thermoplan
Swiss Quality Coffee Equipment

Operating Manual

Black&White|4c

CTM / CTM-RL



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1 Publishing Details

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2 About this document

2.1 Purpose

This operating manual supports the user in his daily work; it is an integral component of the coffee machine.

- ▶ Carefully read the operating manual all the way through before using the coffee machine.
- ▶ Take good care of the operating manual and keep it on hand in the vicinity of the coffee machine.
- ▶ The user must have read and understood work steps and instructions, particularly the points concerning safety and hygiene.

2.2 Navigation

This document contains the following navigation aids in order to find specific information quickly:

- Table of contents
- Cross-references within the texts
- Symbols and emphasized text

2.3 Terms used

The following terms are used in this operating manual:

Term	Explanation
Coffee machine	Coffee machine with or without options (refrigerator, etc.).
Product	Hot beverage produced with the coffee machine.
Service partner	The service partner is Thermoplan AG's local representative. If there are any queries or problems please contact your service partner. The service partner will, depending on the situation, dispatch qualified technicians.
Qualified technicians	Qualified technicians are trained and certified specialist that market and maintain Thermoplan products. They have knowledge of the coffee machine and practical experience with it, especially with regard to safety and hygiene.
Touchscreen	Operating screen with display in order to use the machine
Display	Display on the touchscreen
Symbol	Digital button on the touchscreen
Swipe	To move the finger on the touchscreen to the left/right
Scrolling	To move with the finger on the touchscreen upward/downwards
Barista	Programmer and user level for the user (adjustment possibilities)
Manager	Programmer and user level for the manager (extended adjustment possibilities)

2.4 Symbols and emphasized text

Symbol	Name	Function
▶	Action	When the user must execute a work step, this is marked with an action. For example: ▶ Activate main switch.
▶ ⇨	Reaction	This emphasis is used to indicate a reaction to a prior action. For example: ▶ Activate main switch. ⇨ Coffee machine starts.
Scope of delivery	Cross-reference	This emphasis is used to refer to a page within this document. Cross-references are linked and can be executed with a mouse click.
>	Menu navigation	This emphasis is used to present the navigation in the "Benutzermenu" (user menu). Ex: *Product Settings > Edit View*
Italic	Tap symbol	Indicates a symbol/menu that should be tapped. Example: Press the *Confirm* icon.

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3 Introduction

3.1 Intended use

The coffee machine is only suitable for producing coffee, hot water, and milk products.

Coffee machine is suitable for commercial use in catering sector, canteens, offices, etc.

3.2 Target audience

This document is intended for the following persons:

Users

Users are persons who have been instructed and trained in the use of the coffee machine (reading the operating instructions). They can operate the coffee machine and perform the maintenance steps according to the operating instructions.

Operators

Persons who operate the coffee machine in self-service mode (obtain products).

Note: This coffee machine can be used by children from 8 years of age as well as by persons with reduced physical, sensory or mental capacities or who lack experience and knowledge if they are supervised or if they have been instructed in the safe use of the coffee machine and the risks associated with the coffee machine. Children are not allowed to play with the coffee machine. Cleaning and maintenance must not be performed by children without supervision.

3.3 Limitation of liability

The manufacturer accepts no liability whatsoever for any injuries or accidents due to failure to comply with the safety instructions contained in this operating manual. Moreover, any possible liability applies exclusively within the coffee machine limits, see Scope of delivery. In the event of problems, the manufacturer is liable in accordance with the warranty conditions. The manufacturer accepts no liability for damage as the result of negligent or improper use of the machine.

3.4 Warranty conditions

The manufacturer warranty is valid for 12 months after the installation or 15 months after delivery ex-works for individual parts or components in the event of manufacturing or design faults. For malfunctions resulting from negligent use or incorrect connections there will be no replacement. Wear parts are not included in the guarantee performance. The work time for guarantee tasks is not covered by the manufacturer guarantee.

Cancellation of the guarantee claim

Guarantee claim is void if the prescribed maintenance cycles are not complied with, or if there is any resulting damage. Maintenance may only be carried out by qualified technicians.

4 Safety

4.1 General safety instructions

4.1.1 Use of the coffee machine

- Only use the coffee machine if it is functioning faultlessly and there are no indications of damage. If there is a fault or damage notify your service partner immediately.
- If there is a fault or an emergency switch off the coffee machine via the main switch. Then unplug the mains plug or interrupt the power supply. Interrupt the water supply.
- Opening the housing is prohibited.
- Penetration into the coffee machine with an object or body part is prohibited.
- Modifying or manipulating the coffee machine is prohibited.

4.1.2 Coffee machines with milk system

- The refrigerator may only be used to store cool milk. Do not fill the milk container with other liquids (e.g. syrup or alcohol).
- Place the milk in the refrigerator at a maximum temperature of 5 °C. The refrigerator is designed for keeping the milk cool and not for cooling it down.
- No explosive substances (e.g. spray cans with flammable propellant gas) may be stored in the refrigerator.
- No electronic tools (e.g. temperature gauges) that are not authorised by the manufacturer may be used inside the refrigerator (fire hazard).
- Do not use mechanical devices or other means to accelerate the defrosting process that are not recommended by the manufacturer.
- Do not damage the cooling circuit.

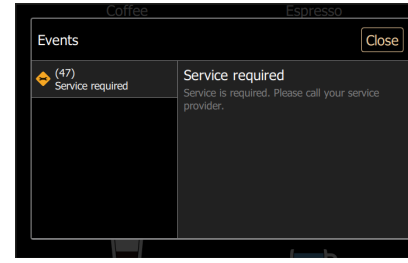
4.1.3 Installation and commissioning

The coffee machine may only be set up, installed or repositioned by qualified technicians.

4.1.4 Maintenance

Perform all necessary cleaning tasks on a regular basis and in accordance with the description in this manual.

The coffee machine must be maintained by a qualified technician at least once a year. An appropriate message appears on the touchscreen.



4.1.5 Dismantling and disposal

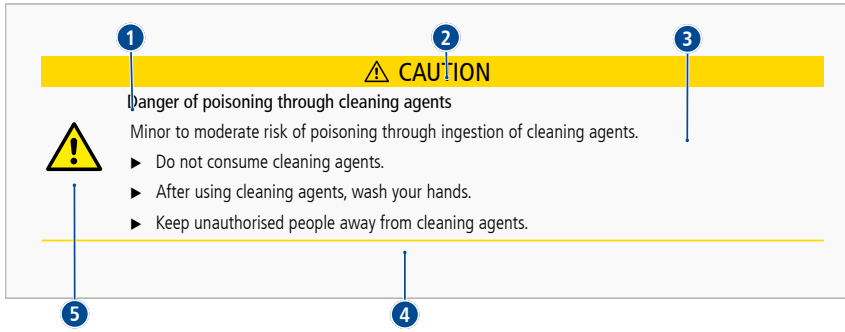
The coffee machine (incl. refrigerator) may only be dismantled by qualified technicians. The same applies for disposal of the coffee machine (incl. refrigerator) and its packaging.

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4.2 Safety warnings

4.2.1 Structure

Sample safety notice



1 Source of danger
2 Signal word
3 Hazards
4 Risk prevention
5 Safety sign

4.2.2 Conventions

Hazards for personnel

⚠ DANGER

Danger

The warning with the signal word "Danger" indicates a hazardous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING

Possible, imminent danger

Indicates a possible threatening danger that can result in severe bodily injury or death.

⚠ CAUTION

Possible danger

Indicates a possible threatening danger that can result in minor bodily injury.

Material damage

NOTICE

Product damage

Signal word for a potentially harmful situation in which the machine or an object in its vicinity may be damaged.

4.3 General safety instructions for this coffee machine

4.3.1 Personal injury – WARNING:

⚠ WARNING

Electric shock

Contact with electrical components during operation of the coffee machine can result in death or serious injury.



- Do not open the housing under any circumstances.
- Keep the coffee machine dry.
- Never immerse coffee machine, cable, or plug in water or or other liquids.
- Immediately stop using the coffee machine if cable or plug are damaged.
- Keep the coffee machine or cable away from hot machine parts. Use of the coffee machine in the vicinity of open flame is strictly prohibited.
- Protect the cable from sharp edges.
- When removing the grounds container do not reach into the interior of the housing.
- Only have the coffee machine installed, relocated, removed, repaired or maintained by qualified technicians.
- Keep the coffee machine and the connecting cable out of the reach of children.

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⚠ WARNING

Danger of food poisoning



Consuming contaminated food can result in death or serious injury.

- Only use food products with a use-by date that has not yet expired.
- Store food products at suitable locations.
- Regularly clean the coffee machine as specified in the operating manual.
- Only use heat-treated (e.g. pasteurised or UHT) milk.
- Ensure hygiene standards when pouring milk into the container.
- Only fill already cooled milk (max. 5 °C) into the milk container.
- Use milk from opened milk containers within 24 hours.
- Only use high-quality coffee beans.
- Keep the bean hopper closed.
- Do not fill the bean hopper before longer operating interruptions (night, holiday, etc.).
- Keep the coffee supply in airtight containers where it is protected against light.
- Store the coffee supply in a cool and dry location. Coffee can be stored for months without loss of quality by deep-freezing.
- If the coffee machine is idle for longer than 15 minutes without producing a product, a manually activated rinse must be carried out before the next product is dispensed.

⚠ WARNING

Danger of injury due to grinders



Danger of medium-severe or severe injuries when touching the grinders.

- Only instructed personnel are allowed to remove the bean hoppers.
- Never reach into the grinders.

⚠ WARNING

Fire hazard / combustible materials



The cooling unit contains a highly flammable refrigerant (R600a). In case of (audible) leakage:

- Keep away from open flames or sources of ignition.
- Do not smoke.
- Allow the escaping gas to flow out before taking any further action.
- Replace the entire refrigerator.

4.3.2 Personal injury – CAUTION:

⚠ CAUTION

Danger of scalding



Danger of minor or medium severity scalding injuries through contact with hot liquids.

- Keep your hands away from the product outlets.
- Avoid direct physical contact with hot liquids.
- Do not touch the product outlets for and after the beverage is dispensed or when cleaning.
- Carefully emptied the drip tray, ensure that contact with hot liquids is not possible.

4.3.3 Material damage

NOTICE

Damage to the coffee machine

Incorrect use of the coffee machine or the wrong, defective spare parts can result in material damage.

- Check whether the coffee machine to be installed complies with applicable federal, national, or municipal plumbing codes.
- The coffee machine is designed for indoor use only.
- Clean the coffee machine before longer periods of non-use. Remove and empty the grounds container, and disconnect the coffee machine from mains supply.
  Remove and empty milk container(s), clean and store with lid open.
  Leave the refrigerator door open during storage periods.

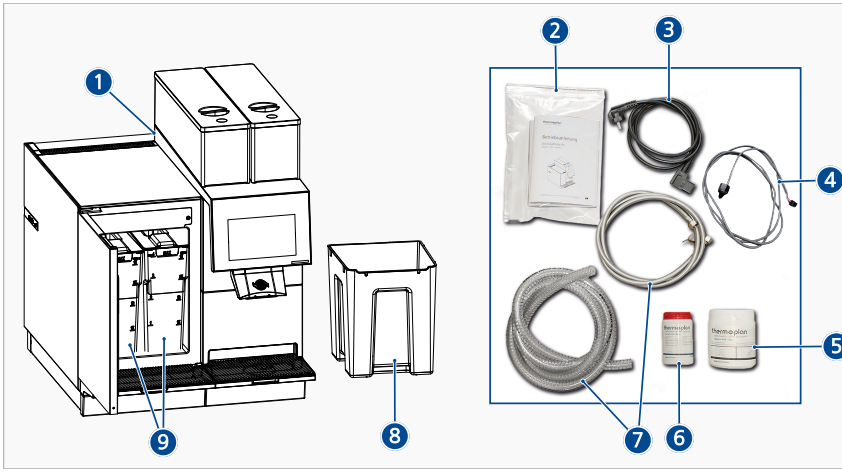


- Only operate the coffee machine at an ambient temperature of 16 °C to 32 °C.
- Set up the coffee machine on a flat, horizontal, stable and water and heat-resistant surface.
- Do not position the coffee machine where a water jet could be used for cleaning.
- Leave a free space of at least 50 mm in front of air vents.
- Always store the coffee machine at temperatures above 0 °C in a dust-free and dry environment.
- The upper edge of the coffee machine must be at least 1.5 m above the floor.
- Only use genuine Thermoplan cleaning accessories.
- Never operate the coffee machine without the drip grid.
- Do not store explosive substances such as aerosol cans with a flammable propellant in the interior of the coffee machine.

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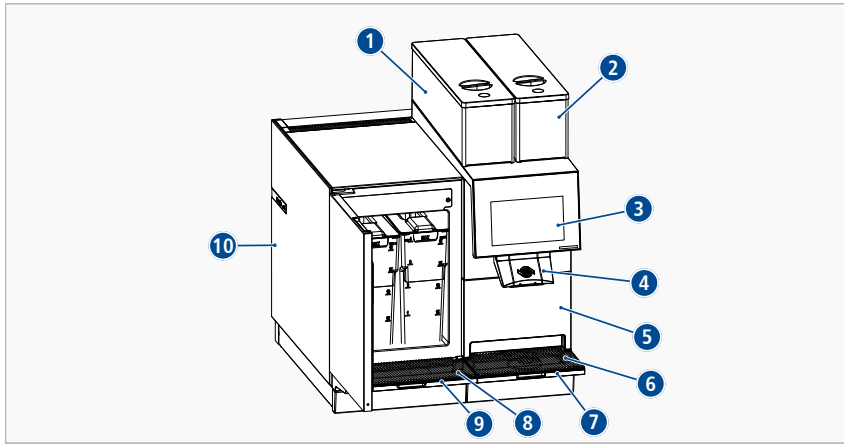
5 Overview

5.1 Scope of delivery

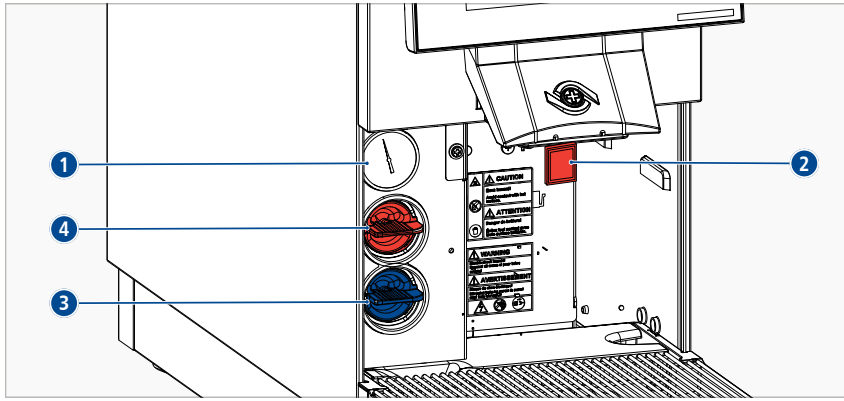


1	Coffee machine	2	Operating manual
3	Mains cable	4	Waste water tank sensor (optional)
5	Milk cleaning tablets (white)	6	Coffee cleaning tablets (red)
7	Water supply and drain hoses	8	Container 9 l for cleaning refrigerator
9	2 x 4 litre milk containers with lids		

5.2 Coffee machine



1	Bean hopper, grinder left (only for machines with two grinders)	2	Bean hopper, grinder, right
3	Touch screen with display and cup sensor (optional)	4	Product outlet
5	Grounds container	6	Cup grid – coffee machine
7	Drip tray – coffee machine	8	Cup grid – refrigerator
9	Drip tray – refrigerator	10	Refrigerator with 2 milk containers of 4 litres each

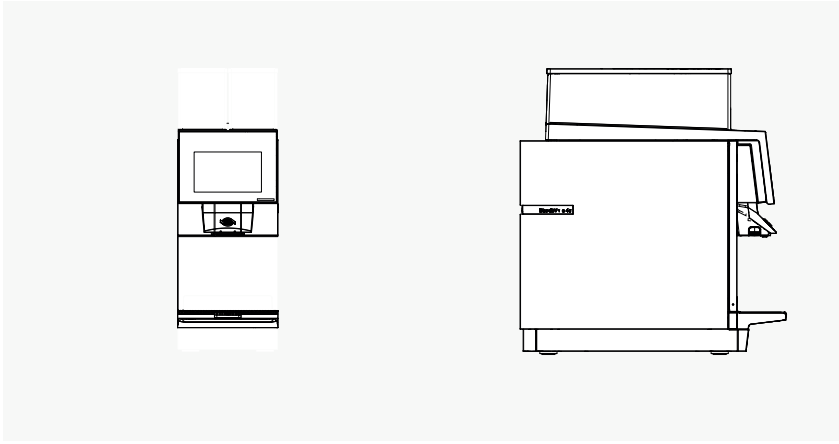


1	Pressure gauge (coffee boiler)	2	Main switch
3	Milk cleaning key (blue)	4	Coffee cleaning key (red)

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5.3 Machine Dimensions CE

Without refrigerator

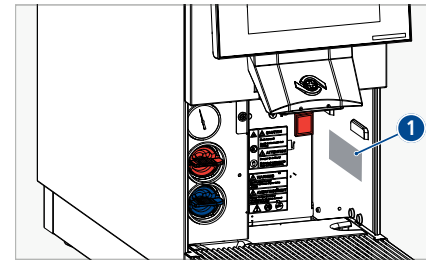


With refrigerator



5.4 Type plate

- ▶ Ensure that the outlet is in the uppermost position.
- ▶ Remove the grounds container.
  - ⇨ The type plate (1) is located on the inside on the right.



