W.C. (water column) using a manometer.
- 8 - Slide burners back onto the orifice hoods.
- 9 - Apply the Propane "Notice" stickert to the front of the unit for futer reference.

1

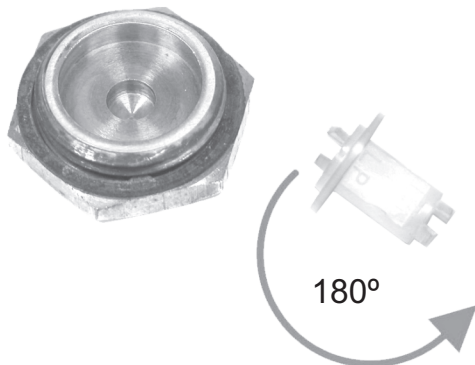


2



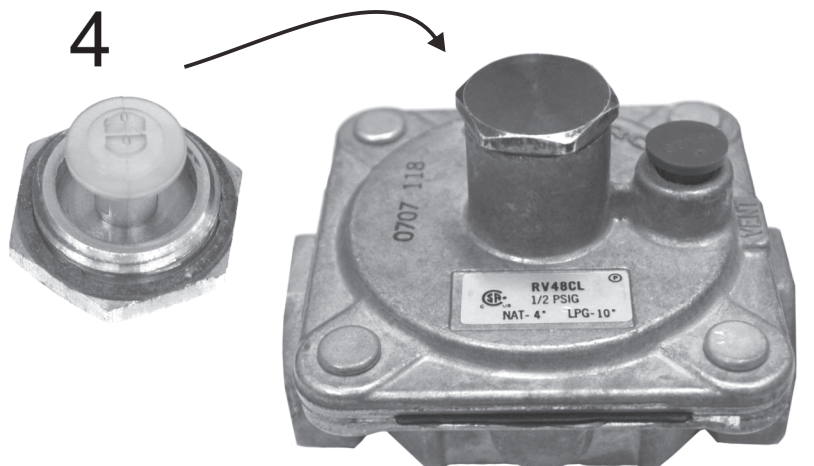
NATURAL GAS

3



180°

4



PROPANE GAS

ELECTRIC INSTALLATION INSTRUCTIONS

Installation - Electric Utility Connections-Standards and Codes

WARNING

The installation instructions contained here are for the use of qualified installation and service personnel only. Installation or service by other than certified / licensed personnel will void the warranty and will result in damage to the oven and/or injury to the operator.

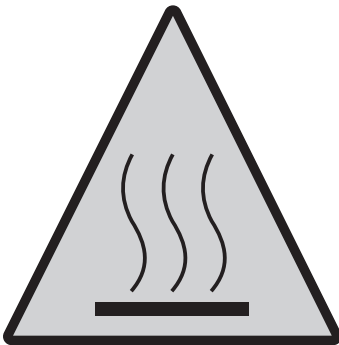
Qualified installation personnel are individuals, a firm or a company which either in person or through a representative are engaged in and responsible for the installation of electrical wiring from the electric meter, main control box or service outlet to the electric appliance.

Qualified installation personnel, licensed and bonded, must be experienced in such work, familiar with all precautions required and have complied with all requirements of state or local authorities having jurisdiction.

U.S. and Canadian Installations - All ovens, when installed, must be electrically grounded in accordance with local codes, or in the absence of codes, with the National Electrical Code ANSI/NFPA 70 - Latest Edition and / or Canadian National Electrical Code C22.2 as applicable.



To avoid burning, do not use any liquid or containers loaded with products to be cooked which become fluid by heating at higher levels than those which can be easily observed. OBS.: Stick the adhesive accompanying this manual to a minimum height of 5,24ft above the floor.



Be careful when in contact with the external parts of the oven, because its surface will become hot during operation. Note the sticker that indicates caution when touching the hot parts of the equipment.

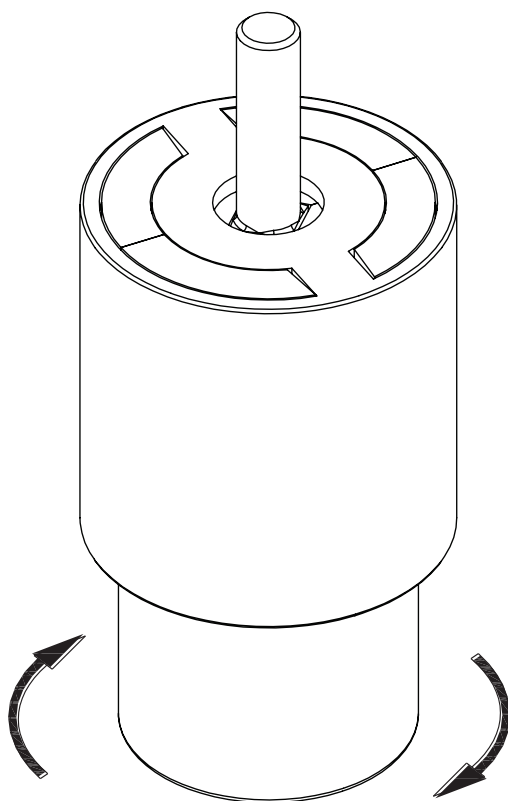
OVEN INSTALLATION

IMPORTANT

The rotation of the motor that drives the turbine is for both sides in order to guarantee the best cooking (only in electric model).

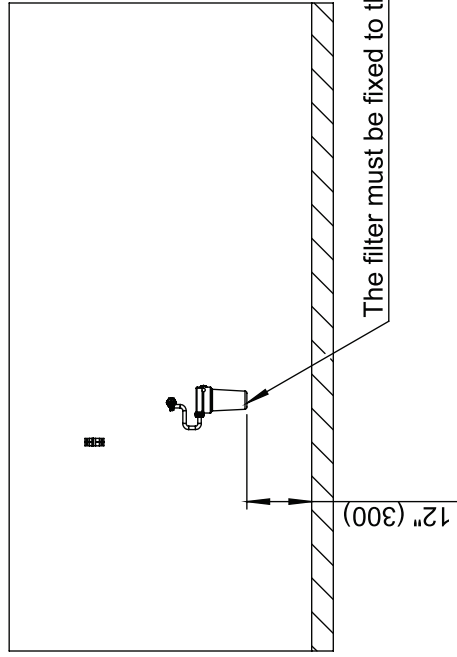
OVEN LEVELING

The oven has adjustable feet for easy leveling.



INSTALLATION EXAMPLE OF THE COMBI OVEN TOUCH AND THE MANDATORY CONNECTION POINTS FOR GAS OR ELECTRIC OVENS, FOLLOWS:

SECTION A-A
SCALE 1 : 35



Water supply point with tap,
male threaded outlet Ø3/4" BSP

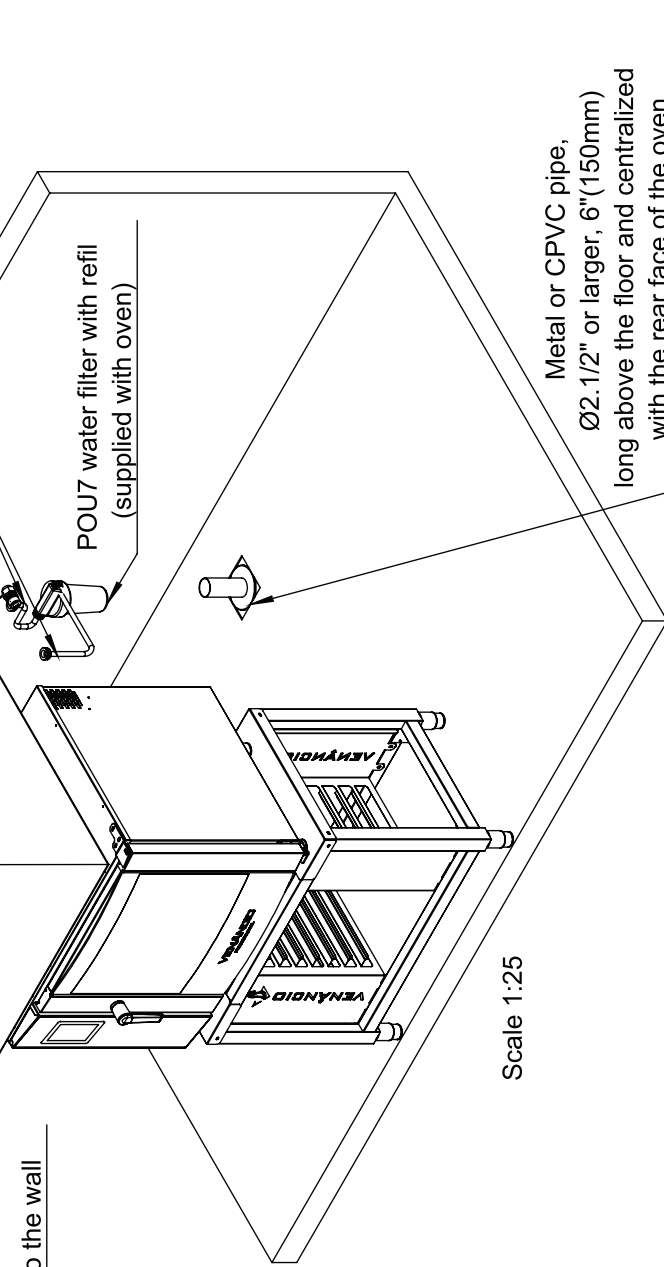
Ventilation Hood

The filter must be fixed to the wall

Thermo-Electric Circuit Breaker
mono-pole 15A grounded 3x2,5mm^{1/2}
when the oven is GAS 240V
Thermo-Electric Circuit Breaker
three-pole 35A 3~+ grounded 4x6mm^{1/2}
when the oven is TCO 6/7 ELETRIC 240V
Thermo-Electric Circuit Breaker
three-pole 50A 3~+ grounded 4x6mm^{1/2}
when the oven is TCO 10/12 ELETRIC 240V

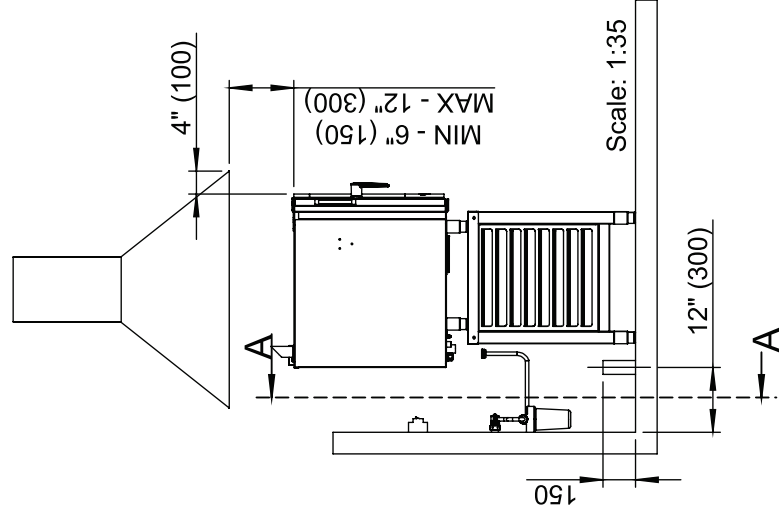
Water hose Ø3/4" BSP x Ø3/8"
(supplied with oven)

POU7 water filter with refill
(supplied with oven)



Scale 1:25

Metal or CPVC pipe,
Ø2.1/2" or larger, 6" (150mm)
long above the floor and centralized
with the rear face of the oven



Scale: 1:35

It is necessary to install the circuit breaker in a electrical box.

COMBI OVEN TCO TOUCH

The Combi oven Touch ensures greater practicality, economy and quality in the preparations. The various combinations of humidity and heat, allow a proper cooking to the food, avoiding the loss of nutrients.

You have more benefits regarding the energy consumption, because of the rapid heating of the oven and the little loss of heat during the cooking process, you save more gas or electricity compared to the traditional process.

TECHNICAL CHARACTERISTICS

1-Capacity

Note the maximum capacity in kg that can be used in your Combi oven. (Eg: meats, potatoes...)

Maximum capacity:

TCO6 = 30 kG

TCO7 = 35 kG

TCO10 = 50 kG

TCO12 = 60 kG



2-Pre-heating

It is extremely important that the oven is preheated, especially for foods where the cooking time is less than 30 minutes. This function is implemented in the device controller for use in any function.

3-Temperature

All temperatures are easily programmed through the touch screen controller in a very simple view.

4 - Loading the oven (for baked, confectionery, fried and grilled products)

It is extremely important to leave an empty rail between one GN and another for best results.

Use the same procedure for frying and grilling by adding a low-height GN at least every 3 spacings.

5 Temperature _ Roasted meats

For large parts that require very high cooking time, use low temperature

Example:

Eyround, rib, hump, topside, knuckle, pork ham, etc = between 140° C to 150°C. Loin, poultry, etc. = Between 170 °C to 180 °C

6-Containers

Grills - For whole chickens, grilled, fried, roasted and base for common baking trays.

Flat GNs - Use up to 65mm deep to cook rice and foods in which the liquid needs to be retained.

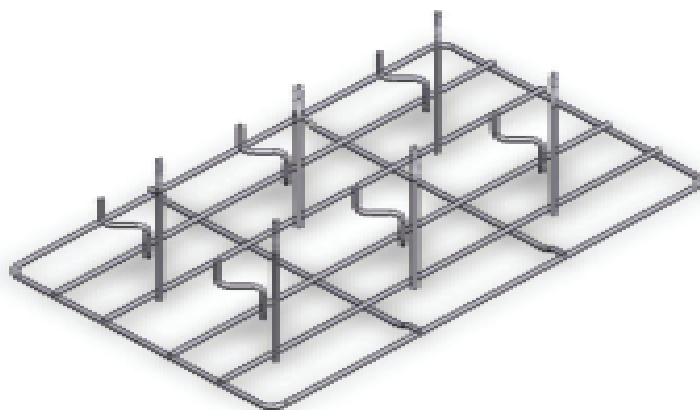
Perforated GNs - Use a depth of up to 100mm for cooking vegetables, greens, seafood, eggs, etc.

IMPORTANT

65 mm deep GNs bear a maximum of 5kg of food (solid foods).

GASTRONORM LINE ACCESSORIES

GN for 06 Whole Chickens



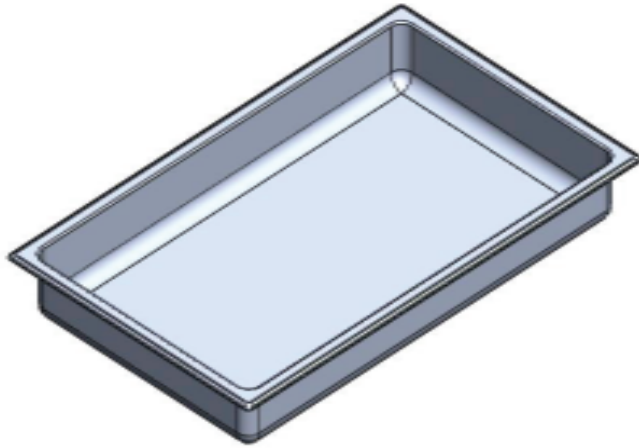
Enamel Coated Stainless Steel GN 20mm high



GN to fry eggs and hamburger



Flat GN 65 mm Deep



Perforated GN 65 mm Deep



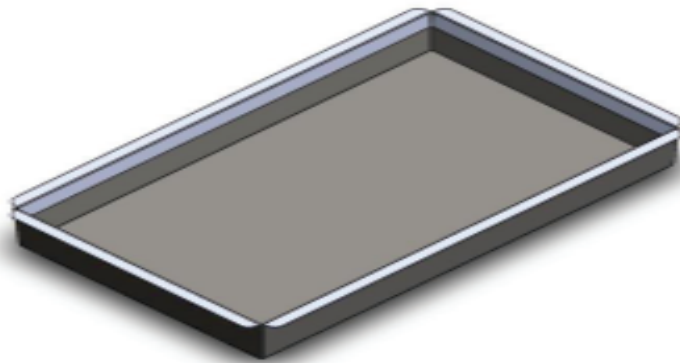
½ perforated GN 65 mm deep



Flat / Beaded Aluminum GN



GN to Fry French Fries



Metalúrgica Venâncio manufactures all the accessories used by the Combi oven.

OPERATING INSTRUCTIONS FOR THE COMBI OVEN TOUCH

Vcolor 338 L

Combi top-class oven controller with 7-inch color touch-screen TFT graphic display.



Important

Read this document carefully before installation and before using the device and follow all warnings; Please keep this document with your device for future reference.

Use the device only in the ways described in this document.



Disposal

The device must be discarded according to local regulations in accordance with the collection of electrical and electronic equipment.

