

Зип Общепит
Service Manual
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CE

Rotisseries „CONVEX“
RT - Series

CONVEX®
R O T I S S E R I E

Зип Общепит

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2 Important References

2.1 Fundamental Safety Notes

2.1.1 Consider notes in the operating manual

Precondition for the safe and trouble free use of this unit is the knowledge of the fundamental safety notes and safety regulations.

The operating instruction contains the most important references to operate the unit safely.

These operating instructions, particularly the safety references, are to be considered by all persons, who work on the unit.

Furthermore the rules and regulations to avoid accidents are to be considered.

2.1.2 Obligation of the operator

The operator is obliged to only let persons work with the unit who:

- Are familiar with the fundamental regulations of work safety and accident avoiding and who have been instructed how to operate the unit.
- Read and understood the chapter about safety and warning notes and have confirmed this by signature.

The safe conscious operation of the staff has to be examined regularly.

2.1.3 Obligation of the staff

All individuals who are authorized to work with the unit are obliged to:

Pay attention to the fundamental regulations of work safety and accident avoiding,

Read the chapter on work safety and warning notes in this manual and to confirm through their signature that they have understood these, before actually operating the unit.

2.1.4 Possible risks

Rotisseries „CONVEX“ are built state of the art and in acknowledgement of all safety related rules. Nevertheless it is possible that danger for body and life of the user and/or third and/or impairments at the unit or at other real values merge. The unit is to be used only:

- For the due use.
- In safety related flawless condition.

Disturbances which can hurt the safety are to be eliminated immediately.

2.1.5 Due use

The Rotisseries „CONVEX“ are built exclusively for the preparation of food only. Any other use of the unit is only allowed after consulting UBERT GASTROTECHNIK GMBH. Damages which result out of wrong use UBERT GASTROTECHNIK GMBH cannot be held responsible. Part of the due use is also:

- The consideration of all references of the operating manual and the observance of necessary maintenance and service.

2.2 Warranty and Liabilities

Fundamentally our "General terms of sale and delivery" are valid. These are known to the operator at the latest since signing of the contract. Claims to warranty and liability at persons- and property damages are impossible, if they are to be led back to one or several of the following causes:

- Non due use of the unit.
- Improper assembling, starting up, operating and servicing of the unit.
- Operating the unit with defective safety devices or safety devices which have not been installed properly and are in no working condition.
- Disobeyment of the references in the operating manual concerning transportation storage, installation, start-up, operation, maintenance and assembling of the unit.
- Unauthorized mechanical or electrical changes of the unit.
- Insufficient maintenance of wear and tear parts.
- Unauthorized repair.
- Force of nature and act of god.

Warranty claims can only be forwarded if the guarantee card has been signed and returned to UBERT GASTROTECHNIK GMBH. Detailed guarantee conditions can be found in the corresponding documentation supplied with the unit.

2.3 Symbols and Notes

In the operating manual the following symbols and signs are used:



This symbol means a possibly or directly threatening danger for the life and the health of persons and/or a possibly dangerous situation.
Ignoring of these references may result in consequences for your health and/or can lead to property damages!



This symbol points to important references for the proper use of the unit.
Not paying attention to these references can lead to disturbances of the unit or of the environment!



This symbol points to operation tips and especially useful information.
Help to use all functions at your unit optimally

2.4 Copyright

The copyright on this operating manual remains with the company UBERT GASTROTECHNIK GMBH. This operating manual is intended only for the operator and his staff. It contains instructions and references which neither completely nor partially are to:

- be duplicated
- be circulated or
- be otherwise made available to third parties.

Offences may violate applicable laws.



2.5 Special safety references

2.5.1 Safety devices

- Before operating the unit all protective devices as well as all removable parts must be installed correctly and be fully workable.
- Protective devices may only be removed:
 - After stand still and
 - Prevention of unintentional restart.
- If partial components are delivered, an authorized staff member or service technician has to execute assembly according to installation guidelines.

2.5.2 Informal safety steps

- The operating manual is to be kept constantly accessible in the operating area.
- In addition to the operating manual all generally acknowledged and all local regulations for accident avoiding and environmental protection have to be applied with.
- All safety- danger labels at the unit are to be kept in readable condition.

2.5.3 Education of the staff

- Only trained and instructed staff is allowed to operate the unit.
- The responsibilities of the staff are to be determined clearly for installing, start-up, operation, assembling, and servicing of the unit.
- During instructing the staff may only work at the unit under supervision of an experienced person.

2.5.4 Unit-control

- Only instructed staff is allowed to operate the controls.

2.5.5 Safety during regular operation

- The unit is only to operate if all protective devices are fully workable.
- At least once per shift the unit is to be examined with regard to visible damages and functional ability of the safety devices.

2.5.6 Dangers caused by electrical energy

- Any work on the electrical supply is to be executed only by a specialist.
- Likewise the electrical connection of this unit to the power supply must be executed by an examined electrician; the connection must follow the rules of the local determinations.
- The electric installation is to be examined regularly. Loose connections and brazed cables are to be eliminated immediately.
- If works at any life-parts are necessary, a second person who switches off the main switch if necessary is to consult.

2.5.7 Special danger-spots

- All removable parts like spit, disc or ventilation fan cover for instance, are only to be removed if the rotisserie is switched off and all surfaces, inner walls and parts are not hot anymore!
- Caution while removing grilled food! All parts may be hot and may cause severe burnings to your skin.
- Do not reach into the rotisserie while the appliance is hot and operating. Keep the doors closed at any time!

2.5.8 Service and maintenance, trouble shooting

- Prescribed adjustment, service and inspection work is to be accomplished timely by the manager or if necessary by an authorized service technician.
- The operating staff is to be informed before the beginning of the maintenance and service work.
- The unit is to be disconnected from the mains before maintaining, inspecting and repairing is done; the main switch is to be supervised against unintended reclosing.
- Check all screw connections for tight fitting.
- After finishing maintenance check all safety devices for proper functionality.

2.5.9 Structural changes to the unit

- Do not perform any changes, extensions or conversions to the unit without the manufacturer's permission, especially welding work at supporting parts.
- For all conversions a written permission of the company UBERT GASTROTECHNIK GMBH is necessary.
- Change all parts of the unit that are in improper condition.
- Use only original spare parts.

2.5.10 Cleaning of the unit and disposal of the waste

Used substances and materials are to be handled and disposed appropriately, especially lubricants. Detergents have to follow the rules of food-hygiene.

3 Product Information

3.1 Introduction

3.2 Special Features

- Compact design
- Air humidification / steam injection
- Revolving- und full load grilling
- Core temperature probe
- Computer controlled
- Clear-type display
- Double glass execution
- Self-diagnostic error detection system
- Programmable
- Cleaning

3.3 Operation Methods

3.3.1 Full load grilling

With full load grilling the rotisserie is loaded and the adjusted operation flow runs automatically for the whole charge.

3.3.2 Revolving grilling

Revolving grilling we called that grilling procedure, when the spits are loaded deferred into the machine. This grilling procedure is especially popular in the catering business, because it allows producing fresh grill products continuously. For this procedure special staff is no longer needed (which was necessary yet), because we could realize a good idea in order to solve this problem. All spits have a spit position number on the disc. When the spit is put into the rotisserie, the spit position number will be activated on the control panel. After that the operator gets the information automatically, which of the spits is ready grilled.

3.3.3 Manual Grilling

3.3.4 Holding

- a) The Holding phase of CONVEX Rotisseries allows avoiding the products from drying out. This is achieved by still heating. In this phase the machine stops the circulating air. A separate cooling motor is started in order to cool down the technical components of the unit automatically.
- b) Air humidification in the holding phase.

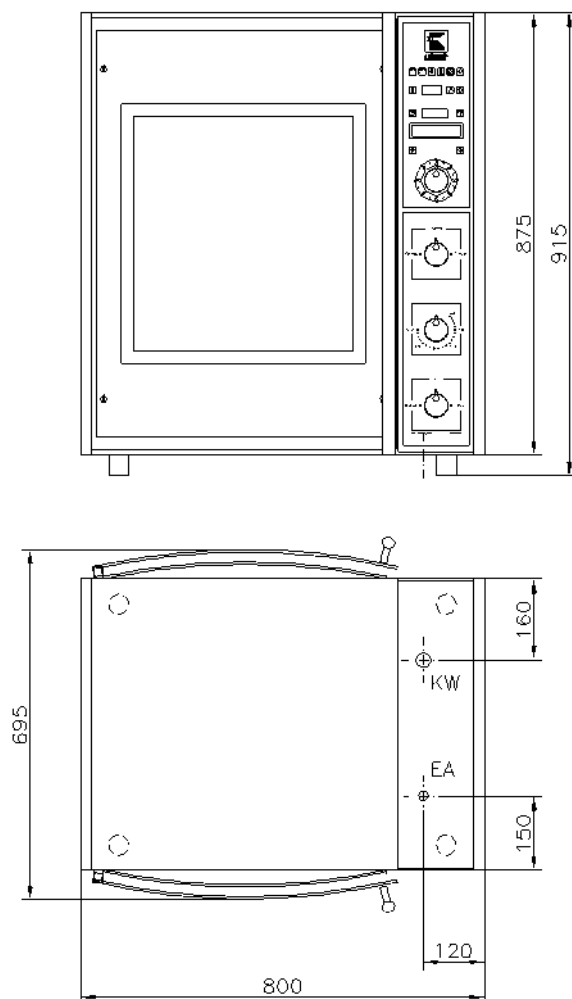
3.4 Technical Data

3.4.1 Dimensions (all measures in [mm])

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RT 506 CC:

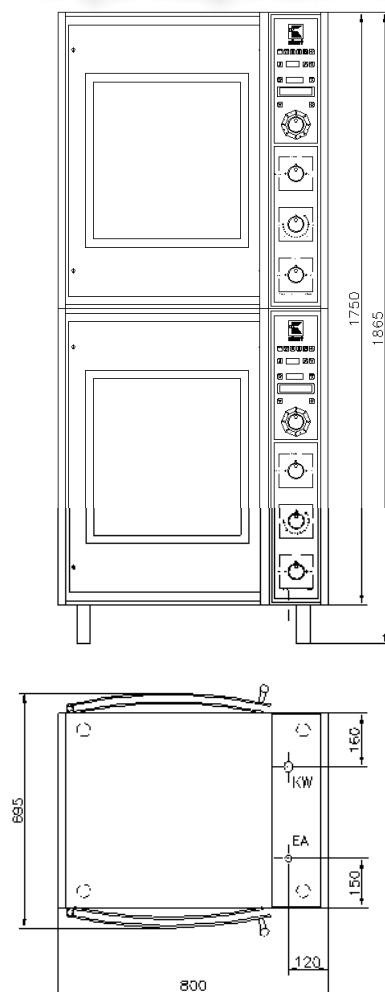
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RT 512 CC:

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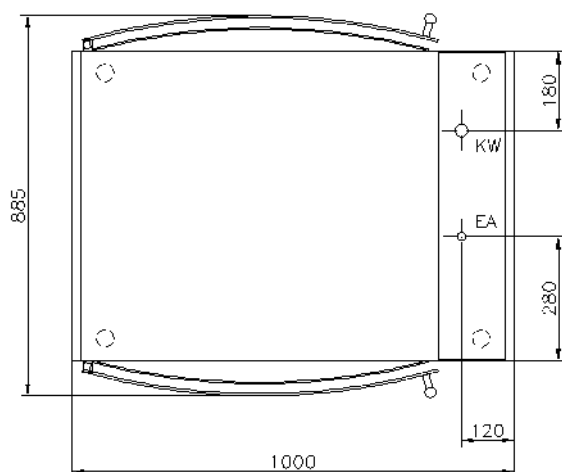
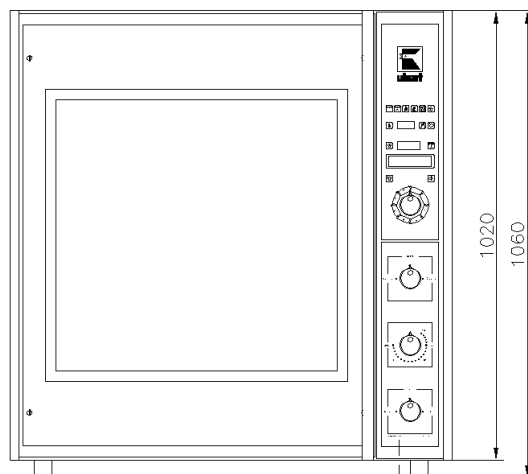
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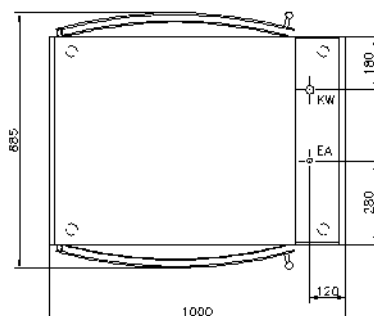
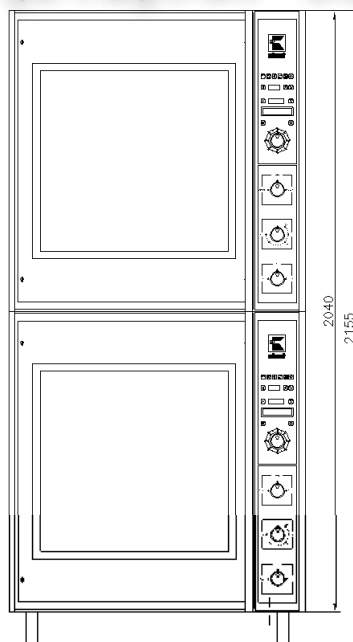
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RT 516 CC:

