VITA vPad comfort / excellence / clinical

Operating manual

VITA shade taking | VITA shade communication | VITA shade reproduction | VITA shade control

Date of issue: 09.13

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VITA

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1 Introduction

1.1 General notes

Dear Customer,

Thank you for purchasing a VITA vPad comfort / excellence / clinical unit to operate and control your VITA VACUMAT 6000 M ceramic furnace or VITA VACUMAT 6000 MP combipress furnace or VITA ZYRCOMAT 6000 MS.

You can use the VITA vPad comfort / clinical to connect up to 2 VITA VACUMAT 6000 M / 6000 MP and VITA ZYRCOMAT 6000 MS units.

You can use the VITA vPad excellence to connect up to 4 VITA VACUMAT 6000 M / 6000 MP and VITA ZYRCOMAT 6000 MS units.

The operating panels were developed according to the latest technological standards and fulfil all international safety standards. Nevertheless, dangers may result from incorrect operation – please read this operating manual through carefully and follow the instructions.

Adherence to the information contained in this manual will help to avoid dangers, reduce repair costs and downtime and increase the reliablity and service life of the device. All of the illustrations and drawings in this operating manual are intended for general explanatory purposes and are not representative of the design of the device in detail.

This operating manual must always be kept close to the device. It must be read and followed by all persons repsonsible for working with/on the device, e.g. with regard to operation, troubleshooting work routines, cleaning and servicing (maintenance, inspection, repairs).

We wish you satisfaction and success with your operating panel.

1.2 Copyright

Important notes concerning copyrights:
© Copyright 2011, VITA Zahnfabrik. All rights reserved.
This document and/or the software, data and information referenced or contained herein contain confidential and proprietary information of VITA Zahnfabrik.
This document does not convey or represent any right or license to use any software, data or information, any right or license to use any intellectual property rights, or any obligation on the part of VITA Zahnfabrik to provide support or other services in connection therewith. Any right or license to use any software data, information or other intellectual property rights of VITA Zahnfabrik, or any obligation to provide services, must be conveyed by separate written agreement with VITA Zahnfabrik.

2 Scope of delivery

2.1 Device supplied in special box including:

- 1 VITA vPad comfort 7“ color touchscreen **or**
- 1 VITA vPad clinical 7“ color touchscreen **or**
- 1 VITA vPad excellence 8.5“ color touchscreen
- 1 Operating Manual

An additional switchbox and connection cable (VITA Prod. No. D47009) are required for operating 2 to 4 VITA VACUMAT 6000 M / 6000 MP or VITA ZYRCOMAT units with the VITA vPad comfort / excellence / clinical control unit.

3 Technical Information

VITA vPad comfort / clinical **control unit** with 7" color touchscreen, memory capacity of 500 programs with 1 GB photo viewer and control of up to 2 sintering units, furnaces or combipress furnaces.

VITA vPad excellence **control unit** with 8.5“ color touchscreen, memory capacity of 1000 programs with 2 GB photo viewer and control of up to 4 sintering units, furnaces or combipress furnaces.

4 Technical Data

4.1 Dimensions / weights

VITA vPad comfort / excellence / clinical

- Width: 235 mm
- Depth: 156 mm
- Height: 150 mm
- Weight: 0.7 kg
- Housing: Plastic

4.2 Electrical data

The power of 48 V DC is supplied to the VITA VACUMAT 6000 M / 6000 MP or VITA ZYRCOMAT 6000 MS via the connection cable.

4.3 Ambient conditions

- Use indoors
- Ambient temperature: 2°C to 40°C
- Relative humidity max. 80% at 31°C

5 Intended use

Basic information on the device design
The device is designed according to a state of the art design and recognized safety standards.

However, if it is used inappropriately, hazards for the health and safety of the user or third parties may arise as well as the risk of damaging the device and other valuable assets.

Unauthorized modes of operation
Operating the device 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, and the use of equipment modified by the user, are not permitted.

Authorized modes of operation
The operation of the device is only permitted if this operating manual has been completely read and understood and the procedures described in it have been observed. Any other or additional use, e.g. processing of products other than those intended as well as handling of hazardous materials or substances injurious to health, is considered to be contrary to the recommended use.

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.

6 Operation and cleaning of the control unit

Do not operate the control unit **with sharp or hot objects;** this will result in damage to the touchscreen.

Clean the display at regular intervals with a screen cleaner. A screen cleaner does not cause any scratches, generates an antistatic effect and the touchscreen will remain clean longer.

Damage to the display attributable to improper handling during operation or cleaning is excluded from the warranty.

6.1 Warranty and liability

The warranty and liability are based on the terms and conditions stipulated in the contract.

In the event of software modifications without the knowledge and approval of VITA Zahnfabrik H. Rauter GmbH & Co. KG, all liability and warranty claims are invalidated.

6.2 Spare parts

Spare parts must comply with the technical requirements specified by the manufacturer. This is always ensured when using original VITA spare parts.

6.3 Safety information

Before using the device for the first time, please observe the safety information for the VITA VACUMAT 6000 M / 6000 MP furnaces (see operating instructions of VITA VACUMAT 6000 M / 6000 MP – Safety information) or VITA ZYRCOMAT 6000 MS (see operating instructions of VITA ZYRCOMAT 6000 MS – Safety information).

7 Safety functions

When the furnace is operated with a VITA vPad comfort / excellence / clinical control unit, it has the following safety and monitoring features:

- Temperature sensor monitoring
- Temperature monitoring
- Vacuum monitoring
- Power supply failure protection
- Lift monitoring

Additional functions when operating with the VITA VACUMAT 6000 MP:

- Detection of pellets for VITA press pellets
- Detection of press stroke

7.1 Mains power supply failure

The device is equipped with power supply failure protection.
This component prevents a program interruption and hence incorrect firing in the event of a brief failure of the mains power supply. The power failure protection is activated as soon as the mains power supply fails when a firing program is running.

Mains voltage failure time less than approx. 15 sec.

The program continues to run and is not interrupted. The display is out of order during this period. The display shows the start screen once the power is supplied again; after pressing the **Material** key, the running program is displayed again.

Mains voltage failure time less than approx. 15 sec.

The program is interrupted and the display is out of order.
Once mains power is supplied again, the display shows the start screen.

⚠ Once mains power is supplied again, the time required for the control unit to switch back on again is approx. 20 seconds.

8 Automatic temperature calibration

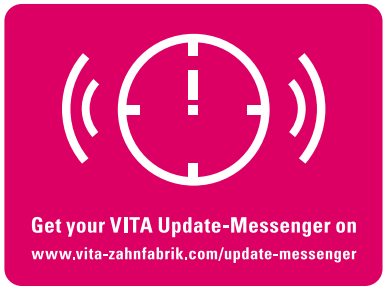
Automatic temperature calibration is activated by the processor after each start of a firing or sintering program.

The temperature calibration examines and corrects all deviations, which have occurred in the electronic components regarding temperature measurement and temperature control.
This calibration is performed after each start of a program and does not have any influence on the general time sequence. Therefore, even if the device is operated over a longer period, constant temperature control of +/- 1°C is achieved.

8.1 Service

Further information about the device is available on the homepage:
http://www.vita-zahnfabrik.com or
http://www.vita-new-generation.com

Software updates are available for download at **Documents & media / Download center / Product information / Software updates.**



Moreover there is also a registration possibility via the VITA **NEWSROOM / Update Messenger** to be automatically informed by email about new information on the device.

Technical questions and questions concerning repair and warranty can be sent to the following email address:
Email: instruments-service@vita-zahnfabrik.com
Phone: +49 (0) 7761 / 562-105, -106, -101

9 First use

Observe the setup and first use instructions in the VITA VACUMAT 6000 M / 6000 MP or the VITA ZYRCOMAT 6000 MS operating manual.

- Use the connector cable supplied to connect the control unit of the VITA vPad comfort / excellence / clinical to the VITA VACUMAT 6000 M / 6000 MP or VITA ZYRCOMAT 6000 MS.
- Plug in the vacuum pump (for VITA VACUMAT 6000 M / 6000 MP only)
- Insert the vacuum pump tube (for VITA VACUMAT 6000 M / 6000 MP only)
- Plug in the power supply cable.
- Switch on the device using the main switch.
- The lift moves to the lower position – to the upper position and then back to the lower (lift distance measurement)

Additional features of the VITA VACUMAT 6000 MP:

- Connection for compressed air (max. 5 bar) to the pressure regulator of the vacuum pump. Attach the enclosed tube clamps to the compressed air tube: one clamp to the outlet from the laboratory's compressed air line and one clamp to inlet to the pump.
  For information about the individual connections see sections 9.1, 9, 2 and 9.4.

VITA Switchbox

⚠ Attach the firing socket to the lift plate!

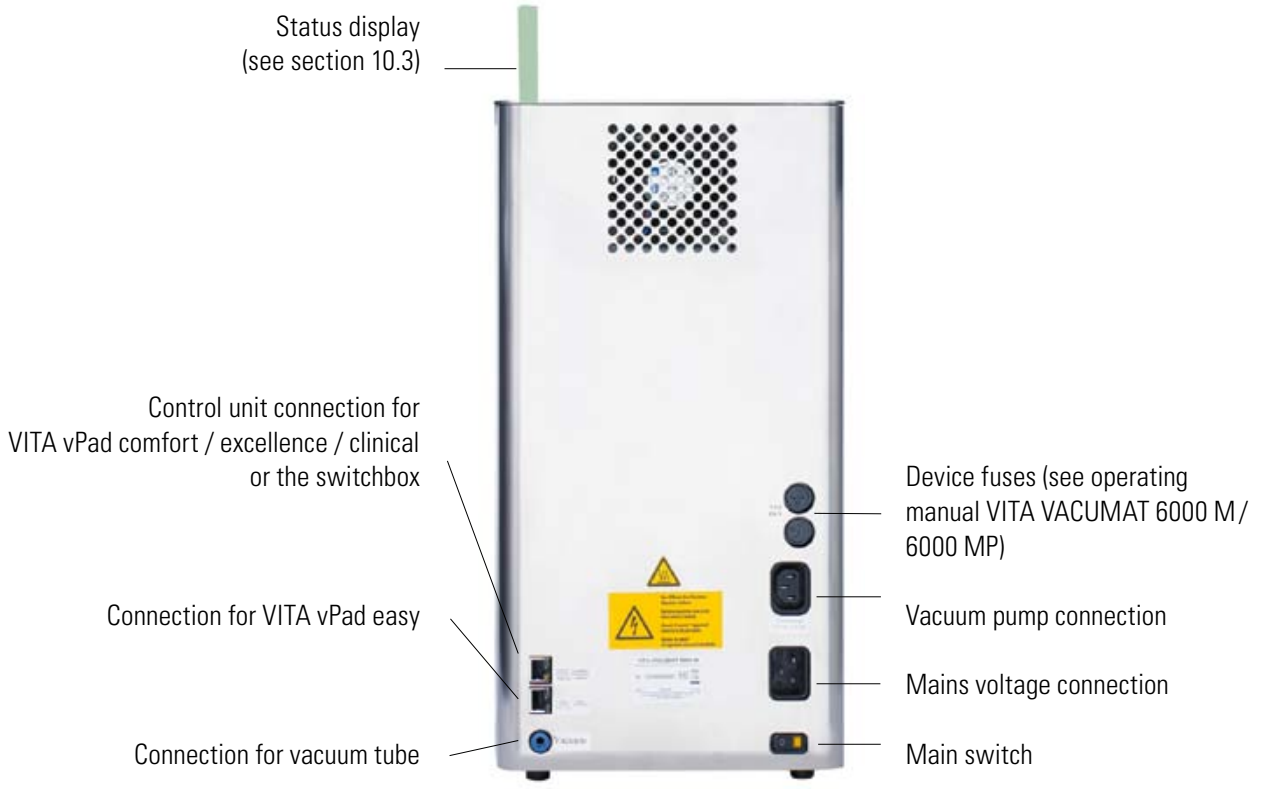
Operating the device without a firing socket can damage the device due to the strong influence of heat.

