INSTRUCTIONS FOR INSTALLATION AND USE

INDUCTION BUILT-IN HEAT RETENTION UNITS

RTCSmp Install Hold-Line

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with RTCSmp-Technology

HO/IN 1800

CONTENT

1 General remarks

These instructions for use contain information which is fundamentally important and must be taken into account during assembly, operation and maintenance. They must therefore be read very carefully before installation and operation by the responsible specialist staff and the operator(s). They must always be available for consultation at the place of operation.

Description of danger signs:

	This symbol identifies the safety information which may cause danger (personal injury) for people at non-observance of proper operation.
	This dangerous voltage warning symbol indicates a risk of electric shock and hazards from dangerous voltage.
CAUTION	Indicates a hazard or unsafe practice which could result in minor personal injury or property damage.
	Electromagnetic field

Warning
Risk of fire or electric shock
Do not open

To reduce the risk of fire or electric shock, do not remove or open cover.
No user serviable parts inside.
Refer servicing to qualified personnel.

Information signs mounted directly on the induction unit must be observed at all times and kept in a fully legible condition.

1.1 Purpose of induction units

The induction heat retention unit „RTCSmp Install Hold-Line“ is especially suitable as built-in units in closed counters. The heat retention process with this „RTCSmp Install Hold-Line“ unit is especially adjusted to Induction-Chafing Dish or Pans that are suitable for induction, having a bottom diameter of at least 12 cm. If other material is used, efficiency and function can be affected in a negative way.

Make sure that the Induction suitable Chafing Dish or Pan have a bottom diameter of at least 12 cm is put in the center of the ceran surface. Make sure to cover the pots or pans with a lid if fluids are kept warm.

2 Description of products

2.1 Scope of supply

- Generator
- 1 - 2 temperature operation units (with 1 heat retention plate 1 temperature operation unit / with 2 - 4 heat retention plates 2 temperature operation units)
- 1 - 4 heat retention plates with coil and ceran glass

2.2 Products

There are two models with four connectivity options available. Built in a robust method of construction, they are compact and powerful with a revolutionary technology. According to requirements, one to four built-in heating zones can be connected. A temperature range from 50-100°C gives flexibility and allows a perfect food temperature adjustment.

- Simple built-in solution thanks to its frame design
- Compact module in a frame design with an induction generator, frame with coil and glass ceramic surface and a control unit with a rotary switch
- Simple operation with a rotary switch with integrated mains switch
- Compact powerful electronics enable flat construction and safe operation
- A maximum of safety thanks to multiple functions of protection and checking
- Electronical limitation of power
- Compact measurement – light weight

Fulfills the latest standards:

EN 60335-1/-2-36, EN 62233;
EN 60335-2-49; EN 55011;
EN 61000
CE-conform
ANSI/UL 197; CSA C 22.2 No.109
FCC Part 18; ICES-001
NSF/ANSI 4

2.3 Technical specifications

Type	Case of generator	Ceran surface	Heat retention plate	Cut-out
HO/IN	303x312x135mm	322x322x4mm	322x322x75mm	330x330x100mm

Type	Voltage	Power	Heat retention fields
HO/IN 1800	120 or 230 V	0,45 – 1,8kW	1 - 4

Operating conditions

Max. tolerance of supply voltage	+6/-10%	
Supply frequency	50/60 Hz	
Protection class	IP X0	
Minimal diameter of the pan	12 cm	
Max. ambient temperature	Storage	-20° - +70° C
	Function	+ 5°- +40° C
Max. relative humidity of air	Storage	10% - 90%
	Function	30% - 90%

3 Installation

3.1 Scope of delivery

The generator is delivered with one to four built-in heat retention plates including glass tops and one to two operation units (with 1 heat retention plate 1 temperature operation unit – with 2 – 4 heat retention plates 2 temperature operation units).

