

thermoplan
Swiss Quality Coffee Equipment



Automatic Coffee Machine + Refrigerator

BLACK&WHITE 3

Operating Instructions Model BW3-CTMS
Software version FOX2

Operating Instructions Refrigerator BW3-RF

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1 Indroduction

Dear Customer,

We would like to thank you for choosing our product and are quite convinced that our coffee machine will give you excellent service and meet with your full satisfaction.

Thermoplan AG is a company which has responded to gastronomy requirements for many years. We guarantee you the best and highest quality products made in Switzerland.

These Operating Instructions are a component of the product and are delivered to each customer with the product. Therefore, please study these instructions before using the product and keep them in a safe place. Should you have queries, or require any further information please contact your service partner.

The instructions for the BW3 should help the user to operate the machine, handle it safely and implement the care and maintenance of the machine. The correct operation of the coffee machine requires correct maintenance. Thermoplan AG therefore recommends to carefully read the instructions for the machine prior to use to make initial handling of the machine easier.

The coffee machine has been manufactured according to the applicable safety standards and directives. Nevertheless, safe daily use of the coffee machine requires reading these Operating Instructions and the regular servicing of the machine.

Some diagrams may vary in their detail from your coffee machine. Such details, however, are not relevant for operation.

This coffee machine has been manufactured by:

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2 Important indications, safety

2.1 Signals and signal words



The warning triangle is used in those parts of the instructions where the non-observance of the safety instructions could pose risks for the user or the machine.



DANGER

HAZARD refers to a hazard with a high risk level which, if not avoided, could be fatal or entail serious injury.



WARNING

WARNING refers to a hazard with a medium risk level which, if not avoided, could be fatal or entail serious injury.



CAUTION

CAUTION refers to a hazard with a low risk level which, if not avoided, could entail a low or moderate injury.



NOTICE

NOTICE offers important information with regard to the care of the machine, as well as useful operational options.



Warning:
Electric shock



Warning:
Scalding hazard



Warning:
Rotating grinders



Command:
Caution required



Command:
Wear protective gloves



Command:
Wear protective goggles



Prohibition:
Do not touch



Prohibition:
Do not touch inside

2.2 Definition terms

Service partner

Your service partner is your Thermoplan representative. In the event of queries or problems please refer to your service partner. Depending on the circumstances, your service partner will send your service staff.

Trained service staff

Trained service staff refers to expert engineers trained and distinguished by Thermoplan who sell and service Thermoplan products.

Instructed staff

Instructed staff refers to staff who have been given instruction on the coffee machine (reading of the operating instructions) and who are able to handle its operation as well as perform the maintenance steps described in these Operating Instructions.

Customers and children

Customers and children are not instructed individuals and must keep away from the machine unless it is a self-service machine.

Dispensing machines

Dispensing machines refers to machines which enable dispensing products such as coffee, milk and hot water.

2 Important indications, safety

2.3 Safety indications

General safety indications

- In an emergency switch off the machine at the main switch. Pull out the plug or remove the fuse for the house installation. Contact your service partner.
- The machine must not be operated outdoors.
- The coffee and milk outlet, as well as the water outlet and brewed coffee outlet, can be very hot. Avoid direct contact (burning and scalding hazard).
- Clean the machine before it is not used for a prolonged period (day off, holidays, etc.). Proceed to remove the mains plug, then remove any beans remaining in the bean hopper. Remove, empty and clean the milk container. Turn off the tap under the drip tray and turn off the stop valve.
- Do not use the machine if it does not work perfectly or if there is any sign of damage. In the event of a malfunction or damage notify your service partner.
- The machine may only be operated in hygienic and ergonomic surroundings. The operator must have enough space and the working area must be well lit.
- If a hose, cable or plug is damaged do not use the machine thus preventing any hazards. Ensure the faulty part is repaired by trained service staff or replaced.
- If the coffee grounds drawer is removed do not touch the inside towards the top.
- It is strictly forbidden to use any objects inside the machine or to open the housing.
- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

2 Important indications, safety

2.3 Safety indications

Positioning of the machine

- The placing and installation of the machine can only be performed by trained service staff.
- The machine must not be installed in a warm or humid atmosphere. The ambient temperature must be between 16 °C and 32°C.
- Do not install the machine in a location where it could be cleaned with a jet of water.
- Never position the machine on a hot surface. The use of the machine in the presence of naked flames is strictly forbidden.
- Never put the cable in contact with the hot parts of the machine and protect the cable from heat sources and sharp edges.
- Position the machine on an even, horizontal, stable and heat-resistant surface.
- Ensure that the machine and its leads are installed out of children's reach.
- The coffee machine must be freestanding to ensure free circulation of air. As such, ensure that there is at least 50 mm free space next to the ventilation grilles.
- The upper edge of the machine must be at least 1.5 m above the ground.
- For intermediate storage: Store in a dust-free and dry location, the temperature must never be less than 0°C.

2 Important indications, safety

2.3 Safety indications

Electric safety

WARNING

Electric shock hazard

The live parts are inside the coffee machine housing.

- As such, never open the housing. The housing can only be opened by trained service staff.
- Keep the dispensing machine away from the wet.
- Do not pour any liquid over the machine / in the bean hopper.
- If the cable or plug is damaged do not continue to use the dispensing machine. Ensure the faulty part is repaired or replaced.

Service

WARNING

Injury hazard: Do not make any modification to the machine.

It is strictly forbidden to modify Thermoplan machines.

The manufacturer accepts no liability for any consequences arising from modifications made to the machines, whether on the inside or outside.

- Never open the machine to make modifications yourself.
- Only allow trained service staff to repair your dispensing machine and only use original spare parts. This ensures that the safety of the dispensing machine remains intact.

2 Important indications, safety

2.4 General use indications

Assembly / transport / deinstallation

- The machine must only be set up and installed, relocated to another location or removed by authorized and trained service partners of Thermoplan. Be aware and adhere to national weight lifting requirements.
- The machine must only be installed using the supplied connection cables and hoses. Any existing cables or hoses must not be reused. The manufacturer is not liable for any damages arising from improper installation. The use of incorrect connections voids the warranty!
- The water connection must only be connected to a drinking water supply system. Be aware of national requirements for installations to a drinking water supply system. Check water connections for leaks periodically.
- The voltage quoted on the rating plate must be the same as the mains voltage in your country.

Disposal

The machine and packaging is disposed of by your service partner. Do not dispose of the machine or any of the parts yourself.

