MEDIAWEL 30

Autopréparateur de milieux de culture

Automated Media Preparator

Manuel d'utilisation • *User's Manual*

Table des matières – FR

ENGLISH VERSION

*

Declaration of Conformity MEDIAWEL30

ALLIANCE BIO EXPERTISE, Guipry-Messac, France

Declares that the here below material complies with the following european directives.

Description	Models
MEDIAWEL 30	**MEDW1001**

comply with

EU Directives :

Pressure Equipment	**2014/68/EU**
Electromagnetic Compatibility	**EN61326-1/2013**
Safety requirements for electrical equipment for laboratory use	**IEC61010-1: 2010** **EN610010-2-10:2014**
Material resistance calculation according :	**ASME VIII div 1 Edition 2013**
	ASME II Part D Edition 2013

Directive 2014/68/EU

Description of pressure vessel :	
Operational fluid	liquids/gases
Fluid group	2
Category (97/23/EC)	II (Art. 9)
Category (2014/68/EU)	I (Art. 13)
Max operating pressure	1.4 bar
Safety valve set pressure, Max allowable pressure PS	1.7 bar
Allowable temperature TS	0-125 °C
Volume	37 l
Test pressure (water)	2.5 bars
Drawing No./Rev	140405-21-100rev00

MEDIAWEL

Le responsable de l'élaboration de cette déclaration est le fabricant

Personne responsable de l'élaboration de cette déclaration :

Nom, Prénom : LE SAUX Philippe

Poste/Intitulé : Président Alliance Bio Expertise sas

Guipry 6.01.2017

ALLIANCE BIO EXPERTISE
ZA de Courbouton - 35480 GUIPRY
Siret : 811 819 499 00021
02 40 51 79 53

Use of the machine

The MEDIAWEL must only be used if it is in perfect condition and in strict compliance with the instructions set out in this manual.

Safety glasses must be worn when using the device.

Use of the documentation

Training obligation

4. Use of this kind of equipment by untrained and inexperienced personnel may pose a risk to the user and people in its vicinity.
5. Users must be trained to operate the MEDIAWEL by an authorised distributor or the manufacturer.
6. Users must have been made aware of the risks associated with the operation of pressurized steam devices.

Available documentation

The English version of the operating manual is available in the 2nd section.

A maintenance manual is available and placed at the disposal of experienced technicians, provided they have completed technical training provided by the manufacturer.

Use of the operating manual

The operating manual must have been read in its entirety before using the MEDIAWEL for the first time. It must be consulted should an error message be displayed.

The preventive maintenance operations set out in this manual must be carried out at the frequency stipulated in this manual.

Account must be taken of the instructions displayed on screen, the pictograms and other materials, otherwise there is a risk of injury to users and damage to equipment.

Recipients

- **User**

The following tasks are authorised:

- Creation of preparation cycle programs,
- Preparation of the culture medium and starting cycles,
- Stopping cycles and dispensing culture media,
- Cleaning,
- Level 1 preventive maintenance operations set out in the manual.

- **Maintenance Technician**
  - Calibration of the temperature probe,
  - Level 1 preventive maintenance operations set out in the manual.

An explanation of symbols

SAFETY SYMBOL

This pictogram is a general warning symbol. It is used to alert the user to potential personal injury hazards, as well as hazards for machinery, materials and the environment. All safety messages following this sign must be obeyed to avoid possible harm.

The following headings relate to aspects to which you should be very attentive:

	**DANGER**
	Warning of an imminent danger that could result in death or a serious accident if it is not prevented

	**WARNING**
	Warning of a moderate danger that could result in death or a serious accident if it is not prevented.

	**CAUTION**
	Warning of a low level danger that could cause a moderate or minor injury.

	**CAUTION**
	Indicates the possibility of material damage if the corresponding precautionary measures are not taken.

	**ASSISTANCE**
	This symbol highlights important comments relating to correct operation of the device and labour-saving features.

Assistance

Troubleshooting

In the event of a problem, please contact your authorised distributor.
State the model and the product's serial number and describe the problem.

We strongly recommend that you take out a maintenance contract for optimum use of the product and your safety. For all questions relating to maintenance contracts, please contact your authorised distributor or the manufacturer.

ALLIANCE BIO EXPERTISE
ZA de Courbouton-Le Tremplin
35480 GUIPRY-MESSAC France

Tel.: +33 2 40 51 36 10

e-mail: service@abioexpertise.com

Replacing parts

For all spare parts orders, please contact your authorised distributor or the manufacturer.

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Warranty

ALLIANCE BIO EXPERTISE hereby certifies that the device displays the characteristics set out in this manual on delivery. Machines are guaranteed against manufacturing defects and defective components for a period of twelve months from the dispatch date.

ALLIANCE BIO EXPERTISE shall carry out possible repairs of components, within its premises, during the warranty period. All components or devices experiencing any kind of malfunction must be returned to the ALLIANCE BIO EXPERTISE factory at the cost of ALLIANCE BIO EXPERTISE's representative or the client, if necessary.

The warranty shall not be valid for issues relating to transport, accidents, incorrect use or internal interference caused by a poor quality electricity network or people who are not authorised to use the device.

Safety and the environment

General safety instructions

	**WARNING**
	The MEDIAWEL is exposed to high temperatures and pressures during sterilisation cycles. For this reason, it is essential to follow the safety instructions in this operating manual.

- Never use the automated preparator to sterilise hazardous materials or products, which contain alkalis. Sterilisation of these products may cause an explosion, corrosion of the chamber or chamber pipework and damage to seals.
- Should a liquid containing salt water and high salinity agar-saline agar, etc. be used, you must rinse the vessel well after use and wipe the latter's surfaces as well as around the cover seal (corrosion risk).
- Do not modify the device.
- The MEDIAWEL must form the subject of annual preventive maintenance, carried out by trained personnel authorised by ALLIANCE BIO EXPERTISE.
- Defective parts must only be replaced with original spare parts supplied directly or indirectly by ALLIANCE BIO EXPERTISE.

Risks and prevention

Symbol	Risk	Cause	Component	Means of prevention	Instruction
	**Burns**	Hot surface	Lid Bowl	Thermal insulation of components Lid and hatch locked during the working cycle	Do not touch hot surfaces Wear gloves
		Hot steam	Safety valve	No access above 80°C	Wear gloves
		Splashing	Dispensing and adding port caps	Safety valve	Release the steam before opening the lid by using the safety valve
	**Burns**	Water steam	Safety valve Caps	No access above 80°C	Wear gloves
	**Pinching**	Lid weight	Lid	Counter balance springs	Hold the lid during closing

The environment

Discharging waste water

Water drained from the cooling system can be discharged into the rainwater system.
The system must be designed to accommodate the discharge of boiling water.
Water used to clean the vessel must be discharged into the waste water system.

Scrapping the machine

This device contains metal, plastic, electrical and electronic components.

Directive 2002/96/EC on the recovery and recycling of Waste Electrical and Electronic Equipment (WEEE) requires Electrical and Electronic Equipment (EEE) to be recycled at the end of its life.
For this reason, end users must dispose of electrical and electronic waste at dedicated waste centres or collection points.

Installation – Commissioning

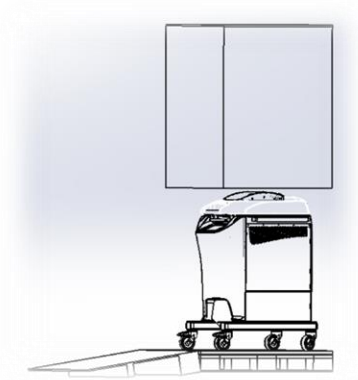
Unpacking

Unpacking procedure

Le présent chapitre décrit le déballage et l'appareil et liste les accessoires fournis.

This chapter covers unpacking and the device and lists the accessories supplied.

- Cut the pallet strapping
- Lift up the cardboard sleeve and remove it



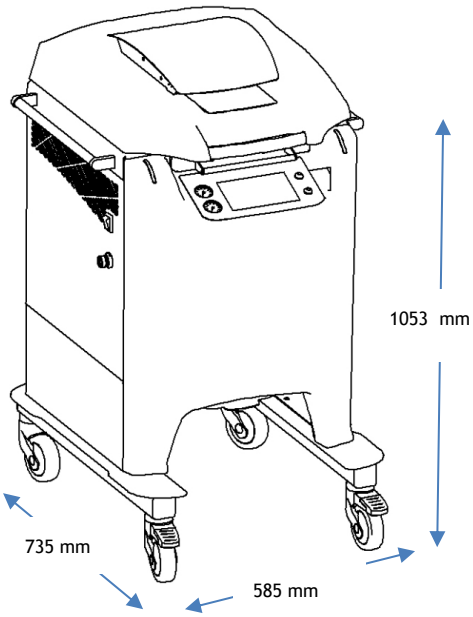
- Remove the front board of the palette
- Unlock the front wheel
- Place a ramp that can support 150 kg on the floor
- Lift a little bit the unit and slide it onto the ramp (4 peoples using the side handles to lift)
- Use the side handles of the unit to slowly pull it down until reaching the floor.

- Inventory of parts and accessories

Part No.	Quantity	Name
MEDW2000	1	User manual
MEDW2008	1	Magnetic stirrer for MEDIAWEL 30
MEDW2009	1	Sampling tube for MEDIAWEL 30
MEDW2010	1	Stirrer axle for MEDIAWEL 30
MEDW4011	1	Sampling nozzle seals (x2)
MEDW2003	1	Sampling nozzle : Ø 12 mm
MEDW2004	1	Sampling nozzle : Ø 6.4 mm
MEDW4012	4 m	Inlet and outlet water tubing + 6 tubing clamps
MEDW3001	5	Decompression filters 0,22µ
MEDW3002	100 g	Carded cotton
MEDW4003	1	Sliding washer stirrer axis

Quality of the environment

Overall dimensions



Site constraints

Atmosphere

- **Operating temperature:** 15 to 30°C
- **Hygrometry:** maximum 80% relative humidity, non condensing

Water

- **Quality**

  Water supply:

  Pressure: 2 to 4 bar
  Temperature : 5°C to 20°C
  Hardness : <16°TH

We strongly recommend using an anti-limescale device.
ALLIANCE BIO EXPERTISE accepts no liability for malfunctions or damage caused by the presence of limescale inside the double jacket or other part of the circuit.

Electricity network

- **Voltage:**

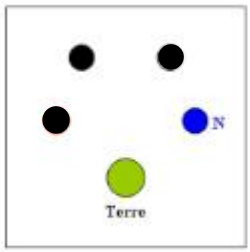
	400V	230V
Voltage	400 V +/- 10 %, three-phase with neutral + earth	230 V +/- 10 %, three-phase without neutral with earth

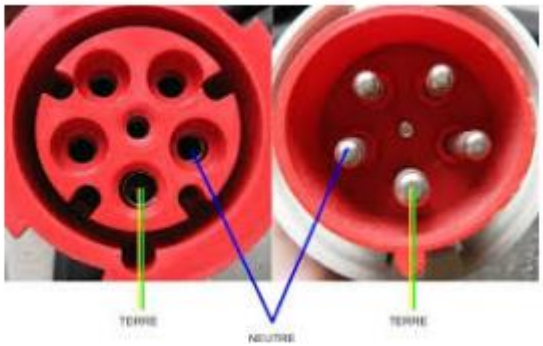
- **Current :** **17 amps max. per phase**
- **Frequency:** **50/60 Hz**
- **Power consumption:** **9000 W +/-10 %**

Connection

It is essential to fit the power cable with a plug that is suitable for the above power.

We recommend using the following kind of plug, which is especially suited to frequent disconnection and reconnection operations:



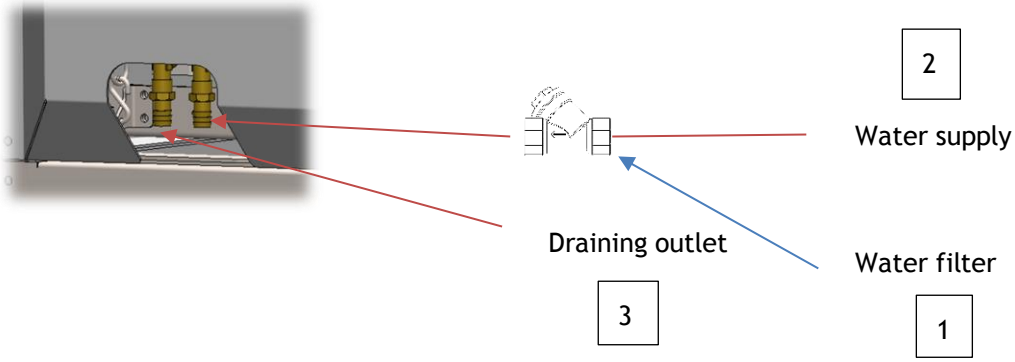


We recommend positioning the wall socket between 1 and 1.20 meterss from the ground and fitting it with a nearby cut-off device, in order to carry out connection and disconnection operations with the power off.

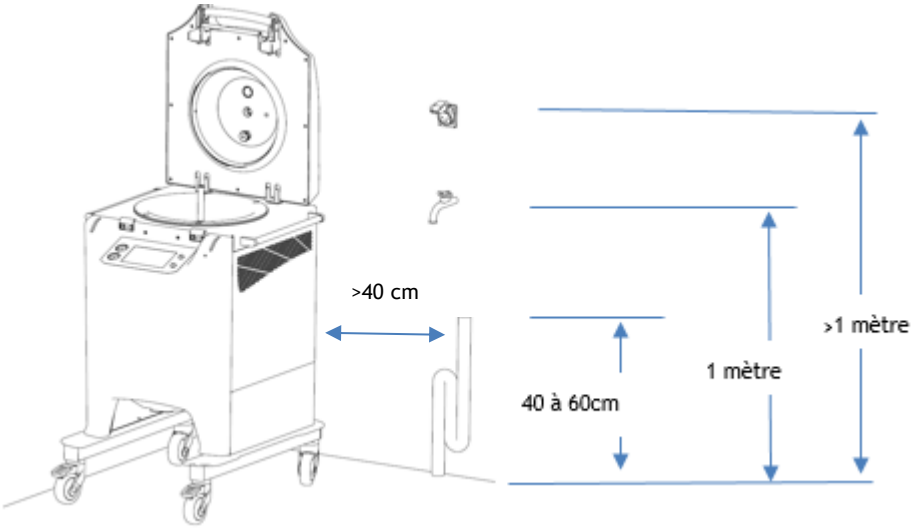
Water

Supply

- For more convenient use, include an easy to access tap close to the MEDIAWEL, at a height of approximately 1 meter and slightly offset at the side of the device as illustrated below.
- Cut the 4 meter hose to the desired lengths for supply and outlet hoses
- Fit the in-line filter to the water supply hose
- Connect the supply and outlet hoses as set out below



Marking	Name	Part No.
1	In-line water circuit filter (recommended option)	MEDW3008
2 and 3	Inlet and outlet water tubing	MEDW4012



Drainage

The cooling water drainage system must be designed to withstand a temperature of 130°C. It may be made from copper or PVC-C or any other material that is suitable for this use.

It must be equipped with a siphon as shown above.

Initial commissioning

Switching on

Prior to switching the device on, you must ensure that the mains voltage between phases and phase and neutral complies with the voltages set out in the paragraph entitled "Electricity network"

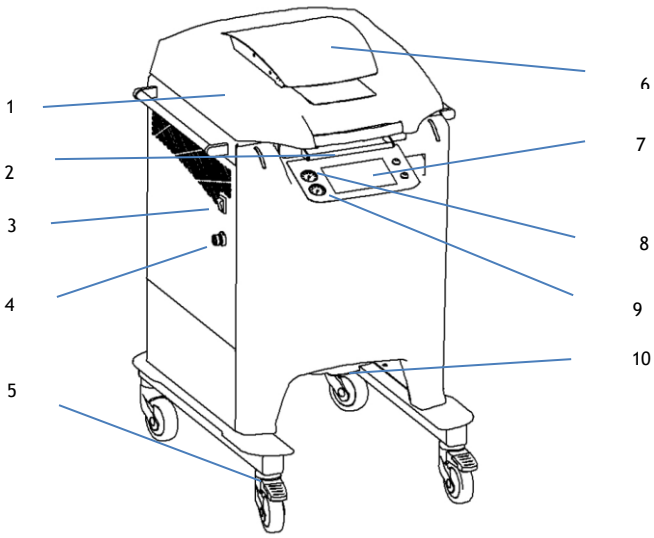
Filling the double jacket

Before running the first preparation cycle, it is essential to fill the double jacket of water. This has to be done by starting successively 4 cycles that have to be stopped after the 30 seconds using the menu “WATER” in which the water circulation can be activated. It can be switched off as soon as the water is coming out from the drain pipe.

