



Witzel

Vacupress

WITZEL VACUPRESS e.K.

Inh. Hendrik Witzel

Max-Keith-Str. 66 - D-45136 Essen

☎ +49 201 6462284 📠 +49 201 6462852

✉ info@vacupress.de 🌐 www.vacupress.de

Infrared-Oven IR802

(Translation of Original-)

- 1. Setup + assembling**
- 2. Manual instruction**

Before the first commissioning of the unit
read important safety instructions on page 11!

This manual is an integral part of the installation and must be handed over to a new owner in case of sale or to an operator in case of use by a third party.

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A) INTRODUCTION

A1) GENERAL INFORMATION

These instructions are intended to provide the user and all authorised persons with important information about the safe use and maintenance of the IR802 infrared oven. The instructions are a key part of the IR802 infrared oven and must be properly stored for the entire lifetime of the equipment. In case of disposal, leasing or cession of the right to use the IR802 infrared oven, the instructions must be transferred to the new user along with the EC declaration of conformity. Any intervention in the equipment is prohibited unless all instructions in this manual have first been read attentively and properly understood. The illustrations in this manual merely constitute examples and are not binding for the manufacturer. The manufacturer reserves the right to make changes to components and parts for the purpose of improvement or other reasons, without updating this manual, provided this does not alter the operation and safety of the IR802 infrared oven.

A2) MANUFACTURER DATA

*Witzel VACUPRESS e.K.
Max-Keith-Str. 66
45136 Essen
Phone +49 201 6462-284
Fax +49 201 6462-852*

Please have the following information ready before contacting the manufacturer about the IR802 infrared oven:

- Model and serial number of the oven
- Year of manufacture
- Purchase date
- Detailed information about the problem

A3) REFERENCES

For better understanding of the information provided in this manual, information and instructions about situations considered critical or dangerous are highlighted using the following symbols:



DANGER

Identifies instructions that can lead to hazardous situations for personnel if they are not observed.



ATTENTION

Identifies instructions that can cause damage to the oven if they are not observed.

A4) TYPE PLATE

Every IR802 infrared oven has a type plate with the name of the manufacturer, the address, CE marking and the technical specifications.

The type plate is found on the rear of the control unit housing next to the power cable.

B) SAFETY

B1) GENERAL SAFETY INSTRUCTIONS

Reading these instructions before performing any work on the IR802 infrared oven is important. Regardless of the information in these instructions, compliance with the safety regulations of the country where the oven is installed is mandatory. The requirements for the deployment of qualified personnel for various maintenance, operating and installation tasks must be observed.

The most important rules of conduct for the safe operation of the equipment are:

- Installation, operating and maintenance work always has to be carried out by qualified and trained personnel.
- Proper personal protective equipment always has to be worn, with no exceptions.
- All cleaning, adjustment and maintenance tasks may only be carried out after ensuring that the power supply has been disconnected.
- Never aim a jet of water at electrical components, even if they are protected by a housing.
- Never smoke during operation or maintenance, especially if solvents or flammable materials are used.
- Do not damage information signs or pictograms posted on the oven. If they should be damaged accidentally, install identical replacements immediately.

Witzel VACUPRESS assumes no liability for damage to property or personal injury resulting from the improper use of the oven, damage to its safety devices or failure to properly observe occupational safety regulations.

B2) RESIDUAL RISK



DANGER

IR802 infrared oven was developed so that the residual risk for the user and other personnel is reduced to a minimum. Exercise extreme caution and be very attentive when performing maintenance work. Familiarity after working with the oven frequently can often cause possible hazards to be forgotten or underestimated.

- **Danger due to high temperatures**
The surface temperature on parts of the oven may exceed 70°C. Install the oven in a protected area which is only accessible to authorised personnel. Prior to any intervention, allow the oven to cool and/or wear corresponding personal protective equipment (heat protection gloves).
- **Danger due to underpressure**
Avoid contact with the intake ports when operating the oven with the vacuum source connected. Ventilate the intake circuit prior to any intervention in the system. Contacting areas with underpressure may represent a source of accidents.
- **Risk of electric shock**

There are live components in the electrical system of the IR802 infrared oven, which can result in severe personal injury and damage to property in case of contact. Any intervention in the electrical system must be carried out exclusively by qualified personnel.

- **Fire hazard**

Using the IR802 infrared oven for purposes that are not intended or are prohibited by these instructions, and lack of or improper maintenance, may result in malfunctions associated with a risk of overheating and fire. Do not use water as an extinguishing agent in case of fire. Only use powder or CO2 fire extinguishers or other extinguishing agents suitable for electrical systems.

B3) PICTOGRAMS

Pictograms with warnings and safety symbols for the user are installed on the IR802 infrared oven. The symbols and their meaning must be read carefully and observed prior to using the oven.



RISK OF ELECTRIC SHOCK

Proximity to (protected) electrical connections; accidental contact may result in electric shock or death.



DANGER HOT SURFACES

Proximity to surfaces with a temperature in excess of 70°C, which may lead to moderately severe burns.



DANGER HOT MATERIALS

Proximity to hot materials or surfaces with a temperature of more than 70°C. Always wear heat protection gloves to prevent burns.

Witzel VACUPRESS accepts no liability for personal injury or damage to property due to failure to observe rules and regulations indicated by the pictograms, or if the pictograms are not in proper condition.

B4) PERSONAL PROTECTIVE EQUIPMENT

These operating instructions are based on the assumption that the IR802 infrared oven is installed in a place of work where all mandatory safety regulations are observed; in particular, the personnel must wear suitable personal protective equipment during all activities.

Manual instructions - Infrared-Oven IR802

Purpose of the IR802

The use of the IR802 Infrared-Oven is restricted to the following purposes:

1. Heating of thermoplastic materials directly at the tray
2. Heating of thermoplastic materials which are clamped into a Blister-Forming frame (option).

All other applications are not allowed!

IT IS NOT ALLOWED TO USE MATERIALS WHICH CONTAIN SOLVENTS OR OTHER
INFLAMMABLE SUBSTANCES!



ATTENTION! DANGER OF SPONTANEOUS IGNITION OR DETONATION OF SOLVENT
CONTAINING GAS!

2.1. ATTENTION



ATTENTION

Verify that the mains voltage and frequency match the values specified on the type plate.

2.1.1 The electrical connection provided should be checked by an expert to verify that the wiring conforms to the standards.

Incorrect assignment of the n-terminal device can result in the immediate destruction of components!

2.1.2 Correct wiring is not assured, even if other machines have operated properly using the connection provided.



DANGER

Work on electrical equipment and components may only be completed by trained, qualified personnel or licensed electricians!

In case anything is unclear, our technical customer service can be contacted.

Witzel VACUPRESS e.K.
Max Keith Str. 66
D-45136 Essen - Germany
Phone +49/201/6462-284
Fax +49/201/6462-852
E-mail: info@vacupress.de

Part 2.

Manual instructions - Infrared-Oven IR802

Purpose of the IR802

The use of the IR802 Infrared-Oven is restricted to the following purposes:

1. Heating of thermoplastic materials directly on the Roll about Tray
2. Heating of thermoplastic materials which are clamped into an extra Blister-Forming frame which can be put on a cradle (option, e.g. Article 07-131).

All other applications are not allowed!

