

# VITA vPad comfort

Instructions for use



VITA shade determination

VITA shade communication

VITA shade reproduction

VITA shade control



VITA – perfect match.

**VITA**

## VITA vPad comfort – The control unit for all your needs



Dear customer,

Congratulations and thank you for choosing a VITA vPad comfort to operate and control your VITA VACUMAT 6100 M ceramic furnace, VITA VACUMAT 6000 MP combipress unit or VITA ZYRCOMAT 6100 MS high-speed sintering furnace.

The VITA vPad comfort is a state-of-the-art control unit that complies with all international safety standards.

In order to ensure that you can operate the VITA vPad comfort safely and effectively, please read these instructions for use and all the relevant notices carefully. These instructions for use must always be kept close to the device. They must be read and used by all persons who operate, care for and maintain the system.

I wish you every success working with this VITA device.

Your product manager for VITA dental devices and accessories, VITA Zahnfabrik

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### Explanation of symbols:

 System/technology info

 Please note

 Modifiable parameters

 Note

 Process

 Hotline and support

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10:29  
05.06.2018

VITA

1:Ready VITA



38°C



500°C



VITA

VITA

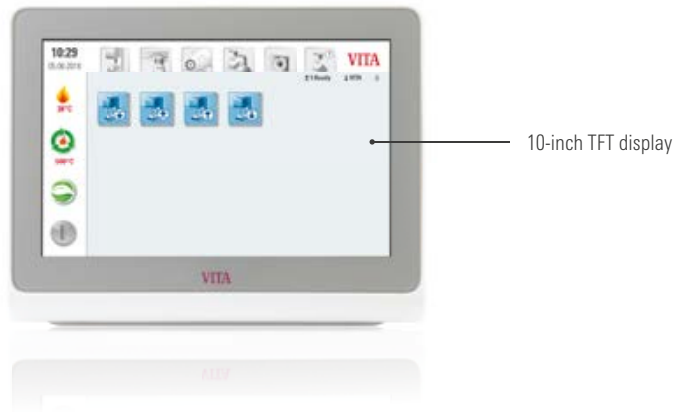
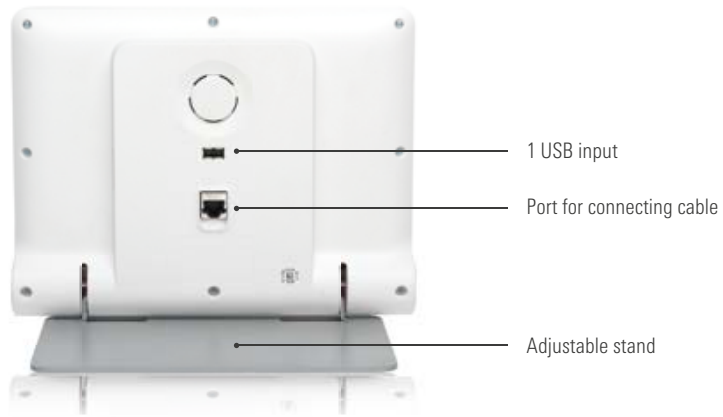
**1. The system**



**Note:**

- What? A control unit for controlling a firing device.
- The VITA vPad comfort is not compatible with the VITA SWITCHBOX or the VITA MultiPump.

**1.1 The control unit**



**2. First use**

**2.1 Connection of the VITA VACUMAT 6100 M**

(see also the VITA VACUMAT 6100 M instructions for use)



Connection for the VITA vPad comfort/  
VITA vPad excellence or  
VITA SWITCHBOX II

**2.2 Connection of the VITA VACUMAT 6000 MP**

(see also the VITA VACUMAT 6000 MP instructions for use)



Connection for the VITA vPad comfort

## 2.3 Connection of the VITA ZYRCOMAT 6100 MS

(see also the VITA ZYRCOMAT 6100 MS instructions for use)



## 2.4 Starting up the firing system

### Note:

- Please also refer to the installation and commissioning instructions in the VITA VACUMAT 6100 M/VITA VACUMAT 6000 MP or VITA ZYRCOMAT 6100 MS instructions for use.

1. Connect the supplied connecting cable to the VITA vPad comfort and the VITA VACUMAT 6100 M/VITA VACUMAT 6000 MP or VITA ZYRCOMAT 6100 MS.
2. Connect the VITA vacuum pump (VITA VACUMAT 6100 M/VITA VACUMAT 6000 MP only).
3. Connect the vacuum hose of the VITA vacuum pump (VITA VACUMAT 6100 M/VITA VACUMAT 6000 MP only).
4. Connect the mains power cable.
5. Switch on the device at the main switch.
6. Lift path measurement: The lift moves down to the bottom position, up to the top position and down again to the bottom position.

- If you are using a VITA VACUMAT 6000 MP, please also connect the compressed air connection (max. 5 bar) to the pressure regulator of the VITA vacuum pump. Attach the enclosed hose clamps to the compressed air hose: 1x at the outlet from the laboratory compressed air line and 1x at the pump supply inlet.

### Please note:

- Attach the VITA firing/sintering base to the lift plate.
- Commissioning the device without a firing/sintering base will lead to high heat exposure, damaging the device.



**3. Operation**

**3.1 Gesture controls of the control unit**



**Zooming**

You can maximize or minimize photos or PDFs by using two fingers to enlarge or contract the image.



**Scrolling**

Swipe downwards or upwards to move between pages in a PDF.



**Short tap**

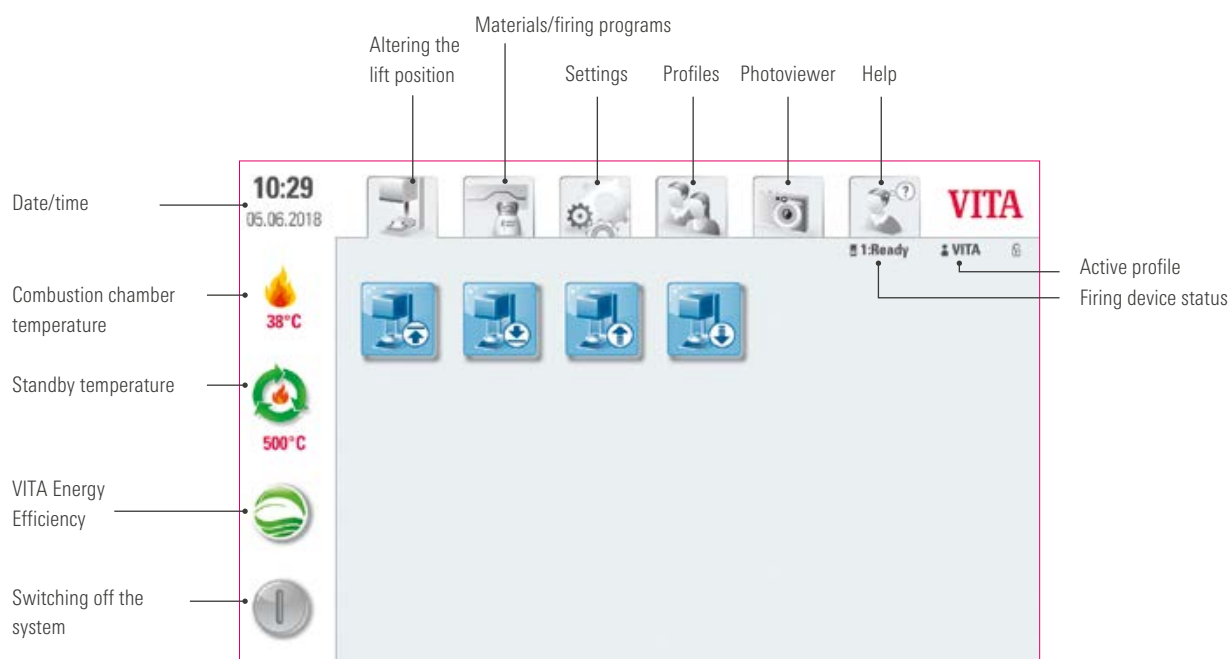
You open the basic firing window, e.g., for a firing program, with a short tap.



**Rotating**

Photos can be rotated by 90°.

### 3.2 System functions



### **3.3 Switching off the system**

#### **Note:**

- What? This function allows you to switch off the control unit and the firing unit. You can switch the system on using the main switch on the back of the firing unit.
- What for? A quick and convenient way of switching off the system.

### **3.4 VITA Energy Efficiency**

#### **Note:**

- What? Tapping the VITA Energy Efficiency button warms the firing unit up to a temperature of 200°C and keeps it there. Tap the button again to deactivate this function. Hold your finger down on the button to switch to the normal standby temperature.
- What for? Energy saving.

### **3.5 Standby temperature**

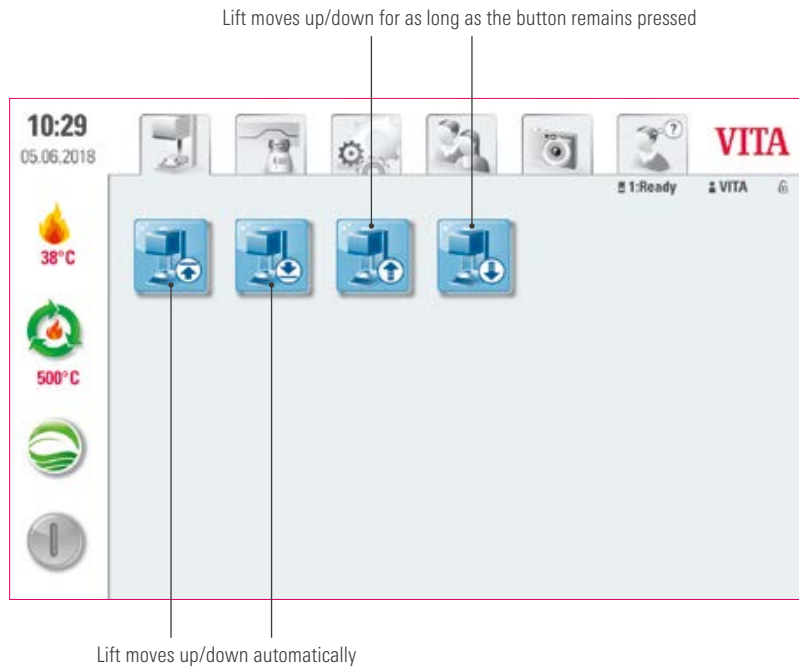
#### **Note:**

- What? A short tap on the button closes the firing chamber and increases the firing chamber temperature to the set standby temperature (500°C by default). To deactivate the standby temperature, short-tap the button again. Once the standby temperature has been reached, it should be held for 20 minutes. The firing unit will then be ready for firing processes. Press and hold the button to switch to "VITA Energy Efficiency."
- What for? Prevents loss of time by automatically preheating the firing unit so that firing can begin quickly.