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3.4.2 Weight

Type	Net weight (in kg)
RT 506 CC	ca. 136,5
RT 512 CC	ca. 273,0
RT 508 CC	ca. 216,5
RT 516 CC	ca. 433,0

3.4.3 Electrical Values, Power etc.

Type	Electrical connection [EA]	Power
RT 506 CC	400V, 3/N, 50Hz	6.0kW
RT 512 CC	400V, 3/N, 50Hz	12,0kW
RT 508 CC	400V, 3/N, 50Hz	11.1kW
RT 516 CC	400V, 3/N, 50Hz	22.2kW

3.4.4 Acoustic emission

Type	Acoustic emission
All types	< 70 dB (A)

4 Installation and starting the operation

In general all Rotisseries „CONVEX“ will be packed for safe transport after the final control in order to reach you properly. Nevertheless we ask you to have a look at the machine on arrival to check on any possible transport damages.

Note! Visible damages have to be reported immediately!



4.1 Unwrapping

- Open the carton and take out the wrapping material carefully.
- Take care that the delivery is complete (see attached freight documents).

4.2 Installation

Place the Rotisserie „CONVEX“ at the desired location. Make sure, that it is good visible for your customer to ensure good food presentation and successful sales.



Take care of the following points:

- The Rotisserie „CONVEX“ (with or without stand) has to be placed on a horizontal level. Use a spirit level if necessary.
- Note that all ventilating slots have a free space from a wall or similar of at least 10cm (app. 4 inch).
- Location underneath a ventilation system is useful and recommended.
- There has to be enough free space to load, unload, clean and maintain the unit.
- The machine has to be placed in a way that the complete area around it can be cleaned easily.

4.3 Electrical connection

Note! In general, only service technicians of the company: UBERT GASTRO-TECHNIK GMBH or service technicians of your responsible service partner are allowed to perform electrical connection and other service! All national and local rules and regulations concerning electricity, fire protection and similar have to be considered. During any servicing, take care that the unit is disconnected from the mains! Not paying attention may result in injury!



Please learn the electrical and technical data of your unit from the name plate.

- Check whether your local electrical power supply is in accordance with the values on the name plate.
- The power supply needs to be manufactured from heat resistant, flexible cable. It is to be routed to prevent any contact to hot parts.
- The unit is to be connected to the power supply either by means of an appropriate plug or if connected permanently, a switch (interrupting all poles) is to be provided. In case of an emergency the power supply must be interruptible immediately.

For further information please see the wiring diagram (attached).

Note!

After finishing any installation work, maintenance or repairs check whether the ground wires are connected properly to the casing.



4.4 Tap

Note! In general all Installation and Service work has to be done by an authorized service technician! The following regulations have to be observed: DIN EN 1717 (alt DIN 1988, Part4, technical regulations for drinking water installation/TRW.



- Convex requires a cold water connection; we recommend using a water-softening unit in case of hard water above 8° dH (= Level 1).
- Use flexible pressure hose ½" with ¾" screw joint. A faucet as well as a flow-back-prevention has to be provided on site.
- Water pressure should be between min. 100 kPa and max. 400 kPa. Use a pressure reducer in case of water supply pressures above 400 kPa.

4.5 Preparation of Operation / Starting up

Before you can operate the Rotisserie „CONVEX “ you have to clean the unit and all removable parts (e. g. spits, discs etc) carefully with a grease solvent detergent. Afterwards you have to dry all surfaces.

Note! Do not use flammable cleaners. Do not use high-pressure-, water pressure- or steam jet- cleaning machines. You will have further information about this in the section "cleaning and maintenance".



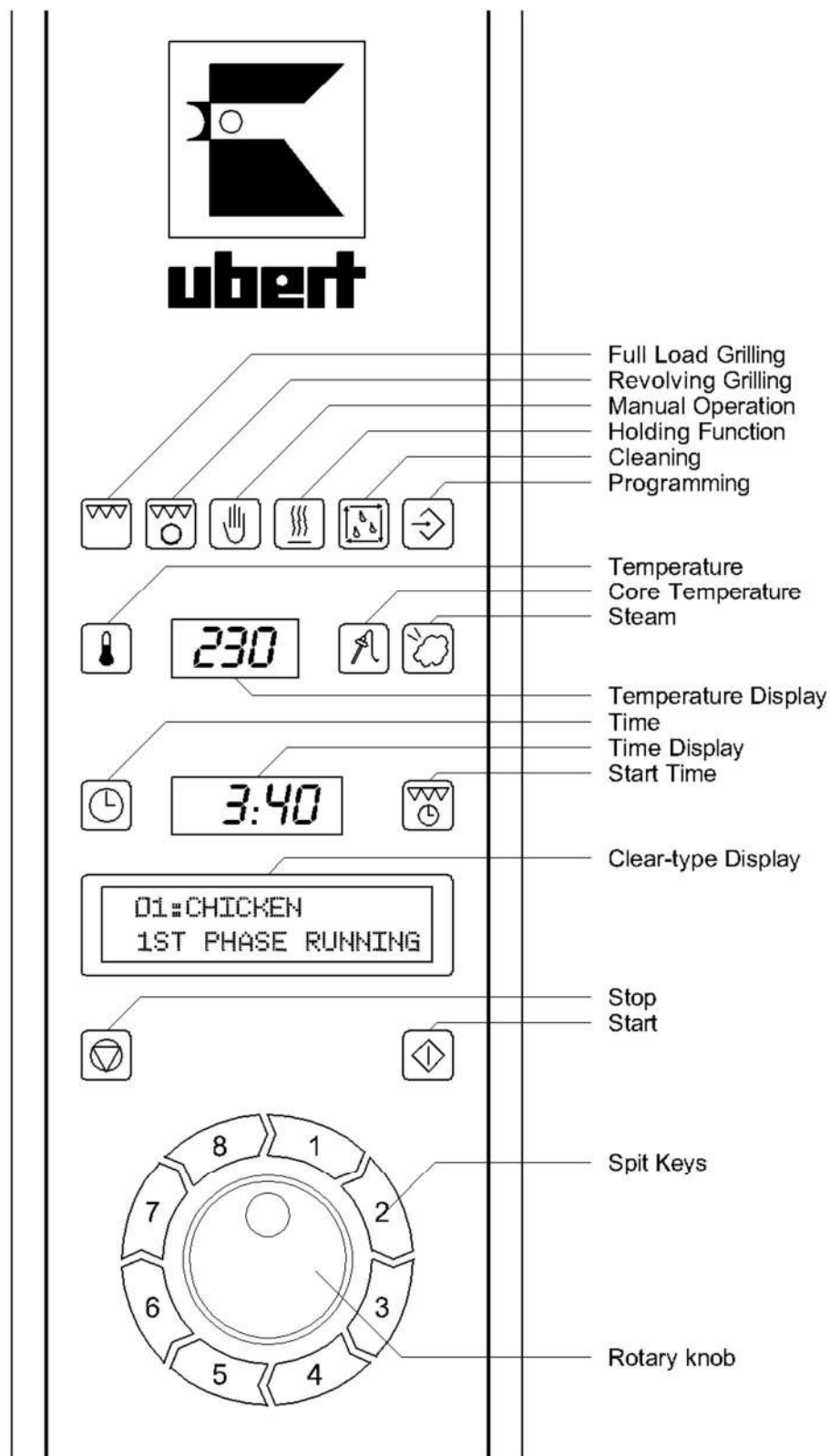
After cleaning the Rotisserie „CONVEX“ properly the smell will be minimal when using it the first time.

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5 Operation

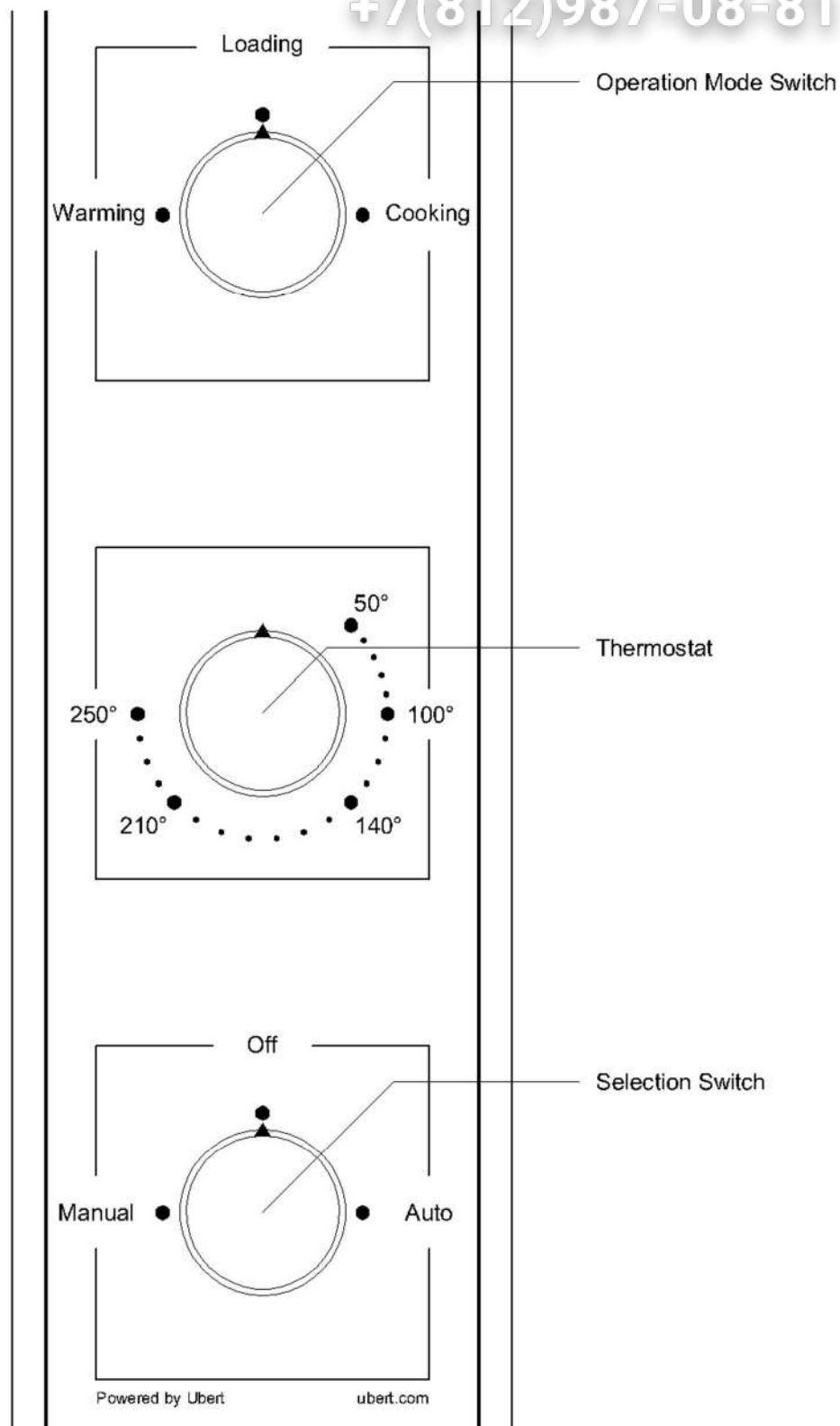
Following position and function of all components are specified and explained, which are important for the operation of CONVEX Rotisserie.

5.1 Operating Switches and Controls



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5.2 Description of displays, keys and rotary knob

Following the structure and function of all displays, keys and rotary knob on the display panel for automatic operation are explained.

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5.2.1 Full Load Grilling

The mode Charge (full load) Grilling is activated by pushing the key charge grilling and the charge program which has been used last time appears on the clear-type display (5.2.14).