**IT IS NOT ALLOWED TO USE MATERIALS WHICH CONTAIN SOLVENTS OR OTHER
INFLAMMABLE SUBSTANCES!**



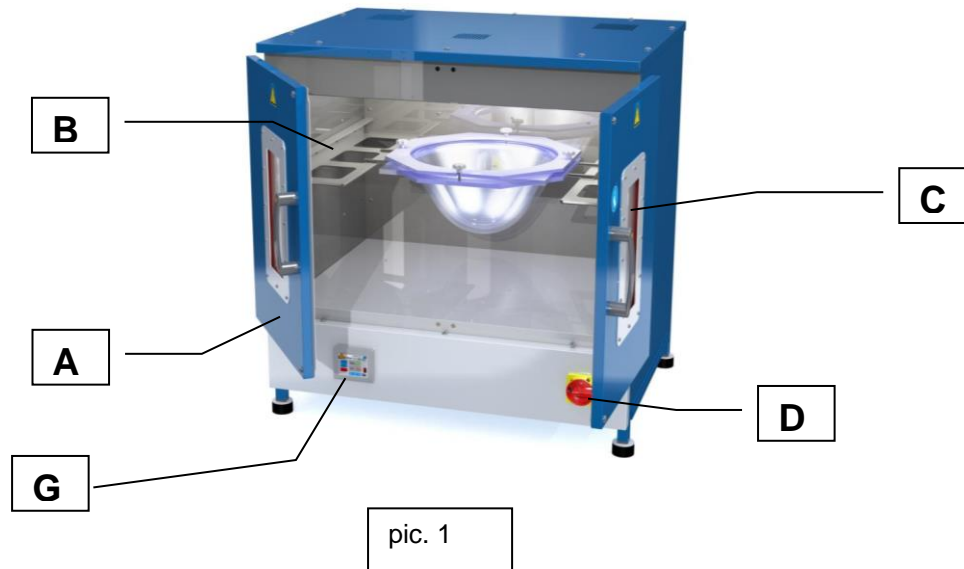
**ATTENTION! DANGER OF SPONTANEOUS IGNITION OR DETONATION OF SOLVENT
CONTAINING GAS!**

2.2. Operation instructions

Before you start to work please have a look on the components and actuators of your IR802 as shown and described below.

2.2.1 CONTROL ELEMENTS (pic. 1)

The case of the oven includes beside the electronic devices the quartz-infrared tubes (heating) and the optical temperature measuring unit.



2.2.1.1 OVEN-DOORS – pic. 1 (A)

The doors of the IR802 are designed as a double swing door. They are hinged on the left and right side and have a handle each. The doors are automatically locked by magnetic items when they are closed.

2.2.1.2 RAILS – pic. 1 (B)

There are two rails inside the oven where an optional Blister-Forming-tray for prosthetic sockets or the standard tray for heating flat plastics is placed on. **IMPORTANT! The height of the rails shows also the correct level (=distance between IR-tubes and material) where materials should be placed. To ensure an even heating process every material needs to be placed at this level. This means that blister-forming-trays with legs or cradles might need to be adjusted in height.**

2.2.1.3 VIEWING WINDOWS – pic. 1 (C)

The doors are equipped with a double pane viewing windows which allow to control the heating process while the door is closed.

2.2.1.4 MAINSWITCH – pic. 1 (D)

The main switch turns the oven completely ON and OFF.

2.2.1.5 TRAY – pic. 1 (E) (not shows on picture)

The IR802 comes with a tray to put on flat thermoplastic materials. Second you can put in an optional Blister-forming frame for prosthetic sockets.

2.2.1.6 TEFLON COATING – pic. 1 (F) (not shows on picture)

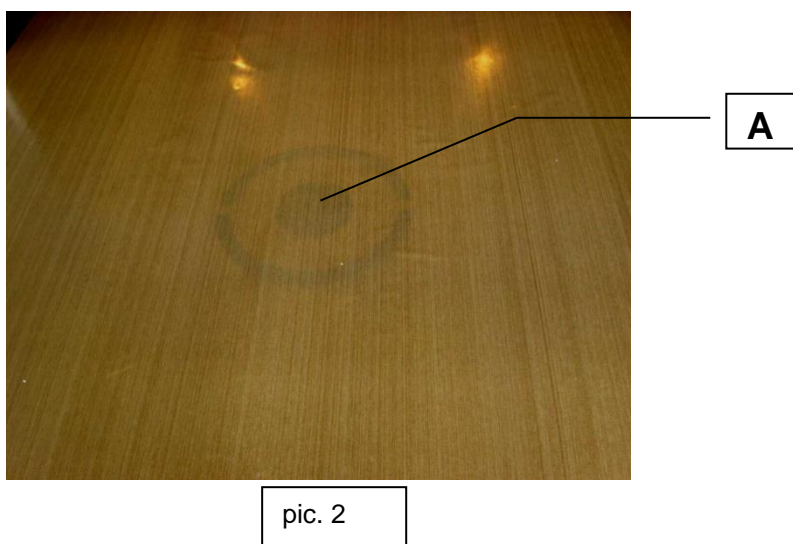
The Teflon coating prevents materials from sticking to the tray. The Teflon coating consists of a robust glassfibre fabric and can be replaced when necessary. To guarantee a lifetime as long as possible it is recommended that it is not scratched or damaged by sharp items.

2.2.1.7 CONTROLLER (Touch-panel) – pic. 1 (G)

The controller is the central unit of the oven. It is equipped with a microprocessor controller and a touch sensitive panel for user in- and output.

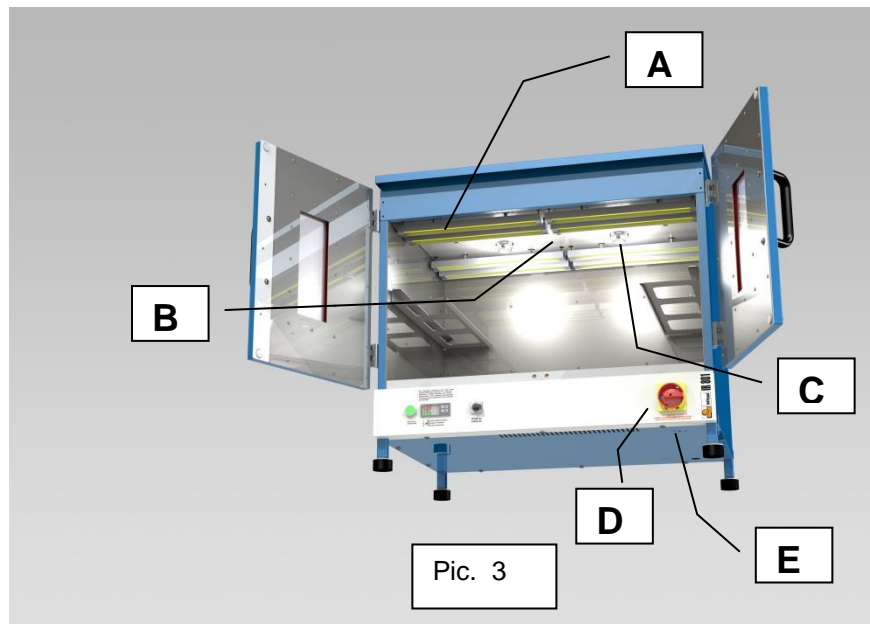
2.2.1.8 MARKING FOR THE OPTICAL SENSOR – pic. 2

The IR802 has an optical temperature sensor. This sensor „looks“ on a central area of the tray. When you put smaller pieces of material into the oven you have to be sure that they are placed right in this measuring area. To make this easier there is a marking (A) in the middle of the tray which shows the measuring area.



2.2.1.9 INFRARED-QUARTZ-TUBES (HEATING ELEMENTS) – pic. 3 (A)

The oven is equipped with 8 Infrared heating elements. The Quartz-tubes are each fitted with reflectors and can be replaced single when needed.



2.2.1.10 OPTICAL TEMPERATURE-SENSOR – pic. 3 (B)

The IR802 is equipped with an optical Temperature-Sensor (IR-sensor). The sensor is placed on top in the middle of the heating area between the tubes. The IR-sensor looks on the material from the top and measures the surface temperature of the material placed in the measuring area.

2.2.1.11 ILLUMINATION – pic. 3 (C)

The IR 802 has two 25W bulbs for illumination. The bulb is automatically activated when the oven is turned ON and OFF by the main switch.