#### **VITA AntiCon**

If the firing unit is switched off for an extended period of time, then the next time the firing unit is switched on the firing chamber is heated for five minutes while slightly open and the standby temperature is activated. This allows the condensed water on the insulation to evaporate.

### 3.6 Altering the lift position



#### Note:

- What for? For setting a custom lift position, e.g., when the standby temperature is active.

### 3.7 Profiles



#### Note:

- What? The "VITA" and "Lab" profiles are located here. The firing programs under the "VITA" profile cannot be edited. You can adjust the "Lab" profile to suit your individual needs. Additional profiles cannot be created.
- What for? The "VITA" profile allows you to use the VITA programs with their original settings. The "Lab" profile allows you to customize the firing programs.

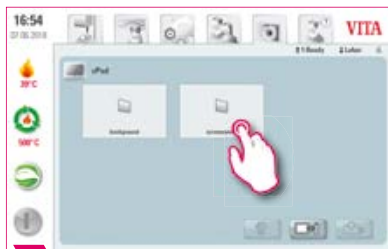
**3.8 Photoviewer**



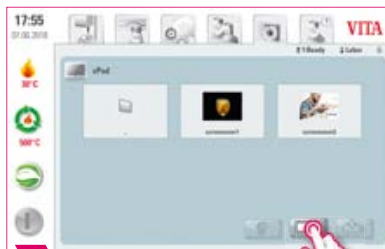
**Note:**

- What? The Photoviewer contains preinstalled images that you can use as your screensaver or wallpaper. If the screensaver is activated (see section 6.6.), the images in the "Screensaver" folder will be loaded. The vPAD comfort has 2 GB of memory. It can open image files in JPEG and PNG formats. You cannot save any changes you make to images in the vPad comfort.
- What for? Allows you to customize your screensaver and wallpaper.

**Example: Importing images into the "Screensaver" folder**



**1** Select the "Screensaver" folder.



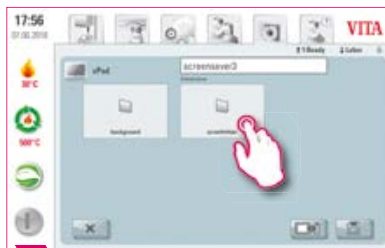
**2** Switch to the USB drive.



**3** Press and hold to select the images you want to import.



**4** Select "Export."



**5** Open the "Screensaver" folder.



**6** You can change the name in the text box. Once you are finished, click "Save."



**7** Final imported image.

**▶ Example: Exporting images onto a USB drive**



**1** Select the "Screensaver" folder.



**2** Press and hold on the first image until it is selected. Short-tap on other images to select them as well.



**3** Select "Export."

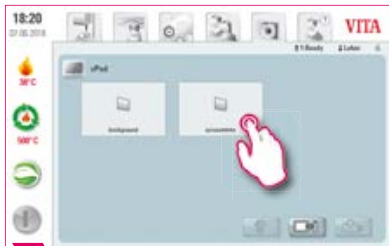


Select "Save."



**5** The images will now be on your USB drive.

**▶ Example: Deleting images in the Photoviewer**



**1** Select the "Screensaver" folder.



**2** Press and hold on the first image until it is selected. Short-tap on other images to select them as well.



**3** Select "Delete."



**4** Confirm the message.



**5**

**▶ Example: Deleting images on a USB drive**



**1** Switch to the USB drive.



**2** Press and hold your finger down on the first image until it is selected. Short-tap on other images to select them as well.



**3** Select "Delete."



**4** Confirm the message.



**5**

**3.9 Help**



**! Note:**

- What? Here you will find all the instructions for use for the VITA veneering materials and devices integrated into the software. Pressing the Help button in the Material overview or the Settings opens the Help function with a list of VITA instructions for use. In the Material overview, Help shows all the instructions for use for VITA materials. Help in the "Settings" tab shows all the instructions for use for VITA devices. The last manual that you view will remain open in the "Help" tab until the device is restarted.
- What for? Quick assistance, thanks to preinstalled instructions for use.





**4. Materials and firing programs**



1 Select "Materials/firing programs."



Manage materials

Instructions for use

**Note:**

- What? Here you will find all the preinstalled materials.
- What for? Saves time, thanks to preinstalled materials.

**4.1 Instructions for use**



1 Select "Instructions for use"



2

**Note:**

- What? Here you will find all the instructions for use for the VITA materials integrated into the software.
- What for? Quick assistance, thanks to preinstalled instructions for use.

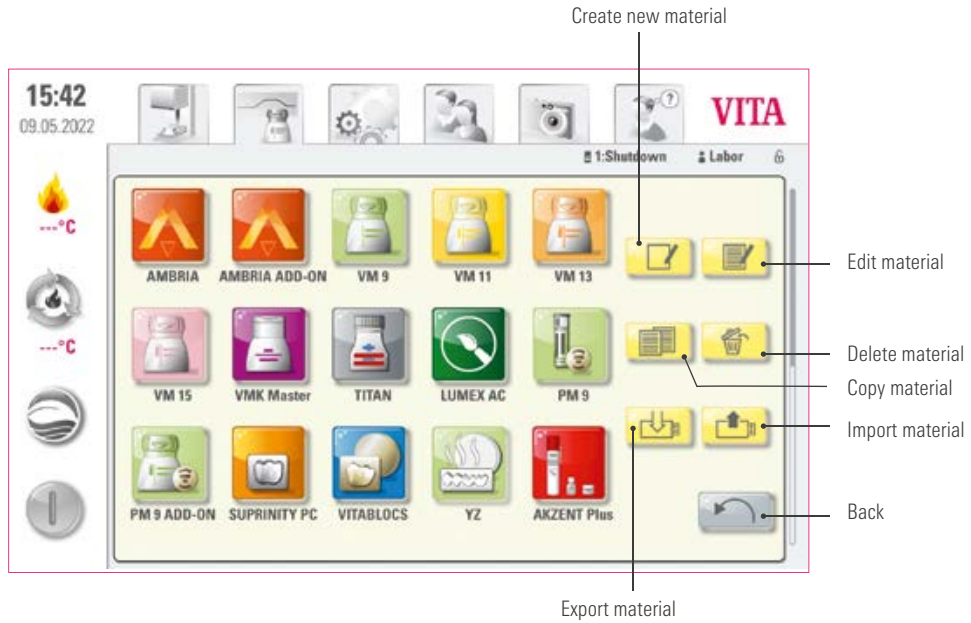
4.2 Managing materials 



1 Select "Manage materials."



2



 **Note:**

- What? This function allows you to create, copy, edit, delete, import and export materials.
- It is not possible to make changes to the "VITA" profile. The "Lab" profile is a copy of the "VITA" profile, and can be modified to suit your needs.
- What for? Allows you to design custom materials and material sequences.

▶ Example: Creating a material



1 Select "Manage material."



2 Select "Create material."



3 Activate the text box.



4 Enter a material name.



5 Confirm.



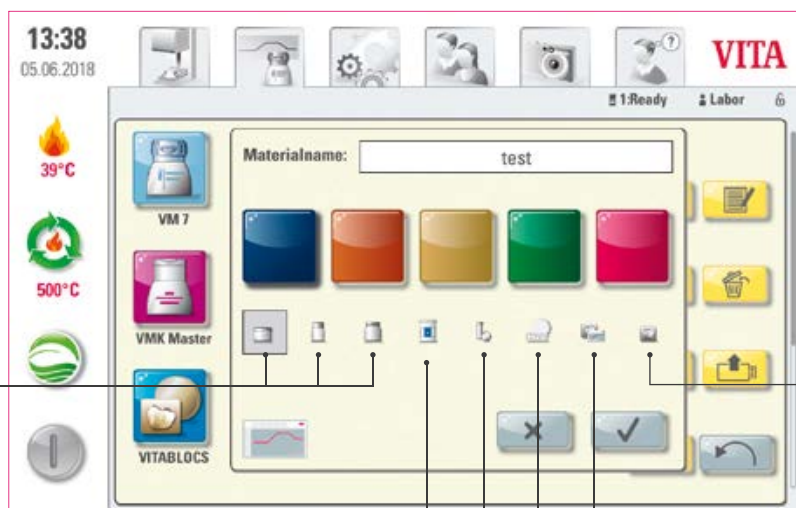
6 Select the firing curve type and background color and confirm.



7 Your final material.

Firing curve types

Single-stage curve = standard firing curve, for most firing programs on the market



Single-stage curve = standard firing curve, for most firing programs on the market

stained zirconium restorations  
Pre-drying curve = e.g., drying

Pressing curve

Sintering curve

Two-stage curve = special programs, e.g., IPS e.max CAD crystallization

**▶ Example: Editing material**



**1** Select "Manage material."

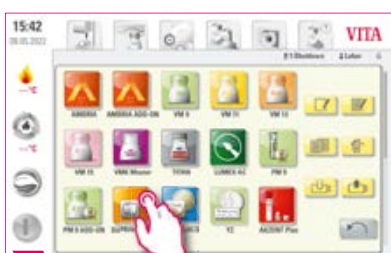


**2** VITA material groups cannot be renamed.



**3** The material can be edited.

**▶ Example: Copying material**



**1** Select the material you want to duplicate.



**2** Select "Copy material."



**3** Your final copied material.

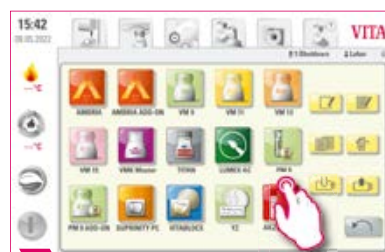
**▶ Example: Deleting material**



**1** Select the material you want to delete.



**2** Select "Delete material."



**3** Confirm.



**4** Your final deleted material.

### Example: Drag & drop



1 Press and hold your finger on the material you want to move until it turns transparent and can be moved.



2 Your final moved material.

### Example: Exporting a material



1 Connect a USB drive to the vPad and select "Manage material."



2 Select one or more materials to export.



3 Select "Export material."

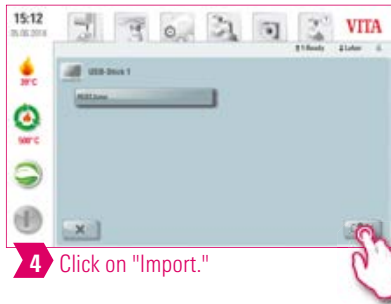
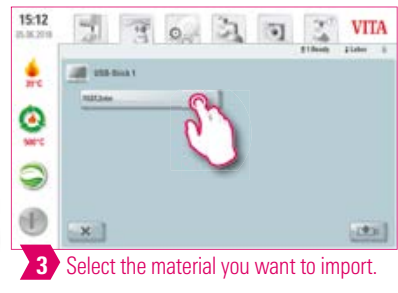


4 Save.

### Note:

- In order for you to export materials, there must be a USB drive connected to your vPad comfort.
- Once the export is complete, the exported material will be on your USB drive. You can then send it via email, for example. The exported materials will be saved on your USB drive as .zvtm files. Any special characters in the material name will not be displayed in the corresponding file name. When it is imported onto a vPad, the correct material name will be displayed again.

