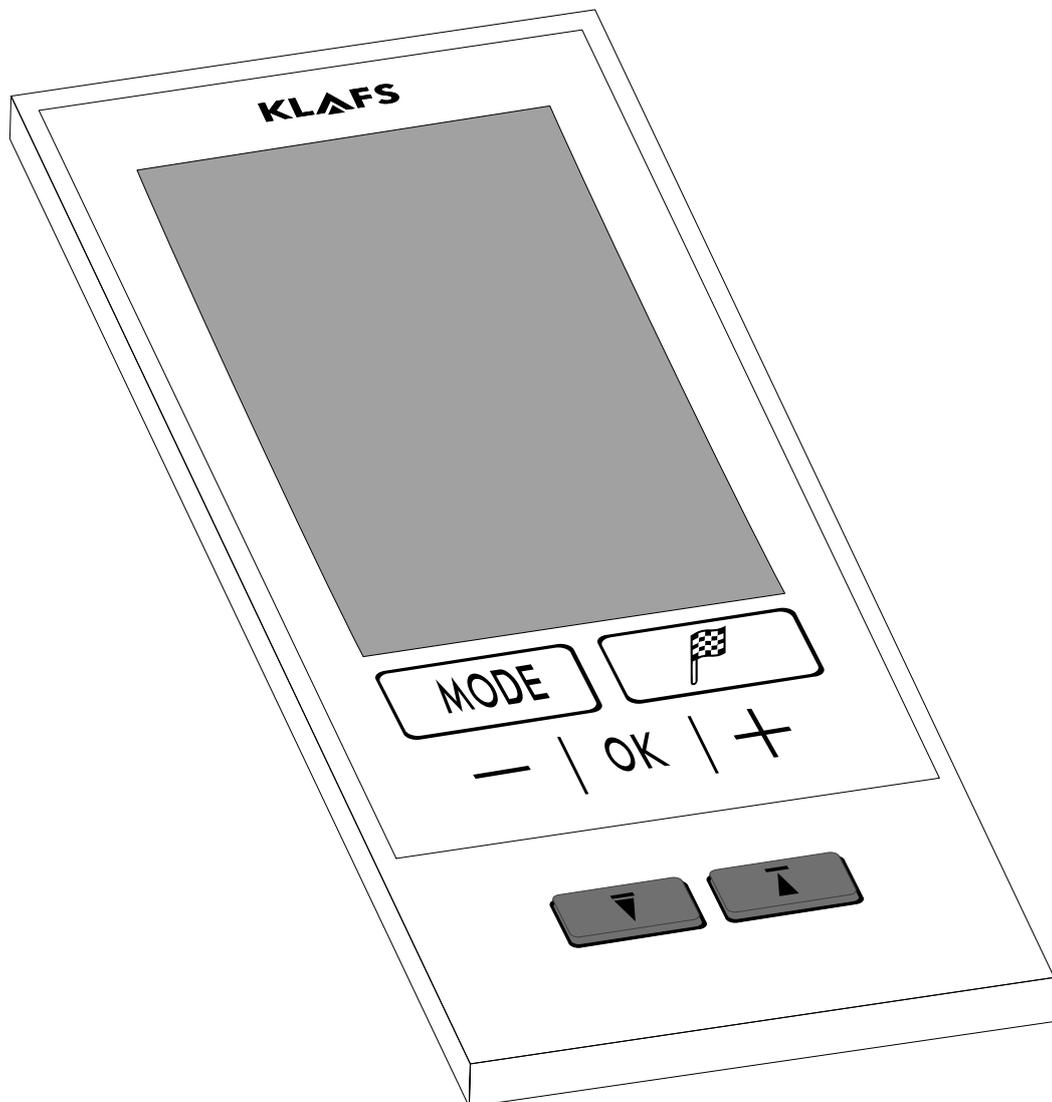


Operating instructions

ML 028 controller

KLAFS
MY SAUNA AND SPA



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1. Quick reference guide - ML 028 controller

The Klafs ML 028 controller enables you to operate your S1 sauna quickly and easily. There are three preset standard programs for each bathing mode (Sauna).

Any changes made to the standard program settings are saved in a custom program. There is a custom program for each bathing mode.



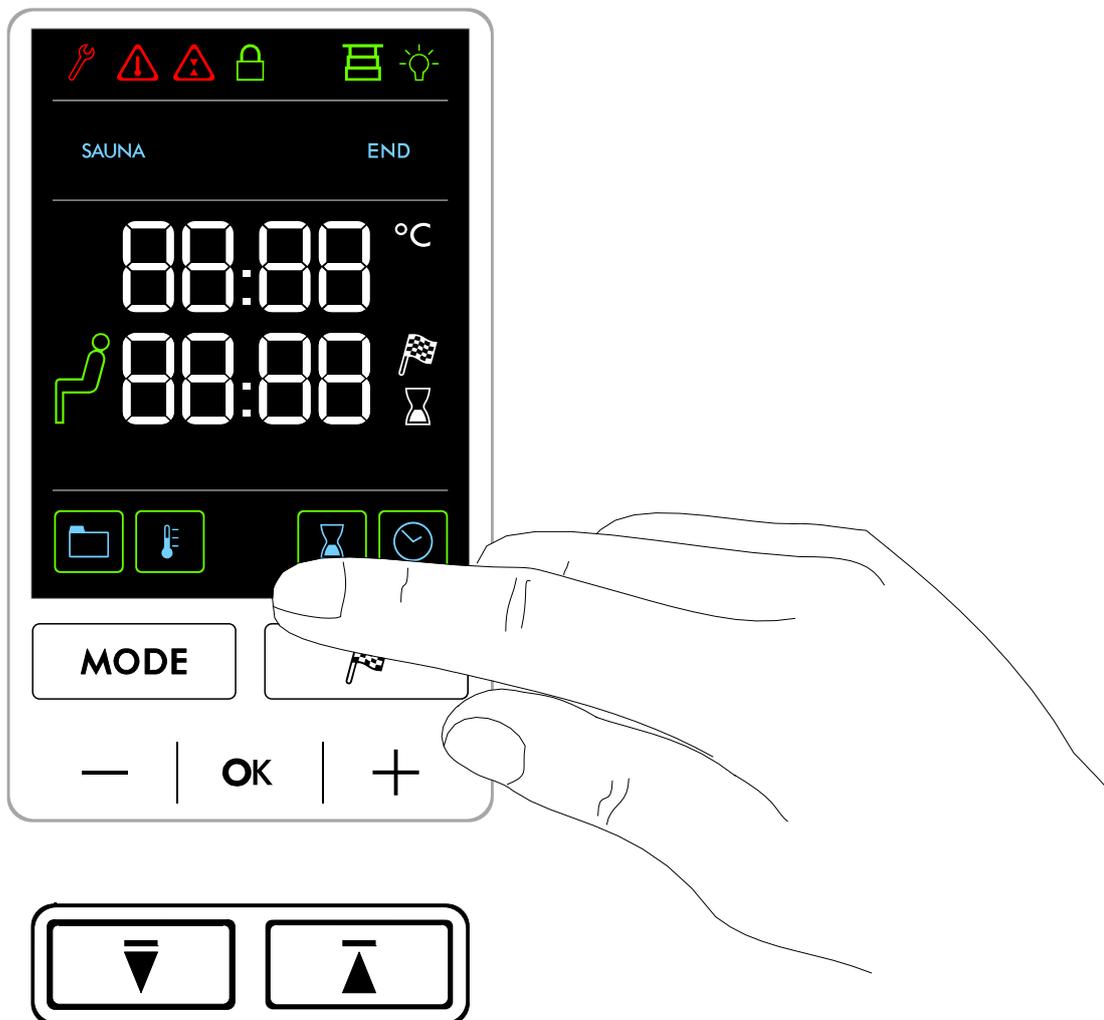
Only operate the controller with your fingers. Operating the touch keys with hard objects will scratch or damage the screen's surface.



Entering and changing settings will be quicker if a short pause of around one second is left between presses.



After five minutes of non-use, the backlighting will gradually start to dim and then the screen will switch off fully within a minute. If you touch one of the touch keys while the display is dimmed or switched off, the backlighting will switch on first. You will then be able to operate the controller via the touch keys again.



2. Bathing modes



All bathing modes in your Klafs S1 sauna have been designed to improve your general health and well-being.

However, you should still take into account any pre-existing health conditions when choosing your bathing program.

This includes:

- Temperature
- Bathing time.

Choose your bathing program according to its length and your condition. You should end the session and leave the cabin if you start to feel unwell.

2.1. Sauna

Sauna

with temperatures of 80 - 90 °C and a low relative humidity.

Warm air bath

with a particularly mild climate, temperatures of 45 - 60 °C and a relative humidity of up to approx. 20 %.

3. Technical data

ML 028 controller model: 1/N/PE ~230 V, max. 3.3 kW

ML 028 controller model: 3/N/PE ~400 V, max. 6 kW.