Presentation

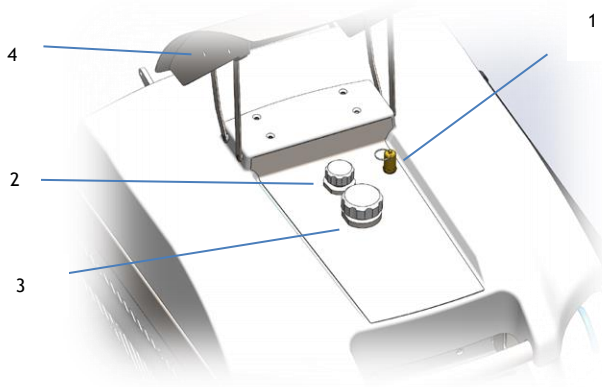
Description of the device

Front

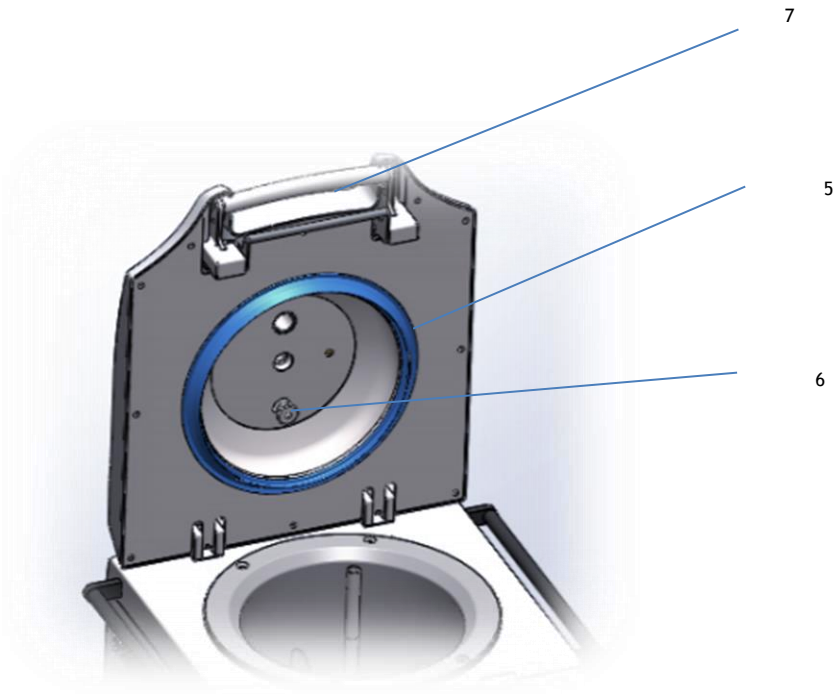


1	Lid
2	Handle for opening the lid
3	Master switch
4	USB port (optional)
5	Front castors with brake
6	Safety cover
7	Touch screen
8	Jacket pressure gauge
9	Vessel pressure gauge
10	Safety hatch

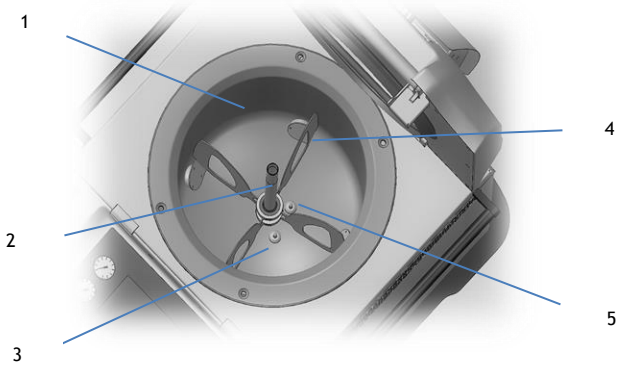
Lid details



1 Vessel safety valve
2 Decanting port
3 Adding port
4 Safety cover
5 Cover seal
6 Cotton wool housing
7 Handle for unlocking the lid

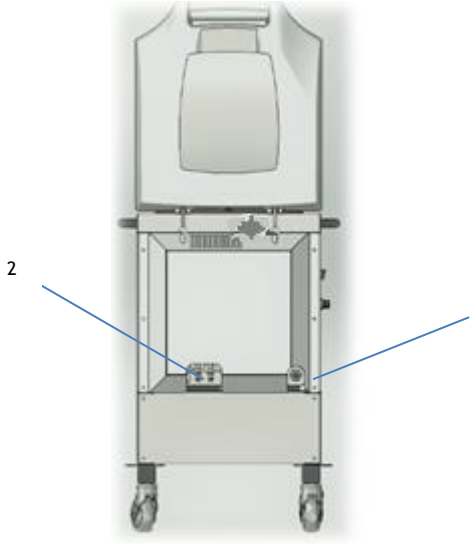


Vessel interior



1 Vessel
2 Decanting tubing
3 Temperature probe
4 Stirrer
5 Monitoring probe port

Rear

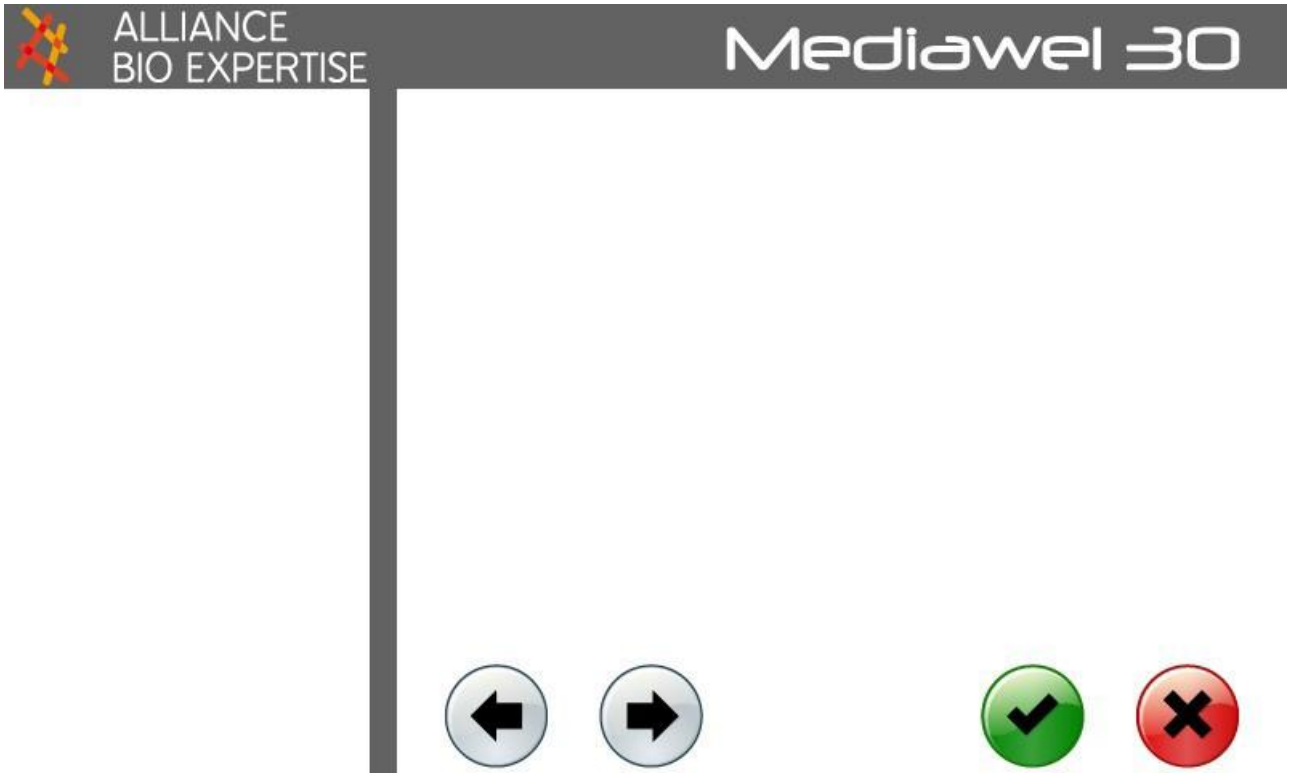


1 Decompression filter
2 Drain hose connection
3 Power cable
4 Supply hose connection

Presentation of the control screen

Home screen

The screen is organised as follows:



The upper section of the left-hand column is used for navigating through the menus in stand-by mode, and for displaying the temperature and the remaining time for a step, in cycle mode.

The lower section of the left-hand column enables the date and time to be displayed. The main display area allows ongoing actions to be displayed.

The "Confirm" and "Cancel" keys are displayed in the lower right-hand corner of the screen. Other dynamic keys are displayed depending on specific requirements.

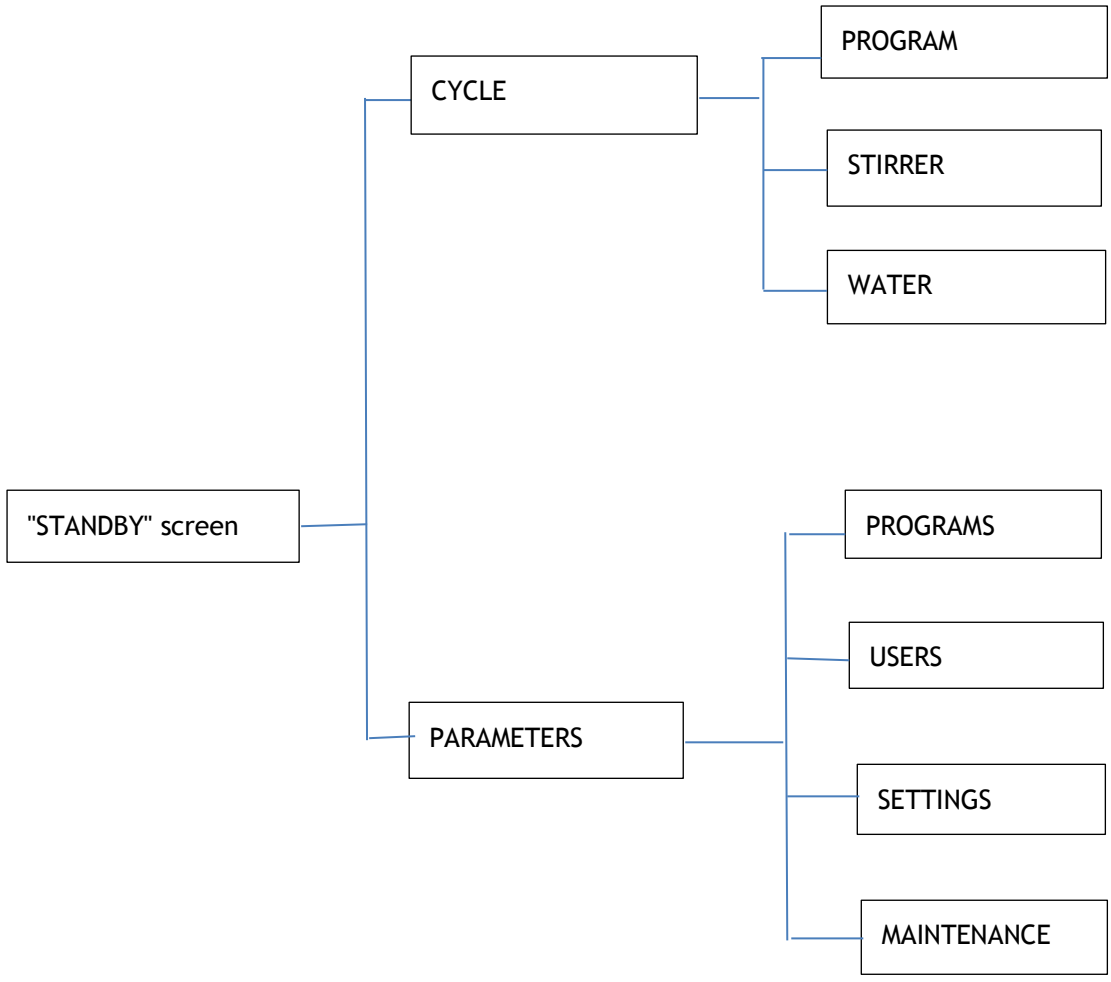
Lights

There is a light on each side of the control panel. Its role is to indicate, alert or inform the user of the status of the current cycle, of an alarm or a status. It indicates this by means of a light that is on or off, flashing or permanently on, and is white, orange, red, blue or green, based on the rules appearing in the following table:

Light colour	Status	Description of the status
White	Permanently on	Stand-by
	Flashing	
Blue	Permanently on	Processing to Media preparation
	Flashing	
Orange	Permanently on	Warning message during cycle (Safety cover or doortrap not closed)
	Flashing	Warning message during cycle (step message, temperature out of ~~reference~~ tolerance
Red	Permanently on	
	Flashing	Major default during cycle (heating default, cooling default)
Green	Permanently on	Media ready for dispensing
	Flashing	Waiting for the acknowledgement of the safety message “Make sure that vessel pressure is 0 bar before opening”

Description of screens

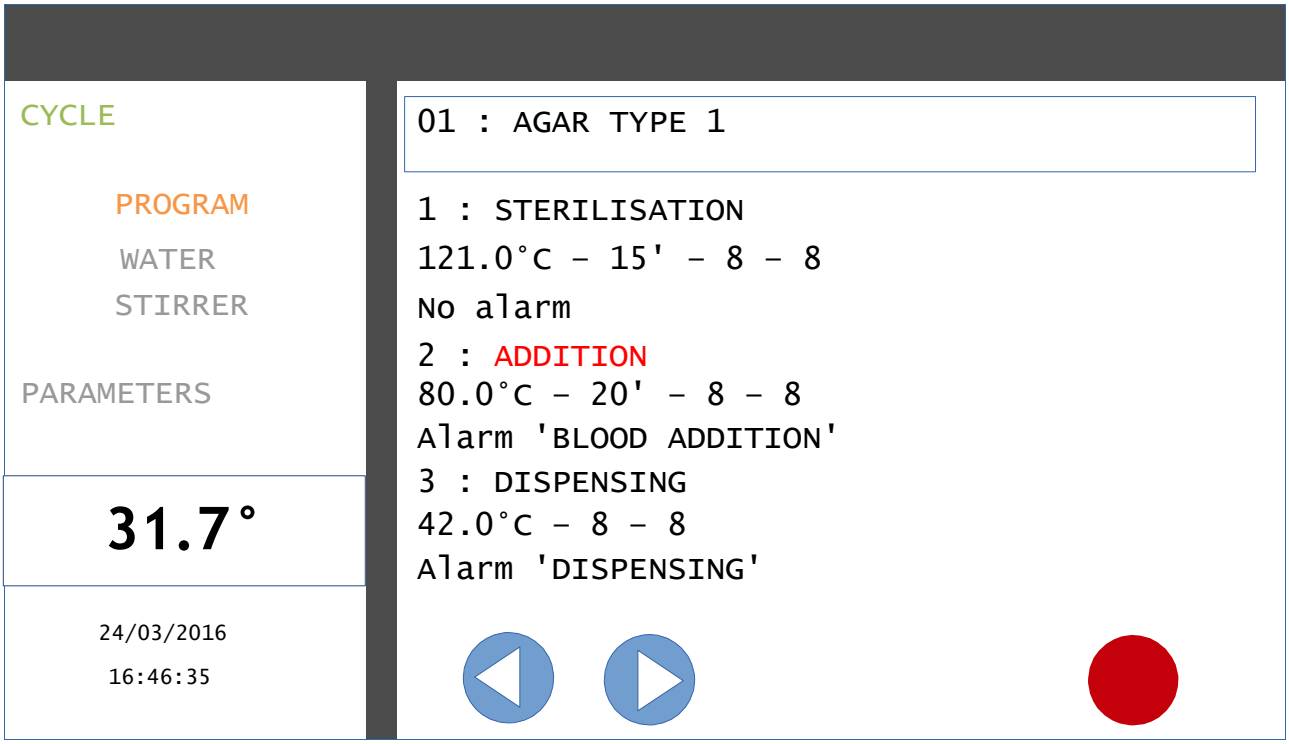
The navigation tree appears below:



"Standby" and "CYCLE - PROGRAM" screen

This screen appears when the device is started in stand-by mode. The last program used is suggested when the device is switched on. Its no., name and a summary of the program's parameters are displayed.

The temperature of the vessel probe is displayed in real time in the left-hand column.



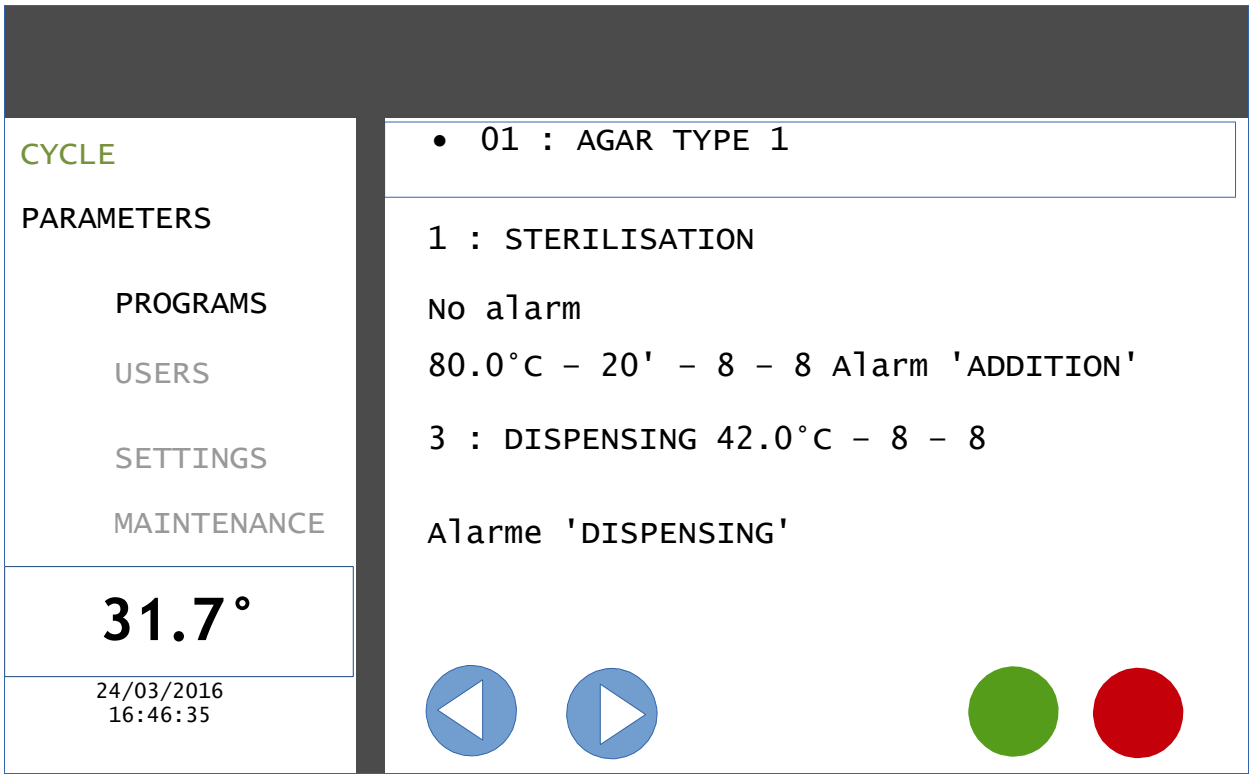
Active keys:

STIRRER	Switches to the "Stirrer" screen
WATER	Force the water circulation in the double jacket (filling or force cooling)- Available in 2018 only.
PARAMETERS	Switches to the "Parameters" screen
Arrows 	Increase / decrease the program number and display the corresponding program name
Enter	Confirms the choice of program and moves to the next screen
Escape 	Inactive

NB: the box around the program name means that it is a choice from a list

Program selection and start sequence

Parameters mode screen



Active keys:

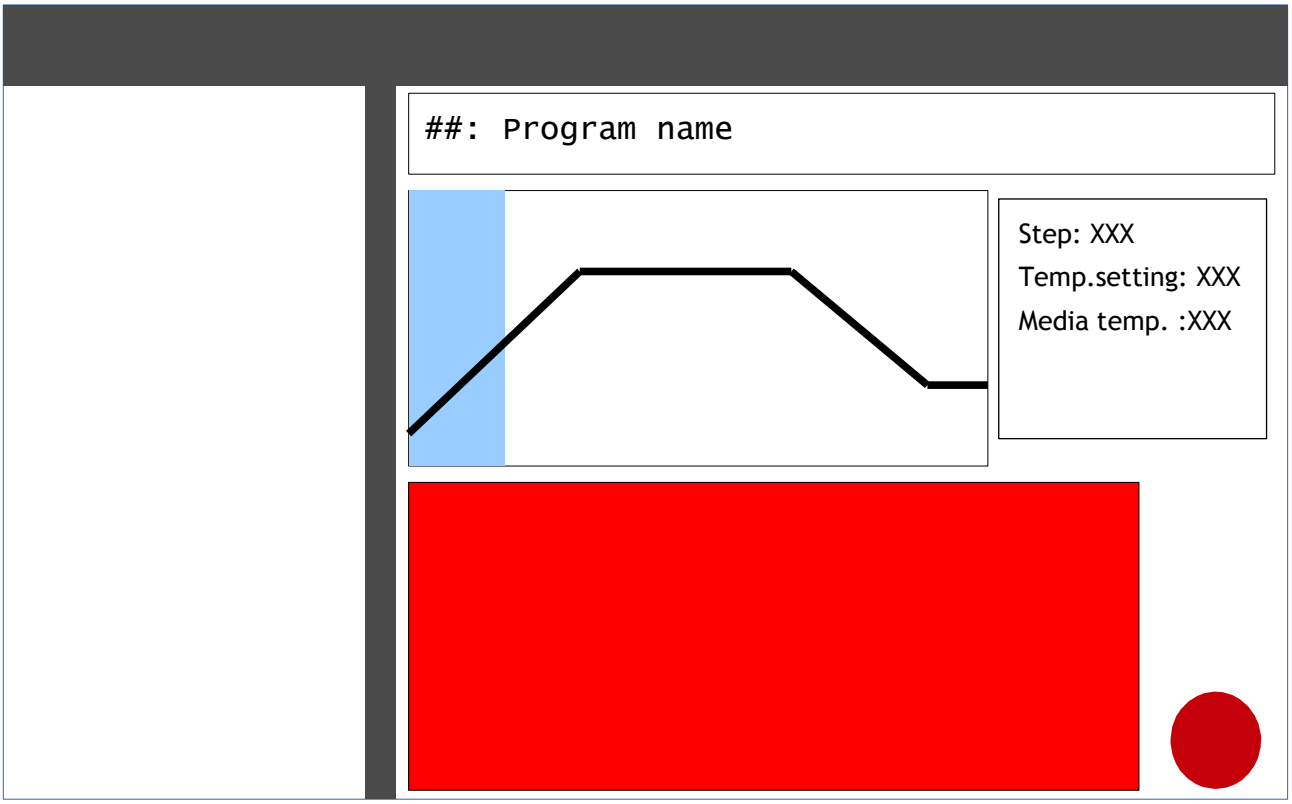
CYCLES	Switches back to the first screen in the program choice sequence
PARAMETERS	Inactive
PROGRAMS	Access to programs for creation, modification or deletion
USERS	Switches to the user parameters screen
SETTINGS	Switches to the date and time settings screen
MAINTENANCE	Switches to the "maintenance" screen
Arrows	Scroll through the programs
Enter 	For blank programs: switches directly to the "program creation/modification" sequence For existing programs: switches to a choice between the program creation / modification or deletion sequence
Escape	Switches back to the first screen in the program choice sequence

NB: for programs created, the summary of the program parameters appears in the main display area. For blank programs, the program name is replaced by the word "available" and the main display area is blank.

