c5

E

Item no. : Cafina - 2954076

Item no. : Melitta SystemService - 2954082

E

CE

RETAIN FOR FUTURE USE !

These Operating Instructions must be read and applied by anyone performing work with or on the equipment described.

In particular, it is imperative that all such persons familiarise themselves with the safety instructions.

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1 Description

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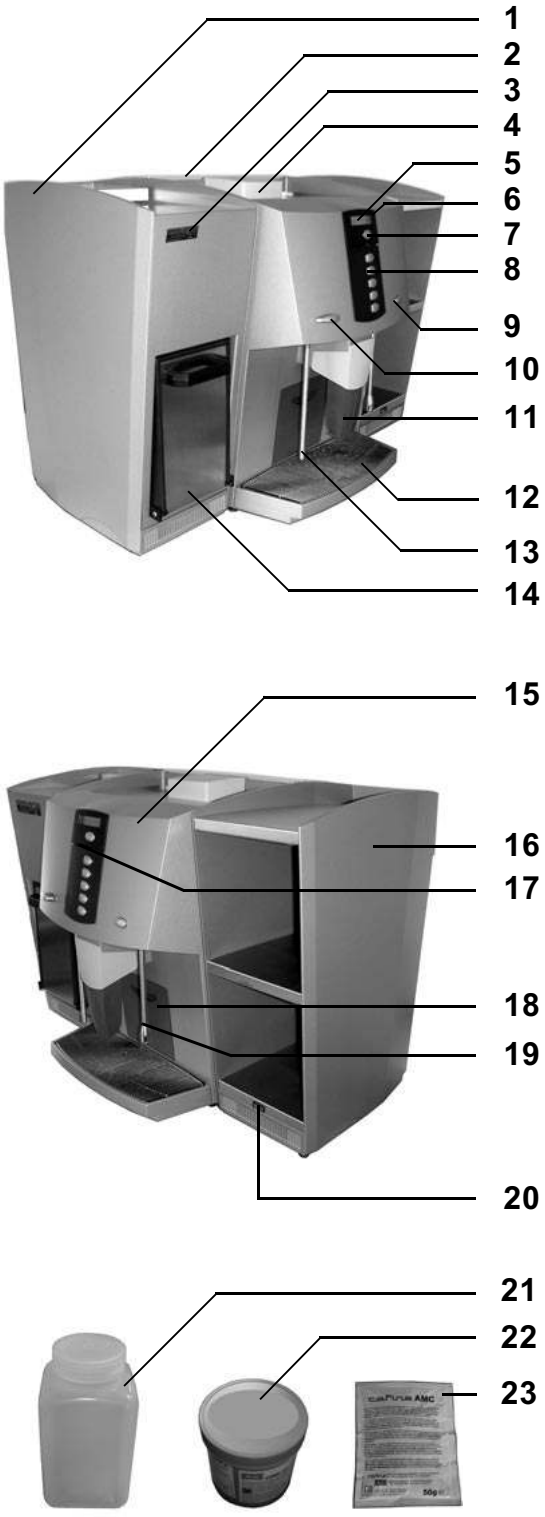
1.1.1 External parts



1 Installed EF milk cooler
2 Bean hoppers 1 and 2
3 Temperature regulator unit
4 Filling chute with lid
5 Liquid crystal display
6 Control panel cover
7 Shift/Stop button
8 Beverage selection buttons
9 Hot water button
10 Steam tap
11 Beverage outlet, height-adjustable
12 Drip tray with drip grille
13 Steam outlet
14 Milk cooler door
15 c5 coffee maker
16 cw cup warmer
17 "Key card" slot
18 Coffee dregs drawer
19 Hot water outlet
20 Power switch for cw cup warmer
21 Cleaning container
22 COMBI-Tabs container
23 AMC powder bag

1.1.2 Internal parts

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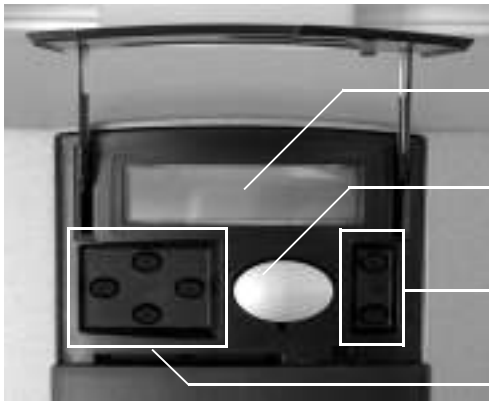

1 Liquid crystal display
2 Shift/Stop button
3 Buttons [**+** , **-**]
4 Navigation buttons [◁ , ▷ , △ , ▽]
5 Milk level monitoring
6 Milk container
7 Milk intake lines

1.2 Mode of operation

1.2.1 c5 coffee maker

The c5 coffee maker is a fully automatic coffee making machine which, in the basic version, can dispense pre-programmed coffee products through a height-adjustable product outlet into the container. The beverage required is selected via five beverage selection buttons.

The beverage selection buttons employ a click pushbutton design that provides both tactile and visual feedback. Large, illuminated product fields indicate the beverage currently selected.

A filling chute enables pre-ground, decaffeinated varieties of coffee to be processed.

The c5 coffee maker exhibits the latest marks of conformity, indicating that it satisfies the necessary certification standards.

For hot milk processing with integrated, fully automatic cleaning, the c5 coffee maker satisfies the HACCP hygiene requirements.

The patented, Automatic Coffeequality System (ACS) quality monitoring system continually monitors relevant parameters such as fineness of grind, coffee powder weighed-in quantity, infusion time and water temperature.

The piston system is optimally controlled via a Variable Pressure System (VPS).

The water supply can be directly connected to the water mains or to a water can.

1.2.2 "Installed EF milk cooler" option

The installed EF milk cooler consists of a compressor cooling unit, a separate pump system, a temperature regulator unit and a 6 litre capacity milk container.

The milk is automatically added to the relevant coffee products. The milk cooler door can be lockable.

1.2.3 "External FC milk cooler" option

The external FC milk cooler consists of an industry-standard refrigerator.

If the c5 coffee maker is fitted with an additional external FC milk cooler, the c5 coffee maker will contain an extra pump system for the automatic addition of milk into the relevant coffee products.

1.2.4 "Draw hot water" option

It is possible to draw hot water in user-defined quantities by pressing a button.

1.2.5 "Draw steam" option

Steam can be drawn from the steam tap, and is continuously adjustable.

1.2.6 "cw cup warmer" option

The autonomous cw cup warmer has three levels with built-in heating elements.

1.2.7 "Second coffee bean grinder" option

The second coffee bean grinder option allows a second variety of coffee to be used. Without this option, the second bean hopper is locked.

1.2.8 "Raised bean hopper" option

A higher been hopper (a unit) can be placed on top of the bean hopper(s) to increase the coffee bean capacitiy.

1.2.9 "Bean hopper lockable" option

Lockable versions of both the standard and raised bean hoppers are available.

1.2.10 "Milk level monitoring" option

Milk level monitoring is used in conjunction with the installed EF milk cooler. It is coupled to the c5 coffee maker control system.

Warnings on the LCD enable the user to keep an eye on the level of milk while the machine is in operation.

1.2.11 "Raised feet" option

To clean the area underneath the machines, all the machines can be fitted with raised feet.

1.2.12 "Waste water container level monitoring" option

If the c5 coffee maker is connected to fresh water and waste water cans, it is possible to monitor the level of the waste water can (see also section «5.2 Water connection, 5 - 4»). The level monitoring is coupled to the control system. The control system outputs level-specific information to the LCD.

1.2.13 Shift function

The five beverage selection buttons are allocated as standard at two levels with one pre-programmed beverage per level in each case.

The Shift function switches the beverage selection buttons to the second level and back again.

1.2.14 TWIN function

Normally, one pass of coffee grinding with subsequent infusion operation produces a single quantity of the selected coffee (coffee + milk) product.

With the TWIN function, one pass of coffee grinding with *one* subsequent infusion operation produces a double quantity of the selected coffee (coffee + milk) product.

The TWIN function has to be activated by the Technical Customer Service.

1.2.15 Key cards

Key cards are needed to access the functions of the c5 coffee maker.

Functions such as switch on/switch off, counter readout or programming can only be used if one has the relevant authorised key card.

1.2.15.1 "user" key card

The "user" key card is the card of the person who operates the c5 coffee maker. This card can be configured as a multi-user card for up to six c5 coffee makers.

1.2.15.2 "manager" key card

The "manager" key card is the card of the person (manager), who uses this card to gain access to the higher-level functions. This card can be configured as a multi-user card for up to six c5 coffee makers.

1.2.15.3 "memory" key card

The "memory" key card contains all the system data for the c5 coffee maker, as it was configured at the time of (first) installation by the service technician.

The "memory" key card enables the coffee maker to be reset following an emergency.

1.2.15.4 "free vend" key card

The "free vend" key card enables beverages to be dispensed at no charge, using external billing modules.

1.2.15.5 "vip" key card

The "vip" key card enables the self-service mode to be enabled or disabled without having to delve into the programming of the c5 coffee maker.

1.2.15.6 "external" key card

The "external" key card enables external modules, such as coin-operation units or coin-checking devices, to be enabled or disabled without having to delve into the programming of the c5 coffee maker.

1.2.15.7 "key lock" key card

The "key lock" key card enables the control buttons to be locked or released without having to delve into the programming of the c5 coffee maker.

1.2.15.8 "engineer" key card

The "engineer" key card is reserved for the service technician. It allows the technician to access every area of the system software, read the statistical data and directly control hardware components for test purposes.

1.3 Technical data

1.3.1 Coffee maker types

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Description	Standard model	Shift function	TWIN function	Hot water outlet	Steam outlet	Separate hot water outlet	Installed EF milk cooler	External FC milk cooler	Milk level monitoring
c5-1	X	X	X						
c5 Office	X (1)	X	X	X		Optional			
c5-1 W	X	X	X	X		X			
c5-1 C	X	X	X	X	X	X			
c5-12 W	X (2)	X	X	X		X			
c5-1 C EF	X	X	X	X	X	X	X		Optional
c5-12 C	X (3)	X	X	X	X	X			
c5-12 C EF	X (3)	X	X	X	X	X	X		Optional
c5-1 C FC	X	X	X	X	X	X		X	
c5-12 C FC	X (3)	X	X	X	X	X		X	

(1) Hot water drawn through the coffee outlet

(2) Coffee and hot water dispensed simultaneously

(3) Coffee, hot water and steam dispensed simultaneously

Standard options

The following options can be used with every machine configuration:

- "cw cup warmer"
- "Bean hopper" (optionally lockable)
- "Second coffee bean grinder"
- "Raised bean hopper" (optionally lockable)
- "Raised feet"

The milk cooler door of the installed EF milk cooler is available in a lockable version.

1.3.2 Machine identification

Position of identification plate

- c5 coffee maker

  Switzerland and EU:
  Behind the coffee dregs drawer in the slide-in tray, at the top of the inside wall.

  USA:
  On the front left-hand side.

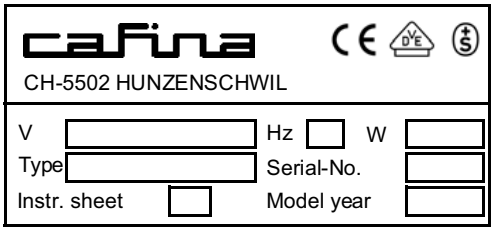
- Installed EF milk cooler

  Switzerland, EU:
  In the chill compartment at the top left-hand side of the inside wall.

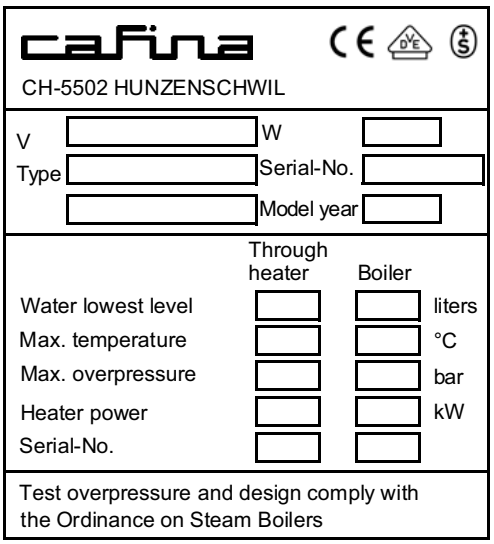
- cw cup warmer

  Switzerland, EU and USA:
  In the lower cup compartment at the top of the back wall.

1.3.2.1 Switzerland



1.3.2.2 Export



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1.3.3 Dimensions and weights

Description	Width [mm]	Height [mm]	Depth [mm]	Weight [kg]
c5-1	450	680	600	49
c5 Office	450			49
c5-1 W	450			50
c5-1 C	450			50
c5-12 W	450			58
c5-1 C EF	700			90
c5-12 C	450			58
c5-12 C EF	700			94
c5-1 C FC	450			53
c5-12 C FC	450			61
cw	250			12
EF	250			26
Raised bean hopper		140		
Raised feet		25.4 (1") 50.8 (2") 76.2 (3") 101.6 (4")		

1.3.4 Filling data

Description	Coffee beans: first bean hopper [kg]	Coffee beans: second bean hopper [kg]	Number of cups which can be accommodated Standard size	Number of cups which can be accommodated Espresso size	Refilling the milk container [litres]	Refilling the canisters [litres]
c5-1	1.4	1.4	8	20		
c5 Office						
c5-1 W						
c5-1 C						
c5-12 W						
c5-1 C EF					6	
c5-12 C						
c5-12 C EF					6	
c5-1 C FC						
c5-12 C FC						
Water intake (fresh water container)						20
Water outlet (waste water container)						10
cw			Approx. 100 (mixed)			
EF					6	
Raised bean hopper	+ 1.6	+ 1.6				

1.3.5 Operating performance data

Description	White coffee: c5 output [kW] = standard cups / h	Espresso: c5 output [kW] = Espressos / h	Cappuccino: c5 output [kW] = Cappuccinos / h	Hot water: c5 output [kW] = litres / h
c5-1	2.3 kW = 170 3.4 kW = 200	2.3 kW = 250 3.4 kW = 250		
c5 Office	2.3 kW = 170 3.4 kW = 200	2.3 kW = 250 3.4 kW = 250		
c5-1 W	2.3 kW = 170 3.4 kW = 200	2.3 kW = 250 3.4 kW = 250		
c5-1 C	6.0 kW = 200 3.6 kW = 170	6.0 kW = 250 3.6 kW = 250		6.0 kW = 30 3.6 kW = 20
c5-12 W	7.4 kW = 200	7.4 kW = 250		7.4 kW = 40
c5-1 C EF	6.1 kW = 200	6.1 kW = 250	6.1 kW = 200	6.1 kW = 30
c5-12 C	7.4 kW = 200	7.4 kW = 250		7.4 kW = 40
c5-12 C EF	6.1 kW = 200 7.5 kW = 200	6.1 kW = 250 7.5 kW = 250	6.1 kW = 200 7.5 kW = 200	6.1 kW = 30 7.5 kW = 40
c5-1 C FC	6.0 kW = 200	6.0 kW = 250	6.0 kW = 200	6.0 kW = 30
c5-12 C FC	7.4 kW = 200	7.4 kW = 250	7.4 kW = 200	7.4 kW = 40

1.3.6 Environmental conditions

1.3.6.1 Temperature and humidity

- Operating and storage temperatures:
  min. + 5 °C
  max. + 30 °C
- Operating and storage humidity:
  max. 80 %

1.3.6.2 Space requirements

- Minimum space required for operation:

  180 mm from the top edge of the bean hopper must be kept clear to allow for replenishment of beans.

