REDFOX®

INSTALLATION AND OPERATING INSTRUCTIONS

X680C

CE 1404-25

Table of contents

Table of contents

1. safety instructions

1.1.1 Coffee machine
1. the X680 are commercial machines for the preparation of beverages and are intended for use in restaurants, offices, hotels, convenience stores and similar environments.
2 The X680 is designed for processing whole coffee beans, chocolate powder, milk powder and fresh milk.
3 The X680 is intended for indoor use, but is not suitable for outdoor use.

1.2 Requirements for using the coffee machine

1. The X680 is intended for use by trained personnel only.

2. Only operate the X680 or additional devices after you have fully read and understood the corresponding description.

3. Self-service coffee machines must always be monitored to protect users.

4. Do not use the X680 or additional devices if you are not familiar with the various functions.

5. Only use the X680 if the machine or the accessories have been cleaned or filled as intended.

6. Children under the age of 8 must not use the X680 or the accessories. Children over the age of 8 and persons with reduced physical, sensory or mental capabilities or with little or no experience in handling the machine may use the X680 under constant supervision.

7. Do not install the coffee machine in the area of a water jet

8. Clean the coffee machine at least once a day and more frequently if necessary and only use cleaning tablets and descaling powder from Mayway. Further information can be found in Chapter 7 or in the 'Cleaning and descaling' manual.

9. Observe the following instructions carefully and follow the instructions on the display during maintenance. Further information can be found in chapter 7 or in the manual "Cleaning and descaling".

1.3 Explanation of the safety symbols

Observance of these safety instructions is essential to ensure personal safety and the integrity of the machine. Symbols and signal words indicate the degree of danger as follows:

WARNING

WARNING indicates a potential hazard which, if not avoided, could result in death or moderate injury.

CAUTION

CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTE

NOTICE draws your attention to the risk of machine damage.

1.4 General safety instructions for using the coffee machine

Improper use of the coffee machine can lead to potential hazards during operation. Please observe the following tips on using the coffee machine to avoid injuries and health risks.

WARNING

Health risks due to electric shock
If the mains cable is damaged, it must be replaced with a special cable or assembly available from the manufacturer or its customer service department.
1. damaged mains cables, cables or plug connections can lead to an electric shock.
2 Do not connect any damaged mains cables, lines or plug connections to the power supply.
3. ensure that the machine and the mains cable are not located near hot surfaces such as gas or electric hobs or ovens.
4. make sure that the mains cable is not pinched and does not rub against sharp edges.
5. do not immerse the mains plug in water or other liquids and do not pour water or other liquids onto the mains plug. The mains plug must be dry.
6. improperly performed repairs or maintenance work on electrical systems can lead to electric shock.
7 Only have maintenance work carried out by authorized persons with the appropriate qualifications.

WARNING

Choking hazard
1. plastic packaging can cause children to choke.
2 Ensure that children and persons with reduced physical, sensory or mental capabilities do not have access to plastic packaging.

Risk of scalding

1. hot liquids and steam escape during cleaning and can cause scalding. Keep your hands away from the spouts and nozzles during this process.

2 Do not place anything on the drip grid.

3. only use suitable drinking vessels.

4. always be careful with hot drinks.

5. in case of burns: Cool the affected area immediately and, depending on the severity of the injury, seek medical attention.

CAUTION

Risk of injury

1. if objects fall into the grinder, splinters may be ejected which could cause injury.

2 Never insert objects into the grinder.

CAUTION

Cuts/crush injuries

1. active components inside the coffee machine can injure fingers or hands.

2 Remember to switch off the coffee machine and disconnect the mains plug before removing the grinder or reaching into the brewing module.

CAUTION

Irritation due to cleaning agents

1. cleaning tablets, milk system cleaners and descaling agents can irritate the skin.

2 Observe the hazard warnings on the label of the respective cleaner.

3. avoid contact with eyes and skin.

4. wash your hands after contact with cleaning agents. Consult a doctor if necessary.

5 Cleaning agents must not get into drinks.

Health hazard due to germ formation

1. food residues can accumulate in the machine and on the nozzle if cleaning is insufficient and thus contaminate the products.

2 Only use the machine if it has been cleaned in accordance with the instructions.

3 Clean the machine daily according to the instructions.

4. inform the operating personnel about the necessary cleaning measures.

5 If the machine is not used for a long time, residues may accumulate. Clean the machine before use.

6 If a water filter is used for too long, algae may form. Replace the water filter when the machine prompts you to do so.

7. the expiry date of coffee beans, powder and fresh milk must be observed.

CAUTION

Risk of mechanical injuries

1. the appliance must be set up in a horizontal position.

2. if the machine has not been completely drained and emptied, it must not be

be stored at sub-zero temperatures.

2. description of the machine

2.1 Device overview

The X680C coffee machines are available in numerous variations. An example configuration is shown here. Please note that your coffee machine may look different from the configuration shown here.

Left bean container
Right-hand bean container
Powder container

Control panel
Coffee and milk spout

Hot water wand
Cup tray
Steam wand
Water tank
Coffee grounds container
Drip tray

The open control panel

On and off switch   Mixer

Rear of the machine

connection   Antenna connection (optional)
Water tank, syrup and milk cooler connection   USB connection
Waste water drain connection   Tap water connection
                                               Water connection to a water tank

2.2 Screen interface

The X680C is available with three different types of user interface - standard, self-service and professional - to meet the requirements of different scenarios. **See page 41** for information on the specific type of user interface switching.

2.2.1 Standard user interface

Touching the "Member" icon starts the setting of the membership function
The standard interface is designed for use by non-professional operators and professional staff. The membership function can be executed at the top right of the screen.

2.2.2 Self-service user interface

Select the language here (four different languages are available)
Specially designed for use in self-service scenarios in breakfast stores and hotels. The user can select the language in the top right-hand corner of the screen without having to access the menu.

2.2.3 Professional user interface
Typically used in commercial scenarios and the device must be used by professional operators. Product queues can be created in this user interface.