When using 2 or more firing units with a vPad comfort / excellence / clinical control unit, it is important to observe the numerically marked connections of the switchbox.

⚠ One furnace must always be connected to port 1.

9.1 Connections of the VITA VACUMAT® 6000 M furnace

(see also operating manual VITA VACUMAT 6000 M)



9.2 Connections of the VITA VACUMAT® 6000 MP combipress furnace

(see also operating manual VITA VACUMAT 6000 MP)

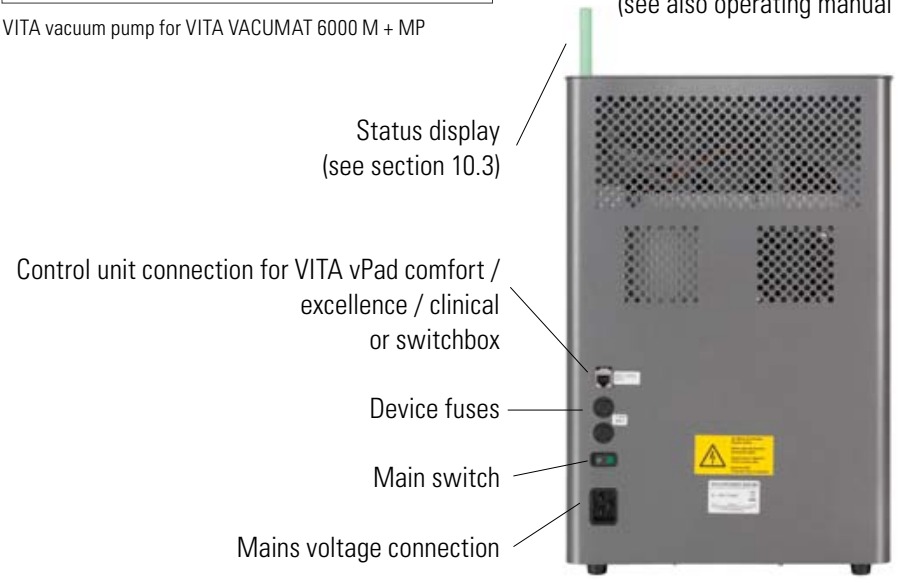
VITA vacuum pump for VITA VACUMAT 6000 M + MP

9.3 Compressed air connection

The vacuum pump features a pressure regulator.
The inlet pressure from the lab's compressed air supply should not exceed 6 bar. The pressure supplied to the device should be adjusted to a maximum of 5 bar. About the settings for the press pressure see section 20.3

9.4 Connections of VITA ZYRCOMAT® 6000 MS sintering unit

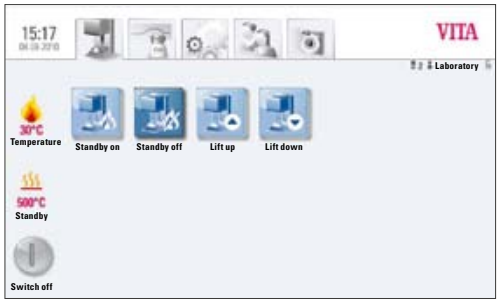
(see also operating manual of VITA ZYRCOMAT 6000 MS)



10 Switching on the device

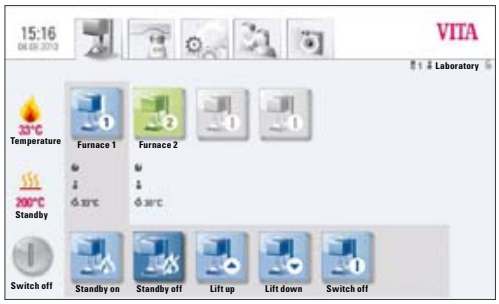
Switch on the device using the **main switch** (see section 9.1, 9.2 and 9.4). The lift moves to the lower position, the software boots up and the start screen is displayed.

After connecting the VITA VACUMAT 6000 M / 6000 MP and VITA ZYRCOMAT 6000 MS, the display shows:



Display when connecting one device

VITA vPad comfort / excellence / clinical with
1 Device



Display when connecting two devices

VITA vPad comfort / excellence / clinical with
2 devices

10.1 Start Standby

1 Device**:**
Press the **Standby on** button

2 Devices:
Select the device using the **Furnace 1** or **Furnace 2** buttons.

Press the **Standby on** button.

The lift moves into the firing chamber and the temperature increases to the set standby temperature. After reaching the standby temperature and holding for 5 minutes, the device is ready for firing processes.

The **Cooldown** button is only displayed if the temperature in the firing chamber is higher than the standby temperature.

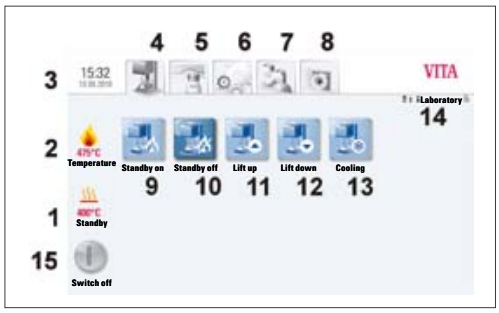
10.2 Preventing condensation (AntiCon)

If the device is switched on with the main switch and standby is started, the lift moves to the upper position, but does not seal the firing chamber completely. This allows condensation in the insulation to evaporate.

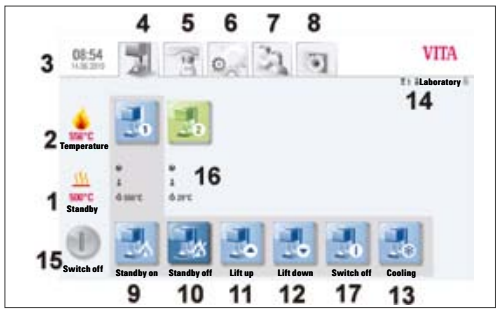
After reaching the standby temperature and holding for approx. 5 minutes, the firing chamber is completely sealed and the device is ready for use.
With the **Standby off** button, the lift is lowered and the muffle is switched off.

10.3 Status display

The status display shows the following operating modes:
- Green – device in standby mode
- Blue – program active
- Red – error



VITA vPad comfort / vPad excellence with 1 firing unit



VITA vPad comfort / vPad excellence with 2 firing units

11 Operation and features of VITA vPad comfort / excellence / clinical

1 Standby temperature
2 Firing chamber temperature
3 Time / date
4 Standby features
5 Materials / firing programs
6 Device settings
7 User profiles / individual material and program settings
8 Photo Viewer
9 Standby On
10 Standby Off
11 Lift up
12 Lift down
13 Fast cooldown to standby (symbol is only displayed if the temperature in the firing chamber is higher than the standby temperature)
14 Number of the selected device / user name / password protection status: if password is activated – icon "lock" is closed; if password protection is not activated – icon "lock" is open.
15 Device off / display off, see section 11.5
16 Information field with remaining time / user / temperature
17 Switch off device in multi-furnace mode, see sect. 11.5

11.1 Start Standby

Standby on

Programs, settings, user and Photo Viewer (upper bar tab) may be operated in active or inactive standby mode

If the device is switched on using the main switch and the standby program is started, the lift moves to the upper position and remains approx. 2-3 cm open for approx. 10 minutes, so that condensation in the insulation can evaporate.

After reaching the standby temperature and holding it for 5 minutes, the device is closed.

11.2 Ending standby

Standby off

The lift moves down, and the muffle switches off.

11.3 Lift buttons

Lift up Lift down

The lift moves up or down when the **Lift up** or **Lift down** buttons are pressed.

11.4 Cooldown to standby

Cooling

The **Cooldown** button is only displayed/active when the firing chamber temperature is higher than the standby temperature.

The lift remains in the lower position and the pump is switched on; after reaching the standby temperature minus 50°C, the lift is raised up and the firing chamber is heated to the standby temperature.

11.5 Switching off

Switch off

When operating several furnaces, each device can be switched off individually. If several devices are being operated with one vPad, a dialog box is displayed showing the devices in operation when pressing the **Switch off** button. The devices can then be selected individually to switch them off.

After pressing the **Device off** button, the lift is raised up, the muffle is switched off and **Switch off** is shown on the display.

12 Selecting the firing program

On pressing the **Material** tab or **User** tab, programs can be selected.

Material

On pressing the **Material** tab, the stored materials are displayed.

User

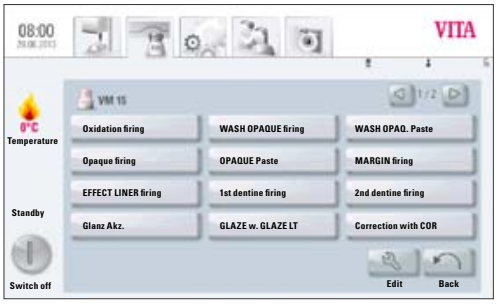
On pressing the **User** tab, the users that have been set up are displayed; after selecting a user, the stored materials are displayed.

To select and start a firing program, follow the steps below:

1. Select the material

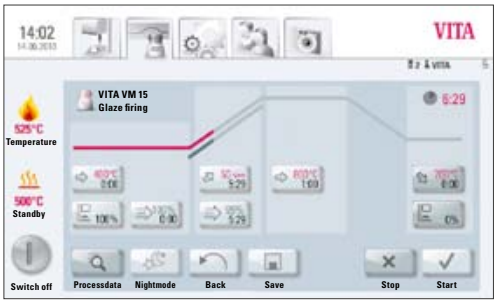
Selecting the material

2. Select the program



Selecting the program

3. Start the program using the START button



Program status and firing curve

The firing curve is colored red according to the program sequence.

The time sequence is displayed on the individual buttons for the program phases.

The total program time is displayed in red (see the clock symbol at the top right).

When operating just one furnace, the firing program is displayed during the entire program sequence.

After the program sequence, the display returns to the firing programs.