2.5 Use of the Black&White3 CTMS

The Black&White3 CTMS must only be used to make coffee, hot water, steam and milk products and is designed for commercial use in the food service industry. Please read the following instructions carefully:

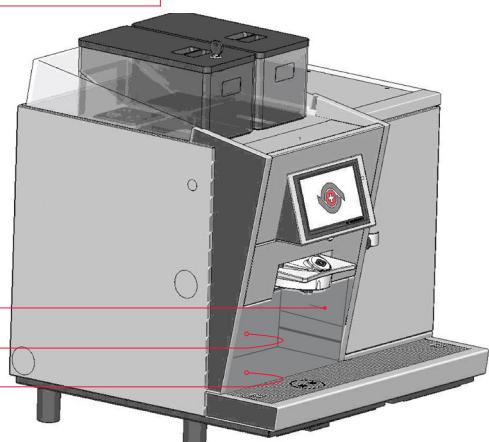
- The bean hopper must only be filled with coffee beans. Never add liquids to the bean hopper - Risk of short-circuit! Never put coffee powder into the grinders as this will block them.
- The BW3 refrigerator must only be used to store cold milk. Do not place any other liquids (e.g. syrup or alcohol) in the refrigerator, only milk. Make sure that the milk is placed in the refrigerator at a temperature of below 5 °C. The refrigerator is designed to keep milk cool, not cool it down.
- Regular maintenance work must be carried out in accordance with the instructions in the operating instructions.

3 General indications

3.1 Black&White3 CTMS machine profile



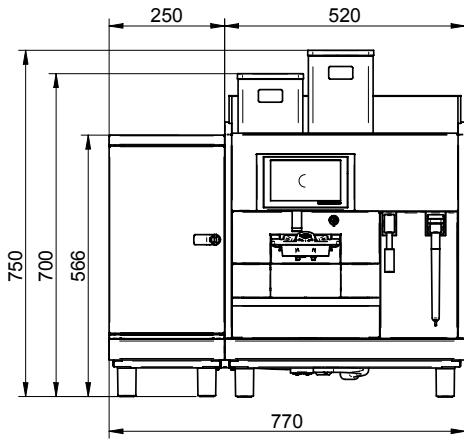
Behind the coffee grounds drawer
(Illustration of Model BW3-CTM)



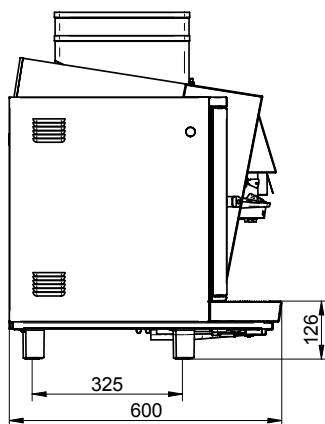
3 General indications

3.2 Technical data

Capacities	Products (per hour): 240 espressos / 200 coffees / 43l hot water / 130 cappuccinos / 140 lattinos / unrestricted steam Refrigerator: Milk container up to 5 litres (Gross volume 6.5 litres)
Electrical connection / Output	220-240 VAC / 32 A / 50/60 Hz / 6'300-7'500 W 380-415 VAC / 3x16 A / 50/60 Hz / 6'900-8'300 W
Water boiler pressure	1.17MPa (11.7 bar)
Steam boiler pressure	0.26 MPa (2.6 bar)
Mains water pressure	0.2 - 0.4 MPa (2 - 4 bar)
Dimensions (W/D/H)	770 x 600 x 700 mm with small bean hopper 770 x 600 x 750 mm with large bean hopper
Weight	100kg (220.46lb) incl. refrigerator
Noise emission	<70dB



Height / width (view from the front)



Depth (View from the side)

3 General indications

3.3 Scope of delivery

All the parts within the scope of delivery belong to your Black&White3 BW3-CTMS and are required for operating the machine. The scope of delivery also describes the limits of the machine.

Black&White3 BW3-CTMS

Your Black&White3 BW3-CTMS is comprised of the coffee machine as the main part and the refrigerator



Cleaning accessories

You require the following accessories for cleaning. Contact your service partner if you have to reorder anything.



Milk container



Coffee cleaning tablets
„Black&White“

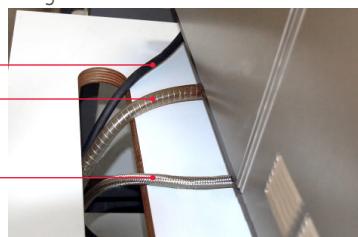


Thermoplan
Milk cleaning tablets
„Thermo Milk Tabs“

Connections and cables

If you still have connection cables from old machines, dismantle them and dispose of them properly. Only use the connection cables provided. Leave the connection work to the engineer.

- Mains cable (country specific)
- Water outlet hose coffee machine
- Water inflow hose



3 General indications

3.4 Type plate

The type plate is located on the inside of the BW3 coffee machine above the grounds drawer on the right (see illustration below). The grounds drawer must be removed to see the type plate. The type plate features the following information:

- Machine type (Autom. Coffee Machine)
- Model Range (Black&White3)
- Type (BW3-CTMS)
- Serial number (S/N) [X]
- Output ([X]W)
- Net Water Pressure
- Frequency ([X] Hz)
- Voltage ([X] VAC)
- Production date (Prod. Date)
- Boiler pressure (Hydraulic Boiler)



3 General indications

3.5 Food

CAUTION

Illness hazard from incorrect / rotten food

General:

- Only use food with a valid expiry date.
- Store food in a suitable location.
- Clean the machine regularly and according to the Operating Instructions to ensure that there is no hygiene risk. Only use Thermoplan cleaning accessories.

Milk:

- Do not use any untreated milk. Only use heat-treated (e.g. pasteurised or UHT) milk.
- When filling the container with milk think about hygiene to ensure that no contaminated milk enters the system.
- Only fill the milk container using milk already refrigerated (under 5°C).
- After opening the milk use it within 24 hours to prevent any health risks.

3.6 Liability limitations

- In the event of not observing the safety indications contained in these Operating Instructions Thermoplan accepts no liability for any injuries or accidents entailed. Moreover, an applicable liability is only valid for the machine limits (see "Scope of Delivery"). For machine problems Thermoplan adheres to the warranty stipulations.
- The manufacturer accepts no liability for damage as the result of negligent or improper use of the machine.

3.7 Warranty stipulations

The Thermoplan 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 construction faults. For malfunctions resulting from negligent use or incorrect connections there will be no replacement.

Wear parts are not covered by the warranty. Working hours (labor cost) are not covered by the Thermoplan factory warranty.

Thermoplan AG must be notified of each warranty case by the respective Thermoplan service partner based on the fully completed form. Thermoplan checks the applications, issues RMA numbers for them and informs the affected reseller as to which spare parts have to be returned.

4 Operation, maintenance and cleaning

4.1 Notes

Cleaning

Daily cleaning is not only an absolute must but also guarantees you the required hygiene, continued neutral taste and, moreover, a longer service life for the machine. When touching the coffee machine, in particular the outlets, any bacterial contaminant must be ruled out. Plastic parts must not be dried in a microwave. For hygienic reasons, the machine must be cleaned prior to use. There are 2 different types of cleaning procedures:

External cleaning:

- Clean the outside of the machine using a damp cloth or sponge soaked in a warm soapy solution. Take particular care with the product dispensing areas. Surfaces such as the touchscreen must be cleaned very carefully. In this case only use mild cleaning agents and do not use rough cloths.
- Cloths or sponges must be thoroughly rung out to ensure that they are only damp otherwise there is a risk of an electric shock.
- Do not clean plastic parts with alcohol, ethanol, methanol, mentholated spirits and disinfection agents. A cleaner with strong acidic products such as acetic acid is not permitted either.
- The machine must not be cleaned using a jet of water.
- The grounds drawer must be emptied when the corresponding message appears on the display. Rinse the grounds drawer with warm water and, at the end of day's use, wash out using a soapy water solution.
- The bean hopper must be emptied on a weekly basis and rubbed using a clean dry towel.
- Remove the drip tray upon appearance of the relevant message and clean it using a soapy water solution.
- Do not clean any parts in the dishwasher.