2.2.4 Symbols on the screen

Icon	Name	Description
	Member	Access to membership settings
	Logo	Access to menu settings
	Scroller	Tips for drinking pages and current page
	Add a drink	Add drinks
	Close this page	Close current page
	Warning	Show warning
	Boiler temperature	Show boiler temperature
	Thermoblock temperature	Show thermoblock temperature
	Position of the brewing unit	Display the operating status of the current brewing unit
	Error message	Show error message
	Water flow rate	Display current water flow rate, unit: ml/s
	Inactive	The drink is 'inactive' and cannot be prepared.

2.2.5 Symbols in the menu setting

Icon	Name	Description
	Exit	Back to the main page. The PIN code must be entered to access the menu again.
	Main page	Back to the main page. The PIN code does not need to be entered to access the menu again.
	Selection	The element is selected or activated.
	Edit	Editing this element is permitted.

2.3 Scope of delivery

The scope of delivery may vary depending on the device configuration.

Part	Illustration	Quantity
Connection hose for tap water		1
Connection for tap water		2
Wastewater drain hose		1
Key		1
Milk tube		1
User manual		1
NTC		1

Screen dimensions	10.1 inch
Boiler capacity	0.7 liters
Water tank capacity	4 liters
Capacity of the drip tray	2 liters
Capacity of the coffee brew container	45 pieces
Height of the coffee spout	Height 1=100 millimeters
	Height 2=160 millimeters
Permissible water pressure	0.5~6 bar
Capacity of the left bean container	1200 g
Capacity of the right-hand bean container	1200 g
Capacity of the powder hopper	1500 g
Capacity of the right-hand powder hopper	/
Power supply type	220-240 V 50/60 Hz
Rated power	2500 W
Machine dimensions	560 mm x 380 mm x 690 mm
Net weight	30 kg
Noise level	< 70 dB

Depending on the model and sales location of the machine, the IOT function is optional. Please contact customer service for more information.

Radio frequency and parameters

GSM	not supported	supportsGPRS: □Yes ■ No
		SupportedEDGE: □Yes ■ No
CDMA	not supported	cdma2000 not supported
WCDMA	not supported	
TD-SCDMA	not supported	
TD-LTE	■ B38; ■ B39; ■ B40; B41 ■	
LTE FDD	■ B1; ■ B3; ■ B5; ■ B7; ■ B8; ■ B20;	
5G	not supported	
GPS	Supports	
WLAN	■ 2.4 GHz; ■ 5.1 GHz; ■ 5.8 GHz	
Bluetooth	■ 2.4 GHz ■ BR ■ EDR ■ LE (■ 4.0 □5.0)	

WLAN section details

Support system	2.4 GHz: ■ 802.11b ■ 802.11g ■ 802.11n □802.11ax 5.1 GHz: ■ 802.11a ■ 802.11n ■ 802.11ac □802.11ax 5.8 GHz: ■ 802.11a ■ 802.11n ■ 802.11ac □802.11ax
Occupied bandwidth	2.4 GHz: ■ 20M ■ 40M 5.1 GHz: ■ 20M ■ 40M ■ 80M □160M 5.8 GHz: ■ 20M ■ 40M ■ 80M
Modulation Mode	LTE FDD:QPSK/16QAM TD-LTE: QPSK/16QAM BT: GFSK, π/4-DQPSK, 8-DPSK WLAN: DBPSK/DQPSK/CCK/BPSK/QPSK/16QAM/64QAM/256QAM

TECHNICAL PARAMETERS	Frequency range	Occupied	Transmission power
Target value	LTE FDD: Volume 1 UL: 1920-1980 MHz DL: 2110-2170 MHz Band 3: UL: 1710-1785 MHz LTE DL: 1805-1880 MHz UL: 824-849 MHz DL: 869-894 MHz Band 7: UL: 2500-2570 MHz WLAN: DL: 2620-2690 MHz ≤ 20MHz Band 8: UL: 880-915 MHz DL: 925-960 MHz	FDD: ≤20/15/10/5/3/1.4 MHz TD-LTE: ≤20/15/10/5MHz BT: BT:≤ 2MHz ≤ 40MHz ≤ 80MHz	LTE FDD: 23dBm±2.7dB TD-LTE: 23dBm±2.7dB BT: ≤20dBm(EIRP) WLAN: ≤20dBm(EIRP) ≤20/23dBm(EIRP) (nonsupportTPC) ≤33dBm(EIRP)

Volume 20:

UL: 832-862 MHz

DL: 791-821 MHz

TD-LTE:

Volume 38: 2570-

2620 MHz

Volume 39: 1880-

1920 MHz

Volume 40: 2300-

2400 MHz

Volume 41: 2555-

2655 MHz

BT: 2,400-

2.4835 GHz

GPS:

1574,397-1576,443

MHz

WLAN:

2.400-2.4835 GHz

5.150-5.350 GHz

5.725-5.850 GHz

3. installation

3.1 Installation tips

1 The machine may only be installed by a trained service technician.

2 The manufacturer is not liable for injuries caused by improper installation of the unit.

3. original accessories must be used for installation.

4 The installation staff will carry out the initial commissioning of your coffee machine and guide you through the basic functions.

If you have any questions, please contact customer service.

3.2 Dimensions

Unit of measurement: Millimeter

Optional area for connections through cut-out in the counter for,

Fresh water, electricity, wastewater

Hole 60 mm

Bean container

Powder container

Mains switch

Switch button

Milk hose inlet

Current interface   485 interface

 interface   Drain opening Water connection

3.3 Installation location

1. the installation site must be dry and protected from splashing water
2. some condensation, water or steam can always escape from a coffee machine
3. do not use the coffee machine outdoors.
4 The machine must be set up on a firm, level and heat-resistant surface.
5 The ambient temperature must be between 5 °C and 35 °C.

3.4 Electrical connection

1. the mains connection must correspond to the voltage, current and frequency specified on the rating plate of the appliance.
The installation of incorrect or unsuitable electrical plugs can lead to short circuits and fires. The plug may only be selected and installed by qualified service personnel.
2. the X680C is only electrically safe if it is properly earthed as described in the current electrical safety regulations. Check compliance with the regulations and, if in doubt, have the wiring thoroughly checked by qualified personnel.
3 The manufacturer accepts no responsibility for damage caused by incorrect earthing or improper use of the power supply unit.
4. the user does not need to change anything to switch the product between 50 and 60 Hz. The product can adapt to both 50 and 60 Hz.