2.2.1.12 Safety-Thermostat – pic.3 (E)

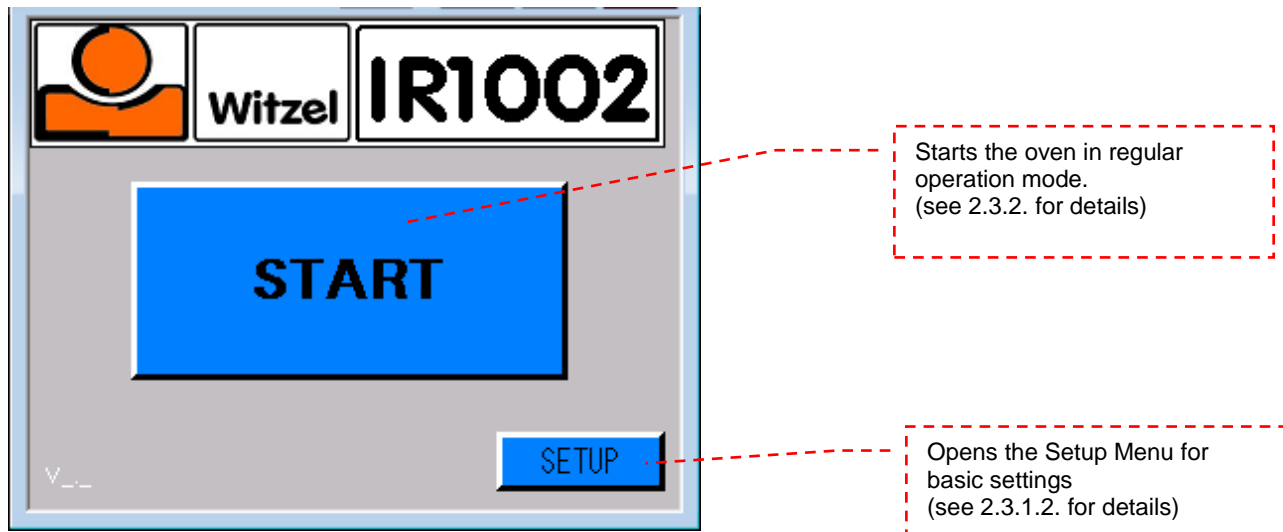
In case of a malfunction of the Temperature control elements, the IR802 is equipped with a safety-thermostat (STB) which turns off the oven when overheated. In that case the oven is shut down completely. The STB is located at the bottom of the black switch-box. After the STB has tripped, turn off the main-switch (A) and let the oven cool down. After the oven has cooled down, you can reset the STB by pushing the red button until you hear it locking. Should the STB trip again, please contact our technical service.

2.3. Feature of the controller (Touch-panel)

The IR1002 is equipped with a programmable control (SPS) which is capable to integrate multiple features. The user in- and output is realized by a touch sensitive 3,5" TFT screen which can be handled intuitively by finger or stylus input. The different screens are explained below.

2.3.1. Setup- and information-screens

2.3.1.1. Start

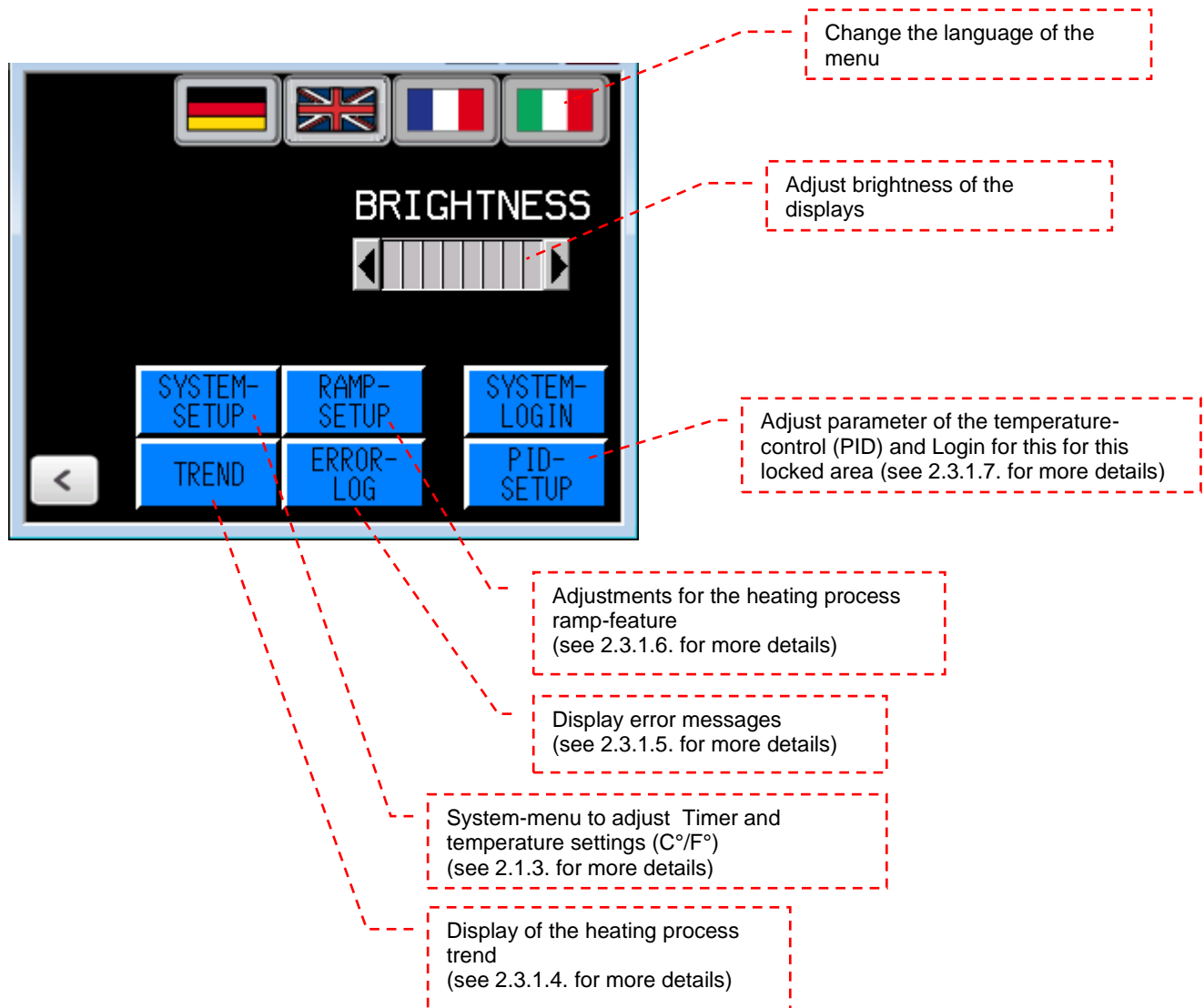


After turning on the oven the controller runs a self-test. After a few seconds the above start screen is displayed.

To start running the oven in operation mode push „START“ (for further details refer 2.3.2). By use of the „Setup“ button the submenu for basic settings is entered(see 2.3.1.2. for details).

2.3.1.2. Setup

The Setup screen consists the buttons for switching the different menu languages as well as the buttons for further configuration options.