2 Safety instructions

2.1 Warnings

2.1.1 Warnings symbols used (depending on nationality)

The following warnings symbols may be affixed to the equipment.

Low voltage

- Warning of dangerous electrical voltage.
- Electric shocks can lead to serious injury or death.
- Only authorised technical personnel may perform work on electrical installations.
- The technical safety instructions must be followed.
- Unplug equipment before carrying out any work on electrical installations.

Hot surface / hot internal components

- Warning of heat which could lead to injury.
- Allow hot surfaces and components to cool before carrying out any work on these component parts.
- If necessary, wear heat-resistant gloves.

2.1.2 Places where warning symbols are affixed (depending on nationality)

NOTE

- The equipment comes supplied with warning symbols (stickers) affixed wherever appropriate.
- If any of the warning symbols should fall off during operation or following cleaning work, the operator must stick these warning symbols back again immediately.

2.1.3 Safety information in these Operating Instructions

In these Operating Instructions, you will find the following three levels of safety information:

- **Level 1**

WARNING

- A warning refers to significant hazards. Failure to follow the relevant safety instruction could lead to injury or death.

Depending on the type of danger, instead of STOP, one of the following symbols could be combined with the word **WARNING**.

E

WARNING

- Warning of electric shock.

WARNING

- Warning of heat.

- **Level 2**

CAUTION

- The CAUTION symbol stresses important instructions. Failure to observe these instructions could lead to damage to the equipment or to other material assets.

- **Level 3**

NOTE

- Notes contain additional information aimed at raising the general level of safety and at lightening the user's workload.

2.2 Basic safety instructions

2.2.1 Proper use

2.2.1.1 General

Proper use includes, in addition to the specific provisions set out below, observing these Operating Instructions and complying with the supplier's obligatory maintenance and repair instructions.

2.2.1.2 c5 coffee maker

The c5 coffee maker is used solely to dispense coffee products, coffee and milk combined products, hot water, steam and to heat and froth milk.

No other use of the c5 coffee maker will be deemed to be proper.

2.2.1.3 Installed EF milk cooler

The installed milk cooler is used exclusively to keep milk cold.

No other use of the installed EF milk cooler will be deemed to be proper.

2.2.1.4 cw cup warmer

The cw cup warmer is intended solely to keep cups warm.

No other use of the cw cup warmer will be deemed to be proper.

2.2.2 Specific hazards and instructions

2.2.2.1 c5 coffee maker

WARNING

- Never insert either the hands or any rod-shaped object into a bean hopper or into the filling chute while the c5 coffee maker is connected to the mains power supply.
- Only coffee beans may be introduced to the bean hopper.
- Only ground coffee may be introduced to the filling chute.

WARNING

- When handling the combination cleaning tablets "COMBI-Tabs", the manufacturer's warnings and instructions that are printed on the cleaning tablet container must be observed and complied with.

WARNING

- When handling the AMC powder, the manufacturer's warnings and instructions that are printed on the bag must be observed and complied with.

WARNING

- Hot air comes out from the bottom of the steam outlet. There is a danger of scalding.
- The bottom of the steam pipe is hot after it has been giving off steam. There is a danger of burns.
- Hot liquid comes out from the bottom of the beverage outlet. There is a danger of scalding.
- Hot liquid comes out from the bottom of the hot water outlet. There is a danger of scalding.
- The bottom of the hot water outlet is hot after it has been dispensing liquid. There is a danger of burns.

WARNING

- Never interfere with the electricity supply connection or modify it. This could result in fatal injury.
- Never remove the screw-mounted covers. There is a danger of fatal injury upon contact with live components.

NOTE

- Regardless of type configuration, the c5 coffee maker should not be used in large kitchens.
- Electrical equipment which does not have adequate electro-magnetic protection should not be operated close to the c5 coffee maker or the installed EF milk cooler.
- The drip tray serves solely to collect drip water. It must not be used as a sink.

CAUTION

- Never interfere with the water mains connection or modify it. There is a danger of flooding.
- The c5 coffee maker **must** be disconnected from the water supply after it has been switched off, e.g. for the overnight period of inactivity, i.e. it is imperative that the tap is closed.
- Only operate the c5 coffee maker in covered locations, avoid places where there is a risk of water splash. There is a risk of damage.

CAUTION

- Never spray the c5 coffee maker with a water hose during cleaning. There is a risk of damage.
- Always empty the coffee dregs drawer in the correct manner. There is a danger of overflow.
- Always insert the key card dry and in the correct position into the slot. Do not insert any foreign objects or chip cards for other systems into the slot. There is a risk of damage.
- Do not leave key card in the slot during operation.
- If the internal relieve pressure valve is actuated due to excessive pressure or temperature increase, switch the c5 coffee maker off immediately. Secure the c5 coffee maker against unintentional switching on and report to Customer Support.

2.2.2.2 Installed EF milk cooler

WARNING

- Never interfere with the electricity supply connection or modify it. This could result in fatal injury.
- Never remove the screw-mounted covers. There is a danger of fatal injury upon contact with live components.

CAUTION

- Only use the milk container supplied and always keep it clean. There is a hygiene risk.
- When refilling with milk, always use pre-cooled milk that is no hotter than 1 - 5 °C. There is a hygiene risk.
- When refilling with milk, cover the lip seals on the inside of the milk cooler door with a cloth. If any milk is left in the lip seals, there is a hygiene risk.
- Always close the milk cooler door. There is a hygiene risk.

2.2.2.3 cw cup warmer

WARNING

- Never interfere with the electricity supply connection or modify it. This could result in fatal injury.
- Always check that the power switch is working properly. The signal lamp must be illuminated.
- Never remove the screw-mounted covers. There is a danger of fatal injury upon contact with live components.

WARNING

- The surfaces of the cup storage area are heated. There is a danger of burns to the skin if touched for a prolonged period.

CAUTION

- Only operate the cw cup warmer in covered locations, avoid places where there is a risk of water splash. There is a risk of damage.
- Never spray the cw cup warmer with a water hose during cleaning. There is a risk of damage.

2.2.2.4 Key cards

CAUTION

- Keep key cards dry, cool and in the plastic pockets provided for this purpose. There is a risk of damage.
- Never put a key card on a hot surface or expose to direct sunlight. There is a risk of damage.
- Never put a key card down in an environment where there is a risk of water splash. There is a risk of damage.
- Always clean key cards including chip contacts with a clean, slightly moist cloth without using any household cleaner. There is a risk of damage.
- Never bend or fold a key card or use it as a tool. There is a risk of damage.
- In an environment that is likely to be electrostatic, always ensure that you have earthed yourself (e.g. by touching a radiator) before handling a key card. There is a risk of damage.

2.2.3 Personal safety

WARNING

If handled improperly, the equipment could cause serious or fatal injury.

Anyone using and maintaining the equipment must be trained in the correct handling of the equipment and must have read and understood the safety instructions in these Operating Instructions before starting to use or maintain the equipment.

WARNING

Never modify or remove any safety mechanisms.

Do not disable any safety mechanisms by modifying the equipment.

If there are any warning symbols affixed to the equipment (dependent on nationality), never remove these. Replace any lost or defective warnings symbols immediately.

WARNING

Never operate the equipment in a damaged condition.

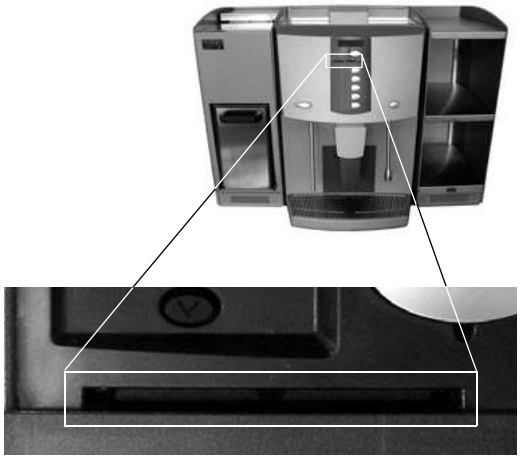
Report any irregularities to your superior immediately, especially if they affect safety.

2.3 Safety mechanisms

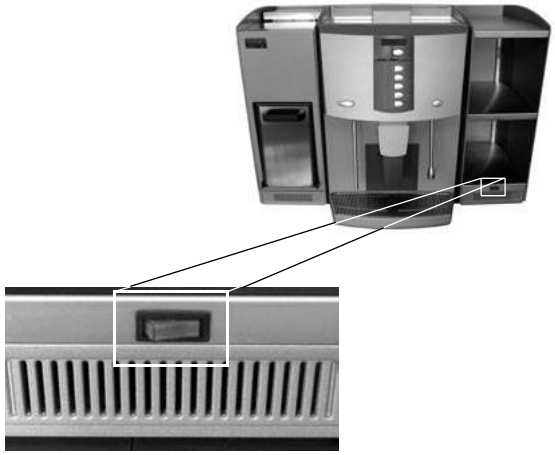
As well as the warning symbols (dependent on nationality) affixed to the equipment, the equipment also has several active safety mechanisms.

2.3.1 Power switch

- c5 coffee maker power switch. Activation with key card.



- cw cup warmer power switch (toggle switch with integrated light)



2.3.2 Pressure relief valve

The c5 coffee maker is equipped with internal pressure relief valves which monitor the flow heater pressure and the boiler pressure.

2.4 Authorised persons

2.4.1 General

Only persons who are authorised to do so may work on or with the equipment.

A person is deemed to be authorised if he/she satisfies the minimum training and knowledge requirements listed in this chapter and has been assigned a fixed area of responsibility.

2.4.2 Areas of responsibility of personnel

2.4.2.1 Operator

As the most senior person from the legal point of view, the operator is responsible for the proper use of the equipment and for the training and deployment of authorised personnel.

He records the competencies and of authorised persons, including whether they have the authority to give orders, for his business.

His tasks include the following:

- He sets or resets the equipment to the beverages that are currently to be dispensed, if he wishes to dispense different beverages than those that the supplier configured upon delivery or installation of the equipment.

2.4.2.2 User

He is responsible for the following tasks:

- He adjusts the equipment to the beverages currently to be dispensed.
- He loads the equipment with the beverages to be handled.
- He starts the equipment up and monitors it.
- He cleans and services the equipment in accordance with the work described in chapters «6 Maintenance, 6 - 1» and «7 Troubleshooting, 7 - 1».
- He pinpoints problems and organises problem rectification.

2.4.2.3 Maintenance personnel (service technician)

He is responsible for the following tasks:

- He services and repairs the equipment in accordance with the work described in chapters «6 Maintenance, 6 - 1» and «7 Troubleshooting, 7 - 1».
- He takes the equipment apart, stores it and disposes of it.

2.4.3 Minimum training and qualifications of authorised personnel

2.4.3.1 Operator

- He has a commercial background and performs a managerial function.
- He has specialist experience in risk assessment and staff management.
- He has read and understood chapter «2 Safety instructions, 2 - 1».

2.4.3.2 User

This is a person who has been instructed in how to use the equipment and is aware of the hazards that exist.

2.4.3.3 Maintenance personnel (service technician)

These are people who have completed specialist vocational training, are familiar with maintenance of the equipment and through their work they have acquired the skills needed.

Maintenance work on the mechanical and electrical aspects of the equipment may only be carried out by Customer Support.

2.5 Maintenance duty

The operator has an obligation to maintain and clean the equipment at regular intervals.

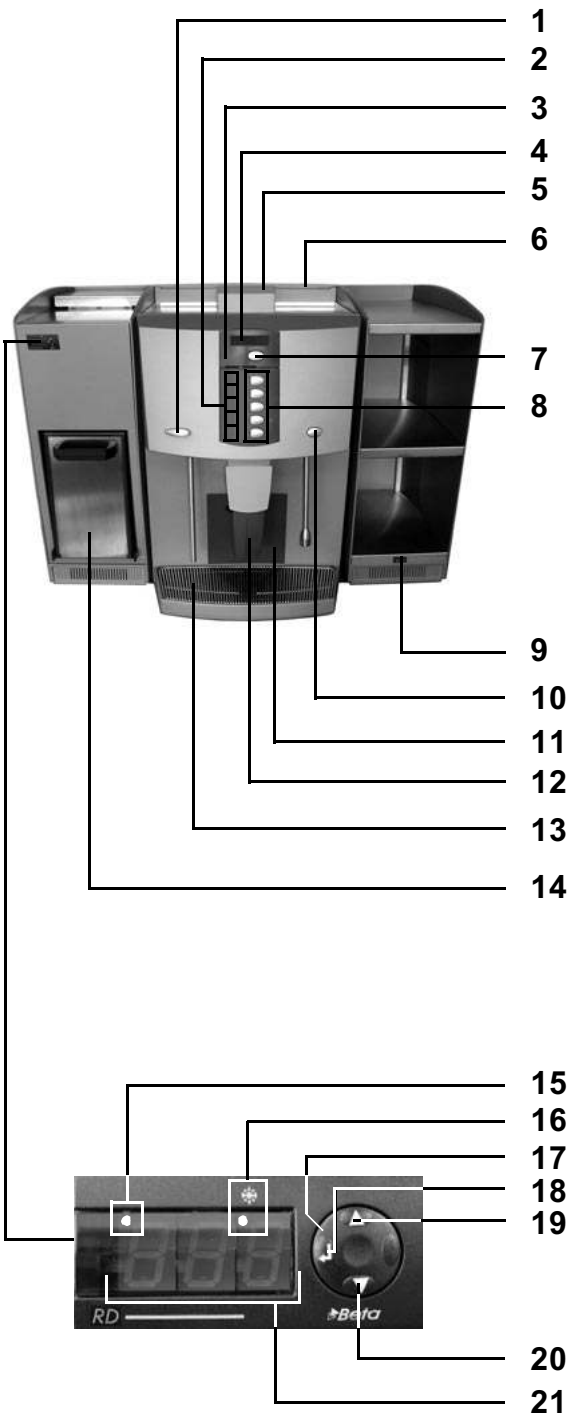
- to operate the equipment only in a fully operational and undamaged condition;
- to use only OEM consumables and spare parts;
- to test the security mechanisms to ensure that they are working properly following any maintenance or repair work (see section «2.3 Safety mechanisms, 2 - 7»).