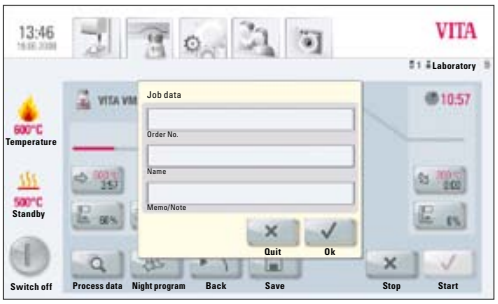
When operating multiple furnaces, approx. 20 sec. after the program start the Furnace Overview screen is displayed (see sect. 10 figure 2).

The next free device can thus be selected and used for firing.

A signal sounds at the end of the program; for settings, see sect. 20.2.

The active program can be interrupted at any time using the **Stop** button.

Information about the additional function buttons:



Display showing process data

12.1 Process data

Process data

Press **Process data** button, display shows:

Saving process data for quality assurance

The following data are saved automatically:
- User / operator
- Material name
- Name of firing program
- Firing program data – set and actual values
- Device type
- Device number
- Date of firing process

The following data can additionally be entered in a dialog box:

Press input field:
- Order No.
- Name
- Note / remarks about the firing object

Apply the value using the **OK** button **or** retain the last value using the **Cancel** button and return to the firing curve screen.

These data are stored in the control unit memory.
These data can subsequently be exported to a USB stick and transferred to the administration program (FDS – Firing-Data-System) on the PC (see sect. 20.4).

This administration program permits archiving of all firing data and subsequent tracking and printing of individual orders.

12.2 Night program

Night program

Pressing the key activates the night program; at the end of a firing program the lift is moved into the firing chamber after the temperature in the firing chamber has decreased to 200°C; display and heating are deactivated.

To switch the unit on again, the main switch needs to be switched off and on again.

The night program must be activated before starting a firing program.

12.3 Back button

Back

The **Back** button is used to display the previously selected screen.

12.4 Save

Save

Saving program values – see sect. 13.

12.5 Program buttons

Functions of the program buttons – see sect. 13.1 Entering / modifying program values.

13 Entering / modifying / saving program values

Any programs and program values can be customized except of the programs under user **VITA**.

User Labor is a copy of user VITA and can also be modified; changes of the material names cannot be performed (see sect. 14).

User **Laboratory** (for VITA vPad clinical "**Practice**") is a copy of the user **VITA** and can also be modified; changes of the material names cannot be performed (see sect. 14).

All materials available for CEREC practices are already prestored for user **Doc** that is exclusively available for the VITA vPad clinical unit.

When creating a new user, a copy of all VITA programs is created automatically. These programs can be customized and saved by the users depending on their individual needs. This does not apply to changes of the material names.

Various symbols are available for creating new materials, which can also be changed (see sect. 14.1).

Value changes are saved using the **Save** button.

If a program with modified values is started directly with the **Start** button, the change is valid only for the active program sequence; at the end of the program, the value is reset to the last saved value.

If password protection is activated, the password is requested after pressing the **Save** button. After entering the valid password, the value entered can be saved.

For value changes after starting the program, see sect. 13.10.

Figure 1 shows prestored materials for user Doc

Figure 2 shows firing program view

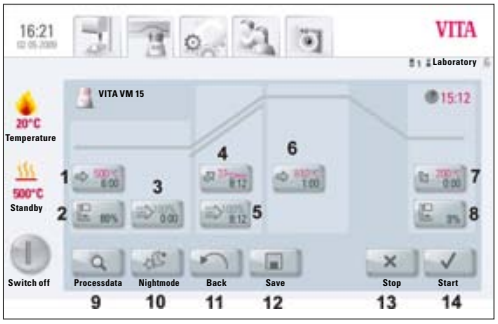


Figure 3 shows firing program view with 2nd temperature rise

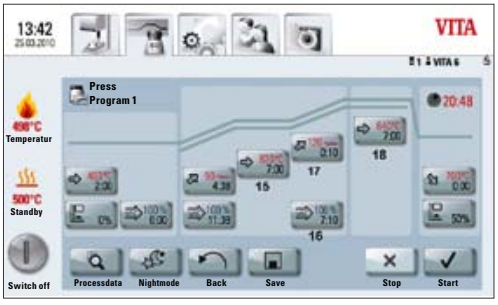
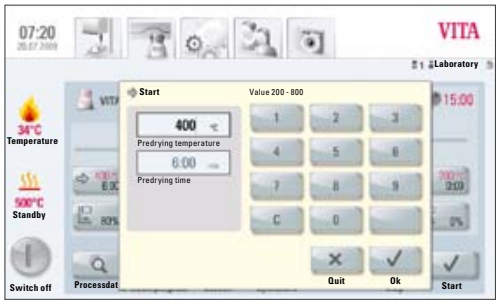


Figure 4 shows firing program view with 2nd temperature rise

13.1 Description of function buttons

1 Predrying temperature and predrying time (see sect. 13.2)
2 Predrying lift positions (see sect. 13.3)
3 Prevacuum (see sect. 13.4)
4 Rise time / Rise temperature (see sect. 13.6)
5 Main vacuum (see sect. 13.5)
6 Firing temperature and holding time (see sect. 13.7)
7 Cooldown temperature and holding time (see sect. 13.8)
8 Lift position for cooldown (see sect. 13.9)
9 Saving the process data (see sect. 12.1)
10 Night program (see sect. 12.2)
11 Back to previous screen (see sect. 12.3)
12 Save button (see sect. 13)
13 Program stop button
14 Program start button
15 Firing temperature and holding time
16 Vacuum for 2nd temperature rise and holding time
17 2nd rise time / rise temperature
18 2nd Firing temperature and holding time



Enter predrying temperature and predrying time

13.2 Predrying temperature / Predrying time

Press **Predrying** button, display shows:

Enter / change values

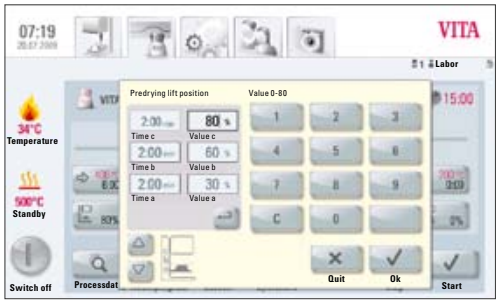
- Move to the **Predrying temperature or Predrying time** field
- Enter the **value**

Entry ranges:

Temperature	200 °C – 800 °C
Time	0 – 40:00 min/sec.

Values that can be entered are displayed.

Apply the value using the **OK** button **or** retain the last value using the **Cancel** button and return to the firing curve screen.



Enter the lift position and the respective holding time

13.3 Predrying lift positions

Three lift positions are available for the predrying phase.

Press **Lift position** button, display shows:

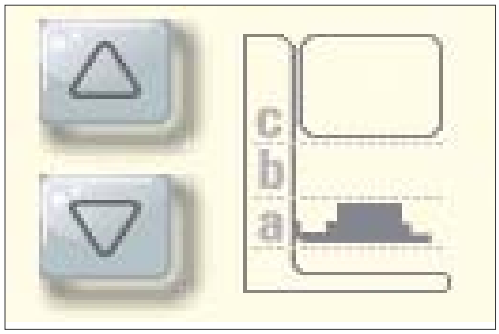
Enter / change values

The dialog is subdivided into entry for position in %
and entry for the remaining time at the position.

Enter lift position in % and press **OK** button to accept

or

Move lift to the desired position using the **Lift button** and use Arrow button to accept the value.



Determination of the 3 lift positions

Time for remaining in the positions:

The time for **position c** is determined automatically.

Time for position **a** or **b**

- Press desired field for position **a** or **b**
- Enter the **value**

Values that can be entered are displayed.

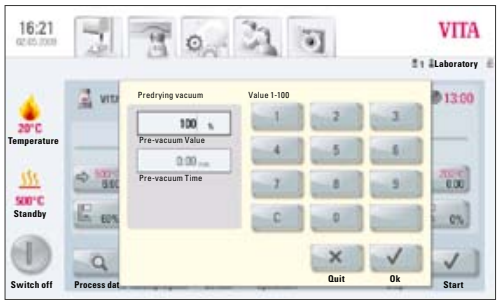
Apply the value using the **OK** button **or** retain the last value using the **Cancel** button and return to the firing curve screen.

For the predrying phase, 3 lift positions are available.

Position a – lower position **entry value 0 – 30%**
Position b – middle position **entry value max. 60%**
Position c – upper position **entry value max. 100%**

The time values of the individual positions depend on the predrying time. The time value for **position c** is determined automatically.

In the event of a change in the predrying time of **more than** 3:00 min., the time for **position a** and **position b** is retained and the time for **position c** is adapted.
In the event of a change in the predrying time of **less than** 3:00 min., predrying is completed in position b with the lift position 50%.



Individual prevacuum setting

13.4 Prevacuum

Press **Prevacuum** button, display shows:

Enter / change values

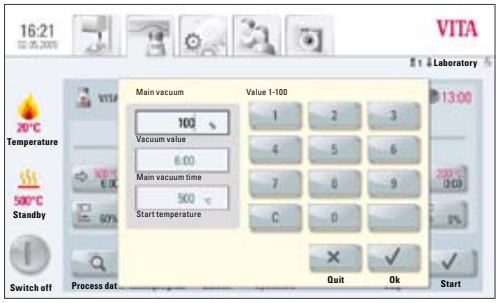
- Move to the **Time** or **Value** % field
- Enter the **value**

Entry ranges:
Time 0 – 30:00 min/sec.
Value % 0 – 100%

Values that can be entered are displayed.

Apply the value using the **OK** button **or** retain the last value using the **Cancel** button and return to the firing curve screen.

The **Prevacuum** setting creates the vacuum inside the firing chamber, before the temperature rise becomes active. On entering the **time** 0:00, the prevacuum is deactivated.



Enter main vacuum parameters

13.5 Main vacuum

Press **Main vacuum** button, display shows:

Enter / change values

- Move to the **Time** or **Value** % or °C field
- Enter the **value**

Entry ranges:

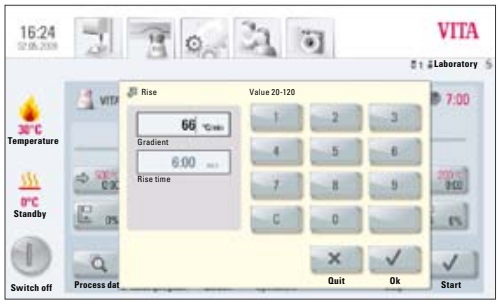
Value %	50 – 100%
Time	0 – 80:00 min/sec.
Temperature °C	200 °C - 1,190 °C

Values that can be entered are displayed.

Apply the value using the **OK** button **or** retain the last value using the **Cancel** button and return to the firing curve screen.

The time values for switching the vacuum pump on and off depend on the preset program values. If the end temperature or predrying temperature are changed, the vacuum time is adapted to the rise time.

The max. vacuum time is calculated from the rise time plus the temperature holding time at the end temperature.



Enter the rise time and rise temperature

13.6 Rise time / Rise temperature

Press **Rise** button, display shows:

Enter / change values

- Move to the **°C/min** or **min** field
- Enter the **value**

Entry value °C/min	20 °C - 120 °C
Entry value min/sec.	Entry value min/sec. 03:00 to 40:00 min/sec.