INTRODUCTION

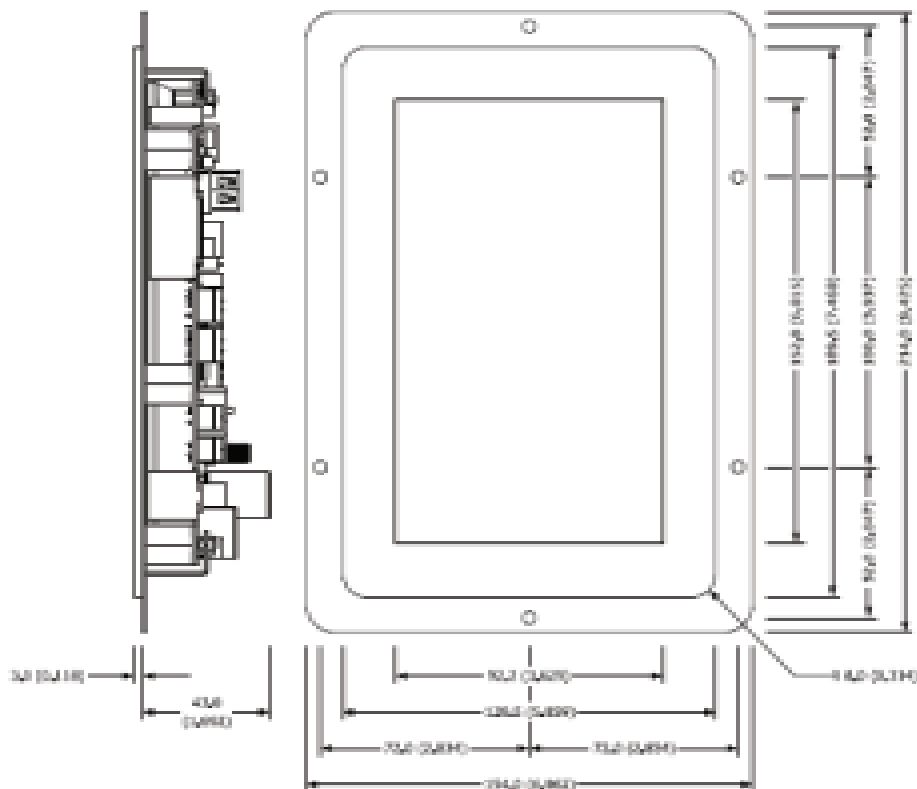
Vcolor 338 L is a stylish design controller for the management of top-class electric ovens for gastronomy.

It is available in split version and is integrable either mechanically or aesthetically in the unit; the user interface is comprised of a 7-inch color I-screen TFT graphic display and guarantees an IP65 degree of protection for agile cleaning.

DIMENSIONS AND INSTALLATION

User Interface Dimensions

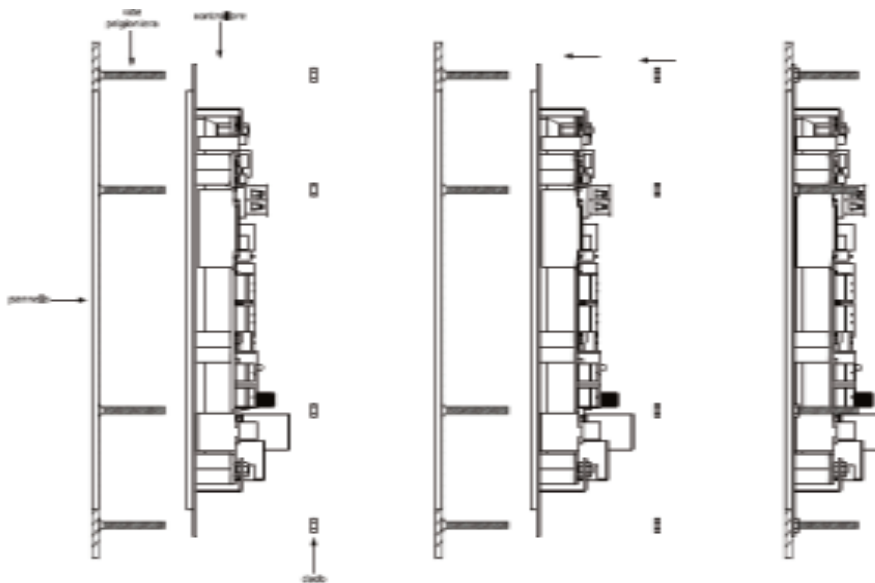
The following drawing illustrates the dimensions of the device's user interface; the dimensions are expressed in mm (in).



User Interface Installation

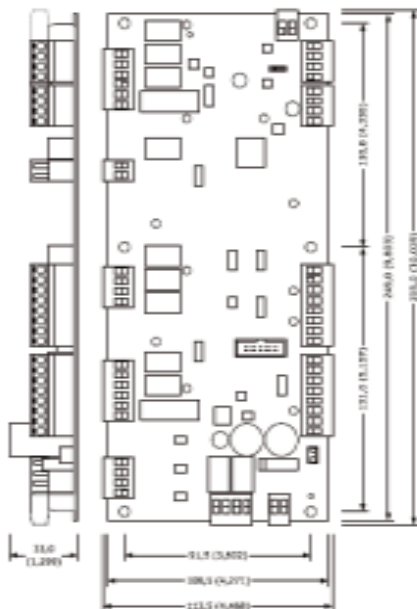
The following drawing illustrates the installation of the device's user interface.

The installation is provided on the rear panel, with screws fastened and ensures the absence of gaps.



Dimensions and installation of the control module.

The following drawing illustrates the dimensions of the device's control module; the dimensions are expressed in mm (in).



The installation is planned on a flat surface with spacers/separators.

MANAGEMENT OF THE TOUCH CONTROLLER UTILITIES

MANAGEMENT OF UTILITIES

Preliminary descriptions

This topic illustrates the activity of the independent utilities that the Combi oven has.

Temperature regulation

The output is activated when room temperature reaches the operating set point and is reactivated when the temperature drops below the set temperature.

To set the operating set point, refer to "Setting the cooking cycle"; to set the configuration parameters "Setting"

Room light;

The room light is switched on/off by touching the reference area:



Control panel fan;

The technical compartment fan is switched on until the operating temperature of the control module reaches the set temperature with parameter F6 and is switched on again when the temperature rises beyond that set with parameter F7 (i.e. "F6 + F7").

To set the configuration parameters, see "Setting the configuration parameters".

Turbine;

The type of ventilation management used is managed in "on/off" mode, double speed and with reverse direction of the fan controlled by a frequency inverter programmed to 540 seconds to turn right and left.

Steam Reduction;

Steam reduction is activated until the temperature reached by the steam reduction probe reaches the set temperature of 90 °C.

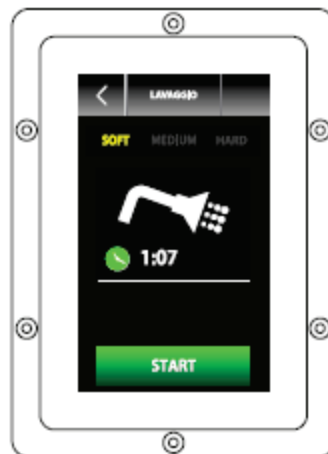
Output management for special washing cycles;

The controller has an efficient water recirculation system with the appropriate type of detergent to manage the washing typology:

- **Washing with detergent tablet**, with water recirculation system

At the beginning of each washing cycle, the camera automatically turns on, from the exclusive option, you can turn it off or on again at any time.

The following is a detailed description of the washing typology:



There are 3 management relays dedicated to:

- **Relay K10:** solenoid valve for introducing water from condenser water network
- **Relay K11:** pump with recirculating water system
- **Relay K12:** Condenser water drain pump

This type of washing can also use a probe to control the drainage temperature of the water used for washing, as the water temperature should not normally exceed 60-75 °C to be discharged in sewage system (state regulation).

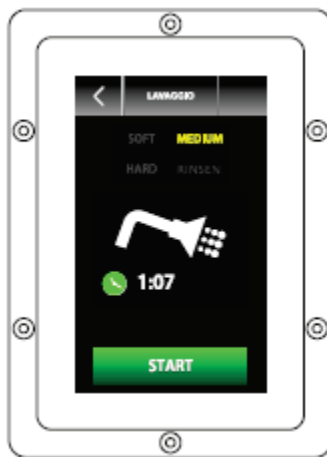
To enable temperature control of discharged water, the appropriate probe (alternating with the steam reduction probe) with parameter P3 = 2 must be enabled.

The washing with tablet provides the selection of 4 different types:

- Rinsen
- SOFT Washing
- MEDIUM Washing
- HARD Washing

The "Rinsen" washing typology is a special sequence cycle, the other cycle typologies differ by the number of repetitions of the washing phases performed.

The image that follows represents the selection screen "WASHING", from which it will be possible to choose one of the four washing typologies.



Cycle selection and start

In case a RINSEN cycle is selected and started, the cycle will be immediately placed in the pre-wash phase.

If, on the other hand, one of the other 3 types of washing is selected, the controller will promptly request the introduction of the number of doses of detergent in the camera:

- 2 doses = SOFT Washing
- 4 doses = MEDIUM Washing
- 6 doses = HARD Washing

After the detergent has been inserted (the machine does not perform controls on the effective insertion of detergent) by pressing the START option again, the machine starts the prewashing phase.

Stage 1 - Pre-wash:

The temperature of the oven is brought to the pre-wash temperature of 60 °C (parameter w0). In case the camera temperature is lower, the heating output will be activated together with the ventilation.

If the temperature is, on the contrary, higher than it was set, the controller will keep the ventilation active only and a pop-up message will prompt the door to be opened to make the camera cool faster.

When the temperature reaches its set value the door closes (if opened earlier) and the controller will activate the relay k10 (water electro-valve) for 2 minutes during which the condenser will be filled with water and filled allowing the pump in recirculation system to reach the water for the various washing phases.

The ventilation remains active throughout the phase and the heating output keeps the set temperature constant.

After the time has elapsed, the operation of the washing system will vary according to the type of cycle defined: RINSEN, i.e., WASHING cycle.

Phase 2A - RINSEN

After the pre-wash phase is concluded, the selected cycle is performed.

A count of a 5-minute cycle is started during which the outputs of the "condenser's water network supply electro-valves", "direct steam injection" and "water recirculation system pump" are enabled, with activated ventilation at maximum speed.

After the time has elapsed, the machine will return to HOME screen, keeping according to the time of 15 seconds, the output of the water drain pump so that it empties the condenser.

If the door is opened or the STOP button is pressed, the cycle will stop immediately and return to the HOME screen.

Stage 2B - Washing Preparation

The Combi oven TOUCH is brought to the washing preparation temperature of 70 °C with humidification in 100% for 5 minutes, during which the relay k10 (condenser's water network supply electro-valve) will also be activated.

Stage 3B - Washing

After the Washing Preparation phase, the cycle will start the Washing phase.

The washing phase takes 10 minutes during which the Combi oven TOUCH is brought to the washing temperature of 70 °C, the ventilation is always active at maximum speed, the recirculation system pump that will supply hot water to the chamber from the condenser is activated, by passing it to the detergent tablets.

No steam is to be introduced at this stage.

A 2-minute time is then loaded during which the Combi oven TOUCH disables all uses (except light) to allow detergent action.

The ***Duty Cycle (detergent action time)*** will be repeated:

- **3 times** in case you are running a **SOFT** washing cycle;
- **6 times** in case you are running a **MEDIUM** washing cycle;
- **9 times** in case you are running a **HARD** washing cycle;

During the entire washing phase, if enabled via parameter P3 and if the value of the Water Drain probe is higher than the maximum water flow set point 70 °C, the controller will activate the Network Water Supply output to reduce the temperature of the condenser.

The differential of this setting is fixed at -10 °C, i.e., the water supply is interrupted when the temperature read by the probe **Water Drain** is below 10 °C in relation to the maximum set point of water drain 70 °C.

At the end of the number of cycles foreseen for the current one, the next phase will be initiated.

Phase 4B - Rinse

This phase lasts 12 minutes during which, the water supply from the condenser's water network, the direct injection of steam and ventilation at full speed, will be activated.

No heating phase is foreseen and no recirculation system is provided. Once the rinsing time has elapsed, the cycle will pass to the next stage.

Stage 5B - Drying

After the rinsing phase, the drying stage starts.

The machine is brought to the drying temperature of 100 °C and with ventilation activated at maximum speed for 15 minutes, after which the cycle will end and the Combi oven TOUCH will return to the HOME screen.

Washing cycle locking:

If the cycle is stopped manually during phases 1, 2A, 2B or 5B, the cycle will stop immediately.

If the cycle is manually stopped during phase 3B, the cycle will go to phase 4B, and, then, to phase 4B once it is completed. If the cycle is otherwise manually stopped during phase 4B, the cycle will complete the current phase and then stop.

If the door is opened during any phase (from the moment it reached the temperature during phase 1, it will immediately stop the cycle and bring the machine back to the home screen.

A black-out alarm during any phase will restart the current phase from the start.

TOUCH CONTROLLER OPERATING GUIDE




USER INTERFACE


Activating / deactivating the device

To activate the device, operate as follows:

1. - Touch . 

To deactivate the device, operate as follows:

2. - Ensure that no procedure is in progress.
3. - Touch . 

If a power interruption occurs when the device is activated or deactivated, at the time of power restoration, the device will return to its previous state with the alarm buzzer ON by informing in the controller screen **PF** 

If a power interruption occurs during a cooking cycle and the duration of the interruption is less than the time set at 240 minutes, when the power is restored, the cycle will be restored from the beginning of the phase during which the interruption occurred. If the duration of the interruption is longer than the established time, the cycle will be interrupted.

Recognition of the buzzer

To recognize the buzzer, operate as follows:

1. - Ensure that no procedure is in progress.
2. - Touch a sensitive area of the display.



Activation of the device.



Deactivation of the device.

COOKING CYCLE

Preliminary descriptions

Each cooking cycle is preceded by a preheating (provided that the cooking in Delta T has not been set, the set point of operation is relative to the set point of operation during the first phase of the cooking cycle, "Set point of operation during the first phase of the cooking cycle + set point of operation during the preheating").

During the preheating, the fan is turned on at full speed.

When the temperature, detected by the ambient probe, reaches the set point of operation, the buzzer is activated for 3 s.

The opening and closing of the door causes the passage to the first phase of the cooking cycle, or the touch on the indicated PRE-HEATING screen. This change the status to COOK.








Each cooking cycle consists of at least one phase to a maximum of six phases; after completion of a phase, the device automatically goes to the next phase.

For each phase the device is enabled to manage the following settings:



- the cooking type:
- in time (the phase lasts the time set and the set point of operation is an absolute value)
- in Delta T (only if the needle probe is enabled, i.e., if the parameter P2 is set to 1, the phase lasts until the temperature, detected by the needle probe, reaches the set point inside and the set point of operation is relative to the temperature detected by the needle probe, i.e., "temperature detected by the needle probe + Delta T set point)
- on the inside (only if the needle probe is enabled, i.e., if the parameter P2 is set to 1; the phase lasts until the temperature, detected by the needle probe, reaches the set point inside and the operating set point is an absolute value)
- the set point of operation (only if the cooking time has been set or the cooking inside)
- Delta T set point (only if cooking in Delta T has been set)
- the humidification
- the duration of the phase (only if cooking has been set in time)
- The set point inside (only if cooking in Delta T or cooking inside has been set)
- The fan (turbine) has 2 programmable speeds and reverse direction of rotation.



Setting the cooking cycle

To set the cooking mode, operate as follows:

1. - Ensure that the device is activated and no procedure is in progress.
2. - Touch the "manual" option: 
3. - Touch to set:   
 - the cooking time: 
 - the cooking in Delta T: 
 - the cooking inside: 

To set the operating set point, operate as follows:

4. - Touch the option 
5. - Touch the slide bar 


6. - Touch the green icon: to confirm, or also, the red icon: to exit.  

To set the Delta T set point, operate as follows:

7. - Touch the option 

8. - Repeat steps 5 and 6.

To set the humidification, operate as follows:

9. - Touch the option 

10. - Repeat steps 5 and 6.

To set the phase duration, operate as follows:

11. - Touch the option 

12. - Repeat steps 5 and 6.

To set the set point of the inner core probe, operate as follows:

13. - Touch the option 

14. - Repeat points 5 and 6; See also the parameters r4 and r5.

To set fan speed, operate as follows:

15. - Touch the option and select the desired speed  

16. - Repeat steps 5 and 6.

To set the duration of the automatic vent opening (**function not used in this version**) and  



Setting the cooking cycle.



Setting the cooking type.



Setting the operating set point.

To select / pass through the phases of the cooking cycle, operate as follows:

19. - Touch the reference bar 

To add a phase of the cooking cycle, operate as follows:

20. - Touch the "add phase" option 


To eliminate the last phase of the cooking cycle, operate as follows:

21. - Select the phase.

22. - Touch the "Delete phase" option 

To complete the definition of a program, operate as follows:


23. - From any component phase the cycle ...

24. - Touch the "Finish recipe" option 

Once the program definition is complete, the controller will display a summary screen of the defined cycle.

Through this screen you can:

25. - Return to the cycle definition:

Option, or also, 

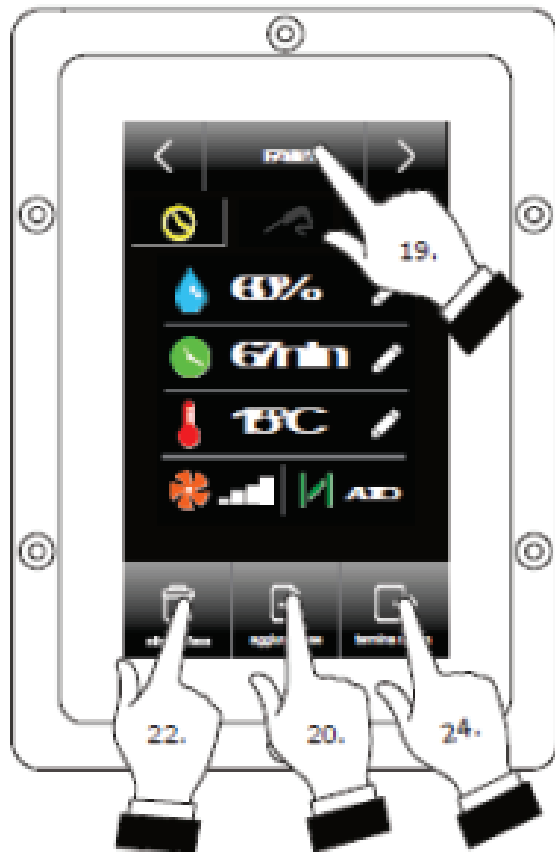
26. - Option 

27. - Save the defined cycle by touching the relative option: 

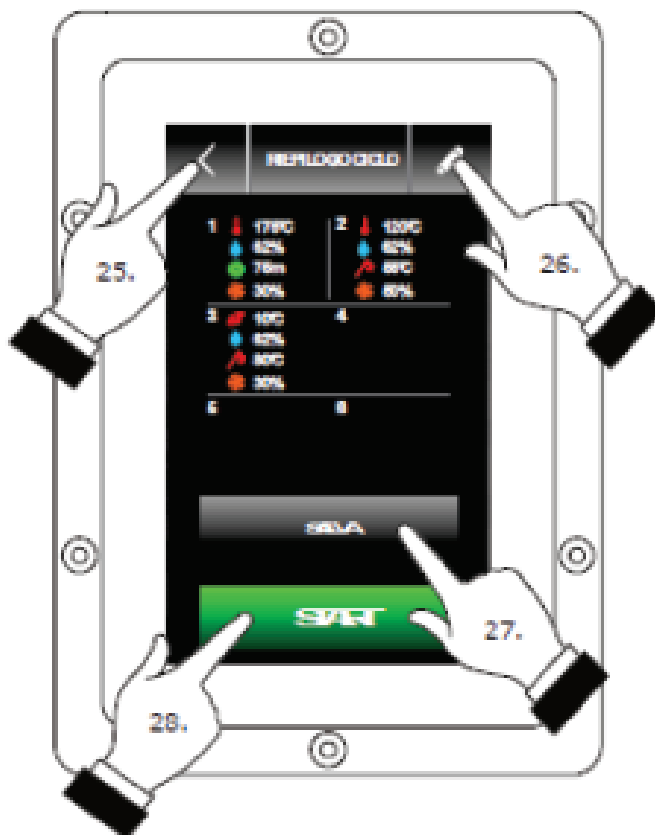
28. - Make the defined cycle by touching the relative option: 

Note: The duration of a cycle in unfinished time cannot be changed during cooking.