- Cycle (working)

Display in "Cycle" mode

"Current cycle" screen

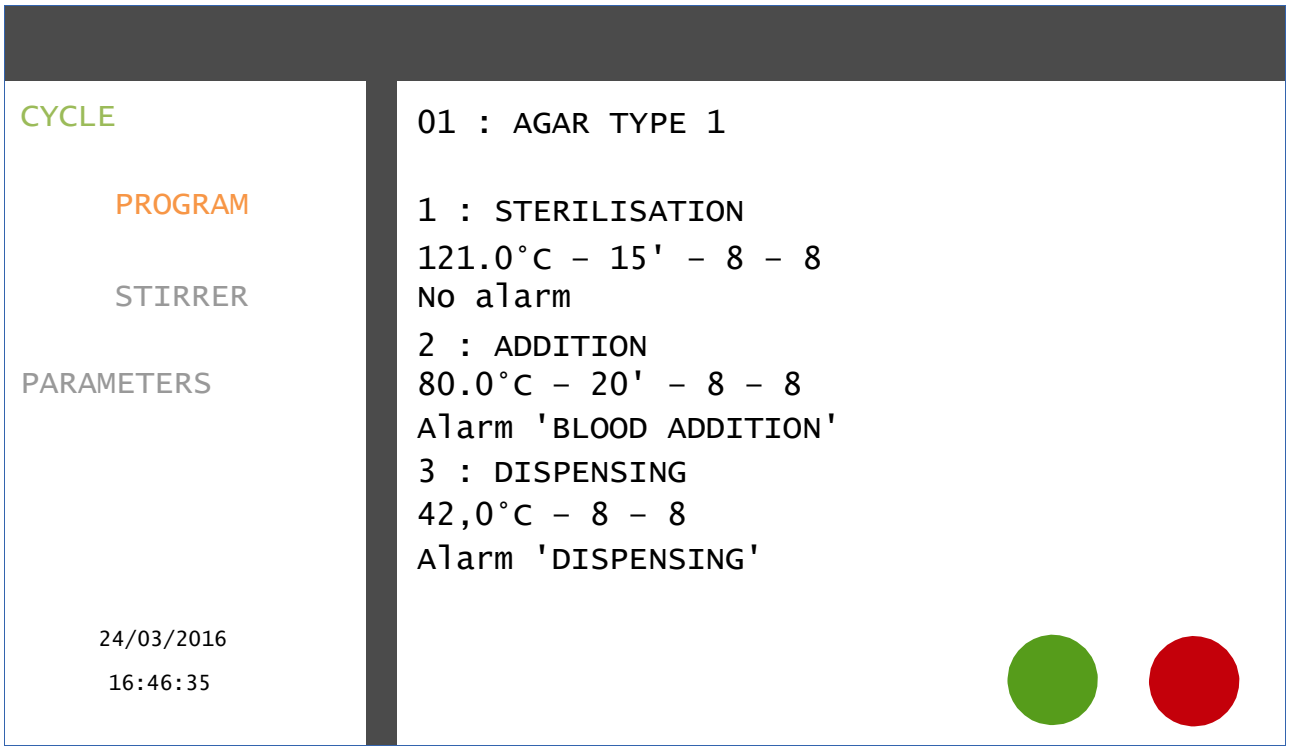


Main area:

- Program number and name
- Display area for the standard curve. The standard curve appears from the beginning of the cycle. The curve background is coloured based on the actual progress of the cycle (on the basis of the transition temperature, on the basis of the remaining time for a step)
- Current phase (based on the program cycle)
- XXX:
  - In transition: setpoint temperature of the next step + "°C"
  - In a step: Remaining time in an HH:MM:SS format
- Medium temperature "°C"
- Alarm zone: displays messages relating to current alarms or errors, with a red background for alarms and errors.

Program

Summary of program parameters



Active keys:

Enter	Switches to displaying the parameters for the next step
Escape	Returns to the program selection screen

NB: the first stirring parameter is the transition speed, the second is the step speed

Use

Users must have familiarised themselves with the previous paragraphs, relating to the environment and safety, before proceeding.

Never attempt to force the lid open.

Always ensure that the pressure shown by the vessel pressure gauge is 0 before attempting to open the lid.

Always manually operate the vessel's safety valve before attempting to open the lid, or the adding or decanting port.

Should you need to move the device between 2 workstations, it is important to move it slowly and to always hold it in both hands during the move.

Always put on protective gloves designed for high temperatures before accessing the vessel → certain surfaces can actually still be very hot even though the temperature of the medium is below 80°C.

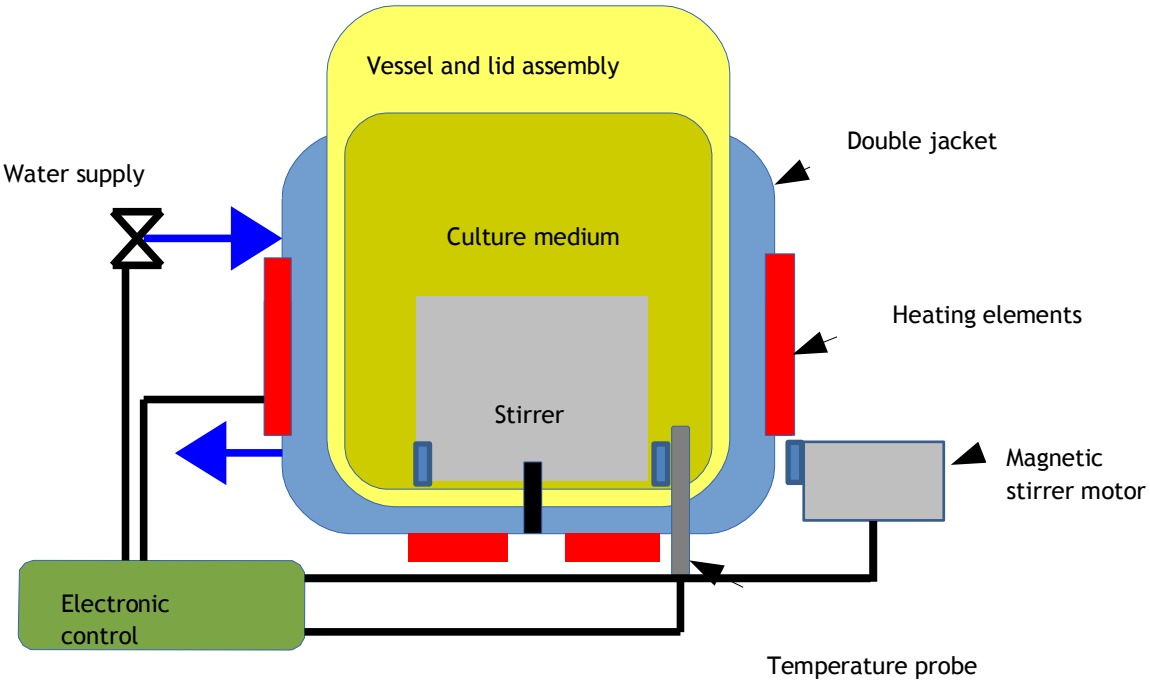
Never attempt to force the drain access hatch open.

Operating and usage principle

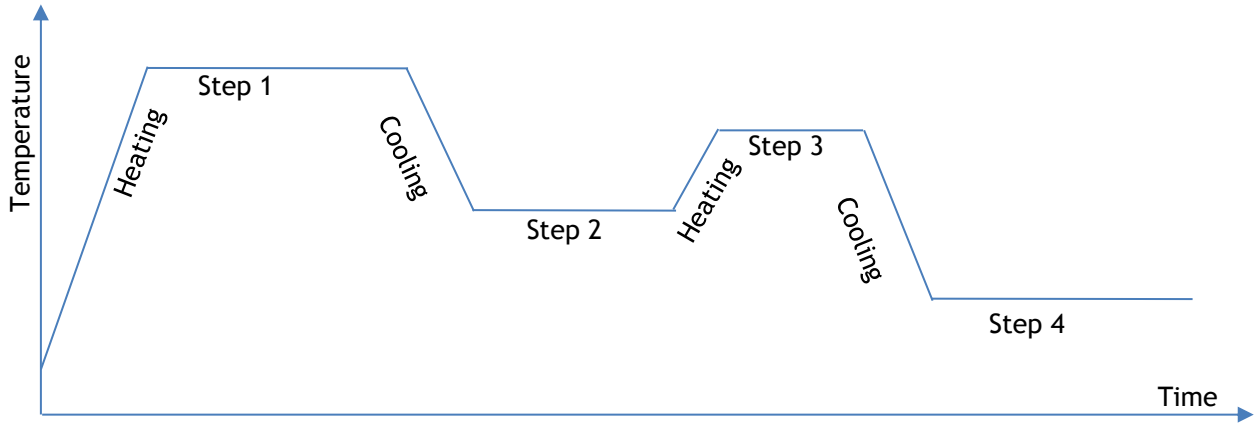
The automated preparator is a device for the automatic preparation of culture media ("media"), which are used in microbiology laboratories for conducting analyses.
It comprises a vessel equipped with a heating device (electrical heating elements around the vessel), a cooling device (circulation of cold fluid around the vessel), a stirring device inside the vessel and a temperature-measuring device within the medium.
The medium, contained in the vessel, is made up of water and soluble substances.
The automated preparator is equipped with independent safety features (safety valve, thermal circuit breaker, etc.) and safety features controlled by the automated system:

- A set of sensors wired in series, enabling the closing of all covers to be controlled.
- An electrically actuated bolt enabling the covers to be locked in a closed position

When the temperature measured within the medium is equal to or greater than the *safety temperature*, the covers prohibiting access to hot surfaces must be closed.



The automated preparator enables a "preparation cycle" to be performed for a volume of culture medium.
A preparation cycle comprises *n* "steps"; *n* = 2, 3 or 4
Each step is defined by a temperature setpoint (in °C) and a duration (in minutes)
The temperature setpoint for a step is equal to or greater than 25.0°C and equal to or lower than 125.0°C. It is defined to the nearest 0.1°C.
The duration of a step is equal to or greater than 1 minute and equal to or less than 999 minutes. It is defined to the nearest 1 minute.
The duration of the last step is always infinite (the preparation cycle is stopped by the user).
The start of the preparation cycle is triggered either by the user (manual start), or by means of a timer (scheduled start).
The phases between the steps are transition phases, which may be "heating" or "cooling".

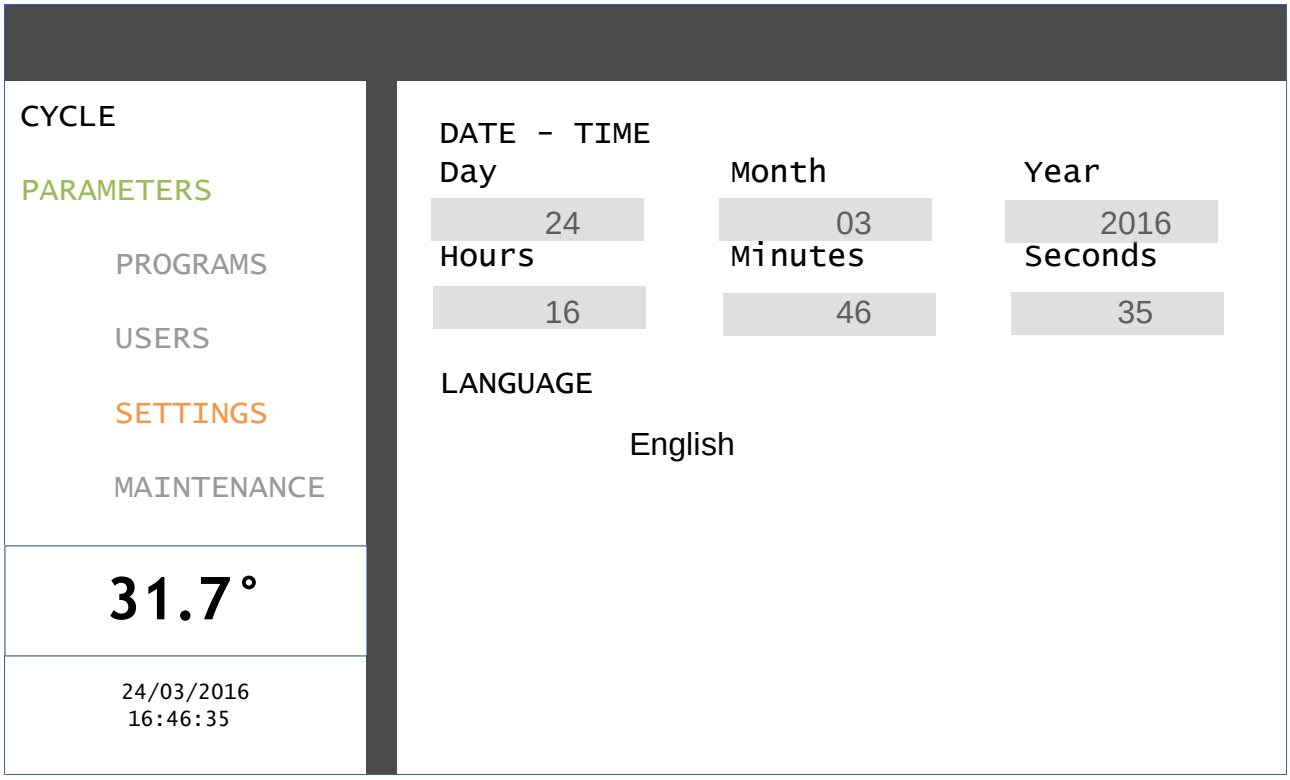


Using the device

Configuration of the screen

Date, time and language

- **Date, time and language**



DATE-TIME

When the screen is displayed, the fields are already populated with current timestamping values.

Pressing on a text field activates the numeric keypad for this field

LANGUAGE

The arrows scroll through the available languages for the text field.

KEYS

Confirmation key:

- If at least one value has been modified, the timestamp and language are updated
- If no values have been changed, the timestamp and the language are not modified.

Cancel key:

- the timestamp and language are not modified.

Stirring parameters

The stirrer's speed can be set between 20 rpm and 110 rpm by selecting a figure between 1 and 9 in the stirring speed parameters.

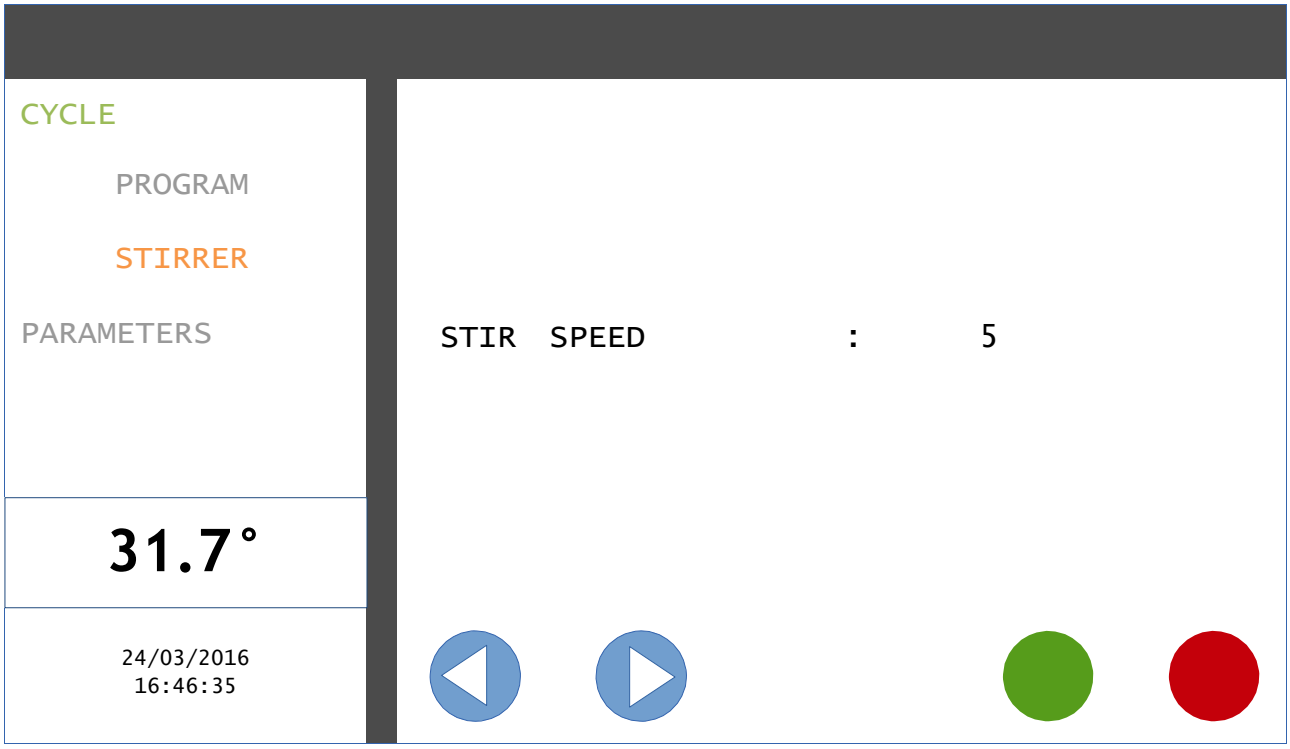
The following table displays the corresponding values in rpm:

Speed parameter	1	2	3	4	5	6	7	8	9
Corresponding speed in rpm	20 rpm	30 rpm	40 rpm	50 rpm	60 rpm	70 rpm	80 rpm	90 rpm	110 rpm

The speed setting can be set in stand-by mode and must be configured in each program for all stages of the cycle (see § stirrer in stand-by mode and § program creation)

Stirrer in stand-by mode

Controlling the stirrer in stand-by mode



Active keys:

PROGRAM	Switches back to the first screen in the program choice sequence without stopping the stirrer
PARAMETERS	Switches to the "Parameters" screen
Arrows	Increase / decrease the stirrer's speed (0 = STOP; 9 = max.) - Immediate application
Enter	Switches back to the first screen in the program choice sequence without stopping the stirrer
Escape	Switches back to the first screen in the program choice sequence and stops the stirrer

How to define the stirrer's speed?