3.5 Water connection

Water supply from the tank, from the tap and from drums are available for the X680C. Water supply from the tank and from the tap are the standard configurations when the factory setting has been completed. The standard water supply is from the water tank.

3.5.1 Water quality

Total hardness:	4-8 dH GH
	70-140 ppm (mg/l)
Carbonate hardness:	3-6 dH KH / 50-105 ppm (mg/l)
Acidity/pH value:	6.5-7.5 pH
Chlorine content:	< 25 mg/l
TDS	30 - 150 ppm (mg/l)
Electrical conductivity	50-200 µS/cm (microsiemens)
Iron content	< 0.3 mg/l

A water filter system must be installed to ensure the required water quality.

3.5.2 Tap water connection

The distance between the machine and the water connection should not be more than 1 meter (only use the original hose supplied to connect the appliance). The water pressure must be between 2 and 6 bar. If the water pressure exceeds 6 bar, a pressure reducing valve must be installed.

3.5.3 Connection for water supply via external container (canister)

The optionally available accessories must be used to connect the water supply via an external container (canister). Please contact customer service if you wish to use the water supply via an external container (canister).

3.5.4 Automatic waste water connection

The distance between the water drain and the machine should not be more than 1 meter. To ensure proper drainage, make sure that the water drain (hose) does not sag.

3.5.5 Water filter installation

1. select a suitable level from A, B, C according to the actual water quality

2. connect the water filter to the adapter

3. insert the water filter into the connection of the water tank

4. select 'System accessories - water filter'

5. select installation/replacement and internal water filter, enter the water intake capacity based on the appropriate level and then tap "Finish"

6. tap on 'Confirm'

See water filter operating instructions for capacity

4. initial commissioning

4.1 Filling the material

Fill material into the machine. See page 16 for specific operation.
Please use the internal water tank during initial start-up.

4.2 Setting the start program

After the machine is switched on for the first time, the start program setting can be accessed for the first time. The specific procedure is as follows:

1. lift the front control panel and press
the power switch

2. press the screen power button

3. the screen is switched on

4. select the language

5. set the time and date

6. set the PIN code

7. select the screen interface

8. set the control panel display

9. click on "Finish" to
complete the setting

5. operation

5.1 Filling the coffee beans

1. use the key to open the lid of the bean container (if necessary)

2. lift the lid of the bean container

3. add coffee beans

4. attach the cover and lock it (if necessary)

Never insert objects into the bean container or the grinder. Otherwise, splinters may be ejected, which could cause injury.

1. be careful when filling coffee beans and make sure that no beans fall into the gap between the bean containers.
2. do not pour ground coffee into the bean container
3. do not pour any liquids into the bean container

5.2 Filling the powder

1. use the key to unlock the lid of the powder container (if necessary)

2. lift the lid of the powder container

3. fill with the appropriate powder for the fully automatic coffee machine.

4. attach the cover and lock it (if necessary)

1. do not pour ground coffee into the powder container.

2. do not pour any liquids into the powder container.

5.3 Filling the water tank

1. pull out the water tank

2. fill the water tank with drinking water

3. attach the water tank (ensure that the water tank is inserted correctly)

1. the amount of water must not exceed the maximum mark on the water tank

2. do not fill the water tank with hot water as this may damage the machine.

5.4   Milk connection

1. connect the milk pipe to the machine

2. insert the milk pipe into the milk container

Store milk in a cooling container

Milk connection for X680C

1. connect the milk hose and cleaning hose to the milk cooler

2. insert NTC

3. connect the milk hose (inlet) to the milk hose

4. insert the NTC and the integrated milk tube into the lid of the milk container

5. reset the milk container

See milk cooler operating instructions for specific installation. If you have any questions, please contact customer service

5.5 Emptying the bean container

1. use the key to unlock the control panel (if necessary)

2. lift the front control panel plate

3. pull the locking slide

4. remove the bean container upwards

5. empty and clean the bean container

6. attach the bean container

7. push the locking slide all the way in

The bean container must be completely dry after cleaning before it is reinserted.

Pay attention to the position of the screen during operation! Careless touching can cause the screen to fall and crush your arm or fingers.

5.6 Emptying the powder chute

1. use the key to unlock the control panel (if necessary).

2. lift the control panel.

3. pull the locking slider forwards.

4 Remove the powder chute upwards.

5 Empty and dry the powder chute.

6 Reattach the powder chute.

7. push the lock back completely.

Note: The powder chute must be completely dry before it is reinserted.

5.7 Switching on the machine

The process for switching on the machine is described under "Commissioning" (page 15).

Please pay attention to the position of the screen during operation. Careless touching can cause the screen to fall, which can lead to injuries to the arm or finger.

5.8 Beverage preparation

5.8.1 Preparing drinks in the standard interface

1. place a suitable cup under the beverage dispenser.

2. touch the drink symbol on the display.

3. the drink is prepared.

Touch the < or > symbols during beverage preparation to change parameters.

Touch "Order" to select another drink.

Status display   Preparation can be started by touching "Stop" can be canceled.

5.8.2 Preparing drinks in the "self-service" interface

1. Place a suitable cup under the beverage dispenser.
2. Touch the drink symbol on the display.
3. The drink is prepared.

Status display

Preparation can be started by touching
"Stop" can be canceled.

Touch "Order" to select another drink.

The parameters can be changed during beverage preparation.

5.8.3 Preparing drinks in the "Professional" interface

1. Place a suitable cup under the beverage dispenser.
2. Touch the symbol for the desired drink, e.g. latte.
3. The drink is prepared,

   Status display

   Cancel beverage preparation

4. During preparation, the 'Queue function' can be used to select another drink. Example: Touch the espresso symbol while a latte is being prepared. The espresso drink is displayed in the queue list.

5.9 Steam output (optional)

The steam wand is suitable for manually heating and frothing milk and for heating other drinks.

1. Hold a suitable container under the steam outlet.
2. Touch the steam symbol to start the steam output.
3. Steam is released.
4. Wipe the steam wand with a damp cloth after use.

   Touching the steam symbol releases a little steam to clean the nozzle and prevent clogging.