**▶ Example: Importing material**



**💡 Note:**

- In order for you to import a material, a USB drive containing a file in .vtm format must be connected to your vPad comfort.

### 4.3 Managing firing programs



1 Select the required material.



2 Select "Manage firing programs."



3 The firing program management menu.

10:47  
25.06.2018

VM 15

Oxidbrand WASH OPAQ. Brand

WASH OPAQ. Paste Opaque Brand

OPAQUE Paste MARGIN Brand

EFFECT LINER Brand 1. Dentinbrand

2. Dentinbrand Mal-Fixier-Brand

Glanzbrand GLAZE SPRAY

Create new firing program

Rename firing program

Copy firing program

Delete firing program

Import firing program

Export firing program

Back

#### Note:

- What? This function allows you to create, copy, edit, delete, import and export firing programs. A firing curve type is assigned to each material you create (for example, only single-stage firing curves can be created under the material VM15).
- What for? Allows you to design custom firing programs and firing program sequences.

### ▶ Example: Creating firing program



1 Select "Manage firing programs."



2 Select "Create firing program."



3 Enter a firing program name.

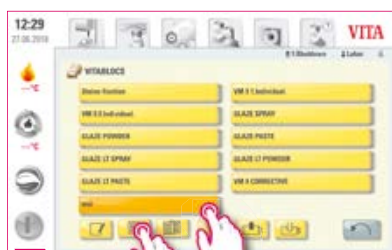


4 Confirm.

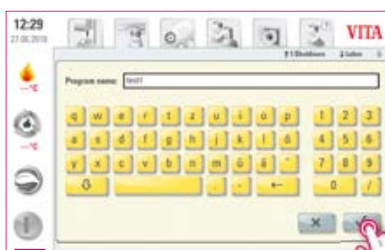


5 Your final firing program.

### ▶ Example: Renaming firing program



1 Select a firing program. Once you have done this, press "Rename firing program."

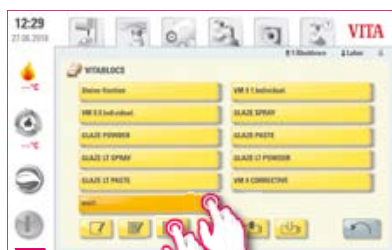


2 Enter a program name and confirm.



3 Your final, renamed firing program.

### ▶ Example: Copying firing program



1 Select the firing program, then click on "Copy firing program."



2 Your final copied firing program.



**▶ Example: Deleting a firing program**



**1**

Select a firing program, then click on "Delete firing program."



**2**

Confirm.



**3**

Your final deleted firing program.

**▶ Example: Drag & drop**



**1**

Press and hold your finger on the firing program you want to move until it turns transparent and can be moved.



**2**

Your final moved firing program.

**▶ Example: Exporting a firing program**



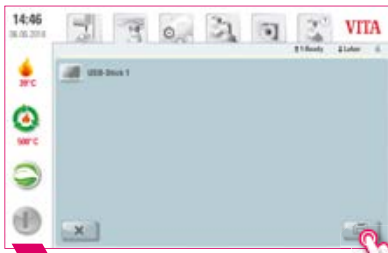
**1** Select "Manage firing program"



**2** Select the firing program you wish to export.



**3** Select "Export firing program."



**4** Press "Save."

**💡 Note:**

- To export firing programs, connect a USB drive to your vPad comfort. The firing program will be saved on the USB drive as a .2vtm file.
- Any special characters in the program name will not be displayed in the corresponding file name. When it is imported onto a vPad, the correct program name will be displayed again.
- Once the export is complete, the firing programs in question will be on your USB drive. You can then send them via e-mail, for example.

**▶ Example: Importing a firing program**



**1** Select "Import firing program."



**2** Select "Import firing program."



**3** Select the firing program you want to import.



**4** Select "Import."

**💡 Note:**

- In order for you to import a firing program, a USB drive containing a file in .2vtm format must be connected to your vPad comfort.

**5. Firing window**

**5.1 Firing programs for single and two-stage curves**



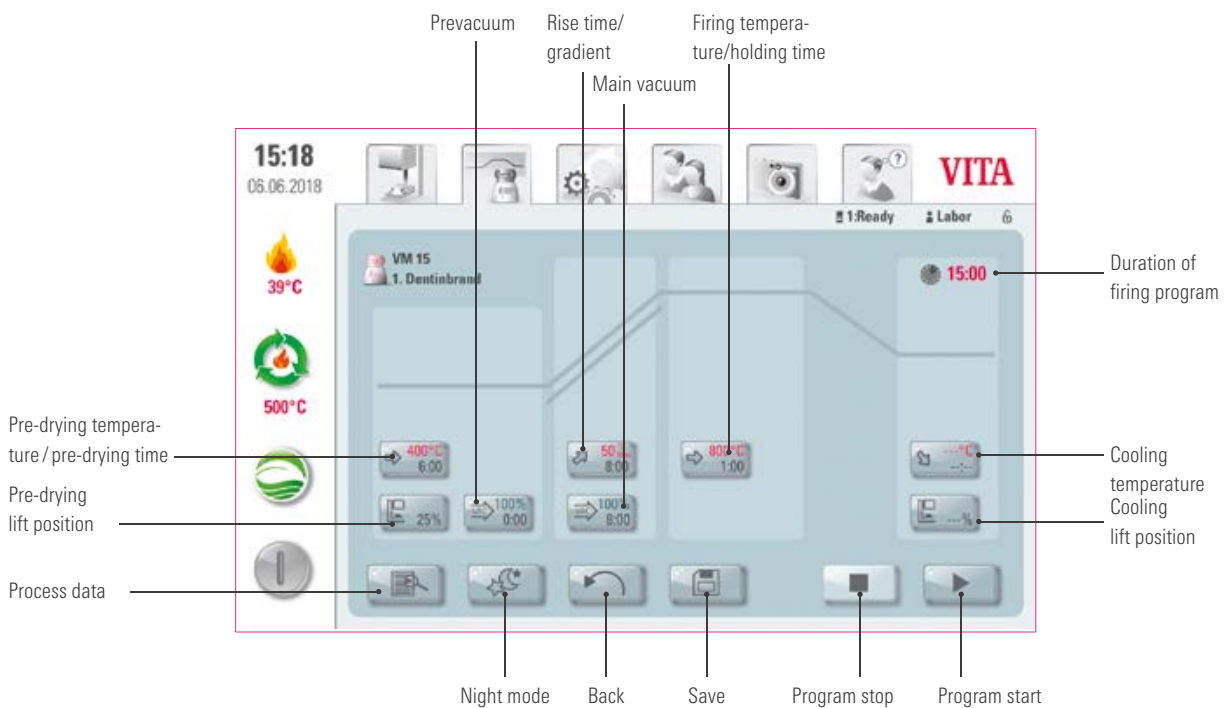
**1** Select a material.



**2** Select a firing program.



**3** Firing window with single-stage curve.



**Note:**

- Modified parameters will affect the active firing process. If you want to make permanent changes to the firing programs, you will need to save them.
- Night mode: Pressing the button activates the night program. This means that once a firing program is complete and the combustion chamber temperature is lowered to 200°C, the lift is retracted and the display and heating are switched off. To switch the device back on, switch the main switch off and then on again. Night mode must be activated before starting a firing program.
- The two-stage firing curve has an extra gradient/rise time and firing temperature/holding time compared to the single-stage curve.

### ▶ Process data

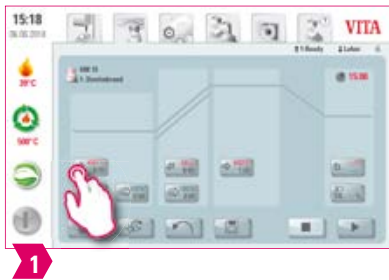


1 Tap on the process data.

### ⚠ Note:

- What? A function that allows quality assurance and traceability.
- What for? Automatic saving of the process number, name, notice, profile, material name, firing program name, firing program data, target and actual values, device type, device serial number and date and time of the firing process.
- The data can subsequently be exported onto a USB drive and then transferred to the FDS (Firing Data System – the VITA program used to analyze the firing data) on the PC.
- The firing data system allows you to display the firing curve, archive all the firing data and subsequently locate and print out individual orders.

### ▶ Pre-drying temperature / pre-drying time



1



2

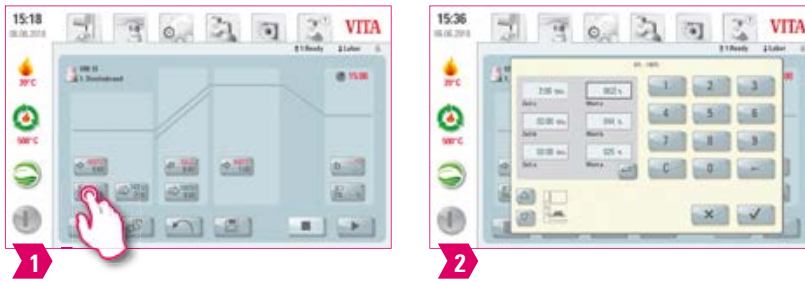
### 🔥 Modifiable parameters:

- Pre-drying temperature: 60°C–800°C
- Pre-drying time: 00:00 min – 60:00 min

### ⚠ Note:

- The possible values to enter are displayed above the number field.
- Pre-drying is used for evaporating processed fluids prior to the actual firing process.