5.5 Capacity information

Capacities – products (per hour)	180 x espresso / 140 x coffee / 18 l (4.75 oz) hot water / 120 x cappuccino (quantity depends on cup size and machine settings)
Bean hopper capacity	2 x 1.1 kg (0.22 lbs) (quantity depends on the coffee bean and must be checked individually)
Electrical connection/power	CTM (without refrigerator) CE: 220-240 VAC / 50-60 HZ 2700-3100 W / 13 A CTM (without refrigerator) UL: 208 VAC / 60 HZ 2750 W / 13 A CTM-RL CE: 220-240 VAC / 50-60 HZ 2750-3150 W / 13 A CTM-RL UL: 208 VAC / 60 HZ 2750 W / 13 A
Dynamic water pressure	0.2-0.4 MPa (2-4 bar) / 30-60 psi (required operating pressure)
Max. water inlet pressure	1 MPa (10 bar) / 145 psi (if the pressure exceeds 4 bar, a pressure reducer must be used)
Water boiler pressure	11.7 bar/169.6 psi
Dimensions (W/D/H)	CTM without refrigerator CE: 228 x 600 x 646 mm CTM without refrigerator UL: 8.98 x 23.62 x 25.43 in CTM-RL CE: 508 x 600 x 646 mm CTM-RL UL: 20 x 23.62 x 25.43 in
Weight	CTM (without refrigerator): 43 kg / 94.79 lbs CTM-RL: 70kg / 154.32 lbs
Refrigerator climate class	5

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	The climate class indicates the room temperature at which the refrigerator may be operated in order to achieve full cooling capacity. The climate class is specified on the type plate. Climate class 5 corresponds to a room temperature of 10°C to 43 °C / 50 °F to 109.4 °F. Do not operate the refrigerator outside the specified room temperature.
Noise emission	<70 dB

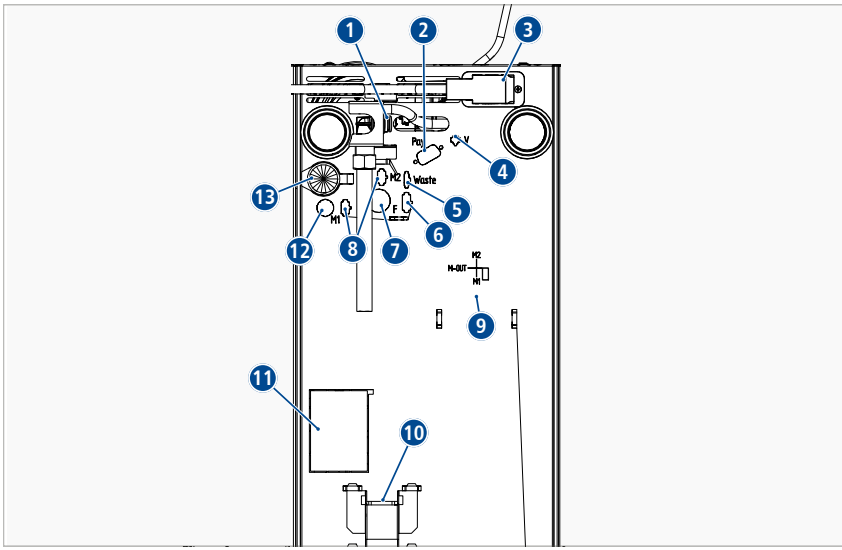
5.6 Water supply

Inadequate or unstable water supply results in malfunctions (e.g. flow errors, discharge faults) or poor beverage quality.
Only high quality water may be used for tap water products, as this is neither heated nor filtered in the machine.

Chlorine	None
TDS	70-200 ppm
Total hardness	5-8 °dH / 8-14 °fH
pH value	6.8-7.4
Alkalinity	<100 ppm
Iron	<0.25 ppm
Max. water inlet pressure	1 MPa (10 bar) / 145 psi (if the pressure exceeds 4 bar, a pressure reducer must be used)

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5.7 Connections (view from underneath)



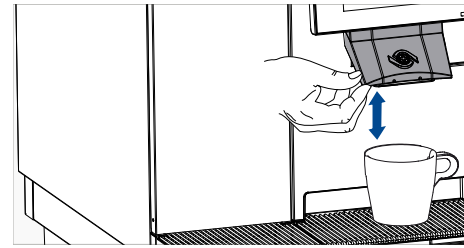
1	Water connection	2	RS232 (e.g. for payment system)
3	Mains cable connection – coffee machine	4	Milk 1+2 UT valve connection (option)
5	Connection waste water tank sensor (option)	6	FUT connection (flavour undercounter, optional)
7	Flavour hose connection FUT (flavour undercounter, optional)	8	Milk 1+2 UT temperature level sensor connection (option)
9	Valve 2-milk UT (option)	10	Coffee machine drain connection
11	Breakthrough point for grounds discharge (option)	12	Milk hose connection milk UT (option)
13	LAN connection (shielded cable cat. 6 and max. length of 3 m)		

5.8 Outlet Options

The coffee machine can be obtained with two different outlet options.

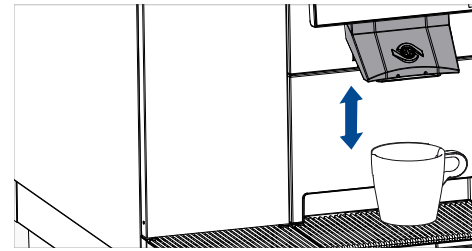
5.8.1 Standard outlet

- Standard option with all coffee machines.
- Height manually adjustable



5.8.2 Automatic outlet

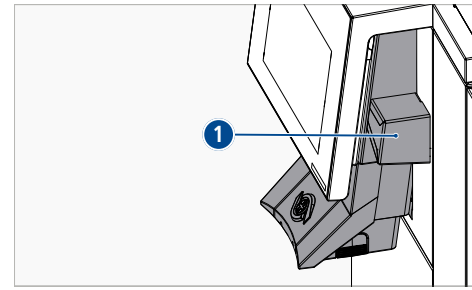
- Can be ordered as an option.
- Automatically adjusts to the preprogrammed cup sizes.
- Can also be moved manually if required.



Automatic outlet with cup detection

- Can be ordered as an option.
- Only compatible with automatic spout.
- With sensor (1) for automatic detection of cup height.
- Automatically adjusts to the preprogrammed cup sizes.
- Checks the presence of the drip tray.
- Ideal for the self-service sector.

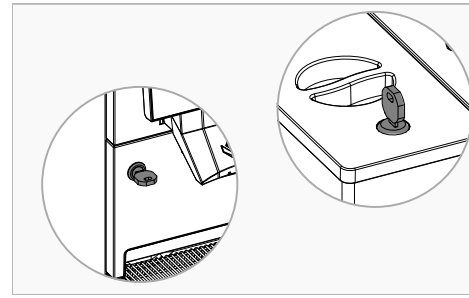
Note: Automatic cup detection can be set.
See [machine equipment ▶ 66].



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5.9 Lockable option

- Machine front lockable.
- Bean hopper lockable.



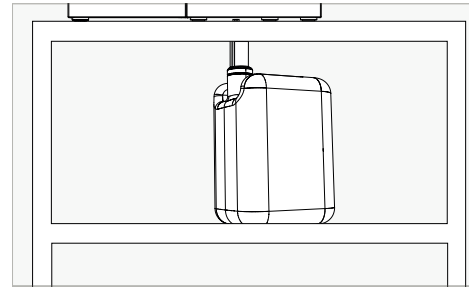
5.10 External waste water tank option

- Individual container can be used.
- Waste water tank is placed under the bar/table.
- Sensor for monitoring the waste water level.

Note: Tank is not part of the scope of supply!

- Min. tank capacity: 10 l
- Recommended: 15 l
- Recommended min. tank opening: 49 mm (DIN 61)

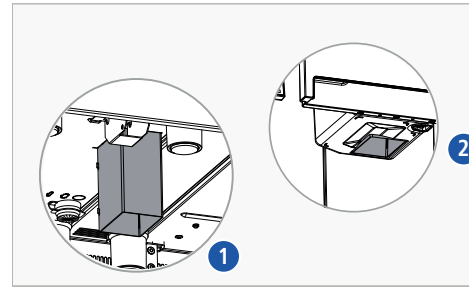
Note: For cleaning, see Empty and clean the external waste water tank (optional).



5.11 Optional grounds discharge

- Has a grounds discharge (1) in the machine, which leads directly into a container underneath the machine.
- An opening in the grounds drawer (2) transmits the coffee grounds into the grounds discharge.
- With this option, the grounds container underneath the machine needs to be emptied less often.

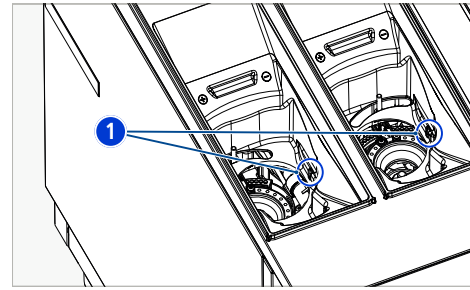
Note: The container is not part of the scope of supply!
For cleaning, see Empty and clean grounds drainer (option).



5.12 Bean detection option

- With sensor (1) to monitor the bean level.
- Prevents the grinder from running empty.
- Ideal for the self-service sector.

Note: Automatic cup detection can be set. See [Machine Outfit ▶ 66].

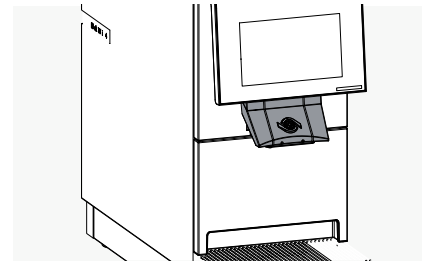


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6 Commissioning

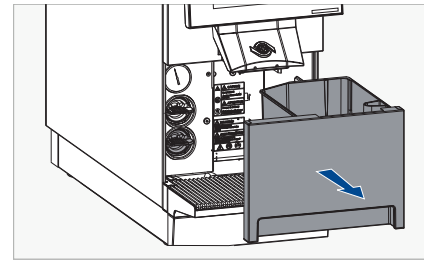
6.1 Switching on Coffee Machine

- ▶ In case of manual outlet, make sure that it is on the top position.

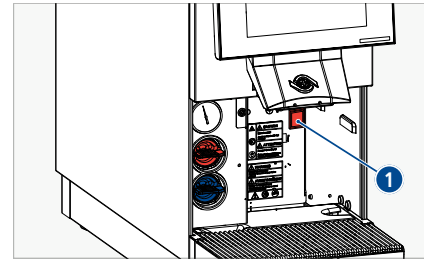


- ▶ Remove the grounds container.

Note: With lockable front with cup recognition, the drip tray can only be removed after unlocking the grounds drawer.

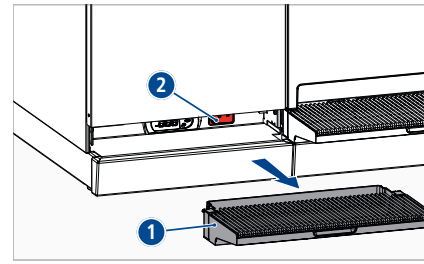


- ▶ Activate main switch (1).



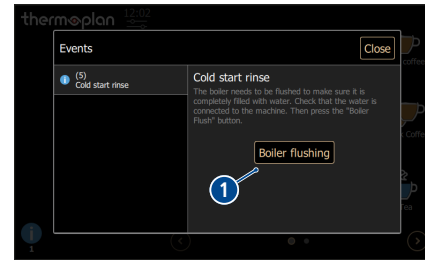
6.2 Switching on Refrigerator

- ▶ Remove drip tray (1).
- ▶ Activate main switch (2).



6.3 Performing a cold start

- ▶ Move spout to lowest position (manual outlet only).
- ▶ Perform a cold start rinse (1).



6.4 Filling the bean hopper

⚠ WARNING

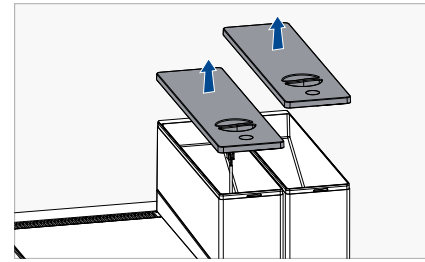


Danger of injury due to grinders

Danger of medium-severe or severe injuries when touching the grinders.

- ▶ Only instructed personnel are allowed to remove the bean hoppers.
- ▶ Never reach into the grinders.

- ▶ Remove the lid of the bean hopper.
- ▶ Fill the bean hopper with fresh coffee beans.
- ▶ Fit the lid back on the bean hopper.



6.5 Filling the milk container

⚠ CAUTION

Risk of food poisoning

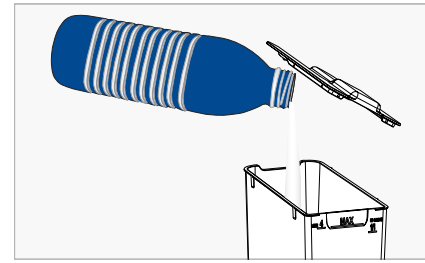


Risk of minor to medium food poisoning through consumption of spoiled or contaminated milk.

- ▶ Only use heat-treated milk (e.g. pasteurised or UHT milk).
- ▶ Only touch milk containers with clean hands.
- ▶ Fill milk container with cooled milk (max. 5 °C).
- ▶ Use milk from opened milk containers within 24 hours.
- ▶ Milk may only be topped up by trained staff.
- ▶ For several milk types: Pour the correct type of milk into the corresponding container to prevent contamination.

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- ▶ Remove milk container 1 from the refrigerator.
- ▶ Fill milk container 1 with fresh, chilled milk or milk alternatives.
- ▶ Insert milk container 1.
- ▶ Guide the milk/sensor hoses of the refrigerator directly into the milk container 1.

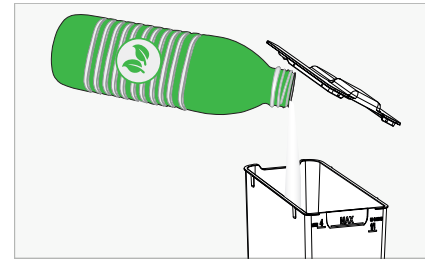


Milk alternatives

Notes:

- Milk alternatives must be shaken well before use.
- To guarantee optimum product results, do not leave alternative milk types for a longer period of time (>12 h).
- Follow the cleaning instructions carefully to reduce cross-contamination with other types of milk Cleaning.

- ▶ Remove milk container 2 from the refrigerator.
- ▶ Fill milk container 2 with fresh, chilled and shaken milk alternative.
- ▶ Insert milk container 2.
- ▶ Guide the milk/sensor hoses of the refrigerator directly into the milk container 2.



7 Operation

7.1 Dispensing product in Barista/Manager mode

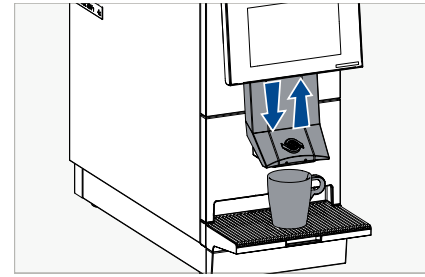
⚠ CAUTION

Danger of scalding

Danger of minor or medium severity scalding injuries through contact with hot liquids.

- ▶ Avoid direct physical contact with hot liquids.

- ▶ Place the cup on the round mark under the outlet.
- ▶ In the case of manual outlet: Slide outlet upward or downward depending on cup size.



- ▶ Scroll to the left (1) or swipe to see more products.
- ▶ Select product (2).
  - ⇨ Selected product will be dispensed (3).





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▶ Take the cup out of the cup grid.

⇨ Product is ready for consumption.



▶ Tap *Cancel* (4) to cancel the product selection.