2.6 Availability of these Operating Instructions

A copy of these Operating Instructions in the vicinity of the equipment must be available to staff using the equipment at all times.

3 Controls and indicators

3.1 Overview



1 Steam tap, can be swivelled 90°

2 Product fields,
top line level 1,
bottom line level 2

3 Control panel cover,
can be swivelled upwards,
underneath it are the
navigation and "+ / -" buttons.

4 LCD,
text display on two lines

5 Filling chute with lid,
chute for "decaffeinated" coffee powder

6 Bean hopper cover

7 Shift/Stop button,
level change in dispensing of beverages,
acknowledgement function in the programming

8 Beverage selection buttons,
dual assignment for dispensing of beverages, selection and modification function in the programming (only topmost and bottom-most beverage selection buttons)

9 Power switch for cw cup warmer

10 Hot water button

11 Pull-out coffee dregs drawer

12 Beverage outlet, height-adjustable

13 Drip grille

14 Milk cooler door

15 Digit light spot "setting mode"

16 Above: "Compressor" symbol,
below: digit light spot

17 Rocker switch

18 ENTER function

19 UP function

20 DOWN function

21 Display (3 digits)

3.2 Operating modes

E

Operating mode (incl. sample display)	Description
In operation `Select beverage`	In this condition, the c5 coffee maker is connected to the power supply and water mains or to the canisters. There are no restrictions on the dispensing of beverages.
Out of order (de-energised)	In this condition the c5 coffee maker is disconnected from the power supply and water mains but is still connected to the canisters. It is not possible to dispense any beverages.
Operation with critical problem `DPxx`	In this condition, the c5 coffee maker is connected to the power supply and water mains or to the canisters. It is not possible to dispense any beverages.

Operation with non-critical problem
`Select beverage`
`Error coffee part DP16`
	In this condition, the c5 coffee maker is connected to the power supply and water mains or to the canisters.
	There are restrictions on the dispensing of beverages.

"Stand by" operation (switched off)
`c5`
`12:10 14.06.2004`
	In this condition, the c5 coffee maker is connected to the power supply and water mains or to the canisters.
	It is not possible to dispense any beverages.

4 Initial start-up

4.1 Normal initial start-up

4.1.1 c5 coffee maker

Normal initial start-up assumes that the c5 coffee maker is connected to the mains power supply.

Once the coffee bean level and the water connection have been checked, the c5 coffee maker can be switched on.

4.1.2 Installed EF milk cooler

Normal initial start-up assumes that the installed EF milk cooler (together with the c5 coffee maker) are connected to the mains.

Once the full milk container has been inserted, the installed EF milk container is ready for operation.

4.1.3 cw cup warmer

The machine is started up normally by pressing the power switch.

The cw cup warmer is ready for operation once it has been filled with cups.

4.2 Return to service after the machine has been out of service for a limited time

4.2.1 c5 coffee maker

Initial start-up after the machine has been out of service for a limited time assumes that the c5 coffee maker will normally have been disconnected from the mains.

After the machine has been connected to the mains and the coffee bean level and water connection have been checked, the c5 coffee maker can be switched on. It is recommended carrying out the cleaning procedure described in section «6.2.2.1 c5 coffee maker, 6 - 5» immediately after switching on.

4.2.2 Installed EF milk cooler

Initial start-up after the machine has been out of service for a limited time assumes that the installed EF milk cooler (together with the c5 coffee maker) will normally have been disconnected from the mains. Once the machine has been connected to the mains power supply and the full milk container has been inserted, the installed EF milk cooler is switched on. It is recommended carrying out the cleaning procedure described in section «6.2.2.2 Installed EF milk cooler / external FC milk cooler, 6 - 7» immediately after switching on.

4.2.3 cw cup warmer

If the plug for the cw cup warmer has been pulled out of the socket, it must be plugged into the socket first. To start the machine for the first time after it has been out of service for a limited time, press the power switch. The cup warmer is ready for operation once it has been filled with cups.

E

4.3 Return to service after a fault

4.3.1 c5 coffee maker

Normal initial start-up after a failure assumes that the c5 coffee maker has not been disconnected from the mains.

Before the c5 coffee maker can be operational again, the fault must have been cleared in accordance with chapter «7 Troubleshooting, 7 - 1».

4.3.2 Installed EF milk cooler

Normal initial start-up after a failure assumes that the installed EF milk cooler (together with the c5 coffee maker) have not been disconnected from the mains.

Before the installed EF milk cooler can be operational again, the fault must have been cleared in accordance with chapter «7 Troubleshooting, 7 - 1».

4.3.3 cw cup warmer

The cw cup warmer does not have any fault-monitoring software.

After a fault, the plug for the cw cup warmer must be re-inserted into the socket and the power switch activated.

5 Operation

5.1 Power supply connection

Connection to the power supply is a matter for the installation company and is taken for granted below.

5.1.1 c5 coffee maker

The c5 coffee maker is permanently connected to the power supply during normal operation.

Depending on the form of the power connection, the c5 coffee maker is disconnected from the power supply via power plug and socket or, in the case of a permanent connection, via a switch on the mains.

NOTE

- The c5 coffee maker does not have a power switch of its own.

5.1.2 Installed EF milk cooler

The installed EF milk cooler is connected to the mains power supply via the c5 coffee maker.

If the coffee maker, having been connected to the mains, is then disconnected from the mains, the installed EF milk cooler will be deactivated accordingly.

NOTE

- The EF installed milk cooler does not have a power switch of its own.

5.1.3 cw cup warmer

The cw cup warmer is connected to the power supply independently of the "c5 coffee maker / installed EF milk cooler" unit.

The cw cup warmer is connected to the power supply via the toggle switch and is switched off by this means.

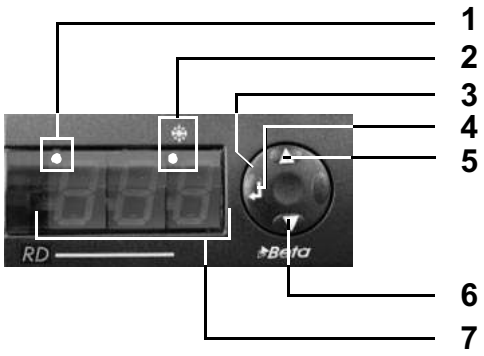
NOTE

- The cw cup warmer has a separate power switch.

E

5.1.4 Temperature regulator unit

5.1.4.1 Control panel



1 Digit light spot "setting mode"

2 Above: "Compressor" symbol, below: digit light spot

3 Rocker switch

4 ENTER function

5 UP function

6 DOWN function

7 Display (3 digits)

5.1.4.2 Brief description

The temperature regulator unit controls the compressor for the installed EF milk cooler. During operation, the display shows the approximate actual temperature of the milk in the milk container. The actual milk temperature is taken from the plate on which the milk container stands.

NOTE

- Pre-cooled milk that is no hotter than 1 - 5 °C should be used. See also section «5.5.4 Refill milk, 5 - 22».
- The temperature indicator on the display shows the approximate actual temperature of the milk in the milk container, not the internal temperature of the installed EF milk cooler.

5.1.4.3 Cooling operation

The digit light spot beneath the "Compressor" symbol is illuminated as long as the compressor is in operation.

NOTE

- The compressor is switched on by the temperature regulator unit when the actual milk temperature is 2 °C above the setting for the desired milk temperature.

5.1.4.4 Checking the desired milk temperature

1. Press ENTER for approx. 2 seconds ...
   - On the display, the word "SET" will appear.
2. Press ENTER a second time, but this time only briefly ...
   - The digit light spot "Setting mode" will flash for approx. 12 seconds.
   - On the display, the desired milk temperature will appear.
3. Press ENTER for approx. 2 seconds or wait until the digit light spot "Setting mode" stops flashing.

5.1.4.5 Programming the desired milk temperature

NOTE

- Alternative settings for the desired milk temperature will be found in the separate specification for the temperature regulator unit.

1. Press ENTER for approx. 2 seconds ...
   - On the display, the word "SET" will appear.
2. Press ENTER a second time, but this time only briefly ...
   - The digit light spot "Setting mode" will flash for approx. 12 seconds.
   - On the display, the current desired milk temperature will appear.
   - To set the desired milk temperature, press the UP / DOWN buttons as required.

NOTE

- Factory setting: 5 °C
- Adjustment range: between 3 °C and 6 °C

3. Press ENTER for approx. 2 seconds or wait until the digit light spot "Setting mode" stops flashing.
   - The desired milk temperature is now set, and the approximate actual milk temperature is indicated on the display.

E

5.2 Water connection

Connection to the water mains is a matter for the installation company and is taken for granted below.

CAUTION

- It is **not** permissible to combine a permanent connection to the mains water supply with the use of a waste water canister.
- Ideally, either "permanent connection to permanent connection" or "canister to canister" should be used as the connection type.
- The "Waste water container level monitoring" option can reduce the risk of overflows.

5.2.1 Water intake

The c5 coffee maker is supplied with water from ...

- ... the mains water supply, with permanent connection to the pipe system.

or

- ... from a fresh water canister with detachable hose coupling.

5.2.2 Water drainage

Water is drained from the c5 coffee maker ...

- ... into the waste water system, with permanent connection to the pipe system.

or

- ... into a waste water canister fitted with a cap with a hole in it.

or

- ... into a wastewater canister in combination with the "Waste water container level monitoring" option (hose is placed above the connection pipe).

5.3 Switching on and off

5.3.1 Switching on the c5 coffee maker

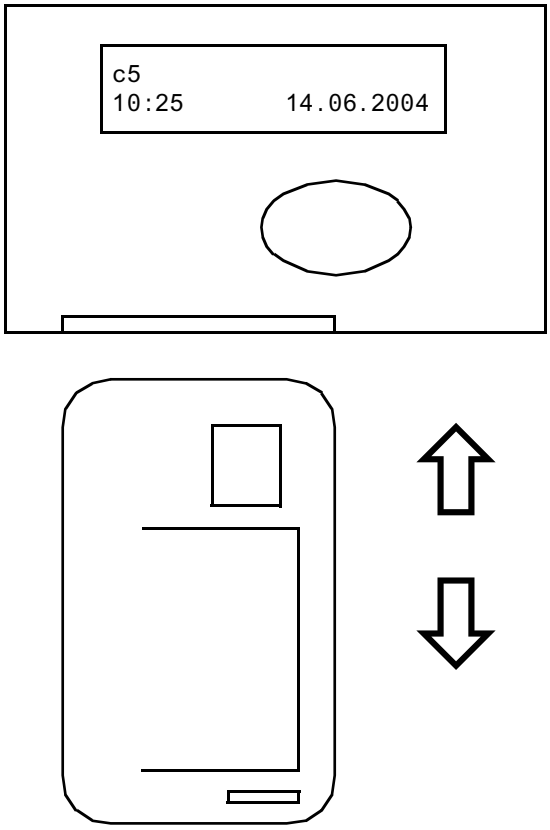
NOTE

- The c5 coffee maker has a "standby" operating mode.
- The installed EF milk cooler is set to "standby" or operating mode at the same time as the c5 coffee maker.

When the c5 coffee maker is switched on, it moves from "standby" to operating mode.

None of the product fields are lit up.

1. Turn on the tap.
2. Insert "user" / "manager" key card and then remove.



NOTE

- Move steam and hot water outlets to the vertical position.
- Close steam tap tightly.
- Pull beverage outlet right down. Hot water and steam will come out.

3. This c5 coffee maker heats up. The second line flashes.

```
TURN ON
prog. 86 °C   act.
```

```
TURN ON
Steam temp. too low
```

4. After the c5 coffee maker has heated up, the "Refill milk" prompt will appear. You should now fill it up with milk, i.e. replenish with milk if the milk level is too low, or else insert the milk container.

```
Select beverage
Refill milk
```

5. All five product fields are illuminated.

   The c5 coffee maker is now ready to dispense beverages.

```
Select beverage
```


E

5.3.2 Switching off the c5 coffee maker

NOTE

- The c5 coffee maker has a "standby" operating mode.
- The installed EF milk cooler is set to "standby" or operating mode at the same time as the c5 coffee maker.

NOTE

- **Details on the cleaning procedure** can be found in sections «6.2.2.1 c5 coffee maker, 6 - 5» and «6.2.2.2 Installed EF milk cooler / external FC milk cooler, 6 - 7».

CAUTION

- Waste water canister almost or completely full?
- Depending on the cleaning procedure, the throughput of water may be high. If the waste water canister has little remaining capacity, it could overflow.
- Check waste water canister prior to switching off the machine!

When the c5 coffee maker is switched off, it moves from operating mode to "standby" mode.

It can be switched off in the following ways, provided that "yes" is selected.

```
OFF after cleaning?
      [1]yes    [5]no
```

- No beverages have been dispensed since the last switch-on:

  The c5 coffee maker goes straight to "standby" mode without the cleaning procedure.

- Only coffee or only milk beverages have been dispensed since the last switch-on:

  The c5 coffee maker runs through the relevant cleaning procedure and then goes to "standby" mode.

- Both coffee and milk beverages have been dispensed since the last switch-on:

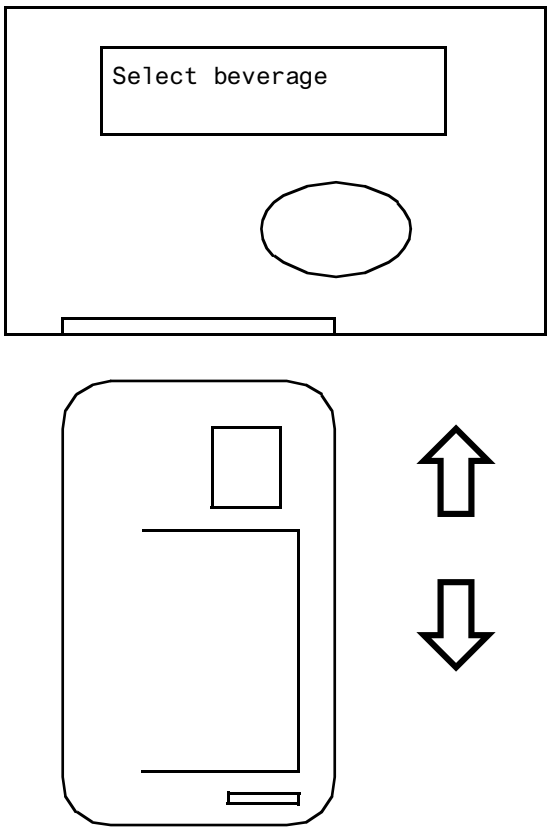
  The c5 coffee maker runs through the full cleaning procedure and then goes to "standby" mode.