The duration of a finalized cycle can be changed during cooking, but cannot be set to unfinished.



Cycle setting screen.



Defined cycle summary screen.




Beginning of the cooking cycle

Once the cooking cycle is started, preheating will start.

The opening and closing of the door or the pressure of the status bar causes the passage to the first stage of the cooking cycle.

During the preheating and during the cooking cycle, the display shows the value of the variables involved in the process and the relative setting.

To change the settings, see paragraph 8.2 "Setting the cooking cycle".

- to open / close the vent (**not used in this version**) 
- to switch on/off the ambient light 
- to display the value of process variables and machine status. 

At the conclusion of the cooking cycle the buzzer is activated.

To prolong the cooking cycle, operate as follows:

3. - Touch . 

A screen will appear to set the cooking cycle extension time.

4. - Touch the slide bar to set the desired value. 

5. - Touch the green option to confirm. 

Interruption of the cooking cycle

To stop the cooking cycle, operate as follows:

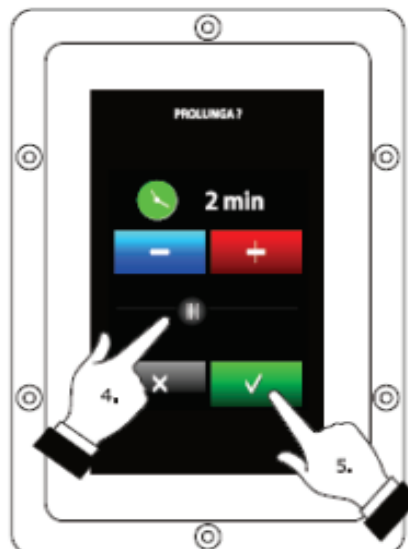
1. - Ensure that no procedure is in progress.
2. - Touch for 1 sec.



Start of cooking cycle and Preheating



End or interruption of the cooking cycle.



Extension of the cooking cycle.

"MY RECIPES" FUNCTION

Preliminary descriptions





"My recipes" function allows you to memorize the settings of a cooking cycle in a recipe; at the beginning of the recipe the device will work with the settings stored in it.

Memorizing a recipe


With the active device in the "Cycle Summary" status, it is possible to store a recipe, operating as follows:

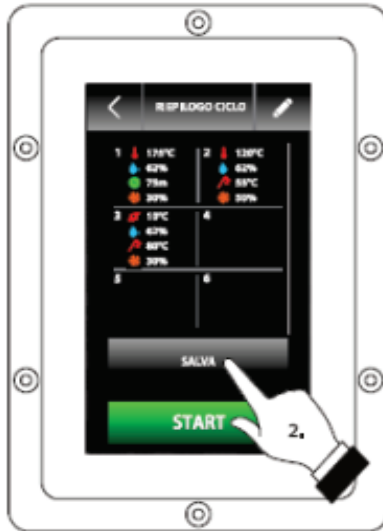
1. - Set the cooking cycle; see "Setting the cooking cycle".
2. - Touch "SAVE" 

Go to "My recipes" screen from where you can select the recipe to be saved.

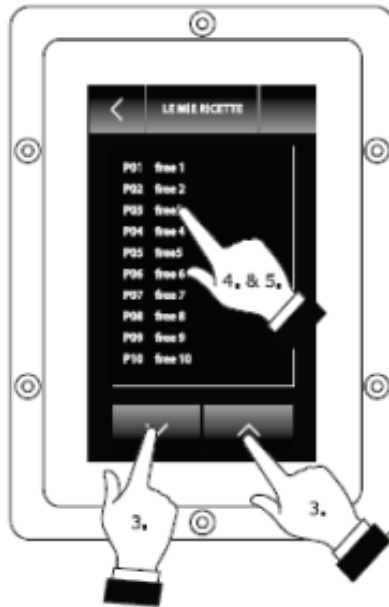
3. Touch or to go through the pages with the list of recipes.  
4. Touch the desired recipe name to save it.
5. Touch the display to associate a new name with the recipe.
6. Touch to exit the procedure without replacing. 
7. Touch to confirm. 

In case you want to change the name of the recipe, proceed as follows:

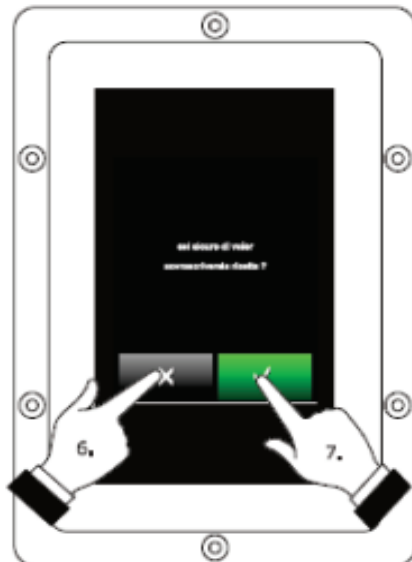
4. - Touch above the desired recipe name
- 5.- Touch to confirm. 



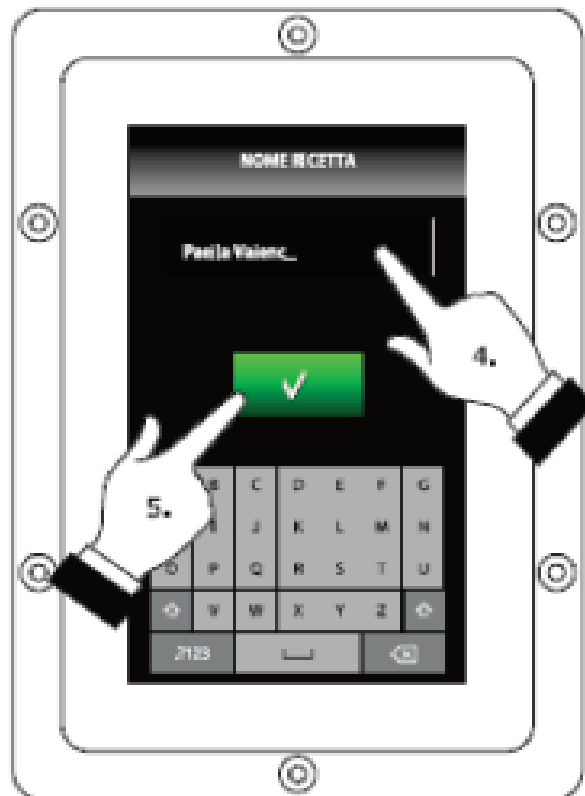
Cycle summary screen to access "My recipes"



"My recipes" screen.








Recipe replacement screen



Memorizing a recipe

Starting a recipe

To start a recipe, operate as follows:

1. - Ensure that the device is activated and no procedure is in progress.
2. - Touch the "recipes" option: 
3. - Touch or to select the recipe.  
- 4.- Touch the display next to the recipe of interest.
5. - Touch: The recipe will be started. 
6. - Touch to enter in the recipe setting and vary the recipe data. 

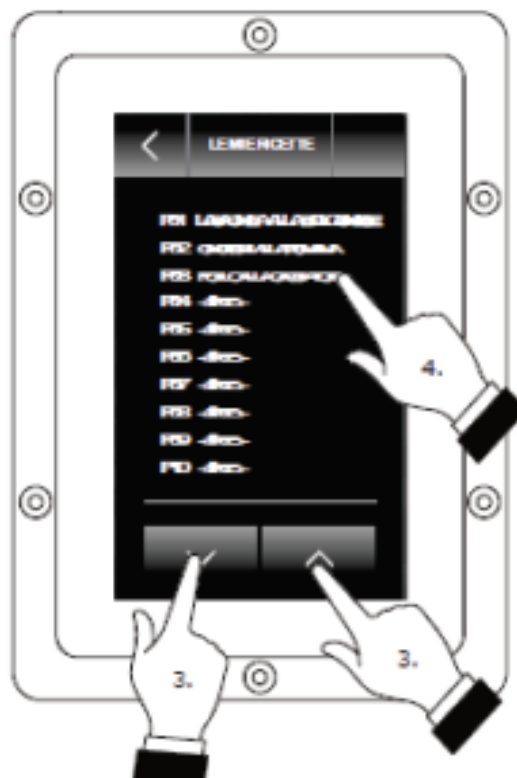
Cancellation of a recipe

To cancel a recipe, operate as follows:

1. From point 4. "Starting a recipe," touch "delete" to cancel the reference recipe.



Access a recipe.



"SPECIAL CYCLES" FUNCTION

Preliminary descriptions

The "Special cycles" function allows to enjoy operating cycles made available.

You can start one of the following operating cycles:

- Regeneration cycle inside (only if the needle probe is enabled.)
- Regeneration cycle in time
- Leavening cycle in time
- Environment cooling cycle.

The following table shows the factory settings of the regeneration cycle inside.

DEFINITION	DEFAULT	MINIMUM ... MAXIMUM
Operating set point	110 °C	20... 180 °C
humidification	70%	40... 100%
Set point inside	70 °C	20... 100 °C
fan speed	minimum	
vent opening	at the end of the cycle	

The following table shows the factory settings of the regeneration cycle in time.

DEFINITION	DEFAULT	MINIMUM ... MAXIMUM
Operating set point	110 °C	20... 180 °C
humidification	70%	40... 100%
phase duration	25 min	1... 90 min
fan speed	minimum	
vent opening	at the end of the cycle	

The following table shows the factory settings of the leavening cycle in time.



DEFINITION	DEFAULT	MINIMUM ... MAXIMUM
Operating set point	30 °C	20... 50 °C
humidification	80%	40... 100%
phase duration	120 min	1... 300 min
fan speed	minimum	
vent opening	at the end of the cycle	

The following table illustrates the factory settings of the ambient cooling cycle; the opening and closing of the door do not cause any consequences.

DEFINITION	DEFAULT	MINIMUM ... MAXIMUM
Operating set point	30 °C (parameter r11)	0... 500 °C
fan speed	Minimum, without reversing direction of travel (if provided)	
vent opening	at the beginning of the cycle, during the whole duration	

start of a special cycle

To start a special cycle, operate as follows:

1. - Ensure that the device is activated and no procedure is in progress.
2. - Touch the "specials" option: 
3. - Touch the special cycle identification icon.
4. - Then touch the to start the cycle 

Note: In the representative image (*Start of a special cycle*), the special cycle refers to the *leavening*, but the procedure is the same for the beginning of all other special cycles: regeneration, cooling and washing.



Access to a special cycle.



Start of a special cycle

"PREFERRED CYCLES" FUNCTION

Preliminary descriptions



The "Preferred Cycles" function allows one of the last 10 operating cycles to start.

You can start one of the following operating cycle types:

- cooking cycles defined by the procedure described in the paragraph "Setting the cooking cycle" (in this case the last cycle can be started)
- recipes from "My recipes" function
- operating cycles of the "Special Cycles" function.

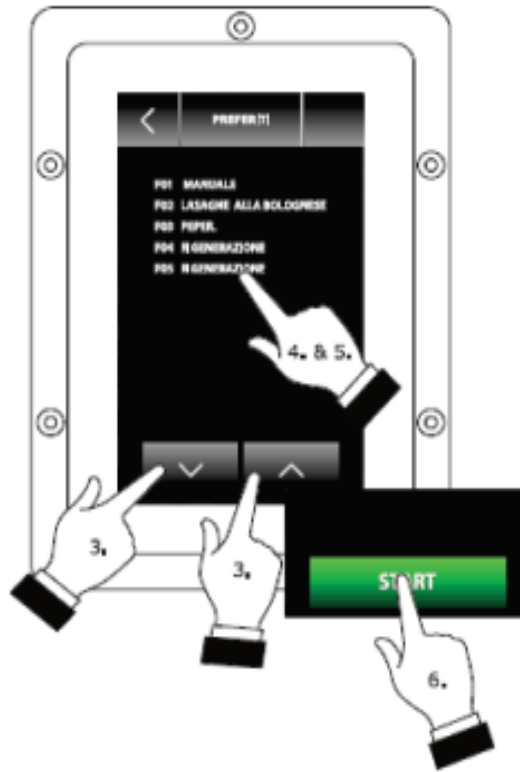
Start of a preferred cycle

To start a preferred cycle, operate as follows:

1. - Ensure that the device is activated and no procedure is in progress.
2. - Touch the "preferred" icon 
3. - Touch the identification icon of the special cycle of interest
4. - By touching, it will start the preferred cycle. 



Access a preferred cycle.



Start of a preferred cycle.


"WEEKLY SCHEDULED ACTIVATION" FUNCTION

Preliminary descriptions

The "Weekly scheduled activation" function enables you to program a maximum of 9 weekly device activations and simultaneously initiate a recipe; see the chapter ""MY RECIPES" FUNCTION".

Setting the "Weekly Scheduled Activation" function




To access the procedure, operate as follows:

1. - Ensure that at least one recipe is stored, that the device is activated and there is no procedure in progress.
2. - Touch the option. 







To set the activation day, operate as follows:

3. - Touch . 


Then, the "Planning" screen of how to proceed is displayed.

4. - Touch or (within 15 sec.) to decrease or increase the value of interest.  
5. - Touch the option to confirm the value entered. 

To set the activation time, operate as follows:

6. - Touch . 
7. - To set the time, touch or (within 15 sec.) to decrease or increase the value of interest.  
8. - To set the minutes, touch the display near the center, touch or (within 15 sec.) to decrease or increase the value of interest.  
9. - Touch the option to confirm the value entered. 

To set the recipe to start, from the main screen, operate as follows:

10. - Touch the "recipes" option. 
11. - Repeat steps 3. ... 5. "Starting a recipe".




Access to the function definition procedure.



Setting the activation time and functions.

Activation of "Weekly Scheduled Activation" function

To activate the procedure, operate as follows:

- 1.- Ensure that at least one activation is set, that the device is activated and there is no procedure in progress.
2. - Touch for 1 sec. 

To select an activation, operate as follows:

3. - Touch or.  

To change an activation, operate as follows:

4. - Repeat steps 3. ... 11. "Setting the "Weekly Scheduled Activation" function".

To activate the function, operate as follows:

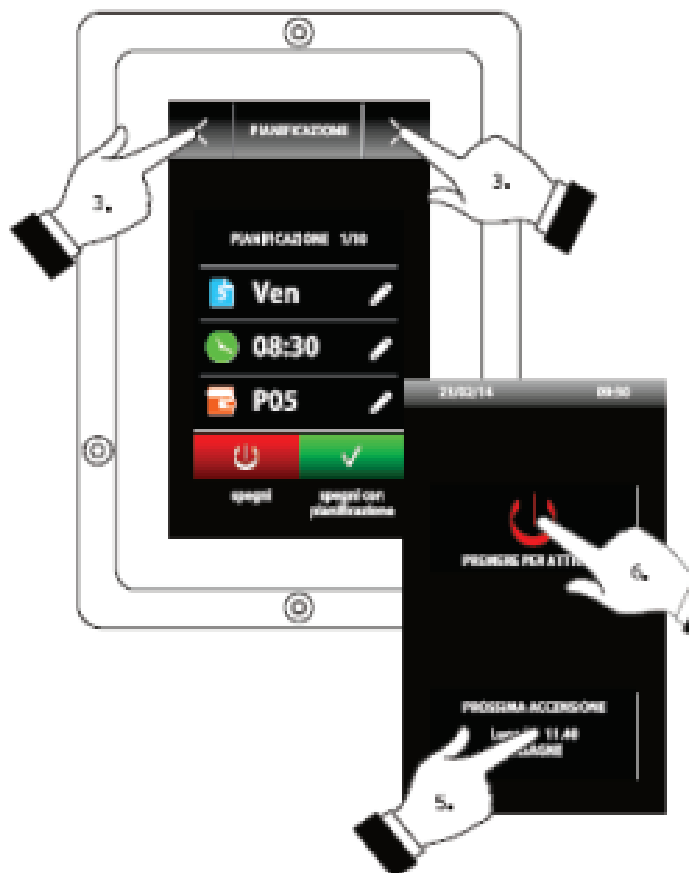
5. - Touch . 

To deactivate the function, operate as follows:

6. - Touch before step 4. 



Access to the activation procedure of the "Weekly scheduled activation" function.




Selecting an activation and activating the "Weekly scheduled activation" function.