Dispensing product from product group

Product groups are product folders with a grey background in which a number of products have been combined into any category.

▶ Select product group (1).



▶ Select the desired product from the product group (2).

⇨ The product is dispensed.



Pre-selecting a product

If multiple products are to be produced in succession, these can be preselected.

- ▶ Tap the product icons (1) one after the other.
- ▶ Products are displayed in the queue on the left, and the first product is started automatically.



- ▶ When the first product has been completed, start the next product (2) or start the next product (3) before the first product has been completed.
- ▶ Select *Delete* (4) to delete an individual product from the queue.
- ▶ *Cancel all* deletes all products (5) from the queue.



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7.2 Dispensing product in self-operation mode

⚠ CAUTION

Danger of scalding

Danger of minor or medium severity scalding injuries through contact with hot liquids.

- ▶ Avoid direct physical contact with hot liquids.

Standard

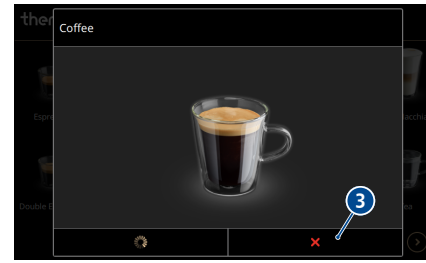
- ▶ Select product (1) on the screen.
- ▶ Place the cup under the outlet.
- ▶ If the payment system is connected: follow the instructions on the screen.



- ▶ Confirm product selection (2).



- ▶ The product is dispensed.
- ▶ Select cancel button (3) to interrupt the product.



With cup detection option

Note: The coffee machine can be operated in self-operation mode with or without cup detection.

▶ Select product (1) on the screen.

⇨ The required cup size is displayed (see Cup [settings ▶ 50]).



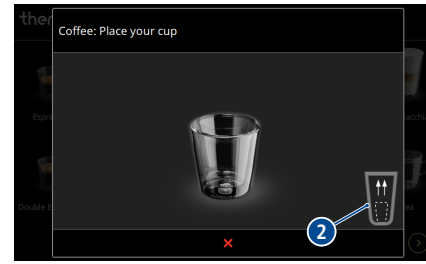
▶ Place correct cup size below the outlet.

▶ As soon as the cup has been detected, the product is dispensed.



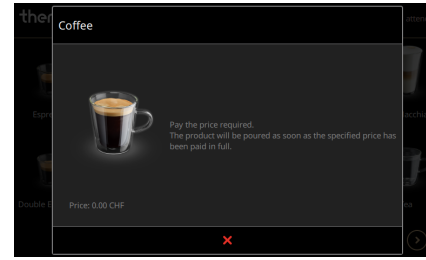
▶ If the cup placed under the outlet is too small, a corresponding notice (2) is displayed.

⇨ Use a larger cup.



▶ If the payment system is connected, follow the instructions on the screen.

⇨ As soon as the cup has been detected, the product is dispensed.

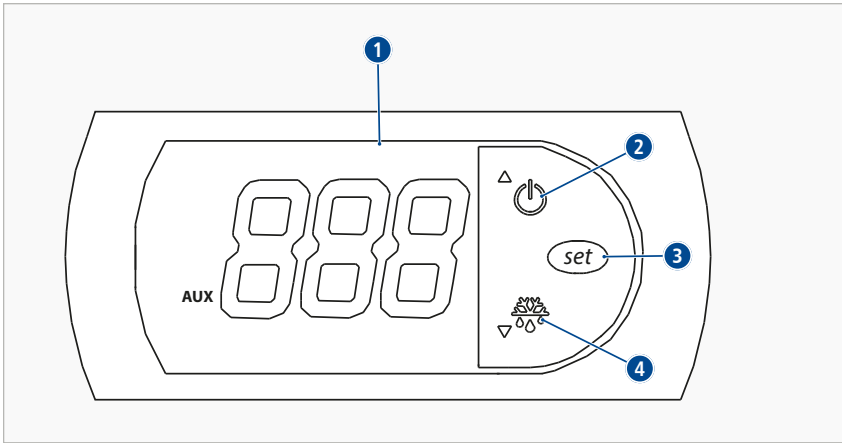


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7.3 Operation – refrigerator

The refrigerator is a component of the coffee machine and can only be operated in conjunction with the coffee machine.

7.3.1 Operating elements



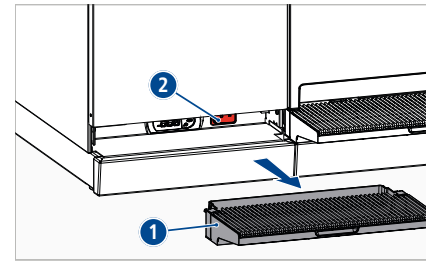
1	Temperature display	Shows the momentary temperature in the refrigerator
2	ON/OFF button	Activate/deactivate the refrigerator increase/value
3	SET button	Confirm value
4	COOLING button	Decrease value

7.3.2 Adjusting the temperature

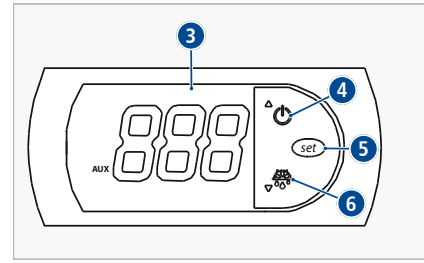
The refrigerator must be switched on.

▶ Remove drip tray (1).

⇨ Operating element (2) is inside on the left.



- ▶ Keep the SET button (5) depressed.
  - ⇨ Numbers on the temperature display (3) are flashing.
- ▶ With ON/OFF button (4) and the COOLING button (6) set the desired temperature.
- ▶ Press the SET button (5).
  - ⇨ Temperature will be saved.



Description Indications on the display

P1: Displays the temperature in the cooling housing and regulates the cooling compressor.

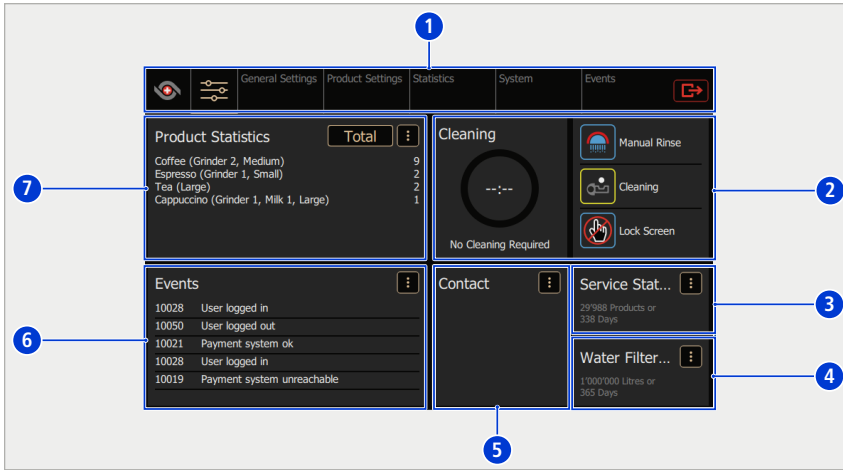
P2: Displays the temperature in the cooling compartment.

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8 Settings in the user menu

The user of the coffee machine can make various settings in the user menu. There are three different user groups (self-service, barista, manager) to control access authorisation. The user groups are protected with a number code via the login window. The number codes are transferred at installation and instruction by the service partners qualified technician.

8.1 Overview – user menu



1 Menu tab

2 Cleaning:

- Cleaning status, rinse button, cleaning button, touchscreen lock

3 Status Service:

- Products or days until the next water service

4 Water filter status:

- Products or days until the next water filter change

5 Contact:

- Contact data of service partner

6 Events:

- Latest events and error messages

7 Product statistics:

- Current product statistics (server, manager or total)

8.2 Calling up the user menu

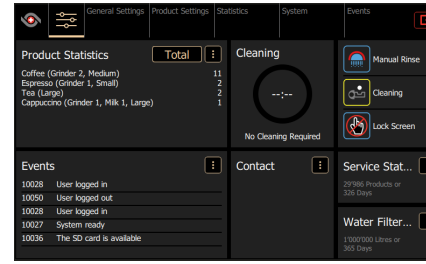
The Barista or Manager user is stored as the default user.



▶ Tap on *User menu* (1).

⇨ The start screen (dashboard) of the user menu is displayed.





8.3 Calling up the user menu in self-service mode

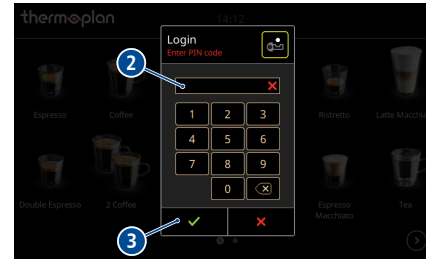
If the self-service user is activated, the user menu can only be accessed via a password. This function protects the settings against undesired manipulation.



▶ Press and hold the *Time* (1) until the login window appears.



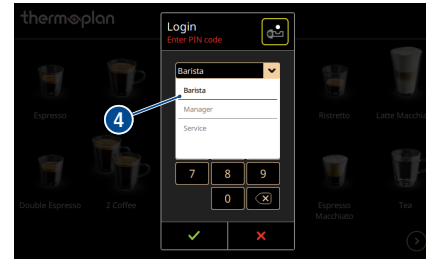
▶ Enter the appropriate code (2) and confirm (3).

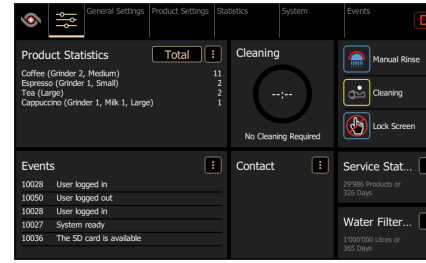


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▶ If an individual PIN has been stored, the user group (4) must also be selected in the login window.

⇨ The start screen (dashboard) of the user menu is displayed.





8.4 User login

Variant 1: Normal product selection active

22:00

▶ Tap and hold *User menu* (1).

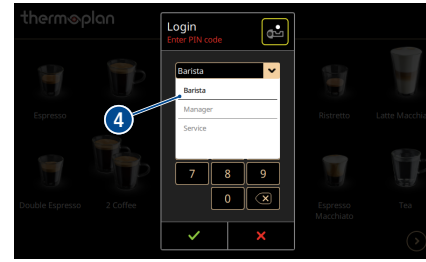


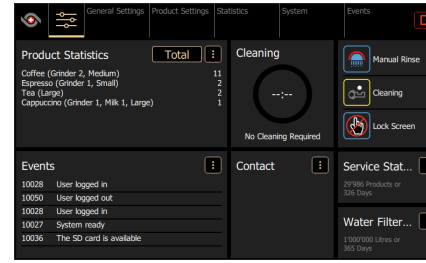
▶ Enter the barista or manager code in the login window (2) and confirm (3).



▶ If an individual PIN has been stored, the user group (4) must also be selected in the login window.

⇨ The user menu is displayed.





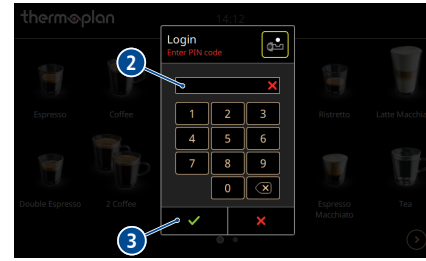
Variant 2: Self-service view active

22:00

▶ Tap on *time* (1) and hold until the login window appears.



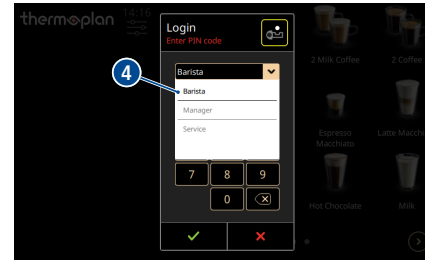
▶ Enter the barista/manager code (2) in the login window and confirm (3).

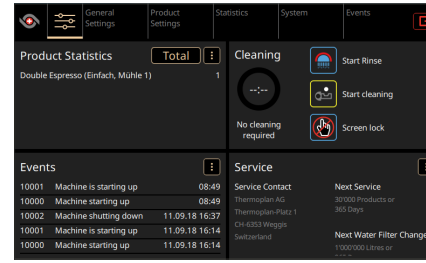


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▶ If an individual PIN has been stored, the user group (4) must also be selected in the login window.

⇨ The start screen (dashboard) of the user menu is displayed.





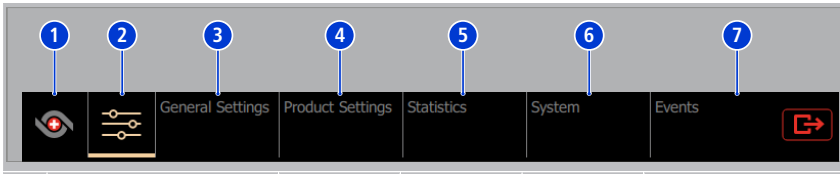
8.5 User logout



▶ Tap *Log out* to log out the active user.

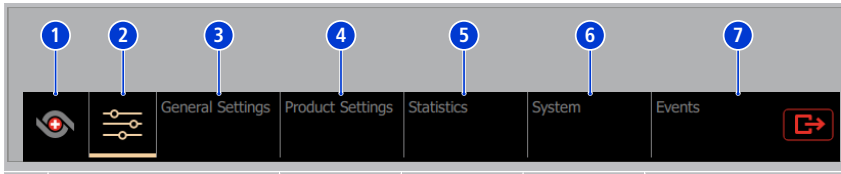
⇨ After logout the user group set as standard user is automatically active.

8.6 Menu tab and access rights



Pos.	Activity	Self-service	Barista	Manager	Chapter
	Dispensing product	✓	✓	✓	[Dispensing the product ▶ 26]
	Cleaning/rinsing	✗	✓	✓	Execute automatic cleaning
1	Return to the product screen	✗	✓	✓	
2	Call up user menu (dashboard)	✗	✓	✓	[User login ▶ 35]
3	General settings				[General settings ▶ 40]
	• Regional settings	✗	✗	✓	
	• Screen settings	✗	✗	✓	
	• Display settings	✗	✗	✓	
	• Customer Languages	✗	✗	✓	
	• Service information	✗	✓ Read only	✓ Read only	
	• Order Customization	✗	✗	✓	
	• User settings	✗	✗	✓	
4	Product settings				[Product settings ▶ 48]
	• Global Product Settings	✗	✗	✓	
	• Coffee settings	✗	✗	✗	
	• Milk settings	✗	✗	✗	
	• Flavour settings	✗	✗	✓	
	• Cups Settings	✗	✗	✓	
	• Product list	✗	✗	✓	
	• Payment List	✗	✗	✓	
	• Edit products	✗	✗	✓	

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Pos.	Activity	Self-service	Barista	Manager	Chapter
	• Edit views	✗	✗	✓	
5	Statistics				[Statistics ▶ 63]
	• Product ranking list	✗	✓	✓	
	• Machine counters	✗	✓	✓	
6	System				[System ▶ 64]
	• Information	✗	✓	✓	
	• Data Backup and Recovery	✗	✗	✓	
	• Machine Outfit	✗	✗	✓	
	• Machine configuration	✗	✗	✓	
	• Machine Calibration	✗	✗	✗	
	• Machine Outfit	✗	✗	✓	
	• Machine test	✗	✗	✗	
	• Network	✗	✓	✓	
	• Licenses	✗	✓	✓	
7	Events				[Events ▶ 67]
	• Event Log	✗	✓	✓	
	• Recording	✗	✗	✓	

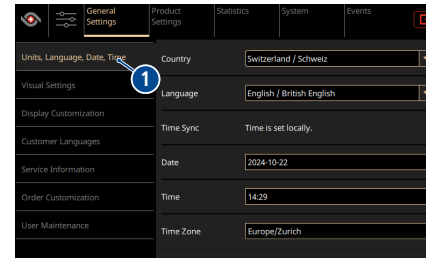
8.7 General settings

Manager

Changes in this menu can only be made by the manager user group.

8.7.1 Regional settings

- ▶ Select *Settings* > *Regional settings* (1).
- ▶ Make regional settings.
- ▶ Settings are saved automatically.



8.7.2 Screen settings

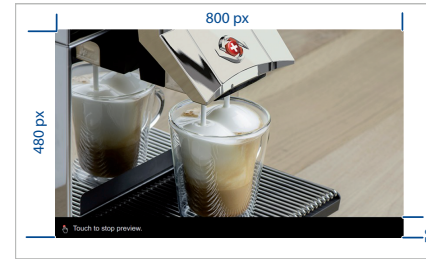
Installing screen saver

USB Flash Drive Requirements

- ▶ Purchase branded goods.
  - ⇨ Memory capacity: Max. 32 GB.
- ▶ Format FAT32 before use.