5.2.2 Revolving Grilling

The mode Revolving Grilling is activated by pushing the key Revolving Grilling and the Revolving Grilling program which has been used last time appears on the clear-type display (5.2.14).



5.2.3 Manual Operation

The mode Manual Operation is activated by pushing the key Manual Operation and the temperature and time which has been used last time appears in the temperature- and time display (5.2.10 + 5.2.12).



5.2.4 Holding Function

The mode Holding is activated by pushing the key Holding and the holding program which has been used last time appears on the clear-type display. (5.2.14).



5.2.5 Cleaning

The mode Cleaning is activated by pushing the key Cleaning and the cleaning program which has been used last time appears on the clear-type display (5.2.14).



5.2.6 Programming

The mode Programming is activated the pushing the key Programming and you get in the programming level.



5.2.7 Temperature

By pushing the key Temperature the set desired temperature appears of the current phase appears on the temperature display (5.2.10). The desired temperature appears as long as the temperature key is pushed.



5.2.8 Core Temperature

By pushing the key Core Temperature and with opened door the current temperature at the core temperature probe is shown on the temperature display (5.2.10) as long as the door is open.



5.2.9 Steam

By pushing the key Steam the set steam step of the current phase is indicated on the temperature display (5.2.10). The display appears as long as the steam key is pushed. By pushing the key Steam the steam adjustment is activated in the mode Manual Operation.



5.2.10 Temperature Display

Display of actual-, desired-, core temperature or value of steam adjustment.

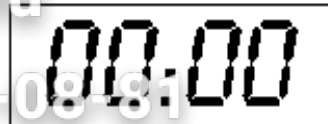


5.2.11 Time

The set desired time of the current phase is displayed on the time display by pushing the key Time (5.2.12). The desired time appears as long as the key Time is pushed.



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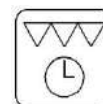


5.2.12 Time Display

Display of actual- and desired time respectively.

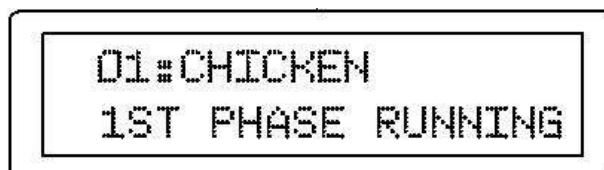
5.2.13 Start Time

The start time input is activated by pushing the key Start Time. This is only possible if the option start time has been programmed.



5.2.14 Clear-type Display

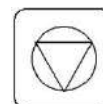
In the first line of the clear-type display the current program is shown. The second line shows the current status of the program or a menu-driven demand for further necessary operation steps.



In the program mode the first line of the clear-type display shows the program level and name. The second line asks for choosing of functions and input of values by the rotary knob.

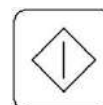
5.2.15 Stop

By pushing the key Stop the current program can be interrupted and be closed after the end of the program. In the mode Programming a return is made into the first selection level and when the key is further pushed you leave the programming level.



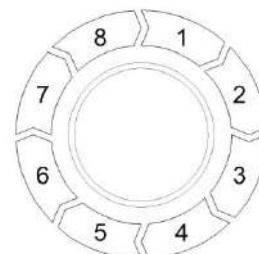
5.2.16 Start

By pushing the key Start all confirmations in the program course and in the programming are executed.



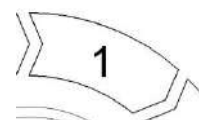
5.2.17 Rotary Knob

By actuating the Rotary Knob all programs, menu points, temperatures, times and steam adjustment can be selected and entered. When the Rotary Knob is turned clockwise the programs and menu points are displayed numerically on the clear-type display (5.2.14). In case of turning anticlockwise this is happening numerically reverse.



5.2.18 Spit Keys

By pushing the Spit keys the loaded spit is activated in the Revolving Grilling program and time runs down back. By repeatedly pushing the key the remaining grilling time is shown on the time display(5.2.12).



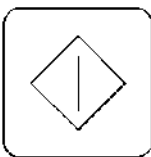
5.2.19 Function state of keys

Following displays are showing the function state of keys for automatic operation.

Light-emitting diode off	Key cannot be selected (function is not available).
Light-emitting diode green	Key can be selected (function is available).
Light-emitting diode red	Key has been selected (function is selected and active).
Light-emitting diode green blinking	is signalling completion of a program, with Revolving Grilling the end of cooking time of a spit is shown.

5.2.20 Symbols of the clear-type display

The following symbols appear:

special character	corresponding key
1 	 Start
2 	Rotary knob
3 	Rotary knob

5.3 Description of the operation mode-, selection switch and thermostat

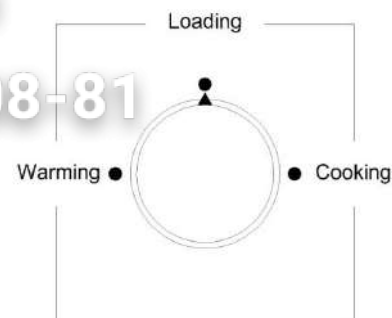
In the following structure and function of the switches for manual operation on the operation panel are explained.

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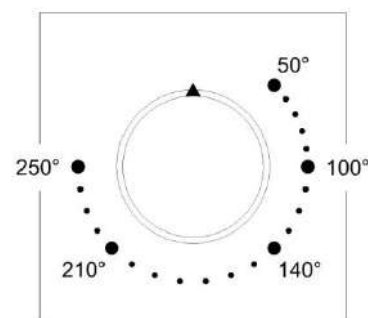
5.3.1 Operation mode switch

With the operation mode switch you can choose the functions Warming, Loading or Cooking.



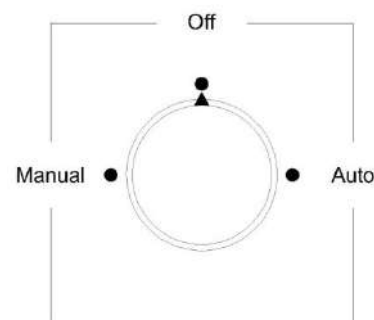
5.3.2 Thermostat

With the thermostat you can continuously adjust the desired grilling temperature from 50°C to 250°C.



5.3.3 Selection switch

With the selection switch you can choose manual or automatic operation. In position Off the machine is completely switched off.



5.4 General functions

5.4.1 Unit on / off

The unit is switched on by the selection switch (5.3.3). It is possible to start the unit in the Automatic or Manual mode. For this you have to set the selection switch on position "Auto" or "Manual". When the machine is switched on in automatic mode, in the first line of the clear-type display (5.2.14) the words "Ubert Convex" appear and in the second line the current software version, e.g. "Version 0.25".

Then that program is polled, which has been used last time and displayed in the clear-type display. All keys (5.2) can be chosen which are now shining green. The keys shining red are chosen and active.

When the machine is switched on in manual mode "Manual" the selected function (Warming, Loading or Cooking) on the selection switch (5.3.1) will be active.

In order to completely switch off the machine, the selection switch has to be set on position "Off".

5.4.2 Core Temperature

During the automatic mode the function Core Temperature is available, when the door is open. By pushing the key Core Temperature (5.2.8) the core temperature probe will be active and the cur-

rent temperature at the probe is shown in the temperature display (5.2.10). After the door is closed again the display goes back to the actual temperature which is inside the rotisserie.

5.4.3 Rotation

In the automatic mode the function Rotation is available, when the door is open and the word Rotation appears in the second line of the clear-type display (5.2.14). By pushing the key Start (5.2.16) the spit rotation starts. The rotation is running as long as the key Start is pushed.

5.5 Operation in automatic mode

For operating the Convex Rotisserie in automatic mode the grilling programs Full-Load Grilling, Revolving Grilling and Manual Operation are available.

Furthermore the programs warming and cleaning, as well as the programming level.

5.5.1 Charge (full-load) grilling

The unit has to be started as described under point 5.4.1 Automatic Mode.

The mode Charge (full load) Grilling is activated by pushing the key charge grilling and the charge program which has been used last time appears on the clear-type display (5.2.14).

Now there is the opportunity to start the program by pushing the key Start (5.2.16) or to choose another Charge grilling program by the rotary knob.

After pushing the key Start a user guide is activated in the second line of the clear-type display, which is showing the operation states as well as demands to the operator according to the selected program and the programming which is stored there. In the first line the program level and product name appear.

Following states of operation and demands appear in the second line of the clear-type display.

CONFIRM	for starting the program.
HEATING	up to reaching the programmed pre-heating or grilling temperature of the first phase.
LOADING	for loading the food products.
ROTATION	for rotation of spits with opened door.
START	for starting the program course.
1st PHASE RUNNING	program course.
UNLOAD	for unloading the products after end of program.
CANCEL	after pushing the key Stop (5.2.15) during a running program.

After the end of a program the rotisserie gives an acoustic signal, the lighting of the spit keys shines green and blinks. In the second line of the clear-type display the word UNLOAD appears as long as a confirmation is given by pushing the key Start.

The temperatures, time periods and steam steps of single phases, which are stored in a Charge Grilling program can only be cancelled or changed in the programming level.

5.5.2 Revolving Grilling

The unit has to be started as described under point 5.4.1 Automatic Mode.

The mode Revolving Grilling is activated by pushing the key Revolving grilling and the revolving program which has been used last time appears on the clear-type display (5.2.14).

Now there is the opportunity to start the program by pushing the key Start (5.2.16) or to choose another Revolving grilling program by the rotary knob.

After pushing the key Start a user guide is activated in the second line of the clear-type display, which is showing the operation states as well as demands to the operator according to the selected program and the programming which is stored there. In the first line the program level and product name appear.

Following states of operation and demands appear in the second line of the clear-type display.

CONFIRM	for starting the program.
HEATING	up to reaching the programmed pre-heating or grilling temperature of the first phase.
LOADING	to load the food products. After loading the spits keys are available.
ROTATION	for rotation of spits with opened door.
SELECT SPIT	for starting the programmed grilling time for the selected spit by pushing the spit key (5.2.18) according to position number on the disc. This appears until all spits have been selected and as soon as a free spit is available again.
UNLOAD	for unloading the products after end of the grilling time for the selected spit.
CANCEL SPIT	after pushing the key Stop (5.2.15) during a running program with selected spits.
STOP PROG.?	after pushing the key Stop during a running program without a selected spit.

The light of selected spit keys changes from green to red. After pushing the spit key again and as long as the key is pushed, the remaining grilling time of the spit appears on the time display.

After the end of the grilling time of a spit the rotisserie gives an acoustic signal, the lighting of the spit key shines green and blinks and in the second line of the clear-type display appears UNLOAD as long as it is confirmed by pushing the spit key.

The temperatures, time periods and steam steps which are stored in a Revolving grilling program can only be cancelled or changed in the programming level.

The time for a selected spit can be changed during the grilling phase. For this the selected spit key has to be pushed constantly and now the desired time can be adjusted by the rotary knob.

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5.5.3 Manual Grilling

The unit has to be started as described under point 5.4.1 Automatic Mode.

The mode Manual Grilling is activated by pushing the key Manual grilling (5.2.3) and the data for time, and temperature which has been used last time appear on the displays (5.2.10 + 5.2.12).

Now there is the opportunity to change temperature, time and steam by push and hold of the corresponding key (5.2.7, 5.2.11, and 5.2.9) while rotating the rotary knob (5.2.17).

After pushing the key Start a user guide is activated in the second line of the clear-type display, which is showing the operation states as well as demands to the operator according to the selected settings. In the first line appears "MANUAL".

Following states of operation and demands appear in the second line of the clear-type display.

CONFIRM	for starting the Manual Grilling.
PREHEAT	up to reaching grilling temperature.
LOADING	for loading the food products.
ROTATION	for rotation of spits with opened door.
START	for starting the Manual Grilling.
RUNNING	Program course.
UNLOAD	for unloading the products after end of program.
CANCEL	after pushing the key Stop (5.2.15) during the Manual Grilling.

After the end of the Manual Grilling the rotisserie gives an acoustic signal, the lighting of the spit keys shines green and blinks. In the second line of the clear-type display the word UNLOAD appears as long as a confirmation is given by pushing the key Start.

The temperatures, time periods and steam steps of the Manual Grilling, can be cancelled or changed during runtime by push and hold of the corresponding key (5.2.7, 5.2.11, 5.2.9) while rotating the rotary knob (5.2.17).

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5.5.4 Holding

The unit has to be started as described under point 5.4.1 Automatic Mode.

The mode Holding is activated by pushing the key Holding (5.2.4) and the holding program which has been used last time appears on the clear-type display (5.2.14).