Standard media:

- 5 to 30L
  - speed 7 (for heating / sterilization / cooling)
  - speed 5 (for dispensing)

- 2.5 to 5L
  - speed 3 (for heating / sterilization / cooling)
  - speed 3 (for dispensing)

Viscous media

- 5 to 30L
  - speed 9 (for heating / sterilization / cooling)
  - speed 7 (for dispensing)

- 2.5 to 5L
  - speed 5 (for heating / sterilization / cooling)
  - speed 5 (for dispensing)

Low thermal property media

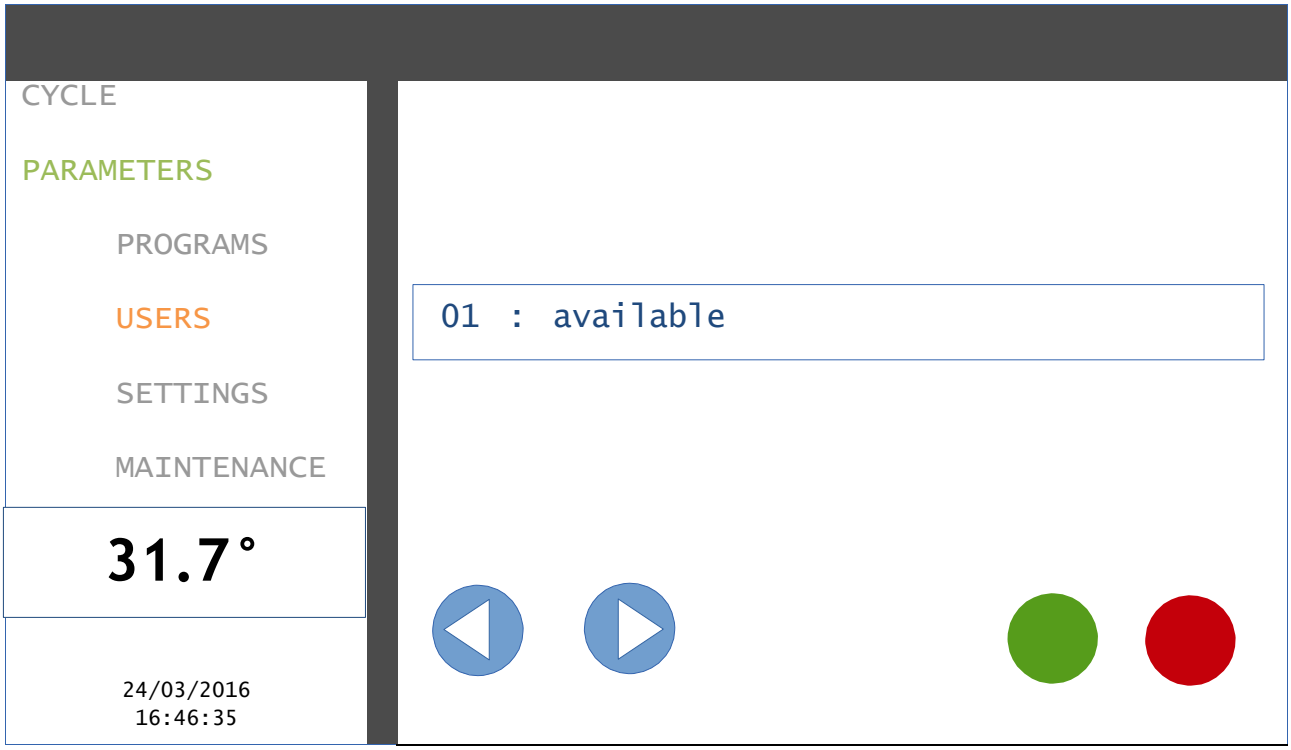
- 5 to 30L
  - speed 9 (for heating / sterilization / cooling)
  - speed 7 (for dispensing)

- 2.5 to 5L
  - speed 5 (for heating / sterilization / cooling)
  - speed 3 (for dispensing)

- User management

Selecting the user name to be created/modified/deleted

Selecting the user name to be created / modified / deleted

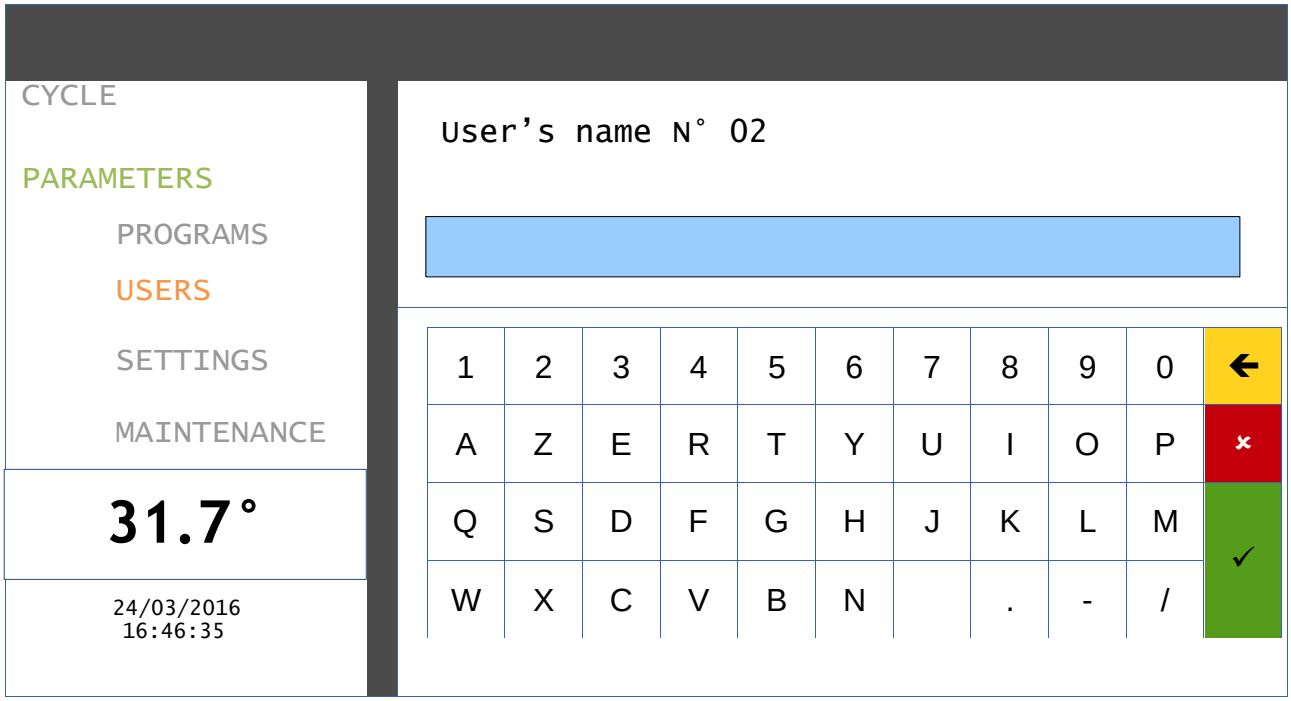


Active keys:

CYCLES	Switches back to the first screen in the program choice sequence
PARAMETERS	Inactive
PROGRAMS	Switches to the program parameters screen
USERS	Inactive
TRACEABILITY	Switches to the traceability options parameters screen
MAINTENANCE	Switches to the "maintenance" screen
Arrows	Scroll through users names
Enter	For users that have not been created: switches directly to the "user name creation/modification" sequence For existing users: switches to a choice between the program creation / modification or deletion sequence
Escape	Switches back to the first screen in the program choice sequence

To choose between modification or deletion of a user name on the list, see the procedures for choosing between modification or deletion of a program: the process is exactly the same.

Creation / modification of a user name



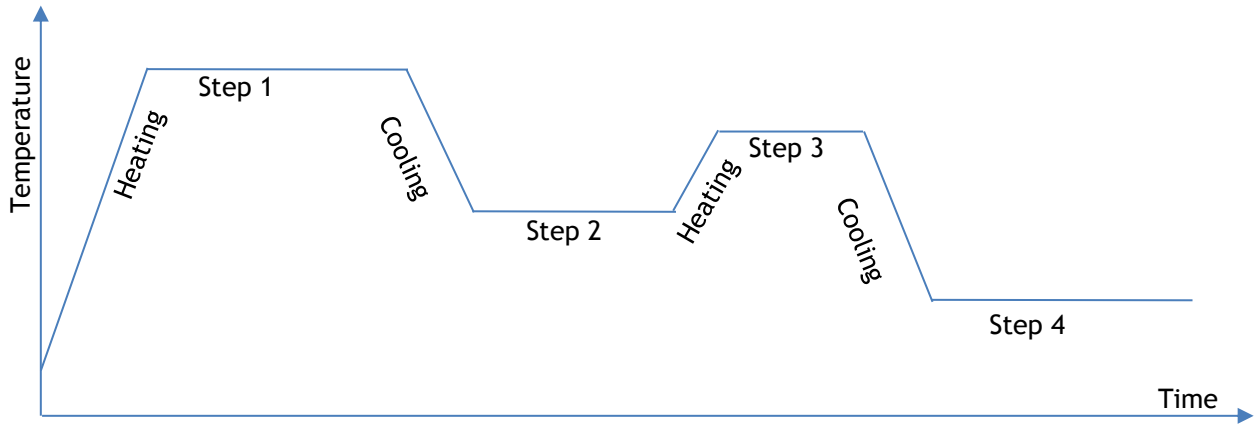
Following the creation or modification of a user name, a **"Modifications saved"** message appears for 2 seconds. You are then returned to the "Selection of a user name to be created / deleted / modified" screen

■ Program management

Cycles: general principles

The automated preparator enables a "preparation cycle" to be automatically performed for a volume of culture medium.

The volume written is automatically the last one recorded. Up to the user to modify the volume to be prepared.
A preparation cycle comprises *n* "steps"; *n* = 2, 3 or 4
Each step is defined by a temperature setpoint (in °C) and a duration (in minutes)
The temperature setpoint for a step is equal to or greater than 25.0°C and equal to or lower than 125.0°C. It is defined to the nearest 0.1°C
The duration of a step is equal to or greater than 1 minute and equal to or less than 999 minutes. It is defined to the nearest 1 minute.
The duration of the last step is always infinite (the preparation cycle is stopped by the user).
The start of the preparation cycle is triggered either by the user (manual start), or by means of a timer (scheduled start).
The phases between the steps are transition phases, which may be "heating" or "cooling".
Overshoot can happen during the distribution step . It is strongly recommended to wait for the stabilization .



Each program contains the following information:

Field title	Number
Program number	01 to 50
Program name	40 characters
Number of steps n	2, 3 or 4
Name of step no. 1	40 characters
Temperature setpoint for step no. 1	25.0 to 125.0°C
Duration of step no. 1	1 to 999
Alarm at the beginning of step no. 1	yes/no
Alarm message for step no. 1	40 characters (if an alarm is enabled)
Stirring speed in transition to step no. 1	1 to 9
Stirring speed during step no. 1	1 to 9
Name of step no. 2	40 characters
Temperature setpoint for step no. 2	25.0 to 125.0°C
Duration of step no. 2	1 to 999 or infinite if n=2
Alarm at the beginning of step no. 2	yes/no
Alarm message for step no. 2	40 characters (if an alarm is enabled)
Stirring speed in transition to step no. 2	1 to 9
Stirring speed during step no. 2	1 to 9

The choice of program number is determined by the operation prior to starting the "program creation / modification" sequence.

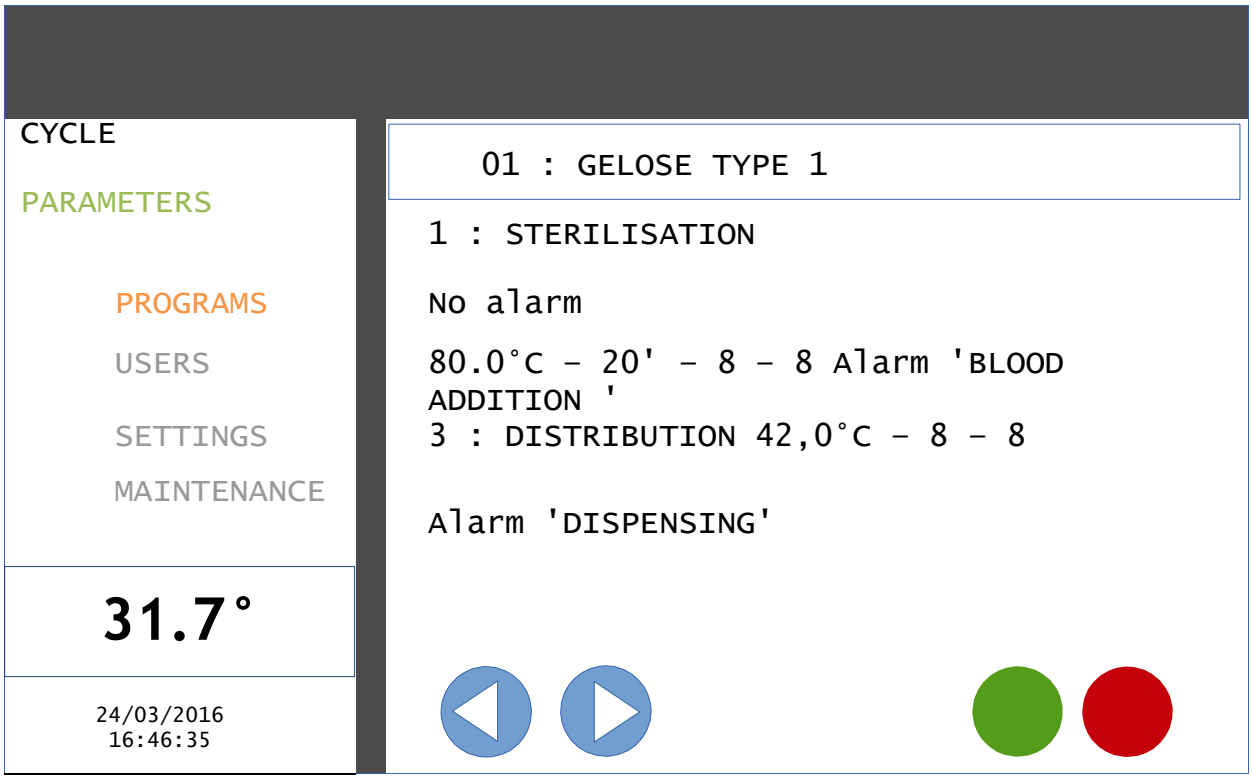
When creating a program, the fields are empty, so valid values must be entered in all the fields.

When modifying a program, the fields are already populated with the program's current parameters. The user chooses which fields to modify.