**Pre-drying lift position**



**Modifiable parameters:**

**Lift position:**

- Value c: highest lift position entry: min. value b - max. 100%
- Value b: middle lift position entry: min. value a - max. value c
- Value a: lowest lift position entry: 0% - max. value b

**Adjusting the lift position:**

- Enter lift position in % and accept with "Confirm" button
- Move the lift into the desired position using the arrow keys and press "Enter" to accept the value.

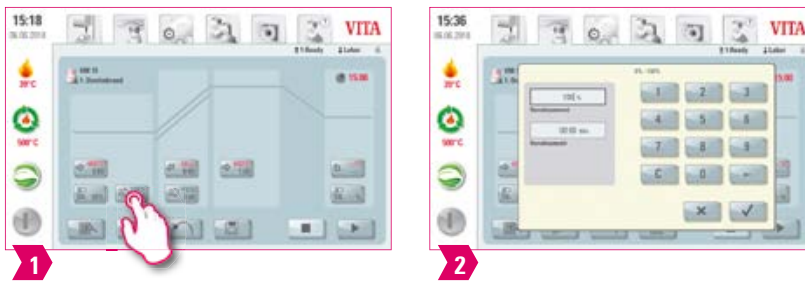
**Confirming time value for position:**

- Tap the input field for time a or b and enter time.
- Value for c is determined automatically.

**Please note:**

- The time values for the individual lift positions depend on the total pre-drying time.
- Together, the settings for individual time values cannot add up to more than the total pre-drying time.

**Prevacuum**



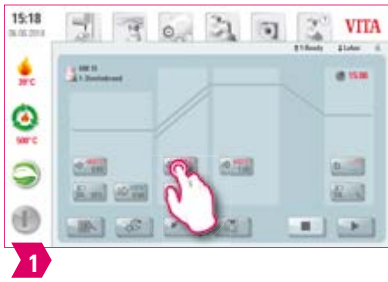
**Modifiable parameters:**

- Pre-vacuum time: 00:00 min – 60:00 min
- Vacuum value: 0% – 100%

**Note:**

- The "Prevacuum" setting enables you to build up the vacuum in the firing chamber before the temperature rise is active.
- Entering the time 00:00, will switch off the pre-vacuum.
- The possible values to enter are displayed above the number field.
- Special ceramics can be fired using the pre-vacuum.

**Rise time/gradient**



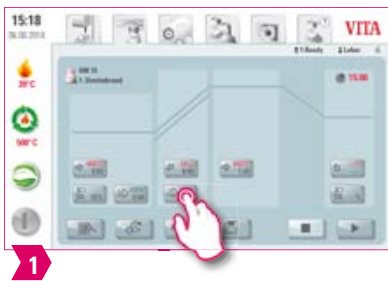
**Modifiable parameters:**

- Rise time: 00:05 – 120:00 min
- Rise gradient: 2°C/min – 120°C/min

**Note:**

- The rise time is automatically calculated and adjusted after the pre-drying temperature or firing temperature is entered. The gradient remains unchanged.
- Once one of the gradient or rise times has been entered, the other will be calculated and adjusted automatically. The actual input values are displayed above the number field.
- The same procedure for entering and altering values applies for the program values in the second rise time on two-stage firing curves.
- For reliable firing results with a good degree of gloss and correct color reproduction.

**Main vacuum**



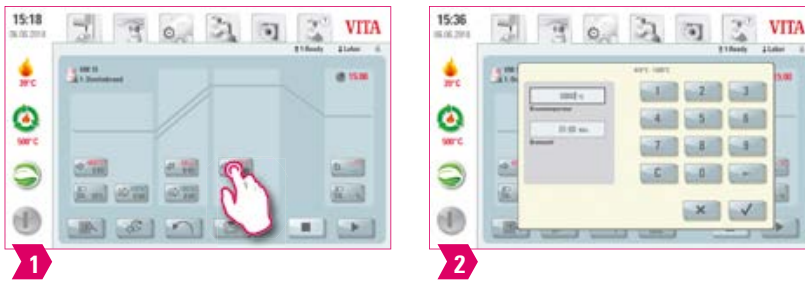
**Modifiable parameters:**

- Main vacuum time: 00:00 min – 180:00 min
- Vacuum value: 0% – 100%
- Starting temperature: min. pre-drying temperature – max. firing temperature

**Note:**

- The time values for switching the vacuum pump on and off are dependent on the indicated program values. If the final temperature or the pre-drying temperature changes, the vacuum time will be adjusted to the rise time.
- Recommendation: Set the temperature parameters first, then the vacuum.
- The max. vacuum time is calculated from the rise time, plus the holding time at the final temperature.
- The possible values to enter are displayed above the number field.
- The main vacuum extracts air that would otherwise be trapped in the ceramic and can render it cloudy with a milky appearance.

**Firing temperature and holding time**



**Modifiable parameters:**

- Firing chamber temperature: pre-drying temperature plus 10°C – 1200°C
- Holding time: 00:00 min – 60:00 min

**Note:**

- The possible values to enter are displayed above the number field.
- The same procedure for entering and altering values applies for the program values in the second holding time on two-stage firing curves.
- For reliable firing results with a good degree of gloss and correct color reproduction.

**Cooling temperature**



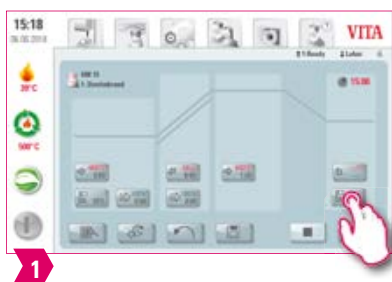
**Modifiable parameters:**

- Cooling temperature: 60°C – 900°C, or holding temperature minus 10°C
- Cooling time: 00:00 – 60:00 min./sec.

**Note:**

- The "Activate cooling" button is automatically activated when the temperature is entered and must be pressed.
- The actual values to enter are displayed above the number field.
- Deactivate cooling: Press "Activate cooling" button.
- For slow cooling of the restoration to prevent thermal stress on the material.

### ▶ Cooling lift position



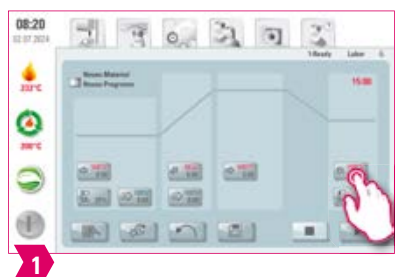
#### 🔥 Modifiable parameters:

- Cooling lift position: 0% – 100%

#### 💡 Note:

- The possible values to enter are displayed above the number field.
- This function is available when the cooling temperature is active.
- It adjusts the speed at which the cooling temperature is reached. The smaller the furnace opening, the slower the cooling.

### ▶ Linear cooling



#### 🔥 Modifiable parameters:

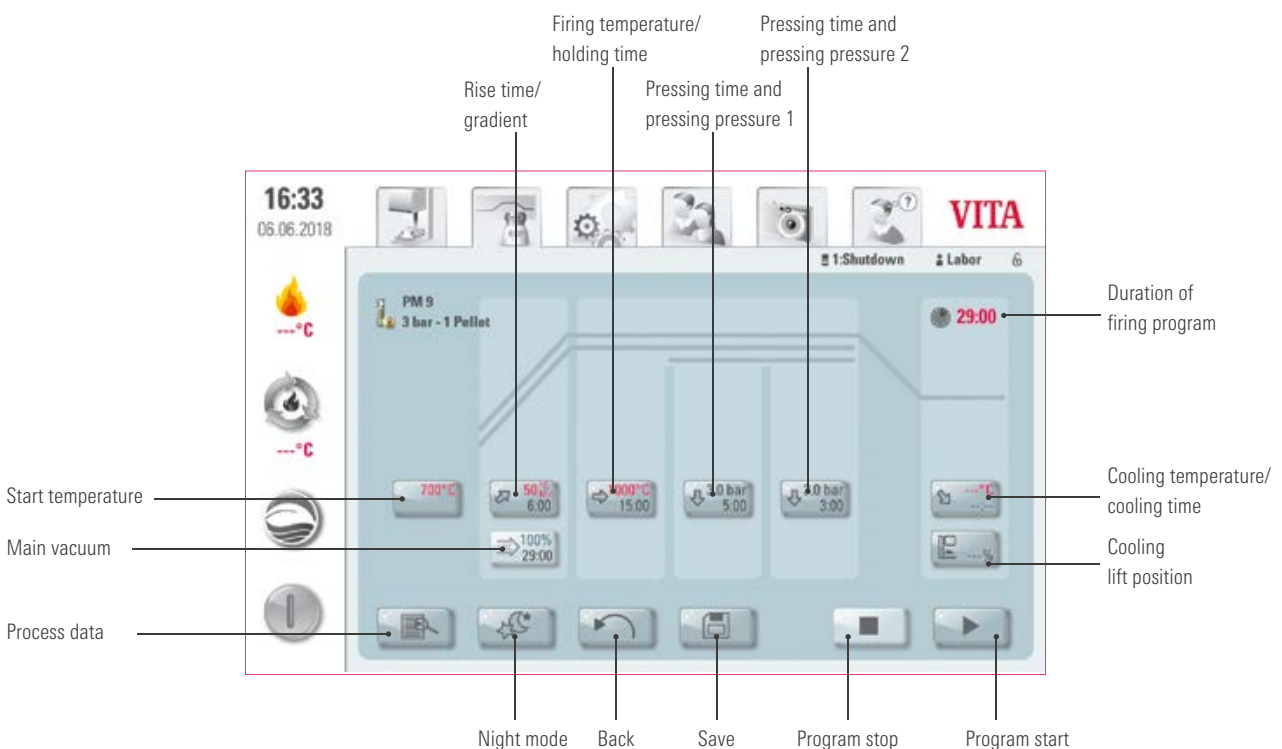
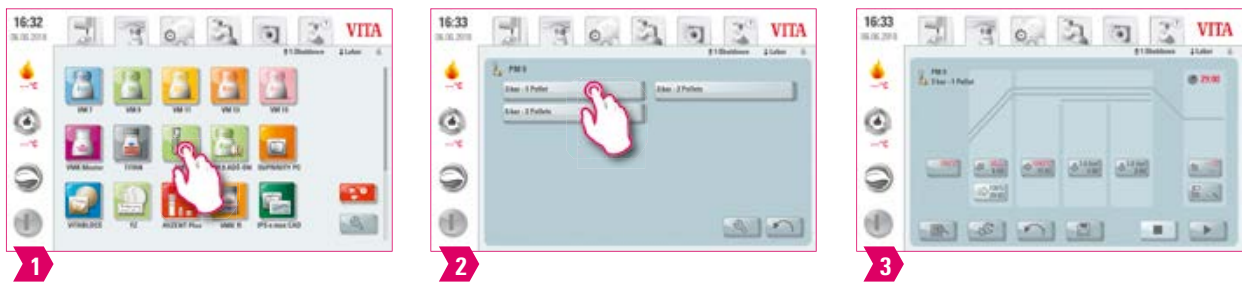
- Object temperature: 60 – 1190 °C
- Cooling time: 00:00 – 60:00 min
- Gradient: 10 – 250 °C/min