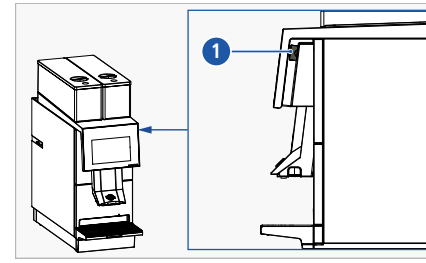
Photographic material requirements

- Size: 800 x 480 px, 50 px reserved for info bars.
- Format for images: .jpg
- Format for videos: .webm and .ogg
- < 5 MB



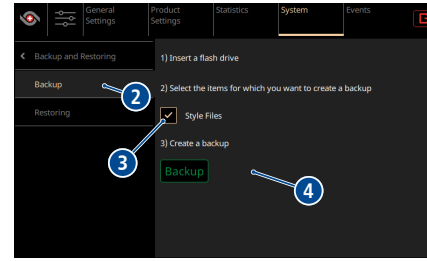
Installation

- ▶ Remove the USB cover (1).
- ▶ Insert empty USB flash drive.

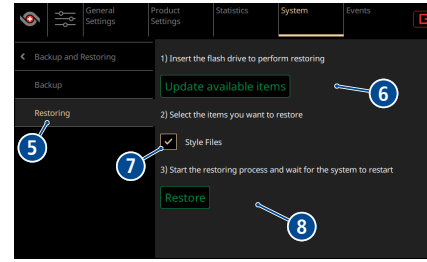


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- ▶ Select *System > Backup and Restore* (2).
- ▶ Select *Style files* (3).
- ▶ Tap on *Data backup* (4).
  - ⇨ Screen saver graphics are backed up.

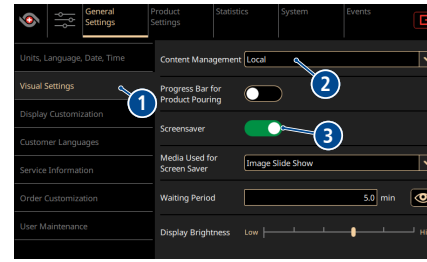


- ▶ Remove USB stick from the coffee machine.
- ▶ Open the directory *...\Backup\Style\ScreenSaver* on the USB stick on a computer.
- ▶ Replace or supplement the graphics in the directory with your own graphics.
  - ⇨ **Attention:** The *ScreenSaver* folder must not be larger than 5 MB, otherwise it cannot be uploaded to the machine.
- ▶ Insert the USB stick back into the coffee machine.
- ▶ Select *System > Recovery* (5).
- ▶ Tap on *Update available items* (6).
- ▶ Select *Style files* (7).
- ▶ Tap on *Restore* (8).
  - ⇨ The screen saver is installed.

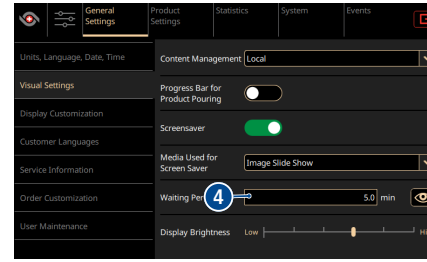


Configuring Screen Saver

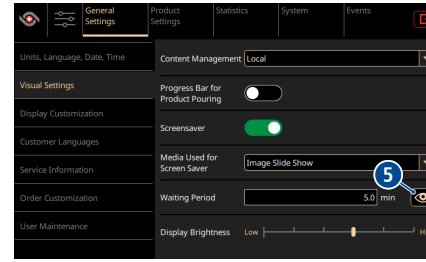
- ▶ Select *General settings > Screen settings* (1).
- ▶ Set *Content management* to *Local* (2).
- ▶ Switch on the screen saver (3).



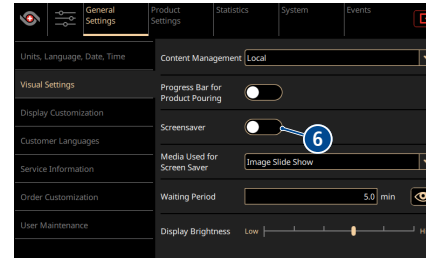
- ▶ For *Waiting time* (4), enter the time in minutes after which the screen saver is activated.



▶ Select *Preview* (5) to test the screen saver.



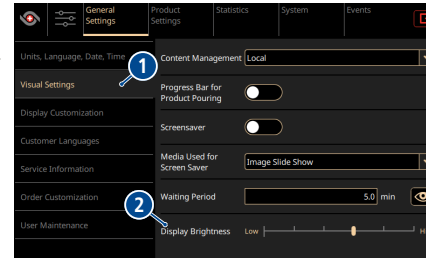
▶ Switch off the screen saver (6).



Adjusting screen brightness

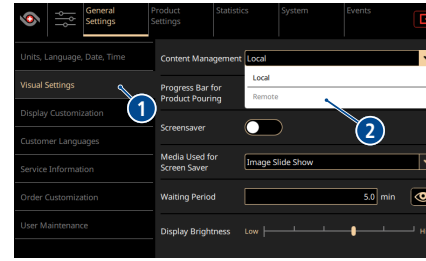
▶ Select *General settings > Screen settings* (1).

▶ Adjust the screen brightness (2) using the slider.



Content management

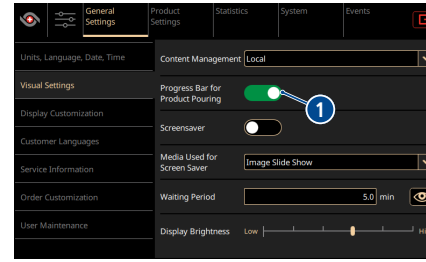
▶ Under *Content management* (1), select whether media content (screensaver, product icons, etc.) should be updated *locally* via a data carrier or *remotely* via the cloud.



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Product progress bar

▶ Switch on the product progress bar (1).



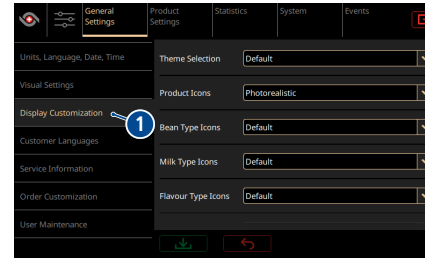
▶ When a product is purchased, the product progress (2) is displayed in real time.

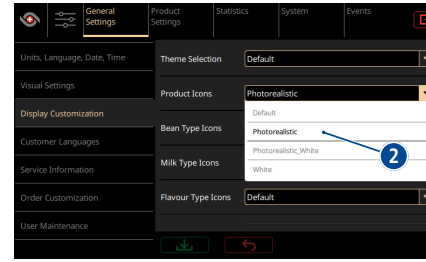


8.7.3 Display settings

The appearance of the display can be adapted.

- ▶ Select *General settings* > *Display settings* (1).
- ▶ Individual graphic elements (2) can be selected here. These must first be stored in the software. The following graphic elements can be customised:
  - *Theme*
  - *Product icons*
  - *Bean icons*
  - *Milk icons*
  - *Flavour icons*
  - *Cup icons*
  - *Language icons*
- ▶ Restart the machine if changes have been made.

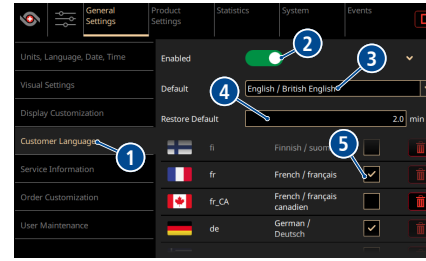




8.7.4 Customer Languages

The product names can be stored in different languages. These can be selected by the user on the product screen.

- ▶ Select *General settings* > *Customer languages* (1).
- ▶ Activate customer languages (2).
- ▶ Under *Standard* (3), the standard language is selected.
- ▶ Under *Restore default settings* (4), you can select the time after which the selected language is switched back to the default language.
- ▶ Select up to six customer languages (5).
- ▶ Tap Standard language (6) to display the alternative languages (7).





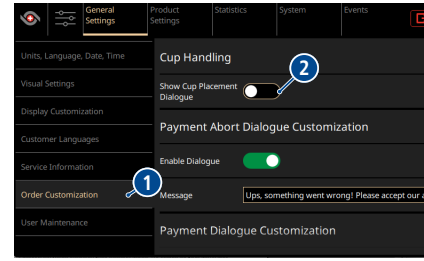
© Thermoplan AG

8.7.5 Order Customization

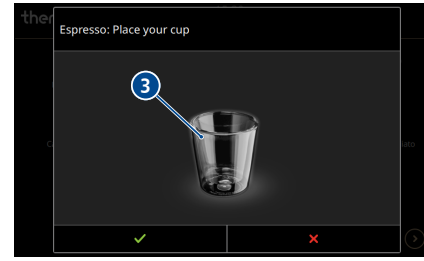
Individual settings for the product reference can be made here.

Cup handling

▶ Activate *Display cup positioning dialogue* under *General Settings > Adjustment of the order* (1) under *Cup* handling (2) .



▶ For Product views without queue, the matching cups (3) are displayed for selection at each dispensing of a product.

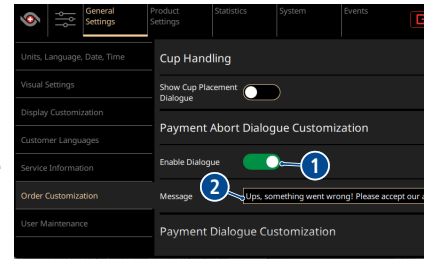


Payment Abort Dialog Customization

▶ Under *Payment Abort Dialog Customization* (1), you can use the slider to activate the message that appears in the event of a product abort in self-service mode.

▶ The message can be created individually (2).

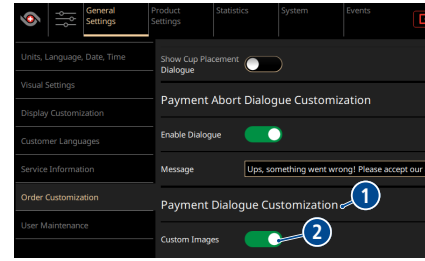
⇨ Tip: Store a telephone number which can be contacted in the event of a product abort.



Payment Dialog Customization

Individual images can be used in the payment dialog. Creating the images is described in a separate documentation.

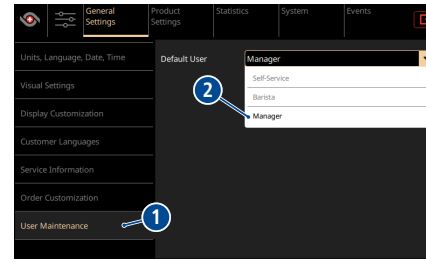
▶ Under *Payment Dialog Customization* (1) the use of individual payment dialogs can be activated via the slider (2).



8.7.6 User Settings / Set Default User

The standard user is the user group that is automatically set after restarting the machine or logging out of the user menu. The barista, self-service and the manager can be set as a standard user.

- ▶ Select *General Settings* > *User Settings* (1).
- ▶ Set standard user (2).

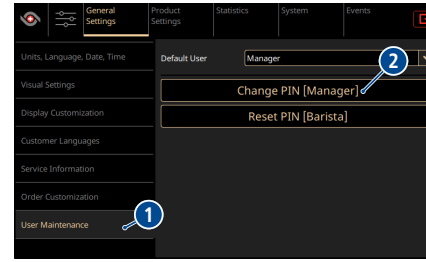


8.7.7 Change/reset PIN

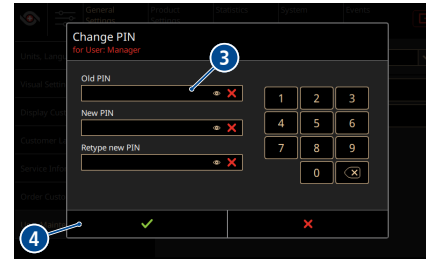
If the *Individual PIN* option is activated (can only be activated by a service technician), the PINs of the user groups can be changed. Each user group can only manage its own PIN. The PIN must be reset by the next higher user group.

Changing the PIN

- ▶ Select *General Settings* > *User Settings* (1).
- ▶ Select *Change PIN* (2).



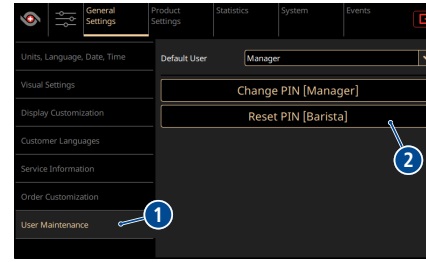
- ▶ Enter the previous PIN (3).
- ▶ Enter the new PIN underneath.
- ▶ Repeat the entry.
- ▶ Save changes (4).
  - ⇨ The new PIN is now active.



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Resetting the PIN

- ▶ Select *General Settings* > *User Settings* (1).
- ▶ Select *Reset PIN* (2).
  - ⇨ Your own PIN can only be reset by the next higher user group (Manager by Service / Barista by Manager).



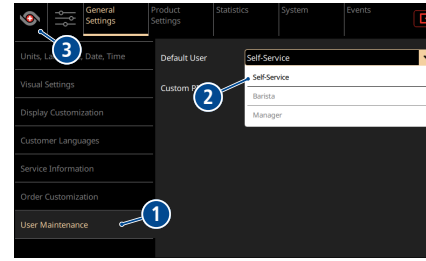
- ▶ Confirm reset (3).
  - ⇨ The PIN is reset to the default PIN.



8.7.8 Activating and deactivating self-service mode

- ▶ Select *General Settings* > *User Settings* (1).
- ▶ Change the standard user (2) to self-service.
- ▶ Tap on *logo* (3) to return to the product screen.
  - ⇨ Products will be distributed over the entire screen.
  - ⇨ The queue function is deacticated.
  - ⇨ Self-service mode remains active even after logging out or restarting the machine.

Note: If automatic cup detection is used, self-service mode must be activated.



8.8 Product settings

Manager

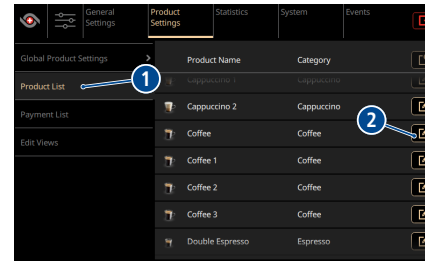
Changes in this menu can only be made by the manager user group.

Caution: Changing the product parameters will affect the flavour of the beverage!

8.8.1 Product list

The coffee machine is delivered with preset product categories. These serve as the basis for individual coffee recipes. Different product parameters influence the coffee recipes, e.g. the amount of water or coffee powder used.

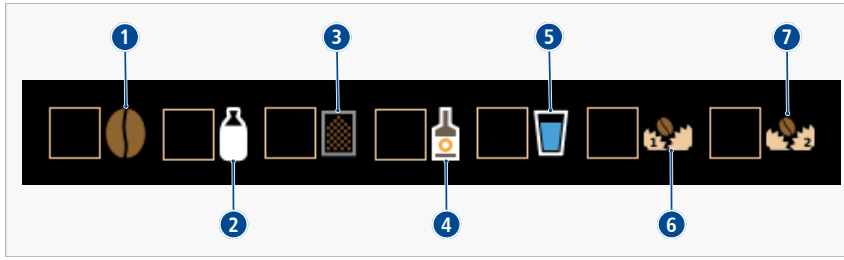
- ▶ Select *Product settings* > *Product list* (1).
  - ⇨ All preprogramed products will be displayed.
- ▶ Tap on *Edit* (2) to go directly to the *Edit products* menu.



8.8.2 Filtering product categories

The list of product categories can be filtered for better clarity.

Overview of filter symbols

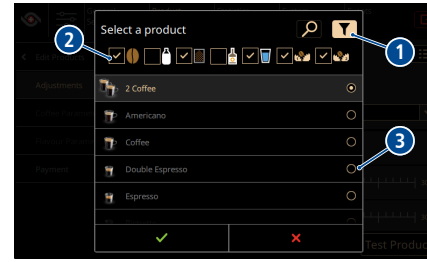


1	Products with coffee	2	Products with milk
3	Products with powder (only with BW4c-CTM-P and BW4c-CTM-P-F)	4	Products with flavour (only for BW4c-CTM-F and BW4c-CTM-P-F)
5	Products with water	6	Products – grinder 1
7	Products – grinder 2		

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Using filters

- Tap on *Filter* (1).
- Select the desired filter (2).
  - ⇨ The products to which one or more of the filters apply are displayed.
- Select the desired product (3).



8.8.3 Edit products

- Select *Product Settings* > *Edit Products* > *Adjustments* (1).
- Use the slider to decrease (2) or increase (3) the different product parameters.
- Select different cup sizes (4).