Automatic cleaning of the internal components:

Automatic cleaning using the Thermoplan cleaning solutions must be performed daily as described in the chapter "Daily Cleaning" (see page 18). To do so, only use the Thermoplan cleaning agents.

Descaling, disinfecting and sterilising the machine

The descaling, disinfecting and sterilising of the machine can only be performed by trained service staff.

Operation

- The machines can only be operated by trained staff.
- Keep your working area clean and tidy. Untidiness and poorly lit working areas can lead to accidents.
- Do not remove coffee grounds from the grounds drawer by banging.
- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

4 Operation, maintenance and cleaning

4.1 Notes

Ventilation / water protection

Do not cover the ventilation grille on the machines. Do not allow any liquid to run into the ventilation grille.

Service by service partners

On the coffee machine display a message appears if the machine requires servicing.

The machine must be serviced by trained service staff every 50,000 brewing cycles, or at least every 6 months.

4.2 Possible hazard sources

WARNING

Danger of serious injury from grinders!

Never touch the grinders. Even when the bean hopper has been removed.

The finger protection in the bean hopper must not be removed.

Non-observance of this warning could lead to serious injury to your hands and fingers.

CAUTION

Scalding danger at the outlets

- Do not handle underneath the drink dispenser.
- Coffee, milk and hot water products lead to scalding from touch.
- Whilst, or after the product is being dispensed, do not touch any part of the aforementioned dispensing equipment.
- The content of the coffee grounds drawer can be very hot.
- Do not open the POD during product preparation or a cleaning procedure.
Caution: The pods are also hot.
- Exert caution when emptying the drip tray. Water can be very hot.

4 Operation, maintenance and cleaning

4.3 Operation tips for a fully-rounded coffee flavour

NOTICE

By observing the following advice you will be able to obtain a top quality fully-rounded coffee flavour.

Coffee

- Only use quality coffee. Type, roast, mix, coffee strength etc. should be in accordance with your customers' wishes. You will be able to assess the results by your turnover in coffee.
- Always close your coffee container and the bean hopper immediately.
- Do not fill the bean hopper immediately prior to extended break periods (night-time, days off, etc.)
- For a freshly flavoured coffee it is recommendable to pour the first two coffees (per grinder) down the drain. The same applies if no coffees have been poured over the period of a few hours.
- Store your coffee container in a cool and dry place. By deep freezing for months you can store the coffee without compromising its quality.

For coffee enthusiasts

Apart from selecting the amount of ground coffee, your coffee machine has special setting options for all types of product for the three important steps in the brewing procedure, i.e. for:

1 cup grinder 1

2 cups grinder 1

1 cup grinder 2

2 cups grinder 2

Setting

The trained service staff can carry out detailed settings of the prebrewing steps "prebrewing time", "rest time" and "post-pressing".

4 Operation, maintenance and cleaning

4.4 Start-up

Preparation

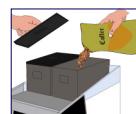
- Check the expiry date of the beans
- Ensure that you have enough beans
- Preheat the cups

Start-up

- Switch on the coffee machine and refrigerator
Remove the coffee grounds drawer and press the top left-hand red button on the inside.
Switch on the refrigerator (the switch is located on the underside of the refrigerator).
For safety reasons, the refrigerator requires 5 minutes until the compressor starts.



- Cold start rinsing
The machine requires rinsing. Press the rinse button on the display.
(Rinsing duration approx. 50s).
- The coffee boiler heats up
- Fill the bean hopper with fresh coffee beans.



- Coffees can now be prepared.

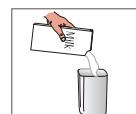
Ready

- Fill the milk container with milk.

⚠ CAUTION

Risk of illness from wrong / rotten food!

- The milk container must be clean and dry!
- Only use heat treated (e.g. pasteurised or ultra heat treated) milk.
- Only pour milk that has already been cooled down (below 5 °C) into the milk container.
- Once the milk has been opened, use it up within 24 hours to prevent health hazards.



- All products can now be prepared

Ready

4 Operation, maintenance and cleaning

4.5 Cleaning

Preparation

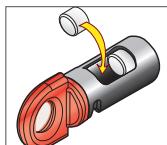
- 2 Coffee cleaning tablets "Black&White"
- 2 Milk cleaning tablets
„Thermo Milk Tabs“ (blue key)
- Protective gloves and goggles



NOTICE

Only use the cleaning agents stipulated by Thermoplan. These can be consulted in Chapter 5 "Ordered Goods".

Cleaning key and POD



Cleaning key (for non-POD machines)

The cleaning key is for cleaning the coffee circuit in the machine and is located inside the machine. It is on the inside left behind the grounds drawer (must be removed). 2 Black&White cleaning tablets are inserted into this cleaning key.



POD outlet

Machines which are equipped with the POD clean the coffee circuit through the POD. To clean, place 2 Black&White cleaning tablets in the POD and move the small white key to the left upper position.

⚠ CAUTION

Caution, the POD is hot.

Allow the POD to cool before you touch it. Wear protective gloves to prevent burns.



Milk cleaning key (large)

The milk cleaning key is for cleaning the milk system and is located at the top on the refrigerator in the coffee machine. The "Thermo Milk Tabs" are used in this cleaning key.

Automatic and manual cleaning

There are two different types of cleaning procedures which must be performed after using the machine. The automatic daily cleaning procedure cleans the inside part of the machine. The outside part cannot be automatically cleaned. It is, therefore, important for the machine hygiene to perform the additional cleaning steps after the automatic cleaning procedure on a daily basis.

4 Operation, maintenance and cleaning

4.5 Cleaning

Daily cleaning (Internal machine automatic cleaning process)

1. Emptying the milk container

Remove and empty the milk container. Rinse with fresh water and put back in the refrigerator.



2. Starting automatic cleaning

Press and hold the cleaning button until the cleaning prompt appears.

Proceed to follow the instructions on the touchscreen.

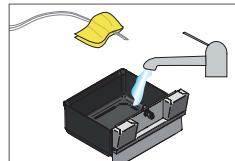
The cleaning process lasts for approx. 20 minutes.



Additional daily cleaning steps

1. After automatic cleaning

- Clean the milk container.
- Rub the suction hose well with a damp cloth followed by a dry one.
- Empty and clean the grounds drawer.
- Clean the drip tray.
- Switch off the machine. Empty and clean the bean hopper. (See next page for instructions).



2. Cleaning the steam outlet

Remove plastic protection to also clean the inner part of the steam outlet



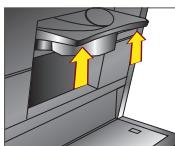
⚠ CAUTION

Caution, the steam outlet is hot.