**Note:**

- Linear cooling is only possible with the VITA VACUMAT 6100 M.
- The possible values to enter are displayed above the number field.
- Temperature calculation: the temperature of the fired object is estimated based on the firing chamber temperature and the lift position, it is not directly measured.
- Automatic adjustment: After the last holding phase, the furnace monitors the cooling rate in the closed firing chamber. If the combustion chamber cools faster than the set gradient, the heating is activated to slow down the cooling process. If the cooling of the combustion chamber is slower than the set gradient, the lift is opened and the cooling rate is controlled by the lift position.
- Since the temperature of the load is only calculated, a draft can influence the actual temperature and cause it to deviate from the calculated temperature.
- For the two-stage firing curve, the same procedure applies to the program values in the second rise time for entering and changing the values.

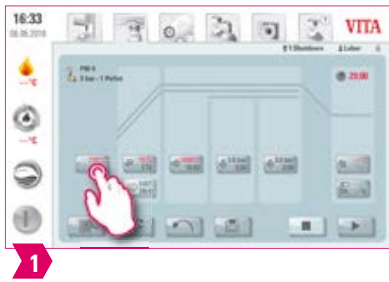
**5.2 Firing program: Pressing curve**



**Note:**

- Modified parameters will affect the active firing process. If you want to make permanent changes to the firing programs, you will need to save them.
- All the buttons (except Start temperature, Pressing time/Pressing pressure 1 and Pressing time/Pressing pressure 2) are described in section 5.1.
- The main vacuum cannot be altered in the pressing program. The vacuum is controlled automatically throughout the entire pressing time.

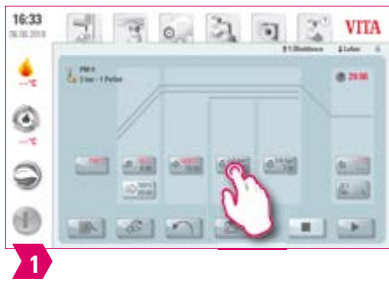
**▶ Start temperature**



**! Note:**

- Start temperature: 60°C – 1000°C
- The possible values to enter are displayed above the number field.

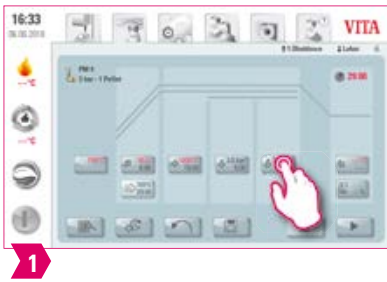
**▶ Pressing time and pressing pressure 1**



**! Note:**

- Pressing time: 00:00 min – 120:00 min
- Pressing pressure: The pressing pressure is changed using the "Change pressing pressure" button.
- The indicated pressing time 1 is automatically ended if the pressing stamp has reached its final position and there is no more measurable path change. The system then switches automatically to Pressing time 2.

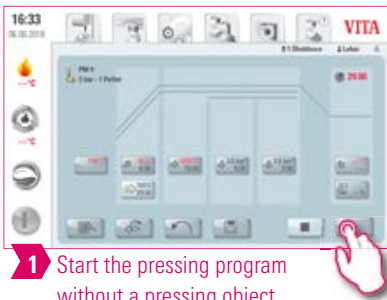
**▶ Pressing time and pressing pressure 2**



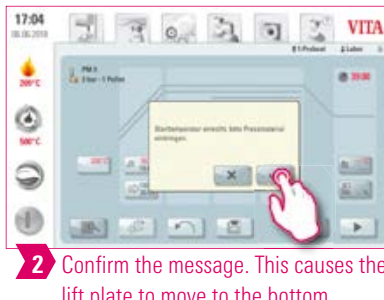
**! Note:**

- Pressing time: 00:00 min – 120:00 min
- Pressing pressure: The pressing pressure is changed using the "Change pressing pressure" button.
- Pressing time 2 runs in accordance with the set time.

**▶ Starting the pressing program**



**1** Start the pressing program without a pressing object.



**2** Confirm the message. This causes the lift plate to move to the bottom position.



**2** Once you have inserted the pressing material, confirm the message. The lift plate will move into the firing chamber. The programs starts.

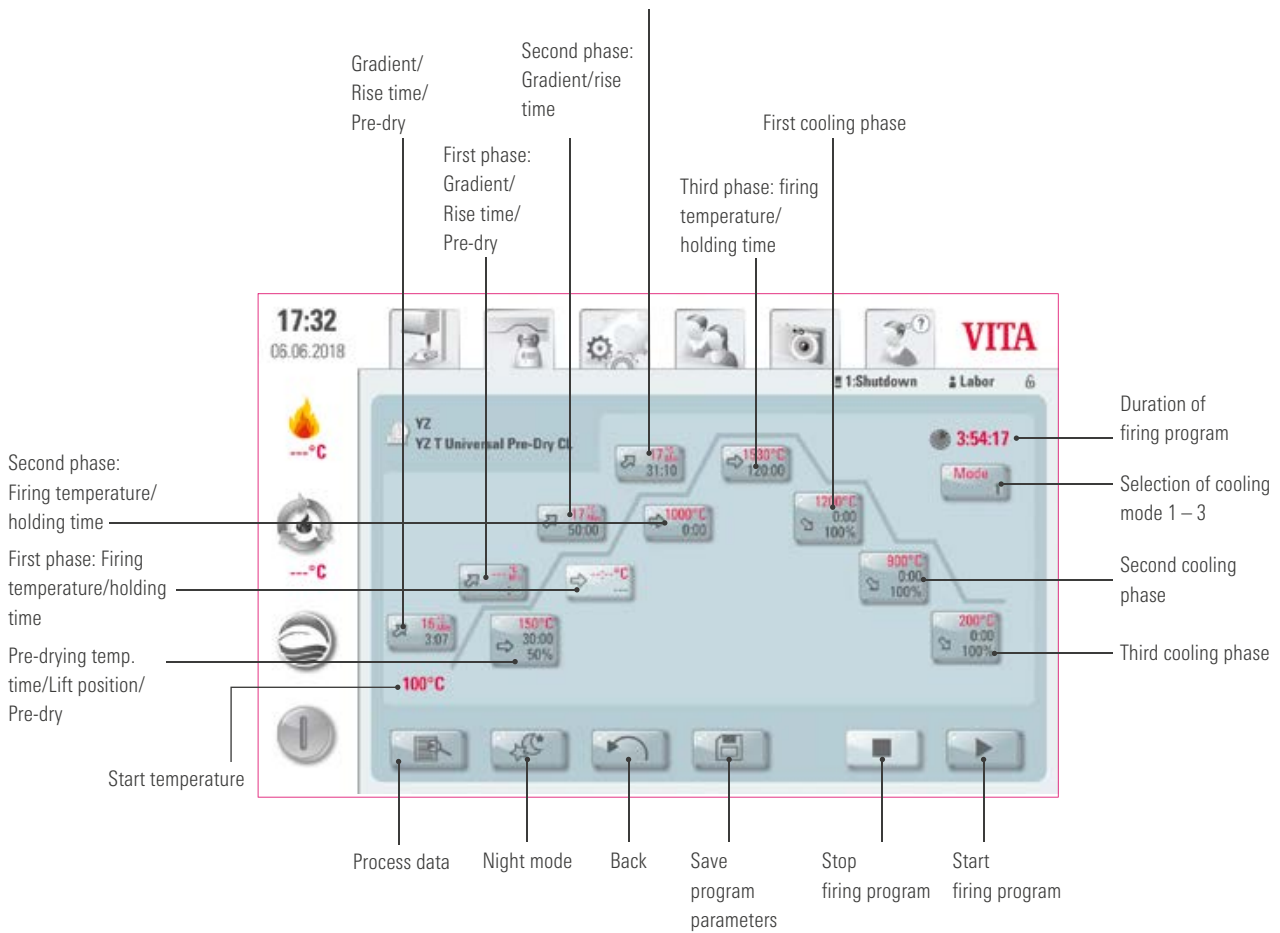
**! Note:**

- While the pressing material is moving in, the pressure cylinder will temporarily extend and retract. If the number of pellets is incorrect, a message will appear.
- Red curve: temperature; light gray curve: vacuum; black curve: pressure.

**5.3 Firing program: Sintering curve**



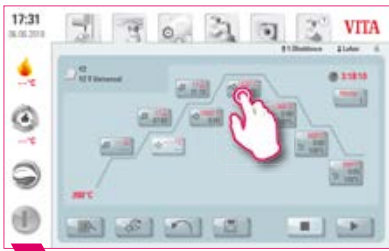
Third phase:  
Gradient/rise time



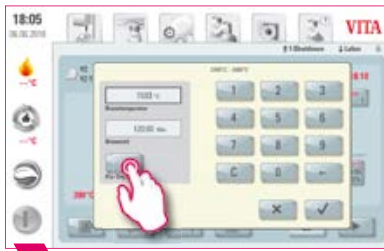
**Note:**

- Modified parameters will affect the active firing process. If you want to make permanent changes to the firing programs, you will need to save them.
- For a description of the buttons at the bottom of the display, please refer to section 5.1.
- In high-speed mode (gradients of more than 20°C/min), the heating elements are subject to very high loads. A shorter service life should be expected.
- The possible values for the individual phases are displayed above the number field.