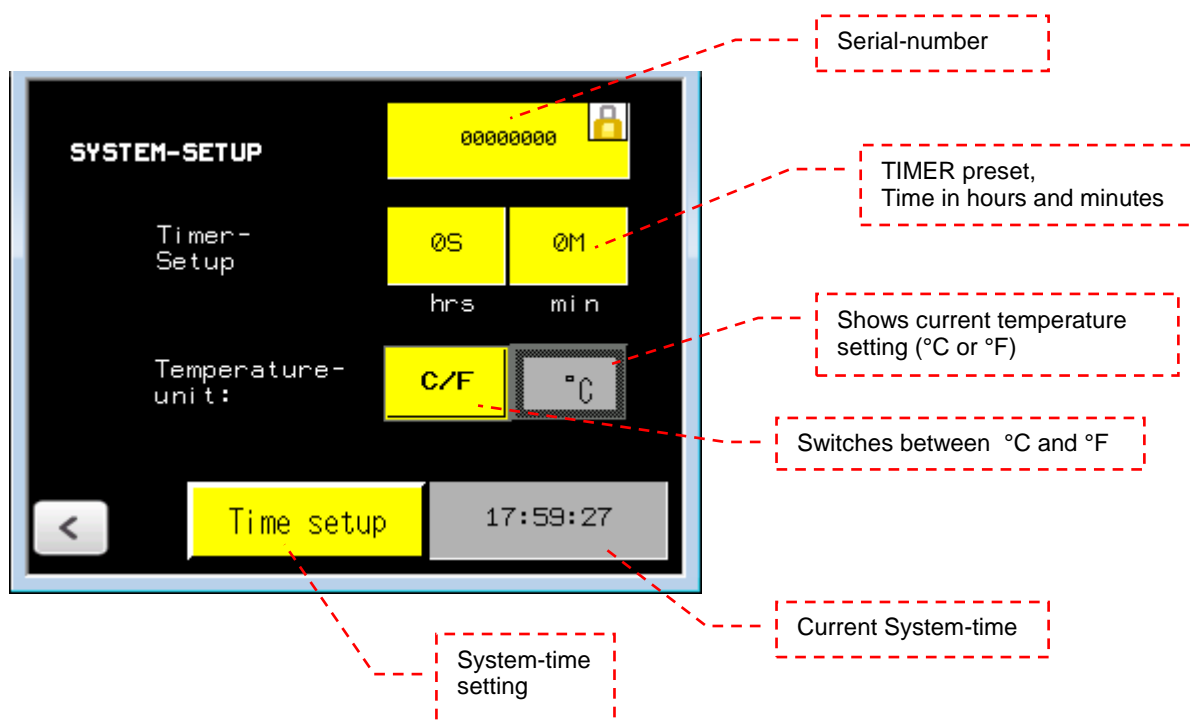


2.3.1.3. System-Setup

The system setup screen consists the timer setup to preset the time in hours and minutes further the temperature setting can be selected between °C and °F. ATTENTION! Switching the temperature setting will NOT convert the numbers in all operation modes as well as the heating ramp setup. These numbers must be adjusted manually after the temperature setting has been switched between °C and °F!

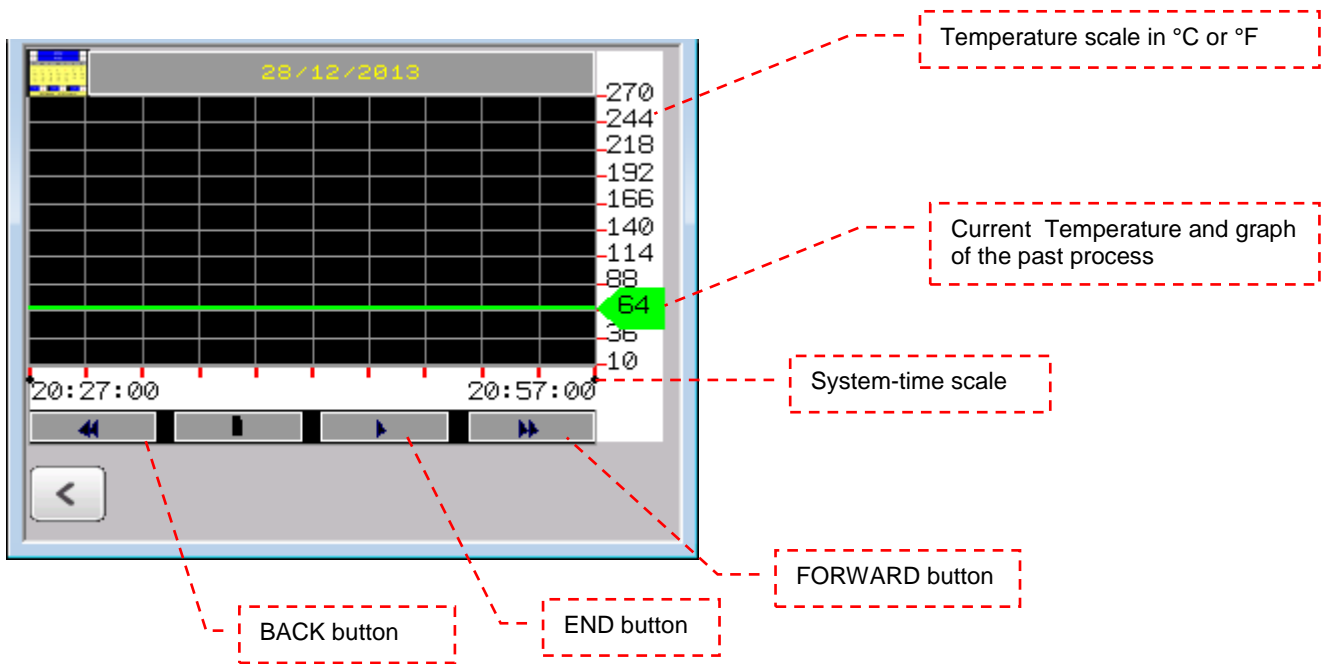
At the bottom of the screen the current system time is displayed. The feature "TIME SETUP" opens a screen where the system time and date can be adjusted.

At the upper right corner the serial number of the oven is displayed. The serial number is required at maintenance requests or spare part orders.



2.3.1.4. Heating process trend

The TREND screen gives an overview of the current heating process. Shown at the display is a graph of the MATERIAL-TEMPERATURE. The timeline can be scrolled by use of the BACK and FORWARD buttons. The END button jumps to the current time.



2.3.1.5. Errors

The error log stores disturbances and errors since the last turn on. An error could be a temperature sensor which does not work properly.



Zeit	Meldung	Ber
16:07:25	Modell Fühler nich	
16:07:51	Modell Fühler nich	

Error messages in chronological order

2.3.1.6. Ramp-setup

The ramp setup menu provides programming and activation options to allow a slowly heating with a raising heating ramp. The IR802 offers the capability of saving different Temperature-profiles.

The ramp setup screen shows a conventionalized heating graph which is partitioned in to five segments. The user can individually adjust the temperature and time for each segment. Further an alarm can be set which is activated as soon as the end of the particular segment is reached (visual alarm at the screen and by blinking yellow tower light plus audible alarm). The user can confirm an activated alarm at the screen. During an active alarm the heating process runs regularly.

The screenshot shows the Ramp-setup interface with a heating graph divided into five segments. A blue 'Ramp OFF' button is visible. A yellow tag is shown on the first segment. The interface includes a 'NEW' button, a 'Temperature-Profile' selection area, and a 'Remaining Process time' display. Callouts provide the following information:

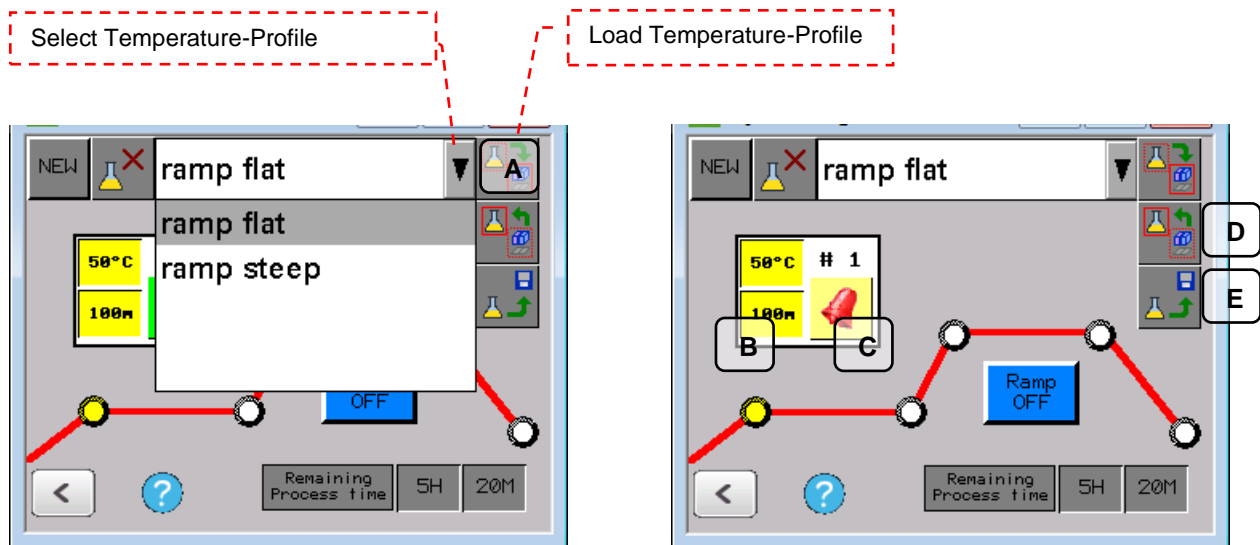
- Add Temperature-Profile**: Points to the 'NEW' button.
- Delete existing Temp.-Profile**: Points to the 'X' icon in the top left.
- Select Temperature-Profile**: Points to the dropdown menu.
- Load Temperature-Profile**: Points to the 'Load' icon (flask with up arrow).
- Write input values to Temperature-Profile**: Points to the 'Write' icon (flask with down arrow).
- Save Temperature-Profile**: Points to the 'Save' icon (flask with disk).
- Switch to set Ramp-feature ON/OFF**: Points to the 'Ramp OFF' button.
- Tag of the segments 1-5. As soon as a segment tag is activated (yellow tag), the particular input mask is shown at the upper left corner.**: Points to the yellow tag on the first segment.
- Online Help**: Points to the '?' button.
- Input mask for segments 1-5**:
 - Temperature
 - Time
 - Alarm ON/OFF
- When „RAMP ON“ is activated the total time of the heating process is displayed.**
- As soon as the heating process is started, the remaining cycle time of the heating process is displayed**