Allow it to cool before you touch the steam outlet.

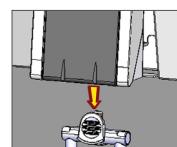
3a. Non-POD version: Cleaning the coffee outlet

Push the outlet upwards. Unscrew middle screw. Pull the outlet block away downwards, clean and then put back into place.



3b. POD version: Cleaning the milk outlet

Remove the milk outlet and clean using a brush and warm water.



4 Operation, maintenance and cleaning

4.6 Removing and cleaning the bean hopper



Remove the grounds drawer and **switch off the machine at the main switch.**

Use the key provided to remove the front of the machine.

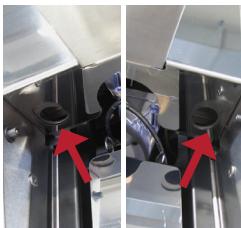
Important: Kept the key in a safe place where no unauthorised person or children have access.

⚠️ WARNING

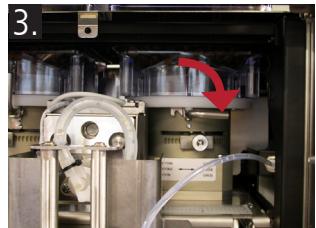
- Electric shock hazard
- Do not touch
- Switch off the machine

⚠️ WARNING

- Grinder hazard
- Do not touch inside
- Switch off the machine



Use the holes (left and right) to raise the front. Loosen both locks using your finger tips. Pull the front right up to the top and then release.



Turn the lever on the bean hopper clockwise to loosen the bean hopper.



Remove the bean hopper using both hands.

Remove the beans from the bean hopper and store these vacuum packed in the refrigerator.

Use a handheld vacuum cleaner to remove the remaining beans from the grinders.



Clean the bean hopper with lukewarm warm and thoroughly dry it after cleaning.

To insert the bean hopper follow the steps in reverse order.

4 Operation, maintenance and cleaning

4.7 Function / programming / production selection buttons



The operating panel is comprised of:

8 (2x4), 12 (3x4) or 15 (3x5) product selection buttons / 5 Function buttons

Description of the function buttons



Abort button

This stops the product being dispensed



Double product

Press in order to prepare a double product



Grinder default button

Changeover between grinder 1 and grinder 2



Milk changeover button

Changeover between milk 1 and milk 2
(only available in machines with the 2 milk types option).



Daily cleaning

For daily cleaning press and hold until the cleaning prompt appears.
Short press for short rinsing (duration approx. 50s).

4 Operation, maintenance and cleaning

4.8 Product selection examples

The product selection buttons are factory set, however can at any time be reset by the user easily in accordance with their personalised requirements.

Thanks to the Grinder default button and the double product button it is, for example, possible to programme 4 different espressos on the same product selection button.



4 Operation, maintenance and cleaning

4.9 Product preparation: coffee

Product preparation

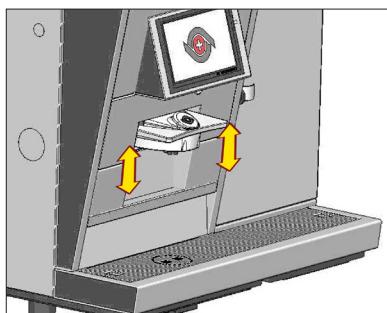


The BW3-CTMS coffee machine manufactured by Thermoplan offers the following products:
Espresso, coffee, cappuccino, latte macchiato, white coffee, lattino, lattino flavour, hot water, brewed coffee

To prepare a product proceed as follows:

1. Place a cup under the coffee outlet
2. Press on the desired product on the display

To prepare a double product press the double product button before the product selection.
An "X" appears by way of confirmation in the middle of the display.

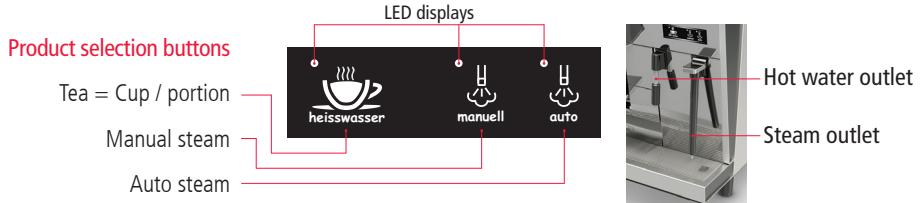


The coffee outlet can be pushed upwards or downwards depending on the cup size.

Hold the coffee outlet with both hands and adjust to the desired position.

4 Operation, maintenance and cleaning

4.10 Product preparation: Hot water / steam



⚠ CAUTION

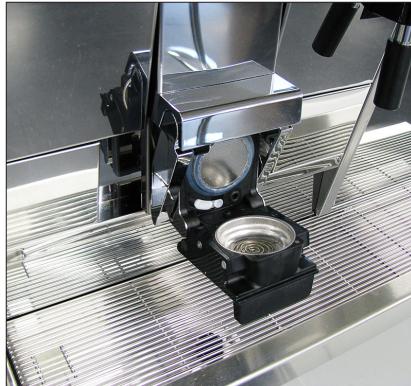
Caution, the steam outlet is hot.

Allow it to cool before you touch the steam outlet.

OBTAINING TEA WATER	The machine has a tea water button, e.g.: <ul style="list-style-type: none"> • Water for one cup/portion • Water for one pot 	
OBTAINING STEAM	Two other buttons are used for obtaining steam. <ul style="list-style-type: none"> • Manual steam: The steam can be programmed • Auto steam: The steam is controlled using the NTC sensor (73°C). 	
OPERATIONAL SEQUENCE	All products can now be programmed. This means that the three buttons have a separate timer which enables the desired amount of water or steam to be dosed. All three products are start/stop products with time monitoring.	
BUTTON OPERATION	<p>The stop device operates as follows:</p> <p>If, whilst dispensing a product, the relevant product button is pressed for a second time the product dispensing is aborted. As a general rule both tea water products are dosed.</p> <p>In the case of a steam product, in general the individual start/stop withdrawal is planned. With the steam button a maximum time duration is set purely as a safety time monitoring feature.</p>	
PROGRAMMING	<ol style="list-style-type: none"> 1. Switch on the machine and leave to heat up. => LEDs flash until the boiler has filled with water. 2. Switch off the machine main switch. 3. Keep one of the three product buttons pressed. 4. Switch on the machine main switch. 5. Release the product button being pressed. => now the LED displays for the three product buttons flash. 6. Now press the product buttons for your desired portions or temperature. The machine takes note of the duration of the product dispensing and memorises it if you switch the machine off and back on again. <p>Attention: The Auto Steam button is controlled using the NTC sensor and must be set using a thermometer.</p> <p>Switch off the machine main switch and wait for 5 seconds. Then switch the machine back on. You are now in normal mode.</p>	

4 Operation, maintenance and cleaning

4.11 POD outlet option and product preparation



All BW3 machines are also available with a POD outlet instead of the standard coffee / milk outlet.