5.10 Setting the grinding degree

The grinding degree can be set using the calibration program. Please contact your customer service for support.

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6. programming settings

6.1 Access to the menu

1. touch the logo symbol in the top left corner of the display.
2. enter the PIN code and touch "Finish".
3. select the desired menu.

External milk pipe rinsing is not configured on the X460C/X465C models.

1. PIN codes can be set during initial commissioning. If no PIN code has been set, the default PIN codes are empty.
2. different PIN codes grant different access rights to menus. The specific rights for PIN codes can be viewed and changed in the "System settings/Users/Maintenance rights" menu.

6.2 Program menu tree

- **Maintenance**
  - Sinks
  - Cleaning
  - Descaling
  - General functions
- **Drinks**
  - Beverage settings
  - Beverage display
- **System**
  - Water supply
  - Maintenance
  - Accessories
  - Switch on/off
  - Reset
- **Control panel**
  - Service scenarios
  - Main page
  - Beverage preparation
  - Advertising
  - Advanced settings
- **Users**
  - Administrator PIN code
  - Maintenance PIN code
  - Maintenance rights
- **Language**
  - Chinese
  - English
- **Statistics**
  - Overview
  - Drinks
  - Cleaning
  - Descaling and system drainage
- **Help**
  - Information on

6.3.1 Overview of the cleaning menu

■ **Sinks**

- Brew group rinsing
- Milk frother rinsing
- Internal milk line rinsing
- Mixer rinse
- External milk line rinsing

■ **Cleaning**

- Brew group cleaning with cleaning tablets
- Milk system cleaning

■ **Decalcification**

- Coffee cycle
- Steam circuit

■ **General functions**

- Screen cleaning
- Restart
- Switch off

6.3.2 Flushing

- **Brew group rinsing**
  Carry out a hot rinse of the brewing system immediately after you have tapped it.
- **Rinsing the milk frother**
  Perform a hot rinse of the milk frother immediately after you have tapped it.
- **Internal milk pipe rinsing**
  Carry out a hot rinse of the milk pipe immediately after you have tapped it.
- **Blender rinse**
  Carry out a hot rinse of the blender immediately after you have tapped it.
- **External milk pipe rinsing** *(Except for* X680C*)*
  Insert the milk pipe into the drip tray and tap 'Confirm' to start rinsing immediately.

6.3.3 Cleaning

Cleaning the brew group
Start the brew group cleaning program with cleaning tablets immediately after touching 'Start' when the message 'Brew group cleaning with cleaning tablets' appears on the screen.

Cleaning tablets are required during the cleaning process.
Total duration: approx. 20 minutes.

Cleaning the milk system
Start the milk system cleaning process immediately after touching 'Start'. Cleaning agents are required during the process.
Total duration: approx. 10 minutes.

6.3.4 Descaling

Descaling the coffee circuit
Start the program for descaling the coffee water circuit after touching the option when the message 'Coffee circuit descaling' appears on the screen. Descaling powder is used for the descaling process.
Total duration: approx. 40 minutes.

Steam circuit descaling
Start the program for descaling the steam water circuit after touching the option when the message "Steam circuit descaling" appears on the screen. Descaling agent is used for the descaling process.
Total duration: approx. 40 minutes.

6.3.5 General functions

Screen cleaning
The machine is locked for 15 seconds after "Screen cleaning" is touched. During this time, you can clean the surface of the screen with a cloth.

Restarting the machine
Restart the machine system after touching "Restart".

6.4 Drinks

6.4.1 Overview of the beverage settings

Beverage	Beverage setting	Beverage display
	Overview	Display type
	Recipe	Number of columns per row
	personal preferences	
	Price	

6.4.2 Beverage settings

Access to "Overview" settings:

1. **Changing the drink icon**
   Change the drink icon by touching the edit icon. Images uploaded from a USB stick can be used as a drink icon.
2. **Changing the drink name**
   Change the beverage name by touching the edit icon. The beverage name can be customized by the user via the input method.
3. **Beverage status**
   Select 'Active' to prepare this drink. Select 'Inactive' to lock the drink so that it cannot be prepared.
4. **Deleting a drink**
   Touch the "Delete" button under the drink to remove the drink from the drink list.
5. **Adding a new drink**
   Touch "Add" to select a new drink from the pop-up list. After adding a new drink to the menu list, the name and symbol of the drink can be changed and defined.

Recipe settings

Example: Latte, after touching the latte drink icon, you can access the recipe page where you can change the drink settings.

The sequence from left to right shows the sequence of the beverage outlet: hot milk - hot milk foam - coffee.

Change recipe order

Press on the recipe icon (e.g. coffee) and drag it to change its position.

Change recipe parameters

Tap on the recipe to change the parameters. The specific adjustable value range must correspond to the limiting conditions of the software.

Delete recipe

Call up the recipe page and tap on the "Delete" button.

Add recipe

1. a list of factory recipes is displayed here. After tapping on a recipe, it is automatically added to the recipe composition list of the beverage.

2. the number of recipes that can be added is between 1 and 6.

3. the specific adjustable value range must correspond to the limiting conditions of the software.

4 Each adjustable recipe parameter is shown in the images displayed on the left.

Coffee

Parameters	Value range	Remarks
Bean container	Left or right	Standard: Left
Powder weight	6-16 g	Standard: 10 g
Pre-brewing volume	0-35 ml	Standard: 0 ml
Coffee quantity	15-240 ml	Standard: 50 ml
Single scalding	Yes or no	Standard: Yes
Brewing processes	1-4 times	Standard: 1 time

Hot milk

Parameters	Value range	Remarks
Milk temperature	Standard: 60-70°C, Low: 40-50°C	Standard: 60-70°C
Time	5-120 seconds	Standard: 10 seconds

Milk foam

Parameters	Value range	Remarks
Time	5-120 seconds	Standard: 10 seconds

Hot water

Parameters	Value range	Remarks
Water quantity	25-450 ml	Standard: 150 ml
Water temperature	High, Medium, Low, Cold	Standard: High

Powder

Parameters	Value range	Remarks
Powder container	Left or right	Standard: Right
Powder weight	0-32 g	Standard: 20 g
Water temperature	High, Medium, Normal	Standard: High
Water quantity	50-450 ml	Standard: 100 ml

Hot water wand

Parameters	Value range	Remarks
Water quantity	25-450 ml	Standard: 100 ml
Water temperature	High, Medium, Low, Cold	Standard: High

Steam wand

Parameters	Value range	Remarks
Time	5-120 seconds	Standard: 10 seconds

Break

Parameters	Value range	Remarks
Time	1-20 seconds	Standard: 5 seconds

Test

Tap on 'Test' to prepare the drink with the changed recipe parameters and check whether it meets your expectations.