CAUTION	Please note that the unit is not completely assembled. Pay attention to the requirements of installation

3.2 Requirements of installation

The heat retention plate must be mounted on an even place like a table or counter which must be able to withstand a loading of 40kg. The generator can as an example be fixed in a closed drawer with doors, Air inlet and air outlet must not be obstructed. The control knob to operate the unit must be easily accessible.

RTCSmp Install Hold-Line units must only be fixed in closed counters.

The rear side of the induction unit below the fan (air intake) has to be absolutely free regarding to danger of obstruction. An optimal air intake must not be reduced by the installation. **The max air flow is 96 m^3/h and therefore a minimal opening of 6000 mm^2 has to be maintained.** If necessary, a perfect air supply has to be guaranteed by adding a flexible air duct including a shackle (available as accessory). Pay special attention to the air inlet and air outlet openings: there has to be a distance of at least 30mm between obstructions like walls or floors. In addition to that, pay attention that the exhausted air is not recirculated together with the fresh air. We recommend guaranteeing a supply of fresh air by fixing an air duct incl. shackle or by air openings. The air exit must not to be hindered by any obstructions.

3.3 Definition of interfaces

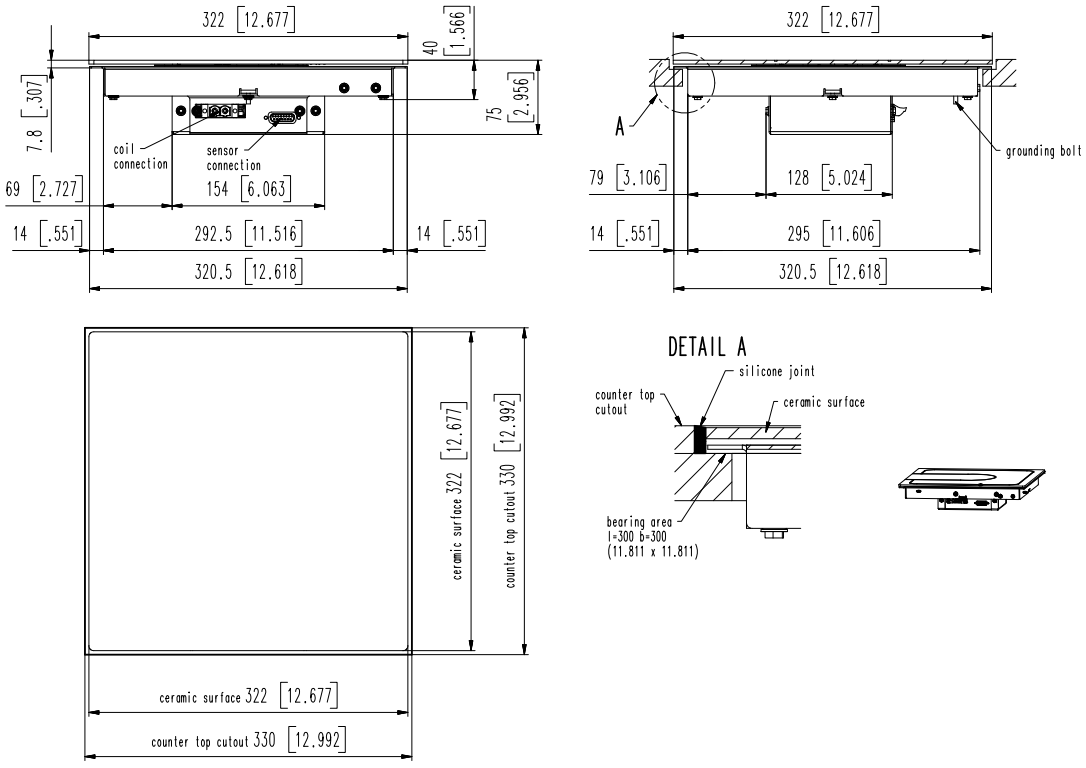
Please observe the following rules:

- Check and ensure that the supply voltage and the line current matches the specifications given on the rating plate.
- When residual current circuit breakers are used, it has to be taken into account, that by switching on an induction generator to a three phase power supply system, leakage current can be caused for a short period due to the asymmetry. This leakage current can activate the residual current circuit breakers. While the choosing residual current circuit breakers, please note that the generator generates direct as well as alternating current in high frequency areas of approx. 20 kHz. Our recommendation is to choose a residual current

circuit breaker suitable for these requirements. If the residual current circuit breakers are used as protection for People, the breakers must be in compliance to the specific National and local regulations for personal security.