Creation, Modification / deletion of a program

Parameters mode

Selecting the program to be created / modified / deleted

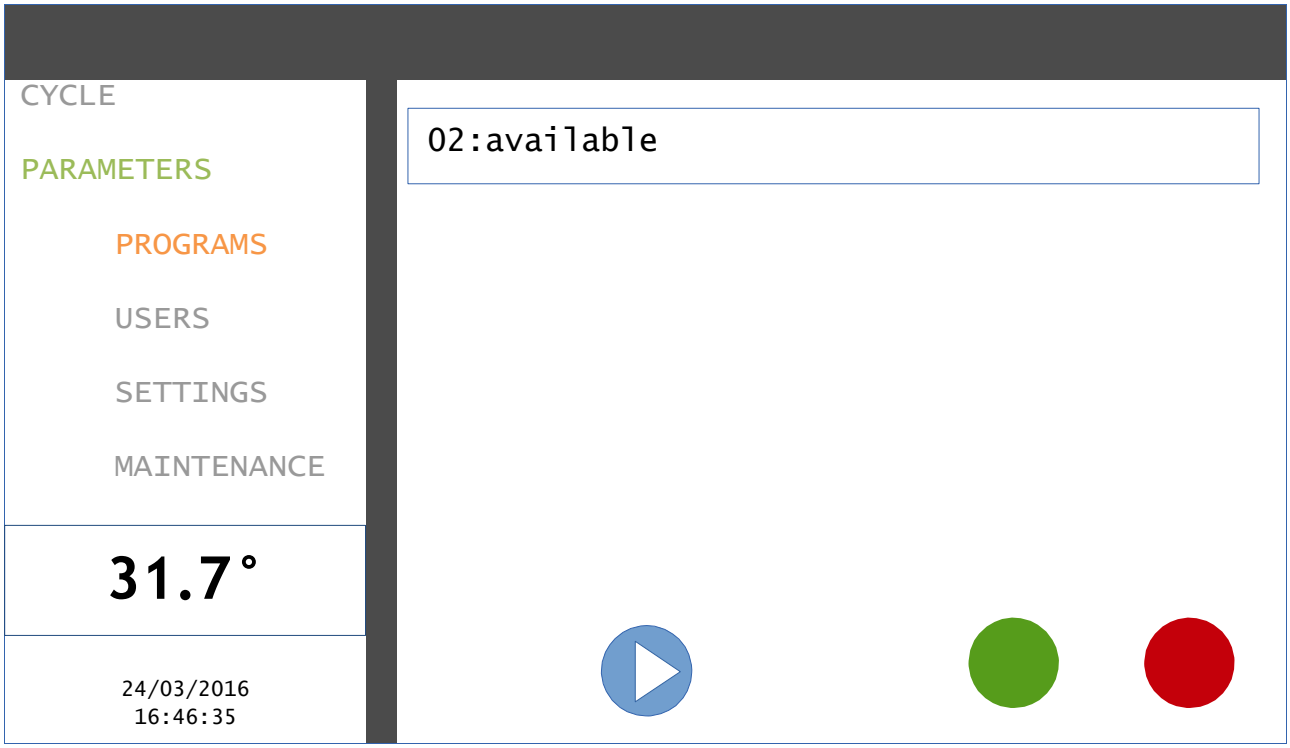


Active keys:

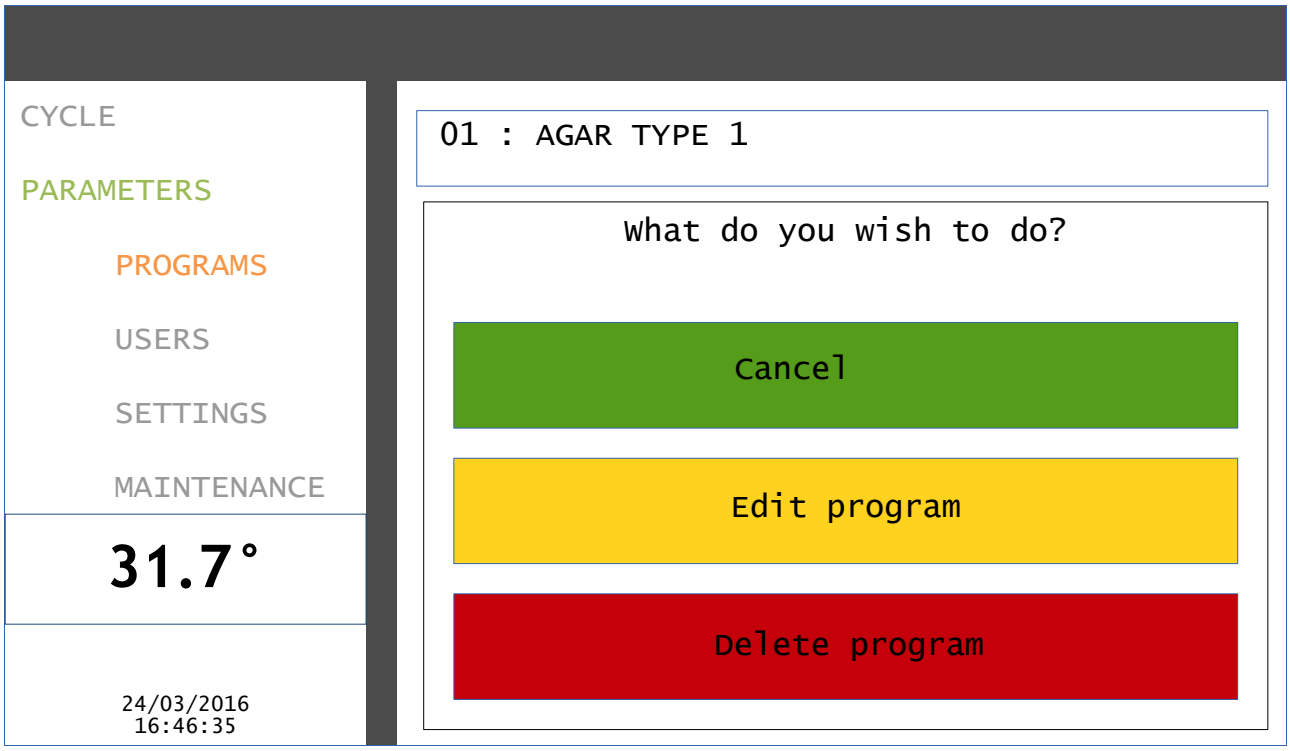
CYCLES	Switches back to the first screen in the program choice sequence
PARAMETERS	Inactive
PROGRAMS	Inactive
USERS	Switches to the user parameters screen
SETTINGS	Switches to the date and time settings screen
MAINTENANCE	Switches to the "maintenance" screen
Arrows	Scroll through the programs
Enter	For blank programs: switches directly to the "program creation/modification" sequence For existing programs: switches to a choice between the program creation / modification or deletion sequence
Escape	Switches back to the first screen in the program choice sequence

NB: for programs created, the summary of the program parameters appears in the main display area. For blank programs, the program name is replaced by the word "available" and the main display area is blank.

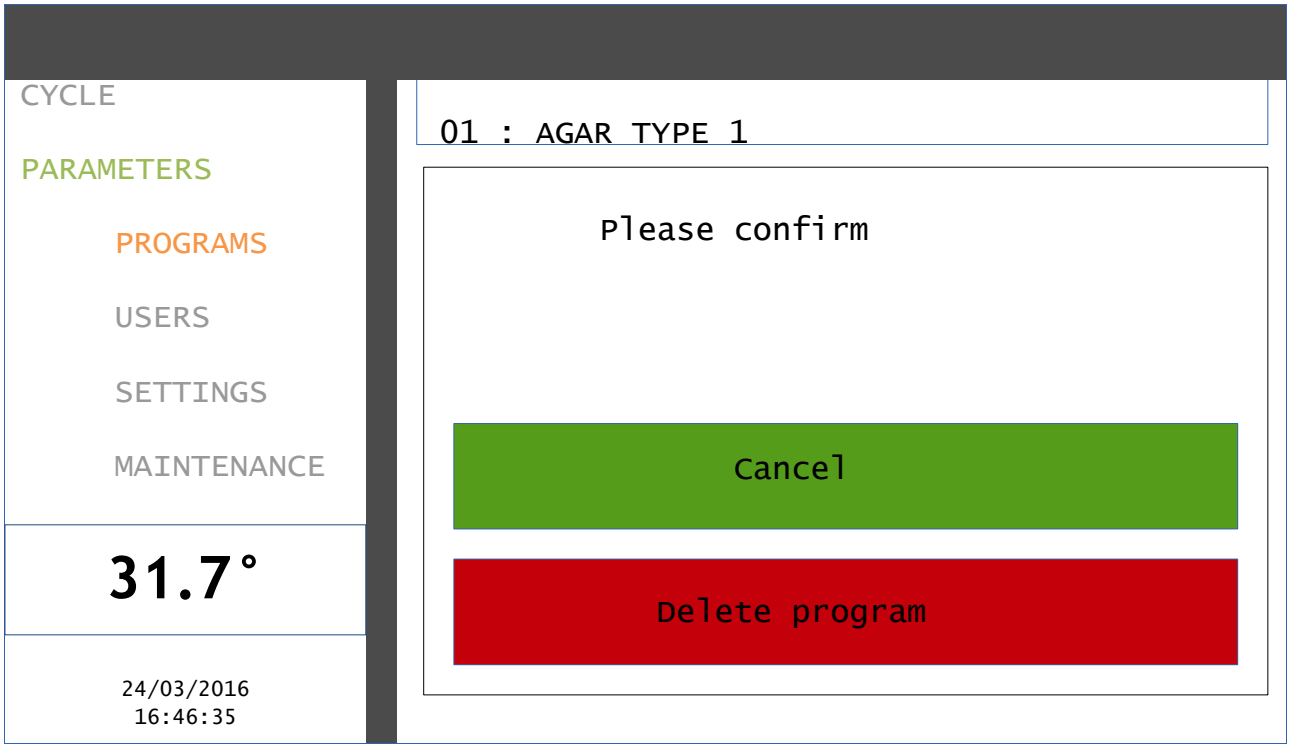
Example of a blank program:



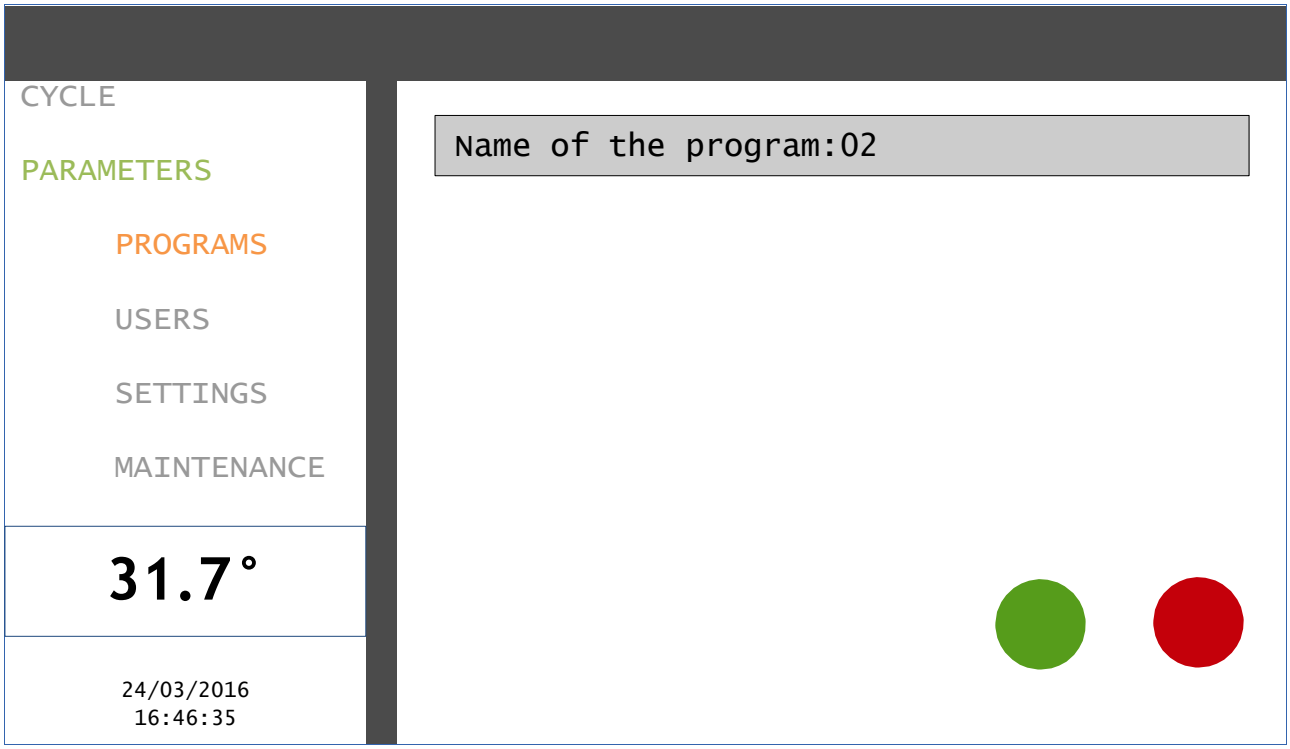
Where an existing program is selected. A menu enabling a choice to be made between modification and deletion of the program appears:



If the "delete" option is chosen, confirmation is requested:



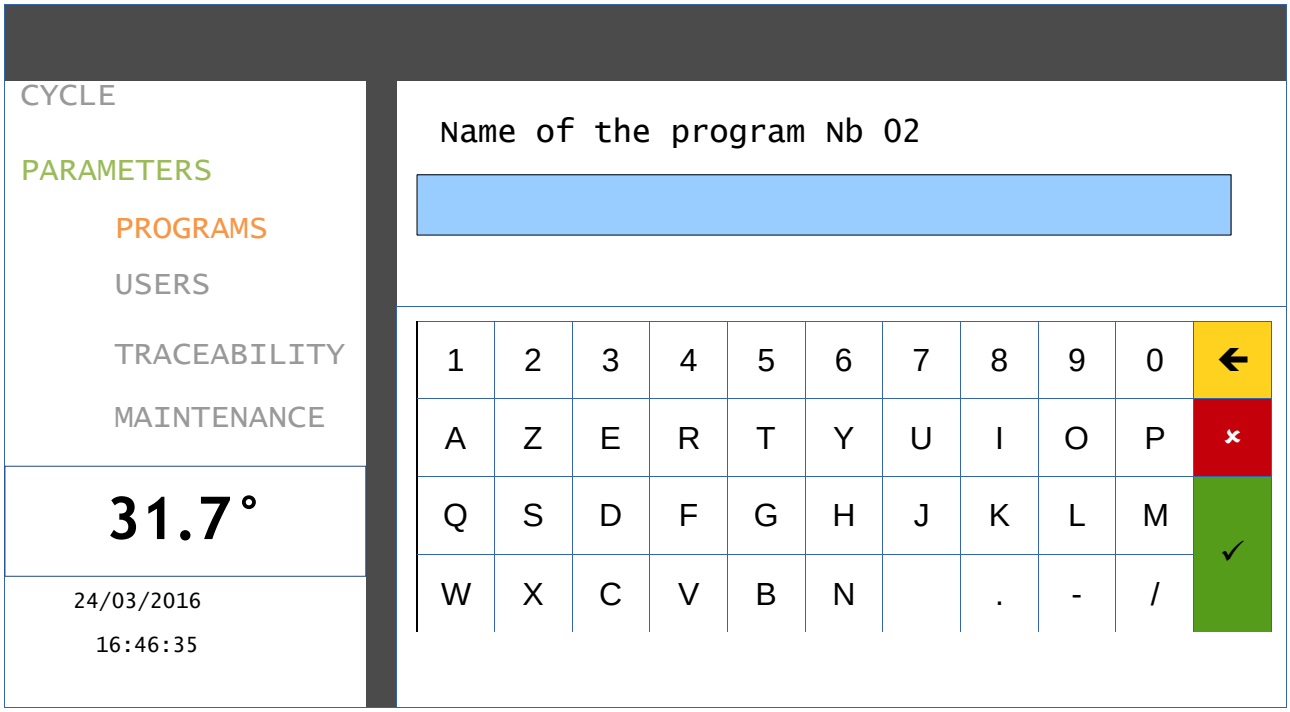
If the "modify" option is chosen, you are taken to the "program creation / modification" sequence

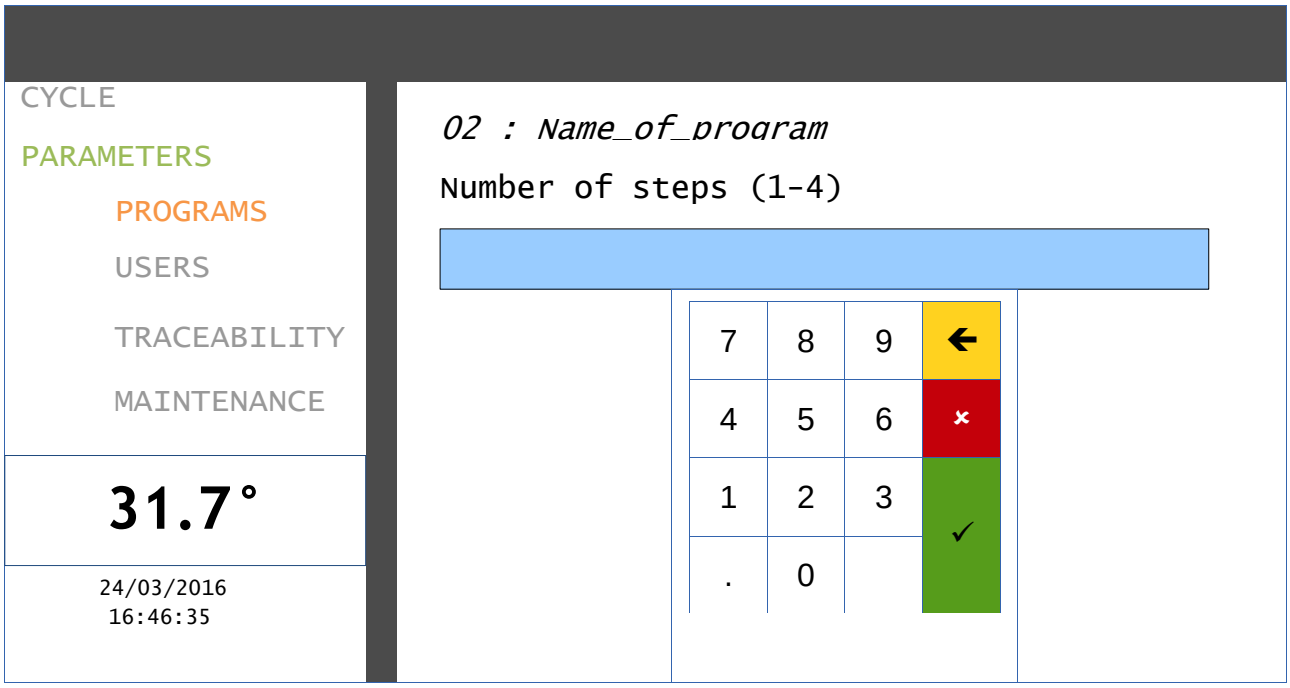


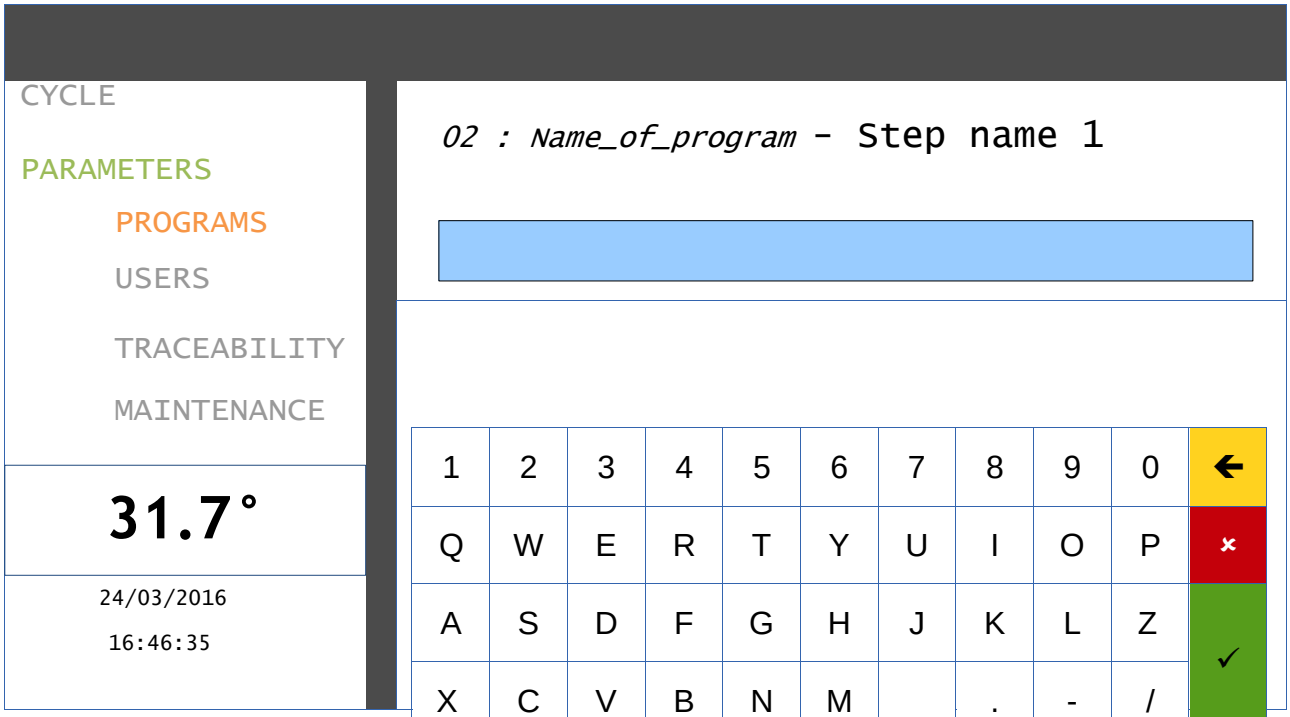
Active keys for the entire "program creation / modification" sequence:

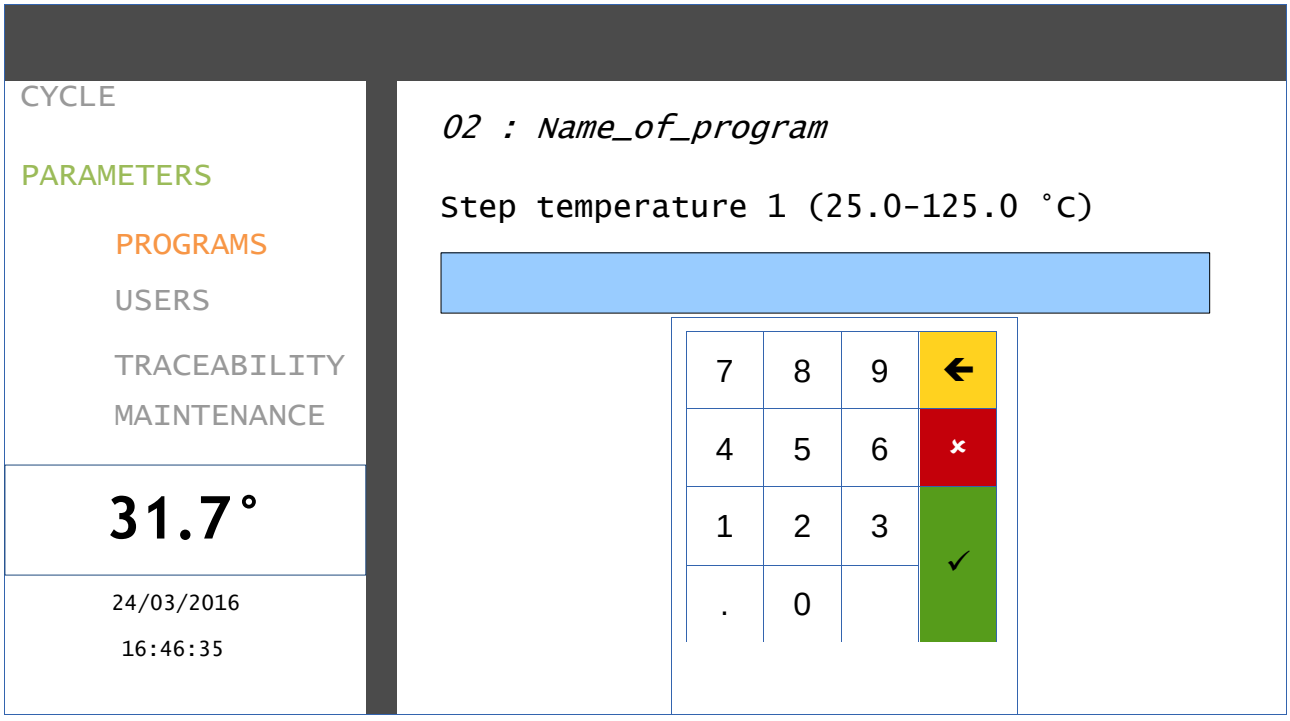
CYCLES	Inactive in program creation / modification mode
PARAMETERS	Inactive
PROGRAMS	Inactive
USERS	Inactive in program creation / modification mode
TRACEABILITY	Inactive in program creation / modification mode
MAINTENANCE	Inactive in program creation / modification mode
Grey field	Opens the dynamic keypad
Enter	Confirms the entry and moves to the next screen
Escape	Exits the "program creation / modification" sequence after requesting "continue / discontinue" confirmation

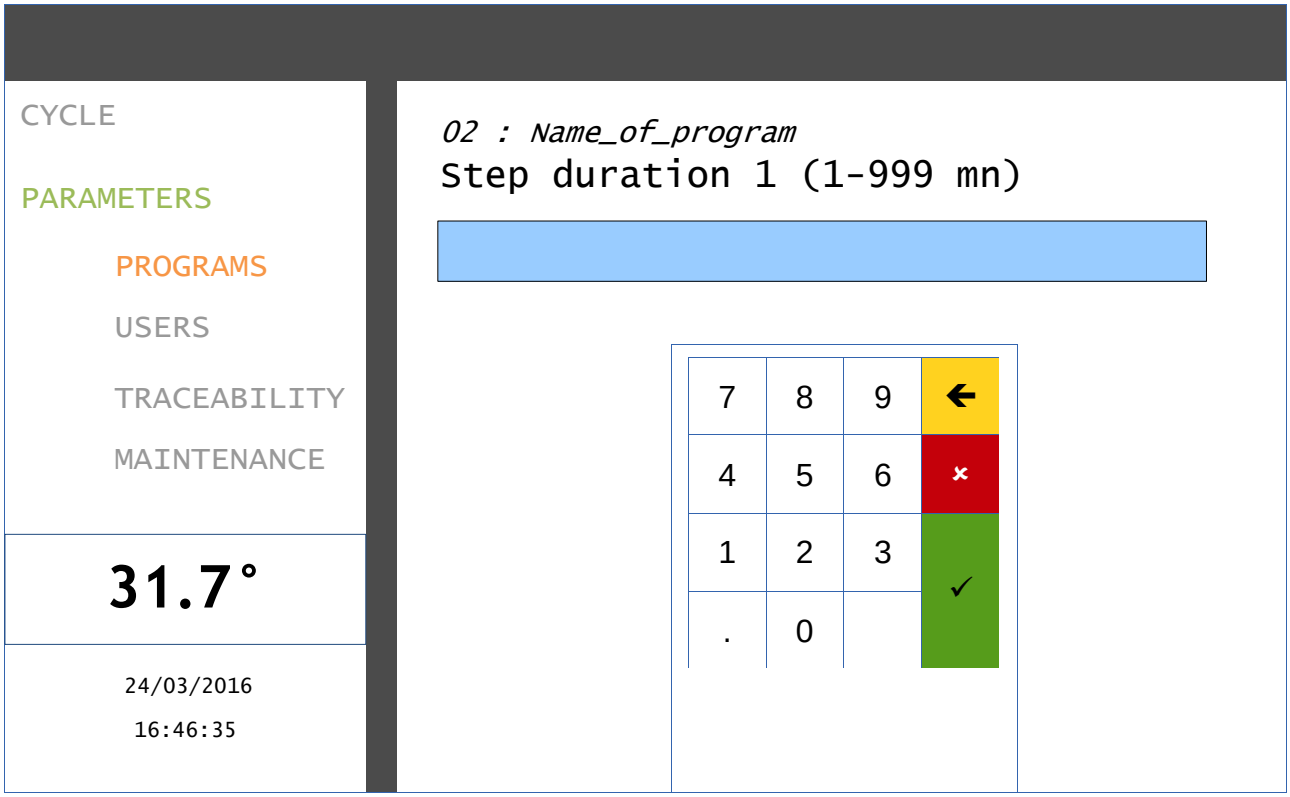
Program name entry:

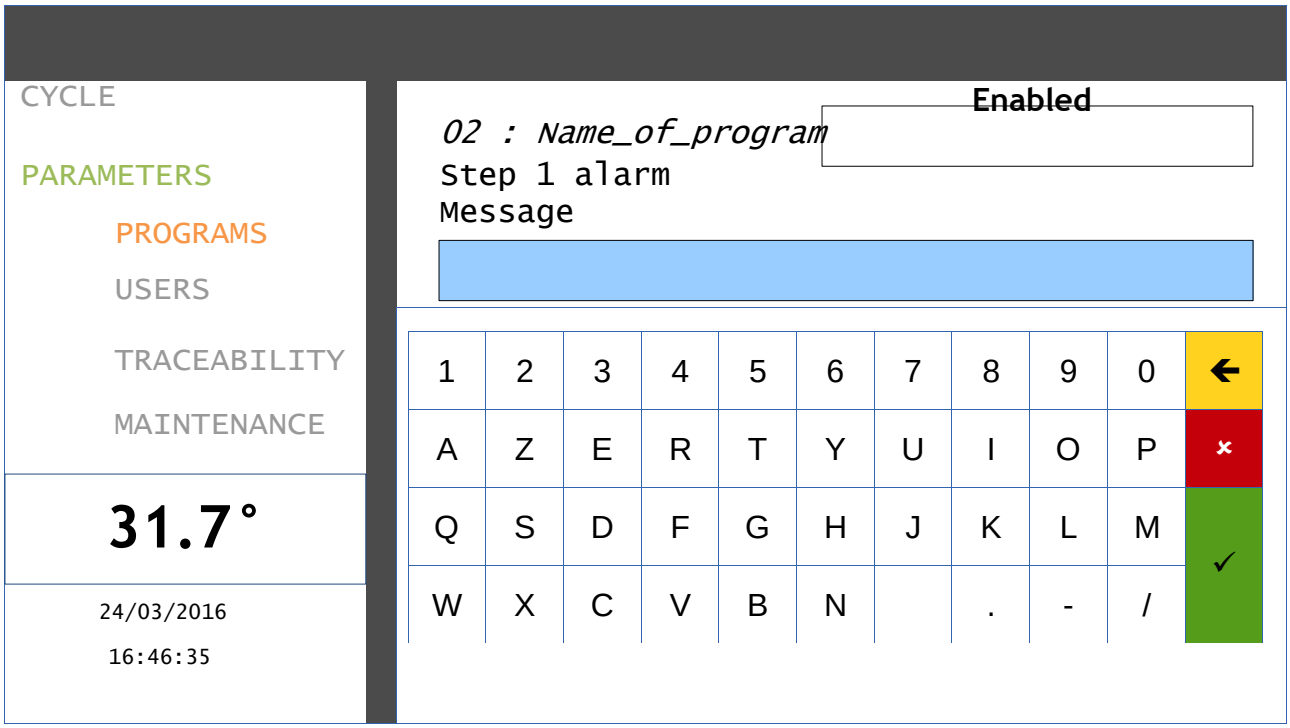




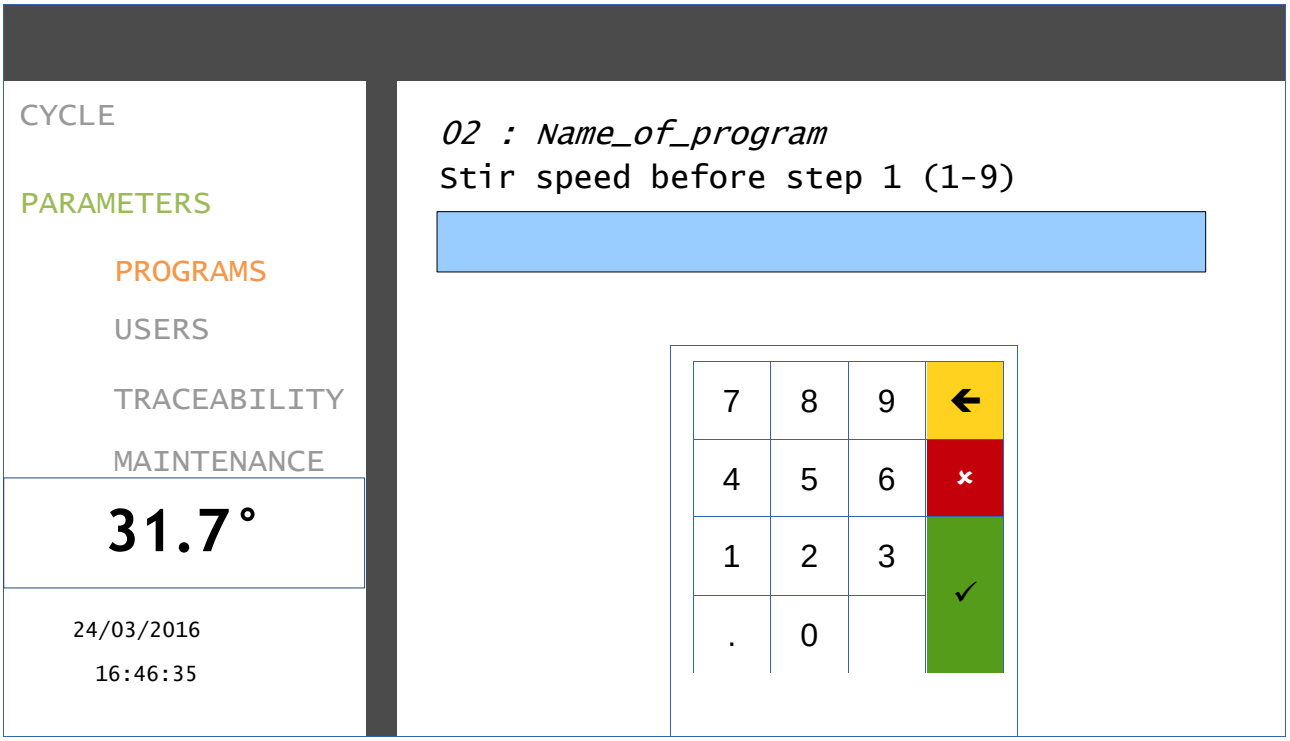

CYCLE
PARAMETERS
PROGRAMS
USERS
TRACEABILITY
MAINTENANCE
31.7°
24/03/2016
16:46:35
02 : Name_of_program - Step name 1
1 2 3 4 5 6 7 8 9 0
Q W E R T Y U I O P
A S D F G H J K L Z
X C V B N M . - /

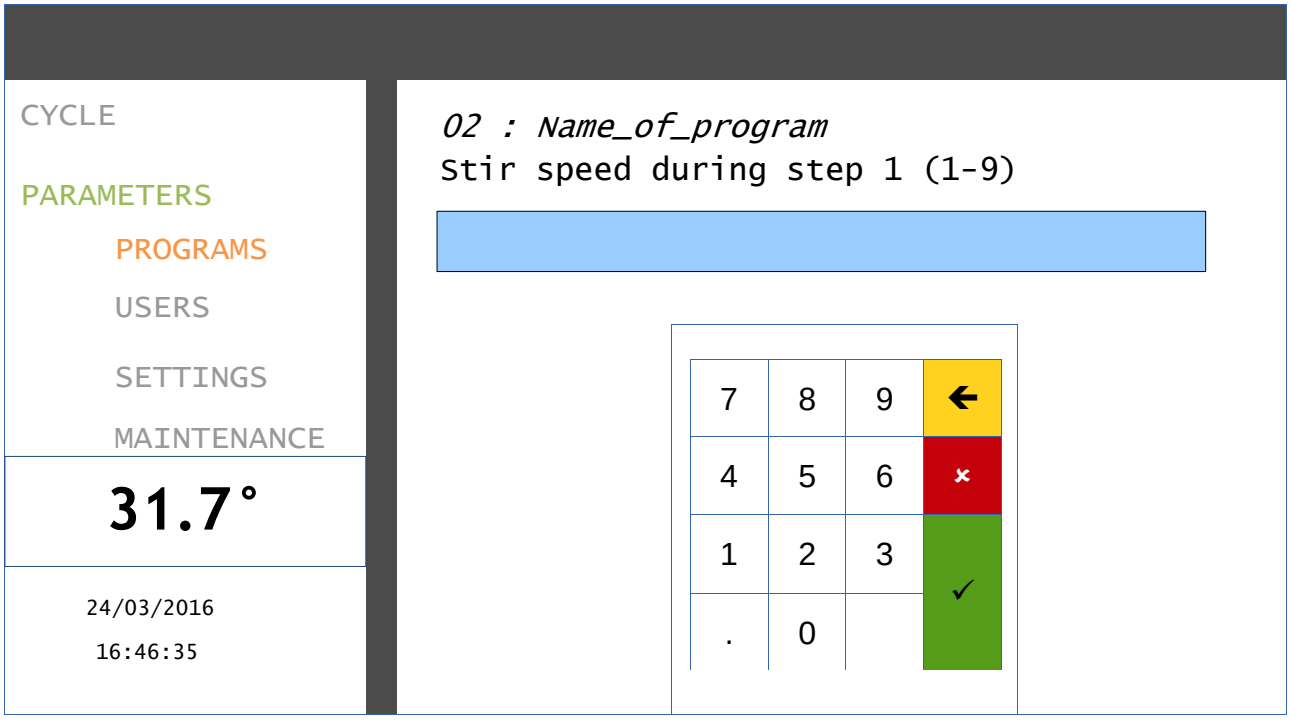

CYCLE
PARAMETERS
PROGRAMS
USERS
TRACEABILITY
MAINTENANCE
31.7°
24/03/2016
16:46:35
02 : Name_of_program
Step temperature 1 (25.0-125.0 °C)
7 8 9
4 5 6
1 2 3
. 0





NB: The "enabled" field is Boolean. It changes status each time it is pressed. It contains "enabled" or "disabled" information. In the event that the alarm is disabled, the "message" field is greyed out and is not editable. It is only editable when the alarm is enabled.



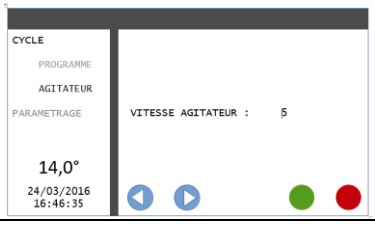


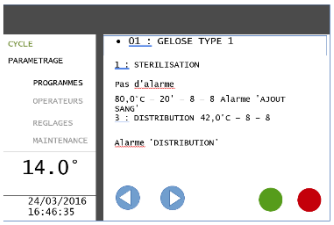
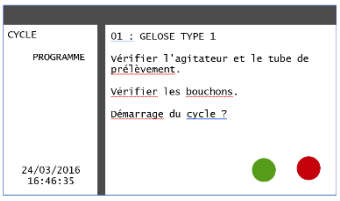
The parameters screens for steps 2 to 4 are identical to those for step 1.