OTHER FUNCTIONS


Alarm status display

To access the procedure, operate as follows:

1. - Ensure that the device is activated and no procedure is in progress.
2. - Touch .
3. - Touch "ALARM LIST".


Visualization of the value of process variables and machine status

To access the procedure, operate as follows:

1. - Ensure that the device is activated and no procedure is in progress.
2. - Touch .
3. - Touch "INTERNAL VALUES".

Setting the language used on the screens


To access the procedure, operate as follows:

1. - Ensure that the device is activated and no procedure is in progress.
2. - Touch .
3. - Touch "**LANGUAGES**" to select the language.
4. - Touch the display on the desired language.

CONFIGURATION

Setting the time, date, and day of the week

To access the procedure, operate as follows:

- 1.- Ensure that the device is activated and no procedure is in progress.
2. - Touch . 

To select a value, operate as follows:

3. Touch the repeat until the green rectangle indicates the desired value. 

To set a value, operate as follows:





5. - Touch or to change the value.  
6. - Touch after changing the values you want to confirm the change. 





Procedure for setting the time, date and day of the week.

Setting configuration parameters




To access the procedure, operate as follows:

1. - Ensure that the device is activated and no procedure is in progress.
2. - Touch . 
3. - Touch "SERVICE".
4. - Touch or to set the password "-19".  
5. - Touch to confirm. 

To select a parameter, operate as follows:

6. - Touch or to select the desired parameter.  

To set a parameter, operate as follows:

7. - Touch the desired parameter.
8. - Touch or to set the value.  
9. - Touch to confirm. 



Access the procedure for setting configuration parameters.



Access the procedure for setting configuration parameters.

List of configuration parameters **PARAMETERS ALREADY ESTABLISHED FOR YOUR COUNTRY**

The following table illustrates the meaning of the device configuration parameters.

DEFAULT

PARAMETER	MINIMUM	MAXIMUM	MEASUREMENT UNIT	DEFINITION	ANALOG INPUTS
P0	0	2	---	0	probe type 0 = J thermocouple (J/K versions only) 1 = K thermocouple (J/K versions only) 2 = Pt 100 (Pt 100 versions only)
P1	0	1	---	0	Temperature measuring unit (1) 0 = °C 1 = °F
P2	0	1	---	0	Enabling the needle probe 1 = SI
P3	0	2	---	0	Enabling the steam reduction probe / condenser water flow 0 = deactivated probe 1 = steam reduction probe 2 = water flow probe
CA1	-25/-50	25/50	°C/°F (2)	0	Ambient probe offset
CA2	-25/-50	25/50	°C/°F (2)	0	Needle probe offset
CA3	-25/-50	25/50	°C/°F (2)	0	Steam reduction probe offset
PARAMETER	MINIMUM	MAXIMUM	MEASUREMENT UNIT	DEFINITION	MAIN REGULATOR
r0	1	99	°C/°F (2)	5	Operating set point differential (referred to the temperature detected by the ambient sensor)
r1	0	r2	°C/°F (2)	0	Minimum operating set point (referred to the temperature detected by the ambient sensor)
r2	r1	500	°C/°F (2)	300	Maximum operating set point (referred to the temperature detected by the ambient sensor)
r3	r1	r2	°C/°F (2)	130	Operating set point by factory default (referred to the temperature detected by the ambient probe); See also r0
r4	0	r5	°C/°F (2)	0	Minimum set point inside (referred to the temperature detected by the probe needle)
r5	r4	500	°C/°F (2)	100	Maximum set point inside (referred to the temperature detected by the probe needle)

r6	r4	r5	°C/°F (2)	30	Operating set point inside by factory default (referred to the temperature detected by the probe needle)
r7	0	r8	°C/°F (2)	0	Minimum Delta T set point (referred to the temperature detected by the probe needle)
r8	r7	150	°C/°F (2)	30	Maximum Delta T set point (referred to the temperature detected by the probe needle)
r9	r7	r8	°C/°F (2)	5	Delta T set point by factory default (referred to the temperature detected by the probe needle)
r10	-199	199	°C/°F (2)	10	Operating set point during preheating (with respect to the set operating point during the first phase of the cooking cycle, or "operating set point during the first stage of the cooking cycle + r10", referring to the temperature measured by the ambient probe) ; see also parameter r0
r11	0	500	°C/°F (2)	50	Operating set point during cooling (referred to the temperature detected by the ambient sensor)
r12	0	240	min	240	Duration of a power interruption occurring during the cooking cycle causing the interruption (3)
PARAMETER	MINIMUM	MAXIMUM	MEASUREMENT UNIT	DEFINITION	MAIN REGULATOR
c0	-1	120	s	10	duration of the buzzer activation at the end of the cooking cycle -1 = until it is silenced manually
c1	0	1	---	0	buzzer activation (for 1 second) at the conclusion of a cooking cycle phase
c2	0	240	min	60	Time that must elapse in the lack of operations on the device (from the activation of the "weekly scheduled activation" function) in order to turn it off
c3	0	99	°C/°F (2)	10	Temperature above which is activated the display blockage of the temperature detected by the ambient probe (with respect to the operating set point or "operating set point + c3") 0 = missing function
c4	0	99	°C/°F (2)	10	Temperature below which is activated the display blockage of the temperature detected by the ambient probe (with respect to the operating set point or "operating set point - c4") 0 = missing function

PARAMETER	MINIMUM	MAXIMUM	MEASUREMENT UNIT	DEFINITION	FAN
F0	0	3	---	0	Type of ventilation management 0 = in on/off mode, and in single speed 1 = in "on/off" mode, single speed and with reverse direction of the fan 2 = in "on/off" mode, in double speed and with reverse direction of the fan 3 = in modulator mode and with reverse direction of the fan
F1	5	120	s	15	Duration of fan deactivation due to the reversal of the fan's direction (only if F0 = 1, 2 or 3); see also F2
F2	5	600	s	120	Duration of the fan activation for each direction of travel (only if F0 = 1, 2 or 3); see also F1
F3	0	1	---	0	Deactivation of the output for temperature control during fan deactivation due to the reversal of the fan's direction (only if F0 = 1, 2 or 3) 0 = SI
F4	0	F5	%	0	Minimum fan speed (included as percentage of maximum speed, only if F0 = 3)
F5	F4	100	%	100	Maximum fan speed (included as percentage of maximum speed, only if F0 = 3)
F6	20/65	65/150	°C/°F (2)	60	Temperature above which the fan of the technical compartment is activated (referred to the temperature of use of the control module); see also F7
F7	1	99	°C/°F (2)	10	F6 differential
F8	0	100	%	10	Minimum user defined fan speed (included as percentage of maximum speed, only if F0 = 3)
PARAMETER	MINIMUM	MAXIMUM	MEASUREMENT UNIT	DEFINITION	STEAM INJECTION
t0	0	2	---	0	Steam generation mode 0 = direct 1 = with an external humidifier 2 = combined (i.e., either direct or with an external humidifier)
t1	t2	999	s	60	Cycle time for the injection of steam generated in direct mode
t2	0	T1	s	30	Duration of the steam injection generated in direct mode corresponding to the maximum humidification

t3	0	999	s	60	Delay of injection of the steam generated in direct mode from the beginning of a phase of the cooking cycle
t4	0	1	---	0	Enable the link between the injection of steam generated in direct mode and the fan 1 = SI - the injection is blocked when the fan is deactivated. If the steam injection of the fan is deactivated, the injection will be made at the next activation of the fan and if the fan should be deactivated during the injection of the steam, it will be deactivated at the end of the injection
t5	0	1	---	0	Enabling the link between the injection of steam generated in direct mode and the output for temperature regulation 1 = SI - If the output is deactivated in the steam injection, the injection will be made at the next activation of the output and if the output must be deactivated during the injection of steam, it will be deactivated at the end of the injection
t6	t7	999	s	60	Cycle time for the injection of steam generated with an external humidifier
t7	0	t6	s	30	Duration of steam injection generated with an external humidifier corresponding to maximum humidification
t8	0	999	s	60	Delay of steam injection generated with an external humidifier from the start of a cooking cycle phase
t9	0	1	---	0	Enabling link between the injection of steam generated with an external humidifier and the fan 1 = SI - If the fan in the steam injection is deactivated, the injection will be made at the next activation of the fan and if the fan should be deactivated during the injection of the steam, it will be deactivated at the end of the injection
t10	0	1	---	0	Enabling the link between the injection of steam generated with an external humidifier and the output for the temperature regulation 1 = SI - If the output is deactivated in the steam injection, the injection will be made at the next activation of the output and if the output must be deactivated during the injection of steam, it will be deactivated at the end of the injection

t11	0	240	s	5	Delay of steam injection from the activation of the output to the temperature regulation or from the activation of the fan
t12	0	500	°C/°F (2)	120	Temperature above which the injection of steam generated in direct mode is activated and below which the injection of the generated steam is activated with an external humidifier (referred to the temperature measured by the ambient probe, only if t0 = 2)
t13	0	500	°C/°F (2)	90	Temperature above which the reduction of the steam is activated (referred to the temperature detected by the steam reduction probe); see also t14
t14	1	99	°C/°F (2)	5	t13 differential
t15	0	1	---	0	Enabling boiler expansion 1 = SI
t16	1	500	°C/°F (2)	80	Boiler temperature above which boiler steam injection is enabled
t17	1	500	°C/°F (2)	95	Operating temperature of the boiler steam
t18	1	500	°C/°F (2)	70	Boiler steam maintenance temperature
t19	1	99	°C/°F (2)	2	Hysteresis by t17, t18
t20	0	240	s	2	Boiler water loading stop delay
t21	0	240	min	2	Boiler water flow stop delay
t22	0	240	min	25	Anti-stroke action time Phase 1 for washing
t23	1	500	°C/°F (2)	60	Anti-stroke action temperature Phase 1 for washing
t24	0	240	min	20	Wash action time Phase 2
t25	1	500	°C/°F (2)	60	Wash action temperature Phase 2
t26	1	10	---	3	Wash number Phase 2
t27	0	240	s	5	Alarm activation delay for water at minimum level
t28	0	240	min	3	Alarm activation delay for water at maximum level
PARAMETER	MINIMUM	MAXIMUM	MEASUREMENT UNIT	DEFINITION	TEMPERATURE ALARMS
A0	1	99	°C/°F (2)	10	A1 differential
A1	0	500	°C/°F (2)	0	Temperature above which the maximum temperature alarm (referred to the temperature detected by the ambient probe) is activated; see also A0 and A3

A2	0	240	min	0	Maximum temperature alarm delay
A3	0	2	---	0	Maximum temperature alarm type 0 = missing alarm 1 = absolute (i.e., A1) 2 = relative to the operating set point (i.e., "operating set point + A1")
A4	0	80/175	°C/°F (2)	70	Temperature above which the operating temperature alarm (referred to the operating temperature of the control module) 0 = missing alarm
PARAMETER	MINIMUM	MAXIMUM	MEASUREMENT UNIT	DEFINITION	DIGITAL INPUTS
i0	0	1	---	0	Contact type of micro port input 0 = normally open (active input with closed contact) 1 = normally closed (active input with open contact)
i1	0	1	---	0	Fan thermal protection input type 0 = normally open (active input with closed contact) 1 = normally closed (active input with open contact)
i2	0	1	---	0	reserved
i3	0	1	---	0	Safety thermal protection input type 0 = normally open (active input with closed contact) 1 = normally closed (active input with open contact)
i4	0	1	---	0	Contact type of electric consumption input 0 = normally open (active input with closed contact) 1 = normally closed (active input with open contact)
PARAMETER	MINIMUM	MAXIMUM	MEASUREMENT UNIT	DEFINITION	DIGITAL OUTPUTS
u0	0	1	---	0	Vent output contact type 0 = normally open (open vent with closed contact) 1 = normally closed (open vent with open contact)

u1	0	1	---	(NOT USED)	Use managed by vent output 0 = ON/OFF ELECTRO-VALVE 1 = <u>MOTORIZED ELECTRO-VALVE</u> - in this case the parameters u2, u3 and u4
u2	0	600	ds (s/10)	120	Duration of inhibition of vent output by completion of short stroke for vent opening and completion of long stroke for vent closure (only if u1 = 1); see also u3 and u4
u3	0	600	ds (s/10)	10	Short pulse duration for vent opening (only if u1 = 1); see also u2 and u4
u4	0	600	ds (s/10)	30	Long stroke duration for vent closure (only if u1 = 1); see also u2 and u3
PARAMETER	MINIMUM	MAXIMUM	MEASUREMENT UNIT	DEFINITION	SERIAL NETWORK
LA	1	247	---	247	Device address
Lb	0	3	---	2	Baud rate 0 = 2.400 baud 1 = 4.800 baud 2 = 9.600 baud 3 = 19.200 baud
LP	0	2	---	2	Parity 0 = none 1 = odd 2 = even
PARAMETER	MINIMUM	MAXIMUM	MEASUREMENT UNIT	DEFINITION	ROTOR
k0	0	1	---	0	0 = enable cover, 1 = enable Rotor
k1	0	1	---	1	Door Action on rotor: door opening interrupts rotation. The next door closing, 0 = motor remains stationary 1 = resumes the status before interruption
k2	0	100	s	10	K0 = 0, Maximum activation time of the cover K2 = 0, Cover off K0 = 1, Maximum motor activation time K2 = 0, motor off.
k3	0	1	---	0	Contact type of the end of time input of the cart 0 = normally open (active input with closed contact) 1 = normally closed (active input with open contact)

PARAMETER	MINIMUM	MAXIMUM	MEASUREMENT UNIT	DEFINITION	WASHING
w0	0	500	°C/°F (2)	60	Pre-wash phase operating set point
w1	1	99	°C/°F (2)	10	Hysteresis consensus for prewash activation
w2	0	240	min	10	Washing time
w3	0	500	°C/°F (2)	70	Operating set point in the washing phase
w4	0	240	s	s	Liquid detergent introduction time
w5	0	240	min	10	Time of action of the liquid detergent Washing time (in tablet wash)
w6	0	240	min	10	Steam introduction time for action of the liquid detergent Time of action of the detergent (in tablet wash)
w7	0	240	s	10	Short rinse time
w8	0	500	°C/°F (2)	70	Operating set point in the drying liquid phase Operating set point for washing preparation (in tablet wash)
w9	0	240	s	5	Introduction time of drying liquid Activation time of the water pump after the end of the cycle (in tablet wash)
w10	0	240	min	10	Time of action of drying liquid Time for RINSE phase (in tablet wash)
w11	0	240	min	10	Steam introduction time for action of drying liquid Time for washing preparation (in tablet wash)
w12	0	500	°C/°F (2)	60	Operating set point of the rinse phase
w13	0	240	min	5	Duration of the rinse phase
w14	0	500	°C/°F (2)	100	Operating set point of the drying phase
w15	0	240	min	10	Duration of the drying phase
w16	0	240	seg	15	Deactivation delay of the water drain pump
w17	0	1	s	1	Washing type 0 = deactivated 1 = with liquid detergent without recirculation system 2 = with detergent tablet and recirculation system
w18	r0	99	°C/°F (2)	7	Consensus range for activation of wash preparation (in tablet wash)
w19	0	500	°C/°F (2)	70	Washing flow probe set point (in tablet wash)
w20	0	1	---	1	Output action of detergent / drying liquid 0 = activation of a single relay 1 = combined with water electro-valve relay

USE OF USB PORT

Preliminary descriptions

The following operations can be performed via the USB port:


- upload and download of settings contained in the recipes of "My recipe" function and in the "Special cycles" function (hereinafter referred to as "programs")
- upload and download of settings contained in the configuration parameters.

Operations are guaranteed using the USB key.

The upload operations are allowed on condition that the firmware of the source device and that of the destination device coincide.


Upload of settings contained in the programs

To upload the settings contained in the programs, operate as follows:

1. - Ensure that the device is deactivated and no procedure is in progress.
2. - Insert a USB key containing a custom text document named "prog.txt" into the device's USB port and wait a few seconds.
3. - Touch "UPLOAD PROGRAMS".
4. - Touch to confirm. 
5. - At the completion of the upload remove the USB key from the device's USB port.


Download of settings contained in the programs

To download the settings contained in the programs, operate as follows:

1. - Ensure that the device is deactivated and no procedure is in progress.
2. - Insert a USB key into the device's USB port and wait a few seconds.
3. - Touch "DOWNLOAD PROGRAMS".
4. - Touch to confirm. 


Upload of settings contained in the configuration parameters.

To upload the settings contained in the programs, operate as follows:

1. - Ensure that the device is deactivated and no procedure is in progress.
2. - Insert a USB key containing a custom text document named "prog.txt" into the device's USB port and wait a few seconds.
3. - Touch "UPLOAD PARAMETERS".
4. - Touch to confirm. 

Download of settings contained in the configuration parameters.

To download the settings contained in the programs, operate as follows:

1. - Ensure that the device is deactivated and no procedure is in progress.
2. - Insert a USB key into the device's USB port and wait a few seconds.
3. - Touch "DOWNLOAD PARAMETERS".
4. - Touch to confirm. 


18 ALARMS

18.1 Alarms

If an alarm is triggered the buzzer is activated, the display shows the icon [There appears image] and an alarm code; touch the display near the center to silence the buzzer and re-establish normal viewing.

The following table illustrates the meaning of the device's alarm codes.