Ambient conditions: Temperature 0 °C to 25 °C, max. relative humidity 80 %.

4. Intended use

The controller is intended for use with the heaters tested and approved by the German VDE (Association for Electrical, Electronic and Information Technologies) or TÜV (Technical Inspection Authority):

- Sauna heater

The controller is only to be used as intended. Intended use also assumes adherence to the instructions for operation, installation and servicing as prescribed by the manufacturer. The manufacturer is not responsible for any damage resulting from unintended use or unapproved changes to the controller. The user does these things at their own risk.

The controller may only be operated, maintained and repaired by persons who are familiar with it and aware of the risks involved. Always observe the relevant German VDE regulations and other generally recognised safety precautions.

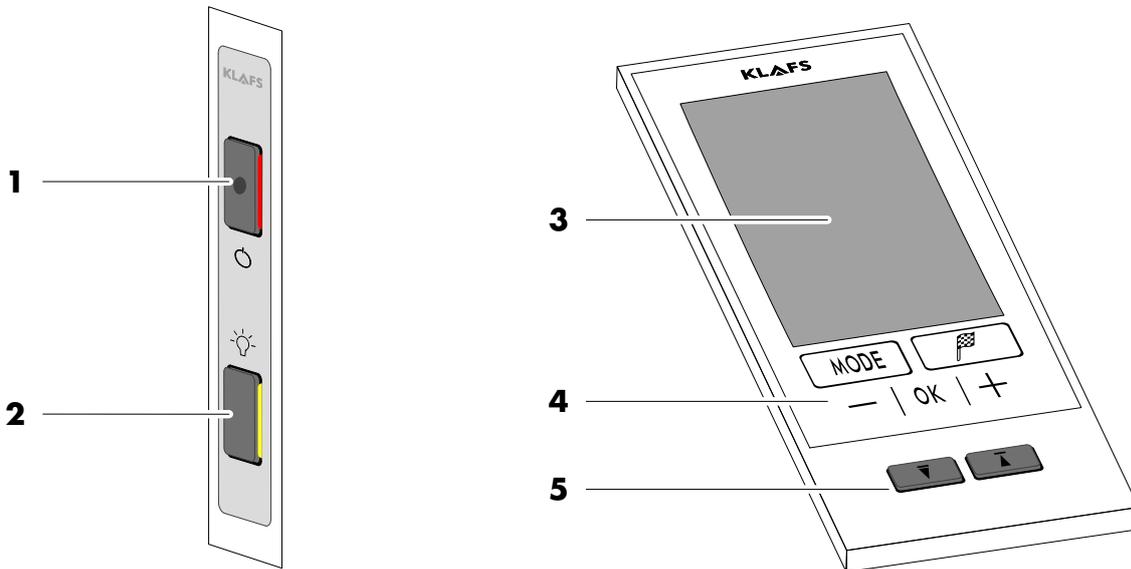
5. General safety precautions

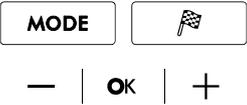
Read and observe the operating instructions and safety precautions before commissioning.

- Disconnect the controller from the mains before opening the controller housing.
- The controller may only be connected to the mains by a locally authorised electrician.
- Connect sauna units to the mains supply by inserting a safety plug into a safety socket. Use a residual-current breaker $I_{\Delta N} \leq 0.03 \text{ A}$ with at least 3-mm contact opening in the connecting feed line.
- Only connect sauna units with a fixed connection directly to the mains via a fixed connection in accordance with VDE (German Association for Electrical, Electronic and Information Technologies) regulations. In the connecting feed line, use an $I_{\Delta N} \leq 0.03 \text{ A}$ residual-current breaker with a contact opening of at least 3 mm.
- Contact Klafs customer service if faults cannot be rectified by a qualified electrician.
- Remote operation (remote switch-on): Setting, controlling and/or adjusting the controller using a command or a remote control unit that is outside the range of vision of the sauna heater or is implemented via preset time mode.
- Only use original Klafs spare parts.
- Unapproved changes to the controller are not permitted.
- Install the controller in accordance with the installation instructions.
- Electrical wiring installed at a height of more than one metre inside the cabin and in cabin walls must have silicone insulation.
- Before commissioning the controller, always ensure that there are no flammable objects near the sauna heater in the cabin. **RISK OF FIRE!**
- Do not use the sauna to dry your washing.
- Never use undiluted essential oils. Only use the indicated concentration (approx. 20 - 30 drops of oil in one litre of water).
- Only use Klafs essential oil extracts.
- Never store the bottle containing the essential oil inside the sauna cabin.
- Regularly check the sauna heater for damage.
- Never pour herbal extracts, used in SANARIUM mode, directly into the evaporator. Outside of the cabin, fill the aroma cup a quarter full with water and add the herbal extracts drop by drop in accordance with the instructions on the bottle. Then re-attach the aroma cup to the steam outlet.
- Check the heater for flammable objects before restarting the timer or switching on the heater via a separate remote activation system.
- The unit can be used by children over eight years of age, by people with reduced physical, sensory or mental capabilities and by people who lack experience/knowledge in using it provided that they are supervised while doing so and/or have been shown how to use the unit safely and understand the potential risks involved. Do not allow children to play in the unit. Children should not clean the unit or carry out basic maintenance on it without supervision.

6. Controller

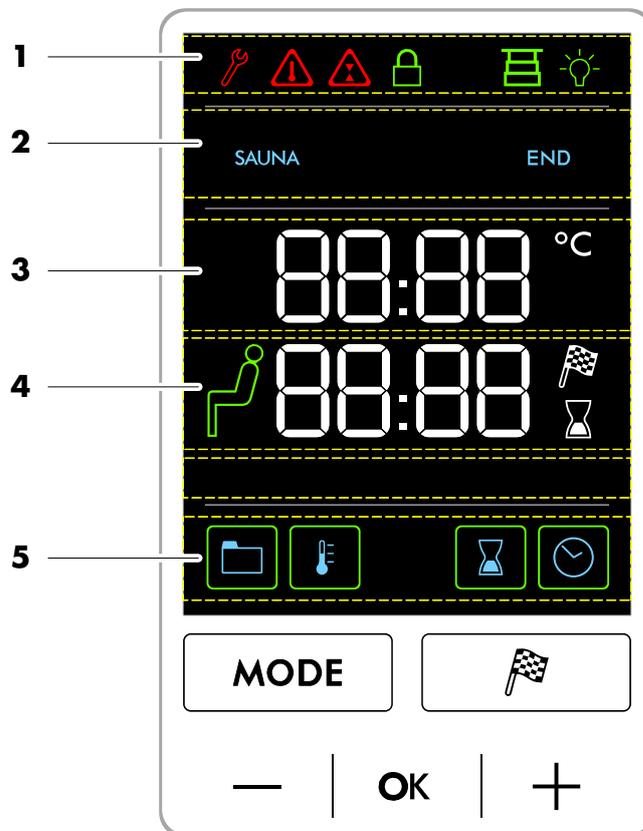
6.1. Operating and display elements



Item	Element	Description
1		<p>Controller main switch.</p> <ul style="list-style-type: none"> ☞ The main switch switches off the mains power to the controller. ☞ The internal clock has a power reserve for a few months in the event of a power failure. <p>➔ See page 14.</p>
2		<p>Cabin light switch.</p> <ul style="list-style-type: none"> ☞ When the controller is connected to the mains, the cabin light may be switched on independently of the main switch. <p>➔ See page 15.</p>
3		<p>Screen.</p> <p>➔ See page 7.</p>
4		<p>Controller touch keys.</p> <p>MODE - Operating modes, FLAG - Preset time, -/+ - Change/select setting, OK - Confirm/apply setting.</p> <p>➔ See page 12.</p>
5		<p>Cabin drive touch keys.</p> <p>➔ See page 13.</p>

6. Controller

6.2. Screen



Section	Description
1	Status bar. ▶ See page 9.
2	Bathing modes. ▶ See page 10.
3	Digital display of temperature, digital display of time (during a bathing session). ▶ See page 10.
4	Ready-to-use symbol, digital display of time (in standby mode), digital display of preset time mode, digital display of bathing time. ▶ See page 10.
5	Programs, temperature, bathing time, time. ▶ See page 11.

6. Controller

6.3. Screen - Basic operation and display information



The control panel must be switched on at the main switch.

▶ See page 14.



Operate the controller via the touch keys.

Entering and changing settings will be quicker if a short pause of around one second is left between presses.



When settings that can be changed are selected, they flash at a frequency of 1 Hz. The controller will automatically cancel input mode and retain the existing setting if no touch key is pressed or the altered setting is not confirmed by pressing the OK touch key within five seconds.



After five minutes of non-use, the backlighting will gradually start to dim and then the screen will switch off fully within a minute.

If you press one of the touch keys while the display is dimmed or switched off, the backlighting will switch on first. You will then be able to operate the controller via the touch keys again.