Personal preferences

Option: Active Inactive

Standard: Inactive

Activation of the strength setting function in standard mode is available after the personal preference has been activated. This interface appears after tapping the drink icon.

Strength setting in self-service mode is available after the personal preference has been activated. This interface appears after tapping the drink icon.

Cup size customization in professional mode is available after the personal preference has been activated. This interface appears after tapping the beverage icon.

6.4.3 Beverage display

Two modes are available for displaying drinks: Grid layout and menu cards.

Grid layout   Menu cards

Grid layout
The parameters for the grid layout are set as follows:

Parameters	Value range (standard/self-operation)	Remarks
Columns per row	1x1, 2x1, 3x1, 4x1, 5x1, 3x2, 4x2, 5x2	Standard: 5x2
Parameters	Value range (professional mode)	Remarks
Columns per row	2x1, 2x2, 3x2, 3x3, 4x3	Standard: 4x3

Menu cards
Drinks in the drinks list can be sorted into different menu cards.
Number of menu cards: 2-7.
1. Tap on the cover image of the menu card to replace it with a new one.
   New images can be selected from the photo gallery or uploaded from a USB stick.
2. Tap on "**Update title**" to change the title of the menu card.
3. Tap on the second level to select and add drinks from the drinks list.
4. The effect of activating "**Show second layer drinks on the first page**" is shown in the following image.

List of the second level

6.5 System

6.5.1 Overview of the system menu

<div align="center">

System

</div>

- **Water supply**
    - Water supply mode
    - Water hardness
- **Maintenance**
    - Sinks
    - Cleaning
    - Descaling
    - Emptying the coffee grounds container
    - Automatic emptying
- **Accessories**
    - Bean container & powder container
    - Water from a barrel
    - Milk
    - Water filter
    - Syrup
- **Switch on/off**
    - Automatic switch-off
    - Automatic switch-off after time setting
    - Switch off button
    - Switch on after time setting
- **Reset**
    - Reset drinks
    - Reset factory settings

6.5.2 Water supply

Water supply mode
The water tank mode and the fixed water connection are available.
Select the appropriate water supply mode.
Default setting: Water tank mode.

Water hardness
Set the water hardness value for the machine here.
Default setting: 5 dh.

6.5.3 Maintenance parameter settings

Sinks
Set the flushing parameters as follows:

Parameters	Setting range	Remarks
Warm-up rinse	30 minutes to 1-4 hours	Standard: 30 minutes
Automatic brew group rinsing	Off, 5-20 minutes	Standard: Off
Automatic milk frother rinse	Off, 5-20 minutes	Standard: 10 minutes

Cleaning
Parameter setting for brewing group cleaning with tablets as follows:

Parameters	Setting range	Remarks
Cleaning warning of the brewing group with tablets	≥ 0 cups	Standard: 350 cups
Forced cleaning of the brewing group with tablets	≥ 0 cups	Standard: 450 cups

Decalcification

The degree of water hardness, the water flow and the use of a water filter determine the remaining liters and time until the next descaling.
Set the descaling parameters as follows:

Parameters	Setting range	Remarks
Warning for descaling the coffee circuit	≥ 0 liters	Standard: 2500 liters
Forced descaling of the coffee circuit	≥ 0 liters	Standard: 3600 liters
Warning for descaling the steam system	≥ 0 seconds	Standard: 12,580 seconds
Forced descaling of the steam system	≥ 0 seconds	Standard: 18,880 seconds

Once the preset mandatory number of cups has been reached, the fully automatic coffee machine and must first be cleaned / descaled before further use.

Emptying the coffee grounds container

1. select 'No prompt' in order to off the 'Empty coffee grounds container' display deactivate.

2. select 'Thickness of coffee grounds' so that the display appears when the brew group has performed 1706 steps.

3. select 'Number of coffee grounds' so that the display appears when 25 coffee grounds have been added. Coffee grounds are reached.

6.5.4 Accessories

Bean container & powder container

Select 'Active' and then tap 'Complete' if the bean container is to be used.

Connection for water supply with external container (canister)

1. Select "Dismantle" if the machine is not connected to an external container (canister).
2. Select "Installation" and then tap "Complete" if an external container (canister) is to be used. The machine restarts to complete the settings.
3. default setting: "Dismantle".

Milk

Select "Milk" if the milk type is to be adjusted. Follow the instructions on the display.

Milk cooler for X680C

If a milk container is used, select 'Install milk container' and follow the instructions on the display.

Specific installation instructions can be found in the operating instructions for the milk cooler. If you have any questions, please contact customer service.

Water filter

1. select 'Dismantle' if no water filter is installed.
2. select "Install/Replace" if a filter is to be installed or replaced. Enter the filter type and capacity.
3. default setting: "Dismantle".

Syrup

Select "Install syrup" if syrup is to be used. Follow the instructions on the display.

Specific installation instructions can be found in the syrup operating instructions. If you have any questions please contact customer service.

6.5.5 Switching on/off

Automatic switch-off
Set the time here after which the machine switches off automatically (e.g. hours).

Parameter	Setting range	Remarks
Automatic switch-off	1-24 hours, never switch off	Standard: 4 hours

Automatic switch-off after time setting

Define a specific time for the automatic switch off (e.g. 9:15 a.m.).

Switch off button

1. select "**Switch off**", press the power switch for 3 seconds to switch off the screen.

2. select "**Nothing**" if the function of the power switch should be deactivated.

Switch on after time setting

6.5.6 Reset

Reset drinks
Resets all relevant parameters of the drinks to the factory settings.

Reset factory settings
Resets all machine parameters to the factory settings.