ALARM CODE	MEANING
ALARM Camera probe	Camera probe alarm Resources: <ul style="list-style-type: none"> - check the probe type; see parameter P0 - check device-probe connection - check camera temperature main consequences <ul style="list-style-type: none"> - if the alarm is displayed when the device is activated, it will not be allowed to start a cooking cycle - If the alarm occurs during a cooking cycle, the cycle will be interrupted - the temperature setting output will be deactivated
ALARM Inner probe	Internal probe alarm Resources: <ul style="list-style-type: none"> - the same as in the previous case, but for the inner probe Main consequences: <ul style="list-style-type: none"> - if the alarm is displayed when the device is activated, it will not be allowed to start a cooking cycle in Delta T and a cooking cycle inside - if the alarm occurs during a cooking cycle in Delta T or a cooking cycle inside, the cycle will be interrupted
ALARM Steam reduction probe	Steam Reduction Probe Alarm Resources: <ul style="list-style-type: none"> - the same as in the previous case, but with respect to the steam reduction probe Main consequences: <ul style="list-style-type: none"> - the output for the steam reduction management will be deactivated
ALARM Lack of voltage	Power interruption alarm Resources: <ul style="list-style-type: none"> - check device-power connection Main consequences: <ul style="list-style-type: none"> - If the alarm is triggered when the device is activated or deactivated, the device will be deactivated when power is reestablished - If the alarm occurs during a cooking cycle and the duration of the interruption is less than the time established with parameter r12, when the power is restored, the cycle will be resumed from the beginning of the phase during which the interruption will have been triggered (If, vice versa, the duration of the interruption is longer than the time established with parameter r12, when the power is re-established, the cycle will be interrupted)

<p>ALARM</p> <p>Missing connection</p>	<p>Communication alarm of control user-module interface</p> <p>Resources:</p> <ul style="list-style-type: none"> - check the control user-module interface connection <p>Main consequences:</p> <ul style="list-style-type: none"> - if the alarm is displayed when the device is activated, it will not be allowed to start a cooking cycle - if the alarm occurs during a cooking cycle, no consequence
<p>ALARM</p> <p>Temperature</p>	<p>Maximum temperature alarm</p> <p>Resources:</p> <ul style="list-style-type: none"> - check the temperature measured by the ambient probe; see parameters A0, A1 and A3 <p>Main consequences:</p> <ul style="list-style-type: none"> - no consequence
<p>ALARM</p> <p>High plate temperature</p>	<p>Operating temperature alarm</p> <p>Resources:</p> <ul style="list-style-type: none"> - check the operating temperature of the control module; see parameter A4 <p>Main consequences:</p> <ul style="list-style-type: none"> - if the alarm is displayed when the device is activated, it will not be allowed to start a cooking cycle - If the alarm occurs during a cooking cycle, the cycle will be interrupted - the vent will open, the fan of the technical compartment will be turned on and the permanent outputs will be deactivated
	<p>Micro-port input alarm</p> <p>Resources:</p> <ul style="list-style-type: none"> - check the causes that have caused the activation of the input, see parameter i0 <p>Main consequences:</p> <ul style="list-style-type: none"> - If the alarm occurs during a cooking cycle, the temperature control output, the fan and the steam injection output are deactivated and the vent is opened
<p>Thermal protection ALARM</p>	<p>Fan thermal protection input alarm</p> <p>Resources:</p> <ul style="list-style-type: none"> - check the causes that have caused the activation of the input; see parameters i1 and i2 <p>Main consequences:</p> <ul style="list-style-type: none"> - if the alarm is displayed during a cooking cycle, the temperature control output and the fan are deactivated
<p>Consumption peak ALARM</p>	<p>Electrical consumption input alarm</p> <p>Resources:</p> <ul style="list-style-type: none"> - check the causes that have caused the activation of the input, see parameter i4 <p>Main consequences:</p> <ul style="list-style-type: none"> - If the alarm occurs during a cooking cycle, the outputs will be deactivated

Defects, causes and solutions

Defect	Possible cause	Solution
The oven does not heat or heat inefficiently.	<ul style="list-style-type: none"> - Burned resistances. - Resistance Counters faulty. - Damaged electronic controller. - Fuse blown. 	<ul style="list-style-type: none"> - Replace resistor. - Replace contactor. - Replace electronic controller. - Replace fuse.
Steam production is not started or is insufficient.	<ul style="list-style-type: none"> - Burned resistances. - Resistance counter faulty. - Lack of water. - Damaged electronic controller. - Fuse blown. - Faulty water inlet solenoid. 	<ul style="list-style-type: none"> - Replace resistor. - Replace contactor. - Wait for the return. - Replace electronic controller. - Replace fuse. - Replace solenoid.
The oven switches itself off.	<ul style="list-style-type: none"> - Fuse blown. 	<ul style="list-style-type: none"> - Replace fuse.
Alarm: lack of water.	<ul style="list-style-type: none"> - Tap or valve of place closed. 	<ul style="list-style-type: none"> - Open the valve or wait for a new supply.
Chamber and core sensors	<ul style="list-style-type: none"> - Damaged core sensor or thermocouple. 	<ul style="list-style-type: none"> - Replace the thermocouple or core sensor.

Technical data

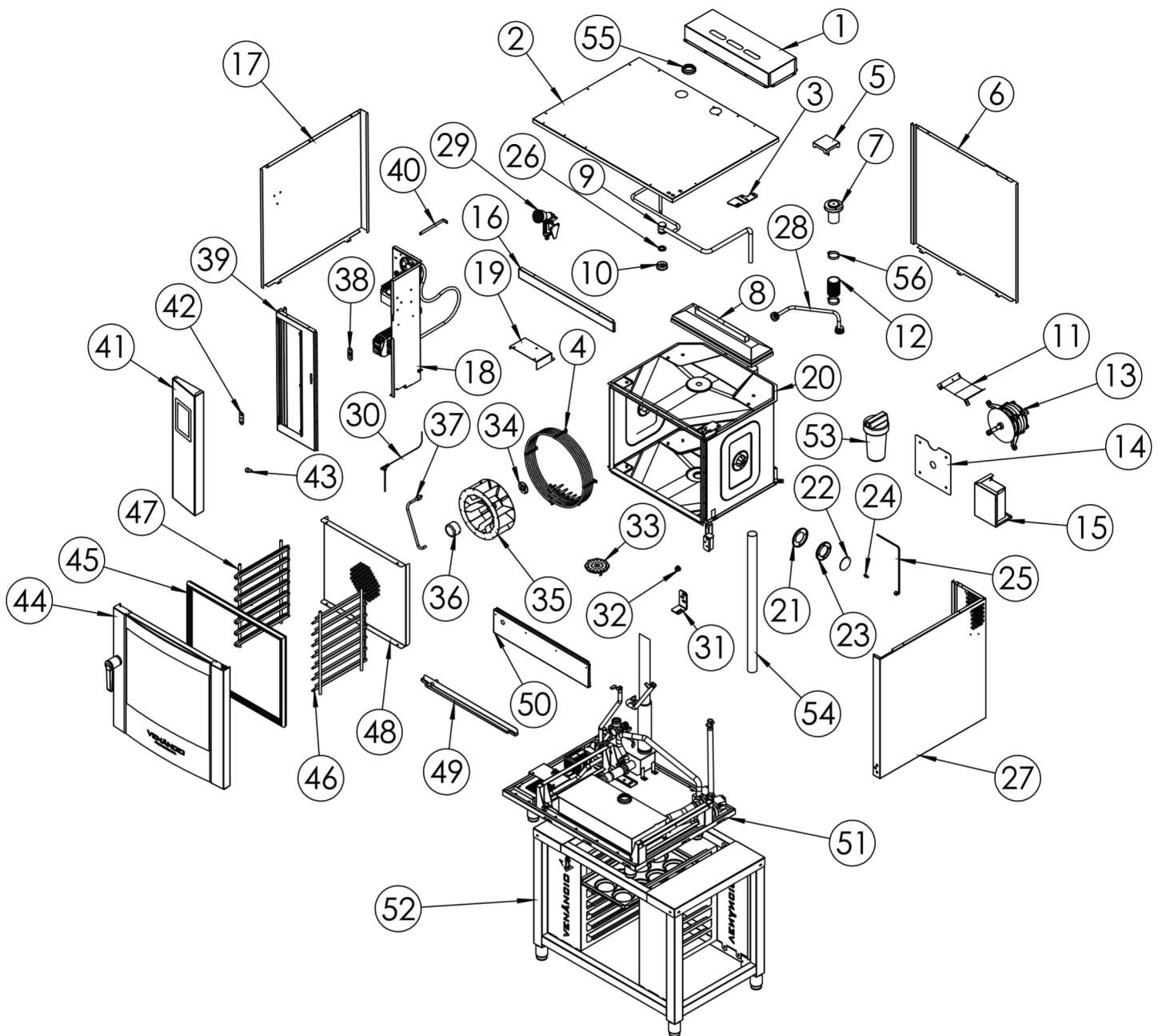
Purpose of the control device:	Operational control device.	
Construction of control device:	Built-in electronic device.	
Program:	User Interface	Control Module
	Black flame retardant.	Schedule of the day.
Dimensions:	User Interface	Control Module
	154.0 x 214.0 x 46.0 mm (6.062 x 8.425 x 1 x 810 in; L (length) x H (height) x P (depth)).	113.5 x 255.0 x 33.0 mm (4.488 x 10.039 x 1.299 in; L (length) x H (height) x P (depth)).

Method of assembly of the control device:	User Interface	Control Module
	On rear panel, with screws fastened and ensures the absence of gaps.	On a flat surface, with spacers.
Degree of protection:	User Interface	Control Module
	IP40.	IP00.
Conexões:	User Interface	Control Module
	Removable terminal blocks with screws/threads (control module and RS-485 MODBUS port), USB type A connector (USB port).	Removable terminal blocks with screws/threads (user interface, power supply, inputs and outputs).
	<p>The maximum length of the connection cables for the analog inputs, digital inputs and analog output should be less than 10 m (32.808 ft).</p> <p>The maximum length of user interface-control module connection cables should be less than 10 m (32.808 ft).</p>	
Operating temperature:	0 to 55 °C (32 to 131 °F).	
Storage Temperature:	-10 to 70 °C (14 to 158 °F).	
Humidity of use:	10 to 90% relative humidity without condensation.	
Situation of contamination of the control device:	2.	
Power supply:	User Interface	Control Module
	Provided by control module.	12 VCA (±15%), 50 / 60 Hz (±3 Hz), 20 VA max.
Rated impulse voltage:	4 KV.	
Overvoltage category:	III.	
Software class and structure:	A.	
Clock:	built-in.	
	Autonomy in power failure: 24h with full charge.	
	Battery Charging Time: 2 min (the battery is charged by the device power).	

Analog inputs:	3 inputs (room probe, needle probe and steam reduction probe), defined via the configuration parameter for J/K thermocouples or 2-wire Pt 100 probes.
	Thermocouple J Analog Inputs Sensor type: iron/constant. Measurement range: -50 to 700 °C (-58 to 1,292 °F). Resolution: 1 °C (1 °F). Protection: none.
	Thermocouple K Analog Inputs Sensor type: chromel/alumel. Measurement range: -50 to 1.100 °C (-58 to 2.012 °F). Resolution: 1 °C (1 °F). Protection: none.
Pt 100 Analog Inputs Sensor Type: Pt 100 class A. Measurement range: -50 to 550 °C (-58 to 1,292 °F). Resolution: 1°C (1 °F). Protection: none.	
Digital Inputs:	5 inputs: - 2 (micro port and rotor stand end time) set via the normally open/normally closed configuration parameter (clean contact, 5 VCC, 0.5 mA) - 3 (thermal protection fan, thermal protection and electrical consumption) defined via configuration parameter for normally open / normally closed contact (high voltage contact, 230 VCA)
	Digital inputs for clean contact Power supply: none. Protection: none. Digital inputs for high-voltage contact Power supply: 230 VCA. Protection: none.
Analog Outputs:	1 0-10 V output for fan management (in this case, an external speed regulator must also be used). 13 outputs (electromechanical relays): - 1 1A output res. @ 250 VCA di SPST type (K1) for the management of the room temperature regulation

	<ul style="list-style-type: none"> - 1 1A output res. @ 250 VCA di SPST type (K2) for vent management - 1 1A output res. @ 250 VCA di SPST type (K8) for the management of direct steam injection - 1 1A output res. @ 250 VCA di SPST type (K9) for room light management - 1 1A output res. @ 250 VCA di SPST type (K7) for fan management of technical compartment - 1 1A output res. @ 250 VCA di SPST type (K5) configurable (for plant setting, for left gear fan management) - 1 1A output res. @ 250 VCA di SPST type (K4) configurable (for plant setting, for right gear fan management) - 1 1A output res. @ 250 VCA di SPST type (K3) configurable (for plant setting, for speed fan management) - 1 1A output res. @ 250 VCA di SPST type (K6) for trolley rotation management - 1 1A output res. @ 250 VCA di SPST type (K10) configurable (for plant setting, for washing water valve management) - 1 1A output res. @ 250 VCA di SPST type (K11) configurable (for plant setting, for washing liquid detergent injection management) - 1 1A output res. @ 250 VCA di SPST type (K12) configurable (for plant setting, for washing liquid drainage management) - 1 1A output res. @ 250 VCA di SPDT type (K13) configurable (for plant setting, for washing drying liquid injection management)
Digital Inputs	The maximum permissible current on the loads is 3 or 4 A (refer to electrical connection drawing).
Views:	7-inch touch-screen TFT graphic display with 16,000 colors and 800 x 480 pixel resolution.
Type 1 or Type 2 actions:	Type 1.
Complementary characteristics of Type 1 or Type 2 actions:	C.
Communication Ports:	2 ports: <ul style="list-style-type: none"> - 1 RS-485 MODBUS port - 1 USB port.
Signaling and alarm buzzer:	Built-in.

PARTS LIST TC06G / TC07G

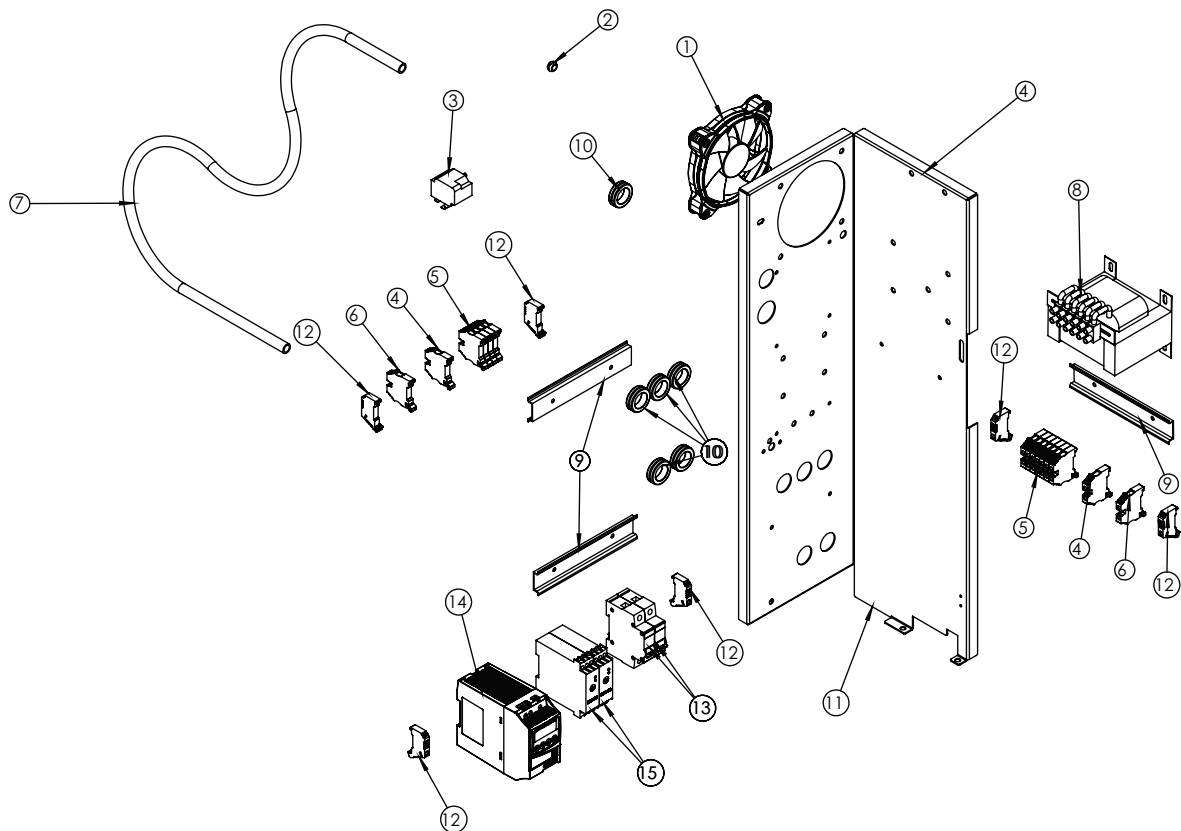


GENERAL COMBI OVEN TOUCH GAS AND ELECTRIC

Item	Description	Model	Code
1	OUTER ROOF	TCO 6/7/10/12 GAS	8.02.13.07000081
2	ROOF	TCO 6/7/10/12 GAS	8.02.13.00000141
		TCO 6/7/10/12 ELET	8.02.13.00000227
3	TOP HINGE	ALL	8.02.13.00000161
4	RESISTENCE10400W 240V	TCO 6/7 ELET	2.80.42.00411001
	RESISTENCE 17900W 240V	TCO 10/12 ELET	2.80.42.00822001
5	VALVE COVER ASSY.	ALL	8.02.13.00003600
6	REAR CLOSING	TCO 6/7 GAS	8.02.13.07000035
		TCO 10/12 GAS	8.02.13.12000047
		TCO 6/7 ELET	8.02.13.07000095
		TCO 10/12 ELET	8.02.13.12010007
7	VALVE ASSY.	ALL	8.02.13.00003400