- This induction unit is equipped with an internal air cooling system. Make sure that the air supply and air exhaust are not blocked (wall, fabric etc.).
- Make sure that the induction unit does not take in hot ambient air (concerns units standing side by side, or one behind the other, or standing near a frying pan or an oven), otherwise an air duct incl. shackle has to be added.
- The induction unit must not be placed next to an oven or another heat producing unit.
- The air intake temperature must not exceed 40°C.
- The operating staff has to make sure that installation, support and inspection is done by qualified personnel.

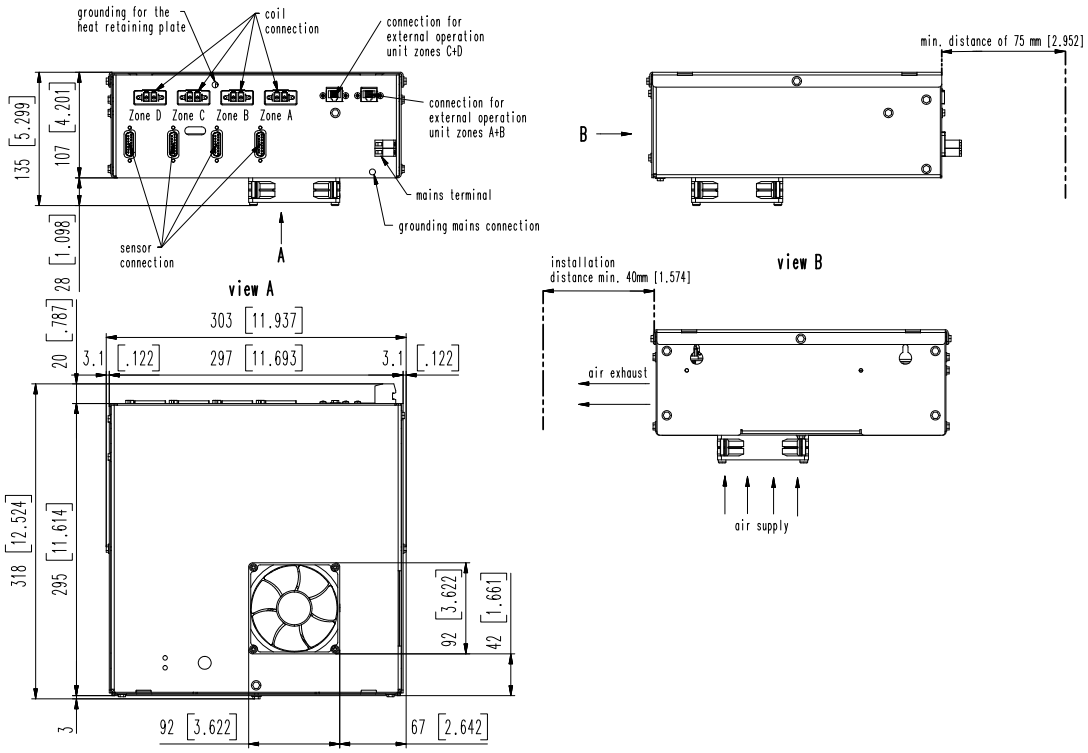
3.4 Installation clipping > model HO/IN 1800



Advice for installation heat retention plate:

As soon as the mounting devices according to the above mentioned steps are finished, you may continue with installation. Put the heat retention plate with coil and ceran surface into the clipping. Stick the mounting construction on the working area by means of silicon. The connecting cables have a length of 2.5m.