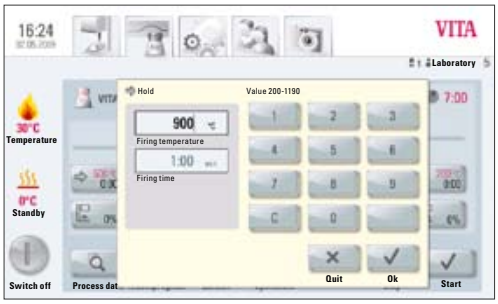
Values that can be entered are displayed.

Apply the value using the **OK** button **or** retain the last value using the **Cancel** button and return to the firing curve screen.

After entering a value °C/min or min/°C, the 2nd value is automatically calculated and displayed.

If the calculated temperature rise is below 20°C/min. due to entering a value for the temperature rise in min/sec., or it exceeds the max. value of 120°C, a respective message is displayed.

If, after entering the temperature rise, the predrying temperature or the firing temperature are changed, the value °C/min. is retained, and the time in min/sec. is adjusted.



Entering the firing temperature and the holding time

13.7 Firing temperature and holding time

Press **Firing temperature** button, display shows:

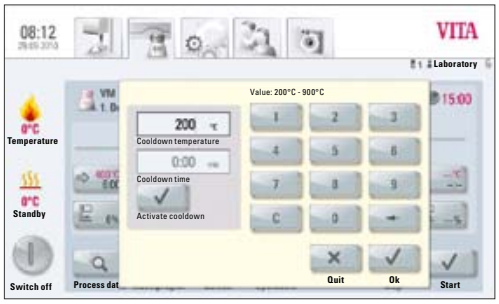
Enter/change values

- Move to the **°C** or **min** field
- Enter the **value**

Entry value	max. 1,190 °C
Entry value	max. 40:00 min/sec.

Values that can be entered are displayed.

Apply the value using the **OK** button **or** retain the last value using the **Cancel** button and return to the firing curve screen (see sect. 13, figure 1).



Entering the cooldown parameters

13.8 Cooldown temperature and holding time

Press **Cooldown temperature** button, display shows:

Enter/change values

- Move to the **°C** or **min** field
- Enter the **value**

Entry value	200 °C – 900 °C
Entry value	0 – 40:00 min/sec.

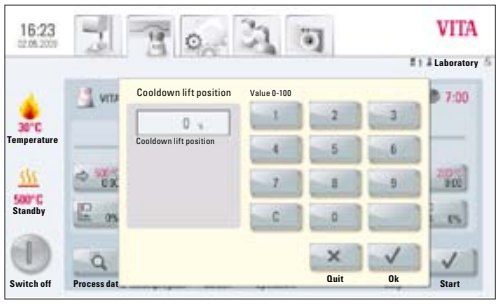
Values that can be entered are displayed.

The field **Activate cooldown** is automatically activated when entering the temperature or time – button with activation control.

Deactivating cooldown

Press Deactivate cooldown – button without activation control.

Apply the value using the **OK** button **or** retain the last value using the **Cancel** button and return to the firing curve screen (see sect. 13, figure 1).



Entering the cooldown temperature at the respective lift position

13.9 Cooldown lift position

Press **Lift position** button, display shows:

Enter/change values

- Move to the **°C** or **min** field
- Enter the **value**

The available entry values are displayed in the dialog box.

Apply the value using the **OK** button **or** retain the last value using the **Cancel** button and return to the firing curve screen (see sect. 13, figure 1).

The same procedure is used to enter and change the values of the 2nd temperature rise and 2nd holding time.

13.10 Changes after starting a firing program

Program values may be changed after starting a firing program. To avoid incorrect firing, changes, which automatically influence other program sections, cannot be performed, such as changing the rise time, which will automatically adjust the vacuum time.

The password request is deactivated here; it is not possible to save and the change is only applied temporarily.

Generally: **only an inactive** program section can be changed. The other program sections, which can still be changed, are identifiable by the display of the button (dark button). If a program section that is still available is selected for a change, and if it becomes active in the meantime, the program switches to the firing curve screen and the program continues running with the value previously obtained.

In the dialog box, the time display shows the time still available for a change.

The following values can be modified:

- Firing temperature
- Holding time for the firing temperature
- Cool down temperature
- Holding time for cooling temperature

When the end temperature is changed, the °C/min gradient is always maintained, the rise time and the vacuum time are adjusted accordingly.

13.11 Quickstart

If the firing chamber temperature is higher than the program's predrying temperature or the start temperature when a firing program is started, the **Quickstart** screen is displayed.

The Quickstart button is only active in firing programs without predrying.

In **Quickstart**, the following options can be selected:

- **Slow cooldown** to the start temperature without using the vacuum
- **Fast cooldown** to the start temperature by switching on the vacuum pump
- **Quick Start** program start at the current firing chamber temperature

On selecting **Quickstart**, the gradient (°C/min) is retained and the rise time is adjusted. Likewise, in a program with vacuum, the vacuum time is adjusted to the time of the temperature rise. The adjusted values are displayed and must be confirmed by pressing the **OK** button.

Figure 1 shows Materials screen

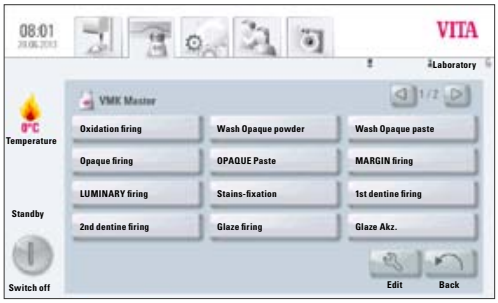


Figure 2 shows Programs screen

Figure 3 shows view of user profiles

14 Create and edit materials, programs and user profiles

At the appropriate level in the display, the **Edit** button for **Materials, Programs** and **User profiles** (users) is shown.

Edit

With this button, the yellow editing level is activated, which includes the following options:

- Create **new** material, programs, user profile
- **Modify** material, programs, user profile
- **Duplicate** material, programs, user profile
- **Delete** material, programs, user profile
- **Position** material, programs, user profile
- **Import** material, programs, user profile – from the USB stick to the control unit
- **Export** material, programs, user profile – from the USB stick to the control unit

Materials and programs listed under User VITA cannot be changed.

14.1 Create a new material

New materials can be created under **Material** or under **User**.

Material

On pressing the **Material** tab, the stored materials are displayed.

User

Pressing the **User** tab shows the created user profiles and, after selecting a user, the stored materials are displayed.

Figure 1 – display shows materials

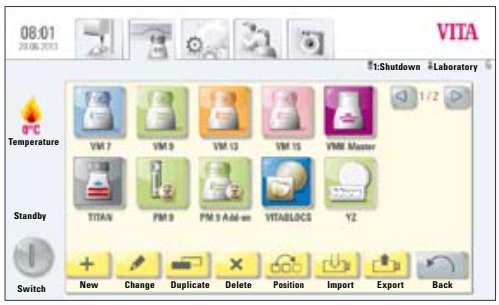


Figure 2 – display shows editing level for materials

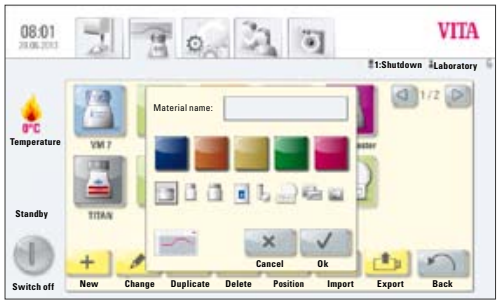


Figure 3 – entries for material

1. Select the Material tab

- Press **Edit** button

- Press **New** button

2. Enter material name (max. 12 characters)

- Press **Material Name** label field – keypad is shown
- Enter name
- Press **OK** button
- **Select container** (3 options)

or

- Select program for pressing (see press programs)

or

- Select 2-step program for crystallization firings (see 2-step programs)

or

- Select program for Blocs

or

- Program for Sinter ceramics

- **Select color** (5 options)
- Apply using the **OK** button **or** press the **Cancel** button to return to return to Figure 2 (editing level)

14.2 Change material

VITA

Materials and programs stored under the **VITA** user cannot be changed.
When pressing the **Edit** button, the message, "VITA user can not be changed" is displayed.

Labor

Doc

The following functions are provided for the materials and programs listed under **Laboratory** (for VITA vPad clinical "**Practice**") and **Doc** user (for VITA vPad clinical):

- Change
- Duplicate
- Delete
- Position
- Import
- Export

- In figure 1 Material, press the **Edit** button – the editing level is displayed
- Select **Material** to be modified
- Press **Modify** button
- Enter or select the desired changes, name, color or container (see figure 3)
- Apply using the **OK** button **or** press the **Cancel** button to return to figure 3.

The display shows the modified material.
Press the **Back** button – the display shows figure 1 Materials.

Please note: All program values and program names for VITA materials can be changed. The VITA materials names and VITA containers cannot be changed.

14.3 Duplicate material (copy)

- In figure 1 Material, press the **Edit** button – the editing level is displayed
- Select **Material** to be duplicated
- Press the **Duplicate** button
- The material with associated programs is added and marked for identification with an additional number (e.g. VITA VM 13 (2))
- Press the **Back** button – the display shows figure 1 Materials.

The material name can be changed using the **Modify** mode (see sect. 14.2).

Figure 1 – display shows materials

Figure 2 – display shows editing level for materials

14.4 Delete material

- In figure 1 Material, press the **Edit** button – the editing level is displayed
- Select **Material** to be deleted
- Press the **Delete** button
- Apply using the **OK** button **or** press the **Cancel** button to return
- Press the **Back** button – the display shows figure 1 Materials.

⚠ Important: If a material is deleted, the programs stored for the material will also be deleted.

14.5 Position material

- In figure 1 Material, press the **Edit** button – the editing level is displayed
- Select the **Material** having its position changed
- Press the **Position** button – the material group moves 1 digit to the right
- Press the **Back** button – the display shows figure 1 Materials.

14.6 Import material

- In figure 1 Material, press the **Edit** button – the editing level is displayed
- Select the **Import** button
- Select **Data** from the USB stick
- Press the **Import** button – data are transferred to the control unit
- Press the **Back** button – the display shows figure 1 Materials.

⚠ Important: To import data, the USB stick containing the data to be imported must be inserted into the control unit.

14.7 Export material

- In figure 1 Material, press the **Edit** button – the editing level is displayed
- Select **Material** to be exported
- Press the **Export** button
- Press **OK** or **Cancel** button
- Press the **Back** button – the display shows figure 1 Materials.

⚠ Important: To export data, the USB stick must be inserted into the control unit.

14.8 Create / modify programs

New programs can be created or existing ones modified under **Material** or under **User**.

Material

On pressing the **Material** tab, the stored materials are displayed.

User

Pressing the **User** tab shows the created user profiles and, after selecting a user, the stored materials are displayed.