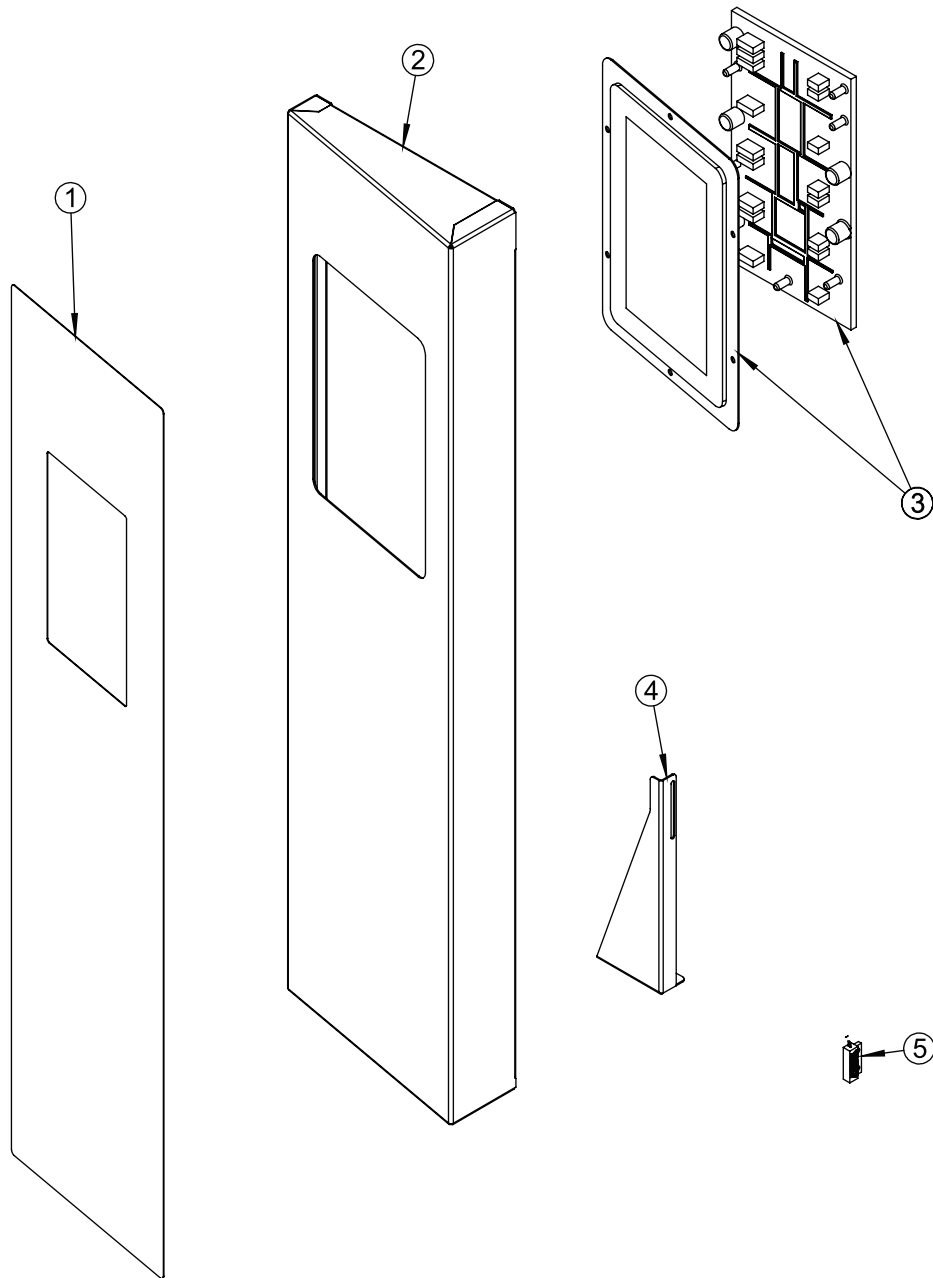
8	VENTILATION HOOD	TCO 6/7/10/12 GAS	8.02.13.07005700
9	CEILING'S NOZZLE + TUBE BODY ASSY.	ALL	8.02.13.00004000
10	CEILING'S NOZZLE	ALL	4.02.12.71625119
11	MOTOR DEFLECTOR	ALL	8.02.13.00000152
12	SILICON HOSE 50x56mm	ALL	2.80.27.01000282
13	THREE PHASE MOTOR 254/440V 300W 1400RPM	ALL	3.97.01.30000001
14	MOTOR SUPPORT PLATE	ALL	8.02.13.00000148
15	EXHAUST BOX ASSY.	ALL	8.02.13.07005200
16	FRONTAL OUTER UPPER CLOSING	ALL	8.02.13.07000033
17	LEFT SIDE	TCO 6/7	8.02.13.07000034
		TCO 10/12	8.02.13.12000041
18	ELECTRICAL PANEL EXPLODED DRAWING	TCO 6/7 GAS	see especific exploded drawing
		TCO 10/12 GAS	
		TCO 6/7 ELET	
		TCO 10/12 ELET	
19	FRAME UPPER COMPLEMENTARY BOX	ALL	8.02.13.00000165
20	INNER CHAMBER ASSY.	TCO 6/7 GAS	8.02.13.07004700
		TCO 10/12 GAS	8.02.13.12002000
		TCO 6/7 ELET	8.02.13.07011300
		TCO 10/12 ELET	8.02.13.12011000
21	LAMP FLANGE	ALL	8.02.13.00000167
22	LAMP GLASS	ALL	2.80.09.00020155
23	LAMP SILICON SEAL	ALL	2.80.60.03000528
24	LAMP	ALL	2.80.26.00056422
25	LAMP SOCKET 12V 50W	ALL	4.02.12.00000008
26	NOZZLE BODY NUT	ALL	4.02.12.71620119
27	RIGHT OUTER SIDE	TCO 6/7	8.02.13.07000030
		TCO 10/12	8.02.13.12000042
28	WATER HOSE	ALL	2.80.27.00002554
29	WATER JET	ALL	4.02.12.80101010
30	CORE SENSOR	ALL	4.02.12.00020938
31	LOWER HINGE	ALL	8.02.13.00000166
32	LOWER HINGE GUIDE	ALL	4.02.12.51621119
33	DRAIN ASSY.	ALL	8.02.13.00003300
34	MOTOR SHAFT FLANGE	ALL	8.02.13.00000178
35	FAN	ALL	8.02.13.00001000
36	FAN NOZZLE ASSY.	ALL	8.02.13.00003200
37	CHAMBER WATER INLET ASSY.	TCO 6/7	8.02.13.07007600
		TCO 10/12	8.02.13.12003700
38	CLOSING BASE DOOR	ALL	8.02.13.00000196
39	FRONTAL LEFT SIDE ASSY.	TCO 6/7	8.02.13.07000800
		TCO 10/12	8.02.13.12003900

40	FRAME SUPPORT	ALL	8.02.13.00000240
41	CONTROL PANEL EXPLODED DRAWING	TCO 6/7	see especific exploded drawing
		TCO 10/12	
42	DOOR MIRROR	ALL	8.02.13.00000195
43	CONTROL PANEL LATCH	ALL	8.02.13.00000180
44	DOOR ASSY.	TCO 6/7	8.02.13.07006000
		TCO 10/12	8.02.13.12002100
45	DOOR RUBBER	TCO 6/7	2.80.60.00002328
		TCO 10/12	2.80.60.00003008
46	RIGHT GN DOOR ASSY.	TCO 6	8.02.13.06000300
		TCO 7	8.02.13.07004800
		TCO 10	8.02.13.10000300
		TCO 12	8.02.13.12002400
47	LEFT GN DOOR ASSY.	TCO 6	8.02.13.06000400
		TCO 7	8.02.13.07004900
		TCO 10	8.02.13.10000400
		TCO 12	8.02.13.12002500
48	FAN PROTECTION	TCO 6/7	8.02.13.07005100
		TCO 10/12	8.02.13.12002600
49	EXTERNAL CHUTE	ALL	8.02.13.00003800
50	FRONTAL OUTER LOWER CLOSING	ALL	8.02.13.07000031
51	EXPLODED CHASSIS	TCO 6/7 GAS	see especific exploded drawing
		TCO 10/12 GAS	
		TCO 6/7 ELET	
		TCO 10/12 ELET	
52	RACK	OPTIONAL	1.02.13.00000004
			1.02.13.00000007
53	FILTER	ALL	4.04.04.00085211
54	DRAIN HOSE	ALL	4.02.12.00011230
55	RUBBER CEILING	ALL	2.80.60.03000531
56	CLAMP 14 32-44	ALL	2.80.01.09020805

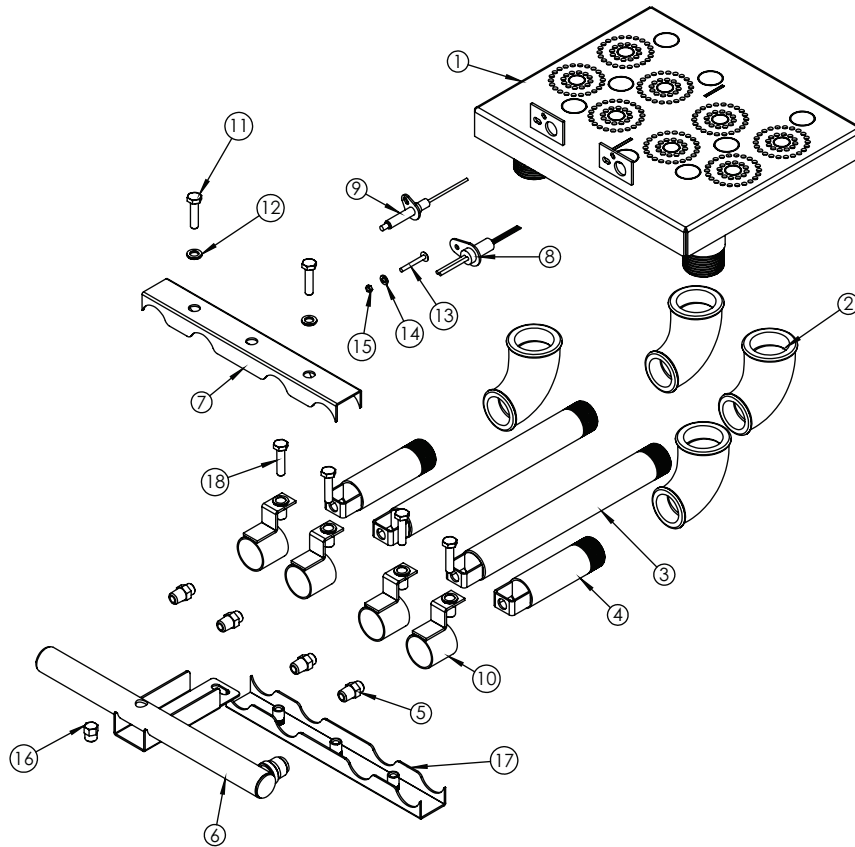


ELECTRIC PANEL TCO GAS

Item	Description	Model	Code
1	COOLER	ALL	4.02.12.00028290
2	PASS WIRE	ALL	2.80.57.02021151
3	SAFETY THERMOSTAT MANUAL RESET	ALL	2.80.49.00000355
4	BTWP TERMINAL 6/10T-AZ	ALL	4.02.12.00006120
5	BTWP TERMINAL 6/10T-CZ	ALL	4.02.12.00006121
6	BTWP TERMINAL 6/10T-VD/AM	ALL	4.02.12.00006119
7	GAS WIRING	TCOG	2.80.11.07001222
8	COMPENSATOR	ALL	3.97.01.10000889
9	CONTACTOR/BREAKER FIXING RAIL	ALL	4.02.08.00004454
10	PASS WIRE	ALL	2.80.57.01000173
11	CONTROL PANEL SUPPORT	TCO 6/7	8.02.13.00000164
		TCO 10/12	8.02.13.12000045
12	END POST BTW	ALL	4.02.12.10289060
13	CIRCUIT BREAKER	ALL	2.80.13.00050101
14	FREQUENCY INVERTER	ALL	2.80.02.00047767
15	TIMER RELAY RTW	ALL	4.13.01.10075166

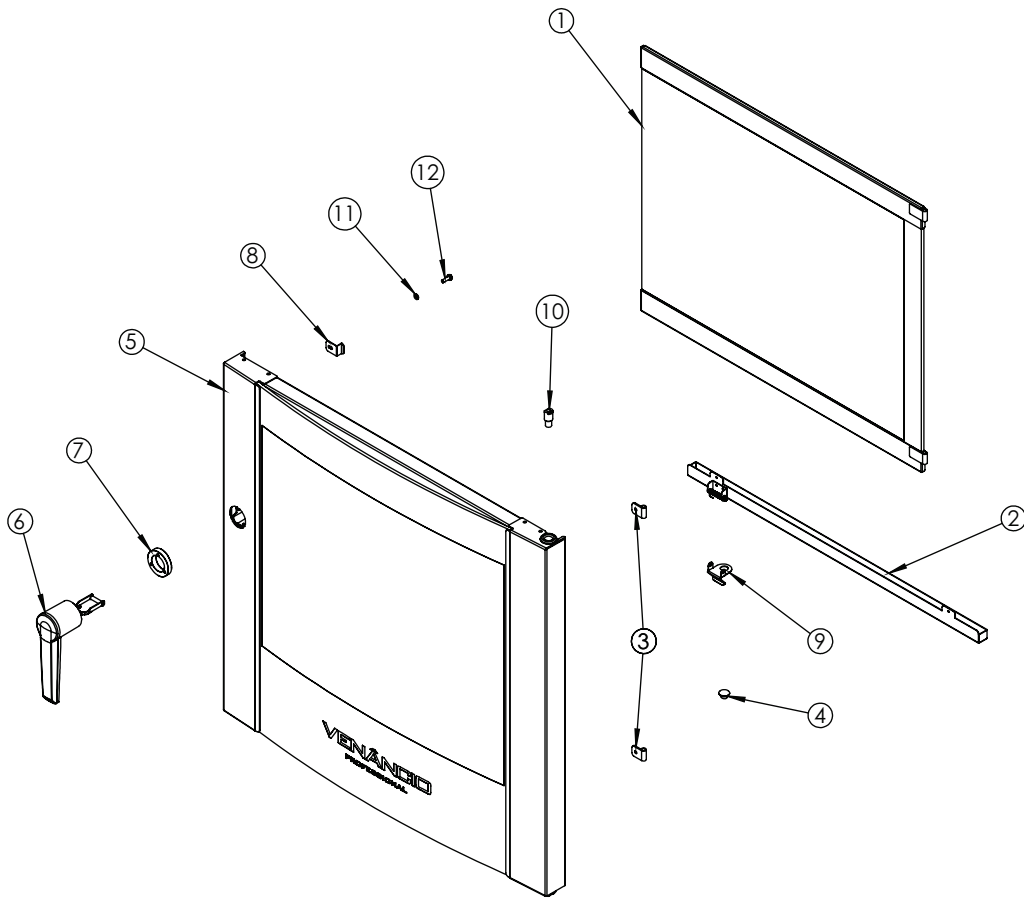


CONTROL PANEL TCO			
Item	Description	Model	Code
1	PANEL STICKER	TCO 6/7	2.90.03.00150529
		TCO 10/12	2.90.03.00150817
2	CONTROL PANEL	TCO 6/7	8.02.13.07000080
		TCO 10/12	8.02.13.12000044
3	TOUCH SCREEN BOARD 338L	ALL	2.80.11.00020671
4	SENSOR SUPPORT	ALL	8.02.13.07000082
5	MAGNETIC SWITCH	ALL	2.80.25.00023005



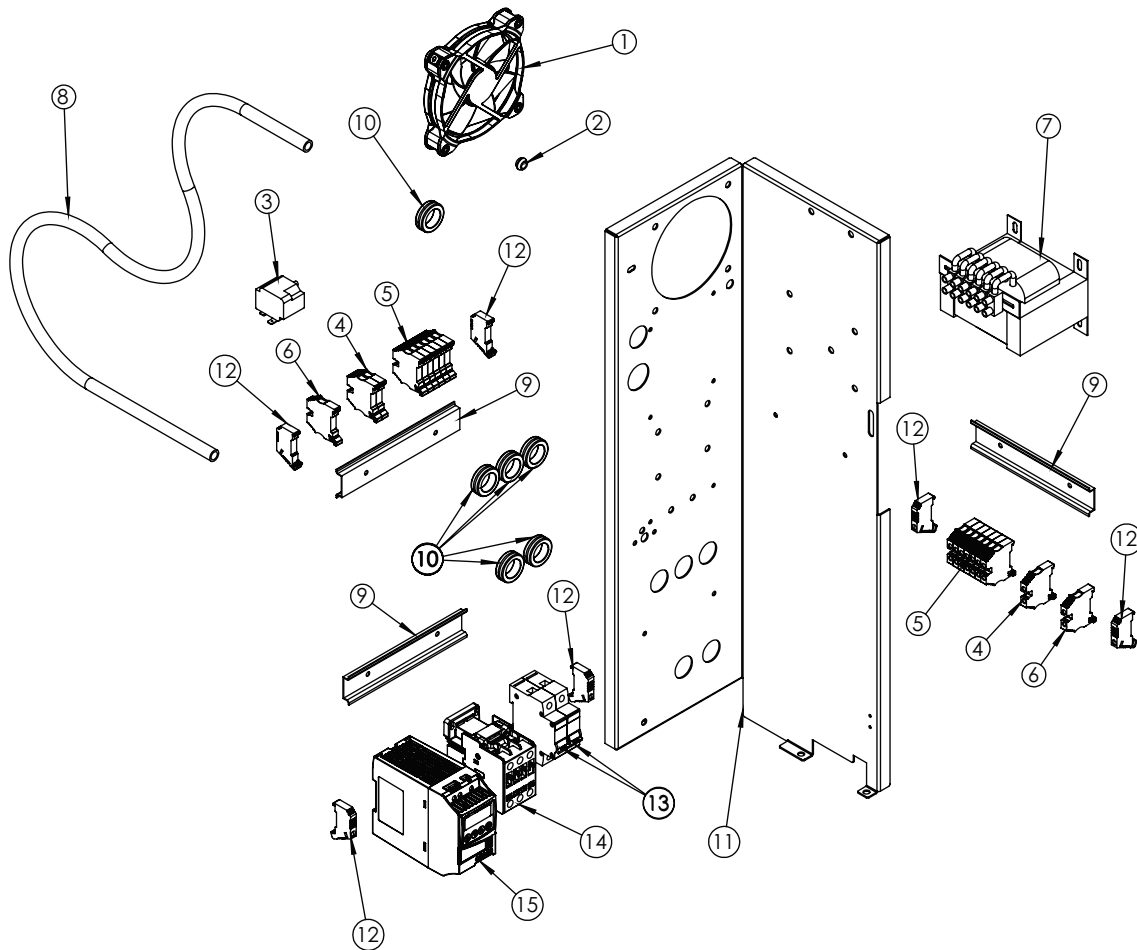
BURNER TCO GAS

Item	Description	Model	Code
1	BURNER ASSY	ALL	8.02.13.07005400
2	ELBOW 3/4" FEMALE 90°	ALL	2.80.29.00090134
3	GAS LARGE INLET ASSY	ALL	8.02.13.07005500
4	GAS SMALL INLET ASSY	ALL	8.02.13.07005800
5	ORIFICE HOOD N°55 NAT	TCO6/7G	8.27.05.02588135
	ORIFICE HOOD N°67 LPG		8.27.05.02588085
	ORIFICE HOOD N°53 NAT	TCO10/12G	8.27.05.02588160
	ORIFICE HOOD N°56 LPG		8.27.05.02588115
6	MANIFOLD ASSY	TCO 6/7	8.02.13.07006400
		TCO 10/12	8.02.13.12002900
7	MANIFOLD FASTENER	ALL	8.02.13.07000085
8	UNIVERSAL IGNITOR	ALL	4.02.12.00050842
9	FLAME SENSOR	ALL	2.80.99.00005104
10	AIR REGULATOR	ALL	8.02.13.07006300
11	M6x40 SCREW	ALL	2.60.01.01039852
12	1/4" FLAT WASHER	ALL	2.60.03.03635000
13	1/8"x1" SCREW	ALL	2.60.01.06317254
14	1/8" WASHER	ALL	2.60.03.00085830
15	1/8" NUT	ALL	2.60.02.03000317
16	1/8" PLUG	ALL	8.02.06.00002831
17	M6x24 SCREW	ALL	2.60.01.00000625