Now there is the opportunity to start the program by pushing the key Start (5.2.16) or to choose another holding program by the rotary knob (5.2.17).

After pushing the key Start a user guide is activated in the second line of the clear-type display, which is showing the operation states as well as demands to the operator according to the selected program and the programming which is stored there. In the first line the program level and product name appear.

Following states of operation and demands appear in the second line of the clear-type display.

CONFIRM	for starting the program.
HEATING	up to reaching the programmed pre-heating or grilling temperature of the program.
LOADING	for loading the food products.
ROTATION	for rotation of spits with opened door.
START	for starting the program course.
PROGRAM RUNS	Program course.
UNLOAD	for unloading the products after end of program.
CANCEL	after pushing the key Stop (5.2.15) during a running program.

At the end of a program the rotisserie gives an acoustic signal, the lighting of the spit keys shines green and blinks. In the second line of the clear-type display the word UNLOAD appears as long as a confirmation is given by pushing the key Start.

The temperatures, time periods and steam steps, which are stored in a Holding program can only be cancelled or changed in the programming level.

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5.5.5 Cleaning

The unit has to be started as described under point 5.4.1 Automatic Mode.

The mode Cleaning Mode is activated by pushing the key Cleaning (5.2.5) and the cleaning program which has been used last time appears on the clear-type display (5.2.14).

Now there is the opportunity to start the program by pushing the key Start (5.2.16) or to choose another cleaning program by the rotary knob (5.2.17).

After pushing the key Start a user guide is activated in the second line of the clear-type display, which is showing the operation states as well as demands to the operator according to the selected program and the programming which is stored there. In the first line the program level and product name appear.

Following states of operation and demands appear in the second line of the clear-type display.

CONFIRM	for starting the program.
START	for starting the program course.
COOLING	down to reach the programmed set temperature of the program
HEATING	up to reach the programmed set temperature of the program.
SPRAY DETERGENT	to apply the detergent.
ROTATION	for rotation of spits with opened door.
CONTINUE	to continue the program run after applying the detergent.
DET: WORKS	time during the detergent works.
CLEANING RUNS	Program course.
READY	appears at the end of program.
CANCEL?	after pushing the key Stop (5.2.15) during a running program.

After the end of a program the rotisserie gives an acoustic signal, the lighting of the spit keys shines green and blinks. In the second line of the clear-type display the word READY appears as long as a confirmation is given by pushing the key Start.

The temperatures, time periods and steam steps, which are stored in a Cleaning program can only be cancelled or changed in the programming level.

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5.5.6 Entering programming level

The unit has to be started as described under point 5.4.1 Automatic Mode.

By pushing and holding of the programming key (5.2.6) for at least 3 seconds you enter the programming level and in the first line of the clear type display occurs CODE 127.

By using the rotary knob (5.2.17) choose the user Password for programming (default is 110) and confirm by pushing the start key (5.2.16).

After pushing the key Start a user guide is activated in the second line of the clear-type display, which is showing the operation modes: CHARGEGRILLING; REV. GRILLING; HOLDING; CLEANING; CODE CHANGE or LEAVE selectable by the rotary knob and to be confirmed by the start key.

After choosing CHARGEGRILLING; REV. GRILLING; HOLDING or CLEANING you have the following choices: PROG. NEW; PROG. CHANGE and PROG. DELETE selectable by the rotary knob and to be confirmed by the start key.

When choosing CODE CHANGE you are requested to choose a User Password (USER PWD) It is then adjustable by the rotary knob and to be confirmed by the start key. Note: make sure to store your User Password safely; otherwise you will not have access to the programming mode again. (Call for service in this case)!

By choosing LEAVE you leave the programming mode.

5.5.7 Setting a new program (PROG. NEW)

The unit has to be started as described under point 5.4.1 Automatic Mode.

Enter the programming level as described in 5.5.6.

After choosing the mode: CHARGEGRILLING; REV. GRILLING; HOLDING; CLEANING and confirmation by the enter key (5.2.16) PROG. NEW appears in the first line of the Clear type display. Confirming again by the enter key (5.2.16) the next available program space will be set (in the desired mode). By use of the rotary knob (5.2.17) a presetted product name can be chosen and be confirmed by the start key.

In the next step you can change (edit) this name: use the arrow keys (←→) to navigate the cursor to the desired position and then overwrite the name as you like. Choose a letter, number or sign and confirm by the start key. Once you are finished, use the (↵) - Sign to store your settings.

1) If you are in CHARGEGRILLING the next steps are:

(You can set up to max. 3 phases; either up to 3 grilling phases or up to 2 grilling phases plus 1 holding phase)

a) STARTDELAY N/Y to enable a start delay

By use of the rotary knob you can choose between N (No) and Y (Yes). If you choose Y a start delay will be enabled. Next step will then be TEMPERATURE 1.

When running the program you can then set a start delay if you want. If you choose N, next step will be PREHEAT TEMP. N/Y.

b) PREHEAT TEMP. N/Y To set a specific preheating temperature.

By use of the rotary knob you can choose between N (No) and Y (Yes). If you choose Y a specific preheat temperature can be set. (Temperature Display 5.2.10).

In any case next step will be TEMPERATURE1.

c) TEMPERATURE1 Adjust temperature of the first phase

By use of the rotary knob you can choose a temperature. (Temperature Display 5.2.10); confirmation by the enter key (5.2.16)

d) TIME1 Adjust time of the first phase.

By use of the rotary knob you can choose a time. (Time Display 5.2.11); confirmation by the enter key (5.2.16)

e) STEAM

N/Y Choose whether or not you want to activate steam injection.

By use of the rotary knob you can choose between N (No) and Y (Yes). If you choose Y steam injection can be set. By use of the rotary knob you can set the amount of steam (Temperature Display 5.2.10); confirmation by the enter key (5.2.16)

In any case next step will be 2. PHASE

f) 2. PHASE?

N/Y Choose whether or not you want to set a second phase

By use of the rotary knob you can choose between N (No) and Y (Yes). If you choose Y a second phase can be set as described under c) – e) If you choose N HOLDING? appears as the next choice.

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- g) HOLDING N/Y Choose whether or not you want to set a holding phase.
By use of the rotary knob you can choose between N (No) and Y (Yes).
If you choose Y a holding temperature can be set; if you choose N
STORE DATA appears on the clear type display and you return to the
basement of programming level.
- h) HOLDING TEMP. Adjust temperature of the holding phase.
By use of the rotary knob you can choose a temperature. (Temperature
Display 5.2.10); confirmation by the enter key (5.2.16)
- i) HOLDING TIME Adjust time of the holding phase.
By use of the rotary knob you can choose a time. (Time Display 5.2.11);
confirmation by the enter key (5.2.16)
- STEAM as described under e) set steam injection.
In the end STORE DATA appears on the clear type display and you re-
turn to the basement of programming level.

To leave the programming level choose LEAVE and confirm with the start key or push the Stop key while in the basement of programming level.

If you are in REV. GRILLING the next steps are:
(You can set 1 phase ;)

- j) PREHEAT TEMP N/Y to set a specific preheating temperature.
By use of the rotary knob you can choose between N (No) and Y (Yes).
If you choose Y a specific preheat temperature can be set. (Temperature
Display 5.2.10).
In any case next step will be TEMPERATURE1.
- k) TEMPERATURE Adjust the temperature
By use of the rotary knob you can choose a temperature. (Temperature
Display 5.2.10); confirmation by the enter key (5.2.16)
- l) TIME Adjust the time.
By use of the rotary knob you can choose a time. (Time Display 5.2.11);
confirmation by the enter key (5.2.16)
- m) STEAM N/Y Choose whether or not you want to activate steam injection.
By use of the rotary knob you can choose between N (No) and Y (Yes).
If you choose Y steam injection can be set. By use of the rotary knob
you can set the amount of steam (Temperature Display 5.2.10); confir-
mation by the enter key (5.2.16)
In any case next step will be STORE DATA and you return to the base-
ment of programming level.

To leave the programming level choose LEAVE and confirm with the start key or push the Stop key while in the basement of programming level.

If you are in HOLDING the next steps are:
(You can set 1 phase;)

- n) TEMPERATURE Adjust the temperature.
By use of the rotary knob you can choose a temperature. (Temperature Display 5.2.10); confirmation by the enter key (5.2.16)
- o) TIME Adjust the time.
By use of the rotary knob you can choose a time. (Time Display 5.2.11); confirmation by the enter key (5.2.16)
- p) STEAM N/Y Choose whether or not you want to activate steam injection.
By use of the rotary knob you can choose between N (No) and Y (Yes). If you choose Y steam injection can be set. By use of the rotary knob you can set the amount of steam (Temperature Display 5.2.10); confirmation by the enter key (5.2.16)
In any case next step will be STORE DATA and you return to the basement of programming level.

To leave the programming level choose LEAVE and confirm with the start key or push the Stop key while in the basement of programming level.

2) After choosing the mode: CLEANING and confirmation by the enter key (5.2.16) PROG. NEW appears in the first line of the Clear type display. Confirming again by the enter key (5.2.16) the next available program space will be set.

In the next step you can edit a name for the cleaning program: use the arrow keys (←→) to navigate the cursor to the desired position and write the name as you like. Choose a letter, number or sign and confirm by the start key. Once you are finished, use the (↵) - Sign to store your settings. The next steps are:

- a) START TEMP. Adjust the temperature that the unit cools down to (resp. heats up to) before the initial cleaning cycle starts. (max. 85°C) Choose a temperature as listed on the advices of your detergent of choice.
By use of the rotary knob you can choose a temperature. (Temperature Display 5.2.10); confirmation by the enter key (5.2.16)
- b) DET. TIME Adjust the detergent working time. Choose a time as listed on the advices of your detergent of choice.
By use of the rotary knob you can choose a time. (Time Display 5.2.11); confirmation by the enter key (5.2.16)
- c) CLEANING TEMP. Adjust the temperature that the unit afterwards runs the washing cycle at. (max. 85°C) This temperature might be slightly higher than the one listed on the advices of your detergent of choice.
By use of the rotary knob you can choose a temperature. (Temperature Display 5.2.10); confirmation by the enter key (5.2.16)
- d) CLEANING TIME. By use of the rotary knob you can choose a time for the washing cycle. (Time Display 5.2.11); confirmation by the enter key (5.2.16) Based on the condition of the unit after an average working day. (15 min. is a good choice as long as you did not experience better settings).
- e) STEAM By use of the rotary knob you can set the amount of steam for the washing cycle. Please note that the amount of steam in this mode is far higher than in the grilling or holding modes (50 is a good choice as long as you did not experience better settings (Temperature Display 5.2.10); confirmation by the enter key (5.2.16). Next step will be STORE DATA and you return to the basement of programming level.

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To leave the programming level choose LEAVE and confirm with the start key or push the Stop key while in the basement of programming level.

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5.5.8 Changing an existing program (PROG. CHANGE)

The unit has to be started as described under point 5.4.1 Automatic Mode.

Enter the programming level as described in 5.5.6.

After choosing the mode: CHARGEGRILLING; REV. GRILLING; HOLDING; CLEANING and confirmation by the enter key (5.2.16) PROG. NEW appears in the first line of the Clear type display. By use of the rotary knob choose PROG. CHANGE and confirm by the enter key (5.2.16) the first available program appears in the clear type display. By use of the rotary knob (5.2.17) choose the program you want to change.

In the next steps you can change the settings. Simply confirm all settings you want to remain unchanged by the enter key (5.2.16) until you reach the setting you want to change. Do so as described under 5.5.7 1) a) – p) and 2) a) – e).

Next step will be STORE DATA and you return to the basement of programming level.

To leave the programming level choose LEAVE and confirm with the start key or push the Stop key while in the basement of programming level.

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5.5.9 Delete a program (PROG. DELETE)

The unit has to be started as described under point 5.4.1 Automatic Mode.

Enter the programming level as described in 5.5.6.

After choosing the mode: CHARGEGRILLING; REV. GRILLING; HOLDING; CLEANING and confirmation by the enter key (5.2.16) PROG. NEW appears in the first line of the Clear type display. By use of the rotary knob choose PROG. DELETE and confirm by the enter key (5.2.16). The first available program appears in the clear type display. By use of the rotary knob (5.2.17) choose the program you want to delete.

DELETE	N/Y	as described under e) set steam injection. In the end STORE DATA appears on the clear type display and you return to the basement of programming level.
--------	-----	--

DELETE	N/Y	Choose whether or not you want to delete a program. By use of the rotary knob you can choose between N (No) and Y (Yes). If you choose Y and confirm by the enter key (5.2.16) the program will be deleted.
--------	-----	---

Next step you return to the basement of programming level.