Figure 1 shows materials

1. Select the material

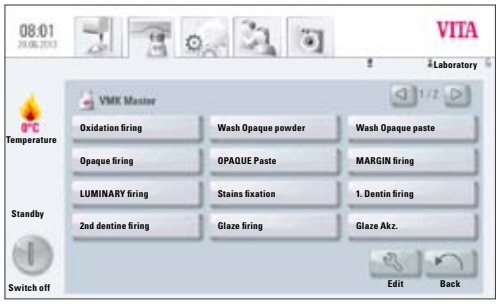


Figure 2 shows programs

2. Select program for editing

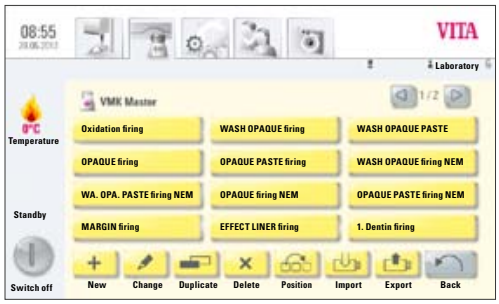


Figure 3 shows editing level

Press the **Edit** button – display shows yellow editing level (figure 3).

When selecting a user with a password, the keypad is displayed to enter the password after pressing the **Edit** button.

After entering the password, figure 3 Editing level is displayed.

Figure 4 shows entry of program names

- Press **New** button – keypad is shown (see figure 4)
- Enter name – max. 20 characters
- Press **OK** button – display shows the newly created program. The new program may be displayed on a new page.

Figure 1 shows materials

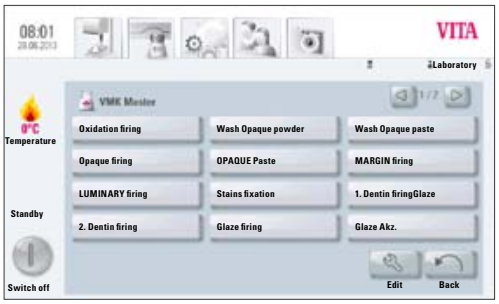


Figure 2 shows programs

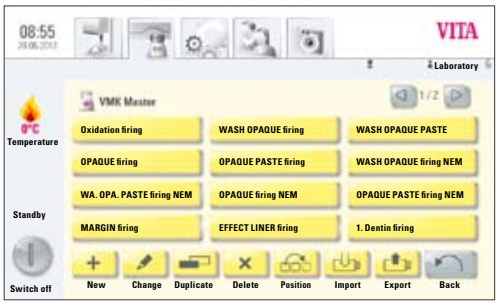


Figure 3 shows editing level

Figure 4 shows entry of program names

- Use keys to change pages

- Program values are entered and saved after selecting the program in the firing curve view (see sect. 13).

14.9 Modify programs

- Select material in figure 1
- In figure 2 Material, press the **Edit** button – the editing level is displayed
- Select **Program** to be modified
- Press **Modify** button
- Use the keypad to enter the desired changes (name)
- Press **OK** button

14.10 Duplicate programs

- Select material in figure 1
- In figure 2 Material, press the **Edit** button – the editing level is displayed
- Select **Program** to be duplicated
- Press the **Duplicate** button

The program is added and marked with an additional number.
For name changes, see sect. 14.9

14.11 Delete programs

- Select material in figure 1
- In figure 2 Material, press the **Edit** button – the editing level is displayed
- Select **Program** to be deleted
- Press the **Delete** button
- Apply using the **OK** button **or** press the **Cancel** button to return

14.12 Change program position

- Select material in figure 1
- In figure 2 Material, press the **Edit** button – the editing level is displayed
- Select the **program** to be repositioned
- Press the **Position** button – the program is shifted 1 digit to the right

14.13 Import programs

- Select material in figure 1
- In figure 2 Material, press the **Edit** button – the editing level is displayed
- Press the **Import** button –
- Select **program** to be imported from the USB stick
- Press the **Import** button **or** the **Cancel** button

⚠ Important: To import data, the USB stick containing the data to be imported must be inserted into the control unit.

14.14 Export programs

- Select material in figure 1
- In figure 2 Material, press the **Edit** button – the editing level is displayed
- Select **Program** to be exported
- Press the **Export** button
- Press **OK** or **Cancel** button

⚠ Important: To export data, the USB stick must be inserted into the control unit.

15 Create / modify user profiles

In the VITA **vPad comfort and VITA vPad clinical** unit, up to 4 users can be created.
In the VITA **vPad excellence** control unit, up to 12 users can be created.

User

Press the **User** tab – the display shows all users.

Figure 1 shows view of user profiles

User profile **VITA** is set up and contains all of the VITA original programs. These programs cannot be modified and are used as a backup copy of the factory settings.

The user profile **Laboratory** (for VITA vPad clinical "**Practice**" is a copy of the original VITA programs. These programs can be customized by users depending on their individual needs. VITA material names and VITA containers, however, cannot be modified.

All materials and related programs available for CEREC practices are already prestored for user **Doc** that is exclusively available for the VITA vPad clinical unit.

Program values of newly created User profiles can be modified.

For user profiles already created with password protection, the **keypad** is displayed for entering the password.

If a new user profile is created, a copy of the original VITA programs is added automatically.

Figure 2 shows editing level

Press **Edit** button –
display shows figure 2 for editing the users.

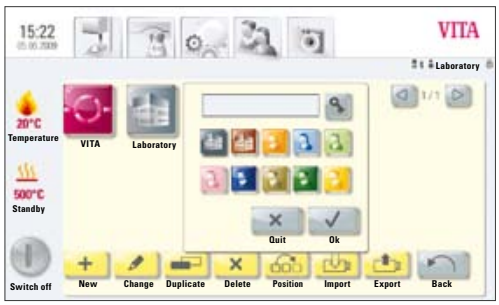


Figure 3 shows entry for a new user

Press **New** the display shows figure 3

Create a new user profile

- Move to the **label field** – the keypad is shown
- Enter the **user name** – max. 12 characters
- Press **OK** button
- Select **Symbol** (10 options)
- Apply using the **OK** button or activate **password protection** **or** press the **Cancel** button to return to figure 2

15.1 Activate / enter the password:

- Press the **Password** button – the **keypad** is shown
- Enter the **password**
- Confirm with **OK** button
- Re-enter the **password**
- Press the **OK** button or **Cancel** button – the keypad is removed

Password-protected programs can be used by all users; active programs can be modified but not saved.

15.2 Delete the password

- Press the **Password** button – the **keypad** is shown
- Enter the **password**
- Press the **OK** button – the **keypad** is shown
- Press **Modify** button
- Press the **Password** button – the **keypad** is shown
- Press **OK** button twice to confirm empty label field – password is deleted

15.3 Modify a user profile

- In figure 1, User Profile, press the **Edit** button the editing level is displayed
- Select the **user profile** to be modified
- Press **Modify** button
  For password-protected users, the **keypad** for entering the password is shown
- Enter the **password**
- Press **OK** button
- Move to the **label field** – the keypad is shown
- Enter the **user name** – max. 12 characters
- Press **OK** button
- Select **Symbol** (10 options)
- Press **OK** or **Cancel** button

15.4 Duplicate a user profile

- In figure 1, User Profile, press the **Edit** button
- Select the **user profile** to be duplicated
- Press the **Duplicate** button

The user profile is added and marked with an additional number for identification, for example laboratory (2).

Figure 1 shows view of user profiles

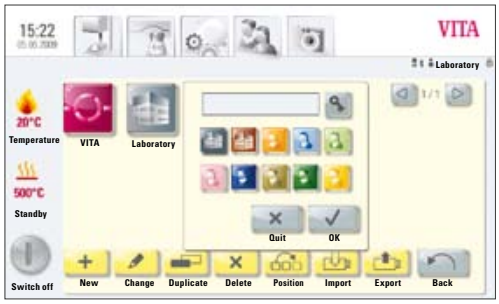


Figure 2 shows editing level

15.5 Delete a user profile

- In figure 1, User Profile, press the **Edit** button
- Select the **user profile** to be deleted. For password-protected users, the keypad for entering the password is shown
- Enter the **password**
- Press **OK** button
- Press the **Delete** button
- Press **OK** or **Cancel** button

15.6 Change user profile position

- In figure 1, User Profile, press the **Edit** button
- Select the **user profile** to be positioned
- Press the **Position** button –
  User profile is shifted 1 digit to the right

15.7 Import a user profile

- In figure 1, User Profile, press the **Edit** button
- Press the **Import** button –
- Select **User profile** to be imported from the USB stick
- Press the **Import** button **or**
  use **Cancel** button to go back

⚠ Important: To import data, the USB stick containing the data to be imported must be inserted into the control unit.

15.8 Export a user profile

- In figure 1, User Profile, press the **Edit** button
- Select the **user profile** to be exported
- Press the **Export** button
- Press the **Apply** button **or**
  use **Cancel** button to go back

⚠ Important: To export data, the USB stick must be inserted into the control unit.

16 Press programs

PM 9

The programs stored under this material button are VITA press programs. To create materials of other manufacturers, see sect. 14.1 Creating a new material.

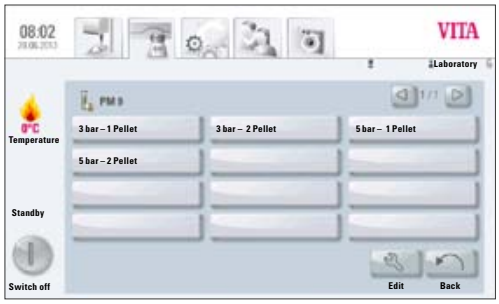


Figure 1 shows press programs

Enter/change values

Press the **Press material** button
display shows figure 1 Available Press programs.

1. Select desired press program

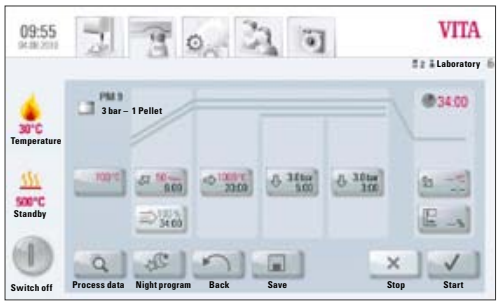


Figure 2 shows program view/firing curve

2. Selected press program is displayed

16.1 Start temperature for press program

Press field **700°C with start temperature**, display shows:

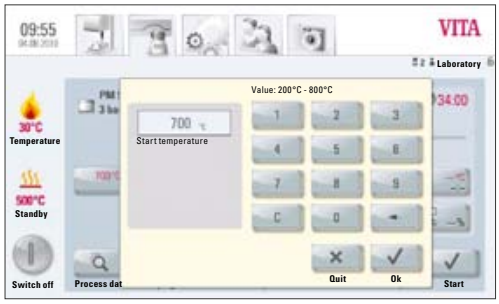


Figure 3 shows input options for start temperature

Enter/change values

- Press **700°C** field
- Enter the **value**

Entry value 200 °C – 900 °C

Values that can be entered are displayed.

- Apply the value using the **OK** button **or** retain the last value using the **Cancel** button and return to the figure 2 firing curve.