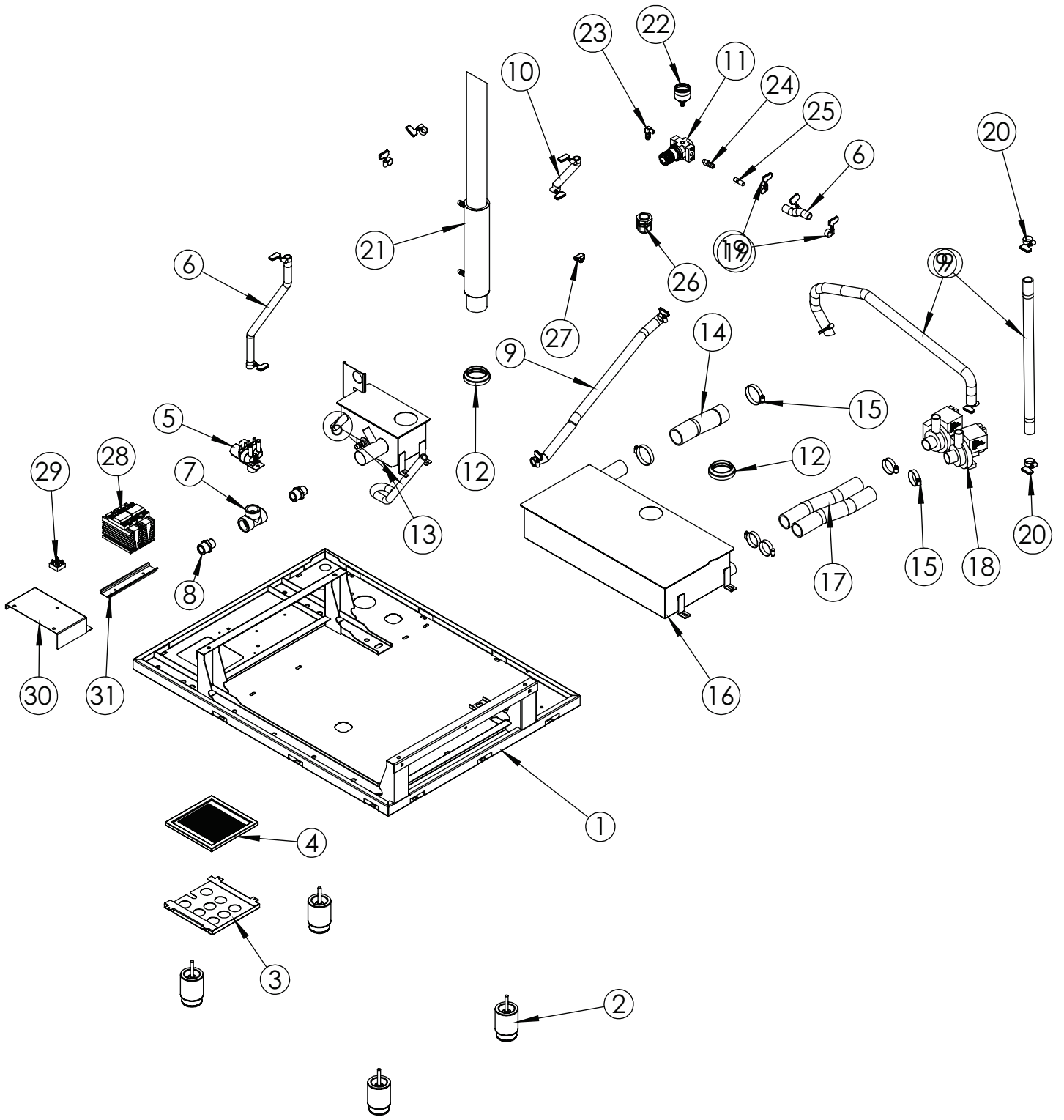
DOOR ASSY TCO

Item	Description	Model	Code
1	INNER GLASS ASSY	TCO 6/7	8.02.13.07006100
		TCO 10/12	8.02.13.12002300
2	DOOR SHUTE ASSY	ALL	8.02.13.07005600
3	GLASS DOOR HINGE	ALL	4.02.12.51594119
4	GLASS SUPPORT RUBBER	ALL	2.80.60.00006049
5	DOOR ASSY	TCO 6/7	8.02.13.07006600
		TCO 10/12	8.02.13.12002200
6	HANDLE	ALL	8.97.01.84179000
7	BESEL	ALL	8.02.13.00000241
8	INNER GLASS LOCK	ALL	8.02.13.03010014
9	DOOR SHUTE OUTPUT ACTUATOR	ALL	8.02.13.00000192
10	UPPER FIXING PIN DOOR	ALL	8.02.13.00000211
11	M5x30 SCREW	ALL	2.60.01.00000530
12	M5 WASHER	ALL	2.60.03.00000052



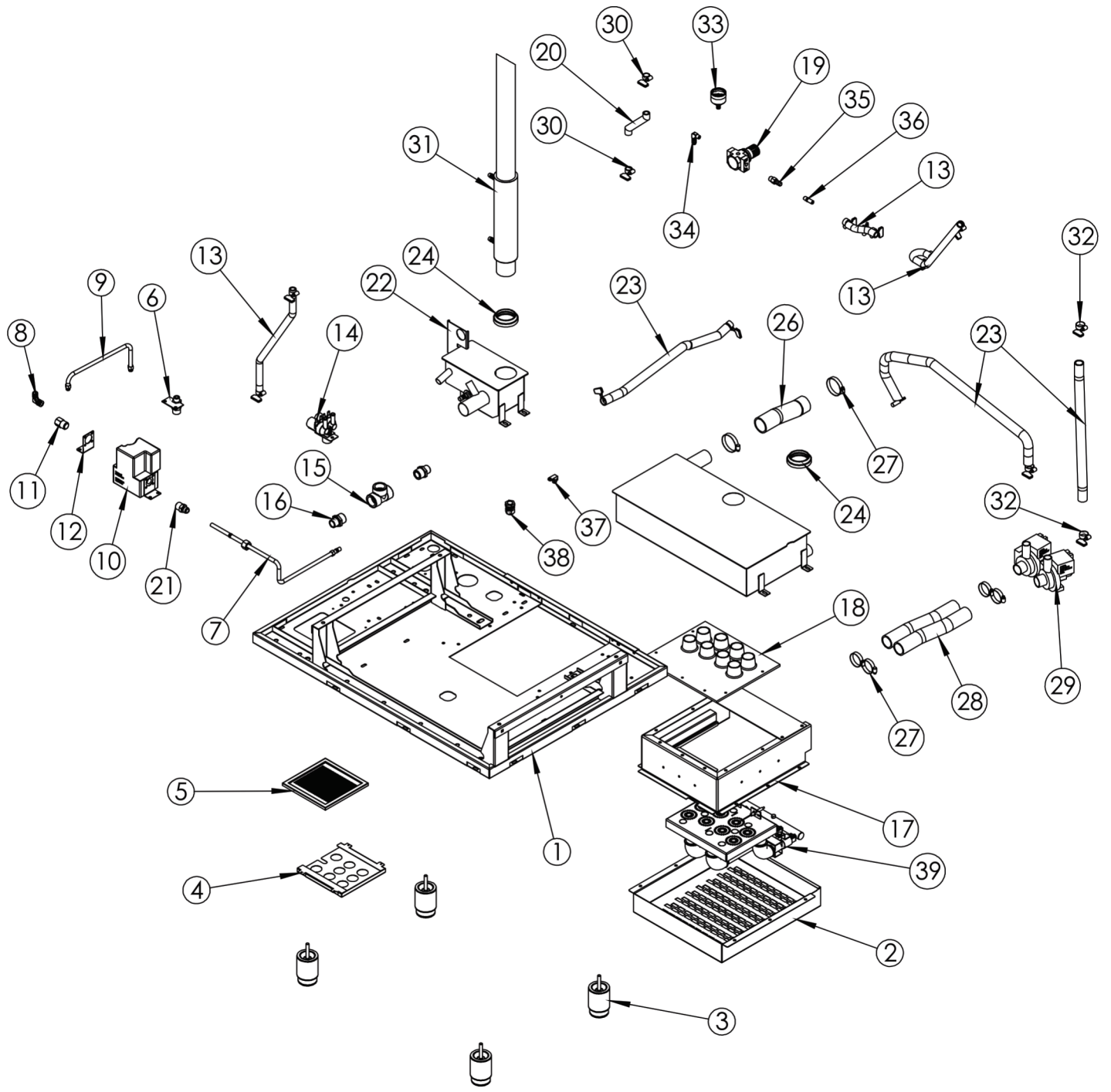
ELECTRIC PANEL TCOE

Item	Description	Model	Code
1	COOLER	ALL	4.02.12.00028290
2	WIRE PASS	ALL	2.80.57.02021151
3	SAFETY THERMOSTAT MANUAL RESET	ALL	2.80.49.00000355
4	BTWP TERMINAL 6/10T-AZ	ALL	4.02.12.00006120
5	BTWP TERMINAL 6/10T-CZ	ALL	4.02.12.00006121
6	BTWP TERMINAL 6/10T-VD/AM	ALL	4.02.12.00006119
7	COMPENSATOR	ALL	3.97.01.10000889
8	THREE PHASE WIRING 240V	TRIF 240V	2.80.11.07013222
9	CONTACTOR/BREAKER FIXING RAIL	ALL	4.02.08.00004454
10	WIRE PASS	ALL	2.80.57.01000173
11	CONTROL PANEL SUPPORT	TCO 6/7	8.02.13.00000164
		TCO 10/12	8.02.13.12000045
12	END POST	ALL	4.02.12.10289060
13	CIRCUIT BREAKER	ALL	2.80.13.00050101
14	CONTACTOR CWMC32-10-30V 15	TCO 6/7 TRIF 240V	4.02.12.56485999
	CONTACTOR CWM50-11 127V 50/60HZ	TCO 10/12 TRIF 240V	4.13.01.35502385
15	FREQUENCY INVERTOR	ALL	2.80.02.00047767



CHASSIS TCOE

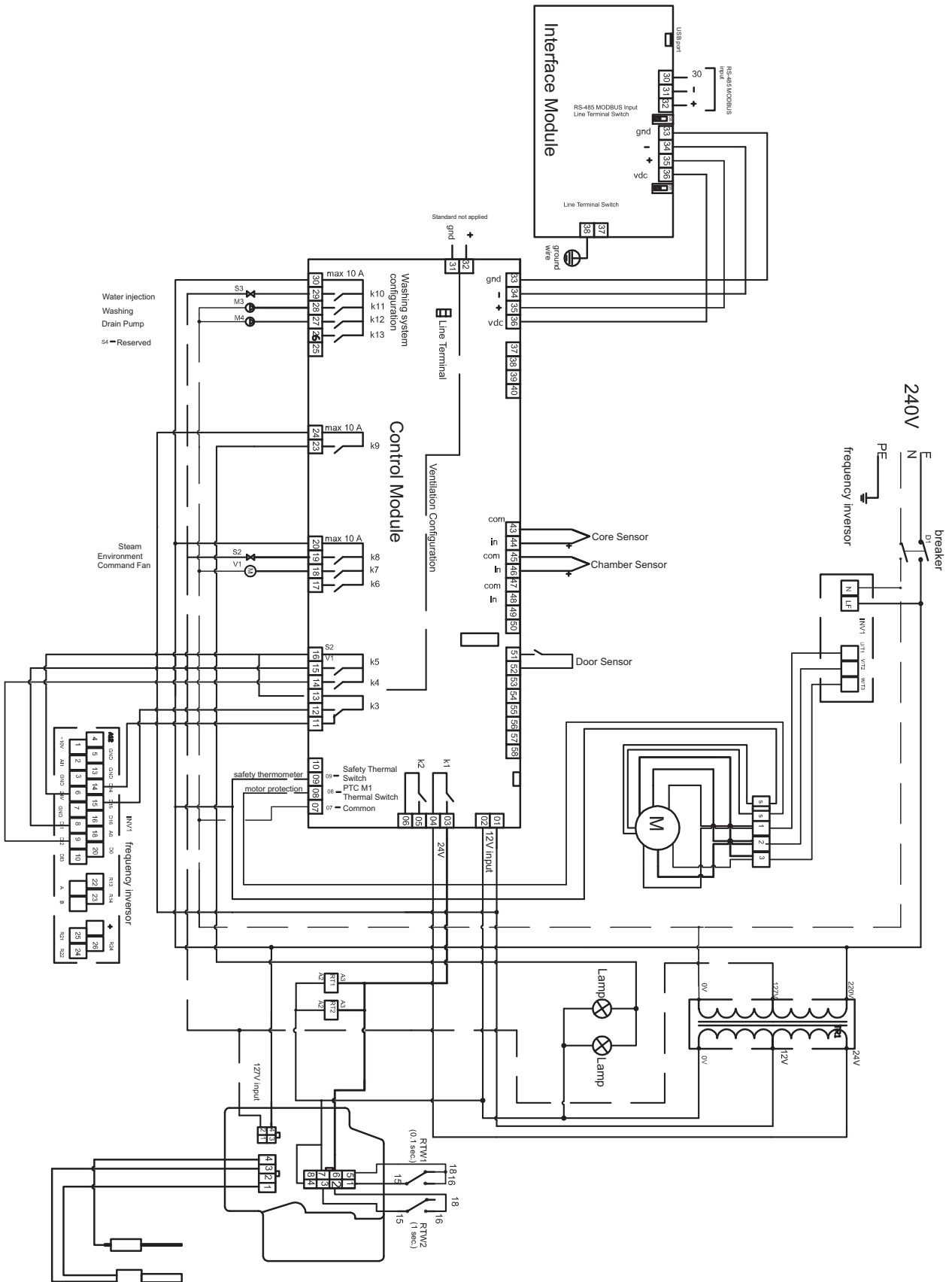
Item	Description	Model	Code
1	CHASSIS ASSY	ALL	8.02.13.07006700
2	FEET ASSY	ALL	8.02.13.00000900
3	FILTER SUPPORT	ALL	8.02.13.00000188
4	AIR FILTER	ALL	4.02.12.00014772
5	WATER VALVE	ALL	3.97.01.00001003
6	HOSE 1/2"	ALL	2.80.27.00003533
7	PVC 3 x 3/4" T	ALL	4.04.05.00031905
8	REDUCTION PVC 3/4"x1/2"	ALL	4.04.05.19051270
9	HOSE 3/4"	ALL	2.80.27.00014723
10	HOSE 10x4,2x1250mm	ALL	2.80.27.37015010
11	WATER PRESSURE REGULATOR	ALL	4.02.12.05170681
12	RUBBER SEALING	ALL	2.80.60.03000531
13	SMALLER BOX ASSY	ALL	8.02.13.00002900
14	HOSE 1.1/2"	ALL	2.80.27.01000288
15	CLAMP 14 32-44	ALL	2.80.01.09020805
16	SMALLER BOX ASSY	ALL	8.02.13.00002800
17	HOSE 1.1/4"	ALL	2.80.27.01000289
18	WATER PUMP	ALL	3.97.01.10000260
19	CLAMP 12-16	ALL	2.80.01.00001216
20	CLAMP 19-27	ALL	2.80.01.00001927
21	SMALLER BOX TUBE ASSY	TCO 6/7	8.02.13.00003700
		TCO 10/12	8.02.13.12002700
22	PRESSURE GAUGE	ALL	4.02.12.00010648
23	ELBOW 1/4" NPTx3/8"	ALL	2.80.99.00001438
24	SPINDLE THREAD 1/4" NPTx3/8"	ALL	8.27.05.00002311
25	INJECTOR Ø2,00mm	ALL	8.27.05.02588200
26	CLAMP CONNECTOR 3/4"	ALL	2.80.02.00001905
27	TERMINAL PRESSURE 10mm ²	ALL	2.80.48.00000010