6.6 Control panel

6.6.1 Service scenarios

Select the interface mode displayed on the screen. For a specific introduction to each interface mode displayed on the screen, see page 7.

6.6.2 Main page

Membership function

Option: Active Inactive

1. select "Active" and then tap the "Member" button in the upper right corner of the screen to create members and save a list of favorite drinks.

2. select "Inactive" to deactivate the member function. The "Member" button is not displayed in this case.

Serial number

Option: Active Inactive

1. select "Active" to display the machine's serial number in the bottom left-hand corner of the screen.

2. select "Inactive" to deactivate the display of the serial number.

Service call

Option: Active Inactive

1. select "Active" to display the service call function in the bottom right-hand corner of the screen.

2. select "Inactive" to hide this function.

LOGO change

Touch the edit icon to change the logo that is displayed on the screen.
Upload a new logo from a USB stick.

The background color of the logo on the start screen, in professional mode and in self-service mode must be black.

6.6.3 Beverage preparation

Cancel drink
Option: Active Inactive
1. If 'Active' is selected, beverage preparation can be interrupted by tapping 'Stop'.
2. If "Inactive" is selected, "Stop" is not displayed.

Beverage setting
Option: Active Inactive
1. If 'Active' is selected, the drink recipes can be adjusted by tapping the left and right buttons during preparation.
2. If "Inactive" is selected, the drink recipes cannot be adjusted during preparation.

Volume display
Option: Active Inactive
1. If 'Active' is selected, the drink recipes are displayed during preparation.
2. If "Inactive" is selected, the recipes are not displayed during preparation.

Continue ordering
Option: Active Inactive
1. If "Active" is selected, additional drinks can be selected by tapping "Order".
2. If "Inactive" is selected, the "Order" option is not displayed.

6.6.4 Advertising

AD - Standby

Advertising videos can be set when the machine is in standby mode. Advertising resources can be loaded from a USB stick.

Parameters	Setting range	Remarks
Waiting time	0-100 seconds	Standard: 60 seconds
Volume	0-100 %	Standard: 20 %
Cycle type	Single image, endless loop; exit automatically after playback	Standard: Exit automatically after playback
Playback duration	0-100 seconds	Standard: 10 seconds

You can set up your advertising here. The videos and images used can be loaded from a USB stick.

AD - Welcome

Promotional videos can be set when the machine is started.

Parameters	Setting range	Remarks
Volume	0-100 %	Standard: 20 %
Playback time for single image	0-100 seconds	Standard: 5 seconds

Video requirements:
- Format: MP4
- Aspect ratio: 16:9
- Recommended resolution: 1280x800
- Video bit rate: less than 3000 kbps and 100 MB
- Image formats: PNG, JPG, JPEG
- Recommended resolution: 1280x800

AD - Beverage preparation

Promotional videos can be set when a drink is being prepared.

Parameters	Setting range	Remarks
Volume	0-100 %	Standard: 30 %
Playback time for single image	0-100 seconds	Standard: 5 seconds

Video requirements:
- Format: MP4
- Aspect ratio: 4:3
- Recommended resolution: 890x700
- Video bit rate: less than 3000 kbps and 100 MB
- Image formats: PNG, JPG, JPEG
- Recommended resolution: 890x700

6.6.5 Advanced settings

Parameters	Description
Date	Set local date
Time zone	Set local time zone
Time	Setting the local time
Brightness	Set brightness. Standard: 60 %
Key tone	Set the volume of the key tone. Standard: 100 %
Lighting	Active/Inactive

Lighting

Option: Active Inactive

1. If "Active" is selected, the screen, the bean containers and the powder containers are illuminated.

2. Tap on the desired position for the lighting settings, e.g. on the 'left bean container'.

3. Call up the color selection menu to set the color for standby and alarm lighting. Select the target color from the preset colors (see picture).

User-defined colors can also be set. The "+" button takes you to the user-defined colors.

6.7 Users
Different user rights can be assigned with corresponding PIN codes.

6.7.1 Administrator PIN code
Set the administrator PIN code, which consists of 5 digits.
By entering the correct PIN code, all menu rights can be viewed.

6.7.2 Maintenance PIN code
Specify the maintenance PIN code here, which consists of 4 digits.
By entering the correct PIN code, the assigned maintenance rights can be viewed.

6.7.3 Maintenance rights
Assign specific rights for the maintenance PIN code here.

6.8 Language
Displays the available languages. Select the desired language.
The default language setting is English.

6.9 Statistics
View the history data for various beverage preparations, the total number of beverages as well as care and maintenance data.

6.9.1 Beverages
- **Quick search**: Data can be displayed by 1 week, 1 month, 3 months, current date, half a year, one year or for the entire period.
- **Customized view**: Data for a specific time period can be displayed in a customized way. The data can be displayed in table or chart form.

6.9.2 Cleaning
Shows the specific time records of various cleaning actions, including start time, end time and duration of cleaning.

6.9.3 Descaling/emptying the system
Displays the history records of descaling and draining the water system.

6.10 Help

About
View information about the machine

The following information about this machine can be displayed:
- **Ctr version** (PCB software)
- **HMI version** (screen software)
- **Android system version**
- **Calibration file version**
- Serial number of the machine
- IMEI information of the machine
- Available memory space of the screen

Software upgrade via USB stick
The program of the machine can be updated via a USB stick.

The software upgrade must be carried out by a professional technician. Contact customer service for support.

6.11 IoT function (optional)

The IoT function applies to X680C machines. Wi-Fi and 4G internet connections are available. The specific usage methods must be discussed with the service personnel.

7 Cleaning and maintenance

A perfect coffee experience depends on a perfectly cleaned coffee machine. Clean your coffee machine at least once a day and more often if necessary. Clean the machine immediately if you notice that it is dirty or clogged.