16.2 Rise time/Rise temperature

Press **Rise time/rise temperature** field.

Enter/change values see sect.13.6 Enter/change values.

16.3 Vacuum time

The vacuum time in the press program cannot be adjusted or changed.
The vacuum is automatically adjusted during the entire pressing time.

16.4 Pressing temperature / pressing time

Press **Pressing temperature / pressing time** field.

Enter / change values
see sect. 13.7 Enter/change values.

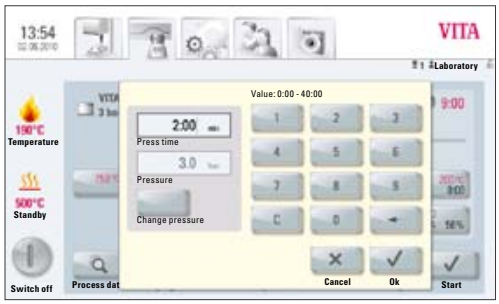


Figure 1 shows input options for pressing time and press pressure

16.5 Pressing time 1 and press pressure

Press **Pressing time 1 / press pressure** field, display shows:

Enter / change values

- Press **Min** field
- Enter the **value**

Entry value 0 – 40:00 min/sec.

Values that can be entered are displayed.

Use **Change pressure** button to select the press pressure.
For adjusting the press pressure, see sect. 19.3.

- Apply the value using the **OK** button **or** retain the last value using the **Cancel** button and return to the figure 2 firing curve, see section 16.

16.6 Pressing time 2 and press pressure

Press **Pressing time 2 / press pressure** field.

Enter / change values
See sect. 16.5.

The default pressing time 1 is automatically ended if the press plunger has reached its final position and no measurable change of stroke occurs.
If no change of stroke is measured, pressing time 2 is activated. The pressing time runs down according to the setting; the press process is completed and the lift is moved to the lower position.

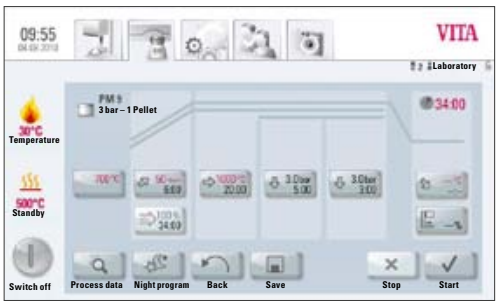


Figure 1

16.7 Starting a press program

⚠ Important: The press object is inserted only after the start temperature has been reached.

After selecting the press program, the display shows figure 1:

- Press **Start** button – lift is moved into the chamber
- Firing chamber temperature rises to the start temperature

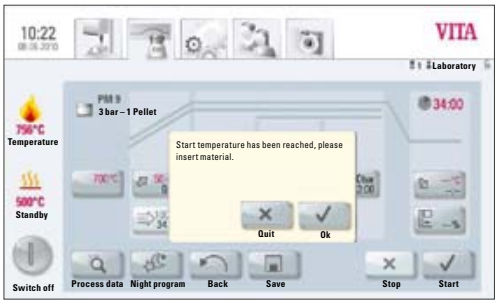


Figure 2

After reaching the start temperature, the display shows figure 2:

- Press **OK** button – lift is moved to the lower position
- Display shows figure 3 "Please insert press material"
- Insert press pellet
- Press **OK** button – lift is moved into the chamber.

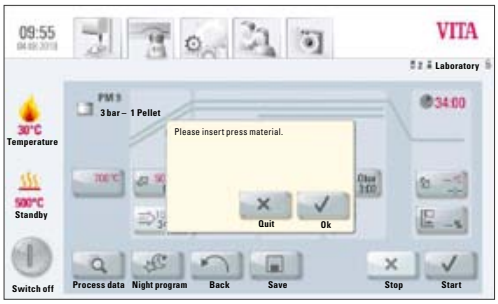


Figure 3

While the press pellet is moved into the chamber, the pressing cylinder is extended and retracted.

- Once it is retracted, the number of pellets inserted (for VITA materials) is displayed.
- Press **OK** or **Cancel** button to confirm.

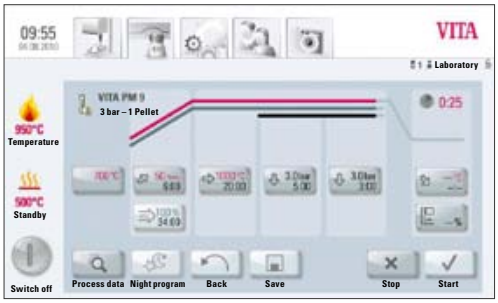


Figure 4

While the program is running, the display shows figure 4:

- Red curve – temperature progress
- Light grey curve – vacuum progress
- Black curve – pressure progress

⚠ To achieve correct pressing, it is required to place the press object in the center of the lift plate. A firing socket suitable for the size of the press muffle with 2 pressure discs being inserted must be used and placed on a level surface.

17 Predrying programs

The programs stored under this button are VITA predrying programs.

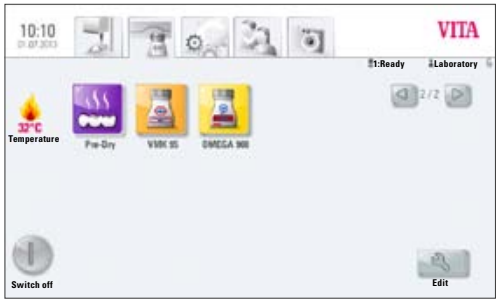


Figure 1

17.1 Selecting a Pre-Drying Program

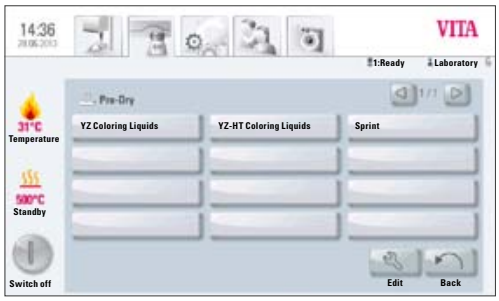


Figure 2

1. Select the button "Pre-Dry"

2. Choose one Pre-Dry program

- Select the Program YZ Coloring Liquids to pre-dry manually shaded YZ in 30 min. according to VITA's instructions.
- Select the Program YZ-HT Coloring Liquids to pre-dry manually shaded YZ-HT in 30 min. according to VITA's instructions.
- Select the Program Sprint for the VITA In-Ceram Sprint procedure to pre-dry at 130 °C.

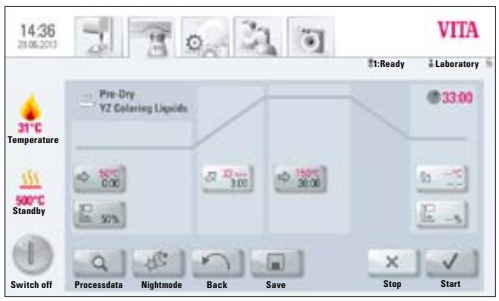


Figure 3

3. The selected Pre-Dry Program is displayed.

1. Starting temperature
2. Lift position during pre-drying
3. Temperature rise and temperature rise time
4. Firing temperature and hold time

The firing curve is displayed in red corresponding to the program sequence. The elapsing time is displayed in the individual buttons of the program phases. The total program run time is displayed in red (see clock symbol above right).
When used with one firing unit the firing program will be displayed throughout the entire program run.
When used with several firing units simultaneously, approx. 20 sec. after program start the Furnace Overview will be displayed (see Section 10, Fig. 2).
In this way the next free firing unit can be selected and used for firing.

On reaching the end of the program an acoustic signal sounds (for settings please see Section 20.2).

18 Sinter programs

The programs stored under this buttons are VITA sinter programs. To create materials of other manufacturers see Section 14.1 for directions.

Figure 1 shows:
Display when connecting the VITA ZYRCOMAT 6000 MS

VITA vPad comfort / vPad clinical / vPad excellence with 1 device

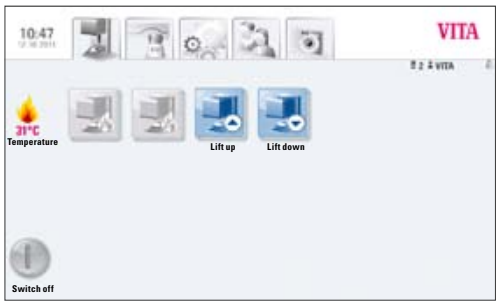


Figure 1 Display when connecting the VITA ZYRCOMAT 6000 MS

Figure 2 shows:
Display when connecting the VITA ZYRCOMAT 6000 MS and VITA VACUMAT 6000 M

See Section 18.2 for a description of the individual buttons

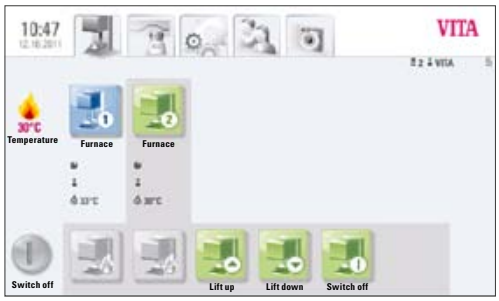


Figure 2 Display when connecting 2 VITA New Generation devices

18.1 Selecting a sintering program

Figure 1 Selecting the material

1. Select the material e.g. VITA YZ

   Material can only be selected when the device VITA ZYRCOMAT 6000 MS is connected.

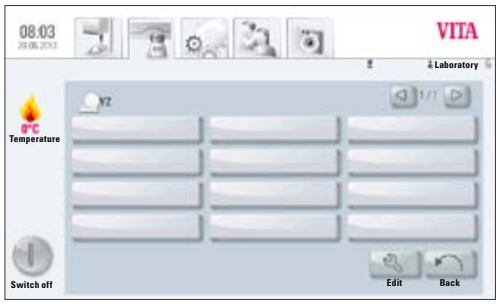


Figure 2 Selecting the program

2. Select the program

   – Select the YZ Universal or YZ-HT Universal Program for conventional sintering in 7h 20 min. (incl. cooling).
   – Select the YZ Speed or YZ-HT Speed Program for HighSpeed sintering in 80 min (incl. cooling).
   – Select the YZ Coloring Liquids or YZ-HT Coloring Liquids Program to sinter manually pre-colored YZ and YZ-HT according to VITA guidelines (after correct pre-drying, see also pedrying programs, Section 17) for HighSpeed sintering in 80 min. (incl. cooling).

3. Selected sintering program is displayed

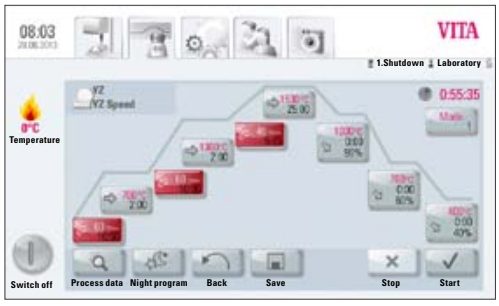


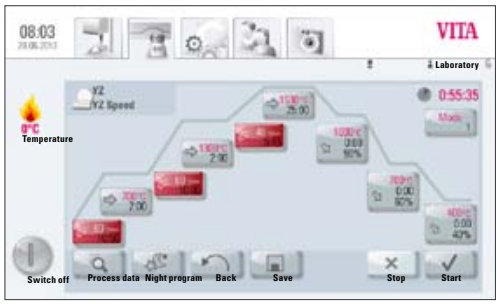
Figure 3 In-Ceram YZ Speed Program

The time sequence, temperatures and lift positions are displayed on the individual buttons for the program phases. The total program time is displayed in red (see the clock symbol at the top right). Only the individual holding phases are omitted from the cooling phase.