**▶ Activating/deactivating Pre-drying (VITA Pre-dry)**



**1** Select firing temperature/holding time.

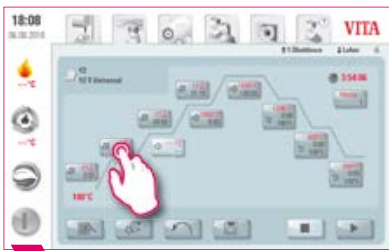


**2** Activate pre-dry.



**3** Once you have done this, confirm.

**▶ Activating/deactivating the first phase**



**1** Select first phase: Gradient/rise time.



**2** Activate first phase.

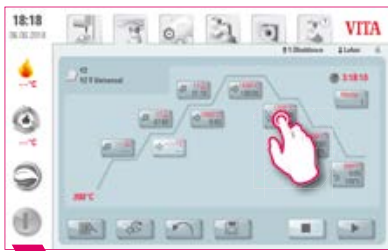


**3** Once you have done this, confirm.

**! Note:**

- To deactivate pre-dry and the first phase, remove the corresponding check mark and confirm. Save your change.

**▶ Activating/deactivating controlled cooling**



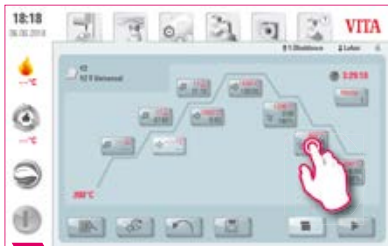
**1** Select the first cooling phase.



**2** Select first cooling phase: "Controlled cooling."



**3** Confirm.



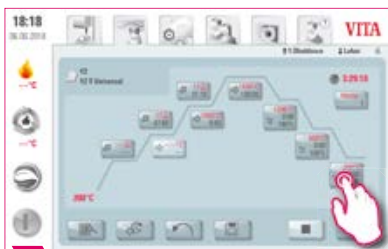
**4** Select the second cooling phase.



**5** Select second cooling phase: "Controlled cooling."



**6** Confirm.



**7** Select the third cooling phase.



**8** Select third cooling phase: "Controlled cooling."

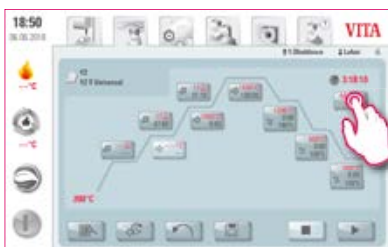


**9** Confirm.

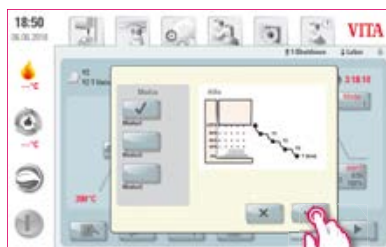
**💡 Note:**

- To deactivate cooling phases 1 – 3, remove the corresponding check marks and confirm. Save your change.

**▶ Cooling mode 1**



**1**

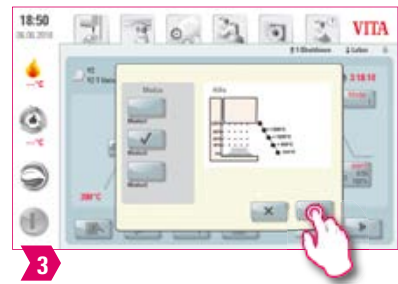
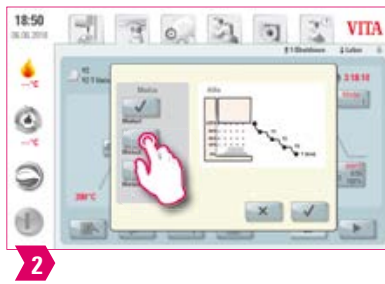
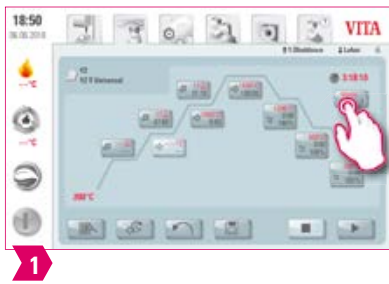


**2**

**💡 Note:**

- You can adjust the cooling phases to suit your individual needs.

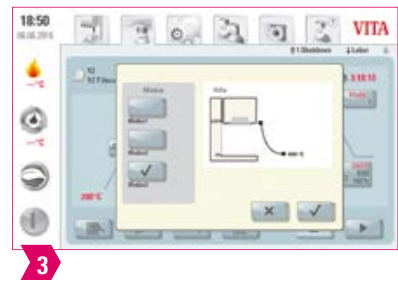
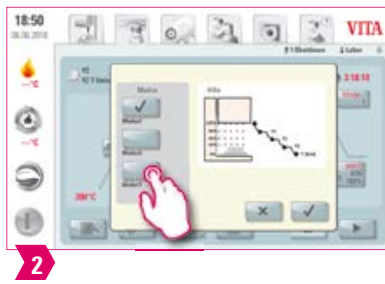
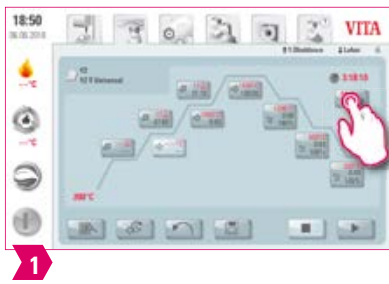
## ▶ Cooling mode 2



### ! Note:

- Three fixed cooling positions.
- Lift position at the following temperatures:
  - Temperature: > 1200°C, Lift position: 80%
  - Temperature: < 1200°C, Lift position: 60%
  - Temperature: < 900°C, Lift position: 40%
  - Temperature: < 400°C, Lift position: 0%

## ▶ Cooling mode 3



### ! Note:

- The lift remains in the top position and moves to the bottom position after cooling to 400°C.

## ▶ 5.4 Changes after program start

### ! Note:

- Changes of program values are possible after starting a firing program. To avoid misfires, changes which automatically impact other program areas are not allowed, such as changing the rise time, which causes an automatic adjustment of the vacuum time.

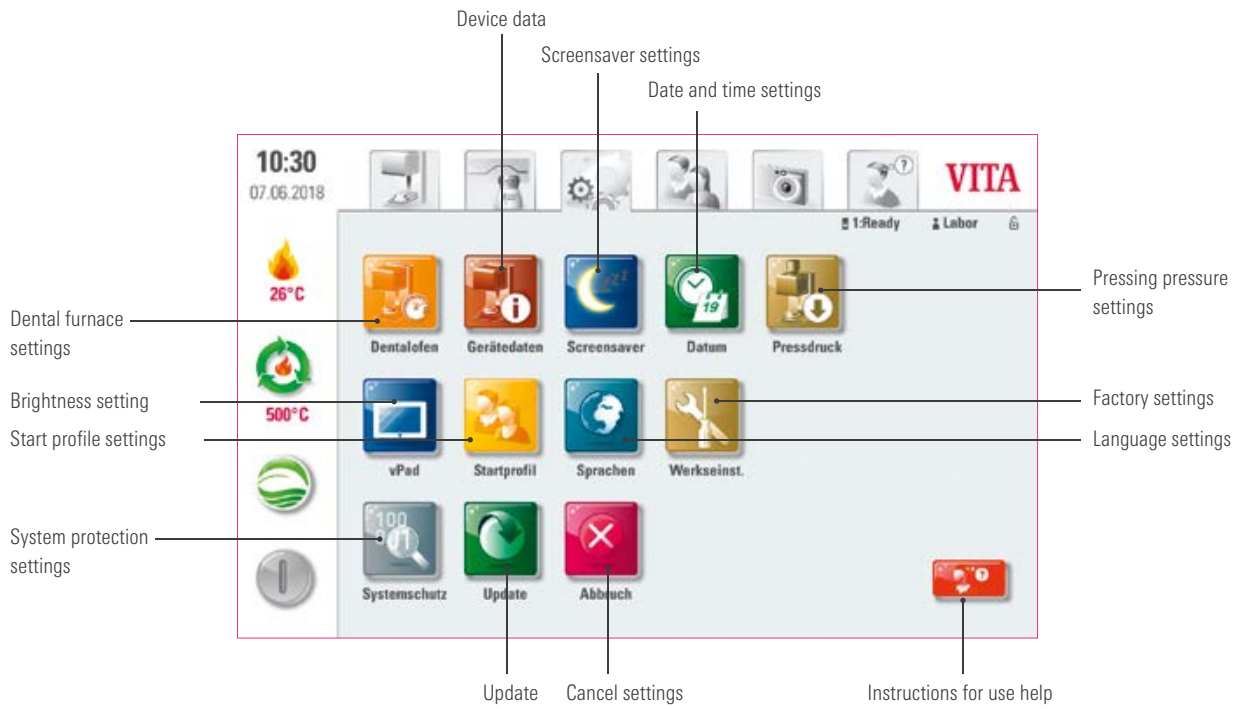
### ! Please note:

- You can only change inactive program areas. The program areas that can still be changed are identified by the button display (dark button).
- If a program area that is still available is selected for changing and it becomes active, the display switches to the image of the firing curve and the program continues to run with the previously contained value.
- If the final temperature is changed, the °C/min gradient is always retained, and the rise time and vacuum time are adjusted accordingly.





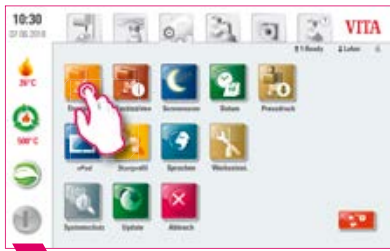
**6. Settings** 



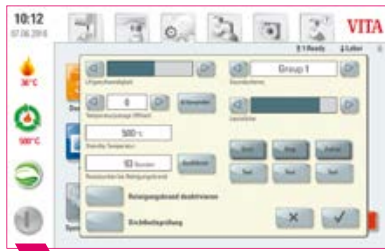
**Note:**

- What? This area contains information and settings for the firing unit and the control unit. The Pressing pressure settings option is only available when connected to a VITA VACUMAT 6000 MP.
- What for? For changing factory settings, performing updates and viewing operating data.