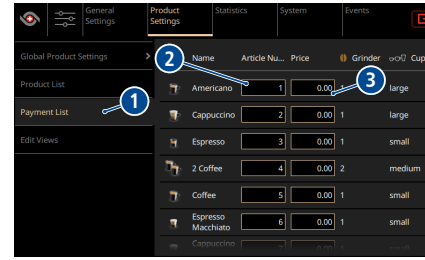
- Tap on *Product sample* (5) to test the product.
- Tap on *Switch product* (6) to switch to another product.
- Tap on *Save* (7) to save the configuration for the product.
- Tap on *Reset* (8) to discard the configuration.



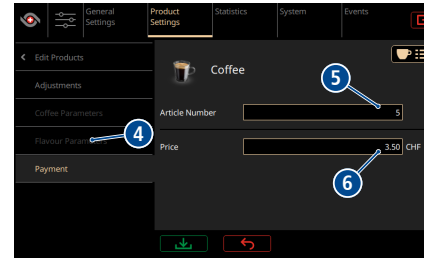
8.8.4 Storing product prices

If a payment system is connected to the coffee machine and the product prices are managed directly via the coffee macnine, these can be saved individually for each product.

- Select *Product Settings* > *Payment List* (1) to adjust all product prices simultaneously.
- Assign article number (2) to ensure that the product price can be uniquely assigned.
- Assign product price (3).



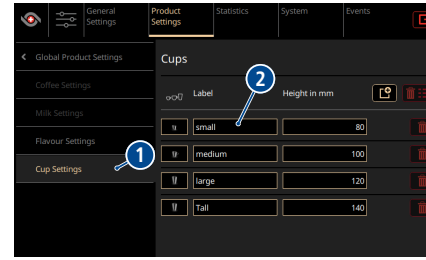
- ▶ Select *Product settings* > *Edit products* > *Payment* (4) to adjust the product price of a specific product.
- ▶ Assign article number (5).
- ▶ Assign product price (6).



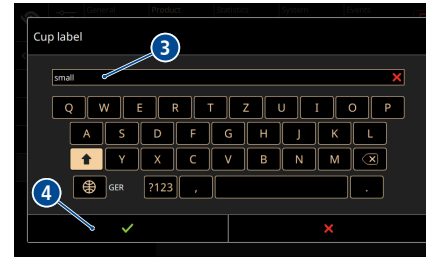
8.8.5 Cups Settings

Changing the cup designation

- ▶ Select *Product settings* > *Global product settings* > *Cup settings* (1).
- ▶ Select the cup designation to be changed (2).

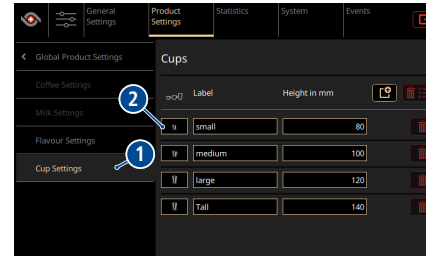


- ▶ Enter new cup designation (3).
- ▶ Save changes (4).



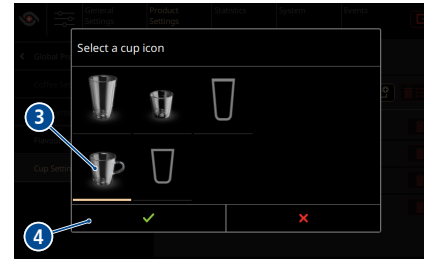
Changing the cup symbol

- ▶ Select *Product settings* > *Global product settings* > *Cup settings* (1).
- ▶ Select the cup symbol (2) to be changed.



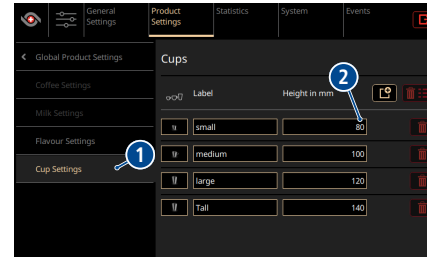
© Thermoplan AG

- ▶ Select the desired cup symbol (3) from the list.
- ▶ Save selection (4).



Changing the cup height

- ▶ Select *Product settings* > *Global product settings* > *Cup settings* (1).
- ▶ Select the cup height (2) to be changed.

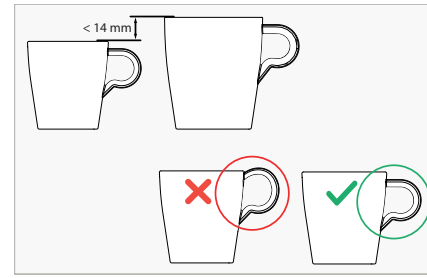


- ▶ Enter the new cup height - as accurately as possible - in mm (3).
- ▶ Save changes (4).



Note: The minimum adjustable height difference between the individual cups is 14 mm.

Caution: Only cups where the handle does not protrude over the edge of the cup can be detected.

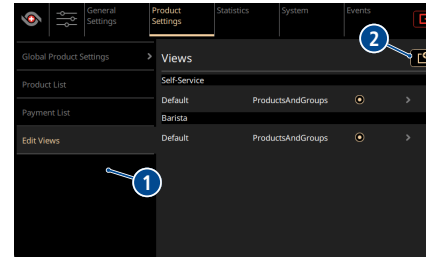


8.8.6 Creating and Editing Views

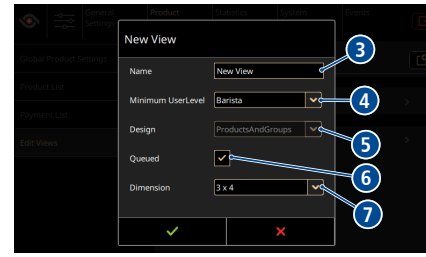
Design "Products And Groups"

Create a new view

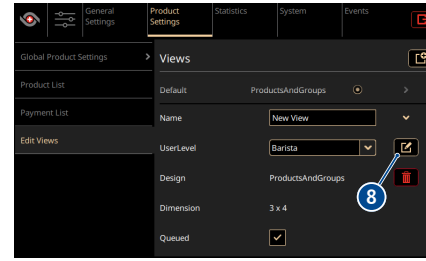
- ▶ Select *Product settings > Edit views* (1).
- ▶ Tap on *Add* (2) to add a new view.



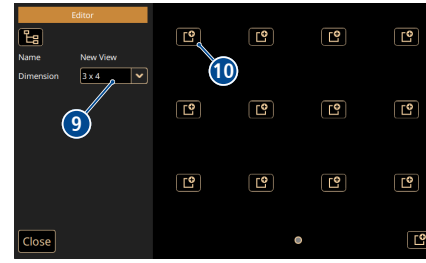
- ▶ Enter the desired designation (3).
- ▶ Select the minimum user level (4) for this view.
- ▶ Select Design *Products and Groups* (5).
- ▶ Activate or deactivate queue mode (6) (queue mode active: the product queue is displayed on the product screen, does not work in self-service mode).
- ▶ Select the desired dimensions (7) for this view.
- ▶ Confirm selection.



- ▶ Tap on *Edit* (8).
  - ⇨ The view editor opens.



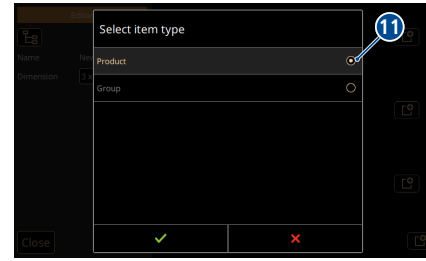
- ▶ Adapt the name of the view and dimensions (9) in the views editor.
- ▶ Tap *Add* (10) to place a product in the desired position.



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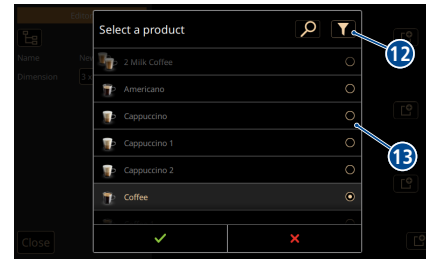
▶ Select the *product* (11).

⇨ The product list with the available products appears.



▶ Use *Filter* (12) to narrow down the selection.

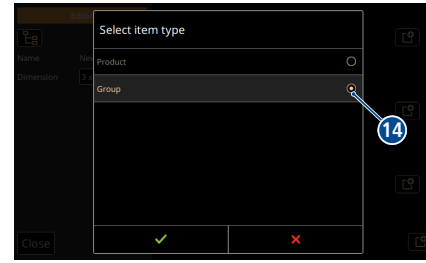
▶ Select Product (13). Each product can only be selected once.



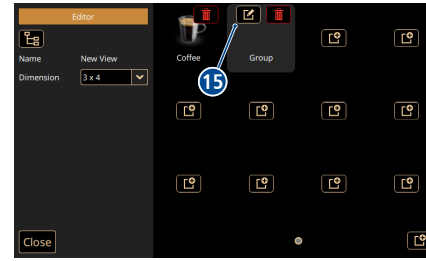
Creating and placing a group

▶ Select *Group* (14) from the list.

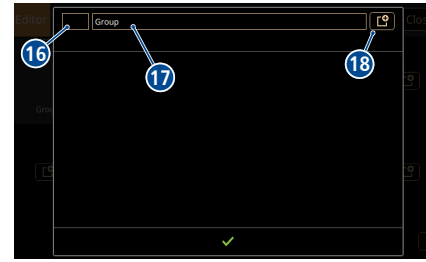
⇨ The group is placed in the view.



▶ Tap on *Edit* (15) in the group to edit the group.



- ▶ Adjust the *Product image* (16) and the *Name* (17) of the group.
- ▶ Tap *Add* (18) to add a product or another group.



- ▶ Select all products to be displayed in the product group (19).
- ▶ *Confirm* (20) to apply the changes.



- ▶ Tap *Add* (21) to add a new page.
- ▶ Tap *Close* (22) to accept the changes and return to the *product settings* .
- ▶ Rearrange the product icons as required using drag & drop.

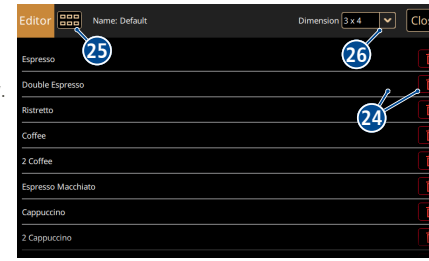


Show view as tree

- ▶ Tap on *Tree* (23).
  - ⇨ The structure of the view is shown as a tree.



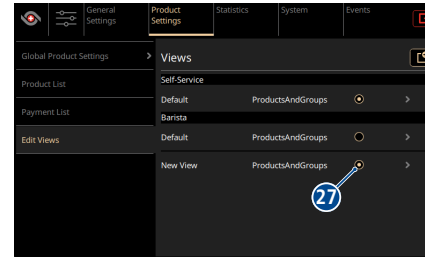
- ▶ Use *Add* and *Delete* (24) to customise the list.
- ▶ Tap the *tile* (25) to return to the normal editor.
- ▶ Select *Close* (26) to return to the view summary.



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Activate view

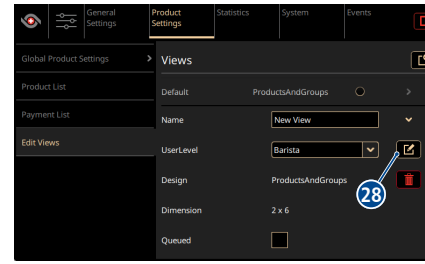
▶ Activate the new product screen (27) in the view overview.



Process existing view

▶ Tap *Edit* (28).

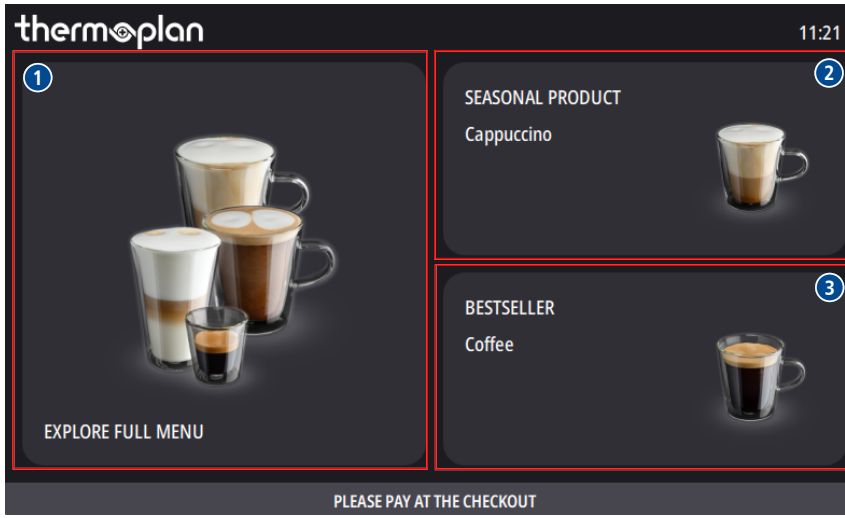
⇨ Editor opens to edit the view again.



Design "Product Configuration" (Minimum Viable Product)

This view design is only available for the self-service user.

Welcome screen ExploreFullMenu

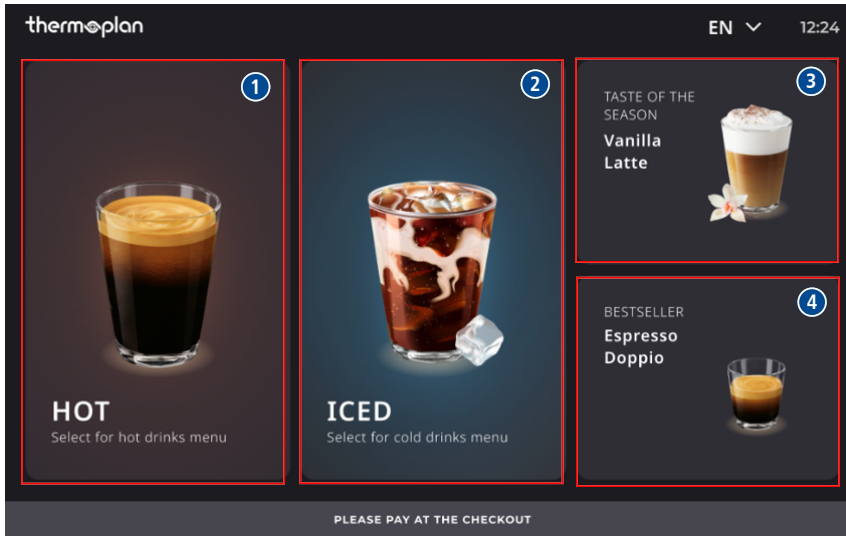


1	Main menu	2	Specially highlighted drink
3	Bestseller		

HotAndIced welcome screen

This welcome screen allows the user to choose between hot and chilled drinks, e.g. if an ice machine is available.

© Thermoplan AG



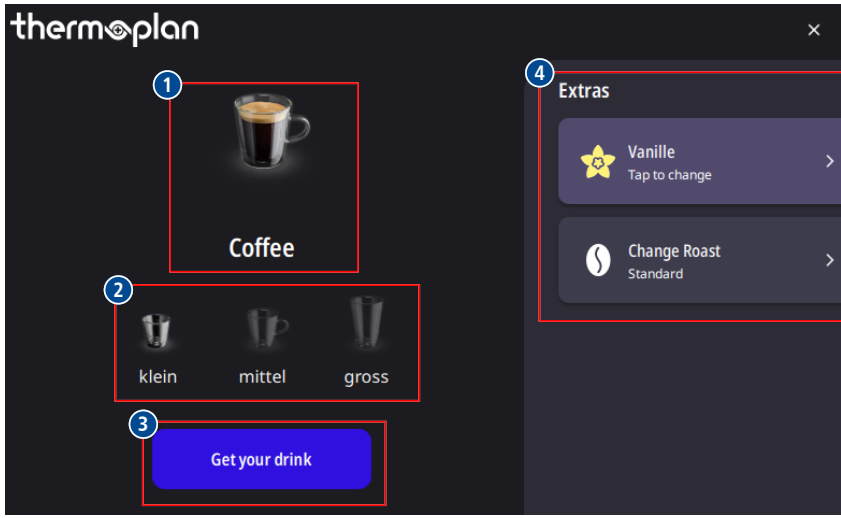
1	Hot drinks main menu	2	Chilled drinks main menu
3	Specially highlighted drink	4	Bestseller

An additional welcome screen can be defined in self-service mode. The following elements are available on the welcome screen:

- **Main menu**
  All available products can be selected here. On the HotAndIced welcome screen, the products can be divided into hot and cold drinks if, for example, an ice machine is available.
- **Specially highlighted drink**
  The drink displayed here can be a promotional product or a seasonal drink. It can be selected directly on the screen.
- **Bestseller**
  This shows the drink that has been purchased most frequently according to statistics (cannot be changed). This product can also be selected directly on the screen.