When operating just one furnace, the firing program is displayed during the entire program sequence. After the program sequence, the display returns to the firing programs.

When operating multiple furnaces, approx. 20 sec. after the program start the Furnace Overview screen is displayed (see sect. 18).
The next free device can thus be selected and used for firing. A signal sounds at the end of the program; for settings, see sect. 20.2.

The active program can be interrupted at any time using the **Stop** button.



18.2 Sintering Program – Description

1 1st temperature – rise
2 2nd temperature – holding phase
3 2nd temperature – rise
4 2nd temperature – holding phase
5 3rd temperature – rise
6 3rd holding phase
7 Select cooling mode
8 1st Cooling phase
9 2nd Cooling phase
10 3rd Cooling phase
11 Process data
12 Night program
13 Back button
14 Save program values
15 Program STOP
16 Program START
17 Shut off control unit

18.3 HighSpeed-Mode

Buttons marked in red mean that HighSpeed-Mode is activated for the temperature rise. In HighSpeed-Mode, a temperature rise of 20°C/min is implemented. HighSpeed-Mode puts heavy stress on the heating elements and leads to a shorter operating life. The YZ Speed or YZ-HT Speed Program enables bridges with up to 9 units to be sintered in 80 min.

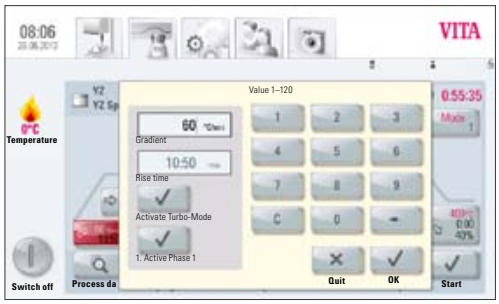


Figure 1 Entering temperature rise and firing time

18.4 Rise time 1 – Holding time 1

Gray button color: HighSpeed-Mode deactivated
Red button color: HighSpeed-Mode activated

Press button, display shows dialog box:

Enter/change **values**

- Move to the temperature rise °C/min or firing time field
- Enter value

Values that can be entered are displayed.
Apply the value using the OK button or retain the last value using the Cancel button and return to the firing curve screen.

HighSpeed-Mode can be activated or deactivated with this button

HighSpeed-Mode activated:
Entry for temperature rise max. 90°C/min

Activate Turbo-Mode

HighSpeed-Mode deactivated: Entry for temperature rise max. 19 °C/min

First Phase can be activated or deactivated with this button

Entry ranges Rise time 1:

HighSpeed button active – temperature rise 20°C/min – 90°C/min
HighSpeed button inactive – temperature rise 1°C/min – 19°C/min

⚠ **Important!** If no value is automatically entered into the second field due to entering a value for the temperature rise in °C/min., the value entered is outside of the accepted range of values.

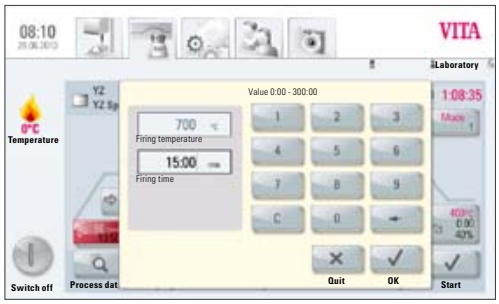


Figure 2 Entering firing temperature and firing time for Holding time 1

Entry ranges Holding time 1:

0 min – 300 min

Values that can be entered are displayed.
Apply the value using the OK button or retain the last value using the Cancel button and return to the firing curve screen.

18.5 Rise time 2 and 3 – Holding time 2 and 3

Values entered for the temperature rise and for the temperature holding time are identical with the program sequence described in sect. 18.4.

18.6 Cooling program

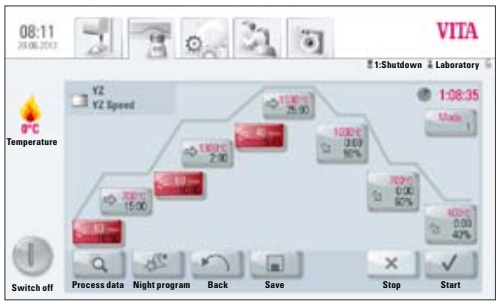


Figure 1 In-Ceram YZ Speed Program

There are 3 different cooling programs available.

Cooling programs can be selected with the "**Mode 1-3**" button:

Press button, display shows the selected cooling program, e.g. Mode 1

18.7 Mode 1 User-defined:

Regulated cooling temperatures between 1°C/min and 50°C/min are available.

The regulated cooling mode is always carried out with the furnace chamber closed.

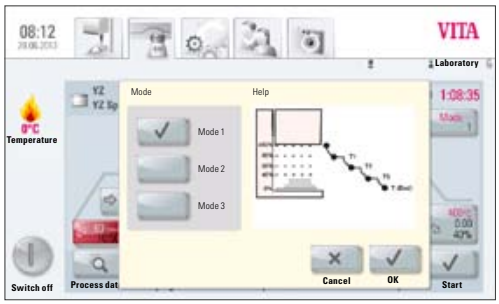


Figure 2 Selecting cooling mode 1

Change program values

After selecting Mode 1, 2 or 3 and pressing the OK button, the program curve is displayed.

Press "Cooling level" – display shows available settings according to the selected cooling mode: e.g. for Mode 1:

Button Controlled cooling, activate/deactivate
Setting Gradient (Temperature rise in °C per min)
Setting Lift position
Setting Cooling temperature
Setting the holding time for cooling temperature

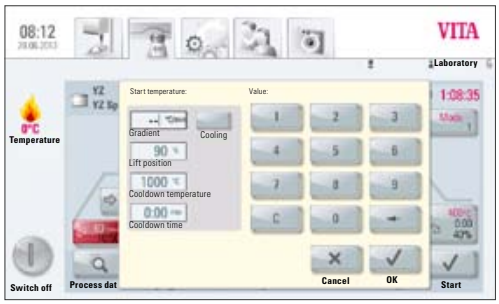


Figure 3 Entering the user-defined cooling process

Values that can be entered are displayed.

Individual program values can be successively selected and modified.

Apply the value using the OK button or retain the last value using the Cancel button and return to the firing curve screen.

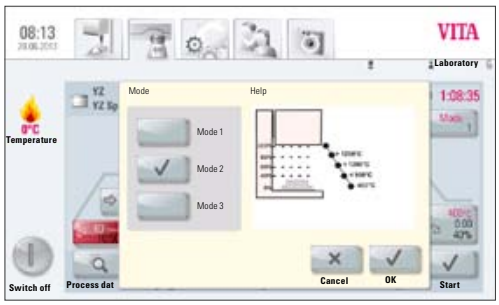


Figure 1 Selecting cooling Mode 2

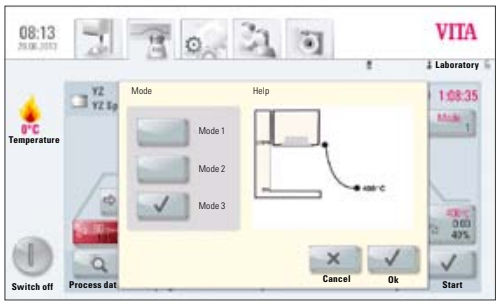


Figure 2 Selecting cooling Mode 3

18.8 Mode 2 HighSpeed:

Three set cooling positions

Lift position at the following temperatures:

larger 1,200 °C Lift position 80%
smaller 1,200 °C Lift position 60%
smaller 900 °C 40%
smaller 400 °C Lift in smaller position 0%

18.9 Mode 3 Conventional:

Lift remains in upper position and moves into lower position after cooling to 400 °C.

19 Photo Viewer

Photo

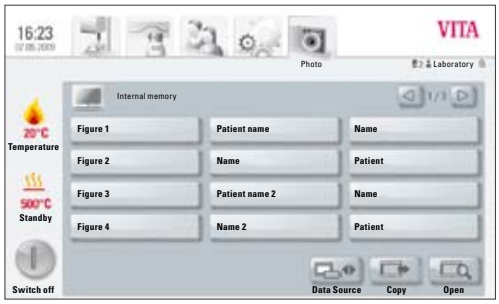


Figure 1 Internal memory of the photo viewer

Pressing the **Photo** tab opens the saved images folder in the control unit.

By pressing the name field, the image is selected and opened using the **Open** button.

The memory capacity of the VITA vPad comfort control unit is 1 GB, the memory capacity of the VITA vPad excellence is 2 GB. The images can be displayed and saved. Images are opened in the following formats: JPEG and PNG.

Data source

Using the **Data Source**, the internal memory in the control unit or a USB port (e.g. USB stick with images) is selected.

Copy

Using the **Copy button**, images can be copied from the internal memory in the control unit to the USB stick or from the USB stick to the control unit.

Open

The selected image is displayed using the **Open** button.

Figure 2 Image editing using the photo viewer

19.1 Image settings

The following display options are available:

- Contrast
- Brightness
- Zoom
- Black / white
- Move

20 Settings

Settings

Press **Settings** tab

Display shows:

Figure 1

Figure 1 Settings without combipress furnace

or

Figure 2

Figure 2 Settings with combipress furnace

20.1 Multifurnace

Multifurnace

Identification of connected furnaces. It is possible to provide the furnace with a name chosen by the user (10 characters).

The control unit saves the names of all the furnaces.

VITA vPad comfort / clinical – max. 2 devices can be connected.
VITA vPad excellence – max. 4 devices can be connected.

Figure 1

Figure 1 shows vPad excellence control unit
with one VITA VACUMAT 6000 MP (combipress furnace)
and two VITA VACUMAT 6000 M (ceramic furnaces).

Figure 2

- Press **Multifurnace** button under Settings –
  display shows the connected devices (see Figure 2)
- Press desired **device** to enter name – confirm entry
- Display shows **keypad** –
  enter name and confirm with **OK** button

20.2 Furnace settings

Furnace settings

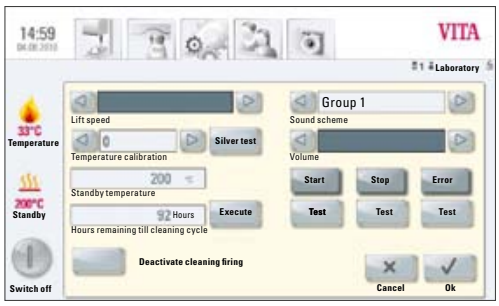


Figure 1 Display of the furnace settings

Press Furnace settings button, display shows:

- Lift speed
- Temperature calibration
- Cleaning firing
- Sound

Lift speed

The lift speed can be continuously adjusted using the slide control.