Example

Symbol	Display/function
	<p>Symbol. e.g. a word, icon or number.</p> <p>Selecting a symbol with the MODE touch key executes the function after approximately three seconds.</p>
	<p>Backlit ring. Indicates that a function has been activated or started. Selecting a new function deactivates or stops a previously selected function. The settings can only be changed after the function has been stopped.</p>
	<p>Numerical value. A numerical value that can be changed flashes.</p> <p>Increase the numerical value by pressing the + touch key or decrease it by pressing the – touch key.</p> <p>Confirm the change to the setting by pressing the OK touch key.</p> <p>☞ The controller will automatically cancel input mode and retain the existing setting if the altered setting is not confirmed by pressing OK within five seconds.</p>

6. Controller

6.4. Screen - Section 1: Status bar



The status bar acts as a display.
The symbol display depends on the configuration.

Symbol	Display/function
	The controller is in Service mode.
	The symbol appears when one of the drive touch keys is pressed during a bathing session or when there is still residual heat in the cabin after a bathing session. <ul style="list-style-type: none"> ▶ For error messages on the screen, see page 32.
	The cabin's extension/retraction function is faulty. <ul style="list-style-type: none"> ▶ To rectify the fault in the cabin's extension/retraction function, see page 34.
	Touchscreen lock. The controller can only be used after entering your password via the touch keys. <ul style="list-style-type: none"> ○ Symbol is flashing at 1 Hz = Controller can be used. ○ Symbol appears = Controller is locked. ▶ To set up the controller lock - see servicing instructions 50001197/50001198. ▶ To switch the controller lock on/off, see page 31.
	Cabin status. Permanently lit: The cabin has been extended and is ready to begin a bathing program. Flashing: The cabin has not been fully extended or retracted. Symbol is not displayed: The cabin has been retracted.
	Cabin light. <ul style="list-style-type: none"> ▶ See page 15.

6. Controller

6.5. Screen - Section 2: Bathing modes

Symbol	Display/function
	Sauna mode. <ul style="list-style-type: none"> ▶ To start the SAUNA bathing mode, see page 19.
	END. <ul style="list-style-type: none"> ▶ To end a bathing session, see page 20.

6.6. Screen - Section 3: Digital display of temperature, digital display of time (during a bathing session)

Symbol	Display/function
	Digital display of temperature. <ul style="list-style-type: none"> ▶ To set the temperature, see page 25.
	Digital display of the time (during a bathing session). <ul style="list-style-type: none"> ▶ To set the time, see page 16.

6.7. Screen - Section 4: Ready-to-use symbol, digital display of time (in standby mode), digital display of preset time mode, digital display of bathing time

Symbol	Display/function
	Ready-to-use symbol. The inside of the cabin has reached the set temperature. ⓘ The temperature on the thermometer may differ from the set temperature by a few kelvins. The reasons for this are different measuring sites and the time lag of the measuring instruments.
	Digital display of the time (in standby mode). <ul style="list-style-type: none"> ▶ To set the time, see page 16.
	Digital display of the pre-programmed start time. <ul style="list-style-type: none"> ▶ To set the bathing time, see page 27.
	Digital display of the remaining bathing time during a session. <ul style="list-style-type: none"> ▶ To set the bathing time, see page 26.

6. Controller

6.8. Screen - Section 5: Programs, temperature, bathing time, time

Symbol	Display/function
	Selecting the standard/custom program. ▶ See page 24.
	Setting the temperature. ▶ See page 25.
	Setting the bathing time. ▶ See page 26.
	Setting the time. ▶ See page 16.

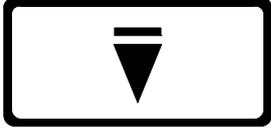
6. Controller

6.9. Controller touch keys

Symbol	Display/function
	MODE touch key: Calls up bathing program. Starts bathing program. Ends bathing program.
	FLAG touch key: Calls up preset time mode.
	Minus touch key. Selects the previous symbol. Reduces parameter setting.
	OK touch key. Applies selection. Saves the changed parameter setting.
	Plus touch key. Selects the next symbol. Increases the parameter setting.

6. Controller

6.10. Cabin touch keys

Symbol	Display/function
	<p>Extending the cabin</p> <p>Requirement:</p> <ul style="list-style-type: none"> ☞ Option: Lay floor protectors. Floor protectors are required for the cabin if it is installed on flooring such as carpet. ☞ Before extending the cabin, ensure that no persons or objects are in the path of the cabin. ☞ The cabin door must be closed in order to extend the cabin. ☞ Switch on the main switch on the cabin, see page 14. <p>Drive key for extending the cabin.</p> <ul style="list-style-type: none"> ☞ Once the cabin has been fully extended, the bench can be pulled out from beneath the lounge. ☞ Fold down the foldaway lounge (optional), see page 21.
	<p>Retracting the cabin</p> <p>Conditions for retracting the cabin:</p> <ul style="list-style-type: none"> ○ No bathing session may be started. ○ The cabin must be cooled after a bathing session. <p>Requirement:</p> <ul style="list-style-type: none"> ☞ In the cabin, remove objects on the sauna heater or the multifunctional duct. ☞ Place the bench beneath the lounge in the cabin. ☞ Fold up the foldaway lounge (optional), see page 22. ☞ Before retracting the cabin, ensure that no persons or objects are inside the cabin or in the path of the cabin. ☞ The cabin door must be closed in order to retract the cabin. <p>Drive key for retracting the cabin.</p> <ul style="list-style-type: none"> ☞ Option: Put away the floor protectors. Floor protectors are required for the cabin if it is installed on flooring such as carpet.

7. Basic functions and settings

7.1. Switching the power supply on/off at the main switch

Switching the power supply on

1. Press the touch key (1).

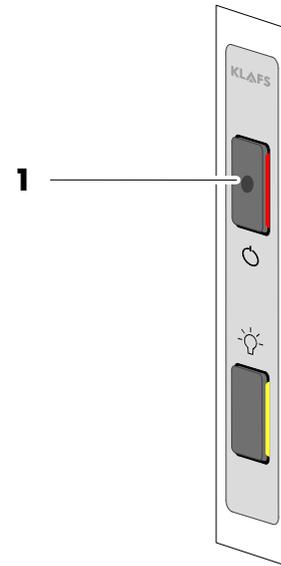
The controller goes into standby mode.

When the controller is switched on, the following symbols appear: Time and Set the time.

- ☞ When the cabin light is switched on or the cabin is extended, the cabin light and cabin status (cabin extended/retracted) also appear.

The controller can now be operated via the touch keys.

- ◆ For controller touch keys, see page 12.
- ◆ For standby, see page 17.



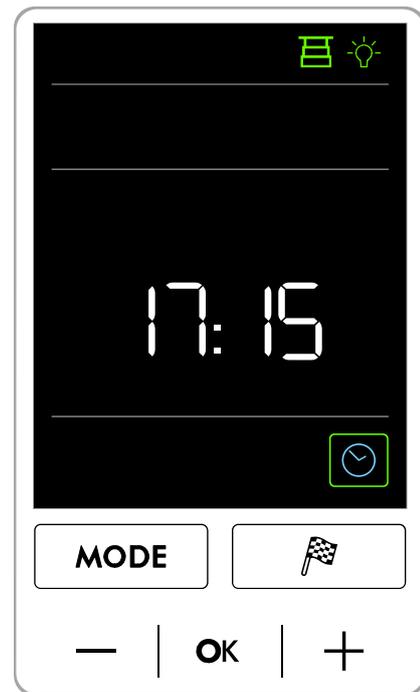
After five minutes of non-use, the backlighting will gradually start to dim and then the screen will switch off fully within a minute. If you press one of the touch keys while the display is dimmed or switched off, the backlighting will switch on first. You will then be able to operate the controller via the touch keys again.

Switching the power supply off

1. Press the touch key (1).

The screen is blank when the controller is switched off.

- ☞ The cabin light can be switched on even when the controller is switched off.
- ☞ The clock in the controller is still supplied with power.