7.1 Overview of cleaning intervals

Cleaning frequency	Process	Type
Daily (or as required)	Brew group rinsing	Automatic or manual
	Milk frother rinsing	Automatic or manual
	Mixer rinse	Automatic or manual
	Empty the drip tray	Manual
	Emptying the coffee grounds container	Manual
	Cleaning the screen	Manual
	Cleaning the steam nozzle	Manual
	Cleaning the milk frother	Manual
Weekly	Cleaning the brew group	Manual
	Cleaning the bean container	Manual
	Cleaning the powder container	Manual
	Cleaning the blender	Manual
	Cleaning the water tank	Manual
If available	Brew group cleaning (with tablet)	If the display shows
	Milk system cleaning	If the display shows
	Decalcification	If the display shows
	Filter change	If the display shows

7.2 Preparing the parts

Part	Use
Cleaning tablet	Brew group cleaning with tablet
Tablet key	To insert the cleaning tablet
Cleaning agent for milk system	Cleaning the milk system
Descaling powder	Decalcification
key	Opening the front panel, bean container and powder container
Milk tube brush	Manual cleaning of the milk hose
Damp cloth	Cleaning the containers, the screen, the machine surface and the steam nozzle

7.3 Daily cleaning

7.3.1 Rinsing the brew group, milk frother and blender
1. The intervals for automatic flushing can be set in the **Maintenance settings** menu. Flushing is carried out automatically when the set conditions are met.
2. Flushing can also be started manually. Call up the **Maintenance > Flush** menu and tap the desired flushing option to start flushing immediately.

Hot water is dispensed from the coffee spout during rinsing. Be careful to avoid scalding.

7.3.2 Emptying the coffee grounds container
The coffee grounds container must be emptied at least once a day.
1. Remove the coffee grounds container.
2. Empty the container and dispose of the coffee grounds.
3. Clean the container thoroughly with fresh water.
4. Dry the container and reinsert it.

7.3.3 Emptying the drip tray

The drip tray is located underneath the coffee grounds container and should be cleaned as required (at least once a day).
1. Remove the drip tray.
2. Pour out the waste water.
3. Clean the drip tray thoroughly with fresh water.
4. Dry the drip tray and replace it.

Clean the two metal plates on the back of the drip tray and keep them dry. Otherwise, the message "Empty drip tray" may be displayed incorrectly.

7.3.4 Cleaning the screen
1. Call up the **Maintenance > General functions** menu.
2. Select **Screen cleaning** to start a 15-second countdown.
3. During this time, you can wipe the screen with a dry cloth.

7.3.5 Cleaning the steam wand (optional)

Wipe the steam wand with a damp cloth after each use.

Touch the "Steam" symbol to release some steam. This helps to clean the nozzle and prevent blockages.

7.4 Weekly cleaning

7.4.1 Manual cleaning of the milk frother

1. Switch off the machine and open the control panel.
2. Press the lock and pull the milk frother nozzle upwards.
3. Disconnect the hose connections.
4. Pull the milk frother out to the front.
5. Disassemble the milk frother.
6. Clean the milk frother thoroughly with fresh water and reassemble it.

The specific steps for manually cleaning the milk frother can be viewed under **Help > Video > Cleaning the milk frother**.

7.4.2 Manual cleaning of the brew group

1. Switch off the coffee machine and disconnect the mains plug.
2. Remove the coffee grounds container and the drip tray to gain access to the brew group.
3. Reach into the funnel under the brew group, push the lock upwards and release it.
4. Slowly guide the brew group downwards, tilt it and pull it out to the front. Hold the brew group firmly while doing so.
5. Clean the brewing sieve under running water.
6. Dry the brew group completely with a cloth and allow it to dry completely before reinserting it.

7.4.3 Cleaning the bean container

The bean containers can be cleaned as required and at regular intervals (recommendation: weekly).

1. Switch off the coffee machine and disconnect the mains plug.
2. Remove the lid of the bean container.
3. Open the control panel using the key and lift the panel.
4. Pull the locking plate in the bean container to unlock it.
5. Remove the bean container, empty it and clean it with a damp cloth.
6. Dry the bean container completely and put it back. Then lock it in place.
7. Close the control panel and reset it.

The specific steps for disassembling and assembling the powder hopper are described on .

7.4.4 Cleaning the powder container

1. Switch off the coffee machine and disconnect the mains plug.
2. Open the control panel using the key and lift the panel.
3. Pull the locking plate in the powder container to unlock it.
4. Remove the powder container, empty it and clean it with a damp cloth.
5. Dry the powder container completely and put it back. Then lock it in place.
6. Close the control panel and reset it.

The specific steps for disassembling and assembling the powder hopper are described on .

7.4.5 Cleaning the blender

1. Switch off the coffee machine and disconnect the mains plug.
2. Open the control panel using the key and lift the panel.
3. Unlock the locking plate of the blender to release it.
4. Pull the blender jug forwards using the handle.
5. Disconnect the blender hose that leads from the blender jug to the spout and remove it.
6. Clean the blender with a damp cloth.
7. Dry the blender completely and reinsert it. Then lock it in place.
8. Close the control panel and reset it.

The cleaning frequency should be adjusted according to the use of powder.

7.5 Cleaning the brew group (if indicated)

A message "Cleaning the brew group with tablet" appears on the screen when the coffee system needs to be cleaned.
Total duration: approx. 10 minutes.

1. Call up the **Maintenance > Cleaning** menu.
2. Tap the **START** button to start the cleaning process.
3. Tap **Confirm** to start cleaning.
4. Follow the instructions on the screen and carry out each step carefully.

If the brew group is not cleaned with tablets in good time, the screen will be locked after the preset cleaning intervals have been reached. The machine can only be used again once the cleaning process has been completed.

7.6 Cleaning the milk system

A message 'Cleaning the milk system' appears on the screen when the milk system needs to be cleaned.
Total duration: approx. 10 minutes.

1. Call up the **Maintenance > Cleaning** menu.
2. Tap the **START** button to start the cleaning process.
3. Tap **Confirm** to start cleaning.
4. Follow the instructions on the screen and carry out each step carefully.

Hot detergent flows out of the spout during cleaning. Do not touch the area below the spouts to avoid scalding.

7.7 Descaling (if indicated)

The frequency of descaling depends on the water hardness, the water flow and the use of a water filter. The time and volume for the next descaling are calculated and displayed by the machine.

7.7.1 Descaling the coffee circuit

If descaling is not carried out in good time, the machine screen will be locked after the preset descaling intervals have been reached. The machine can only be used again once the descaling process has been completed.