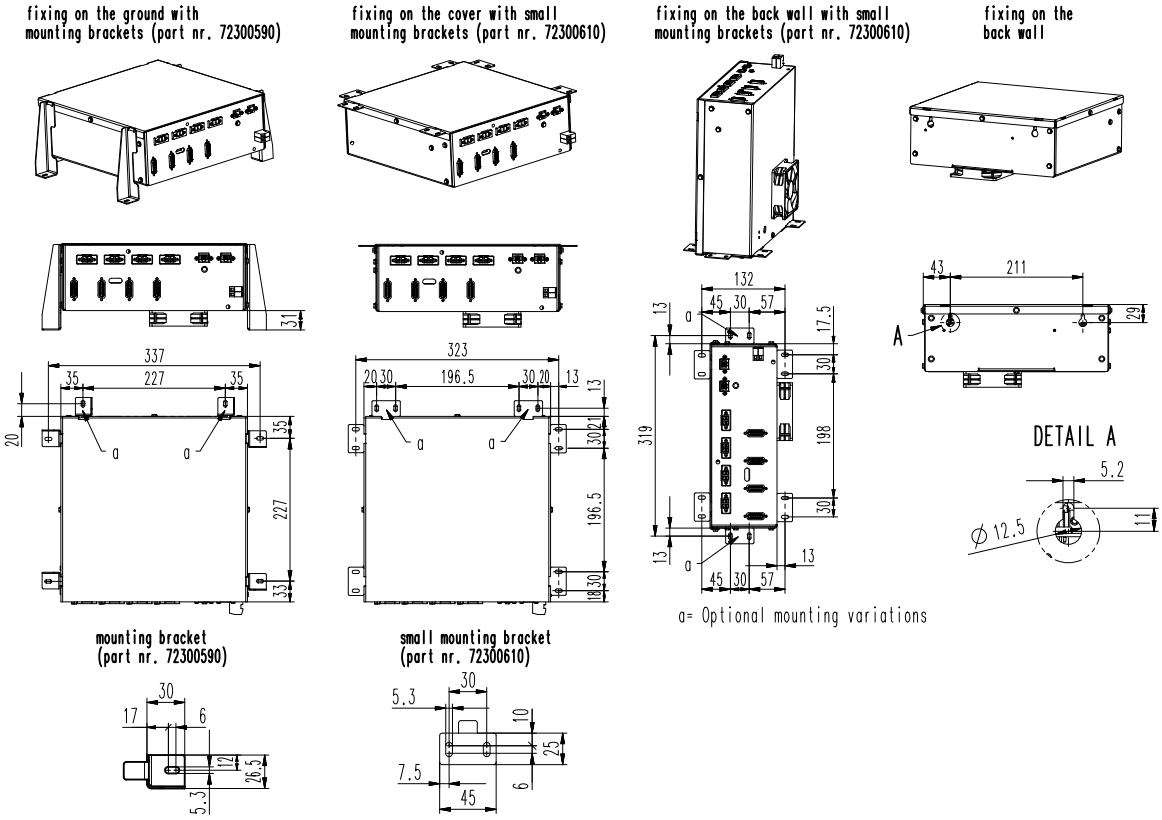
3.5 Generator RTCSmp HO/IN 1800



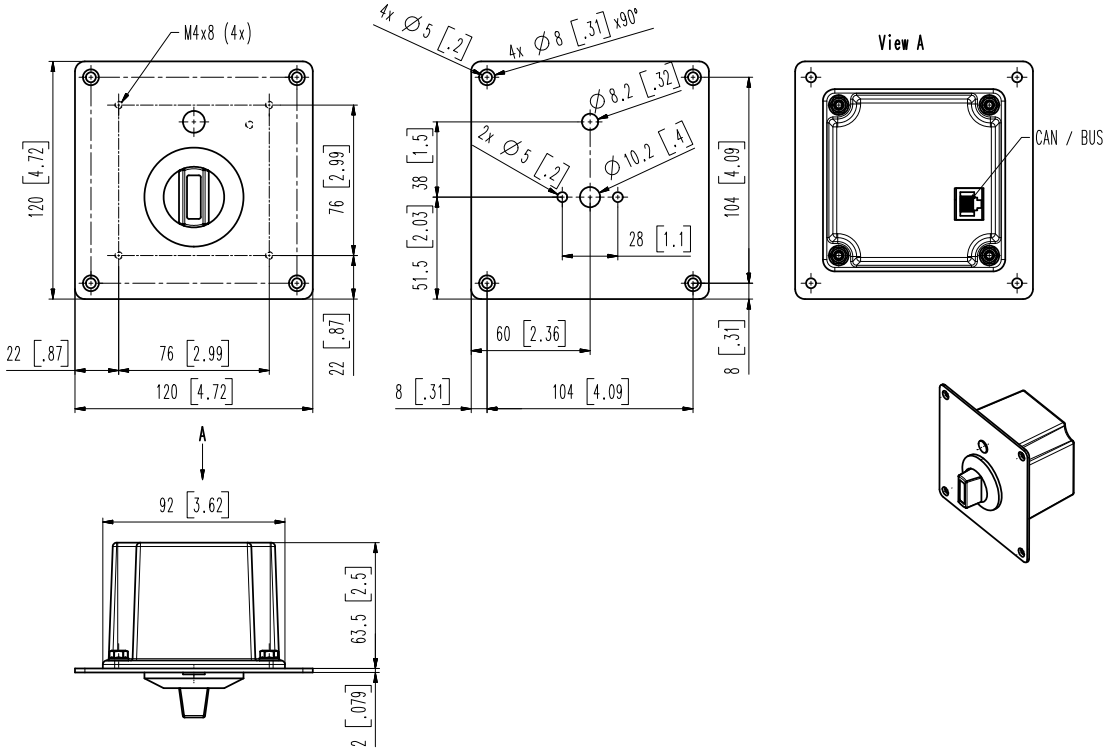
Advice for installation generator:

The rear case of the generator is equipped with two holes for the installation. Make sure that the height distance between fan and bottom and the laterial openings for air exit have a distance to obstacles of at least **40 mm**.

3.6 Mounting Variations



3.7 Cut-out > Operation unit with potentiometer



Advice for installation operation unit:

This unit is supplied completely with an operation unit. In order to fix this on a cover, take the clipping for the power switch into account. The operator control panel has to be fixed vertically on the installation panel. The cable for the power switch has a length of 300 cm.

3.8 Electrical installation

CAUTION	If the voltage is wrong, the cooker can be damaged.

The installation of the electricity must be fitted by approved installation contractors in accordance with specific national and local installation in conformity with all safety regulations. The warning signs and rating plates on the units must strictly be followed.

Check and ensure that the supply voltage and the line current match the specifications given on the rating plate.

Max. tolerance of supply voltage	+6/-10%
Supply frequency	50/60 Hz

- Turn control knob to off position („ ⏻)
- Connect operation unit to the generator
- Connect the coil cables to the plugs fixed at the front of the case
- Connect each built-in frame to earth at the respective bolts
- Connect the unit to the power socket

The installation is now finished and an operating test must be done according to chapter 4.

4 Operation test

CAUTION	The glass ceramic cooking zone is warmed up from the heat of the serving pan. To avoid injuries (burning) do not touch this area.

Use exclusively the Induction-Chafing Dish suitable for the RTCSmp Install Hold-Line heat retention units or Pan that is suitable for induction unit, having a bottom diameter of at least 12 cm.