We now describe as an example how the machine is switched off after both coffee and milk beverages have been dispensed in the operating mode.

NOTE

- Coffee system: Only use combination cleaning tablets "COMBI-Tabs".
- Get out two combination cleaning tablets "COMBI-Tabs" or one combination cleaning tablet "COMBI-Tabs" and a AMC powder bag.
- Get the cleaning container.

1. Insert "user" / "manager" key card and then remove.



2. Before switching off, the cleaning process starts up. (For details, see also section «6.2.2 Cleaning procedure, 6 - 4»).

Tell the c5 coffee maker to switch off after the cleaning process.

```
OFF after cleaning?
      [1]yes    [5]no
```

For "yes", press the topmost beverage selection button [⬭].

3. You will now be prompted to empty the coffee dregs drawer.

```
Empty drawer!
```

Pull out the coffee dregs drawer so that you can empty it. The following message appears ...

```
Drawer missing!
```

Push the empty coffee dregs drawer back in. The following message appears ...

```
Drawer emptied
Please confirm    (SH)
```

4. Now press the Shift/Stop button [⬭] on the control panel.

Now empty the milk, i.e. replace the milk container with the **empty** cleaning container (into which you have placed one combination cleaning tablet "COMBI-Tabs" or the content of a AMC powder bag). Leave the milk cooler door open.

```
Insert the cleaning
container
```

```
Please confirm    (SH)
```

5. Now press the Shift/Stop button [⬭] on the control panel.

The following message appears during the rinse operation ...

```
Rinsing
```

The cover of the filling chute folds open. Now insert the other combination cleaning tablet "COMBI-Tabs" in the filling chute.

```
Put cleaning agent in
Please confirm    (SH)
```

6. Now press the Shift/Stop button [⬭] on the control panel.

7. The following message appears ...

```
Cleaning
```

```
Cleaning milk
```

8. When the cleaning process has finished, the following message appears ...

```
c5
12:10          14.06.2004
```

Take the cleaning container out of the installed EF milk cooler.

The c5 coffee maker is switched off.

9. Turn off the tap.

5.3.3 Switching the cw cup warmer on and off

The cw cup warmer is switched on and off via the illuminated toggle switch.

NOTE

- The cw cup warmer does not have a "standby" mode. It is always switched to full heat output.

5.4 Dispensing of beverages

5.4.1 Dispensing normal coffee

The following description of how to dispense beverages assumes the following allocation to the beverage selection buttons:

Product fields from top to bottom ...

Espresso Ristretto	[⬭]
Coffee Cream Coffee Special	[⬭]
Cappuccino Macchiatto	[⬭]
Cup of cold milk	[⬭]
Hot milk Decaffeinated	[⬭]

Level assignment ...

Level 1 ..... Level 2	[⬭]

Reference products ...

NOTE

* after the product in the display means "reference product from bean hopper 1".

** after the product in the display means "reference product from bean hopper 2".

Stopping the product flow ...

You can interrupt the flow of beverage at any time by pressing the Shift/Stop button [⬭], if this has been configured on the control side.

5.4.1.1 General sequence

1. Push the beverage outlet upwards.
2. Place coffee cup(s) under the beverage outlet.
3. Push the beverage outlet downwards until the coffee cup(s) can be removed without having to push the beverage outlet upwards again.
4. When this message is displayed, the coffee maker is ready to dispense beverages ...

```
Select beverage
```

5. Decide your beverage dispensing strategy.

NOTE

- The TWIN function can only be used if it has been activated by Customer Support!

- ▸ Level 1 beverage
- ▸ Level 2 beverage
- ▸ One cup from a single infusion operation
- ▸ More than one cup from a single infusion operation
- ▸ Two cups from a single, combined infusion operation (TWIN function)
- ▸ Several cups (two each) from a single, combined infusion operation (TWIN function)

6. Dispense the beverages.

5.4.1.2 Dispensing a level 1 beverage

- **You want to dispense a single shot of the same beverage.**

Dispensing information:

- One grinding operation per shot.
- One infusion operation per shot.

See also section
«5.4.1.1 General sequence, 5 - 9»

1. Press beverage selection button **Espresso / Ristretto** [⬡] once.

The following message appears ...

2. Preparation of the beverage is initiated.

3. The beverage is dispensed.

- **You want to dispense multiple shots of the same beverage (no TWIN function).**

Dispensing information:

- One grinding operation per shot.
- One infusion operation per shot.

See also section
«5.4.1.1 General sequence, 5 - 9»

1. Press beverage selection button **Espresso / Ristretto** [⬡] five times at two-second intervals, for example. The following message appears ...

2. Preparation of the beverage is initiated.

3. The beverages are dispensed continuously.

- **You want to dispense a double shot of the same beverage (with TWIN function).**

  Dispensing information:

  - One grinding operation per double shot
  - One infusion operation per double shot.

  See also section
  «5.4.1.1 General sequence, 5 - 9»

1. Press beverage selection button **Espresso / Ristretto** [⬡] twice in quick succession.
The following message appears ...

2. Preparation of the beverage is initiated.

3. The two beverages are dispensed.

- **You want to dispense more than one double shot of the same beverage (with TWIN function).**

  Dispensing information:

  - One grinding operation per double shot
  - One infusion operation per double shot.

  See also section
  «5.4.1.1 General sequence, 5 - 9»

1. Press beverage selection button **Espresso / Ristretto** [⬡] four times in quick succession, for example.
The following message appears ...

2. Preparation of the beverage is initiated.

3. The two double beverages are dispensed continuously.

5.4.1.3 Dispensing a level 2 beverage

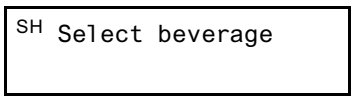
- **You want to dispense a single shot of the same beverage.**

Dispensing information:

- One grinding operation per shot.
- One infusion operation per shot.

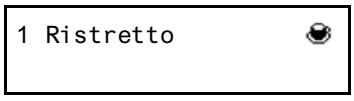
See also section
«5.4.1.1 General sequence, 5 - 9»

1. Press the Shift/Stop button [⬭] on the control panel. The following message appears ...



An acoustic signal is heard. If no beverage selection button is pressed within 5 seconds, then the beverage selection will revert to level 1.

2. Press beverage selection button **Espresso / Ristretto** [⬭] once. The following message appears ...



3. Preparation of the beverage is initiated.

4. The beverage is dispensed.

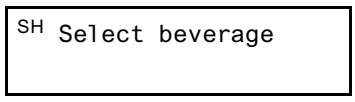
- **You want to dispense more than one double shot of the same beverage (no TWIN function).**

Dispensing information:

- One grinding operation per double shot
- One infusion operation per double shot.

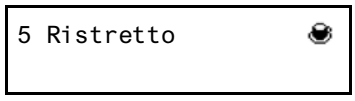
See also section
«5.4.1.1 General sequence, 5 - 9»

1. Press the Shift/Stop button [⬭] on the control panel. The following message appears ...



An acoustic signal is heard. If no beverage selection button is pressed within 5 seconds, then the beverage selection will revert to level 1.

2. Press beverage selection button **Espresso / Ristretto** [⬭] five times at two-second intervals, for example. The following message appears ...



3. Preparation of the beverage is initiated.

4. The beverages are dispensed continuously.

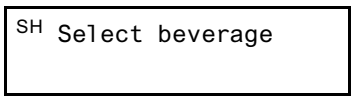
- **You want to dispense a double shot of the same beverage (with TWIN function).**

Dispensing information:

- One grinding operation per double shot
- One infusion operation per double shot.

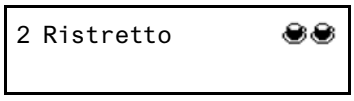
See also section
«5.4.1.1 General sequence, 5 - 9»

1. Press the Shift/Stop button [⬭] on the control panel.
The following message appears ...



An acoustic signal is heard. If no beverage selection button is pressed within 5 seconds, then the beverage selection will revert to level 1.

2. Press beverage selection button **Espresso / Ristretto** [⬭] twice in quick succession.
The following message appears ...



3. Preparation of the beverage is initiated.

4. The two beverages are dispensed.

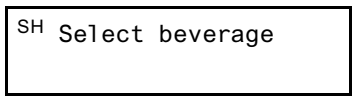
- **You want to dispense more than one double shot of the same beverage (with TWIN function).**

Dispensing information:

- One grinding operation per double shot
- One infusion operation per double shot.

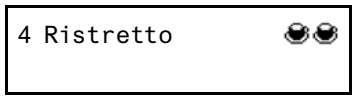
See also section
«5.4.1.1 General sequence, 5 - 9»

1. Press the Shift/Stop button [⬭] on the control panel.
The following message appears ...



An acoustic signal is heard. If no beverage selection button is pressed within 5 seconds, then the beverage selection will revert to level 1.

2. Press beverage selection button **Espresso / Ristretto** [⬭] four times in quick succession.
The following message appears ...



3. Preparation of the beverage is initiated.

4. The two double beverages are dispensed continuously.

E

5.4.2 Dispensing decaffeinated coffee

As well as the nine pre-programmed beverages, which can be dispensed using the beverage selection buttons, it is also possible to dispense a tenth beverage.

This tenth product is assigned for the purposes of beverage dispensing to one overriding product from the range of beverage selection buttons.

This tenth product has to be in powder form and is inserted into the filling chute using the measuring spoon.

CAUTION

- "Powder form" is understood to mean coffee ground from coffee beans. Different forms of coffee or other powder products than coffee must not be used.

(For an overview see also section «5.4.1.1 General sequence, 5 - 9».)

1. When this message is displayed, the coffee maker is ready to dispense beverages ...

```
Select beverage
```

2. Press the Shift/Stop button [⬭] on the control panel.
The following message appears ...

```
SH Select beverage
```

An acoustic signal is heard. If no beverage selection button is pressed within 5 seconds, then the beverage selection will revert to level 1.

3. Press beverage selection button **Hot milk / Decaffeinated** [⬭] once.
The following message appears ...

```
Please wait
```

4. Shortly afterwards the following message appears ...

```
Put coffee in
```

The lid of the filling chute opens.

5. Shortly afterwards the following message appears ...

```
Select beverage
```

The lid of the filling chute remains open for approx. 20 seconds.

6. Put pre-prepared powder from the **measuring beaker filled up to the line** into the filling chute.

7. For example, press beverage selection button **Espresso / Ristretto** [⬭] once.
The following message appears ...

```
1 Espresso**
```

8. Preparation of the beverage is initiated.

9. The beverage is dispensed.

5.4.3 Dispensing milk

Depending on the configuration of the c5 coffee maker, it is possible to dispense cold or hot milk either manually or in portions.

A milk beverage selection button can only be allocated the functions of "manual" or "portion".

- Manual dispensing of milk

  Keep the beverage selection button pressed down until the desired quantity of milk has been dispensed.

- Dispensing a portion of milk

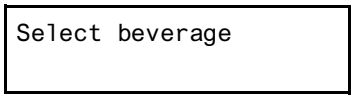
  Keep the beverage selection button pressed down and wait until the programmed quantity of milk has been dispensed.

NOTE

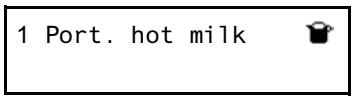
- Replenishment of milk is not allowed while "milk" is being dispensed.
- The first portion of milk should not be used ...
  - if no milk has been dispensed for over four hours.
  - immediately after the machine has been started up (c5 coffee maker / installed EF milk cooler).
  - in the morning, if the milk was in the installed EF milk cooler overnight.

An example of how a portion of hot milk is dispensed is now described.

1. Push the beverage outlet upwards.
2. Place milk jug under the beverage outlet.
3. Push the beverage outlet downwards until the milk jug can be removed without having to push the beverage outlet upwards again.
4. When this message is displayed, the coffee maker is ready to dispense beverages ...



5. Press beverage selection button **Hot milk / Decaffeinated** [⬡] once. The following message appears ...



6. Preparation of the beverage is initiated.
7. The beverage is dispensed.

NOTE

- Pressing the beverage selection button **Hot milk / Decaffeinated** [⬡] while the beverage is being dispensed stops the flow of beverage.

E

5.4.4 Dispensing of hot water

CAUTION

- Hot water outlet is hot.
- Danger of burns and scalding.
- Be careful when touching the hot water outlet.

Depending on the configuration of the c5 coffee maker, it is possible to dispense hot water either manually or in portions.

The hot water button can only be allocated the functions of "manual" or "portion".

- Manual drawing of hot water

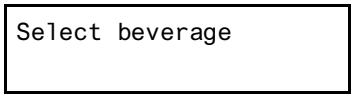
  Keep the hot water button [⬭] pressed down until the desired quantity of hot water has been dispensed.

- Drawing a portion of hot water

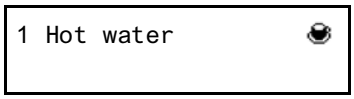
  Keep the hot water button [⬭] pressed down and wait until the programmed quantity of hot water has been dispensed.

An example of how a portion of hot milk is drawn is now described.

1. Rotate hot water outlet to the vertical position.
2. Place cup under hot water outlet.
3. When this message is displayed, the coffee maker is ready to dispense beverages ...



4. Press hot water button [⬭] once. The following message appears ...



5. Preparation of the beverage is initiated.
6. The beverage is dispensed.

NOTE

- Pressing the hot water button [⬭] while the beverage is being dispensed stops the flow of beverage.

5.4.5 Drawing steam

CAUTION

- Steam outlet is hot.
- Danger of burns and scalding.
- Be careful when touching the hot steam outlet.

The steam is used to heat up cold and preheated drinks.

The steam tap [] can be rotated up to 90° max.

Operational status of steam tap:

- Steam tap closed []
- Steam tap open to the maximum possible []

1. Rotate hot water outlet to the vertical position.
2. Rotate steam tap [] slightly downwards so as to allow the condensed water that is still in the steam outlet to run off into the drip tray.

   Keep the steam tap [] rotated until only steam comes out of the nozzle.
3. Rotate the steam tap [] until it is right back in position.
4. Rotate the steam outlet forwards and dip it into the drink that is to be heated.

   With larger receptacles, moved the steam outlet together with the receptacles towards the c5 coffee maker and then place the receptacle on the drip grille.
5. Rotate steam tap [ ] downwards in a controlled way and keep it in this position until the drink has reached the desired temperature.