An online help is available for further explanation of the buttons. Pressing the (?) button will open a screen where detailed information for each button of the ramp-feature can be found.

The online help screen provides detailed information for the Ramp-setup buttons:

- Load Temperature-Profile**: Icon of a flask with an up arrow.
- Write new values to Temperature-Profile**: Icon of a flask with a down arrow.
- Save Temperature-Profile**: Icon of a flask with a disk.
- Delete Temperature-Profile**: Icon of a flask with an 'X'.
- Sets Alarm which will be activated as soon as Segment is reached**: Icon of a bell.
- Rampe AUS**: Turn ON/OFF Ramp Feature.

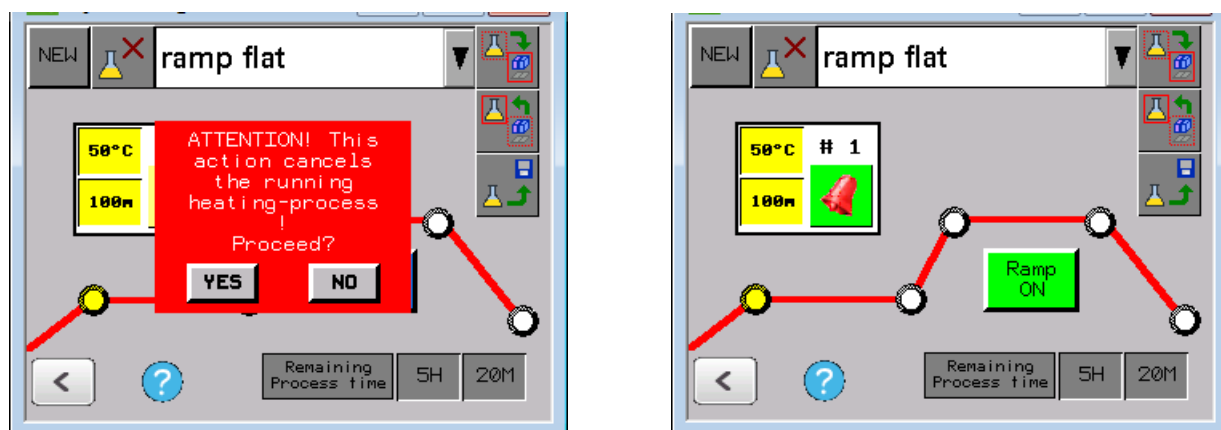
To use a heating ramp a temperature-profile must be selected from the list and loaded into the controller by use of button (A).



The stored values of segment 1 (yellow tap at red heating graph) will now be shown at the input mask (B). To show values of segment 2-5 the particular tap has to be activated. The values of the input mask will change to the activated segment.

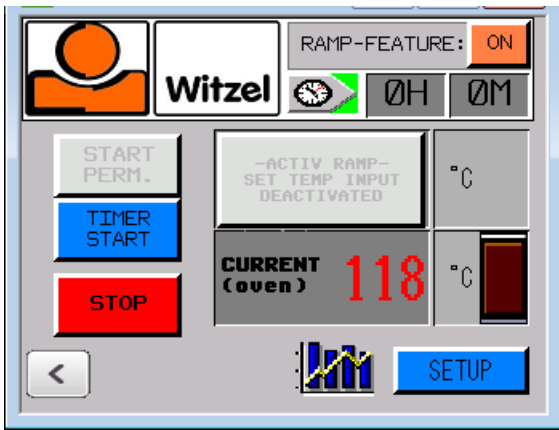
Beside the temperature which shall be reached at the END of the segment the input mask allows to enter the time value the segment shall last. Further an Alarm can be set by use of button (C). An activated alarm (button is highlighted in green) will cause a visual alarm at the screen when the end of the segment is reached. The user can reset the alarm at the screen. (IMPORTANT NOTE: During an active Alarm the heating process will NOT be stop but normally proceed. The alarm is designed to remind the user of a potential intervention at this point of the heating process.

IMPORTANT NOTE! As soon as values have been changed at the input mask these need to be written back and stored at the Temperature-Profile first! To write back the values, button (D) has to be pressed and then stored by use of button (E). Otherwise the changed values will be lost and will not take effect at the current heating process!



Finally button (F) need to be pressed to activate the Ramp-feature. After passing a reminder note the ramp-feature is activated and button (F) will change color from blue to green.

The ramp-feature status is also displayed at the main screen at the upper right corner.



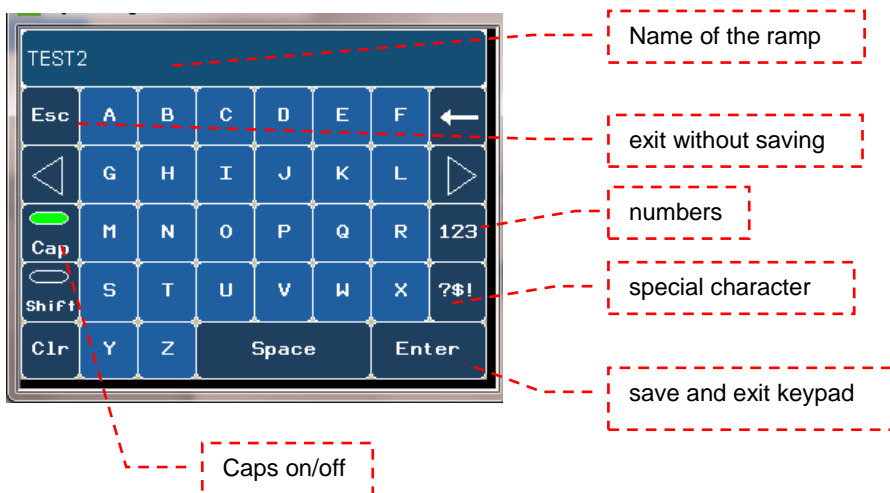
As soon as the ramp feature is activated the button for permanent oven operation as well as the set temperature input are deactivated. Both parameter are controlled by the ramp-feature resp. the Temperature-Profile of the heating-process.

With activated ramp-feature also the timer value will be overwritten. The active ramp-feature always calculates the total time by adding segments 1-5 of the activated Temperature-Profile.