Beverage selection structure

If a product is selected, it can be customised according to the default settings.



1	Basic product	2	Cup size
3	Extras	4	Order button

Basic**product**
The basic product, e.g. coffee, is the product that does not yet contain any extras.
It is important that the smallest configuration is always used as the base product (without extras).

Cup size
Depending on the default setting, cup sizes can be selected here for the base product, e.g. medium.

Extras
Extras can be assigned to the basic product here, e.g. syrup, a different type of bean or type of milk.

Order button
The configured product can be ordered using the order button.

Required products

To be able to use the "Product Configuration" view, all product configurations must be preset by a technician. Here, for example, is the list of products for selection:

- Cup size: small, medium and large
- Bean type: Standard and house blend
- Flavour: Caramel and vanilla

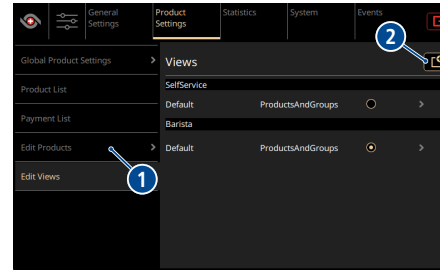
Product	Cup size			Bean type		Flavour	
	small	**medium**	**large**	**Standard**	**House blend**	**Caramel**	**Vanilla**
Coffee (basic product)	X			X			
Coffee 1	X				X	X	
Coffee 2	X			X			X
Coffee 3	X				X		X

© Thermoplan AG

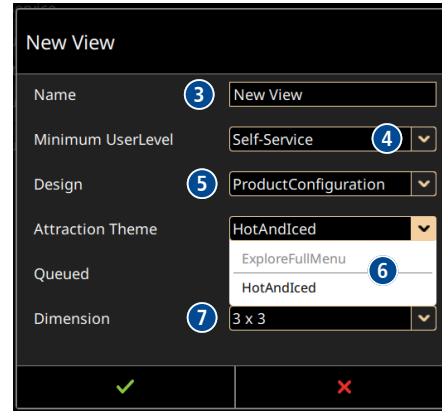
Product	Cup size			Bean type		Flavour	
Coffee 4		X		X		X	
Coffee 5		X			X	X	
Coffee 6		X		X			X
Coffee 7		X			X		X
Coffee 8			X	X		X	
Coffee 9			X		X	X	
Coffee 10			X	X			X
Coffee 11			X		X		X

Creating and configuring the view

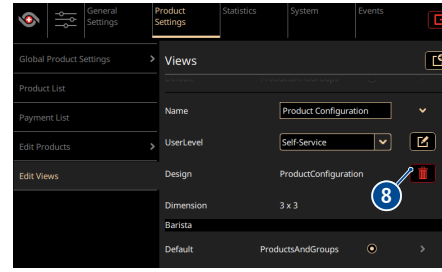
- ▶ Select *Product settings* > *Edit view* (1).
- ▶ Tap *Add* (2) to create a "Product Configuration" view.



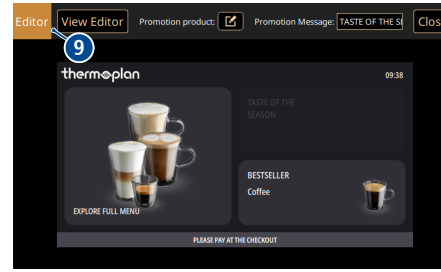
- ▶ Customise the name (3).
- ▶ Select the *Self-service* user level (4).
- ▶ Select the *Product Configuration* design (5).
- ▶ Select the *ExploreFullMenu* or *HotAndIced* welcome screen (6).
- ▶ Specify the desired dimension (6).
- ▶ Confirm selection.



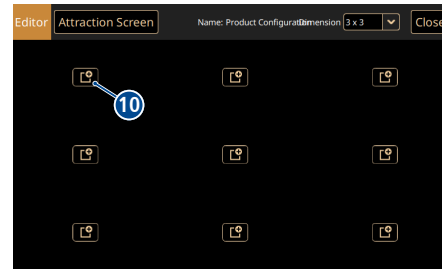
- ▶ Tap on *Edit* (8).
  - ⇨ The attraction screen is displayed.



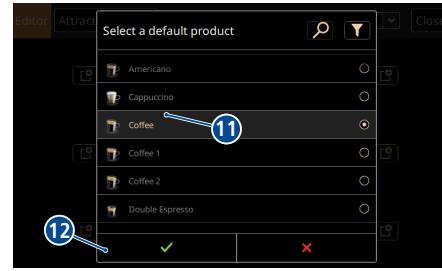
▶ Select *Editor* (9) to place the products.



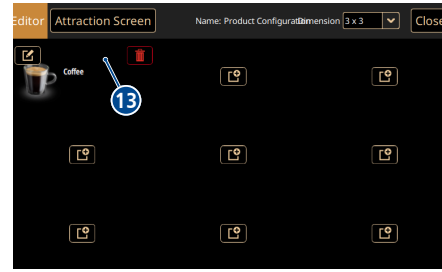
▶ Tap on *Add* (10).



▶ Select basic product (smallest configuration, see table above) (11) and add (12).

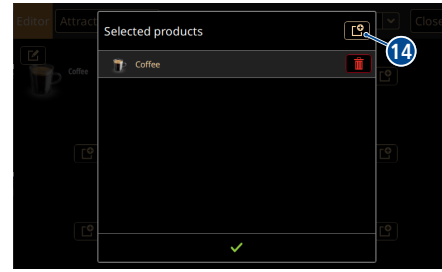


▶ Tap on *Edit* (13).

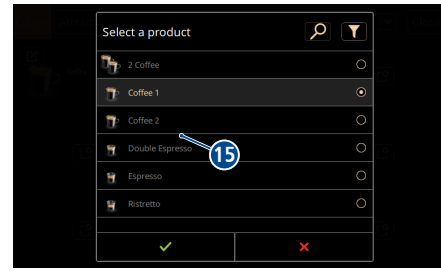


© Thermoplan AG

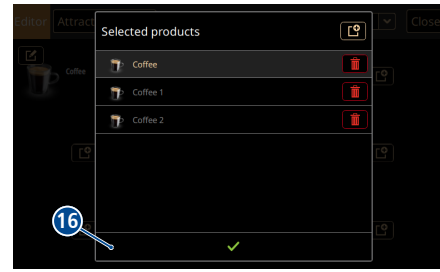
▶ Tap on *Add* (14).



▶ Add the desired variant(s) (15).

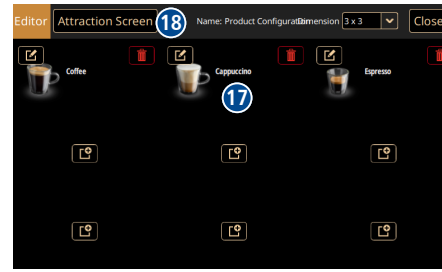


▶ Confirm selection (16).



▶ Add products (17) and their variants to the product screen.

▶ Select *Attraction Screen* (18) to return to the previous view.



- Select *Promotional product* (19) to select a product to be specially highlighted (20).



- Select *Promotional message* (21) to change the heading (22).
- Press *Close* (23) to save the changes and return to the views overview.



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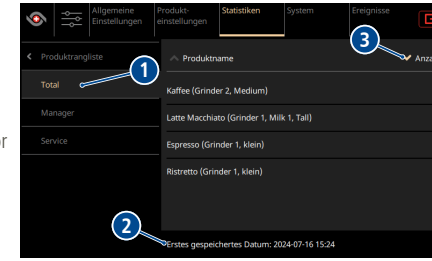
8.9 Statistics

8.9.1 Product ranking list

Total

These statistics can only be deleted by a service technician.

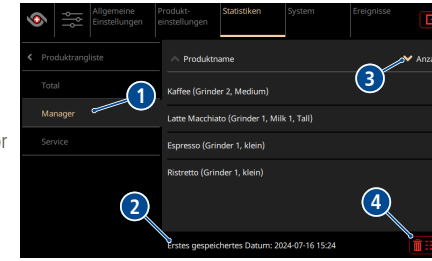
- ▶ Select *Statistics* > *Product ranking list* > *Total* (1).
  - ⇨ All the products since the machine (2) has been installed are displayed.
- ▶ Sort the product ranking list by product name or number (3).



Manager

These statistics can be deleted at any time by the Manager user group.

- ▶ Select *Statistics* > *Product ranking list* > *Manager* (1).
  - ⇨ All products since the last reset (2) will be displayed.
- ▶ Sort the product ranking list by product name or number (3).
- ▶ Delete the statistics if required (4).



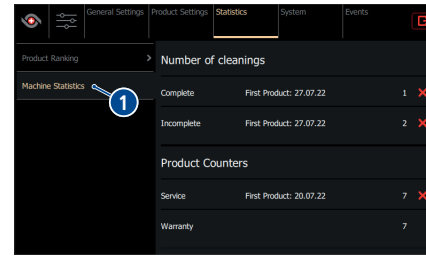
8.9.2 Machine counters

The following counters are displayed here:

- Number of cleaning processes (Completed, Cancelled)
- Product counter (service, warranty)
- Milk (duration)
- Water (water filter, total water)

These counters can only be reset by a service technician.

- ▶ Select *Statistics* > *Machine counter* (1).
  - ⇨ The counters are displayed.



8.10 System

8.10.1 System information

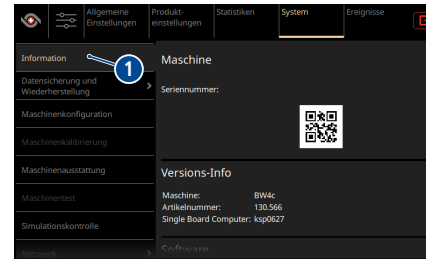
The following information is displayed:

- Machine (serial number)
- Version info
- Software
- Network

System information can be viewed by the barista and manager user groups.

▶ Select *System* > *Information* (1).

⇨ The information is displayed.



8.10.2 Machine configuration

Manager

Payment system settings can be made in the machine configuration menu. This requires that a payment system is connected to the coffee machine.

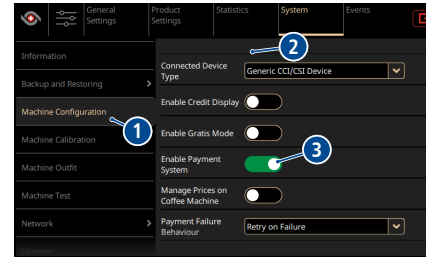
Changes in this menu can only be made by the manager user group.

Activate / deactivate the payment system

▶ Select *System* > *Machine configuration* (1).

▶ Scroll to *Payment system* (2).

▶ Activate or deactivate the payment system (3).



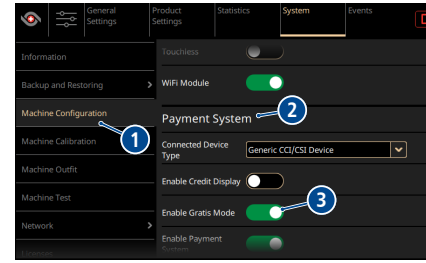
Activate / deactivate free mode

If gratis mode is enabled, products can be dispensed without charging for them.

If gratis mode is disabled, the prices for the products stored on the coffee machine or the prices managed by the payment system are charged.

© Thermoplan AG

- ▶ Select *System* > *Machine configuration* (1).
- ▶ Scroll to *Payment system* (2).
- ▶ Activate or deactivate free mode (3).



8.10.3 Machine Outfit

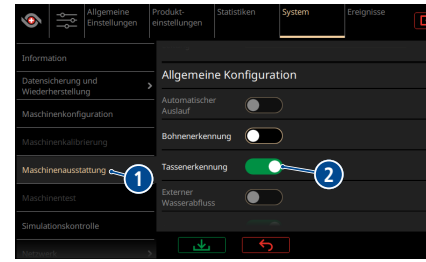
Manager

Changes in this menu can only be made by the manager user group.

Activate / deactivate cup recognition

In the Machine equipment menu, automatic cup detection (option) can be switched on and off.

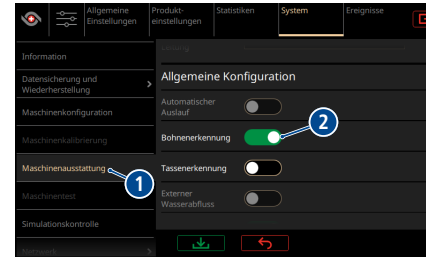
- ▶ Select *System* > *Machine equipment* (1).
- ▶ Scroll to *General configuration* > *Cup recognition* (2).
- ▶ Activate or deactivate cup recognition.



Activate / deactivate bean detection

In the Machine Equipment menu, the bean detection (option) can be switched on and off.

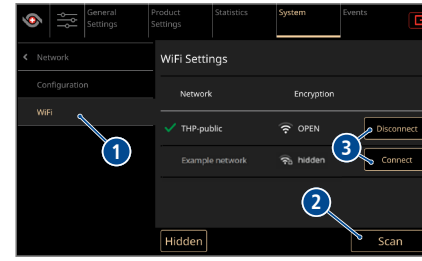
- ▶ Select *System* > *Machine equipment* (1).
- ▶ Scroll to *General configuration* > *Bean detection* (2).
- ▶ Activate or deactivate bean detection.



8.10.4 Network

The coffee machine can be connected to a network.

- ▶ Select *System* > *Network*.
- ▶ Available wireless networks can be selected under *WiFi* (1).
- ▶ *Scan* (2) to search for available wireless networks.
- ▶ The coffee machine can be connected to a WiFi or disconnected from a WiFi (3).



8.10.5 Licenses

All legally relevant license information is listed under *System* > *Licenses*.

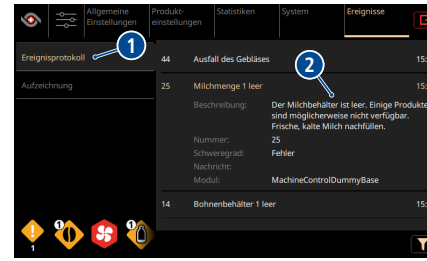
© Thermoplan AG

8.11 Events

8.11.1 Event Log

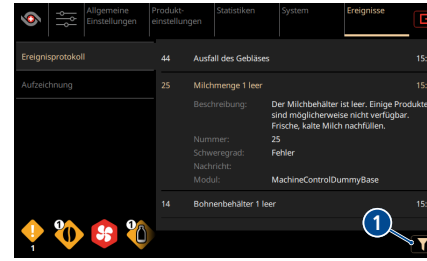
The event log can only be deleted by a service technician.

- ▶ Select *Event > Event log* (1).
  - ⇨ All previous events will be displayed (2).

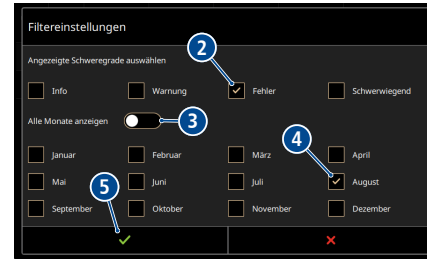


Filtering Events

- ▶ Select *filtering* (1).



- ▶ Select the desired severity of the event (2).
- ▶ Select *Display all months (3)* to show the events of the entire year.
- ▶ Select one or several months (4) to limit the results.
- ▶ Apply filter (5).
  - ⇨ The results (6) are displayed.





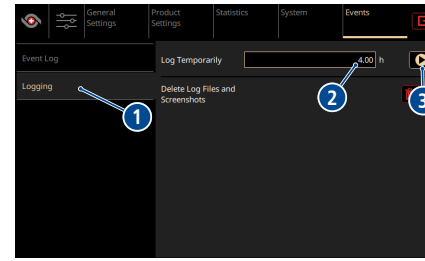
8.11.2 Recordings

Manager

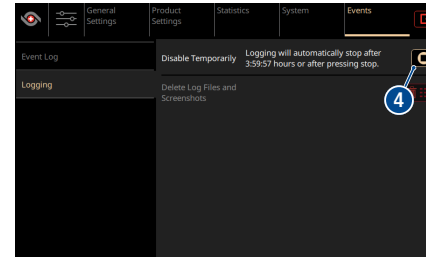
The recordings menu allows you to record machine activities during a specific time period. The recordings can then be evaluated by a service technician.

Changes in this menu can only be made by the manager user group.

- ▶ Select *Events* > *Records* (1).
- ▶ Enter the desired time period (2) during which the machine activities are to be logged.
- ▶ Start recording (3).