   If necessary, move the receptacle upwards and sideways during the heating operation.
6. Once the heating operation has finished, rotate the steam tap [] right back into its normal position.
7. Pull receptacle forwards and put aside.
8. Wipe steam outlet clean with a moist cloth.
9. Rotate hot water outlet to the vertical position.
10. Rotate steam tap [] slightly downwards so as to allow the residual fluid that is still in the steam outlet to run off into the drip tray.

E

5.4.6 Frothing milk manually

CAUTION

- Beware hot steam outlet and/or splash from hot milk.
- Danger of burns and scalding.
- Be careful when touching the hot steam outlet. Observe distance between end of steam nozzle and surface of liquid.

NOTE

- The milk used should be cool so as to comply with the hygiene regulations.

Steam can be used to froth milk.

The steam tap [ ] can be rotated up to 90°.

Operational status of steam tap:

- Steam tap closed [ ]
- Steam tap open to the maximum possible [ ]

1. Align steam outlet vertically.
2. Rotate steam tap [ ] slightly downwards so as to allow the condensed water that is still in the steam outlet to run off into the drip tray.
3. Rotate steam outlet forwards and dip the end of the steam nozzle into the drink to be frothed right down to the bottom of the receptacle.
4. Rotate the steam tap [ ] downwards in a controlled way.

   At the same time lower the receptacle so that the end of the steam nozzle is just above the surface of the liquid.

   During the frothing operation, watch the formation of froth and continually adjust the distance between the "end of the steam nozzle and the surface of the liquid" (this will differ according to the physical properties of the steam nozzle).
5. When the desired degree of froth has been achieved, rotate the steam tap [ ] back into its normal position (closed) to terminate the operation.
6. Pull receptacle forwards and put aside.
7. Wipe steam outlet clean with a moist cloth.
8. Align steam outlet vertically.
9. Rotate steam tap [ ] slightly downwards so as to allow the residual fluid that is still in the steam outlet to run off into the drip tray.

5.5 Routine work

5.5.1 Refilling fresh water canister

The fresh water canister (20 litres) must be refilled at least once a day with cold, thoroughly hygienic mains water.

NOTE

- Never refill completely decalcified fresh water.
- Always take care to correctly connect the rapid action coupling of the water line that runs between the fresh water canister and the c5 coffee maker.
- Fresh water pipe must not have any kinks in it.

5.5.2 Emptying the waste water canister

The waste water canister (10 litres) must be emptied and thoroughly rinsed at least once a day.

NOTE

- Always take care to ensure that the waste water hose is pushed down through the hole in the cap of the waste water canister to a sufficient depth.
- If the option "Waste water container level monitoring" was selected during installation, take care to ensure that the waste water hose fits snugly and sufficiently far on the connection pipe.
- Waste water hose must not have any kinks in it.

1. If the option "Waste water container level monitoring" option has been selected, the following message will appear when the canister is full ...

```
Select beverage
Waste water full
```

NOTE

- It will not be possible to dispense any further beverages using the c5 coffee maker until the waste water canister has been emptied.

2. Empty the waste water canister immediately. The following message appears ...

```
Waste water emptied
Please confirm    (SH)
```

Press Shift/Stop button [⬭].

3. The following message appears ...

```
Select beverage
```

4. You can now dispense beverages as required.

E

5.5.3 Refill coffee beans

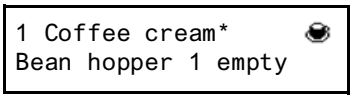
The bean hoppers are monitored as regards coffee bean content. If a bean hopper becomes empty, this is displayed for the relevant bean hopper during the dispensing of a beverage.

NOTE

- The description which follows applies by analogy to the bean hopper 2.

In the example below, bean hopper 1 is empty. The associated reference product is "Coffee cream*".

1. Beverage selection key **Coffee cream / Coffee Special** [⬡] has been pressed once.
   The following message appears ...



2. Pour coffee beans into bean hopper 1 up to about 2 cm below the bean hopper rim.

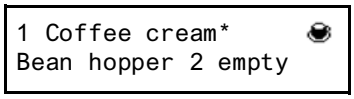
   The position of bean hopper 1 is visible on the inside of the bean hopper cover.

3. Press beverage selection button **Coffee cream / Coffee Special** [⬡] again.

NOTE

- Do not press the Shift/Stop button or insert any key card.

4. If bean hopper 2 is also empty, the following message will appear briefly ...

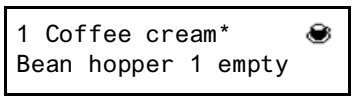


5. Preparation of the beverage is initiated.
6. The beverage is dispensed.

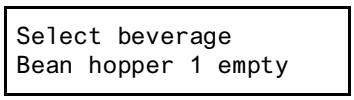
In the example below, bean hopper 1 is empty. The associated reference product is "Coffee cream*".

The Shift/Stop button was pressed by mistake.

1. Beverage selection key **Coffee cream / Coffee Special** [⬭] has been pressed once.
   The following message appears ...



2. The **Shift/Stop button** [⬭] was pressed by mistake.
3. The following message appears ...



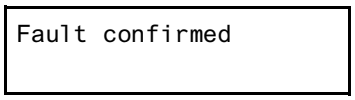
   According to the illuminated product fields, only the beverages served by bean hopper 2 and also pure milk beverages are available for selection using the relevant beverage selection buttons.

   As before, there are no restrictions on the drawing of hot water and steam.

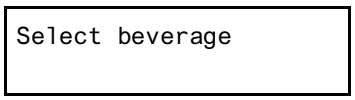
4. Pour coffee beans into bean hopper 1 up to about 2 cm below the bean hopper rim.

   The position of bean hopper 1 is visible on the inside of the bean hopper cover.

5. Insert "user" / "manager" key card. The following message appears ...



6. Remove "user" / "manager" key card. The following message appears ...



   According to the illuminated product fields, all the products are now available for selection via the associated beverage selection buttons.

7. Select beverage.
8. Preparation of the beverage is initiated.
9. The beverage is dispensed.

E

5.5.4 Refill milk

The description of the procedure below applies to both the installed EF milk cooler and the external FC milk cooler.

- The installed EF milk cooler can optionally be fitted with a milk level monitoring system.

NOTE

- The milk container for the installed EF milk cooler holds approx. six litres of milk.
- If the installed EF milk cooler is fitted with milk level monitoring, then this will be activated when the milk supply in the milk container has dropped to about 1 litre or when the milk container is not in the installed EF milk cooler.
- When replenishing the milk supply, always cover the lip seals of the milk cooler door of the installed EF milk cooler.
- **The milk used to replenish the milk container must be pre-cooled, i.e. it must not be any hotter than 1 - 5 °C. If hotter milk is used, the milk will overheat when "milky coffee" beverages are dispensed, insufficient froth will be created and it will not be possible to comply with the hygiene regulations.**
- If the milk container is empty when the machine comes to dispense beverages that include milk, the c5 coffee maker will dispense steam instead of milk.

CAUTION

- If the milk container is empty:

  the addition of steam instead of milk to beverages can result in splashing of hot liquid, causing scalds.
- Replenish the milk supply immediately.

1. The following message indicates that there is either no milk or insufficient milk or else that the milk container itself is not inside the installed EF milk cooler ...

```
Select beverage
Refill milk
```

2. Replenish milk supply. This will result in the following message ...

```
Select beverage
```

3. Pull beverage outlet right down.
4. Open control panel cover and press the [▽] button.

```
Please wait
```

   A little milk will be released to fill the lines.
5. You can now dispense beverages as required.

5.5.5 Emptying the coffee dregs drawer

Once an infusion operation is complete, empty the resulting block of coffee dregs into the coffee dregs drawer.

Monitoring of how full the coffee dregs drawer is is based on adding up the weight of the individual blocks of coffee dregs discarded.

NOTE

- The coffee dregs drawer is full to capacity when it contains a weight of 0.7 kg.

  When this occurs, the message "Empty drawer!" is displayed.
- The coffee dregs drawer is 80 % full when it contains a weight of 0.56 kg.

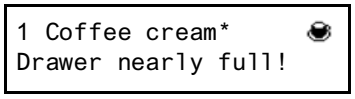
  When this occurs, the message "Drawer nearly full!" is displayed.

CAUTION

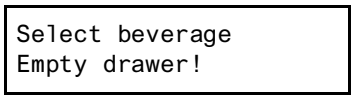
- If the coffee dregs drawer overflows, this will cause serious dirt accumulation inside the c5 coffee maker.
- Always empty coffee dregs drawer correctly when the c5 coffee maker is **switched on**.

1. The following displays indicate how full the coffee dregs drawer is ...

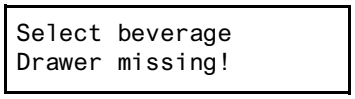
   ... Coffee dregs drawer 80 % full.

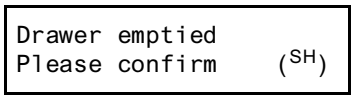
   ... Coffee dregs drawer 100 % full.

2. Push the beverage outlet all the way up.
3. Pull out coffee dregs drawer. The following message appears ...

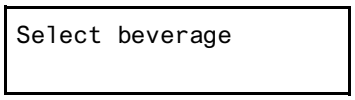
   

4. Empty coffee dregs drawer, clean with warm water (**not** with hot water from the c5 coffee maker) and dry.
5. Push coffee dregs drawer in. The following message appears ...

   Press Shift/Stop button [⬭].

6. The following message appears ...

7. You can now dispense beverages as required.

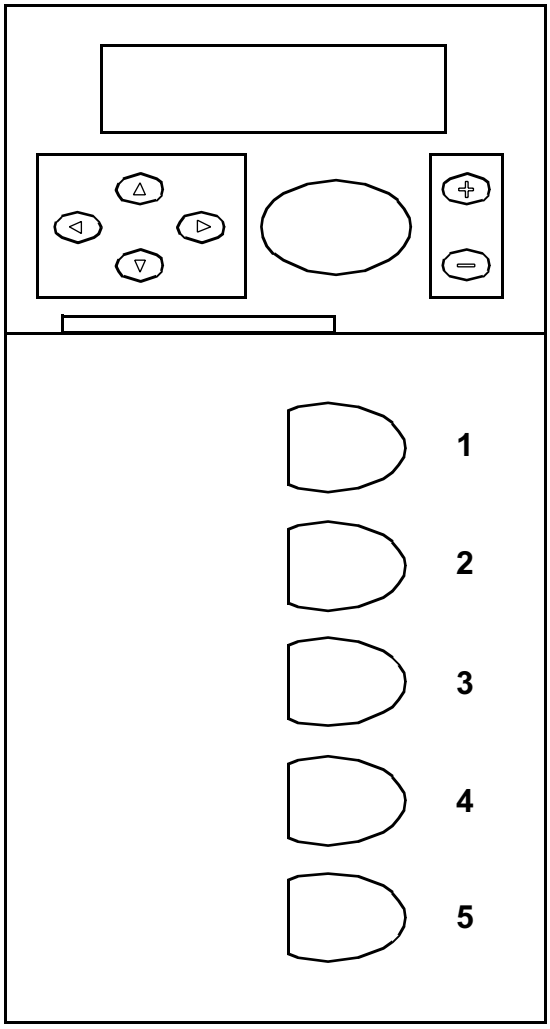
5.5.6 Cleaning the drip tray

The drip grille and drip tray must be cleaned at regular intervals.

1. Press the drip grille at the back right or back left corner downwards a little.
2. Remove drip grille and clean.
3. Clean drip tray and clean out the drain holes if they are blocked.
4. Place the drip grille in the correct position on the drip tray, i.e. with the transverse rods underneath.

5.6 System work

5.6.1 Control panel and button layout



- **Liquid crystal display**
  - Displays information on the corresponding function.
- **Navigation button** [△]
  - One level higher in the structure
  - Used to confirm queries / or adjustment values
- **Navigation button** [▽]
  - One level down in the structure
- **Navigation button** [▷]
  - One position horizontally to the right in the structure
- **Navigation button** [◁]
  - One position horizontally to the left in the structure
- **Shift/Stop button** [⬭]
  - Not allocated
- [**+**] **button**
  - Used to raise the adjustment value in predefined steps
  - Used to enter "Yes"
- [**–**] **button**
  - Used to lower the adjustment value in predefined steps
  - Used to enter "No"
- [⬭] **button** (no. invisible)
  - **1** = "Yes" in response to textual questions
  - 2 to 4 unallocated
  - **5** = "No" in response to textual questions

Cards

Card handling:
1. Insert key card.
2. Wait until LCD display changes.
3. Remove key card.

- "user" key card
  - Insertion of the card has the effect of switching the c5 coffee machine on or off
  - Insertion of the card has the effect of granting access to basic functions
- "manager" key card
  - Insertion of the card has the effect of granting access to advanced functions
  - Insertion of the card after the adjustment values have been changed has the effect of confirming the new settings

5.6.2 Structure of the functions

5.6.2.1 Overview and adjustment values

Access with the "user" key card

User menu	Function	Setting	In steps of ...
Cleaning	- OFF after cleaning ?	(1)yes / (5)no	-
	- Clean coffee ?	(1)yes / (5)no	-
	- Clean milk ?	(1)yes / (5)no	-
Daily counter	- Coffee total	0 - 100.000	-
	- Other products	0 - 100.000	-

Access with the "manager" key card

Manager menu	Function	Setting	In steps of ...
Cleaning	- OFF after cleaning ?	(1)yes / (5)no	-
	- Clean coffee ?	(1)yes / (5)no	-
	- Clean milk ?	(1)yes / (5)no	-
Daily counter	- Coffee total	0 - 100.000	-
	- Other products	0 - 100.000	-
	- Reset counter	yes / no	-
Total counter	- Coffee total	0 - 1.000.000	-
	- Tea total	0 - 1.000.000	-
	- Steam total	0 - 1.000.000	-
	- Milk total	0 - 1.000.000	-
Functions	- EXTERNAL	yes / no	-
	- Self-service	yes / no	-
	- ON / OFF timer	yes / no	-
	- Memoswitch	yes / no	-
	- Milk	yes / no	-
	- Disable buttons	yes / no	-
Water quantity	- Coffee products	0-995 ml	± 0.5 ml
Coff. quant. ±1g	- Coffee products	± 1 g	± 0.1 g
Flow period water	- Hot water products	0.4 - 120 s	± 0.2 s
Pre-infusion 1 milk	- Milk / coffee products	0.0 - 50 s	± 0.5 s
Pre-infusion 2 milk	- Milk / coffee products	0.0 - 50 s	± 0.5 s
Post-infusion milk	- Milk / coffee products	0.0 - 50 s	± 0.5 s
Flow period milk	- Milk products	0.4 - 120 s	± 0.2 s
Flow period steam	- Steam products	0.4 - 120 s	± 0.2 s
Price	- For all products	0.00 - 25.00	± 0.10
No charge	- For all products	Yes / No	-
Time / date	- Hours	HH:	-
	- Minutes	MM	
	- Day	DD.	
	- Month	MM.	
	- Year	YY	

5.6.3 Brief description of functions

5.6.3.1 Cleaning

- OFF after cleaning?