⚠ CAUTION

Caution, the POD is hot after dispensing the product.
Allow the POD to cool before you touch it.

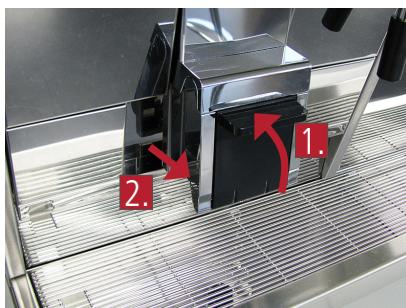
Proceed as follows to prepare a POD product:



1. Press both levers to the rear and unfold the POD



2. Insert the POD product



3. Close the POD again



4. POD products are available for 10 seconds.
To abort press the "Stop" button.

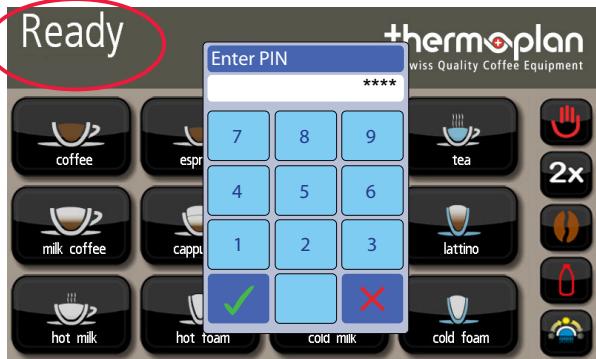
4 Operation, maintenance and cleaning

4.12 Service menu

In the Service Menu various settings such as product parameters, the date or the language can be changed.

To access the user level proceed as follows:

1. Touch "Ready" in the top left-hand display area.
2. The PIN input window appears. Enter code 111111 and confirm with .



Code:
111111

3. The following screen appears:



To go back to the product selection display, touch the top left-hand display area.

4 Operation, maintenance and cleaning

4.12 Service menu



Settings

The menu is inactive



Product Settings

In the "Product Settings" menu the individual products can be adapted as desired.

Select the product to be changed on the left-hand half of the display. After this, on the right-hand side the product can be changed according to personal requirements.

The screenshot shows the Thermoplan control panel interface. At the top, it says "Product Settings". In the center, the Thermoplan logo is displayed with the text "Swiss Quality Coffee Equipment". The main screen is divided into two sections: a left section labeled "Products" with a sub-label "1/3" and a right section labeled "espresso" with a sub-label "1/2".
The left section displays a list of products:

- 1. espresso (highlighted in orange)
- 2. coffee
- 3. cappuccino
- 4. milk coffee

Below this list are four small icons: a coffee cup, a double coffee cup, a double coffee cup with a plus sign, and a water drop. To the right of the list are two arrow buttons, one pointing up and one pointing down.
The right section displays settings for the selected "espresso" product:

Product name	espresso
Coffee aroma M1 1 cup	0 %
Coffee aroma M1 2 cups	0 %
Coffee aroma M2 1 cup	0 %
Coffee aroma M2 2 cups	0 %
Water quantity 1 cup	130

Below this table are two arrow buttons, one pointing up and one pointing down.
At the bottom of the screen, there is a red L-shaped line highlighting the area around the "Test product" button. To the right of this line, the following text is listed:

- Test grinding
- Double product
- Grinder default button
- Test product

4 Operation, maintenance and cleaning

4.12 Service menu

Product name	Enter the desired product name.
Coffee aroma M1 1 cup	In the "Coffee aroma" menu the coffee aroma can be set to suit personal taste using the individual products prepared by the grinders. This means that the brewing procedure and the amount of ground coffee can be adapted very easily.
Coffee aroma M1 2 cups	
Coffee aroma M2 1 cup	
Coffee aroma M2 2 cups	The coffee aroma can be changed by increasing (stronger aroma) or reducing the percentage value (weaker aroma). Tip: Make changes in 5% steps and test the result.
Water quantity 1 cup	This is where the water volume for the product can be changed. Change the values and prepare the test coffee to test the new settings.
Water quantity 2 cups	
Milk quantity 1 cup <i>(only milk products)</i>	In these menus the milk and the milk froth volume can be changed. Change the values and prepare the test coffee to test the new settings.
Milk quantity 2 cups <i>(only milk products)</i>	
Milk froth quantity 1 cup <i>(only milk products)</i>	
Milk froth quantity 2 cups <i>(only milk products)</i>	
Set water amount <i>(only coffee and tea products)</i>	By pressing "Set water amount" the water volume for a product can be manually specified. By pressing on it the water dispensing starts, when pressing again it stops and saves the corresponding amount.
Set milk quantity <i>(only milk products)</i>	By pressing "Set milk quantity" the milk volume for a product can be manually specified. By pressing on it the milk dispensing starts, when pressing again it stops and saves the corresponding amount. By pressing again the dispensing stops and the corresponding amount is saved.

4 Operation, maintenance and cleaning

4.12 Service menu



Product Prices

When connecting to a till system in the menu "Product Prices" the prices for the individual products can be determined.

Product Prices

thermoplan
Swiss Quality Coffee Equipment

Products	1/2
1. espresso	
2. coffee	
3. cappuccino	
4. milk coffee	
5. 2 espresso	
6. 2 coffee	

espresso	1/1
Price for 1 cup, mill 1	0.00 CHF
Price for 2 cups, mill 1	0.00 CHF
Price for 1 cup, mill 2	0.00 CHF
Price for 2 cups, mill 2	0.00 CHF
Free product	X

Only in the event of connection to till system



Statistics

In Statistics it can be read how often a product has been prepared or the cleaning has been performed.

Statistics

thermoplan
Swiss Quality Coffee Equipment

Total	
Product counter	4156
Water for products	168 l
Water for cleaning	574 l
Cleaning counter	121
Cleanings interrupted	121
Servicecounter	3285

Products	1/2
1. espresso	343
2. coffee	1160
3. cappuccino	155
4. milk coffee	455
5. 2 espresso	894
6. 2 coffee	57

By pressing in the product list the product counter can be deleted.

4 Operation, maintenance and cleaning

4.12 Service menu



Regional Settings

This is where you change the language, date and time by pressing the respective display.

The screenshot shows the 'Regional Settings' screen. At the top left is the 'Regional Settings' icon. At the top right is the Thermoplan logo with the text 'Swiss Quality Coffee Equipment'. Below the logo are three settings boxes: 'Language' (with options Deutsch, English, Français, Svensk, where English is highlighted in orange), 'Date' (showing 17.05.2011), and 'Time' (showing 14:06:07).



System Check

This is where the touchscreen can be checked for errors. After pressing on "Touchpanel Test" a grid appears. After each touch a red dot should appear where pressed.

The screenshot shows the 'System Check' screen. At the top left is the 'System Check' icon. At the top right is the Thermoplan logo with the text 'Swiss Quality Coffee Equipment'. Below the logo are two sections: 'Outputs' (1/0) and 'Inputs' (1/0), both of which are currently blank. At the bottom is a large button labeled 'Touchpanel Test'.