- ▶ Press *Stop* (4) to cancel the recording prematurely.



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9 Cleaning

9.1 Cleaning agents and accessories

⚠ CAUTION

Danger of poisoning through cleaning agents



Minor to moderate risk of poisoning through ingestion of cleaning agents.

- ▶ Do not consume cleaning agents.
- ▶ After using cleaning agents, wash your hands.
- ▶ Keep unauthorised people away from cleaning agents.

NOTICE

Coffee machine damage through use of the wrong cleaning agents



The coffee machine is damaged through the use of the wrong cleaning agents and accessories.

- ▶ Only use the cleaning agents prescribed by Thermoplan.
- ▶ Cloths for cleaning should only be slightly moistened. Dripping cloths or sponges can cause a short circuit.
- ▶ Cloths used to clean the machine components which come into contact with food must be germ-free.
- ▶ Alcohol, ethanol, methylated spirits, disinfectants or acidic cleaning agents, such as acetic acid must not be used for cleaning.

Additional accessories for cleaning:

- Warm soap solution
- Non-scratch cloth for damp cleaning
- Non-scratch cloth for dry cleaning
- Cleaning tablets for the coffee system
- Cleaning tablets for the milk system
- Cleaning container 129.264
- Vacuum cleaner

9.2 Cleaning schedule

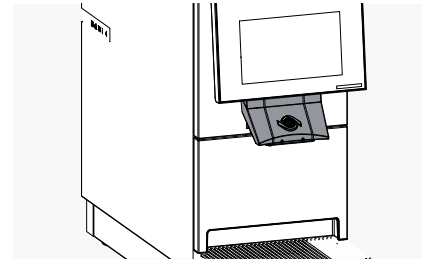
The cleaning schedule describes which cleaning steps must be executed daily or weekly. This cleaning schedule must be strictly complied with to ensure hygiene and product quality.

Daily	Weekly	Cleaning step	Comment
1x		Execute automatic cleaning	[Execute automatic cleaning ▶ 74]
1x		Cleaning exterior components	[Clean exterior components ▶ 79]
1x		Cleaning the grounds container and drip tray	[Clean the grounds container and drip tray ▶ 77]
	1x	Cleaning bean hopper	[Clean bean container ▶ 71]
1x		Cleaning the grounds discharge	[Empty and clean the grounds discharge (optional) ▶ 77]
1x		Cleaning product outlet	[Cleaning product outlet ▶ 70]
1x		Cleaning the refrigerator	[Clean the refrigerator ▶ 73]
1x		Empty the external waste water tank	[Empty and clean the external waste water tank (optional) ▶ 78]

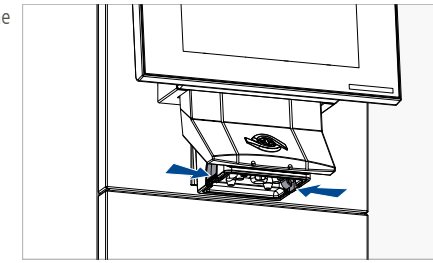
9.3 Cleaning product outlet

9.3.1 Standard outlet/Automatic outlet

▶ Push the product discharge upwards (manual discharge only).

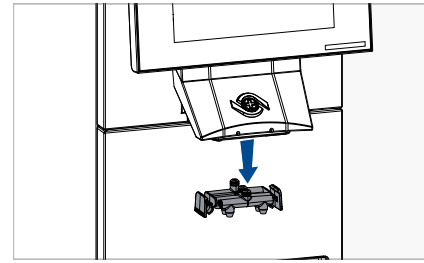


▶ Press the retaining clips together and loosen the product outlet.

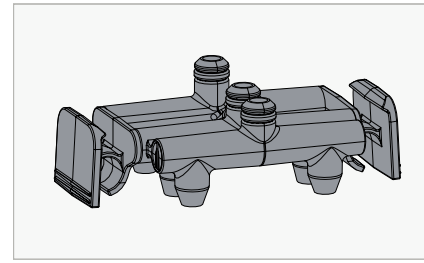


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- ▶ Pull the product outlet block out of the product outlet.

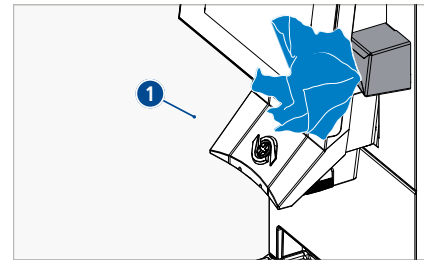


- ▶ Thoroughly flush out the product outlet block thoroughly with a soap water solution.
- ▶ Then rinse out with clean water.
- ▶ Clean the product outlet with a small brush and rinse with clean water.
- ▶ Dry and re-insert product outlet block.



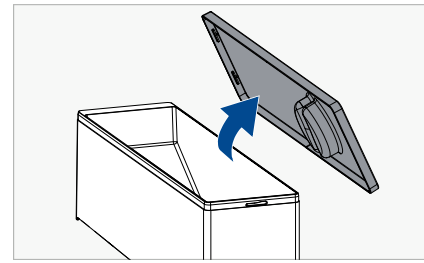
9.3.2 Cleaning the cup detection sensor (optional)

- ▶ Moisten a non-abrasive cloth with a soap/water solution.
- ▶ Carefully clean the sensor (1).

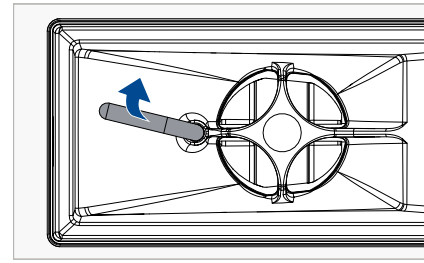


9.4 Clean bean container

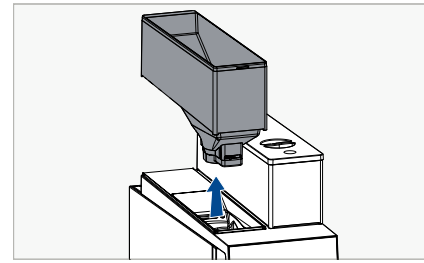
- ▶ Remove the lid from the bean container.



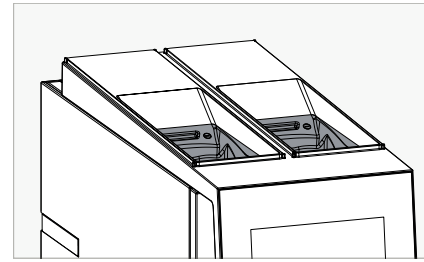
- Turn the lever in the bean hopper anticlockwise to detach the bean hopper.



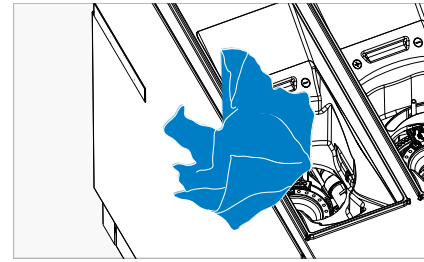
- Lift the bean container upwards with both hands and remove.
- Remove beans from the bean hopper.
- Store beans in cool and dry location.



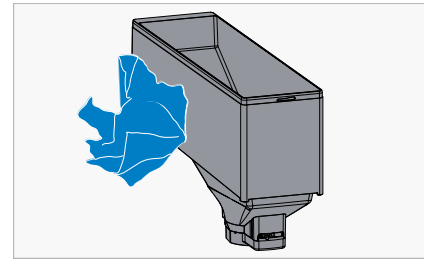
- Remove the remaining beans from the grinders with a hand vacuum cleaner.



- For the bean detection option, clean the sensor opening with a non-scratching cloth moistened with a soapy water solution.



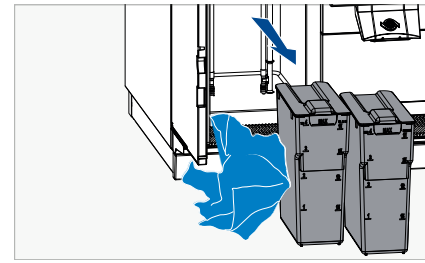
- Thoroughly flush out bean hopper with a warm soap water solution.
- Then rinse out with clean water.
- Thoroughly dry the bean container and re-insert it.



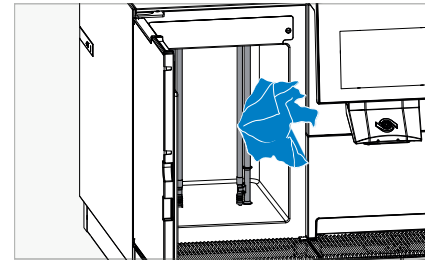
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9.5 Clean the refrigerator

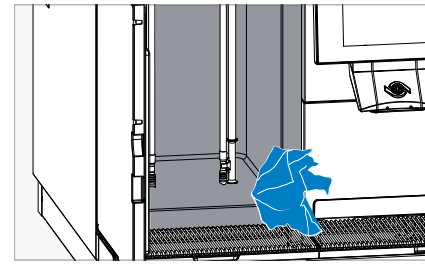
- ▶ Remove both milk containers from the refrigerator.
- ▶ Rinse out milk container with warm water and then dry it.



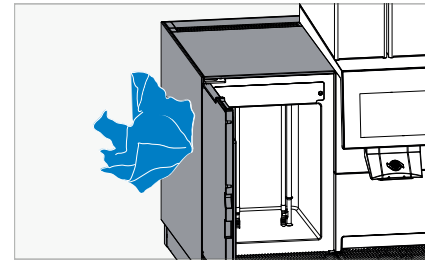
- ▶ Moisten a non-abrasive cloth with a soap/water solution.
- ▶ Clean milk hoses.



- ▶ Moisten a non-abrasive cloth with a soap/water solution.
- ▶ Clean and dry the inside of the refrigerator.



- ▶ Moisten a non-abrasive cloth with a soap/water solution.
- ▶ Clean the exterior of the refrigerator.



- ▶ Place the milk containers in the refrigerator.
- ▶ Insert the milk hoses back into the milk containers.
- ▶ Close the refrigerator door.

9.6 Cleaning prompt



The cleaning prompt appears after a defined period or after a specific number of dispensed products.

Execute automatic cleaning as soon as possible. The products remain available. The message appears 24 hours after the first dispensed milk product or 72 hours after the first dispensed coffee product.



Execute automatic cleaning immediately. The products are no longer available. The message appears 26 hours after the first dispensed milk product or 74 hours after the first dispensed coffee product.

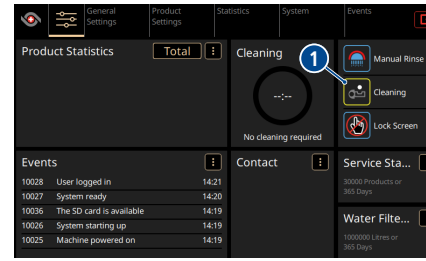
9.7 Execute automatic cleaning

Automatic cleaning can be executed in three ways.

Variante1: Via the user menu (possible at any time)



- ▶ Call up the user menu [Calling up the user menu ▶ 34].
- ▶ Tap on *Cleaning* (1).
  - ⇨ Cleaning starts.
- ▶ Follow the instructions on the display.
  - ⇨ The cleaning process takes several minutes.



Option 2: Indication on the machine display

A cleaning prompt appears on the product screen as soon as the predefined time after the first dispensing of the product has elapsed.

- ▶ Tap on *Cleaning* (1).
  - ⇨ Cleaning starts.
- ▶ Follow the instructions on the display.
  - ⇨ The cleaning process takes several minutes.



Option 3: Via the login window (possible at any time)



- ▶ Tap and hold *User menu* (in self-service mode, tap and hold Time).
  - ⇨ The login window appears.
- ▶ Tap on *Cleaning* (1).
  - ⇨ Cleaning starts.
- ▶ Follow the instructions on the machine display.
  - ⇨ The cleaning process takes several minutes.

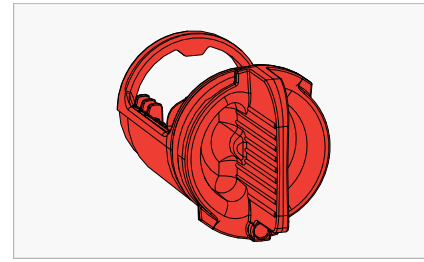


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9.8 Cleaning keys

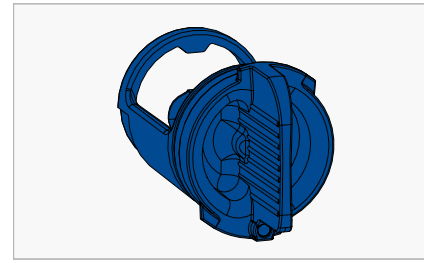
Coffee cleaning key (red)

The coffee cleaning key (red) is used for cleaning the coffee system. It is located inside the machine behind the grounds container.



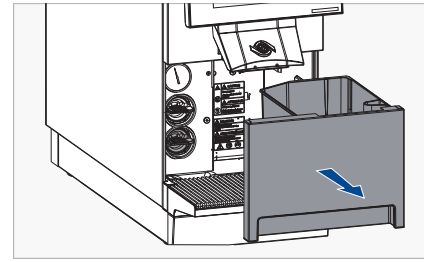
Milk cleaning key (blue)

The milk cleaning key (blue) is used for cleaning of the milk system. It is located inside the machine behind the grounds container.

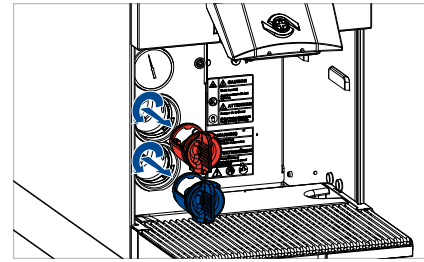


▶ Remove grounds container (1).

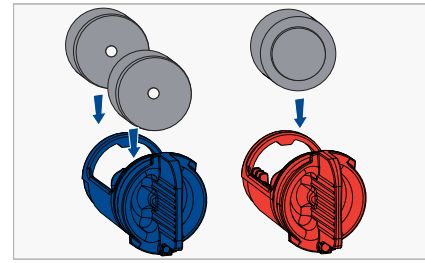
Note: For use in self-service mode, the grounds drawer can only be removed after the drip tray has been removed. This is also monitored by the cup sensor.



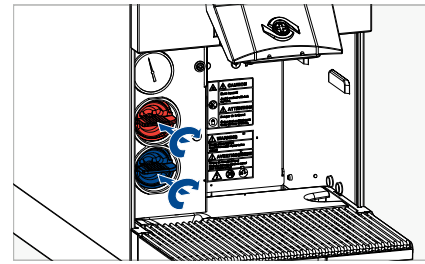
▶ Turn the cleaning key 90° anticlockwise and then pull it out.



- Insert 2 milk cleaning tablets and/or 1 coffee cleaning tablet in the respective cleaning key as shown on the display.



- Insert the cleaning key and turn 90° clockwise.
- Re-insert the grounds container.
- Start cleaning via the display Execute automatic cleaning.



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9.9 Clean the grounds container and drip tray

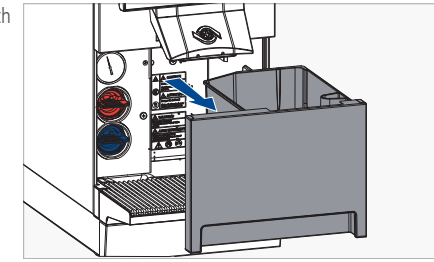
NOTICE

Damage of the grounds drawer

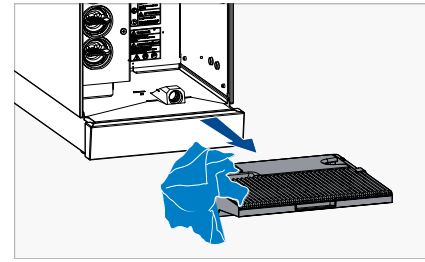
The grounds drawer can be damaged if not cleaned properly.

▶ Carefully tap the coffee grounds out of the grounds drawer.

▶ Empty the grounds container and wash out with a soapy water solution. Then dry.



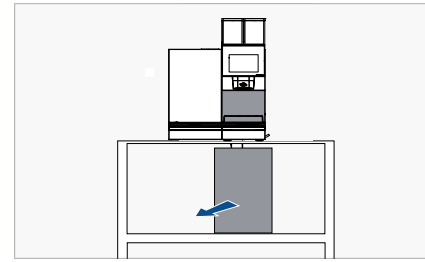
▶ Empty the drip tray and wash out with a soapy water solution. Then dry.