Once all the parameters have been entered, you are returned to the "Selecting the program to be created / deleted / modified" screen

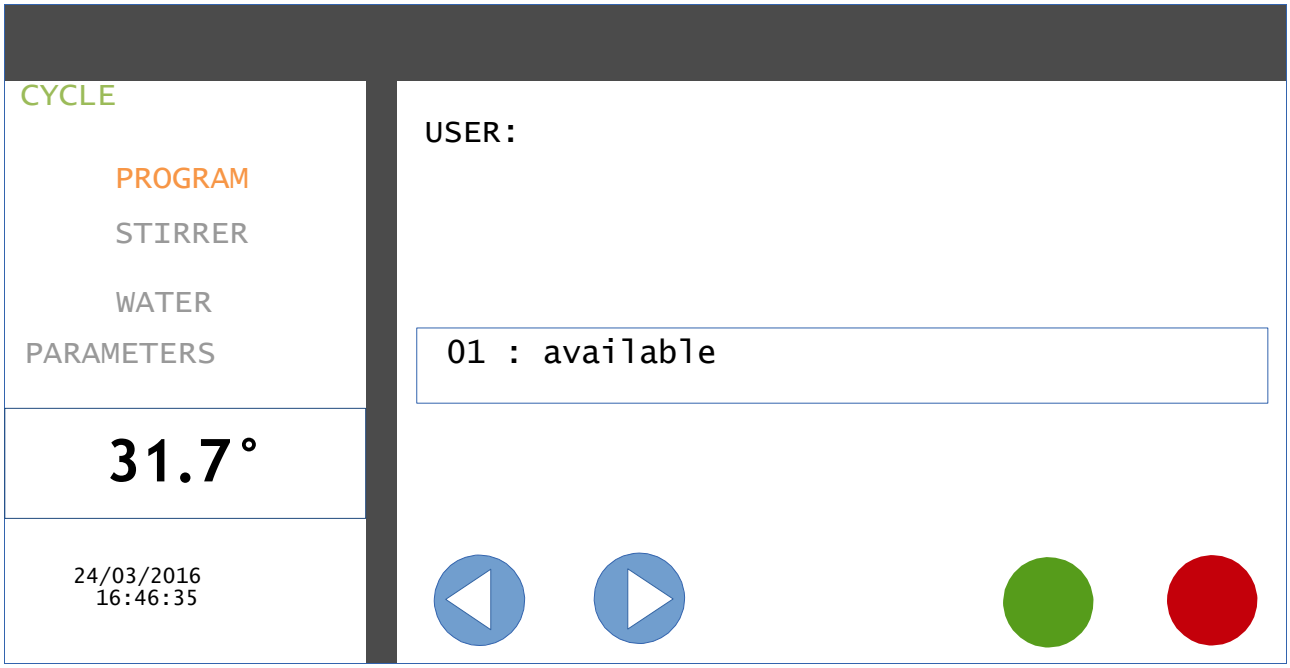
Running a cycle

Preparation

Sequence of operations	Operation	Symbol
1	- Connect the water supply hose, - Connect the drain hose, - Open the water tap	
2	- Connect the power cable, - Enable the system's circuit breaker,	
3	- Switch the device on by pressing the master switch	
4	- Open the lid and replace the cotton wool in the housing	
5	- Place the drain cap "D" in the drain opening in vessel "A", - Slide the stirrer "C" into the drain cap "D" - Slide the decanting tubing "B" into the stirrer "C"	
6	- Pour in 1/3 of the total deionised water to be prepared into the vessel	
7	- Start up the stirrer at a minimum of speed 5	
8	- Slowly pour the powder into the vortex	
9	- Pour the remainder of the deionised water, down the edge of the wall and on the stirrer in order to remove the powder from the surfaces, to reach the total volume to be prepared (a maximum of 30 litres)	
10	- Close the lid and the drain access hatch	

11	-	Select the desired program by using the navigation arrows and follow the instructions provided by the various displays, which will appear after pressing the green "confirmation" key, until you reach the start screen (see the following paragraph entitled "Running a program" for more details	
12	-	Press the green key when the "Start the cycle? " message appears.	

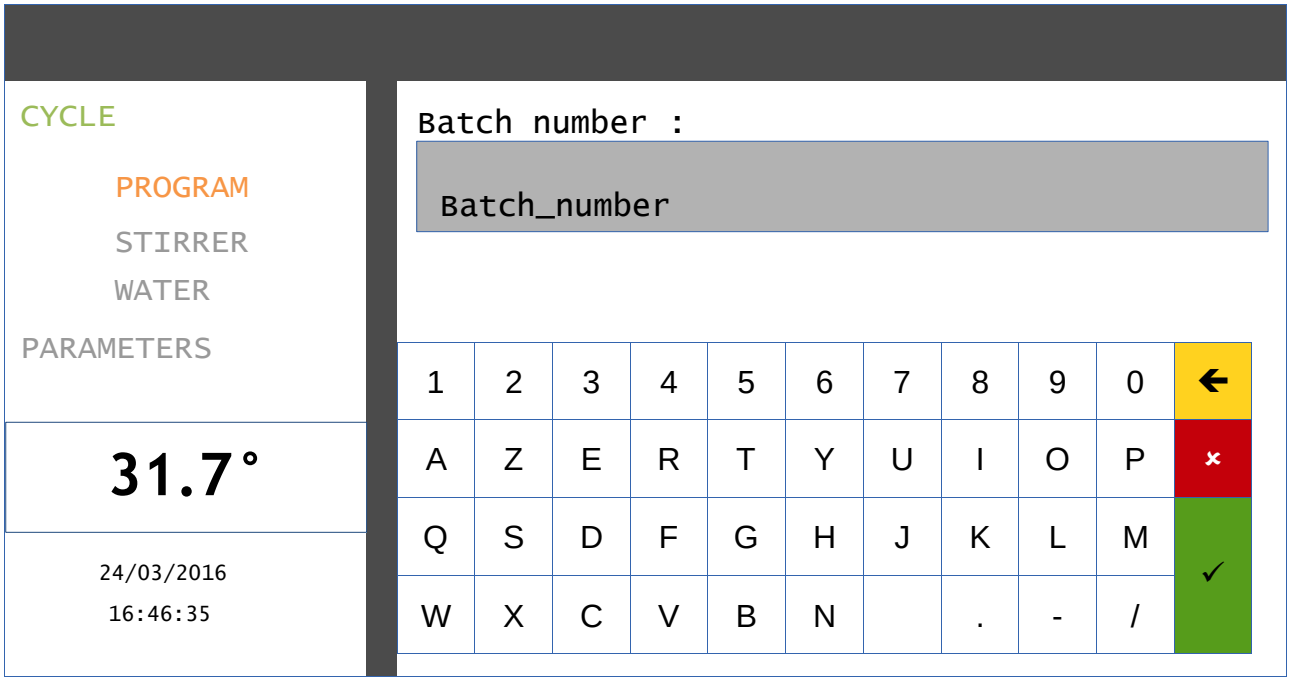
Selecting a user - Running a program



Active keys:

Arrows	Increase / decrease the user's number and display the corresponding name
Enter	Confirms the choice of user and moves to the next screen
Escape	Returns to the program selection screen

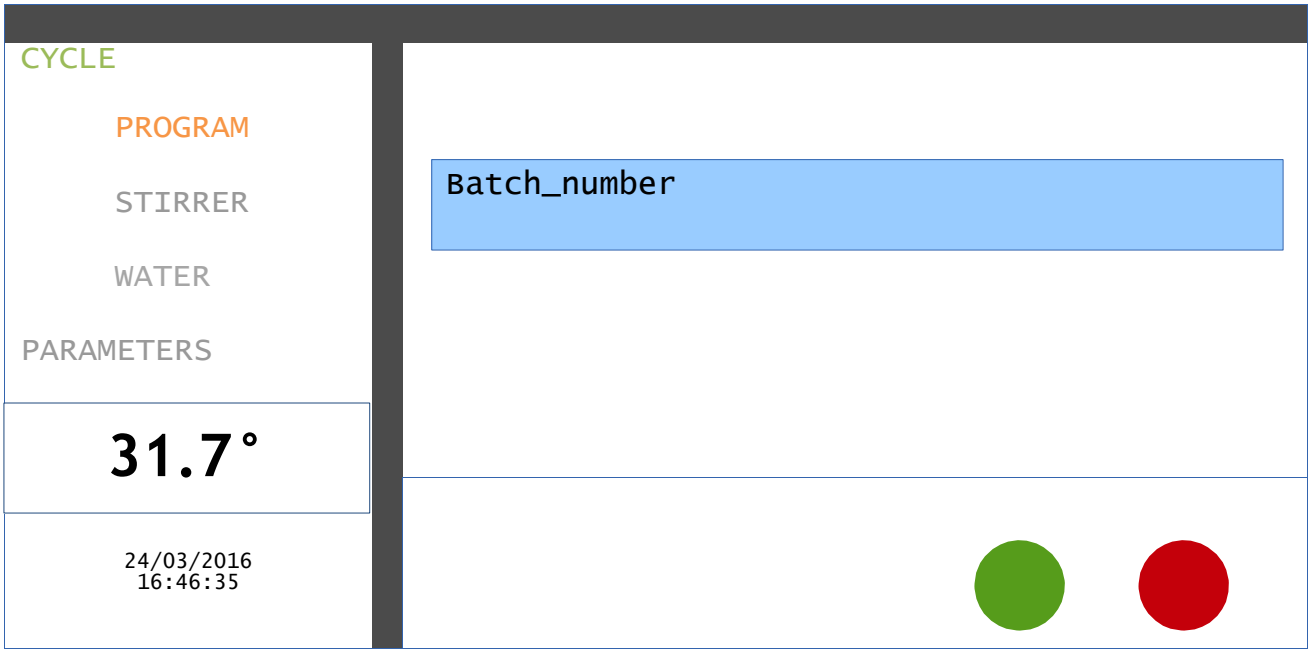
Batch number entry



Active keys:

Text box	Opens the dynamic keypad
Enter	Confirms the entry and moves to the next screen
Escape	Returns to the program selection screen

Dynamic screen display:

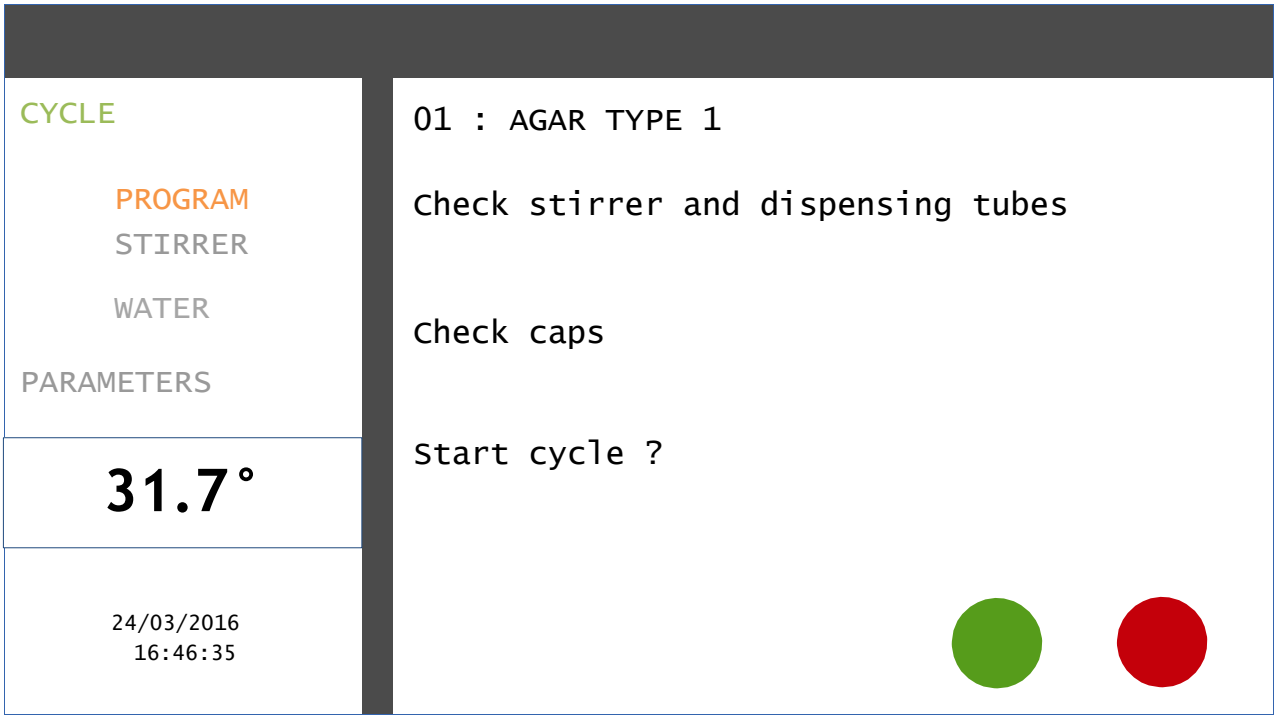


Active keys:

Characters	Displayed in the text field
Cancel	Closes the dynamic screen and reinitialises the entry
Correction (yellow key)	Deletes the last character entered
Confirm	Closes the dynamic screen and saves the entry

NB: the text field is displayed with a light grey background when the dynamic keypad is not open and in light blue when the dynamic keypad is open.

Cycle start screen



Interrupting a cycle

The cycle can be interrupted at any stage. Simply pressing the key stops the cycle.

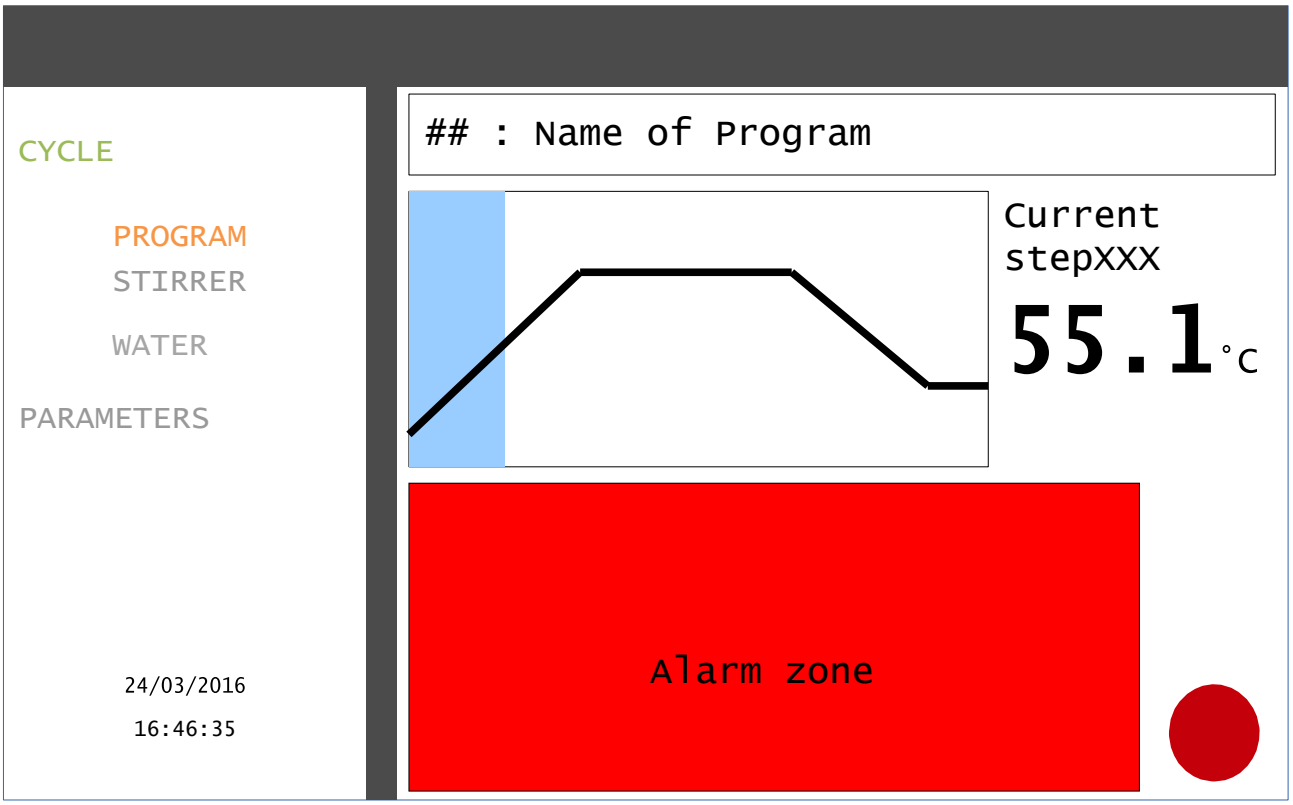
Interrupting a cycle immediately results in cold water flowing through the double jacket, if the temperature of the medium was less than 80°C.

In all cases, the vessel should only be accessed after having enabled the vessel's safety valve (pull the ring upwards) and when wearing protective gloves designed for high temperatures. In effect, surfaces may still be at very high temperatures and can cause burns.

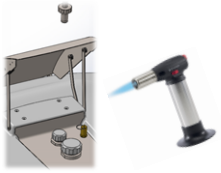
Lights

There is a light on each side of the control panel. Its role is to indicate, alert or inform the user of the status of the current cycle, of an alarm or a status. It indicates this by means of a light that is on or off, flashing or permanently on, and is white, orange, red, blue or green, based on the rules appearing in the following table:

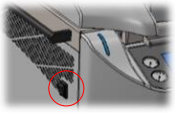
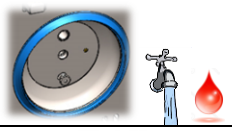
Light colour	Status	Description of the status
White	Permanently on	Stand-by
	Flashing	
Blue	Permanently on	Processing to Media preparation
	Flashing	
Orange	Permanently on	Warning message during cycle (Safety cover or doortrap not closed)
	Flashing	Warning message during cycle (step message, temperature out of reference
Red	Permanently on	
	Flashing	Major default during cycle (heating default, cooling default)
Green	Permanently on	Media ready for dispensing
	Flashing	Waiting for the acknowledgement of the safety message “Make sure that vessel pressure is 0 bar before opening”


CYCLE
PROGRAM
STIRRER
WATER
PARAMETERS
24/03/2016
16:46:35
: Name of Program
Current stepXXX
55.1°C
Alarm zone

End of the cycle and dispensing

Sequence of operations	Operations	Symbols
1	- The end of the cycle is indicated by the lights changing from blue to green - This means that the dispensing temperature has been reached and at its step → dispensing can be undertaken	
2	- Open the safety cover, by operating the small lever on the right, and lift it up	
3	- Pull the ring on the safety valve in order to ensure that any possible pressure is released	
4	- Prepare the decanting tubing and place it on top of the lid but leave it in its protective packaging before removing the decanting cap	
5	- Heat the adding port with a blow torch before inserting the tip of the decanting tubing - Do not heat the decanting tip to not damage the seal	
6	- Connect the hose to the pump and run dispensing immediately	

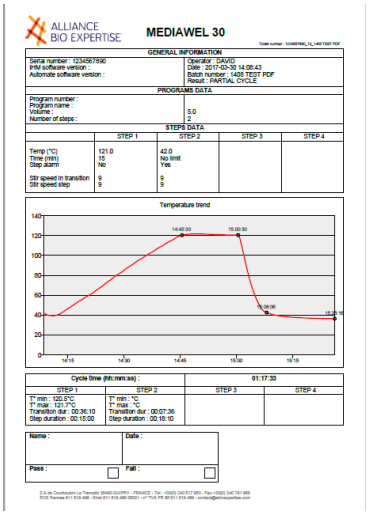
Cleaning

Sequence of operations	Operations	Symbols
1	- Remove the dispensing hose and immediately rinse it with very hot water	
2	- Open the lid	
3	- Open the hatch and place a bucket beneath the vessel or position the device over a floor drain	
4	- Switch the device off	
5	- Disable the system's circuit breaker, - Unplug the power cable,	
6	- Remove the decanting tubing "B" - Remove the stirrer "C" - Remove the plug "D" - Take these three components and place them in a deep sink for immediate rinsing in very hot water	
7	- Wash the vessel in very hot water using a soft brush - Wash the decanting and adding caps in very hot water	
8	- Wash the decanting and adding caps in very hot water	
9	- Remove the cotton wool from its housing and clean it with 70°alcohol	
10	- Clean the seal with hot water	
11	- Leave the lid open until the next use - Do not put back the stirrer and the plug until the next use	

Using connected equipment and traceability

The use of peripherals is only possible with devices equipped with the eTrace communication module (optional).