2.3.1.6.1. Adding additional ramps:

Additional ramps can be set up by the user as follows:

- 1) Select „NEW“ button
- 2) Selecting the new entry at the Temperature-Profile list will open the text keypad and the user can enter an individual name for the new Temperature-Profile. Pressing „ENTER“ will close the keypad again.
- 3) Next the nominal values of segment 1 to 5 are entered for the Temperature –Profile.
- 4) **IMPORTANT! When finished, the new Temperature Profile written back by pushing button (D) and then saved by button (E). Otherwise the data that were entered are lost in the next step.**
- 5) Now another ramp can be created in the same way, or the ramp that has just been set up can be started (see above).



2.3.1.6.2. Renaming a ramp:

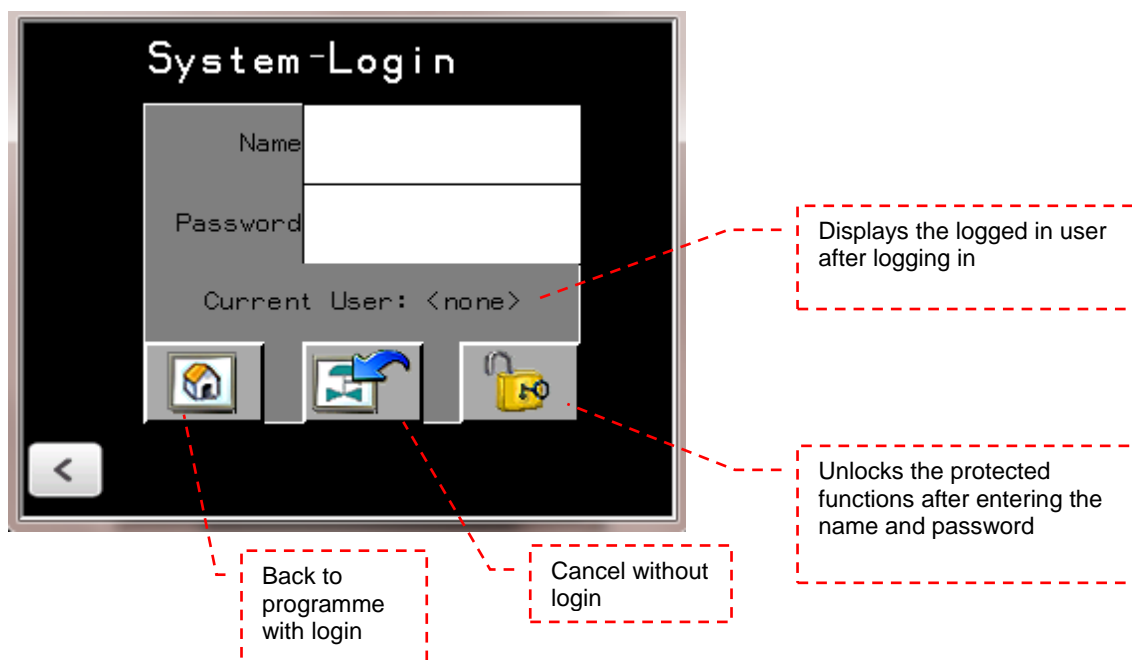
The names of the ramps that have been set up can be changed individually by the user as follows:

- 1) Select the Temperature-Profile to be changed from the list.
- 2) Tapping the name displayed opens the text keypad where the user can change the name of the Temperature-Profile. Select "ENTER" to close the text input screen when finished.
- 3) **IMPORTANT! When finished, the new Temperature-Profile to be saved by use of button (E). Otherwise the data that were entered are lost in the next step.**

2.3.1.7. PID-Setup- und System-Login

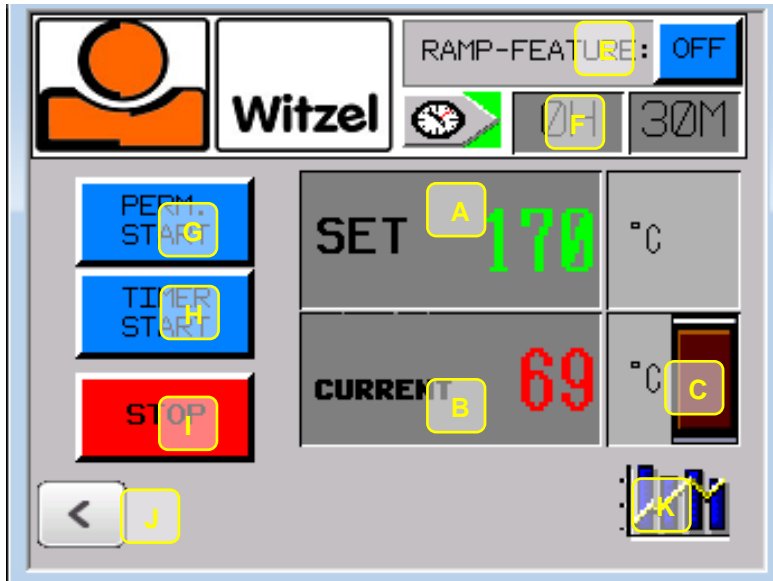
The temperature setting parameters are administered in the PID setup menu. To ensure proper functioning of the oven, these parameters must not be modified without instruction. Therefore they are protected against unintentional changes by a system login.

The login data are provided by technical customer service when they are required.



When the system is shut down the user that is currently logged in is automatically logged out again.

2.3.2. Managing the oven



- A - SET Setting the nominal temperature. Tap the green number to set.
NOTE: With an active heating ramp the SET temperature input is locked as the temperature control is handled by the heating ramp during this operation mode.
- C - CURRENT Display of the oven temperature (an optical sensor measures the surface temperature of the material (marking at the table) active in operating mode “Control via oven temperature”)
- D - LED red Lights up/flashes when oven heating is active
- E - Ramp Function This button opens the “Ramp Setup” menu screen. For more information about setup and activation, see 2.3.1.6. In addition, the blue LED indicates the current status "ON" or "OFF" for the ramp function.
- F - TIMER This button opens the system menu screen. Here the time for the timer function can be preset in hours and minutes. For more information, see 2.3.1.3. The preset time is displayed next to the timer button. When timer operation has been started with the “H” button, the remaining time is displayed.
- G - START PERMANENT This button starts the oven in continuous operating mode. During active operation, the color of the button changes from blue to light green. Note: When the ramp function is active, this button has no function since the ramp function can only be used in timer operating mode. When exiting the operating mode using the "J" button during active operation, the warning "ATTENTION! This action cancels the current heating process! Continue?" is displayed. The option “YES” stops the heating process and returns to the start screen. If “NO” is selected, the heating process keeps running.
- H - START TIMER This button starts the oven in timer operating mode. During active operation, the color of the button changes from blue to light green. When exiting the operating mode using the "J" button during active operation, the warning "ATTENTION! This action cancels the current heating process! Continue?" is displayed. The option “YES” stops the heating process and returns to the start screen. If “NO” is selected, the heating process keeps running.
- I - STOP This button stops operation of the oven in any operating mode.
- J - "<" This button closes the current screen, returning to the previous screen (applicable to all screens).
- K - PROCESS This button opens the process screen. An overview of the current heating process is displayed in the process screen. For more information, see 2.3.1.4.

2.3.3. Error- and Alert-Messages

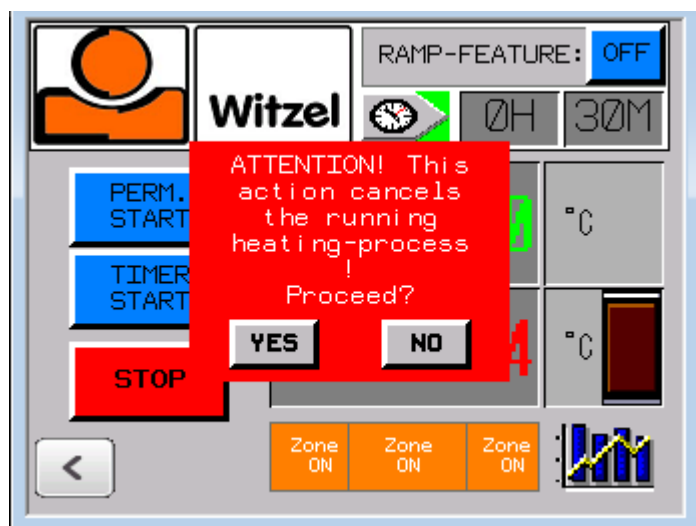
Possible Error- and Alert-Messages of the system are listed below.