To exit the test display press it for 2 seconds.

4 Operation, maintenance and cleaning

4.12 Service menu



Error History

The last 63 error messages are logged. The most recently notified error is displayed at the top of the list.

Error History

thermoplan
Swiss Quality Coffee Equipment

Error History 1/1

▲ ▼



Factory Settings

If, after changing the settings, (e.g. Product Parameters) problems arise, the basic settings of the coffee machine can be restored. Press on "Restore Data" to restore the base settings.

Factory Settings

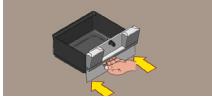
thermoplan
Swiss Quality Coffee Equipment

Parameter 1/0

Restore Data

4 Operation, maintenance and cleaning

4.13 Display messages

Error No. + Image	Text	Cause	Remedy
TX0001	Ready	Machine is ready	-
TX0101 	NTC coffeeboiler open	Problem with the temperature control in the coffee boiler	Call service
TX0104 	Empty grounds drawer	Grounds drawer is full	Remove, empty and put back the grounds drawer
TX0106 	Grounds drawer missing	The grounds drawer is not fitted or is incorrectly fitted	Fit the grounds drawer again
TX0107 	Bean hopper empty (left-hand side)	Left-hand bean hopper is empty	Fill coffee beans in the left-hand bean hopper
TX0108 	Service required	Number of programmed brewing cycles has been reached	Call service
TX0109 	Clean appliance	Programmed time or number of brewing cycles has been reached, the machine requires cleaning	Clean the machine
TX0113 	Piston error	The piston does not move	1. Select the product again 2. Perform a rinsing procedure 3. Call service

4 Operation, maintenance and cleaning

4.13 Display messages

Error No. + Image	Text	Cause	Remedy
TX0114 	Bean hopper empty (right-hand side)	Right-hand bean hopper is empty	Fill coffee beans in the right-hand bean hopper
TX0115 	Flow error	Insufficient water flow	1. Open tap 2. Empty the grounds drawer 3. Perform a rinsing procedure 4. Call service
TX0116 	Overtime error	The machine cannot dispense the product cleanly, insufficient water	1. Select the product again 2. Call service
TX0117 	Change water filter	Set water amount has flowed through the water filter	Water filter must be changed.
TX0118 	Interface error	Interface enabled: - Incorrect interface - No interface connected	Check interface settings or switch to "off".
TX0119 	Powder error	Grinders blocked	1. Empty grounds drawer + Vacuum clean grinders 2. Perform a rinsing procedure 3. Call service
TX0125 	Waterflow error	No water pressure or flowmeter faulty	1. Open tap 2. Empty the grounds drawer 3. Perform a rinsing procedure 4. Call service

4 Operation, maintenance and cleaning

4.13 Display messages

Error No. + Image	Text	Cause	Remedy
TX0135 	Remove coffee pod Attention HOT!	Coffee pod is still in the POD outlet after preparation	Open POD, remove coffee pod
TX0136 	Please ask for assistance	Machine requires servicing	Call service
TX0137 	Please add milk	Milk is empty	Top up milk
TX0139 	Bean hopper missing	Bean hopper removed or operator panel up	1. Attach bean hopper 2. Close panel
TX0141 	NTC coffee boiler short-circuit	The temperature meter in the coffee boiler has a short-circuit	Call service
TX0143 	Machine locked Start cleaning	Machine has reached its programmed time or number of brewing cycles and must be cleaned	Clean the machine
TX0145 	Refill coffee beans Press OK to proceed with product dispensing	Beans have run out during product preparation or product loop	Top up beans Confirm with the OK button

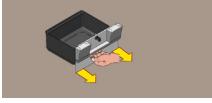
4 Operation, maintenance and cleaning

4.13 Display messages

Error No. + Image	Text	Cause	Remedy
TX0149 	Insert coffee pod	Prepare coffee machine for the POD product	Open POD, insert coffee pod
TX0151 	No waterflow detected	No water pressure or flowmeter faulty	1. Open tap 2. Empty the grounds drawer 3. Perform a rinsing procedure 4. Call service
TX0153 	Cleaning done Standby	After cleaning the coffee machine changes to standby mode	Press on OK button to call standby
TX0154 	Milk pump: no pulse	Milk pump not detected	Call service
TX0155 	Water pump: no pulse	Water pump not detected	Call service
TX0161 	Please wait	Machine is rinsing	Wait until the rinsing procedure has been completed
TX0164 	Cleaning break Please press rinse key	Cleaning aborted	Press rinsing button to restart cleaning

4 Operation, maintenance and cleaning

4.13 Display messages

Error No. + Image	Text	Cause	Remedy
TX0167 	Cleaning interrupted Remove grounds drawer	Cleaning aborted	Remove grounds drawer
TX0174 	Remove grounds drawer	Grounds drawer must be removed for the next step	Remove grounds drawer
TX0188 	Check milk temperature	Milk temperature too high	1. Check milk temperature 2. Switch on refrigerator 3. Call service
TX0201 	Cold start rinse Please press rinse key	Rinsing for heating and rinsing the machine	Press rinsing button

4 Operation, maintenance and cleaning

4.14 Self-service mode

The Self-service mode can be activated by a service technician and functions as follows:

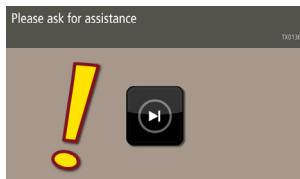


The user interface still looks perfectly normal after setting the Self-service mode.

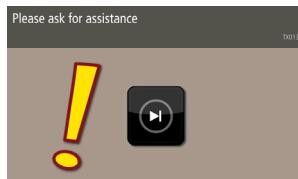


The function buttons disappear after a product has been dispensed. The Self-service mode is now enabled.

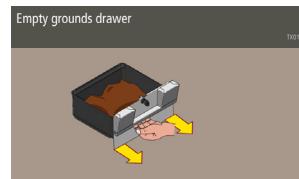
Display messages



Display messages are now always shown with the message "Please ask for assistance".



Hold down button until the actual fault message appears (approx. 5 seconds).



The actual display message is now displayed (for details see section "4.13 Display messages")

Restoring the function buttons



Enter the user menu to restore the function buttons. Press and hold "Ready" until the PIN input window appears (PIN 111111).



Exit the service menu right after entering it (touch surface at left top)



The function buttons are now available again until the next action (e.g. product dispensing, cleaning) is performed.

5 Ordered goods



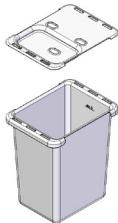
Milk cleaning tablets „Thermo Milk Tabs“

Art. No.	Description
120.528	Tub Thermo Milk Tabs (62 tablets)
120.900	Box Thermo Milk Tabs (12 tubs)



Coffee cleaning tablets „Black&White“

Art. No.	Description
105.371	Coffee cleaning tablets (1 tub 90 pcs.)
105.365	Coffee cleaning tablets (Box 36 tubs)



Milk container 5,0 liter assy.