7. Basic functions and settings

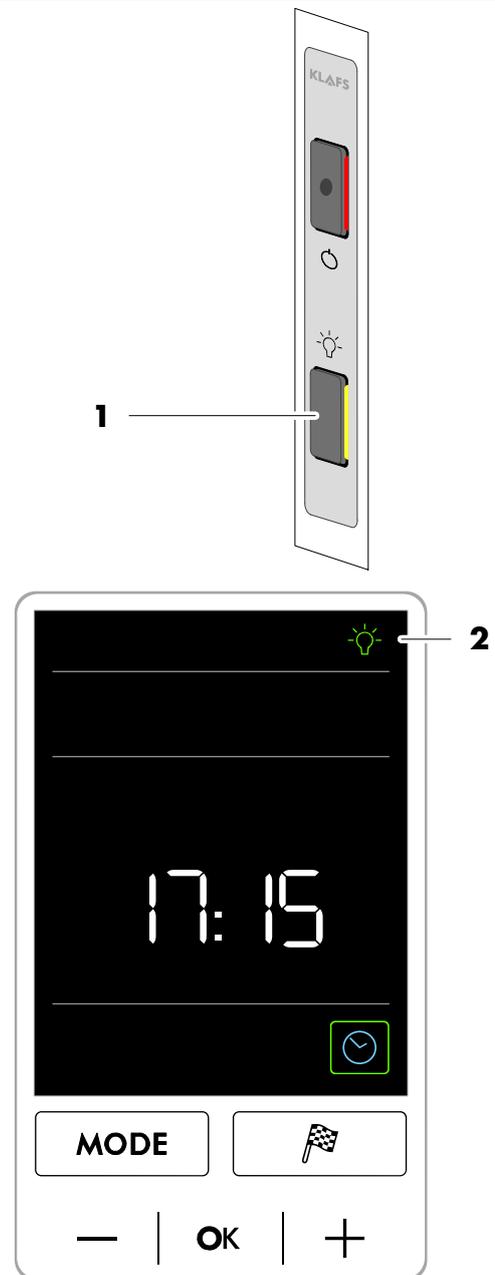
7.2. Switching the cabin light on/off

1. Press the touch key (1).

The cabin light is switched on or off.

The symbol (2) appears on the screen when the cabin light is switched on.

 The cabin light can be switched on even when the main switch is switched off.



7. Basic functions and settings

7.3. Setting the time

1. Press the +/- touch keys (1) repeatedly until the backlit ring appears around the clock symbol (2).
2. Confirm your selection by pressing the OK touch key (3).

The digits for the hour (4) start flashing.

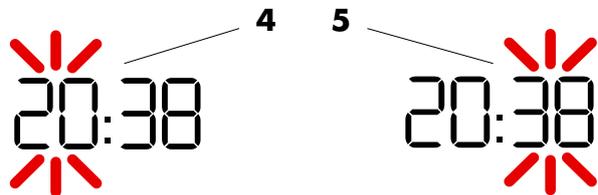
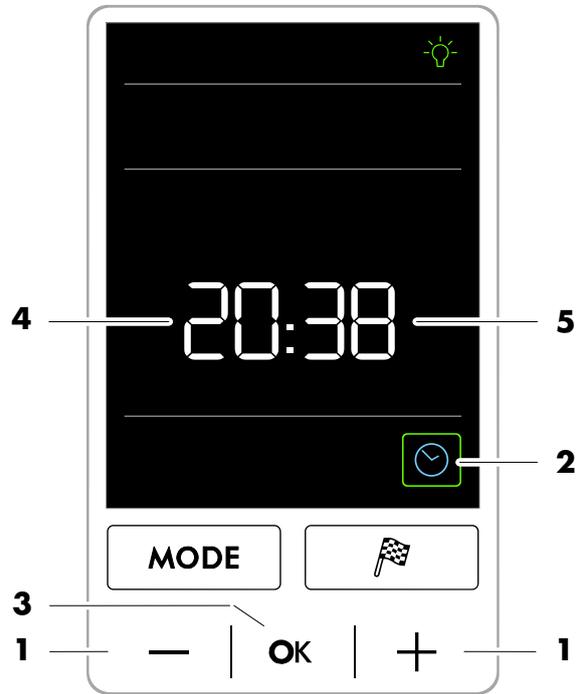
3. Set the hour by pressing the +/- touch keys (1).
4. Confirm the setting by pressing the OK symbol (3).

The digits for the minutes (5) start flashing.

5. Set the minutes by pressing the +/- touch keys (1).
6. Confirm the setting by pressing the OK symbol (3).

The time has been set.

- ☞ The controller will automatically cancel input mode and retain the existing setting if the altered setting is not confirmed by pressing OK within five seconds.
- ☞ The internal clock has a power reserve for a few months in the event of a power failure.



7. Basic functions and settings

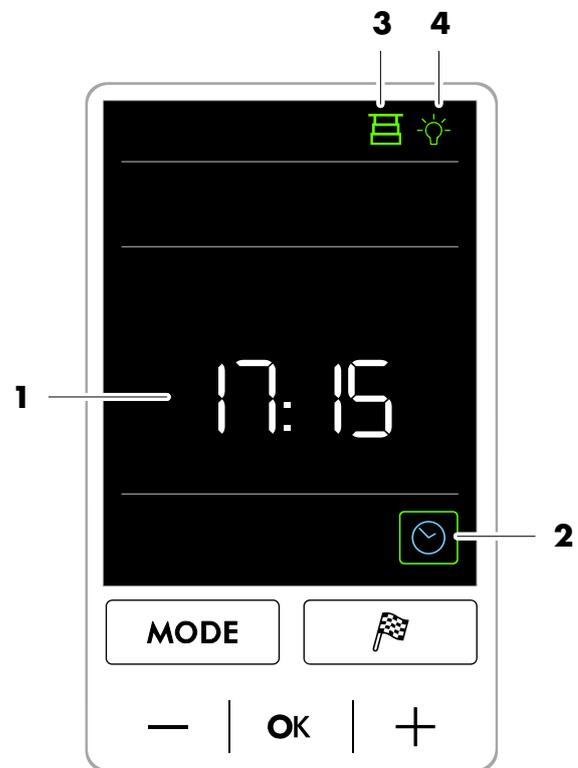
7.4. Standby mode

The screen displays the following symbols in standby mode:

- Time (1)
- Setting the time (2)
- Cabin status (3)
- Cabin light (4)

The backlighting switches off automatically after five minutes of non-use.

- 🗉 The controller can be operated via the touch keys at any time whilst in standby mode.
- For controller touch keys, see page 12.



8. Operation

8.1. Extending the cabin

Lay floor protectors (optional)

☞ Floor protectors are required if the cabin is installed on flooring such as carpet. If floor protectors are not required, proceed to "Extend the cabin".

1. Lay the floor protector (1) flush with the floor protector underneath the cabin (2).

Extend the cabin

Requirement: The main switch on the cabin must be switched on, see page 14.



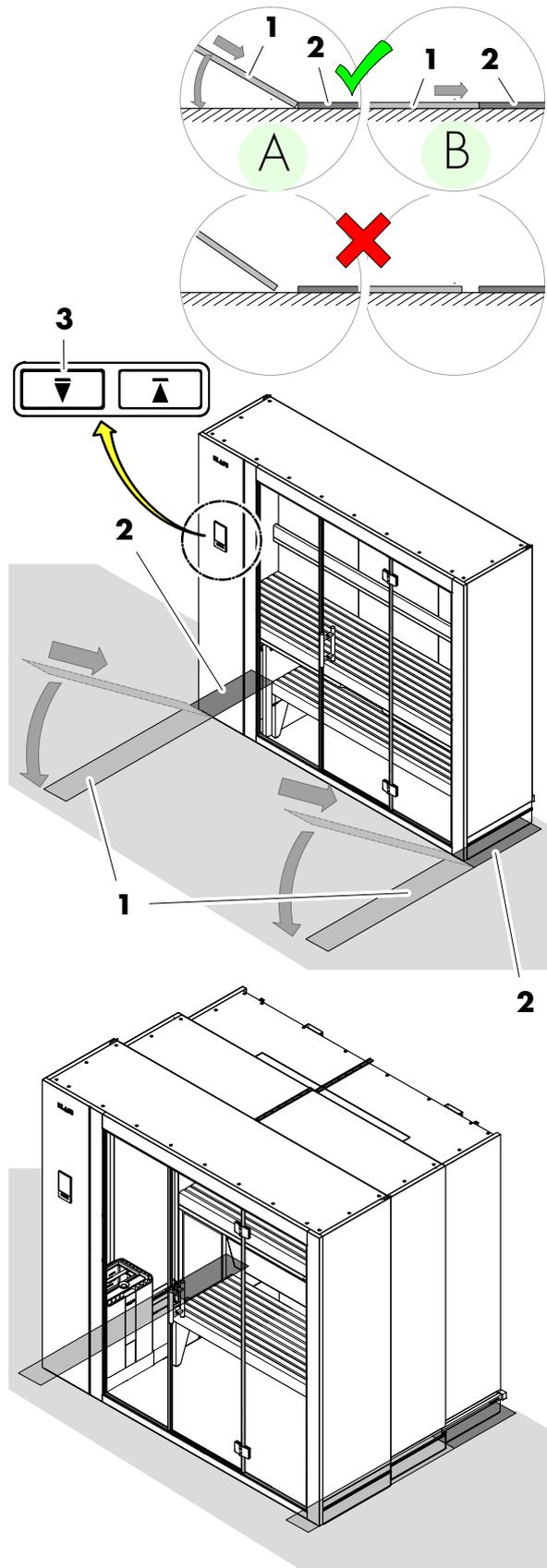
Risk of injury and material damage

Before extending the cabin, ensure that no persons or objects are in the path of the cabin.