Temperature calibration with silver wire test

With this program and the VITA silver wire test set (VITA Order No. B 230), the temperature in the firing chamber can be checked and readjusted by up to +/- 20°C. During calibration, the prerequisites for performing the test (instructions in the silver wire test set) with the silver wire must be strictly observed. Deviations will result in incorrect measurements and therefore incorrect settings.

A preset program is available for calibrating the firing chamber temperature. 2 program sequences are required for checking the firing chamber temperature with the silver wire test.

The first program run must be performed at 955°C (set in the program); the silver must not be molten after this.

The second program must be performed at 965°C; this temperature value must be entered. After this program run, the silver must have melted into a ball.

Deviations of up to plus/minus 20°C can be entered.

Result of the silver wire test:

Temperature too low: Enter correction with minus symbol in front.
Temperature too high: Enter correction without any symbol in front (plus symbol is added automatically).

Temperature check on VITA ZYRCOMAT 6000 MS

For temperature calibration please contact your responsible service partner.

Cleaning firing

Cleaning firing is performed automatically after the preset time. In this program, the firing chamber is heated up and impurities can evaporate from the slightly opened firing chamber. It is recommended to carry out this firing in regular intervals. The cleaning firing can also be ended at any time.

Cleaning firing for VITA ZYRCOMAT 6000 MS

After approx. 300 operating hours, the user is prompted to carry out a cleaning firing. On pressing the – **Execute** – button, the program displayed and can be activated by pressing the – **Start** – button.

It is necessary to run a cleaning cycle whenever the oxide layer of the heating elements show cracks and peeling.

Please read the section – Cleaning firing of the sintering chamber – in the operating manual of the sintering furnace.

The cleaning firing cycle must be repeated if the oxide layer exhibits excessive cracks and peeling or continues to show cracks and peeling after a cleaning firing.

It is recommended to visually check the heating elements continually for cracks and peeling and to run a cleaning firing as needed, and also after approx. 300 operating hours.

You can call up the program (until the next automatic cleansing firing) by clicking on the **execute** button next to the time display under the menu items **settings / furnace settings**.

Sound

In the sound program, various acoustic signals can be set:
Program start, program end, alarm / service message.
VITA vPad comfort, VITA vPad excellence and VITA vPad clinical feature 6 sound groups that can be selected individually. Each sound group consists of 3 signals to indicate program start, program end and alarm.

The individual sounds can be played using the **Test** button.

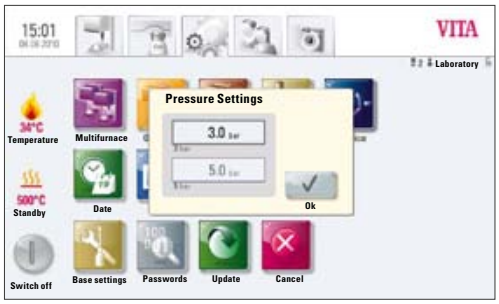


Figure 1 Adjusting the press pressure

20.3 Adjust press pressure

The press pressure can be adjusted for the various press materials.

Press pressure

Press **Press pressure** button, display shows the settings for the press pressure.

- Press 5.0 bar field
- The higher press pressure (e.g. 5 bar) is adjusted with the pressure regulator at the vacuum pump.
- Press 3.0 bar field
- The lower press pressure (e.g. 3 bar) is adjusted with the pressure regulator 2 (see Section 9.2) at the rear of the device

Note! When adjusting the press pressure, it must be ensured that the pressure is initially set to zero and then set slowly to the desired value of 3 bar, for example.

This is required to release the residual pressure in the system from the setting of 5 bar.

The respective field is activated by pressing the **OK** button.

If the 3.0 bar and 5.0 bar fields are pressed again, other values than 3.0 bar will be displayed in the 3.0 bar field since the residual pressure in the system leads to incorrect values. Therefore it is required (for 3.0 bar setting) to set the pressure to 0 and then to 3.0 bar again.

If the pressure was set accordingly, no further settings are required (also if a different value is displayed!).

The program displays a pressure value that differs considerably. In this case, the **OK** button is pressed to confirm the message and the press process is continued.

During the active press program, the pressure can be readjusted using the pressure regulator.

20.4 Device data

Device data

Press **Settings** tab, display shows:

Device information

Device information:

- Furnace revision – software information
- Furnace serial no. – device no.
- Furnace name – name of the device
- vPad serial no. – serial no. of control unit
- Hotline no. for service
- vPad revision – indicating the software version
- Operating hours for the device
- Heating hours
- Heating hours for the muffle

Export job data

Firing data storage for quality assurance.

- Storage of firing data target and actual values (see Section 12.1 Process data)
- Storage of the following data:
  - User name
  - Device no.
  - Date of the firing process,
  - Job no.

These data are stored in the control unit and exported via the USB stick to the administration program (FDS – Firing Data System) on the PC, where it can also be processed further, printed out and archived.

The firing data administration program FDS is a special accessory and must be ordered separately, Prod. No. D34230NG

Export operating data / device information / all files

All program sequences and operating data are saved automatically in the control unit.

If, for example at the end of a firing program, an unsatisfactory firing result is obtained or an error in the program sequence should occur, the operating data, device information or even all the device data can be exported to a USB stick and emailed to **instruments-service@vita-zahnfabrik.com** for evaluation.

20.5 Date

Setting options:

- Date and time

Selection option for the time format and date format.

20.6 vPad

Press **vPad** tab, display shows:

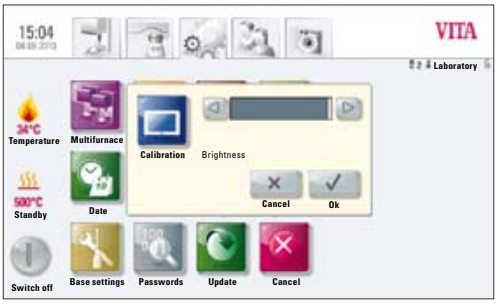


Figure 1 Display calibration and brightness settings

Calibration of control unit –
The vPad should be calibrated when the display can no longer be precisely operated.

Press the **Calibration** button – display turns dark – press the illuminated circles in the display and the display is activated again.

Display brightness –

Set the desired brightness level using the slider.
Press the **OK** or **Cancel** button.

20.7 Start profile

Select the **User profile** displayed immediately after switching on the device. On new devices, the control unit is started with the VITA user profile. Only the VITA vPad clinical always starts with the User Profile Doc.

Figure 2 Selecting user profiles

Press the **Start profile**, the display shows all user profiles available.

Select the desired user profile.

The new start profile is only displayed after restarting the unit.

20.8 Languages

Languages

- Selects the language
- Selects the date and time formats
- Selects the temperature display in °C or °F

20.9 Basic settings – Factory settings:

Basic Settings

The following settings are reset to the factory settings:

- Start profile is set to VITA user profile
- Display brightness
- Program interruption
- Lift speed
- Language
- Date and time format
- Personal program settings and individual user profiles are deleted

20.10 Passwords

By entering a password, the device system settings can be protected.
The password can be made up of symbols, letters or numbers, and can have a minimum of of 1 and a maximum of 8 characters.

Passwords

Password setting for the system:
On activating the system password under **Administrator**, no changes to the system (parameter changes, various settings, etc.) can be performed without first entering the password.

In the "Enter password" screen, any existing password can be deleted by pressing the **OK** button twice (see Section 15.2).

20.11 Update

Update

Software updates are loaded onto the control unit using a USB stick.

Current software updates are published on the website:
http:\\www.vita-zahnfabrik.com

under **Documents & Media / Downloadcenter / Product Information / Software Updates**.

To be informed about new software updates by email, go to **NEWSROOM / Update Messenger** to subscribe to the **"VITA Equipment Update Messenger"** (free of charge).

The **update** is copied to a USB stick, which is inserted into the control unit. On pressing the **Update** button, the new software is detected and installed.

⚠ Warning: While updating leave the USB stick in the control unit and do not press any button.

20.12 Cancel a firing program

Cancel

A firing program that has been started can be interrupted by pressing the **STOP** button once or by pressing the **OK** button to confirm the message "Do you want to stop the firing process".

21 Error messages

Message on the display	Observed event	Testing / elimination
Vacuum is not achieved	Program with vacuum is interrupted if a value of at least 30 % is not reached within 30 secs.	• Clean/test/replace the lift plate gasket. • Clean the sealing lip on the firing chamber floor. For cleaning work, see VITA VACUMAT 6000 M or 6000 MP user manuals. • Check the vacuum pump independently of the device. • Check the vacuum system in the furnace.
Fan does not work	The running firing program has been interrupted.	• Check the fan connection on the board. • Clean / replace the fan.
The lift is blocked	The lift travels down too far.	• The end switch for the lower position is not activating. The respective LED must light up when the end switch is pressed. • Check / adjust / replace the end switch.
The temperature inside the firing chamber is more than 1,200°C	The display indicates more than 1,200°C.	• This error can be triggered by various causes. To detect / eliminate the error, specialist knowledge and technical measuring devices are required. • Replace the CPU board.
The temperature sensor is faulty	Program is interrupted.	• Check the thermoelement connection on the board. • Check the thermoelement connection in the firing chamber. • Check the thermoelement connection in the firing chamber. • Replace the thermoelement.
The target temperature in the firing chamber has been too low / too high for more than 5:00 mins	Temperature rise does not correspond to the prescribed time.	• Muffle faulty • Triac faulty • Triac control faulty
The temperature regulation caused an error.	No temperature rise.	• Firing muffle or Triac faulty.
The muffle cannot be controlled correctly	Temperature rise absent or too fast.	• Firing muffle faulty; replace it.
Continuous tone for approx. 6 secs.	Continuous tone	• Fuses are faulty • Replace the faulty fuse • Replace the plug for the muffle connection on the board; check the CPU – replace the board

Additional error messages for VITA ZYRCOMAT 6000 MS

Message on the display	Observed event	Testing / elimination
Power board fan faulty	Running program is interrupted, heating out	• Check the connection on the board. • Clean / replace the fan.
Temperature sensor is faulty	Running program is interrupted, heating out	• Check the connection on the board. • Clean / replace the fan.
Relay error	Running program is interrupted, heating out	• Replace the power board.

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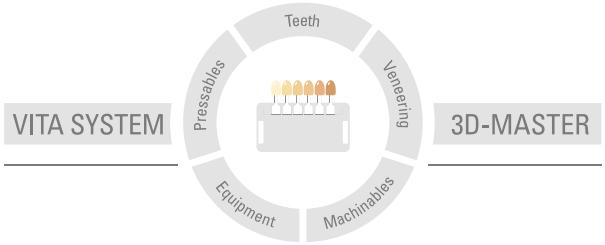
With the unique VITA SYSTEM 3D-MASTER all natural tooth shades are systematically determined and completely reproduced.



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After the publication of these working instructions any previous versions become obsolete. The current version can be found at www.vita-zahnfabrik.com

CE

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