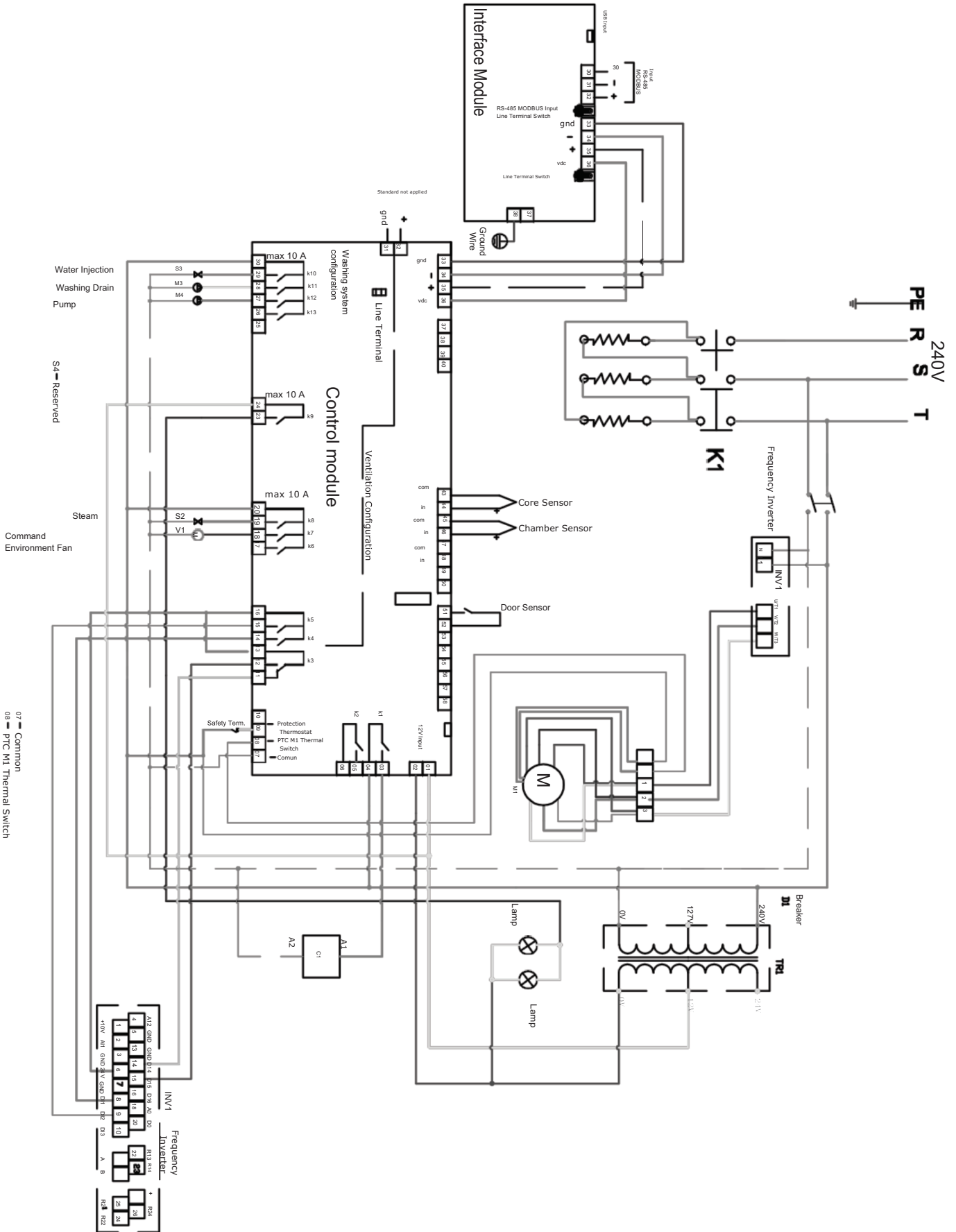
CHASSIS TCOG

Item	Description	Model	Code
1	CHASSIS ASSY	ALL	8.02.13.07006800
2	LOWER BURNER LID	ALL	8.02.13.07000059
3	FEET ASSY	ALL	8.02.13.00000900
4	FILTER SUPPORT	ALL	8.02.13.00000188
5	AIR FILTER	ALL	4.02.12.00014772
6	GAS INLET CONNECTOR ASSY	ALL	8.02.13.00001700
7	GAS CHAMBER INLET ASSY	ALL	8.02.13.00004800
8	ELBOW 9/16" UNF X 3/8" NPT	ALL	2.80.12.00091638
9	GAS INLET ASSY	ALL	8.02.13.00004700
10	GAS VALVE	ALL	2.80.53.00033898
11	FITTING 1/2" NPT x 3/8" NPS	ALL	8.02.13.00000253
12	GAS VALVE SUPPORT	ALL	8.02.13.00000206
13	HOSE 1/2"	ALL	2.80.27.01000214
14	WATER VALVE	ALL	3.97.01.00001003
15	PVC 3 x 3/4" T	ALL	4.04.05.00031905
16	REDUCTION 3/4"x1/2"	ALL	4.04.05.19051270
17	BURNER COMPARTMENT ASSY	ALL	8.02.13.07005900
18	HEAT PROTECTION	ALL	8.02.13.07000057
19	WATER PRESSURE REGULATOR	ALL	4.02.12.05170681
20	HOSE 10x4,2x1250mm	ALL	2.80.27.37015010
21	CONNECTOR 1/2" NPT x 5/8" NPS	ALL	8.02.13.00000254
22	SMALL BOX ASSY	ALL	8.02.13.00002900
23	HOSE 3/4"	ALL	2.80.27.01000214
24	RUBBER SEALING	ALL	2.80.60.03000531
25	LARGE BOX ASSY	ALL	8.02.13.00002800
26	HOSE 1.1/2"	ALL	2.80.27.01000214
27	CLAMP 14 32-44	ALL	2.80.01.09020805
28	HOSE 1.1/4"	ALL	2.80.27.01000289
29	WATER PUMP	ALL	3.97.01.10000260
30	CLAMP 12-16	ALL	2.80.01.00001216
31	SMALLER BOX TUBE ASSY	TCO 6/7	8.02.13.00003700
		TCO 10/12	8.02.13.12002700
32	CLAMP 19-27	ALL	2.80.01.00001927
33	PRESSURE GAUGE	ALL	4.02.12.00010648
34	ELBOW 1/4" NPTx3/8"	ALL	2.80.99.00001438
35	SPINDLE THREAD 1/4" NPTx3/8"	ALL	8.27.05.00002311
36	INJECTOR Ø2,00mm	ALL	8.27.05.02588200
37	TERMINAL PRESSURE 10mm²	ALL	2.80.48.00000010
38	CLAMP CONNECTOR 3/4"	ALL	2.80.02.00001905
39	BURNER ASSY	TCO 6/7 GAS	8.02.13.07005300
		TCO 10/12 GAS	8.02.13.12003000

ELECTRIC CIRCUIT TCO6/7 GAS 240V



ELECTRIC CIRCUIT TCO6/7 ELECTRIC 240V



MAINTENANCE

DISCONNECT POWER BEFORE CLEANING OR SERVICING

General Instructions

The Combi oven TOUCH does not require any special maintenance; however, it is necessary to keep it clean and remove the leftover grease and food.

Daily washing from the outside of the appliance and compliance with maintenance instructions will substantially increase the life of the appliance and ensure trouble-free operation.

The values pre-defined by the assigned manufacturer cannot be changed by the user.

When opening the door, especially during the steam operation, always stay in such a place where the hot steam escaping from the open door cannot scald you. First lightly open the door, letting the steam out, then open the entire door! Do not spray water from the spray head on the door glass or lights unless the temperature is below 90 °C. The glass can break!

Every time before starting the device, make sure the water is open. Close the water supply after using the device!

Daily cleaning (maintenance)

To clean the combi steam oven use the cleaning function from the menu **Output management for special washing cycles**;

. If necessary, proceed as follows:

If the door gasket is too dirty or greasy, wash it or, if necessary, remove it without the use of any tools (start at the corners) and wash it with water and cleaning product.



Put the back of the dry gasket (start again at the corners) without the use of any tools. After cleaning, leave the appliance door ajar so that the kitchen cabinet can be vented.

By doing this you can extend the life of the door sealing.

When cleaning the device, use only cleaning products recommended by the manufacturer (refer to cleaning product and active descaler recommended). Do not use abrasive cleaners! Do not use mechanical cleaning devices to clean surfaces (wire washer etc.) Only through the daily cleaning of the cooking chamber can a long-life cycle and quality of food processing be ensured.

Under no circumstances may the temperature exceed 70 °C during cleaning (washing) of the device using a cleaning product. Higher temperatures of the cleaning product can burn on the surface of the cooking chamber and leave rust as stains. The warranty does not cover such damages.

When working with recommended cleaning products, be very cautious and always follow the instructions and recommendations of the cleaning product manufacturer. Thus, you will avoid harm to your health!!

Always thoroughly rinse the inside of the cooking chamber with the hand spray after manual cleaning - to wash cleaning products. Failure to do so may result in damage to the surface of the cooking chamber and its discoloration during the following use at high temperatures. Such damage is not covered by the warranty.

Never clean the steam oven with acids, or leave them in the vicinity - risk of damaging the surface.

Never use agents or sand cleaning on the coarse grain base.

Do not clean the steam oven in combination with high pressure water cleaners

Leave the door ajar after cleaning the cooking chamber.

It is necessary to schedule to clean the combi steam oven every day using recommended cleaning agents otherwise the warranty expires.

Always wear recommended protective clothing and protective clothing (gloves, goggles, face mask) when cleaning the combi steam oven! You are protecting your health!

When the combi steam oven is not cleaned quite often - grease leftovers build up on the walls of the cooking chamber - it can combust at high temperatures. Such damage is not covered by the warranty!

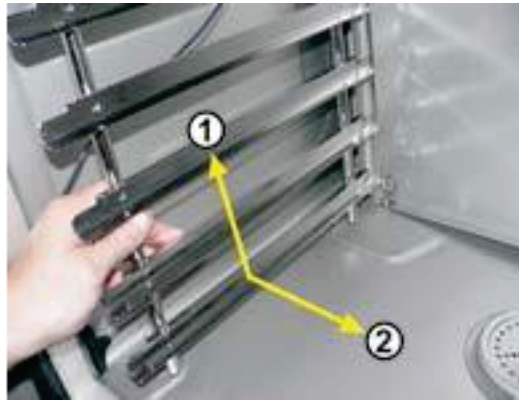
Monthly cleaning (maintenance)

Cleaning the equipment by following the maintenance instructions increases the life of the device and ensures that it operates smoothly.

The monthly cleaning, in addition to the described process, the rear part, inside the Combi oven TOUCH where the fan turbine is located, must be completely cleaned and decalcified.

Carry out cleaning described in *Output management for special washing cycles*;

Remove the left rack (it is necessary to push it up to loosen it from the lower screws, then the rack can be released from the upper screws and removed).



To remove the fan protection, lift it to take it off.

Continue doing the same way as in the "Daily Cleaning" chapter (maintenance). In addition, spray a cleaner to the rear part of the cooking chamber, blower, by water sprinkler (the tube in the center of the fan which the inlet pipe leads) and the heating elements.

After cleaning the cooking chamber of the device, start cleaning. Under no circumstances should the temperature exceed 70 °C!

Repeat the process if necessary.

Rinse the door gasket with the cleaning agent.

After cleaning the cooking chamber, close the inner wall (opposite the fan) and lock the locks to rotate them, return the rack to the left.

After cleaning, leave the door ajar so that the air leaves the cooking chamber. By doing this you help extending the life of the door sealing.

Quarterly cleaning (maintenance)

The quarterly cleaning is repeated throughout the daily and monthly cleaning process. In addition, with the process described, the air cleaner is cleaned.

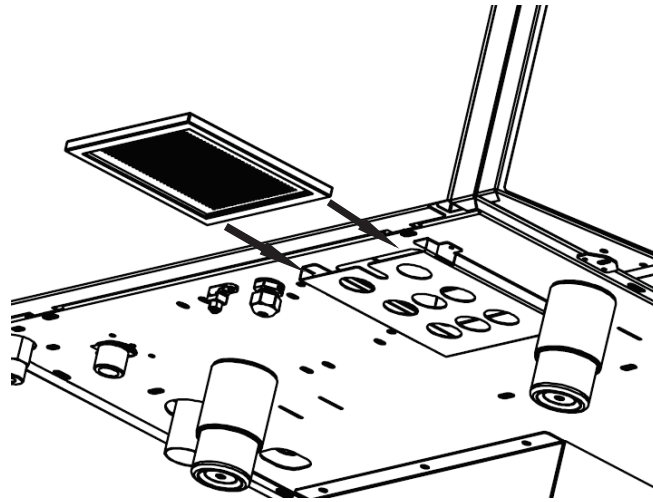
The equipment is designed for an IPX5 environment (water spray). For this reason, it includes an auxiliary fan for cooling the inner space where electricity is connected and the electronic

controls are located. The cooling air is drawn through an air filter, which is located at the bottom under the control panel and is expelled through an opening in the back of the device. For efficient cooling, it is necessary to clean the air filter every three months. In case of dirt, clean it before doing so.

The cleaning procedure of the air filter of the Combi oven TOUCH:

The air filter is located on the lower left of the combi steam oven.

Simply remove the filter and clean it in warm, soapy water. After that insert, it back.



The regular cleaning air filter following the maintenance instructions helps to significantly extend the life of the device and ensures its smooth operation.

Annual Maintenance.

Perform quarterly maintenance.

It is also necessary to check the installation and equipment. We recommend performing this procedure only through an authorized service center.

Only installation experts and in compliance with maintenance instructions increases the life cycle of the device and ensures its operation without problems.

After one year of operation of an authorized service, one should check the installation and the device according to the checklist.

The warranty does not cover damage caused by non-professional cleaning and maintenance.

The device user must not modify the default values from the assigned service technician or manufacturer.

Only through regular control and cleaning of the device one can prevent excessive wear to the device.

Gas exhaust pipe inspection.

(Only valid for gas Combi ovens)

If the gas Combi oven is type B, regular service, maintenance and exhaust chimney sweeping should be carried out at least once a year. Clean the tubes with a brush and check the air intake condition of the burners and injectors.

Combi oven TOUCH Useful Life

The useful life of the device is 10 years, providing the following conditions are met:

Preventive service of regular inspections every 12 months of operation.

This verification must be carried out by the technicians of a service company authorized by BAKEMAX.

The customer is required to produce a record of such service events.

Strict compliance with the operating instructions in accordance with the operating instructions.

The daily maintenance and cleaning of the combi steam oven with cleaning agents recommended for the automatic cleaning system ensures its longevity.

Training of operating personnel by a specialist chef should be recorded in the service documentation or a copy of the personnel training record

If the personnel who operates change, it is necessary to repeat the training process when possible.

CHECK MONTHLY IF THERE IS ANY VARIATION WITH THE MOTOR'S ROTATION

WARRANTY TERM

BAKEMAX LTDA offers a warranty to manufactured equipment as is specified below:

- * Every alleged manufacturing defect must be analysed only by technical assistance from VENÂNCIO. When proven, an eventual manufacturing defect repair will be free of charge.
- * Equipment repaired without proper authorization from the manufacturer or altered, disassembled and/or utilized ajar from the indications presented in their respective guides, are not covered by this warranty.
- * The warranty refers only to the normal use of the equipment, considering the following of the recommendations and instructions contained in the guide that comes with the product
- * For all purposes, the brand gives legal guarantee of two (2) years from the date of issuance of the purchase invoice, being mandatory its presentation to the customer service presented under this warranty term .
- * It is important to consider that glass, light bulbs, resistors, contactors, fuses, relays, solenoids, digital controllers and thermostats, are not covered by this warranty.
- * In the case of its electric motors, being manufactured by a third party, when defective should be sent to its authorized service.
- * This guarantee refers only to the parts and components manufactured by METALÚRGICA VENÂNCIO LTDA, covering also labor costs in such repairs.
- * It is the clients responsibility to communicate any findings of manufacturing defect to METALÚRGICA VENÂNCIO LTDA through the local distributor.
- * In case of bulky equipment (roasters, ovens, heating stoves, industrial ovens, etc.), technical assistance, when necessary, carry out the visit directly to the customers location/establishment. In the other hand, small sized equipment (heaters, plates, saucers, pots, sandwich, drinking fountains, coolers, etc.), the customer must, on their own, direct them to any of the brand's authorized service.
- * Defects in electrical, improper installation, shipping damage done by third parties or weather invalidate the warranty.

IMPORTANT: only assemble of the product with safety equipment (goggles, leather gloves, etc.) and suitable tools to the specific product. VENÂNCIO will not be held responsible for any injury derived from the lack of attention and care, as well as improper use of the equipment, even when in operation.

1st COPY OF THE BUYER COMPLETE ALL FIELDS WITH A LEGIBLE CAPITAL LETTER.

Owner: _____
Address: _____
Phone: _____ Zip Code: _____
City: _____ State: _____
Invoice No.: _____ Date: ____ / ____ / 201_____
Equipment:
Model: _____ Serial No .: _____
Dealer: _____
Address: _____
Zip Code: _____ City: _____ State: _____

Signature Buyer

Cut out

2nd COPY OF THE BUYER COMPLETE ALL FIELDS WITH A LEGIBLE CAPITAL LETTER.

Owner: _____
Address: _____
Phone: _____ Zip Code: _____
City: _____ State: _____
Invoice No.: _____ Date: ____ / ____ / 201_____
Equipment:
Model: _____ Serial No .: _____
Dealer: _____
Address: _____
Zip Code: _____ City: _____ State: _____

Signature Resale



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Fax: 1-506-859-6929

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