**▶ 6.1 Setting up the dental furnace** 



**1** Select "Dental furnace settings."



**2**

**Note:**

**Temperature calibration using the VITA VACUMAT 6100 M/6000 MP Silver Test:**

- You can use the Silver Probe program and the VITA Silver Probe set to check the temperature in the firing room and adjust it within a range of plus/minus 40°C.
- During calibration, please follow the instructions on performance (instructions in the Silver Probe set) of the test with the Silver Probe.
- A preset program is available for the calibration of the combustion chamber temperature. To check the combustion chamber temperature using the Silver Probe, two program sequences are necessary.  
 First program sequence: must be conducted at 955°C (preset in the program).  
 The silver must only thicken slightly after this.  
 Second program sequence: must be conducted at 965°C (temperature must be entered). After this program sequence, the silver must be melted into a ball. Deviations within the range of plus/minus 40°C may be entered.
- Result of the Silver Test:  
 If the temperature is too low, correct the entry with the minus sign.  
 If the temperature is too high, enter the corrected value without a sign (automatic plus).  
 The correction value corresponds to about 1°C and is entered in the input field for temperature adjustment (offset).

**VITA ZYRCOMAT 6100 MS temperature calibration**

- To calibrate the temperature, please contact your responsible service partner.

**Cleaning firing in the VITA ZYRCOMAT 6100 MS**

- After about 300 operating hours, the message to conduct a cleaning firing is displayed.
- Press the "Execute" button to display the program and the "Start" button to activate it.  
 Conducting the cleaning program is absolutely necessary if the oxide layer on the heating elements show signs of flaking.
- Cleaning firing also acts as regeneration firing for the heating rods, as it restores the protective glass coating where necessary (please observe the "Sintering chamber cleaning program" section of the sintering furnace instructions for use for this process). If the oxide layer shows signs of severe flaking, or still shows signs of flaking after cleaning firing, repeat the cleaning firing process. We recommend continual inspection of the coating on the heating elements for flaking. If necessary, run the cleaning program before the system reaches the 300 operating hours.
- Please confirm that you wish to save the configuration.
- You can also start cleaning firing manually. To do this, press the "Execute" button and start the firing process.

**Cleaning firing in the VITA VACUMAT 6100 M/6000 MP**

- After about 100 operating hours, the message to conduct a cleaning firing is displayed. This program heats up the firing chamber, allowing impurities to evaporate from the slightly opened firing chamber. We recommend carrying this firing process out regularly.
- You can stop the cleaning firing process at any time.
- You can also start cleaning firing manually. To do this, press the "Execute" button and start the firing process.

**Sound settings**

- The vPad comfort has a choice of six sound schemes for its three signal sounds: program start, program end and alarm/service notice. Each sound scheme contains a melody for each of the three signals. Press the "Test" button to play the individual sounds.

**Standby temperature**

- The standby temperature can be set to anywhere between 200°C and 800°C.

**6.2 Setting the pressing pressure**



1 Select "Pressing pressure settings."

2

**Note:**

- The VITA VACUMAT 6000 MP is provided with an automatic ventilation function. The pressing pressure settings ensure that the device is automatically vented at regular intervals. This relieves residual pressure in the system and ensures that the pressure readings are correct. You can carry out manual venting by tapping the "5.0 bar" or "3.0 bar" field. 5 bar setting: Tap the "5 bar" field and use the attached pressure regulator to set the VITA vacuum pump to the higher pressing pressure (5 bar). 3 bar setting: Tap the "3 bar" field and use the pressure regulator on the back of the device to set the device to the lower pressing pressure (3 bar). Carry out the pressure regulation slowly and when ending the pressure setting process, wait at least four seconds until the final pressure value has been set. Carry out the adjustment slowly.
- If the pressure setting in the pressing program varies too greatly, this will affect the pressing parameters and a notice will be displayed. If this happens, you can confirm the message to continue the pressing procedure, as long as the deviation is acceptable.
- The pressure can be regulated again with a pressure regulator while the pressing program is running.

**6.3 Setting the device data**



1 Select "Device data settings."



2

**Note:**

**Exporting firing and process data:**

- The firing and process data are saved in the control unit and can be exported to a USB drive using the "Process data" button. To do this, plug the USB drive into the USB input and press the "process data" button.
- You can use a USB drive to export the data for the program to analyze the process data (Firing Data System, FDS) to your PC.

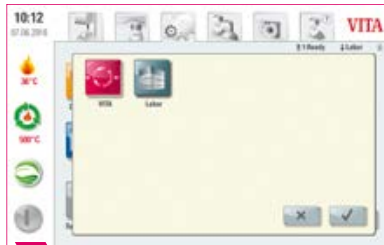
**Exporting operating data/device information/all data**

- All the program sequences and operating data are automatically saved in the control unit. If a finished firing program has produced an unsatisfactory firing result, for example, or an error has occurred in the program sequence, the operating data, the device information or even all the device data can be exported to a USB drive and sent to [instruments@vita-zahnfabrik.com](mailto:instruments@vita-zahnfabrik.com) for evaluation. To do this, plug a USB drive into the USB input and press the corresponding button to transfer the operating data/device information/all the data to the USB drive.

**6.4 Setting the start profile**



1 Select "Start profile settings."



2

**Note:**

- Select the user profile you want to be displayed when the device is first switched on. On new devices, the "Lab" profile is loaded when the control unit starts up.
- Select the required profile and confirm.
- The new start profile is first displayed when restarting the device.

## ▶ 6.5 Setting the system protection



**1** Select "System protection settings."



**2**

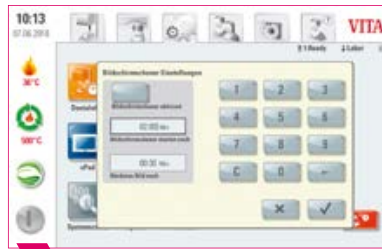
### ! Note:

- You can enter a password to protect the settings on your vPad comfort.
- The password may consist of symbols, letters or numbers and may be between one and a maximum of eight characters long.
- If you press the Settings button again, you will be asked to enter the password again.
- Delete password: To delete a password, tap the "System protection" button and enter your password. Once you have done this, tap the "Change password" button and confirm twice without entering a new password.

## ▶ 6.6 Setting the screensaver



**1** Select "Screensaver settings."



**2**

### ! Note:

- This setting allows you to activate a screensaver.
- You can choose any time for the system to remain inactive before the screensaver begins, and also the length of time before the screensaver image changes (if you have saved more than one image for the screensaver).
- To save images in the screensaver, use a USB drive to import them into the "Screensaver" folder. This is located in the "Photoviewer" tab.

### ▶ **6.7 Language settings**



1 Select "Language settings."



2

### ! **Note:**

- Here you can adjust the language, temperature unit and time and date format.

### ▶ **6.8 Setting the date/time**



1 Select "Date settings."



2

### ! **Note:**

- It is important to enter the correct date and time in order for the firing data system (FDS) to work correctly. This will allow you to clearly identify firing processes of the same type.

▶ 6.9 Factory settings 



1 Select "Factory settings."



2

! **Note:**

- The following settings can be reset to the factory defaults: start profile (reset to VITA), display brightness, program cancellation, lift speed, language and date and time format. Doing this will delete all your own program settings and custom profiles.

▶ 6.10 Cancelling adjustments to the settings 



1 Select "Cancel settings."



2

! **Note:**

- You can set whether you want the confirmation query "Do you want to stop the firing process?" to appear when you cancel a firing program.
- When this option is active, it is not possible to stop the firing process prematurely until the message has been confirmed.






## 7. Technical data

### 7.1 Specification and symbols

#### Specifications

Dimensions (width/depth/height)	260 mm/150 mm/200 mm
Net weight	1.6 kg
Temperature for operation	10°C to 35°C
Humidity for operation	Max. 80% RH
Application area	Approved for indoor operation only

#### Symbols

	CE marking	The VITA vPad comfort complies with the applicable European Union (EU) regulations. The declaration of conformity can be accessed on the homepage under MyVITA or requested directly from VITA Zahnfabrik.
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### 7.2 Notices

#### Basic information on the device design

- The device is designed using state-of-the-art technology and in accordance with recognized safety standards.
- Nevertheless, inappropriate use may endanger the health and safety of the user or third parties and lead to a risk of damage to the instrument and other material property.

#### Unauthorized modes of operation

- Do not operate the control unit with sharp-edged or hot objects. This causes damage to the touch screen.
- The operation of the instrument with power sources, products, etc., which are subject to hazardous materials regulations or could have any negative impact on the health of the operating personnel when using equipment modified by the user, are not permitted.

#### Authorized modes of operation

- The operation of the device is only permitted if these instructions for use have been completely read and understood and the procedures described in them have been observed. Any other or additional use, e.g., processing of products other than those intended is considered misuse, as is the handling of hazardous materials or substances that are dangerous to personal health.
- Repairs and servicing of any kind may only be carried out by specially trained personnel.

#### Please note:

- The manufacturer/supplier will not be liable for any damage resulting from such unauthorized use. The risk of such use is borne exclusively by the user.

### 7.3 Safety functions

When a firing device is operated using a VITA vPad comfort, it is equipped with the following safety and monitoring functions:

1. Temperature sensor monitoring
2. Energy supply monitoring
3. Finger trap protection
4. Temperature circuit breaker
5. Automatic temperature calibration
6. Pellet and press path detection (VITA VACUMAT 6000 MP)

#### **Temperature sensor monitoring**

The temperature sensor monitoring system detects temperature sensor failures in the sintering chamber. If a failure of the temperature sensor has been detected, the sintering chamber is prevented from heating up and an error message is displayed.

#### **Energy supply monitoring**

The firing devices are equipped with a system for monitoring the energy supply. This element prevents firing programs from aborting in the event of a short-term power failure. If the power failure lasts less than 15 seconds on the VITA VACUMAT 6100 M and 6000 MP or less than 2 minutes on the VITA ZYRCOMAT 6100 MS, the current program will continue to run even though the display will remain out of service for the duration of the power failure. If the power failure lasts longer than 15 seconds on the VITA VACUMAT 6100 M and 6000 MP or longer than two minutes on the VITA ZYRCOMAT 6100 MS, the current program will be canceled. An error message is displayed once power is restored.