To leave the programming level choose LEAVE and confirm with the start key or push the Stop key while in the basement of programming level.

5.6 Manual operation

Available modes are: WARMING, LOADING and COOKING. Temperature adjustment is done by use of the mechanical thermostat.

5.6.1 Manual operation

The unit has to be started as described under point 5.4.1 Manual Mode.

Rotate the knob (5.3.1) to COOKING and adjust the thermostat (5.3.2) to the desired preheat temperature.

To load the unit rotate the knob (5.3.1) to LOADING. Open the door and load the spits. By either closing the door or pushing the door switch you can rotate the disks to the next available spit position.

After the loading is done, simply rotate the knob (5.3.1) to COOKING and adjust the thermostat (5.3.2) to the desired grilling temperature.

After the grilling is done, you can rotate the knob (5.3.1) to WARMING to hold the products at a lower temperature with reduced infrared heat.

To unload the unit, rotate the knob (5.3.1) to **LOADING**. Open the door and unload the spits. By either closing the door or pushing the door switch you can rotate the disks to the next spit position.

The unit is switched off completely by rotating the selection switch (5.3.3) to the **OFF** position

5.7 Rotisserie assembly for operation

- Slide drip pan into bottom of unit.

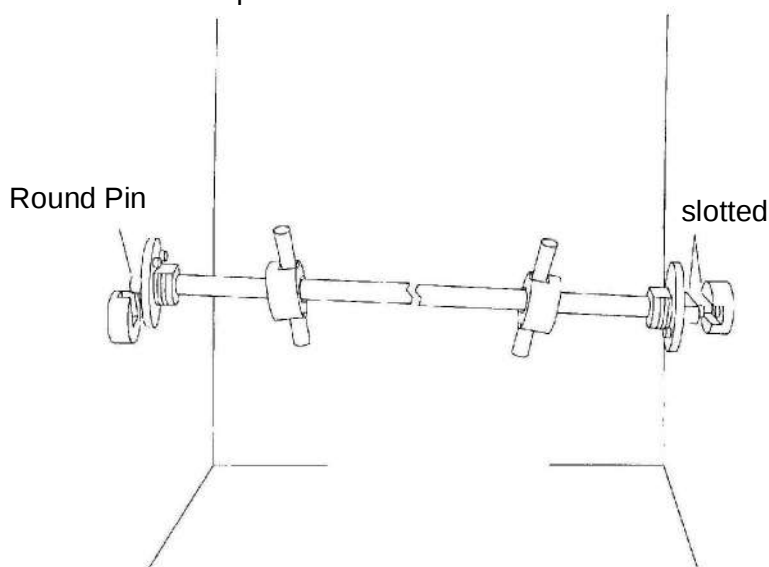
Note! Drip pan can be put in from either side.

- Mount the edge of drip plates on the sliders inside the unit and outside on the front- respectively the rear panel.



5.7.1 Shaft and Disk assembly

- Install Shaft into drive hub. See picture below.



- Install disk onto shaft.

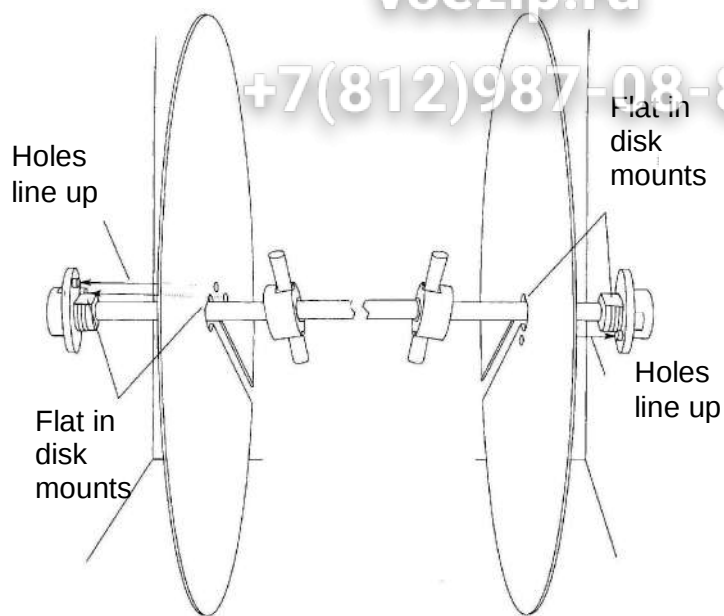
Note! The configurations of holes in disks are different. Disk with two holes near the centre is assembled on the left hand side and disk with one hole near centre is assembled on the right hand side.



- Tighten nuts against disks.

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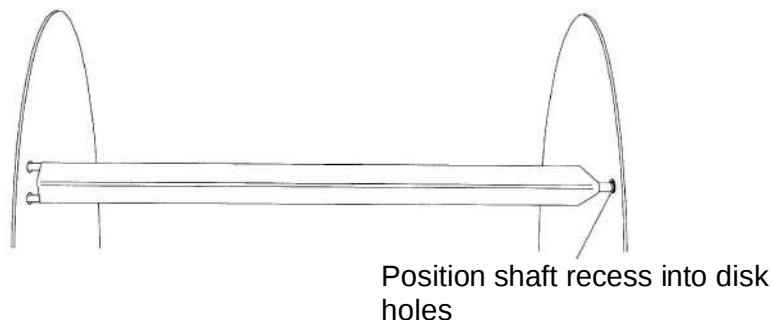
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5.7.2 Spit assembly into rotisserie

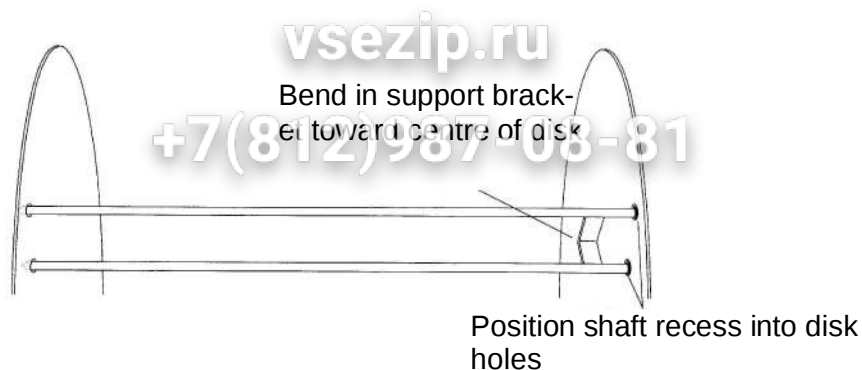
5.7.2.1 Angle Spit

- For mounting chickens horizontally and without piercing chicken.
- Mount spit into holes as shown below. Be sure recessed rings on end of shafts drop into hole in disk.



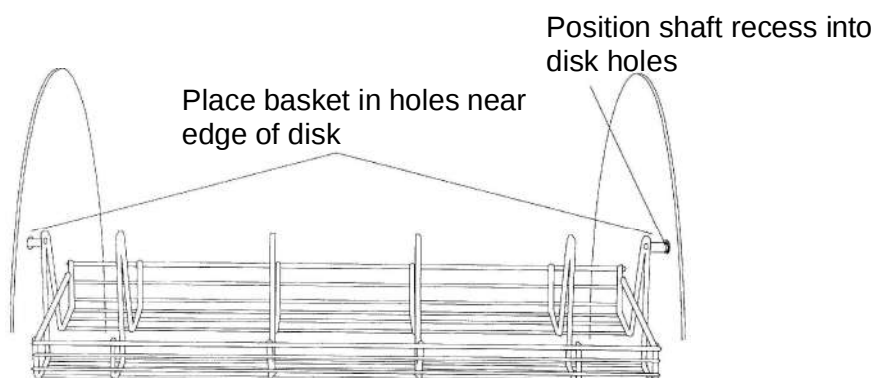
5.7.2.2 Double Spits

- The pointed end of the spits can be assembled into either right or left disk.
- If you are right handed it may be easier to install the pointed end of the spit into the disk on the left as your stronger right hand will be holding the weight of the product while your left hand positions the spit into the disk. If you are left handed the opposite may be true.
- The spits must be positioned with the bend in the supports bracket toward the centre as shown below. Position the recesses in the shafts so they drop into the holes in the disk. This will keep the spit from sliding.



5.7.2.3 Rack and Basket

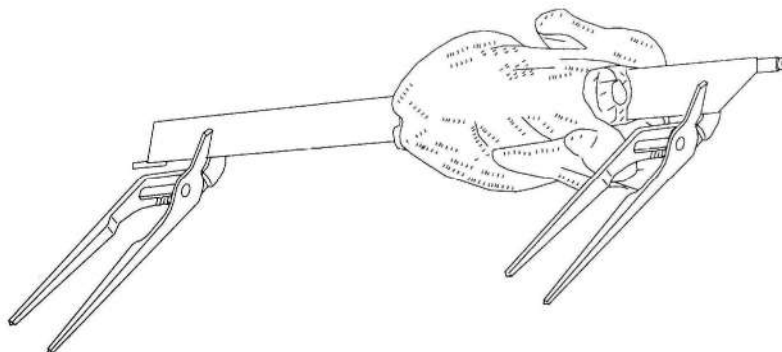
- Position racks or baskets into holes as shown below. Be sure recessed rings on end of shafts drop into hole in disk as shown below.



5.8 Product mounting and loading

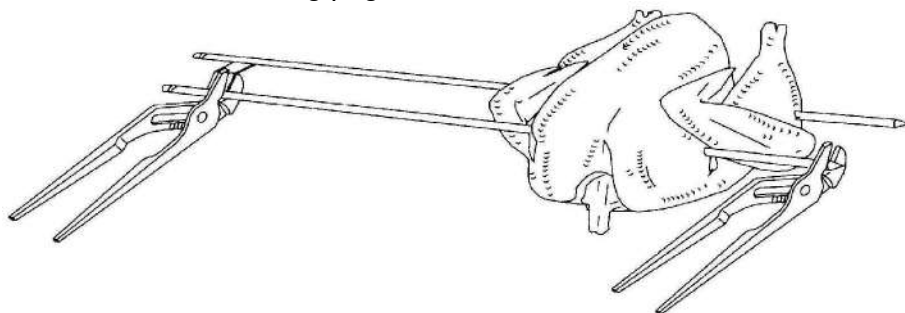
5.8.1 Angle spits for mounting the chickens horizontally

- Insert the spit through the holes in both ends of the chicken while holding the spit angle down and the chicken breast up. See picture below.
- Tie the chicken legs to prevent flopping while grilling. Chickens can be mounted horizontally on Model RT 305 or RT 307 Angle Spits.
- When all chickens are loaded onto the spits use 2 pairs of channel lock pliers to grasp the angle spit as shown in the picture below. The angle spits can then be loaded onto the rotisserie disks using the pliers. Directions for operating the rotisseries and using the loading switch are on the following pages.



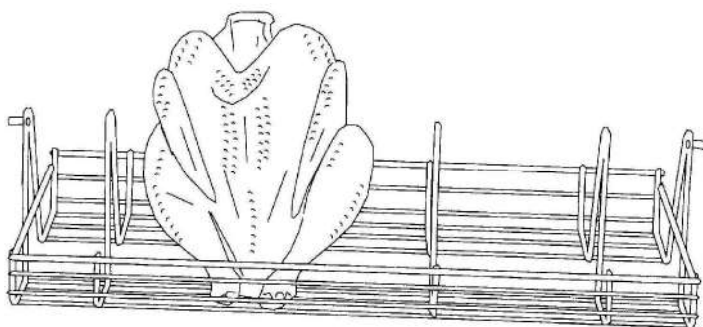
5.8.2 Double spits for mounting chickens vertically

- Lock chicken wings down by tucking under the legs
- When piercing the chicken hold the spit with the support angle down and the chicken breast up.
- Lock the wings down by tucking under the legs and then pierce just below wing with spit and pierce leg just under the bone as shown in the picture below. The spits can then be loaded onto the rotisserie disks using the pliers. Directions for operating the rotisseries and using the loading switch are on the following pages.



5.8.3 Rack Loading

- Load Rack as shown below.



6 Maintenance

Following we will show you some advices concerning maintenance, care, trouble shooting and service for your Rotisserie „CONVEX“.

6.1 Safety advices

- Before you start to clean and care switch off the appliance and disconnect it from the mains.
- Do not use inflammable detergents, sharp-edged or metallic things for cleaning the unit! Never use high-pressure-, water pressure- or steam jet- cleaning machines!
- Wear acid proof gloves while cleaning the parts to prevent skin irritations.