This module allows data collection of the cycles on a USB stick. This one has to be connected to the eTrace before starting the cycle. The data can be recovered 30 seconds after the cycle end in a CSV file (gross data) and a PDF file.


ALLIANCE BIO EXPERTISE

MEDIAWEL 30

GENERAL INFORMATION

PROGRAMS DATA

STEPS DATA

Temperature trend

The PDF document is a summary of the cycle that makes a quick decision possible for its validation.

The CSV data allows data processing and provides further information on events and status of the cycle.

ID Prep	S/N	Batch n	Date/Time	User	Status	IHMV	AUTV					
MEDIAWEL30	517016000	170513 1022	13/05/2017 10:22	AS1	START	v0.3.9	0					
MEDIAWEL30	517016000	170513 1022	13/05/2017 11:22	AS1	END	v0.3.9	0					

ID Prep	S/N	Batch n	Date/Time	Number of step	Temp Step1	Step1 Durati	Step1 Stir sp	Temp Step2	Step2 Durati	Step2 Stir sp	Volume	NPROG	PRNAM
MEDIAWEL30	517016000	170513 1022	13/05/2017 10:22	2	121.0	15	3	45.0	0	3	3.0	5	AS1 STIRRER

ID Prep	S/N	Batch n	Date/Time	Status	Media Temp	Default code
MEDIAWEL30	517016000	170513 1022	13/05/2017 10:22	30	57.3	
MEDIAWEL30	517016000	170513 1022	13/05/2017 10:23	30	57.2	
MEDIAWEL30	517016000	170513 1022	13/05/2017 10:23	30	57.4	
MEDIAWEL30	517016000	170513 1022	13/05/2017 10:23	30	57.0	
MEDIAWEL30	517016000	170513 1022	13/05/2017 10:23	Transition step1	55.6	
MEDIAWEL30	517016000	170513 1022	13/05/2017 10:23	Transition step1	54.6	
MEDIAWEL30	517016000	170513 1022	13/05/2017 10:23	Transition step1	54.2	
MEDIAWEL30	517016000	170513 1022	13/05/2017 10:24	Transition step1	53.9	
MEDIAWEL30	517016000	170513 1022	13/05/2017 10:24	Transition step1	53.6	

The eTrace module can also be connected to Ethernet network via RJ45 cable or by Wify by using an adapted key. The data are then available on line during a cycle on a Web page. Data queries can be launched for specific needs and XLS files generated, if needed.

Servicing and maintenance

Summary table

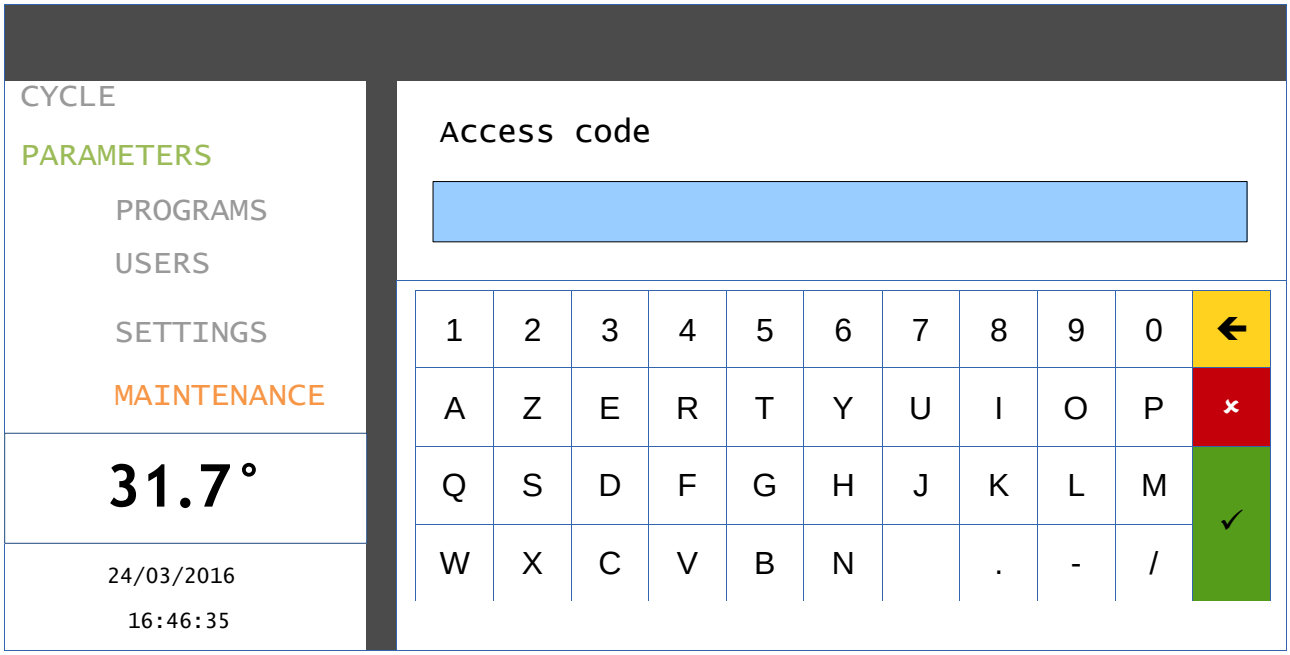
Component	Operation	Frequency			
		20 cycles	2 months	6 months	Year
Device	Descaling			● or more often if the TH > 16°	
Decanting tip seal	Replacement				●
Cover seal	Replacement				●
Adding cap seal	Replacement				●
Cover seal	Replacement				●
Decompression filter	Replacement	●			
Water inlet filter	Cleaning			●	
Stirrer bearing washer	Replacement		●		
Lip seal on the vessel bottom cap	Replacement			●	
O-ring on the vessel bottom cap	Replacement			●	
Stirrer drive belt	Replacement				●
Stirrer bearings	Replacement				●

Regular checks

The manufacturer strongly recommends calibrating the temperature probe once a year.

Calibration of the temperature probe

The Maintenance menu provides access to a technical menu ("service" access). Access to one or other of the modes is defined by the code entered by the user

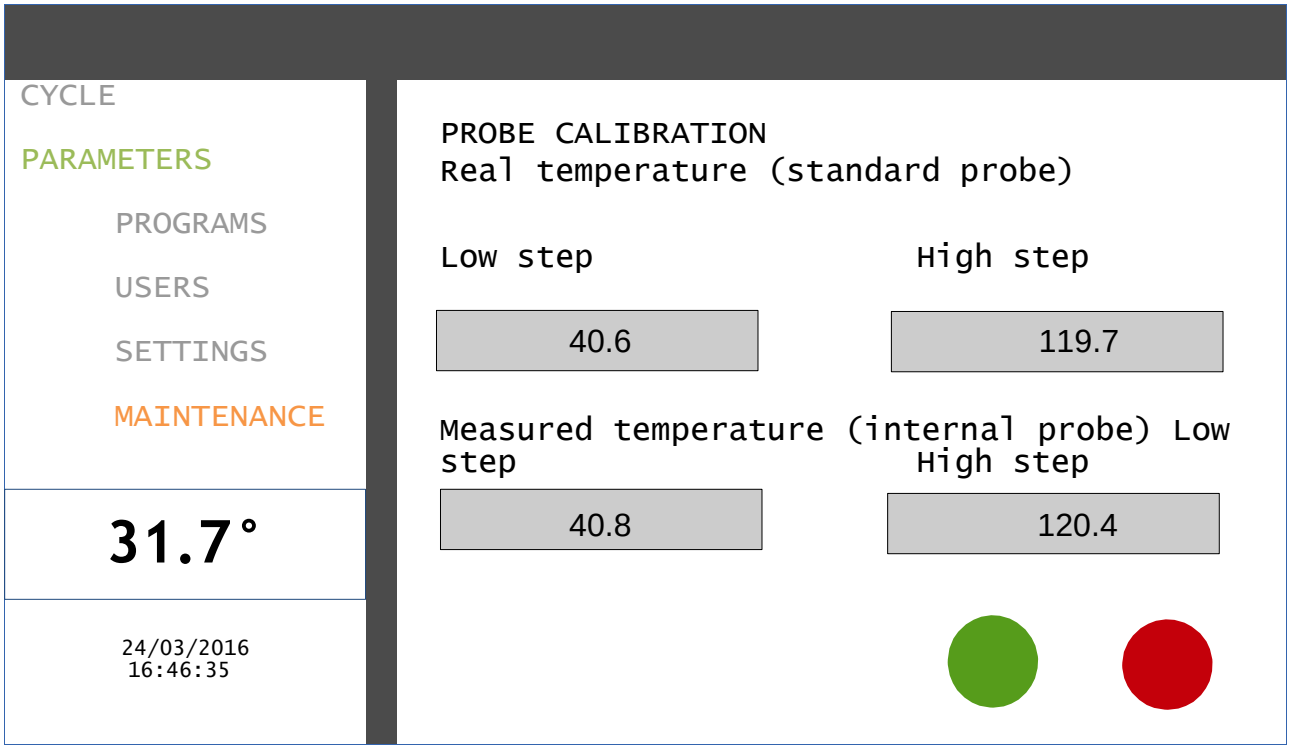


Code to access the Service menu: "**SERVICE**"

Service menu

The Service menu allows you to enter the necessary temperature values to calibrate the "medium" temperature probe and to transfer them to the machine. Other functionalities can be added at a later date.

See the frame 13 specification in the com. specification document



Pressing on a text field activates the numeric keypad for this field.
"Confirm" key: Transmits the values, then returns to the starting menu (program selection).
"Cancel" key: Returns to the starting menu (program selection) WITHOUT transmitting the values entered to the machine.

Troubleshooting

Lights, Messages, and alarms

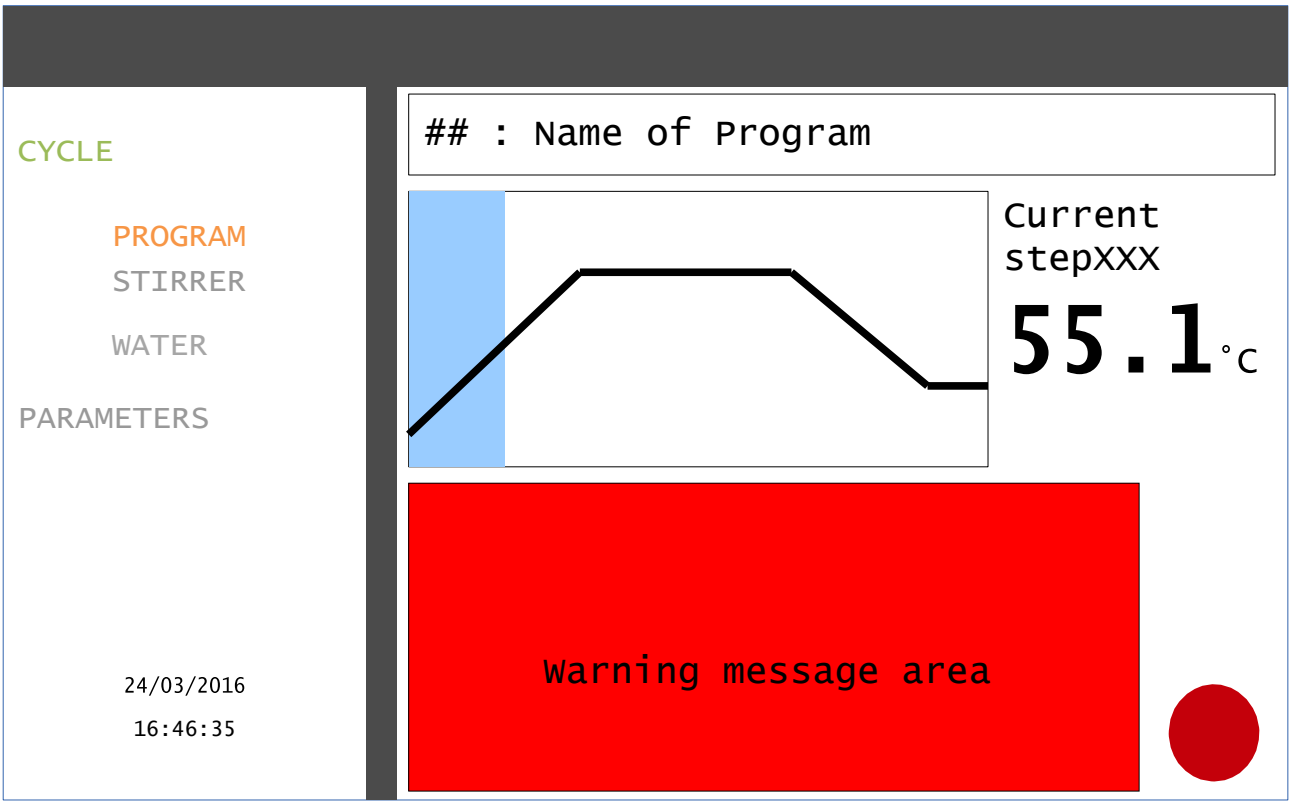
Light alert :

There is a light on each side of the control panel. Its role is to indicate, alert or inform the user of an alarm, message or a status change of the cycle. It indicates this by means of a light that is on or off, flashing or permanently on, and is white, orange, red, blue or green, based on the rules appearing in the following table:

Light colour	Status	Description of the status
White	Permanently on	Stand-by
	Flashing	
Blue	Permanently on	Processing to Media preparation
	Flashing	
Orange	Permanently on	Warning message during cycle (Safety cover or doortrap not closed)
	Flashing	Warning message during cycle (step message, temperature out of reference
Red	Permanently on	
	Flashing	Major default during cycle (heating default, cooling default)
Green	Permanently on	Media ready for dispensing
	Flashing	Waiting for the acknowledgement of the safety message “Make sure that vessel pressure is 0 bar before opening”

Alarm,warning :

In case of light alert, a message is displayed in the “Warning message area” to inform the user of an action to do, a safety to be closed, a temperature out of range, a problem during the cycle,…



Message :

Here below are listed the messages that can be displayed:

Message	Action
Step Start Alarm	Follow the instruction of the message that have been created for this message. Example:"Add blood"
Alarm 'Close Vessel Lid'	The lid is not properly closed. Release the pressure from the vessel by using the safety while the temperature is below 80°C. Then open the lid and close it again to get blue light coming one. If not →Call service.
Alarm 'Close Safety Covers'	One of the safety lids (door trap or lid to access to the dispensing port) is not closed or not properly closed--> Close the lids
Heating error \n\n Abnormal temperature variation	Time to reach the sterilization set point is too long or the temperature is not stable --> Make sure that the stirrer is running properly. If not, check the bearing state.
Cooling error \n\n Abnormal temperature variation	Time to reach the dispensing set point is too long or the temperature is not stable --> Make sure that the water tap is open.
Temperature warning \n\n temperature is out of tolerance	The temperature was not in +/-1°C range during the sterilization plateau- Make sure that temperature is within the tolerance of your application before validating the cycle.
Restart cycle after power on	Just for information - Check the data records at the end of the cycle before validating the cycle.

'Media' temperature probe error \n\n Abnormal temperature measurement	The vessel temperature probe is defective --> Call service
'Heating' temperature probe error \n\n Abnormal temperature measurement	The heating element temperature probe is defective --> Call service
Technical Error \n\n Heating Elements	Defective heating element --> Call service
Technical Error \n\n Stirrer motor	Defective stirrer --> Call service
Technical Error \n\n Pressure release solenoid	Defective pressure release valve --> Call service
Technical Error \n\n Cooling cooling	Defective cooling valve --> Call service
Technical Error \n\n Locker magnet	Defective lid locking solenoid --> Call service
Technical Error \n\n Other\	Call service
Communication Initialisation failed	Switch off and on again the machine - Call service if it does not solve the problem
Communication failed. Please switch off and contact the after-sales service	Switch off and on again the machine - Call service if it does not solve the problem

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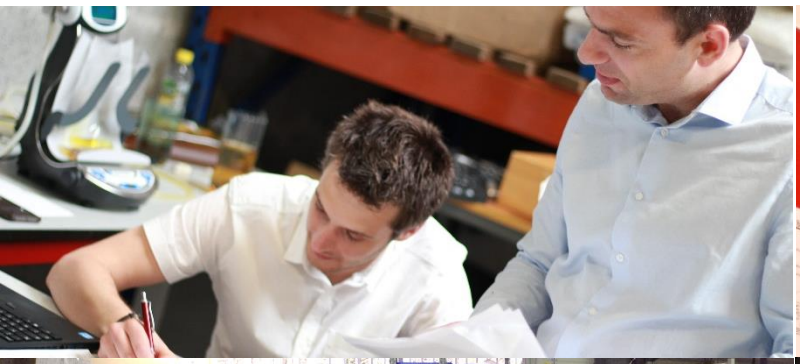

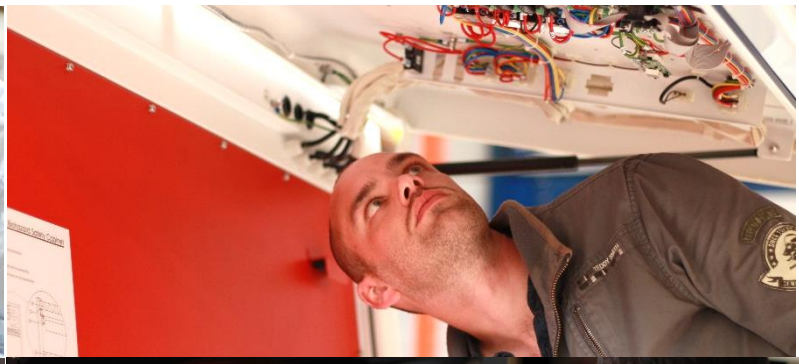

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