The cabin door must be closed in order to extend or retract the cabin.

2. Extend the cabin. Press and hold the touch key (3) until the cabin is fully extended.
- ☞ Once the cabin has been fully extended, the bench can be pulled out from beneath the lounger.
- ☞ The controller can now be used to start a bathing program.



8. Operation

8.2. Starting Sauna mode



Risk of fire!

Remove all flammable objects near the sauna heater before commissioning the controller.

☞ Prerequisite: The cabin must be fully extended. The cabin status symbol (1) appears.

➤ To extend the cabin, see page 13.

1. Press the MODE touch key (2) until the text SAUNA appears.

After three seconds, the green backlit ring (3) appears and the sauna is started up with the last program that was used.

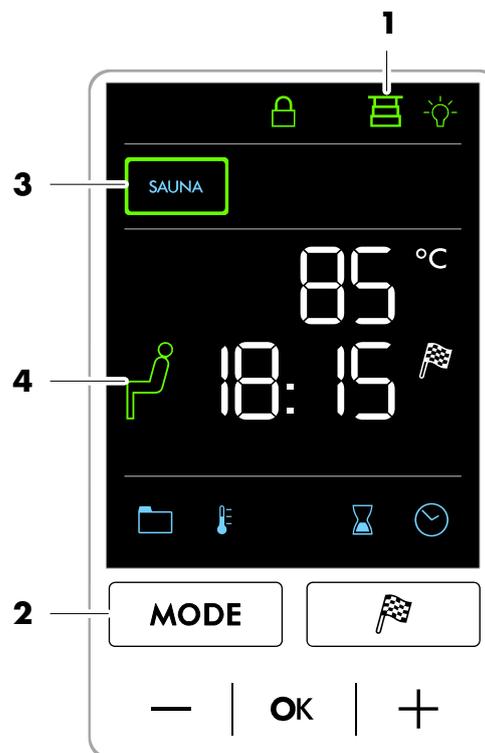
The sauna heater switches on and the cabin heats up.

Once the cabin has reached the preset temperature, the symbol (4) appears. The cabin is ready to use.

➤ To select a Selecting the standard/custom program, see page 24.

➤ To set the temperature, see page 25.

➤ To set the bathing time, see page 26.



8. Operation

8.3. Ending the bathing session

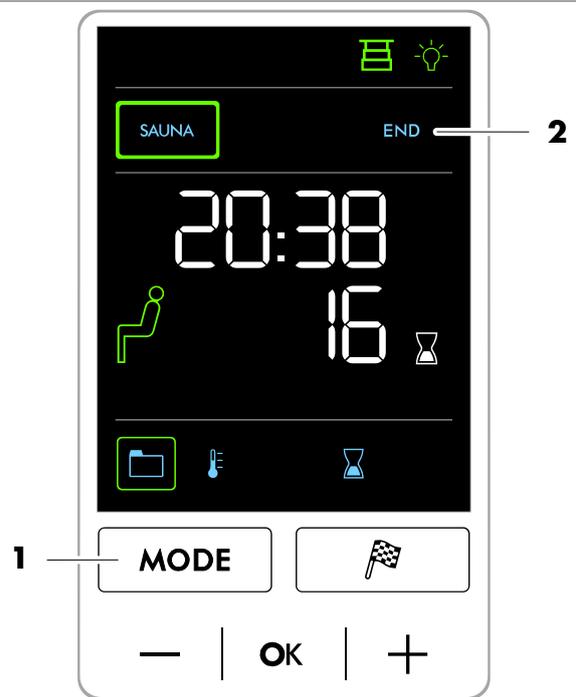
1. Press the MODE touch key (1) until the text END (2) appears.

The bathing session is automatically ended after three seconds.

The sauna heater switches off.

The controller then goes into standby mode.

- ☞ After a bathing session, open the cabin door for ventilation.



8. Operation

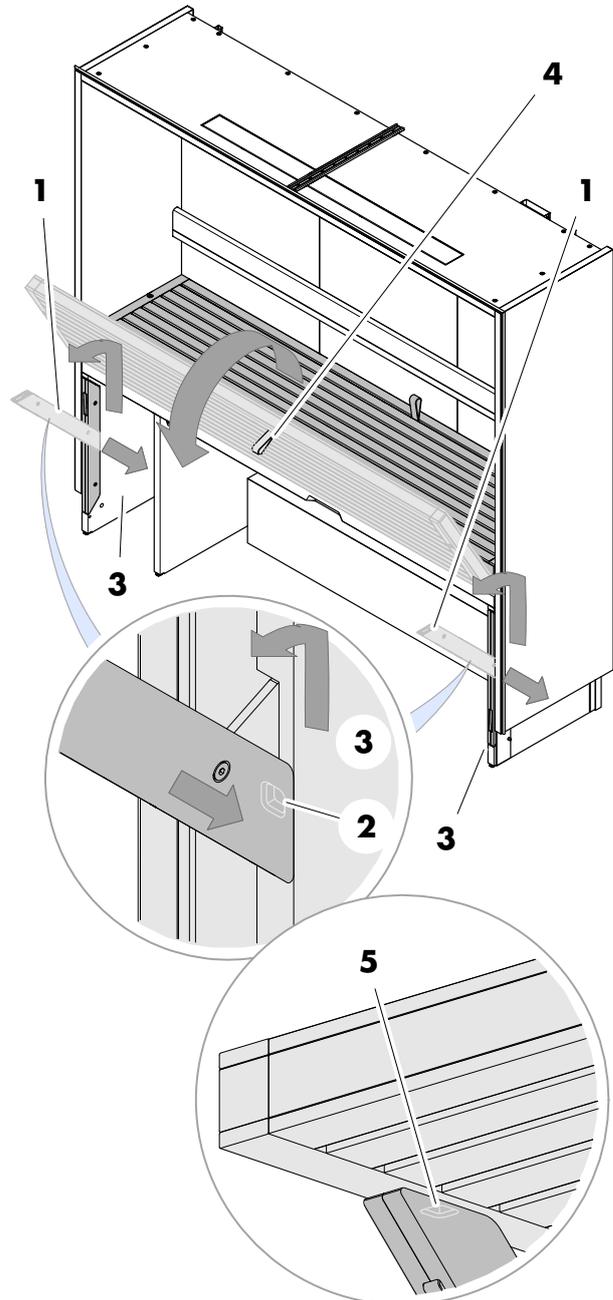
8.4. Folding down the foldaway lounger



Risk of injury!

Do not use the foldaway lounger until the supports (1) have been swung out and the foldaway lounger is firmly secured.

- ☞ Extend the cabin before folding down the foldaway lounger.
- To extend the cabin, see page 13, 18.
- 1. Pull out the supports (1) on both sides. Insert the plug (2) into the sitting position on the side member (3).
- 2. Grasp the foldaway lounger (4) by the hand strap and pull it down.
- 3. Insert the plug (5) into the supports on both sides of the foldaway lounger.



8. Operation

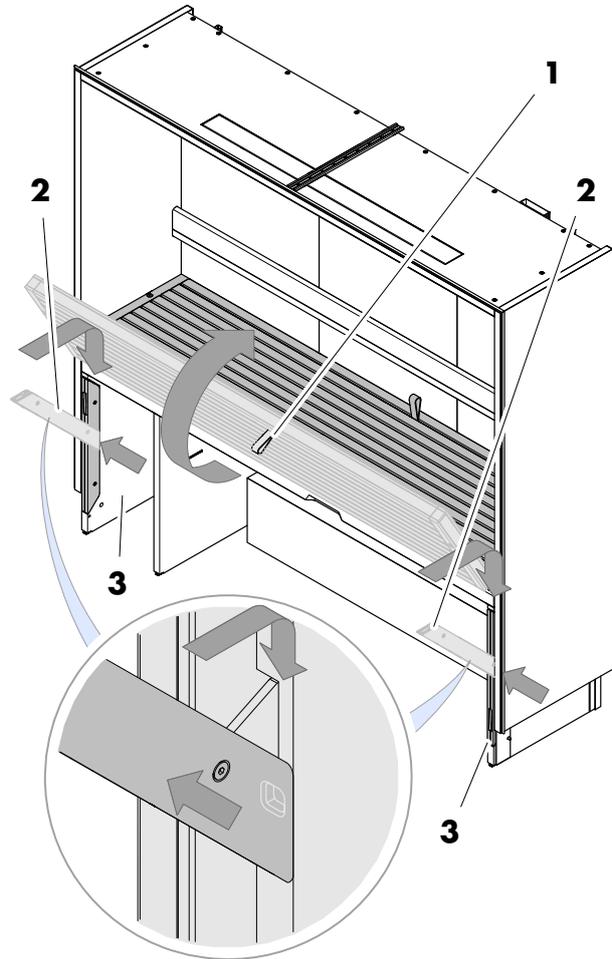
8.5. Folding up the foldaway lounger



Risk of crushing!

Only handle and fold up the foldaway lounger using the hand strap (1).