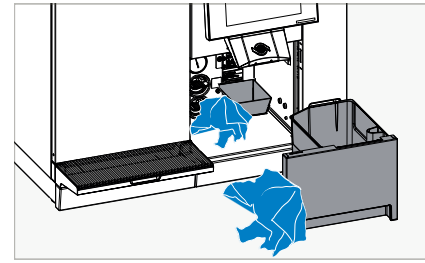
9.10 Empty and clean the grounds discharge (optional)

▶ Remove the drip tray and grounds drawer.

▶ Remove grounds container below the coffee machine and empty it.

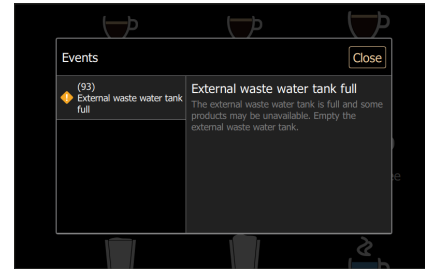


- ▶ Clean the grounds container, grounds drawer and grounds discharge channel.
- ▶ Place the grounds container.
- ▶ Re-insert the grounds drawer and drip tray.

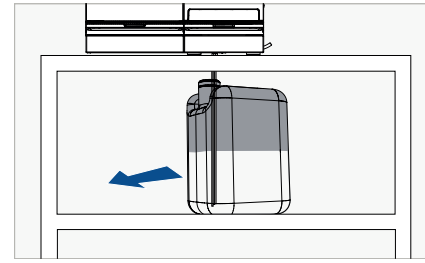


9.11 Empty and clean the external waste water tank (optional)

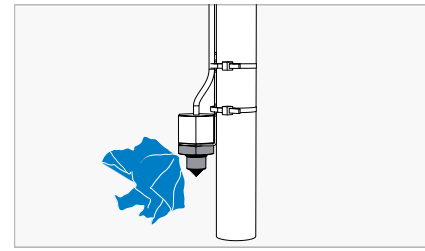
- ▶ If the external waste water tank is full, this message appears on the display.



- ▶ Remove, empty and clean the tank.

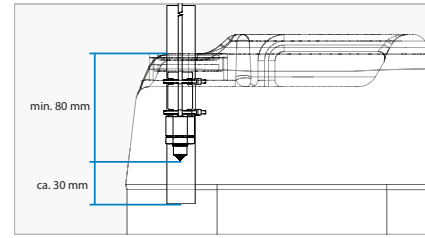


- ▶ Clean the sensor tip using a cloth.



- ▶ Then reinsert the waste water tank and guide the sensor and hose into the waste water tank.

Caution: note the positioning of the sensor!



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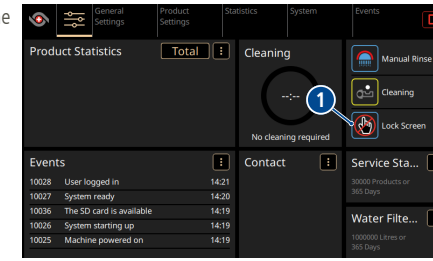
9.12 Clean exterior components

- ▶ Moisten a non-abrasive cloth with a soap/water solution.
- ▶ Carefully clean and dry the outside of the coffee machine.

Cleaning the touch screen

The screen lock can be used to ensure that products are not accidentally selected or unintentional settings made while the screen is being cleaned.

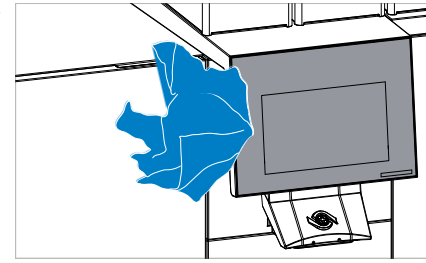
- ▶ Tap *Lock screen* (1) on the dashboard to lock the screen for cleaning.



- ▶ Clean the screen while the countdown (2) is displayed.



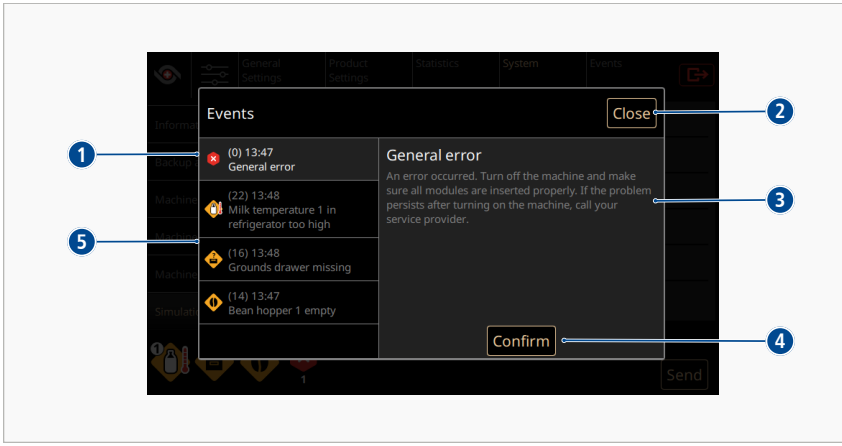
- ▶ Moisten a non-abrasive cloth with a soap/water solution.
- ▶ Carefully clean and dry the touchscreen.



10 Troubleshooting

10.1 Warning and Error Messages

Details of the messages can be viewed by tapping the corresponding icon or in the *Events* menu. If the error is rectified, the error message disappears.



1 Event Symbol/Event No. /Time of the Occurrence/Brief Description
2 Close message
3 Message details
4 Confirm message
5 List of Events

10.2 Possible indications and errors and their rectification

The following notices and error messages can appear on the display. In the case of two bean hoppers, the hopper concerned is indicated in the message with the corresponding number.

Symbol	Meaning/reason	Rectification
	Information e.g. "Machine starts"	▶ Follow the display instructions.
	Warnings e.g. "Extraction time too long"	▶ Follow the display instructions.
	Error e.g. "brewing piston error"	▶ Follow the display instructions.
	Serious error e.g. "general error"	▶ Follow the display instructions.
	Cleaning recommended	▶ Perform cleaning as soon as possible.

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Symbol	Meaning/reason	Rectification
	Cleaning required	▶ Perform cleaning immediately. Products are blocked.
	Grounds container almost full	▶ Empty grounds container as soon as possible.
	Grounds container full	▶ Empty grounds container. Products are blocked.
	Grounds container is missing	▶ Insert the grounds drawer. Products are blocked.
	Bean hopper X empty	▶ Fill with fresh coffee beans in the indicated bean hopper. Products from the corresponding bean hopper are blocked.
	Bean hopper X is missing	▶ Insert the displayed bean hopper. Products from the corresponding bean hopper are blocked.
	Level of milk type X low	▶ Top up indicated milk container with fresh, cooled milk as soon as possible.
	Milk type X empty	▶ Top up fresh, cooled milk in the indicated milk containers. Milk products from the corresponding milk container are blocked
	Milk temperature X in refrigerator high.	▶ Check the refrigerator. Door correctly closed?
	Milk temperature X in refrigerator is too high.	▶ Empty the displayed milk container immediately. Top up fresh, cooled milk in the corresponding milk containers and check the refrigerator. Door correctly closed?
	Chassis fan error	▶ Follow the display instructions.
	Open cover/door	▶ Check whether all covers on the coffee machine are closed correctly (CTM-P / CTM-F / CTM-P-F only).
	Water filter change recommended	▶ Change water filter as soon as possible.
	Water filter change required	▶ Change water filter.

Symbol	Meaning/reason	Rectification
	Service is recommended	▶ Perform service as soon as possible.
	Service required	▶ Perform service.
	e.g. waste water tank full	▶ Empty and clean the waste water tank.
	Drip pan missing	▶ Insert the drip tray. If drip tray inserted > clean cup sensor.
	Cup too small	▶ Use a larger cup.

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11 Accessories and consumables

11.1 Cleaning agents

Thermoplan Coffee Cleaning Tablets

Art. no.	Description
105371	Tub Thermo Coffee Tabs (90 tabs)
105365	Box containing Thermo Coffee Tabs (36 tubs)

Thermoplan Milk Cleaning Tablets

Art. no.	Description
120528	Tub with Thermo Milk Tabs (62 tabs, Schulz)
120900	Box with Thermo Milk Tabs (12 tubs, Schulz)
135283	Tub with Thermo Milk Tabs (62 tabs, Urnex)
135284	Box with Thermo Milk Tabs (12 tubs, Urnex)

11.2 Milk container

Art. no.	Description
127180	Milk container 4 litres (without lid)
127181	Lid (for 4 litre milk container)
127148	Milk container 4 litres incl. lid

11.3 Powder container

Art. no.	Description
127,988	Powder container, complete

11.4 Refrigerator cleaning container

Art. no.	Description
129,264	Cleaning tank 9 l

12 EU Declaration of Conformity

Trade mark	Black&White4 compact				
Product model	BW4c-CTM	BW4c-CTM-P	BW4c-CTM-F	BW4c-CTM-P-F	BW4c-CTM-FUT
	BW4c-CTM-RS	BW4c-CTM-P-RS	BW4c-CTM-F-RS	BW4c-CTM-P-F-RS	BW4c-CTM-FUT-RS
	BW4c-CTM-RL	BW4c-CTM-P-RL	BW4c-CTM-F-RL	BW4c-CTM-P-F-RL	BW4c-CTM-FUT-RL
				BW4c-CTM-P-FUT	
				BW4c-CTM-P-FUT-RS	
				BW4c-CTM-P-FUT-RL	

Name und Anschrift des Herstellers:
Name and address of the manufacturer:
Nom et adresse du fabricant:

Thermoplan AG, Thermoplan-Platz 1, 6353 Weggis, Switzerland

Die alleinige Verantwortung für die Ausstellung dieser Konformitätserklärung trägt der Hersteller.
This declaration of conformity is issued under the sole responsibility of the manufacturer.
La présente déclaration de conformité est établie sous la seule responsabilité du fabricant.

Gegenstand der Erklärung:
Object of the declaration:
Objet de la déclaration:

Automatic coffee machine

Der oben beschriebene Gegenstand der Erklärung erfüllt die einschlägigen Harmonisierungsrechtsvorschriften der Union:
The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:
L'objet de la déclaration décrit ci-dessus est conforme à la législation d'harmonisation de l'Union applicable:

2014/35/EU	(LVD)	1935/2004/EU	(FCM)
2014/30/EU	(EMC)	2023/2006/EU	(GMP)
2015/863/EU	(RoHS)	2006/42/EU	(MD)

Angabe der einschlägigen harmonisierten Normen, die zugrunde gelegt wurden, oder Angaben der anderen technischen Spezifikationen, in Bezug auf die die Konformität erklärt wird:
References to the relevant harmonised standards used or references to the other technical specifications in relation to which conformity is declared:
Références des normes harmonisées pertinentes appliquées ou des autres spécifications techniques par rapport auxquelles la conformité est déclarée:

EN 60335-1:02/A1:04+A11:04+A12:06+A13:08+A14:10+A15:11	EN 300 328 V2.2.2
EN 60335-1:12+A11:14+A13:17+A1:19+A14:19+A2:19+A15:21	EN 301 489-1 V2.2.3
EN 60335-2-75:04 + A1:05 + A2:08 + A11:06 + A12:10	EN 301 489-17 V3.2..4
EN 61000-3-3:13 + A1:19 + 11:19 + 12:11	EN 50581:12
EN 61000-4-13:02 + A1:09 + A2:16	EN IEC 55014-1:2021
EN 61000-6-2:05 +3:07 + A1:11	EN IEC 55014-2:2021
EN 62233:08	EN IEC 61000-3-2:19 + A1:20

Unterzeichnet für und im Namen von:
Signed for and on behalf of:
Signé par et au nom de:

CH-6353 Weggis, 21.10.2024
(Ort und Datum der Ausstellung)
(Place and Date of issue)
(Lieu et date)

Adrian Steiner, CEO
(Name, Funktion und Unterschrift des Befugten)
(Name, function and signature of authorized person)
(Nom, fonction et signature du signataire autorisé)

Verantwortlich für die technische Dokumentation ist:
Responsible for the technical documentation is:
Responsable de la documentation technique:

Guido Di Seri

thermoplan
Swiss Quality Coffee Equipment

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13 UK Declaration of Conformity

Trade mark	Black&White4 compact					
Product model	BW4c-CTM	BW4c-CTM-P	BW4c-CTM-F	BW4c-CTM-P-F	BW4c-CTM-FUT	
	BW4c-CTM-RS	BW4c-CTM-P-RS	BW4c-CTM-F-RS	BW4c-CTM-P-F-RS	BW4c-CTM-FUT-RS	
	BW4c-CTM-RL	BW4c-CTM-P-RL	BW4c-CTM-F-RL	BW4c-CTM-P-F-RL	BW4c-CTM-FUT-RL	
				BW4c-CTM-P-FUT		
				BW4c-CTM-P-FUT-RS		
				BW4c-CTM-P-FUT-RL		

Name und Anschrift des Herstellers:
Name and address of the manufacturer:
Nom et adresse du fabricant:

Thermoplan AG, Thermoplan-Platz 1, 6353 Weggis, Switzerland

Die alleinige Verantwortung für die Ausstellung dieser Konformitätserklärung trägt der Hersteller.
This declaration of conformity is issued under the sole responsibility of the manufacturer.
La présente déclaration de conformité est établie sous la seule responsabilité du fabricant.

Gegenstand der Erklärung:
Object of the declaration:
Objet de la déclaration:

Automatic coffee machine

Der oben beschriebene Gegenstand der Erklärung erfüllt die einschlägigen Harmonisierungsrechtsvorschriften der Union:
The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:
L'objet de la déclaration décrit ci-dessus est conforme à la législation d'harmonisation de l'Union applicable:

UK SI 2016 No. 1101 (LVD)
UK SI 2016 No. 1091 (EMC)
UK SI 2012 No. 3032 (RoHS)
UK SI 2012 No. 2619 (FCM)
UK SI 2005 No. 1803 (General Product Safety)

Angabe der einschlägigen harmonisierten Normen, die zugrunde gelegt wurden, oder Angaben der anderen technischen Spezifikationen, in Bezug auf die die Konformität erklärt wird:
References to the relevant harmonised standards used or references to the other technical specifications in relation to which conformity is declared:
Références des normes harmonisées pertinentes appliquées ou des autres spécifications techniques par rapport auxquelles la conformité est déclarée:

EN 60335-1:02/A1:04+A11:04+A12:06+A13:08+A14:10+A15:11
EN 60335-1:12+A11:14+A13:17+A1:19+A14:19+A2:19+A15:21
EN 60335-2-75:04 + A1:05 + A2:08 + A11:06 + A12:10
EN 61000-3-3:13 + A1:19 + 11:19 + 12:11
EN 61000-4-13:02 + A1:09 + A2:16
EN 61000-6-2:05 +3:07 + A1:11
EN 62233:08
EN 300 328 V2.2.2
EN 301 489-1 V2.2.3
EN 301 489-17 V3.2..4
EN 50581:12
EN IEC 55014-1:2021
EN IEC 55014-2:2021
EN IEC 61000-3-2:19 + A1:20

Unterzeichnet für und im Namen von:
Signed for and on behalf of:
Signé par et au nom de:

CH-6353 Weggis, 04.11.2024
(Ort und Datum der Ausstellung)
(Place and Date of issue)
(Lieu et date)

Adrian Steiner, CEO
(Name, Funktion und Unterschrift des Befugten)
(Name, function and signature of authorized person)
(Nom, fonction et signature du signataire autorisé)

Verantwortlich für die technische Dokumentation ist:
Responsible for the technical documentation is:
Responsable de la documentation technique:

Guido Di Seri

thermoplan
Swiss Quality Coffee Equipment

14 FCC/IC Declarations of Conformity

FCC Declaration of Conformity

This equipment has been tested and complies with the limit values for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limit values are designed to provide reasonable protection against harmful interference in case of installation in residential areas. This device generates, uses and can radiate radio frequency energy. If not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this device does cause harmful interference to radio or television reception, which can be determined by turning the device off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the distance between the device and receiver.
- Connect the device into a power socket on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) this device must accept any interference received, including interference that may cause undesired operation.

Warning: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment (part. 15.21).

IC Declaration of Conformity

This device complies with RSS-210 of the IC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment was tested and complies with the limit values for a Class B digital device, pursuant to RSS-210 of the IC Rules. These limit values are designed to provide reasonable protection against harmful interference in a residential area. This device generates, uses and can radiate radio frequency energy. If not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

Warning: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment (RSS-210).

Explanation of radiation exposure

To comply with FCC and Industry Canada RF limits for the general population / uncontrolled exposure, the antenna(s) used for this transmitter must be installed to maintain a separation distance of at least 29 mm from all persons and operated in conjunction with another antenna or transmitter, except in accordance with FCC multiple transmitter product procedures.

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