Art. No.: 120.009

Milk container 5,0 liter cover

Art. No.: 119.017

Milk container 5,0 liter

Art. No.: 120.008

6. Declaration of conformity

EU-KONFORMITÄTSERKLÄRUNG EU-DECLARATION OF CONFORMITY DÉCLARATION UE DE CONFORMITÉ

Wir/We/Nous Thermoplan AG, Thermoplan-Platz 1, CH-6353 Weggis, Switzerland

erklären in alleiniger Verantwortung, dass das Produkt

declare under our sole responsibility that the product

déclarons sous notre seule responsabilité que le produit

Product Automatic Coffee Machine
Model BLACK&WHITE 3
Type BW3-B, BW3-CT, BW3-CTS, BW3-CTM, BW3-CTMS, BW3-CBT, BW3-CBTM,
 BW3-CTMC

auf das sich diese Erklärung bezieht, mit den folgenden Normen übereinstimmt.

to which this declaration relates is in conformity with the following standards.

auquel se réfère cette déclaration est conforme aux normes.

EN ISO 12100:2010
EN 60335-1:2012
EN 60335-2-15:2002 + A1:2005 + Cor.:2005 + Cor.:2006 + A2:2008 + A11:2012
EN 60335-2-64:2000/A1:2002
EN 60335-2-75:2004 + A1:2005 + A11:2006 + A2:2008 + A12:2010
EN 55014-1:2006 + A1:2009 + A2:2011
EN 55014-2:1997 + A1:2001 + A2:2008
EN 61000-3-2:2006 + A1:2009 + A2:2009
EN 61000-3-3:2008
EN 61000-3-11:2000
EN 61000-3-12:2011
EN 62233:2008

gemäss den Bestimmungen folgender Richtlinien
following the provisions of Directives
conformément aux disposition des Directives

2004/108/EC (EMC)
2006/42/EC (MD)
2011/65/EU (RoHS)

Dieses Produkt entspricht auch den grundlegenden Sicherheitsanforderungen der Niederspannungsrichtlinie
This product also complies with essential safety requirements of the Low Voltage Directive
Ce produit satisfait aux exigences essentielles de sécurité de la directive sur le matériel électrique à basse tension

2006/95/EC (LVD)

(Ort und Datum der Ausstellung)
(Place and Date of issue)
(Lieu et date)

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



Adrian Steiner, CEO

CH-6353 Weggis, 21.08.2014

Verantwortlich für die technische Dokumentation
Responsible person for technical documentation
Personne responsable pour documentation technique

Christian Huber

thermoplan
Swiss Quality Coffee Equipment



BLACK&WHITE 3

Operating Instructions Refrigerator BW3-RF

For models: BW3-CTM, BW3-CTMS,
BW3-CBTM, BW3-CTMC

Contents

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2.2 Manufacturer identification	6
2.3 Machine profile refrigerator	7
2.4 Technical data	7
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2.9 Defrosting	9
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1 Important indications, safety

Before start-up

- Read the operating instructions carefully.
- If this machine is replacing an old model observe the instructions on disposal of the machine.

Safety

- In an emergency switch off the refrigerator at the main switch. Pull out the plug or remove the house installation fuse. Contact your service partner.
- The refrigerator must not be operated outdoors.
- Clean the refrigerator before it is not used for a prolonged period (day off, holidays, etc.). Proceed to remove the mains plug then remove the milk container, empty and clean it.
- If a hose, cable or plug is damaged do not use the machine thus preventing any hazards. Ensure the faulty part is repaired by trained service staff or replaced.
- Remove the plug prior to any maintenance and cleaning work.
- Keep your working area clean and tidy. Untidiness and poorly lit working areas can lead to accidents.
- Keep children and other people away from the machine during repair. Distractions can lead to accidents.
- Never remove the shields (Housing) on the refrigerator.
- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.
- For safety reasons the compressor does not start until 5 minutes after the refrigerator has started.
- This refrigerator is a machine in climate class 6. The ambient temperature must be between 16 °C and 32°C.

1 Important indications, safety

Use

- The machine must only be used for the storage of cold milk.

Cleaning and maintenance

- Always perform the maintenance steps described in these documents.
- Switch off the machine and clean with a damp cloth. Never spray cleaning agent directly onto the machine.

Disposal of the machine

- Packaging: The packaging material (Cardboard, PE plastic film and EPS polystyrene must be taken for recycling and disposed of according to regulations.
- Deinstallation: Disconnect the machine from the mains In the case of permanently installed machines this work must be carried out by authorised service engineers.
- Safety: To prevent accidents caused by inappropriate use, in particular by children, the machine must be rendered unusable. Remove the plug from the socket or have the connection disassembled by an authorised service engineer. Then proceed to cut off the mains cable on the machine.
- Disposal: The correct disposal of your old machine helps to prevent potential negative consequences for the environment and man. The old machine is not valueless waste. By disposing of it properly the raw materials will be recycled. Ensure that the old machine is disposed of according to current local legislation. For further information with regard to disposal contact your factory representative. The illegal or improper disposal of the machine leads to stringent administrative and / or criminal sanctions as applicable by the legislation in force.

2 General indications

2.1 Purpose of these instructions

The instructions for the Black&White3 refrigerator should help the user to operate the machine, handle it safely and implement the care and maintenance of the machine.

The correct operation of the refrigerator requires correct maintenance. Thermoplan AG therefore recommends to carefully read the instructions for the machine prior to use to make initial handling of the machine easier.

The refrigerator has been manufactured according to the applicable safety standards and directives. Nevertheless, safe daily use of the refrigerator requires reading these operating instructions and carrying out the regular servicing of the machine.

Some diagrams may vary in their detail from your refrigerator. Such details, however, are not relevant for the operation of the refrigerator.

2.2 Manufacturer identification

This refrigerator has been manufactured by:

Thermoplan AG

Thermoplan-Platz 1

CH-6353 Weggis

Switzerland

Telephone: +41 (41) 392 12 00

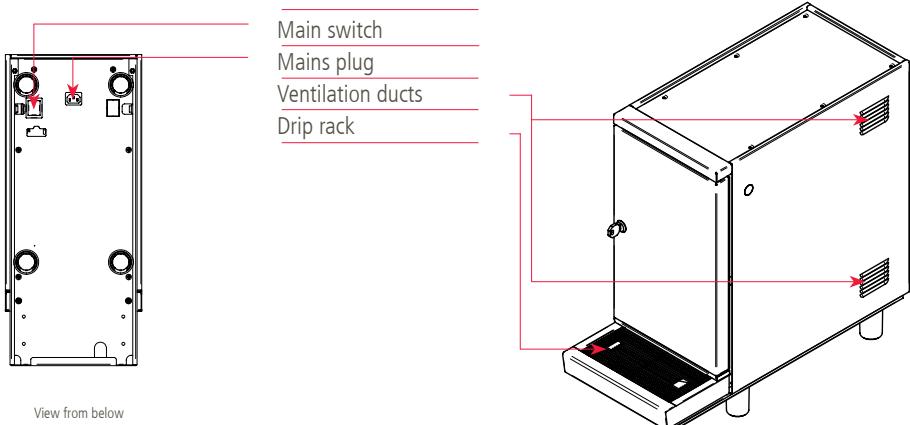
Fax: +41 (41) 392 12 01

Email: thermoplan@thermoplan.ch

Web: www.thermoplan.ch

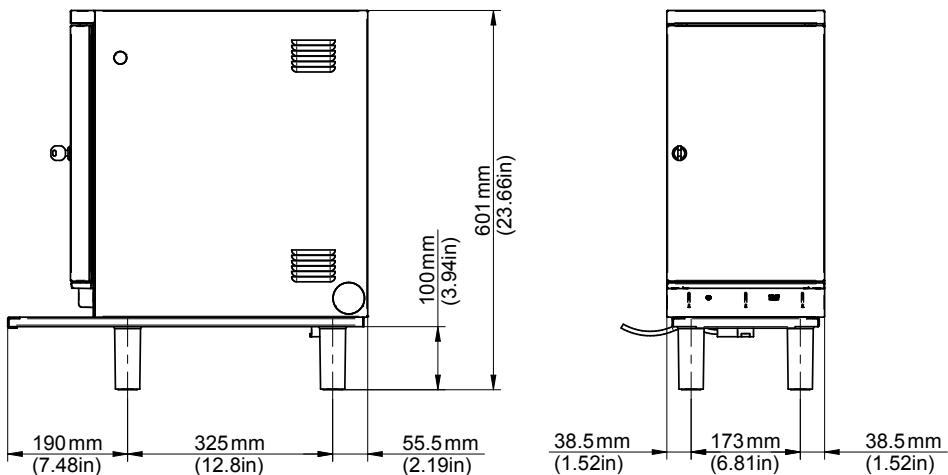
2 General indications

2.3 Machine profile refrigerator



View from below

2.4 Technical data



Capacities	Milk container up to 5l Gross volume 6.5l
Electrical connection	220-240 VAC / 0.3 A / 50/60 Hz / 72 W
Dimensions (W/D/H)	250 x 570.5 x 601 mm
Weight	17 kg

2 General indications

2.5 Type plate

The refrigerator type plate is located on the side behind the drip tray on the refrigerator and contains the following information:

- Type
- Model
- Volume
- Refrigerant
- Refrigerant Amount (Charge)
- Isolation gas (1,1,1,3,3-Pentafluoropropan)
- Voltage (VAC)
- Frequency (Hz)
- Current (A)
- Serial number (S/N)
- Production date (Prod. Date)

2.6 Installation

Ensure that there is sufficient space next to the Black&White3 coffee machine where the refrigerator is to be set up. Ensure that the refrigerator is connected by expert staff trained on the Black&White3.

The refrigerating system must be well ventilated. As such, ensure that the free side of the refrigerator (the opposite side to the Black&White3) has sufficient space for air circulation. Ensure that there is at least 50 mm space on the side of the refrigerator.

The refrigerator must be connected to a Black&White3 machine (Models CTM, CTMS, CTMC or CBTM) and must not be used separately.

2.7 Cleaning

The power supply must be disconnected prior to cleaning.

Clean the refrigerator on the outside with a cloth dampened with lukewarm water and dry with a soft towel.

To clean the refrigerator on the inside use a damp cloth and dry with a soft towel.

2.8 Electrical connection

Prior to connection ensure that the mains voltage and the voltage displayed on the type plate coincide.

The refrigerator must be earthed according to legal stipulations. Ensure that the earthing of the electrical system is in accordance with regulations. Should personal injury or material damage arise as the result of the non-observance of these regulations the manufacturer accepts no liability.

No adapters, multiple sockets or extension leads should be used for the connection. If this cannot be avoided, only use material which complies with the safety regulations in force and which does not, under any circumstances, exceed the stipulated current capacity limits.

If plug and socket do not coincide the socket must be replaced with another appropriate one. This should only be done by expert staff. It must be observed that the cable cross section on the socket is in accordance with the machine power consumption.

2 General indications

2.9 Defrosting

As soon as the layer of ice exceeds 3 mm, the refrigerator must be defrosted. This is an important prerequisite for the smooth and energy-saving operation of the machine.

Switch off the refrigerator and open the refrigerator door to defrost it.

Never remove the layer of ice with pointed or sharp objects such as metal objects. These could irreparably damage the cooling plate.

After defrosting the refrigerator can be put back into operation by being switched on again.

2.10 Milk storage

- Do not use any untreated milk. Only use heat-treated (e.g. pasteurised or UHT) milk.
- When filling the container with milk think about hygiene to ensure that no contaminated milk enters the system.
- Only fill the milk container using milk already refrigerated (under 5 °C).
- After opening the milk use it within 24 hours to prevent any health risks.

2.11 Malfunctions and solutions

1. The machine does not work. Check whether...:

- the power supply is disconnected.
- the protection switch on the electrical system is switched off.
- the plug is damaged or inserted incorrectly in the socket.
- the socket is faulty. To test this connect a device which definitely works correctly.
- the power supply cable is disconnected.

2. Loud operating noise. Check whether...:

- the refrigerator or cooling unit are on an even surface.
- the refrigerator is in contact with furniture which could be causing vibrations.
- the refrigerating lines are against the rear wall in the machine and thereby vibrate.

3. Insufficient cooling. Check whether...:

- the door shuts tightly.
- the refrigerator is installed in the vicinity of heat sources.
- the refrigerator has sufficient ventilation.
- the evaporator has iced up.
- the condenser is compromised by dust.
- the fan can rotate freely.

If, after these checks, the refrigerator continues not to operate properly, contact an authorised service engineer.

3 EG-Declaration of Conformity

EU-KONFORMITÄTSERKLÄRUNG EU-DECLARATION OF CONFORMITY DÉCLARATION UE DE CONFORMITÉ

Wir/We/Nous Thermoplan AG, Roehrlistrasse 22, CH-6353 Weggis, Switzerland

erklären in alleiniger Verantwortung, dass das Produkt
declare under our sole responsibility that the product
déclarons sous notre seule responsabilité que le produit

Product Refrigerator
Model BLACK&WHITE 3
Type BW3-RF

auf das sich diese Erklärung bezieht, mit den folgenden Normen übereinstimmt.
to which this declaration relates is in conformity with the following standards.
auquel se réfère cette déclaration est conforme aux normes.

EN 60335-1:2012
EN 60335-2-89:2010
EN 55014-1:2006 + A1:2009 + A2:2011
EN 55014-2:1997 + A1:2001 + A2:2008
EN 61000-3-2:2006 + A1:2009 + A2:2009
EN 61000-3-3:2008
EN 61000-6-2:2005
EN 61000-6-3:2007 + A1:2011
EN 62233:2008

gemäss den Bestimmungen folgender Richtlinien
following the provisions of Directives
conformément aux disposition des Directives

2004/108/EC (EMC)
2006/95/EC (LVD)
2011/65/EU (RoHS)

(Ort und Datum der Ausstellung)
(Place and Date of issue)
(Lieu et date)

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



Adrian Steiner, CEO

CH-6353 Weggis, 16.09.2013



Your service partner

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