1. Grasp the foldaway lounger (1) by the hand strap, pull it up and fold it over onto the lounger.
 2. Pull out the supports (2) on the left and right and push them fully into the side member (3).
- ☞ Only retract the cabin once the foldaway lounger has been folded up properly and the supports have been swung in.



8. Operation

8.6. Retracting the cabin

Retract the cabin

Conditions for retracting the cabin:

- No bathing session may be started.
 - The cabin must be cooled after a bathing session.
1. Remove any objects on the sauna heater (1) or the multifunctional duct (2) inside the cabin.
 2. Place the bench (3) beneath the lounger in the cabin.
 3. Fold the foldaway lounger (optional) back up.
 - Fold the foldaway lounger back up, see page 22.



Risk of injury and material damage

Before retracting the cabin, ensure that no persons or objects are inside the cabin or in the path of the cabin.



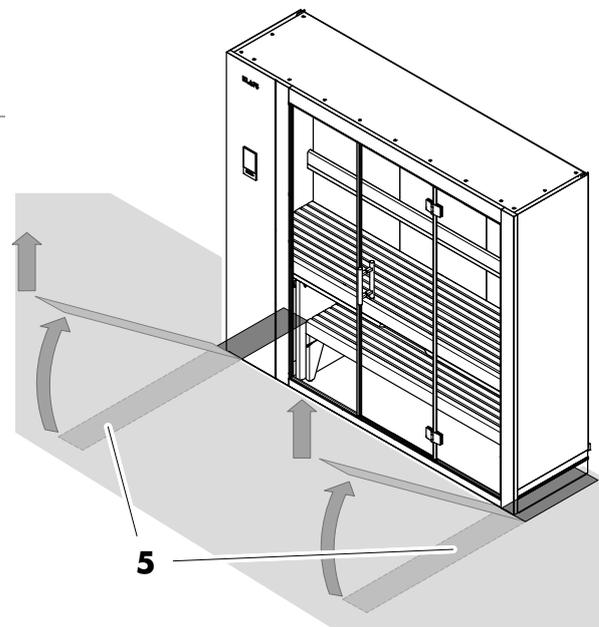
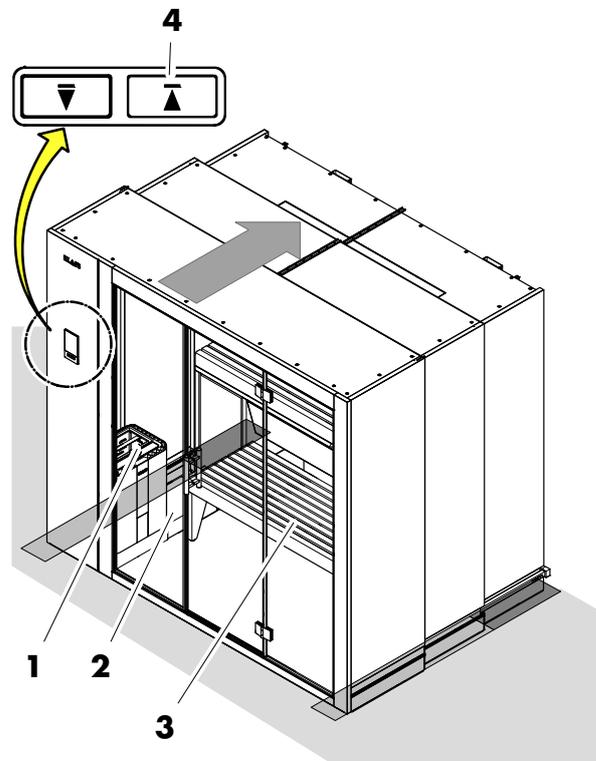
The cabin door must be closed in order to extend or retract the cabin.

Requirement: The main switch on the cabin must be switched on, see page 14.

4. Retract the cabin. Press and hold the touch key (4) until the cabin is fully retracted.

Put away the floor protectors (optional)

- ☞ Floor protectors are required for the cabin if it is installed on flooring such as carpet.
5. Take the floor protectors (5) off the floor and store them elsewhere, e.g. inside the cabin.



9. Custom settings

9.1. Selecting the standard/custom program



For each bathing mode, there is a custom program (Pr 1) available in each case for personalised settings and three standard programs with pre-defined bathing parameter settings (temperature and bathing time).

Changes to the bathing parameters are automatically saved to the custom program (Pr 1).

If the personalised bathing parameter settings are the same as the settings in one of the standard programs, the standard program is automatically selected.

Selecting and starting a program

1. Select the PROGRAM symbol (1) by pressing the +/- touch keys (2).

2. Confirm your selection by pressing the OK touch key (3).

The storage location of the selected program (4) is displayed.

The stored temperature bathing parameter (5) for the selected program is displayed.

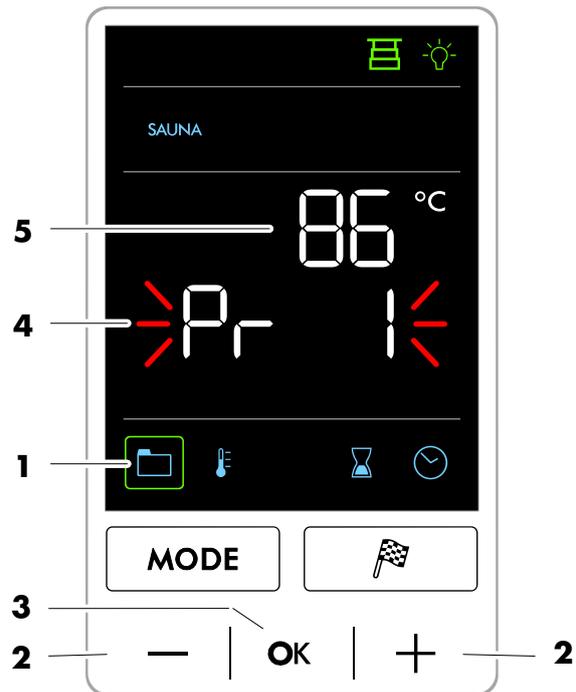
3. Start the selected program by pressing the OK touch key (3).

Or

4. Change the stored program (5) by pressing the +/- touch keys (2).

5. Confirm the changed setting by pressing the OK touch key (3).

The controller will automatically cancel input mode and retain the existing setting if the altered setting is not confirmed by pressing OK within three seconds.



Program:

1. Custom program
2. 80 °C
3. 90 °C
4. 83 °C

9. Custom settings

9.2. Setting the temperature

1. Select the TEMPERATURE symbol (1) by pressing the +/- touch keys (2).

2. Confirm your selection by pressing the OK touch key (3).

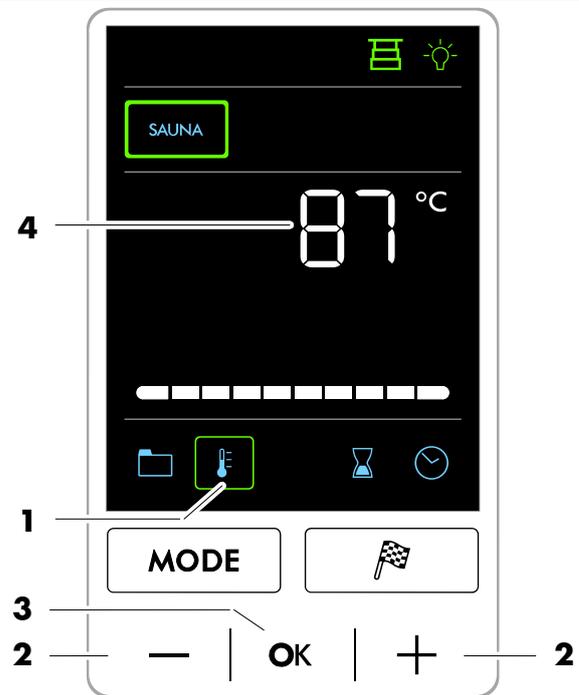
The temperature display (4) starts flashing.

3. Set the desired temperature by pressing the +/- touch keys (3).

☞ Setting range: 10 °C - 90 °C.

4. Confirm the set temperature by pressing the OK touch key (3).

☞ The controller will automatically cancel input mode and retain the existing setting if the altered setting is not confirmed by pressing OK within five seconds.



9. Custom settings

9.3. Setting the bathing time

1. Select the BATHING TIME symbol (1) by pressing the +/- touch keys (2).
2. Confirm your selection by pressing the OK touch key (3).

The bathing time display (4) starts flashing.

☞ Setting range: 00:01 - 04:00.

The digits for the hour (5) start flashing.