1. Call up the **Maintenance > Descaling** menu.
2. Tap the **START** button to start the descaling process.
3. Tap **Confirm** to start the descaling process.
4. Follow the instructions on the screen and carry out each step carefully.

During cleaning and descaling, hot cleaning or descaling agent flows out of the spout. Do not touch the area below the spouts.

7.7.2 Descaling the steam system

A "Descaling the steam system" message appears on the screen when the steam system needs to be descaled.

The steps for descaling the steam system are similar to those for descaling the coffee circuit. Follow the instructions on the screen exactly.

8. notifications and declarations

8.1 Company news

If an error occurs, the machine displays an error message, which is indicated by a red triangle in the top right-hand corner of the control panel. Tap on this symbol to obtain further information.

Information	Possible solutions
Insert water tank	Check that the water tank is inserted correctly or reinsert it.
Insert screen	Replace the screen.
Insert drip tray	Replace the drip tray.
Inserting the coffee grounds container	Reinsert the coffee grounds container.
Insert the left-hand bean container	Reinsert the left-hand bean container.
Insert the right-hand bean container	Reinsert the right-hand bean container.
Insert powder container	Reinsert the powder container.

Information	Possible solutions
Low water level in the water tank	Fill the water tank with fresh water.
Emptying the drip tray	Pour the water out of the drip tray. If the message is still displayed, clean and dry the two metal water level sensors on the front of the drip tray.
Fill the left-hand bean container	Fill the left-hand bean container with coffee beans.
Fill the right-hand bean container	Fill the right-hand bean container with coffee beans.
Fill powder container	Fill the powder container with powder.
Use colder milk	Use milk with a temperature between 2-10 °C.
Use warmer milk	Use milk with a temperature between 2-10 °C.
Installing the brew group	Reinsert the brew group.

8.2 Warning messages

If a warning message occurs, the cause must be rectified before the machine can continue working. The following warnings and suggested solutions are available:

1. Switch off the machine using the main switch before restarting the machine.
2. Please contact a service technician if the machine cannot be started or the fault cannot be rectified.

Error code	Error description	Possible solutions
E1	Motherboard error	
E2	Boiler temperature too high	
E3	Thermoblock temperature too high	
E4	Boiler temperature too low	
E5	Thermoblock temperature too low	
E6	Boiler heats too quickly	
47	Thermoblock heats too quickly	

1. Try restarting the machine.
2. If the error message is still displayed after the restart, switch off the machine and contact customer service.

Error code	Error description	Possible solutions
E8	Boiler heats too slowly	
E9	Thermoblock heats too slowly	
E10	Heating error in the boiler	
E11	Heating error in the thermoblock	
E12	Error when detecting the water tank	
E13	Error in the water mixing valve	
E400	Error in the coffee circuit	
E401	Fault in the steam system	
E402	Error in the brew group	1. try to restart the machine. 2 If the error message is still displayed after the restart, switch off the machine and contact customer service.

Error code	Error	Possible solutions
E403	Error in the coffee multi-port valve	
E404	Fault in the steam multi-port valve	
E405	Error in the mixer	
E406	Fault in left powder motor	1. Try restarting the machine. 2. If the error message is still displayed after the restart, switch off the machine and contact customer service.

9. decommissioning

9.1 Preparation for decommissioning

Clean the machine by using all cleaning and rinsing functions.
Clean the bean and powder containers after emptying.
Clean the beverage outlet and the milk pipe manually.
Clean the brew group manually.
Clean the blender manually.
Clean the drip tray and the coffee grounds container thoroughly.

9.2 Temporary decommissioning (within one month)

Empty the coffee circuit (have the machine emptied by a service technician).
Disconnect the machine from the power supply.
Switch off the water supply.
Switch off additional devices and disconnect them from the power supply.

9.3 Long-term decommissioning (longer than one month)

Some components may no longer function properly if stored or not used for a longer period of time.

The coffee machine must be serviced, installed and cleaned before drinks are prepared.
Have the coffee machine emptied by a service technician.
If the machine is stored for more than 6 months, maintenance may be required before it is put back into operation. Please contact customer service for this.

10. transportation and storage

10.1 Transportation

Protect the machine from mechanical damage and unfavorable ambient conditions during transport and storage.

1. Protect the machine from tipping over or falling.
2. Ensure that the original packaging of the machine is reused for transportation.
3. To prevent damage to the machine, the water in the coffee machine must be completely drained before transportation.
4. Once the water path has been emptied, dry the inside and outside of the machine.

The water circuit must be drained by a specialist technician. Please contact customer service for assistance.

If the program for emptying the water path has been carried out, the coffee system must run the program that was carried out during initial commissioning again when the machine is used again.

10.2 Storage

The storage conditions must be met:

1. Permissible temperatures: -10 to +50 °C.
2. If the machine has not been completely emptied, it must not be stored at temperatures below freezing.
3. Set up the machine in an upright position.
4. The machine system must be drained.
5. If possible, the machine and accessories should be stored in their original packaging.

10.3 Recommissioning after prolonged storage or non-use

The coffee machine may no longer function properly if it has been stored or not used for more than 6 months. Contact your customer service for information on restoring and recommissioning the machine.

11. disposal

When disposing of the coffee machine, some internal spare parts can still be reused. Make sure to dispose of old parts in an environmentally friendly manner.

1. Beans, powder and coffee grounds can be composted.
2. Observe the information on the label when disposing of unused cleaning agents.
3. Dispose of liquids from the cleaning container or drip tray in the waste water system.

Dispose of electronic parts separately

Dispose of plastic parts according to their labeling.

REDFOX®

List of service organizations:

CZ: RM GASTRO CZ s. r. o., Náchodská 818/16, Praha 9
Tel. +420 281 926 604, info@rmgastro.cz, www.rmgastro.com

SK: RM Gastro Slovakia, Rybárska 1, Nové Město nad Váhom
Tel.: +421 32 7717061, obchod@rmgastro.sk, www.rmgastro.sk

PL: RM GASTRO Polska Sp. z o. o., ul. Skoczowska 94, 43-450 Ustroń
Tel.: +33 854 73 26, www.rmgastro.pl