- Put some water in the serving pan and place it in the center of the heating area.
- Turn the control knob to an ON position, temperature between 50-100°C. The 7-Segment display underneath the ceran glass shows the choosen temperature and the current temperature, the water will be heated.
- Take the serving pan away from the heat retention area, power transmition stops.
- Place the serving pan back on the heat retention area, the heat retention process will continue.
- Turn the control knob in the OFF-position, the heat retention process will stop, if temperature is over 50°C, display shows HOT, otherwise it turns off.

The indication of the measured temperature means that energy is being transferred to the the bottom of the Chafing Dish or the bottom of the Pan (cast-iron or multilayer).

If the display remains off, check the following:

- Is the induction unit connected to the mains supply?
- Is the control knob in ON positon?
- Do you use the suitable Chafing Dish or a Pan that is suitable for induction unit, having a bottom diameter of at least 12 cm?
- Is the serving pan placed in the center of the heating area?

If in spite of all positive controls and tests, the induction unit does not work, refer to the Fault Finding Section.

5 Operation

Heat retention process

The heat retention unit is immediately ready for operation. The shining display indicates that energy is transferred to the bottom of the Chafing Dish or to the bottom of the Pan (The temperature rating is set by turning the control knob.

Make sure to cover the pots or pans with a lid if fluids are kept warm.

Pots and pans must not be over 100°C when placed on the heat retention plate, this may lead to damages of the glass.

5.1 Comfort

The generator transmits energy only when a serving pan is placed on the heating area and a temperature is chosen. If you take all bacs away from the heating area, the power transfer stops immediately. If they are put back on the heating area, the power will be transferred again.

After switching the power switch to the „off“ position, the heat retention process will stop. Heat is only be stored in the pot or pan.

6 Safety instructions

6.1 Risk in the event of non-observance of the safety information

Danger for persons, for the environment and for the induction unit as well as claims for damages of any kind can result of non-observance of the safety information. Certain risks may be associated with non-observance of precautions, including:

- Danger to persons through electrical causes
- Danger to persons through overheated Chafing Dish (ATTENTION: without water) or Pan (cast-iron or multilayer)
- Danger to persons through an overheated platform (ceran plate)

6.2 Safety conscious work

The safety information pointed out in these instructions for use, the existing national regulation for the prevention of accidents as well as any internal working, operating and safety regulation stipulated by the operator must be observed at any time.

6.3 Safety information for the operator /operating personnel

Any risks from electric power must be eliminated. The heating area is warmed up from the heat of the bottom of the Chafing Dish or the bottom of the Pan. To avoid injuries (burning) do not touch the heating area.

- Switch the control knob off if you take the Chafing Dish or Pan away for a while. This will avoid the heating process to continue automatically when a serving pan is placed back on the heating area. So, if a person starts to use the induction unit, he/she will have to start the heating process by turning the control knob in the „ON“-position.
- Do not place any piece of paper, cardboard, cloth, etc. between the Chafing Dish and the heating area or between the Pan and the heating area, as this might initiate a fire.
- As metallic objects are heated up very quickly when placed on the heating area, do not place any other objects than the Chafing Dish or the Pan, (closed cans, aluminium foil, cutlery, jewelry, watches etc.) on the heat retention field.
- Persons with a cardiac pacemaker should consult their doctor whether they are safe near an induction unit.
- Aluminum foil and plastic vessels must not be placed on the hot surface.
- The surface must not be used for storage.
- Do not place credit cards, phone cards, cassette tapes, or other objects sensitive to magnetism on the Ceran plate.

- The induction heat retention unit has an internal air-cooling system. Do not obstruct the air inlet- and air outlet-slots with objects (cloth). This would cause overheating and therefore the unit would switch off.
- Avoid liquid entering into the induction unit. Do not let water or food overflow the Bac. Do not clean the induction unit with a jet of water.
- If the heating area (Ceran plate) is cracked or broken, the induction unit must be switched off and disconnected from the electric connection. Do not touch any parts inside the unit.
- If the supply cord is damaged, it must be replaced by the manufacturer, the service agent or a similarly qualified person in order to avoid a hazard.