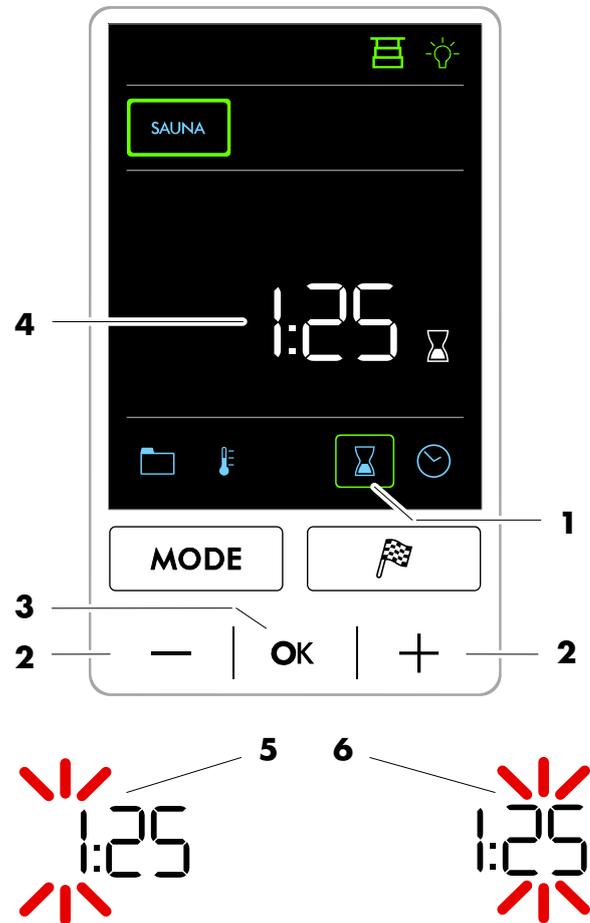
3. Set the hour by pressing the +/- touch keys (2).
4. Confirm the setting by pressing the OK symbol (3).

The digits for the minutes (6) start flashing.

5. Set the minutes by pressing the +/- touch keys (2).
6. Confirm the setting by pressing the OK symbol (3).

The bathing time has been set.

☞ The controller will automatically cancel input mode and retain the existing setting if the altered setting is not confirmed by pressing OK within five seconds.



9. Custom settings

9.4. Setting preset time mode



Risk of fire!

Remove all flammable objects near the sauna heater before commissioning the controller.

1. Press the FLAG touch key (1).

The program data for preset time mode appears:

- Start time (2) and
- Cabin temperature (3).



The display changes three seconds later. The current time (4) appears in the first line and the start time (5) appears in the second line.



Continued on the next page

9. Custom settings

9.4. Setting preset time mode

Continued

2. Press the FLAG touch key (1) again.

The digits for the hour (2) start flashing.

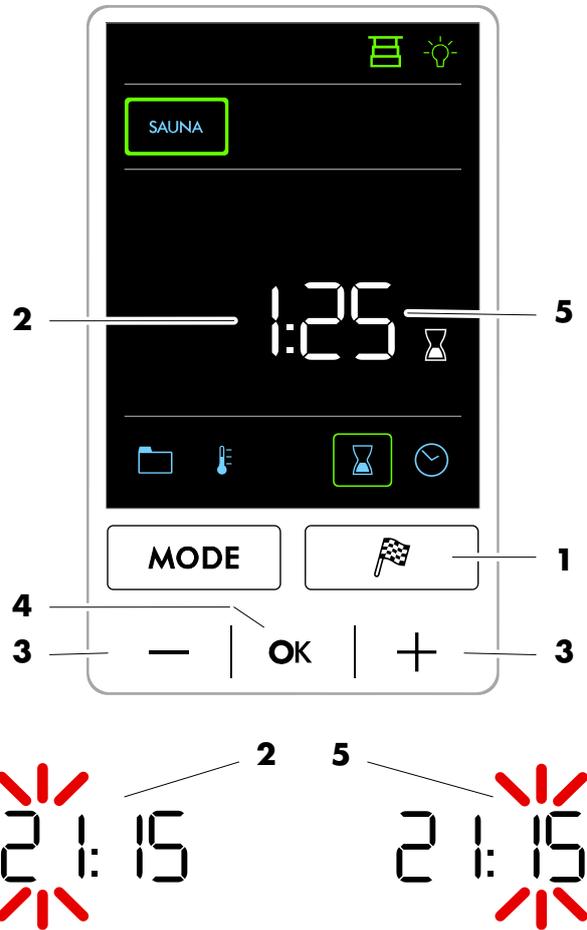
3. Set the hour by pressing the +/- touch keys (3).
4. Confirm the setting by pressing the OK symbol (4).

The digits for the minutes (5) start flashing.

5. Set the minutes by pressing the +/- touch keys (3).
6. Confirm the setting by pressing the OK symbol (4).

The preset time mode has been set.

- ☞ The controller will automatically cancel input mode and retain the existing setting if the altered setting is not confirmed by pressing OK within five seconds.
- ☞ The controller goes into standby mode and starts heating automatically before the set time.
- ☞ The sauna cabin is ready to use at the programmed time.



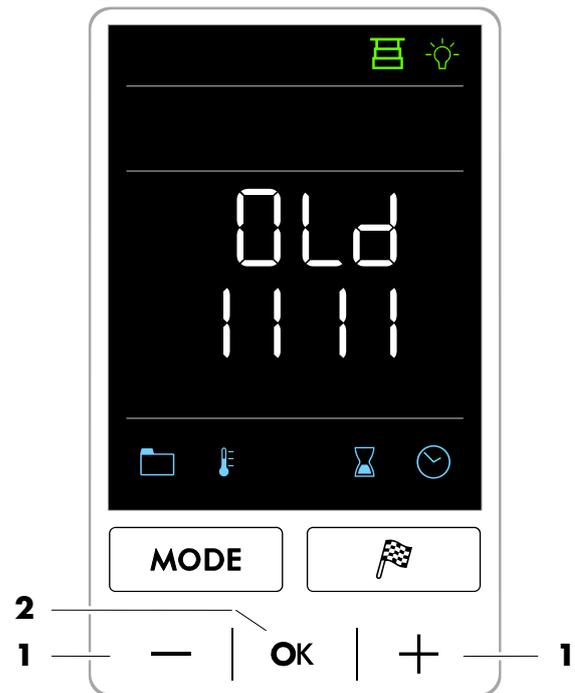
9. Custom settings

9.5. Setting a new password for the controller lock

i The default password is 0000.

i  Prerequisite:
The controller lock must be switched on in the service menu (option 25 - LOCK).
 See servicing instructions 50001197/50001198.

1. Press the +/- touch keys (1) at the same time.
 The default password is 0000.
The old password appears in the second line.
2. Enter the password (1111 in this example) one digit at a time by pressing the +/- touch keys (1) and pressing the OK touch key (2) to confirm in each case.



3. Enter the password (2222 in this example) one digit at a time by pressing the +/- touch keys (1) and pressing the OK touch key (2) to confirm in each case.



Continued on the next page

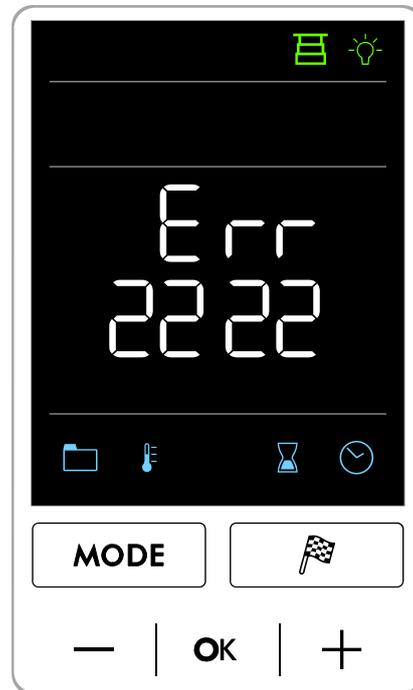
9. Custom settings

9.5. Setting a new password for the controller lock

Continued

4. Enter and confirm the new password again (2222 in this example).

☞ If the password is entered incorrectly, the message ERR appears.



9. Custom settings

9.6. Switching the controller lock on/off



If the lock is switched on (padlock symbol (3) appears), the controller cannot be operated via the touch keys.



- ☞ Prerequisite:
The controller lock must be switched on in the service menu (option 25 - LOCK).
- ◆ See servicing instructions 50001197/50001198.

Switching the controller lock off

1. Press the +/- touch keys (1) at the same time.
2. Enter the password one digit at a time by pressing the +/- touch keys (1) and pressing the OK touch key (2) to confirm in each case.

☞ The symbol (3) starts flashing at 1 Hz if the correct password is entered.

The controller lock is switched off.

The controller can be operated using the keys.