  Specifies whether the c5 coffee maker will switch off after the individual cleaning procedures are complete or remain in operation.

- Clean coffee?

  Specifies whether the cleaning procedure will apply to the coffee system.

- Clean milk?

  Specifies whether the cleaning procedure will apply to the milk system.

5.6.3.2 Daily counter

[i] The daily counters must not be used for billing purposes as different counting methods are used. Billing will only be correct with a registration system.

- With "user" key card

  Queries the current counter status for all products. Deletion of counters is not possible.

- With "manager" key card

  Queries the current counter status for all products. Deletion of counters is generally possible.

5.6.3.3 Total counter

[i] The total counters must not be used for billing purposes as different counting methods are used. Billing will only be correct with a registration system.

- Coffee / Tea / Steam / Milk

  Queries the current counter status for specified products.

  Deletion of counters is not possible.

5.6.3.4 Functions

- EXTERNAL

  Addition and removal of external modules such as coin-operation units or coin-checking devices (analogous to "external" key card) etc.

- Self-service

  Switches c5 coffee maker to self-service operation (analogous to "vip" key card).

  The products intended can be dispensed directly.

- ON / OFF timer

  Sets c5 coffee maker to automatic switching on and off.

  The switch-on/switch-off times must have been previously specified.

- Memoswitch

  The c5 coffee maker can take note of the usage behaviour of the user up to a point and simplify operation.

- Milk

  Addition and removal of the installed EF milk cooler.

- Disable buttons

  Locking and release of the control buttons on the c5 coffee maker (analogous to "key lock" key card).

5.6.3.5 Water quantity

- Every individual coffee product

  The water quantity can be altered in predefined steps.

5.6.3.6 Coffee quantity ±1g

- Every individual coffee product

  The powder quantity can be altered in predefined steps.

5.6.3.7 Flow period hot water

- Hot water beverages

  The flow time can be altered in predefined steps.

5.6.3.8 Pre-infusion 1 milk

- Every "coffee-milk" beverage

  The milk flow time can be altered in predefined steps.

  Coffee is then added.

5.6.3.9 Pre-infusion 2 milk

- Every "coffee-milk" beverage

  The milk flow time can be altered in predefined steps.

  Coffee is then added.

5.6.3.10 Post-infusion milk

- Every "coffee-milk" beverage

  The milk flow time can be altered in predefined steps.

  Coffee is output first.

5.6.3.11 Flow period milk

- Cold milk

  The flow time can be altered in predefined steps.

- Hot milk

  The flow time can be altered in predefined steps.

5.6.3.12 Flow period steam

- "Steam button" option

  The flow time can be altered in predefined steps.

5.6.3.13 Price

- Every beverage

  Allows a price to be stored for every beverage, e.g. for a connected, external billing system.

5.6.3.14 No charge

- Every beverage

  Allows a price to be stored for every beverage, e.g. for a connected, external billing system.

5.6.3.15 Time / date

- Time

  Used to set the time in the format "12:34".

- Date

  Used to set the date in the format "Wednesday 16.06.2004".

5.6.4 Use of the functions

5.6.4.1 Cleaning

- Card: "user" key card

1. Insert / remove card

```
OFF after cleaning?
      (1)yes    (5)no
```

2. [⬡] button (5)

```
Clean coffee?
      (1)yes    (5)no
```

3. [⬡] button (1)

```
Clean milk?
      (1)yes    (5)no
```

4. [⬡] button (1)

5. Start of cleaning procedure

5.6.4.2 Daily counter

- Card: "user" key card

1. Insert / remove card

2. 1 x [▷] button

```
Daily counter
```

3. 1 x [▽] button

```
Coffee total
25
```

4. [▷] or [◁] button

```
Other beverages
yy
```

5. Insert / remove card

```
Select beverage
```

- Card: "manager" key card

1. Insert / remove card

2. 1 x [▷] button

```
Daily counter
```

3. 1 x [▽] button

```
Coffee total
25
```

4. [▷] or [◁] button

```
Other beverages
yy
```

5. [▷] or [◁] button

```
Reset counter
                    no
```

6. 1 x [**+**] button

```
Reset counter
                   yes
```

7. 1 x [△]

```
Daily counter
```

8. Insert / remove card

```
Select beverage
```

5.6.4.3 Total counter

- Card: "manager" key card

1. Insert / remove card

2. 2 x [▷] button

```
Total counter
```

3. 1 x [▽] button

```
Coffee total
                  130
```

4. 1 x [▷] button

```
Tea total
                   25
```

5. 1 x [▷] button

```
Steam total
                   15
```

6. 1 x [▷] button

```
Milk total
                   10
```

7. 1 x [△] button

```
Total counter
```

8. Insert / remove card

```
Select beverage
```

5.6.4.4 Functions

NOTE

- Only those functions which have a grey background (activated) can be altered.

■ Card: "manager" key card

1. Insert / remove card

2. 3 x [▷] button

```
Functions
```

3. 1 x [▽] button

```
EXTERNAL
                    no
```

1 x [▷] button

```
Self-service
                    no
```

1 x [▷] button

```
ON / OFF timer
                    no
```

1 x [▷] button

```
Memoswitch
                    no
```

1 x [▷] button

```
Milk
                    no
```

1 x [▷] button

```
Disable buttons
                    no
```

4. 1 x [**+**] button

```
EXTERNAL
                   yes
```

1 x [**+**] button

```
Self-service
                   yes
```

1 x [**+**] button

```
ON / OFF timer
                   yes
```

1 x [**+**] button

```
Memoswitch
                   yes
```

1 x [**+**] button

```
Milk
                   yes
```

1 x [**+**] button

```
Disable buttons
                   yes
```

5. 1 x [△]

```
Functions
```

6. Insert / remove card

```
Select beverage
```

E

5.6.4.5 Water quantity

- Card: "manager" key card

1. Insert / remove card

2. 4 x [▷] button

```
Water quantity
```

3. 1 x [▽] button

```
Espresso**          11
Water quantity   40 ml
```

4. e.g. 1 x [**–**] button

```
Espresso**          11
Water quantity   35 ml
```

5. e.g. 2 x [**+**] button

```
Espresso**          11
Water quantity   45 ml
```

6. 1 x [△]

```
Water quantity
```

7. 1 x [▽] button

```
Espresso**          11
Water quantity   45 ml
```

8. [▷] or [◁] button

```
Other beverages    xx
Text            yyy ml
```

9. 1 x [△]

```
Water quantity
```

10. Insert / remove card

```
Select beverage
```

5.6.4.6 Coffee quantity ±1g

- Card: "manager" key card

1. Insert / remove card

2. 5 x [▷] button

```
Coff. quant. ±1g
```

3. 1 x [▽] button

```
Espresso**          11
Coffee quantity 8.5 g
```

4. e.g. 1 x [**–**] button

```
Espresso**          11
Coffee quantity 8.4 g
```

5. e.g. 2 x [**+**] button

```
Espresso**          11
Coffee quantity 8.6 g
```

6. 1 x [△]

```
Coff. quant. ±1g
```

7. 1 x [▽] button

```
Espresso**          11
Coffee quantity 8.6 g
```

8. [▷] or [◁] button

```
Other beverages    xx
Text             y.y g
```

9. 1 x [△]

```
Coff. quant. ±1g
```

10. Insert / remove card

```
Select beverage
```

5.6.4.7 Flow period water

- Card: "manager" key card

1. Insert / remove card

2. 6 x [▷] button

```
Flow period water
```

3. 1 x [▽] button

```
Hot water                01
Flow period water\6.0s
```

4. e.g. 1 x [**–**] button

```
Hot water                01
Flow period water\5.8s
```

5. e.g. 2 x [**+**] button

```
Hot water                01
Flow period water\6.2s
```

6. 1 x [△]

```
Flow period water
```

7. Insert / remove card

```
Select beverage
```

5.6.4.8 Pre-infusion 1 milk

- Card: "manager" key card

1. Insert / remove card

2. 7 x [▷] button

```
Pre-infusion 1 milk
```

3. 1 x [▽] button

```
Espresso**               11
Pre-inf. 1 milk    0.0s
```

4. 2 x [▷] button

```
Cappuccino               13
Pre-inf. 1 milk    1.5s
```

5. e.g. 1 x [**–**] button

```
Cappuccino               13
Pre-inf. 1 milk    1.0s
```

6. e.g. 2 x [**+**] button

```
Cappuccino               13
Pre-inf. 1 milk    2.0s
```

7. 1 x [△]

```
Pre-infusion 1 milk
```

8. Insert / remove card

```
Select beverage
```

E

5.6.4.9 Pre-infusion 2 milk

- Card: "manager" key card

1. Insert / remove card

2. 7 x [◁] button

```
Pre-infusion 2 milk
```

3. 1 x [▽] button

```
Espresso**          11
Pre-inf. 2 milk   0.0s
```

4. 2 x [▷] button

```
Cappuccino          13
Pre-inf. 2 milk  10.0s
```

5. e.g. 1 x [**–**] button

```
Cappuccino          13
Pre-inf. 2 milk   9.5s
```

6. e.g. 2 x [**+**] button

```
Cappuccino          13
Pre-inf. 2 milk  10.5s
```

7. 1 x [△]

```
Pre-infusion 2 milk
```

8. Insert / remove card

```
Select beverage
```

5.6.4.10 Post-infusion milk

- Card: "manager" key card

1. Insert / remove card

2. 6 x [◁] button

```
Post-infusion milk
```

3. 1 x [▽] button

```
Espresso**          11
Post-infusion milk0.0s
```

4. 2 x [▷] button

```
Cappuccino          13
Post-infusion milk1.0s
```

5. e.g. 1 x [**–**] button

```
Cappuccino          13
Post-infusion milk0.5s
```

6. e.g. 2 x [**+**] button

```
Cappuccino          13
Post-infusion milk1.5s
```

7. 1 x [△]

```
Post-infusion milk
```

8. Insert / remove card

```
Select beverage
```

5.6.4.11 Flow period milk

- Card: "manager" key card

1. Insert / remove card

2. 5 x [◁] button

```
Flow period milk
```

3. 1 x [▽] button

```
Port. hot milk      15
Flow period milk 25.0s
```

1 x [▷] button

```
Port. cold milk     24
Flow period milk 25.0s
```

4. e.g. 1 x [**–**] button]

```
Port. hot milk      15
Flow period milk 24.5s
```

```
Cold milk port.   24
Flow period milk 24.5s
```

5. e.g. 2 x [**+**] button

```
Port. hot milk      15
Flow period milk 25.5s
```

```
Cold milk port.   24
Flow period milk 25.5s
```

6. 1 x [△]

```
Flow period milk
```

7. Insert / remove card

```
Select beverage
```

5.6.4.12 Flow period steam

- Card: "manager" key card

1. Insert / remove card

2. 4 x [◁] button

```
Flow period steam
```

3. 1 x [▽] button

```
****                02
Flow period steam15.0s
```

4. e.g. 1 x [**–**] button

```
****                02
Flow period steam14.8s
```

5. e.g. 2 x [**+**] button

```
****                02
Flow period steam15.2s
```

6. 1 x [△]

```
Flow period steam
```

7. Insert / remove card

```
Select beverage
```

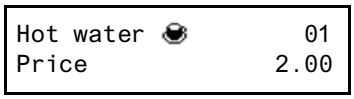

E

5.6.4.13 Price

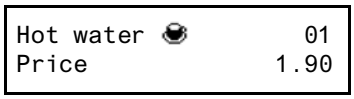
- Card: "manager" key card

1. Insert / remove card
2. 3 x [◁] button

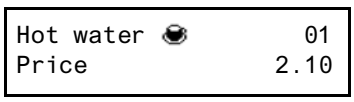
3. 1 x [▽] button



4. e.g. 1 x [**–**] button

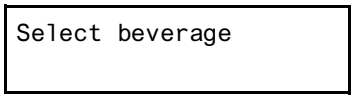


5. e.g. 2 x [**+**] button



6. 1 x [△]

7. Insert / remove card

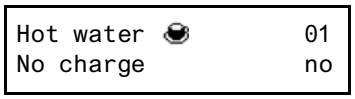


5.6.4.14 No charge

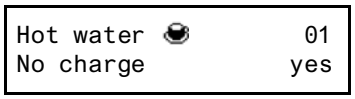
- Card: "manager" key card

1. Insert / remove card
2. 2 x [◁] button

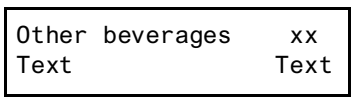
3. 1 x [▽] button



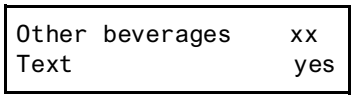
4. 1 x [**+**] button



5. [▷] or [◁] button

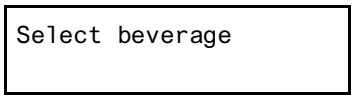


6. 1 x [**+**] button



7. 1 x [△]

8. Insert / remove card



5.6.4.15 Time / date

- Card: "manager" key card

1. Insert / remove card

2. 1 x [◁] button

```
Time / date
```

3. 1 x [▽] button

```
Time / date     Hours
                14:20
```

4. e.g. 1 x [**+**] button

```
Time / date     Hours
                15:20
```

5. 1 x [▷] button

```
Time / date   Minutes
                15:20
```

6. e.g. 5 x [**+**] button

```
Time / date   Minutes
                15:25
```

7. 1 x [▷] button

```
Time / date       Day
Thursday    17.06.2004
```

8. e.g. 1 x [**+**] button

```
Time / date       Day
Friday      18.06.2004
```

9. 1 x [▷] button

```
Time / date     Month
Friday      18.06.2004
```

10. e.g. 1 x [**+**] button

```
Time / date     Month
Sunday      18.07.2004
```

11. 1 x [▷] button

```
Time / date     Month
Sunday      18.07.2004
```

12. e.g. 1 x [**+**] button

```
Time / date     Month
Monday      18.07.2005
```

13. 1 x [△] button

```
Time / date
```

14. Insert / remove card

```
Select beverage
```

After switching off the c5 coffee maker, a message like this appears ...

```
c5
15:35       18.07.2005
```

E

5.6.5 Resetting to initial installation default settings

5.6.5.1 Coffee maker reset

This function is used to reset the c5 coffee maker software to the default settings that applied upon first installation.

The c5 coffee maker reads in from the "memory" key card all the data which the service technician wrote to the card ("memory" key card) last time.

NOTE

- All the software modifications which have been made to the functions using the "manager" key card are lost when machine is reset!
- Empty the waste water canister and fill the fresh water canister prior to activating the coffee maker reset so as to accommodate the higher water throughput that this causes.