6.4 Unauthorized reconstruction and use of spare parts

Reconstruction of the induction unit or changes to the induction unit is not allowed. Contact the manufacturer if you intend to make any changes. To guarantee safety, just use genuine spare parts and accessories authorized by the manufacturer. The use of other components will void all warranty.

6.5 Improper operating methods

The operating reliability of the induction unit can only be guaranteed by careful use. The limit values may not be exceeded on any account.

6.6 Pan detection

Pans having a diameter less than 12cm are not detected. No power is transferred if no Chafing Dish or an unsuitable serving pan is detected.

6.7 Temperature regulation

The desired temperature is set by turning the rotary switch on the operation unit. Any temperature between 50 and 100°C can be chosen.

7 Out of operation

If the induction unit is out of operation make sure that the control knob is in the „OFF“ position. If you do not use the unit for a long period (several days), unplug the unit. Make sure that no liquid can enter into the unit, do not clean the induction unit with a jet of water.

8 Fault finding / Rectification

CAUTION	Do not open the unit, dangerous electric voltage inside.

Stop any actions if the heating area (Ceran plate) is cracked or broken, the induction unit must be switched off and disconnected from the electric supply. Do not touch any parts inside the unit.

8.1 Fault finding with error code

Error No.	Description	Troubleshoot
E01	Hardware overcurrent or coil is not connected(1)	Check the Chafing Dish or Pan material, Check wiring.
E02	Software overcurrent (1)	Check the Chafing Dish or Pan material.
E03	Heat sink overtemperature T > 85°C (1)	Check installation (Airflow).
E04	Empty cooking detektor Total failure of the sensor unit or sensor unit not connected (1)	Check sensor unit. Set point: 1080Ohm at 25°C
E05	Potentiometer defect or not connected (1)	Check the potenmtiometer wiring.
E06	Temperature inside the generator too high.T > 80°C (1)	Check installation (Airflow).
E10	Communication Central unit and power board interrupted	Check wiring, Coil connection and BUS connection
E12	Reduction heat sink T > 75°C (2)	Check installation (Airflow).
E20	Reduction internal temperature T > 70°C (2)	Check installation (Airflow).
E21	Heat sink sensor defect	Contact Service partner.
E24	Board sensor defect	Contact Service partner
E30	Temperature of central unit processor > 100°C (1)	Check installation (Airflow).
E41	Heat retention plate sensor 1 over temperature or defect (1)	Check warming process.Check sensor 2 Set point: 1080Ohm at 25°C
E42	Heat retention plate sensor 2 over temperature or defect (1)	Check warming process.Check sensor 3 Set point: 1080Ohm at 25°C
E43	Heat retention plate sensor 3 over temperature or defect (1)	Check warming process.Check sensor 3 Set point: 1080Ohm at 25°C

1) Power supply is interrupted immediately,

2) 2) The unit work with reduced power

8.2 Fault finding without error code

Fault	Possible Cause	Action to take
No heating **7- segment display is OFF (dark)**	No mains supply	Check the electrical supply (cable plugged onto the wall socket)
		Check preliminary fuses
	Control knob is in OFF-position (knob = 0)	Turn control knob ON (temperature 50-100°C)
	Heat retention unit defective	Unplug the unit from the electrical supply and contact your service partner
No heating **7- segment display is flashing** **(If an error code is flashing see section „Malfunction with error code)**	Serving pan is too small (bottom diameter less than 12cm)	Use the suitable Chafing Dish or a pan
	Chafing Dish or Pan (cast-iron or multilayer) is not placed in the center of the heating area (the cooker cannot detect the pan)	Move the Chafing Dish or Pan to the center of the heating area
	Unsuitable Chafing Dish or Pan	Choose a round Chafing Dish or a Pan
	Heat retention unit defective	Unplug the unit from the electrical supply and contact your service partner
Poor heating **7-segment display is ON (shining)**	Used pan is not appropriate	Use a Chafing Dish or Pan recommended for induction heat retention and compare the result with „your“ pan
	Air-cooling system obstructed	Verify that air inlet and air outlet are not obstructed with objects
	Ambient temperature is too high (the cooling system is not able to keep the cooker in normal operating conditions	Verify that no hot air is sucked in by the fan
		Reduce the ambient temperature. The air inlet temperature must be lower than 40ºC/110ºF
	Induction unit defective	Unplug the unit from the electrical supply and contact your service partner