6.1.1 General Recommendations

- The unit has to be cleaned daily.
- Only use cleaning detergents that are appropriate for food (neutral or alkaline detergents), even if there are plain and persistent residues.
- After cleaning with special cleaners you have to wash all parts with clear water and dry them afterwards so that there are no residues of the cleaning detergent on these parts.
- It is absolutely necessary to watch out for some fundamental things to keep this long living high-grade-steel-machine working:
 - always keep the high-grade-steel surface clean.
 - watch out that there is always enough fresh air on the surface
 - never contact the surface with rusty material
- never use bleaching or chlorine cleaners.
- Take brushes with plastic or natural bristles for cleaning.



6.1.2 Detergents

To make the cleaning fast and easy we have integrated some cleaners in our program:

- Grill- and oven cleaner:
To dispose persistent, dried-up dirt on metal surfaces.
- Intensive cleaner:
Detergent for metal- and plastic-surfaces.
- Glass cleaner:
Removes fat from glass-surfaces.



Stainless steel cleaner

You have to spray this from a distance of app. 25 cm on the surface and wipe it off with a dry cleaning rag. If you want to clean only small parts you have to spray it directly on the cleaning rag and wipe it off this way. With this method it is possible to clean the Rotisserie easily and without stripes.

6.1.3 Special cleaning hints

Please find below some special cleaning tips for this specific unit:

- Lamps:
To be cleaned only with soft paper or cloth and alcohol.
- Glass:
Remove dust and dirt from the glass surface with soft cloth to avoid scratches.
- Drawers:
Easily removable without tools for separate cleaning.



6.2 Trouble shooting

If your Rotisserie „Top Line“ does not work satisfactorily we would like to give a first help with the following check list. Only after checking these points you should contact:

a) Your responsible service partner

Or

- b) Directly the company: UBERT GASTROTECHNIK GMBH
Werk II Gewerbegebiet Nord
Vennekenweg 17
46348 Raesfeld
Tel.: 02865 / 602-226
Service-Tel.: 0172 / 2 82 86 31
Fax: 02865 / 602-102 (or -103)

Only these two companies are allowed to carry out service work and replacement of defect parts. If you do not observe this note or in case of manipulation of a third party any claims for guarantee will become invalid!



Check list of your Rotisserie „CONVEX“:

Trouble		Possible reason	remedy
1.	Rotisserie does not operate	Electrical supply is interrupted Fuse defect	Check the fuses! Unplugged? Call your local electrician!
2.	Fan motor does not work	mechanic hindrances Fan motor defect	Switch off the unit, remove the cover with ventilation grid, check the ventilation on mechanic hindrances (e.g. hardened fat residues – remove these carefully)! Call your service company. Do not start the unit!
3.	Quartz lamp is off	is not switched on. Lamp is defect.	Check the position of switch on/off knob. Replacement of the quartz lamp by a local electrician.
4.	Noisy motor	Motor or gear is defect.	Call the service company!
5.	Spit disks do not ro-	Motor protection device has set.	Push the motor protection control one time. If it sets again call the

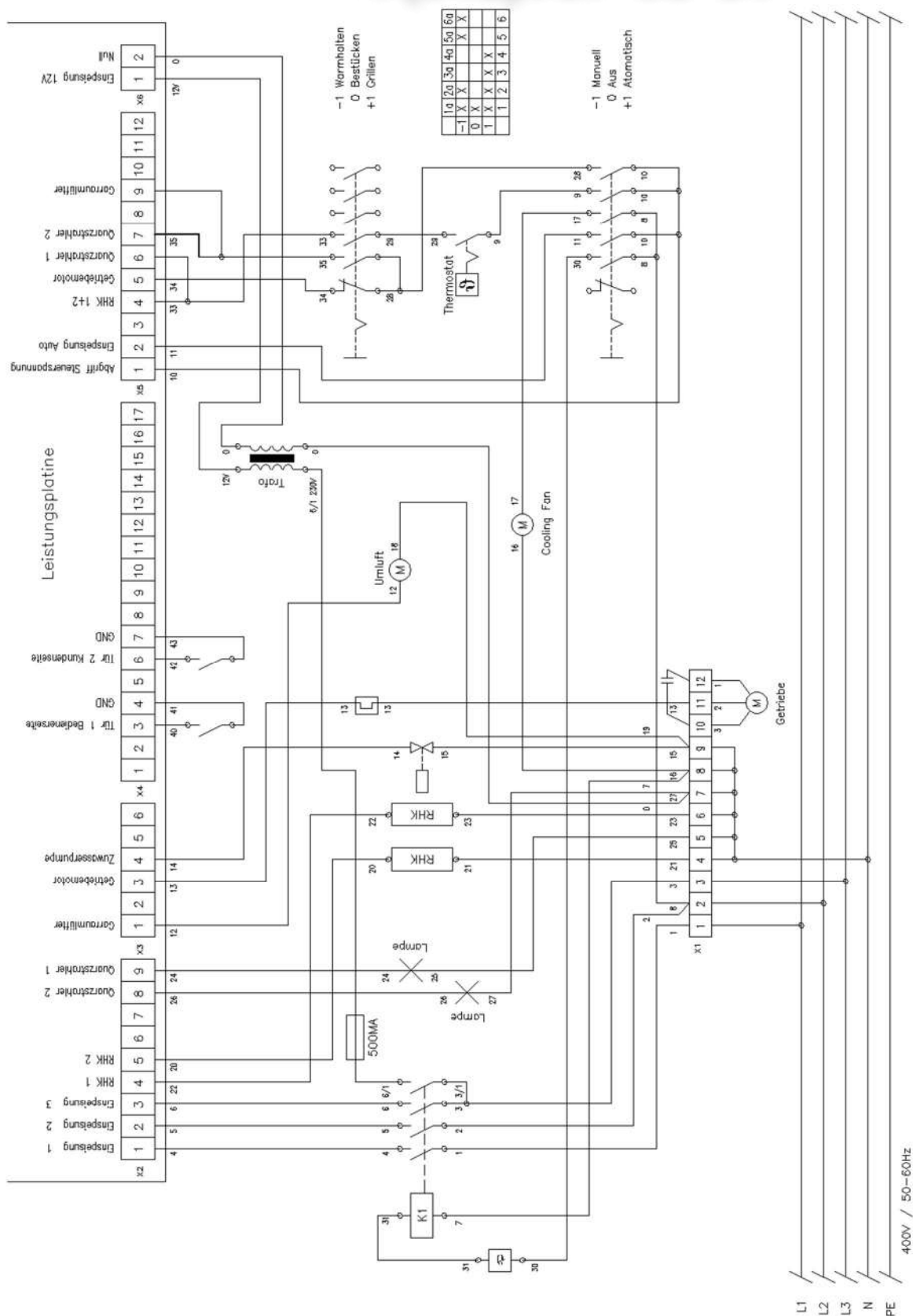
	tate.	Doors are not closed (RT307 only)	service! Close the doors!
6.	Rotisserie does not reach the required temperature.	Electrical supply is not o.k. Heating elements are defect. Fan defect. Thermostat defect.	Check the fuse box! Call the service! See point 2 or call the service! Call the service!
7.	Difference between programmed and real time periods	Programming clock is defect.	Call the service!

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6.3 Wiring Diagrams

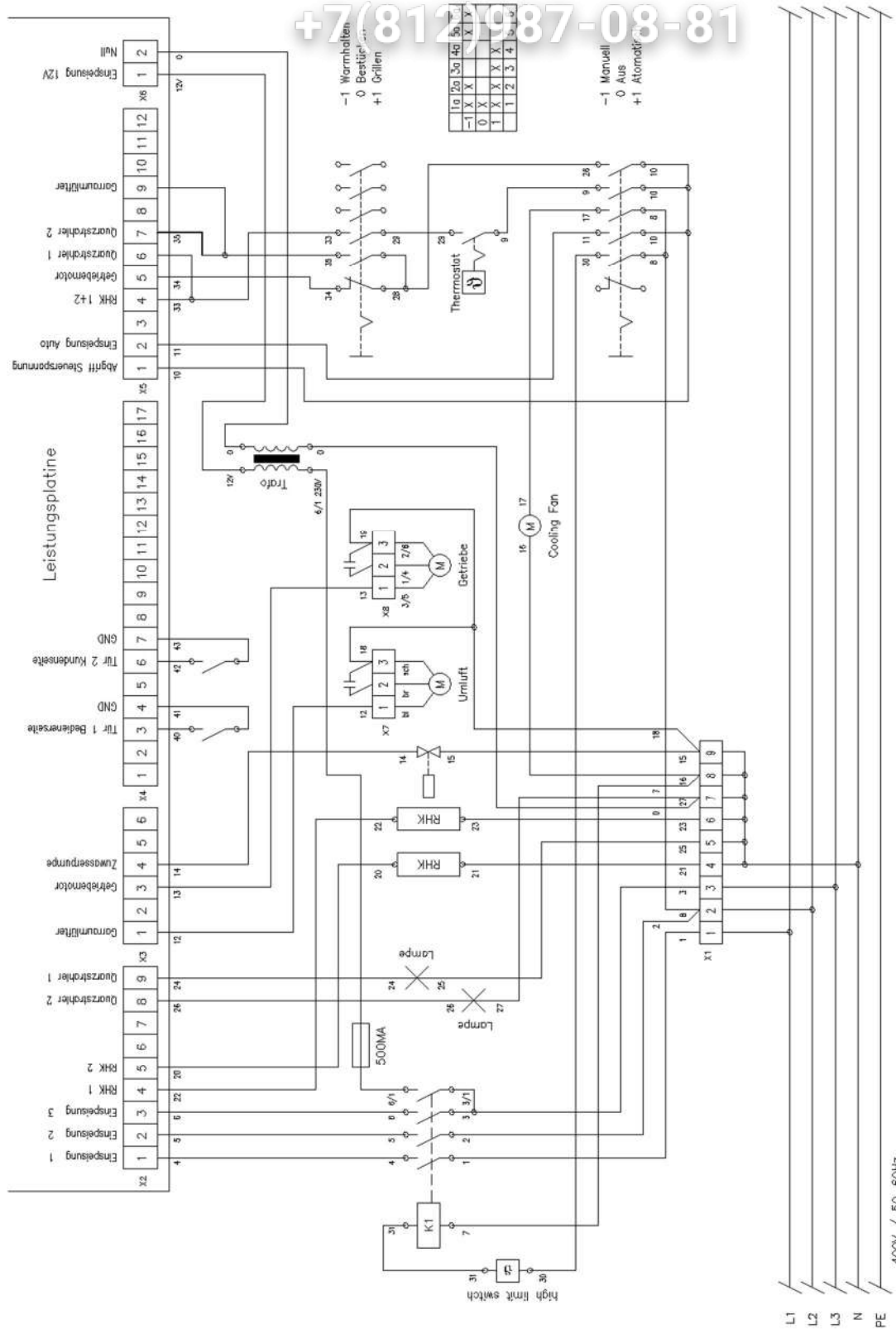
RT 506 CC



RT 508 CC

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6.4 Spare Parts

Defect parts are to be replaced only by original spare parts of UBERT GASTROTECHNIK GMBH; the replacement is to be carried out only by their service staff or by your authorized service companies. If you do not observe this note or in case of manipulation of a third party any claims for guarantee will become invalid! Also all certifications (CE, UL, NSF and the like) become invalid!