#### **Finger trapping protection**

The vertical movement of the firing devices is controlled by computer. Any trapped objects are detected and the drive is switched off, if necessary. This prevents injuries caused by pinching. The system may still be operated without any restrictions after the drive is switched off.

#### **Automatic temperature calibration**

The temperature is automatically calibrated each time the firing device is switched on.

This temperature calibration takes into consideration and corrects all deviations occurring in the electronic components for temperature measurement and temperature control. This ensures a constant temperature of  $\pm 1^\circ\text{C}$ , even if the unit remains in continuous operation for a long period.

### 7.4 Cleaning the control unit

- Clean the display at regular intervals with a screen cleaner.
- Screen cleaners are especially well-suited to this task as they do not leave scratches, produce an antistatic effect and prevent new soiling for longer.

**8. Scope of supply/VITA System Solutions**

**8.1 Scope of supply**

Product	Scope of supply
VITA vPad comfort	1x
Instructions for use	1x
Connecting cable	1x

**8.2 VITA System Solutions**



- For digital shade determination, use **VITA Easyshade LITE** or **VITA Easyshade V** and for visual shade determination, the **VITA Toothguide 3D-MASTER** or **VITA classical A1–D4**, for example.
- For CAD/CAM fabrication, VITA offers you **highly-esthetic feldspar ceramic, high-strength glass ceramic, innovative hybrid ceramic and zirconia** – as well as the zirconia-reinforced lithium disilicate ceramic **VITA AMBRIA** as a press ceramic. Simply select the best material solution for your individual requirements.
- For feldspar, glass ceramics and zirconia, use **VITA AKZENT Plus** stains and the **VITA LUMEX AC** or **VITA VM 11** veneering ceramics. In terms of metal ceramics, you can choose between **VITA VM 13** and **VITA VMK MASTER**, and for individualization of the **VITA ENAMIC** hybrid ceramic either **VITA AKZENT LC** stains or **VITA VM LC** veneering resin.
- Use the **VITA platinum pins** and **VITA Firing Paste** provided to ensure that the restoration is securely placed on the firing tray.
- The **VITA VACUMAT 6100 M/6000 MP** is the ideal solution for crystallization, glaze, stain and corrective firing.
- In the case of VITA feldspar ceramics, use polishing systems suitable for silicate ceramics (e. g., **VITA Polish Cera**).
- For VITA ceramics and hybrid ceramics, the **VITA CERAMICS/ VITA ENAMIC Polishing Sets** should be used.
- **VITA ADIVA LUTING SOLUTIONS** are products for adhesive bonding of restorations made of feldspar, glass ceramic and hybrid ceramic, and are matched to VITA materials.

\*) **Note:** The feldspar ceramic material can be inserted immediately after milling and polishing. Crystallization firing is mandatory for the glass ceramic.

## 9. Additional information

### 9.1 Error messages

Display	Recognition	Cause/correction
Vacuum is not achieved.	Program with vacuum is stopped if a value of at least 30% is not reached within 30 seconds.	<ul style="list-style-type: none"> <li>• <b>Clean/test/replace the lift plate seal.</b></li> <li>• <b>Clean the edge seal on the firing chamber floor.</b> For cleaning work, see the instructions for use for the VITA VACUMAT 6100 M or VITA VACUMAT 6000 MP.</li> <li>• <b>Inspect the vacuum pump separately from the device.</b></li> <li>• <b>Inspect the vacuum system of the firing device.</b></li> </ul>
Ventilator is not functioning.	Running firing program is stopped.	<ul style="list-style-type: none"> <li>• <b>Inspect the ventilator connections on the circuit board.</b></li> <li>• <b>Clean/replace ventilator.</b></li> </ul>
The lift is blocked.	Lift moves too far down.	<ul style="list-style-type: none"> <li>• <b>Sensor for lower position does not work.</b></li> <li>• <b>The corresponding LED must light up when the sensor is activated.</b></li> <li>• <b>Inspect/adjust/replace the sensor.</b></li> </ul>
The temperature in the firing room is higher than 1200°C.	Display shows more than 1200 °C.	<ul style="list-style-type: none"> <li>• <b>This error can be triggered by several causes. Recognizing/correcting these errors requires specialized knowledge and technical measuring equipment.</b></li> <li>• <b>Replace CPU circuit board.</b></li> </ul>
Temperature sensor is defective.	Program is stopped.	<ul style="list-style-type: none"> <li>• <b>Inspect the connection of the thermoelement to the circuit board.</b></li> <li>• <b>Inspect the connection of the thermoelement to the firing chamber.</b></li> <li>• <b>Inspect the connection of the thermoelement in the firing chamber.</b></li> <li>• <b>Replace thermoelement.</b></li> </ul>
The target temperature in the firing chamber has fallen short/been exceeded for longer than five minutes.	Temperature rise does not correspond to the set time.	<ul style="list-style-type: none"> <li>• <b>Defective heating.</b></li> <li>• <b>Defective triac.</b></li> <li>• <b>Triac control system defective.</b></li> </ul>
The temperature control system has triggered an error.	No temperature rise.	<ul style="list-style-type: none"> <li>• <b>Firing muffle or triac is defective</b></li> </ul>
The heating cannot be properly activated.	No or too fast temperature rise.	<ul style="list-style-type: none"> <li>• <b>Firing muffle is defective, replace.</b></li> </ul>
Continuous tone for about six seconds.	Continuous tone.	<ul style="list-style-type: none"> <li>• <b>Fuses defective, replace.</b></li> <li>• <b>Inspect plug for connecting the heating to the circuit board – replace CPU circuit board.</b></li> </ul>

**Additional error message from the VITA ZYRCOMAT 6100 MS**

Display	Recognition	Cause/correction
Ventilator power board defective.	Running program is stopped, heating off.	<ul style="list-style-type: none"> <li>• <b>Inspect connections to the circuit board.</b></li> <li>• <b>Inspect/replace ventilator.</b></li> </ul>
Temperature sensor defective.	Running program is stopped, heating off.	<ul style="list-style-type: none"> <li>• <b>Inspect connections to the circuit board.</b></li> <li>• <b>Inspect/replace ventilator.</b></li> </ul>
Relay error.	Running program is stopped, heating off.	<ul style="list-style-type: none"> <li>• <b>Replace power board.</b></li> </ul>

## **9.2 VITA warranty and consumer protection**

The VITA warranty and consumer protection document can be found on our website at:  
<https://www.vita-zahnfabrik.com/de/Oefen/VITA-Garantie-50694,27568.html>

## **9.3 Update messenger**

Software updates are available as a download on the website of the supplier, VITA Zahnfabrik. To automatically have the latest device information emailed to you, an option to register is provided at [www.vita-zahnfabrik.com/updatemessenger](http://www.vita-zahnfabrik.com/updatemessenger).

## **9.4 Spare parts**

Spare parts must comply with the technical requirements specified by the manufacturer. This can only be ensured by using original VITA spare parts.

## **9.5 Competitor material**

The VITA vPad comfort includes firing programs for Celtra Duo, IPS e.max CAD, IPS e.max ZirCAD, IPS Empress CAD, Celtra Ceram, Celtra Press and n!ce. However, it should be noted that the firing processes for IPS e.max CAD must be carried out on an Ivoclar Vivadent firing tray. The firings for IPS Empress CAD, IPS e.max ZirCAD, Celtra Duo, Celtra Ceram and n!ce can be carried out on the firing tray W with VITA platinum pins. The current firing parameters for Celtra Duo, Celtra Ceram, Celtra Press, IPS e.max CAD, IPS Empress CAD, e.max ZirCAD and n!ce are intended as guidelines only. Users must check for themselves that the equipment is suitable for the intended application.

## **9.6 Copyright information**

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**9.7 Hotline and support**

**We are happy to help**

▶ **Hotline Sales Support**

Mrs. Carmen Holsten and her team (Internal Sales Department) will be glad to assist you with orders or questions about the delivery, product data and marketing materials.

**Phone +49 (0) 7761/56 28 84**  
**Fax +49 (0) 7761/56 22 99**  
**8 am to 5 pm CET**  
**Mail [info@vita-zahnfabrik.com](mailto:info@vita-zahnfabrik.com)**

▶ **VITA instruments service**

Please do not hesitate to contact us if you have any questions concerning VITA instruments.

**Phone +49 (0) 7761 / 56 21 11**  
**Fax +49 (0) 7761 / 56 21 02**  
**8 a.m. to 5 p.m. CET**  
**e-mail [instruments@vita-zahnfabrik.com](mailto:instruments@vita-zahnfabrik.com)**

▶ **Technical Hotline**

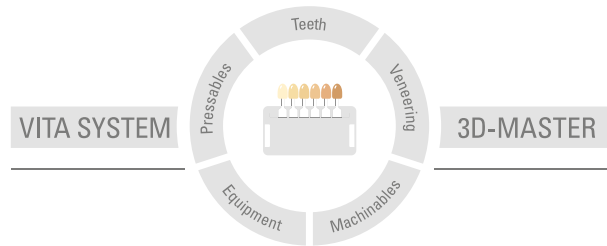
If you have technical questions concerning VITA product solutions, you can contact Dr. Michael Tholey and his Technical Service team.

**Phone +49 (0) 7761/56 22 22**  
**Fax +49 (0) 7761/56 24 46**  
**8 am to 5 pm CET**  
**e-mail [info@vita-zahnfabrik.com](mailto:info@vita-zahnfabrik.com)**

▶ **Additional international contact information can be found at [www.vita-zahnfabrik.com/contacts](http://www.vita-zahnfabrik.com/contacts)**



Additional information on VITA vPad comfort  
can be found at: [www.vita-zahnfabrik.com](http://www.vita-zahnfabrik.com)



**Please note:** Our products must be used in accordance with the instructions for use. We accept no liability for any damage resulting from incorrect handling or usage. The user is furthermore obliged to check the product before use with regard to its suitability for the intended area of application. We cannot accept any liability if the product is used in conjunction with materials and equipment from other manufacturers that are not compatible or not authorized for use with our product and this results in damage. The VITA Modulbox is not a required component of the product. Date of issue of these instructions for use: 2024-08

After the publication of this information for use, any previous versions become obsolete. The current version can be found under [www.vita-zahnfabrik.com](http://www.vita-zahnfabrik.com)

**VITA vPad comfort** is CE marked within the meaning of EC Directive 2014/30/EU and 2011/65/EU.

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# VITA

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