Fault	Possible Cause	Action to take
No reaction to control knob positions	Control knob defective	Unplug the unit from the electrical supply and contact your service partner
Heating cycle switches off and on Within minutes, fan is active	Air inlet our outlet obstructed	Remove objects from air inlet and air outlet slots, clean the slots
	Fan dirty	Clean fan
Heating cycle switches off and on Within minutes, fan is never active	Fan defective	Ask your supplier for repair service
Heating cycle switches off and on (after a long operation time)	Overheated coil, heating aera overheated Empty cooking, no water in the pan	Switch unit off, remove Chafing Dish or Pan and fill water into the pan, let unit cool down

The cooling-system (fan) starts to operate when the ambient temperature in the control area exceeds 60ºC / 140ºF. At heat temperatures higher than 75ºC / 167ºF, the electronic automatically reduces the power to keep the unit in normal operating conditions. The full power of the device is at heat sink temperature of 70ºC / 158ºF running freely again.

9 Cleaning

List with common types of soiling and recommendations how to treat them:

Type of soiling	Treatment
Slight soiling, no burned residues	Wipe with a moist cloth (scotch), without cleaning agent
Fatty spots (sauces, soups, ...)	• Polychrom • Sigolin chrom, Inox cream • Vif Super cleaner • Supernettoyant, Sida, Wiener Klak • Pudol System
Lime deposits, caused by water which has boiled over	• Polychrom • Sigonlin chrome, Inopx cream • Vif Supercleaner • Supernettoyant
Strong glimmering metallic colour changes	• Polychrom • Sigolin chrom
Mechanic cleaning	• Razor blade • Non-scratching sponge
Sugar, sugar containing food, plastic, aluminum foil	Immediately scrape off the sugar, plastic or aluminum foil residues thoroughly from the hot cooking area, e.g. with a razor blade. After removal of the residues, clean it with a cleaning agent. If the heating area soiled with residues of sugar, plastic or aluminum foil cools down without prior cleaning, the ceramic surface might become deformed by pinhead-sized pits.

The cleaning of the Ceran plate is identical to other similar surfaces like glass. Do not use corrosive or abrasive cleaning agents, such as grill- and oven-sprays, stain- and rust-removers, scouring powder and rough sponges.
Before being cleaned, the Ceran plate must be cooled down.
Other maintenance and servicing work other than cleaning as described here must be done by authorized service personnel.

Make sure that no liquid can enter in the induction unit.

10 Support

A good maintenance of the induction unit requires a regular cleaning, care and servicing. The operator has to ensure, that all components relevant for safety are in perfect working order at all times.
The induction unit should be examined at least once a year by an authorized technician.

CAUTION	Do not open the induction unit. Dangerous electric voltage inside!

The induction unit may only be opened by authorized personnel.

11 Waste disposal concept

The symbol  on the product or on its packaging indicates that this product may not be treated as household waste. It shall be handed over instead to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative concequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. For more detailed information about recycling of this product, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

When the life cycle of the Induction heat retention unit ends, make sure that you dispose it correctly.

Avoid abuse:

The unit may not be used by any person not having the appropriate qualifications. Avoid that the induction unit provided for disposal can be brought back into operation.

The unit is built up with common electrical, electromechanical and electronic parts. No batteries are used.

The operator is responsible for a proper and safe disposal of the induction unit.