- Card: "memory" key card
- Card: "user" key card

1. To disconnect c5 coffee maker from the mains power supply.

▸ pull out the plug

or

▸ set separate power switch to OFF

2. Insert card ("memory" key card)

3. To connect c5 coffee maker to the mains power supply:

▸ insert plug

or

▸ set separate power switch to ON

4. The following message appears ...

```
c5
```

```
Read memory card  (+)
14:45       17.06.2004
```

5. 1 x [**+**] button

```
Reading memory card
14:45       17.06.2004
```

```
Remove card
14:45       17.06.2004
```

6. Remove card ("memory" key card)

```
c5
15:45       17.06.2004
```

7. Insert / remove card ("user" key card)

```
Calibration
14:45       17.06.2004
```

```
Please wait
14:45       17.06.2004
```

```
TURN ON
Text
```

8. Coffee maker reset is complete

```
Select beverage
```

6 Maintenance

This chapter deals exclusively with preventive maintenance of the equipment. In case of problems, please consult chapter «7 Troubleshooting, 7 - 1».

6.1 Maintenance schedule

6.1.1 Intervals

6.1.1.1 Cleaning intervals

Cleaning area	Daily	Weekly	Monthly
Cover of beverage outlet	■		
Waste water canister	■		
External / internal "EF / FC"		■	
External / internal cup warmer		■	
Outside of c5 coffee maker		■	
Control buttons and steam tap		■	
Steam outlet	■		
Filling chute with lid			■
Bean hopper			■
Fresh water canister	■		
Hot water outlet	■		
Coffee dregs drawer	■		
Liquid crystal display		■	
Milk container “EF / FC”	■		
Milk hoses "EF / FC"	■		
Recess for coffee dregs drawer	■		
Beverage outlet	■		
Cleaning procedure "EF / FC"	■ (2 x)		
Cleaning procedure c5 coffee maker	■ (1 x)		
Area underneath the equipment (c5 / EF / cw)	■		
Drip grille	■		
Drip tray	■		

6.1.1.2 Intervals between services

The c5 coffee maker is designed for a maximum of 100,000 cups per year.

The built-in safety mechanisms (relieve pressure valves) must be checked once a year to ensure that they are working properly. We recommend that this check is carried out during an (A) service of the whole system.

- "A" service

An "A" service of the whole system is required every 50,000 cups or no later than one year since the last "A" service.
The following display message indicates the need for maintenance:

```
Select beverage
Maintenance Coffee
```

Contact Customer Support.

- "B" service

If the coffee maker has a milk system (EF or FC), than a "B" service of the milk system is required every 15.000 milk or coffee-plus-milk beverages (e.g. hot milk, cappuccino, latte macciato etc.). The following display messages indicate the need for maintenance:

```
Select beverage
Maintenance Milk
```

Contact Customer Support.

6.2 Cleaning

6.2.1 Cleaning work

CAUTION

- Only use non-corrosive, non-abrasive household cleaners.
- Only use non-abrasive cloths.
- Do not use any of the normal (rapid) decalcifying agents.
- Only use combination cleaning tablets "COMBI-Tabs" for cleaning procedures.

Cleaning area	Cleaning work
Cover of beverage outlet	- Clean using damp cloth.
Waste water canister	- Clean using household cleaner and bottle brush.
External / internal "EF / FC"	- Clean using damp cloth.
External / internal cup warmer	- Clean using damp cloth.
Outside of c5 coffee maker	- Clean using damp cloth.
Control buttons and steam tap	- Clean using damp cloth.
Steam outlet	- Clean using damp cloth. - Be sure to blow out sufficiently after every frothing operation (especially with milk).
Filling chute with lid	- Clean using dry cloth.
Bean hopper	- Clean using dry cloth.
Fresh water canister	- Clean using bottle brush. - Do not use any cleaning agent.
Hot water outlet	- Clean using damp cloth.
Coffee dregs drawer	- Rinse out with warm (not hot) water every time that it is emptied. - Rub dry with cloth.
Liquid crystal display	- Clean using dry cloth.
Milk container "EF / FC"	- Clean using household cleaner and (bottle) brush.
Milk hoses "EF / FC"	- Following the cleaning procedure, clean only the outside of the milk hose, using a dry cloth.
Recess for coffee dregs drawer	- Clean using damp cloth.
Beverage outlet	- Clean using damp cloth.
Cleaning procedure "EF / FC"	- For further details, see section «6.2.2.2 Installed EF milk cooler / external FC milk cooler, 6 - 7»
Cleaning procedure c5 coffee maker	- For further details, see section «6.2.2.1 c5 coffee maker, 6 - 5»
Drip grille	- Clean using damp cloth.
Drip tray	- Clean using damp cloth.

E

6.2.2 Cleaning procedure

The c5 coffee maker and the installed EF milk cooler or external FC milk cooler are cleaned in separate cleaning procedures.

The following applies:

- The two cleaning procedures can be carried out separately or one after the other.
- The c5 coffee maker can be kept in operation or automatically switched off after one or both cleaning procedures.
- The cleaning procedure for the c5 coffee maker requires one combination cleaning tablet "COMBI-Tabs".
- The cleaning procedure for the installed EF milk cooler or external FC milk cooler requires one combination cleaning tablet "COMBI-Tabs" or one AMC powder bag.

NOTE

- Information on consumables

  Use only:

  Only use combination cleaning tablets "COMBI-Tabs", article no. 2900018

  Only use AMC powder, article no. 2904013

NOTE

- Check the level of water in the fresh water canister prior to every cleaning procedure.

CAUTION

- Depending on the cleaning procedure, the throughput of water may be high. If the waste water canister has little remaining capacity, it could overflow.
- Check waste water canister prior to initiating the cleaning procedure!

6.2.2.1 c5 coffee maker

Brief description of the cleaning procedure, following which the coffee maker remains switched on:

- Duration of the cleaning procedure: **approx. 7.5 min.**
- Insert / remove "user" / "manager" key card.
- Choose the option whereby the c5 coffee maker does not switch off after the cleaning procedure.
- Specify that the c5 coffee maker is to be cleaned.
- Specify that the EF / FC is not to be cleaned.
- You may now be prompted to empty the coffee dregs drawer.
- Start of rinse operation.
- **Insert one combination cleaning tablet "COMBI-Tabs", article no. 2900018.**
- Start of cleaning process.
- Bring the c5 coffee maker up to operating temperature.
- Ready to dispense beverages.

Detailed sequence of operations in the cleaning procedure:

1. Initial situation with the following display ...

```
Select beverage
```

2. Insert / remove "user" / "manager" key card.

```
OFF after cleaning?
       [1]yes    [5]no
```

3. [⬭] button (5)

```
Clean coffee?
       [1]yes    [5]no
```

4. [⬭] button (1)

```
Clean milk?
       [1]yes    [5]no
```

5. [⬭] button (5)

6. You may now be prompted to empty the coffee dregs drawer.

```
Empty drawer!
```

Pull out the coffee dregs drawer so that you can empty it.
The following message appears ...

```
Drawer missing!
```

Push the empty coffee dregs drawer back in.
The following message appears ...

```
Drawer emptied
Please confirm    (SH)
```

7. Now press the Shift/Stop button [⬭] on the control panel.

8. The following message now appears ...

```
Rinsing
```

9. This message now appears ...

```
Put cleaning agent in
Please confirm    (SH)
```

10. Lid of filling chute opens. Insert one combination cleaning tablet "COMBI-Tabs" in the filling chute and confirm.

If the lid has closed **before** the tablet is inserted (timeout) the following message appears ...

```
Start cleaning
```

Press Shift/Stop button [⬭] again.

11. Shift/Stop button [⬭]

```
Cleaning
```

CAUTION

- Hot suds will come out of the beverage outlet.

12. Once the cleaning operation is over, the following message will appear ...

```
TURN ON
prog. 86°C   act. 25°C
```

13. If the operating temperature appears to have been achieved ...

```
Select beverage
```

6.2.2.2 Installed EF milk cooler / external FC milk cooler

NOTE

- **Once a week, the AMC powder bag must be placed in the cleaning container instead of a combination cleaning "COMBI-Tabs".**
- The use of AMC powder prevents the accumulation of milk scale and residues in the milk system.
- Together with the daily alkali cleaning (combination cleaning "COMBI-Tabs") the acid cleaner (AMC powder) ensures the optimum hygienic condition of the milk system.

Brief description of the cleaning procedure, following which the coffee maker remains switched on:

- Duration of the cleaning procedure: **approx. 17.5 min.**
- Insert / remove "user" / "manager" key card.
- Choose the option whereby the c5 coffee maker does not switch off after the cleaning procedure.
- Specify that the c5 coffee maker is not to be cleaned.
- Specify that the EF / FC is to be cleaned.
- **Only insert one combination cleaning tablet "COMBI-Tabs", article no. 2900018** or the content **of one AMC powder bag, article no. 2904013** in the empty cleaning container and replace the milk container with the cleaning container (place both the milk intake lines in the cleaning container).
- The cleaning container is filled and then rinsed six times (cleaning container emptied).
- Bring the c5 coffee maker up to operating temperature.
- Replace the empty cleaning container with the full milk container.
- Ready to dispense beverages.

Detailed sequence of operations in the cleaning procedure:

1. Initial situation with the following display ...

```
Select beverage
```

2. Insert / remove "user" / "manager" key card.

```
OFF after cleaning?
       [1]yes    [5]no
```

3. [⬡] button (5)

```
Clean coffee?
       [1]yes    [5]no
```

4. [⬡] button (5)

```
Clean milk?
       [1]yes    [5]no
```


5. [⬭] button (1)

```
Insert the cleaning
container
```

Place one combination cleaning tablet "COMBI-Tabs" or the content of one AMC powder bag in the **empty** cleaning receptacle. Replace milk container with cleaning receptacle (place both milk intake lines in the cleaning container). Leave the milk cooler door open.

```
Please confirm    (SH)
```

6. Shift/Stop button [⬭]

```
Cleaning milk
```

The cleaning container is filled and then rinsed six times (cleaning container emptied).

7. Once the cleaning operation is over, the following message will appear...

```
TURN ON
prog. 86°C   act. 80°C
```

```
Refill milk
Please confirm    (SH)
```

8. Replace cleaning container with full milk container. Close milk cooler door.

9. Shift/Stop button [⬭]

```
Select beverage
```

6.3 Maintenance log

The service technician from Customer Support maintains the maintenance log for the installation and subsequent maintenance work.

For this purpose he enters the necessary data into the table cells in chapter «12 "Service Technician" maintenance log, 12 - 1».

7 Troubleshooting

7.1 Fault display, troubleshooting and fault acknowledgement

During operation, the control system monitors the operating status continually. Faults are displayed on the liquid crystal display. In case of malfunction s, the user / operator can intervene in accordance with the procedures described in this chapter and attempt to troubleshoot the problem.

Brief description of troubleshooting process:

- Analyse message on the liquid crystal display. The possibilities are as follows:
  - text message
  - text message plus diagnosis point (DP) display
- First of all insert / remove the "user" / "manager" key card. If this clears the malfunction, then the c5 coffee maker will be once more ready to dispense beverages. Otherwise, see below.
- To troubleshoot the problem, proceed as described in sections «7.2.1 Textual error messages, 7 - 2» and «7.2.2 Error messages displayed via diagnosis points (DP), 7 - 6».
- Insert / remove "user" / "manager" key card a second time.
- If this clears the malfunction, then the c5 coffee maker will be once more ready to dispense beverages. If not, the malfunction will not clear itself, and "disconnect from the power supply / connect to the power supply" is not possible. If the malfunction is still unresolved, then Customer Support must be contacted.

Detailed sequence of stages involved in troubleshooting - example initial situation:

Too much coffee powder was placed in the filling chute following selection of "Decaffeinated".

1. The normal beverage selection "Decaffeinated" was made in the "Coffee cream" quantity.

2. Three heaped measuring spoons of coffee powder were put in the filling chute.

The following message appears ...

```
Select beverage
Error coffee partDP 16
```

3. Insert "user" / "manager" key card.
The following message appears ...

```
Fault confirmed
```

4. Remove "user" / "manager" key card.
The following message appears ...

```
c5
13:00        22.06.2004
```

5. Insert "user" key card.
The following message appears ...

```
TURN ON
Text
```

6. This message now appears ...

```
Select beverage
```

7. The fault has been cleared and the c5 coffee maker is ready to dispense beverages.

7.2 Checklist for fault diagnosis and troubleshooting

7.2.1 Textual error messages

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LCD textual error messages	Cause of fault	Troubleshooting measure(s)
Temp. too high Temp. too low Boiler temp. too high Boiler temp. too low	Unknown hardware or software error Static charge Effect of storm (overvoltage due to storm)	Disconnect / connect to mains power supply. **1.** Disconnect c5 coffee maker from the mains power supply. **2.** Wait at least 30 seconds. **3.** Connect c5 coffee maker to the mains power supply. **4.** Switch on c5 coffee maker. **5.** Decision: If the textual error message is no longer shown, there is no need for any action. If the textual error message is still on view, notify Customer Support.
Refill milk	Milk level too low.	If milk level monitoring is installed: - check milk level. - replenish milk supply. See also section «5.5.4 Refill milk, 5 - 22».

LCD textual error messages	Cause of fault	Troubleshooting measure(s)
Refill milk	Milk level too low.	If no milk level monitoring installed: - check milk level. - replenish milk supply. - disconnect / connect to mains power supply. **1.** Disconnect c5 coffee maker from the mains power supply. **2.** Wait at least 30 seconds. **3.** Connect c5 coffee maker to the mains power supply. **4.** Switch on c5 coffee maker. **5.** Decision: If the textual error message is no longer shown, there is no need for any action. If the textual error message is still on view, notify Customer Support. See also section «5.5.4 Refill milk, 5 - 22».

LCD textual error messages	Cause of fault	Troubleshooting measure(s)
Drawer missing!	Coffee dregs drawer not inserted or not pushed in far enough.	Use coffee dregs drawer correctly. See also section «5.5.5 Emptying the coffee dregs drawer, 5 - 23».
No water	Check water connection.	Open stopcock in the external fresh water feeder pipe. Check pressure on external fresh water feeder pipe (should be 3 to 5 bar). Refill fresh water canister. Straighten out kink in water line to the fresh water canister. If one of the c5 coffee maker's feet is standing on the water line, release water line. Clean or replace external water filter. Check external water pump. See also section «5.5.1 Refilling fresh water canister, 5 - 19».
Waste water full	The "waste water container level monitoring" option is installed and is reporting that the waste water canister is full.	Empty waste water canister immediately. See also section «5.5.2 Emptying the waste water canister, 5 - 19».
Bean hoppers (1 or 2)	Bean hopper 1 or 2 is empty.	Replenish coffee beans. See also section «5.5.3 Refill coffee beans, 5 - 20».