6.4.1 Spare Part Lists

RT508 CC

Description	Part. No.	Amount
Bearing accommodation	380682	1
brass	380627	1
Main heating element 4500W	343145	2
lamp socket for Q1000	340410	4
Quarzlamp 1000W	Q1000	2
high limit switch	342221	1
Temperature probe PT100	342237	1
Fan assy.	344103	1
Gear motor	380124	1
Door switch	341150	2
Strain relief	338112	1
Strain relief counter nut	338113	1
Display	360112	1
Decor glass	419003	1
Fan	344109	1
Ball valve	355504	1
Knurled nut	344119	2
front glass curved external	421032	2
grip stick assy.	370104	2
front glass curved internal	421033	2
Universal control, complete RT/RoFry	340810	1
Sensor board for 340810	340811	1
Power board for 340810	117116	1
Control board for 340810	340113	1
Thermostat	342201	1
Rotary switch	341105	2
Knob without reference point	361301	1
Knob with reference point	361102	3
Cab with finger basin	361103	4
Reference point for knob	361104	3
Conduction terminal 16qmm	333317	9
Wago closedown plate	333319	1
Bridge	333318	5
End fitting for TS35	333306	2
Wago identifier	333309	1
Terminal block	333323	6
Wago end fitting	333324	2
Contactor heating	342412	1
Capacitor 4µF	380129	1
Capacitor 5µF	380130	1
Shaft assy.	126014	1
Disk set	126017	1
Core temperature sensor	342238	1

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RT506 CC

Description	Part. No.	Amount
Bearing accommodation		1
Brass	380618	1
Main heating element 2000W	343139	2
Lamp socket for Q1000	340410	4
Quarzlamp 1000W	Q1000	2
High limit switch	342221	1
Fan	342237	1
Fan assy.	344112	1
Fan wheel	344110	1
Gear motor	380103	1
Door switch	341150	2
Strain relief	338112	1
Strain relief counter nut	338113	1
Display	360113	1
Decor glass	419006	1
Fan	344109	1
Ball valve	355506	1
Knurled nut	344119	2
Front glass curved external	421039	2
Grip stick assy.	370109	2
Front glass curved internal	421040	2
Universal control, complete RT/RoFry	340810	1
Sensor board for 340810	340811	1
Power board for 340810	117116	1
Control board for 340810	340113	1
Thermostat	342201	1
Rotary switch	341105	2
Knob without reference point	361301	1
Knob with reference point	361102	3
Cab with finger basin	361103	4
Reference point for knob	361104	3
Conduction terminal 16qmm	333317	9
Wago closedown plate	333319	1
Bridge	333318	5
End fitting TS35	333306	2
Wago Identifier	333309	1
Terminal block	333323	6
Wago end fitting	333324	2
Contacting heating	342412	1
capacitor 4μF	380129	1
capacitor 5μF	380130	1
Shaft assy.	126023	1
Disk set	126194	1
Core temperature sensor	342238	1

6.4.2 Replacement of Quartz Heater Lamps



Warning: Remove all electrical power supplied to the unit by unplugging the power cord or electrical shock could result. If the unit is permanently wired, the circuit breaker must be used to disconnect power.

1. Loosen two screws on both ends to remove the upper half of the lamps socket.
2. Use a 7mm wrench or nut driver and remove nut from lamps.



Caution: It is recommended not to touch heater with hands. Use gloves when replacing or damage to heater lamps could result.

3. Install new heater. Make sure to use the bras washer and securely tightening nut for heater wire. Hold the metal part of the lamp to avoid breaking it from the glass finally unwrap the paper around the lamp.



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7 Service

7.1 Update the Software



Note! Before you update the software please write all program settings (cooking and cleaning) onto the provided form. After the update you have to delete all programs and then you have to enter them again, to guarantee proper function of the CONVEX.



Disconnect the CONVEX from the mains!

Remove the 4 screws on the right hand side and then remove the side cover.



Control board is exposed now.



Remove the 8 screws that fix the control board.

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Turn around the control board. The arrow points onto the FLASH-socket



Now remove the FLASH by use of a special plier. If you don't have such a tool, you can also use a tapering thing like a tweezers and lift the FLASH carefully out of its socket



Put the new FLASH (that includes the software-update) into the socket.

NOTE: Make sure to have the chamfered edge in the upper right corner

finally re-assemble all parts in reverse order.

Reconnect the CONVEX back to the mains and switch the CONVEX on. During INITIALIZE change into the Parameter Level as it is explained below. Skip all Questions by confirming "N" with the start key until you read DELTET PROG. N. Turn the encoder until it reads DELTET PROG. Y and push the start key to confirm. Hereby you maintain a proper function of the CONVEX.

Once you have deleted all programs you can leave the parameter level. After leaving the parameter level the CONVEX starts again and then changes into the stand-by-mode. Now you can enter the programming mode and re-program the machine with the settings you have written onto the provided form.

8 Service Mode

The following description is referencing to machines using the software release 1.31 to 3.31.

To enter the service mode, switch the CONVEX to Auto.

In the clear type display UBERT CONVEX VERSION appears and the release of the installed software, e.g. 1.31. Then INITIALIZE is shown on the display. After the initialization the CONVEX automatically turns into the stand-by mode.

Push  and  simultaneously for approximately 3 seconds. Use the encoder to adjust the requested code to

CODE: 123 and push  to enter the service mode.

While in the service mode, use the encoder to change a parameter setting. To confirm the setting and step to the next parameter, push .

Overview:

Parameter	Description	Adjustment range	Default	Note
CALIBRATE?	Temperature Calibration	Y / N	N	All controls are calibrated when delivered. In case recalibration is necessary, learn later in this chapter how this is done.
SERIALNUM.?	Enter the serial number of the machine	Y / N	N	Only necessary after replacement of the CPU-board.
TYPE?	Type of device	ROFRY / CONVEX	CONVEX	Always set to CONVEX
CHANGE CODE	Access code to reach programming mode	000 / 254	110	Allows changing the access code for the programming mode in case it got modified and then forgotten.
LANGUAGE?	Select the operating language.	GERMAN / ENGLISH / FRENCH / SPANISH	GERMAN	Change the operating language in case you prefer a different language. Software 2.XX and 3.XX offer other languages
TEMPERATURE?	Select the temperature unit	FAHRENHEIT / CELSIUS	CELSIUS	Change to FAHRENHEIT if you prefer this temperature unit
MAX TEMP?	Select the maximum Set-Temperature	150 / 260	250	Always set in degrees Celsius. Due to technical reasons do not set any higher than 250 °C
STEAM?	Select if steam injection is included or not	Y / N	Y	Preset to: Y on CONVEX with steam N on CONVEX without steam
SPITS?	Select the no. of spits in the CONVEX	5 / 8	8	On RT506 set to 6 On RT508 set to 8
CHRG. PHASES	Select the max. no. of cooking steps during	3 / 5	3	Preset to: 3 on all CONVEX Rotisseries

	CHRG-Grilling			
LAMP WARMING?	Selection for Infrared-lamps	OFF / FRONT / REAR / ALL	FRONT	Allows deciding which lamp is switched on during warming: OFF = none FRONT = operator side REAR = customer side ALL = both
OFFSET TEMP?	To compensate temperature deviations	-30 / 30	000	To adjust temperature deviations between measured and indicated temperatures
STEAM COOL?	To adjust how much steam is generated during cool down	0 / 100	100	If set to: 0 = not steam during cool down 100 = maximum steam during cool down (permanently water)
TEMP . COOL?	To adjust the temperature target for cool down	35 / 85	60	Should be set to the appropriate temperature for the cleaner that is used
DEL . PROGRAMS?	To delete all Cooking Programs.	Y / N	N	Only necessary after replacement of a CPU-Board.
TEST MODE?	To enter TEST-MODE	Y / N	N	To enter the Test-mode for further evaluation and testing of all components in CONVEX

8.1 Calibration of the temperature sensors

If you do not want to calibrate, leave the inquiry on "N" and confirm via start button.

Within the clear type display appears CALIBRATE? N. To calibrate the temperature sensor to CH1 and CH2 switch the "N" via encoder to "Y" and confirm your input with the start button.

You need 4 resistors to calibrate the 2 channels of the control-board (selection according diagram below POINT 1.)

Use calibrated precision resistors (e.g. from: BURSTER Präzisionsmeßtechnik GmbH & Co. KG in D – 76593 Gernsbach / Germany)



Resistor Selection:

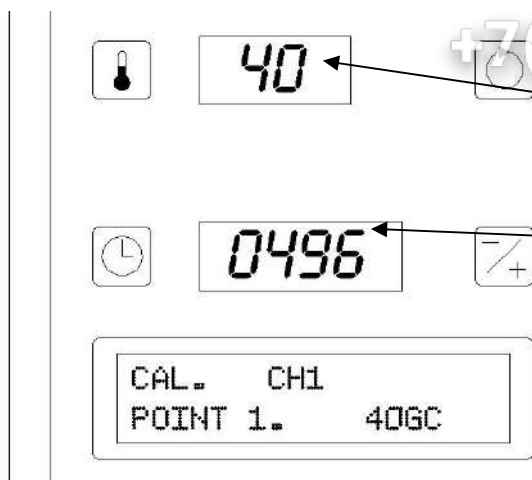
The Temperature data of these resistors must be within the following temperature range:

- POINT 1. 35°C – 65°C
- POINT 2. 70°C – 110°C
- POINT 3. 140°C – 190°C
- POINT 4. 200°C – 289°C

If you have exposed the boards insert the selected resistor for POINT 1 to the left plug-in termination on the CPU-board which is channel1 (CH1.)

Now switch CONVEX on again.

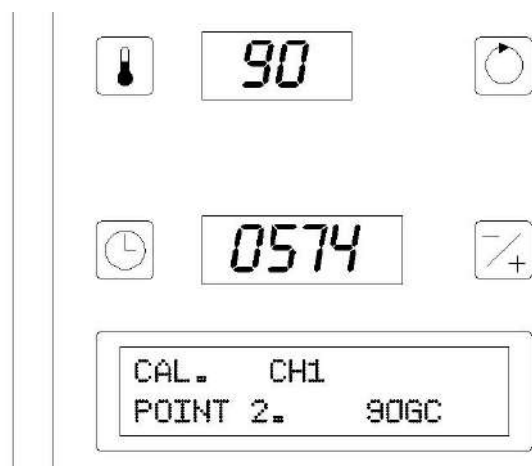
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In the clear type display POINT 1 for the calibration is requested. Adjust the temperature of the first resistor in the temperature display using the encoder.

Wait until the number that occurs in the time display does not change any more and confirm the setting by pushing the start button.

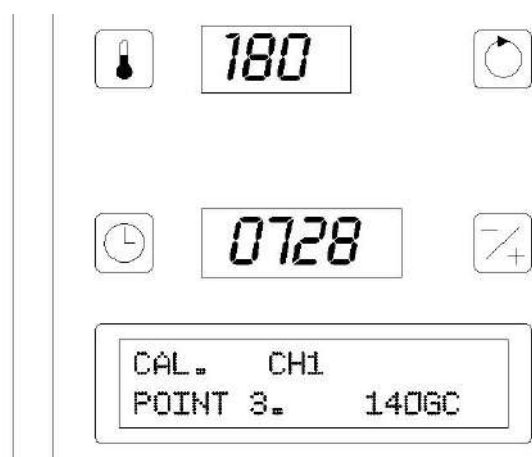
Now remove the resistor that belongs to POINT 1. Plug in the resistor that belongs to POINT 2.



In the clear type display POINT 2. for the calibration is requested. Adjust the temperature of the second resistor in the temperature display using the encoder.

Wait until the number that occurs in the time display does not change any more and confirm the setting by pushing the start button.

Now remove the resistor that belongs to POINT 2. Plug in the resistor that belongs to POINT 3.



In the clear type display POINT 3. for the calibration is requested. Adjust the temperature of the third resistor in the temperature display using the encoder.

Wait until the number that occurs in the time display does not change any more and confirm the setting by pushing the start button.

Now remove the resistor that belongs to POINT 3. Plug in the resistor that belongs to POINT 4.

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In the clear type display POINT 4. for the calibration is requested. Adjust the temperature of the fourth resistor in the temperature display using the encoder.



0804



Wait until the number that occurs in the time display does not change any more and confirm the setting by pushing the start button

CAL. CH1
POINT 4. 225GC

Calibration of CH1 is complete. Remove the resistor that belongs to POINT 4. Re-connect the CONVEX temperature probe to the left plug-in termination on the CPU-board.

Repeat the whole procedure for CH2.

If you do not want to calibrate, leave the inquiry on "N" and confirm via start button.

8.2 Accuracy of temperature probe

To check the accuracy of the temperature probe you can measure the resistance of the probe with an Ohm-meter at a certain Temperature [°C] and compare it to the data [Ω] shown in the table below.