2.3.3.1. Open door

This message shows up as soon as the door is opened during a running heating process. As it can happen that the door is opened intentionally during a running heating process, this process is NOT stopped by the open door. Nevertheless the Infrared heating is deactivated automatically as long as the door is opened. After the door has been closed again, the heating process is continued regularly.

2.3.3.2. Termination of the heating process

As soon as the "<" button is tapped, the ramp feature is tried to turn ON or OFF or the temperature setting (°C/°F) is tried to switch, a message is shown up that the intended feature will terminate the current heating process. The message can be confirmed by tapping "YES" or the user can return to the current heating process without changes leaving the message with "NO".



3. Application of the IR802

3.1 General notes

The infrared oven IR802 can be used to heat all thermoplastic materials which are in the market. Concerning the process instructions, especially the process temperature please follow the advisory message of the manufacturer. Best results can only be achieved when the recommended temperature is observed.

Caused by the working method and the used components **no pre-heating** of the IR802 is necessary (others than convection ovens). The system works with infrared radiant heat and has 100% effect already a few moments after it is turned on. Further the IR802 can be directly switched off when not needed. If you use the IR802 - as intended at its development - only when needed, you save a lot of energy and save the ovens components!

3.2. Heating of flat plastics directly at the tray

- The IR802 is turned on by use of the ON-OFF main switch (pic. 1 (D)). After the Start screen shows up the operation mode is selected by pushing the START button
- by pushing the green SET temperature it can be adjusted to material to be heated. The number will be set by pushing the ENTER button at the keypad.

ATTENTION! To get the best heating results the temperature recommended by the manufacturer should be selected! Selecting a higher temperature does **NOT** heat the material faster but overheats and burns the material and destroys the material most times!



ATTENTION! DANGER OF SELF-IGNITION
OF OVERHEATED MATERIAL!

- Open the doors of the oven by pulling the handle (right door first).
- Pull the tray a little bit out of the oven (WEAR HEAT-GLOVES!) and put your material on it. **When you use smaller pieces of material be sure that it is put right into the middle of the measuring area marking at the tray!** Only thus a correct determination of the materials surface temperature is ensured!
- Put the tray on the rails inside the oven.
- The heating process will be started by pushing the PERM START button - or if desired by pushing the TIMER START button.

-Now the heating process can be observed at the front-door's viewing window or the CURRENT temperature displayed at the Touch-panel.



ATTENTION! HOT MATERIALS AND/OR HOT SURFACES!
DANGER OF BURNING! ALWAYS WEAR HEAT-PROTECTION-GLOVES!

-After reaching the desired (selected) temperature the IR802 keeps this constant by a pulsed switching of the infrared-tubes. As soon as the material is heated through (can take some minutes with thicker materials), you can take it out of the oven.

Should the oven not be in use at this time any more, turn it off in the meantime, resp. deactivate the infrared tubes by pushing the STOP button. As the infrared system doesn't require any pre-heating a lot of energy can be saved this way.

3.3. Heating of plastics with a Blister-Forming frame

- The IR802 is turned on by use of the ON-OFF main switch (pic. 1 (D)). After the Start screen shows up the operation mode is selected by pushing the START button
- by pushing the green SET temperature it can be adjusted to material to be heated. The number will be set by pushing the ENTER button at the keypad.

ATTENTION! To get the best heating results the temperature recommended by the manufacturer should be selected! Selecting a higher temperature does **NOT** heat the material faster but overheats and burns the material and destroys the material most times!



ATTENTION! DANGER OF SELF-IGNITION
OF OVERHEATED MATERIAL!

-Open the doors of the oven by pulling the handle (right door first).

-Remove the existing tray and put in the Blister-forming frame with the material clamped in. Put it on the rails inside the oven and close the door. **IMPORTANT! It has to be ensured that the material is never put higher than the level of the rails! Placing the material closer to the IR-tubes will cause an uneven heating result in any way! When using third party blister forming frames it might be necessary to adjust the length of existing legs.**

-Now the heating process can be observed at the front-door's viewing window or the CURRENT temperature displayed at the Touch-panel.



ATTENTION! HOT MATERIALS AND/OR HIT SURFACES!
DANGER OF BURNING! ALWAYS WEAR HEAT-PROTECTION-GLOVES!

-After reaching the desired (selected) temperature the IR802 keeps this constant by a pulsed switching of the infrared-tubes. As soon as the material is heated through (**might take some minutes with thicker materials**) and sagged sufficiently it can be taken out of the oven. NOTE: As soon as the oven door is opened, the IR-tubes are deactivated automatically to save energy.

Should the oven not be in use at this time any more, turn it off in the meantime, resp. deactivate the infrared tubes by pushing the STOP button. As the infrared system doesn't require any pre-heating a lot of energy can be saved this way.

3.4. Specials

The tray of your IR802 infrared oven is equipped with a nonstick Teflon coating. When necessary you additionally can prevent the heated materials from sticking by use of some talc (powder).

4. Care and maintenance

4.1. Oven case

The case of the IR802 oven is maintenance-free. You should regularly clean the case inside and outside with a soft cloth from dust.

4.2. Oven-door

The side-mounted hinges of the door can be cleaned regularly with compressed air and lubricated with a little oil if necessary.

4.3. Quartz-Infrared-tubes

The 8 quartz-infrared-tubes of the IR802 are mounted at the top of the oven. To guarantee a long lasting lifetime you only should turn them on when the oven is really used (pre-heating of the oven is not necessary and gives you no advantage to heat your materials) The (**cooled**) tubes can be cleaned from dust with a soft and dry cloth.

Quartz-infrared tubes have a wear out. Thus the heating capacity of the tubes can decrease after a few years of application. The tubes can be replaced single and are available directly from us or your local dealer. A manual how to replace comes with the spare tubes. As there are also workings at the electricity, only authorized electricians are allowed to do this.

4.4. IR Optical measuring device

The optical measuring device is mounted between the radiators in the top of the oven (pic. 5). It is generally maintenance-free. However after a while dust and other soilings can cover the lens of the sensor and corrupt the measuring results. So a periodical cleaning (~every three month) helps to avoid malfunction. Clean the lens (cool oven) with a soft and cotton bud or a soft cloth. In case of stubborn soilings you can also use some water at the cloth.

pic. 5



4.5. Illumination

The illumination consists of two special heat resistant 25watt bulbs. If a bulb is defective you first have to remove the glass cover (cool oven). After this you can replace the bulb inside of the lamp by a new one. **ATTENTION!** Always use special heat resistant bulbs of the same type and the same capacity. The use of other bulbs can lead to malfunction of the bulbs or the oven!

4.6. Teflon coating

The tray is equipped with a replaceable Teflon-coating. To guarantee a long lasting lifetime you should clean the Teflon coating regularly (once a week) with a soft and dry cloth from contamination of talc or plastic residues.

When the coating is damaged or contaminations can not removed any more the coating can be replaced by a new one. The foil is simply placed at the tray.

4.7. Safety-Thermostat

In case of a malfunction of the Temperature control elements, the IR802 is equipped with a safety-thermostat STB (pic.3 (E)) which turns off the oven when overheated. In that case the oven is shut down completely. The STB is located at the right side of the bottom of the oven housing. After the STB has tripped, turn off the main-switch (pic. 1 (D)) and let the oven cool down. After the oven has cooled down, you can reset the STB by pushing the red button until you hear it locking. Should the STB trip again, please contact our technical service.

4.8 Error messages and Rectification of defects

4.8.1. Error message

For error messages and warnings of the microprocessor control unit, see section 2.3.1.5..

4.8.2. Rectification of defects

The IR802 Infrared oven is equipped with various fuses to protect the user, surroundings and certain of its components. Triggering the fuses can lead to the symptoms described below.



DANGER

Work on electrical equipment and components may only be completed by trained, qualified personnel or licensed electricians!