LCD textual error messages	Cause of fault	Troubleshooting measure(s)
Boiler level	Water level too low. Too much time elapses during the filling operation.	There may be a water leak or the water feed may be insufficient. The c5 coffee maker is still in operation; however it is necessary to keep an eye on it. Contact Customer Support.
Filter	Water filter is worn and must be replaced.	The c5 coffee maker is still in operation; however it is necessary to keep an eye on it. Contact Customer Support.
Grinding correction	The automatic coffee bean grinding calibration is not working. This results in reduced quality of the beverages dispensed.	The c5 coffee maker is still in operation; however it is necessary to keep an eye on it. Contact Customer Support.
Maintenance Coffee	The whole system needs servicing.	The c5 coffee maker is still in operation; however it is necessary to keep an eye on it. Contact Customer Support.

Specifically for the temperature regulator unit

E

NOTE

- The error messages for the temperature regulator unit are shown in the temperature regulator unit display!

Displayed error message	Cause of fault	Troubleshooting measure(s)
PrF	Temperature sensor fault	Contact Customer Support.
EEE	EEPROM error (loss of program data)	Contact Customer Support.

7.2.2 Error messages displayed via diagnosis points (DP)

Diagnosis point (DP)	Cause of fault	Troubleshooting measure(s)
0 / 1 / 2 / 4 / 5	System fault	Contact Customer Support.
7	Coffee dregs block too high	Check coffee dregs drawer: - empty coffee dregs drawer correctly. See also section «5.5.5 Emptying the coffee dregs drawer, 5 - 23». If the fault persists, contact Customer Support.
8 / 9 / 10 / 16 / 17 / 18 / 22 / 23	System fault	Contact Customer Support.

8 Taking out of service and storage

8.1 Taking out of service for a limited time / taking out of service for good

Both when the coffee maker is taken out of service for a limited (but prolonged) period and also when it is taken out of service for good, the "c5 coffee maker / installed EF milk cooler / external FC milk cooler" and the cw cup warmer must be disconnected from the mains power supply.

All raw materials which are used to prepare beverages must be removed from the c5 coffee maker, the installed EF milk cooler and the external FC milk cooler.

All the components must be cleaned thoroughly (see also sections «5.3.2 Switching off the c5 coffee maker, 5 - 6» and «6.2.2 Cleaning procedure, 6 - 4»).

If the equipment is to be out of service for an extended period, to avoid (frost) damage, it should be expertly drained by Customer Support.

8.2 Storage for a limited period / permanent storage

If the "c5 coffee maker / installed EF milk cooler / external FC milk cooler" and the cw cup warmer are to be stored either for a limited period or permanently, it is essential that they are taken out of service correctly - see section 8.1.

When storing the equipment, the requirements specified in section «1.3.6 Environmental conditions, 1 - 9» must be observed.

9 Packing and transportation

WARNING

- Only persons with experience of haulage and transportation are authorised to pack and transport the equipment.
- The requirements set out in chapter «2 Safety instructions, 2 - 1» must be strictly observed!

CAUTION

- When securing the equipment (... in the original packaging) on the transport base, take care not to cause any chafe marks.

When packing and transporting the equipment, the following requirements must be observed:

1. Disconnect equipment from power and water mains.
2. Remove any product raw materials, such as coffee beans and milk, from the equipment.
3. Empty coffee dregs drawer.
4. Empty hoses and drain. This is a matter for Customer Support.
5. Clean equipment.
6. If possible, pack equipment in the original packaging.
7. Place the equipment (... in the original packaging) on a suitable transport base in an upright position and attach to the transport base.

10 Disposal

WARNING

- Disassembly and disposal of the equipment may only be carried out by persons who satisfy the necessary qualification and training requirements.
- The requirements set out in chapter «2 Safety instructions, 2 - 1» must be strictly observed!

NOTE

- Information on disposal organisations and collection points can be obtained from your local administrative authority.
- During disposal, it is necessary in any case to comply with the pertinent national and regional laws and directives.
- The machines do not contain any materials whose disposal requires special approval.

The following requirements must be observed in the case of disposal:

1. Disconnect equipment from power and water mains.
2. Remove any product raw materials, such as coffee beans and milk, from the equipment.
3. Empty coffee dregs drawer.
4. Take the equipment apart.
5. Recycle individual parts according to material type.
6. Dispose of non-recyclable materials according to type.

11 Guarantee, consumables, spare parts, ordering procedure

Guarantee

We guarantee the trouble-free function of this machine for 12 months or a maximum 100'000 beverage dispensions. The start of the guarantee period is the day of installation.

During the guarantee period any defects, which can be traced back to material faults, defective workmanship or faulty construction, will be rectified free by us or by a company authorized by us. The precondition here is the proper use and correct handling of the machine according to the relevant descriptions in this operating manual.

Accordingly we will not accept any liability for the following cases:

- Faults caused by contamination as a result of improper cleaning (e.g. blocked valves or mixer)
- Faults due to limescale build-up or other deposits when operated with water softening equipment (e.g. boiler or water pumps)
- Faults due to excess electrical voltages (e.g. burned PCBs)

We will accept no liability for damage to all devices arising from poor maintenance and care by the customer.

We will accept no liability for defects and faults in our equipment, which can be traced back to inexpert repairs or the installation of spare parts which do not correspond with the original versions.

Normal wear of all parts, which are subject to natural wear, is excluded from the guarantee.

This includes:
- Seals
- Filters
- Complete piston spray
- Complete piston plunger
- Paint coatings
- Grinding discs
- Hoses for the peristaltic pump

To validate the guarantee claim the defective part must be returned to the manufacturer. After inspecting the returned part the manufacturer reserves the right to reject a guarantee claim if one of the conditions referred to above exists.

The acceptance of a guarantee claim for damage due to a fault is only possible following the written report of the manufacturer.

Quality settings, which were not carried out on the basis of the fault, are excluded from the guarantee.

Any work carried out during the guarantee period will not extend its term.

Consumables, spare parts, ordering procedure

This normally affects service technicians, third-party customers or resellers:

To avoid misunderstandings when ordering consumable materials or spare parts, we request that you always provide the following data with your order:

- Device identification according to the type plate.
- Description and article number of the consumable material or spare part.
- Quantity of the required consumable materials or spare parts.

Device-specific consumable materials or spare parts must only be procured from the customer service location in the respective country.

Only device-specific spare parts made by the manufacturer are to be used.

The manufacturer rejects any liability for the situation in which it is found that non device-specific spare parts have been installed in the respective machine.

E

A	Adresses of service	AUS	Adresses of service	B	Serviceadressen
		CH	Adresses of service	D	Adresses of service
DK	Serviceadresser	E	Servico Tecnicos	F	Services Techniques
FIN	Huoltopisteiden osoitteita	GB	Adresses of service	J	Adresses of service
N	Serviceadresser	NL	Serviceadressen	RC	Adresses of service
RUS	Service	S	Serviceadresser	TH	Adresses of service
USA	Adresses of service	KR	Adresses of service	TW	Adresses of service

A

MELITTA System Service
International GmbH
Rottfeld 9A
5020 Salzburg
Fon 0043-662 / 88 28 88-33
Fax 0043-662 / 88 28 88-99

AUS

Global Coffee
Solutions Pty Ltd
5/77 Jardine St.
Fairy Meadow NSW 2519
Fon 0061 1300 552 883
Fax 0061 02 4284 6099

B

MELITTA System Service Benelux
Bijkantoor MELITTA Syst. Service
Brandstraat, 8
9160 Lokeren
Fon 0032-9 / 331 52 30
Fax 0032-9 / 331 52 35

CH

CAFINA AG
Römerstrasse 2
5502 Hunzenschwil
Fon 0041-62 / 889 42 42
Fax 0041-62 / 889 42 89
Instruktionsnummer: 17098

D

MELITTA System Service
GmbH & Co. KG
Zechenstrasse 60
32429 Minden-Dützen
Fon 0049-571 / 50 49-0
Fax 0049-571 / 50 49-233

DK **N**

aromateknik a/s
Industrivej 44
4000 Roskilde

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Tecnimel Hosteleria, S.L.
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28918 Leganés (Madrid)
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Fax 0034-91 / 644 81 31

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16 Rue P.H. Spaak
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77462 LAGNY sur Marne Cedex
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21 Grove Park
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J

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Tokyo 105-0011 Japan

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S

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Radiovägen 2
Box 662
13526 Tyresö

Fon 0046-8 / 7 98 77 88
Fax 0046-8 / 7 98 90 18

TH

Great Earth International Co., Ltd.
5th Floor, M Thai Tower,
All Seasons Place
87 Wireless Road, Patumwan
Bangkok 10330
Fon 0066-2 / 654-1118
Fax 0066-2 / 654-1119

USA

Michaelo Espresso, Inc.
3801 Stone Way N.
Seattle, WA 98 103

Fon 001-206 / 548-9000
Fax 001-206 / 695-4951

TW

JAS Corporation
B1, No. 17, Lane 28
Sec. 1, Huan Shan Rd.,
Nei Hu Area
Taipei
Fon 00886-2 / 2727-0630
Fax 00886-2 / 2727-0640

E

12 "Service Technician" maintenance log

Installation	**Serial-No.:**	
Date:	Installed water filter type:	
Service Technician No.:	Bypass %:	
	Water measured values on ...	
	... IN 1)	... OUT 2)
Signature:	GH°:	
	kH°:	
	pH:	

Key:

[A] = Service of whole system
[B] = Service of milk system
[S] = Annual check of safety mechanisms
[F] = Water filter replaced
* = Check applicable fields
1) = Untreated water before the filter
2) = Water at the beverage outlet

Date:	Service *				Water values		Notes:
	[A]	[B]	[S]	[F]	Bypass %:		
Service Technician No.:			Counter reading		Water measured values on ...		
	Coffee:						
	Milk:				... IN 1)	... OUT 2)	
Signature:			Next service		GH°:		
	Coffee:				kH°:		
	Milk:				pH:		

Date:	Service *				Water values		Notes:
	[A]	[B]	[S]	[F]	Bypass %:		
Service Technician No.:			Counter reading		Water measured values on ...		
	Coffee:						
	Milk:				... IN 1)	... OUT 2)	
Signature:			Next service		GH°:		
	Coffee:				kH°:		
	Milk:				pH:		

Date:	Service *				Water values		Notes:
	[A]	[B]	[S]	[F]	Bypass %:		
Service Technician No.:			Counter reading		Water measured values on ...		
	Coffee:						
	Milk:				... IN 1)	... OUT 2)	
Signature:			Next service		GH°:		
	Coffee:				kH°:		
	Milk:				pH:		

E

Date:	Service *	Water values		Notes:
	[A] | [B] | [S] | [F]	Bypass %:		
Service Technician No.:	Counter reading	Water measured values on ...		
	Coffee:			
	Milk:	... IN[1)]	... OUT[2)]	
Signature:	Next service	GH°:		
	Coffee:	kH°:		
	Milk:	pH:		

Date:	Service *	Water values		Notes:
	[A] | [B] | [S] | [F]	Bypass %:		
Service Technician No.:	Counter reading	Water measured values on ...		
	Coffee:			
	Milk:	... IN[1)]	... OUT[2)]	
Signature:	Next service	GH°:		
	Coffee:	kH°:		
	Milk:	pH:		

Date:	Service *	Water values		Notes:
	[A] | [B] | [S] | [F]	Bypass %:		
Service Technician No.:	Counter reading	Water measured values on ...		
	Coffee:			
	Milk:	... IN[1)]	... OUT[2)]	
Signature:	Next service	GH°:		
	Coffee:	kH°:		
	Milk:	pH:		

Date:	Service *	Water values		Notes:
	[A] | [B] | [S] | [F]	Bypass %:		
Service Technician No.:	Counter reading	Water measured values on ...		
	Coffee:			
	Milk:	... IN[1)]	... OUT[2)]	
Signature:	Next service	GH°:		
	Coffee:	kH°:		
	Milk:	pH:		

Date:	Service *		Water values		Notes:
	[A] [B] [S] [F]		Bypass %:		
Service Technician No.:		Counter reading	Water measured values on ...		
	Coffee:				
	Milk:		... IN[1]	... OUT[2]	
Signature:		Next service	GH°:		
	Coffee:		kH°:		
	Milk:		pH:		

Date:	Service *		Water values		Notes:
	[A] [B] [S] [F]		Bypass %:		
Service Technician No.:		Counter reading	Water measured values on ...		
	Coffee:				
	Milk:		... IN[1]	... OUT[2]	
Signature:		Next service	GH°:		
	Coffee:		kH°:		
	Milk:		pH:		

Date:	Service *		Water values		Notes:
	[A] [B] [S] [F]		Bypass %:		
Service Technician No.:		Counter reading	Water measured values on ...		
	Coffee:				
	Milk:		... IN[1]	... OUT[2]	
Signature:		Next service	GH°:		
	Coffee:		kH°:		
	Milk:		pH:		

Date:	Service *		Water values		Notes:
	[A] [B] [S] [F]		Bypass %:		
Service Technician No.:		Counter reading	Water measured values on ...		
	Coffee:				
	Milk:		... IN[1]	... OUT[2]	
Signature:		Next service	GH°:		
	Coffee:		kH°:		
	Milk:		pH:		

Date:	Service *				Water values		Notes:
	[A]	[B]	[S]	[F]	Bypass %:		
Service Technician No.:			Counter reading		Water measured values on ...		
	Coffee:						
	Milk:				... IN[1)]	... OUT[2)]	
Signature:			Next service		GH°:		
	Coffee:				kH°:		
	Milk:				pH:		

Date:	Service *				Water values		Notes:
	[A]	[B]	[S]	[F]	Bypass %:		
Service Technician No.:			Counter reading		Water measured values on ...		
	Coffee:						
	Milk:				... IN[1)]	... OUT[2)]	
Signature:			Next service		GH°:		
	Coffee:				kH°:		
	Milk:				pH:		

Date:	Service *				Water values		Notes:
	[A]	[B]	[S]	[F]	Bypass %:		
Service Technician No.:			Counter reading		Water measured values on ...		
	Coffee:						
	Milk:				... IN[1)]	... OUT[2)]	
Signature:			Next service		GH°:		
	Coffee:				kH°:		
	Milk:				pH:		

Date:	Service *				Water values		Notes:
	[A]	[B]	[S]	[F]	Bypass %:		
Service Technician No.:			Counter reading		Water measured values on ...		
	Coffee:						
	Milk:				... IN[1)]	... OUT[2)]	
Signature:			Next service		GH°:		
	Coffee:				kH°:		
	Milk:				pH:		

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