	0	1	2	3	4	5	6	7	8	9
0	100,000	100,391	100,781	101,172	101,562	101,953	102,343	102,733	103,123	103,513
10	103,903	104,292	104,682	105,071	105,460	105,849	106,238	106,627	107,016	107,405
20	107,794	108,182	108,570	108,959	109,347	109,735	110,123	110,512	110,898	111,286
30	111,673	112,060	112,447	112,835	113,221	113,608	113,995	114,382	114,768	115,155
40	115,541	115,927	116,313	116,699	117,085	117,470	117,856	118,241	118,627	119,012
50	119,397	119,782	120,167	120,552	120,936	121,321	121,705	122,090	122,474	122,858
60	123,242	123,626	124,009	124,393	124,777	125,160	125,543	125,926	126,309	126,692
70	127,075	127,458	127,840	128,223	128,605	128,987	129,370	129,752	130,133	130,515
80	130,897	131,278	131,660	132,041	132,422	132,803	133,184	133,565	133,946	134,326
90	134,707	135,087	135,468	135,848	136,228	136,608	136,987	137,367	137,747	138,126
100	138,506	138,885	139,264	139,643	140,022	140,400	140,779	141,158	141,536	141,914
110	142,293	142,671	143,049	143,426	143,804	144,182	144,559	144,937	145,314	145,691
120	146,068	146,445	146,822	147,198	147,575	147,951	148,328	148,704	149,080	149,456
130	149,832	150,208	150,583	150,959	151,334	151,710	152,085	152,460	152,835	153,210
140	153,584	153,959	154,333	154,708	155,082	155,456	155,830	156,204	156,578	156,952
150	157,325	157,699	158,072	158,445	158,818	159,191	159,564	159,937	160,309	160,682
160	161,054	161,427	161,799	162,171	162,543	162,915	163,286	163,658	164,030	164,401
170	164,772	165,143	165,516	165,885	166,256	166,627	166,997	167,368	167,738	168,108
180	168,478	168,848	169,218	169,588	169,958	170,327	170,696	171,066	171,435	171,804
190	172,173	172,542	172,910	173,279	173,648	174,016	174,384	174,752	175,120	175,488
200	175,856	176,224	176,591	176,959	177,326	177,693	178,060	178,427	178,794	179,161

210	179,528	179,894	180,260	180,627	180,993	181,359	181,725	182,091	182,456	182,822
220	183,188	183,553	183,918	184,283	184,648	185,013	185,378	185,743	186,107	186,472
230	186,836	187,200	187,564	187,928	188,292	188,656	189,020	189,383	189,746	190,110
240	190,473	190,836	191,199	191,562	191,924	192,287	192,649	193,012	193,374	193,736
250	194,098	194,460	194,822	195,183	195,545	195,906	196,268	196,629	196,990	197,351
260	197,712	198,073	198,433	198,794	199,154	199,516	199,875	200,235	200,595	200,954
270	201,314	201,674	202,033	202,393	202,752	203,111	203,470	203,829	204,188	204,546
280	204,905	205,263	205,622	205,980	206,338	206,696	207,054	207,411	207,769	208,127
290	208,484	208,841	209,198	209,555	209,912	210,269	210,626	210,982	211,339	211,695
300	212,052	212,408	212,764	213,120	213,475	213,831	214,187	214,542	214,897	215,252
310	215,608	215,962	216,317	216,672	217,027	217,381	217,736	218,090	218,444	218,798
320	219,152	219,506	219,860	220,213	220,567	220,927	221,273	221,626	221,979	222,332
330	222,685	223,038	223,390	223,743	224,095	224,448	224,799	225,151	225,503	225,855
340	226,206	226,558	226,909	227,260	227,612	227,964	228,314	228,664	229,015	229,366
350	229,716	230,066	230,417	230,767	231,117	231,467	231,816	232,166	232,516	232,865
360	233,214	233,564	233,913	234,262	234,610	234,959	235,308	235,656	236,005	236,353
370	236,701	237,049	237,397	237,745	238,093	238,440	238,788	239,135	239,482	239,829
380	240,176	240,523	240,870	241,217	241,563	241,910	242,256	242,602	242,948	243,294
390	243,640	243,986	244,331	244,677	245,022	245,367	245,713	246,058	246,403	246,747
400	247,092	247,437	247,781	248,125	248,470	248,814	249,158	249,502	249,845	250,189

8.3 Serial Number

Within the clear type display appears SERIALNUMBER? N. After exchanging the Control board, please enter the serial number of the CONVEX as you can read it on the nameplate now. Adjust the "N" with the encoder to "Y" and confirm via start button. Now the first digit of the serial number starts blinking in the clear type display. Move the underline within the second line of the clear type display with the encoder below the sign/number to be inserted and confirm via start button. Now the second / the next digit of the serial number in the first line of the clear type display start blinking – just proceed analogue with the next digits. After entering the complete serial number move the underline with the encoder beneath the sign: ↵ and confirm via start button. The inserted serial number will now be saved in the memory.

If you do not want to enter a new serial number just leave the "N" and confirm via start button.

8.4 Type of Device

In the first line of the clear type display appears now TYPE? Here adjust the general control to the type of device "ROFRY / CONVEX". Select via the encoder the type CONVEX in the second line of the clear type display. Confirm this with the start button.

8.5 User Password

In the clear type display appears USER PWD? Within the temperature display the user password will be shown (standard 110). Via encoder this code can be changed. Confirm this with the start button.

8.6 Language Selection

In the first line of the clear type display appears LANGUAGE? The second line offers four different languages as standard (GERMAN, ENGLISH, FRENCH and SPANISH). Via encoder the requested language can be selected. Confirm your choice with the start button.

8.7 Temperature Unit

Within the first line of the clear type display appears TEMPERATURE? In the second line CELSIUS and FAHRENHEIT are at your disposal. You can choose the requested temperature via the encoder. After selecting please confirm via pushing the start button.

8.8 Maximum Temperature

Now MAX TEMP? appears in the clear type display. Here you can select the maximum temperature via the encoder. The temperature will be shown in the temperature display. The electronic is limited to 260°C. Should for any reasons this temperature exceed the 260°C, the security temperature limiter will turn off at 280°C. The minimum adjustable value is at 150°C, and the maximum at 260°C. After selecting the maximum temperature, please confirm this with the start button.

8.9 Steam Injection

Should be set to Y (=YES) in case the CONVEX was manufactured with steam injection or N (=NO) in case it was built without. If set to N, all functions linked to steam are switched off like the clean support button, the steam button etc.

8.10 Number of Spits

Select the number of spits used in the CONVEX. This represents the number of spits that are available in the revolving mode.

8.11 Charge Grilling Phases

Most common is to use max 3 steps during a charge grilling program. In case the rotisserie is loaded with small products, it might make sense to increase this number up to max 5 cooking steps.

8.12 Lamp for Warming

Depending on the location of the CONVEX it makes more sense to keep the light at the operator's side always on (e.g. the CONVEX is standing in front of a wall) or the customer's side (e.g. Convex is placed on middle counter). Make sure the end customer has the best possible illumination from his point of view.

8.13 Offset temperature

In case the real temperature (measured with a calibrated, independent thermometer) differs from the measured temperature, you can compensate such difference here.

8.14 Steam during cool down

To speed up the cool down process at the end of a working day, you can use steam to compensate heat and to moisten the grease residues inside the CONVEX. In case you do not run into capacity problems of the drawer, you should use as much steam as possible. In opposite to the grilling modes, 100% steam during cool down really means constantly running water!

8.15 Temperature target for the cool down

Depending on the cleaner that is used, the typical target temperature at the beginning of the clean support cycle is app. 60°C. (e.g. TEMP COOL is 60, during the cool down, the temperature drops 15° below this temp (45°C) cool and then reheats for 15 until it reaches 60°C) This to make sure, to inject steam and not water at the end of the cool down maintaining fully moistened chamber walls inside the CONVEX)

8.16 Deletion of the Programs

In the clear type display appears DELETE PROGRAMS? With this function all programs can be deleted except the cleaning programs. This function should be activated when new software is installed to avoid fragments of the old software remaining in the memory. All user-defined programs and adjustments should be written down prior to deletion!. Via encoder the display should be switched to "Y" to delete all programs. After selection confirm with the start button.

9 Test Mode

The clear type display shows TEST MODE. This mode has been created to test all components regarding their functionality. If you want to perform the test, switch to "Y" via encoder and confirm with the start button.

While in test mode, use the encoder  resp.  and  to stop and start a component.

To step to the next test, push 

Overview:

Test	Description	Adjustment range	Note
TEST LED+KEYS	Check LED's and keys.	/	All keys are illuminated in red. Push every key to change the color from red to green. Jumps automatically into the next test as soon as all keys are green
TEST 7-SEG	Check 7-segm. Displays	/	Both 7 segment displays show the numbers 1-0. Push  to jump to the next test.
TEST ENCODER	Check the encoder	/	Turn the encoder  and the digits in the Temperature display should change. Push  to jump to the next test.
TEST PT100	Check temperature probe	/	See the actual temperature in the temperature display. Push  to jump to the next test.
CLEAR TYPE DISP	Check clear type display	/	See letters, digits and spec. characters in the display. Push  to jump to the next test.
HEATING OFF	Check the heating elements. (Do not use longer than 20 sec.!)	OFF / ON	Push  to switch on, push  to switch off the heating elements. Turn the encoder  to jump to the next test. (Heating elements will be switched off in any case)
FAN OFF	Check the main fan	OFF / ON	Push  to switch on, push  to switch off the fan. Turn the encoder  to jump to the next test.
SP. ENGINE OFF	Check rotation of the centre shaft	OFF / ON	Push  to switch on, push  to switch off the motor. Turn the encoder  to jump to the next test.
ST. VALVE OFF	Check for proper water supply to the CONVEX	OFF / ON	Push  to open, push  to close the steam valve. Turn the encoder  to jump to the next test.
LAMPS OFF	Check both infra-red lamps	OFF / ON	Push  to switch on, push  to switch off the lamps. Turn the encoder  to jump to the next test.
DOOR CLOSE	Check door	CLOSE / OPEN	Open both doors to check proper func-

	locking system.		tion of the micro switches. Turn the encoder to jump to the next test.
EXIT	Exit test mode.		Push to exit test mode. (All components will be switched off in any case)

9.1.1 Test LED and Keys

In the clear type display TEST LEDS+KEYS appear. Here the LED's and keys will be checked regarding their functionality. All keys are red illuminated. Use every key one after the other. The used keys change their color from red to green. After using the last key the electronic jumps to the next function test.

9.1.2 Test 7-Segment Display

In the clear type display appears now TEST 7-SEG. During testing of the 7 segment displays the numbers 1-0 will be shown clockwise on the temperature display and the time display (pic 4.8). After completion confirm with the start button.

9.1.3 Test Encoder

In the clear type display appears TEST ENCODER. Via encoder this function can be tested. If the value in the temperature display changes while using the encoder that means it is functioning. Go to the next menu point via start button.

9.1.4 Test Temperature Probe

In the clear type display appears TEST PT100. The key "temperature" illuminates in green. The display in the temperature display shows the current temperature of CH1. While pushing down the key "temperature" CH2 for the core temperature probe will be shown. Via pushing the start button the next step in the test mode will be activated.

9.1.5 Test Clear Type Display

In the first line of the clear type display the big letters A – P will be shown. The second line shows the special characters for the encoder, the start button, the numbers from 1-0 and the characters äöü. Via pushing the start button the next step in the test mode will be activated.

9.1.6 Test Heating Element

In the clear type display the special character for the encoder and the word HEATING appear in the first line. In the second line OFF is shown above the "stop" key and ON is shown above the "start" key. Via using the start key the heating element will be activated. Now the LED's H1 – H3 light up at the power board. With the "stop" key the heating element will be switched off.

ATTENTION! Do not turn on the heating element longer than 20 seconds, since the heating elements require forced ventilation.



Via using the encoder the next step in the test mode will be activated.

9.1.7 Test Main Fan

In the clear type display the special character for the encoder and the word FAN appear in the first line. In the second line OFF is shown above the "stop" key and ON is shown above the "start" key. Via using the start key the main ventilator will be activated. Now the LED 4 light up at the power board. With the "stop" key the main ventilator can be switched off. Via using the encoder the next step in the test mode will be activated.

9.1.8 Test Spits Drive Motor

In the clear type display the special character for the encoder and the word SP . ENGINE appear in the first line. In the second line OFF is shown above the “stop” key and ON is shown above the “start” key. Via using the start key the MOTOR will be activated. Now the LED 6 light up at the power board. With the “stop” key the motor can be switched off. Via using the encoder the next step in the test mode will be activated.

9.1.9 Test Steam Valve

In the clear type display the special character for the encoder and the word ST . VALVE appear in the first line. In the second line OFF is shown above the “stop” key and ON is shown above the “start” key. Via using the start key the valve will be opened. Now the LED 7 light up at the power board. With the “stop” key the valve can be closed. Via using the encoder the next step in the test mode will be activated.

9.1.10 Test Lamps

In the clear type display the special character for the encoder and the word LAMPS appear in the first line. In the second line OFF is shown above the “stop” key and ON is shown above the “start” key. Via using the start key the MOTOR will be activated. Now the LEDs 1+2 light up at the power board. With the “stop” key the lamps can be switched off. Via using the encoder the next step in the test mode will be activated.

9.1.11 Test Door switches

In the clear type display the special character for the encoder and the words DOOR CLOSE appear in the first line. In the second line OFF is shown above the “stop” key and ON is shown above the “start” key. By opening the door, the display should change to DOOR OPEN. Via using the encoder the next step in the test mode will be activated.

9.2 Exit

In the clear type display the special character for the encoder and the word EXIT appear. Via using the start key you can exit the test mode.

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10 Error Diagnostics convex**Power Board**

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