A) The oven is entirely non-functional after switching it on:

- 1) There is a problem with the power supply to the oven. For proper operation, all three phases as well as N and PE of the CEE outlet have to function correctly. Check the fuses on the building side if applicable. Contact customer service if the problem recurs.
- 2) The safety temperature limiter was triggered.
In case of thermostat control malfunctions, the oven may overheat and trigger the safety temperature limiter. The cause of the thermostat control malfunction must be determined and eliminated. The oven has to be cooled to room temperature. Then the safety temperature limiter on the back of the control unit box can be reset. Contact customer service if the problem recurs.
- 3) The main circuit breaker of the oven was tripped.
In case of a problem with the electrical system, the main circuit breaker (1x50A circuit breaker) in the control unit box may be tripped. To reset the main circuit breaker, the exterior cover of the control unit box has to be removed. First switch off the oven and pull the mains plug. Then remove the upper and lower exterior screws on the control unit box cover. Once the circuit breaker has been reset, close the control unit box and reconnect the mains plug. Contact customer service if the problem recurs.

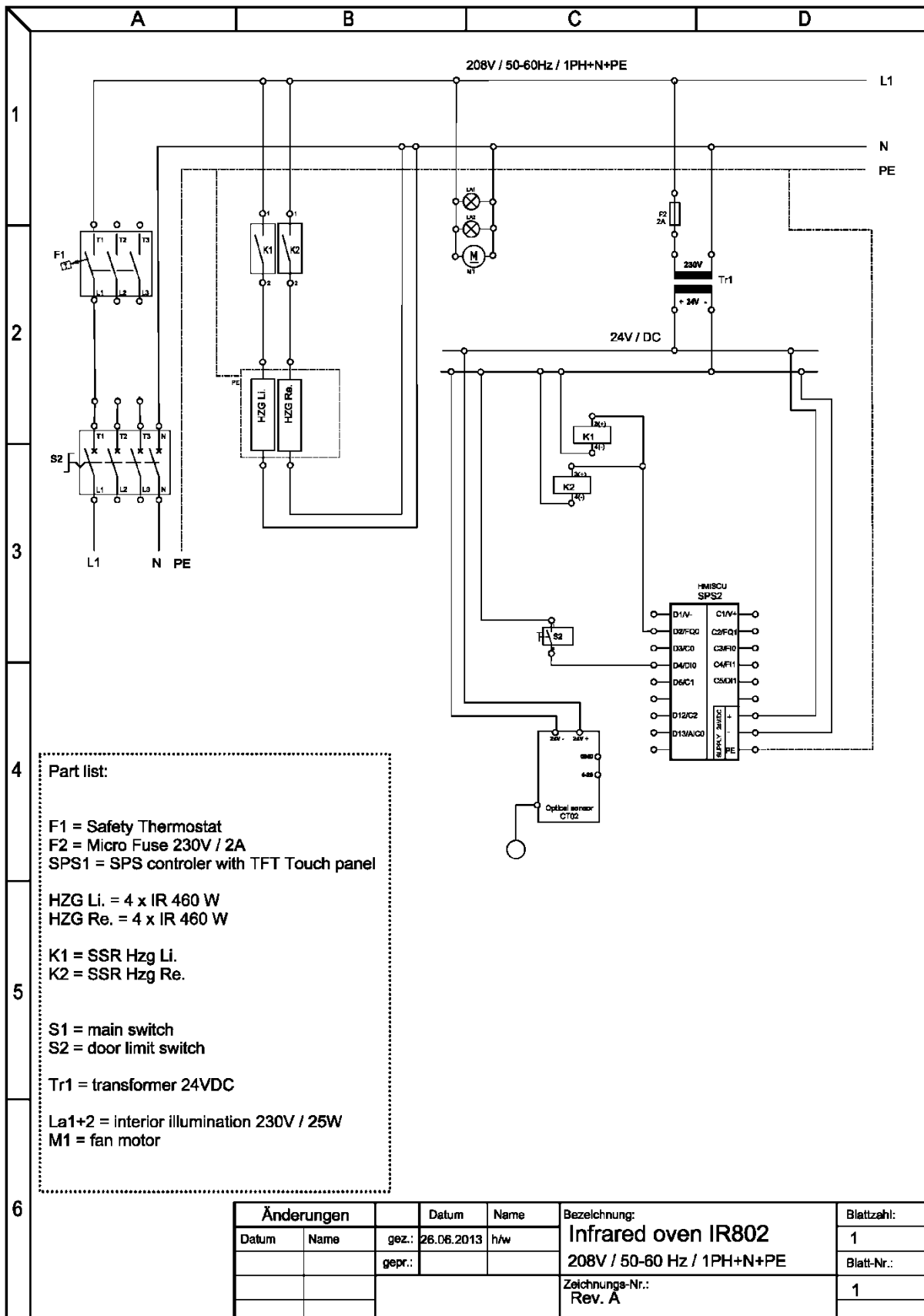
B) After powering up, the interior lighting of the oven works, but the control unit is entirely non-functional:

- 1) The micro-fuse of the 24VDC transformer has blown. To replace the micro-fuse, the exterior cover of the control unit box has to be removed. First switch off the oven and pull the mains plug. Then remove the upper and lower exterior screws on the control unit box cover. The micro-fuse is installed in a black plastic fuse holder next to the transformer. The upper half of the fuse holder is flipped up and then the side cover is opened. Replace it only with a micro-fuse of the same type (20x5mm, 230V / 2A). Once the fuse has been replaced, close the control unit box and reconnect the mains plug. Contact customer service if the problem recurs.

C) The thermostat control of the oven is not operating correctly. The material is overheated even if the correct temperature is preset:

- 1) The thermostat control of the oven is operating with an optical sensor. The sensor is equipped with a special glass lense. If this lense is dirty the optical sensor cannot measure the correct temperature of the material. For detailed instructions how to clean the lense and fix the problem refer to section 4.4.. Contact customer service if the problem recurs.

5. Circuit diagram IR802 (208V / 50-60Hz / 1 phase)



6. Spare parts IR802

No.	Marking
07-140-001	Main switch KH20
07-140-002	Optical infrared temp. sensor with electronic box
07-130-008C/460-385	Infrared-tube 460W completely with reflector (8 pc.)
07-801-005	Silicon door sealing IR802 / per meter
07-801-009/P	Teflon-coating for tray IR802
07-801-008	Tray IR802

7. Technical Details

Type:	Infrared-Oven IR802 for the O&P field
Manufacturer:	Witzel VACUPRESS e.K. Max-Keith-Str. 66 / D-45136 Essen
Height:	920 mm
Width:	900 mm
Depth:	700 mm
Footstep:	0,7 m ²
Weight:	133 kg
Voltage:	208V / 50-60 Hz / 1 Phase + N + PE
Capacity:	3,7 kW
Heating:	8 Infrared-Quartz tubes with single reflector
Temperature-control:	opto-electrical by IR sensor Continuously 30-250°C (90-465°F), Electronic SPS Controller with 3,5" Touch panel Interface
Illumination:	2 x 25W bulb

8. Declaration of Conformity

Declaration of Conformity

for the Infrared-oven IR802
(Art.Nr. 07-802-400-3 / 07-802-230-3 / 07-802-230-1)

Witzel VACUPRESS e.K.
Max Keith Str. 66 / D-45136 Essen

declares as manufacturer and in sole responsibility that the Infrared-oven IR802 complies with the fundamental requirements of the directive 2006/42/EG and the directives listed below - including all changes, valid at the time of declaration.

The following additional EU-directives have been applied:

2006/95/EG
2004/108/EG

The following harmonised standards have been applied:

DIN EN ISO 12100-1, DIN EN ISO 14121-1
DIN EN 60204-1, DIN EN 60335-1, DIN EN 60335-2-48
DIN EN 55014-1, DIN EN 55014-2

Name and address of the person who is authorized to assort the technical documents: Hendrik Witzel

WitzelVACUPRESS e.K.
Hendrik Witzel

Essen, 19.12.2013