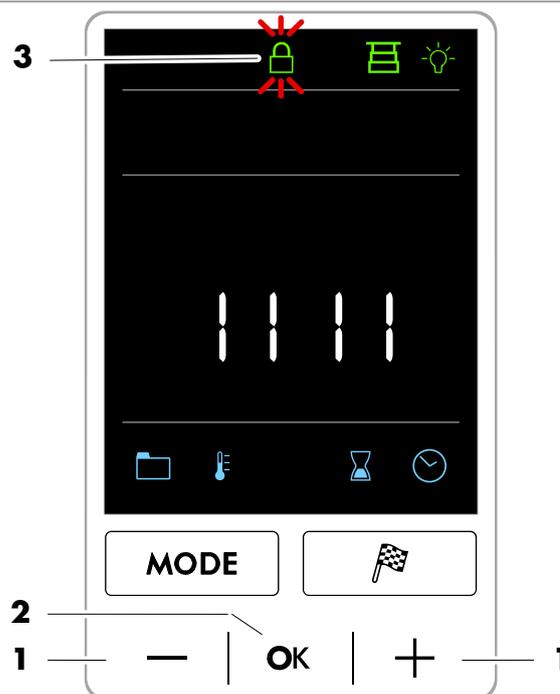
Switching the controller lock on

☞ The symbol (3) starts flashing at 1 Hz when the lock is switched off.

1. Press the +/- touch keys (1) at the same time.

Symbol (3) is permanently displayed. The controller lock is switched on.

The controller cannot be operated via the touch keys.



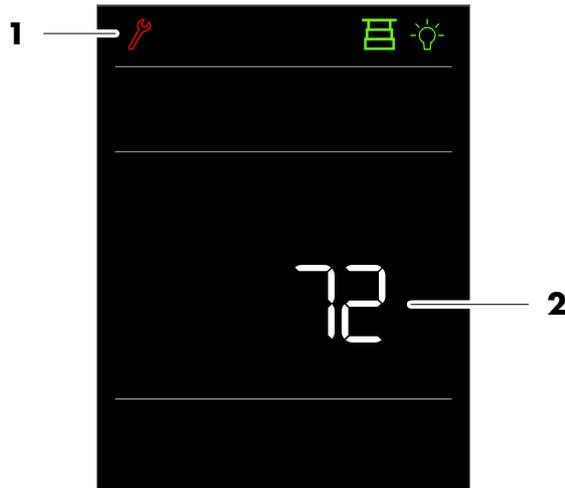
10. If something does not work

10.1. Error messages on the screen



Risk of injury and damage to property!

Repairs and maintenance must only be carried out by Klafs service engineers or by technicians expressly authorised by Klafs.
Klafs can only provide repairs and servicing work under warranty if this work is carried out by Klafs service engineers.



Error messages

The Service symbol (1) appears together with the error message number (2) (e.g. 72).

The controller may still be operational while the Service symbol is flashing, depending on the nature of the fault.

No.	Fault	How to rectify the fault
41	At greater than 40 °C, there is still too much residual heat in the cabin.	The sauna heater and the sauna stones are still too hot for the cabin to be retracted. Open the cabin door and allow the cabin to cool. Wait at least one hour until the idle period has elapsed.
42	At greater than 40 °C, there is still too much residual heat in the cabin after an idle period of one hour.	The sauna heater and the sauna stones are still too hot for the cabin to be retracted after an idle period of one hour. Open the cabin door and allow the cabin to cool. Wait at least three hours until the idle period has elapsed.

Continued on the next page

10. If something does not work

10.1. Error messages on the screen

Continued

No.	Fault	How to rectify the fault
50	The cabin drive was switched off due to motor overload.	Remove obstacles in the cabin's range of motion. If the error message is repeated, this indicates a technical problem. ◆ Contact Klafs service engineers.
	The cabin extension/retraction mechanism has jammed.	◆ Contact Klafs service engineers.
	The torque limiter on the motor controller has been activated.	
	The motor is defective.	
51	The opened or closed cabin did not reach its final position within one minute.	Remove obstacles in the cabin's range of motion. If the error message is repeated, this indicates a technical problem. ◆ Contact Klafs service engineers.
72	A sauna heater cover was detected.	Check the sauna heater and remove any objects.
	The cabin door was opened during the heat-up phase.	Close the cabin door.
81	The controller's cooling unit sensor reports a short circuit.	◆ Contact Klafs service engineers.
82	The controller's cooling unit sensor reports a wire breakage.	
89	The controller's cooling unit sensor is too hot.	
96	Line break in the heater temperature sensor.	
97	The safety temperature limiter (STL) is interrupted.	
99	Short circuit in the heater temperature sensor.	Switch the controller off at the mains. Do not use the sauna cabin. ◆ Contact Klafs service engineers.

10. If something does not work

10.2. Other possible errors

Fault	Cause	Remedy
The controller cannot be switched on.	No mains power available.	Check the FI switch and the fuse in the power supply.
	Fuse SI100 or SI101 has blown.	Replace fuse SI100 (1.0 AT) or SI101 (0.8 AT), or inform Klafs service engineers.
The cabin light does not light up after having been switched on.	The bulb is defective.	Change the bulb. 1. Disconnect the controller from the mains. 2. Replace with a bulb of the same wattage.
	No mains power.	Check the FI switch and the fuse in the power supply.
	Cabin light fuse SI102 has blown.	Replace cabin light fuse SI102 (1.25 AT), or inform Klafs service engineers.
The cabin cannot be extended/retracted.	There is an obstacle in the cabin's range of motion. The cabin's extension/retraction function is locked.	Eliminate the obstacle in the cabin's range of motion.
	At greater than 40 °C, the temperature in the cabin is still too high.	The sauna heater and the sauna stones are still too hot for the cabin to be retracted. Open the cabin door and allow the cabin to cool. Wait at least one hour until the idle period has elapsed.
	The cabin limit switch has triggered.	◆ Contact Klafs service engineers.
	There is a technical problem.	



10. If something does not work

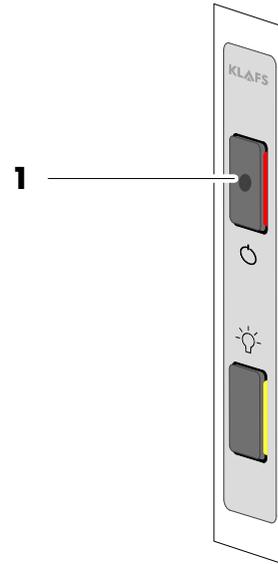
10.3. Resetting the error message

**Notice!**

Only allow work on electrical components/assemblies to be carried out by qualified electricians who work in accordance with electrical rules and regulations.

Switch the controller off, disconnect it from the mains and make sure that it cannot be switched on again.

1. Switch the controller off at the main switch (1).
2. Disconnect the controller from the mains and make sure that it cannot be switched on again.
3. Rectify the fault.
4. Reconnect the controller to the mains.
5. Switch the controller on at the main switch (1).



11. Cleaning and maintenance

11.1. Cleaning the sauna cabin



Never use a hose or pressure washer on the inner cabin walls, benches or seats.

Wipe the surfaces with a damp cloth.

The humidity generated during operation will not damage the wood of your cabin.
Air the cabin thoroughly after every session.

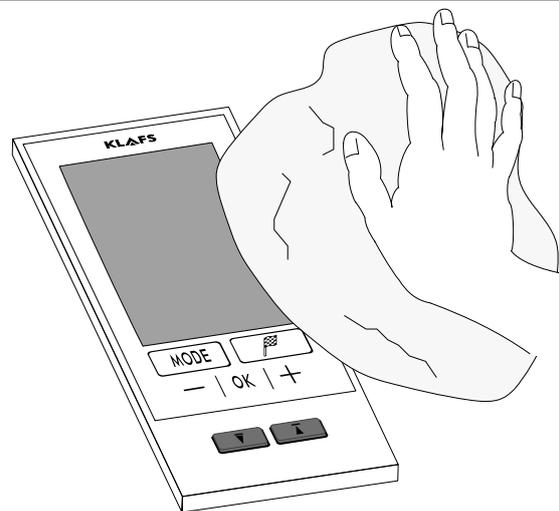
11.2. Cleaning the screen

Switch the controller off at the main switch before cleaning.

Clean the surface of the screen with a soft cloth only.

Moisten the soft cloth with water.

For more stubborn marks, soak the soft cloth in an organic solvent such as light petroleum.



Do not use corrosive solvents such as isopropyl alcohol (IPA).

11. Cleaning and maintenance

11.3. Various sauna heater - Cleaning the outer panelling

- Brush the outer panelling with a clothes brush or lint brush. Work with the clothes brush or lint brush in one direction only.
- Vacuum the outer panelling with a vacuum cleaner with a brush attachment.
- ☞ When doing so, work in one direction carefully and with a low level of pressure so as not to damage the surface.

**Detergent is corrosive!**

Note the applicable safety regulations.
Wear rubber gloves.

- Clean the outer panelling with a damp, lint-free cloth and a mild detergent. Work with the cloth in one direction only.
Then treat the outer panelling several times with pure water afterwards.
Then pat the outer panelling dry.

12. Notes

12. Notes

13. Addresses

**Wherever you are: KLAFS is near you!
We provide expert service.**

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provides you with hours of fun, leaving you feeling relaxed and
rejuvenated.**

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